Appendix A

John Burroughs Middle School Comprehensive Modernization Project Initial Study/Notice of Preparation

ESA

February 15, 2018| Initial Study

BURROUGHS MIDDLE SCHOOL

Comprehensive Modernization Project

Prepared for:

Los Angeles Unified School District
Contact: Edward Paek, AICP
Office of Environmental Health and Safety
333 South Beaudry Avenue, 21st Floor
Los Angeles, California 90017

Prepared by:

Environmental Science Associates
Contact: Arabesque Said-Abdelwahed
626 Wilshire Boulevard, Suite 1100
Los Angeles, CA 90017
213.599.4300

February 15, 2018 | Initial Study

BURROUGHS MIDDLE SCHOOL

Comprehensive Modernization Project

Table of Contents

Section **Page**

1. INTRODUCTION 1
1.1 Overview 1
1.2 Background 1
1.3 Project Need 2
1.4 California Environmental Quality Act 3
1.5 Environmental Process 3
1.6 Impact Terminology 7
1.7 Organization of the Initial Study 8

2. ENVIRONMENTAL SETTING 9
2.1 Project Location 9
2.2 Surrounding Land Uses 9
2.3 Campus History 9
2.4 Existing conditions 10
2.5 General Plan and Existing Zoning 10
2.6 Necessary Approvals 19

3. PROJECT DESCRIPTION 21
3.1 Circulation, Access and Parking 29
3.2 Landscape Improvements 29
3.3 Infrastructure 29
3.4 Utility Providers 30
3.5 Security and Safety Features 30
3.6 Sustainability Features 30
3.7 Removal Action Workplan 31
3.8 Construction Phasing 31

4. ENVIRONMENTAL CHECKLIST 33
4.1 Aesthetics 36
4.2 Agriculture and Forestry Resources 42
4.3 Air Quality 45
4.4 Biological Resources 49
4.5 Cultural Resources 57
4.6 Geology and Soils 59
4.7 Greenhouse Gas Emissions 64
4.8 Hazards and Hazardous Materials 66
4.9 Hydrology and Water Quality 77
4.10 Land Use and Planning 85
4.11 Mineral Resources 87
4.12 Noise 88
4.13 Pedestrian Safety 90
4.14 Populations and Housing 91
4.15 Public Services 92
4.16 Recreation 95
4.17 Transportation and Circulation 96
4.18 Tribal Cultural Resources 99
4.19 Utilities 101
4.20 Mandatory Findings of Significance 107

Table of Contents

5. LIST OF PREPARERS 109
5.1 Lead Agency 109
5.2 Technical Assistance 109

APPENDICES

(Provided on the compact disc attached to the back cover)

A. LAUSD Standard Conditions of Approval
B. Biological Resources Documents
   B.1 Arborist Report
   B.2 CDFW California Natural Diversity Database
C. Geotechnical Investigation
   C.1 Preliminary Geotechnical Investigation
   C.2 Addenda to the Geotechnical Investigation
D. Phase I Environmental Site Assessment

Table of Contents

List of Figures

Figure		Page
Figure 1	Project Vicinity	11
Figure 2	Project Location	13
Figure 3	Existing Site Plan	15
Figure 4	Character Defining Features	17
Figure 5	Demolition Plan	25
Figure 6	Proposed Site Plan	27

List of Tables

Table		Page
	Characteristics of Existing Buildings	23
2	Proposed Project (Demolition, Remodel, and Construction)	24
3.1-1	Aesthetic Resources Standard Conditions of Approval	36
3.3-1	Air Quality Standard Conditions of Approval	45
3.4-1	Biological Resources Standard Conditions of Approval	50
3.6-1	Geology and Soils Standard Conditions of Approval	60
3.7-1	Greenhouse Gas Emissions Standard Conditions of Approval	64
3.9-1	Hydrology and Water Quality Standard Conditions of Approval	78
3.18-1	Tribal Cultural Resources Standard Conditions of Approval	99

Abbreviations and Acronyms

ACM	asbestos containing materials
BMP	best management practices
BOE	Board of Education
CalEPA	California Environmental Protection Agency
Caltrans	California Department of Transportation
CBC	California Building Code
CCR	California Code of Regulations
CDE	California Department of Education
CDFW	California Department of Fish and Wildlife
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CEQA	California Environmental Quality Act
CHPS	Collaborative for High Performance Schools
CNDDB	California Natural Diversity Database
CO2	carbon dioxide
CH4	methane
DSA	Division of the State Architect (under the California Department of General Services)
DTSC	Department of Toxic Substances Control
EIR	Environmental Impact Report
FEMA	Federal Emergency Management Agency
GHG	greenhouse gases
HASP	Health and Safety Plan
HCP	Habitat Conservation Plan
HS	High School
HSO	Health and Safety Officer
LADOT	City of Los Angeles Department of Transportation
LADWP	City of Los Angeles Department of Water and Power
LAPD	City of Los Angeles Police Department
LASPD	Los Angeles School Police Department
LAUSD	Los Angeles Unified School District
MND	mitigated negative declaration
NCCP	Natural Communities Conservation Plan
ND	negative declaration
NPDES	National Pollutant Discharge Elimination System

Abbreviations and Acronyms

NOx	nitric oxides
OCP	organochlorine pesticide
OEHS	Office of Environmental Health and Safety
OSHA	Occupational Safety and Health Administration
PCB	polychlorinated biphenyl
PDF	project design features
PF	Public Facilities
PRC	Public Resources Code
RAW	Removal Action Workplan
RCRA	Resource Conservation and Recovery Act
RWQCB	regional water quality control board
SC	Standard Conditions
SCAQMD	South Coast Air Quality Management District
SCGC	Southern California Gas Company
SCS	sustainable communities strategy
SEA	Significant Ecological Area
SoCAB	South Coast Air Basin
SUP	School Upgrade Program
SWPPP	stormwater pollution prevention plan
SWRCB	State Water Resources Control Board
USFWS	United States Fish and Wildlife Service
VOC	volatile organic compounds

Abbreviations and Acronyms

This page intentionally left blank.

1. Introduction

1.1 OVERVIEW

The Los Angeles Unified School District (LAUSD or District) is proposing a comprehensive modernization of Burroughs Middle School (Burroughs MS), located at 600 South McCadden Place, Los Angeles, California 90005 (Project or proposed Project) (COLIN ID: 10366806). Burroughs MS is within Local District West. The proposed Project is designed to address the most critical physical concerns of the buildings and grounds at the campus while upgrading, renovating, modernizing, and reconfiguring the campus to provide facilities that are safe, secure, and better aligned with the current instructional program. A detailed description of the proposed Project's components and design is provided below. The proposed Project is required to undergo an environmental review pursuant to the California Environmental Quality Act (CEQA). This Initial Study provides a preliminary evaluation of the potential environmental consequences associated with the Project.

1.2 BACKGROUND

On July 31, 2008, the LAUSD Board of Education (BOE) adopted a Resolution Ordering an Election and Establishing Specifications of the Election Order for the purpose of placing Measure Q, a $7 billion bond measure, on the November election ballot to fund the renovation, modernization, construction, and expansion of school facilities. On November 4, 2008, the bond passed. The nationwide economic downturn in 2009 resulted in a decline in assessed valuation of real property, which restricted the District's ability to issue Measure Q bonds and the remaining unissued Measures R and Y funds. Once assessed valuation improved, the BOE could authorize the issuance of bond funds.[1]

On December 10, 2013, the District refined their School Upgrade Program (SUP) to reflect the intent and objectives of Measure Q as well as the updated needs of District school facilities and educational goals.[2] Between July 2013 and November 2015, the SUP was analyzed under CEQA criteria in a Program Environmental Impact Report (EIR). On November 10, 2015, the BOE certified the Final SUP Program EIR.[3]

On March 10, 2015, LAUSD's Board approved pre-design and due diligence activities necessary to develop a Project definition for a Comprehensive Modernization Project at Burroughs MS.[4] The Project is intended to provide facilities that are safe, secure, and aligned with the instructional program. On February 9, 2016, the

1 LAUSD Board of Education Report. December 10, 2013. Report Number 143 – 13/14. Subject: SUP.
2 LAUSD Board of Education Report. December 10, 2013. Report Number 143 – 13/14. Subject: SUP.
3 LAUSD Regular Meeting Stamped Order Of Business. 333 South Beaudry Avenue, Board Room, 1 p.m., Tuesday, November 10, 2015 (Board of Education Report No. 159 – 15/16).
4 LAUSD Board of Education Report. March 10, 2015. Report Number 373 – 14/15. Subject: Identification of 11 School Sites for the Development of Comprehensive Modernization Projects.

Board approved the Project definition for Burroughs MS (Project Site or Campus).[5] This approval authorizes LAUSD's Facilities Services Division to proceed with Project design and the completion of related technical and regulatory processes including those required under the CEQA.

1.3 PROJECT NEED

The proposed Project has been developed under the LAUSD's SUP to improve student health, safety and education through the modernization of school facilities. Burroughs MS was identified as one of 11 schools in the District most in need of an upgrade due to the physical condition of the facilities. Based on an assessment of the following conditions, these 11 proposed school sites were identified as having a multitude of critical physical conditions that may pose a health and safety risk or negatively impact a school's ability to deliver the instructional program and/or operate:[6]

- The physical condition of a school's buildings and grounds/outdoor areas identified by the 10-year Facilities Condition Index (FCI), a comparative indicator of the relative condition of a school's facilities in relation to the current replacement value. Where applicable, the FCI score is adjusted to reflect projects underway and the improved conditions that will be provided.
- The seismic risk factor identified using the Federal Emergency Management Agency's (FEMA) Hazus-MH model for determining the probability of failure based on the predicted earthquake magnitude generated by specific faults, year of construction, type of construction, number of stories, and code and construction quality at the time of construction.
- Size of food service facility, multi-purpose room/auditorium, and library determined by an assessment of the difference between the size of the core facility and the design standard for a new facility.
- Size of play space determined by an assessment of the difference between the size of a school's play area and the size recommended under the Rodriguez Consent Decree.
- Percentage of classrooms in portable buildings calculated based on the number of classrooms in portable buildings versus the number of classrooms in permanent buildings.
- Adequacy of controlled public access point based on an assessment of whether a campus has a secured single point of entry, an intercom/camera system that controls visitor access to the school site, or neither.
- Site density determined by an analysis of the amount of square footage per student at a school site.

Some of the buildings on the Project site, including the Administrative/Auditorium Building (Bldg. 1), Boy's Gymnasium (Bldg. 2), Classroom Building (Bldg. 7), and Shop Building (Bldg. 9), are on the Assembly Bill (AB 300) (Corbett) Seismic Safety Inventory of California Public Schools, Department of General Services Building List. The AB 300 list identifies those school buildings that are of concrete tilt-up construction and those with non-wood frame walls that do not meet the minimum requirements of the 1976 Uniform Building Code (UBC). AB 300 identified 269 of the LAUSD's nearly 13,000 buildings for seismic evaluation. In 2006, upon further

[5] LAUSD Board of Education Report. February 9, 2016. Report Number 246-15/16. Subject: Amendment to the Facilities Services Division Strategic Execution Plan to Approve Project Definitions for Three Comprehensive Modernization Projects.
[6] Los Angeles Unified School District (LAUSD). 2015a. *Board of Education Report 373-14/15* . March.

analysis by LAUSD staff, including site visits and field investigations, a total of 667 buildings were identified for seismic evaluation based upon AB 300 criteria and LAUSD's higher standards.[7] Since that time, seismic evaluations have been performed on school buildings identified to be the most seismically vulnerable, and projects have been developed to address the buildings determined to be in the greatest need of structural upgrades.[8]

1.4 CALIFORNIA ENVIRONMENTAL QUALITY ACT

The environmental compliance process is governed by the CEQA[9] and the State CEQA Guidelines.[10] CEQA was enacted in 1970 by the California Legislature to disclose to decision-makers and the public the significant environmental effects of projects and to identify ways to avoid or reduce the environmental effects through feasible alternatives or mitigation measures. Compliance with CEQA applies to California government agencies at all levels: local, regional, and state agencies, boards, commissions, and special districts (such as school districts and water districts).

LAUSD is the lead agency for this proposed Project, and is therefore required to conduct an environmental review to analyze the potential environmental effects associated with the proposed Project.

California Public Resources Code (PRC) Section 21080(a) states that analysis of a project's environmental impact is required for any "discretionary projects proposed to be carried out or approved by public agencies…" In this case, LAUSD has determined that an initial study is required to determine whether there is substantial evidence that construction and operation of the proposed Project would result in environmental impacts. An initial study is a preliminary environmental analysis to determine whether an EIR, a mitigated negative declaration (MND), or a negative declaration (ND) is required for a project.[11]

When an initial study identifies the potential for significant environmental impacts, the lead agency must prepare an EIR,[12] however, if all impacts are found to be less-than-significant or can be mitigated to a less-than-significant level, the lead agency can prepare a ND or MND that incorporates mitigation measures into the project.[13]

1.5 ENVIRONMENTAL PROCESS

A "project" means the whole of an action that has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment, and that is any of the following:

[7] LAUSD. AB-300 Criteria Building List. Web. <http://www.laschools.org/new-site/ab300/LAUSD-AB300-CRITERIA-BUILDING-LIST.pdf>
[8] LAUSD. Seismic Safety of School Buildings. Web. <http://www.laschools.org/new-site/ab300/?keyword=roosevelt&destination=ab300>
[9] California PRC Sections 21000 et seq.
[10] CCR, Title 14, Sections 15000 et seq.
[11] 14 CCR Section 15063.
[12] 14 CCR Section 15064.
[13] 14 CCR Section 15070.

- An activity directly undertaken by any public agency including but not limited to public works construction and related activities clearing or grading of land, improvements to existing public structures, enactment and amendment of zoning ordinances, and the adoption and amendment of local General Plans or elements thereof pursuant to Government Code Sections 65100-65700.
- An activity undertaken by a person which is supported in whole or in part through public agency contacts, grants, subsidies, loans, or other forms of assistance from one or more public agencies.
- An activity involving the issuance to a person of a lease, permit, license, certificate, or other entitlement for use by one or more public agencies (California Code of Regulations [CCR] Section 15378[a]).

The proposed actions by LAUSD constitute a "project" because the activity would result in a direct physical change in the environment and would be undertaken by a public agency. All "projects" in the State of California are required to undergo an environmental review to determine the environmental impacts associated with implementation of the project.

1.5.1 Initial Study

This Initial Study was prepared in accordance with CEQA and the CEQA Guidelines, as amended, to determine if the project could have a significant impact on the environment. The purposes of this Initial Study, as described in the State CEQA Guidelines Section 15063, are to 1) provide the lead agency with information to use as the basis for deciding whether to prepare an EIR or ND; 2) enable the lead agency to modify a project, mitigating adverse impacts before an EIR is prepared, thereby enabling the project to qualify for a negative declaration; 3) assist the preparation of an EIR, if one is required; 4) facilitate environmental assessment early in the design of a project; 5) provide documentation of the factual basis for the finding in an ND that a project will not have a significant effect on the environment; 6) eliminate unnecessary EIRs; and 7) determine whether a previously prepared EIR could be used with the project. The findings in this Initial Study have determined that an EIR is the appropriate level of environmental documentation for this project.

2.5.2 Environmental Impact Report

The EIR includes information necessary for agencies to meet statutory responsibilities related to the proposed Project. State and local agencies will use the EIR when considering any permit or other approvals necessary to implement the project. A preliminary list of the environmental topics that have been identified for study in the EIR is provided in the Initial Study Checklist (Chapter 4).

Following consideration of any public comments on the Initial Study, the Draft EIR will be completed and then circulated to the public and affected agencies for review and comment. One of the primary objectives of CEQA is to enhance public participation in the planning process; public involvement is an essential feature of CEQA. Community members are encouraged to participate in the environmental review process, request to be notified, monitor newspapers for formal announcements, and submit substantive comments at every possible opportunity afforded by the District. The environmental review process provides several opportunities for the public to participate through public notice and public review of CEQA documents and public meetings.

Additionally, LAUSD is required to consider comments from the scoping process in the preparation of the Draft EIR and to respond to Draft EIR public comments in the Final EIR.

2.5.3 Tiering

This type of project is one of many that were analyzed in the LAUSD SUP Program EIR (Program EIR) that was certified by the LAUSD BOE on November 10, 2015.[14] LAUSD's Program EIR meets the criteria for a Program EIR under CEQA Guidelines Section 15168 (a)(4) as one "prepared on a series of actions that can be characterized as one large project and are related…[a]s individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways."

The Program EIR enables LAUSD to streamline future environmental compliance and reduces the need for repetitive environmental studies.[15] The Program EIR serves as the framework and baseline for CEQA analyses of later projects through a process known as "tiering." Under CEQA Guidelines Sections 15152(a) and 15385, "Tiering" refers to using the analysis of general matters contained in a broader EIR (such as one prepared for a program) with later EIRs and negative declarations on narrower projects; incorporating by reference the general discussions from the broader EIR; and concentrating the later EIR or negative declaration solely on the issues specific to the later project.[16]

The Program EIR is applicable to all projects implemented under the SUP. The Program EIR provides the framework for evaluating environmental impacts related to ongoing facility upgrade projects planned by the District.[17] Due to the extensive number of individual projects anticipated to occur under the SUP, projects were grouped into four categories based on the amount and type of construction proposed. The four categories of projects are as follows:[18]

- Type 1 – New Construction on New Property
- Type 2 – New Construction on Existing Campus
- Type 3 – Modernization, Repair, Replacement, Upgrade, Remodel, Renovation, and Installation
- Type 4 – Operational and Other Campus Changes

The proposed Project is categorized as Type 2 – New Construction on Existing Campus, which includes demolition and new building construction on existing campuses and the replacement of school buildings on the same location, and Type 3 – Modernization, Repair, Replacement, Upgrade, Remodel, Renovation, and Installation, which includes modernization and infrastructure upgrades. The evaluation of environmental

[14] LAUSD. 2015. Program EIR for the SUP. Available at: http://achieve.lausd.net/ceqa.
[15] LAUSD. 2015. Program EIR for the SUP . Available at: http://achieve.lausd.net/ceqa.
[16] CEQA Guidelines Section 15152(a).
[17] Ibid, at 4-8.
[18] Ibid, at 1-7.

impacts related to Type 2 and Type 3 projects, and the appropriate project design features (PDFs) and mitigation measures to incorporate, are provided in the Program EIR.

The proposed Project is considered a site-specific project under the Program EIR; therefore, this EIR is tiered from the SUP Program EIR. The Program EIR is available for review online at http://achieve.lausd.net/ceqa and at LAUSD's Office of Environmental Health and Safety (OEHS), 333 South Beaudry Avenue, 21st Floor, Los Angeles, CA 90017.

2.5.4 Project Plan and Building Design

The Project is subject to the California Department of Education (CDE) design and siting requirements, and the school architectural designs are subject to review and approval by the California Division of the State Architect (DSA). The proposed Project, along with all other SUP-related projects, is required to comply with specific design standards and sustainable building practices. Certain standards assist in reducing environmental impacts, such as the California Green Building Code,[19] LAUSD Standard Conditions of Approval (SC), and the Collaborative for High-Performance Schools (CHPS) criteria.[20]

Collaborative for High-Performance Schools. The proposed Project would include CHPS criteria points under seven categories: Integration, Indoor Environmental Quality, Energy, Water, Site, Materials and Waste Management, and Operations and Metrics. LAUSD is committed to sustainable construction principles and has been a member of the CHPS since 2001. CHPS has established criteria for the development of high-performance schools to create a better educational experience for students and teachers by designing the best facilities possible. CHPS-designed facilities are healthy, comfortable, energy efficient, material efficient, easy to maintain and operate, commissioned, environmentally responsive site, a building that teaches, safe and secure, community resource, stimulating architecture, and adaptable to changing needs. The proposed Project would comply with CHPS and LAUSD sustainability guidelines. The design-build team would be responsible in incorporating sustainability features for the proposed Project, including onsite treatment of stormwater runoff, "cool roof" building materials, lighting that reduces light pollution, water and energy-efficient design, water-wise landscaping, collection of recyclables, and sustainable and/or recycled-content building materials.

Project Design Features. PDFs are environmental protection features that modify a physical element of a site-specific project and are depicted in a site plan or documented in the project design plans. PDFs may be incorporated into a project design or description to offset or avoid a potential environmental impact and do not require more than adhering to a site plan or project design. Unlike mitigation measures, PDFs are not special actions that need to be specifically defined or analyzed for effectiveness in reducing potential impacts.

[19] California Green Building Standards Code, Title 24, Part 11, of the CCR.

[20] The Board of Education's October 2003 Resolution on Sustainability and Design of High Performance Schools directs staff to continue its efforts to ensure that every new school and modernization project in the District, from the beginning of the design process, incorporate CHPS criteria to the extent possible.

Standard Conditions of Approval. LAUSD Standard Conditions of Approval (SC) are uniformly applied development standards and were adopted by the LAUSD Board in November 2015.[21] The SCs have been updated since the adoption of the 2015 version in order to incorporate and reflect changes in the recent laws, regulations and the LAUSD's standard policies, practices and specifications. The SCs were compiled from established LAUSD standards, guidelines, specifications, practices, plans, policies, and programs, as well as typically applied mitigation measures. The SCs are divided into the 18 LAUSD CEQA environmental topics (Appendix G of the CEQA Guidelines plus Pedestrian Safety).[22] For each SC, compliance is triggered by factors such as the project type, existing conditions, and type of environmental impact. Compliance with every SC is not required.

Mitigation Measures. If, after incorporation and implementation of federal, state, and local regulations; CHPS prerequisite criteria; PDFs; and SCs, there are still significant environmental impacts, then feasible and project-specific mitigation measures are required to reduce impacts to less than significant levels. Mitigation under CEQA Guidelines Section 15370 includes:

- Avoiding the impact altogether by not taking a certain action or parts of an action.
- Minimizing impacts by limiting the degree or magnitude of the action and its implementation.
- Rectifying the impact by repairing, rehabilitating, or restoring the impacted environment.
- Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
- Compensating for the impact by replacing or providing substitute resources or environments.

Mitigation measures must further reduce significant environmental impacts above and beyond compliance with federal, state, and local laws and regulations; PDFs; and SCs.

The specific CHPS prerequisite criteria and SCs are identified in the tables under each CEQA topic.[23] Federal, state, regional, and local laws, regulations, plans, and guidelines; CHPS criteria; PDFs; and LAUSD conditions are considered part of the project and are included in the environmental analysis.[24]

1.6 IMPACT TERMINOLOGY

The following terminology is used to describe the level of significance of impacts.

- A finding of ***no impact*** is appropriate if the analysis concludes that the project would not affect the particular topic area in any way.

[21] LAUSD. 2015. Program EIR for the SUP. Available at: http://achieve.lausd.net/ceqa. (see Table 4-1 and Appendix F of the Program EIR).

[22] As of September 2016, an additional environmental topic has since been required by the State Office of Planning and Research (Tribal Cultural Resources). The LAUSD Environmental Checklist now has 19 topics.

[23] CHPS criteria are summarized. The full requirement can be found at http://www.chps.net/dev/Drupal/California.

[24] Where the LAUSD Standard Conditions of Approval identifies actions to be taken, it is understood that the Project proponent would implement all LAUSD actions for this Project.

- An impact is considered ***less than significant*** if the analysis concludes that it would cause no substantial adverse change to the environment and requires no mitigation.
- An impact is considered ***less than significant with mitigation incorporated*** if the analysis concludes that it would cause no substantial adverse change to the environment with the inclusion of environmental commitments or other enforceable mitigation measures.
- An impact is considered ***potentially significant*** if the analysis concludes that it could have a substantial adverse effect on the environment. If any impact is identified as potentially significant, an EIR is required.

1.7 ORGANIZATION OF THE INITIAL STUDY

The content and format of this report are designed to meet the requirements of CEQA and the State CEQA Guidelines. The conclusions in this initial study are that the proposed Project would have no significant impacts with the incorporation of mitigation. This report contains the following sections:

Chapter 1, *Introduction* identifies the purpose and scope of the ND and supporting Initial Study and the terminology used.

Chapter 2, *Environmental Setting* describes the existing conditions, surrounding land uses, general plan designations, and existing zoning at the proposed Project site and surrounding area.

Chapter 3, *Project Description* identifies the location, background, and describes the proposed Project in detail.

Chapter 4, *Environmental Checklist and Analysis* presents the LAUSD CEQA checklist, an analysis of environmental impacts, and the impact significance finding for each resource topic. This section identifies the CHPS criteria, PDFs, SCs, and mitigation measures, as applicable. Bibliographical references and individuals cited for information sources and technical data are footnoted throughout this CEQA Initial Study; therefore, a stand-alone bibliography section is not required.

Chapter 5, *List of Preparers* identifies the individuals who prepared the MND and supporting Initial Study and technical studies and their areas of technical specialty.

Appendices have data supporting the analysis or contents of this CEQA Initial Study.

A. LAUSD Standard Conditions of Approval
B. Tree Inventory and Location
C. CDFW California Natural Diversity Database
D. Comprehensive Geotechnical Report
E. Preliminary Environmental Site Assessment Equivalent
F. Phase I Environmental Site Assessment

2. Environmental Setting

2.1 PROJECT LOCATION

Burroughs MS is located approximately 5 miles west of downtown Los Angeles. Primary regional access is provided by Interstate 10 (I-10), approximately 2 miles to the south of the Project site and 10 miles east of the Pacific Ocean (**Figure 1**). Major arterials providing regional and sub-regional access to the project vicinity include Wilshire Boulevard, immediately south of the Project site, and South La Brea Avenue, approximately 0.5 miles west of the Project site (**Figure 2**). The Assessor's Parcel Number (APN) for the Project site is 5507-017-900. **Figure 3**, Existing Site Plan, shows the existing site plan and buildings. Various buildings and landscapes on the Project site are considered "character defining" as shown in **Figure 4**. The campus is located within the Hancock Park Historic Preservation Overlay Zone (HPOZ).

2.2 SURROUNDING LAND USES

The 10.53-acre campus is located at 600 South McCadden Place, within the Wilshire Community Plan Area of the City of Los Angeles. The campus is located within the neighborhood of Hancock Park, and is bordered by West 6th Street to the north, South McCadden Place to the west, Wilshire Boulevard to the south, and single-family residences that front South June Street to the east

2.3 CAMPUS HISTORY

The original plans for Burroughs Middle School were drawn in 1923 and were constructed shortly thereafter. The original school plant was constructed in the northwest corner of the school property, at the corner of Sixth Street and S. McCadden Place. By 1925, the school was officially named John Burroughs Junior High School. Additional buildings were added, renovated, and demolished from 1927 – 1987.[25] The original campus was composed of four unreinforced masonry (URM) buildings in the Italian Renaissance Revival style, all of which have been designated as a historic resource under CEQA and were structurally refurbished at different points in time after the 1933 Long Beach Earthquake. For the 2016-2017 school year, total enrollment at Burroughs MS was 1,786 students.[26] Burroughs MS is the home of the Magnet Center, a program that services 508 students.[27] The Magnet Center is an advanced academic program that focuses on mathematics, language arts,

[25] PCR Services Corporation, 2015. *Character Defining Features Memorandum (CDFM) for John Burroughs Middle School, 600 South McCadden Place, Los Angeles, California, 90005*

[26] California Department of Education, 2017. 2016-17 Enrollment by Grade – John Burroughs Middle School Report (19-64733-6061410). Available at: https://dq.cde.ca.gov/dataquest/dqcensus/enrgrdlevels.aspx?agglevel=School&year=2016-17&cds=19647336061410/. Accessed February 6th, 2018.

[27] Burroughs Middle School, 2018. *Magnet Program.* Available at: https://www.burroughsms.org/apps/pages/index.jsp?uREC_ID=379194&type=d&pREC_ID=859005. Accessed February 6th, 2018.

science, and social studies. The program is designed to meet the needs of students who require an academically demanding curriculum.

The campus has been assigned a California Historic Resources status code of "3S" and "3CS", noting that the campus appears individually eligible for the National Register of Historic Places (NRHP) through survey evaluation and is eligible for the California Register (CR) as an individual property through survey evaluation. Figure 4 shows the campus and character-defining features that account for its eligibility as a historical resource.

2.4 EXISTING CONDITIONS

Burroughs MS is an operational middle school serving students in grades six through eight. The campus is comprised of 25 buildings and structures, including 14 portable buildings all over 30 years old. Buildings at the project site include: a two-story Administrative and Auditorium Building, various classroom buildings, Food Service/Lunch Shelter Building, Gymnasium, and portable buildings. The school is also developed with landscaped areas containing playfields and ornamental landscaping with trees, shrubs, and grass.

2.5 GENERAL PLAN AND EXISTING ZONING

The City of Los Angeles General Plan Land Use designation for the school property is 'Public Facilities'. The land use element of the General Plan is comprised of 35 community plans; they are the official guide to the future development of the City of Los Angeles.

The zoning for the school property is [Q]PF-1XL-HPOZ. PF (Public Facilities), the designation for the use and development of publicly owned land, including public elementary and secondary schools. [Q] means additional restrictions on building design, landscape buffer, signs, etc.; '1' is Height District No. 1; and 'XL' is Extra Limited Height District where no building or structure shall exceed two stories, nor shall the highest point of the roof of any building or structure exceed 30 feet in height. A Historic Preservation Overlay Zone (HPOZ), is commonly known as a historic district, provides for review of proposed exterior alterations and additions to historic properties within designated districts.

LAUSD anticipates that it would comply with Government Code Section 53094 to render the local City of Los Angeles Zoning Ordinance inapplicable to the proposed Project.

SOURCE: Los Angeles County GIS.

LAUSD Burroughs Middle School Comprehensive Modernization Project . 211085.33

Figure 1
Project Vicinity

2. Environmental Setting

This page intentionally left blank.

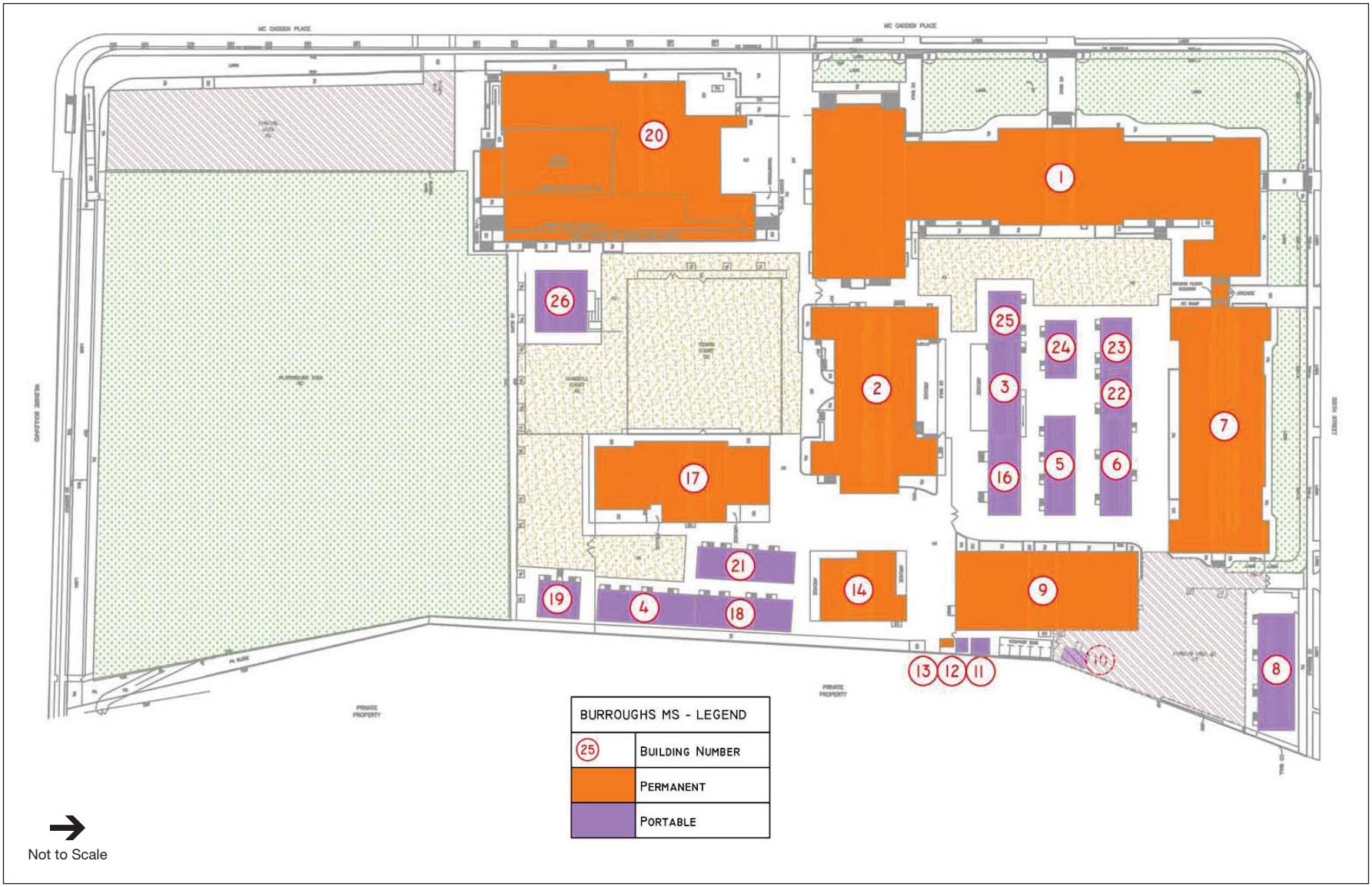
SOURCE: Los Angeles County GIS.

LAUSD Burroughs Middle School Comprehensive Modernization Project . 211085.33

Figure 2
Project Location

2. Environmental Setting

This page intentionally left blank.



SOURCE: Los Angeles Unified School District, 2011

Burroughs Middle School Comprehensive Modernization Project . 211085.33

Figure 3
Existing Site Plan

2. Environmental Setting

This page intentionally left blank.

SOURCE: Los Angeles Unified School District, 2015

Burroughs Middle School Comprehensive Modernization Project . 211085.33

Figure 4
Character Defining Features

2. Environmental Setting

This page intentionally left blank.

2.6 NECESSARY APPROVALS

It is anticipated that approval required for the proposed Project would include, but may not be limited to, the following:

Responsible Agencies

- City of Los Angeles, Public Works Department. Permit for curb, gutter, and other offsite improvements
- City of Los Angeles, Fire Department. Approval of plans for emergency access and emergency evacuation
- City of Los Angeles, Department of Transportation. Approval of haul route

Reviewing Agencies

- South Coast Air Quality Management District (SCAQMD). Approval of Construction Emission/Dust Control Plan, architectural coatings
- Los Angeles Regional Water Quality Control Board (RWQCB). Approval of water quality management plan
- State Water Resources Control Board (SWRCB) Notice of Intent (NOI) to obtain permit coverage. General Construction Permit regulates stormwater and nonstormwater discharges associated with construction activities
- California Department of General Services, DSA. Approval of site-specific project construction drawings

2. Environmental Setting

This page intentionally left blank.

3. Project Description

The proposed Project would result in demolition of and/or modifications to existing buildings, potentially including historic buildings and resources. However, the project would be designed to preserve and enhance significant (primary) character-defining features associated with the campus (Figure 4). Additionally, the proposed Project would be designed and implemented in a manner that complies with the LAUSD Design Guidelines and Treatment Approaches for Historic Schools.[28]

Upon completion of project construction, the Burroughs MS would have 71 classrooms including 6 existing classrooms, 31 remodeled classrooms, and 34 new classrooms. Approximately 8,000 sf of existing area is to remain (with minor renovations). **Table 1** and Figure 3 show details about the characteristics of the existing buildings to be demolished and/or renovated.

The Project would be designed to preserve and enhance significant (primary) character-defining features associated with the campus. Additionally, the proposed Project would be designed and implemented in a manner that complies with the LAUSD Design Guidelines and Treatment Approaches for Historic Schools.[29]

As outlined in Table 1 and shown in **Figure 5**, the proposed Project would include demolition of the following facilities:

- Shop Building (Bldg. 9)
- Cafeteria-Classroom Building (Bldg.20)
- Flammable Storage Building (Bldg. 13)
- Girls' Locker Building (Bldg. 17)
- Approximately 18 standard and specialty classrooms located in 12 relocatable or portable buildings

The total demolition footprint of the proposed Project would be approximately 60,500 sf.

The proposed Project would include construction of the following facilities that would be designed, constructed, and furnished/equipped to current code requirements and District design standards:

- Two-Story Specialty Classroom Building (Bldg. A)
  - Approximately three specialty classrooms and support spaces[30] on the first floor
  - Approximately seven standard classrooms and support spaces on the second floor

[28] LAUSD. January 2015. Los Angeles Unified School District Design Guidelines and Treatment Approaches for Historic Schools. Los Angeles, CA.
[29] LAUSD. January 2015. LAUSD Design Guidelines and Treatment Approaches for Historic Schools. Los Angeles, CA.
[30] Support spaces include storage, custodian rooms, and boys' and girls' restrooms.

3. Project Description

- Three-Story Food Services + MPR/ Classroom/ Lockers (Bldg. B)
  - Approximately one student store, boys' and girls' lockers, food services, and indoor dining/MPR facilities on the first floor
  - Approximately 14 standard classrooms on the second floor
  - Approximately 2 standard classrooms and 8 science classrooms on the third floor
- Maintenance and Operation (Bldg. M+O)

The total construction footprint of the proposed Project would be approximately 88,000 sf.

Modernization and/or upgrades would be completed for the following buildings:

- Administrative/Library/Auditorium (Bldg. 1)
- Boy's Gymnasium Building (Bldg. 2)
- Classroom Building (Bldg. 7)
- AA-610 (Bldg. 4)
- Art Building (Bldg. 14)
- AA-1143 (Bldg. 18)

The proposed Project would modify and remodel 104,500 sf of building space (90,000 sf not including basement areas).

Figure 6 shows the proposed site plan and **Table 2** summarizes the changes to the campus. Upgrades to the Administrative/Library/Auditorium Building, Gymnasium Building, and Classroom Building would entail seismic retrofits. Seismic retrofitting would be completed in compliance with the seismic safety requirements of the LAUSD Supplemental Geohazard Assessment Scope of Work, California Building Code, Division of State Architect, and California Department of Education.

Site upgrades that would be completed throughout the campus include:

- Site-wide infrastructure, including plumbing, electrical, and storm drain
- Site-wide upgrades to remove identified and prioritized barriers to program accessibility
- Landscape, hardscape, and exterior paint

The project would include improvements as required by the ADA, Division of the State Architect (DSA), CEQA, Office of the Independent Monitor (OIM) for ADA program accessibility, and any other required improvements or mitigations to ensure compliance with local, state, and/or federal facilities requirements.

TABLE 1
CHARACTERISTICS OF EXISTING BUILDINGS

Building ID	Building DSA Number	Building Name	Year Built	Building Square Footage	Building Type
Buildings to be Demolished/Removed					
9	A749	Shop Building	1926	9,032	Permanent
17	A39162	Girls' Locker	1978	7,325	Permanent
20	A39162	Cafeteria-Classroom Building	1978	18,392	Permanent
Portable Buildings to be Removed					
23	A6582	Classroom Building	1935	912	Portable
22	A6492	Classroom Building	1935	912	Portable
6	A58913	Classroom Building	1948	1,824	Portable
24	A15745	Classroom Building	1957	1,056	Portable
5	A6655	Classroom Building	1949	1,824	Portable
25	A7256	Classroom Building	1949	864	Portable
3	A13356	Classroom Building	1955	1,824	Portable
16	A2677	Classroom Building	1940	1,440	Portable
8	A22091	Classroom Building	1962	2,520	Portable
21	A10407	Classroom Building	1953	1,824	Portable
10	M0051F (No DSA)	Storage	1920	200	Portable
26	X3865Y (No DSA Listed)	Classroom Building	2001	1,920	Portable
19	A20797	Sanitary Administrative Building	1962	896	Portable
11	L0029G	Tool Room	1925	168	Portable
12	M0586K (No DSA)	Storage	1941	80	Portable
Buildings to be Renovated					
1	A748	Main and Auditorium Building	1923	67,381	Permanent
2	A749	Boys' Gym	1935	11,868	Permanent
7	A24637	Classroom Building	1926	28,529	Permanent
Buildings to Remain[1]					
4	A7055	AA-610	1949	1,824	Portable
14	AA16058	All Purpose Building	1958	3,252	Permanent
18	A10407	AA-1143	1952	1,824	Portable

NOTES:
1. These buildings will receive interior and exterior paint and finish upgrades.

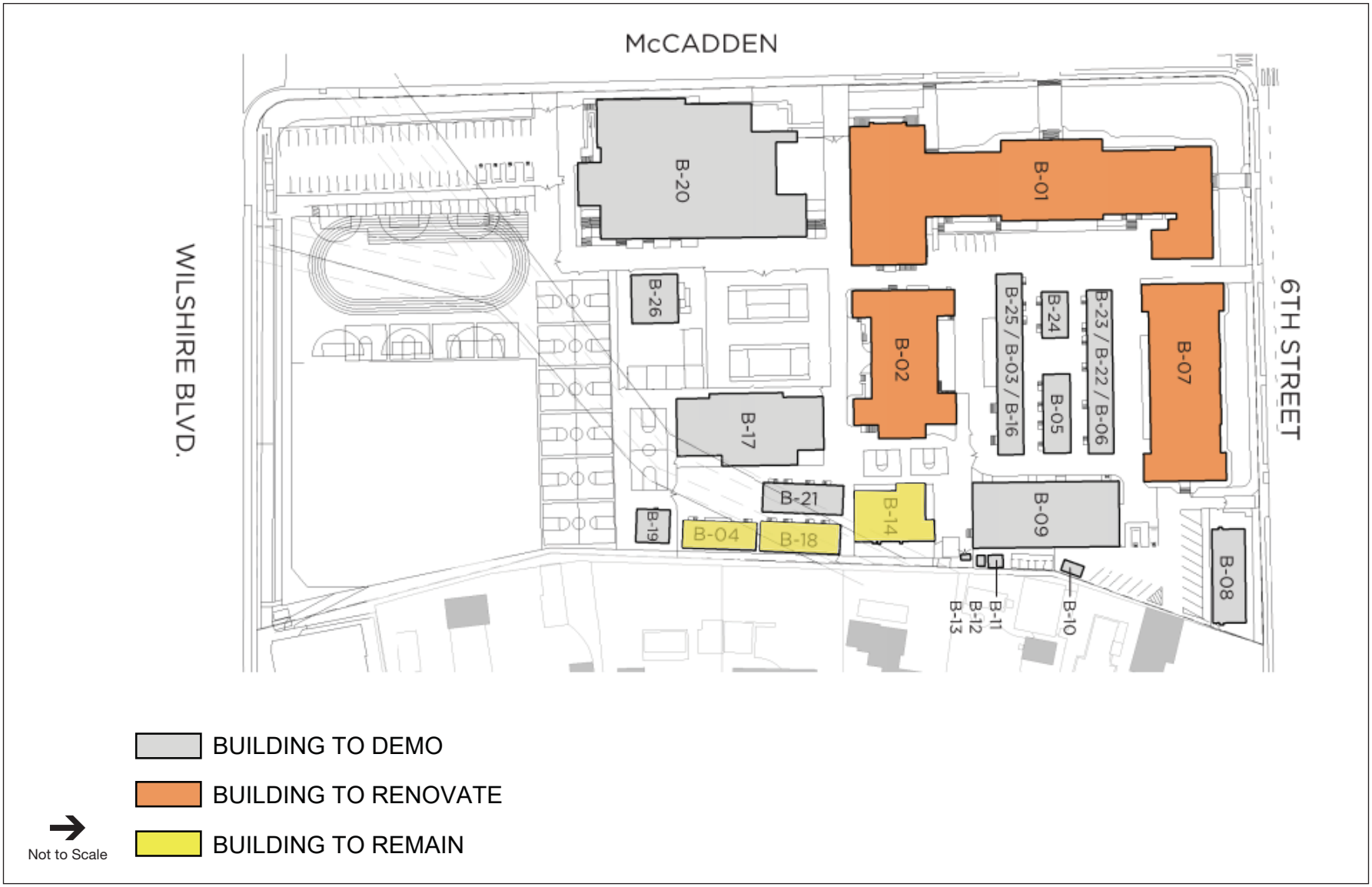
SOURCE: LAUSD, 2016

3. Project Description

TABLE 2
PROPOSED PROJECT (DEMOLITION, REMODEL, AND CONSTRUCTION)

Bldg. ID*	Bldg. DSA No.	Building Name	Class-rooms	Demolition/ Removal (sf)	Remodel (sf)	New Construction (sf)	Existing to Remain (sf)	Campus Total (sf)
1	A748	Main and Auditorium Building			67,381			
2	A749	Boys' Gym			11,868			
3	A13356	Classroom Building		1,824				
4	A7055	Classroom Building					1,824	
5	A6655	Classroom Building		1,824				
6	A58913	Classroom Building		1,824				
7	A24637	Classroom Building			28,529			
8	A22091	Classroom Building		2,520				
9	A749	Shop Building		9,032				
10	M0051F (No DSA)	Storage		200				
11	L0029G	Tool Room		168				
12	M0586K (No DSA)	Storage		80				
14	A16058	Home Making/Electric Shop					3,252	
16	A2677	Classroom Building		1,440				
17	A39162	Girls' Locker		7,325				
18	A10407	Classroom Building					1,824	
19	A20797	Sanitary Administrative Building		896				
20	A39162	Cafeteria-Classroom Building		18,392				
21	A10407	Classroom Building		1,824				
22	A6492	Classroom Building		912				
23	A6582	Classroom Building		912				
24	A15745	Classroom Building		1,056				
25	A7256	Classroom Building		864				
26	X3865Y (No DSA Listed)	Classroom Building		1,920				
A	-	Two-Story Specialty Classroom Building	10			20,080		
B	-	Three-Story Food Services; MPR/Classroom/Lockers	24			65,595		
M+O	-	Maintenance and Operations	-			2,276		
Approximate campus building space				60,500 sf	104,500	88,000		

Notes:
sf = Square footage

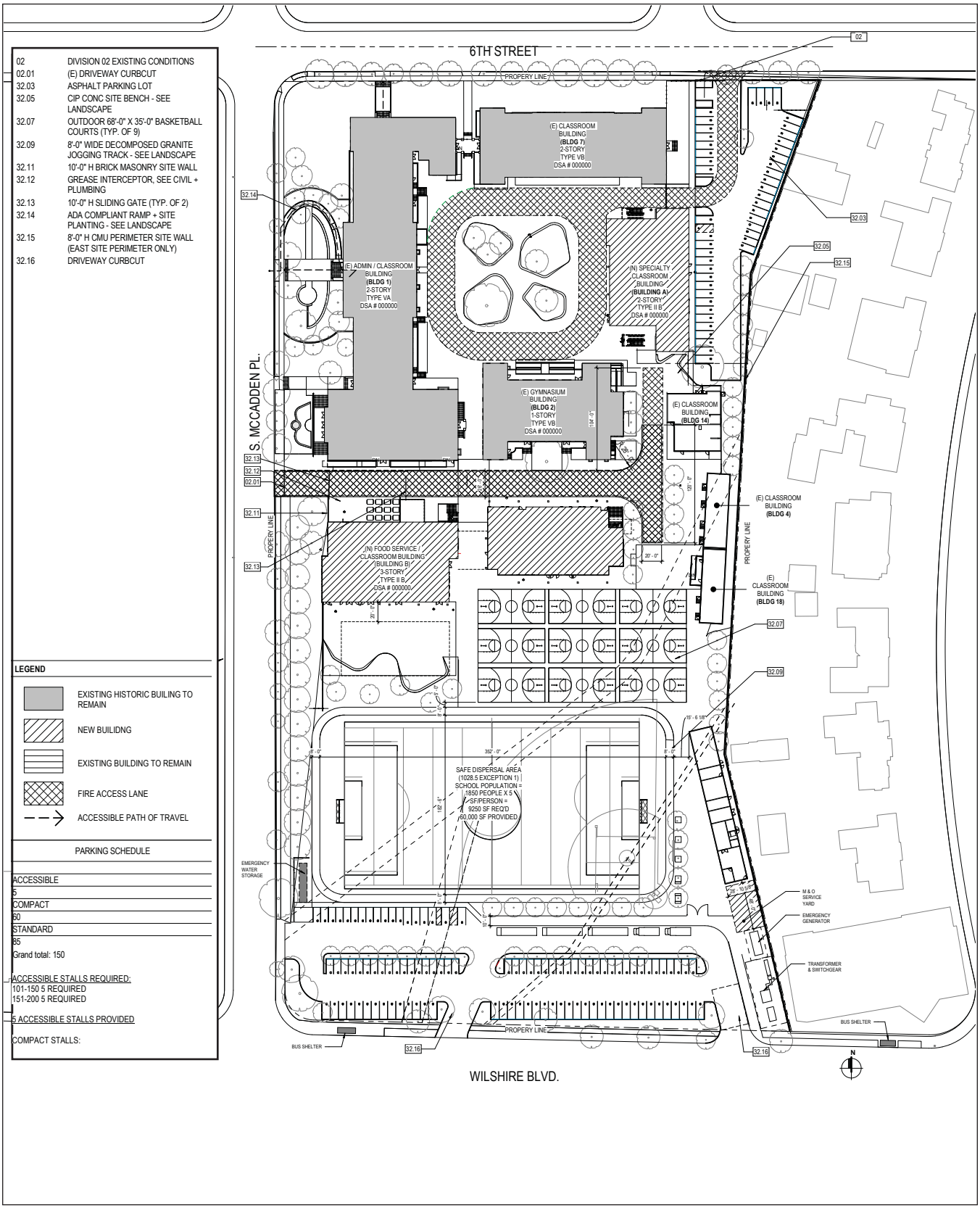


SOURCE: Los Angeles Unified School District, 2016

Figure 5
Demolition Plan

3. Project Description

This page intentionally left blank.



SOURCE: Ehrlich Yanai Rhee Chaney Architects, 2017

Burroughs Middle School Comprehensive Modernization Project . 211085.33

Figure 6
Site Plan

3. Project Description

This page intentionally left blank.

3.1 CIRCULATION, ACCESS AND PARKING

Currently, the school's pedestrian main entrance is located off South McCadden Place. The proposed Project is designed to improve circulation, access (including the path of travel) and parking at the campus. The main access point to the campus would continue to be off South McCadden Place. The northern surface parking entrance will be repositioned on West 6th Street and the parking lot would be expanded. As part of the project, the southern surface parking lot along South McCadden Place and Wilshire Boulevard, would be reconfigured and ingress/egress driveways would be added on Wilshire Boulevard, in addition to access from McCadden. Bus drop-off /pickup would be relocated from its current location along McCadden Place to a designated bus loading zone within the Wilshire Boulevard parking lot. By moving the bus loading zone onsite, it is anticipated that traffic congestion in the surrounding neighborhood would be reduced during the student drop off and pick up times.

3.2 LANDSCAPE IMPROVEMENTS

The Burroughs MS campus is developed with: 1) buildings; 2) paved areas including parking lots, hardcourts, and walkways; and 3) landscaped areas including turf playfields (i.e., football field and baseball/softball field) and ornamental landscaping with trees, shrubs, and grass. There are currently 195 trees within and along the boundaries of the Project site. There are a total of two protected native coast live oaks on the campus and 37 City of Los Angeles-protected street trees along Wilshire Boulevard, South McCadden Place, and West 6th Street.

Landscape improvements may include repair or replacement of irrigation systems, including: lawn sprinklers and sprinkler controls; trees, shrubs, and other vegetation; landscaping plant material; utilitarian landscape components, such as sprinkler piping; and fencing and freestanding exterior walls. Historic landscaping (significant primary landscape, Figure 4) along the northwestern boundary of the Project site would be preserved.[31] Any protected trees or significant trees that would be removed as part of the Project would be replaced in accordance with the requirements of the City of Los Angeles Tree Ordinance.

3.3 INFRASTRUCTURE

The Project site is currently served by existing utilities that are at the end of their service life and need replacement. Site-wide infrastructure improvements would be completed as part of the proposed Project for electrical, gas, sewer, water, and drainage.

[31] PCR Services, Character Defining- Features Memorandum (CDFM) for John Burroughs Middle School, 600 South McCadden Place, Los Angeles, California 90005, Prepared for Los Angeles Unified School District (LAUSD), July 28, 2015.

3.4 UTILITY PROVIDERS

Los Angeles Department of Water and Power (LADWP) provides electric and potable water service to the Project site. The Southern California Gas Company (SCGC) provides natural gas to the Project site. The City of Los Angeles Bureau of Sanitation is the sewer service provider for the Project site.

3.5 SECURITY AND SAFETY FEATURES

With the exception of the northwest boundary of Burroughs MS along South McCadden Place and West 6th Street, the perimeter of the campus is surrounded by an 8-foot metal security fence. There is currently electronic access control at the school entrances and parking lots. The improvements to the Project site would include similar fencing and security features. Additionally, new internal fencing would be installed to allow for potential community use of athletic areas that can be accessed separately from the academic core of the campus. All new structures would be equipped with fire suppression sprinkler systems and lighting on the exterior walls. All entries would be illuminated to provide safe access. The new parking lots would have lighting that would be focused and shielded to reduce glare and light spillover. Lighting intensity from the new sources would be reduced to no more than 2 foot-candles onto adjacent residences. New sources of lighting would include hoods, filtering louvers, glare shields, and landscaping. Further, site lighting would be designed to have minimal offsite impact and contribution to sky glow by controlling the amount of uplight. Outdoor lighting of architecture and landscape features and interior lighting would be designed to minimize light trespass to the outside from the interior.

3.6 SUSTAINABILITY FEATURES

LAUSD is committed to sustainable construction principles, and has been a member of the Collaborative for High Performance Schools (CHPS) since 2001. CHPS has established criteria for the development of high performance schools to create a better educational experience for students and teachers by designing the best facilities possible. CHPS-designed facilities are energy efficient, material efficient, easy to maintain and operate, environmentally responsive, safe and secure, a community resource, and adaptable to changing needs.

School facilities seeking CHPS certification complete a scorecard and must achieve a certain number of points to be certified. Some of the sustainable design features that would be incorporated into the proposed Project include easy access to public transportation, provision of bicycle racks, onsite treatment of stormwater runoff, "cool-roof" building materials, lighting that reduces light pollution, water- and energy-efficient design, water-wise landscaping, collection of recyclables, and sustainable and/or recycled-content building materials. The proposed Project's new buildings and structures would be designed to reduce energy use below current levels by incorporating modernized and energy-efficient features, which may include lighting, windows, electrical transformers, building insulation, or installation of irrigation smart controllers, etc. All new construction would exceed by 10 percent or more the California Title 24, Part 6 energy efficient standards.

3.7 REMOVAL ACTION WORKPLAN

Based on historic uses onsite, soils underneath pavement are affected by arsenic historically applied as an herbicide. LAUSD is currently overseeing preparation of the Removal Action Workplan (RAW) for the proposed Project. The RAW includes a description of the contamination, excavation dimensions for the proposed Project, methodology, transportation and disposal, confirmation sampling plan, methods to ensure worker and public health and safety, and cleanup goals. Further, community notices will be distributed in accordance with LAUSD policy. All cleanup activities under the RAW would adhere to applicable state and local policies and regulations regarding excavation, removal and disposal of affected materials. The volume of impact soil that is addressed by the soil removal action is estimated to be 160 cubic yards (cy).

3.8 CONSTRUCTION PHASING

The proposed Project would be developed in two 18-month phases following a 3-year construction phasing schedule. Construction activities would commence first quarter of 2020 and be completed first quarter of 2023. The construction schedule would have limited to no overlap between phases. All construction would occur during daytime hours, specifically 7:00 a.m. to 7:00 p.m. Monday through Friday and 8:00 a.m. to 6:00 p.m. Saturdays.[32]

[32] No construction would occur during Sunday or Holidays per the City of Los Angeles regulations.

3. Project Description

This page intentionally left blank.

4. Environmental Checklist

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☒ Aesthetics	☒ Hazards & Hazardous Materials	☐ Public Services
☐ Agriculture & Forestry Resources	☐ Hydrology & Water Quality	☐ Recreation
☒ Air Quality	☐ Land Use & Planning	☒ Transportation/Traffic
☐ Biological Resources	☐ Mineral Resources	☐ Tribal Cultural Resources
☒ Cultural Resources	☒ Noise	☐ Utilities & Service Systems
☐ Geology & Soils	☒ Pedestrian Safety	☒ Mandatory Findings of Significance
☐ Greenhouse Gas Emissions	☐ Population & Housing	

HAVE CALIFORNIA NATIVE AMERICAN TRIBES TRADITIONALLY AND CULTURALLY AFFILIATED WITH THE PROJECT AREA REQUESTED CONSULTATION PURSUANT TO PUBLIC RESOURCES CODE SECTION 21080.3.1?

No Native American tribes have requested notification or consultation through the Public Resources Code Section 21080.3.1 process.

Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process (see Public Resources Code Section 21083.3.2). Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code Section 5097.94 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code Section 21082.3(c) contains provisions specific to confidentiality.[33]

[33] Final Text for tribal cultural resources update to Appendix G: Environmental Checklist Form. 2016, September 29. The AB 52 regulations adopted by the California Natural Resources Agency were approved by the Office of Administrative Law, and will appear in the California Code of Regulations. Copies of the rulemaking materials can be found at: http://resources.ca.gov/ceqa.

4. Environmental Checklist

DETERMINATION

On the basis of this initial evaluation:

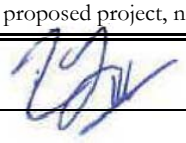
☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions on the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☒ I find the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.



SIGNATURE

2/12/2018

DATE

Robert Laughton
PRINTED NAME

Director, Office of Environmental Health and Safety
TITLE

4. Environmental Checklist

The Burroughs MS Comprehensive Modernization Project would be constructed on an operating school campus that is eligible as a historic resource and is located in a residential urban neighborhood. As such, the District is primarily concerned about potential impacts to the following environmental factors, as documented in the CEQA Environmental Checklist (Appendix G of the CEQA Guidelines) and LAUSD's CEQA policies and practices: aesthetics; air quality (construction); cultural resources (construction); geology and soils (construction); hazards and hazardous materials (construction); noise (construction); pedestrian safety (construction); and traffic (construction). Detailed technical studies (with supporting appendices, where necessary) for these environmental factors will be implemented directly into the EIR.

The operational activities proposed at Burroughs MS would be consistent with the current operations. It is anticipated that campus operations would be more efficient or would be otherwise improved following implementation of the proposed project, which would result in new and upgraded facilities, and would not result in substantive changes to the existing operation of the school. Project implementation would not provide for an increase in the number of students attending the school or staff required to operate the school. As such, operational activities associated with the proposed project are not additive to those operations analyzed in the Program EIR and would not be expected to result in substantial changes that have not previously been identified in the Program EIR. As such, the following environmental impact analysis focuses primarily on the potential impacts related to construction of the proposed project. Operational impacts, where evaluated, are provided as a supplementary or supporting discussion.

4. Environmental Checklist

4.1 AESTHETICS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS. Would the project:				
a. Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings, or other locally recognized desirable aesthetic natural feature within a state scenic highway?	☐	☐	☐	☒
c. Substantially degrade the existing visual character or quality of the site and its surroundings?	☒	☐	☐	☐
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☒	☐	☐	☐

4.1.1 Discussion

The Program EIR includes Standard Conditions of Approval (SCs) for minimizing impacts to aesthetic resources of the existing environment in areas where future projects would be implemented under the SUP. Applicable SCs related to aesthetic resource impacts associated with the proposed Project are provided in **Table 3. 1-1**.

TABLE 3.1-1
AESTHETIC RESOURCES STANDARD CONDITIONS OF APPROVAL

Applicable SCs	Description
SC-AE-1	**School Design Guide** This document outlines measures for re-use rather than destruction of historical resources. Requires the consideration of architectural appearance/consistency and other aesthetic factors during the preliminary design review for a proposed school upgrade project. Architectural quality must consider compatibility with the surrounding community.
SC-AE-2	**School Design Guide** This document outlines measures to reduce aesthetic impacts around schools, such as shrubs and ground treatments that deter taggers, vandal-resistant and graffiti-resistant materials, painting, etc.
SC-AE-3	LAUSD shall assess a proposed project's consistency with the general character of the surrounding neighborhood, including any proposed changes to the density, height, bulk, and setback of new building (including stadium), addition, or renovation. Where feasible, LAUSD shall make appropriate design changes to reduce or eliminate viewshed obstruction and degradation of neighborhood character. Such design changes could include, but are not limited to, changes to campus layout, height of buildings, landscaping, and/or the architectural style of buildings.
SC-AE-7	LAUSD shall reduce the lighting intensity from the new sources on adjacent residences to no more than two foot-candles, measured at the residential property line. LAUSD shall utilize hoods, filtering louvers, glare shields, and/or landscaping as necessary to achieve the standard. The lamp enclosures and poles shall also be painted to reduce reflection. Following installation of lights the lighting contractor shall review and adjust lights to ensure the standard is met.

Applicable SCs	Description
SC-AE-8	Design site lighting and select lighting styles and technologies to have minimal impact offsite and minimal contribution to sky glow. Minimize outdoor lighting of architectural and landscape features and design interior lighting to minimize trespass outside from the interior. International Dark-Sky Association (IDA) and the Illuminating Engineering Society (IES) Model Lighting Ordinance (MLO) shall be used a guide for environmentally responsible outdoor lighting. The MLO outdoor lighting has outdoor lighting standards that reduce glare, light trespass, and skyglow. The Joint IDA-IESNA Model Outdoor Lighting Ordinance (MLO) uses lighting zones (LZ0 4) which allow the District to vary the stringency of lighting restrictions according to the sensitivity of the area as well as consideration for the community. The MLO also incorporates the Backlight-Uplight-Glare (BUG) rating system for luminaires, which provides more effective control of unwanted light. IDA IESNA Model establishes standards to: • Limit the amount of light that can be used • Minimize glare by controlling the amount of light that tends to create glare • Minimize sky glow by controlling the amount of uplight
SC-CUL-1	Design Build Team to Include Qualified Historic Architect For campuses with qualifying historical resources under CEQA, the Design-Build team shall include a qualified Historic Architect. The Historic Architect shall provide input to ensure ongoing compliance, as project plans progress, with the *Secretary of the Interior's Standards* and LAUSD requirements and guidelines for the treatment of historical resources (specific requirements follow in SC-CUL-2). For projects involving structural upgrades to historic resources, the Design-Build team shall include a qualified Structural Engineer with a minimum of eight (8) years of demonstrated project-level experience in Historic Preservation. The Historic Architect/s shall meet the Secretary of the Interior's Professional Qualifications Standards and the standards described on page 8 of the *LAUSD Design Guidelines and Treatment Approaches for Historic Schools*. The Historic Architect shall provide input throughout the design and construction process to ensure ongoing compliance with the above-mentioned standards.
SC-CUL-2	Role of Historic Architect on Design-Build Team The tasks of the Historic Architect on the Design-Build team shall include (but not necessarily be limited to) the following: 1. The Historic Architect shall work with the Design Builder and LAUSD to ensure that project components, including new construction and modernization of existing facilities, continue to comply with applicable historic preservation standards, including the Secretary of the Interior's Standards for the Treatment of Historic Properties and LAUSD Design Guidelines and Treatment Approaches for Historic Schools. The Historic Architect shall work with the Design-Builder throughout the design process to develop project options that facilitate compliance with the applicable historic preservation standards. 2. For new construction, the Historic Architect shall work with the Design-Builder and LAUSD to identify options and opportunities for (1) ensuring compatibility of scale and character for new construction, site and landscape features, and circulation corridors, and (2) ensuring that new construction is designed and sited in such a way that reinforces and strengthens, as much as feasible, character-defining site plan features, landscaping, and circulation corridors throughout campus. 3. For modernization and upgrade projects involving contributing (significant) buildings or features, the Historic Architect shall work with the Design-Builder and LAUSD to ensure that specifications for design and implementation of projects comply with the applicable historic preservation standards. 4. The Historic Architect shall participate in design team meetings through all phases of the project through 100 percent construction drawings, pre-construction, and construction phases. 5. The Historic Architect shall produce brief memos, at the 50 percent and 100 percent construction drawings stages, demonstrating how principal project components and treatment approaches comply with applicable historic preservation standards, including the Secretary of the Interior's Standards for the Treatment of Historic Properties and LAUSD Design Guidelines and Treatment Approaches for Historic Schools. The memos will be reviewed by LAUSD and incorporated into the Mitigation Monitoring and Report Plan (MMRP) for the project.

4. Environmental Checklist

Applicable SCs	Description
	6. The Historic Architect shall participate in pre-construction and construction monitoring activities to ensure continuing conformance with Secretary's Standards and/or avoidance of a material impairment of the historical resources. 7. The Historic Architect shall provide specialized Construction Specifications Institute (CSI) specifications for architectural features or materials requiring restoration, removal, or onsite storage. This shall include detailed instructions on maintaining and protecting in place relevant features. The Design-Builder and Historic Architect shall be responsible for incorporating LAUSD's recommended updates and revisions during the design development and review process.

4.1.2 Impact Analysis

Would the project:

a) Have a substantial adverse effect on a scenic vista?

No Impact. Scenic vistas generally include extensive panoramic views of natural features, unusual terrain, or unique urban or historic features, for which the field of view can be wide and extend into the distance, and focal views that focus on a particular object, scene or feature of interest. Based on the City of Los Angeles General Plan, the proposed Project is not considered a scenic vista.[34] The Project site is located in the Wilshire Community Plan Area, approximately 5 miles west of downtown Los Angeles. The Wilshire Community Plan Area has a pattern of low to medium density residential uses interspersed with areas of higher density residential uses. Long narrow corridors of commercial activity can be found along major streets including Wilshire Boulevard.[35]

The nearest scenic vista from the campus is the Santa Monica Mountains, located approximately 3.2 miles north of the campus. The proposed Project would not obstruct existing views of the Santa Monica Mountains. Therefore, the project would have no impact on scenic vistas. No mitigation or further study is required.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. The California Scenic Highway Program seeks to preserve and protect areas of outstanding natural beauty that are visible from state highways. Table 5.1-1 of the SUP PEIR lists highways and corridors considered eligible for Scenic Highway Designation. The Project site is not located near a Scenic Highway, Byway, Route, or Corridor designated by the California Department of Transportation (Caltrans) or the Los Angeles County General Plan. The nearest eligible State Scenic Highway is State Route 1 (Pacific Coast Highway) located approximately 9.8 miles west of the Project site. The nearest officially designated State Scenic Highway is State Route 2 (SR-2) (Angeles Crest Highway) located approximately 12.6 miles northeast of the

[34] City of Los Angeles, 2001. *City of Los Angeles General Plan, Conservation Element*. September 26, 2001.
[35] City of Los Angeles, 2005. *Wilshire Community Plan*. Available at: https://planning.lacity.org/complan/pdf/wilcptxt.pdf, accessed August 10, 2017.

Project site. The Project site is not observable from either of these highways. Impacts related to scenic resources within a state scenic highway would not occur and no further analysis will be included in the EIR.

c) Substantially degrade the existing visual character or quality of the site and its surroundings?

Potentially Significant Impact. Given the historic character of the campus, incompatible architecture associated with new building construction could have an adverse impact on the visual character or quality of the Project site. While the proposed Project would not substantially alter the main views of the existing campus, specifically the historic buildings and landscapes from the front of the campus (main entrance), construction of new buildings has the potential to conflict with the existing historic buildings by disrupting the existing views or context of the historic buildings (through changes to the landscape or the scale, architecture, or height of the new buildings) on the campus. Under the proposed Project, new and renovated buildings would be consistent with the general character of existing buildings on campus and the surrounding neighborhood in terms of architectural style, density, bulk, and setback. This consistency would be confirmed through incorporation of SC-CUL-1 and SC-CUL-2.

During project construction, there would be standard construction equipment on site, including small cranes, stockpiled materials, and construction-area barriers and fencing, that may introduce a potential impact to the existing visual character and quality of the Project site. However, these elements would be considered a temporary impact, as they would be removed from the site after completion of construction activities. Further, during construction, work areas would be screened from public view and from the students of Burroughs Middle School through the use of temporary barriers.

While the new three-story building would be the tallest structure on campus, it would be fully integrated with the campus in terms of scale, materials, and landscaping. Further, LAUSD adheres to a variety of design standards that apply to the project, which would ensure that the proposed Project is aesthetically compatible with the neighborhood in which it is located. The design standards include the incorporation of a set of Best Management Practices (BMPs) during design, construction, and operation.

Burroughs MS campus was assigned California Historical Resource status codes of "3S" and "3CS," which means it appears to be eligible for the National Register of Historic Places (National Register) and California Register of Historical Resources (California Register) as an individual property through survey evaluation.[36] As such, under CEQA, the entire campus meets the definition of a historical resource. Further, the Project site is located within the Hancock Park HPOZ. A historical resources study will be conducted for the proposed Project. The historical study and EIR will provide further analysis on historic structures and visual character. The proposed Project thus could potentially substantially degrade the existing visual character or quality of the site and its surroundings, which will be analyzed in the Draft EIR.

[36] Leslie J. Heumann, SAIC, *DPR Primary Record Form for Burroughs Middle School,* Prepared for LAUSD March 15, 2002.

4. Environmental Checklist

d) Create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area?

Potentially Significant Impact.

4.1.2.1 LIGHT IMPACTS

The campus contains two primary sources of light: light emanating from building interiors that passes through windows and light from exterior sources (e.g., street lighting, parking lot lighting, building illumination, security lighting, and landscape lighting). Depending on the location of the light source and its proximity to adjacent light-sensitive use, light introduction can be a nuisance, affecting adjacent areas and further diminishing the view of the clear night sky in an urban setting like the Project site. Light spillage is typically defined as unwanted illumination from light fixtures on adjacent properties.

The Project site is located within a commercial and residential area. Existing lighting conditions in the project area include light emanating from building interiors, security lights and the surrounding commercial and residential land uses, as well as nearby street lighting. There are residential uses located north, east, and west of the Project site. There are no additional sensitive land uses in the immediate vicinity of the proposed Project.

The perimeter of the proposed buildings would have new light fixtures attached to exterior walls. All entries would be illuminated to provide safe access. The new parking lot along the southern boundary and northeastern corner of the Project site would also have security lighting on poles, that would be focused and shielded downward to reduce glare and light spillover. The project's proposed landscaping, parking and security lighting is expected to contribute to ambient nighttime illumination in the project vicinity. Design features listed in SC-AE-7 and SC-AE-8 such as hoods and filtering louvers would be incorporated to ensure that these new sources would not create light spill-over greater than 2 foot-candles onto adjacent properties. Outdoor lighting of architectural and landscape features and interior lighting would be designed to minimize light trespass to the outside from the interior. Further, site lighting would be designed to have minimal offsite impact and contribution to sky glow. Implementation of SC-AE-7 and SC-AE-8 would ensure that site lighting would have minimal offsite impacts. No further analysis is required in the Draft EIR.

4.1.2.2 GLARE, SHADE AND SHADOW IMPACTS

Buildings with large facades constructed of reflective surfaces (e.g., brightly colored building façades, metal surfaces, and reflective glass) could increase existing levels of daytime glare. The proposed facilities would be constructed with limited high-glare materials. As described previously, SC-AE-6 and SC-AE-7 provide measures and performance standards to reduce glare impacts to pedestrians, residences, drivers and sports teams.

Shading impacts are influenced by the height and bulk of a structure, the time of year, the duration of shading during the day, and the proximity of shade-sensitive land uses, or receptors. Shading also affects the visual character and quality of a project relative to surrounding land uses. The consequences of shadows on land uses can be positive, including cooling effects during warm weather; or negative, such as loss of warmth during

cooler weather and loss of natural light for landscaping and human activity. In order to determine whether shading impacts would have a significant impact on the physical environment, a shade and shadow study would be prepared that shows the adjacent offsite, shade-sensitive uses that would receive shadows and the nature of shading that would occur. In order to adequately address these conditions, this topic will be analyzed further in the Draft EIR.

4.2 AGRICULTURE AND FORESTRY RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
II. AGRICULTURE AND FORESTRY RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. -- Would the project:				
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b. Conflict with existing zoning for agricultural use, or a Williamson Act Contract?	☐	☐	☐	☒
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526) or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	☒
d. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

4.2.1 Impact Analysis

Would the project:

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

No Impact. The Project site is currently developed and is void of any agricultural uses. The California Department of Conservation Important Farmland Map for Los Angeles identified the Project site as urban and built-up land. Further, there is no Prime Farmland, Unique Farmland, or Farmland of Statewide Importance located adjacent to the Project site.[37] Therefore, no impact to Prime Farmland, Unique Farmland, or Farmland of Statewide Importance would occur. This issue will not be further addressed in the Draft EIR.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. A Williamson Act Contract requires private landowners to voluntarily restrict their land to agriculture and compatible open-space uses. The Project site is void of agricultural uses and does not include land enrolled in a Williamson Act Contract.[38] Therefore, no impact would occur regarding conversion of existing agricultural uses or Williamson Act contracts. This issue will not be further addressed in the Draft EIR.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

No Impact. The proposed Project would not conflict with existing zoning of forest land or cause rezoning of forest land, timberland, or timberland zoned for Timberland Production. The project area is currently zoned as [Q] PF-1XL-HPOZ. The proposed Project does not involve any changes to current General Plan land use or zoning designations for forest land, or timberland. Additionally, there are no timberland zoned production areas within the Project site or surrounding areas. Therefore, no impact to forest land or timberland would occur, and this issue will not be further addressed in the Draft EIR.

37 California Department of Conservation (CDC), 2017. California Important Farmland Finder. Available at: http://maps.conservation.ca.gov/ciff/ciff.html, accessed August 10, 2017.

38 CDC, 2016.*Los Angeles County Williamson Act FY 2016/2016 Map.*. 2016.

4. Environmental Checklist

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. The Project site and surrounding areas contain no forest land. Thus, implementation of the proposed Project would result in no impacts related to the loss or conversion of forest land to non-forest use. This issue will not be further addressed in the Draft EIR.

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

No Impact. The Project site is developed with school facilities and impervious surfaces. No changes to the existing environment would occur from implementation of the proposed Project that could result in conversion of farmland to nonagricultural use or forest land to non-forest use. Thus, no impact would occur, and this issue will not be further discussed in the Draft EIR.

4.3 AIR Quality

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
III. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a. Conflict with or obstruct implementation of the applicable air quality plan?	☒	☐	☐	☐
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☒	☐	☐	☐
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☒	☐	☐	☐
d. Expose sensitive receptors to substantial pollutant concentrations?	☒	☐	☐	☐
e. Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

4.3.1 Discussion

The Program EIR includes SCs for reducing impacts to air quality in areas where future projects would be implemented under the SUP. Applicable SCs related to project air quality impacts are provided in **Table 3.3-1**, below.

TABLE 3.3-1
AIR QUALITY STANDARD CONDITIONS OF APPROVAL

Applicable SCs	Description
SC-AQ-2	LAUSD's construction contractor shall ensure that construction equipment is properly tuned and maintained in accordance with manufacturer's specifications, to ensure excessive emissions are not generated by unmaintained equipment.
SC-AQ-3	LAUSD's construction contractor shall: • Maintain slow speeds with all vehicles. • Load impacted soil directly into transportation trucks to minimize soil handling. • Water/mist soil as it is being excavated and loaded onto the transportation trucks. • Water/mist and/or apply surfactants to soil placed in transportation trucks prior to exiting the site. • Minimize soil drop height into transportation trucks or stockpiles during dumping. • During transport, cover or enclose trucks transporting soils, increase freeboard requirements, and repair trucks exhibiting spillage due to leaks.

4. Environmental Checklist

	• Cover the bottom of the excavated area with polyethylene sheeting when work is not being performed. • Place stockpiled soil on polyethylene sheeting and cover with similar material. • Place stockpiled soil in areas shielded from prevailing winds.
SC-AQ-4	LAUSD shall prepare an air quality assessment: If site-specific review of a school construction project identifies potentially significant adverse regional and localized construction air quality impacts, then LAUSD shall implement all feasible measures to reduce air emissions below the South Coast Air Quality Management District's (SCAQMD) regional and localized significance thresholds. LAUSD shall mandate that construction bid contracts include the measures identified in the air quality assessment. Measures shall reduce construction emissions during high-emission construction phases from vehicles and other fuel driven construction engines, activities that generate fugitive dust, and surface coating operations. Specific air emission reduction measures include, but are not limited to, the following: Exhaust Emissions • Schedule construction activities that affect traffic flow to off-peak hours (e.g. between 10:00 AM and 3:00 PM). • Consolidate truck deliveries and/or limit the number of haul trips per day. • Route construction trucks off congested streets. • Employ high pressure fuel injection systems or engine timing retardation. • Utilize ultra-low sulfur diesel fuel, containing 15 ppm sulfur or less (ULSD) in all diesel construction equipment. • Use construction equipment rated by the United States Environmental Protection Agency as having Tier 3 (model year 2006 or newer) or Tier 4 (model year 2008 or newer) emission limits for engines between 50 and 750 horsepower. • Restrict non-essential diesel engine idle time, to not more than five consecutive minutes. • Utilize electrical power rather than internal combustion engine power generators as soon as feasible during construction. • Utilize electric or alternatively fueled equipment, if feasible. • Utilize construction equipment with the minimum practical engine size. • Utilize low-emission on-road construction fleet vehicles. • Ensure construction equipment is properly serviced and maintained to the manufacturer's standards. Fugitive Dust • Apply non-toxic soil stabilizers according to manufacturers' specification to all inactive construction areas (previously graded areas inactive for ten days or more). • Replace ground cover in disturbed areas as quickly as possible. • Sweep streets at the end of the day if visible soil material is carried onto adjacent public paved roads (recommend water sweepers with reclaimed water). • Install wheel washers where vehicles enter and exit unpaved roads onto paved roads, or wash off trucks and any equipment leaving the site each trip. • Pave construction roads that have a traffic volume of more than 50 daily trips by construction equipment, and/or 150 daily trips for all vehicles. • Pave all construction access roads for at least 100 feet from the main road to the project site. • Water the disturbed areas of the active construction site at least three times per day, except during periods of rainfall. • Enclose, cover, water twice daily, or apply non-toxic soil binders according to manufacturers' specifications to exposed piles (i.e., gravel, dirt, and sand) with a five percent or greater silt content. • Suspend all excavating and grading operations when wind speeds (as instantaneous gusts) exceed 25 miles per hour (mph).

- Apply water at least three times daily, except during periods of rainfall, to all unpaved road surfaces.
- Limit traffic speeds on unpaved road to 15 mph or less.
- Prohibit high emission causing fugitive dust activities on days where violations of the ambient air quality standard have been forecast by SCAQMD.
- Tarp and/or maintain a minimum of 24 inches of freeboard on trucks hauling dirt, sand, soil, or other loose materials.
- Limit the amount of daily soil and/or demolition debris loaded and hauled per day.

General Construction

- Utilize ultra-low VOC or zero-VOC surface coatings.
- Phase construction activities to minimize maximum daily emissions.
- Configure construction parking to minimize traffic interference.
- Provide temporary traffic control during construction activities to improve traffic flow (e.g., flag person).
- Develop a trip reduction plan for construction employees.
- Implement a shuttle service to and from retail services and food establishments during lunch hours.
- Increase distance between emission sources to reduce near-field emission impacts.
- Require construction contractors to document compliance with the identified mitigation measures.

4.3.2 Impact Analysis

Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan?

Potentially Significant Impact. The Project site is located within the South Coast Air Basin (SCAB), which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The SCAB is a 6,600-square-mile coastal plain bounded by the Pacific Ocean to the southwest and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east.

Therefore, SCAQMD's 2016 AQMP[39] is the applicable air quality plan for the proposed Project. The proposed Project may generate air emissions which could conflict with or obstruct implementation of the AQMP. The Draft EIR will provide a more in depth consistency analysis related to the City's General Plan and applicable air quality plans and will describe potential effects associated with any inconsistencies.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

[39] SCAQMD, 2016. *Final Air Quality Management Plan*. Available at: http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/final2016aqmp.pdf?sfvrsn=15, accessed August 10, 2017.

Potentially Significant Impact. The proposed Project may violate any air quality standard or contribute substantially to an existing or projected air quality violation. The Draft EIR will thus analyze this impact and will identify applicable air quality standards and the federal and state attainment status for pollutants within the SCAB. The Draft EIR will also include an analysis of the estimated emissions associated with construction and operation of the proposed Project, and will also include an analysis of cumulative impacts associated with emissions of criteria pollutants.

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

Potentially Significant Impact. A significant impact would occur if implementation of the proposed Project resulted in a cumulative net increase in any criteria pollutant above the SCAQMD significance threshold. The SCAQMD's approach for assessing cumulative air quality impacts is based on the AQMP forecasts of attainment of ambient air quality standards in accordance with the requirements of the federal and state Clean Air Acts. The Draft EIR will identify applicable air quality standards and the federal and state attainment status for pollutants within the SCAB and will analyze this impact. The Draft EIR will also include an analysis of the estimated emissions associated with construction and operation of the proposed Project, and will also include an analysis of cumulative impacts associated with emissions of criteria pollutants.

d) Expose sensitive receptors to substantial pollutant concentrations?

Potentially Significant Impact. Sensitive receptors include residences, schools, playgrounds, childcare centers, athletic facilities, churches, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes. The Project site is an active school site surrounded by residential uses. The proposed Project could potentially expose sensitive receptors to substantial pollutant concentrations. Mitigation measures for diesel equipment and dust control that are recommended by SCAQMD will be evaluated as part of the Draft EIR to avoid or reduce the impacts to construction workers and occupants of nearby residents, if necessary.

e) Create objectionable odors affecting a substantial number of people?

Less Than Significant Impact. Potential sources that may emit odors during construction activities include equipment exhaust and architectural coatings. Odors from these sources would be localized and generally confined to the Project site. Development of the proposed Project would utilize typical construction techniques, and the odors would be typical of most construction sites. Additionally, the odors would be temporary, and construction activity would be required to comply with SC-AQ-2 through SC-AQ-4, and SCAQMD Rules 402 and 1113.15. Therefore, the proposed Project would result in less-than-significant impacts associated with odor nuisance.

According to the SCAQMD *California Environmental Quality Act (CEQA) Air Quality Handbook*, land uses that are associated with odor complaints include agricultural uses, wastewater treatment plants, food processing

plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding.[40] The proposed Project would not include any of these odor-producing uses; odors associated with project operation will be limited to onsite waste generation and disposal and minor odors generated during food preparation activities for the onsite food service operations. Furthermore, all trash receptacles would be covered and properly maintained to minimize odors and would be emptied on a regular basis. Therefore, implementation of the proposed Project would not generate objectionable odors affecting a substantial number of people. Impacts related to odors would be less than significant, and no further analysis is required in the EIR.

4.4 BIOLOGICAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES. Would the project:				
a. Have a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in the City or regional plans, policies, regulations by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh vernal pool, coastal, etc.) Through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e. Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance (e.g., oak trees or California walnut woodlands)?	☐	☐	☒	☐
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

[40] SCAQMD, 2014. *CEQA Air Quality Handbook*. Available at: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook, accessed August 10, 2017.

4. Environmental Checklist

4.4.1 Discussion

The analysis below is based in part on the Arborist Report[41] prepared for the proposed Project (Appendix B).

The Program EIR includes SCs for minimizing impacts to biological resources of the existing environment in areas where future projects would be implemented under the SUP. Applicable SCs related to biological resource impacts associated with the proposed Project are provided in **Table 3.4-1**.

TABLE 3.4-1
BIOLOGICAL RESOURCES STANDARD CONDITIONS OF APPROVAL

Applicable SCs	Description
SC-BIO-1	LAUSD qualified biologist shall identify sensitive species and their habitat within or near proposed project site. LAUSD will conduct a literature search, which shall consider a one-mile radius beyond the project construction site and shall be performed by a qualified biologist with knowledge of local biological conditions as well as the use and interpretation of the data sources identified below. Where appropriate, in the opinion of the biologist, the literature search shall be supplemented with a site visit and/or aerial photo analysis. Resources and information that shall be investigated for each site should include, but not be limited to: • USFWS • National Marine Fisheries Services (NMFS) • CDFW • California Native Plant Society (CNPS) • County and/or city planning or environmental offices for sensitive species, habitat, and/or heritage trees that may not exist on published databases. • CNDDB • CNPS Rare Plant Inventory • Local Audubon Society • Los Angeles County Department of Regional Planning for information on Significant Ecological Areas • California Digital Conservation Atlas for district-wide location of reserves, plan areas, and land trusts that may overlap with project sites. <u>Biological Resources Report</u> If the LAUSD qualified biologist determines that a school construction project will affect an identified sensitive plant, animal, or habitat, a biological resources report shall be prepared. To provide a complete assessment of the flora and fauna within and adjacent to a site-specific project impact area, with particular emphasis on identifying endangered, threatened, sensitive, and locally unique species and sensitive habitats, the biological resources report shall include the following. • Information on regional setting that is critical to the assessment of rare or unique resources • A thorough, recent floristic-based assessment of special status plans and natural communities, following the CDFW's *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities*. CDFW recommends that floristic, alliance- and/or association-based mapping and vegetation impact assessments be conducted at the project site and neighboring vicinity. The *Manual of California Vegetation (Sawyer et al.)* should also be used to inform this mapping and assessment. Adjoining habitat areas should be included in this assessment where site activities could lead to direct or indirect6 impacts offsite. Habitat mapping at the alliance level will help establish baseline vegetation conditions.

[41] Jan C. Scow, *Tree Inventory and Protected Tree Report for Renovation of Burroughs Middle School 600 S. McCadden Place, Los Angeles, CA 90005*, June 7, 2017.

	• A current inventory of the biological resources associated with each habitat type onsite and within the area of potential effect. CDFW's California Natural Diversity Data Base (CNDDB) should be contacted to obtain current information on any previously reported sensitive species and habitat, including Significant Natural Areas identified under Chapter 12 of the Fish and Game Code. • An inventory of rare, threatened, and endangered, and other sensitive species onsite and within the area of potential effect. Species to be addressed should include all those identified in CEQA Guidelines Section 15380, including sensitive fish, wildlife, reptile, and amphibian species. Seasonal variations in use of the project area should also be addressed. Focused species-specific surveys, conducted at appropriate time of year and time of day when sensitive species are active or otherwise identifiable, are required. Acceptable species-specific survey procedures should be developed in consultation with the CDFW and USFWS. • A discussion of the potential adverse impacts from light, noise, human activity, exotic species, and drainage. Drainage analysis should address project-related changes on drainage patterns on and downstream from the site; the volume, velocity, and frequency of existing and post- project surface flows; polluted runoff; soil erosion and/or sedimentation in streams and water bodies; and post-project fate of runoff from the project site. • Discussions about direct and indirect project impacts on biological resources, including resources in nearby public lands, open space, adjacent natural habitats, wetland and riparian ecosystems, and any designated and/or proposed or existing reserve lands (e.g., preserve lands associated with a NCCP). Impacts on, and maintenance of, wildlife corridor/movement areas, including access to undisturbed habitats in adjacent areas. • Mitigation measures for adverse project-related impacts to sensitive plants, animals, and habitats. Measures should emphasize avoidance and reduction of biological impacts. For unavoidable impacts, onsite habitat restoration or enhancement should be outlined. If onsite measures are not feasible or would not be biologically viable, offsite measures through habitat creation and/or acquisition and preservation in perpetuity should occur. This measure should address restrictions on access, proposed land dedications, monitoring and management programs, control of illegal dumping, water pollution, increased human intrusion, etc. • Plans for restoration and vegetation shall be prepared by qualified biologist with expertise in southern California ecosystems and native plant vegetation techniques. Plans shall include, at a minimum: - location of the mitigation site - plant species to be used, container sizes, and seeding rates - schematic depicting the mitigation area - planting schedule - irrigation method - measures to control exotic vegetation - specific success criteria - detailed monitoring program - contingency measures should the success criteria not be met - identification of the party responsible for meeting the success criteria and providing for conservation of the site in perpetuity. LAUSD shall consult with the U.S. Army Corps of Engineers, USFWS and/or the CDFW and comply with any permit conditions or directives from those agencies regarding the protection, relocation, creation, and/or compensation.
SC-BIO-2	LAUSD shall protect sensitive species from harmful exposure to light by shielding light sources, redirecting light sources, or using low intensity lighting.
SC-BIO-3	LAUSD shall comply with the following: • Project activities (including, but not limited to, staging and disturbances to native and nonnative vegetation, structures, and substrates) should occur outside of avian breading season to avoid take of birds or their eggs. Depending on the avian species present, a qualified biologist may determine that a change in the breeding season dates is warranted. • If avoidance of the avian breeding season is not feasible, beginning 30 days prior to the initiation of the project activities, a qualified biologist with experience in conducting breeding bird surveys shall conduct weekly bird surveys to detect protected native birds occurring in

4. Environmental Checklist

	suitable nesting habitat that is to be disturbed and (as access to adjacent areas allows) any other such habitat within 300 feet of the disturbance area (within 500 feet for raptors). The surveys shall continue on a weekly basis with the last survey being conducted no more than three days prior to the initiation of project activities. If a protected native bird is found, LAUSD shall delay all project activities within 300 feet of the suitable nesting habitat (within 500 feet for suitable raptor nesting habitat) until August 31. Alternatively, the qualified biologist could continue the surveys in order to locate any nests. If an active nest is located, project activities within 300 feet of the nest (within 500 feet for raptor nests), or as determined by a qualified biologist, shall be postponed until the nest is vacated and juveniles have fledged and there is no evidence of a second attempt at nesting. Flagging, stakes, and/or construction fencing shall be used to demarcate the inside boundary of the 300- or 500-foot buffer between the project activities and the nest. Project personnel, including all contractors working on site, shall be instructed on the sensitivity of the area. LAUSD shall provide results of the recommended protective measures to document compliance with applicable State and Federal laws pertaining to the protection of native birds. • If the qualified biologist determines that a narrower buffer between the project activities and observed active nests is warranted, a written explanation as to why (e.g., species-specific information; ambient conditions and birds' habituation to them; and the terrain, vegetation, and birds' lines of sight between the project activities and the nest and foraging areas) shall be submitted to LAUSD OEHS project manager. Construction contractors can then reduce the demarcated buffer. • No construction shall occur within the fenced next zone until the young have fledged, are no longer being fed by the parents, have left the nest, and will no longer by impacted the construction. • A biological monitor shall be present on site during all grubbing and clearing of vegetation to ensure that these activities remain outside the demarcated buffer and that the flagging, stakes, and/or construction fencing are maintained, and to minimize the likelihood that active nests are abandoned or fail due to project activities. The biological monitor shall send weekly monitoring reports to LAUSD OEHS project manager during the grubbing and clearing of vegetation, and shall notify LAUSD immediately if project activities damage avian nests.
SC-BIO-4	LAUSD shall comply with the following: • Mitigation shall not include translocation of rare plants. CDFW, in most cases does not recommend translocation, salvage, and/or transplantation of rare, threatened, or endangered plant species, in particular oak trees, as compensation for adverse effects because successful implementation of translocation is rare. Even if translocation is initially successful, it will typically fail to persist over time. • **Permanent conservation of habitat.** To ensure the conservation of sensitive plant species, the preferred method is permanent conservation of habitat containing these species; any translocation proposed shall only be an experimental component of a larger, more robust plan. • **Off-site acquisition of woodland habitat.** Due to the inherent difficulty in creating functional woodland habitat with associated understory components, the preferred method is off-site acquisition of woodland habitat in the local area. All acquired habitat shall be protected under a conservation easement and deeded to a local land conservancy for management and protection. • **Creation of oak woodlands**. Any creation of functioning woodlands shall be of similar composition, structure, and function of the affected oak woodland. The new woodland shall mimic the function, demonstrate recruitment, plant density, and percent basil, canopy, and vegetation cover, as well as other measurable success criteria before the measure is deemed a success. - All seed and shrub sources used for tree and understory species in the new planting site shall be collected or grown from on-site sources or from adjacent areas and shall not be purchased from a supplier. This method should reduce the risk of introducing diseases and pathogens into areas where they might not currently exist. - Oaks should be replaced by planting acorns because this has been shown to result in greater oak survival. Monitoring efforts, including the exclusion of herbivores, shall be employed to maximize seedling survival during the monitoring period. - Monitoring period for oak woodland shall be at least 10 years with a minimum of seven years without supplemental irrigation. This allows the trees to go through one typical

	drought cycle. This should also be the minimal time needed to see signs of stress and disease and determine the need for replacement plantings. LAUSD shall request CDFW review and comment on any translocation plans, habitat preservation, habitat creation and/or restoration plans.
SC-BIO-5	LAUSD shall comply with CDFW recommendations as listed below:[42] • Project development or conversion that results in a reduction of wetland acreage or wetland habitat values shall not occur unless, at a minimum, replacement or preservation results in "no net loss" of either wetland habitat values or acreage. • All wetlands and watercourses, whether intermittent or perennial, should be retained and provided with substantial setbacks which preserve the riparian and aquatic values and maintain their value to on-site and off-site wildlife populations. • A jurisdictional delineation of creeks and their associated riparian habitats shall be conducted as part of the biological resources report. The delineation should be conducted pursuant to the USFWS wetland definition. Implementation of recommended measures shall compensate for affected mature riparian corridors and loss of function and value of wildlife corridors.

4.4.1.1 DESCRIPTION OF BASELINE CONDITIONS

The Project site is an active middle school campus that has been previously disturbed, cleared of native vegetation, and currently contains school buildings, facilities, and scattered landscaped vegetation. An arborist survey was completed for the proposed Project.[43] The survey inventoried 156 trees and noted two protected native coast live oak (*Quercus agrifolia*) (which are protected by the City of Los Angeles) in the Project site and 37 City of Los Angeles-protected street trees on the three streets that border the campus.

The trees (and buildings and structures) on the campus have the potential to serve as nesting sites for birds and bats; however, the Project site is located in a highly urbanized area of the City of Los Angeles. The campus has been fully developed and does not contain any habitat to support candidate, sensitive, or special-status species; riparian habitat; or other natural habitats such as wetlands. Special-status plant and wildlife species are those that are candidates, proposed, or listed as threatened or endangered by the United States Fish and Wildlife Service (USFWS) or the California Department of Fish and Wildlife (CDFW), and plant species that are considered sensitive by the California Native Plant Society (CNPS). According to a CDFW California Natural Diversity Database (CNDDB) search of the Hollywood, California United States Geologic Survey (USGS) 7.5-minute topographic quadrangle map, and surrounding 8 quadrangle maps, there are 27 species in the vicinity of the Project site that are considered special status by local, state, and federal agencies (Appendix B). However, the Project site does not contain suitable habitat necessary to support special-status wildlife species.[44] To manage the preservation of these species, and the more than 180 species identified as threatened or endangered by the City of Los Angeles General Plan, Significant Ecological Areas (SEAs) have been identified throughout the City on the basis of existing known habitats of sensitive or endangered species. The Project site is not located near or within an SEA and the nearest SEA is Griffith Park and is located approximately 4.5 miles north of the Project site.[45]

[42] Recommendations as listed in CDFW SUP Draft EIR comment letter dated August 4, 2014.
[43] Ibid.
[44] California Department of Fish and Wildlife (CDFW), California Natural Diversity Database. July 30, 2017.
[45] Los Angeles County Department of Regional Planning, 2017. Planning and Zoning Information, GIS-Net 3. SEA Layer. Available at : http://gis.planning.lacounty.gov/GIS-NET3_Public/Viewer.html, accessed August 10, 2017.

4.4.2 Impact Analysis

Would the project:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

No Impact. The Project site is located on an active middle school campus that contains no native vegetation capable of supporting any special-status plant or wildlife species. The Project site is entirely developed and surrounded by residential development in all directions. The Project site and surrounding area are not mapped within a SEA. The Project site does not contain any species that are identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or protected by the CDFW or USFWS (Appendix B).[46] The likelihood of species dispersal, whether plants or wildlife, from surrounding areas to the Project site is extremely low. Therefore, the project would have no impact on special-status species and this issue will not be further discussed in the EIR.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

No Impact. The Project site does not contain any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS. The Project site is entirely developed and does not contain any natural drainages or water courses, which would potentially support riparian habitat, or natural undeveloped areas that may contain any other sensitive natural community. Therefore, there would be no impact and no further analysis is required in the EIR.

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No Impact. Generally, the entire school campus is developed with buildings, parking lots, hardscape including walkways and hardcourts, and landscaped areas including playfields. The Project site does not contain any federally protected wetlands as defined by Section 404 of the Clean Water Act (including but not limited to, marsh, vernal pool, coastal etc.). Additionally, no wetlands protected by CDFW and/or the Regional Water Quality Control Board (RWQCB) occur on the Project site. The Project site is entirely developed and does not contain any waterways or undeveloped land capable of supporting federally protected wetlands. Therefore, no impact to wetlands would occur through direct removal, filling, hydrological interruption, or other means. This issue will not be further discussed in the EIR.

[46] California Department of Fish and Wildlife (CDFW), California Natural Diversity Database. July 30, 2017.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Less than Significant Impact. The Project site does not contain any water courses or greenbelts for wildlife movement, or native vegetation and undeveloped land capable of supporting fish or the movement of wildlife, particularly corridors that facilitate movement of species between larger stands of native habitat. The nearest identified habitat linkage occurs in the Santa Monica Mountains 3 miles north of the Project site, well outside the potential impact area for the proposed Project. Therefore, the proposed Project would have no impact on the movement of any wildlife species or impede the use of migratory wildlife corridors.

Tree removal and building demolition may have the potential to disrupt birds that are nesting in the trees or buildings during breeding season (February 1 through August 31). Construction related noise and vibration also have the potential to disrupt birds during the avian breeding season. Additionally, the Project site contains buildings that may be used by bats as nursery sites during the bat maternity roosting season of March through August. Therefore, construction activities (including demolition) have the potential to impact nesting birds or maternity roosting bats. However, the proposed Project would implement SC-BIO-3 as necessary. Following the completion of a pre-construction clearance survey, the implementation of measures provided in SC-BIO-3 would reduce impacts to less than significant. These measures include commencing tree removal and demolition activities outside of avian nesting season and bat maternity roosting season. Therefore, impacts would be less than significant and no further analysis is required in the EIR.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Less Than Significant Impact. The Project site is located within an entirely developed area surrounded by residential and commercial development within the City of Los Angeles and is not located within any SEA protecting biological resources.[47] The Project site contains trees for landscape fronting Wilshire Boulevard, South McCadden Place, and West 6th Street that are considered significant character defining features of the Project site. Additionally, the Project site contains two Coast live oak (Quercus agrifolia) trees that are considered protected under the City of Los Angeles Municipal Code Sections 46.00 et seq.

Construction of the proposed Project may require the removal of street trees and trees onsite. The Project would include a landscape plan to offset the loss of trees on the Project site. All recommendations contained in the project-specific Arborist Protected Tree Report are incorporated into the proposed Project during construction. Replacement trees will be planted at the appropriate size at maturity for the space, and will be selected from the LAUSD Approved Plant List.[48] In accordance with the City of Los Angeles' Protected Tree Ordinance and District Tree Guidelines, LAUSD will complete the City's tree removal permit process, as

[47] Ibid.

[48] LAUSD, LAUSD Approved Plants List, 2012, http://www.laschools.org/documents/download/sustainability%2Fwater_conservation%2FCopy_of_Updated_Plant_List_2012.pdf

appropriate. Therefore, impacts conflicting with local policies and ordinances, including tree protection ordinances, would be less than significant and no further analysis is required in the EIR.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. The Project site is not located within a Habitat Conservation Plan, Natural Community Conservation Plan, or similar plan.[49] The Project site is not located within or proximate to any SEA, Land Trust, or Conservation Plan. Therefore, no impact resulting from a conflict with an adopted conservation plan would occur and this issue will not be further analyzed in the EIR.

[49] CDFW, 2017. California Regional Conservation Plans. Available at: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=68626&inline, accessed August 10, 2017.

4.5 CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES: Would the project:				
a. Cause a substantial adverse change in significance of a historical resource as defined in State CEQA §15064.5?	☒	☐	☐	☐
b. Cause a substantial adverse change in significance of an archaeological resource pursuant to State CEQA §15064.5?	☒	☐	☐	☐
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☒	☐	☐	☐
d. Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☐	☒	☐

4.5.1 Impact Analysis

Would the project:

a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

Potentially Significant Impact. During the Phase I Survey conducted on March 15, 2002, Burroughs MS was assigned a California Historical Resource Status Code of 3S and 3CS, which means the campus appears eligible for National Register and California Register through survey evaluation.[50] A historic resources technical report and cultural resources analysis will be prepared as part of the Draft EIR, which will identify any historic resources within the Project site and surrounding area. The Draft EIR will also evaluate the potential for implementation of the project to substantially change the significance of an identified historical resource and will include mitigation measures to reduce impacts to historical resources, if necessary.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Potentially Significant Impact. While the project is disturbed due to prior development, demolition, and redevelopment, ground-disturbing activities associated with construction of the project could result in the inadvertent discovery of unknown archaeological resources. A cultural resources analysis, including a records search, will be prepared as part of the Draft EIR. The Draft EIR will identify any known archaeological resources within the Project site or within the surrounding area as well as evaluate potential impacts to these resources from development of the project, if any. If significant impacts to archeological resources are

[50] Leslie J. Heumann, SAIC, *DPR Primary Record Form for Burroughs Middle School*, Prepared for LAUSD March 15, 2002.

identified, the Draft EIR will include mitigation measures, if necessary, to reduce these impacts to extent feasible.

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Potentially Significant Impact. Ground-disturbing activities, such as excavation or trenching, during construction of the project could have the potential to encounter the undisturbed alluvium soils, which have the potential to contain unknown paleontological resources. The Draft EIR will describe in greater detail the paleontological setting of the project area as well as evaluate the potential for impacts to paleontological resources associated with construction of the project. Further, if necessary, mitigation measures will be developed to reduce impacts to a level of less than significant

d) Disturb any human remains, including those interred outside of dedicated cemeteries.

Less than Significant Impact. No known cemeteries or other burial places are known to exist within the Project site and the proposed Project is unlikely to disturb human remains. However, because the proposed Project would involve ground-disturbing activities, it is possible that such actions could unearth, expose, or disturb previously unknown human remains. In the event that human remains are encountered, the District would comply with State Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98. Pursuant to these codes, in the event of the discovery of unrecorded human remains during construction, construction excavations shall be halted and the County Coroner shall be notified. If the human remains are determined to be Native American, the California Native American Heritage Commission shall be consulted to designate a Most Likely Descendant who shall recommend appropriate measures to the landowner regarding the treatment of the remains. Compliance with these protocols would reduce impacts to a less than significant level. No further analysis of this topic in an EIR is required and no mitigation measures are required.

4.6 GEOLOGY AND SOILS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. GEOLOGY AND SOILS. Would the project:				
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving :				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii. Strong seismic ground shaking?	☐	☐	☒	☐
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv. Landslides?	☐	☐	☐	☒
b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potential result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☒	☐
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☒	☐
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒

4.6.1 Discussion

The following evaluation of geology and soils is based, in part, on the Preliminary Geotechnical Hazards Evaluation prepared for the Project site in August 2015[51] and the Supplemental Consultation letter prepared for the Project site in August 2017.[52] The Preliminary Geotechnical Hazards Evaluation assessed geologic and soil conditions at and in the immediate vicinity of the proposed Project site.

[51] Amec Foster Wheeler, 2015. Report of Preliminary Geotechnical Investigation Proposed Modernization, John Burroughs Middle School, 600 South McCadden Place, Los Angeles, California. August 10, 2015.

[52] Amec Foster Wheeler, 2016. *Supplemental Consultation Proposed Modernization, John Burroughs Middle School, 600 South McCadden Place, Los Angeles, California.* August 30, 2016.

4. Environmental Checklist

The Program EIR includes SCs for minimizing impacts to geology and soils of the existing environment in areas where future projects would be implemented under the SUP. Applicable SCs related to geology and soils impacts associated with the proposed Project are provided in **Table 3.6-1**.

TABLE 3.6-1
GEOLOGY AND SOILS STANDARD CONDITIONS OF APPROVAL

Applicable SCs	Description
SC-GEO-1	**OEHS CEQA Specification Manual, Appendix G, Supplemental Geohazard Assessment Scope of Work.** This document outlines the procedures and scope for LAUSD geohazard assessments.
SC-HWQ-1	**Stormwater Technical Manual** This manual establishes design requirements and provides guidance for the cost-effective improvement of water quality in new and significantly redeveloped LAUSD school sites. These guidelines are intended to improve water quality and mitigate potential impacts to the Maximum Extent Practicable (MEP). While these guidelines meet current post-construction Standard Urban Stormwater Mitigation Plan (SUSMP) requirements. The guidelines address the mandated post-construction element of the NPDES program requirements.
SC-HWQ-2	**Compliance Checklist for Storm Water Requirements at Construction Sites.** This checklist has requirements for compliance with the General Construction Activity Permit and is used by OEHS to evaluate permit compliance. Requirements listed include a SWPPP; BMPs for minimizing storm water pollution to be specified in a SWPPP; and monitoring storm water discharges to ensure that sedimentation of downstream waters remains within regulatory limits.

4.6.2 Impact Analysis

Would the project:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i)Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to Division of Mines and Geology Special Publication 42.)

No Impact. The Alquist-Priolo Earthquake Fault Zoning Act requires the delineation of zones along active faults in California. The purpose of the Alquist-Priolo Act is to regulate development and prohibit construction on or near active fault traces to reduce hazards associated with fault rupture. The Alquist-Priolo Earthquake Fault Zones are the regulatory zones that include surface traces of active faults. There are no active faults crossing the Project site, and the Project site is not located within an Alquist-Priolo Earthquake Fault Zone.[53] The closest historically active surface faults are the Hollywood Fault, located approximately 2.8 miles north of the Project site, and the Newport-Inglewood Fault Zone, located approximately 3.6 miles southwest of the

[53] Amec Foster Wheeler, 2015. Report of Preliminary Geotechnical Investigation Proposed Modernization, John Burroughs Middle School, 600 South McCadden Place, Los Angeles, California. August 10, 2015.

Project site.[54] Therefore, there would be no impact associated with rupture of a known earthquake fault. This issue will not be analyzed further in the Draft EIR.

ii) Strong seismic ground shaking?

Less than Significant Impact. The Project site is located in a seismically active region. The City, as with all of Southern California, is subject to strong ground shaking. The closest historically active surface faults are the Hollywood Fault located approximately 2.8 miles north of the Project site and the Newport-Inglewood Fault Zone located approximately 3.6 miles southwest of the Project site. These faults could have the potential to generate strong seismic ground shaking at the Project site during an earthquake event.[55] The proposed Project would be required to comply with the geotechnical and seismic design requirements of the most recent version of the California Building Code (CBC) (Title 24), which requires structural design that can accommodate ground accelerations expected from known active faults. In addition, implementation of the proposed Project would seismically retrofit the administrative and auditorium building (including the library), classroom building, and the practice gym. Seismic retrofitting would be in compliance with the seismic safety requirements of the LAUSD Supplemental Geohazard Assessment Scope of Work, CBC, Division of State Architect, California Department of Education, and recommendations contained in the Preliminary Geotechnical Investigation.[56] . The retrofitting activities would include, but would not be limited to bracing and construction and reinforcing of walls. Therefore, implementation of the proposed Project would result in less-than-significant impacts associated with strong seismic ground shaking. No further analysis is required in the Draft EIR.

iii) Seismic-related ground failure, including liquefaction?

No Impact. Liquefaction is a seismic phenomenon where unconsolidated and/or near-saturated soils lose cohesion and are converted to a fluid state as a result of severe vibratory motion. The geotechnical evaluation for the proposed Project determined that the site is not within an area zoned by the state as being susceptible to liquefaction.[57] In addition, the historic high groundwater is deeper than 50 to 70 feet below grade, keeping the potential for soil saturation low. Therefore, no impacts associated with liquefaction would occur and no further analysis of this issue will be included in the Draft EIR.

iv) Landslides?

No Impact. The Project site is not located within an earthquake-induced landslide potential zone.[58] Further, LAUSD policy dictates that schools will not be constructed in areas that are prone to landslides. LAUSD has conducted a comprehensive site-specific geotechnical investigation, which also includes an assessment of existing landslide potential on and next to the Project site, as well as the potential for the project to increase landslide hazards on or adjacent to the site. Implementation of the project would not expose people or

[54] Ibid.
[55] Ibid.
[56] Ibid.
[57] Ibid.
[58] Ibid.

structures to substantial adverse hazards due to landslides, and there would be no impact in this regard. This issue will not be further analyzed in the Draft EIR.

b) Result in substantial soil erosion or the loss of topsoil?

Less than Significant Impact The proposed Project would include grading and earthmoving activities at the Project site that could expose soils to erosion from heavy winds, rainfall, or runoff. Because project construction would disturb more than 1 acre of soil, the project would be required to comply with SC-GEO-1 Geohazard Assessment Scope of Work, including the National Pollutant Discharge Elimination System (NPDES) Construction General Permit. In compliance with this permit and SC-HWQ-1 and SC-HWQ-2, a Storm Water Pollution Prevention Program (SWPPP) would be prepared and implemented, which would require erosion control, sediment control, and BMPs to minimize loss of topsoil or substantial erosion. Construction contractors are responsible for implementation of the SWPPP, which includes maintenance, inspection, and repair of erosion and sediment control measures and water quality BMPs throughout the construction period. Once constructed, disturbed areas would be protected by coverings such as structures, pavement, concrete, or vegetation, and the potential for long-term erosion or loss of topsoil would be reduced to less than significant. Therefore, with implementation of these requirements and associated BMPs, erosion related to construction activities and operation of the proposed Project would be less than significant and no mitigation is required. This issue will not be further analyzed in the Draft EIR.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Less than Significant Impact. As stated above, the Project site is developed with generally flat topography. With the exception of the area in the immediate vicinity of the existing cafeteria-classroom building and the adjacent lunch shelter, records documenting the placement and compaction of the existing fill soils are not available; therefore, the existing fill soils are not considered suitable for support of new structures on conventional spread/continuous footings. Therefore, project development may result in potentially significant impacts regarding unstable soils. However, DSA would require the preparation of a project-specific, design-level Geotechnical Investigation Report to supplement the Preliminary Geotechnical Report (Appendix C) and would further require that all recommendations contained in the project-specific geotechnical report be incorporated into proposed Project design and implemented during construction. The investigation shall include recommendations applicable to foundation design, earthwork, shoring and site preparation that will minimize the effects of anticipated ground shaking and any other identified geologic hazards. Such recommendations may include but not be limited to removal and replacement of existing unsuitable fill and loose native soils with properly compacted engineered fill, or placement of soils for foundations and pads. The analyses shall be prepared in accordance with applicable City ordinances and policies and consistent with the most recent version of the California Building Code (CBC) and Seismic Hazards Mapping Act, which requires structural design that can mitigate potential risks from geologic or seismic hazards. Implementation of these features, and those contained in the geotechnical report will use proven methods, generally accepted by registered engineers, to reduce the risk for geologic hazards, such as those from unsuitable soils.

Potential impacts associated with unstable soils would be less than significant; therefore, this issue will not be further analyzed in the EIR.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

Less than Significant Impact. Expansive soils are predominantly comprised of clays, which expand in volume when water is absorbed and shrink when the soil dries. Expansion is measured by shrink-swell potential, which is the volume change in soil with a gain in moisture. Soils with a moderate to high shrink-swell potential can cause damage to buildings and infrastructure. The upper clayey soils (both fill and natural) are expansive, and will shrink and swell with fluctuations in moisture content.[59] Future facilities within the project area may be exposed to potential significant impacts regarding expansive soils. However, as stated above in impact c), DSA would require the preparation of a project-specific, design-level Geotechnical Investigation Report to supplement the Preliminary Geotechnical Report (Appendix C) and would further require that all recommendations contained in the project-specific geotechnical report be incorporated into proposed Project design and implemented during construction. The investigation shall include recommendations applicable to foundation design, earthwork, shoring and site preparation that will minimize the effects of anticipated ground shaking and any other identified geologic hazards. Such recommendations may include but not be limited to removal and replacement of existing unsuitable fill and loose native soils with properly compacted engineered fill, or placement of soils for foundations and pads. The analyses shall be prepared in accordance with applicable City ordinances and policies and consistent with the most recent version of the California Building Code (CBC) and Seismic Hazards Mapping Act, which requires structural design that can mitigate potential risks from geologic or seismic hazards. Implementation of these features, and those contained in the geotechnical report will use proven methods, generally accepted by registered engineers, to reduce the risk for geologic hazards, such as those from unsuitable soils. Potential impacts associated with unstable soils would be less than significant; therefore, this issue will not be further analyzed in the EIR.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No Impact. The proposed Project would not include the installation or use of septic tanks or alternative wastewater disposal systems. The proposed Project would connect to the existing sanitary sewer system for wastewater disposal. Thus, no impact related to alternative wastewater disposal systems would occur and no further analysis is warranted in the EIR.

---

[59] Ibid.

4.7 GREENHOUSE GAS EMISSIONS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. GREENHOUSE GAS EMISSIONS. Would the project:				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

4.7.1 Discussion

The PEIR includes SCs for minimizing impacts related to greenhouse gas (GHG) emissions in areas where future projects would be implemented under the SUP. Applicable SCs related to GHG emissions impacts associated with the proposed Project are provided in **Table 3.7-1**.

TABLE 3.7-1
GREENHOUSE GAS EMISSIONS STANDARD CONDITIONS OF APPROVAL

Applicable SCs	Description
SC-GHG-1	During school operation, LAUSD shall perform regular preventative maintenance on pumps, valves, piping and tanks to minimize water loss.
SC-GHG-2	LAUSD shall utilize automatic sprinklers set to irrigate landscaping during the early morning hours to reduce water loss from evaporation.
SC-GHG-3	LAUSD shall reset automatic sprinkler timers to water less during cooler months and rainy season.
SC-GHG-4	LAUSD shall develop a water budget for landscape (both non-recreational and recreational) and ornamental water use to conform to the local water efficient landscape ordinance. If no local ordinance is applicable, then use the landscape and ornamental budget outlined by the California Department of Water Resources.
SC-GHG-5	LAUSD shall ensure that the time dependent valued energy of the proposed Project design is at least 10 percent, with a goal of 20 percent less than a standard design that is in minimum compliance with the California Title 24, Part 6 energy efficiency standards that are in force at the time the project is submitted to the Division of the State Architect.

4.7.2 Impact Analysis

Would the project:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less Than Significant Impact. As described in the SUP PEIR, modernization projects are anticipated to reduced operational emissions due to increased energy efficiency. In addition, the proposed project would not increase the number of students or faculty at the school and therefore, would not increase GHG emissions associated operations. With respect to all SUP projects, implementation of SCs GHG 1 through GHG 5 would ensure that the proposed Project would not indirectly or directly result in a significant impact on the environment. Therefore, with project implementation and adherence to SCs GHG-1 through GHG-5, the project would not indirectly or directly result in a significant impact on the environment. Therefore, impacts would be less than significant and no further analysis is required in the EIR.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less than Significant Impact. As described in the SUP PEIR, implementation of the SUP would be consistent with plans adopted for the purpose of reducing GHG emissions, such as the SCAG Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), California Assembly Bill 32, California Air Resources Board Scoping Plan, and other statewide strategies to reduce GHG emissions.[60] Development of the proposed Project would replace and modernize facilities at Burroughs MS, but it would not increase the number of students or faculty at the school and therefore, would not increase GHG emissions. As such, the project would not conflict with the goals of the RTP/SCS.

Additionally, SUP-related projects, including the proposed Project, would comply with the District's GHG emission reduction measures. LAUSD's School Design Guide requires construction contractors to reuse, recycle, and salvage non-hazardous materials generated during demolition and/or new construction, as materials recovery would minimize the need to produce and transport new materials, thereby reducing emissions from mobile sources and energy use.[61] With respect to all SUP projects, implementation of SCs GHG-1 through GHG-5 would ensure that the proposed Project would not conflict with any plans, policies or regulations adopted for the purpose of reducing GHG emissions. Therefore, with project implementation and adherence to SCs GHG-1 through GHG-5 and compliance with Title 24, the project would not conflict with plans, policies, or regulations adopted for the purpose of reducing GHG emissions. Therefore, impacts would be less than significant and no further analysis is required in the EIR.

[60] LAUSD. 2015. School Upgrade Program Final Environmental Impact Report, http://achieve.lausd.net/ceqa. Adopted by the Board of Education on November 10, 2015. Pg. 5.7-18 to 5.7-19.

[61] Ibid.

4.8 HAZARDS AND HAZARDOUS MATERIALS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. HAZARDS AND HAZARDOUS MATERIALS. Would the project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☒	☐	☐	☐
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☒	☐	☐	☐
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for the people residing or working in the area?	☐	☐	☐	☒
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
h. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒

4. Environmental Checklist

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
i. Be located on a site that is (a) a current or former hazardous waste disposal site or solid waste disposal site and, if so, has the waste been removed; (b) a hazardous substance release site identified by the State Department of Health Services in a current list adopted pursuant to Section 25356 for removal or remedial action pursuant to Chapter 6.8 of Division 20 of the Health and Safety Code; or a site that contains one or more pipelines, situated underground or above ground, which carries hazardous substances, acutely hazardous materials or hazardous wastes, unless the pipeline is a natural gas line which is used only to supply natural gas to that school or neighborhood?	☐	☐	☐	☒
j. Be located within one-fourth of a mile of any facilities which might be reasonably anticipated to emit hazardous or acutely hazardous substances or waste?	☐	☐	☐	☒
k. Be located on a site where the property line is less than the following distance from the edge of respective power line easements? 100 feet of a 50-133 kV line, 150 feet of a 220-230 kV line, or 350 feet of a 500-550 kV line.	☐	☐	☐	☒
l. Be located on a site that is within 1,500 feet of a railroad track easement?	☐	☐	☐	☒
m. Be located on a site that is adjacent to or near a major arterial roadway or freeway that may pose a safety hazard?	☒	☐	☐	☐
n. Be located on a site that is near a reservoir, water storage tanks, or high-pressure water pipelines?	☐	☐	☒	☐
o. Be located within 1,500 feet of a pipeline that may pose a safety hazard?	☐	☐	☒	☐
p. Be located on a site that contains, or is near, propane tanks that can pose a safety hazard?	☐	☐	☒	☐
q. Be located on a site that does not have a proportionate length to width ratio to accommodate the building layout, parking and playfields that cannot be safely supervised?	☐	☐	☐	☒
r. Be located on a site where the existing or proposed zoning of the surrounding properties is incompatible with schools and may pose a health or safety risk to students?	☐	☐	☐	☒
s. Be located on a site with a traffic pattern for school buses that can pose a safety hazard?	☒	☐	☐	☐

4. Environmental Checklist

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
t. Be located on a site that is within 2,000 feet of a significant disposal of hazardous waste?	☐	☐	☐	☒

4.8.1 Discussion

The following evaluation of hazards and hazardous materials is based, in part, on the Phase I Environmental Site Assessment (Phase I ESA) prepared for the Project site in May 2016.[62] The Phase I ESA, which is included as Appendix D of this IS, provides an assessment of environmental conditions as they exist on the Burroughs MS property.

4.8.2 Impact Analysis

Would the project:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less than Significant Impact. Proposed project construction activities would involve transport, use, and disposal of hazardous materials such as solvents, oils, grease, and cleaning fluids. In addition, hazardous materials may be needed for fueling and servicing construction equipment on the Project site. The use of these materials during project construction would be short-term in nature, and would occur in accordance with standard construction practices. All transport, handling, use, and disposal of substances such as petroleum products related to construction would comply with all federal, state, and local laws regulating the management and use of hazardous materials. These laws include but are not limited to: the Resource Conservation and Recovery Act (RCRA), Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), federal Clean Air Act that regulates asbestos as a hazardous air pollutant and the Occupational Safety and Health Administration (OSHA) that regulates asbestos as a potential worker safety hazard. Construction activities that involve hazardous materials would be governed by several agencies, including the California Environmental Protection Agency (CalEPA), Caltrans, California Division of Occupational Safety and Health (Cal/OSHA), Department of Toxic Substances Control (DTSC), and the Los Angeles Fire Department. BMPs would be in place to ensure the lawful and proper storage and use of these materials and thus potential impacts would be would be less than significant. As discussed in the Program EIR, the types and amounts of hazardous materials that are now handled by LAUSD are not expected to substantially change upon construction of individual projects or upon completion of the SUP in its entirety. The amounts of hazardous materials handled at a given campus would remain relatively small and would be subject to federal, state, and local health and safety requirements. LAUSD would continue to implement its existing programs, practices, and procedures for handling hazardous materials, which would be extended to all new facilities. Proposed Project impacts from

[62] WorleyParsons, 2016. *Phase I Environmental Site Assessment, John Burroughs Middle School, 600 South McCadden Place, Los Angeles, CA.* May 18, 2016.

construction activities would thus be less than significant. No further analysis of these impacts is required in the Draft EIR.

An important component of the SUP is to eliminate hazards associated with asbestos and lead-based paint in existing buildings to be demolished, as would be the case with the proposed Project. With respect to asbestos-containing materials (ACM), the PEIR provides a complete protocol for the handing of ACM, including required procedures whenever ACM would be disturbed, in compliance with federal and state regulations.

The federal Clean Air Act regulates asbestos as a hazardous air pollutant, which subjects it to regulation by the SCAQMD under its Rule 1403. OSHA also regulates asbestos as a potential worker safety hazard. The Asbestos-Containing Materials in Schools rule (Code of Federal Regulations [CFR] Title 40, Part 763) requires local education agencies to inspect school buildings for asbestos-containing building materials, prepare asbestos management plans, and perform asbestos response actions to prevent or reduce asbestos hazards. Compliance with asbestos regulations and requirements is the responsibility of the District's Facilities Environmental Technical Unit (FETU).

The Phase I ESA for the proposed Project indicated that based on the age of the existing buildings. it is possible that ACM are present in building materials.[63] All ACM must be removed by licensed asbestos abatement contractors or by trained and certified FETU personnel using specific handling procedures. In addition, construction contractors are required to comply with the requirements of the District's Standard Specification Section 13280, "Asbestos Abatement and Asbestos Related Disturbance" during any project where ACM may be disturbed. Compliance with federal and state regulations and the District guidelines and procedures would ensure the reduced risk of release of hazardous building materials into the environment. Therefore, impacts associated with the handling and disposal of ACM would be less than significant. No further analysis of these impacts is required in the Draft EIR.

The Phase I ESA for the proposed Project indicated that based on the age of the existing site buildings, it is possible that LBP has been applied to the exterior finishes of the buildings. Therefore, it is possible that LBP residue is present in soils around the perimeters of the existing and former buildings.[64] Specific procedures for handling building materials that may contain lead include, but are not limited to, lead abatement performed by contractors certified by the California Department of Public Health, review of assessment reports addressing the impact to lead-based materials, written approval by the District's environmental representative of the abatement work plan, and transportation of lead-related waste under a Uniform Hazardous Waste Manifest. In addition, construction contractors are required to comply with the requirements of the District's Standard Specification Section 13282, "Lead Abatement and Lead Related Construction Work" during any project where lead-containing materials may be disturbed. Compliance with federal and state regulations and the District guidelines and procedures would ensure that impacts associated with the handling and disposal of LBP would be less than significant. Long-term operation of the proposed Project would involve very little transport, storage, use, or disposal of hazardous materials and substances. LAUSD's OEHS developed and implemented

[63] WorleyParsons, 2016. *Phase I Environmental Site Assessment, John Burroughs Middle School, 600 South McCadden Place, Los Angeles, CA.* May 18, 2016.
[64] Ibid.

a Chemical Hygiene Plan to minimize employee and student exposure to hazardous chemicals in schools with laboratories. Site administrators are required to appoint a chemical safety coordinator to implement the Chemical Hygiene Plan and to assist the site administrator in complying with hazardous material management, conducting employee trainings, and established laboratory safety protocols. The types of hazardous materials associated with operation of a school would generally be limited to those associated with janitorial, maintenance, and repair activities, such as commercial cleansers, paints, aerosol cans, lubricants, and automotive supplies (by-products), etc. The amounts and use of these materials would be limited, and the transport, storage, use, and disposal of these materials would be subject to federal, state, and local health and safety requirements. Such requirements would be incorporated into the design and operation of the project, such as providing for and maintaining safety data sheets, appropriate storage areas for hazardous materials, and installing or affixing appropriate warning signs and labels. Therefore, the proposed Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. No further analysis of these impacts is required in the Draft EIR.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Potentially Significant Impact. A significant impact would occur if the proposed Project created a significant hazard to the public or environment due to a reasonably foreseeable release of hazardous materials. According to the Phase I ESA, electrical transformers, compressed gas cylinders, an idle emergency generator, and historical uses of gas fueling stations and one incinerator are or were present on site.[65] Therefore, there is the potential for various hazardous materials to be located in soils and building materials at the Project site and to cause a significant impact. Further site assessment is in progress and this issue will be further evaluated in the Draft EIR.

The Project site is located in an area designated by the City of Los Angeles Department of Building and Safety (LADBS) as a Methane Zone due to known deposits of petroleum tar and naturally-occurring oil field gases in the geologic formations in the site vicinity. Oil field gases are typically comprised of significant concentrations of methane, which is flammable and would represent a fire hazard if allowed to seep into an enclosed space. Oil field gases may also contain trace amounts of various sulfide compounds, including hydrogen sulfide, which though acutely toxic, is readily detectable at non-hazardous concentrations by its distinct 'rotten egg' odor. Although no incidents of noticeable oil field gas seepage have been reported in the immediate vicinity of the site, a fire due to gas seepage did occur in 1985 in the area of 3rd and Fairfax, approximately 1.5 miles west-northwest of the site. Conceivably gas seepage could occur at the site if geologic conditions were to change due to seismic activity or gas pathways were to open up as a result of construction activities in the vicinity of the site.

As a precautionary measure, all new buildings and paved areas planned at the site will incorporate provisions for gas mitigation equivalent to those set forth in the Los Angles Building Code, Division 71, and the Methane

[65] Ibid.

Mitigation Standards established by the LADBS. Implementation of appropriate gas mitigation measures will reduce the potential risk to students, staff, and visitors from oil field gas seepage. This topic will be evaluated further in the EIR.

The Draft EIR will analyze the potential for the release of hazardous materials and the risk of exposing persons to any hazardous materials. The Draft EIR will identify any potentially significant impacts associated with the proposed Project and recommend mitigation measures, as necessary.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Potentially Significant Impact. The proposed Project would be implemented on a school site surrounded by residential uses. Further, the Wilshire Private School is located across Wilshire Boulevard to the south of the Project site. The proposed Project would involve the excavation and removal of impacted soil. Dust control measures would be implemented during remedial activities to reduce the potential for fugitive dust and migration of contaminants in compliance with requirements contained in SCAQMD Rule 402. Removal of impacted soil would be completed in conformance with federal, state, and local hazardous waste/materials regulations, as well as with any applicable District standards. Compliance with regulatory requirements would ensure that the proposed Project would not result in hazardous emissions, materials or substances within 0.25 miles of an existing school. The Draft EIR will further analyze the potential for the release of hazardous materials and the risk of exposing persons to any hazardous materials. The Draft EIR will identify any potentially significant impacts associated with the proposed Project and recommend mitigation measures, as necessary.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

No Impact. Government Code Section 65962.5, amended in 1992, requires CalEPA to develop and update annually the Cortese List, which is a list of hazardous waste sites and other contaminated sites. While Government Code Section 65962.5 makes reference to the preparation of a list, many changes have occurred related to web-based information access since 1992, and information regarding the Cortese List is now compiled on the websites of DTSC, the State Water Board, and CalEPA. DTSC maintains the EnviroStor database, which includes sites on the Cortese List and also identifies potentially hazardous sites where cleanup actions (such as removal action) or extensive investigations are planned or have occurred. Review of the EnviroStor database showed that the Project site is not identified on any of the above database lists. According to both the EnviroStor[66] and GeoTracker[67] databases, there are no documented hazardous materials at the Project site. The proposed Project would not be located on a site that is included on a list of hazardous materials sites pursuant

[66] DTSC, 2017. EnviroStor Database. Available at: https://www.envirostor.dtsc.ca.gov/public/, accessed August 16, 2017.
[67] SWRCB, 2017. GeoTracker Map. Available at: https://geotracker.waterboards.ca.gov/, accessed August 16, 2017.

to Government Code Section 65962.5, and therefore no impact would occur. No further analysis will be included in the Draft EIR.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

No Impact. The nearest airport to the Project site is the Santa Monica Airport, located approximately 6.8 miles southwest of the Project site. The proposed Project is not located within the Santa Monica Land Use Plan Airport Influence Area. Therefore, the proposed Project would not create a safety hazard from proximity to a public airport. No impact would occur and this issue will not be discussed further in the Draft EIR.

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

No Impact. The Project site is not located within two miles of an operating airport. There are 54 private-use heliports within the City of Los Angeles.[68] The Project site does not include a private-use heliport. The nearest private heliport, the Beverly Center Heliport is located approximately 2.5 miles northwest of the Project site. Demolition and new construction at the existing school site would not create any new safety hazards associated with a private airstrip or heliport operations. Therefore, the proposed Project would not create a safety hazard from proximity to a private airstrip. No impact would occur, and this issue will not be further discussed in the Draft EIR.

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less than Significant Impact. The Project site is an existing school campus that would adhere to LAUSD's emergency response plans. During construction, emergency response procedures would be governed by the District's emergency response protocol and the contractor's emergency response plan. Construction of the proposed Project would involve the transport of equipment and materials on public roadways. Other than delivery of materials and supplies to the Project site and the hauling of debris and soil from the Project site, construction of the proposed Project would be confined within the campus boundaries.

Upon completion of the proposed Project, District-wide emergency response plans, policies, and guidance developed by LAUSD would be extended to the new facilities. In addition, LAUSD developed a district-wide Emergency Operations Plan (EOP) that assigns responsibilities and provides a framework for coordination of response and recovery efforts in the event of an emergency. District schools are also required to comply with California Code Sections 32281-32289, dealing with the preparation of Safe School Plans (SSPs), which must be reviewed and updated every year. As noted in the PEIR, the proposed Project would conform to local ordinances and would not interfere with an existing emergency response or evacuation plan(s); for the City of Los Angeles, these plans include but are not limited to: the City's Emergency Operations Master Plan, Local

[68] Airnav.com. 2017. Airports in Los Angeles. Available at: http://www.airnav.com/airports/get, accessed August 11, 2017.

Hazard Mitigation Plan, the Los Angeles County Operational Area Emergency Response Plan, and the County All-Hazards Mitigation Plan. All construction, modernization, and repair work would not impede emergency access into the surrounding community.

Public schools are considered critical community facilities and are often used as evacuation centers during disasters. Project construction would be completed in phases which would allow partial use of the campus in the event of an emergency. Implementation of the proposed Project includes seismic retrofits to the Administrative/Library/Auditorium Building, Gymnasium Building, and Classroom Building, which would benefit emergency response by making improvements that would comply with current seismic standards and constructing buildings that could be used as evacuation points in the event of a disaster. Therefore, impacts related to interference with adopted emergency evacuation and response plans would be less than significant, and this issue will not be discussed further in the Draft EIR.

h) Expose people or structures to a significant risk of loss, injury or death involving wild land fires, including where wild lands are adjacent to urbanized areas or where residences are intermixed with wild lands?

No Impact. The Project site is located within a highly urbanized area of the City and does not contain dense vegetation (flammable brush) considered to be wildlands. In addition, the Project site is not located within or adjacent to a California Department of Forestry and Fire (CalFire) Fire Hazard Severity Zone.[69] Therefore, the risk for wildland fire is low and implementation of the proposed Project would not expose people of structures to a significant risk involving wildland fires. No impact would occur, and this issue will not be further discussed in the Draft EIR.

i)Be located on a site that is (a) a current or former hazardous waste disposal site or solid waste disposal site and, if so, has the waste been removed; (b) a hazardous substance release site identified by the State Department of Health Services in a current list adopted pursuant to Section 25356 for removal or remedial action pursuant to Chapter 6.8 of Division 20 of the Health and Safety Code; or a site that contains one or more pipelines, situated underground or above ground, which carries hazardous substances, acutely hazardous materials or hazardous wastes, unless the pipeline is a natural gas line which is used only to supply natural gas to that school or neighborhood?

No Impact. The Project site has operated as a middle school campus since 1923. According to both EnviroStor[70] and GeoTracker[71] databases and the Phase I ESA, the Project site is not located on any documented current or former hazardous waste disposal site or solid waste disposal site. The proposed Project location is also not listed as a hazardous substance release site as identified by the State Department of Health Services in a current list adopted pursuant to Section 25356 for removal or remedial action pursuant to Chapter

[69] California Department of Forestry and Fire (CalFire). 2011. Very High Fire Hazard Severity Zones: Los Angeles.
[70] DTSC, 2017. EnviroStor Database. Available at: https://www.envirostor.dtsc.ca.gov/public/, accessed August 16, 2017.
[71] SWRCB, 2017. GeoTracker Map. Available at: https://geotracker.waterboards.ca.gov/, accessed August 16, 2017.

6.8 of Division 20 of the Health and Safety Code. Based on the National Pipeline Mapping System data, there are no pipelines near the Project site.[72] No impact is anticipated to occur as a result of the proposed Projectand this issue will not be further discussed in the Draft EIR.

j) Be located within one-fourth of a mile of any facilities which might be reasonably anticipated to emit hazardous or acutely hazardous substances or waste?

No Impact. According to the EnviroStor and GeoTracker databases and the Phase I ESA prepared for the Project site[73], the Project site is not located within 0.25 miles of a facility that might emit hazardous or acutely hazardous substances or waste. Therefore, no impact would occur and this issue will not be further discussed in the Draft EIR.

k) Be located on a site where the property line is less than the following distance from the edge of respective power line easements? 100 feet of a 50-133 kV line, 150 feet of a 220-230 kV line, or 350 feet of a 500-550 kV line.

No Impact. Pursuant to CCR, Title 5, Section 14010(c), the property line for a new school site shall not be the following minimum distances from the edge of a high-voltage power line easement: 100 feet for 50-133 kV lines; 150 feet for 220-230 kV lines; and 350 feet for 500-550 kV lines. No high-voltage power transmission lines are located within the vicinity of the campus. No 50-133 kV lines, 220-230 kV lines, or 500-550 kV lines were observed within 100, 150, or 350 feet of the campus.[74] The new facilities would be constructed within the existing campus and would not place any new buildings or structures closer to existing utility lines. No impact would occur and this issue will not be further discussed in the Draft EIR.

l) Be located on a site that is within 1,500 feet of a railroad track easement?

No Impact. The Los Angeles County Metro railroad tracks are located approximately 1.5 miles (over 8,000 feet) east of the Project site. Therefore, because the Project site is not located within 1,500 feet of a railroad track, no impact would occur, and this issue will not be further discussed in the Draft EIR.

m) Be located on a site that is adjacent to or near a major arterial roadway or freeway that may pose a safety hazard?

Potentially Significant Impact. The I-110 freeway is located approximately 2.5 miles northeast of the Project site, and the I-10 freeway is located approximately 1.9 miles south of the Project site. The campus frontage is located on South McCadden Place (a two-lane local street), Wilshire Boulevard, and West 6th Street (four-lane arterial roadways). There are sidewalks on each street adjacent to the Project site. The intersection of South McCadden and West 6th Street is signalized, with pedestrian crossing signals and crosswalk pavement markings.

[72] National Pipeline Mapping System (NPMS). NPMS Public Map Viewer. Available at https://www.npms.phmsa.dot.gov/default.aspx. Accessed August 11, 2017.
[73] WorleyParsons, 2016. *Phase I Environmental Site Assessment, John Burroughs Middle School, 600 South McCadden Place, Los Angeles, CA.* May 18, 2016.
[74] Ibid.

The proposed Project's location near these major arterial roadways may pose a safety hazard. Pedestrian safety impacts will be further discussed in the Draft EIR.

n, o) Be located on a site that is near a reservoir, water storage tanks, or high-pressure water pipelines? Be located within 1,500 feet of a pipeline that may pose a safety hazard.

Less Than Significant Impact. According to the Phase I ESA[75] conducted for the proposed Project, no infrastructure, including water storage tanks, high-pressure water lines, and/or hazardous pipelines are located near the Project site. Further, the nearest reservoir to the Project site is the Hollywood Reservoir, located approximately 3.6 miles north of the Project site. Therefore, impacts related to proximity to reservoirs, water storage tanks, high-pressure water pipelines and hazardous pipelines would be less than significant and this issue will not be further analyzed in the Draft EIR.

p) Be located on a site that contains, or is near, propane tanks that can pose a safety hazard?

Less than Significant Impact. No propane tanks are known to be present within the Project site. However, propane tanks could be located at residential properties to the north, east, south across Wilshire Boulevard and west of the Project site. Local regulations pertaining to the storage, transportation, and use of propane would require proper storage, transportation and use of propane tanks. Compliance with existing regulations would reduce the potential safety hazards to individuals on the Project site. Impacts would be less than significant and this issue will not be further analyzed in the Draft EIR.

q) Be located on a site that does not have a proportionate length to width ratio to accommodate the building layout, parking and playfields that cannot be safely supervised?

No Impact. The Project site is an existing school campus with adequate length-to-width ratio to accommodate the building layout, parking, and playfields that can be safely supervised. No impacts would occur, and this issue will not be further analyzed in the Draft EIR.

r) Be located on a site where the existing or proposed zoning of the surrounding properties is incompatible with schools and may pose a health or safety risk to students?

No Impact. The Project site is located within an existing school campus. The Project site is surrounded primarily by residential and commercial designations, which are not considered incompatible with schools. Because the campus is currently in operation and the proposed Project would not include any offsite modifications, the surrounding land uses would not generate or create any additional health or safety risks to students. No impacts would occur and this issue will not be further analyzed in the Draft EIR.

[75] Ibid.

4. Environmental Checklist

s) Be located on a site with a traffic pattern for school buses that can pose a safety hazard?

Potentially Significant Impact. The proposed Project would include newdriveways for bus ingress/egress along Wilshire Boulevard. Drop-off and pick-up pperational changes would occur onsite.. Potential impacts regarding unsafe traffic patterns could thus occur and will be further analyzed in the Draft EIR.

t) Be located on a site that is within 2,000 feet of a significant disposal of hazardous waste?

No Impact. The Project site is located within an existing operating school campus. Surrounding land uses include residential and commercial land uses. According to a search of DTSC Hazardous Waste and Substances Site (Cortese List), the Project site is not within 2,000 feet of a significant disposal of hazardous waste.[76] Therefore, no impact would occur, and this issue will not be analyzed further in the Draft EIR.

---

[76] DTSC, Hazardous Waste and Substances Site List (Cortese List), http://www.envirostor.dtsc.ca.gov/public/search.asp?cmd=search&reporttype=CORTESE&site_type=CSITES%2COPEN%2CFUDS%2CCLOSE&status=ACT%2CBKLG%2CCOM&reporttitle=HAZARDOUS%20WASTE%20AND%20SUBSTANCES%20SITE%20LIST, accessed August 11, 2017/

4.9 HYDROLOGY AND WATER QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. HYDROLOGY AND WATER QUALITY. Would the project result in:				
a. Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
b. Substantially deplete groundwater supplies or interfere with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned land uses for which permits have been granted)?	☐	☐	☒	☐
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in an manner which would result in flooding on- or off site?	☐	☐	☒	☐
e. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
f. Otherwise substantially degrade water quality?	☐	☐	☒	☐
g. Place housing within a 100-year flood plain as mapped on federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h. Place within a 100-year flood plain structures which would impede or redirect flood flows?	☐	☐	☐	☒
i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☒	☐
j. Inundation by seiche, tsunami, or mudflow?	☐	☐	☒	☐

4. Environmental Checklist

4.9.1 Discussion

The Program EIR includes SCs for minimizing impacts related to hydrology and water quality of the existing environment in areas where future projects would be implemented under the SUP. Applicable SCs related to hydrology and water quality impacts associated with the proposed Project are provided in **Table 3.9-1**.

TABLE 3.9-1
HYDROLOGY AND WATER QUALITY STANDARD CONDITIONS OF APPROVAL

Applicable SCs	Description
SC-HWQ-1	**Stormwater Technical Manual** This manual establishes design requirements and provides guidance for the cost-effective improvement of water quality in new and significantly redeveloped LAUSD school sites. These guidelines are intended to improve water quality and mitigate potential impacts to the Maximum Extent Practicable (MEP). While these guidelines meet current post-construction Standard Urban Stormwater Mitigation Plan (SUSMP) requirements. The guidelines address the mandated post-construction element of the NPDES program requirements.
SC-HWQ-2	**Compliance Checklist for Storm Water Requirements at Construction Sites.** This checklist has requirements for compliance with the General Construction Activity Permit and is used by OEHS to evaluate permit compliance. Requirements listed include a SWPPP; BMPs for minimizing storm water pollution to be specified in a SWPPP; and monitoring storm water discharges to ensure that sedimentation of downstream waters remains within regulatory limits.

4.9.2 Impact Analysis

Would the project:

a) Violate any water quality standards or waste discharge requirements?

Less than Significant Impact. The Project site is located within a dense urban area of the City of Los Angeles, and is currently connected to the City's network of stormwater drainage facilities, which ultimately convey surface water runoff to the Pacific Ocean. Construction of the proposed Project would include site grading. Sediment associated with earthmoving activities and exposed soil is the most common pollutant associated with construction sites. Other pollutants associated with construction include debris/trash and other materials generated during construction activities; hydrocarbons from leaks or spills of fuels, oils, and other fluids associated with construction equipment; and paints, concrete slurries, asphalt materials, and other hazardous materials. Stormwater and non-stormwater runoff could potentially carry these pollutants off site and into the City's drainage system. However, all earthwork activities would be completed in accordance with LAUSD standards and applicable regulations pertaining to stormwater runoff. The SUP PEIR requires all new SUP construction projects to comply with regulatory requirements if they would disturb greater than 1 acre, as would occur for the proposed Project. LAUSD would implement SC-HWQ-1 and SC-HWQ-2, which requires compliance with LAUSD's Stormwater Technical Manual and the District's General Construction Activity Permit. All new construction projects would be required to prepare and implement a sediment and erosion control plan that follow the BMPs outlined by the SWRCB to comply with a Construction General Permit, including development of a SWPPP, as a required by the RWQCB's NPDES The SWPPP would identify site-

specific BMPs to control erosion, sediment, and other potential construction-related pollutants, including, but not limited to, the following:

- Proper storage, use, and disposal of construction materials;
- Removal of sediment from surface runoff before it leaves the Project site by silt fences or other similar devices around the site perimeter;
- Protection of all storm drain inlets on site or downstream of the Project site to eliminate entry of sediment;
- Prevention of tracking soil off site through use of a gravel strip or wash facilities at exits from the Project site;
- Protection or stabilization of stockpiled soils.

LAUSD developed a program-wide SWPPP in 2005, with updates completed in 2007 and 2009. LAUSD's construction contracting protocol for new and existing sites that would undergo land disturbance provides BMPs designed to prevent or minimize stormwater pollution, including submission of a SWPPP.

Adherence to LAUSD standards and applicable regulations, compliance with the NPDES Construction General Permit, and preparation and implementation of a SWPPP prior to construction, would identify site-specific BMPs for erosion control, sediment, and other potential construction-related pollutants. The NPDES Construction General Permit and SWPPP would maintain water quality in accordance with the RWQCB standards, such that construction of the proposed Project would not violate any water quality standards or waste discharge requirements. Therefore, construction-related impacts to water quality would be less than significant. This issue will not be further discussed in the EIR.

b) Substantially deplete groundwater supplies or interfere with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned land uses for which permits have been granted)?

Less than Significant Impact. LADWP supplies water to the Project site. According to its Urban Water Management Plan (UWMP), LADWP's three main sources of water are the Los Angeles Aqueducts, local groundwater, and imported supplemental water purchased from the Metropolitan Water District of Southern California (MWD). In 2009/2010, the City relied on approximately 75,000 acre-feet of groundwater, meeting approximately 14 percent of the City's total annual demand.[77]

Although overall square footage of buildings would decrease and the new facilities would be more efficient, it is assumed that water demand would remain the same as the existing conditions due to landscaping and associated irrigation systems. Therefore, there would be no net deficit in aquifer volume or lowering of the groundwater table near the Project site as the proposed Project would result in water demand similar to existing conditions. SUP-related projects would not result any substantial changes in the quantity of groundwater

[77] LADWP. 2015. *Urban Water Management Plan.* April, 27, 2016.

supplies. Furthermore, no groundwater extraction activities would occur under the proposed Project, nor would any wells be constructed. The proposed Project would replace existing impervious surfaces with other impervious surfaces. Therefore, compliance with applicable laws, regulations, and LAUSD standards during project construction and operation would ensure impacts associated with groundwater supply and groundwater recharge would be less than significant. This issue will not be further discussed in the EIR.

c) Substantially alter the existing drainage pattern of area, including through the alteration of the course of a stream or river, in a manner, which would result in substantial erosion or siltation on or off-site?

Less than Significant Impact. Construction of the proposed Project would temporarily alter the localized drainage pattern at the Project site due to ground-disturbing activities, such as grading and excavation, construction of new building foundations, and trenching for utility improvements. Such alterations in the drainage pattern may temporarily result in erosion or siltation and/or increase the rate or amount of surface runoff if substantial drainage is rerouted. However, compliance with the NPDES Construction General Permit, which requires the development of a SWPPP, would minimize the potential for erosion or siltation and flooding through the implementation of BMPs. Therefore, impacts associated with substantial erosion or siltation and temporary drainage alterations during construction would be less than significant.

The Project site is located within a dense urban area within the City of Los Angeles with an existing network of stormwater drainage facilities, which ultimately convey surface water to the Pacific Ocean. Currently, the Project site is developed with buildings, landscaping, and paved parking areas. Implementation of the proposed Project would not significantly change surface drainage at the Project site, as similar uses would be constructed compared to existing uses.

The proposed Project would employ CHPS criteria, which are intended to avoid water quality impacts and velocity increases where possible. Implementation of the CHPS criteria and LAUSD standard BMPs requiring the collection of surface runoff in stormwater collection system designed for 25-year peak runoff rates, would reduce siltation or erosion impacts to a less-than-significant level. SUP projects, including the proposed Project, would employ features outlined in the LAUSD Technical Manual to reduce the impacts of erosion and siltation, including incorporation of CHPS standards and BMPs relating to the use of native and drought-tolerant landscaping.

Compliance with applicable laws, regulations, and LAUSD SC-HWQ-2 during project construction and operation would ensure that impacts associated with drainage, temporary drainage alterations and erosion are less than significant. This issue will not be further discussed in the EIR.

d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site?

Less than Significant Impact. As stated in Response IX (c) above, the proposed Project would not substantially alter the local drainage pattern. The proposed Project would use minimal water during construction and operation and would thereby not generate a large amount of runoff as a result of site activities. No stream or river traverses the Project site. BMPs discussed above would control drainage on site, thereby reducing its potential to cause flooding from occurring onsite or offsite. Therefore, flooding impacts resulting from drainage pattern alteration would be less than significant. This issue will not be further discussed in the EIR.

e) Create or contribute runoff water, which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Less than Significant Impact. Construction of the proposed Project would temporarily alter flow at the Project site due to ground-disturbing activities, such as grading and excavation, construction of new building foundations, and trenching for new utilities. However, compliance with the NPDES Construction General Permit, which requires development of a SWPPP, would minimize the potential for onsite and offsite flooding as the result of changes to the existing drainage patters through implementation of BMPs. Therefore, impacts associated with onsite and offsite flooding due to temporary drainage alterations during construction would be less than significant.

The Project vicinity is mostly developed with drainage flows over the street network into an urban drainage system that collects rain run-off in the Project vicinity. Rainwater enters gutters in the nearby roadway system and into the storm drain system. The Project would not alter the street networks in the Project vicinity nor their existing offsite drainage systems. The Project would include a new athletic field, which would be larger than the existing field, new landscaped areas, including the central courtyard and a landscaped buffer along McCadden Place, which would increase the amount of pervious surface area. In addition, in accordance with NPDES requirements, the proposed Project would be required to control the rate of surface runoff, and ensure that runoff would not exceed the capacity of the existing or planned stormwater drainage system on site. The proposed drainage system would reduce the overall expected runoff created by the new development. The proposed Project condition is expected to produce 16.892 cubic feet per second (cfs). The proposed Project would include LID compliance with a drainage system that would collect stormwater from area drains, roof drains and convey it to a storage tank. All the stormwater runoff would be treated by hydrodynamic separation unit that serves as a method of pre-treatment prior to be stored in the underground tank. The cleaned water would be stored and pumped out for irrigation purposes. Overflow would be discharged to the curb and gutter on the street via sidewalk culvert. Thus, no long-term runoff would be created that would exceed the capacity of the existing and planned stormwater drainage system and impacts would be less than significant. This issue will not be further discussed in the EIR.

4. Environmental Checklist

f) Otherwise substantially degrade water quality?

Less than Significant Impact. Refer to Response IX (a) above. Construction of the proposed Project would include site grading and excavation. Sediment associated with earthmoving activities and exposed soil is the most common pollutant associated with construction sites. Other pollutants associated with construction include debris/trash and other materials generated during construction activities. Stormwater and non-stormwater runoff could potentially carry these pollutants offsite and into the City's drainage system. However, all earthwork activities would be completed in accordance with LAUSD standards and applicable regulations pertaining to stormwater runoff, such as SC-HWQ-1, which requires compliance with LAUSD's Stormwater Technical Manual and LAUSD' General Construction Activity Permit. All new construction projects would be required to prepare and implement a sediment and erosion control plan that follow the BMPs outlined by the State Water Resources Control Board to comply with a Construction General Permit, including development of a SWPPP, as a required by the RWQCB NPDES. Adherence to LAUSD standards and applicable regulations, compliance with the NPDES Construction General Permit, and preparation and implementation of a SWPPP prior to construction, would identify site-specific BMPs for erosion control, sediment, and other potential construction-related pollutants. The NPDES Construction General Permit and SWPPP would maintain water quality in accordance with the RWQCB standards, such that construction of the proposed Project would not violate any water quality standards. Construction impacts with regard to water quality would be less than significant, and this issue will not be discussed further in the EIR.

g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

No Impact. No housing would be developed as part of the proposed Project. According to the project-specific geotechnical evaluation, the Project site is not located within a Federal Emergency Management Agency (FEMA) mapped flood hazard zone.[78] The Project site is located within Zone X, which is defined by FEMA as areas determined to be outside of the 0.2 percent annual chance flood plain. Therefore, the proposed Project would not result in placing structures in a 100-year flood hazard area. Thus, no impacts to housing from flooding would occur, and this issue will not be discussed further in the EIR.

[78] FEMA,2008. Flood Insurance Rate Map (FIRM) Los Angeles County, CA Panel 06037C of 1605F, http://fema.maps.arcgis.com/home/webmap/viewer.html?webmap=cbe088e7c8704464aa0fc34eb99e7f30&extent=-118.35691102661187,34.05765775515707,118.31536897338812,34.069389850579796, accessed August 11, 2017.

h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

No Impact. As discussed in the Response IX (g) above, the proposed Project is not located within a Federal Emergency Management Agency (FEMA) mapped flood hazard zone. The Project site is located within Zone X, which is defined by FEMA as areas determined to be outside of the 0.2 percent annual chance flood plain. Therefore, the proposed Project would not result in placing structures within 100-year flood hazard areas that would impede or redirect flood flows. Thus, no impacts to structures from flooding would occur and this issue will not be discussed further in the EIR.

i)Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

Less than Significant Impact. Earthquake-induced flooding is inundation caused by failure of old dams or other water-retaining structures due to earthquakes. According to the project-specific geotechnical evaluation, the site is located within a potential inundation area for an earthquake-induced dam failure from the Hollywood Reservoir, which is located approximately 3.5 miles to the north.[79] However, this dam, as well as others in California, is continually monitored by various governmental agencies (such as the State of California Division of Safety of Dams and the U.S. Army Corps of Engineers) to guard against the threat of dam failure. Therefore, the potential for inundation at the site as a result of an earthquake-induced dam failure is considered low. Potential impacts related to flooding, including failure of a levee or dam, would be less than significant. This issue will not be further discussed in the EIR.

j) Inundation by seiche, tsunami, or mudflow?

Less than Significant Impact. Seiches are seismically or wind induced tidal phenomena that occur in enclosed bodies of water. The Project site is not located adjacent to or near a standing body of water. The nearest body of water is the Hollywood Reservoir, which is located approximately 3.5 miles north of the Project site. Due to its distance from the reservoir, the proposed Project is not expected to expose people or structures to a significant risk of loss, injury, or death involving inundation by seiche. Therefore, less than significant impacts from inundation by seiche would occur.

A tsunami is a sea wave of local or distant origin that results from large-scale seafloor displacements associated with earthquakes, major submarine landslides, or exploding volcanic islands. Tsunamis generally affect coastal communities and low-lying river valleys. According to the Project-specific geotechnical evaluation, the Project site is located 10 miles east of the Pacific Ocean and is not within a tsunami inundation zone.[80] No impact would occur.

[79] Amec Foster Wheeler, 2015. Report of Preliminary Geotechnical Investigation Proposed Modernization, John Burroughs Middle School, 600 South McCadden Place, Los Angeles, California. August 10, 2015.
[80] Ibid.

4. Environmental Checklist

Mudflows occur on steep slopes where vegetation is not sufficient to prevent rapid erosion, or on gentle slopes if other conditions are met such as large sudden rainfall events. Mudflows contain large amounts of water, silt, sand, boulders, organic material, and other debris. The Project site and immediate surrounding area are relatively flat and do not contain major hills or steep slopes. Therefore, the Project site is not at risk for mudflows. No impact from tsunamis and mudflows would occur. Further, inundation involving a seiche from the Hollywood Reservoir is not expected. Impacts would be less than significant and this issue will not be further discussed in the EIR.

4.10 LAND USE AND PLANNING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
X. LAND USE AND PLANNING. Would the project:				
a. Physically divide an established community?	☐	☐	☐	☒
b. Conflict with applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

4.10.1 Discussion

Projects implemented under the SUP are anticipated to have less than significant impacts to land use and planning within the LAUSD service area. The project-specific analysis provided below determined that implementation of the proposed Project would have no impacts to land use and planning in the project area.

4.10.2 Impact Analysis

Would the project:

a) Physically divide an established community?

No Impact. The proposed Project does not include any action that could divide an established community. The physical division of an established community generally refers to the construction of a feature such as an interstate highway or railroad tracks, or removal of a means of access, such as a local road or bridge that would impact mobility within an existing community or between a community and outlying area. The proposed Project lies entirely on an existing campus within an established LAUSD school boundary. The project area is designated as public facilities and would not result in any zoning changes or changes in usage.[81] Because the proposed Project would be constructed on an established school campus, no physical division of an established community would occur. No further analysis in the EIR is required.

[81] City of Los Angeles. ZIMAS, Planning and Zoning Map. Available at: http://zimas.lacity.org/, accessed August 11, 2017.

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

No Impact. As described in the Program EIR, the proposed Project would be consistent with the Regional Transportation Plan/Sustainable Communities Strategy. The proposed Project's consistency with the SCAQMD's air quality management plan will be assessed in the Air Quality section of the Draft EIR.

Further, the California legislature granted school districts the power to exempt school property from local zoning requirements, provided the school district complies with the terms of Government Code Section 53094. As lead agency for the proposed Project, LAUSD will comply with Government Code Section 53094 to render the local City of Los Angeles Zoning Ordinance inapplicable to the proposed Project. Following a two-thirds vote of the Board of Education, LAUSD can exempt a school site from such local zoning requirements. Within 10 days of the action, the Board must provide the City of Los Angeles with notice of this action.

Even if it were not exempt, the City of Los Angeles General Plan use designation for the Project site is "Public Facilities". The City of Los Angeles Municipal Code Zoning Plan has designated the proposed Project as "PF: Public Facilities," a zone for the use and development of publicly owned land, including public elementary and secondary schools. Therefore, the proposed Project would be consistent with all applicable land use plans.[82] No impacts would occur and this issue will not be further analyzed in the EIR.

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

No Impact. No habitat reserves established under the Natural Communities Conservation Plan/Habitat Conservation Plan (NCCP/HCP) are located within the District, and no other habitat conservation plans are in the District. Therefore, the Project site would not be located in or conflict with a HCP/NCCP and no impacts would occur. This issue will not be discussed further in the EIR.

---

[82] American Legal Publishing Corporation. City of Los Angeles Zoning Code, Section 12.04.09, PF Public Facilities Zone. Available at : http://library.amlegal.com/nxt/gateway.dll?f=templates&fn=default.htm&vid=amlegal:la_all_mc, accessed August 11, 2017.

4.11 MINERAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. MINERAL RESOURCES. Would the project:				
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒

4.11.1 Discussion

Projects implemented under the SUP are anticipated to have less than significant impacts to mineral resources within the LAUSD service area. The project-specific analysis provided below determined that implementation of the proposed Project would have no impacts to mineral resources in the project area.

4.11.2 Impact Analysis

Would the project:

a) and b) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

No Impact. There are no known mineral resources within the Project site, and no known operational mineral resource recovery sites at the Project site or in the vicinity.[83] The proposed Project is located on an existing school campus. Further, the surrounding area has been developed with residential and commercial uses. The proposed Project is zoned as PF and the nearest mineral resources recovery site is more than 4.5 miles east of the campus.[84] The proposed Project would not result in any impacts to mineral resources since it would not result in the loss of identified mineral resources that would be of value to the region or the state. Therefore, no impacts related to mineral resources would occur and no further analysis will be provided in the EIR.

---

[83] CGS, 1994.Update of Mineral Land Classification of Portland Cement Concrete Aggregate in Ventura, Los Angeles, and Orange Counties, CA, Part II..Available at: ftp://ftp.consrv.ca.gov/pub/dmg/pubs/ofr/OFR_94-14/OFR_94-14_Text.pdf , accessed August 11, 2017.

[84] City of Los Angeles, 2002. General Plan, Conservation Element. Available at : https://planning.lacity.org/cwd/gnlpln/consvelt.pdf, accessed August 11, 2017..

4.12 NOISE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. NOISE. Would the project result in:				
a. Exposure of persons to or generation of noise in level in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☒	☐	☐	☐
b. Exposure of people to or generation of excessive groundborne vibration or groundborne noise levels?	☒	☐	☐	☐
c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☒	☐	☐	☐
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☒	☐	☐	☐
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

4.12.1 Impact Analysis

Would the project:

a) Result in exposure of persons to or generation of noise in level in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Potentially Significant Impact. Construction and operational activities associated with the project development have the potential to create noise impacts that may adversely affect surrounding residential and commercial uses. Noise levels from mobile and stationary sources may increase where construction of new buildings and other facilities are proposed Therefore, it is recommended that relevant noise standards and temporary and periodic noise levels associated with project construction be further evaluated within the Draft EIR.

b) Exposure of people to generation or excessive groundborne vibration or groundborne noise levels?

Potentially Significant Impact. Groundborne vibration and groundborne noise could occur during the construction phase of the proposed Project. Therefore, it is recommended that relevant vibration standards and temporary and vibration levels which could occur during construction and operation of the project be further evaluated within the Draft EIR.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Potentially Significant Impact. Implementation of the proposed Project has the potential to create stationary and mobile noise impacts that could adversely affect surrounding residential uses. These increases will occur as development occurs within the project area. The Draft EIR will evaluate potential long-term noise impacts associated with the proposed Project.

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Potentially Significant Impact. Construction activities associated with the proposed Project have the potential to create temporary increases in noise levels. The EIR will evaluate potential construction noise impacts associated with the proposed Project.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The nearest airport to the project area is the Santa Monica Airport, located approximately 6.8 miles southwest of Burroughs MS. The proposed Project is not located within an airport land use plan or within 2 miles of a public airport or public use airport. No impact would occur, and this issue will not be further discussed in the Draft EIR.

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The project area is not located within the vicinity of a private airstrip. No impacts would occur, and this issue will not be further discussed in the Draft EIR.

4. Environmental Checklist

4.13 PEDESTRIAN SAFETY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. PEDESTRIAN SAFETY. Would the project:				
a. Substantially increase vehicular and/or pedestrian safety hazards due to a design feature or incompatible uses?	☒	☐	☐	☐
b. Create unsafe routes to schools for students walking from local neighborhoods?	☒	☐	☐	☐
c. Be located on a site that is adjacent to or near a major arterial roadway or freeway that may pose a safety hazard?	☒	☐	☐	☐

4.13.1 Impact Analysis

Would the project:

a) - b) Substantially increase vehicular and/or pedestrian safety hazards due to a design feature or incompatible uses?

Potentially Significant Impact. The proposed Project would use the existing network of regional and local roadways that serve the project area. The Project area is mainly a residential community with various commercial properties. New vehicular/bus ingress/egress driveways will be located along Wilshire Boulevard. The bus driveway would allow for drop-off and pick-up. The vehicular ingress/egress points would only allow for parking rather than drop-off and pick-up. Project-related impacts to vehicle and pedestrian safety will be analyzed further in the Draft EIR.

c) Be located on a site that is adjacent to or near a major arterial roadway or freeway that may pose a safety hazard?

Potentially Significant Impact. The proposed Project would be implemented at an existing school site, which is bound by Wilshire Boulevard., South McCadden, and West 6th Street. The proximity of Wilshire Boulevard and West 6th Street, each of which is a 4-lane roadway, could pose a safety hazard to students and staff accessing the Project site. A project-specific traffic / pedestrian safety study that includes analysis of existing roadway hazards will be prepared for the proposed Project. This topic will be analyzed further in the Draft EIR.

4.14 POPULATIONS AND HOUSING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. POPULATION AND HOUSING. Would the project:				
a. Induce substantial population growth in an area either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b. Displace substantial numbers of existing housing necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c. Displace substantial numbers of people necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

4.14.1 Impact Analysis

a)- c) No Impact. The proposed Project site is currently an operational middle school serving students in grades 6 through 8. The proposed Project would not be designed or intended to increase the student population; rather, the proposed Project is intended to provide the appropriate facilities within the current capacity. No direct or indirect population growth in the area is anticipated. There are no residents on the Project site, and the proposed Project would not result in population or housing displacement of the surrounding community. Students that are displaced by classroom demolition during construction would be relocated/housed in temporary onsite (interim relocatable) classrooms while the new facilities are being constructed. Therefore, no impacts related to population and housing would occur. This issue will not be further discussed in the EIR.

4. Environmental Checklist

4.15 PUBLIC SERVICES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. PUBLIC SERVICES. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
a. Fire protection?	☐	☐	☒	☐
b. Police protection?	☐	☐	☒	☐
c. Schools?	☐	☐	☒	☐
d. Parks?	☐	☐	☐	☒
e. Other public facilities?	☐	☐	☐	☒

4.15.1 Impact Analysis

XV. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

a) Fire protection?

Less than Significant Impact. Fire protection services would be provided by the LAFD. Fire Station 61, located 0.65 mile from the Project site at 5821 West 3rd Street Los Angeles, CA 90036, which would be the primary responder.[85]

Construction of the proposed Project may result in a temporary increase in demand for fire protection and emergency medical services. However, the proposed Project would not result in an increase in student capacity at Burroughs MS. Implementation of the proposed Project would not generate increased demand for fire protection and emergency services due to a significant increase in people on the campus. Response times would not be affected by the proposed Project because LAFD is already serving the Project site. The proposed Project would not generate the need for a new fire station, as the project is growth accommodating, not growth inducing, since it would accommodate existing and expected students that already reside within the enrollment boundaries of the school. In addition, the

[85] LAFD, Official Website, Station Finder. Available at: http://www.lafd.org/fire-stations/station-results?st=581&address=600%20south%20mccadden%20place, accessed August 11, 2017.

project would be required to comply with LAFD and City of Los Angeles Department of Building and Safety regulations for water availability, fire hydrant pressure, and accessibility for firefighting equipment. Compliance with applicable state, City and District requirements, including installation of fire sprinklers, fire alarm devices, emergency access, and evacuation procedures, would also ensure that impacts to fire protection services would remain less than significant. Therefore, no new or expanded fire protection services or facilities would be required, and impacts related to fire protection would be less than significant. This issue will not be further discussed in the EIR.

b) Police protection?

Less than Significant Impact. LAUSD operates its own police department, the Los Angeles School Police Department (LASPD), which provides security for the schools and centers within its jurisdiction. The Project site lies within the West Division of the LASPD. The City of Los Angeles Police Department (LAPD) would be the secondary provider of police protection within the proposed Project area. The Wilshire Community Police Station located at 4861 Venice Boulevard. in Los Angeles, approximately 1.1 miles from the Project site, would supplement police projection along with the LASPD.[86]

Demand for police protection is generally created by an increase in the population within a service area. The proposed Project would not increase student capacity at Burroughs MS. Implementation of the proposed Project would not generate increased demand for police services, because the project is growth accommodating, not growth inducing, since it would accommodate existing and expected students that already reside within the enrollment boundaries of the school. During construction, the proposed Project has the potential to result in temporary demand for police services during construction from possible trespass, theft, or vandalism. However, the construction areas would be fenced and would remain secured during non-work hours. Any increase in police demand would be temporary and would not require construction of new or expanded police facilities. Further, the project would comply with LAUSD standards regarding emergency response procedures and school safety, as required. Therefore, the proposed Project would not result in an increase of student capacity nor would it result in new operations requiring additional police protection. This issue will not be further discussed in the EIR.

c) Schools?

Less than Significant Impact. The proposed Project would not increase the student population nor would it displace the current student population to offsite locations. Students temporarily displaced by construction activities would be placed in interim classrooms onsite. No other LAUSD campuses or

[86] LAPD, official website, http://www.lapdonline.org/wilshire_community_police_station, accessed August 11, 2017.
LASPD, official website, http://www.laspd.com/about.html, accessed August 11, 2017..
LAUSD, official website, *http://achieve.lausd.net/Page/2649*, accessed August 11, 2017.

facilities outside of Burroughs MS would be impacted by the proposed Project. Therefore, impacts would be less than significant and this issue will not be discussed further in the Draft EIR.

d) Parks?

No Impact. The proposed Project would not interfere with or have adverse impacts related to parks. The proposed Project would not involve new housing or long-term employment opportunities that would increase the population or lead to an increase in the need for new or altered parks. The proposed Project would enhance the existing recreational facilities in the area. The recreational facilities on the campus are available to the community for use pursuant to the Civic Center Act (CA Ed. Code Sections 38130 – 38139). No park-related impacts would occur and no further analysis in the Draft EIR is required.

e) Other public facilities?

No Impact. The proposed Project would not result in substantial adverse impacts associated with the need for new or physically altered public facilities and/or services. The project would not involve the construction of homes or result in an increase in population. The surrounding residential area would not be affected by the proposed Project, and therefore, no impact would occur. This issue will not be further discussed in the Draft EIR.

4.16 RECREATION

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. RECREATION.				
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☒	☐

4.16.1 Impact Analysis

Would the project:

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

No Impact. The proposed Project would include active and passive areas located throughout the project site, including play fields, a courtyard, and several other landscaped areas. As a result, the recreational facilities in the area would be enhanced by providing improved recreational spaces that would be accessible to the community. The proposed Project would not increase the number of students enrolled at the campus and is not growth inducing. Therefore, the project would not increase the use of regional facilities such that substantial physical deterioration of the facility would occur. No impacts would occur, and this issue will not be further discussed in the EIR.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?

Less than Significant Impact. The proposed Project includes recreational facilities; however, it would not require the construction or expansion of recreational facilities outside existing LAUSD-owned property. The proposed Project would include upgrades to athletic facilities on the Burroughs MS campus, which would be accessible to the community and would therefore be an enhancement of recreational facilities available to the community. Potential environmental impacts associated with the proposed Project (which includes improvements to the recreational facilities) are analyzed in this IS and the forthcoming EIR. No significant adverse physical effect on the environment is expected as a result of the proposed Project. Therefore, environmental impacts related to community recreational facilities would be less than significant.

4.17 TRANSPORTATION AND CIRCULATION

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. TRANSPORTATION & CIRCULATION. Would the project:				
a. Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☒	☐	☐	☐
b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☒
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d. Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☒	☐	☐	☐
e. Result in inadequate emergency access?	☒	☐	☐	☐
f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☒	☐	☐	☐

4.17.1 Impact Analysis

Would the project:

a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

Potentially Significant Impact. Project implementation would not increase the number of students attending the school or staff required to operate the school, and therefore would not generate new (permanent) traffic to the study area. Project-related construction activities would temporarily increase vehicle trips throughout the

project area and on surrounding roadways. A project-specific traffic/pedestrian safety study will be prepared for the proposed Project, and the methodology, findings, and conclusions of the analysis (including consultation with / input from the Los Angeles Department of Transportation) will be provided in the EIR.

b) Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

No Impact. Level of service standards established by jurisdictions/agencies are intended to regulate long-term (permanent) traffic increases associated with new development and do not apply to short-term (temporary) traffic increases that occur during construction. Potential impacts associated with the proposed Project would be limited to construction activity; i.e., increased vehicle trips generated by the project would cease when construction is completed. Project implementation would not result in any long-term ongoing effects related to traffic and congestion. No impacts would occur, and this issue will not be further discussed in the EIR.

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location, that results in substantial safety risks?

No Impact. The nearest airport (Santa Monica Airport) is located approximately 6.8 miles southwest from the Project site. Project construction would not change air traffic patterns. In addition, the proposed Project would not involve the installation of structures that could interfere with air space. No impact would occur, and this issue will not be further discussed in the EIR.

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Potentially Significant Impact. The proposed Project would use the existing network of regional and local roadways that serve the project area. In addition, vehicular drop-off and pickup zones would be located in the curb lane adjacent to the campus on South McCadden Place, and new vehicular/bus ingress/egress driveways would be located along Wilshire Boulevard. The bus driveway would allow for drop-off and pick-up. The vehicular ingress/egress points would only allow for parking rather than drop-off and pick-up. While the student drop-off and pickup operations have been planned to minimize vehicular queuing in traffic lanes on the local street system (and to reduce queuing that currently occurs), the design could cause a permanent alteration to the local vehicular circulation patterns. Traffic generated during construction activity would be compatible with the mix of vehicle types (autos and trucks) currently using regional and local roadways. Analysis of potential increased traffic safety hazards will be analyzed in the Draft EIR.

e) Result in inadequate emergency access?

Potentially Significant Impact. The roadway network serving the Project site currently accommodates the movements of emergency vehicles that travel in the area. The proposed Project is not anticipated to interfere with local emergency response. However, implementation of the proposed Project would result in the construction of buildings that may require additional trucks and other vehicles to access the project area. As

such, the potential exists for construction truck traffic to impede adequate emergency access along adjacent roadways. These potential impacts will be analyzed further in the Draft EIR.

f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

Potentially Significant Impact. The Project site vicinity is served by the County of Los Angeles Metropolitan Transit Authority (Metro), with a bus stop for Route 20 located on Wilshire Boulevard at South McCadden Place. In general, adopted policies, plans, and programs pertaining to public transit, bicycle, and pedestrian travel are intended to be used for long-term planning purposes and do not apply to construction activities. Project implementation would not directly or indirectly eliminate alternative modes of transportation, transportation corridors, or facilities. Further, the proposed Project would not prevent the use of any roads on which public transit routes operate (e.g., the existing Route 20 and a proposed Commuter Bus Lane on Wilshire Boulevard). There would be no increase in the number of students attending the school or staff required to operate the school, and therefore there would not be any new (permanent) traffic generated on roads used as public transit routes. Project-related construction activities, however, would temporarily increase vehicle trips throughout the project area and on surrounding roadways, which could affect the performance or safety of alternative modes of travel. Impacts related to alternative transportation will be analyzed further in the EIR.

4.18 TRIBAL CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. TRIBAL CULTURAL RESOURCES. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code §21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code §5020.1(k), or	☐	☐	☐	☒
b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code §5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code §5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☐	☒

4.18.1 Discussion

The SUP PEIR includes SCs for minimizing impacts related to tribal cultural resources within the existing environment in areas where future projects would be implemented under the SUP. Applicable SCs related to tribal cultural resources impacts associated with the proposed Project are provided in **Table 3.18-1**.

TABLE 3.18-1
TRIBAL CULTURAL RESOURCES STANDARD CONDITIONS OF APPROVAL

Applicable SCs	Description
SC-TCR-1	All work shall stop within a 30-foot radius of the discovery. Work shall not continue until the discovery has been evaluated by a qualified archaeologist and the local Native American representative has been contacted and consulted to assist in the accurate recordation and recovery of the resources.

4.18.2 Impact Analysis

Would the project:

Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code §21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code §5020.1(k)

No Impact. To date the District has not received any tribal requests to be notified about projects in the District. However, in the unlikely event that construction-related ground disturbance results in the discovery of potential resources, SC-TCR-1 would be implemented to avoid potential impacts to Tribal resources. Therefore, the proposed Project would have no impact on Tribal cultural resources as defined in Public Resources Code Section 21074. This impact will not be further discussed in the Draft EIR.

b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code §5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code §5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

No Impact. To date, LAUSD has not received any requests for notification or consultation from California Native American Tribes regarding resources defined by Public Resources Code Section 21074. No Tribal cultural resources were identified in the Project site and there is no substantial evidence that Tribal cultural resources have the likelihood of being discovered on the campus. Therefore, the proposed Project would have no impact on Tribal cultural resources as defined in Public Resources Code Section 21074.

4.19 UTILITIES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIX. UTILITIES. Would the project:				
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☒	☐
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
c. Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
d. Have sufficient water supplies available to serve the project from existing entitlements and resource, or are new or expanded entitlements needed?	☐	☐	☒	☐
e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g. Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐

4.19.1 Discussion

The Program EIR includes SCs for minimizing impacts to utilities and service system in the existing environment in areas where future projects would be implemented under the SUP. Applicable SCs related to project-specific impacts to utilities and service systems associated with the proposed Project are provided in **Table 3.19-1**.

Table 3.19-1
Utilities and Service Systems Standard Conditions of Approval

Applicable SCs	Description
SC-USS-1	**School Design Guide.** Construction and demolition waste shall be recycled to the maximum extent feasible. LAUSD has established a minimum non-hazardous construction and demolition debris recycling requirement of 75% by weight as defined in Specification 01340, Construction & Demolition Waste Management. **Guide Specifications 2004 - Section 01340, Construction & Demolition Waste Management.** This section of the LAUSD Specifications includes procedures for preparation and implementation, including reporting and documentation, of a Waste Management Plan for reusing, recycling, salvage or disposal of non-hazardous waste materials generated during demolition and/or new construction (Construction & Demolition (C&D) Waste), to foster material recovery and re-use and to minimize disposal in landfills. Requires the collection and separation of all C&D waste materials generated onsite, reuse or recycling onsite, transportation to approved recyclers or reuse organizations, or transportation to legally designated landfills, for the purpose of recycling salvaging and/or reusing a minimum of 75% of the C&D waste generated.
SC-USS-2	LAUSD shall coordinate with the City of Los Angeles Department of Water and Power or other appropriate jurisdiction and department prior to the relocation or upgrade of any water facilities to reduce the potential for disruptions in service.

4.19.2 Impact Analysis

Would the project:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

Less than Significant Impact. The LADWP provides wastewater services for the Project site. The Project site is located within the Hyperion Treatment System, which includes the Hyperion Treatment Plant (HTP). The HTP is designed to treat 450 million gallons per day (mgd), but it experiences a lower average dry-weather water flow, resulting in available treatment capacity.[87]

Construction of the proposed Project would generate a minimal volume of wastewater and would nominally increase wastewater generation. Implementation and operation of the proposed Project would not change the existing uses or introduce new uses that would exceed the wastewater treatment requirements of the Los Angeles RWQCB. As discussed previously in Section 3.9, *Hydrology and Water Quality*, the proposed Project would be required to prepare a SWPPP outlining the BMPs to be implemented to avoid or minimize runoff discharges. The SWPPP would include erosion control BMPs to control and minimize erosion and sedimentation discharged from the Project site. Additionally, any wastewater discharge from the proposed Project site would be required to comply with the NPDES permit requirements. Therefore, compliance with

[87] LACSD. Hyperion Water Reclamation Plant. Available at : https://www.lacitysan.org/san/faces/home/portal/s-lsh-wwd/s-lsh-wwd-cw/s-lsh-wwd-cw-p/s-lsh-wwd-cw-p-hwrp?_afrLoop=12007486421795403&_afrWindowMode=0&_afrWindowId=null#!%40%40%3F_afrWindowId%3Dnull%26_afrLoop%3D12007486421795403%26_afrWindowMode%3D0%26_adf.ctrl-state%3Duriakjnp6_243, accessed August 11, 2017.

these existing regulations would ensure impacts related to wastewater treatment requirements would be less than significant. This impact will not be further discussed in the Draft EIR.

b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental impacts?

Less than Significant Impact. The proposed Project would be constructed in two 18-month phases, with construction work anticipated to begin in 2020 and be completed by 2023. The proposed Project is estimated to require on average approximately 150 construction personnel per day for the heaviest period of construction. During construction, water would be required for activities such as dust control; however, these activities would be limited and temporary and would not consume large amounts of water. While wastewater at the Project site would be primarily generated by construction activities and construction workers, due to the temporary nature of the construction activities and the minimal number of construction workers, the amount of construction-related wastewater that would be generated is not expected to be substantial. Therefore, impacts associated with project construction would be less than significant. This impact will not be further discussed in the Draft EIR.

The proposed Project would not result in increased enrollment or capacity. Therefore, implementation of the proposed Project would not increase total water consumption within the District, and would not require construction of new or expanded water treatment facilities. Impacts related to project operation would be less than significant and will not be further discussed in the Draft EIR.

c) Require or result in the construction of new stormwater drainage facilities, or expansion of existing facilities, the construction of which could cause significant environmental effects?

Less than Significant Impact. As discussed previously in Section 3.9, *Hydrology and Water Quality*, construction of the proposed Project would require implementation of a SWPPP, which would outline construction BMPs for site drainage and implement an appropriate combination of monitoring and resource impact avoidance. Operation of the proposed Project would decrease imperviousness on the Project site when compared to the existing condition. As discussed in 3.9, *Hydrology and Water Quality*, the post-development drainage areas would still drain to the same storm drain system. However, the Project would include a system that serves as a method of pretreatment for the collected site runoff. Implementation of the Project would treat and reduce the amount of water that is currently flowing across the Project site and into the nearby storm water drainage system. The Project design features would comply with all applicable regulatory requirements. Further, the project would not alter drainage patterns. The proposed Project would not require or result in construction or expansion of stormwater drainage facilities offsite. The proposed Project site is located in a developed area of the City of Los Angeles, which contains an existing stormwater collection and conveyance system. The Project site is an existing school campus, and the proposed Project would include PDFs that would increase the pervious surfaces and landscaping features that would reduce stormwater runoff from the Project site. Compliance with NPDES permit requirements, applicable laws, regulations, and standard PDFs and practices during construction and operation would ensure that impacts associated with runoff would not exceed the capacities of existing stormwater drainage systems. Incorporation of LAUSD SC-USS-1 and SC-USS-2 would ensure that

impacts would be less than significant. Therefore, the proposed Project would not require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, and impacts would be less than significant. No further analysis of these impacts will be included in the EIR.

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

Less than Significant Impact. Construction of the proposed Project would require water use for construction activities, such as dust control measures. However, these activities would be limited and temporary and thus would not consume large quantities of water such that additional supplies would be required. Therefore, short-term impacts associated with requiring additional water supply would be less than significant. These impacts will not be further discussed in the Draft EIR.

Although overall square footage of buildings would increase and efficiencies may reduce the amount of water used in the building, it is assumed that water demand would remain the same as the existing conditions due to the addition of landscaped areas and associated irrigation systems. Therefore, the demand for non/potable water supply would be accommodated by existing supplies. Therefore, the long-term impact to non/potable water supply would be less than significant. No further analysis will be included in the EIR.

e) Result in a determination by the wastewater treatment provider that would serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Less than Significant Impact. During construction of the proposed Project, wastewater at the Project site would be primarily generated by construction activities and construction workers. However, due to the temporary nature of the construction activities and the limited number of construction workers, the amount of construction-related wastewater that would be generated is not expected to be substantial. Therefore, short-term impacts associated with wastewater treatment would be less than significant. No further analysis will be included in the EIR.

Although overall square footage of permanent buildings would increase, it is assumed that wastewater treatment demand would remain the same as existing conditions. The proposed Project would not increase student capacity. Therefore, demand for wastewater treatment would be accommodated by existing capacities. Therefore, the long-term impact to wastewater treatment capacity would be less than significant. No further analysis will be included in the EIR.

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Less than Significant Impact. Excavated soil would be either directly loaded into staged trucks or temporarily stockpiled on plastic liners next to the excavation areas until it could be loaded out for offsite disposal. The soil would then be transported offsite to an appropriate licensed facility for disposal, based on previous waste profile characterization results.

The excavated soil would be segregated and managed as non-hazardous, non-RCRA hazardous, or RCRA hazardous waste.

Non-hazardous soils would be transported to an approved Class 3 landfill for disposal or use as daily cover. Non-RCRA and RCRA hazardous soils would be transported to a licensed and properly permitted Class 1 disposal facility or an out-of-state facility permitted to accept hazardous waste. The Class 1 disposal facility that accepts the RCRA hazardous soil may require that the soil be treated prior to disposal pursuant to the land ban restrictions found at Title 40, CCR, Part 376.

All non-RCRA hazardous or RCRA hazardous wastes would be disposed of at a California Class I land disposal facility or an out-of-state landfill permitted to accept such wastes. The waste management facilities listed below may be selected for this Project:

- Kettleman Hills Facility, 35251 Old Skyline Road, Kettleman, California 93239, Phone: (559) 386-9711
- Clean Harbors Buttonwillow, LLC, 2500 West Lokern Road, Buttonwillow, California, 93206, Phone: (661) 762-6200

The Kettleman Hills Facility has a remaining capacity of 500,000 cy[88] and the Clean Harbors Buttonwillow Facility has a remaining capacity of 4,900,000 cy.[89] The total combined permitted remaining capacities for Class I land disposal facilities is more than 5,000,000 cy. The disposal of up to 160 cy of soil would represent less than 1 percent of the combined permitted remaining capacities, and the Project would not exceed or significantly reduce the available landfill capacities.

Prior to project construction, demolition of buildings would occur, totaling approximately 52,000 square feet. Demolition of 52,000 square feet would generate up to 2,000 tons of debris. The Project site is served by the Los Angeles County Sanitation District (LACSD), which includes sanitary landfills, recycle centers, materials recovery/transfer facilities, and energy recovery facilities. The nearest such facility, the Puente Hills Materials Recovery Facility (MRF) accepts construction/demolition waste. The Puente Hills MRF is permitted to receive up to 4,400 tons per day and accepts on average approximately 2,760 tons per day.[90]The proposed Project would generate less than 3,000 tons per day Thus, it is anticipated that the Puente Hills MRF would have sufficient capacity to accept the project-related debris and would be able to accommodate the proposed Project's solid waste disposal needs during construction. Therefore, the short-term impact associated with construction would be less than significant. This impact will not be further discussed in the Draft EIR.

Because the proposed Project would not increase the number of students or staff who access the school, operation of the proposed Project is expected to generate similar quantities of solid waste compared to existing conditions. Compliance with all applicable regulations related to reducing solid waste would ensure proper

[88] Chemical Waste Management, Inc., Remaining Landfill Capacity: https://www.wmsolutions.com/pdf/brochures/CWM_Kettleman_Hills_Brochure.pdf
[89] Nielsen, David, Clean Harbors Buttonwillow, telephone conversation on March 31, 2016.
[90] LACSD. Puente Hills Materials Recovery Facility. Available at: http://www.lacsd.org/solidwaste/swfacilities/mrts/phmrf/phmrffactsheet.asp, accessed August 11, 2017.

handling and disposal of solid waste associated with operation of the proposed Project. Additionally, all solid waste facilities serving the project area have remaining intake capacity. Compliance with existing regulations would ensure that operation of the proposed Project would result in a less than significant impact. No further analysis will be included in the EIR.

g) Comply with federal, state, and local statutes and regulations related to solid waste?

Less than Significant Impact. The proposed Project would comply with all applicable federal, state, and local statutes and regulations related to the handling and disposal of solid waste materials. Construction debris would be handled and disposed of according to District Specification 01 4524, LAUSD's SCs (including but not limited to: SC-USS-1), and the applicable local and regional standards. As discussed previously in Response XIX (g), operation of the proposed Project would generate similar quantities of solid waste compared to existing conditions, and would require disposal within a landfill. Compliance with all applicable regulations related to reducing solid waste would ensure proper handling and disposal of solid waste associated with the proposed Project. The proposed Project would comply with the recycling requirement in AB 341, as well as the construction and demolition (C&D) waste recycling/reuse requirement in California Green Building Standards Code Section 5.408. LAUSD's School Design Guide & Specification 01340, Construction and Demolition Waste Management, further requires the collection and separation of all C&D waste materials generated on site for reuse or recycling on site, transportation to approved recyclers or reuse organizations, or transportation to legally designated landfills, for the purpose of recycling salvaging and/or reusing a minimum 75 percent of the C&D waste generated. Therefore, impacts would be less than significant and no further analysis is required in the EIR.

4.20 MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XX. MANDATORY FINDINGS OF SIGNIFICANCE.				
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☒	☐	☐	☐
b. Does the project have impacts which are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects).	☒	☐	☐	☐
c. Does the project have environmental effects which cause substantial adverse effects on human beings, either directly or indirectly?	☒	☐	☐	☐

4.20.1 Impact Analysis

Does the project:

a) Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?

Potentially Significant Impact. As discussed in Section 3.4, *Biological Resources***,** the proposed Project would not impact any endangered fauna or flora. Further, because of the developed, residential nature of the project vicinity, construction and operation of the proposed Project would not impact the habitat or population level of fish or wildlife species, nor would it threaten a plant or animal community, nor impact the range of a rare or endangered plant or animal. This impact will not be further discussed in the Draft EIR.

As discussed in Section 3.5*, Cultural Resources***,** as excavation occurs, cultural resources may be impacted. The EIR will address the project's potential impact on cultural resources, and mitigation measures will be recommended, if necessary.

4. Environmental Checklist

b) Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

Potentially Significant Impact. Implementation of the proposed Project could contribute considerably to cumulative impacts. Each of the issues identified above as potentially significant will be evaluated for cumulative impacts within the EIR. Mitigation measures will be provided, if necessary.

c) Have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly?

Potentially Significant Impact. Implementation of the proposed Project could result in significant impacts that may result in substantial adverse effects on human beings. These potential effects will be addressed in the EIR, and mitigation measures will be recommended, if necessary.

5. List of Preparers

5.1 LEAD AGENCY

Los Angeles Unified School District
Edward Park, AICP – CEQA Project Manager
Office of Environmental Health and Safety
333 South Beaudry Avenue, 21st Floor
Los Angeles, California 90017

5.2 TECHNICAL ASSISTANCE

Environmental Science Associates
Jason Ricks – Project Director
Arabesque Said-Abdelwahed – Project Manager
Katelyn Matroni – Deputy Project Manager/Technical Analyst
Olivia Chan – Senior Air Quality/GHG Specialist
Jack Hutchison – Senior Traffic Engineer
Amber Grady – Senior Architectural Historian

626 Wilshire Boulevard, Suite 1100
Los Angeles, CA 90017Address
213.599.4300

Tree Inventory and Protected Tree Report
Jan C. Scow, RCA #382
Jan C. Scow Consulting Arborists, LLC
1744 Franklin St Unit-B
Santa Monica, CA 90404

Preliminary Geotechnical Investigation
Amec Foster Wheeler Environment & Infrastructure, Inc.
Mark A. Murphy, Geotechnical Engineer
6001 Rickenbacker Road
Los Angeles, California 90040

5. List of Preparers

Phase I Environmental Site Assessment
Worley Parsons
Ralph M. Beck, PG, CAC
3176 Pullman Street, Suite 109
Costa Mesa, CA 92626

Appendix B
Wilshire Community Plan Area Related Projects

ESA

Table III-1
Related Projects List

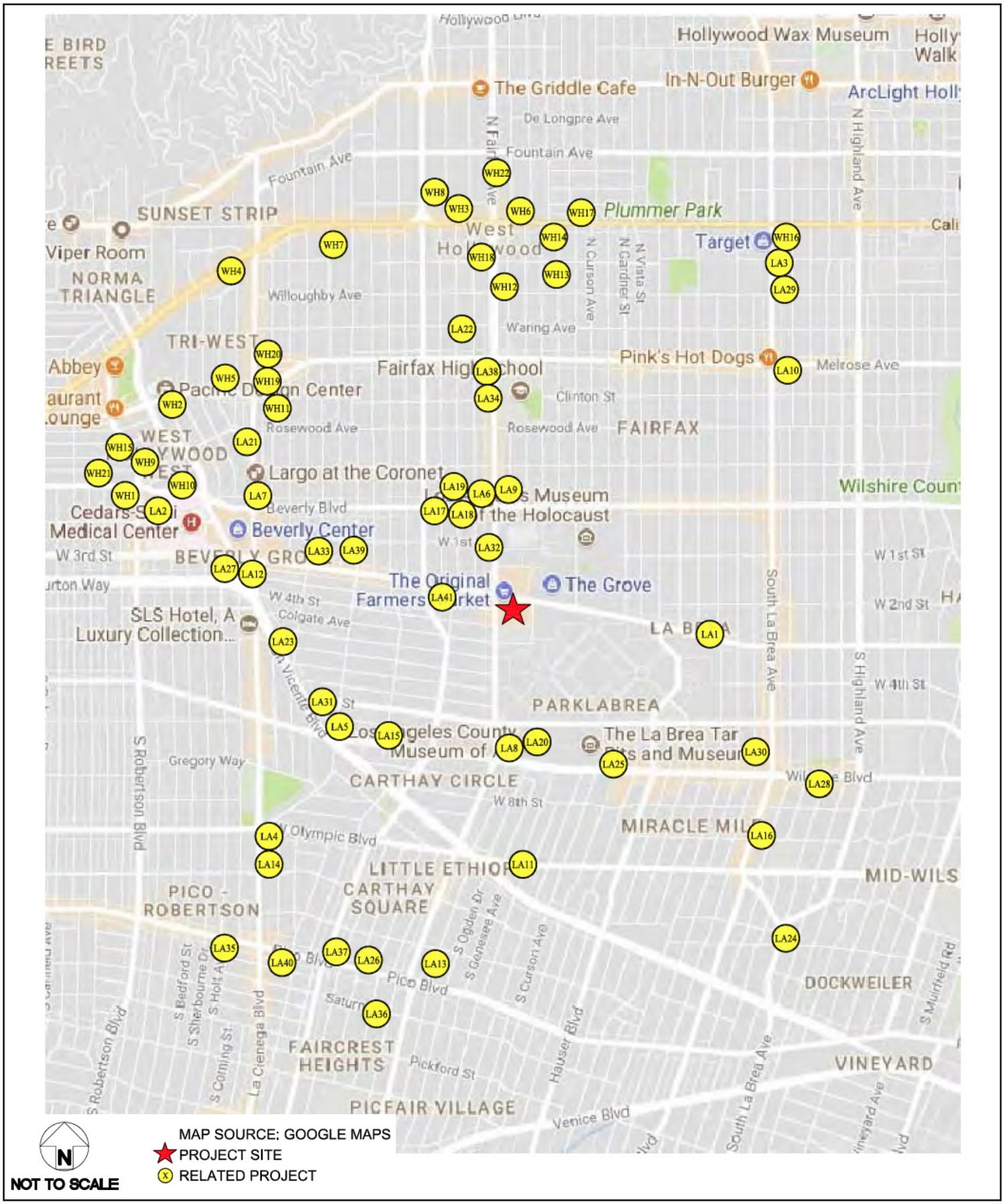
Project Number	Project Name	Location/Address	Project Description	Size	Units
City of Los Angeles					
LA1	Third Street Mixed-Use Project	5863 W. 3rd Street	Apartments Retail	60 5,350	du sf
LA2	Cedars-Sinai Medical Center Project West Tower	8723 W. Alden Drive	Hospital	100	beds
LA3	936 N. La Brea Avenue Mixed-Use Project	936 N. La Brea Avenue	Office Retail Manufacturing	33,190 19,923 (59,570)	sf sf gsf
LA4	S. La Cienega Boulevard Eldercare Facility	1022 S. La Cienega Boulevard	Assisted Living Skilled Nursing Apartments	183 22 (36)	beds du du
LA5	6535 Wilshire Boulevard Mixed-Use Project	6535 Wilshire Boulevard	Office Apartments Retail	62,000 22 5,603	sf du sf
LA6	Beverly & Fairfax Mixed-Use Project	7901 W. Beverly Boulevard	Apartments Retail	71 11,454	du sf
LA7	316 N. La Cienega Boulevard Mixed-Use Project	316 N. La Cienega Boulevard	Apartments Retail Restaurant	45 3,800 800	du sf sf
LA8	Academy Museum of Motion Pictures	6067 W. Wilshire Boulevard	Museum Museum Retail Restaurant	5,000 135 5,000 4,000	vis emp sf sf
LA9	Jewish Family Service	320 N. Fairfax Avenue	Office	28,341	sf
LA10	Melrose Crossing Mixed-Use Project	7000 W. Melrose Avenue	Apartments Retail	40 7,565	du sf
LA11	5891 W. Olympic Boulevard Apartments	5891 W. Olympic Boulevard	Apartments	49	du
LA12	333 La Cienega Boulevard Project	333 S. La Cienega Boulevard	Apartments Supermarket Restaurant	145 27,685 3,370	du sf sf
LA13	1333 S. Orange Grove Avenue Apartments	1333 S. Orange Grove Avenue	Apartments	61	du
LA14	Amorosa Apartments	1056 S. La Cienega Boulevard	Apartments	90	du
LA15	6399 W. Wilshire Boulevard Mixed-Use Project	6399 W. Wilshire Boulevard	Hotel Restaurant Lounge	176 871 860	room sf sf
LA16	850 S. La Brea Avenue Mixed-Use Project	850 S. La Brea Avenue	Apartments Retail	40 4,500	du sf
LA17	Unified Elder Care Facility Mixed-Use	8052 W. Beverly Boulevard	Synagogue Apartments Medical Office Retail	5,000 102 15,000 1,000	sf du sf sf
LA18	8000 W. Beverly Boulevard Mixed-Use Project	8000 W. Beverly Boulevard	Apartments Retail	48 7,400	du sf
LA19	Edin Park	8001 W. Beverly Boulevard	Restaurant Office	22,600 11,358	sf sf
LA20	LACMA Renovation	5905 W. Wilshire Boulevard	Museum Museum	368,300 (392,871)	sf sf

Project Number	Project Name	Location/Address	Project Description	Size	Units
LA21	Solstice	431 N. La Cienega Boulevard	Apartments Car Wash Retail	72 (7,373) (5,310)	du sf sf
LA22	750 Edinburgh Avenue Residential Project	750 Edinburgh Avenue	Single-Family Homes	8	du
LA23	488 S. San Vicente Boulevard Mixed-Use Project	488 S. San Vicente Boulevard	Apartments Retail	53 6,585	du sf
LA24	1180 S. La Brea Avenue Mixed-Use Project	1180 S. La Brea Avenue	Apartments Retail	67 2,400	du sf
LA25	Wilshire Curson Residential Project	5757 W. Wilshire Boulevard	Apartments	304	du
LA26	5935 W. Pico Boulevard Mixed-Use Project	5935 W. Pico Boulevard	Apartments Restaurant Retail	124 2,000 3,100	du sf sf
LA27	Mt. Lebanon Mixed-Use Project	333 S. San Vicente Boulevard	Apartments Church Church	153 30,800 (19,218)	du sf sf
LA28	The Mansfield	5100 W. Wilshire Boulevard	Apartments Retail	138 12,550	du sf
LA29	904 La Brea Avenue Mixed-Use Project	900-934 N. La Brea Avenue	Apartment Retail Storage	169 40,000 (16,255)	du sf sf
LA30	639 S. La Brea Avenue Mixed-Use Project	639 S. La Brea Avenue	Apartments Retail	160 23,000	du sf
LA31	650 S. San Vicente Boulevard Medical Office Project	650 S. San Vicente Boulevard	Medical Office	145,462	sf
LA32	Fairfax Apartments	105 S. Fairfax Avenue	Apartments Retail	45 1,258	du sf
LA33	121 S. Kings Road Residential Project	121 S. Kings Road	Apartments	36	du
LA34	631 N. Fairfax Avenue Mixed-Use Project	631 N. Fairfax Avenue	Apartments Retail	48 5,447	du sf
LA35	8590 W. Pico Boulevard Mixed-Use Project	8590 W. Pico Boulevard	Apartments Retail	36 1,000	du sf
LA36	Saturn Multifamily Apartments	1500 S. Hi Point Street	Apartments	45	du
LA37	6001 W. Pico Boulevard Mixed-Use Project	6001 W. Pico Boulevard	Apartments Retail	48 1,000	du sf
LA38	Micropolitan at Fairfax Village	639 N. Fairfax Avenue	Apartments	63	du
LA39	107 S. Sweetzer Avenue Residential Project	107 S. Sweetzer Avenue	Apartments	7	du
LA40	6132 W. Pico Boulevard	6132 W. Pico Boulevard	Apartments	49	du
LA41	Third Street Mixed-Use Project	8000 W. 3rd Street	Apartments Affordable Housing Retail	45 5 7,252	du du sf
City of West Hollywood					
WH1	8816 Beverly Boulevard Mixed-Use Project	8816 Beverly Boulevard	Apartments Retail	10 19,493	du sf

Project Number	Project Name	Location/Address	Project Description	Size	Units
			Restaurant	1,860	sf
			Office	25,575	sf
WH2	8650 Melrose Avenue Mixed-Use Project	8650 Melrose Avenue	Apartments	7	du
			Retail	14,571	sf
WH3	7985 Santa Monica Boulevard Project	7965-7985 Santa Monica Boulevard	Office	53,900	sf
			Retail	2,112	sf
			Restaurant	13,367	sf
			Bar/Nightclub	3,001	sf
WH4	Sprouts – 8550 Santa Monica Boulevard Project	8550 Santa Monica Boulevard	Grocery Store	25,000	sf
			Restaurant	1,319	sf
			Office	3,998	sf
			Health/Fitness Club	8,000	sf
			Specialty Retail	4,000	sf
WH5	605 W. Knoll Drive	605 W. Knoll Drive	Retail	7,000	sf
WH6	Seventy-Eight Eleven Santa Monica Boulevard	7811 Santa Monica Boulevard	Hotel	74	room
			Condominiums	74	du
			Retail	3,446	sf
WH7	1028 Kings Road Condominium Project	1028 Kings Road	Condominiums	30	du
			single-family home	(2)	du
WH8	Empire at Norton	8017 Norton Avenue	Condominiums	34	du
			Apartments	(21)	du
WH9	8763 Rosewood Avenue Mixed-Use Project	8763 Rosewood Avenue	Retail	4,945	sf
WH10	8713 Beverly Boulevard Mixed-Use Project	8713 Beverly Boulevard	Apartments	30	du
			Office	3,416	sf
			Retail	5,475	sf
			Gallery	500	sf
WH11	Center for Early Education Redevelopment Project	563 N. Alfred Street	Playing Field	1	field
			Gymnasium	6,000	sf
			Apartments	(21)	du
WH12	900 Fairfax Avenue Mixed-Use Project	900 N. Fairfax Avenue	Restaurant	2,318	sf
			Retail	930	sf
			Apartments	6	du
WH13	939 Spaulding Avenue Residential Project	939 Spaulding Avenue	Condominiums	22	du
WH14	1041 Spaulding Avenue Residential Project	1041 Spaulding Avenue	Condominiums	14	du
WH15	417 Robertson Boulevard Showroom Project	417 Robertson Boulevard	Retail	7,558	sf
WH16	1040 N. La Brea Avenue Mixed-Use Project	1040 N. La Brea Avenue	Hotel	91	room
			Lobby Restaurant	5,655	sf
			Roof Restaurant	3,017	sf
			Apartments	8	du
			Retail	(1,877)	sf
			Auto Body Shop	(7)	du
WH17	7617 Santa Monica Boulevard Mixed-Use Project	7617 Santa Monica Boulevard	Restaurant	4,419	sf
			Retail	4,821	sf
			Apartments	71	du
WH18	Empire at Fairfax	7905 Romaine Street	Retail	1,800	sf
			Apartments	35	du
WH19		600 N. La Cienega Boulevard	Apartments	5	du
			Showroom	15,727	sf

Project Number	Project Name	Location/Address	Project Description	Size	Units
	600 N. La Cienega Boulevard Mixed-Use Project		Mechanical Retail Restaurant	2,776 5,355 7,094	sf sf sf
WH20	624 N. La Cienega Boulevard Mixed-Use Project	624 N. La Cienega Boulevard	Apartments Retail	6 54,209	du sf
WH21	8899 Beverly Boulevard Mixed-Use Project	8899 Beverly Boulevard	Apartments Condominiums Townhomes Office Retail Restaurant	12 56 13 10,562 19,875 4,394	du du du sf sf sf
WH22	1250 N. Fairfax Avenue Residential Project	1250 N. Fairfax Avenue	Apartments	53	du

Notes:
du = dwelling unit, sf = square feet, emp = employee, stu = student, vis = visitors
Source: Linscott, Law, & Greenspan Engineers, Traffic Impact Study, 6300 W. 3rd Street Mixed-Use Project, City of Los Angeles, California, July 17, 2019.



Source: Linscott, Law, & Greenspan Engineers, May 21, 2019.

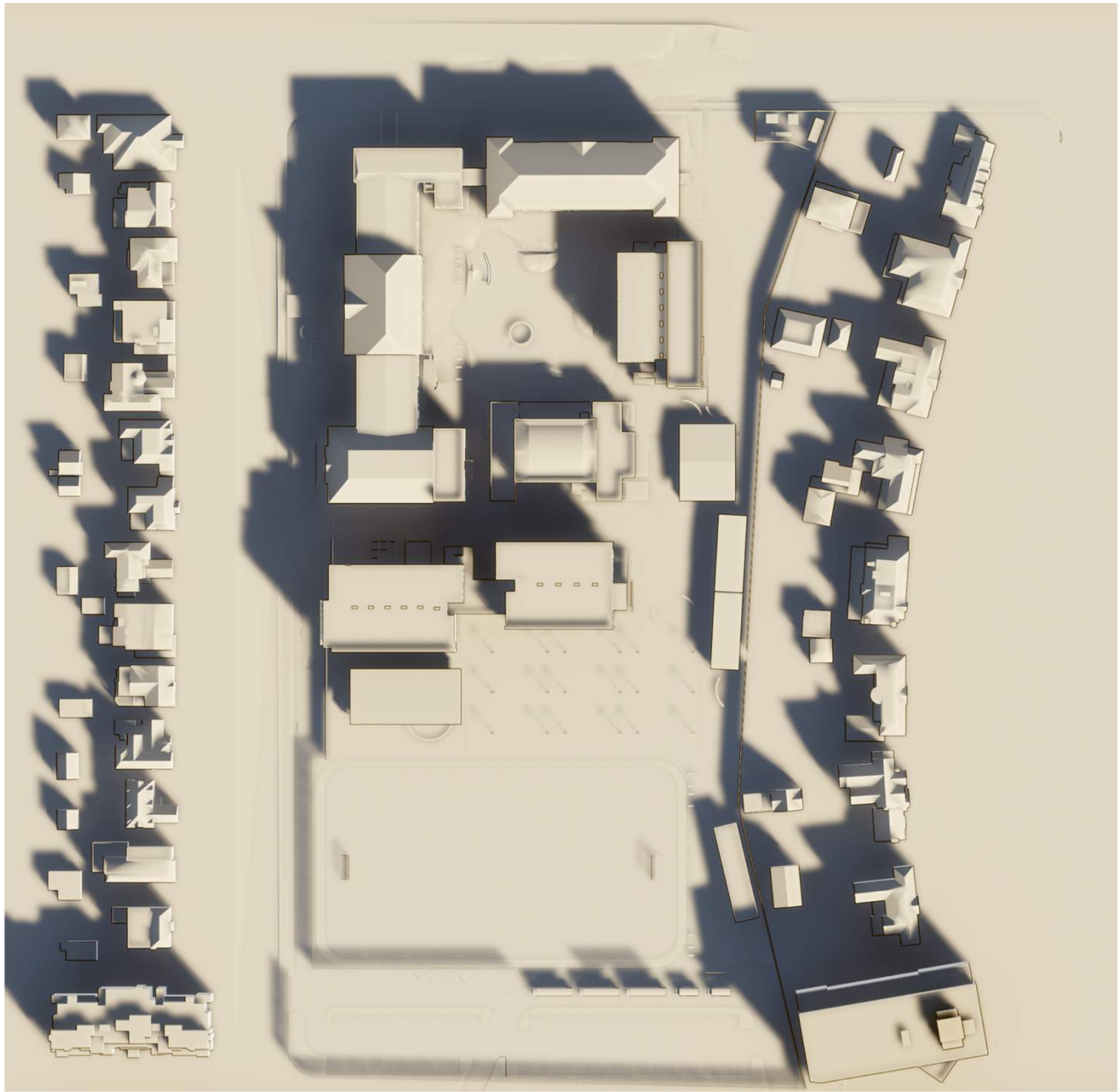
PARKER ENVIRONMENTAL CONSULTANTS

Figure III-1
Related Projects Location Map

Appendix C

John Burroughs Middle School
Shade and Shadow Study

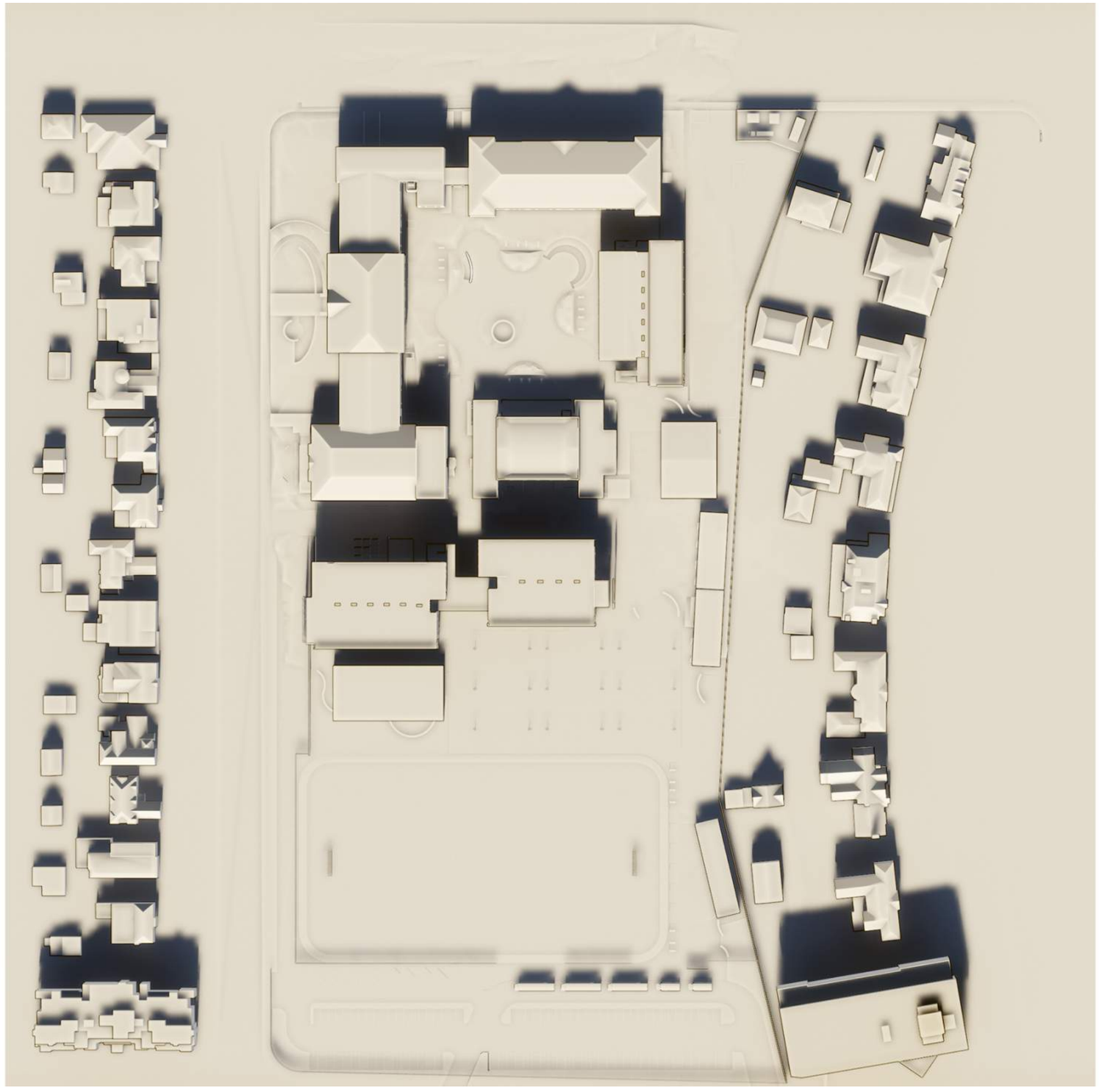
ESA



EHRLICH YANAI RHEE CHANEY
ARCHITECTS

Burroughs Middle School
EYRC Architects

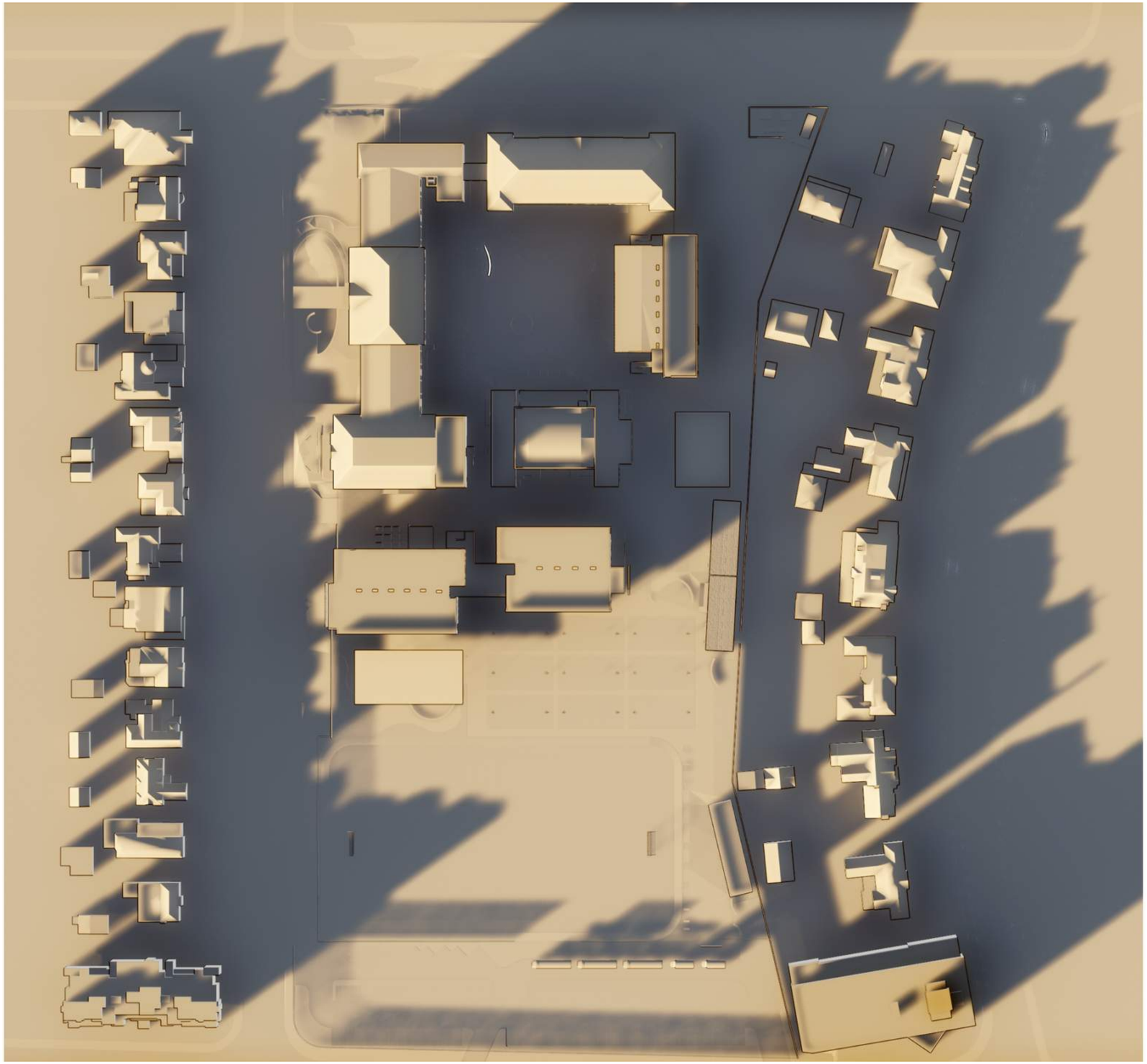
SCHEME SS-01
SHADOW STUDY - WINTER SOLSTICE 9 AM
10/11/17



EHRLICH YANAI RHEE CHANEY
ARCHITECTS

Burroughs Middle School
EYRC Architects

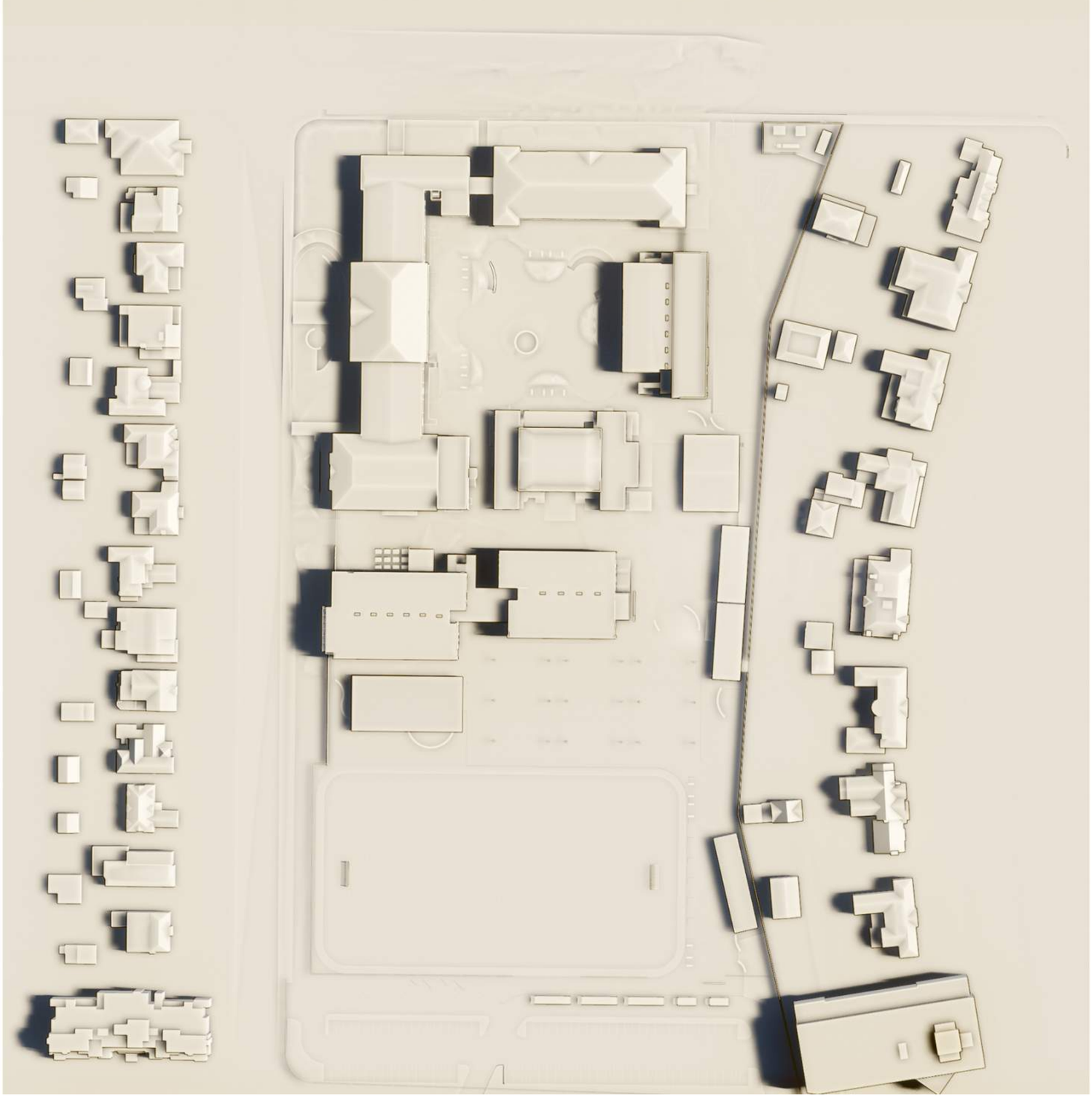
SCHEME SS-02
SHADOW STUDY - WINTER SOLSTICE - NOON
10/11/17

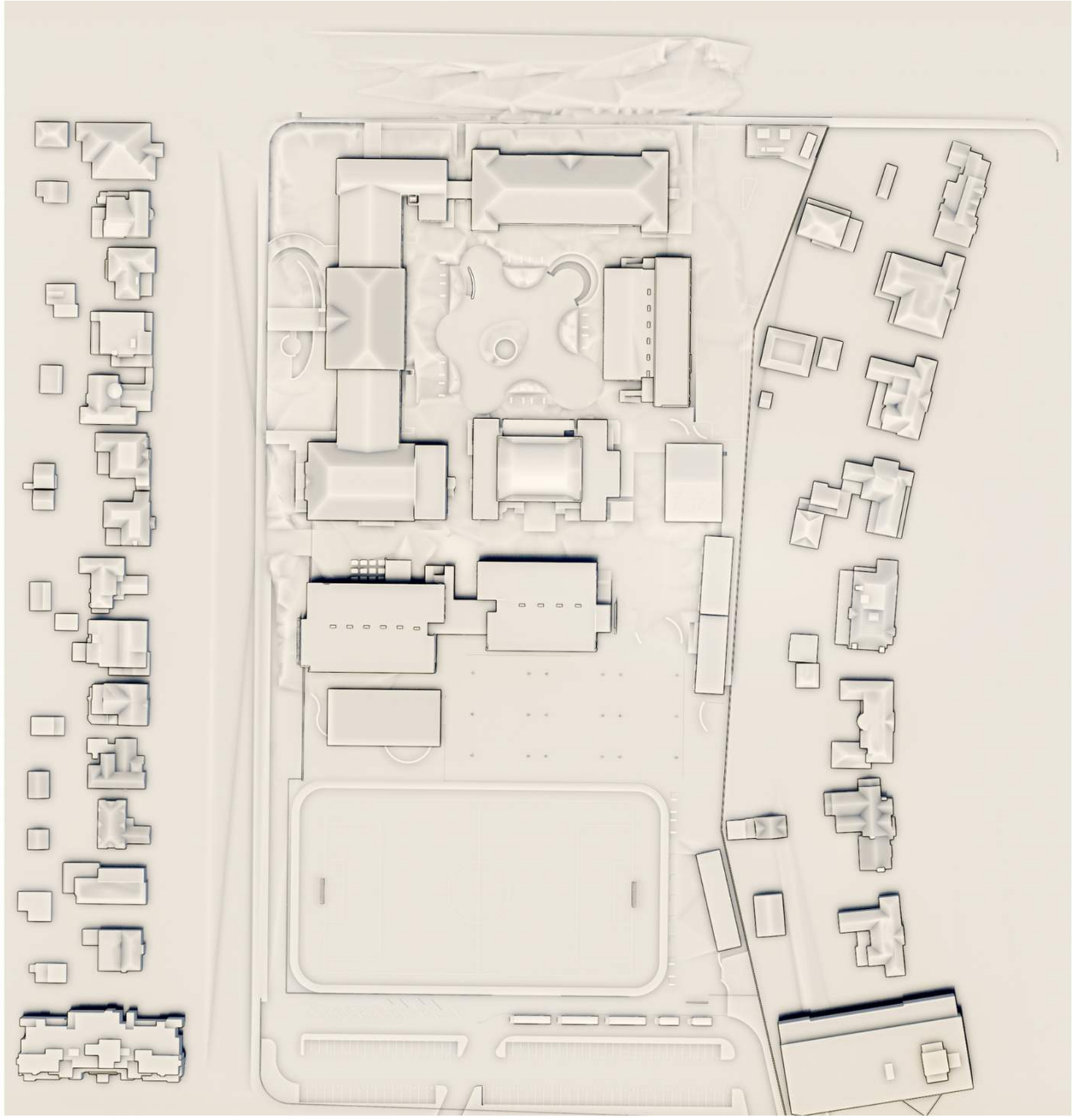


SCHEME SS-03

SHADOW STUDY - WINTER SOLSTICE - 4 PM

10/11/17





EHRLICH YANAI RHEE CHANEY
ARCHITECTS

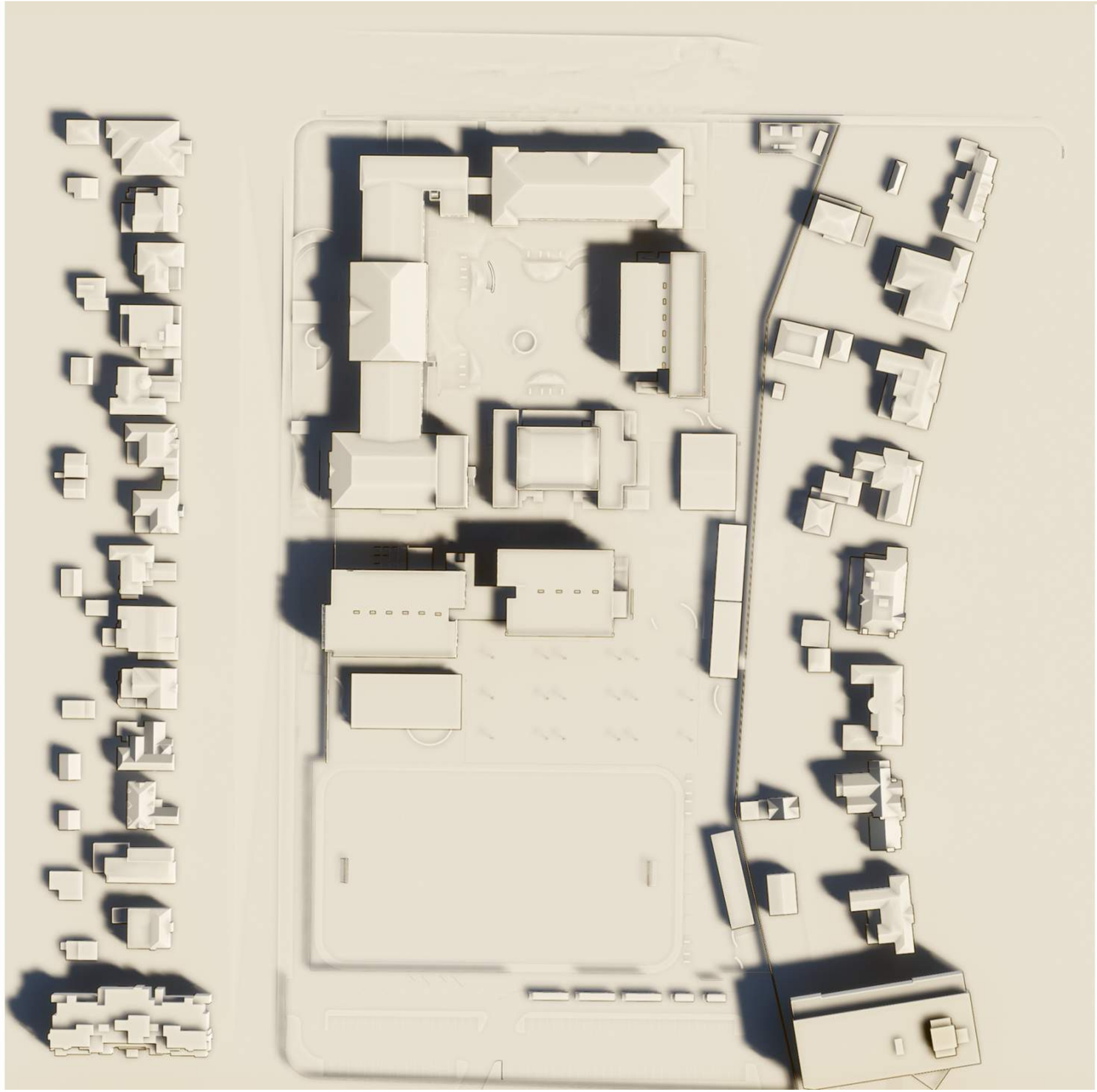
Burroughs Middle School
EYRC Architects

SCHEME SS-05
SHADOW STUDY - SUMMER SOLSTICE - NOON
10/11/17

EHRLICH YANAI RHEE CHANEY
ARCHITECTS

Burroughs Middle School
EYRC Architects

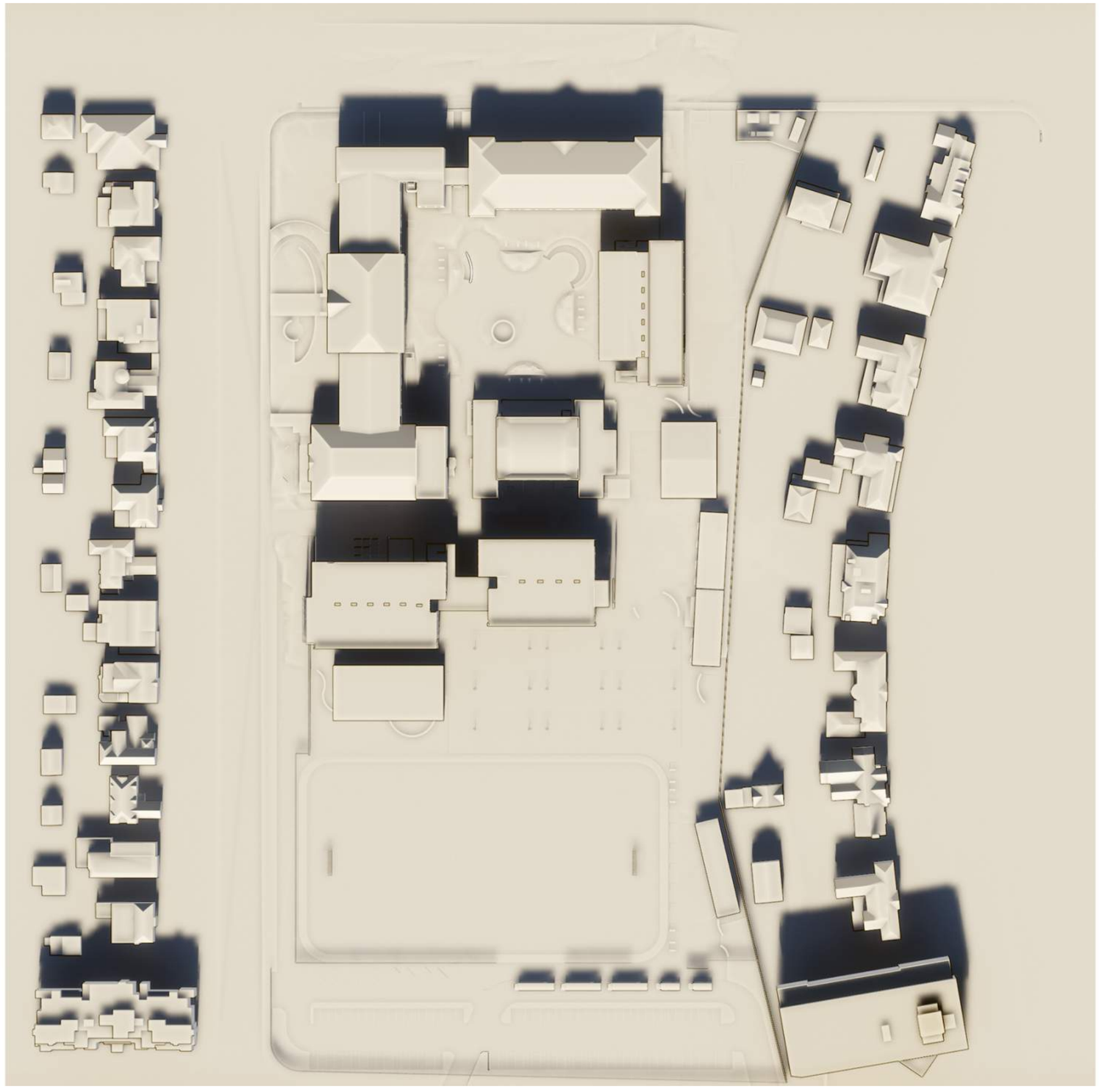
SCHEME SS-06
SHADOW STUDY - SUMMER SOLSTICE - 4 PM
10/11/17



EHRLICH YANAI RHEE CHANEY
ARCHITECTS

Burroughs Middle School
EYRC Architects

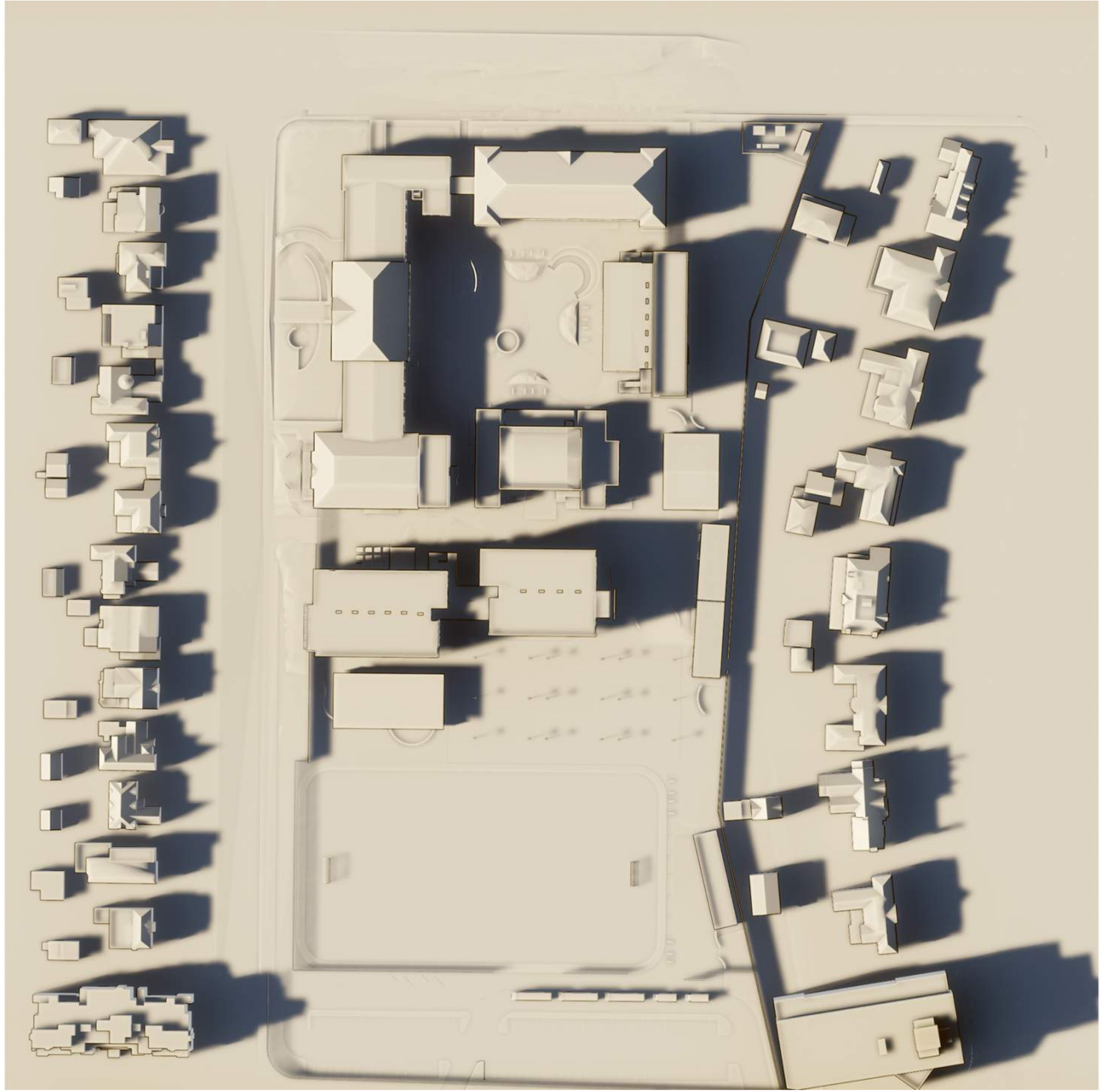
SCHEME SS-07
SHADOW STUDY - FALL EQUINOX - 9 AM
10/11/17



EHRLICH YANAI RHEE CHANEY
ARCHITECTS

Burroughs Middle School
EYRC Architects

SCHEME SS-08
SHADOW STUDY - FALL EQUINOX - NOON
10/11/17



EHRLICH YANAI RHEE CHANEY
ARCHITECTS

Burroughs Middle School
EYRC Architects

SCHEME SS-09
SHADOW STUDY - FALL EQUINOX - 4 PM
10/11/17

Appendix D

John Burroughs Middle School Comprehensive Modernization Project Emissions Calculations

ESA

Los Angeles Unified School District
Burroughs Middle School
Comprehensive Modernization Project

Air Quality and Greenhouse Gas Emissions Technical Report

Prepared for

Los Angeles Unified School District,
Office of Environmental Health and Safety
333 South Beaudry Avenue 21st Floor
Los Angeles, CA 90017

September 2019

ESA

Los Angeles Unified School District
Burroughs Middle School
Comprehensive Modernization Project

Air Quality and Greenhouse Gas Emissions Technical Report

Prepared for

Los Angeles Unified School District,
Office of Environmental Health and Safety
333 South Beaudry Avenue 21st Floor
Los Angeles, CA 90017

September 2019

626 Wilshire Boulevard
Suite 626
Los Angeles, CA 90017
213.599.4300
www.esassoc.com

ESA

Bend	Oakland	San Francisco
Camarillo	Orlando	Santa Monica
Delray Beach	Pasadena	Sarasota
Destin	Petaluma	Seattle
Irvine	Portland	Sunrise
Los Angeles	Sacramento	Tampa
Miami	San Diego	

OUR COMMITMENT TO SUSTAINABILITY | ESA helps a variety of public and private sector clients plan and prepare for climate change and emerging regulations that limit GHG emissions. ESA is a registered assessor with the California Climate Action Registry, a Climate Leader, and founding reporter for the Climate Registry. ESA is also a corporate member of the U.S. Green Building Council and the Business Council on Climate Change (BC3). Internally, ESA has adopted a Sustainability Vision and Policy Statement and a plan to reduce waste and energy within our operations. This document was produced using recycled paper.

Table of Contents

LAUSD Burroughs Middle School Comprehensive Modernization Project Air Quality and Greenhouse Gas Emissions Technical Report

Page

Executive Summary **ES-1**

1. Introduction **1**
- 1.1 Existing Conditions 2
- 1.2 Project Location 2
- 1.3 Project Description 2
- 1.4 Updated and Project-Specific Conditions 9

2. Regulatory Setting **18**
- 2.1 Federal 18
- 2.2 State 22
- 2.3 Regional 31
- 2.4 Local 36

3. Significance Thresholds **39**
- 3.1 Air Quality Thresholds 39
- 3.2 Greenhouse Gas Emissions Thresholds 43

4. Methodology **44**
- 4.1 Consistency with Air Quality Plan 44
- 4.2 Air Quality Construction Emissions 44
- 4.3 Air Quality Operational Emissions 45
- 4.4 Substantial Criteria Pollutant Concentrations 46
- 4.5 Odors 47
- 4.6 GHG Emissions Estimates 47

5. Environmental Impacts **50**
- 5.1 Consistency with Air Quality Plan 50
- 5.2 Regional Emissions 51
- 5.3 Cumulatively Considerable Non-Attainment Pollutants 54
- 5.4 Substantial Pollutant Concentrations 55
- 5.5 Odors 58
- 5.6 Greenhouse Gas Emissions 59

6. Cumulative Impacts **60**
- 6.1 Air Quality 60
- 6.2 Greenhouse Gas Emissions 61

Page

Appendices

A. Air Quality Emissions Calculation Worksheets

Emissions Summary
Project Summary
Schedule and Equipment
Demolition Quantities
Concrete Estimates
Soil Removal Haul Truck Emissions
Vendor Truck Emissions
Architectural Coating
CalEEMod Summer Output
CalEEMod Winter Output

B. Greenhouse Gas Emissions Calculation Worksheets

Emissions Summary
CalEEMod Annual Output

Figures

1 Project Vicinity....3
2 Project Location....4

Tables

1 Air Quality and Greenhouse Gas Emissions Impacts....ES-2
2 Proposed Project (Demolition, Remodel, and Construction)....5
3 Pollutant Standards and Ambient Air Quality Data from Representative Monitoring Station....12
4 State of California Greenhouse Gas Emissions....16
5 Ambient Air Quality Standards....19
6 South Coast Air Basin Attainment Status (Los Angeles County)....24
7 Estimated Greenhouse Gas Emissions Reductions Required by HSC Division 25.5....29
8 Air Quality Standard Conditions of Approval....37
9 Greenhouse Gas Emissions Standard Conditions of Approval....39
10 Maximum Daily Unmitigated Regional Construction Emissions (pounds per day)....52
11 San Joaquin Valley Air Basin Hauling Emissions (Tons per Year)....54
12 Maximum Unmitigated Localized Construction Emissions (Pounds Per Day)....55
13 Project-Specific Construction GHG Emissions (metric tons)....59

LAUSD BURROUGHS MIDDLE SCHOOL COMPREHENSIVE MODERNIZATION PROJECT

Air Quality and Greenhouse Gas Emissions Technical Report

Executive Summary

Los Angeles Unified School District (LAUSD) proposes a Comprehensive Modernization to Burroughs Middle School (Burroughs MS) (proposed Project), located at 600 South McCadden Place, Los Angeles, California. Burroughs MS is within Local District West. The proposed Project is designed to address the most critical physical concerns of the buildings and grounds at the campus while upgrading, renovating, modernizing, and reconfiguring the campus to provide facilities that are safe, secure, and better aligned with the current instructional program.

In accordance with the requirements under the California Environmental Quality Act (CEQA), this technical report provides an estimate of air quality and greenhouse gas emissions for the proposed Project and the potential impacts from associated construction and operational activities. This report includes the categories and types of emission sources resulting from the proposed Project, the calculation procedures used in the analysis, and any assumptions or limitations.

This report summarizes the potential for the proposed Project to conflict with implementation of an applicable air quality plan; to result in a cumulatively considerable net increase of criteria pollutant emissions; to expose sensitive receptors to substantial pollutant concentrations; to result in other emissions (such as odors) that adversely affect a substantial number of people; to generate substantial greenhouse gas emissions; or to conflict with applicable greenhouse reduction plans, policies, or regulations. The findings of the analyses are as follows:

- The proposed Project would be consistent with air quality policies set forth by the LAUSD, the South Coast Air Quality Management District (SCAQMD), and the Southern California Association of Governments (SCAG).
- The proposed Project would not result in a significant cumulative air quality impact.
- The incremental increase in onsite emissions from construction and operation of the proposed Project would not exceed the localized significance thresholds set forth by the SCAQMD. Thus, the proposed Project would not result in a localized violation of applicable air quality standards or expose off-site receptors to substantial levels of regulated air contaminants.
- Proposed Project construction and operations would not result in significant levels of odors.

- Greenhouse gas emissions associated with the Project would not exceed the emissions threshold of 3,000 MT CO_2e annual emissions. Therefore, the Project would result in less than significant GHG emissions based on applicable thresholds of significance as evaluated in this technical report.
- The proposed Project would be consistent with greenhouse gas reduction strategies as set for by the LAUSD, SCAG, the City of Los Angeles, and the State of California.

Table 1, *Air Quality and Greenhouse Gas Emissions Impacts*, summarizes the School Upgrade Program (SUP) Program EIR's conclusions regarding the air quality and greenhouse gas emissions impacts of the SUP, as well as the findings of this Project-specific analysis.

TABLE 1
AIR QUALITY AND GREENHOUSE GAS EMISSIONS IMPACTS

Environmental Threshold	Program EIR Level of Impact Significance	Project-Specific Level of Impact Significance	Applicable Standard Conditions of approval (SCs)
Air Quality – Would the project:			
A) Conflict with or obstruct implementation of the applicable air quality plan?	Less than Significant	Less than Significant	SC-AQ-1
B) Generate short-term air pollutant emissions, either directly or indirectly, that may have a significant impact on the environment?	Potentially Significant and Unavoidable	Less than Significant	SC-AQ-2 SC-AQ-3
C) Generate long-term air pollutant emissions, either directly or indirectly, that may have a significant impact on the environment?	Less than Significant	Less than Significant	SC-AQ-2 SC-AQ-3
D) Expose sensitive receptors to substantial pollutant concentrations?	Potentially Significant and Unavoidable	Less than Significant	SC-AQ-4
E) Create objectionable odors affecting a substantial number of people?	Less than Significant	Less than Significant	SC-AQ-5
Greenhouse Gas Emissions– Would the project:			
A) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Less than Significant	Less than Significant	SC-GHG-1 SC-GHG-2 SC-GHG-3 SC-GHG-4 SC-GHG-5
B) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Less than Significant	Less than Significant	SC-GHG-1 SC-GHG-2 SC-GHG-3 SC-GHG-4 SC-GHG-5

SOURCE: LAUSD SUP FEIR 2015, ESA 2017

LAUSD BURROUGHS MIDDLE SCHOOL COMPREHENSIVE MODERNIZATION PROJECT

Air Quality and Greenhouse Gas Emissions Technical Report

1. Introduction

This air quality technical report was prepared by ESA to support an Environmental Impact Report (EIR) for the proposed Burroughs Middle School Comprehensive Modernization Project (proposed Project) located in the City of Los Angeles, California.

Ongoing master planning activities and facility site assessments conducted for Los Angeles Unified School District (LAUSD or District) facilities over the last several years have identified school sites throughout the District that exhibit critical physical conditions. The School Upgrade Program (SUP) implemented by LAUSD outlines a series of capital improvements intended to rehabilitate and modernize these schools so they are safe, healthy, and functional places to learn.

LAUSD prepared a Program Environmental Impact Report (SCH No. 2013111046) to evaluate the direct and indirect environmental effects of the SUP program.[1] The SUP Program EIR (Program EIR) was certified by the LAUSD Board on November 10, 2015[2].

The purpose of this report is to provide a detailed technical air quality analysis of the proposed Project. ESA conducted this air quality assessment to evaluate the potential air quality impacts associated with construction activities, mobile sources, and other aspects of the proposed Project construction that have the potential to generate criteria air pollutant emissions. The objectives of this Air Quality and Greenhouse Gas Emissions Technical Report are to:

- Evaluate the construction criteria air pollutants associated with proposed Project development and the potential for regional and localized air quality impacts based on applicable standards and thresholds;
- Evaluate greenhouse gas emissions associated with the proposed Project development;

1 Los Angeles Unified School District. 2015. School Upgrade Program Final Environmental Impact Report, http://achieve.lausd.net/ceqa. Adopted by the Board of Education on November 10, 2015.

2 Los Angeles Unified School District, Board of Education. Regular Board Meeting -November 10, 2015. http://laschoolboard.org/11-10-15RegBd.

- Provide, if needed, air quality and/or greenhouse gas emissions mitigation measures as required to meet applicable air quality and/or greenhouse gas emissions standards and thresholds as specified by the South Coast Air Quality Management District (SCAQMD) and the LAUSD Standard Conditions (SCs) identified in the Program EIR.

1.1 Existing Conditions

Burroughs MS is an operational middle school serving students in grades six through eight. The campus is comprised of 25 buildings and structures, including 14 portable buildings. Buildings at the Project site include: two-story Administrative and Auditorium Building, various classroom buildings, Food Service/Lunch Shelter Building, Gymnasium, and portable buildings. The school is also developed with landscaped areas containing playfields and ornamental landscaping with trees, shrubs, and grass.

1.2 Project Location

Burroughs MS is located approximately 5 miles west of downtown Los Angeles. Primary regional access is provided by Interstate 10 (I-10), approximately 2 miles to the south of the Project site and 10 miles east of the Pacific Ocean (**Figure 1**, *Project Vicinity*). Major arterials providing regional and sub-regional access to the project vicinity include Wilshire Boulevard, immediately south of the Project site, and South La Brea Avenue, approximately 0.5 miles west of the Project site (**Figure 2**, *Project Location*). The Assessor's Parcel Number (APN) for the Project site is 5507-017-900. The campus is located within the Hancock Park Historic Preservation Overlay Zone (HPOZ).

1.3 Project Description

The proposed Project would result in demolition of and/or modifications to existing buildings, potentially including historic buildings and resources. However, the Project would be designed to preserve and enhance significant (primary) character-defining features associated with the campus. Additionally, the proposed Project would be designed and implemented in a manner that complies with the LAUSD Design Guidelines and Treatment Approaches for Historic Schools.[3]

Upon completion of Project construction, the Burroughs MS would have 71 classrooms including 6 existing classrooms, 38 remodeled classrooms, and 27 new classrooms. Approximately 7,000 square feet of existing area is to remain (with minor renovations such as new paint). **Table 2**, *Proposed Project (Demolition, Remodel, and Construction)* shows details about the characteristics of the existing buildings to be demolished and/or renovated.

[3] LAUSD. January 2015. Los Angeles Unified School District Design Guidelines and Treatment Approaches for Historic Schools. Los Angeles, CA.

Figure 1 Project Vicinity

Figure 2 Project Location

TABLE 2
PROPOSED PROJECT (DEMOLITION, REMODEL, AND CONSTRUCTION)

Bldg. ID*	Bldg. DSA No.	Building Name	Class-rooms	Demolition/ Removal (sf)	Remodel (sf)	New Construction (sf)	Existing to Remain (sf)
1	A748	Main and Auditorium Building			67,381		
2	A749	Boys' Gym			11,868		
3	A13356	Classroom Building		1,907			
4	A7055	Classroom Building					1,824
5	A6655	Classroom Building		1,824			
6	A58913	Classroom Building		1,859			
7	A24637	Classroom Building			28,529		
8	A22091	Classroom Building		2,520			
9	A749	Shop Building			9,032		
10	M0051F (No DSA)	Storage		200			
11	L0029G	Tool Room		168			
12	M0586K (No DSA)	Storage		80			
14	A16058	All Purpose Building					3,252
16	A2677	Classroom Building		1,509			
17	A39162	Girls' Locker		7,603			
18	A10407	Classroom Building					1,824
19	A20797	Sanitary Administrative Building		896			
20	A39162	Cafeteria-Classroom Building		25,415			
21	A10407	Classroom Building		1,824			
22	A6492	Classroom Building		912			
23	A6582	Classroom Building		912			
24	A15745	Classroom Building		1,056			
25	A7256	Classroom Building		864			
26	X3865Y (No DSA Listed)	Classroom Building		1,920			
Q	-	Two One-Story Specialty Classroom Buildings	3			9,584	
B	-	Three-Story Food Services; MPR/Classroom/Lockers	24			66,452	
		Total	**27**	**51,469**	**116,815**	**76,036**	

sf = Square footage

As outlined in Table 2, the proposed Project would include demolition of the following facilities:

- Cafeteria-Classroom Building (Bldg. 20)
- Flammable Storage Building (Bldg. 13)
- Girls' Locker Building (Bldg. 17)
- Approximately 28 standard and specialty classrooms located in 13 relocatable or portable buildings

The total demolition footprint of the proposed Project would be approximately 51,500 square feet.

The proposed Project would include construction of the following facilities that would be designed, constructed, and furnished/equipped to current code requirements and District design standards:

- Two One-Story Specialty Classroom Buildings (Bldg. A)
  - Approximately three specialty classrooms (instrumental music, maker space, and flexible drama) and support spaces[4] on the first floor
- Three-Story Food Services + MPR/Classroom/Lockers (Bldg. B)
  - Approximately one student store, boys' and girls' lockers, food services, and indoor dining/MPR facilities on the first floor
  - Approximately 14 standard classrooms on the second floor
  - Approximately 2 standard classrooms and 8 science classrooms on the third floor

The total construction footprint of the proposed Project would be approximately 76,000 square feet.

Modernization and/or upgrades would be completed for the following buildings:

- Administrative/Library/Auditorium (Bldg. 1)
- Boys' Gymnasium Building (Bldg. 2)
- Classroom Building (Bldg. 7)
- AA-610 (Bldg. 4)
- All Purpose Building (Bldg. 14)
- AA-1143 (Bldg. 18)

The proposed improvements to existing buildings include the following:

- Administrative/Library/Auditorium (Bldg. 1)
  - Seismic retrofit
  - Reconfiguration of interior walls while maintaining existing stairs and central corridors
  - Construction of an ADA compliant entry ramp on the west side of the building

[4] Support spaces include storage, custodian rooms, and boys' and girls' restrooms.

  - Renovate and reconfigure the south basement section to accommodate M&O functions, including general storage, receiving storage, restrooms, and plant manager. A new freight-sized elevator would be installed on the east side of the Auditorium in order to access the basement area.
  - Auditorium upgrades
    - Fix broken seats and install seat padding and upholstery
    - Install automatic seat uplift for egress compliance
    - Provide designated aisle seats for ADA compliance
    - Install additional aisle lighting
    - Alter seating layout to provide accessible route to the performance area
    - Install handrails where required in seating aisles
    - Install guardrails in the balcony
    - Construct new control booth under balcony seating
    - Remove the fire curtain
    - Install guardrails around backstage technical circulation levels and grid iron
    - Install fall arrest points for workers at the first row of balcony
    - Install smoke vents or a smoke evacuation system over the stage
    - Replace all cotton drapery with inherently flame-retardant (IFR) drapes
    - Repair stage floor
    - Relocate balcony rail lighting
    - Remove interior wall backstage
    - Reinforce the gridiron
    - Electrical upgrades
    - Upgrade the lighting system including switching to light-emitting diode (LED) lights

- Boys' Gymnasium Building (Bldg. 2)
  - Seismic retrofit
  - Minor reconfiguration of interior walls (Practice Gym will remain the same size)

- Classroom Building (Bldg. 7)
  - Seismic retrofit
  - Reconfiguration of interior walls while maintaining existing stairs and central corridors

- Shop Building (Bldg. 9)
  - Seismic retrofit
  - Reconfiguration of interior walls and entry points to accommodate seven classrooms (six standard and one special education) and support spaces

- General Classroom Buildings (Bldgs. 4, 14, 18)
  - Interior and exterior paint and finish upgrades

The proposed Project would modify and remodel 117,000 square feet of building space (100,000 square foot not including basement areas).

Upgrades to the Administrative/Library/Auditorium Building, Gymnasium Building, and Classroom Building would entail seismic retrofits. Seismic retrofitting would be completed in compliance with the seismic safety requirements of the LAUSD Supplemental Geohazard Assessment Scope of Work, California Building Code, Division of Stat Architect, and California Department of Education.

Site upgrades that would be completed throughout the campus include:

- Site-wide infrastructure, including plumbing, electrical, and storm drain
- Site-wide upgrades to remove identified and prioritized barriers to program accessibility
- Landscape, hardscape, and exterior paint

The Project would include improvements as required by the ADA, Division of the State Architect (DSA), CEQA, Office of the Independent Monitor (OIM) for ADA program accessibility, and any other required improvements or mitigations to ensure compliance with local, state, and/or federal facilities requirements.

1.3.1 Sustainability Features

LAUSD is committed to sustainable construction principles, and has been a member of the Collaborative for High Performance Schools (CHPS) since 2001. CHPS has established criteria for the development of high performance schools to create a better educational experience for students and teachers by designing the best facilities possible. CHPS-designed facilities are energy efficient, material efficient, easy to maintain and operate, environmentally responsive, safe and secure, a community resource, and adaptable to changing needs.

School facilities seeking CHPS certification complete a scorecard and must achieve a certain number of points to be certified. Some of the sustainable design features that would be incorporated into the proposed Project include easy access to public transportation, provision of bicycle racks, onsite treatment of stormwater runoff, “cool-roof” building materials, lighting that reduces light pollution, water- and energy-efficient design, water-wise landscaping, collection of recyclables, and sustainable and/or recycled-content building materials. The proposed Project’s new buildings and structures would be designed to reduce energy use below current levels by incorporating modernized and energy-efficient features, which may include lighting, windows, electrical transformers, building insulation, or installation of irrigation smart controllers, etc. All new construction would exceed by 10 percent or more the California Title 24, Part 6 energy efficiency standards.

1.3.2 Contaminated Soil Removal

A Preliminary Environmental Assessment Equivalent (PEA-E) was conducted at the site in 2017 by Leighton Consulting, Inc.[5] Field sampling and analysis was conducted to determine whether historical uses have resulted in hazardous substances at the Project site as part of the PEA-E. The results of the laboratory analysis showed levels of arsenic and lead concentrations were above residential screening thresholds. A Remedial Action Workplan (RAW)[6], describing the contamination, excavation dimensions, methodology, transportation and disposal, confirmation sampling plan, methods to ensure worker and public health safety, and cleanup goals, has been prepared. The contaminated soils would be removed prior to construction of each phase with methods intended to reduce dust emissions. Further, community notices will be distributed in accordance with LAUSD policy. All cleanup activities under the RAW would adhere to applicable state and local policies and regulations regarding excavation, removal, and disposal of affected materials. The volume of impacted soil that is addressed by the soil removal action is estimated to be 160 cubic yards (cy). However, as a worst-case analysis and to account for additional materials encountered during removal, this air quality and greenhouse gas assessment assumes the removal of 500 cy.

1.4 Updated and Project-Specific Conditions

1.4.1 Regional Air Quality

The Project site is located within the South Coast Air Basin (Air Basin). The distinctive climate of the Air Basin is determined primarily by its terrain and geographical location. Regional meteorology is dominated by a persistent high-pressure area which commonly resides over the eastern Pacific Ocean. Seasonal variations in the strength and position of this pressure cell cause changes in the weather patterns of the area. Warm summers, mild winters, infrequent rainfall, moderate daytime on-shore breezes, and moderate humidity characterize local climatic conditions. This normally mild climatic condition is occasionally interrupted by periods of hot weather, winter storms, and hot easterly Santa Ana winds.

The Air Basin is an area of high air pollution potential, particularly from June through September. This condition is generally attributed to the large amount of pollutant emissions, light winds and shallow vertical atmospheric mixing. This frequently reduces pollutant dispersion, thus causing elevated air pollution levels. Pollutant concentrations in the Air Basin vary with location, season and time of day. Ozone concentrations, for example, tend to be lower along the coast, higher in the near inland valleys and lower in the far inland areas of the Air Basin and adjacent desert.

Certain air pollutants have been recognized to cause notable health problems and consequential damage to the environment either directly or in reaction with other pollutants, due to their presence in elevated concentrations in the atmosphere. Such pollutants have been identified and regulated as part of the overall endeavor to prevent further deterioration and facilitate improvement in air quality. The following pollutants are regulated by the United States

[5] Leighton Consulting, Inc. Draft Final Preliminary Environmental Assessment Equivalent Document for Burroughs Middle School Comprehensive Modernization Project, October 2017

[6] Leighton Consulting, Inc. Final Draft Removal Action Workplan for Burroughs Middle School Comprehensive Modernization Project, February 2018

Environmental Protection Agency (US EPA) and are subject to emissions control requirements adopted by federal, state and local regulatory agencies. These pollutants are referred to as "criteria air pollutants" as a result of the specific standards, or criteria, which have been adopted for them. A brief description of the health effects of these criteria air pollutants are provided below.

Ozone (O_3): O_3 is a secondary pollutant formed by the chemical reaction of Volatile Organic Compounds (VOCs) and Nitrogen Oxides (NO_X) under favorable meteorological conditions such as high temperature and stagnation episodes. O_3 concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable. An elevated level of O_3 irritates the lungs and breathing passages, causing coughing and pain in the chest and throat, thereby increasing susceptibility to respiratory infections and reducing the ability to exercise. Effects are more severe in people with asthma and other respiratory ailments. Long-term exposure may lead to scarring of lung tissue and may lower lung efficiency.

Volatile Organic Compounds (VOCs). VOCs are typically formed from combustion of fuels and/or released through evaporation of organic liquids. These are compounds comprised primarily of atoms of hydrogen and carbon. Internal combustion associated with motor vehicle usage is the major source of hydrocarbons, as are architectural coatings. Emissions of VOCs themselves are not "criteria" pollutants; however, they contribute with NO_X to formation of O_3 and are regulated as O_3 precursor emissions.

Nitrogen Dioxide (NO_2) and Nitrogen Oxides (NO_X): NO_X is a term that refers to a group of compounds containing nitrogen and oxygen. The primary compounds of air quality concern include NO_2 and nitric oxide (NO), which can quickly oxidize in the atmosphere to form NO_2. Ambient air quality standards have been promulgated for NO_2, which is a reddish-brown, reactive gas. The principle form of NO_X produced by combustion is NO, but NO reacts quickly in the atmosphere to form NO_2, creating the mixture of NO and NO_2 referred to as NO_X. Major sources of NO_X emissions include power plants, large industrial facilities, and motor vehicles. Emissions of NO_X are a precursor to the formation of ground-level ozone. NO_2 can potentially irritate the nose and throat, aggravate lung and heart problems, and may increase susceptibility to respiratory infections, especially in people with asthma. According to the California Air Resources Board (CARB), "NO_2 is an oxidizing gas capable of damaging cells lining the respiratory tract. Exposure to NO_2 along with other traffic-related pollutants, is associated with respiratory symptoms, episodes of respiratory illness and impaired lung functioning. Studies in animals have reported biochemical, structural, and cellular changes in the lung when exposed to NO_2 above the level of the current state air quality standard. Clinical studies of human subjects suggest that NO_2 exposure to levels near the current standard may worsen the effect of allergens in allergic asthmatics, especially in children."[7] NO_2 also contributes to the formation of particulate matter. The terms "NO_X" and "NO_2" are sometimes used interchangeably. However, the term "NO_X" is primarily used when discussing emissions, usually from combustion-related activities. The term "NO_2" is primarily used when discussing ambient air quality standards. More specifically, NO_2 is regulated as a criteria air pollutant under the Clean Air Act and subject to the ambient air quality standards, whereas NO_X and NO are not. In cases where the thresholds of significance, or impact

7 California Air Resources Board, "Nitrogen Dioxide – Overview," http://www.arb.ca.gov/research/aaqs/caaqs/no2-1/no2-1.htm. Accessed December 2017.

analyses are discussed in the context of NO_X emissions, it is based on the conservative assumption that all NO_X emissions would oxidize in the atmosphere to form NO_2.

Carbon Monoxide (CO): Carbon monoxide is primarily emitted from combustion processes and motor vehicles due to incomplete combustion of fuel. Elevated concentrations of CO weaken the heart's contractions and lower the amount of oxygen carried by the blood. It is especially dangerous for people with chronic heart disease. Inhalation of CO can cause nausea, dizziness, and headaches at moderate concentrations and can be fatal at high concentrations.

Sulfur Dioxide (SO_2): Major sources of SO_2 include power plants, large industrial facilities, diesel vehicles, and oil-burning residential heaters. Emissions of sulfur dioxide aggravate lung diseases, especially bronchitis. It also constricts the breathing passages, especially in asthmatics and people involved in moderate to heavy exercise. Sulfur dioxide potentially causes wheezing, shortness of breath, and coughing. High levels of particulates appear to worsen the effect of sulfur dioxide, and long-term exposures to both pollutants leads to higher rates of respiratory illness.

Particulate Matter (PM10 and PM2.5): The human body naturally prevents the entry of larger particles into the body. However, small particles including fugitive dust, with an aerodynamic diameter equal to or less than ten microns (PM10) and even smaller particles with an aerodynamic diameter equal to or less than 2.5 microns (PM2.5), can enter the body and are trapped in the nose, throat, and upper respiratory tract. These small particulates could potentially aggravate existing heart and lung diseases, change the body's defenses against inhaled materials, and damage lung tissue. The elderly, children, and those with chronic lung or heart disease are most sensitive to PM10 and PM2.5. Lung impairment can persist for two to three weeks after exposure to high levels of particulate matter. Some types of particulates could become toxic after inhalation due to the presence of certain chemicals and their reaction with internal body fluids. The elderly, children, and those with chronic lung, or heart, disease are most sensitive to PM10 and PM2.5. In children, studies have shown associations between particulate matter exposure and reduced lung function and increased respiratory symptoms and illnesses.[8] Lung impairment can persist for two to three weeks after exposure to high levels of particulate matter. Some types of particulates could become toxic after inhalation due to the presence of certain chemicals and their reaction with internal body fluids.

Lead (Pb): Lead is emitted from industrial facilities and from the sanding or removal of old lead-based paint. Smelting or processing the metal is the primary source of lead emissions, which is primarily a regional pollutant. Lead affects the brain and other parts of the body's nervous system. Exposure to lead in very young children impairs the development of the nervous system, kidneys, and blood forming processes in the body.

1.4.2 Local Air Quality

Existing Ambient Air Quality in the Project Area

The SCAQMD maintains a network of air quality monitoring stations located throughout the Air Basin to measure ambient pollutant concentrations. The monitoring area most representative of

8 California Air Resources Board, "Particulate Matter – Overview," http://www.arb.ca.gov/research/aaqs/caaqs/pm/pm.htm. Accessed December 2017.

the Project site is the Central Los Angeles County Coastal Monitoring Area (Station 087). Criteria pollutants monitored at this station include O_3, NO_2, CO, SO_2, PM10, PM2.5, and Pb. The most recent data available from the SCAQMD for these monitoring stations are from years 2013 to 2017.[9] The pollutant concentration data for these years are summarized in **Table 3,** *Pollutant Standards and Ambient Air Quality Data from Representative Monitoring Station*.

TABLE 3
POLLUTANT STANDARDS AND AMBIENT AIR QUALITY DATA FROM REPRESENTATIVE MONITORING STATION

Pollutant/Standard a	2013	2014	2015	2016	2017
O_3 (1-hour)					
Maximum Concentration (ppm)	0.081	0.113	0.104	0.103	0.116
Days > CAAQS (0.09 ppm)	0	3	2	2	6
O_3 (8-hour)					
Maximum Concentration (ppm)	0.069	0.094	0.074	0.078	0.086
4th High 8-hour Concentration (ppm)	0.060	0.072	0.072	0.071	0.080
Days > CAAQS (0.070 ppm)	0	7	6	4	14
Days > NAAQS (0.070 ppm)	0	6	6	4	14
NO_2 (1-hour)					
Maximum Concentration (ppm)	0.0903	0.0821	0.0791	0.0647	0.0806
98th Percentile Concentration (ppm)	0.0626	0.0674	0.0624	0.0610	0.0617
NO_2 (Annual)					
Annual Arithmetic Mean (0.030 ppm)	0.0218	0.0222	0.0222	0.0208	0.0205
CO (1-hour)					
Maximum Concentration (ppm)	--	3	3.2	1.9	1.9
CO (8-hour)					
Maximum Concentration (ppm)	2.0	2.0	1.8	1.4	1.6
SO_2 (1-hour)					
Maximum Concentration (ppm)	0.0063	0.0054	0.0126	0.0134	5.7
99th Percentile Concentration (ppm)	0.0052	0.0044	0.0063	0.0025	2.6
PM10 (24-hour)b					
Maximum Concentration (µg/m^3)	57	87	88	67	96
Est. Days > CAAQS (50 µg/m^3)	1	32	26	18	41
Est. Days > NAAQS (150 µg/m^3)	0	0	0	0	0
PM10 (Annual Average)					
Annual Arithmetic Mean (20 µg/m^3)	29.5	35.4	33.0	32.4	34.4
$PM_{2.5}$ (24-hour)					
Maximum Concentration (µg/m^3)	43.1	59.9	56.4	44.39	49.20
98th Percentile Concentration (µg/m^3)	29.0	34.5	38.0	27.3	27.80
Est. Days > NAAQS (35 µg/m^3)	1	6	7	2	5
$PM_{2.5}$ (Annual)					
Annual Arithmetic Mean (12 µg/m^3)	11.95	12.36	12.38	11.83	11.94
Lead					
Maximum 30-day average (µg/m^3)	0.013	0.013	0.013	0.016	0.017

a ppm = parts per million; µg/m^3 = micrograms per cubic meter; ND = No data
CAAQS = California Ambient Air Quality Standard
NAAQS = National Ambient Air Quality Standard
SOURCES: SCAQMD, 2019.

9 South Coast Air Quality Management District, Historical Data by Year, http://www.aqmd.gov/home/air-quality/air-quality-data-studies/historical-data-by-year. Accessed September 2019.

Sensitive Receptors

Certain population groups, such as children, elderly, and acutely and chronically ill persons (especially those with cardio-respiratory diseases), are considered more sensitive to the potential effects of air pollution than others. The nearest sensitive receptors are the existing students at Burroughs Middle School and residential uses surrounding the school (located as near as 15 feet from construction activity).

All other air quality sensitive receptors are located at greater distances from the Project site, and would be less impacted by Project emissions.

1.4.3 Existing Greenhouse Gas Environment

Global Climate Change

Global climate change refers to changes in average climatic conditions on Earth as a whole, including changes in temperature, wind patterns, precipitation and storms. Historical records indicate that global climate changes have occurred in the past due to natural phenomena; however, data indicates that the current global conditions differ from past climate changes in rate and magnitude. The current changes in global climate have been attributed to anthropogenic (human-caused) activities by the Intergovernmental Panel on Climate Change (IPCC).[10] The term greenhouse gas (GHG) refers to gases that trap long-wave radiation or heat in the atmosphere, which heats the surface of the Earth. Without human intervention, the Earth maintains an approximate balance between the GHG emissions in the atmosphere and the storage of GHGs in the oceans and terrestrial ecosystems. GHGs are the result of both natural and anthropogenic activities. Forest fires, decomposition, industrial processes, landfills, and consumption of fossil fuels for power generation, transportation, heating, and cooking are the primary sources of GHG emissions.

The Federal Government and State of California recognized that anthropogenic GHG emissions are contributing to changes in the global climate, and that such changes are having and will have adverse effects on the environment, the economy, and public health. While worldwide contributions of GHG emissions are expected to have widespread consequences, it is not possible to link particular changes to the environment of California, or elsewhere, to GHGs emitted from a particular source or location. In other words, emissions of GHGs have the potential to cause global impacts, rather than local impacts. Increased concentrations of GHGs in the Earth's atmosphere have been linked to global climate change and such conditions as rising surface temperatures, melting icebergs and snowpack, rising sea levels, and the increased frequency and magnitude of severe weather conditions. Existing climate change models also show that climate warming portends a variety of impacts on agriculture, including loss of microclimates that support specific crops, increased pressure from invasive weeds and diseases, and loss of productivity due to changes in water reliability and availability. In addition, rising temperatures

[10] Intergovernmental Panel on Climate Change, Climate Change 2007: The Physical Science Basis, Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, Summary for Policy Makers, 2007, https://www.ipcc.ch/report/ar4/wg1/.

and shifts in microclimates associated with global climate change are expected to increase the frequency and intensity of wildfires.

State law defines GHGs to include the following compounds: carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6).[11] The most common GHG that results from human activity is CO_2, which represents 76 percent of total anthropogenic GHG emissions in the atmosphere (as of 2010 data),[12] followed by CH_4 and N_2O. Scientists have established a Global Warming Potential (GWP) to gauge the potency of each GHG's ability to absorb and re-emit long-wave radiation. The GWP of a gas is determined using CO_2 as the reference gas with a GWP of 1 over 100 years. For example, a gas with a GWP of 10 is 10 times more potent than CO_2 over 100 years. The sum of each GHG multiplied by its associated GWP is referred to as carbon dioxide equivalents (CO_2e). The measurement unit CO_2e is used to report the combined potency of GHG emissions.

These GWP ratios are available from the IPCC. Historically, GHG emission inventories have been calculated using the GWPs from the IPCC's Second Assessment Report (SAR). In 2007, the IPCC updated the GWP values based on the latest science available at the time in its Fourth Assessment Report (AR4). The updated GWPs in the IPCC AR4 have begun to be used in recent GHG emissions inventories. In 2013, the IPCC again updated the GWP values based on the latest science in its Fifth Assessment Report (AR5).[13] However, United Nations Framework Convention on Climate Change (UNFCCC) reporting guidelines for national inventories require the use of GWP values from the IPCC Fourth Assessment Report (AR4). To comply with international reporting standards under the UNFCCC, official emission estimates for California and the U.S. are reported by the United States using AR4 GWP values, which have replaced the previously required use of IPCC Second Assessment Report (SAR) GWP values. Therefore, statewide and national GHG inventories have not yet updated their GWP values to the AR5 values, and they continue to use the AR4 GWPs. By applying the GWP ratios, project-related CO_2e emissions can be tabulated in metric tons per year. Typically, the GWP ratio corresponding to the warming potential of CO_2 over a 100-year period is used as a baseline. Compounds that are regulated as GHGs are discussed below.

Carbon Dioxide (CO_2): CO_2 is the most abundant GHG in the atmosphere and is primarily generated from fossil fuel combustion from stationary and mobile sources. CO_2 is the reference gas (GWP of 1) for determining the GWPs of other GHGs.

Methane (CH_4): CH_4 is emitted from biogenic sources (i.e., resulting from the activity of living organisms), incomplete combustion in forest fires, landfills, manure management, and leaks in

11 CEQA Guidelines Section 15364.5; Health and Safety Code, Section 38505(g).

12 Intergovernmental Panel on Climate Change, Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, 2014, https://www.ipcc.ch/pdf/assessment-report/ar5/syr/AR5_SYR_FINAL_All_Topics.pdf. Accessed December 2017.

13 Intergovernmental Panel on Climate Change, Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change: Chapter 8: Anthropogenic and Natural Radiative Forcing, 2013, https://www.ipcc.ch/pdf/assessment-report/ar5/wg1/WG1AR5_Chapter08_FINAL.pdf. Accessed: December 2017.

natural gas pipelines. The GWP of CH_4 is 21 in the IPCC SAR, 25 in the IPCC AR4, and 28 in the IPCC AR5.

Nitrous Oxide (N_2O): N_2O produced by human-related sources including agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuel, adipic acid production, and nitric acid production. The GWP of N_2O is 310 in the IPCC SAR, 298 in the IPCC AR4, and 265 in the IPCC AR5.

Hydrofluorocarbons (HFCs): HFCs are fluorinated compounds consisting of hydrogen, carbon, and fluorine. They are typically used as refrigerants in both stationary refrigeration and mobile air conditioning systems.

Perfluorocarbons (PFCs): PFCs are fluorinated compounds consisting of carbon and fluorine. They are primarily created as a byproduct of aluminum production and semiconductor manufacturing.

Sulfur Hexafluoride (SF_6): SF_6 is a fluorinated compound consisting of sulfur and fluoride. It is a colorless, odorless, nontoxic, nonflammable gas. It is most commonly used as an electrical insulator in high voltage equipment that transmits and distributes electricity.

The CARB compiles the State's GHG emissions inventory. The most updated inventory is referred to as the 2017 edition, which reports the State's GHG emissions inventory from calendar year 2015. Based on the 2015 GHG inventory data (i.e., the latest year for which data are available from CARB, California emitted 440.4 million metric tons of CO_2e ($MMTCO_2e$) including emissions resulting from imported electrical power.[14] Between 1990 and 2015, the population of California grew by approximately 9.3 million (from 29.8 to 39.1 million).[15] This represents an increase of approximately 31 percent from 1990 population levels. In addition, the California economy, measured as gross state product, grew from $773 billion in 1990 to $2.49 trillion in 2015 representing an increase of approximately 222 percent (just over three times the 1990 gross state product).[16] Despite the population and economic growth, California's net GHG emissions only grew by approximately 2.2 percent. According to CARB, the declining trend coupled with the state's GHG reduction programs (such as the Renewables Portfolio Standard, LCFS, vehicle efficiency standards, and declining caps under the Cap and Trade Program) demonstrate that California is on track to meet the 2020 GHG reduction target codified in California Health and Safety Code (HSC), Division 25.5, also known as The Global Warming

14 California Air Resources Board, California Greenhouse Gas 2000-2014 Inventory by Scoping Plan Category – Summary, http://www.arb.ca.gov/cc/inventory/data/data.htm. Accessed December 2017.

15 United States Census Bureau, Data Finders, 2009, http://www.census.gov/; California Department of Finance, E-5 Population and Housing Estimates for Cities, Counties and the State, 2011-2017; http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-5; State of California Department of Finance, American Community Survey, 2015, http://www.dof.ca.gov/Reports/Demographic_Reports/American_Community_Survey/documents/Web_ACS2014_Pop-Race.xlsx. Accessed June 2017.

16 California Legislative Analyst's Office, 2014 GDP: California Ranks 7th or 8th in the World, 2015, http://www.lao.ca.gov/LAOEconTax/Article/Detail/90. Accessed March 2017.

Solutions Act of 2006 (AB 32).[17] **Table 4,** *State of California Greenhouse Gas Emissions,* identifies and quantifies statewide anthropogenic GHG emissions and sinks (e.g., carbon sequestration due to forest growth) in 1990 and 2015. As shown in the table, the transportation sector is the largest contributor to statewide GHG emissions at 37 percent in 2015.

TABLE 4
STATE OF CALIFORNIA GREENHOUSE GAS EMISSIONS

Category	Total 1990 Emissions ($MMTCO_2e$)	Percent of Total 1990 Emissions	Total 2015 Emissions ($MMTCO_2e$)	Percent of Total 2014 Emissions
Transportation	150.7	35%	164.6	36%
Electric Power	110.6	26%	83.7	20%
Commercial	14.4	3%	12.8	4%
Residential	29.7	7%	23.2	5%
Industrial	103.0	24%	91.7	21%
Recycling and Wastea	–	–	8.7	2%
High GWP/Non-Specifiedb	1.3	<1%	19.1	4%
Agriculture/Forestry	23.6	6%	34.7	8%
Forestry Sinks	-6.7	–	–c	–
Net Total (IPCC SAR)	**426.6**	**100%**	–	–
Net Total (IPCC AR4) d	**431**	**100%**	**440.4**	**100%**

a Included in other categories for the 1990 emissions inventory.
b High GWP gases are not specifically called out in the 1990 emissions inventory.
c Forestry sinks was not calculated for 2014 pending a revised methodology under development.
d CARB revised the State's 1990 level GHG emissions using GWPs from the IPCC AR4.

SOURCES: CARB, Staff Report, California 1990 Greenhouse Gas Emissions Level and 2020 Emissions Limit, 2007; CARB, California Greenhouse Gas 2000-2015 Inventory by Scoping Plan Category – Summary, http://www.arb.ca.gov/cc/inventory/data/data.htm. Accessed July 2017.

Effects of Global Climate Change

The scientific community's understanding of the fundamental processes responsible for global climate change has improved over the past decade, and its predictive capabilities are advancing. However, there remain significant scientific uncertainties in, for example, predictions of local effects of climate change, occurrence, frequency, and magnitude of extreme weather events, effects of aerosols, changes in clouds, shifts in the intensity and distribution of precipitation, and changes in oceanic circulation. Due to the complexity of the Earth's climate system and inability to accurately model it, the uncertainty surrounding climate change may never be completely eliminated. Nonetheless, the IPCC's *Fifth Assessment Report, Summary for Policy Makers* states that, "it is *extremely likely* that more than half of the observed increase in global average surface

17 California Energy Commission, Inventory of California Greenhouse Gas Emissions and Sinks 1990 to 2004, 2006, https://planning.lacity.org/eir/8150Sunset/References/4.E.%20Greenhouse%20Gas%20Emissions/GHG.20_CEC%20GHG%20Emissions%20and%20Sinks.pdf . Accessed December 2017.

temperature from 1951 to 2010 was caused by the anthropogenic increase in greenhouse gas concentrations and other anthropogenic forc[es [*sic*] together."[18]

A report from the National Academy of Sciences concluded that 97 to 98 percent of the climate researchers most actively publishing in the field support the tenets of the IPCC in that climate change is very likely caused by human (i.e., anthropogenic) activity.[19] According to CARB, the potential impacts in California due to global climate change may include: loss in snow pack; sea level rise; more extreme heat days per year; more high ozone days; more large forest fires; more drought years; increased erosion of California's coastlines and sea water intrusion into the Sacramento and San Joaquin Deltas and associated levee systems; and increased pest infestation.[20] Below is a summary of some of the potential effects that could be experienced in California as a result of global warming and climate change.

In 2009, the California Natural Resources Agency (CNRA) published the *California Climate Adaptation Strategy* as a response to the Governor's Executive Order S-13-2008.[21] In 2014, the CNRA rebranded the first update of the 2009 adaptation strategy as the *Safeguarding California Plan*.[22] A 2017 update to *Safeguarding California* is now undergoing public review.[23] In 2016, the CNRA released *Safeguarding California: Implementation Action Plans* in accordance with Executive Order B-30-15, identifying a lead agency to lead adaptation efforts in each sector. *Safeguarding California* lists specific recommendations for state and local agencies to best adapt to the anticipated risks posed by a changing climate. In accordance with the 2009 *California Climate Adaptation Strategy*, the CEC was directed to develop a website on climate change scenarios and impacts that would be beneficial for local decision makers. The website, known as Cal-Adapt, became operational in 2011.[24] The information provided on the Cal-Adapt website represents a projection of potential future climate scenarios comprised of local average values for temperature, sea level rise, snowpack and other data representative of a variety of models and scenarios, including potential social and economic factors. According to the Cal-Adapt website, the portion of the state in which the Project site is located could result in an average increase in temperature of approximately 2°F) by 2070-2090, compared to the baseline 1961-1990 period.

18 Intergovernmental Panel on Climate Change, Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, 2014, https://www.ipcc.ch/pdf/assessment-report/ar5/syr/AR5_SYR_FINAL_All_Topics.pdf. Accessed December 2017.

19 Anderegg, William R. L., J.W. Prall, J. Harold, S.H., Schneider, Expert Credibility in Climate Change, Proceedings of the National Academy of Sciences of the United States of America. 2010;107:12107-12109.

20 California Environmental Protection Agency, Climate Action Team, Climate Action Team Report to Governor Schwarzenegger and the Legislature, (2006). Available at: http://climatechange.ca.gov/climate_action_team/reports/2006report/2006-04-03_FINAL_CAT_REPORT.PDF. Accessed December 2017.

21 CNRA, Climate Action Team, 2009. California Climate Adaptation Strategy: A Report to the Governor of the State of California in Response to Executive Order S-13-2008, (2009).

22 CNRA, 2017. Draft Report Safeguarding California Plan: 2017 Update to California's Climate Adaptation Strategy. http://resources.ca.gov/climate/safeguarding/. Accessed December 2017.

23 CNRA, 2017. Draft Report Safeguarding California Plan: 2017 Update to California's Climate Adaptation Strategy. http://resources.ca.gov/climate/safeguarding/. Accessed December 2017.

24 The Cal-Adapt website address is: http://cal-adapt.org.

2. Regulatory Setting

A number of statutes, regulations, plans and policies have been adopted which address air quality and climate change concerns. The Project site and vicinity is subject to regulations developed and implemented at the federal, State, and local levels. At the federal level, the US EPA is responsible for implementation of the federal Clean Air Act (CAA). Some portions of the CAA (e.g., certain mobile source requirements and other requirements) are implemented directly by the US EPA. Other portions of the CAA (e.g., stationary source requirements) are implemented through delegation of authority to State and local agencies.

2.1 Federal

2.1.1 Federal Clean Air Act

The federal CAA was the first federal legislation regarding air pollution control. At the federal level, the US EPA is responsible for implementation of certain portions of the CAA including mobile source requirements. Other portions of the CAA, such as stationary source requirements, are implemented by state and local agencies.

Under Title I, Nonattainment Provisions, the CAA establishes federal air quality standards, known as National Ambient Air Quality Standards (NAAQS), for the following criteria pollutants O_3, NO_2, CO, SO_2, PM10, PM2.5, and Pb. It also specifies future dates for achieving compliance with the NAAQS and mandates that states submit and implement a State Implementation Plan (SIP) for local areas not meeting these standards. These plans must include pollution control measures that demonstrate how the standards would be met. The 1990 amendments to the CAA identify specific emission reduction goals for basins not meeting the NAAQS. These amendments require both a demonstration of reasonable further progress toward attainment and incorporation of additional sanctions for failure to attain or to meet interim milestones. **Table 5,** *Ambient Air Quality Standards*, shows the NAAQS currently in effect for each criteria pollutant.

Title II of the CAA, Mobile Source Provisions, pertains to mobile sources such as cars, trucks, buses, and planes. Reformulated gasoline, automobile pollution control devices, and vapor recovery nozzles on gas pumps are a few of the mechanisms the US EPA uses to regulate mobile air emission sources. The provisions of Title II have resulted in tailpipe emission standards for vehicles, which have strengthened in recent years to improve air quality. For example, the standards for NO_X emissions have lowered substantially and the specification requirements for cleaner burning gasoline are more stringent.

TABLE 5
AMBIENT AIR QUALITY STANDARDS

Pollutant	Average Time	California Standards [a]		National Standards [b]		
		Concentration [c]	Method [d]	Primary [c, e]	Secondary [c, f]	Method [g]
O_3 h	1 Hour	0.09 ppm (180 µg/m^3)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m^3)		0.070 ppm (137 µg/m^3)		
NO_2 [i]	1 Hour	0.18 ppm (339 µg/m^3)	Gas Phase Chemi-luminescence	100 ppb (188 µg/m^3)	None	Gas Phase Chemi-luminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)		53 ppb (100 µg/m^3)	Same as Primary Standard	
CO	1 Hour	20 ppm (23 mg/m^3)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m^3)	None	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10mg/m^3)		9 ppm (10 mg/m^3)		
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		—	—	
SO_2 [j]	1 Hour	0.25 ppm (655 µg/m^3)	Ultraviolet Fluorescence	75 ppb (196 µg/m^3)	—	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method)[9]
	3 Hour	—		—	0.5 ppm (1300 µg/m^3)	
	24 Hour	0.04 ppm (105 µg/m^3)		0.14 ppm (for certain areas) [j]	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas) [j]	—	
PM10 [k]	24 Hour	50 µg/m^3	Gravimetric or Beta Attenuation	150 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m^3		—		
PM2.5 [k]	24 Hour	No Separate State Standard		35 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m^3	Gravimetric or Beta Attenuation	12.0 µg/m^3 [k]	15 µg/m^3	
Lead [l, m]	30 Day Average	1.5 µg/m^3	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m^3 (for certain areas)[m]	Same as Primary Standard	
	Rolling 3-Month Average [m]	--		0.15 µg/m^3		

Pollutant	Average Time	California Standards [a]		National Standards [b]		
		Concentration [c]	Method [d]	Primary [c, e]	Secondary [c, f]	Method [g]
Visibility Reducing Particles [n]	8 Hour	Extinction coefficient of 0.23 per kilometer — visibility of ten miles or more (0.07 — 30 miles or more for Lake Tahoe) due to particles when relative humidity is less than 70 percent. Method: Beta Attenuation and Transmittance through Filter Tape.		No Federal Standards		
Sulfates (SO_4)	24 Hour	25 µg/m^3	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence			
Vinyl Chloridel	24 Hour	0.01 ppm (26 µg/m^3)	Gas Chromatography			

[a] California standards for O_3, CO (except 8-hour Lake Tahoe), SO_2 (1 and 24 hour), NO_2nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

[b] National standards (other than O_3, PM10, PM2.5, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The O_3 standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m^3 is equal to or less than one. For PM2.5, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.

[c] Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

[d] Any equivalent procedure which can be shown to the satisfaction of CARB to give equivalent results at or near the level of the air quality standard may be used.

[e] National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

[f] National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

[g] Reference method as described by the USEPA. An “equivalent method” of measurement may be used but must have a “consistent relationship to the reference method” and must be approved by the USEPA.

[h] On October 1, 2015, the national 8-hour O_3 primary and secondary standards were lowered from 0.075 to 0.070 ppm.

[i] To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb.

[j] On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated non-attainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

[k] On December 14, 2012, the national annual PM2.5 primary standard was lowered from 15 µg/m^3 to 12.0 µg/m^3.

[l] CARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

[m] The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 µg/m^3 as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated non-attainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

[n] In 1989, CARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

SOURCE: California Air Resources Board, Ambient Air Quality Standards (5/4/16), http://www.arb.ca.gov/research/aaqs/aaqs2.pdf. Accessed December 2017.

2.1.2 United States Environmental Protection Agency

The US EPA is responsible for implementing federal policy to address global climate change. The federal government administers a wide array of public-private partnerships to reduce the GHG intensity generated by the United States. These programs focus on energy efficiency, renewable energy, methane and other non-carbon dioxide (CO_2) gases, agricultural practices, and implementation of technologies to achieve GHG reductions. The US EPA implements several voluntary programs that substantially contribute to the reduction of GHG emissions. All of these

programs play a significant role in encouraging voluntary reductions from large corporations, consumers, industrial and commercial buildings, and many major industrial sectors.

- The State Climate and Energy Partner Network that allows for the exchange of information between federal and state agencies regarding climate and energy,
- The Climate Leaders program for companies,
- The Energy Star labeling system for energy-efficient products, and
- The Green Power Partnership for organizations interested in buying green power.

On December 7, 2009, the US EPA Administrator signed two distinct findings regarding GHGs under Section 202(a) of the federal CAA. The US EPA adopted a Final Endangerment Finding for the six defined GHGs CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6.[25] The Endangerment Finding is required before US EPA can regulate GHG emissions under Section 202(a)(1) of the CAA in fulfillment of the U.S. Supreme Court decision. The US EPA also adopted a Cause or Contribute Finding in which the US EPA Administrator found that GHG emissions from new motor vehicle and motor vehicle engines are contributing to air pollution, which is endangering public health and welfare. These findings do not, by themselves, impose any requirements on industry or other entities. However, these actions were a prerequisite for implementing GHG emissions standards for vehicles.

On May 19, 2009, the President announced a national policy for fuel efficiency and emissions standards in the United States auto industry.[26] The adopted Federal standard applies to passenger cars and light-duty trucks for model years 2012 through 2016. The rule surpasses the prior Corporate Average Fuel Economy standards and requires an average fuel economy standard of 35.5 miles per gallon (mpg) and 250 grams of CO_2 per mile by model year 2016, based on USEPA calculation methods. These standards were formally adopted on April 1, 2010. In August 2012, standards were adopted for model year 2017 through 2025 passenger cars and light-duty trucks. By 2025, vehicles are required to achieve 54.5 mpg (if GHG reductions are achieved exclusively through fuel economy improvements) and 163 grams of CO_2 per mile. According to USEPA, a model year 2025 vehicle would emit one-half of the GHG emissions from a model year 2010 vehicle.[27]

On December 7, 2009, the USEPA Administrator signed two distinct findings regarding GHGs under Federal Clean Air Act Section 202(a). USEPA adopted a Final Endangerment Finding for the six defined GHGs (CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6) on December 7, 2009. The Endangerment Finding is required before USEPA can regulate GHG emissions under Clean Air

[25] United States Environmental Protection Agency, Endangerment and Cause or Contribute Findings for Greenhouse Gases under the Section 202(a) of the Clean Air Act, https://www.epa.gov/climate-change/endangerment-and-cause-or-contribute-findings-greenhouse-gases-under-section-202a. Accessed December 2017.

[26] On March 15, 2017, the Trump Administration announced its intention to direct USEPA to reconsider the model year 2017–2025 cars and light-truck emissions standards, but did not rescind California's waiver. Therefore, the standards remain in effect. See: The White House, Remarks by President Trump at American Center for Mobility | Detroit, MI, March 15, 2017, https://www.whitehouse.gov/the-press-office/2017/03/15/remarks-president-trump-american-center-mobility-detroit-mi, accessed December 2018.

[27] United States Environmental Protection Agency (USEPA), EPA and NHTSA Set Standards to Reduce Greenhouse Gases and Improve Fuel Economy for Model Years 2017–2025 Cars and Light Trucks, EPA-420-F-12-051, August 2012, https://nepis.epa.gov/Exe/ZyPDF.cgi/P100EZ7C.PDF?Dockey=P100EZ7C.pdf, accessed December 2018.

Act Section 202(a)(1) consistent with the United States Supreme Court's decision. The USEPA also adopted a Cause or Contribute Finding in which the USEPA Administrator found that GHG emissions from new motor vehicle and motor vehicle engines are contributing to air pollution that is endangering public health and welfare. These findings do not themselves impose any requirements on industry or other entities. However, these actions were a prerequisite for implementing GHG emissions standards for vehicles.

Standards for GHG emissions and fuel efficiency for medium- and heavy-duty trucks have been jointly developed by USEPA and the National Highway Traffic Safety Administration (NHTSA). The Phase 1 standards apply to combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles for model years 2014 through 2018 and result in a reduction in fuel consumption from 6 to 23 percent over the 2010 baseline, depending on the vehicle type.[28] USEPA and NHTSA are in the process of considering adoption of the Phase 2 standards that would cover model years 2021 through 2027 and require the phase in of a 5 to 25 percent reduction in fuel consumption over the 2017 baseline depending on the compliance year and vehicle type.[29]

2.2 State

2.2.1 California Air Resources Board

CARB, a part of the California Environmental Protection Agency (CalEPA), is responsible for the coordination and administration of both federal and state air pollution control programs within California. In this capacity, CARB conducts research, sets state ambient air quality standards (California Ambient Air Quality Standards [CAAQS]), compiles emission inventories, develops suggested control measures, and provides oversight of local programs. CARB establishes emissions standards for motor vehicles sold in California, consumer products (such as hairspray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. CARB has primary responsibility for the development of California's SIP, for which it works closely with the federal government and the local air districts. The SIP is required for the State to take over implementation of the federal CAA from the US EPA.

In 2004, CARB adopted an Airborne Toxic Control Measure (ACTM) to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to diesel particulate matter and other toxic air contaminants (Title 13 California Code of Regulations [CCR], Section 2485). The measure applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds that are licensed to operate on highways, regardless of where they are registered. This measure generally does not allow diesel-fueled commercial vehicles to idle for more than five (5) minutes at any given location with certain exemptions for equipment in which idling is a

[28] USEPA, EPA and NHTSA Adopt First-Ever Program to Reduce Greenhouse Gas Emissions and Improve Fuel Efficiency of Medium- and Heavy-Duty Vehicles, EPA-420-F-11-031, August 2011, https://nepis.epa.gov/Exe/ZyPDF.cgi/P100BOT1.PDF?Dockey=P100BOT1.pdf, accessed December 2018.

[29] USEPA, Greenhouse Gas Emissions and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles—Phase 2, Federal Register 81(206), October 25, 2016, https://www.gpo.gov/fdsys/pkg/FR-2016-10-25/pdf/2016-21203.pdf, accessed December 2018.

necessary function such as concrete trucks. While this measure primarily targets diesel particulate matter emissions, it has co-benefits of minimizing GHG emissions from unnecessary truck idling.

In 2008, CARB approved the Truck and Bus regulation to reduce particulate matter and nitrogen oxide emissions from existing diesel vehicles operating in California (13 CCR, Section 2025, subsection (h)). CARB has also promulgated emission standards for off-road diesel construction equipment of greater than 25 horsepower such as bulldozers, loaders, backhoes and forklifts, as well as many other self-propelled off-road diesel vehicles. The regulation adopted by the CARB on July 26, 2007, aims to reduce emissions by installation of diesel soot filters and encouraging the retirement, replacement, or repower of older, dirtier engines with newer emission-controlled models. While these regulations primarily target reductions in criteria air pollutant emission, they have co-benefits of minimizing GHG emissions due to improved engine efficiencies.

2.2.2 California Clean Air Act

The California Clean Air Act, signed into law in 1988, requires all areas of the state to achieve and maintain the CAAQS by the earliest practical date. The CAAQS apply to the same criteria pollutants as the federal Clean Air Act but also include state-identified criteria pollutants, which include sulfates, visibility-reducing particles, hydrogen sulfide, and vinyl chloride. CARB has primary responsibility for ensuring the implementation of the California Clean Air Act, responding to the federal Clean Air Act planning requirements applicable to the state, and regulating emissions from motor vehicles and consumer products within the state. Table 5 shows the CAAQS currently in effect for each of the criteria pollutants as well as the other pollutants recognized by the state. As shown in Table 5, the CAAQS include more stringent standards than the NAAQS for most of the criteria air pollutants.

Health and Safety Code Section 39607(e) requires CARB to establish and periodically review area designation criteria. **Table 6,** *South Coast Air Basin Attainment Status (Los Angeles County)* provides a summary of the attainment status of the Los Angeles County portion of the Air Basin with respect to the state standards. The Air Basin is designated as attainment for the California standards for sulfates, hydrogen sulfide, and vinyl chloride. As shown in Table 6, the Air Basin is currently in nonattainment for ozone, PM10, and PM2.5 under the CAAQS.

The Clean Air Act also specifies future dates for achieving compliance with the NAAQS and mandates that states submit and implement a State Implementation Plan (SIP) for local areas not meeting these standards. These plans must include pollution control measures that demonstrate how the standards would be met. The 1990 amendments to the Clean Air Act identify specific emission reduction goals for basins not meeting the NAAQS. These amendments require both a demonstration of reasonable further progress toward attainment and incorporation of additional sanctions for failure to attain, or meet, interim milestones.

TABLE 6
SOUTH COAST AIR BASIN ATTAINMENT STATUS (LOS ANGELES COUNTY)

Pollutant	National Standards	California Standards
Ozone (1-hour standard)	N/A [a]	Non-attainment
Ozone (8-hour standard)	Non-attainment – Extreme	Non-attainment
Carbon Monoxide	Attainment	Attainment
Nitrogen Dioxide	Attainment	Attainment
Sulfur Dioxide	Attainment	Attainment
PM10	Attainment	Non-attainment
PM2.5	Non-attainment – Serious	Non-attainment
Lead	Non-attainment (Partial) [b]	Attainment
Visibility Reducing Particles	N/A	Unclassified
Sulfates	N/A	Attainment
Hydrogen Sulfide	N/A	Attainment
Vinyl Chloride	N/A	N/A [c]

N/A = not applicable

[a] The NAAQS for 1-hour ozone was revoked on June 15, 2005, for all areas except Early Action Compact areas.

[b] Partial Nonattainment designation – Los Angeles County portion of the Air Basin only for near-source monitors.

[c] In 1990 the California Air Resources Board identified vinyl chloride as a toxic air contaminant and determined that it does not have an identifiable threshold. Therefore, the California Air Resources Board does not monitor or make status designations for this pollutant.

SOURCE: United States Environmental Protection Agency, The Green Book Non-attainment Areas for Criteria Pollutants, https://www.epa.gov/green-book. Accessed November 2017; California Air Resources Board, Area Designations Maps/State and National, http://www.arb.ca.gov/desig/adm/adm.htm. Accessed December 2017.

Title II of the Clean Air Act pertains to mobile sources, such as cars, trucks, buses, and planes. Reformulated gasoline, automobile pollution control devices, and vapor recovery nozzles on gas pumps are a few of the mechanisms the US EPA uses to regulate mobile air emission sources. The provisions of Title II have resulted in tailpipe emission standards for vehicles, which have strengthened in recent years to improve air quality. For example, the standards for NO_X emissions have lowered substantially and the specification requirements for cleaner burning gasoline are more stringent.

2.2.3 Air Quality and Land Use Handbook

The CARB published the Air Quality and Land Use Handbook in April 2005 to serve as a general guide for considering impacts to sensitive receptors from facilities that emit toxic air contaminant (TAC) emissions. The recommendations provided therein are voluntary and do not constitute a requirement or mandate for either land use agencies or local air districts.

2.2.4 On-Road and Off-Road Vehicle Rules

In 2004, CARB adopted an Airborne Toxic Control Measure (ATCM) to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to diesel particulate matter (DPM) and

other TACs (Title 13 California Code of Regulations [CCR], Section 2485).[30] The measure applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds that are licensed to operate on highways, regardless of where they are registered. This measure does not allow diesel-fueled commercial vehicles to idle for more than 5 minutes at any given time.

In 2008 CARB approved the Truck and Bus regulation to reduce NO_X, PM10, and PM2.5 emissions from existing diesel vehicles operating in California (13 CCR, Section 2025).[31] The requirements were amended in December 2010 and apply to nearly all diesel fueled trucks and busses with a gross vehicle weight rating greater than 14,000 pounds. For the largest trucks in the fleet, those with a gross vehicle weight rating greater than 26,000 pounds, there are two methods to comply with the requirements. The first way is for the fleet owner to retrofit or replace engines, starting with the oldest engine model year, to meet 2010 engine standards, or better. This is phased over eight years, starting in 2015 and would be fully implemented by 2023, meaning that all trucks operating in the State subject to this option would meet, or exceed, the 2010 engine emission standards for NO_X and DPM by 2023. The second option, if chosen, requires fleet owners, starting in 2012, to retrofit a portion of their fleet with diesel particulate filters achieving at least 85 percent removal efficiency, so that by January 1, 2016 their entire fleet was equipped with diesel particulate filters. However, diesel particulate filters do not typically lower NO_X emissions. Thus, fleet owners choosing the second option must still comply with the 2010 engine emission standards for their trucks and busses by 2020.

In addition to limiting exhaust from idling trucks, CARB promulgated emission standards for off-road diesel construction equipment of greater than 25 horsepower (hp) such as bulldozers, loaders, backhoes and forklifts, as well as many other self-propelled off-road diesel vehicles. The regulation adopted by the CARB on July 26, 2007, aims to reduce emissions by installation of diesel soot filters and encouraging the retirement, replacement, or repower, of older, dirtier engines with newer emission controlled models (13 CCR, Section 2449).[32] Implementation is staggered based on fleet size (which is the total of all off-road horsepower under common ownership or control), with the largest fleets to begin compliance January 1, 2014. Each fleet must demonstrate compliance through one of two methods. The first option is to calculate and maintain fleet average emissions targets, which encourages the retirement, or repowering, of older equipment and rewards the introduction of newer cleaner units into the fleet. The second option is to meet the Best Available Control Technology (BACT) requirements by turning over, or installing, Verified Diesel Emission Control Strategies (VDECS) on a certain percentage of its total fleet horsepower. The compliance schedule requires that BACT turn overs, or retrofits

30 California Air Resources Board, Final Regulation Order, Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling, https://www.arb.ca.gov/regact/idling/fro1.pdf. Accessed March 2017.

31 California Air Resources Board, Final Regulation Order, Amendments to the Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen and Other Criteria Pollutants from In-Use On-Road Diesel-Fueled Vehicles, http://www.arb.ca.gov/msprog/onrdiesel/documents/TBFinalReg.pdf. Accessed March 2017.

32 California Air Resources Board, Final Regulation Order, Regulation for In-Use Off-Road Diesel-Fueled Fleets, http://www.arb.ca.gov/regact/2010/offroadlsi10/finaloffroadreg.pdf. Accessed March 2017.

(VDECS installation), be fully implemented by 2023 in all equipment in large and medium fleets and across 100 percent of small fleets by 2028.

2.2.5 California Greenhouse Gas Reduction Targets

The Governor announced on June 1, 2005, through Executive Order S-3-05,[33] the following GHG emission reduction targets:

- By 2010, California shall reduce GHG emissions to 2000 levels;
- By 2020, California shall reduce GHG emissions to 1990 levels; and
- By 2050, California shall reduce GHG emissions to 80 percent below 1990 levels.

In accordance with Executive Order S-3-05, the Secretary of CalEPA is required to coordinate efforts of various agencies, which comprise the California Climate Action Team (CAT), in order to collectively and efficiently reduce GHGs. These agencies include CARB, the Secretary of the Business, Transportation and Housing Agency, Department of Food and Agriculture, the Resources Agency, the California Energy Commission, and the Public Utilities Commission. The CAT provides periodic reports to the Governor and Legislature on the state of GHG reductions in the state as well as strategies for mitigating and adapting to climate change. The first CAT Report to the Governor and the Legislature in 2006 contained recommendations and strategies to help meet the targets in Executive Order S-3-05. The 2010 CAT Report, finalized in December 2010, expands on the policies in the 2006 assessment.[34] The new information detailed in the CAT Report includes development of revised climate and sea-level projections using new information and tools that became available and an evaluation of climate change within the context of broader social changes, such as land-use changes and demographic shifts.

On April 29, 2015, Governor Brown issued Executive Order B-30-15. Therein, the Governor directed the following:

- Established a new interim statewide reduction target to reduce GHG emissions to 40 percent below 1990 levels by 2030.
- Ordered all state agencies with jurisdiction over sources of GHG emissions to implement measures to achieve reductions of GHG emissions to meet the 2030 and 2050 reduction targets.
- Directed CARB to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalent.

In response to the 2030 GHG reduction target, CARB adopted the 2017 Climate Change Scoping Plan at a public meeting held in December 2017.[35] The 2017 Scoping Plan outlines the strategies the State will implement to achieve the 2030 GHG reduction target, which build on the Cap-and-

---

33 California Office of the Governor, Executive Order S-3-05, https://www.gov.ca.gov/news.php?id=1861. Accessed March 2017.

34 California Environmental Protection Agency, Climate Action Team, Climate Action Team Report to Governor Schwarzenegger and the Legislature, 2010, http://www.energy.ca.gov/2010publications/CAT-1000-2010-005/CAT-1000-2010-005.PDF. Accessed March 2017.

35 California Air Resources Board, California's 2017 Climate Change Scoping Plan, November 2017. Available at: https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf. Accessed January 2018.

Trade Regulation, the Low Carbon Fuel Standard (LCFS), improved vehicle, truck and freight movement emissions standards, increasing renewable energy, and strategies to reduce methane emissions from agricultural and other wastes by using it to meet our energy needs. The 2017 Scoping Plan also comprehensively addresses GHG emissions from natural and working lands of California, including the agriculture and forestry sectors. The 2017 Scoping Plan considered a number of different alternatives to achieve the 2030 GHG reduction goal. The "Scoping Plan Scenario" was ultimately adopted and relies on the continuation of ongoing and statutorily required programs and continuation of the Cap-and-Trade Program. The Scoping Plan Scenario was modified from the January 2017 Proposed Scoping Plan to reflect AB 398, including removal of the 20 percent GHG reduction measure for refineries.[36]

CARB states that the Scoping Plan Scenario "is the best choice to achieve the State's climate and clean air goals".[37] Under the Scoping Plan Scenario, the majority of the reductions would result from continuation of the Cap-and-Trade regulation. Additional reductions are achieved from electricity sector standards (i.e., utility providers to supply 50 percent renewable electricity by 2030), doubling the energy efficiency savings at end uses, additional reductions from the LCFS, implementing the short-lived GHG strategy (e.g., hydrofluorocarbons), and implementing the mobile source strategy and sustainable freight action plan. The alternatives are designed to consider various combinations of these programs as well as consideration of a carbon tax in the event the Cap-and-Trade regulation is not continued. However, in July 2017, the California Legislature voted to extend the Cap-and-Trade regulation to 2030.

2.2.6 California Health and Safety Code, Division 25.5 – California Global Warming Solutions Act of 2006

In 2006, the California State Legislature adopted Assembly Bill (AB) 32 (codified in the California Health and Safety Code [HSC], Division 25.5 – California Global Warming Solutions Act of 2006), which focuses on reducing GHG emissions in California to 1990 levels by 2020. HSC Division 25.5 defines GHGs as CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6 and represents the first enforceable statewide program to limit emissions of these GHGs from all major industries with penalties for noncompliance. The law further requires that reduction measures be technologically feasible and cost effective. Under HSC Division 25.5, CARB has the primary responsibility for reducing GHG emissions. CARB is required to adopt rules and regulations directing state actions that would achieve GHG emissions reductions equivalent to 1990 statewide levels by 2020. In 2016, the California State Legislature adopted Senate Bill (SB) 32 and its companion bill AB 197, and both were signed by Governor Brown. SB 32 and AB 197 amends HSC Division 25.5 and establishes a new climate pollution reduction target of 40 percent below 1990 levels by 2030 and includes provisions to ensure the benefits of state climate policies reach into disadvantaged communities.

[36] California Air Resources Board, California's 2017 Climate Change Scoping Plan, November 2017, Page 23. Available at: https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf . Accessed January 2018.

[37] California Air Resources Board, California's 2017 Climate Change Scoping Plan, November2017. Available at: https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf . Accessed January 2018.

A specific requirement of AB 32 was to prepare a Climate Change Scoping Plan for achieving the maximum technologically feasible and cost-effective GHG emission reduction by 2020 (Health and Safety Code section 38561 (h)). CARB developed an AB 32 Scoping Plan that contains strategies to achieve the 2020 emissions cap.[38] The initial scoping plan was approved in 2008. It contained a mix of recommended strategies that combined direct regulations, market-based approaches, voluntary measures, policies, and other emission reduction programs calculated to meet the 2020 statewide GHG emission limit and initiate the transformations needed to achieve the State's long-range climate objectives.[39] The first update to the Scoping Plan was approved by CARB in May 2014 and built upon the initial Scoping Plan with new strategies and recommendations.[40]

As required by HSC Division 25.5, CARB approved the 1990 GHG emissions inventory, thereby establishing the emissions limit for 2020. The 2020 emissions limit was originally set at 427 $MMTCO_2e$ using the GWP values from the IPCC SAR. CARB also projected the state's 2020 GHG emissions under business-as-usual (BAU) conditions – that is, emissions that would occur without any plans, policies, or regulations to reduce GHG emissions. CARB originally used an average of the state's GHG emissions from 2002 through 2004 and projected the 2020 levels at approximately 596 $MMTCO_2e$ (using GWP values from the IPCC SAR). Therefore, under the original projections, the state must reduce its projected 2020 emissions by 28.4 percent in order to meet the 1990 target of 427 $MMTCO_2e$. In 2014, CARB revised the target using the GWP values from the IPCC AR4 and determined that the 1990 GHG emissions inventory and 2020 GHG emissions limit is 431 $MMTCO_2e$. CARB also updated the State's projected 2020 emissions estimate to account for the effect of the 2007–2009 economic recession, new estimates for future fuel and energy demand, and the reductions required by regulation that were recently adopted for motor vehicles and renewable energy. CARB's projected statewide 2020 emissions estimate using the GWP values from the IPCC AR4 is 509.4 $MMTCO_2e$. Therefore, the emission reductions necessary to achieve the 2020 emissions target of 431 $MMTCO_2e$ would be 78.4 $MMTCO_2e$, or a reduction of GHG emissions by approximately 15.4 percent. In the 2017 Climate Change Scoping Plan Update, CARB provides the estimated projected statewide 2030 emissions and the level of reductions necessary to achieve the 2030 target of 40 percent below 1990 levels. CARB's projected statewide 2030 emissions takes into account 2020 GHG reduction policies and programs. A summary of the GHG emissions reductions required under HSC Division 25.5 is provided in **Table 7,** *Estimated Greenhouse Gas Emissions Reductions Required by HSC Division 25.5*.

38 California Air Resources Board, Initial AB 32 Climate Change Scoping Plan Document, https://www.arb.ca.gov/cc/scopingplan/scopingplan.htm. Accessed December 2017

39 California Air Resources Board, Initial AB 32 Climate Change Scoping Plan Document, https://www.arb.ca.gov/cc/scopingplan/scopingplan.htm. Accessed December 2017.

40 California Air Resources Board, First Update to the AB 32 Scoping Plan, https://www.arb.ca.gov/cc/scopingplan/scopingplan.htm. Accessed December 2017.

TABLE 7
ESTIMATED GREENHOUSE GAS EMISSIONS REDUCTIONS REQUIRED BY HSC DIVISION 25.5

Emissions Scenario	GHG Emissions ($MMTCO_2e$)
2008 Scoping Plan (IPCC SAR)	
2020 BAU Forecast (CARB 2008 Scoping Plan Estimate)	596
2020 Emissions Target Set by HSC Division 25.5 (i.e., 1990 Level)	427
Reduction below BAU Necessary to Achieve 1990 Levels by 2020	169 (28.4%) [a]
2011 Scoping Plan (GHG Estimates Updated in 2014 to Reflect IPCC AR4 GWPs)	
2020 BAU Forecast (CARB 2011 Scoping Plan Estimate)	509.4
2020 Emissions Target Set by HSC Division 25.5 (i.e., 1990 Level)	431
Reduction Necessary to Achieve 1990 Levels by 2020	78.4 (15.4%) [b]
2017 Scoping Plan	
2030 BAU Forecast ("Reference Scenario" which includes 2020 GHG reduction policies and programs)	389
2030 Emissions Target Set by HSC Division 25.5 (i.e., 40% below 1990 Level)	260
Reduction below Business-As-Usual Necessary to Achieve 40% below 1990 Level by 2030	**129 (33.2%)** [c]

$MMTCO_2e$ = million metric tons of carbon dioxide equivalents

[a] 596 – 427 = 169 / 596 = 28.4%
[b] 509.4 – 431 = 78.4 / 509.4 = 15.4%
[c] 389 – 260 = 129 / 389 = 33.2%

SOURCE: California Air Resources Board, Final Supplement to the AB 32 Scoping Plan Functional Equivalent Document (FED), Attachment D, August 19, 2011; California Air Resources Board, 2020 Business-As-Usual (BAU) Emissions Projection, 2014 Edition, http://www.arb.ca.gov/cc/inventory/data/bau.htm. Accessed October 2016; California Air Resources Board, The 2017 Climate Change Scoping Plan Update, November 2017. https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf. Accessed May 2018.

In its Climate Change Scoping Plan, CARB has acknowledged that land use-driven emissions are highly complex: "While it is possible to illustrate the [GHG] inventory many different ways, no chart or graph can fully display how diverse economic sectors fit together. California's economy is a web of activity where seemingly independent sectors and subsectors operate interdependently and often synergistically."[41] GHG emissions and reductions in the land use sector are complicated to assess given that emissions are influenced by reduction measures separate from the land use sector, such as the LCFS, vehicle emissions standards, and entities regulated under the Cap-and-Trade program including refineries and utility providers. These measures will impact other sectors of the economy and will also impact existing development in addition to new land use development. In its report, *California Environmental Quality Act Guidelines Update Proposed Thresholds of Significance*, the Bay Area Air Quality Management District (BAAQMD) evaluated the reduction in land use emissions needed in order to be consistent with AB 32.[42] CARB included the following sectors for land use emissions: Transportation (on-road passenger

41 California Air Resources Board, Climate Change Scoping Plan, December 2008, https://www.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf. Accessed May 2017.

42 Bay Area Air Quality Management District, California Environmental Quality Act Guidelines Update Proposed Thresholds of Significance, May 2010, http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/proposed_thresholds_report_-may_3_2010_final.pdf?la=en. Accessed: May 2017.

vehicles; on-road heavy-duty), electric power (electricity; cogeneration), commercial and residential (residential fuel use; commercial fuel use) and recycling and waste (domestic wastewater treatment). Table 2 of the BAAQMD document presents the results of this analysis, which shows that the 26.2 percent reduction from statewide land-use driven GHG emissions would be necessary to meet the AB 32 goal of returning to the 1990 emission levels by 2020, which is lower than the statewide reduction of 28.5 percent required based on the original 2008 Climate Change Scoping Plan projections.

2.2.7 SB 97

SB 97, enacted in 2007, directed the State Office of Planning and Research (OPR) to develop California Environmental Quality Act (CEQA) Guidelines "for the mitigation of GHG emissions or the effects of GHG emissions." In December 2009, OPR adopted amendments to the CEQA Guidelines, Appendix G Environmental Checklist, which created a new resource section for GHG emissions and indicated criteria that may be used to establish significance of GHG emissions. Appendix F of the CEQA Guidelines states that, in order to ensure that energy implications are considered in project decisions, the potential energy implications of a project shall be considered in an EIR, to the extent relevant and applicable to the project. Appendix F further states that a project's energy consumption and proposed conservation measures may be addressed, as relevant and applicable.

2.2.8 Title 24, Building Standards Code and CALGreen Code

The California Energy Commission first adopted the Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6) in 1978 in response to a legislative mandate to reduce energy consumption in the state. Although not originally intended to reduce GHG emissions, increased energy efficiency, and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard. The standards are updated periodically to allow for the consideration and inclusion of new energy efficiency technologies and methods.

Part 11 of the Title 24 Building Energy Efficiency Standards is referred to as the California Green Building Standards (CALGreen) Code. The purpose of the CALGreen Code is to "improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) Planning and design; (2) Energy efficiency; (3) Water efficiency and conservation; (4) Material conservation and resource efficiency; and (5) Environmental air quality." (CBSC, 2010) The CALGreen Code is not intended to substitute for, or be identified as, meeting the certification requirements of any green building program that is not established and adopted by the California Building Standards Commission. When the CALGreen Code went into effect in 2009, compliance through 2010 was voluntary. As of January 1, 2011, the CALGreen Code is mandatory for all new buildings constructed in the state. The CALGreen Code establishes mandatory measures for new residential and non-residential buildings. Such mandatory measures include energy efficiency, water conservation, material conservation, planning and design and overall environmental quality (CBSC, 2010). The

CALGreen Code was updated in 2016 to include new mandatory measures for residential as well as nonresidential uses; the new measures took effect on January 1, 2017 (17 CCR §§ 95800 to 96023). The CALGreen code was most recently updated in 2018, to go through final approval at the end of 2018, with new measures taking effect on January 1, 2020.

2.2.9 California Green Building Code

In January 2011, the 2010 CALGreen became effective. Building off of the initial 2008 California Green Building Code, the 2010 CALGreen Code represents a more stringent building code that requires, at a minimum, that new buildings and renovations in California meet certain sustainability and ecological standards. The 2010 CALGreen Code has mandatory Green Building provisions for all new residential buildings that are three stories, or fewer (including hotels and motels), and all new non-residential buildings of any size that are not additions to existing buildings.

In January 2017, the 2016 California Building Standards Code became effective that also included the latest 2016 CALGreen Code. The mandatory provisions of the code are anticipated to reduce 3 MMT of GHG emissions by 2020, reduce water use by 20 percent, or more, and divert 50 percent of construction waste from landfills. In January 2017, the 2016 California Energy Code (Title 24, Part 6) became effective, which is also part of the CALGreen Code (Title 24, Part 11, Chapter 5.2).

2.3 Regional

2.3.1 South Coast Air Quality Management District

The SCAQMD has jurisdiction over an area of approximately 10,743 square miles. This area includes all of Orange County, Los Angeles County except for the Antelope Valley, the non-desert portion of western San Bernardino County, and the western and Coachella Valley portions of Riverside County. The Air Basin is a sub-region of the SCAQMD jurisdiction. While air quality in this area has improved, the Air Basin requires continued diligence to meet air quality standards.

Air Quality Management Plan

The SCAQMD has adopted a series of Air Quality Management Plans (AQMP) to meet the CAAQS and NAAQS. The SCAQMD and CARB have adopted the 2016 AQMP, which incorporates scientific and technological information and planning assumptions regarding air quality, including the SCAG 2016 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), and emission inventory methodologies for various source categories.[43] The 2016 AQMP was adopted by the AQMD Governing Board on March 3, 2017.[44]

43 South Coast Air Quality Management District, Air Quality Management Plan (AQMP), Final 2016 AQMP, http://www.aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan. Accessed November 2017.

44 South Coast Air Quality Management District, Air Quality Management Plan (AQMP), Final 2016 AQMP, http://www.aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan. Accessed November 2017.

The purpose of the 2016 AQMP is to bring the Air Basin into attainment with NAAQS for 24-hour PM2.5. SCAQMD has since determined that this deadline was impractical due to drought conditions in the region.[45] In 2016, US EPA approved reclassification of the Air Basin from "moderate" to "serious" non-attainment for the 24-hour PM2.5 standard, which has a new attainment deadline of December 31, 2019. The 2016 AQMP demonstrates that the 24-hour standard will be met by 2019 with no additional reductions beyond already adopted and implemented measures. The 2016 AQMP also intensifies the scope and pace of continued air quality improvement efforts toward meeting the 2024 and 2032 8-hour ozone standard deadline with new measures designed to reduce reliance on the CAA Section 182(e)(5) long-term measures for NO_X and VOC reductions. SCAQMD expects exposure reductions to be achieved through implementation of new and advanced control technologies as well as improvement of existing technologies.

The control measures in the 2016 AQMP consist of 8-hour ozone control measures and PM2.5 control measures designed to achieve the ozone and PM2.5 NAAQS by statutory deadlines. The AQMP includes ten $PM_{2.5}$ control measures, 15 stationary source 8-hour ozone measures, and 15 early action measures for mobile sources. In general, the SCAQMD's control strategy for stationary and mobile sources is based on the following approaches: (1) available cleaner technologies; (2) best management practices; (3) incentive programs; (4) development and implementation of near-zero technologies and vehicles and control methods; and (5) emission reductions from mobile sources. Control strategies in the AQMP with potential applicability to short-term emissions from construction activities associated with the Project include strategies denoted in the AQMP as MOB-08 and MOB-10, which are intended to reduce emissions from on-road and off-road heavy-duty vehicles and equipment. Descriptions of measures MOB-08 and MOB-10 are provided below:

> **MOB-08 – Accelerated Retirement of Older On-Road Heavy-Duty Vehicles:** This proposed measure seeks to replace heavy-duty vehicles with newer, or new, vehicles that at a minimum, meet the 2010 on-road heavy-duty NO_X exhaust emissions standard of 0.2 grams per brake horsepower-hour (g/bhp-hr). Given that exceedances of the 24-hour $PM_{2.5}$ air quality standard occur in the state, priority will be placed on replacing older diesel trucks that operate primarily at the warehouse and distribution centers. Funding assistance of up to $50,000 per vehicle is proposed and the level of funding will depend upon the NO_X emissions certification level of the replacement vehicle. In addition, a provision similar to the Surplus Off-Road Option for NO_X (SOON) provision of the statewide In-Use Off-Road Fleet Vehicle Regulation will be sought to ensure that additional NO_X emission reduction benefits are achieved.
>
> **MOB-10 – Extension of the SOON Provision for Construction/Industrial Equipment:** This measure seeks to continue the (SOON) provision of the statewide In-Use Off-Road Fleet Vehicle Regulation beyond 2023 through the 2031 timeframe. To implement the SOON program in this timeframe, funding of at least $10 million per year would be sought to help fund the repower, or replacement, of older Tier 0 and Tier 1

[45] South Coast Air Quality Management District, Air Quality Management Plan (AQMP), Final 2016 AQMP, http://www.aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan. Accessed November 2017.

equipment, with reductions that are considered surplus to the statewide regulation with Tier 4 or cleaner engines.

Regulations and Rules

Several SCAQMD rules adopted to implement portions of the AQMP may apply to construction or operation of the Project. The Project may be subject to the following SCAQMD rules and regulations:

Regulation IV – Prohibitions: This regulation sets forth the restrictions for visible emissions, odor nuisance, fugitive dust, various air emissions, fuel contaminants, start-up/shut-down exemptions and breakdown events. The following is a list of rules which may apply to the Project:

Rule 401 – Visible Emissions: This rule states that a person shall not discharge into the atmosphere from any single source of emission whatsoever any air contaminant for a period or periods aggregating more than three minutes in any one hour which is as dark or darker in shade as that designated No. 1 on the Ringelmann Chart or of such opacity as to obscure an observer's view.

Rule 402 – Nuisance: This rule states that a person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

Rule 403 – Fugitive Dust: This rule requires projects to prevent, reduce or mitigate fugitive dust emissions from a site. Rule 403 restricts visible fugitive dust to the project property line, restricts the net PM10 emissions to less than 50 micrograms per cubic meter ($\mu g/m^3$) and restricts the tracking out of bulk materials onto public roads. Additionally, projects must utilize one or more of the best available control measures (identified in the tables within the rule). Mitigation measures may include adding freeboard to haul vehicles, covering loose material on haul vehicles, watering, using chemical stabilizers and/or ceasing all activities. Finally, a contingency plan may be required if so determined by the US EPA.

Regulation XI – Source Specific Standards: Regulation XI sets emissions standards for different specific sources. The following is a list of rules which may apply to the Project:

Rule 1113 – Architectural Coatings: This rule requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories.

Rule 1146.2 – Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers and Process Heaters: This rule requires manufacturers, distributors, retailers, refurbishers, installers, and operators of new and existing units to reduce NO_X emissions from natural gas-fired water heaters, boilers, and process heaters as defined in this rule.

Regulation XIV – Toxics and Other Non-Criteria Pollutants: Regulation XIV sets requirements for new permit units, relocations, or modifications to existing permit units

which emit toxic air contaminants or other non-criteria pollutants. The following is a list of rules which may apply to the Project:

Rule 1403 – Asbestos Emissions from Demolition/Renovation Activities: This rule requires owners and operators of any demolition or renovation activity and the associated disturbance of asbestos-containing materials, any asbestos storage facility, or any active waste disposal site to implement work practice requirements to limit asbestos emissions from building demolition and renovation activities, including the removal and associated disturbance of asbestos-containing materials.

Rule 1466 – Control of Particulate Emissions from Soils with Toxic Air Contaminants: This rule requires owners and operators of any earth-moving activities of soil with applicable toxic air contaminant(s) of concern (greater than 50 cubic yards) to conduct ambient PM10 monitoring, implement dust control measures, notification, signage, and recordkeeping.

Air Quality Guidance Documents

The SCAQMD published a *CEQA Air Quality Handbook* (the Handbook) to provide local governments with guidance for analyzing and mitigating project-specific air quality impacts. The Handbook provides standards, methodologies, and procedures for conducting air quality analyses in CEQA documents and was used extensively in the preparation of this analysis. However, the SCAQMD is currently in the process of replacing the Handbook with the *Air Quality Analysis Guidance Handbook*. While this process is underway, the SCAQMD recommends using CalEEMod or another approved model to calculate emissions from land use projects.[46]

In June 2003, the SCAQMD published a document called the *Localized Significance Threshold Methodology* that is intended to provide voluntary guidance for lead agencies in analyzing localized air quality impacts from projects.[47] The document was revised in July 2008 to incorporate additional guidance regarding PM2.5 emissions.[48] The *Localized Significance Threshold Methodology* was also used in the preparation of this assessment.

The SCAQMD has also adopted land use planning guidance in the May 2005 *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning*[49] which, like the CARB Handbook, also considers impacts to sensitive receptors from facilities that emit TACs. SCAQMD's distance recommendations are the same as those provided by CARB (e.g., the same siting criteria for distribution centers and dry-cleaning facilities). The SCAQMD's document introduces land use-related policies that rely on design and distance parameters to

46 South Coast Air Quality Management District, CEQA Air Quality Handbook (1993), http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ceqa-air-quality-handbook-(1993). Accessed October 2017.

47 South Coast Air Quality Management District, Localized Significance Thresholds, (2003, revised 2008), http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds. Accessed October 2017.

48 South Coast Air Quality Management District, Final Methodology to Calculate Particulate Matter (PM)2.5 and PM2.5 Significance Thresholds, (2006), http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/pm-2-5-significance-thresholds-and-calculation-methodology. Accessed October 2017.

49 South Coast Air Quality Management District, Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning, (May 2005), http://www.aqmd.gov/prdas/aqguide/aqguide.html. Accessed October 2017.

manage potential health risk. The guidance consists of voluntary initiatives recommended for consideration by local planning agencies.

Greenhouse Gases

The SCAQMD adopted a "Policy on Global Warming and Stratospheric Ozone Depletion" on April 6, 1990. The policy commits the SCAQMD to consider global impacts in rulemaking and in drafting revisions to the Air Quality Management Plan. In March 1992, the SCAQMD Governing Board reaffirmed this policy and adopted amendments to the policy to include the following directives:

- Phase out the use and corresponding emissions of chlorofluorocarbons, methyl chloroform (1,1,1-trichloroethane or TCA), carbon tetrachloride, and halons by December 1995;
- Phase out the large quantity use and corresponding emissions of hydrochlorofluorocarbons by the year 2000;
- Develop recycling regulations for hydrochlorofluorocarbons (e.g., SCAQMD Rules 1411 and 1415);
- Develop an emissions inventory and control strategy for methyl bromide; and
- Support the adoption of a California GHG emission reduction goal.

After AB 32 was passed, SCAQMD formed a Climate Change Committee along with a Greenhouse Gases CEQA Significance Thresholds Working Group and the SoCal Climate Solutions Exchange Technical Advisory Group. On September 5, 2008, the SCAQMD Board approved the SCAQMD Climate Change Policy, which outlines actions the District will take to assist businesses and local governments in implementing climate change measures, decrease the agency's carbon emissions, and provide information to the public regarding climate change. In 2008, SCAQMD released draft guidance regarding interim CEQA GHG significance thresholds.[50] On December 5, 2008, the SCAQMD Governing Board adopted the staff proposal for interim GHG significance thresholds for stationary source/industrial projects, and related rules, and plans where the SCAQMD is the lead agency. The GHG Significance Threshold Working Group evaluated potential GHG significance thresholds; however, the SCAQMD has yet to adopt a GHG significance threshold for land use development projects (e.g., mixed-use/commercial projects).[51] The aforementioned Working Group has been inactive since 2011.

2.3.2 Regional Comprehensive Plan and Guide and Congestion Management Plan

SCAG is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino and Imperial Counties and addresses regional issues relating to transportation, the economy, community development and the environment. SCAG is the federally designated metropolitan planning organization (MPO) for the majority of the southern California region and

50 South Coast Air Quality Management District, Board Meeting, December 5, 2008, Agenda No. 31, http://www3.aqmd.gov/hb/2008/December/0812ag.html. Accessed December 2017.

51 South Coast Air Quality Management District, Greenhouse Gases CEQA Significance Thresholds, http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ghg-significance-thresholds. Accessed December 2017.

is the largest MPO in the nation. With regard to air quality planning, SCAG has prepared the Regional Transportation Plan (RTP) and Regional Transportation Improvement Program (RTIP), which address regional development and growth forecasts and form the basis for the land use and transportation control portions of the AQMP and are utilized in the preparation of the air quality forecasts and consistency analysis included in the AQMP. The RTP, RTIP, and AQMP are based on projections originating within local jurisdictions.

2.4 Local

2.4.1 City of Los Angeles

Local jurisdictions, such as the City of Los Angeles (City), have the authority and responsibility to reduce air pollution through its land use decision-making authority. Specifically, the City is responsible for the assessment and mitigation of air emissions resulting from its land use decisions. The City's General Plan Air Quality Element includes City-wide goals, objectives, and policies related to air quality resources. A number of these goals, objectives, and policies are relevant to the proposed Project, and are related to traffic mobility, minimizing particulate emissions from construction activities, discouraging single-occupancy vehicle trips, managing traffic congestion during peak hours, and increasing energy efficiency in City facilities and private developments.

The City of Los Angeles is also responsible for the implementation of transportation control measures as outlined in the AQMP. Through capital improvement programs, local governments can fund infrastructure that contributes to improved air quality by requiring such improvements as bus turnouts as appropriate, installation of energy-efficient streetlights, and synchronization of traffic signals. In accordance with CEQA requirements and the CEQA review process, the City assesses the air quality impacts of new development projects, requires mitigation of potentially significant air quality impacts by conditioning discretionary permits and monitors and enforces implementation of such mitigation measures.

The City of Los Angeles has incorporated the California Green Building (CALGreen) Standards Code, with amendments in its 2017 Los Angeles Green Building Code. The City's ordinance requires applicable projects to comply with specified provisions to reduce energy consumption.

2.4.2 Los Angeles Unified School District Program EIR

The SUP Program EIR includes Standard Conditions of Approval (SCs) for reducing impacts on air quality in areas where future projects would be implemented under the SUP. Applicable SCs related to Project air quality impacts are provided in **Table 8**, *Air quality Standard Conditions of Approval*, below.

TABLE 8
AIR QUALITY STANDARD CONDITIONS OF APPROVAL

Applicable SCs	Description
SC-AQ-1	LAUSD shall complete a Health Risk Assessment for new campus locations that would place classrooms or play areas within close proximity (less than 0.25 mile) of existing sources of adverse emissions. LAUSD shall identify all permitted and non-permitted stationary sources, freeways and other busy traffic corridors, railyards, and large agricultural operations within 0.25 mile of the project. Once identified, make a determination about the need for qualitative evaluation, screening level evaluation in accordance with air district specific guidance and tools, or a refined evaluation with air dispersion modeling, to determine if risks constitute an actual or potential endangerment of public health to persons who would attend or be employed at the school. For freeways and other busy traffic corridors within 500 feet, air dispersion modeling must be used to make the health risk determination (no screening, no qualitative discussion, etc.). The Health Risk Assessment shall comply with **'Air Toxics Health Risk Assessment (HRA)'**. This document includes guidance on HRA protocols for permitted, non-permitted, and mobile sources that might reasonably be anticipated to emit hazardous air emissions and result in potential long-term and short-term health impacts to student and staff at the school site. The HRA must find that health risks are below criteria thresholds. If health risks which exceed air district criteria thresholds are identified, the school campus shall be redesigned or relocated to a site farther from the emissions generator.
SC-AQ-2	LAUSD's construction contractor shall ensure that construction equipment is properly tuned and maintained in accordance with manufacturer's specifications, to ensure excessive emissions are not generated by unmaintained equipment.
SC-AQ-3	LAUSD's construction contractor shall: • Maintain speeds of 15 miles per hour (mph) or less with all vehicles. • Load impacted soil directly into transportation trucks to minimize soil handling. • Water/mist soil as it is being excavated and loaded onto the transportation trucks. • Water/mist and/or apply surfactants to soil placed in transportation trucks prior to exiting the site. • Minimize soil drop height into haul trucks or stockpiles during dumping. • During transport, cover or enclose trucks transporting soils, increase freeboard requirements, and repair trucks exhibiting spillage due to leaks. • Cover the bottom of the excavated area with polyethylene sheeting when work is not being performed. • Place stockpiled soil on polyethylene sheeting and cover with similar material. • Place stockpiled soil in areas shielded from prevailing winds.
SC-AQ-4	LAUSD shall analyze air quality impacts: If site-specific review or monitoring data of a school construction project identifies potentially significant adverse regional and localized construction air quality impacts, then LAUSD shall implement all feasible measures to reduce air emissions below the South Coast Air Quality Management District's (SCAQMD) regional and localized significance thresholds. Construction bid contracts shall include protocols that reduce construction emissions during high-emission construction phases from vehicles and other fuel driven construction engines, activities that generate fugitive dust, and surface coating operations. The Construction Contractor shall be responsible for documenting compliance with the identified protocols. Specific air emission reduction protocols include, but are not limited to, the following: **Exhaust Emissions** • Schedule construction activities that affect traffic flow to off-peak hours (e.g. between 10:00 AM and 3:00 PM). • Consolidate truck deliveries and limit the number of haul trips per day. • Route construction trucks off congested streets, as permitted by local jurisdiction haul routes. • Employ high pressure fuel injection systems or engine timing retardation. • Utilize ultra-low sulfur diesel fuel, containing 15 ppm sulfur or less (ULSD) in all diesel construction equipment.

Applicable SCs	Description
	• Use construction equipment rated by the United States Environmental Protection Agency as having at least Tier 3 (model year 2006 or newer) or Tier 4 (model year 2008 or newer) emission limits for engines between 50 and 750 horsepower. • Restrict non-essential diesel engine idle time, to not more than five consecutive minutes. • Utilize electrical power rather than internal combustion engine power generators. • Utilize electric or alternatively fueled equipment, as feasible. • Utilize construction equipment with the minimum practical engine size. • Utilize low-emission on-road construction fleet vehicles. • Ensure construction equipment is properly serviced and maintained to the manufacturer's standards. **Fugitive Dust** • Apply non-toxic soil stabilizers according to manufacturers' specification to all inactive construction areas (previously graded areas inactive for ten days or more). • Replace ground cover in disturbed areas as quickly as possible. • Sweep streets at the end of the day if visible soil material is carried onto adjacent public paved roads (recommend water sweepers with reclaimed water). • Install wheel washers where vehicles enter and exit unpaved roads onto paved roads, or wash off trucks and any equipment leaving the site each trip. • Pave unimproved construction roads that have a traffic volume of more than 50 daily trips by construction equipment, and/or 150 daily trips for all vehicles. • Pave all unimproved construction access roads for at least 100 feet from the main road to the Project site. • Enclose, cover, water twice daily, or apply non-toxic soil binders according to manufacturers' specifications to exposed piles (i.e., gravel, dirt, and sand) with a five percent or greater silt content. • Suspend all excavating and grading operations when wind speeds (as instantaneous gusts) exceed 25 miles per hour (mph). • Water disturbed areas of the active construction and unpaved road surfaces at least three times daily, except during periods of rainfall. • Limit traffic speeds on unpaved roads to 15 mph or less. • Prohibit fugitive dust activities on days where violations of the ambient air quality standard have been forecast by SCAQMD. • Tarp and/or maintain a minimum of 24 inches of freeboard on trucks hauling dirt, sand, soil, or other loose materials. • Limit the amount of daily soil and/or demolition debris loaded and hauled per day. **General Construction** • Utilize ultra-low VOC or zero-VOC surface coatings. • Phase construction activities to minimize maximum daily emissions. • Configure construction parking to minimize traffic interference. • Provide temporary traffic control during construction activities to improve traffic flow (e.g., flag person). • Prepare and implement a trip reduction plan for construction employees. • Implement a shuttle service to and from retail services and food establishments during lunch hours. • Increase distance between emission sources to reduce near-field emission impacts.

According to the Program EIR, projects implemented under the SUP are anticipated to have less than significant and potentially significant impacts on air quality within the LAUSD service area. However, the Project-specific analysis provided below concludes that implementation of the Burroughs Middle School Comprehensive Modernization Project would have less than significant impacts on the surrounding community.

The SUP Program EIR includes SCs for minimizing impacts related to GHG emissions in areas where future projects would be implemented under the SUP. Applicable SCs related to greenhouse gas emissions impacts associated with the proposed Project are provided in **Table 9,** *Greenhouse Gas Emissions Standard Conditions of Approval*. Projects implemented under the SUP are anticipated to have less than significant and potentially significant impacts related to climate change within the LAUSD service area with the incorporation of SCs. The Project-specific analysis provided below determined that implementation of the proposed Project would have less-than-significant impacts related to climate change with the incorporation of SCs.

TABLE 9
GREENHOUSE GAS EMISSIONS STANDARD CONDITIONS OF APPROVAL

Applicable SCs	Description
SC-GHG-1	During school operation, LAUSD shall perform regular preventative maintenance on pumps, valves, piping and tanks to minimize water loss.
SC-GHG-2	LAUSD shall utilize automatic sprinklers set to irrigate landscaping during the early morning hours to reduce water loss from evaporation.
SC-GHG-3	LAUSD shall reset automatic sprinkler timers to water less during cooler months and rainy season.
SC-GHG-4	LAUSD shall develop a water budget for landscape (both non-recreational and recreational) and ornamental water use to conform to the local water efficient landscape ordinance. If no local ordinance is applicable, then use the landscape and ornamental budget outlined by the California Department of Water Resources.
SC-GHG-5	LAUSD shall ensure that the time dependent valued energy shall be at least 10% with a goal of 20% less than a standard design that is in minimum compliance with the Title 24, Part 6 energy efficiency standards that are in force at the time the project is submitted to the Division of the State Architect..

3. Significance Thresholds

3.1 Air Quality Thresholds

Pursuant to Appendix G of the State *CEQA Guidelines*, the Project would result in a significant impact related to air quality if it would:

a) Conflict with or obstruct the implementation of the applicable air quality plan;

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation;

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);

d) Expose sensitive receptors to substantial pollutant concentrations; or

e) Create objectionable odors affecting a substantial number of people.

Pursuant to the State CEQA Guidelines (Section 15064.7), a lead agency may consider using, when available, the significance criteria established by the applicable air quality management district or air pollution control district when making determinations of significance. The Project would be under the SCAQMD's jurisdiction. SCAQMD has established air quality significance criteria in its CEQA Air Quality Handbook. These criteria are based on the recognition that the

Air Basin is a distinct geographic area with a critical air pollution problem for which ambient air quality standards have been promulgated to protect public health.[52] The potential air quality impacts of the Project are, therefore, evaluated according to the most recent criteria adopted by the SCAQMD in connection with its CEQA Air Quality Handbook, Air Quality Analysis Guidance Handbook, and subsequent SCAQMD guidance as discussed previously.[53]

3.1.1 Construction Emissions

The SCAQMD has established numerical emission indicators of significance for construction. The numerical emission indicators are based on the recognition that the Air Basin is a distinct geographic area with a critical air pollution problem for which ambient air quality standards have been promulgated to protect public health.[54] Given that construction impacts are temporary and limited to the construction phase, the SCAQMD has established numeric indicators of significance specific to construction activity. Based on the indicators in the SCAQMD CEQA Air Quality Handbook, the Project would potentially cause or contribute to an exceedance of an ambient air quality standard if the following would occur:

- Regional construction emissions from both direct and indirect sources would exceed any of the following SCAQMD prescribed daily regional emissions criteria:[55]
  - 75 pounds a day for VOC;
  - 100 pounds per day for NO_X;
  - 550 pounds per day for CO;
  - 150 pounds per day for SO_2;
  - 150 pounds per day for PM10; or
  - 55 pounds per day for PM2.5.

In addition, the SCAQMD has developed a methodology to assess the potential for localized emissions to cause an exceedance of applicable ambient air quality standards or ambient concentration limits. Impacts would be considered significant if the following would occur:

- Maximum daily localized emissions of NO_X and/or CO during construction are greater than the applicable localized significance thresholds, resulting in predicted ambient concentrations in the vicinity of the Project site greater than the most stringent ambient air quality standards for NO_2 and/or CO.[56]

52 South Coast Air Quality Management District, CEQA Air Quality Handbook (1993) 6-2.

53 While the SCAQMD CEQA Air Quality Handbook contains significance thresholds for lead, Project construction and operation would not include sources of lead emissions and would not exceed the established thresholds for lead. Unleaded fuel and unleaded paints have virtually eliminated lead emissions from commercial and residential land use projects such as the Project. As a result, lead emissions are not further evaluated in this Draft EIR.

54 South Coast Air Quality Management District, CEQA Air Quality Handbook (1993) 6-2.

55 South Coast Air Quality Management District, SCAQMD Air Quality Significance Thresholds, (March 2015), http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2. Accessed October 2017.

56 South Coast Air Quality Management District, Final Localized Significance Threshold Methodology, (2008). Available: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds. Accessed October 2017.

- Maximum daily localized emissions of PM10 and/or PM2.5 during construction are greater than the applicable localized significance thresholds, resulting in predicted ambient concentrations in the vicinity of the Project site to exceed 10.4 μg/m^3 over 24 hours (SCAQMD Rule 403 control requirement).

As discussed in detail in Section 4 *Methodology*, the SCAQMD has established screening criteria that can be used to determine the maximum allowable daily emissions that would satisfy the localized significance thresholds, and, therefore not cause, or contribute to, an exceedance of the applicable ambient air quality standards, or ambient concentration limits without project-specific dispersion modeling. This analysis uses the screening criteria to evaluate impacts from localized emissions for a 1-acre site located within 25 meters from a sensitive receptor in the Central Los Angeles County Monitoring Area:

- 161 pounds per day for NO_X;
- 1,861 pounds per day for CO;
- 16 pounds per day for PM10; or
- 8 pounds per day for PM2.5.

3.1.2 Operational Emissions

The SCAQMD has established numerical emission indicators of significance for operations. The numerical emission indicators are based on the recognition that the Air Basin is a distinct geographic area with a critical air pollution problem for which ambient air quality standards have been promulgated to protect public health.[57] The SCAQMD has established numeric indicators of significance in part based on Section 182(e) of the Clean Air Act which identifies 10 tons per year of VOC as a significance level for stationary source emissions in extreme non-attainment areas for ozone.[58] The Air Basin is designated as extreme non-attainment for ozone. The SCAQMD converted this significance level to pounds per day for ozone precursor emissions (10 tons per year × 2,000 pounds per ton ÷ 365 days per year = 55 pounds per day). The numeric indicators for other pollutants are also based on federal stationary source significance levels. Based on the indicators in the SCAQMD CEQA Air Quality Handbook, the Project would potentially cause or contribute to an exceedance of an ambient air quality standard if the following would occur:

- Regional operational emissions exceed any of the following SCAQMD prescribed daily regional emissions criteria:[59]
  - 55 pounds a day for VOC;
  - 55 pounds per day for NOX;
  - 550 pounds per day for CO;
  - 150 pounds per day for SO2;

57 South Coast Air Quality Management District, CEQA Air Quality Handbook (1993) 6-2.

58 South Coast Air Quality Management District, CEQA Air Quality Handbook (1993) 6-1.

59 South Coast Air Quality Management District, SCAQMD Air Quality Significance Thresholds, (March 2015), http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2. Accessed October 2017.

- 150 pounds per day for PM10; or
- 55 pounds per day for PM2.5.

In addition, the SCAQMD has developed a methodology to assess the potential for localized emissions to cause an exceedance of applicable ambient air quality standards. Impacts would be considered significant if the following were to occur:

- Maximum daily localized emissions of NO_X and/or CO during operation are greater than the applicable localized significance thresholds, resulting in predicted ambient concentrations in the vicinity of the Project site greater than the most stringent ambient air quality standards for NO_2 and/or CO.[60]
- Maximum daily localized emissions of PM10 and/or PM2.5 during operation are greater than the applicable localized significance thresholds, resulting in predicted ambient concentrations in the vicinity of the Project site to exceed 2.5 $\mu g/m^3$ over 24 hours (SCAQMD Rule 1303 allowable change in concentration).

the SCAQMD has established screening criteria that can be used to determine the maximum allowable daily emissions that would satisfy the localized significance thresholds, and, therefore, not cause, or contribute to, an exceedance of the applicable ambient air quality standards, or ambient concentration limits without Project-specific dispersion modeling. This analysis uses the screening criteria to evaluate impacts from localized emissions for a 5-acre site located within 25 meters from a sensitive receptor in the Central Los Angeles County Monitoring Area:

- 161 pounds per day for NO_X;
- 1,861 pounds per day for CO;
- 4 pounds per day for PM10; or
- 2 pounds per day for PM2.5.

3.1.3 Carbon Monoxide Hotspots

With respect to the formation of CO hotspots, the Project would be considered significant if the following would occur:

- The Project would cause or contribute to an exceedance of the CAAQS one-hour or eight-hour CO standards of 20 or 9.0 parts per million (ppm), respectively.

60 South Coast Air Quality Management District, SCAQMD Air Quality Significance Thresholds, (March 2015), http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2. Accessed October 2017.

3.1.4 Toxic Air Contaminants

Based on criteria set forth by the SCAQMD, the Project would expose sensitive receptors to substantial concentrations of toxic air contaminants if any of the following were to occur:[61]

- The Project would emit carcinogenic materials or TACs that exceed the maximum incremental cancer risk of ten in one million or a cancer burden greater than 0.5 excess cancer cases (in areas greater than or equal to 1 in 1 million) or
- An acute or chronic hazard index of 1.0.

3.1.5 Odors

Based on the criteria in Appendix G of the State *CEQA Guidelines*, the Project would be considered potentially significant for odors if the Project would create objectionable odors affecting a substantial number of people.

3.2 Greenhouse Gas Emissions Thresholds

Pursuant to Appendix G of the State *CEQA Guidelines*, the Project would result in a significant impact related to GHG emissions if it would:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

As discussed in the Program EIR, for projects that are not exempt or where no qualifying GHG reduction plans are directly applicable, the SCAQMD proposed a "bright-line" screening-level threshold of 3,000 $MTCO_2e$ annually for all land use projects. The SCAQMD proposed this "bright-line" screening-level threshold "to achieve the same policy objective of capturing 90 percent of the GHG emissions from new development projects in the residential/commercial sectors."[62] In the California Air Pollution Control Officers Association (CAPCOA) *CEQA and Climate Change* white paper (January 2008), CAPCOA suggested a possible quantitative threshold option that would capture 90 percent of GHG emissions from future discretionary development projects. According to CAPCOA, the "objective was to set the emission threshold low enough to capture a substantial fraction of future residential and nonresidential development that will be constructed to accommodate future statewide population and job growth, while setting the emission threshold high enough to exclude small development projects that will contribute a relatively small fraction of the cumulative statewide GHG emissions."[63] A 90 percent

---

61 South Coast Air Quality Management District, CEQA Air Quality Handbook, Chapter 6 (Determining the Air Quality Significance of a Project) and Chapter 10 (Assessing Toxic Air Pollutants), (1993); SCAQMD Air Quality Significance Thresholds, (March 2011), http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2. Accessed October 2017.

62 South Coast Air Quality Management District, Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold, Appendix E, p. 2-6, (2008). Available at: http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgattachmente.pdf?sfvrsn=2. Accessed May 2017.

63 California Air Pollution Control Officer's Association, CEQA and Climate Change, (2008) 42-43.

capture rate would "exclude the smallest proposed developments from potentially burdensome requirements … to mitigate GHG emissions."[64] The SCAQMD's proposed screening level of 3,000 $MTCO_2e$ per year is a South Coast Air Basin-specific level that would meet CAPCOA's intent for the suggested quantitative threshold option and is consistent with the Program EIR. Therefore, this threshold is used to evaluate Project GHG emissions.

4. Methodology

The methodology to evaluate potential impacts to regional and local air quality and climate change that may result from the construction and long-term operations of the proposed Project is conducted as follows. Detailed assumptions, modeling, and calculations are provided in Appendix A of this report.

4.1 Consistency with Air Quality Plan

The SCAQMD is required, pursuant to the CAA, to reduce emissions of criteria pollutants for which the Air Basin is in non-attainment of the NAAQS (e.g., O_3 and PM2.5). The SCAQMD's AQMP contains a comprehensive list of pollution control strategies directed at reducing emissions and achieving the NAAQS. These strategies are developed, in part, based on regional growth projections prepared by the SCAG. As part of its air quality planning, SCAG has prepared the Regional Comprehensive Plan and Guide and the RTP/SCS, which provide the basis for the land use and transportation components of the AQMP and are used in the preparation of the air quality forecasts and the consistency analysis included in the AQMP. Both the Regional Comprehensive Plan and AQMP are based, in part, on projections originating with county and city general plans.

The 2016 AQMP was prepared to accommodate growth, reduce the high levels of pollutants within the areas under the jurisdiction of SCAQMD, return clean air to the region, and minimize the impact on the economy. Projects that are consistent with the assumptions used in the AQMP do not interfere with attainment because the growth is included in the projections utilized in the formulation of the AQMP. Thus, projects, uses, and activities that are consistent with the applicable growth projections and control strategies used in the development of the AQMP would not jeopardize attainment of the air quality levels identified in the AQMP, even if they exceed the SCAQMD's numeric indicators.

4.2 Air Quality Construction Emissions

Construction of the proposed Project has the potential to generate temporary criteria pollutant emissions through the use of heavy-duty construction equipment, such as excavators and forklifts, and through vehicle trips generated from worker trips and haul trucks traveling to, and from, the Project site. In addition, fugitive dust emissions would result from demolition and various soil-handling activities. Mobile source emissions, primarily NO_X, would result from the use of construction equipment such as dozers and loaders. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of construction activity, and

64 California Air Pollution Control Officer's Association, CEQA and Climate Change, (2008) 43-44.

prevailing weather conditions. The assessment of construction air quality impacts considers each of these potential sources.

Daily regional emissions during construction are forecasted by assuming conservative construction activities (i.e., assuming all construction occurs at the earliest feasible date) and applying the mobile source and fugitive dust emissions factors. The emissions are estimated using the CalEEMod (Version 2016.3.2) software, an emissions inventory software program recommended by the SCAQMD. CalEEMod is based on outputs from OFFROAD and EMFAC, which are emissions estimation models developed by CARB and used to calculate emissions from construction activities, including on-and off-road vehicles. Default CalEEMod inputs were used for the modeling unless project specific details were available to adjust the Project input values based on construction equipment and schedule information from similar land use development projects in the LAUSD. These values were then applied to the construction phasing assumptions used in the criteria pollutant analysis to generate criteria pollutant emissions values for each construction activity. Detailed construction equipment lists, construction scheduling, and emissions calculations are provided in Appendix A of this report.

Construction of the proposed Project was assumed to begin in 2020. Construction may commence at a later date than that analyzed in this air quality impact analysis. If this occurs, construction impacts should be less than those analyzed herein, because a more energy-efficient and cleaner burning construction equipment fleet mix are expected in the future, pursuant to State regulations that require construction equipment fleet operators to phase-in less polluting heavy-duty equipment. As a result, should the proposed Project commence construction at a later date, air quality impacts are anticipated to be less than the impacts disclosed herein. Sub-phases of construction would include soil removal, demolition, grading, building construction, paving, and architectural coating. Emissions from these activities are estimated by construction phase. The maximum daily emissions are predicted values for the worst-case day and do not necessarily represent the emissions that would occur for every day of Project construction. The maximum daily emissions are compared to the SCAQMD daily regional numeric indicators.

4.3 Air Quality Operational Emissions

With respect to SUP modernization projects, the Program EIR states that operational activities would be less than significant, as these projects would not increase capacity to existing schools and net project emissions would be minimal. Additionally, overall District enrollment is forecast to decrease over the next ten years and operational emissions are not expected to increase in the long-term.[65]

The proposed Project would replace and upgrade facilities on the campus of Burroughs MS, but it would not increase the number of students, or faculty, at the school, and would not introduce major new emission sources. No new vehicle trips would be generated, and there would be no increase in mobile source emissions. Furthermore, building upgrades and replacement of old, energy-inefficient structures with those that use less energy would reduce emissions from space

65 Los Angeles Unified School District. 2015. School Upgrade Program Final Environmental Impact Report, http://achieve.lausd.net/ceqa. Adopted by the Board of Education on November 10, 2015

heating and other onsite sources. Therefore, there would be no net increase in regional emissions of any criteria pollutant, and the impact would be less than significant. Additionally, the District is required to comply with all applicable SCs, and would implement SC-AQ-5 to further reduce Project-related operational impacts. Therefore, operational emissions are not discussed further in this document.

4.4 Substantial Criteria Pollutant Concentrations

4.4.1 Localized emissions

The localized effects from the on-site portion of the emissions are evaluated at nearby sensitive receptor locations potentially impacted by the proposed Project according to the SCAQMD's Localized Significance Threshold Methodology (June 2003, revised July 2008), which relies on onsite mass emission rate screening tables and project-specific dispersion modeling, where appropriate. The localized significance thresholds are only applicable to NO_X, CO, PM10, and PM2.5. The SCAQMD has established screening criteria that can be used to determine the maximum allowable daily emissions that would satisfy the localized significance thresholds, and, therefore, would not cause, or contribute to, an exceedance of the applicable ambient air quality standards without Project-specific dispersion modeling. The screening criteria depend on: (1) the area in which the Project is located, (2) the size of the project site, and (3) the distance between the project site and the nearest sensitive receptor (e.g., residences, schools, hospitals). The Project site is located in the Central Los Angeles County area and no more than 5 acres would be worked on at a time. The nearest sensitive receptors would be the students onsite at Burroughs MS during construction of the Project and residences adjacent to the Project site. Therefore, to ensure a conservative analysis, the screening criteria was applied to a 5-acre site in Central Los Angeles with a 25-meter receptor distance. According to the SCAQMD, projects with boundaries located closer than 25 meters to the nearest receptor should use the local significance thresholds (LSTs) for receptors located at 25 meters.[66]

4.4.2 Carbon Monoxide Hotspots

Emissions of CO are produced in greatest quantities from motor vehicle combustion and are usually concentrated at, or near, ground level because they do not readily disperse into the atmosphere, particularly under cool, stable (i.e., low or no wind) atmospheric conditions. Localized areas where ambient concentrations exceed state and/or federal standards are termed CO hotspots. The potential for the Project to cause, or contribute, to the formation of offsite CO hotspots are evaluated based on prior dispersion modeling conducted by SCAQMD in the Los Angeles Area, as discussed in the Program EIR.

The proposed Project would replace, or upgrade, facilities on the campus of Burroughs MS, but it would not increase the number of students, or faculty, at the school, and would not introduce major new emission sources. No new operational vehicle trips would be generated, and there

66 South Coast Air Quality Management District, Final Localized Significance Threshold Methodology, (2008). Available: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds. Accessed November 2017.

would be no increase in mobile source CO emissions. Therefore, CO Hotspots are not discussed further in this document.

4.4.3 Toxic Air Contaminants

The greatest potential for TAC emissions during construction would be related to diesel particulate matter emissions associated with heavy-duty equipment during demolition, excavation and grading activities. Construction activities associated with the Project would be sporadic, transitory, and short-term in nature. During long-term operations, TACs could be emitted as part of periodic maintenance operations, cleaning, painting, etc., and from periodic visits from delivery trucks and service vehicles. However, these uses are expected to be occasional and result in minimal exposure to offsite sensitive receptors. The potential for the Project to result in significant health risk impacts are evaluated based on guidance provided in the Program EIR.

4.5 Odors

Potential odor impacts are evaluated by conducting a screening-level analysis followed by a more detailed analysis as necessary. The screening-level analysis consists of reviewing the Project's site plan and Project description to identify new, or modified, odor sources. If it is determined that the Project would introduce a potentially significant new odor source, or modify an existing odor source, then downwind sensitive receptor locations are identified, and a site-specific analysis is conducted to determine Project impacts.

4.6 GHG Emissions Estimates

The Climate Action Registry General Reporting Protocol provides procedures and guidelines for calculating and reporting GHG emissions from general and industry-specific activities. Although no numerical thresholds of significance have been adopted, and no specific protocols are available for land use projects, the General Reporting Protocol provides a framework for calculating and reporting GHG emissions from the Project. The GHG emissions provided in this section is consistent with the General Reporting Protocol framework. This technical report provides an estimate of the GHG emissions from Project construction. The following Project-related emission sources have been evaluated:

1. Construction Activities – Fossil fueled on- and off-road vehicles and equipment needed for grading, building construction, paving, and architectural coating.

CARB believes that consideration of so-called indirect emissions provides a more complete picture of the GHG footprint of a facility: "As facilities consider changes that would affect their emissions – addition of a cogeneration unit to boost overall efficiency even as it increases direct emissions, for example – the relative impact on total (direct plus indirect) emissions by the facility should be monitored. Annually reported indirect energy usage also aids the conservation awareness of the facility and provides information" to CARB to be considered for future strategies by the industrial sector. For these reasons, CARB has proposed requiring the calculation of direct and indirect GHG emissions as part of the HSC Division 25.5 reporting requirements. Additionally, the Office of Planning and Research directs lead agencies to "make a good-faith effort, based on available information, to calculate, model, or estimate…GHG

emissions from a project, including the emissions associated with vehicular traffic, energy consumption, water usage and construction activities." Therefore, direct and indirect emissions have been calculated for the Project.

For purposes of this analysis, it is considered reasonable and consistent with criteria pollutant calculations to consider those GHG emissions resulting from Project-related incremental (net) increase in the use of on-road mobile vehicles, electricity, and natural gas compared to existing conditions. This includes Project construction activities such as demolition, hauling, and construction worker trips. Since potential impacts resulting from GHG emissions are long-term rather than acute, GHG emissions are calculated on an annual basis. CalEEMod outputs GHG emissions of CO_2, CH_4, N_2O, and CO_2e. In order to report total GHG emissions using the CO_2e metric, the GWP ratios corresponding to the warming potential of CO_2 over a 100-year period is used in this analysis.

The General Reporting Protocol provides a range of basic calculation methods. However, they are typically designed for existing buildings, or facilities, and are not directly applicable to planning and development situations where the buildings, or facilities, do not yet exist. As a result, this section relies on calculation guidance from state and regional agencies with scientific expertise in quantifying GHG emissions, such as CARB and the SCAQMD. GHG emissions for the Project are estimated using the CalEEMod (Version 2016.3.2) software.

The CAPCOA has provided guidance on mitigating, or reducing, GHG emissions from land use development projects. In September 2010, CAPCOA released a guidance document titled *Quantifying Greenhouse Gas Mitigation Measures* which provides GHG reduction values for recommended mitigation measures.[67] The CAPCOA guidance document was utilized in this analysis for quantifying reductions from physical and operational Project characteristics and Project Sustainability Features in CalEEMod.

4.6.1 Construction Emissions

Construction of the proposed Project has the potential to generate GHG emissions through the use of heavy-duty construction equipment and through vehicle trips generated from construction workers traveling to, and from, the Project site. Construction emissions can vary from day to day, depending on the level of activity, the specific type of operation, and the prevailing weather conditions. The number and types of construction equipment, vendor trips (e.g., transport of building materials), and worker trips were based on relatively conservative assumptions for a project of this type and scale as provided in the CalEEMod model. A complete listing of the construction equipment by phase and construction phase duration assumptions used in this analysis is included in Appendix A of this Technical Report.

The CO_2e emissions are calculated for the construction period. The SCAQMD guidance, *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold*, recognizes that construction-related GHG emissions from projects "occur over a relatively short-

67 California Air Pollution Control Officers Association, Quantifying Greenhouse Gas Mitigation Measures, 2010.

term period of time" and that "they contribute a relatively small portion of the overall lifetime project GHG emissions."[68] The guidance recommends that construction project GHG emissions should be "amortized over a 30-year project lifetime, so that GHG reduction measures will address construction GHG emissions as part of the operational GHG reduction strategies."[69] In accordance with SCAQMD guidance, GHG emissions from construction have been amortized over the 30-year lifetime of the Project (i.e., total construction GHG emissions were divided by 30 to determine an annual construction emissions estimate comparable to operational emissions, and the significance threshold).

Emissions Sources

Construction of the Project would result in one-time GHG emissions of CO_2 and smaller amounts of CH_4 from heavy-duty construction equipment. Construction emissions are forecasted by assuming a conservative estimate of construction activities (i.e., assuming all construction occurs at the earliest feasible date) and applying the off-road emissions factors. The output values used in this analysis are adjusted to be Project-specific based on equipment types and the construction schedule. These values are applied to the construction phasing assumptions to generate GHG emissions values for each construction year.

Construction of the Project would also contribute to regional GHG emissions from haul trucks and worker vehicles. The emissions from mobile sources were calculated with the trip rates, trip lengths and emission factors for running from EMFAC2014 through CalEEMod.

4.6.2 Operational Emissions

The proposed Project would replace or upgrade facilities on the campus of Burroughs MS, but it would not increase the number of students, or faculty, at the school, and would not introduce major new emission sources. No new vehicle trips would be generated, and there would be no increase in mobile source emissions. Furthermore, building upgrades and replacement of old, energy-inefficient structures with those that use less energy would reduce emissions from space heating and other onsite sources. Therefore, there would be no net increase in GHGs, and the impact would be less than significant. Additionally, the District is required to comply with all applicable SCs, which will further reduce Project-related operational impacts. Therefore, operational emissions are not discussed further in this document.

68 South Coast Air Quality Management District, Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold, 2008, page 3-9, http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgattachmente.pdf. Accessed July 2017.

69 South Coast Air Quality Management District, Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold, 2008, page 3-9.

5. Environmental Impacts

5.1 Consistency with Air Quality Plan

The Project site is located within the Air Basin. The SCAQMD is required, pursuant to the CAA, to reduce emissions of criteria pollutants for which the Air Basin is in non-attainment (i.e., ozone, PM10, and PM2.5). The Project would be subject to the SCAQMD's AQMP, which contains a comprehensive list of pollution control strategies directed at reducing emissions and achieving ambient air quality standards. A project is consistent with the AQMP if it is consistent with the population, housing and employment assumptions that were used in the development of the AQMP. Neither the Burroughs MS Comprehensive Modernization Project nor the SUP as a whole is a large, regionally significant project that would affect the regional growth projections made by the SCAG and used by the SCAQMD in formulating its AQMP. The student and faculty population at the school would not increase as a result of the Project.

5.1.1 Construction

Under this criterion, the SCAQMD recommends that lead agencies demonstrate that a project would not directly obstruct implementation of an applicable air quality plan and that a project be consistent with the assumptions (typically land-use related, such as resultant employment or residential units) upon which the air quality plan is based. Being relatively small in number and temporary in nature, construction jobs under the Project would not conflict with the long-term employment projections upon which the AQMP is based. Control strategies in the AQMP with potential applicability to short-term emissions from construction activities include strategies denoted in the AQMP as MOB-08 and MOB-10, which are intended to reduce emissions from on-road and off-road heavy-duty vehicles and equipment by accelerating replacement of older, emissions-prone engines with newer engines meeting more stringent emission standards. The Project would not conflict with implementation of these strategies as the construction contractor hired would be in compliance with the current requirements for fleet emissions. Additionally, the Project would comply with CARB requirements to minimize short-term emissions from on-road and off-road diesel equipment. The Project would also comply with SCAQMD regulations for controlling fugitive dust pursuant to SCAQMD Rule 403 and implement SC-AQ-2 through SC-AQ-4. SC-AQ-2 would obligate construction contractors to have off-road equipment properly tuned and maintained in accordance with the manufacturer's specifications. SC-AQ-3 would implement methods for reducing onsite dust emissions during soil removal. These methods would include: maintain slow speeds for vehicles, applying water/mist to dirt as it is loaded and unloaded, minimize soil drop heights, covering haul truck loads, and using polyethylene sheeting during to cover excavated areas and dirt stockpiles. SC-AQ-4 is intended to reduce construction exhaust and fugitive dust emissions with a number of features, including, but not limited to: restricting diesel engine idling times to no more than five consecutive minutes, utilizing ultra-low sulfur diesel fuel, utilizing off-road construction equipment that is compliant with Tier 3 engine standards at a minimum, applying soil stabilizers, replacing ground cover as soon as possible, and installing wheel washers.

Compliance with these requirements is consistent with, and meets, or exceeds, the AQMP requirements for control strategies intended to reduce emissions from construction equipment and

activities. Because the Project would not conflict with the control strategies intended to reduce emissions from construction equipment, the Project would not conflict with, or obstruct, implementation of the AQMP. Additionally, the projected emissions from the Project would not exceed the SCAQMD's regional significance thresholds, as discussed below in Section 5.2-1. Thus, the Project would not be considered by SCAQMD to be a substantial source of air pollutant emissions, and would not conflict, or obstruct, implementation of the AQMP. Therefore, impacts would be less than significant with respect to construction activities.

5.2 Regional Emissions

5.2.1 Construction Emissions

The worst-case daily emissions were calculated as maximum daily construction emissions for each phase by year. Detailed emissions calculations are provided in Appendix A. Results of the criteria pollutant calculations are presented in **Table 10,** *Maximum Daily Unmitigated Regional Construction Emissions (pounds per day)*. As shown therein, construction-related daily emissions for the criteria and precursor pollutants (VOC, NO_X, CO, SO_X, PM10, and PM2.5) would be below the SCAQMD numeric indicators. These calculations include compliance with appropriate dust control measures required to be implemented during each phase of development, as required by SCAQMD Rule 403 (Control of Fugitive Dust) and SC-AQ-2 through SC-AQ-4. As discussed previously, SC-AQ-2 would obligate construction contractors to have off-road equipment properly tuned and maintained in accordance with the manufacturer's specifications. SC-AQ-3 would implement methods for reducing onsite dust emissions during soil removal. SC-AQ-4 is intended to reduce construction exhaust and fugitive dusts emissions with a number of features including utilizing off-road construction equipment that is compliant with Tier 3 engine standards (at a minimum) and applying soil stabilizers. Therefore, with respect to regional emissions from construction activities, impacts would be less than significant.

With respect to all SUP projects, including the proposed Project, the Program EIR states that construction activities may generate short-term emissions that exceed significance thresholds. Though construction emissions for this Project are not expected to exceed regional thresholds, the District will implement SCs AQ-2, SC-AQ-3, and AQ-4 to ensure that construction emissions would have minimal impacts. Also, criteria pollutant emissions would occur outside of SCAQMD's jurisdiction during transportation of contaminated soil to Buttonwillow, California. Transportation of contaminated soil would occur within the San Joaquin Valley Air Pollution District (SJVAPD). The Project would be substantially below the SJVAPD's Thresholds of Significance for all criteria pollutants, as shown in **Table 11,** San Joaquin Valley Air Basin Hauling Emissions (Tons per Year). Emissions associated with the transportation of contaminated soil within SCAQMD boundaries is included in maximum daily emissions shown for Phase 2F Demolition and Soil Remediation.

TABLE 10
MAXIMUM DAILY UNMITIGATED REGIONAL CONSTRUCTION EMISSIONS (POUNDS PER DAY) [a]

	Daily Regional Maximum (lbs/day)					
Phase	**ROG**	**NO_X**	**CO**	**SO_2**	**PM10**	**PM2.5**
1A Building Site Access (2020)	2.09	11.79	23.41	0.04	2.30	1.07
1A Build LAN Room (2020)	1.52	15.35	16.62	0.05	2.63	1.05
1A Paving Architectural Coating (2020)	25.03	1.86	7.95	0.02	1.78	0.55
1B Demolition (2020)	0.82	11.94	18.08	0.03	1.24	0.79
1C Electrical and LV Trench (2020)	0.81	11.80	18.05	0.03	1.19	0.78
1D Utilities Installation (2020)	0.81	11.80	18.05	0.03	1.19	0.78
1D Temporary Parking (2020)	1.15	11.46	19.33	0.03	1.17	0.76
1D Paving Architectural Coating (2020)	12.60	1.52	3.87	0.01	0.66	0.25
1D Temporary Parking (2021)	1.13	11.45	19.17	0.03	1.17	0.76
1D Paving Architectural Coating (2021)	12.58	1.51	3.71	0.01	0.66	0.25
1D Bungalow Installation (2021)	0.94	14.21	12.18	0.04	1.47	0.71
2A Seismic Modification (2021)	0.57	6.84	9.67	0.02	2.78	1.43
2A Seismic Modification (2022)	0.55	6.82	9.53	0.02	2.77	1.43
2A Seismic Modification (2023)	0.54	6.81	9.39	0.02	2.77	1.43
2B Demolition (2021)	0.85	13.73	18.31	0.04	1.95	0.92
2B Building Construction (2021)	0.97	15.17	12.44	0.04	1.54	0.73
2B Building Construction (2022)	0.92	14.70	12.18	0.04	1.53	0.72
2B Building Construction (2023)	0.83	12.71	11.80	0.04	1.51	0.71
2B Architectural Coating (2023)	47.65	1.48	3.44	0.01	0.66	0.25
2C Seismic Modification (2022)	0.55	6.82	9.53	0.02	2.77	1.43
2C Seismic Modification (2023)	0.54	6.81	9.39	0.02	2.77	1.43
2D Seismic Modification(2023)	0.54	6.81	9.39	0.02	2.77	1.43
2D Seismic Modification(2024)	0.53	6.80	9.29	0.02	2.77	1.43
2E Seismic Modification (2023)	0.54	6.81	9.39	0.02	2.77	1.43
2E Seismic Modification (2024)	0.53	6.80	9.29	0.02	2.77	1.43
2F Demolition & Soil Remediation (2023)	1.84	40.32	24.13	0.14	4.81	1.71
2G Seismic Modification (2023)	0.54	6.81	9.39	0.02	2.77	1.43
2G Seismic Modification (2024)	0.53	6.80	9.29	0.02	2.77	1.43
2I Parking Lot (2023)	0.83	11.42	18.90	0.03	1.17	0.76
2I Paving Architectural Coating (2023)	0.89	1.48	3.44	0.01	0.66	0.25
2F Building Construction (2023)	0.83	12.71	11.80	0.04	1.51	0.71
2F Building Construction (2024)	0.80	12.66	11.64	0.04	1.51	0.70
2F Architectural Coating (2024)	5.48	1.47	3.33	0.01	0.66	0.25
3A Demo Interim Housing (2024)	0.76	11.81	17.53	0.03	1.24	0.79
3A Demo Interim Housing (2025)	0.75	11.80	17.42	0.03	1.24	0.79
3B New Field (2024)	0.53	6.80	9.29	0.02	2.77	1.43
3B New Field (2025)	0.52	6.79	9.18	0.02	2.77	1.43

	Daily Regional Maximum (lbs/day)					
Phase	**ROG**	**NO_X**	**CO**	**SO_2**	**PM10**	**PM2.5**
3C Demolition (2024)	0.76	11.83	17.53	0.03	1.25	0.79
3C North Parking Lot (2024)	0.83	11.41	18.79	0.03	1.17	0.76
3C Paving Architectural Coating (2024)	1.39	1.47	3.33	0.01	0.66	0.25
3C North Parking Lot (2025)	0.82	11.40	18.69	0.03	1.17	0.76
3C Paving Architectural Coating (2025)	1.38	1.46	3.22	0.01	0.66	0.25
Overlapping Phases						
1A Site Access + 1A Paving Arch Coating (2020)	27.11	13.65	31.36	0.06	4.08	1.62
1D Temporary Parking + 1D Paving Arch Coating (2020)	13.75	12.99	23.20	0.04	1.83	1.01
1D Temporary Parking + 1D Paving Arch Coating (2021)	13.71	12.95	22.88	0.04	1.83	1.01
1D Bungalow Installation + 2A Modifications (2021)	1.51	21.05	21.85	0.06	4.25	2.14
2A Modification + 2B Demo + 2B Construction (2021)	2.39	35.74	40.42	0.10	6.27	3.08
2A Modification + 2B Construction + 2C Modification (2022)	2.03	28.35	31.23	0.08	7.08	3.59
2A Modification + 2B Construction + 2B Arch Coating + 2C Modification (2023)	49.56	27.81	34.02	0.09	7.72	3.82
2C Modification + 2D Modification + 2E Modification +2F Demolition +2F Construction + 2G Modification + 2I South Parking (2023)	5.65	91.68	92.40	0.29	18.59	8.91
2D Modification + 2E Modification +2F Construction + 2F Arch Coating + 2G Modification (2024)	7.87	34.52	42.83	0.10	10.49	5.24
2I Parking Lot + 2I Paving Arch Coating (2023)	1.72	12.90	22.33	0.04	1.83	1.01
3C Parking Lot + 3C Paving Arch Coating (2024)	2.21	12.88	22.12	0.04	1.83	1.01
3C Parking Lot + 3C Paving Arch Coating (2025)	2.20	12.86	21.91	0.04	1.83	1.01
Maximum	**49.56**	**91.68**	**92.40**	**0.29**	**18.59**	**8.91**
SCAQMD Daily Threshold	**75**	**100**	**550**	**150**	**150**	**55**
Exceeds Threshold?	No	No	No	No	No	No

NOTE: Detailed emissions calculations are provided in Appendix B of this Draft EIR.

[a] Totals may not add up exactly due to rounding in the modeling calculations.

[b] Emissions include fugitive dust control measures consistent with SCAQMD Rule 403.

TABLE 11
SAN JOAQUIN VALLEY AIR BASIN HAULING EMISSIONS (TONS PER YEAR)

Phase	Source	VOC	NO_X	CO	SO_2	PM10[b]	PM2.5 [b]
Phase 2.1	Soil Removal – 2020	0.08	3.31	0.32	0.01	0.08	0.04
SJVAPD Significance Thresholds		**10**	**10**	**100**	**27**	**15**	**15**
Exceeds Threshold?		No	No	No	No	No	No

NOTE: Detailed emissions calculations are provided in Appendix A.

[a] Totals may not add up exactly due to rounding in the modeling calculations Detailed emissions calculations are provided in Appendix A.

[b] Emissions include fugitive dust control measures consistent with SCAQMD Rule 403.

The SCAB is designated as non-attainment for O3, PM10, and PM2.5 under federal and/or state ambient air quality standards. Construction of the Project would not generate emissions that would contribute to basin-wide air pollutant emissions. Therefore, the Project would not contribute to a cumulatively considerable net increase of criteria pollutants and impacts would be less than significant.

5.3 Cumulatively Considerable Non-Attainment Pollutants

Short-term pollutants would be generated by construction of the proposed Project. The Project site currently operates as a middle school and would continue do so after construction. The proposed Project would not introduce any new long-term pollutants when operational. Therefore, only short-term construction emissions were evaluated for cumulative impacts.

Since the District has no control over the timing or sequencing of the related projects, any quantitative analysis of related projects to ascertain daily construction emissions that assumes multiple, concurrent construction projects would be speculative. For this reason, the SCAQMD's methodology to assess a project's cumulative impact differs from the cumulative impacts methodology employed for other environmental topics. The SCAQMD recommends that Project-specific air quality impacts of the proposed Project be used to determine the potential cumulative impacts to regional air quality. The proposed Project would result in the emission of criteria pollutants for which the area is in non-attainment during construction. A significant impact may occur if a project would add a cumulatively considerable contribution of a federal or state non-attainment pollutant. The Air Basin is currently in non-attainment for O_3, PM10, and PM2.5.

The emissions from construction of the proposed Project are not predicted to exceed the SCAQMD regional (see Section 5.2), or localized (see Section 5.4), impact thresholds, and, therefore, are not expected to cause, or substantially contribute to, ground level concentrations that exceed the NAAQS or CAAQS. Furthermore, the District would implement SC-AQ-2, SC-AQ-3, and SC-AQ-4 to ensure that construction emissions would minimize off-site impacts.[70, 71]

[70] Los Angeles Unified School District, 2015. School Upgrade Program Final Environmental Impact Report, http://achieve.lausd.net/ceqa. Adopted by the Board of Education on November 10, 2015. Pgs 5.3-28 to 5.3-30.

[71] Los Angeles Unified School District, 2015. School Upgrade Program Final Environmental Impact Report, http://achieve.lausd.net/ceqa. Adopted by the Board of Education on November 10, 2015. Pgs. 5.3-27 to 5.3-28.

Therefore, the Project would not result in a cumulatively considerable net increase for non-attainment pollutants, or O_3 precursors, and would result in a less than significant impact for construction emissions.

5.4 Substantial Pollutant Concentrations

5.4.1 Localized Construction Emissions

The localized construction air quality analysis was conducted using the methodology described in the SCAQMD *Localized Significance Threshold Methodology* (June 2003, revised July 2008).[72] The screening criteria provided in the *Localized Significance Threshold Methodology* were used to determine localized construction emissions thresholds for the Project. The maximum daily localized emissions for each of the construction phases and localized significance thresholds are presented in **Table 12,** *Maximum Unmitigated Localized Construction Emissions (Pounds Per Day)* [A]. As shown therein, maximum localized construction emissions for sensitive receptors would not exceed the localized thresholds for NO_X, CO, PM10, and PM2.5. Therefore, with respect to localized construction emissions, impacts would be less than significant.

TABLE 12
MAXIMUM UNMITIGATED LOCALIZED CONSTRUCTION EMISSIONS (POUNDS PER DAY) [a]

	Daily Localized Maximum (lbs/day)			
Phase	**NO_X**	**CO**	**PM10**	**PM2.5**
1A Building Site Access (2020)	11.3	17.3	0.6	0.6
1A Build LAN Room (2020)	8.2	8.8	0.4	0.4
1A Paving Architectural Coating (2020)	1.4	1.8	0.1	0.1
1B Demolition (2020)	11.7	16.0	0.7	0.6
1C Electrical and LV Trench (2020)	11.6	16.0	0.6	0.6
1D Utilities Installation (2020)	11.6	16.0	0.6	0.6
1D Temporary Parking (2020)	11.3	17.3	0.6	0.6
1D Paving Architectural Coating (2020)	1.4	1.8	0.1	0.1
1D Temporary Parking (2021)	11.3	17.3	0.6	0.6
1D Paving Architectural Coating (2021)	1.4	1.8	0.1	0.1
1D Bungalow Installation (2021)	8.2	8.7	0.4	0.4
2A Seismic Modification (2021)	6.7	7.8	2.2	1.3
2A Seismic Modification (2022)	6.7	7.8	2.2	1.3
2A Seismic Modification (2023)	6.7	7.8	2.2	1.3
2B Demolition (2021)	11.8	16.0	1.3	0.7
2B Building Construction (2021)	8.4	8.8	0.4	0.4
2B Building Construction (2022)	8.3	8.8	0.4	0.4
2B Building Construction (2023)	8.3	8.7	0.4	0.4
2B Architectural Coating (2023)	1.4	1.8	0.1	0.1

72 South Coast Air Quality Management District, Localized Significance Thresholds, (2003, revised 2008), http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds. Accessed November 2017.

Phase	Daily Localized Maximum (lbs/day)			
	NO_X	CO	PM10	PM2.5
2C Seismic Modification (2022)	6.7	7.8	2.2	1.3
2C Seismic Modification (2023)	6.7	7.8	2.2	1.3
2D Seismic Modification(2023)	6.7	7.8	2.2	1.3
2D Seismic Modification(2024)	6.7	7.8	2.2	1.3
2E Seismic Modification (2023)	6.7	7.8	2.2	1.3
2E Seismic Modification (2024)	6.7	7.8	2.2	1.3
2F Demolition & Soil Remediation (2023)	13.9	16.4	2.1	0.9
2G Seismic Modification (2023)	6.7	7.8	2.2	1.3
2G Seismic Modification (2024)	6.7	7.8	2.2	1.3
2I Parking Lot (2023)	11.3	17.3	0.6	0.6
2I Paving Architectural Coating (2023)	1.4	1.8	0.1	0.1
2F Building Construction (2023)	8.3	8.7	0.4	0.4
2F Building Construction (2024)	8.3	8.7	0.4	0.4
2F Architectural Coating (2024)	1.4	1.8	0.1	0.1
3A Demo Interim Housing (2024)	11.7	16.0	0.7	0.6
3A Demo Interim Housing (2025)	11.7	16.0	0.7	0.6
3B New Field (2024)	6.7	7.8	2.2	1.3
3B New Field (2025)	6.7	7.8	2.2	1.3
3C Demolition (2024)	11.7	16.0	0.7	0.6
3C North Parking Lot (2024)	11.3	17.3	0.6	0.6
3C Paving Architectural Coating (2024)	1.4	1.8	0.1	0.1
3C North Parking Lot (2025)	11.3	17.3	0.6	0.6
3C Paving Architectural Coating (2025)	1.4	1.8	0.1	0.1
Overlapping Phases				
1A Site Access + 1A Paving Arch Coating (2020)	12.65	19.13	0.70	0.70
1D Temporary Parking + 1D Paving Arch Coating (2020)	12.65	19.13	0.70	0.70
1D Temporary Parking + 1D Paving Arch Coating (2021)	12.65	19.13	0.70	0.70
1D Bungalow Installation + 2A Modifications (2021)	14.87	16.53	2.62	1.68
2A Modification + 2B Demo + 2B Construction (2021)	26.85	32.59	3.87	2.41
2A Modification + 2B Construction + 2C Modification (2022)	21.72	24.33	4.82	2.96
2A Modification + 2B Construction + 2B Arch Coating + 2C Modification (2023)	23.04	26.15	4.91	3.05
2C Modification + 2D Modification + 2E Modification +2F Demolition +2F Construction + 2G Modification + 2I South Parking (2023)	60.27	73.58	12.00	6.98
2D Modification + 2E Modification +2F Construction + 2F Arch Coating + 2G Modification (2024)	29.70	33.93	7.12	4.32
2I Parking Lot + 2I Paving Arch Coating (2023)	12.65	19.13	0.70	0.70
3C Parking Lot + 3C Paving Arch Coating (2024)	12.65	19.13	0.70	0.70
3C Parking Lot + 3C Paving Arch Coating (2025)	12.65	19.13	0.70	0.70
Maximum	**60.27**	**73.58**	**12.00**	**6.98**

	Daily Localized Maximum (lbs/day)			
Phase	**NO_X**	**CO**	**PM10**	**PM2.5**
SCAQMD Daily Threshold (SRA 1)	**161**	**1,861**	**16**	**8**
Exceeds Threshold?	No	No	No	No

NOTE: Detailed emissions calculations are provided in Appendix B of this Draft EIR.

a Totals may not add up exactly due to rounding in the modeling calculations Detailed emissions calculations are provided in Appendix A.
b Emissions include fugitive dust control measures consistent with SCAQMD Rule 403.

The health-based ambient air quality standards for ozone are as concentrations of ozone and not as tonnages of their precursor pollutants (i.e., NO_X and VOCs). It is not necessarily the tonnage of precursor pollutants that causes human health effects, but the concentration of resulting ozone or particulate matter. Because of the complexity of ozone formation and the non-linear relationship of ozone concentration with its precursor gases, and given the state of environmental science modeling in use at this time, it is infeasible to convert specific emission levels of NO_X or VOCs emitted in a particular area to a particular concentration of ozone in that area. Meteorology, the presence of sunlight, seasonal impacts, and other complex chemical factors all combine to determine the ultimate concentration and location of ozone.[73,74]

As expressed in the *amicus curiae* brief submitted for the *Sierra Club v. County of Fresno* case (*Friant Ranch Case*), the CEQA criteria pollutants significance thresholds from the air district were set at emission levels tied to the region's attainment status, they are emission levels at which stationary pollution sources permitted by the air district must offset their emissions and CEQA projects must use feasible mitigations, and they are not intended to be indicative of any localized human health impact that a project may have. [75,76] Therefore, just because a project exceeds the mass regional emissions threshold (i.e., pounds per day VOC thresholds) from project-related activities does not necessarily indicate that a project will cause or contribute to the exposure of sensitive receptors to ground-level concentrations in excess of health-protective levels.

The primary health concern with exposure to VOC emissions is the secondary formation of ozone. Based on discussions with air quality management district staff, and as the *amicus curiae*

73 SCAQMD, 2014, Application of the South Coast Air Quality Management District for Leave to File Brief of Amicus Curiae in Support of Neither Party and Brief of Amicus Curiae. In the Supreme Court of California. Sierra Club, Revive the San Joaquin, and League of Women Voters of Fresno v. County of Fresno.

74 SJVAPCD, 2014. Application for Leave to File Brief of Amicus Curiae Brief of San Joaquin Valley Unified Air Pollution Control District in Support of Defendant and Respondent, County of Fresno and Real Party In Interest and Respondent, Friant Ranch, L.P. In the Supreme Court of California. Sierra Club, Revive the San Joaquin, and League of Women Voters of Fresno v. County of Fresno.

75 SCAQMD, 2014, Application of the South Coast Air Quality Management District for Leave to File Brief of Amicus Curiae in Support of Neither Party and Brief of Amicus Curiae. In the Supreme Court of California. Sierra Club, Revive the San Joaquin, and League of Women Voters of Fresno v. County of Fresno.

76 SJVAPCD, 2014. Application for Leave to File Brief of Amicus Curiae Brief of San Joaquin Valley Unified Air Pollution Control District in Support of Defendant and Respondent, County of Fresno and Real Party In Interest and Respondent, Friant Ranch, L.P. In the Supreme Court of California. Sierra Club, Revive the San Joaquin, and League of Women Voters of Fresno v. County of Fresno.

briefs submitted for the Friant Ranch Case suggested, because of the complexity of ozone formation and given the state of environmental science modeling in use at this time, it is infeasible to determine whether, or the extent to which, a single project's precursor (i.e., NO_X and VOCs) emissions would potentially result in the formation of secondary ground-level ozone and the geographic and temporal distribution of such secondary formed emissions. [77, 78] As previously stated, meteorology, the presence of sunlight, seasonal impacts, and other complex chemical factors all combine to determine the ultimate concentration and location of ozone. Furthermore, available models today are designed to determine regional, population-wide health impacts, and cannot accurately quantify ozone-related health impacts caused by NO_X or VOCs emissions from local level (project level). Notwithstanding these scientific constraints, the disconnect between Project level VOC emissions and ozone-related health impact cannot be bridged at this time.

However, since construction of the Project would not exceed the regional significance thresholds, the Project is not anticipated to contribute to health impacts related to these pollutants.

5.4.2 Toxic Air Contaminants

The proposed Project would require approximately one week to remove a maximum of 500 cubic yards of contaminated soil. Project-related construction also has the potential to expose sensitive receptors to substantial pollutant concentrations of TACs. TAC are pollutants for which neither California nor the federal government, has set ambient air quality thresholds, but which still pose health risks to sensitive individuals. The primary TAC of concern from construction is DPM. Inhalation of DPM has been linked to increased cancer risk and chronic health hazards.

The proposed Project includes the modernization and upgrade of facilities on the Burroughs MS campus. The Program EIR states that modernization projects would not cause a change in toxic air contaminant exposure levels.[79] Therefore, health risk impacts for the proposed Project would be less than significant.

5.5 Odors

Potential activities that may emit odors during construction activities include the use of architectural coatings and solvents and the combustion of diesel fuel in on-and off-road equipment. As discussed in the Regulatory Setting, Section 2, of this technical report, SCAQMD Rule 1113 would limit the amount of VOCs in architectural coatings and solvents. In addition, the proposed Project would comply with the applicable provisions of the CARB Air Toxics Control Measure regarding idling limitations for diesel trucks. Through mandatory compliance with SCAQMD Rules, no construction activities, or materials, are expected to create objectionable odors affecting a substantial number of people. Therefore, construction of the Project would result in less than significant impacts.

---

77 SCAQMD, 2016. Communication with SCAQMD Staff, Jillian Wong (Planning and Rules Manager) and Michael Krause (Planning and Rules Manager), DTSC, and ESA PCR, August 26, 2016.

78 Models available today are designed to determine regional, population-wide health impacts, and cannot accurately quantify ozone-related health impacts caused by NO_X or VOC emissions from a project level.

79 Los Angeles Unified School District, 2015. School Upgrade Program Final Environmental Impact Report, http://achieve.lausd.net/ceqa. Adopted by the Board of Education on November 10, 2015. Pgs. 5.3-33

5.6 Greenhouse Gas Emissions

5.6.1 Construction

The proposed Project would replace and modernize existing structures at the Burroughs Middle School campus. **Table 13***, Project-Specific Construction GHG Emissions (metric tons)* shows the proposed Project's GHG emissions.

TABLE 13
PROJECT-SPECIFIC CONSTRUCTION GHG EMISSIONS (METRIC TONS)

Emissions Source Year	CO_2e (metric tons) a
2020	169
2021	824
2022	818
2023	1,320
2024	871
2025	181
Total	**4,182**
Annual (Amortized over 30 years)	**139**
Threshold	**3,000**
Threshold Exceeded?	**No**

[a] Totals may not add up exactly due to rounding in the modeling calculations

SOURCE: ESA, 2019

Although construction activities would increase GHG emissions, those emissions would be relatively minor and would cease after completion of construction. As shown in Table 12, the highest anticipated construction-related emissions associated with the proposed Project would be 1,320 $MTCO_2e$ in the year 2023. Typically, GHG construction emissions are amortized over 30 years and added to operational emissions. The proposed Project is expected to add a total of 4,182 $MTCO_2e$ over the 4.5 years of construction. The total Project GHG emissions amortized over 30 years would be the equivalent of 139 $MTCO_2e$ over the course of a 30-year period and would be less than the SCAQMD's interim threshold of 3,000 $MTCO_2e$ per year. Based on this, construction impacts would be less than significant. No mitigation or further studies are required.

5.6.2 Consistency with Adopted Plan, Policy or Regulation

As described in the Program EIR, implementation of the SUP would be consistent with plans adopted for the purpose of reducing GHG emissions, such as the SCAG Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), California Assembly Bill 32, California Air Resources Board Scoping Plan, and other statewide strategies to reduce GHG emissions.[80] Development of the proposed Project would replace and modernize facilities at Burroughs MS,

[80] Ibid. Pgs 5.7-18 to 5.7-19.

but it would not increase the number of students, or faculty, at the school, and, therefore, would not increase GHG emissions. As such, the Project would not conflict with the goals of the RTP/SCS.

Additionally, SUP-related projects, including the proposed Project, would comply with the District's GHG emission reduction measures. LAUSD's School Design Guide requires construction contractors to reuse, recycle, and salvage non-hazardous materials generated during demolition and/or new construction, as materials recovery would minimize the need to produce and transport new materials, thereby reducing emissions from mobile sources and energy use.[81] With respect to all SUP projects, implementation of SCs GHG-1 through GHG-5 would ensure that the proposed Project would not conflict with applicable plans, policies or regulations adopted for the purpose of reducing GHG emissions. Therefore, with adherence to SCs GHG-1 through GHG-5 and compliance with Title 24, the Project would not conflict with plans, policies, or regulations adopted for the purpose of reducing GHG emissions. Therefore, impacts would be less than significant. No mitigation or further studies are required.

6. Cumulative Impacts

6.1 Air Quality

The Project would result in the emission of criteria pollutants for which the region is in non-attainment during construction. The Air Basin fails to meet national standards for O_3 and PM2.5, and, therefore is considered a federal "non-attainment" area for these pollutants.

The SCAQMD has provided guidance on an acceptable approach to addressing the cumulative impacts issue for air quality as discussed below:[82]

> *As Lead Agency, the AQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR… Projects that exceed the Project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant.*

Consistent with accepted and established SCAQMD cumulative impact evaluation methodologies, the potential for the Project to result in cumulative impacts is assessed based on the SCAQMD thresholds.

As shown in Table 10, regional emissions calculated for the Project would be less than the applicable SCAQMD daily significance thresholds. The thresholds are designed to assist the

81 Los Angeles Unified School District, Office of Environmental Health and Safety, School Upgrade Program Final Environmental Impact Report, http://achieve.lausd.net/ceqa, Adopted by the Board of Education on November 10, 2015. Pg. 5.7-18 to 5.7-19.

82 South Coast Air Quality Management District, Cumulative Impacts White Paper, Appendix D, http://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper-appendix.pdf?sfvrsn=4, accessed May 2017.

region in attaining the applicable State and national ambient air quality standards. These standards apply to both primary (criteria and precursor) and secondary pollutants (O_3). Although the Project site is located in a region that is in non-attainment for O_3 and PM2.5, the emissions associated with the Project would not be cumulatively considerable as the emissions would fall below SCAQMD daily significance thresholds. In addition, the Project would be consistent with the AQMP, which is intended to bring the Air Basin into attainment for all criteria pollutants.

The SCAQMD's methodology to assess a project's cumulative impact differs from the cumulative impacts methodology employed for other environmental topics such as traffic, which are typically based on the number, types, and proximity to related projects. The SCAQMD recommends that Project-specific air quality impacts be used to determine the potential cumulative impacts to regional air quality.

With respect to the Project's short-term construction-related air quality emissions and cumulative conditions, the SCAQMD has developed strategies to reduce criteria pollutant emissions outlined in the AQMP pursuant to the federal CAA mandates. Construction of the Project would comply with SCAQMD Rule 403 requirements and the ATCM to limit heavy duty diesel motor vehicle idling to no more than 5 minutes at any given time (per SC-AQ-4). Per SCAQMD rules and mandates, as well as the CEQA requirement that significant impacts be mitigated to the extent feasible, these same requirements (i.e., Rule 403 compliance, the implementation of all feasible mitigation measures, and compliance with adopted AQMP emissions control measures) would also be imposed on all construction projects in the Air Basin, which would include the cumulative projects in the Project area. As shown above in Table 10 and Table 11, regional and localized construction emissions associated with the Project would not exceed the SCAQMD daily significance thresholds. As such, the Project's contribution to cumulatively significant construction impacts to air quality would not be cumulatively considerable and cumulative impacts would be less than significant for regional and localized criteria pollutants during construction.

6.2 Greenhouse Gas Emissions

In 2010, annual worldwide man-made emissions of GHGs were approximately 49,000 $MMTCO_2e$ including ongoing emissions from industrial and agricultural sources and emissions from land use changes (e.g., deforestation).[83] Emissions of CO_2 from fossil fuel use and industrial processes account for 65 percent of the total while CO_2 emissions from all sources accounts for 76 percent of the total. CH_4 emissions account for 16 percent and N_2O emissions for 6.2 percent. In 2015, the United States was the world's second largest emitter of carbon dioxide at 5,200 MMT (China was the largest emitter of carbon dioxide at 10,700 MMT).[84]

83 Intergovernmental Panel on Climate Change, Climate Change 2014: Synthesis Report Contribution of Working Groups I, II, and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, Summary for Policy Makers, 2014, http://ipcc.ch/report/ar5/syr/. Accessed March 2017.

84 PBL Netherlands Environmental Assessment Agency and the European Commission Joint Research Center, Trends in Global CO2 Emissions 2016 Report, 2016, http://www.pbl.nl/sites/default/files/cms/publicaties/pbl-2016-trends-in-global-co2-emisions-2016-report-2315.pdf. Accessed March 2017.

As previously discussed, CARB compiles GHG inventories for the State of California. In 2015, California emitted 440.4 $MMTCO_2e$ including emissions resulting from imported electrical power. Between 1990 and 2015, the population of California grew by approximately 31 percent. The California economy grew by 222 percent. Despite the population and economic growth, California's net GHG emissions only grew by approximately 2.2 percent.

A cumulatively considerable impact would occur where the impact of the Project in addition to the related projects would be significant. However, in the case of global climate change, a cumulative impacts analysis differs from other environmental issues areas, such as air quality. The proximity of the Project to other related projects or other GHG emission generating activities is not directly relevant to the determination of a cumulative impact because climate change is a global condition. According to CAPCOA, "GHG impacts are exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective."[85] Moreover, although the State requires MPOs and other planning agencies to consider how region-wide planning decisions can impact global climate change, there is currently no established non-speculative method to assess the cumulative impact of proposed independent private-party development projects.

Although HSC Division 25.5 sets a statewide target for 2020 GHG emissions, the implementing tools of the law (e.g., CARB's *Climate Change Scoping Plan*) are clear that the reductions are not expected to occur uniformly from all sources or sectors. CARB has set targets specific to the transportation sector (land use-related transportation emissions), for example, and under SB 375 SCAG must incorporate these GHG-reduction goals into the RTP and demonstrate that its SCS, or Alternative Planning Strategy, is consistent with the Regional Housing Needs Assessment. One of the goals of this process is to ensure that the efforts of State, regional and local planning agencies accommodate the contemporaneous increase in population and employment with a decrease in overall GHG emissions. For example, adopting zoning designations that reduce density in areas which are expected to experience growth in population and housing needs, is seen as inconsistent with anti-sprawl goals of sustainable planning. Although development under a reduced density scenario results in lower GHG emissions from the use of that land compared to what is currently or hypothetically allowed (by creating fewer units and fewer attributable vehicle trips), total regional GHG emissions will likely fail to decrease at the desired rate or, worse, increase if regional housing and employment needs of an area are met with a larger number of less-intensive development projects. Therefore, it is not simply a cumulative increase in regional development or the resultant GHG emissions that threatens GHG reduction goals.

With implementation of effective planning policies, the land use sector can accommodate growth and still be consistent with statewide plans to reduce GHG emissions. To that end, various agencies are required to develop programs to guide future building and transportation development towards minimized resource consumption and lowered resultant pollution.

85 California Air Pollution Control Officers Association, CEQA & Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act, 2008.

As discussed above, the Project would be consistent with plans adopted for the purpose of reducing GHG emissions, such as the SCAG Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), California Assembly Bill 32, California Air Resources Board Scoping Plan, and other statewide strategies to reduce GHG emissions.[86] Development of the proposed Project would replace and modernize facilities at Burroughs MS, but it would not increase the number of students, or faculty, at the school, and, therefore, would not increase GHG emissions. As such, the Project would not conflict with the goals of the RTP/SCS.

Additionally, SUP-related projects, including the proposed Project, would comply with the District's GHG emission reduction measures. LAUSD's School Design Guide requires construction contractors to reuse, recycle, and salvage non-hazardous materials generated during demolition and/or new construction, as materials recovery would minimize the need to produce and transport new materials, thereby reducing emissions from mobile sources and energy use.[87] With respect to all SUP projects, implementation of SCs GHG-1 through GHG-5 would ensure that the proposed Project would not conflict with applicable plans, policies or regulations adopted for the purpose of reducing GHG emissions. Therefore, with adherence to SCs GHG-1 through GHG-5 and compliance with Title 24, the Project would not conflict with plans, policies, or regulations adopted for the purpose of reducing GHG emissions. Additionally, the Project would not exceed the implemented significance threshold of 3,000 MT CO_2e annually. Therefore, Project impacts are not cumulatively considerable.

86 Ibid. Pgs 5.7-18 to 5.7-19.

87 Los Angeles Unified School District, Office of Environmental Health and Safety, School Upgrade Program Final Environmental Impact Report, http://achieve.lausd.net/ceqa, Adopted by the Board of Education on November 10, 2015. Pg. 5.7-18 to 5.7-19.

Appendix A

Air Quality Emissions Calculation Worksheets

ESA

Emissions Summary

ESA

LAUSD Burroughs Middle School
Air Quality Summary

Phase	Daily Regional Maximum (lbs/day)					
	ROG	NOX	CO	SO2	PM10	PM2.5
1A Building Site Access (2020)	2.09	11.79	23.41	0.04	2.30	1.07
1A Build LAN Room (2020)	1.52	15.35	16.62	0.05	2.63	1.05
1A Paving Architectural Coating (2020)	25.03	1.86	7.95	0.02	1.78	0.55
1B Demolition (2020)	0.82	11.94	18.08	0.03	1.24	0.79
1C Electrical and LV Trench (2020)	0.81	11.80	18.05	0.03	1.19	0.78
1D Utilities Installation (2020)	0.81	11.80	18.05	0.03	1.19	0.78
1D Temporary Parking (2020)	1.15	11.46	19.33	0.03	1.17	0.76
1D Paving Architectural Coating (2020)	12.60	1.52	3.87	0.01	0.66	0.25
1D Temporary Parking (2021)	1.13	11.45	19.17	0.03	1.17	0.76
1D Paving Architectural Coating (2021)	12.58	1.51	3.71	0.01	0.66	0.25
1D Bungalow Installation (2021)	0.94	14.21	12.18	0.04	1.47	0.71
2A Seismic Modification (2021)	0.57	6.84	9.67	0.02	2.78	1.43
2A Seismic Modification (2022)	0.55	6.82	9.53	0.02	2.77	1.43
2A Seismic Modification (2023)	0.54	6.81	9.39	0.02	2.77	1.43
2B Demolition (2021)	0.85	13.73	18.31	0.04	1.95	0.92
2B Building Construction (2021)	0.97	15.17	12.44	0.04	1.54	0.73
2B Building Construction (2022)	0.92	14.70	12.18	0.04	1.53	0.72
2B Building Construction (2023)	0.83	12.71	11.80	0.04	1.51	0.71
2B Architectural Coating (2023)	47.65	1.48	3.44	0.01	0.66	0.25
2C Seismic Modification (2022)	0.55	6.82	9.53	0.02	2.77	1.43
2C Seismic Modification (2023)	0.54	6.81	9.39	0.02	2.77	1.43
2D Seismic Modification(2023)	0.54	6.81	9.39	0.02	2.77	1.43
2D Seismic Modification(2024)	0.53	6.80	9.29	0.02	2.77	1.43
2E Seismic Modification (2023)	0.54	6.81	9.39	0.02	2.77	1.43
2E Seismic Modification (2024)	0.53	6.80	9.29	0.02	2.77	1.43
2F Demolition & Soil Remediation (2023)	1.84	40.32	24.13	0.14	4.81	1.71
2G Seismic Modification (2023)	0.54	6.81	9.39	0.02	2.77	1.43
2G Seismic Modification (2024)	0.53	6.80	9.29	0.02	2.77	1.43
2I Parking Lot (2023)	0.83	11.42	18.90	0.03	1.17	0.76
2I Paving Architectural Coating (2023)	0.89	1.48	3.44	0.01	0.66	0.25
2F Building Construction (2023)	0.83	12.71	11.80	0.04	1.51	0.71
2F Building Construction (2024)	0.80	12.66	11.64	0.04	1.51	0.70
2F Architectural Coating (2024)	5.48	1.47	3.33	0.01	0.66	0.25
3A Demo Interim Housing (2024)	0.76	11.81	17.53	0.03	1.24	0.79
3A Demo Interim Housing (2025)	0.75	11.80	17.42	0.03	1.24	0.79
3B New Field (2024)	0.53	6.80	9.29	0.02	2.77	1.43
3B New Field (2025)	0.52	6.79	9.18	0.02	2.77	1.43
3C Demolition (2024)	0.76	11.83	17.53	0.03	1.25	0.79
3C North Parking Lot (2024)	0.83	11.41	18.79	0.03	1.17	0.76
3C Paving Architectural Coating (2024)	1.39	1.47	3.33	0.01	0.66	0.25
3C North Parking Lot (2025)	0.82	11.40	18.69	0.03	1.17	0.76
3C Paving Architectural Coating (2025)	1.38	1.46	3.22	0.01	0.66	0.25

Overlapping Phases	ROG	NOX	CO	SO2	PM10	PM2.5
1A Site Access + 1A Paving Arch Coating (2020)	27.11	13.65	31.36	0.06	4.08	1.62
1D Temporary Parking + 1D Paving Arch Coating (2020)	13.75	12.99	23.20	0.04	1.83	1.01
1D Temporary Parking + 1D Paving Arch Coating (2021)	13.71	12.95	22.88	0.04	1.83	1.01
1D Bungalow Installation + 2A Modifications (2021)	1.51	21.05	21.85	0.06	4.25	2.14
2A Modification + 2B Demo + 2B Construction (2021)	2.39	35.74	40.42	0.10	6.27	3.08
2A Modification + 2B Construction + 2C Modification (2022)	2.03	28.35	31.23	0.08	7.08	3.59
2A Modification + 2B Construction + 2B Arch Coating + 2C Modification (2023)	49.56	27.81	34.02	0.09	7.72	3.82
2C Modification + 2D Modification + 2E Modification +2F Demolition +2F Construction + 2G Modification + 2I South Parking (2023)	5.65	91.68	92.40	0.29	18.59	8.91
2D Modification + 2E Modification +2F Construction + 2F Arch Coating + 2G Modification (2024)	7.87	34.52	42.83	0.10	10.49	5.24
2I Parking Lot + 2I Paving Arch Coating (2023)	1.72	12.90	22.33	0.04	1.83	1.01
3C Parking Lot + 3C Paving Arch Coating (2024)	2.21	12.88	22.12	0.04	1.83	1.01
3C Parking Lot + 3C Paving Arch Coating (2025)	2.20	12.86	21.91	0.04	1.83	1.01
Maximum	**49.56**	**91.68**	**92.40**	**0.29**	**18.59**	**8.91**
SCAQMD Daily Threshold	**75**	**100**	**550**	**150**	**150**	**55**
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Phase	Daily Localized Maximum (lbs/day)			
	NOX	CO	PM10	PM2.5
1A Building Site Access (2020)	11.3	17.3	0.6	0.6
1A Build LAN Room (2020)	8.2	8.8	0.4	0.4
1A Paving Architectural Coating (2020)	1.4	1.8	0.1	0.1
1B Demolition (2020)	11.7	16.0	0.7	0.6
1C Electrical and LV Trench (2020)	11.6	16.0	0.6	0.6
1D Utilities Installation (2020)	11.6	16.0	0.6	0.6
1D Temporary Parking (2020)	11.3	17.3	0.6	0.6
1D Paving Architectural Coating (2020)	1.4	1.8	0.1	0.1
1D Temporary Parking (2021)	11.3	17.3	0.6	0.6
1D Paving Architectural Coating (2021)	1.4	1.8	0.1	0.1
1D Bungalow Installation (2021)	8.2	8.7	0.4	0.4
2A Seismic Modification (2021)	6.7	7.8	2.2	1.3
2A Seismic Modification (2022)	6.7	7.8	2.2	1.3
2A Seismic Modification (2023)	6.7	7.8	2.2	1.3
2B Demolition (2021)	11.8	16.0	1.3	0.7
2B Building Construction (2021)	8.4	8.8	0.4	0.4
2B Building Construction (2022)	8.3	8.8	0.4	0.4
2B Building Construction (2023)	8.3	8.7	0.4	0.4
2B Architectural Coating (2023)	1.4	1.8	0.1	0.1
2C Seismic Modification (2022)	6.7	7.8	2.2	1.3
2C Seismic Modification (2023)	6.7	7.8	2.2	1.3
2D Seismic Modification(2023)	6.7	7.8	2.2	1.3
2D Seismic Modification(2024)	6.7	7.8	2.2	1.3
2E Seismic Modification (2023)	6.7	7.8	2.2	1.3
2E Seismic Modification (2024)	6.7	7.8	2.2	1.3
2F Demolition & Soil Remediation (2023)	13.9	16.4	2.1	0.9
2G Seismic Modification (2023)	6.7	7.8	2.2	1.3
2G Seismic Modification (2024)	6.7	7.8	2.2	1.3
2I Parking Lot (2023)	11.3	17.3	0.6	0.6
2I Paving Architectural Coating (2023)	1.4	1.8	0.1	0.1
2F Building Construction (2023)	8.3	8.7	0.4	0.4
2F Building Construction (2024)	8.3	8.7	0.4	0.4
2F Architectural Coating (2024)	1.4	1.8	0.1	0.1
3A Demo Interim Housing (2024)	11.7	16.0	0.7	0.6
3A Demo Interim Housing (2025)	11.7	16.0	0.7	0.6
3B New Field (2024)	6.7	7.8	2.2	1.3
3B New Field (2025)	6.7	7.8	2.2	1.3
3C Demolition (2024)	11.7	16.0	0.7	0.6
3C North Parking Lot (2024)	11.3	17.3	0.6	0.6
3C Paving Architectural Coating (2024)	1.4	1.8	0.1	0.1
3C North Parking Lot (2025)	11.3	17.3	0.6	0.6
3C Paving Architectural Coating (2025)	1.4	1.8	0.1	0.1

Overlapping Phases	NOX	CO	PM10	PM2.5
1A Site Access + 1A Paving Arch Coating (2020)	12.65	19.13	0.70	0.70
1D Temporary Parking + 1D Paving Arch Coating (2020)	12.65	19.13	0.70	0.70
1D Temporary Parking + 1D Paving Arch Coating (2021)	12.65	19.13	0.70	0.70
1D Bungalow Installation + 2A Modifications (2021)	14.87	16.53	2.62	1.68
2A Modification + 2B Demo + 2B Construction (2021)	26.85	32.59	3.87	2.41
2A Modification + 2B Construction + 2C Modification (2022)	21.72	24.33	4.82	2.96
2A Modification + 2B Construction + 2B Arch Coating + 2C Modification (2023)	23.04	26.15	4.91	3.05
2C Modification + 2D Modification + 2E Modification +2F Demolition +2F Construction + 2G Modification + 2I South Parking (2023)	60.27	73.58	12.00	6.98
2D Modification + 2E Modification +2F Construction + 2F Arch Coating + 2G Modification (2024)	29.70	33.93	7.12	4.32
2I Parking Lot + 2I Paving Arch Coating (2023)	12.65	19.13	0.70	0.70
3C Parking Lot + 3C Paving Arch Coating (2024)	12.65	19.13	0.70	0.70
3C Parking Lot + 3C Paving Arch Coating (2025)	12.65	19.13	0.70	0.70
Maximum	**60.27**	**73.58**	**12.00**	**6.98**
SCAQMD Daily Threshold (SRA 1)	**161**	**1,861**	**16**	**8**
Exceeds Threshold?	**No**	**No**	**No**	**No**

Note:
Localized emissions include on-site vendor truck idling
Threshold for a 5-acre site at a distance of 25 meters

Project Summary

ESA

Burroughs Middle School Comprehensive Modernization Project
Project Summary

STRUCTURES TO BE REMOVED (DEMO) [1]	**52,160 sf**
B-5	1,788
B-6/B-22/B-23	2,703
B-8	2,459
B-9	8,491
B-10	212
B-11/B-12/B-13	323
B-16/B-3/B-25	4,198
B-17	6,912
B-19	1,015
B-20	19,463
B-21	1,783
B-24	1,035
B-26	1,778
Asphalt	
Turf/Landscaping	

EXISTING STRUCTURES.	**142,956 sf**
B-1	53,374
B-2	10,913
B-3	1,783
B-5	1,788
B-6/B-22/B-23	2,703
B-7	19,810
B-8	2,459
B-9	8,491
B-10	212
B-11/B-12/B-13	323
B-14	3,133
B-16/B-3/B-25	4,198
B-17	6,912
B-18	1,783
B-19	1,015
B-20	19,463
B-21	1,783
B-24	1,035
B-26	1,778

MOD	**93,825 sf**
Bldg 1	56,374
Bldg 2	10,913
Bldg 7	19,810
B-4, B-14, B-18	6,728

Campus		
Current Total		
Structures:	**sf**	

NEW CONSTRUCTION [2]	
Option 3 Total Construction Gross Area	**86,442**
	86,442

Schedule and Equipment

ESA

Burroughs Middle School Comprehensive Modernization Project
Schedule and Equipment Assumptions

Construction Model Assumptions

	Phase	CalEEMod Phase Type	Start Date	End Date	Work Days [2]	# of Workers [3]	# of Worker Trips per day
	PHASE 1						
1A	Build Site Access	Paving	8/1/2020	8/16/2020	10	150	300
	Build LAN Room	Building Construction	8/17/2020	8/27/2020	9	150	300
1B	Demolition	Demolition	8/28/2020	9/27/2020	21	50	100
1C	Electrical and LV Trench	Tenching	9/28/2020	11/27/2020	45	50	100
1D	Utilities Installation	Tenching	11/28/2020	12/28/2020	21	50	100
	Temporary Parking	Paving	12/29/2020	1/28/2021	23	50	100
	Bungalow Installation	Building Construction	1/29/2021	4/29/2021	65	50	100
	PHASE 2						
2A	Seismic Modification (B-1)	Modification/Grading	2/1/2021	6/21/2023	623	50	100
2B	Demolition (B-20, B-26, B-17, B-19)	Modification/Grading	2/21/2021	3/23/2021	22	50	100
	Construction (Building B)	Building Construction	3/1/2021	6/19/2023	601	50	100
2C	Seismic Modification (B-7)	Modification/Grading	8/1/2022	11/24/2023	345	50	100
2D	Seismic Modification (B-2)	Modification/Grading	7/1/2023	6/25/2024	257	50	100
2E	Seismic Modification (B-9)	Modification/Grading	7/1/2023	4/26/2024	215	50	100
2F	Demolition	Demolition	7/1/2023	7/31/2023	21	150	300
	Construction (Building A)	Building Construction	8/1/2023	9/24/2024	301	50	100
2G	Seismic Modification (B-4, B-14, B-18)	Modification/Grading	7/1/2023	2/26/2024	171	50	100
2I	Southern Parking Lot	Paving	7/1/2023	12/28/2023	129	50	100
	PHASE 3						
3A	Demo Interim Housing	Demolition	9/1/2024	2/28/2025	130	50	100
3B	Construction of New Field	Modification/Grading	9/1/2024	2/28/2025	130	50	100
3C	Demolition (B-8)	Demolition	9/1/2024	10/1/2024	22	50	100
	North Parking Lot	Paving	10/24/2024	3/23/2025	107	50	100

Notes:

1 *Source: Construction Phasing(date 1/3/19)*

2 *5 work days per week (Monday - Friday)*

3 *Average 50 workers per day during school year, then 150 workers per day during summer. 150 workers assumed when any part of activity occurs during summer for worst case*

Construction Equipment

Phase	Equipment Type	# of Equipment	Hours/day	HP	Load Factor
1A Paving	Pavers	2	8	130	0.42
	Paving Equipment	2	8	80	0.38
	Rollers	2	8	132	0.36
1A Building Construction	Cranes	1	4	231	0.29
	Forklifts	1	6	89	0.2
	Generator Sets	1	6	84	0.74
	Tractors/Loaders/Backhoes	1	6	97	0.37
	Welders	1	6	46	0.45
1B Demolition	Concrete/Industrial Saws	1	6	81	0.73
	Crushing/Proc. Equipment	1	6	85	0.73
	Excavators	1	6	158	0.38
	Other Construction Equipment	1	6	172	0.42
	Rubber Tired Dozers	1	6	247	0.4
1C/1D Trenching	Concrete/Industrial Saws	1	6	81	0.73
	Crushing/Proc. Equipment	1	6	85	0.73
	Excavators	1	6	158	0.38
	Other Construction Equipment	1	6	172	0.42
	Rubber Tired Dozers	1	6	247	0.4
1D Paving	Pavers	2	8	130	0.42
	Paving Equipment	2	8	80	0.38
	Rollers	2	8	132	0.36
1D Building Construction	Cranes	1	4	231	0.29
	Forklifts	1	6	89	0.2
	Generator Sets	1	6	84	0.74
	Tractors/Loaders/Backhoes	1	6	97	0.37
	Welders	1	6	46	0.45

2A Grading/Modification	Graders	1	6	187	0.41
	Rubber Tired Dozers	1	6	247	0.4
	Tractors/Loaders/Backhoes	1	6	97	0.37
2B Demolition	Concrete/Industrial Saws	1	6	81	0.73
	Crushing/Proc. Equipment	1	6	85	0.73
	Excavators	1	6	158	0.38
	Other Construction Equipment	1	6	172	0.42
	Rubber Tired Dozers	1	6	247	0.4
2B Building Construction	Cranes	1	4	231	0.29
	Forklifts	1	6	89	0.2
	Generator Sets	1	6	84	0.74
	Tractors/Loaders/Backhoes	1	6	97	0.37
	Welders	1	6	46	0.45
2B Architectural Coating	Air Compressor	1	6	78	0.48
2C Grading/Modernization	Graders	1	6	187	0.41
	Rubber Tired Dozers	1	6	247	0.4
	Tractors/Loaders/Backhoes	1	6	97	0.37
2D Grading/Modernization	Graders	1	6	187	0.41
	Rubber Tired Dozers	1	6	247	0.4
	Tractors/Loaders/Backhoes	1	6	97	0.37
2E Grading/Modernization	Graders	1	6	187	0.41
	Rubber Tired Dozers	1	6	247	0.4
	Tractors/Loaders/Backhoes	1	6	97	0.37
2F Demolition	Concrete/Industrial Saws	1	6	81	0.73
	Crushing/Proc. Equipment	1	6	85	0.73
	Excavators	1	6	158	0.38
	Other Construction Equipment	1	6	172	0.42
	Rubber Tired Dozers	1	6	247	0.4
2F Building Construction	Cranes	1	4	231	0.29
	Forklifts	1	6	89	0.2
	Generator Sets	1	6	84	0.74
	Tractors/Loaders/Backhoes	1	6	97	0.37
	Welders	1	6	46	0.45
2F Architectural Coating	Air Compressor	1	6	78	0.48
2G Grading/Modernization	Graders	1	6	187	0.41
	Rubber Tired Dozers	1	6	247	0.4
	Tractors/Loaders/Backhoes	1	6	97	0.37
2I Paving	Pavers	2	8	130	0.42
	Paving Equipment	2	8	80	0.38
	Rollers	2	8	132	0.36
3A Demolition	Concrete/Industrial Saws	1	6	81	0.73
	Crushing/Proc. Equipment	1	6	85	0.73
	Excavators	1	6	158	0.38
	Other Construction Equipment	1	6	172	0.42
	Rubber Tired Dozers	1	6	247	0.4
3B Grading/Modernization	Graders	1	6	187	0.41
	Rubber Tired Dozers	1	6	247	0.4
	Tractors/Loaders/Backhoes	1	6	97	0.37
3C Demolition	Concrete/Industrial Saws	1	6	81	0.73
	Crushing/Proc. Equipment	1	6	85	0.73
	Excavators	1	6	158	0.38
	Other Construction Equipment	1	6	172	0.42
	Rubber Tired Dozers	1	6	247	0.4
3C Paving	Pavers	2	8	130	0.42
	Paving Equipment	2	8	80	0.38
	Rollers	2	8	132	0.36

Demolition Quantities

ESA

Burroughs Middle School Comprehensive Modernization Project
Demolition Quantities

	Sqft
Phase 1	
B-21	1824
B-10	200
B-11	168
B-12	80
B-13	0
Total	**2,272**

Phase 2

2B

B-20	25,415
B-26	1,920
B-17	7,603
B-19	896
Total	**35,834**

2F

B-23/B-22/B-6	3,683
B-24	1,056
B-5	1,824
B-25/B-3/B-16	4,280
Total	**82,511**

Phase 3

3A

Demo Interim Hou	11,520

3C

B-8	2,520

Phase	Building Sqft	Building Volume (ft^3)	Building Debris Volume (CY)[1]	Building Waste Density (tons/CY)[2]	tons
1B	2,272	22,720	210	0.5	105
2B	35,834	358,340	3,318	0.5	1,659
2F	82,511	825,110	7,640	0.5	3,820
3A	11,520	115,200	1,067	0.5	533
3C	2,520	25,200	233	0.5	117

Notes:

[1] Per CALEEMOD user's guide, 1 ft3 building volume = 0.25 ft3 waste volume.

[2] Building waste density is assumed to be 0.5 ton/CY per CALEEMOD User's Guide.

Phase	Building Debris Volume (CY)[1]	Mean Truck Capacity[3] (CY)	Total Truck Trips (Round Trip)	Total Truck Trips (One-Way)	Demo Duration	Trips per day
1 (soil removal)[4, 5]			-	250	5	50
1B	210	16	13	26	21	1
2B	3,318	16	207	415	22	19
2F	7,640	16	477	955	21	45
3A	1,067	16	67	133	130	1
3C	233	16	15	29	22	1

[3] Per CalEEMod, Hauling trips based on 16 CY per load

[4] Assumed 250 Truck trips

[5] calculated outside of CalEEMod

Concrete Estimates

ESA

Burroughs Middle School Comprehensive Modernization Project
Concrete Estimates

Phase	New Construction (sf)	Slab Thickness (ft)	ft^3	CY	Concrete Truck Capacity[1]	Total Trucks	Phase Durations	Total One-way Trips per Day
2B Building Construction	66,452	1	66452	2461	10	246	601	1
2F Building Construction	9,584	1	9584	355	10	35	301	1

https://www.reference.com/home-garden/many-cubic-yards-concrete-truck-hold-f16ec3f128dc18d2

Soil Removal Haul Truck Emissions

ESA

LAUSD Burroughs Middle School
Soil Removal Haul Truck Emissions

Soil Removal | Miles

Vehicle Travel Distances and One-Way Trips

Import/Export Location	Vehicle Class	One-Way Trip Distance (miles) [a]		Number of One-Way Trips [b]	
Activity					
Disposal (Export)		**SCAB**	**SJVAB**	**Daily Trips**	**Annual Trips**
Clean Harbors Buttonwillow (CA)	Haul Truck (T7, Single Construction)	73	70	25	125
Clean Fill (Import)	Haul Truck (T7, Single Construction)	30		25	125

a. Trip lengths measured using Google Earth
b. Assume maximum of 250 one-way trips

Vehicle Emissions Factors

Model Year	Vehicle Class	Criteria Pollutant Emission Factors (pounds/mile) [a]						GHG Emission Factors (pounds/mile) [a]
EMFAC2014 (Analysis Year 2020)		**ROG**	**NOX**	**CO**	**SO2**	**PM10**	**PM2.5**	
Fleet Average-SCAB	Haul Truck (T7 Single Construction)	0.00022212	0.00991502	0.0009252	3.46528E-05	0.0002577	0.0001186	3.632
Fleet Average-SJVAB	Haul Truck (T7 Single Construction)	0.000245367	0.01034956	0.0010135	3.52775E-05	0.0002577	0.0001185	3.698

South Coast Air Basin

Vehicle Emissions-(Heavy-Duty Trucks(T7, Single Construction))

Import/Export Location	Vehicle Class	Criteria Pollutant Emissions (pounds/day)						GHG Emissions (MT CO2/yr)
Buttonwillow, CA		**ROG**	**NOX**	**CO**	**SO2**	**PM10**	**PM2.5**	
Activity								
Disposal/Clean Fill (Export/Import)	Fleet Average	**0.405**	**18.095**	**1.689**	**0.063**	**0.470**	**0.216**	**15.034**
Clean Fill (Import)	Fleet Average	**0.167**	**7.436**	**0.694**	**0.026**	**0.193**	**0.089**	**6.178**
	Total	**0.572**	**25.531**	**2.382**	**0.089**	**0.664**	**0.305**	**21.212**

San Joaquin Valley Air Basin

Vehicle Emissions-(Heavy-Duty Trucks(T7, Single Construction))

Import/Export Location	Vehicle Class	Criteria Pollutant Emissions (pounds/day)						GHG Emissions (MT CO2/yr)
Buttonwillow, CA		**ROG**	**NOX**	**CO**	**SO2**	**PM10**	**PM2.5**	
Activity								
Disposal/Clean Fill (Export/Import)	Fleet Average	**0.429**	**18.112**	**1.774**	**0.062**	**0.451**	**0.207**	**14.676**
	Total	**0.429**	**18.112**	**1.774**	**0.062**	**0.451**	**0.207**	**14.676**
	Total Tons/Year	**0.078**	**3.305**	**0.324**	**0.011**	**0.082**	**0.038**	

Vendor Truck Emissions

ESA

LAUSD Burroughs Middle School
Vendor Idling Emissions

Activity	Start Date	End Date	Work Days	# of Trucks/day [1]	Idling (hour/day) [2]
1A Build LAN Room	2020/08/17	2020/08/27	9	39	9.6
1B Demolition	2020/08/28	2020/09/25	21	1	0.3
1D Bungalow Installation	2021/01/29	2021/04/29	65	39	9.6
2B Demolition	2021/02/21	2021/03/23	22	4	0.9
2B Building Construction	2021/03/01	2023/06/19	601	44	10.9
2F Demolition	2023/07/01	2023/07/31	21	9	2.2
2F Soil Remediation	7/25/2023	7/31/2023	5	50	12.5
2F Building Construction	2023/08/01	2024/09/24	301	44	10.9
3A Demolition	2024/09/01	2025/02/28	130	1	0.3
3C Demolition	2024/09/01	2024/10/01	22	1	0.3

Notes:

1. Assume only trips going to site and idling onsite.

2. Assume 15-minute idling onsite for each concrete truck. http://www.lafarge-na.com/wps/portal/na/en/3_A_11_1-Calculating_Truck_Requirements.

Idling Emission Factors (lb/vehicle/hr)

	ROG	NOX	CO	PM10	PM2.5	SOX	CO2
2019	0.006367	0.15452391	0.02515217	0.00053529	0.000512134	0.000207	21.73891

Source:

EMFAC2014

Maximum Daily Idling Emissions (lbs/day)

Activity	ROG	NOX	CO	PM10	PM2.5	SOX	CO2
1A Build LAN Room	0.061283	1.48729267	0.24208967	0.00515217	0.004929286	0.001996	209.237
1B Demolition	0.001592	0.03863098	0.00628804	0.00013382	0.000128033	5.18E-05	5.434728
1D Bungalow Installation	0.061283	1.48729267	0.24208967	0.00515217	0.004929286	0.001996	209.237
2B Demolition	0.005897	0.14311022	0.02329434	0.00049575	0.000474306	0.000192	20.1332
2B Building Construction	0.069242	1.68044756	0.27352989	0.00582128	0.005569453	0.002255	236.4107
2F Demolition	0.014212	0.34491945	0.05614325	0.00119484	0.001143155	0.000463	48.52436
2F Soil Remediation	0.079589	1.93154892	0.31440217	0.00669113	0.00640167	0.002592	271.7364
2F Building Construction	0.069242	1.68044756	0.27352989	0.00582128	0.005569453	0.002255	236.4107
3A Demolition	0.001592	0.03863098	0.00628804	0.00013382	0.000128033	5.18E-05	5.434728
3C Demolition	0.001592	0.03863098	0.00628804	0.00013382	0.000128033	5.18E-05	5.434728

Notes:

1. LST polluants are CO, Nox, PM10, and PM2.5

Maximum Annual Idling Emissions

Activity	CO2 (lb/day)	Duration (days)	Total CO_2 (MT/yr)	Total CO_{2e} (MT/yr)
1A Build LAN Room	209.237	9	0.85418371	0.8626524
1B Demolition	5.434728	21	0.05176871	0.05228196
1D Bungalow Installation	209.237	65	6.1691046	6.23026735
2B Demolition	20.1332	22	0.2009119	0.20290381
2B Building Construction	236.4107	601	64.4483461	65.0873104
2F Demolition	48.52436	21	0.46222062	0.46680325
2F Soil Remediation	271.7364	5	0.61629417	0.62240433
2F Building Construction	236.4107	301	32.2777906	32.5978044
3A Demolition	5.434728	130	0.32047297	0.32365025
3C Demolition	5.434728	22	0.05423389	0.05477158
			Total	106.50085

GHG Emission Factors from CARB Inventory [1]		*GWP* [2]
0.09	*CH4 g/gal*	*25*
10206	*CO2 g/gal*	*1*
0.332	*N2O g/gal*	*298*
2.25	*CO2e g/gal from CH4*	
10206	*CO2e g/gal from CO2*	
98.936	*CO2e g/gal from N2O*	
10307.186	*Total CO2e lb/gal*	
1.01	*Total CO2e / CO2*	

1. GHG emission factors are obtained from the CARB GHG emissions inventory, with the following query: 1A3biii - Fuel Combustion Activities - Transport - Road Transportation - Heavy-duty Trucks and Buses, Sector Transportation : On Road : Heavy-duty Vehicles : Heavy-duty Trucks

https://www.arb.ca.gov/cc/inventory/doc/docs1/1a3biii_onroad_heavy-dutyvehicles_heavy-dutytrucks_fuelcombustion_distillate_ch4_2015.htm

2. GWP is based on IPCC Fourth Assessment Report. https://www.ipcc.ch/publications_and_data/ar4/wg1/en/ch2s2-10-2.html

Architectural Coating

ESA

Burroughs Middle School Comprehensive Modernization Project
Architectural Coating

CalEEMod assumes the total surface for architectural coating equals:		
Nonresidential Coating Area	2	times the square footage
	75%	interior
	25%	exterior
Parking Lot Coating Area	6%	of the square footage
	0%	exterior for surface lot

Source: SCAQMD, CEQA Air Quality Handbook, (1993) A9-124.

Non-Residential Land Uses			
Land Use	**Area (sf)**	**Interior (sf)**	**Exterior (sf)**
2B Building Construction	66,452	99,678	33,226
2F Building Construction	9,584	14,376	4,792
1A Paving	52,272	3,032	-
1D Paving	60,984	3,537	-
2I Paving	17,424	1,011	-
3C Paving	26,136	1,516	-
Project Total	**232,852**	**123,149**	**38,018**

CalEEMod Summer Output

ESA

LAUSD Burroughs - Unmitigated

South Coast Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Junior High School	95.16	1000sqft	2.18	95,160.00	0
Other Asphalt Surfaces	2.00	Acre	2.00	87,120.00	0
Other Non-Asphalt Surfaces	2.00	Acre	2.00	87,120.00	0
Parking Lot	1.00	Acre	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	11			**Operational Year**	2025
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Project-specific phasing

Off-road Equipment - Project-Specific Construction Assumptions

Off-road Equipment - Project-Specific Construction Assumptions

Off-road Equipment - Project-Specific Construction Assumptions

Off-road Equipment - Project-Specific Construction Assumptions

Off-road Equipment -

Off-road Equipment - Project-Specific Construction Assumptions

Off-road Equipment - Project-Specific Construction Assumptions

Off-road Equipment -

Off-road Equipment - Project-Specific Construction Assumptions

Off-road Equipment - Project-Specific Construction Assumptions

Off-road Equipment - Project-Specific Construction Assumptions

Off-road Equipment - Project-Specific Construction Assumptions

Off-road Equipment - Project-Specific Construction Assumptions

Off-road Equipment -

Off-road Equipment - Project-Specific Construction Assumptions

Off-road Equipment - Project-Specific Construction Assumptions

Off-road Equipment - Project-Specific Construction Assumptions

Off-road Equipment -

Off-road Equipment - Project-Specific Construction Assumptions

Off-road Equipment - Project-Specific Construction Assumptions

Off-road Equipment - Project-Specific Construction Assumptions

Off-road Equipment -

Trips and VMT - Maximum of 50 workers during the school year and 150 during summer months.
10 Concrete Trucks added to CalEEMod default 77 vendor trucks to 2B and 2E

Demolition -

Grading -

Architectural Coating - Project components

Vehicle Trips - Construction-only

Energy Use - Construction-Only

Water And Wastewater - Construction-Only

Solid Waste - Construction-Only

Construction Off-road Equipment Mitigation - Water Exposed Area 3 times daily; Equipment > 50 HP Tier 3

Table Name	Column Name	Default Value	New Value

tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	125,000.00	33,226.00
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	125,000.00	4,792.00
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	125,000.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	125,000.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	125,000.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	125,000.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	375,000.00	99,678.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	375,000.00	14,376.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	375,000.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	375,000.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	375,000.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	375,000.00	0.00
tblArchitecturalCoating	ConstArea_Parking	13,068.00	0.00
tblArchitecturalCoating	ConstArea_Parking	13,068.00	0.00
tblArchitecturalCoating	ConstArea_Parking	13,068.00	52,272.00
tblArchitecturalCoating	ConstArea_Parking	13,068.00	60,984.00
tblArchitecturalCoating	ConstArea_Parking	13,068.00	17,424.00
tblArchitecturalCoating	ConstArea_Parking	13,068.00	26,136.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	13.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	20.00	13.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	20.00	129.00
tblConstructionPhase	NumDays	20.00	17.00
tblConstructionPhase	NumDays	20.00	107.00
tblConstructionPhase	NumDays	20.00	23.00
tblConstructionPhase	NumDays	300.00	601.00
tblConstructionPhase	NumDays	300.00	301.00
tblConstructionPhase	NumDays	300.00	9.00
tblConstructionPhase	NumDays	300.00	65.00
tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	20.00	21.00
tblConstructionPhase	NumDays	20.00	130.00
tblConstructionPhase	NumDays	20.00	22.00

tblConstructionPhase	NumDays	20.00	21.00
tblConstructionPhase	NumDays	30.00	623.00
tblConstructionPhase	NumDays	30.00	345.00
tblConstructionPhase	NumDays	30.00	257.00
tblConstructionPhase	NumDays	30.00	215.00
tblConstructionPhase	NumDays	30.00	171.00
tblConstructionPhase	NumDays	30.00	130.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	20.00	129.00
tblConstructionPhase	NumDays	20.00	107.00
tblConstructionPhase	NumDays	20.00	23.00
tblEnergyUse	LightingElect	2.59	0.00
tblEnergyUse	LightingElect	0.35	0.00
tblEnergyUse	NT24E	1.59	0.00
tblEnergyUse	NT24NG	1.08	0.00
tblEnergyUse	T24E	1.74	0.00
tblEnergyUse	T24NG	9.32	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	7.00	4.00

tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00

tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblSolidWaste	SolidWasteGenerationRate	325.00	0.00
tblTripsAndVMT	VendorTripNumber	77.00	87.00
tblTripsAndVMT	VendorTripNumber	77.00	87.00
tblTripsAndVMT	WorkerTripNumber	15.00	150.00
tblTripsAndVMT	WorkerTripNumber	8.00	50.00
tblTripsAndVMT	WorkerTripNumber	13.00	50.00
tblTripsAndVMT	WorkerTripNumber	196.00	50.00
tblTripsAndVMT	WorkerTripNumber	8.00	50.00
tblTripsAndVMT	WorkerTripNumber	39.00	50.00
tblTripsAndVMT	WorkerTripNumber	13.00	150.00
tblTripsAndVMT	WorkerTripNumber	8.00	50.00
tblTripsAndVMT	WorkerTripNumber	8.00	50.00
tblTripsAndVMT	WorkerTripNumber	8.00	50.00
tblTripsAndVMT	WorkerTripNumber	15.00	50.00

tblTripsAndVMT	WorkerTripNumber	39.00	150.00
tblTripsAndVMT	WorkerTripNumber	39.00	50.00
tblTripsAndVMT	WorkerTripNumber	196.00	50.00
tblTripsAndVMT	WorkerTripNumber	13.00	50.00
tblTripsAndVMT	WorkerTripNumber	13.00	50.00
tblTripsAndVMT	WorkerTripNumber	8.00	50.00
tblTripsAndVMT	WorkerTripNumber	39.00	50.00
tblTripsAndVMT	WorkerTripNumber	15.00	50.00
tblTripsAndVMT	WorkerTripNumber	39.00	50.00
tblTripsAndVMT	WorkerTripNumber	196.00	150.00
tblTripsAndVMT	WorkerTripNumber	13.00	50.00
tblTripsAndVMT	WorkerTripNumber	13.00	50.00
tblTripsAndVMT	WorkerTripNumber	13.00	50.00
tblTripsAndVMT	WorkerTripNumber	15.00	50.00
tblTripsAndVMT	WorkerTripNumber	39.00	50.00
tblTripsAndVMT	WorkerTripNumber	196.00	50.00
tblVehicleTrips	WD_TR	13.78	0.00
tblWater	IndoorWaterUseRate	5,155,251.11	0.00
tblWater	OutdoorWaterUseRate	13,256,360.00	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					

2020	27.9585	19.8456	28.7109	0.0602	3.3533	1.0452	4.2426	0.8893	0.9879	1.7164	0.0000	5,920.6905	5,920.6905	0.8347	0.0000	5,941.5582
2021	14.5243	66.7699	47.5601	0.1344	9.9319	2.4668	12.3988	3.6988	2.3228	6.0216	0.0000	13,464.1699	13,464.1699	1.8210	0.0000	13,509.6949
2022	3.7941	39.3075	25.9551	0.0785	12.0619	1.4039	13.4657	5.6561	1.3047	6.9609	0.0000	7,829.2973	7,829.2973	1.2798	0.0000	7,861.2907
2023	51.1014	68.4710	66.6013	0.1647	28.8665	2.9076	31.7742	12.1075	2.6978	14.8053	0.0000	16,217.9939	16,217.9939	3.1717	0.0000	16,297.2876
2024	11.0003	49.2334	51.2765	0.1262	17.5350	1.9549	19.0123	8.3300	1.8421	9.6988	0.0000	12,430.9988	12,430.9988	1.8949	0.0000	12,478.3700
2025	5.1354	30.3610	40.7532	0.0838	7.2547	1.3495	8.6042	3.1362	1.2579	4.3941	0.0000	8,142.8706	8,142.8706	1.7149	0.0000	8,185.7436
Maximum	**51.1014**	**68.4710**	**66.6013**	**0.1647**	**28.8665**	**2.9076**	**31.7742**	**12.1075**	**2.6978**	**14.8053**	**0.0000**	**16,217.9939**	**16,217.9939**	**3.1717**	**0.0000**	**16,297.2876**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	26.9801	15.3125	31.3555	0.0602	3.3533	0.7300	4.0833	0.8893	0.7280	1.6173	0.0000	5,920.6905	5,920.6905	0.8347	0.0000	5,941.5582
2021	13.6702	49.8982	52.5397	0.1344	5.9562	1.7831	7.7393	2.0101	1.7802	3.7903	0.0000	13,464.1699	13,464.1699	1.8210	0.0000	13,509.6949
2022	1.9520	28.3217	31.1842	0.0785	6.0665	1.0118	7.0782	2.5749	1.0102	3.5851	0.0000	7,829.2973	7,829.2973	1.2798	0.0000	7,861.2907
2023	49.4702	54.7998	81.6565	0.1647	14.5165	2.5559	17.0724	5.5878	2.5529	8.1407	0.0000	16,217.9939	16,217.9939	3.1717	0.0000	16,297.2876
2024	8.2290	44.5198	59.3111	0.1262	8.5419	2.0577	9.8321	3.7081	2.0559	4.9968	0.0000	12,430.9988	12,430.9988	1.8949	0.0000	12,478.3700
2025	3.3930	31.4080	48.5171	0.0838	4.2038	1.6446	5.8484	1.5876	1.6434	3.2310	0.0000	8,142.8706	8,142.8706	1.7149	0.0000	8,185.7436
Maximum	**49.4702**	**54.7998**	**81.6565**	**0.1647**	**14.5165**	**2.5559**	**17.0724**	**5.5878**	**2.5529**	**8.1407**	**0.0000**	**16,217.9939**	**16,217.9939**	**3.1717**	**0.0000**	**16,297.2876**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**8.65**	**18.15**	**-16.76**	**0.00**	**46.03**	**12.08**	**42.28**	**51.63**	**6.17**	**41.83**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Construction only analysis

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	1A Build Site Access	Paving	8/1/2020	8/14/2020	5	10	
2	1A Paving	Architectural Coating	8/1/2020	8/14/2020	5	10	
3	1A Build LAN Room	Building Construction	8/17/2020	8/27/2020	5	9	
4	1B Demolition	Demolition	8/28/2020	9/25/2020	5	21	
5	1C Electrical and LV Trench	Trenching	9/28/2020	11/27/2020	5	45	
6	1D Utilities Installation	Trenching	11/28/2020	12/28/2020	5	21	
7	1D Temporary Parking	Paving	12/29/2020	1/28/2021	5	23	
8	1D Paving	Architectural Coating	12/29/2020	1/28/2021	5	23	
9	1D Bungalow Installation	Building Construction	1/29/2021	4/29/2021	5	65	
10	2A Seismic Modification	Grading	2/1/2021	6/21/2023	5	623	
11	2B Demolition	Demolition	2/21/2021	3/23/2021	5	22	
12	2B Building Construction	Building Construction	3/1/2021	6/19/2023	5	601	
13	2C Seismic Modification	Grading	8/1/2022	11/24/2023	5	345	
14	2B Architectural Coating	Architectural Coating	6/1/2023	6/19/2023	5	13	
15	2F Demolition	Demolition	7/1/2023	7/31/2023	5	21	
16	2D Seismic Modification	Grading	7/1/2023	6/25/2024	5	257	
17	2E Seismic Modification	Grading	7/1/2023	4/26/2024	5	215	
18	2G Seismic Modification	Grading	7/1/2023	2/26/2024	5	171	
19	2I Southern Parking Lot	Paving	7/1/2023	12/28/2023	5	129	
20	2I Paving	Architectural Coating	7/1/2023	12/28/2023	5	129	
21	2F Building Construction	Building Construction	8/1/2023	9/24/2024	5	301	

22	3A Demo Interim Housing	Demolition	9/1/2024	2/28/2025	5	130	
23	3C Demolition	Demolition	9/1/2024	10/1/2024	5	22	
24	3B New Field	Grading	9/1/2024	2/28/2025	5	130	
25	2F Architectural Coating	Architectural Coating	9/1/2024	9/24/2024	5	17	
26	3C North Parking Lot	Paving	10/24/2024	3/21/2025	5	107	
27	3C Paving	Architectural Coating	10/24/2024	3/21/2025	5	107	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 5

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 99,678; Non-Residential Outdoor: 33,226; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
1A Build Site Access	Pavers	2	8.00	130	0.42
1A Build Site Access	Paving Equipment	2	8.00	132	0.36
1A Build Site Access	Rollers	2	8.00	80	0.38
1A Build LAN Room	Cranes	1	4.00	231	0.29
1A Build LAN Room	Forklifts	1	6.00	89	0.20
1A Build LAN Room	Generator Sets	1	6.00	84	0.74
1A Build LAN Room	Tractors/Loaders/Backhoes	1	6.00	97	0.37
1A Build LAN Room	Welders	1	6.00	46	0.45
1B Demolition	Concrete/Industrial Saws	1	6.00	81	0.73
1B Demolition	Crushing/Proc. Equipment	1	6.00	85	0.78
1B Demolition	Excavators	1	6.00	158	0.38
1B Demolition	Other Construction Equipment	1	6.00	172	0.42
1B Demolition	Rubber Tired Dozers	1	6.00	247	0.40
1C Electrical and LV Trench	Concrete/Industrial Saws	1	6.00	81	0.73
1C Electrical and LV Trench	Crushing/Proc. Equipment	1	6.00	85	0.78

1C Electrical and LV Trench	Excavators	1	6.00	158	0.38
1C Electrical and LV Trench	Other Construction Equipment	1	6.00	172	0.42
1C Electrical and LV Trench	Rubber Tired Dozers	1	6.00	247	0.40
1D Utilities Installation	Concrete/Industrial Saws	1	6.00	81	0.73
1D Utilities Installation	Crushing/Proc. Equipment	1	6.00	85	0.78
1D Utilities Installation	Excavators	1	6.00	158	0.38
1D Utilities Installation	Other Construction Equipment	1	6.00	172	0.42
1D Utilities Installation	Rubber Tired Dozers	1	6.00	247	0.40
1D Temporary Parking	Pavers	2	8.00	130	0.42
1D Temporary Parking	Paving Equipment	2	8.00	132	0.36
1D Temporary Parking	Rollers	2	8.00	80	0.38
1D Bungalow Installation	Cranes	1	4.00	231	0.29
1D Bungalow Installation	Forklifts	1	6.00	89	0.20
1D Bungalow Installation	Generator Sets	1	6.00	84	0.74
1D Bungalow Installation	Tractors/Loaders/Backhoes	1	6.00	97	0.37
1D Bungalow Installation	Welders	1	6.00	46	0.45
2A Seismic Modification	Excavators	0	8.00	158	0.38
2A Seismic Modification	Graders	1	6.00	187	0.41
2A Seismic Modification	Rubber Tired Dozers	1	6.00	247	0.40
2A Seismic Modification	Scrapers	0	8.00	367	0.48
2A Seismic Modification	Tractors/Loaders/Backhoes	1	6.00	97	0.37
2B Demolition	Concrete/Industrial Saws	1	6.00	81	0.73
2B Demolition	Crushing/Proc. Equipment	1	6.00	85	0.78
2B Demolition	Excavators	1	6.00	158	0.38
2B Demolition	Other Construction Equipment	1	6.00	172	0.42
2B Demolition	Rubber Tired Dozers	1	6.00	247	0.40
2B Building Construction	Cranes	1	4.00	231	0.29
2B Building Construction	Forklifts	1	6.00	89	0.20
2B Building Construction	Generator Sets	1	6.00	84	0.74
2B Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37

2B Building Construction	Welders	1	6.00	46	0.45
2C Seismic Modification	Excavators	0	8.00	158	0.38
2C Seismic Modification	Graders	1	6.00	187	0.41
2C Seismic Modification	Rubber Tired Dozers	1	6.00	247	0.40
2C Seismic Modification	Scrapers	0	8.00	367	0.48
2C Seismic Modification	Tractors/Loaders/Backhoes	1	6.00	97	0.37
2B Architectural Coating	Air Compressors	1	6.00	78	0.48
2D Seismic Modification	Excavators	0	8.00	158	0.38
2D Seismic Modification	Graders	1	6.00	187	0.41
2D Seismic Modification	Rubber Tired Dozers	1	6.00	247	0.40
2D Seismic Modification	Scrapers	0	8.00	367	0.48
2D Seismic Modification	Tractors/Loaders/Backhoes	1	6.00	97	0.37
2E Seismic Modification	Excavators	0	8.00	158	0.38
2E Seismic Modification	Graders	1	6.00	187	0.41
2E Seismic Modification	Rubber Tired Dozers	1	6.00	247	0.40
2E Seismic Modification	Scrapers	0	8.00	367	0.48
2E Seismic Modification	Tractors/Loaders/Backhoes	1	6.00	97	0.37
2F Demolition	Concrete/Industrial Saws	1	6.00	81	0.73
2F Demolition	Crushing/Proc. Equipment	1	6.00	85	0.78
2F Demolition	Excavators	1	6.00	158	0.38
2F Demolition	Other Construction Equipment	1	6.00	172	0.42
2F Demolition	Rubber Tired Dozers	1	6.00	247	0.40
2G Seismic Modification	Excavators	0	8.00	158	0.38
2G Seismic Modification	Graders	1	6.00	187	0.41
2G Seismic Modification	Rubber Tired Dozers	1	6.00	247	0.40
2G Seismic Modification	Scrapers	0	8.00	367	0.48
2G Seismic Modification	Tractors/Loaders/Backhoes	1	6.00	97	0.37
2I Southern Parking Lot	Pavers	2	8.00	130	0.42
2I Southern Parking Lot	Paving Equipment	2	8.00	132	0.36
2I Southern Parking Lot	Rollers	2	8.00	80	0.38

2F Building Construction	Cranes	1	4.00	231	0.29
2F Building Construction	Forklifts	1	6.00	89	0.20
2F Building Construction	Generator Sets	1	6.00	84	0.74
2F Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
2F Building Construction	Welders	1	6.00	46	0.45
3A Demo Interim Housing	Concrete/Industrial Saws	1	6.00	81	0.73
3A Demo Interim Housing	Crushing/Proc. Equipment	1	6.00	85	0.78
3A Demo Interim Housing	Excavators	1	6.00	158	0.38
3A Demo Interim Housing	Other Construction Equipment	1	6.00	172	0.42
3A Demo Interim Housing	Rubber Tired Dozers	1	6.00	247	0.40
3B New Field	Excavators	0	8.00	158	0.38
3B New Field	Graders	1	6.00	187	0.41
3B New Field	Rubber Tired Dozers	1	6.00	247	0.40
3B New Field	Scrapers	0	8.00	367	0.48
3B New Field	Tractors/Loaders/Backhoes	1	6.00	97	0.37
3C Demolition	Concrete/Industrial Saws	1	6.00	81	0.73
3C Demolition	Crushing/Proc. Equipment	1	6.00	85	0.78
3C Demolition	Excavators	1	6.00	158	0.38
3C Demolition	Other Construction Equipment	1	6.00	172	0.42
3C Demolition	Rubber Tired Dozers	1	6.00	247	0.40
2F Architectural Coating	Air Compressors	1	6.00	78	0.48
3C North Parking Lot	Pavers	2	8.00	130	0.42
3C North Parking Lot	Paving Equipment	2	8.00	132	0.36
3C North Parking Lot	Rollers	2	8.00	80	0.38
1A Paving	Air Compressors	1	6.00	78	0.48
1D Paving	Air Compressors	1	6.00	78	0.48
2I Paving	Air Compressors	1	6.00	78	0.48
3C Paving	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
1A Build Site Access	6	150.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
1A Build LAN Room	5	150.00	77.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
1B Demolition	5	50.00	0.00	10.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
1C Electrical and LV Trench	5	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
1D Utilities Installation	5	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
1D Temporary Parking	6	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
1D Bungalow Installation	5	50.00	77.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
2A Seismic Modification	3	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
2B Demolition	5	50.00	0.00	163.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
2B Building Construction	5	50.00	87.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
2C Seismic Modification	3	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
2B Architectural Coating	1	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
2D Seismic Modification	3	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
2E Seismic Modification	3	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
2F Demolition	5	150.00	0.00	375.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
2G Seismic Modification	3	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
2I Southern Parking Lot	6	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
2F Building Construction	5	50.00	87.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
3A Demo Interim Housing	5	50.00	0.00	52.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
3B New Field	3	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
3C Demolition	5	50.00	0.00	11.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
2F Architectural Coating	1	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
3C North Parking Lot	6	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
1A Paving	1	150.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
1D Paving	1	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
2I Paving	1	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
3C Paving	1	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 1A Build Site Access - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926		2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	0.7860					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.1426**	**14.0656**	**14.6521**	**0.0228**		**0.7528**	**0.7528**		**0.6926**	**0.6926**		**2,207.7334**	**2,207.7334**	**0.7140**		**2,225.5841**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6728	0.4548	6.1137	0.0172	1.6767	0.0128	1.6894	0.4447	0.0118	0.4564		1,715.7545	1,715.7545	0.0495		1,716.9906
Total	**0.6728**	**0.4548**	**6.1137**	**0.0172**	**1.6767**	**0.0128**	**1.6894**	**0.4447**	**0.0118**	**0.4564**		**1,715.7545**	**1,715.7545**	**0.0495**		**1,716.9906**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5609	11.2952	17.2957	0.0228		0.6093	0.6093		0.6093	0.6093	0.0000	2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	0.7860					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3469**	**11.2952**	**17.2957**	**0.0228**		**0.6093**	**0.6093**		**0.6093**	**0.6093**	**0.0000**	**2,207.7334**	**2,207.7334**	**0.7140**		**2,225.5841**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6728	0.4548	6.1137	0.0172	1.6767	0.0128	1.6894	0.4447	0.0118	0.4564		1,715.7545	1,715.7545	0.0495		1,716.9906
Total	**0.6728**	**0.4548**	**6.1137**	**0.0172**	**1.6767**	**0.0128**	**1.6894**	**0.4447**	**0.0118**	**0.4564**		**1,715.7545**	**1,715.7545**	**0.0495**		**1,716.9906**

3.3 1A Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	24.2281					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
Total	**24.4703**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**		**281.4481**	**281.4481**	**0.0218**		**281.9928**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6728	0.4548	6.1137	0.0172	1.6767	0.0128	1.6894	0.4447	0.0118	0.4564		1,715.7545	1,715.7545	0.0495		1,716.9906
Total	**0.6728**	**0.4548**	**6.1137**	**0.0172**	**1.6767**	**0.0128**	**1.6894**	**0.4447**	**0.0118**	**0.4564**		**1,715.7545**	**1,715.7545**	**0.0495**		**1,716.9906**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	24.2281					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0218		281.9928
Total	**24.2875**	**1.3570**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4481**	**281.4481**	**0.0218**		**281.9928**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6728	0.4548	6.1137	0.0172	1.6767	0.0128	1.6894	0.4447	0.0118	0.4564		1,715.7545	1,715.7545	0.0495		1,716.9906
Total	**0.6728**	**0.4548**	**6.1137**	**0.0172**	**1.6767**	**0.0128**	**1.6894**	**0.4447**	**0.0118**	**0.4564**		**1,715.7545**	**1,715.7545**	**0.0495**		**1,716.9906**

3.4 1A Build LAN Room - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0477	9.0352	7.7571	0.0132		0.4958	0.4958		0.4731	0.4731		1,238.8785	1,238.8785	0.2485		1,245.0920
Total	**1.0477**	**9.0352**	**7.7571**	**0.0132**		**0.4958**	**0.4958**		**0.4731**	**0.4731**		**1,238.8785**	**1,238.8785**	**0.2485**		**1,245.0920**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2556	8.1098	1.9727	0.0196	0.4927	0.0402	0.5329	0.1418	0.0384	0.1802		2,100.4931	2,100.4931	0.1345		2,103.8542
Worker	0.6728	0.4548	6.1137	0.0172	1.6767	0.0128	1.6894	0.4447	0.0118	0.4564		1,715.7545	1,715.7545	0.0495		1,716.9906
Total	**0.9285**	**8.5646**	**8.0864**	**0.0369**	**2.1694**	**0.0529**	**2.2223**	**0.5865**	**0.0502**	**0.6367**		**3,816.2476**	**3,816.2476**	**0.1839**		**3,820.8448**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5114	6.7479	8.5312	0.0132		0.4114	0.4114		0.4114	0.4114	0.0000	1,238.8785	1,238.8785	0.2485		1,245.0920
Total	**0.5114**	**6.7479**	**8.5312**	**0.0132**		**0.4114**	**0.4114**		**0.4114**	**0.4114**	**0.0000**	**1,238.8785**	**1,238.8785**	**0.2485**		**1,245.0920**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2556	8.1098	1.9727	0.0196	0.4927	0.0402	0.5329	0.1418	0.0384	0.1802		2,100.4931	2,100.4931	0.1345		2,103.8542
Worker	0.6728	0.4548	6.1137	0.0172	1.6767	0.0128	1.6894	0.4447	0.0118	0.4564		1,715.7545	1,715.7545	0.0495		1,716.9906
Total	**0.9285**	**8.5646**	**8.0864**	**0.0369**	**2.1694**	**0.0529**	**2.2223**	**0.5865**	**0.0502**	**0.6367**		**3,816.2476**	**3,816.2476**	**0.1839**		**3,820.8448**

3.5 1B Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1065	0.0000	0.1065	0.0161	0.0000	0.0161			0.0000			0.0000
Off-Road	2.0923	19.5613	14.6702	0.0249		1.0405	1.0405		0.9836	0.9836		2,387.5948	2,387.5948	0.5322		2,400.9007
Total	**2.0923**	**19.5613**	**14.6702**	**0.0249**	**0.1065**	**1.0405**	**1.1470**	**0.0161**	**0.9836**	**0.9997**		**2,387.5948**	**2,387.5948**	**0.5322**		**2,400.9007**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.7900e-003	0.1327	0.0276	3.7000e-004	8.3200e-003	4.3000e-004	8.7500e-003	2.2800e-003	4.1000e-004	2.6900e-003		40.1143	40.1143	2.8400e-003		40.1852
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2243	0.1516	2.0379	5.7400e-003	0.5589	4.2600e-003	0.5632	0.1482	3.9300e-003	0.1522		571.9182	571.9182	0.0165		572.3302
Total	**0.2281**	**0.2843**	**2.0655**	**6.1100e-003**	**0.5672**	**4.6900e-003**	**0.5719**	**0.1505**	**4.3400e-003**	**0.1548**		**612.0324**	**612.0324**	**0.0193**		**612.5154**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0415	0.0000	0.0415	6.2900e-003	0.0000	6.2900e-003			0.0000			0.0000
Off-Road	0.5659	11.6376	16.0109	0.0249		0.6295	0.6295		0.6295	0.6295	0.0000	2,387.5948	2,387.5948	0.5322		2,400.9007
Total	**0.5659**	**11.6376**	**16.0109**	**0.0249**	**0.0415**	**0.6295**	**0.6711**	**6.2900e-003**	**0.6295**	**0.6358**	**0.0000**	**2,387.5948**	**2,387.5948**	**0.5322**		**2,400.9007**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day										lb/day					
Hauling	3.7900e-003	0.1327	0.0276	3.7000e-004	8.3200e-003	4.3000e-004	8.7500e-003	2.2800e-003	4.1000e-004	2.6900e-003		40.1143	40.1143	2.8400e-003		40.1852
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2243	0.1516	2.0379	5.7400e-003	0.5589	4.2600e-003	0.5632	0.1482	3.9300e-003	0.1522		571.9182	571.9182	0.0165		572.3302
Total	**0.2281**	**0.2843**	**2.0655**	**6.1100e-003**	**0.5672**	**4.6900e-003**	**0.5719**	**0.1505**	**4.3400e-003**	**0.1548**		**612.0324**	**612.0324**	**0.0193**		**612.5154**

3.6 1C Electrical and LV Trench - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0923	19.5613	14.6702	0.0249		1.0405	1.0405		0.9836	0.9836		2,387.5948	2,387.5948	0.5322		2,400.9007
Total	**2.0923**	**19.5613**	**14.6702**	**0.0249**		**1.0405**	**1.0405**		**0.9836**	**0.9836**		**2,387.5948**	**2,387.5948**	**0.5322**		**2,400.9007**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2243	0.1516	2.0379	5.7400e-003	0.5589	4.2600e-003	0.5632	0.1482	3.9300e-003	0.1522		571.9182	571.9182	0.0165		572.3302
Total	**0.2243**	**0.1516**	**2.0379**	**5.7400e-003**	**0.5589**	**4.2600e-003**	**0.5632**	**0.1482**	**3.9300e-003**	**0.1522**		**571.9182**	**571.9182**	**0.0165**		**572.3302**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5659	11.6376	16.0109	0.0249		0.6295	0.6295		0.6295	0.6295	0.0000	2,387.5948	2,387.5948	0.5322		2,400.9007
Total	**0.5659**	**11.6376**	**16.0109**	**0.0249**		**0.6295**	**0.6295**		**0.6295**	**0.6295**	**0.0000**	**2,387.5948**	**2,387.5948**	**0.5322**		**2,400.9007**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2243	0.1516	2.0379	5.7400e-003	0.5589	4.2600e-003	0.5632	0.1482	3.9300e-003	0.1522		571.9182	571.9182	0.0165		572.3302
Total	**0.2243**	**0.1516**	**2.0379**	**5.7400e-003**	**0.5589**	**4.2600e-003**	**0.5632**	**0.1482**	**3.9300e-003**	**0.1522**		**571.9182**	**571.9182**	**0.0165**		**572.3302**

3.7 1D Utilities Installation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0923	19.5613	14.6702	0.0249		1.0405	1.0405		0.9836	0.9836		2,387.5948	2,387.5948	0.5322		2,400.9007
Total	**2.0923**	**19.5613**	**14.6702**	**0.0249**		**1.0405**	**1.0405**		**0.9836**	**0.9836**		**2,387.5948**	**2,387.5948**	**0.5322**		**2,400.9007**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day											lb/day				
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2243	0.1516	2.0379	5.7400e-003	0.5589	4.2600e-003	0.5632	0.1482	3.9300e-003	0.1522		571.9182	571.9182	0.0165		572.3302
Total	**0.2243**	**0.1516**	**2.0379**	**5.7400e-003**	**0.5589**	**4.2600e-003**	**0.5632**	**0.1482**	**3.9300e-003**	**0.1522**		**571.9182**	**571.9182**	**0.0165**		**572.3302**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5659	11.6376	16.0109	0.0249		0.6295	0.6295		0.6295	0.6295	0.0000	2,387.5948	2,387.5948	0.5322		2,400.9007
Total	**0.5659**	**11.6376**	**16.0109**	**0.0249**		**0.6295**	**0.6295**		**0.6295**	**0.6295**	**0.0000**	**2,387.5948**	**2,387.5948**	**0.5322**		**2,400.9007**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2243	0.1516	2.0379	5.7400e-003	0.5589	4.2600e-003	0.5632	0.1482	3.9300e-003	0.1522		571.9182	571.9182	0.0165		572.3302
Total	**0.2243**	**0.1516**	**2.0379**	**5.7400e-003**	**0.5589**	**4.2600e-003**	**0.5632**	**0.1482**	**3.9300e-003**	**0.1522**		**571.9182**	**571.9182**	**0.0165**		**572.3302**

3.8 1D Temporary Parking - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926		2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	0.3417					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6983**	**14.0656**	**14.6521**	**0.0228**		**0.7528**	**0.7528**		**0.6926**	**0.6926**		**2,207.7334**	**2,207.7334**	**0.7140**		**2,225.5841**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2243	0.1516	2.0379	5.7400e-003	0.5589	4.2600e-003	0.5632	0.1482	3.9300e-003	0.1522		571.9182	571.9182	0.0165		572.3302
Total	**0.2243**	**0.1516**	**2.0379**	**5.7400e-003**	**0.5589**	**4.2600e-003**	**0.5632**	**0.1482**	**3.9300e-003**	**0.1522**		**571.9182**	**571.9182**	**0.0165**		**572.3302**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5609	11.2952	17.2957	0.0228		0.6093	0.6093		0.6093	0.6093	0.0000	2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	0.3417					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9027**	**11.2952**	**17.2957**	**0.0228**		**0.6093**	**0.6093**		**0.6093**	**0.6093**	**0.0000**	**2,207.7334**	**2,207.7334**	**0.7140**		**2,225.5841**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2243	0.1516	2.0379	5.7400e-003	0.5589	4.2600e-003	0.5632	0.1482	3.9300e-003	0.1522		571.9182	571.9182	0.0165		572.3302
Total	**0.2243**	**0.1516**	**2.0379**	**5.7400e-003**	**0.5589**	**4.2600e-003**	**0.5632**	**0.1482**	**3.9300e-003**	**0.1522**		**571.9182**	**571.9182**	**0.0165**		**572.3302**

3.8 1D Temporary Parking - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235		2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.3417					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.5973**	**12.9191**	**14.6532**	**0.0228**		**0.6777**	**0.6777**		**0.6235**	**0.6235**		**2,207.2109**	**2,207.2109**	**0.7139**		**2,225.0573**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2093	0.1365	1.8773	5.5500e-003	0.5589	4.1400e-003	0.5630	0.1482	3.8100e-003	0.1520		553.4491	553.4491	0.0149		553.8221
Total	**0.2093**	**0.1365**	**1.8773**	**5.5500e-003**	**0.5589**	**4.1400e-003**	**0.5630**	**0.1482**	**3.8100e-003**	**0.1520**		**553.4491**	**553.4491**	**0.0149**		**553.8221**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5609	11.2952	17.2957	0.0228		0.6093	0.6093		0.6093	0.6093	0.0000	2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.3417					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9027**	**11.2952**	**17.2957**	**0.0228**		**0.6093**	**0.6093**		**0.6093**	**0.6093**	**0.0000**	**2,207.2109**	**2,207.2109**	**0.7139**		**2,225.0573**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2093	0.1365	1.8773	5.5500e-003	0.5589	4.1400e-003	0.5630	0.1482	3.8100e-003	0.1520		553.4491	553.4491	0.0149		553.8221
Total	**0.2093**	**0.1365**	**1.8773**	**5.5500e-003**	**0.5589**	**4.1400e-003**	**0.5630**	**0.1482**	**3.8100e-003**	**0.1520**		**553.4491**	**553.4491**	**0.0149**		**553.8221**

3.9 1D Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	12.2896					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
Total	**12.5318**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**		**281.4481**	**281.4481**	**0.0218**		**281.9928**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2243	0.1516	2.0379	5.7400e-003	0.5589	4.2600e-003	0.5632	0.1482	3.9300e-003	0.1522		571.9182	571.9182	0.0165		572.3302
Total	**0.2243**	**0.1516**	**2.0379**	**5.7400e-003**	**0.5589**	**4.2600e-003**	**0.5632**	**0.1482**	**3.9300e-003**	**0.1522**		**571.9182**	**571.9182**	**0.0165**		**572.3302**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	12.2896					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0218		281.9928
Total	**12.3490**	**1.3570**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4481**	**281.4481**	**0.0218**		**281.9928**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2243	0.1516	2.0379	5.7400e-003	0.5589	4.2600e-003	0.5632	0.1482	3.9300e-003	0.1522		571.9182	571.9182	0.0165		572.3302
Total	**0.2243**	**0.1516**	**2.0379**	**5.7400e-003**	**0.5589**	**4.2600e-003**	**0.5632**	**0.1482**	**3.9300e-003**	**0.1522**		**571.9182**	**571.9182**	**0.0165**		**572.3302**

3.9 1D Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	12.2896					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	**12.5085**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**		**281.4481**	**281.4481**	**0.0193**		**281.9309**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2093	0.1365	1.8773	5.5500e-003	0.5589	4.1400e-003	0.5630	0.1482	3.8100e-003	0.1520		553.4491	553.4491	0.0149		553.8221
Total	**0.2093**	**0.1365**	**1.8773**	**5.5500e-003**	**0.5589**	**4.1400e-003**	**0.5630**	**0.1482**	**3.8100e-003**	**0.1520**		**553.4491**	**553.4491**	**0.0149**		**553.8221**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	12.2896					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0193		281.9309
Total	**12.3490**	**1.3570**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4481**	**281.4481**	**0.0193**		**281.9309**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2093	0.1365	1.8773	5.5500e-003	0.5589	4.1400e-003	0.5630	0.1482	3.8100e-003	0.1520		553.4491	553.4491	0.0149		553.8221
Total	**0.2093**	**0.1365**	**1.8773**	**5.5500e-003**	**0.5589**	**4.1400e-003**	**0.5630**	**0.1482**	**3.8100e-003**	**0.1520**		**553.4491**	**553.4491**	**0.0149**		**553.8221**

3.10 1D Bungalow Installation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9390	8.2372	7.6151	0.0132		0.4264	0.4264		0.4068	0.4068		1,238.9518	1,238.9518	0.2434		1,245.0357
Total	**0.9390**	**8.2372**	**7.6151**	**0.0132**		**0.4264**	**0.4264**		**0.4068**	**0.4068**		**1,238.9518**	**1,238.9518**	**0.2434**		**1,245.0357**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2166	7.3741	1.7905	0.0195	0.4927	0.0151	0.5078	0.1418	0.0144	0.1562		2,084.7269	2,084.7269	0.1289		2,087.9497
Worker	0.2093	0.1365	1.8773	5.5500e-003	0.5589	4.1400e-003	0.5630	0.1482	3.8100e-003	0.1520		553.4491	553.4491	0.0149		553.8221
Total	**0.4259**	**7.5106**	**3.6679**	**0.0250**	**1.0516**	**0.0192**	**1.0708**	**0.2901**	**0.0182**	**0.3083**		**2,638.1760**	**2,638.1760**	**0.1438**		**2,641.7718**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4818	6.7011	8.4951	0.0132		0.4018	0.4018		0.4018	0.4018	0.0000	1,238.9518	1,238.9518	0.2434		1,245.0357
Total	**0.4818**	**6.7011**	**8.4951**	**0.0132**		**0.4018**	**0.4018**		**0.4018**	**0.4018**	**0.0000**	**1,238.9518**	**1,238.9518**	**0.2434**		**1,245.0357**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2166	7.3741	1.7905	0.0195	0.4927	0.0151	0.5078	0.1418	0.0144	0.1562		2,084.7269	2,084.7269	0.1289		2,087.9497
Worker	0.2093	0.1365	1.8773	5.5500e-003	0.5589	4.1400e-003	0.5630	0.1482	3.8100e-003	0.1520		553.4491	553.4491	0.0149		553.8221
Total	**0.4259**	**7.5106**	**3.6679**	**0.0250**	**1.0516**	**0.0192**	**1.0708**	**0.2901**	**0.0182**	**0.3083**		**2,638.1760**	**2,638.1760**	**0.1438**		**2,641.7718**

3.11 2A Seismic Modification - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.2650	14.0938	6.0489	0.0137		0.6239	0.6239		0.5740	0.5740		1,327.4523	1,327.4523	0.4293		1,338.1854
Total	**1.2650**	**14.0938**	**6.0489**	**0.0137**	**4.9143**	**0.6239**	**5.5382**	**2.5256**	**0.5740**	**3.0996**		**1,327.4523**	**1,327.4523**	**0.4293**		**1,338.1854**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2093	0.1365	1.8773	5.5500e-003	0.5589	4.1400e-003	0.5630	0.1482	3.8100e-003	0.1520		553.4491	553.4491	0.0149		553.8221
Total	**0.2093**	**0.1365**	**1.8773**	**5.5500e-003**	**0.5589**	**4.1400e-003**	**0.5630**	**0.1482**	**3.8100e-003**	**0.1520**		**553.4491**	**553.4491**	**0.0149**		**553.8221**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.9166	0.0000	1.9166	0.9850	0.0000	0.9850			0.0000			0.0000
Off-Road	0.3355	6.6857	7.7913	0.0137		0.2954	0.2954		0.2954	0.2954	0.0000	1,327.4523	1,327.4523	0.4293		1,338.1854
Total	**0.3355**	**6.6857**	**7.7913**	**0.0137**	**1.9166**	**0.2954**	**2.2120**	**0.9850**	**0.2954**	**1.2804**	**0.0000**	**1,327.4523**	**1,327.4523**	**0.4293**		**1,338.1854**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2093	0.1365	1.8773	5.5500e-003	0.5589	4.1400e-003	0.5630	0.1482	3.8100e-003	0.1520		553.4491	553.4491	0.0149		553.8221
Total	**0.2093**	**0.1365**	**1.8773**	**5.5500e-003**	**0.5589**	**4.1400e-003**	**0.5630**	**0.1482**	**3.8100e-003**	**0.1520**		**553.4491**	**553.4491**	**0.0149**		**553.8221**

3.11 2A Seismic Modification - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.0626	11.7952	5.6563	0.0137		0.5060	0.5060		0.4655	0.4655		1,327.1649	1,327.1649	0.4292		1,337.8957
Total	**1.0626**	**11.7952**	**5.6563**	**0.0137**	**4.9143**	**0.5060**	**5.4203**	**2.5256**	**0.4655**	**2.9912**		**1,327.1649**	**1,327.1649**	**0.4292**		**1,337.8957**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1963	0.1233	1.7361	5.3500e-003	0.5589	4.0200e-003	0.5629	0.1482	3.7000e-003	0.1519		533.6316	533.6316	0.0135		533.9687
Total	**0.1963**	**0.1233**	**1.7361**	**5.3500e-003**	**0.5589**	**4.0200e-003**	**0.5629**	**0.1482**	**3.7000e-003**	**0.1519**		**533.6316**	**533.6316**	**0.0135**		**533.9687**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.9166	0.0000	1.9166	0.9850	0.0000	0.9850			0.0000			0.0000
Off-Road	0.3355	6.6857	7.7913	0.0137		0.2954	0.2954		0.2954	0.2954	0.0000	1,327.1649	1,327.1649	0.4292		1,337.8957
Total	**0.3355**	**6.6857**	**7.7913**	**0.0137**	**1.9166**	**0.2954**	**2.2120**	**0.9850**	**0.2954**	**1.2804**	**0.0000**	**1,327.1649**	**1,327.1649**	**0.4292**		**1,337.8957**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1963	0.1233	1.7361	5.3500e-003	0.5589	4.0200e-003	0.5629	0.1482	3.7000e-003	0.1519		533.6316	533.6316	0.0135		533.9687
Total	**0.1963**	**0.1233**	**1.7361**	**5.3500e-003**	**0.5589**	**4.0200e-003**	**0.5629**	**0.1482**	**3.7000e-003**	**0.1519**		**533.6316**	**533.6316**	**0.0135**		**533.9687**

3.11 2A Seismic Modification - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	0.9146	9.9869	5.2727	0.0137		0.4106	0.4106		0.3778	0.3778		1,327.0743	1,327.0743	0.4292		1,337.8043
Total	**0.9146**	**9.9869**	**5.2727**	**0.0137**	**4.9143**	**0.4106**	**5.3249**	**2.5256**	**0.3778**	**2.9034**		**1,327.0743**	**1,327.0743**	**0.4292**		**1,337.8043**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1846	0.1116	1.6032	5.1500e-003	0.5589	3.9100e-003	0.5628	0.1482	3.6000e-003	0.1518		513.7550	513.7550	0.0122		514.0591
Total	**0.1846**	**0.1116**	**1.6032**	**5.1500e-003**	**0.5589**	**3.9100e-003**	**0.5628**	**0.1482**	**3.6000e-003**	**0.1518**		**513.7550**	**513.7550**	**0.0122**		**514.0591**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.9166	0.0000	1.9166	0.9850	0.0000	0.9850			0.0000			0.0000
Off-Road	0.3355	6.6857	7.7913	0.0137		0.2954	0.2954		0.2954	0.2954	0.0000	1,327.0743	1,327.0743	0.4292		1,337.8043
Total	**0.3355**	**6.6857**	**7.7913**	**0.0137**	**1.9166**	**0.2954**	**2.2120**	**0.9850**	**0.2954**	**1.2804**	**0.0000**	**1,327.0743**	**1,327.0743**	**0.4292**		**1,337.8043**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1846	0.1116	1.6032	5.1500e-003	0.5589	3.9100e-003	0.5628	0.1482	3.6000e-003	0.1518		513.7550	513.7550	0.0122		514.0591
Total	**0.1846**	**0.1116**	**1.6032**	**5.1500e-003**	**0.5589**	**3.9100e-003**	**0.5628**	**0.1482**	**3.6000e-003**	**0.1518**		**513.7550**	**513.7550**	**0.0122**		**514.0591**

3.12 2B Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.6033	0.0000	1.6033	0.2428	0.0000	0.2428			0.0000			0.0000
Off-Road	1.9443	18.0290	14.5336	0.0249		0.9354	0.9354		0.8835	0.8835		2,387.4475	2,387.4475	0.5272		2,400.6278
Total	**1.9443**	**18.0290**	**14.5336**	**0.0249**	**1.6033**	**0.9354**	**2.5388**	**0.2428**	**0.8835**	**1.1262**		**2,387.4475**	**2,387.4475**	**0.5272**		**2,400.6278**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0563	1.9210	0.4243	5.6800e-003	0.1294	5.9900e-003	0.1354	0.0355	5.7300e-003	0.0412		617.3726	617.3726	0.0435		618.4603
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2093	0.1365	1.8773	5.5500e-003	0.5589	4.1400e-003	0.5630	0.1482	3.8100e-003	0.1520		553.4491	553.4491	0.0149		553.8221
Total	**0.2656**	**2.0575**	**2.3017**	**0.0112**	**0.6883**	**0.0101**	**0.6984**	**0.1837**	**9.5400e-003**	**0.1932**		**1,170.8217**	**1,170.8217**	**0.0584**		**1,172.2824**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6253	0.0000	0.6253	0.0947	0.0000	0.0947			0.0000			0.0000
Off-Road	0.5659	11.6376	16.0109	0.0249		0.6295	0.6295		0.6295	0.6295	0.0000	2,387.4475	2,387.4475	0.5272		2,400.6278
Total	**0.5659**	**11.6376**	**16.0109**	**0.0249**	**0.6253**	**0.6295**	**1.2548**	**0.0947**	**0.6295**	**0.7242**	**0.0000**	**2,387.4475**	**2,387.4475**	**0.5272**		**2,400.6278**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0563	1.9210	0.4243	5.6800e-003	0.1294	5.9900e-003	0.1354	0.0355	5.7300e-003	0.0412		617.3726	617.3726	0.0435		618.4603
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2093	0.1365	1.8773	5.5500e-003	0.5589	4.1400e-003	0.5630	0.1482	3.8100e-003	0.1520		553.4491	553.4491	0.0149		553.8221
Total	**0.2656**	**2.0575**	**2.3017**	**0.0112**	**0.6883**	**0.0101**	**0.6984**	**0.1837**	**9.5400e-003**	**0.1932**		**1,170.8217**	**1,170.8217**	**0.0584**		**1,172.2824**

3.13 2B Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9390	8.2372	7.6151	0.0132		0.4264	0.4264		0.4068	0.4068		1,238.9518	1,238.9518	0.2434		1,245.0357
Total	**0.9390**	**8.2372**	**7.6151**	**0.0132**		**0.4264**	**0.4264**		**0.4068**	**0.4068**		**1,238.9518**	**1,238.9518**	**0.2434**		**1,245.0357**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2448	8.3318	2.0231	0.0220	0.5567	0.0170	0.5737	0.1603	0.0163	0.1765		2,355.4706	2,355.4706	0.1457		2,359.1120
Worker	0.2093	0.1365	1.8773	5.5500e-003	0.5589	4.1400e-003	0.5630	0.1482	3.8100e-003	0.1520		553.4491	553.4491	0.0149		553.8221
Total	**0.4540**	**8.4683**	**3.9004**	**0.0276**	**1.1156**	**0.0212**	**1.1367**	**0.3085**	**0.0201**	**0.3286**		**2,908.9197**	**2,908.9197**	**0.1606**		**2,912.9341**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4818	6.7011	8.4951	0.0132		0.4018	0.4018		0.4018	0.4018	0.0000	1,238.9518	1,238.9518	0.2434		1,245.0357
Total	**0.4818**	**6.7011**	**8.4951**	**0.0132**		**0.4018**	**0.4018**		**0.4018**	**0.4018**	**0.0000**	**1,238.9518**	**1,238.9518**	**0.2434**		**1,245.0357**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2448	8.3318	2.0231	0.0220	0.5567	0.0170	0.5737	0.1603	0.0163	0.1765		2,355.4706	2,355.4706	0.1457		2,359.1120
Worker	0.2093	0.1365	1.8773	5.5500e-003	0.5589	4.1400e-003	0.5630	0.1482	3.8100e-003	0.1520		553.4491	553.4491	0.0149		553.8221
Total	**0.4540**	**8.4683**	**3.9004**	**0.0276**	**1.1156**	**0.0212**	**1.1367**	**0.3085**	**0.0201**	**0.3286**		**2,908.9197**	**2,908.9197**	**0.1606**		**2,912.9341**

3.13 2B Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8503	7.4334	7.5188	0.0132		0.3650	0.3650		0.3484	0.3484		1,239.2517	1,239.2517	0.2402		1,245.2559
Total	**0.8503**	**7.4334**	**7.5188**	**0.0132**		**0.3650**	**0.3650**		**0.3484**	**0.3484**		**1,239.2517**	**1,239.2517**	**0.2402**		**1,245.2559**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2297	7.9138	1.9155	0.0218	0.5567	0.0148	0.5715	0.1603	0.0142	0.1744		2,334.8210	2,334.8210	0.1407		2,338.3373
Worker	0.1963	0.1233	1.7361	5.3500e-003	0.5589	4.0200e-003	0.5629	0.1482	3.7000e-003	0.1519		533.6316	533.6316	0.0135		533.9687
Total	**0.4260**	**8.0371**	**3.6516**	**0.0272**	**1.1156**	**0.0188**	**1.1344**	**0.3085**	**0.0179**	**0.3263**		**2,868.4526**	**2,868.4526**	**0.1541**		**2,872.3060**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4623	6.6666	8.4778	0.0132		0.3941	0.3941		0.3941	0.3941	0.0000	1,239.2517	1,239.2517	0.2402		1,245.2559
Total	**0.4623**	**6.6666**	**8.4778**	**0.0132**		**0.3941**	**0.3941**		**0.3941**	**0.3941**	**0.0000**	**1,239.2517**	**1,239.2517**	**0.2402**		**1,245.2559**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2297	7.9138	1.9155	0.0218	0.5567	0.0148	0.5715	0.1603	0.0142	0.1744		2,334.8210	2,334.8210	0.1407		2,338.3373
Worker	0.1963	0.1233	1.7361	5.3500e-003	0.5589	4.0200e-003	0.5629	0.1482	3.7000e-003	0.1519		533.6316	533.6316	0.0135		533.9687
Total	**0.4260**	**8.0371**	**3.6516**	**0.0272**	**1.1156**	**0.0188**	**1.1344**	**0.3085**	**0.0179**	**0.3263**		**2,868.4526**	**2,868.4526**	**0.1541**		**2,872.3060**

3.13 2B Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7864	6.8814	7.4598	0.0132		0.3186	0.3186		0.3041	0.3041		1,239.4993	1,239.4993	0.2370		1,245.4233
Total	**0.7864**	**6.8814**	**7.4598**	**0.0132**		**0.3186**	**0.3186**		**0.3041**	**0.3041**		**1,239.4993**	**1,239.4993**	**0.2370**		**1,245.4233**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1704	5.9660	1.7291	0.0211	0.5567	6.8300e-003	0.5635	0.1603	6.5300e-003	0.1668		2,262.3173	2,262.3173	0.1243		2,265.4257
Worker	0.1846	0.1116	1.6032	5.1500e-003	0.5589	3.9100e-003	0.5628	0.1482	3.6000e-003	0.1518		513.7550	513.7550	0.0122		514.0591
Total	**0.3550**	**6.0776**	**3.3323**	**0.0262**	**1.1156**	**0.0107**	**1.1263**	**0.3085**	**0.0101**	**0.3186**		**2,776.0722**	**2,776.0722**	**0.1365**		**2,779.4847**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4456	6.6348	8.4644	0.0132		0.3876	0.3876		0.3876	0.3876	0.0000	1,239.4993	1,239.4993	0.2370		1,245.4233
Total	**0.4456**	**6.6348**	**8.4644**	**0.0132**		**0.3876**	**0.3876**		**0.3876**	**0.3876**	**0.0000**	**1,239.4993**	**1,239.4993**	**0.2370**		**1,245.4233**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1704	5.9660	1.7291	0.0211	0.5567	6.8300e-003	0.5635	0.1603	6.5300e-003	0.1668		2,262.3173	2,262.3173	0.1243		2,265.4257
Worker	0.1846	0.1116	1.6032	5.1500e-003	0.5589	3.9100e-003	0.5628	0.1482	3.6000e-003	0.1518		513.7550	513.7550	0.0122		514.0591
Total	**0.3550**	**6.0776**	**3.3323**	**0.0262**	**1.1156**	**0.0107**	**1.1263**	**0.3085**	**0.0101**	**0.3186**		**2,776.0722**	**2,776.0722**	**0.1365**		**2,779.4847**

3.14 2C Seismic Modification - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.0626	11.7952	5.6563	0.0137		0.5060	0.5060		0.4655	0.4655		1,327.1649	1,327.1649	0.4292		1,337.8957
Total	**1.0626**	**11.7952**	**5.6563**	**0.0137**	**4.9143**	**0.5060**	**5.4203**	**2.5256**	**0.4655**	**2.9912**		**1,327.1649**	**1,327.1649**	**0.4292**		**1,337.8957**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1963	0.1233	1.7361	5.3500e-003	0.5589	4.0200e-003	0.5629	0.1482	3.7000e-003	0.1519		533.6316	533.6316	0.0135		533.9687
Total	**0.1963**	**0.1233**	**1.7361**	**5.3500e-003**	**0.5589**	**4.0200e-003**	**0.5629**	**0.1482**	**3.7000e-003**	**0.1519**		**533.6316**	**533.6316**	**0.0135**		**533.9687**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.9166	0.0000	1.9166	0.9850	0.0000	0.9850			0.0000			0.0000
Off-Road	0.3355	6.6857	7.7913	0.0137		0.2954	0.2954		0.2954	0.2954	0.0000	1,327.1649	1,327.1649	0.4292		1,337.8957
Total	**0.3355**	**6.6857**	**7.7913**	**0.0137**	**1.9166**	**0.2954**	**2.2120**	**0.9850**	**0.2954**	**1.2804**	**0.0000**	**1,327.1649**	**1,327.1649**	**0.4292**		**1,337.8957**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1963	0.1233	1.7361	5.3500e-003	0.5589	4.0200e-003	0.5629	0.1482	3.7000e-003	0.1519		533.6316	533.6316	0.0135		533.9687
Total	**0.1963**	**0.1233**	**1.7361**	**5.3500e-003**	**0.5589**	**4.0200e-003**	**0.5629**	**0.1482**	**3.7000e-003**	**0.1519**		**533.6316**	**533.6316**	**0.0135**		**533.9687**

3.14 2C Seismic Modification - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	0.9146	9.9869	5.2727	0.0137		0.4106	0.4106		0.3778	0.3778		1,327.0743	1,327.0743	0.4292		1,337.8043
Total	**0.9146**	**9.9869**	**5.2727**	**0.0137**	**4.9143**	**0.4106**	**5.3249**	**2.5256**	**0.3778**	**2.9034**		**1,327.0743**	**1,327.0743**	**0.4292**		**1,337.8043**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1846	0.1116	1.6032	5.1500e-003	0.5589	3.9100e-003	0.5628	0.1482	3.6000e-003	0.1518		513.7550	513.7550	0.0122		514.0591
Total	**0.1846**	**0.1116**	**1.6032**	**5.1500e-003**	**0.5589**	**3.9100e-003**	**0.5628**	**0.1482**	**3.6000e-003**	**0.1518**		**513.7550**	**513.7550**	**0.0122**		**514.0591**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.9166	0.0000	1.9166	0.9850	0.0000	0.9850			0.0000			0.0000
Off-Road	0.3355	6.6857	7.7913	0.0137		0.2954	0.2954		0.2954	0.2954	0.0000	1,327.0743	1,327.0743	0.4292		1,337.8043
Total	**0.3355**	**6.6857**	**7.7913**	**0.0137**	**1.9166**	**0.2954**	**2.2120**	**0.9850**	**0.2954**	**1.2804**	**0.0000**	**1,327.0743**	**1,327.0743**	**0.4292**		**1,337.8043**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1846	0.1116	1.6032	5.1500e-003	0.5589	3.9100e-003	0.5628	0.1482	3.6000e-003	0.1518		513.7550	513.7550	0.0122		514.0591
Total	**0.1846**	**0.1116**	**1.6032**	**5.1500e-003**	**0.5589**	**3.9100e-003**	**0.5628**	**0.1482**	**3.6000e-003**	**0.1518**		**513.7550**	**513.7550**	**0.0122**		**514.0591**

3.15 2B Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	47.3854					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**47.5771**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1846	0.1116	1.6032	5.1500e-003	0.5589	3.9100e-003	0.5628	0.1482	3.6000e-003	0.1518		513.7550	513.7550	0.0122		514.0591
Total	**0.1846**	**0.1116**	**1.6032**	**5.1500e-003**	**0.5589**	**3.9100e-003**	**0.5628**	**0.1482**	**3.6000e-003**	**0.1518**		**513.7550**	**513.7550**	**0.0122**		**514.0591**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	47.3854					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**47.4448**	**1.3570**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1846	0.1116	1.6032	5.1500e-003	0.5589	3.9100e-003	0.5628	0.1482	3.6000e-003	0.1518		513.7550	513.7550	0.0122		514.0591
Total	**0.1846**	**0.1116**	**1.6032**	**5.1500e-003**	**0.5589**	**3.9100e-003**	**0.5628**	**0.1482**	**3.6000e-003**	**0.1518**		**513.7550**	**513.7550**	**0.0122**		**514.0591**

3.16 2F Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.8676	0.0000	3.8676	0.5856	0.0000	0.5856			0.0000			0.0000
Off-Road	1.5043	13.2615	13.7630	0.0249		0.6437	0.6437		0.6092	0.6092		2,386.9229	2,386.9229	0.5188		2,399.8915
Total	**1.5043**	**13.2615**	**13.7630**	**0.0249**	**3.8676**	**0.6437**	**4.5114**	**0.5856**	**0.6092**	**1.1948**		**2,386.9229**	**2,386.9229**	**0.5188**		**2,399.8915**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0847	2.7631	0.9232	0.0129	0.3119	5.1300e-003	0.3170	0.0855	4.9100e-003	0.0904		1,409.9471	1,409.9471	0.0959		1,412.3444
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5538	0.3347	4.8096	0.0155	1.6767	0.0117	1.6884	0.4447	0.0108	0.4555		1,541.2649	1,541.2649	0.0365		1,542.1772
Total	**0.6385**	**3.0979**	**5.7329**	**0.0284**	**1.9885**	**0.0169**	**2.0054**	**0.5301**	**0.0157**	**0.5458**		**2,951.2120**	**2,951.2120**	**0.1324**		**2,954.5217**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5084	0.0000	1.5084	0.2284	0.0000	0.2284			0.0000			0.0000
Off-Road	0.5659	11.6376	16.0109	0.0249		0.6295	0.6295		0.6295	0.6295	0.0000	2,386.9229	2,386.9229	0.5188		2,399.8915
Total	**0.5659**	**11.6376**	**16.0109**	**0.0249**	**1.5084**	**0.6295**	**2.1379**	**0.2284**	**0.6295**	**0.8579**	**0.0000**	**2,386.9229**	**2,386.9229**	**0.5188**		**2,399.8915**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0847	2.7631	0.9232	0.0129	0.3119	5.1300e-003	0.3170	0.0855	4.9100e-003	0.0904		1,409.9471	1,409.9471	0.0959		1,412.3444
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5538	0.3347	4.8096	0.0155	1.6767	0.0117	1.6884	0.4447	0.0108	0.4555		1,541.2649	1,541.2649	0.0365		1,542.1772
Total	**0.6385**	**3.0979**	**5.7329**	**0.0284**	**1.9885**	**0.0169**	**2.0054**	**0.5301**	**0.0157**	**0.5458**		**2,951.2120**	**2,951.2120**	**0.1324**		**2,954.5217**

3.17 2D Seismic Modification - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	0.9146	9.9869	5.2727	0.0137		0.4106	0.4106		0.3778	0.3778		1,327.0743	1,327.0743	0.4292		1,337.8043
Total	**0.9146**	**9.9869**	**5.2727**	**0.0137**	**4.9143**	**0.4106**	**5.3249**	**2.5256**	**0.3778**	**2.9034**		**1,327.0743**	**1,327.0743**	**0.4292**		**1,337.8043**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1846	0.1116	1.6032	5.1500e-003	0.5589	3.9100e-003	0.5628	0.1482	3.6000e-003	0.1518		513.7550	513.7550	0.0122		514.0591
Total	**0.1846**	**0.1116**	**1.6032**	**5.1500e-003**	**0.5589**	**3.9100e-003**	**0.5628**	**0.1482**	**3.6000e-003**	**0.1518**		**513.7550**	**513.7550**	**0.0122**		**514.0591**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.9166	0.0000	1.9166	0.9850	0.0000	0.9850			0.0000			0.0000
Off-Road	0.3355	6.6857	7.7913	0.0137		0.2954	0.2954		0.2954	0.2954	0.0000	1,327.0743	1,327.0743	0.4292		1,337.8043
Total	**0.3355**	**6.6857**	**7.7913**	**0.0137**	**1.9166**	**0.2954**	**2.2120**	**0.9850**	**0.2954**	**1.2804**	**0.0000**	**1,327.0743**	**1,327.0743**	**0.4292**		**1,337.8043**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1846	0.1116	1.6032	5.1500e-003	0.5589	3.9100e-003	0.5628	0.1482	3.6000e-003	0.1518		513.7550	513.7550	0.0122		514.0591
Total	**0.1846**	**0.1116**	**1.6032**	**5.1500e-003**	**0.5589**	**3.9100e-003**	**0.5628**	**0.1482**	**3.6000e-003**	**0.1518**		**513.7550**	**513.7550**	**0.0122**		**514.0591**

3.17 2D Seismic Modification - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	0.8952	9.5487	5.2673	0.0137		0.3918	0.3918		0.3605	0.3605		1,326.9414	1,326.9414	0.4292		1,337.6704
Total	**0.8952**	**9.5487**	**5.2673**	**0.0137**	**4.9143**	**0.3918**	**5.3061**	**2.5256**	**0.3605**	**2.8861**		**1,326.9414**	**1,326.9414**	**0.4292**		**1,337.6704**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1747	0.1017	1.4969	4.9800e-003	0.5589	3.8600e-003	0.5627	0.1482	3.5500e-003	0.1518		496.8276	496.8276	0.0112		497.1063
Total	**0.1747**	**0.1017**	**1.4969**	**4.9800e-003**	**0.5589**	**3.8600e-003**	**0.5627**	**0.1482**	**3.5500e-003**	**0.1518**		**496.8276**	**496.8276**	**0.0112**		**497.1063**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.9166	0.0000	1.9166	0.9850	0.0000	0.9850			0.0000			0.0000
Off-Road	0.3355	6.6857	7.7913	0.0137		0.2954	0.2954		0.2954	0.2954	0.0000	1,326.9414	1,326.9414	0.4292		1,337.6704
Total	**0.3355**	**6.6857**	**7.7913**	**0.0137**	**1.9166**	**0.2954**	**2.2120**	**0.9850**	**0.2954**	**1.2804**	**0.0000**	**1,326.9414**	**1,326.9414**	**0.4292**		**1,337.6704**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1747	0.1017	1.4969	4.9800e-003	0.5589	3.8600e-003	0.5627	0.1482	3.5500e-003	0.1518		496.8276	496.8276	0.0112		497.1063
Total	**0.1747**	**0.1017**	**1.4969**	**4.9800e-003**	**0.5589**	**3.8600e-003**	**0.5627**	**0.1482**	**3.5500e-003**	**0.1518**		**496.8276**	**496.8276**	**0.0112**		**497.1063**

3.18 2E Seismic Modification - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	0.9146	9.9869	5.2727	0.0137		0.4106	0.4106		0.3778	0.3778		1,327.0743	1,327.0743	0.4292		1,337.8043
Total	**0.9146**	**9.9869**	**5.2727**	**0.0137**	**4.9143**	**0.4106**	**5.3249**	**2.5256**	**0.3778**	**2.9034**		**1,327.0743**	**1,327.0743**	**0.4292**		**1,337.8043**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1846	0.1116	1.6032	5.1500e-003	0.5589	3.9100e-003	0.5628	0.1482	3.6000e-003	0.1518		513.7550	513.7550	0.0122		514.0591
Total	**0.1846**	**0.1116**	**1.6032**	**5.1500e-003**	**0.5589**	**3.9100e-003**	**0.5628**	**0.1482**	**3.6000e-003**	**0.1518**		**513.7550**	**513.7550**	**0.0122**		**514.0591**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.9166	0.0000	1.9166	0.9850	0.0000	0.9850			0.0000			0.0000
Off-Road	0.3355	6.6857	7.7913	0.0137		0.2954	0.2954		0.2954	0.2954	0.0000	1,327.0743	1,327.0743	0.4292		1,337.8043
Total	**0.3355**	**6.6857**	**7.7913**	**0.0137**	**1.9166**	**0.2954**	**2.2120**	**0.9850**	**0.2954**	**1.2804**	**0.0000**	**1,327.0743**	**1,327.0743**	**0.4292**		**1,337.8043**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1846	0.1116	1.6032	5.1500e-003	0.5589	3.9100e-003	0.5628	0.1482	3.6000e-003	0.1518		513.7550	513.7550	0.0122		514.0591
Total	**0.1846**	**0.1116**	**1.6032**	**5.1500e-003**	**0.5589**	**3.9100e-003**	**0.5628**	**0.1482**	**3.6000e-003**	**0.1518**		**513.7550**	**513.7550**	**0.0122**		**514.0591**

3.18 2E Seismic Modification - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	0.8952	9.5487	5.2673	0.0137		0.3918	0.3918		0.3605	0.3605		1,326.9414	1,326.9414	0.4292		1,337.6704
Total	**0.8952**	**9.5487**	**5.2673**	**0.0137**	**4.9143**	**0.3918**	**5.3061**	**2.5256**	**0.3605**	**2.8861**		**1,326.9414**	**1,326.9414**	**0.4292**		**1,337.6704**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1747	0.1017	1.4969	4.9800e-003	0.5589	3.8600e-003	0.5627	0.1482	3.5500e-003	0.1518		496.8276	496.8276	0.0112		497.1063
Total	**0.1747**	**0.1017**	**1.4969**	**4.9800e-003**	**0.5589**	**3.8600e-003**	**0.5627**	**0.1482**	**3.5500e-003**	**0.1518**		**496.8276**	**496.8276**	**0.0112**		**497.1063**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.9166	0.0000	1.9166	0.9850	0.0000	0.9850			0.0000			0.0000
Off-Road	0.3355	6.6857	7.7913	0.0137		0.2954	0.2954		0.2954	0.2954	0.0000	1,326.9414	1,326.9414	0.4292		1,337.6704
Total	**0.3355**	**6.6857**	**7.7913**	**0.0137**	**1.9166**	**0.2954**	**2.2120**	**0.9850**	**0.2954**	**1.2804**	**0.0000**	**1,326.9414**	**1,326.9414**	**0.4292**		**1,337.6704**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1747	0.1017	1.4969	4.9800e-003	0.5589	3.8600e-003	0.5627	0.1482	3.5500e-003	0.1518		496.8276	496.8276	0.0112		497.1063
Total	**0.1747**	**0.1017**	**1.4969**	**4.9800e-003**	**0.5589**	**3.8600e-003**	**0.5627**	**0.1482**	**3.5500e-003**	**0.1518**		**496.8276**	**496.8276**	**0.0112**		**497.1063**

3.19 2G Seismic Modification - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	0.9146	9.9869	5.2727	0.0137		0.4106	0.4106		0.3778	0.3778		1,327.0743	1,327.0743	0.4292		1,337.8043
Total	**0.9146**	**9.9869**	**5.2727**	**0.0137**	**4.9143**	**0.4106**	**5.3249**	**2.5256**	**0.3778**	**2.9034**		**1,327.0743**	**1,327.0743**	**0.4292**		**1,337.8043**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1846	0.1116	1.6032	5.1500e-003	0.5589	3.9100e-003	0.5628	0.1482	3.6000e-003	0.1518		513.7550	513.7550	0.0122		514.0591
Total	**0.1846**	**0.1116**	**1.6032**	**5.1500e-003**	**0.5589**	**3.9100e-003**	**0.5628**	**0.1482**	**3.6000e-003**	**0.1518**		**513.7550**	**513.7550**	**0.0122**		**514.0591**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.9166	0.0000	1.9166	0.9850	0.0000	0.9850			0.0000			0.0000
Off-Road	0.3355	6.6857	7.7913	0.0137		0.2954	0.2954		0.2954	0.2954	0.0000	1,327.0743	1,327.0743	0.4292		1,337.8043
Total	**0.3355**	**6.6857**	**7.7913**	**0.0137**	**1.9166**	**0.2954**	**2.2120**	**0.9850**	**0.2954**	**1.2804**	**0.0000**	**1,327.0743**	**1,327.0743**	**0.4292**		**1,337.8043**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1846	0.1116	1.6032	5.1500e-003	0.5589	3.9100e-003	0.5628	0.1482	3.6000e-003	0.1518		513.7550	513.7550	0.0122		514.0591
Total	**0.1846**	**0.1116**	**1.6032**	**5.1500e-003**	**0.5589**	**3.9100e-003**	**0.5628**	**0.1482**	**3.6000e-003**	**0.1518**		**513.7550**	**513.7550**	**0.0122**		**514.0591**

3.19 2G Seismic Modification - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	0.8952	9.5487	5.2673	0.0137		0.3918	0.3918		0.3605	0.3605		1,326.9414	1,326.9414	0.4292		1,337.6704
Total	**0.8952**	**9.5487**	**5.2673**	**0.0137**	**4.9143**	**0.3918**	**5.3061**	**2.5256**	**0.3605**	**2.8861**		**1,326.9414**	**1,326.9414**	**0.4292**		**1,337.6704**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1747	0.1017	1.4969	4.9800e-003	0.5589	3.8600e-003	0.5627	0.1482	3.5500e-003	0.1518		496.8276	496.8276	0.0112		497.1063
Total	**0.1747**	**0.1017**	**1.4969**	**4.9800e-003**	**0.5589**	**3.8600e-003**	**0.5627**	**0.1482**	**3.5500e-003**	**0.1518**		**496.8276**	**496.8276**	**0.0112**		**497.1063**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.9166	0.0000	1.9166	0.9850	0.0000	0.9850			0.0000			0.0000
Off-Road	0.3355	6.6857	7.7913	0.0137		0.2954	0.2954		0.2954	0.2954	0.0000	1,326.9414	1,326.9414	0.4292		1,337.6704
Total	**0.3355**	**6.6857**	**7.7913**	**0.0137**	**1.9166**	**0.2954**	**2.2120**	**0.9850**	**0.2954**	**1.2804**	**0.0000**	**1,326.9414**	**1,326.9414**	**0.4292**		**1,337.6704**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1747	0.1017	1.4969	4.9800e-003	0.5589	3.8600e-003	0.5627	0.1482	3.5500e-003	0.1518		496.8276	496.8276	0.0112		497.1063
Total	**0.1747**	**0.1017**	**1.4969**	**4.9800e-003**	**0.5589**	**3.8600e-003**	**0.5627**	**0.1482**	**3.5500e-003**	**0.1518**		**496.8276**	**496.8276**	**0.0112**		**497.1063**

3.20 2l Southern Parking Lot - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0609					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0937**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1846	0.1116	1.6032	5.1500e-003	0.5589	3.9100e-003	0.5628	0.1482	3.6000e-003	0.1518		513.7550	513.7550	0.0122		514.0591
Total	**0.1846**	**0.1116**	**1.6032**	**5.1500e-003**	**0.5589**	**3.9100e-003**	**0.5628**	**0.1482**	**3.6000e-003**	**0.1518**		**513.7550**	**513.7550**	**0.0122**		**514.0591**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5609	11.2952	17.2957	0.0228		0.6093	0.6093		0.6093	0.6093	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0609					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6219**	**11.2952**	**17.2957**	**0.0228**		**0.6093**	**0.6093**		**0.6093**	**0.6093**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1846	0.1116	1.6032	5.1500e-003	0.5589	3.9100e-003	0.5628	0.1482	3.6000e-003	0.1518		513.7550	513.7550	0.0122		514.0591
Total	**0.1846**	**0.1116**	**1.6032**	**5.1500e-003**	**0.5589**	**3.9100e-003**	**0.5628**	**0.1482**	**3.6000e-003**	**0.1518**		**513.7550**	**513.7550**	**0.0122**		**514.0591**

3.21 2l Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.6261					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**0.8177**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1846	0.1116	1.6032	5.1500e-003	0.5589	3.9100e-003	0.5628	0.1482	3.6000e-003	0.1518		513.7550	513.7550	0.0122		514.0591
Total	**0.1846**	**0.1116**	**1.6032**	**5.1500e-003**	**0.5589**	**3.9100e-003**	**0.5628**	**0.1482**	**3.6000e-003**	**0.1518**		**513.7550**	**513.7550**	**0.0122**		**514.0591**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.6261					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**0.6855**	**1.3570**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1846	0.1116	1.6032	5.1500e-003	0.5589	3.9100e-003	0.5628	0.1482	3.6000e-003	0.1518		513.7550	513.7550	0.0122		514.0591
Total	**0.1846**	**0.1116**	**1.6032**	**5.1500e-003**	**0.5589**	**3.9100e-003**	**0.5628**	**0.1482**	**3.6000e-003**	**0.1518**		**513.7550**	**513.7550**	**0.0122**		**514.0591**

3.22 2F Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7864	6.8814	7.4598	0.0132		0.3186	0.3186		0.3041	0.3041		1,239.4993	1,239.4993	0.2370		1,245.4233
Total	**0.7864**	**6.8814**	**7.4598**	**0.0132**		**0.3186**	**0.3186**		**0.3041**	**0.3041**		**1,239.4993**	**1,239.4993**	**0.2370**		**1,245.4233**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1704	5.9660	1.7291	0.0211	0.5567	6.8300e-003	0.5635	0.1603	6.5300e-003	0.1668		2,262.3173	2,262.3173	0.1243		2,265.4257
Worker	0.1846	0.1116	1.6032	5.1500e-003	0.5589	3.9100e-003	0.5628	0.1482	3.6000e-003	0.1518		513.7550	513.7550	0.0122		514.0591
Total	**0.3550**	**6.0776**	**3.3323**	**0.0262**	**1.1156**	**0.0107**	**1.1263**	**0.3085**	**0.0101**	**0.3186**		**2,776.0722**	**2,776.0722**	**0.1365**		**2,779.4847**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4456	6.6348	8.4644	0.0132		0.3876	0.3876		0.3876	0.3876	0.0000	1,239.4993	1,239.4993	0.2370		1,245.4233
Total	**0.4456**	**6.6348**	**8.4644**	**0.0132**		**0.3876**	**0.3876**		**0.3876**	**0.3876**	**0.0000**	**1,239.4993**	**1,239.4993**	**0.2370**		**1,245.4233**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1704	5.9660	1.7291	0.0211	0.5567	6.8300e-003	0.5635	0.1603	6.5300e-003	0.1668		2,262.3173	2,262.3173	0.1243		2,265.4257
Worker	0.1846	0.1116	1.6032	5.1500e-003	0.5589	3.9100e-003	0.5628	0.1482	3.6000e-003	0.1518		513.7550	513.7550	0.0122		514.0591
Total	**0.3550**	**6.0776**	**3.3323**	**0.0262**	**1.1156**	**0.0107**	**1.1263**	**0.3085**	**0.0101**	**0.3186**		**2,776.0722**	**2,776.0722**	**0.1365**		**2,779.4847**

3.22 2F Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7351	6.4450	7.4142	0.0132		0.2797	0.2797		0.2668	0.2668		1,239.6361	1,239.6361	0.2343		1,245.4926
Total	**0.7351**	**6.4450**	**7.4142**	**0.0132**		**0.2797**	**0.2797**		**0.2668**	**0.2668**		**1,239.6361**	**1,239.6361**	**0.2343**		**1,245.4926**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1667	5.9503	1.6799	0.0210	0.5567	6.7600e-003	0.5635	0.1603	6.4600e-003	0.1667		2,254.0226	2,254.0226	0.1225		2,257.0857
Worker	0.1747	0.1017	1.4969	4.9800e-003	0.5589	3.8600e-003	0.5627	0.1482	3.5500e-003	0.1518		496.8276	496.8276	0.0112		497.1063
Total	**0.3414**	**6.0519**	**3.1769**	**0.0260**	**1.1156**	**0.0106**	**1.1262**	**0.3085**	**0.0100**	**0.3185**		**2,750.8501**	**2,750.8501**	**0.1337**		**2,754.1920**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4317	6.6050	8.4537	0.0132		0.3818	0.3818		0.3818	0.3818	0.0000	1,239.6361	1,239.6361	0.2343		1,245.4926
Total	**0.4317**	**6.6050**	**8.4537**	**0.0132**		**0.3818**	**0.3818**		**0.3818**	**0.3818**	**0.0000**	**1,239.6361**	**1,239.6361**	**0.2343**		**1,245.4926**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1667	5.9503	1.6799	0.0210	0.5567	6.7600e-003	0.5635	0.1603	6.4600e-003	0.1667		2,254.0226	2,254.0226	0.1225		2,257.0857
Worker	0.1747	0.1017	1.4969	4.9800e-003	0.5589	3.8600e-003	0.5627	0.1482	3.5500e-003	0.1518		496.8276	496.8276	0.0112		497.1063
Total	**0.3414**	**6.0519**	**3.1769**	**0.0260**	**1.1156**	**0.0106**	**1.1262**	**0.3085**	**0.0100**	**0.3185**		**2,750.8501**	**2,750.8501**	**0.1337**		**2,754.1920**

3.23 3A Demo Interim Housing - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0872	0.0000	0.0872	0.0132	0.0000	0.0132			0.0000			0.0000
Off-Road	1.4593	12.7120	13.7865	0.0249		0.5981	0.5981		0.5647	0.5647		2,387.0143	2,387.0143	0.5162		2,399.9203
Total	**1.4593**	**12.7120**	**13.7865**	**0.0249**	**0.0872**	**0.5981**	**0.6853**	**0.0132**	**0.5647**	**0.5779**		**2,387.0143**	**2,387.0143**	**0.5162**		**2,399.9203**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.9100e-003	0.0615	0.0210	2.9000e-004	9.6000e-003	1.1000e-004	9.7100e-003	2.5600e-003	1.1000e-004	2.6600e-003		31.4597	31.4597	2.1500e-003		31.5134
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1747	0.1017	1.4969	4.9800e-003	0.5589	3.8600e-003	0.5627	0.1482	3.5500e-003	0.1518		496.8276	496.8276	0.0112		497.1063
Total	**0.1766**	**0.1632**	**1.5179**	**5.2700e-003**	**0.5685**	**3.9700e-003**	**0.5725**	**0.1508**	**3.6600e-003**	**0.1544**		**528.2873**	**528.2873**	**0.0133**		**528.6196**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0340	0.0000	0.0340	5.1500e-003	0.0000	5.1500e-003			0.0000			0.0000
Off-Road	0.5659	11.6376	16.0109	0.0249		0.6295	0.6295		0.6295	0.6295	0.0000	2,387.0143	2,387.0143	0.5162		2,399.9203
Total	**0.5659**	**11.6376**	**16.0109**	**0.0249**	**0.0340**	**0.6295**	**0.6636**	**5.1500e-003**	**0.6295**	**0.6347**	**0.0000**	**2,387.0143**	**2,387.0143**	**0.5162**		**2,399.9203**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.9100e-003	0.0615	0.0210	2.9000e-004	9.6000e-003	1.1000e-004	9.7100e-003	2.5600e-003	1.1000e-004	2.6600e-003		31.4597	31.4597	2.1500e-003		31.5134
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1747	0.1017	1.4969	4.9800e-003	0.5589	3.8600e-003	0.5627	0.1482	3.5500e-003	0.1518		496.8276	496.8276	0.0112		497.1063
Total	**0.1766**	**0.1632**	**1.5179**	**5.2700e-003**	**0.5685**	**3.9700e-003**	**0.5725**	**0.1508**	**3.6600e-003**	**0.1544**		**528.2873**	**528.2873**	**0.0133**		**528.6196**

3.23 3A Demo Interim Housing - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0872	0.0000	0.0872	0.0132	0.0000	0.0132			0.0000			0.0000
Off-Road	1.3596	11.6342	13.6632	0.0249		0.5226	0.5226		0.4930	0.4930		2,387.3390	2,387.3390	0.5139		2,400.1866
Total	**1.3596**	**11.6342**	**13.6632**	**0.0249**	**0.0872**	**0.5226**	**0.6098**	**0.0132**	**0.4930**	**0.5062**		**2,387.3390**	**2,387.3390**	**0.5139**		**2,400.1866**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.9000e-003	0.0606	0.0211	2.9000e-004	0.0177	1.1000e-004	0.0178	4.5400e-003	1.1000e-004	4.6500e-003		31.2817	31.2817	2.1400e-003		31.3352
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1659	0.0930	1.3914	4.7900e-003	0.5589	3.7900e-003	0.5627	0.1482	3.4800e-003	0.1517		477.2788	477.2788	0.0102		477.5329
Total	**0.1678**	**0.1535**	**1.4125**	**5.0800e-003**	**0.5766**	**3.9000e-003**	**0.5805**	**0.1528**	**3.5900e-003**	**0.1564**		**508.5605**	**508.5605**	**0.0123**		**508.8681**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0340	0.0000	0.0340	5.1500e-003	0.0000	5.1500e-003			0.0000			0.0000
Off-Road	0.5659	11.6376	16.0109	0.0249		0.6295	0.6295		0.6295	0.6295	0.0000	2,387.3390	2,387.3390	0.5139		2,400.1866
Total	**0.5659**	**11.6376**	**16.0109**	**0.0249**	**0.0340**	**0.6295**	**0.6636**	**5.1500e-003**	**0.6295**	**0.6347**	**0.0000**	**2,387.3390**	**2,387.3390**	**0.5139**		**2,400.1866**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.9000e-003	0.0606	0.0211	2.9000e-004	0.0177	1.1000e-004	0.0178	4.5400e-003	1.1000e-004	4.6500e-003		31.2817	31.2817	2.1400e-003		31.3352
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1659	0.0930	1.3914	4.7900e-003	0.5589	3.7900e-003	0.5627	0.1482	3.4800e-003	0.1517		477.2788	477.2788	0.0102		477.5329
Total	**0.1678**	**0.1535**	**1.4125**	**5.0800e-003**	**0.5766**	**3.9000e-003**	**0.5805**	**0.1528**	**3.5900e-003**	**0.1564**		**508.5605**	**508.5605**	**0.0123**		**508.8681**

3.24 3C Demolition - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1128	0.0000	0.1128	0.0171	0.0000	0.0171			0.0000			0.0000
Off-Road	1.4593	12.7120	13.7865	0.0249		0.5981	0.5981		0.5647	0.5647		2,387.0143	2,387.0143	0.5162		2,399.9203
Total	**1.4593**	**12.7120**	**13.7865**	**0.0249**	**0.1128**	**0.5981**	**0.7108**	**0.0171**	**0.5647**	**0.5818**		**2,387.0143**	**2,387.0143**	**0.5162**		**2,399.9203**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.3900e-003	0.0769	0.0262	3.6000e-004	8.7300e-003	1.4000e-004	8.8800e-003	2.3900e-003	1.4000e-004	2.5300e-003		39.3247	39.3247	2.6800e-003		39.3917
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1747	0.1017	1.4969	4.9800e-003	0.5589	3.8600e-003	0.5627	0.1482	3.5500e-003	0.1518		496.8276	496.8276	0.0112		497.1063
Total	**0.1771**	**0.1786**	**1.5232**	**5.3400e-003**	**0.5676**	**4.0000e-003**	**0.5716**	**0.1506**	**3.6900e-003**	**0.1543**		**536.1522**	**536.1522**	**0.0138**		**536.4980**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0440	0.0000	0.0440	6.6600e-003	0.0000	6.6600e-003			0.0000			0.0000
Off-Road	0.5659	11.6376	16.0109	0.0249		0.6295	0.6295		0.6295	0.6295	0.0000	2,387.0143	2,387.0143	0.5162		2,399.9203
Total	**0.5659**	**11.6376**	**16.0109**	**0.0249**	**0.0440**	**0.6295**	**0.6735**	**6.6600e-003**	**0.6295**	**0.6362**	**0.0000**	**2,387.0143**	**2,387.0143**	**0.5162**		**2,399.9203**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.3900e-003	0.0769	0.0262	3.6000e-004	8.7300e-003	1.4000e-004	8.8800e-003	2.3900e-003	1.4000e-004	2.5300e-003		39.3247	39.3247	2.6800e-003		39.3917
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1747	0.1017	1.4969	4.9800e-003	0.5589	3.8600e-003	0.5627	0.1482	3.5500e-003	0.1518		496.8276	496.8276	0.0112		497.1063
Total	**0.1771**	**0.1786**	**1.5232**	**5.3400e-003**	**0.5676**	**4.0000e-003**	**0.5716**	**0.1506**	**3.6900e-003**	**0.1543**		**536.1522**	**536.1522**	**0.0138**		**536.4980**

3.25 3B New Field - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	0.8952	9.5487	5.2673	0.0137		0.3918	0.3918		0.3605	0.3605		1,326.9414	1,326.9414	0.4292		1,337.6704
Total	**0.8952**	**9.5487**	**5.2673**	**0.0137**	**4.9143**	**0.3918**	**5.3061**	**2.5256**	**0.3605**	**2.8861**		**1,326.9414**	**1,326.9414**	**0.4292**		**1,337.6704**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1747	0.1017	1.4969	4.9800e-003	0.5589	3.8600e-003	0.5627	0.1482	3.5500e-003	0.1518		496.8276	496.8276	0.0112		497.1063
Total	**0.1747**	**0.1017**	**1.4969**	**4.9800e-003**	**0.5589**	**3.8600e-003**	**0.5627**	**0.1482**	**3.5500e-003**	**0.1518**		**496.8276**	**496.8276**	**0.0112**		**497.1063**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.9166	0.0000	1.9166	0.9850	0.0000	0.9850			0.0000			0.0000
Off-Road	0.3355	6.6857	7.7913	0.0137		0.2954	0.2954		0.2954	0.2954	0.0000	1,326.9414	1,326.9414	0.4292		1,337.6704
Total	**0.3355**	**6.6857**	**7.7913**	**0.0137**	**1.9166**	**0.2954**	**2.2120**	**0.9850**	**0.2954**	**1.2804**	**0.0000**	**1,326.9414**	**1,326.9414**	**0.4292**		**1,337.6704**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1747	0.1017	1.4969	4.9800e-003	0.5589	3.8600e-003	0.5627	0.1482	3.5500e-003	0.1518		496.8276	496.8276	0.0112		497.1063
Total	**0.1747**	**0.1017**	**1.4969**	**4.9800e-003**	**0.5589**	**3.8600e-003**	**0.5627**	**0.1482**	**3.5500e-003**	**0.1518**		**496.8276**	**496.8276**	**0.0112**		**497.1063**

3.25 3B New Field - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	0.8185	8.5672	5.1161	0.0137		0.3416	0.3416		0.3143	0.3143		1,326.9417	1,326.9417	0.4292		1,337.6707
Total	**0.8185**	**8.5672**	**5.1161**	**0.0137**	**4.9143**	**0.3416**	**5.2559**	**2.5256**	**0.3143**	**2.8399**		**1,326.9417**	**1,326.9417**	**0.4292**		**1,337.6707**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1659	0.0930	1.3914	4.7900e-003	0.5589	3.7900e-003	0.5627	0.1482	3.4800e-003	0.1517		477.2788	477.2788	0.0102		477.5329
Total	**0.1659**	**0.0930**	**1.3914**	**4.7900e-003**	**0.5589**	**3.7900e-003**	**0.5627**	**0.1482**	**3.4800e-003**	**0.1517**		**477.2788**	**477.2788**	**0.0102**		**477.5329**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.9166	0.0000	1.9166	0.9850	0.0000	0.9850			0.0000			0.0000
Off-Road	0.3355	6.6857	7.7913	0.0137		0.2954	0.2954		0.2954	0.2954	0.0000	1,326.9417	1,326.9417	0.4292		1,337.6707
Total	**0.3355**	**6.6857**	**7.7913**	**0.0137**	**1.9166**	**0.2954**	**2.2120**	**0.9850**	**0.2954**	**1.2804**	**0.0000**	**1,326.9417**	**1,326.9417**	**0.4292**		**1,337.6707**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1659	0.0930	1.3914	4.7900e-003	0.5589	3.7900e-003	0.5627	0.1482	3.4800e-003	0.1517		477.2788	477.2788	0.0102		477.5329
Total	**0.1659**	**0.0930**	**1.3914**	**4.7900e-003**	**0.5589**	**3.7900e-003**	**0.5627**	**0.1482**	**3.4800e-003**	**0.1517**		**477.2788**	**477.2788**	**0.0102**		**477.5329**

3.26 2F Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.2261					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**5.4069**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1747	0.1017	1.4969	4.9800e-003	0.5589	3.8600e-003	0.5627	0.1482	3.5500e-003	0.1518		496.8276	496.8276	0.0112		497.1063
Total	**0.1747**	**0.1017**	**1.4969**	**4.9800e-003**	**0.5589**	**3.8600e-003**	**0.5627**	**0.1482**	**3.5500e-003**	**0.1518**		**496.8276**	**496.8276**	**0.0112**		**497.1063**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.2261					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**5.2855**	**1.3570**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1747	0.1017	1.4969	4.9800e-003	0.5589	3.8600e-003	0.5627	0.1482	3.5500e-003	0.1518		496.8276	496.8276	0.0112		497.1063
Total	**0.1747**	**0.1017**	**1.4969**	**4.9800e-003**	**0.5589**	**3.8600e-003**	**0.5627**	**0.1482**	**3.5500e-003**	**0.1518**		**496.8276**	**496.8276**	**0.0112**		**497.1063**

3.27 3C North Parking Lot - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0735					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0616**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1747	0.1017	1.4969	4.9800e-003	0.5589	3.8600e-003	0.5627	0.1482	3.5500e-003	0.1518		496.8276	496.8276	0.0112		497.1063
Total	**0.1747**	**0.1017**	**1.4969**	**4.9800e-003**	**0.5589**	**3.8600e-003**	**0.5627**	**0.1482**	**3.5500e-003**	**0.1518**		**496.8276**	**496.8276**	**0.0112**		**497.1063**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5609	11.2952	17.2957	0.0228		0.6093	0.6093		0.6093	0.6093	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0735					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6344**	**11.2952**	**17.2957**	**0.0228**		**0.6093**	**0.6093**		**0.6093**	**0.6093**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1747	0.1017	1.4969	4.9800e-003	0.5589	3.8600e-003	0.5627	0.1482	3.5500e-003	0.1518		496.8276	496.8276	0.0112		497.1063
Total	**0.1747**	**0.1017**	**1.4969**	**4.9800e-003**	**0.5589**	**3.8600e-003**	**0.5627**	**0.1482**	**3.5500e-003**	**0.1518**		**496.8276**	**496.8276**	**0.0112**		**497.1063**

3.27 3C North Parking Lot - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	0.0735					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9886**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**		**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1659	0.0930	1.3914	4.7900e-003	0.5589	3.7900e-003	0.5627	0.1482	3.4800e-003	0.1517		477.2788	477.2788	0.0102		477.5329
Total	**0.1659**	**0.0930**	**1.3914**	**4.7900e-003**	**0.5589**	**3.7900e-003**	**0.5627**	**0.1482**	**3.4800e-003**	**0.1517**		**477.2788**	**477.2788**	**0.0102**		**477.5329**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5609	11.2952	17.2957	0.0228		0.6093	0.6093		0.6093	0.6093	0.0000	2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	0.0735					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6344**	**11.2952**	**17.2957**	**0.0228**		**0.6093**	**0.6093**		**0.6093**	**0.6093**	**0.0000**	**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1659	0.0930	1.3914	4.7900e-003	0.5589	3.7900e-003	0.5627	0.1482	3.4800e-003	0.1517		477.2788	477.2788	0.0102		477.5329
Total	**0.1659**	**0.0930**	**1.3914**	**4.7900e-003**	**0.5589**	**3.7900e-003**	**0.5627**	**0.1482**	**3.4800e-003**	**0.1517**		**477.2788**	**477.2788**	**0.0102**		**477.5329**

3.28 3C Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	1.1322					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**1.3129**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1747	0.1017	1.4969	4.9800e-003	0.5589	3.8600e-003	0.5627	0.1482	3.5500e-003	0.1518		496.8276	496.8276	0.0112		497.1063
Total	**0.1747**	**0.1017**	**1.4969**	**4.9800e-003**	**0.5589**	**3.8600e-003**	**0.5627**	**0.1482**	**3.5500e-003**	**0.1518**		**496.8276**	**496.8276**	**0.0112**		**497.1063**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	1.1322					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**1.1916**	**1.3570**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1747	0.1017	1.4969	4.9800e-003	0.5589	3.8600e-003	0.5627	0.1482	3.5500e-003	0.1518		496.8276	496.8276	0.0112		497.1063
Total	**0.1747**	**0.1017**	**1.4969**	**4.9800e-003**	**0.5589**	**3.8600e-003**	**0.5627**	**0.1482**	**3.5500e-003**	**0.1518**		**496.8276**	**496.8276**	**0.0112**		**497.1063**

3.28 3C Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	1.1322					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**1.3030**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1659	0.0930	1.3914	4.7900e-003	0.5589	3.7900e-003	0.5627	0.1482	3.4800e-003	0.1517		477.2788	477.2788	0.0102		477.5329
Total	**0.1659**	**0.0930**	**1.3914**	**4.7900e-003**	**0.5589**	**3.7900e-003**	**0.5627**	**0.1482**	**3.4800e-003**	**0.1517**		**477.2788**	**477.2788**	**0.0102**		**477.5329**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	1.1322					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**1.1916**	**1.3570**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1659	0.0930	1.3914	4.7900e-003	0.5589	3.7900e-003	0.5627	0.1482	3.4800e-003	0.1517		477.2788	477.2788	0.0102		477.5329
Total	**0.1659**	**0.0930**	**1.3914**	**4.7900e-003**	**0.5589**	**3.7900e-003**	**0.5627**	**0.1482**	**3.4800e-003**	**0.1517**		**477.2788**	**477.2788**	**0.0102**		**477.5329**

CalEEMod Winter Output

ESA

LAUSD Burroughs - Unmitigated

South Coast Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Junior High School	95.16	1000sqft	2.18	95,160.00	0
Other Asphalt Surfaces	2.00	Acre	2.00	87,120.00	0
Other Non-Asphalt Surfaces	2.00	Acre	2.00	87,120.00	0
Parking Lot	1.00	Acre	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	11			**Operational Year**	2025
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Project-specific phasing

Off-road Equipment - Project-Specific Construction Assumptions

Off-road Equipment - Project-Specific Construction Assumptions

Off-road Equipment - Project-Specific Construction Assumptions

Off-road Equipment - Project-Specific Construction Assumptions

Off-road Equipment -

Off-road Equipment - Project-Specific Construction Assumptions

Off-road Equipment - Project-Specific Construction Assumptions

Off-road Equipment -

Off-road Equipment - Project-Specific Construction Assumptions

Off-road Equipment - Project-Specific Construction Assumptions

Off-road Equipment - Project-Specific Construction Assumptions

Off-road Equipment - Project-Specific Construction Assumptions

Off-road Equipment - Project-Specific Construction Assumptions

Off-road Equipment -

Off-road Equipment - Project-Specific Construction Assumptions

Off-road Equipment - Project-Specific Construction Assumptions

Off-road Equipment - Project-Specific Construction Assumptions

Off-road Equipment -

Off-road Equipment - Project-Specific Construction Assumptions

Off-road Equipment - Project-Specific Construction Assumptions

Off-road Equipment - Project-Specific Construction Assumptions

Off-road Equipment -

Trips and VMT - Maximum of 50 workers during the school year and 150 during summer months.
10 Concrete Trucks added to CalEEMod default 77 vendor trucks to 2B and 2E

Demolition -

Grading -

Architectural Coating - Project components

Vehicle Trips - Construction-only

Energy Use - Construction-Only

Water And Wastewater - Construction-Only

Solid Waste - Construction-Only

Construction Off-road Equipment Mitigation - Water Exposed Area 3 times daily; Equipment > 50 HP Tier 3

Table Name	Column Name	Default Value	New Value

tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	125,000.00	33,226.00
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	125,000.00	4,792.00
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	125,000.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	125,000.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	125,000.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	125,000.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	375,000.00	99,678.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	375,000.00	14,376.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	375,000.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	375,000.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	375,000.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	375,000.00	0.00
tblArchitecturalCoating	ConstArea_Parking	13,068.00	0.00
tblArchitecturalCoating	ConstArea_Parking	13,068.00	0.00
tblArchitecturalCoating	ConstArea_Parking	13,068.00	52,272.00
tblArchitecturalCoating	ConstArea_Parking	13,068.00	60,984.00
tblArchitecturalCoating	ConstArea_Parking	13,068.00	17,424.00
tblArchitecturalCoating	ConstArea_Parking	13,068.00	26,136.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	13.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	20.00	13.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	20.00	129.00
tblConstructionPhase	NumDays	20.00	17.00
tblConstructionPhase	NumDays	20.00	107.00
tblConstructionPhase	NumDays	20.00	23.00
tblConstructionPhase	NumDays	300.00	601.00
tblConstructionPhase	NumDays	300.00	301.00
tblConstructionPhase	NumDays	300.00	9.00
tblConstructionPhase	NumDays	300.00	65.00
tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	20.00	21.00
tblConstructionPhase	NumDays	20.00	130.00
tblConstructionPhase	NumDays	20.00	22.00

tblConstructionPhase	NumDays	20.00	21.00
tblConstructionPhase	NumDays	30.00	623.00
tblConstructionPhase	NumDays	30.00	345.00
tblConstructionPhase	NumDays	30.00	257.00
tblConstructionPhase	NumDays	30.00	215.00
tblConstructionPhase	NumDays	30.00	171.00
tblConstructionPhase	NumDays	30.00	130.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	20.00	129.00
tblConstructionPhase	NumDays	20.00	107.00
tblConstructionPhase	NumDays	20.00	23.00
tblEnergyUse	LightingElect	2.59	0.00
tblEnergyUse	LightingElect	0.35	0.00
tblEnergyUse	NT24E	1.59	0.00
tblEnergyUse	NT24NG	1.08	0.00
tblEnergyUse	T24E	1.74	0.00
tblEnergyUse	T24NG	9.32	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	7.00	4.00

tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00

tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblSolidWaste	SolidWasteGenerationRate	325.00	0.00
tblTripsAndVMT	VendorTripNumber	77.00	87.00
tblTripsAndVMT	VendorTripNumber	77.00	87.00
tblTripsAndVMT	WorkerTripNumber	15.00	150.00
tblTripsAndVMT	WorkerTripNumber	8.00	50.00
tblTripsAndVMT	WorkerTripNumber	13.00	50.00
tblTripsAndVMT	WorkerTripNumber	196.00	50.00
tblTripsAndVMT	WorkerTripNumber	8.00	50.00
tblTripsAndVMT	WorkerTripNumber	39.00	50.00
tblTripsAndVMT	WorkerTripNumber	13.00	150.00
tblTripsAndVMT	WorkerTripNumber	8.00	50.00
tblTripsAndVMT	WorkerTripNumber	8.00	50.00
tblTripsAndVMT	WorkerTripNumber	8.00	50.00
tblTripsAndVMT	WorkerTripNumber	15.00	50.00

tblTripsAndVMT	WorkerTripNumber	39.00	150.00
tblTripsAndVMT	WorkerTripNumber	39.00	50.00
tblTripsAndVMT	WorkerTripNumber	196.00	50.00
tblTripsAndVMT	WorkerTripNumber	13.00	50.00
tblTripsAndVMT	WorkerTripNumber	13.00	50.00
tblTripsAndVMT	WorkerTripNumber	8.00	50.00
tblTripsAndVMT	WorkerTripNumber	39.00	50.00
tblTripsAndVMT	WorkerTripNumber	15.00	50.00
tblTripsAndVMT	WorkerTripNumber	39.00	50.00
tblTripsAndVMT	WorkerTripNumber	196.00	150.00
tblTripsAndVMT	WorkerTripNumber	13.00	50.00
tblTripsAndVMT	WorkerTripNumber	13.00	50.00
tblTripsAndVMT	WorkerTripNumber	13.00	50.00
tblTripsAndVMT	WorkerTripNumber	15.00	50.00
tblTripsAndVMT	WorkerTripNumber	39.00	50.00
tblTripsAndVMT	WorkerTripNumber	196.00	50.00
tblVehicleTrips	WD_TR	13.78	0.00
tblWater	IndoorWaterUseRate	5,155,251.11	0.00
tblWater	OutdoorWaterUseRate	13,256,360.00	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					

2020	28.0931	19.8623	27.5710	0.0581	3.3533	1.0452	4.2426	0.8893	0.9879	1.7164	0.0000	5,707.7354	5,707.7354	0.8285	0.0000	5,728.4468
2021	14.5670	66.8102	47.3014	0.1318	9.9319	2.4679	12.3999	3.6988	2.3238	6.0227	0.0000	13,195.2080	13,195.2080	1.8377	0.0000	13,241.1497
2022	3.8675	39.3194	25.6673	0.0769	12.0619	1.4043	13.4662	5.6561	1.3052	6.9613	0.0000	7,665.9422	7,665.9422	1.2867	0.0000	7,698.1087
2023	51.1900	68.5853	65.2279	0.1616	28.8665	2.9077	31.7743	12.1075	2.6980	14.8054	0.0000	15,906.5621	15,906.5621	3.1674	0.0000	15,985.7484
2024	11.1063	49.2534	50.6878	0.1241	17.5350	1.9552	19.0126	8.3300	1.8424	9.6991	0.0000	12,214.9595	12,214.9595	1.8986	0.0000	12,262.4236
2025	5.2116	30.3975	40.1942	0.0826	7.2547	1.3495	8.6042	3.1362	1.2579	4.3941	0.0000	8,023.5773	8,023.5773	1.7122	0.0000	8,066.3829
Maximum	**51.1900**	**68.5853**	**65.2279**	**0.1616**	**28.8665**	**2.9077**	**31.7743**	**12.1075**	**2.6980**	**14.8054**	**0.0000**	**15,906.5621**	**15,906.5621**	**3.1674**	**0.0000**	**15,985.7484**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	27.1147	15.3543	30.2156	0.0581	3.3533	0.7300	4.0833	0.8893	0.7280	1.6173	0.0000	5,707.7354	5,707.7354	0.8285	0.0000	5,728.4468
2021	13.7129	49.9385	52.2810	0.1318	5.9562	1.7842	7.7404	2.0101	1.7812	3.7913	0.0000	13,195.2080	13,195.2080	1.8377	0.0000	13,241.1497
2022	2.0253	28.3336	30.8965	0.0769	6.0665	1.0123	7.0787	2.5749	1.0107	3.5855	0.0000	7,665.9422	7,665.9422	1.2867	0.0000	7,698.1087
2023	49.5588	54.9141	80.2831	0.1616	14.5165	2.5561	17.0726	5.5878	2.5531	8.1408	0.0000	15,906.5621	15,906.5621	3.1674	0.0000	15,985.7484
2024	8.3350	44.5398	58.7225	0.1241	8.5419	2.0580	9.8324	3.7081	2.0562	4.9971	0.0000	12,214.9595	12,214.9595	1.8986	0.0000	12,262.4236
2025	3.4693	31.4444	47.9581	0.0826	4.2038	1.6446	5.8484	1.5876	1.6434	3.2310	0.0000	8,023.5773	8,023.5773	1.7122	0.0000	8,066.3829
Maximum	**49.5588**	**54.9141**	**80.2831**	**0.1616**	**14.5165**	**2.5561**	**17.0726**	**5.5878**	**2.5531**	**8.1408**	**0.0000**	**15,906.5621**	**15,906.5621**	**3.1674**	**0.0000**	**15,985.7484**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**8.61**	**18.12**	**-17.03**	**0.00**	**46.03**	**12.08**	**42.28**	**51.63**	**6.17**	**41.83**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Construction only analysis.

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	1A Build Site Access	Paving	8/1/2020	8/14/2020	5	10	
2	1A Paving	Architectural Coating	8/1/2020	8/14/2020	5	10	
3	1A Build LAN Room	Building Construction	8/17/2020	8/27/2020	5	9	
4	1B Demolition	Demolition	8/28/2020	9/25/2020	5	21	
5	1C Electrical and LV Trench	Trenching	9/28/2020	11/27/2020	5	45	
6	1D Utilities Installation	Trenching	11/28/2020	12/28/2020	5	21	
7	1D Temporary Parking	Paving	12/29/2020	1/28/2021	5	23	
8	1D Paving	Architectural Coating	12/29/2020	1/28/2021	5	23	
9	1D Bungalow Installation	Building Construction	1/29/2021	4/29/2021	5	65	
10	2A Seismic Modification	Grading	2/1/2021	6/21/2023	5	623	
11	2B Demolition	Demolition	2/21/2021	3/23/2021	5	22	
12	2B Building Construction	Building Construction	3/1/2021	6/19/2023	5	601	
13	2C Seismic Modification	Grading	8/1/2022	11/24/2023	5	345	
14	2B Architectural Coating	Architectural Coating	6/1/2023	6/19/2023	5	13	
15	2F Demolition	Demolition	7/1/2023	7/31/2023	5	21	
16	2D Seismic Modification	Grading	7/1/2023	6/25/2024	5	257	
17	2E Seismic Modification	Grading	7/1/2023	4/26/2024	5	215	
18	2G Seismic Modification	Grading	7/1/2023	2/26/2024	5	171	
19	2I Southern Parking Lot	Paving	7/1/2023	12/28/2023	5	129	
20	2I Paving	Architectural Coating	7/1/2023	12/28/2023	5	129	
21	2F Building Construction	Building Construction	8/1/2023	9/24/2024	5	301	

22	3A Demo Interim Housing	Demolition	9/1/2024	2/28/2025	5	130	
23	3C Demolition	Demolition	9/1/2024	10/1/2024	5	22	
24	3B New Field	Grading	9/1/2024	2/28/2025	5	130	
25	2F Architectural Coating	Architectural Coating	9/1/2024	9/24/2024	5	17	
26	3C North Parking Lot	Paving	10/24/2024	3/21/2025	5	107	
27	3C Paving	Architectural Coating	10/24/2024	3/21/2025	5	107	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 5

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 99,678; Non-Residential Outdoor: 33,226; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
1A Build Site Access	Pavers	2	8.00	130	0.42
1A Build Site Access	Paving Equipment	2	8.00	132	0.36
1A Build Site Access	Rollers	2	8.00	80	0.38
1A Build LAN Room	Cranes	1	4.00	231	0.29
1A Build LAN Room	Forklifts	1	6.00	89	0.20
1A Build LAN Room	Generator Sets	1	6.00	84	0.74
1A Build LAN Room	Tractors/Loaders/Backhoes	1	6.00	97	0.37
1A Build LAN Room	Welders	1	6.00	46	0.45
1B Demolition	Concrete/Industrial Saws	1	6.00	81	0.73
1B Demolition	Crushing/Proc. Equipment	1	6.00	85	0.78
1B Demolition	Excavators	1	6.00	158	0.38
1B Demolition	Other Construction Equipment	1	6.00	172	0.42
1B Demolition	Rubber Tired Dozers	1	6.00	247	0.40
1C Electrical and LV Trench	Concrete/Industrial Saws	1	6.00	81	0.73
1C Electrical and LV Trench	Crushing/Proc. Equipment	1	6.00	85	0.78

1C Electrical and LV Trench	Excavators	1	6.00	158	0.38
1C Electrical and LV Trench	Other Construction Equipment	1	6.00	172	0.42
1C Electrical and LV Trench	Rubber Tired Dozers	1	6.00	247	0.40
1D Utilities Installation	Concrete/Industrial Saws	1	6.00	81	0.73
1D Utilities Installation	Crushing/Proc. Equipment	1	6.00	85	0.78
1D Utilities Installation	Excavators	1	6.00	158	0.38
1D Utilities Installation	Other Construction Equipment	1	6.00	172	0.42
1D Utilities Installation	Rubber Tired Dozers	1	6.00	247	0.40
1D Temporary Parking	Pavers	2	8.00	130	0.42
1D Temporary Parking	Paving Equipment	2	8.00	132	0.36
1D Temporary Parking	Rollers	2	8.00	80	0.38
1D Bungalow Installation	Cranes	1	4.00	231	0.29
1D Bungalow Installation	Forklifts	1	6.00	89	0.20
1D Bungalow Installation	Generator Sets	1	6.00	84	0.74
1D Bungalow Installation	Tractors/Loaders/Backhoes	1	6.00	97	0.37
1D Bungalow Installation	Welders	1	6.00	46	0.45
2A Seismic Modification	Excavators	0	8.00	158	0.38
2A Seismic Modification	Graders	1	6.00	187	0.41
2A Seismic Modification	Rubber Tired Dozers	1	6.00	247	0.40
2A Seismic Modification	Scrapers	0	8.00	367	0.48
2A Seismic Modification	Tractors/Loaders/Backhoes	1	6.00	97	0.37
2B Demolition	Concrete/Industrial Saws	1	6.00	81	0.73
2B Demolition	Crushing/Proc. Equipment	1	6.00	85	0.78
2B Demolition	Excavators	1	6.00	158	0.38
2B Demolition	Other Construction Equipment	1	6.00	172	0.42
2B Demolition	Rubber Tired Dozers	1	6.00	247	0.40
2B Building Construction	Cranes	1	4.00	231	0.29
2B Building Construction	Forklifts	1	6.00	89	0.20
2B Building Construction	Generator Sets	1	6.00	84	0.74
2B Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37

2B Building Construction	Welders	1	6.00	46	0.45
2C Seismic Modification	Excavators	0	8.00	158	0.38
2C Seismic Modification	Graders	1	6.00	187	0.41
2C Seismic Modification	Rubber Tired Dozers	1	6.00	247	0.40
2C Seismic Modification	Scrapers	0	8.00	367	0.48
2C Seismic Modification	Tractors/Loaders/Backhoes	1	6.00	97	0.37
2B Architectural Coating	Air Compressors	1	6.00	78	0.48
2D Seismic Modification	Excavators	0	8.00	158	0.38
2D Seismic Modification	Graders	1	6.00	187	0.41
2D Seismic Modification	Rubber Tired Dozers	1	6.00	247	0.40
2D Seismic Modification	Scrapers	0	8.00	367	0.48
2D Seismic Modification	Tractors/Loaders/Backhoes	1	6.00	97	0.37
2E Seismic Modification	Excavators	0	8.00	158	0.38
2E Seismic Modification	Graders	1	6.00	187	0.41
2E Seismic Modification	Rubber Tired Dozers	1	6.00	247	0.40
2E Seismic Modification	Scrapers	0	8.00	367	0.48
2E Seismic Modification	Tractors/Loaders/Backhoes	1	6.00	97	0.37
2F Demolition	Concrete/Industrial Saws	1	6.00	81	0.73
2F Demolition	Crushing/Proc. Equipment	1	6.00	85	0.78
2F Demolition	Excavators	1	6.00	158	0.38
2F Demolition	Other Construction Equipment	1	6.00	172	0.42
2F Demolition	Rubber Tired Dozers	1	6.00	247	0.40
2G Seismic Modification	Excavators	0	8.00	158	0.38
2G Seismic Modification	Graders	1	6.00	187	0.41
2G Seismic Modification	Rubber Tired Dozers	1	6.00	247	0.40
2G Seismic Modification	Scrapers	0	8.00	367	0.48
2G Seismic Modification	Tractors/Loaders/Backhoes	1	6.00	97	0.37
2I Southern Parking Lot	Pavers	2	8.00	130	0.42
2I Southern Parking Lot	Paving Equipment	2	8.00	132	0.36
2I Southern Parking Lot	Rollers	2	8.00	80	0.38

2F Building Construction	Cranes	1	4.00	231	0.29
2F Building Construction	Forklifts	1	6.00	89	0.20
2F Building Construction	Generator Sets	1	6.00	84	0.74
2F Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
2F Building Construction	Welders	1	6.00	46	0.45
3A Demo Interim Housing	Concrete/Industrial Saws	1	6.00	81	0.73
3A Demo Interim Housing	Crushing/Proc. Equipment	1	6.00	85	0.78
3A Demo Interim Housing	Excavators	1	6.00	158	0.38
3A Demo Interim Housing	Other Construction Equipment	1	6.00	172	0.42
3A Demo Interim Housing	Rubber Tired Dozers	1	6.00	247	0.40
3B New Field	Excavators	0	8.00	158	0.38
3B New Field	Graders	1	6.00	187	0.41
3B New Field	Rubber Tired Dozers	1	6.00	247	0.40
3B New Field	Scrapers	0	8.00	367	0.48
3B New Field	Tractors/Loaders/Backhoes	1	6.00	97	0.37
3C Demolition	Concrete/Industrial Saws	1	6.00	81	0.73
3C Demolition	Crushing/Proc. Equipment	1	6.00	85	0.78
3C Demolition	Excavators	1	6.00	158	0.38
3C Demolition	Other Construction Equipment	1	6.00	172	0.42
3C Demolition	Rubber Tired Dozers	1	6.00	247	0.40
2F Architectural Coating	Air Compressors	1	6.00	78	0.48
3C North Parking Lot	Pavers	2	8.00	130	0.42
3C North Parking Lot	Paving Equipment	2	8.00	132	0.36
3C North Parking Lot	Rollers	2	8.00	80	0.38
1A Paving	Air Compressors	1	6.00	78	0.48
1D Paving	Air Compressors	1	6.00	78	0.48
2I Paving	Air Compressors	1	6.00	78	0.48
3C Paving	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
1A Build Site Access	6	150.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
1A Build LAN Room	5	150.00	77.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
1B Demolition	5	50.00	0.00	10.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
1C Electrical and LV Trench	5	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
1D Utilities Installation	5	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
1D Temporary Parking	6	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
1D Bungalow Installation	5	50.00	77.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
2A Seismic Modification	3	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
2B Demolition	5	50.00	0.00	163.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
2B Building Construction	5	50.00	87.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
2C Seismic Modification	3	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
2B Architectural Coating	1	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
2D Seismic Modification	3	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
2E Seismic Modification	3	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
2F Demolition	5	150.00	0.00	375.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
2G Seismic Modification	3	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
2I Southern Parking Lot	6	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
2F Building Construction	5	50.00	87.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
3A Demo Interim Housing	5	50.00	0.00	52.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
3B New Field	3	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
3C Demolition	5	50.00	0.00	11.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
2F Architectural Coating	1	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
3C North Parking Lot	6	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
1A Paving	1	150.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
1D Paving	1	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
2I Paving	1	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
3C Paving	1	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 1A Build Site Access - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926		2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	0.7860					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.1426**	**14.0656**	**14.6521**	**0.0228**		**0.7528**	**0.7528**		**0.6926**	**0.6926**		**2,207.7334**	**2,207.7334**	**0.7140**		**2,225.5841**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.7402	0.4996	5.5437	0.0162	1.6767	0.0128	1.6894	0.4447	0.0118	0.4564		1,609.2769	1,609.2769	0.0463		1,610.4349
Total	**0.7402**	**0.4996**	**5.5437**	**0.0162**	**1.6767**	**0.0128**	**1.6894**	**0.4447**	**0.0118**	**0.4564**		**1,609.2769**	**1,609.2769**	**0.0463**		**1,610.4349**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5609	11.2952	17.2957	0.0228		0.6093	0.6093		0.6093	0.6093	0.0000	2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	0.7860					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3469**	**11.2952**	**17.2957**	**0.0228**		**0.6093**	**0.6093**		**0.6093**	**0.6093**	**0.0000**	**2,207.7334**	**2,207.7334**	**0.7140**		**2,225.5841**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.7402	0.4996	5.5437	0.0162	1.6767	0.0128	1.6894	0.4447	0.0118	0.4564		1,609.2769	1,609.2769	0.0463		1,610.4349
Total	**0.7402**	**0.4996**	**5.5437**	**0.0162**	**1.6767**	**0.0128**	**1.6894**	**0.4447**	**0.0118**	**0.4564**		**1,609.2769**	**1,609.2769**	**0.0463**		**1,610.4349**

3.3 1A Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	24.2281					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
Total	**24.4703**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**		**281.4481**	**281.4481**	**0.0218**		**281.9928**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.7402	0.4996	5.5437	0.0162	1.6767	0.0128	1.6894	0.4447	0.0118	0.4564		1,609.2769	1,609.2769	0.0463		1,610.4349
Total	**0.7402**	**0.4996**	**5.5437**	**0.0162**	**1.6767**	**0.0128**	**1.6894**	**0.4447**	**0.0118**	**0.4564**		**1,609.2769**	**1,609.2769**	**0.0463**		**1,610.4349**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	24.2281					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0218		281.9928
Total	**24.2875**	**1.3570**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4481**	**281.4481**	**0.0218**		**281.9928**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.7402	0.4996	5.5437	0.0162	1.6767	0.0128	1.6894	0.4447	0.0118	0.4564		1,609.2769	1,609.2769	0.0463		1,610.4349
Total	**0.7402**	**0.4996**	**5.5437**	**0.0162**	**1.6767**	**0.0128**	**1.6894**	**0.4447**	**0.0118**	**0.4564**		**1,609.2769**	**1,609.2769**	**0.0463**		**1,610.4349**

3.4 1A Build LAN Room - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0477	9.0352	7.7571	0.0132		0.4958	0.4958		0.4731	0.4731		1,238.8785	1,238.8785	0.2485		1,245.0920
Total	**1.0477**	**9.0352**	**7.7571**	**0.0132**		**0.4958**	**0.4958**		**0.4731**	**0.4731**		**1,238.8785**	**1,238.8785**	**0.2485**		**1,245.0920**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2673	8.1067	2.1859	0.0191	0.4927	0.0408	0.5335	0.1418	0.0390	0.1808		2,043.4059	2,043.4059	0.1437		2,046.9982
Worker	0.7402	0.4996	5.5437	0.0162	1.6767	0.0128	1.6894	0.4447	0.0118	0.4564		1,609.2769	1,609.2769	0.0463		1,610.4349
Total	**1.0075**	**8.6064**	**7.7296**	**0.0353**	**2.1694**	**0.0535**	**2.2229**	**0.5865**	**0.0508**	**0.6373**		**3,652.6829**	**3,652.6829**	**0.1900**		**3,657.4331**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5114	6.7479	8.5312	0.0132		0.4114	0.4114		0.4114	0.4114	0.0000	1,238.8785	1,238.8785	0.2485		1,245.0920
Total	**0.5114**	**6.7479**	**8.5312**	**0.0132**		**0.4114**	**0.4114**		**0.4114**	**0.4114**	**0.0000**	**1,238.8785**	**1,238.8785**	**0.2485**		**1,245.0920**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2673	8.1067	2.1859	0.0191	0.4927	0.0408	0.5335	0.1418	0.0390	0.1808		2,043.4059	2,043.4059	0.1437		2,046.9982
Worker	0.7402	0.4996	5.5437	0.0162	1.6767	0.0128	1.6894	0.4447	0.0118	0.4564		1,609.2769	1,609.2769	0.0463		1,610.4349
Total	**1.0075**	**8.6064**	**7.7296**	**0.0353**	**2.1694**	**0.0535**	**2.2229**	**0.5865**	**0.0508**	**0.6373**		**3,652.6829**	**3,652.6829**	**0.1900**		**3,657.4331**

3.5 1B Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1065	0.0000	0.1065	0.0161	0.0000	0.0161			0.0000			0.0000
Off-Road	2.0923	19.5613	14.6702	0.0249		1.0405	1.0405		0.9836	0.9836		2,387.5948	2,387.5948	0.5322		2,400.9007
Total	**2.0923**	**19.5613**	**14.6702**	**0.0249**	**0.1065**	**1.0405**	**1.1470**	**0.0161**	**0.9836**	**0.9997**		**2,387.5948**	**2,387.5948**	**0.5322**		**2,400.9007**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.8900e-003	0.1344	0.0295	3.6000e-004	8.3200e-003	4.4000e-004	8.7500e-003	2.2800e-003	4.2000e-004	2.7000e-003		39.4292	39.4292	2.9500e-003		39.5028
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2467	0.1665	1.8479	5.3800e-003	0.5589	4.2600e-003	0.5632	0.1482	3.9300e-003	0.1522		536.4256	536.4256	0.0154		536.8117
Total	**0.2506**	**0.3010**	**1.8774**	**5.7400e-003**	**0.5672**	**4.7000e-003**	**0.5719**	**0.1505**	**4.3500e-003**	**0.1549**		**575.8548**	**575.8548**	**0.0184**		**576.3145**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0415	0.0000	0.0415	6.2900e-003	0.0000	6.2900e-003			0.0000			0.0000
Off-Road	0.5659	11.6376	16.0109	0.0249		0.6295	0.6295		0.6295	0.6295	0.0000	2,387.5948	2,387.5948	0.5322		2,400.9007
Total	**0.5659**	**11.6376**	**16.0109**	**0.0249**	**0.0415**	**0.6295**	**0.6711**	**6.2900e-003**	**0.6295**	**0.6358**	**0.0000**	**2,387.5948**	**2,387.5948**	**0.5322**		**2,400.9007**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.8900e-003	0.1344	0.0295	3.6000e-004	8.3200e-003	4.4000e-004	8.7500e-003	2.2800e-003	4.2000e-004	2.7000e-003		39.4292	39.4292	2.9500e-003		39.5028
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2467	0.1665	1.8479	5.3800e-003	0.5589	4.2600e-003	0.5632	0.1482	3.9300e-003	0.1522		536.4256	536.4256	0.0154		536.8117
Total	**0.2506**	**0.3010**	**1.8774**	**5.7400e-003**	**0.5672**	**4.7000e-003**	**0.5719**	**0.1505**	**4.3500e-003**	**0.1549**		**575.8548**	**575.8548**	**0.0184**		**576.3145**

3.6 1C Electrical and LV Trench - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0923	19.5613	14.6702	0.0249		1.0405	1.0405		0.9836	0.9836		2,387.5948	2,387.5948	0.5322		2,400.9007
Total	**2.0923**	**19.5613**	**14.6702**	**0.0249**		**1.0405**	**1.0405**		**0.9836**	**0.9836**		**2,387.5948**	**2,387.5948**	**0.5322**		**2,400.9007**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2467	0.1665	1.8479	5.3800e-003	0.5589	4.2600e-003	0.5632	0.1482	3.9300e-003	0.1522		536.4256	536.4256	0.0154		536.8117
Total	**0.2467**	**0.1665**	**1.8479**	**5.3800e-003**	**0.5589**	**4.2600e-003**	**0.5632**	**0.1482**	**3.9300e-003**	**0.1522**		**536.4256**	**536.4256**	**0.0154**		**536.8117**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5659	11.6376	16.0109	0.0249		0.6295	0.6295		0.6295	0.6295	0.0000	2,387.5948	2,387.5948	0.5322		2,400.9007
Total	**0.5659**	**11.6376**	**16.0109**	**0.0249**		**0.6295**	**0.6295**		**0.6295**	**0.6295**	**0.0000**	**2,387.5948**	**2,387.5948**	**0.5322**		**2,400.9007**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2467	0.1665	1.8479	5.3800e-003	0.5589	4.2600e-003	0.5632	0.1482	3.9300e-003	0.1522		536.4256	536.4256	0.0154		536.8117
Total	**0.2467**	**0.1665**	**1.8479**	**5.3800e-003**	**0.5589**	**4.2600e-003**	**0.5632**	**0.1482**	**3.9300e-003**	**0.1522**		**536.4256**	**536.4256**	**0.0154**		**536.8117**

3.7 1D Utilities Installation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0923	19.5613	14.6702	0.0249		1.0405	1.0405		0.9836	0.9836		2,387.5948	2,387.5948	0.5322		2,400.9007
Total	**2.0923**	**19.5613**	**14.6702**	**0.0249**		**1.0405**	**1.0405**		**0.9836**	**0.9836**		**2,387.5948**	**2,387.5948**	**0.5322**		**2,400.9007**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2467	0.1665	1.8479	5.3800e-003	0.5589	4.2600e-003	0.5632	0.1482	3.9300e-003	0.1522		536.4256	536.4256	0.0154		536.8117
Total	**0.2467**	**0.1665**	**1.8479**	**5.3800e-003**	**0.5589**	**4.2600e-003**	**0.5632**	**0.1482**	**3.9300e-003**	**0.1522**		**536.4256**	**536.4256**	**0.0154**		**536.8117**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5659	11.6376	16.0109	0.0249		0.6295	0.6295		0.6295	0.6295	0.0000	2,387.5948	2,387.5948	0.5322		2,400.9007
Total	**0.5659**	**11.6376**	**16.0109**	**0.0249**		**0.6295**	**0.6295**		**0.6295**	**0.6295**	**0.0000**	**2,387.5948**	**2,387.5948**	**0.5322**		**2,400.9007**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2467	0.1665	1.8479	5.3800e-003	0.5589	4.2600e-003	0.5632	0.1482	3.9300e-003	0.1522		536.4256	536.4256	0.0154		536.8117
Total	**0.2467**	**0.1665**	**1.8479**	**5.3800e-003**	**0.5589**	**4.2600e-003**	**0.5632**	**0.1482**	**3.9300e-003**	**0.1522**		**536.4256**	**536.4256**	**0.0154**		**536.8117**

3.8 1D Temporary Parking - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926		2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	0.3417					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6983**	**14.0656**	**14.6521**	**0.0228**		**0.7528**	**0.7528**		**0.6926**	**0.6926**		**2,207.7334**	**2,207.7334**	**0.7140**		**2,225.5841**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2467	0.1665	1.8479	5.3800e-003	0.5589	4.2600e-003	0.5632	0.1482	3.9300e-003	0.1522		536.4256	536.4256	0.0154		536.8117
Total	**0.2467**	**0.1665**	**1.8479**	**5.3800e-003**	**0.5589**	**4.2600e-003**	**0.5632**	**0.1482**	**3.9300e-003**	**0.1522**		**536.4256**	**536.4256**	**0.0154**		**536.8117**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5609	11.2952	17.2957	0.0228		0.6093	0.6093		0.6093	0.6093	0.0000	2,207.7334	2,207.7334	0.7140		2,225.5841
Paving	0.3417					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9027**	**11.2952**	**17.2957**	**0.0228**		**0.6093**	**0.6093**		**0.6093**	**0.6093**	**0.0000**	**2,207.7334**	**2,207.7334**	**0.7140**		**2,225.5841**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2467	0.1665	1.8479	5.3800e-003	0.5589	4.2600e-003	0.5632	0.1482	3.9300e-003	0.1522		536.4256	536.4256	0.0154		536.8117
Total	**0.2467**	**0.1665**	**1.8479**	**5.3800e-003**	**0.5589**	**4.2600e-003**	**0.5632**	**0.1482**	**3.9300e-003**	**0.1522**		**536.4256**	**536.4256**	**0.0154**		**536.8117**

3.8 1D Temporary Parking - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235		2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.3417					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.5973**	**12.9191**	**14.6532**	**0.0228**		**0.6777**	**0.6777**		**0.6235**	**0.6235**		**2,207.2109**	**2,207.2109**	**0.7139**		**2,225.0573**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2306	0.1499	1.6993	5.2100e-003	0.5589	4.1400e-003	0.5630	0.1482	3.8100e-003	0.1520		519.0756	519.0756	0.0140		519.4246
Total	**0.2306**	**0.1499**	**1.6993**	**5.2100e-003**	**0.5589**	**4.1400e-003**	**0.5630**	**0.1482**	**3.8100e-003**	**0.1520**		**519.0756**	**519.0756**	**0.0140**		**519.4246**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5609	11.2952	17.2957	0.0228		0.6093	0.6093		0.6093	0.6093	0.0000	2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.3417					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9027**	**11.2952**	**17.2957**	**0.0228**		**0.6093**	**0.6093**		**0.6093**	**0.6093**	**0.0000**	**2,207.2109**	**2,207.2109**	**0.7139**		**2,225.0573**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2306	0.1499	1.6993	5.2100e-003	0.5589	4.1400e-003	0.5630	0.1482	3.8100e-003	0.1520		519.0756	519.0756	0.0140		519.4246
Total	**0.2306**	**0.1499**	**1.6993**	**5.2100e-003**	**0.5589**	**4.1400e-003**	**0.5630**	**0.1482**	**3.8100e-003**	**0.1520**		**519.0756**	**519.0756**	**0.0140**		**519.4246**

3.9 1D Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	12.2896					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
Total	**12.5318**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**		**281.4481**	**281.4481**	**0.0218**		**281.9928**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2467	0.1665	1.8479	5.3800e-003	0.5589	4.2600e-003	0.5632	0.1482	3.9300e-003	0.1522		536.4256	536.4256	0.0154		536.8117
Total	**0.2467**	**0.1665**	**1.8479**	**5.3800e-003**	**0.5589**	**4.2600e-003**	**0.5632**	**0.1482**	**3.9300e-003**	**0.1522**		**536.4256**	**536.4256**	**0.0154**		**536.8117**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	12.2896					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0218		281.9928
Total	**12.3490**	**1.3570**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4481**	**281.4481**	**0.0218**		**281.9928**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2467	0.1665	1.8479	5.3800e-003	0.5589	4.2600e-003	0.5632	0.1482	3.9300e-003	0.1522		536.4256	536.4256	0.0154		536.8117
Total	**0.2467**	**0.1665**	**1.8479**	**5.3800e-003**	**0.5589**	**4.2600e-003**	**0.5632**	**0.1482**	**3.9300e-003**	**0.1522**		**536.4256**	**536.4256**	**0.0154**		**536.8117**

3.9 1D Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	12.2896					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	**12.5085**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**		**281.4481**	**281.4481**	**0.0193**		**281.9309**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2306	0.1499	1.6993	5.2100e-003	0.5589	4.1400e-003	0.5630	0.1482	3.8100e-003	0.1520		519.0756	519.0756	0.0140		519.4246
Total	**0.2306**	**0.1499**	**1.6993**	**5.2100e-003**	**0.5589**	**4.1400e-003**	**0.5630**	**0.1482**	**3.8100e-003**	**0.1520**		**519.0756**	**519.0756**	**0.0140**		**519.4246**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	12.2896					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0193		281.9309
Total	**12.3490**	**1.3570**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4481**	**281.4481**	**0.0193**		**281.9309**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2306	0.1499	1.6993	5.2100e-003	0.5589	4.1400e-003	0.5630	0.1482	3.8100e-003	0.1520		519.0756	519.0756	0.0140		519.4246
Total	**0.2306**	**0.1499**	**1.6993**	**5.2100e-003**	**0.5589**	**4.1400e-003**	**0.5630**	**0.1482**	**3.8100e-003**	**0.1520**		**519.0756**	**519.0756**	**0.0140**		**519.4246**

3.10 1D Bungalow Installation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9390	8.2372	7.6151	0.0132		0.4264	0.4264		0.4068	0.4068		1,238.9518	1,238.9518	0.2434		1,245.0357
Total	**0.9390**	**8.2372**	**7.6151**	**0.0132**		**0.4264**	**0.4264**		**0.4068**	**0.4068**		**1,238.9518**	**1,238.9518**	**0.2434**		**1,245.0357**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2276	7.3567	1.9904	0.0190	0.4927	0.0155	0.5082	0.1418	0.0149	0.1567		2,027.9781	2,027.9781	0.1378		2,031.4224
Worker	0.2306	0.1499	1.6993	5.2100e-003	0.5589	4.1400e-003	0.5630	0.1482	3.8100e-003	0.1520		519.0756	519.0756	0.0140		519.4246
Total	**0.4582**	**7.5066**	**3.6897**	**0.0242**	**1.0516**	**0.0197**	**1.0713**	**0.2901**	**0.0187**	**0.3087**		**2,547.0537**	**2,547.0537**	**0.1517**		**2,550.8470**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4818	6.7011	8.4951	0.0132		0.4018	0.4018		0.4018	0.4018	0.0000	1,238.9518	1,238.9518	0.2434		1,245.0357
Total	**0.4818**	**6.7011**	**8.4951**	**0.0132**		**0.4018**	**0.4018**		**0.4018**	**0.4018**	**0.0000**	**1,238.9518**	**1,238.9518**	**0.2434**		**1,245.0357**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2276	7.3567	1.9904	0.0190	0.4927	0.0155	0.5082	0.1418	0.0149	0.1567		2,027.9781	2,027.9781	0.1378		2,031.4224
Worker	0.2306	0.1499	1.6993	5.2100e-003	0.5589	4.1400e-003	0.5630	0.1482	3.8100e-003	0.1520		519.0756	519.0756	0.0140		519.4246
Total	**0.4582**	**7.5066**	**3.6897**	**0.0242**	**1.0516**	**0.0197**	**1.0713**	**0.2901**	**0.0187**	**0.3087**		**2,547.0537**	**2,547.0537**	**0.1517**		**2,550.8470**

3.11 2A Seismic Modification - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.2650	14.0938	6.0489	0.0137		0.6239	0.6239		0.5740	0.5740		1,327.4523	1,327.4523	0.4293		1,338.1854
Total	**1.2650**	**14.0938**	**6.0489**	**0.0137**	**4.9143**	**0.6239**	**5.5382**	**2.5256**	**0.5740**	**3.0996**		**1,327.4523**	**1,327.4523**	**0.4293**		**1,338.1854**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2306	0.1499	1.6993	5.2100e-003	0.5589	4.1400e-003	0.5630	0.1482	3.8100e-003	0.1520		519.0756	519.0756	0.0140		519.4246
Total	**0.2306**	**0.1499**	**1.6993**	**5.2100e-003**	**0.5589**	**4.1400e-003**	**0.5630**	**0.1482**	**3.8100e-003**	**0.1520**		**519.0756**	**519.0756**	**0.0140**		**519.4246**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.9166	0.0000	1.9166	0.9850	0.0000	0.9850			0.0000			0.0000
Off-Road	0.3355	6.6857	7.7913	0.0137		0.2954	0.2954		0.2954	0.2954	0.0000	1,327.4523	1,327.4523	0.4293		1,338.1854
Total	**0.3355**	**6.6857**	**7.7913**	**0.0137**	**1.9166**	**0.2954**	**2.2120**	**0.9850**	**0.2954**	**1.2804**	**0.0000**	**1,327.4523**	**1,327.4523**	**0.4293**		**1,338.1854**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2306	0.1499	1.6993	5.2100e-003	0.5589	4.1400e-003	0.5630	0.1482	3.8100e-003	0.1520		519.0756	519.0756	0.0140		519.4246
Total	**0.2306**	**0.1499**	**1.6993**	**5.2100e-003**	**0.5589**	**4.1400e-003**	**0.5630**	**0.1482**	**3.8100e-003**	**0.1520**		**519.0756**	**519.0756**	**0.0140**		**519.4246**

3.11 2A Seismic Modification - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.0626	11.7952	5.6563	0.0137		0.5060	0.5060		0.4655	0.4655		1,327.1649	1,327.1649	0.4292		1,337.8957
Total	**1.0626**	**11.7952**	**5.6563**	**0.0137**	**4.9143**	**0.5060**	**5.4203**	**2.5256**	**0.4655**	**2.9912**		**1,327.1649**	**1,327.1649**	**0.4292**		**1,337.8957**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2169	0.1354	1.5687	5.0200e-003	0.5589	4.0200e-003	0.5629	0.1482	3.7000e-003	0.1519		500.4894	500.4894	0.0126		500.8047
Total	**0.2169**	**0.1354**	**1.5687**	**5.0200e-003**	**0.5589**	**4.0200e-003**	**0.5629**	**0.1482**	**3.7000e-003**	**0.1519**		**500.4894**	**500.4894**	**0.0126**		**500.8047**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.9166	0.0000	1.9166	0.9850	0.0000	0.9850			0.0000			0.0000
Off-Road	0.3355	6.6857	7.7913	0.0137		0.2954	0.2954		0.2954	0.2954	0.0000	1,327.1649	1,327.1649	0.4292		1,337.8957
Total	**0.3355**	**6.6857**	**7.7913**	**0.0137**	**1.9166**	**0.2954**	**2.2120**	**0.9850**	**0.2954**	**1.2804**	**0.0000**	**1,327.1649**	**1,327.1649**	**0.4292**		**1,337.8957**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2169	0.1354	1.5687	5.0200e-003	0.5589	4.0200e-003	0.5629	0.1482	3.7000e-003	0.1519		500.4894	500.4894	0.0126		500.8047
Total	**0.2169**	**0.1354**	**1.5687**	**5.0200e-003**	**0.5589**	**4.0200e-003**	**0.5629**	**0.1482**	**3.7000e-003**	**0.1519**		**500.4894**	**500.4894**	**0.0126**		**500.8047**

3.11 2A Seismic Modification - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	0.9146	9.9869	5.2727	0.0137		0.4106	0.4106		0.3778	0.3778		1,327.0743	1,327.0743	0.4292		1,337.8043
Total	**0.9146**	**9.9869**	**5.2727**	**0.0137**	**4.9143**	**0.4106**	**5.3249**	**2.5256**	**0.3778**	**2.9034**		**1,327.0743**	**1,327.0743**	**0.4292**		**1,337.8043**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2046	0.1225	1.4459	4.8300e-003	0.5589	3.9100e-003	0.5628	0.1482	3.6000e-003	0.1518		481.8463	481.8463	0.0114		482.1304
Total	**0.2046**	**0.1225**	**1.4459**	**4.8300e-003**	**0.5589**	**3.9100e-003**	**0.5628**	**0.1482**	**3.6000e-003**	**0.1518**		**481.8463**	**481.8463**	**0.0114**		**482.1304**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.9166	0.0000	1.9166	0.9850	0.0000	0.9850			0.0000			0.0000
Off-Road	0.3355	6.6857	7.7913	0.0137		0.2954	0.2954		0.2954	0.2954	0.0000	1,327.0743	1,327.0743	0.4292		1,337.8043
Total	**0.3355**	**6.6857**	**7.7913**	**0.0137**	**1.9166**	**0.2954**	**2.2120**	**0.9850**	**0.2954**	**1.2804**	**0.0000**	**1,327.0743**	**1,327.0743**	**0.4292**		**1,337.8043**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2046	0.1225	1.4459	4.8300e-003	0.5589	3.9100e-003	0.5628	0.1482	3.6000e-003	0.1518		481.8463	481.8463	0.0114		482.1304
Total	**0.2046**	**0.1225**	**1.4459**	**4.8300e-003**	**0.5589**	**3.9100e-003**	**0.5628**	**0.1482**	**3.6000e-003**	**0.1518**		**481.8463**	**481.8463**	**0.0114**		**482.1304**

3.12 2B Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.6033	0.0000	1.6033	0.2428	0.0000	0.2428			0.0000			0.0000
Off-Road	1.9443	18.0290	14.5336	0.0249		0.9354	0.9354		0.8835	0.8835		2,387.4475	2,387.4475	0.5272		2,400.6278
Total	**1.9443**	**18.0290**	**14.5336**	**0.0249**	**1.6033**	**0.9354**	**2.5388**	**0.2428**	**0.8835**	**1.1262**		**2,387.4475**	**2,387.4475**	**0.5272**		**2,400.6278**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0578	1.9447	0.4521	5.5900e-003	0.1294	6.0800e-003	0.1355	0.0355	5.8200e-003	0.0413		606.7723	606.7723	0.0451		607.9008
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2306	0.1499	1.6993	5.2100e-003	0.5589	4.1400e-003	0.5630	0.1482	3.8100e-003	0.1520		519.0756	519.0756	0.0140		519.4246
Total	**0.2884**	**2.0946**	**2.1514**	**0.0108**	**0.6883**	**0.0102**	**0.6985**	**0.1837**	**9.6300e-003**	**0.1933**		**1,125.8479**	**1,125.8479**	**0.0591**		**1,127.3254**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6253	0.0000	0.6253	0.0947	0.0000	0.0947			0.0000			0.0000
Off-Road	0.5659	11.6376	16.0109	0.0249		0.6295	0.6295		0.6295	0.6295	0.0000	2,387.4475	2,387.4475	0.5272		2,400.6278
Total	**0.5659**	**11.6376**	**16.0109**	**0.0249**	**0.6253**	**0.6295**	**1.2548**	**0.0947**	**0.6295**	**0.7242**	**0.0000**	**2,387.4475**	**2,387.4475**	**0.5272**		**2,400.6278**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0578	1.9447	0.4521	5.5900e-003	0.1294	6.0800e-003	0.1355	0.0355	5.8200e-003	0.0413		606.7723	606.7723	0.0451		607.9008
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2306	0.1499	1.6993	5.2100e-003	0.5589	4.1400e-003	0.5630	0.1482	3.8100e-003	0.1520		519.0756	519.0756	0.0140		519.4246
Total	**0.2884**	**2.0946**	**2.1514**	**0.0108**	**0.6883**	**0.0102**	**0.6985**	**0.1837**	**9.6300e-003**	**0.1933**		**1,125.8479**	**1,125.8479**	**0.0591**		**1,127.3254**

3.13 2B Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9390	8.2372	7.6151	0.0132		0.4264	0.4264		0.4068	0.4068		1,238.9518	1,238.9518	0.2434		1,245.0357
Total	**0.9390**	**8.2372**	**7.6151**	**0.0132**		**0.4264**	**0.4264**		**0.4068**	**0.4068**		**1,238.9518**	**1,238.9518**	**0.2434**		**1,245.0357**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2572	8.3121	2.2488	0.0214	0.5567	0.0176	0.5742	0.1603	0.0168	0.1770		2,291.3519	2,291.3519	0.1557		2,295.2435
Worker	0.2306	0.1499	1.6993	5.2100e-003	0.5589	4.1400e-003	0.5630	0.1482	3.8100e-003	0.1520		519.0756	519.0756	0.0140		519.4246
Total	**0.4877**	**8.4620**	**3.9482**	**0.0266**	**1.1156**	**0.0217**	**1.1373**	**0.3085**	**0.0206**	**0.3291**		**2,810.4275**	**2,810.4275**	**0.1696**		**2,814.6681**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4818	6.7011	8.4951	0.0132		0.4018	0.4018		0.4018	0.4018	0.0000	1,238.9518	1,238.9518	0.2434		1,245.0357
Total	**0.4818**	**6.7011**	**8.4951**	**0.0132**		**0.4018**	**0.4018**		**0.4018**	**0.4018**	**0.0000**	**1,238.9518**	**1,238.9518**	**0.2434**		**1,245.0357**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2572	8.3121	2.2488	0.0214	0.5567	0.0176	0.5742	0.1603	0.0168	0.1770		2,291.3519	2,291.3519	0.1557		2,295.2435
Worker	0.2306	0.1499	1.6993	5.2100e-003	0.5589	4.1400e-003	0.5630	0.1482	3.8100e-003	0.1520		519.0756	519.0756	0.0140		519.4246
Total	**0.4877**	**8.4620**	**3.9482**	**0.0266**	**1.1156**	**0.0217**	**1.1373**	**0.3085**	**0.0206**	**0.3291**		**2,810.4275**	**2,810.4275**	**0.1696**		**2,814.6681**

3.13 2B Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8503	7.4334	7.5188	0.0132		0.3650	0.3650		0.3484	0.3484		1,239.2517	1,239.2517	0.2402		1,245.2559
Total	**0.8503**	**7.4334**	**7.5188**	**0.0132**		**0.3650**	**0.3650**		**0.3484**	**0.3484**		**1,239.2517**	**1,239.2517**	**0.2402**		**1,245.2559**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2414	7.8895	2.1300	0.0212	0.5567	0.0153	0.5720	0.1603	0.0146	0.1749		2,270.8924	2,270.8924	0.1502		2,274.6474
Worker	0.2169	0.1354	1.5687	5.0200e-003	0.5589	4.0200e-003	0.5629	0.1482	3.7000e-003	0.1519		500.4894	500.4894	0.0126		500.8047
Total	**0.4583**	**8.0249**	**3.6986**	**0.0262**	**1.1156**	**0.0193**	**1.1349**	**0.3085**	**0.0183**	**0.3268**		**2,771.3818**	**2,771.3818**	**0.1628**		**2,775.4521**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4623	6.6666	8.4778	0.0132		0.3941	0.3941		0.3941	0.3941	0.0000	1,239.2517	1,239.2517	0.2402		1,245.2559
Total	**0.4623**	**6.6666**	**8.4778**	**0.0132**		**0.3941**	**0.3941**		**0.3941**	**0.3941**	**0.0000**	**1,239.2517**	**1,239.2517**	**0.2402**		**1,245.2559**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2414	7.8895	2.1300	0.0212	0.5567	0.0153	0.5720	0.1603	0.0146	0.1749		2,270.8924	2,270.8924	0.1502		2,274.6474
Worker	0.2169	0.1354	1.5687	5.0200e-003	0.5589	4.0200e-003	0.5629	0.1482	3.7000e-003	0.1519		500.4894	500.4894	0.0126		500.8047
Total	**0.4583**	**8.0249**	**3.6986**	**0.0262**	**1.1156**	**0.0193**	**1.1349**	**0.3085**	**0.0183**	**0.3268**		**2,771.3818**	**2,771.3818**	**0.1628**		**2,775.4521**

3.13 2B Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7864	6.8814	7.4598	0.0132		0.3186	0.3186		0.3041	0.3041		1,239.4993	1,239.4993	0.2370		1,245.4233
Total	**0.7864**	**6.8814**	**7.4598**	**0.0132**		**0.3186**	**0.3186**		**0.3041**	**0.3041**		**1,239.4993**	**1,239.4993**	**0.2370**		**1,245.4233**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1792	5.9339	1.8889	0.0205	0.5567	7.1800e-003	0.5639	0.1603	6.8600e-003	0.1671		2,201.3620	2,201.3620	0.1319		2,204.6591
Worker	0.2046	0.1225	1.4459	4.8300e-003	0.5589	3.9100e-003	0.5628	0.1482	3.6000e-003	0.1518		481.8463	481.8463	0.0114		482.1304
Total	**0.3837**	**6.0563**	**3.3348**	**0.0254**	**1.1156**	**0.0111**	**1.1267**	**0.3085**	**0.0105**	**0.3189**		**2,683.2083**	**2,683.2083**	**0.1433**		**2,686.7895**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4456	6.6348	8.4644	0.0132		0.3876	0.3876		0.3876	0.3876	0.0000	1,239.4993	1,239.4993	0.2370		1,245.4233
Total	**0.4456**	**6.6348**	**8.4644**	**0.0132**		**0.3876**	**0.3876**		**0.3876**	**0.3876**	**0.0000**	**1,239.4993**	**1,239.4993**	**0.2370**		**1,245.4233**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1792	5.9339	1.8889	0.0205	0.5567	7.1800e-003	0.5639	0.1603	6.8600e-003	0.1671		2,201.3620	2,201.3620	0.1319		2,204.6591
Worker	0.2046	0.1225	1.4459	4.8300e-003	0.5589	3.9100e-003	0.5628	0.1482	3.6000e-003	0.1518		481.8463	481.8463	0.0114		482.1304
Total	**0.3837**	**6.0563**	**3.3348**	**0.0254**	**1.1156**	**0.0111**	**1.1267**	**0.3085**	**0.0105**	**0.3189**		**2,683.2083**	**2,683.2083**	**0.1433**		**2,686.7895**

3.14 2C Seismic Modification - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.0626	11.7952	5.6563	0.0137		0.5060	0.5060		0.4655	0.4655		1,327.1649	1,327.1649	0.4292		1,337.8957
Total	**1.0626**	**11.7952**	**5.6563**	**0.0137**	**4.9143**	**0.5060**	**5.4203**	**2.5256**	**0.4655**	**2.9912**		**1,327.1649**	**1,327.1649**	**0.4292**		**1,337.8957**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2169	0.1354	1.5687	5.0200e-003	0.5589	4.0200e-003	0.5629	0.1482	3.7000e-003	0.1519		500.4894	500.4894	0.0126		500.8047
Total	**0.2169**	**0.1354**	**1.5687**	**5.0200e-003**	**0.5589**	**4.0200e-003**	**0.5629**	**0.1482**	**3.7000e-003**	**0.1519**		**500.4894**	**500.4894**	**0.0126**		**500.8047**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.9166	0.0000	1.9166	0.9850	0.0000	0.9850			0.0000			0.0000
Off-Road	0.3355	6.6857	7.7913	0.0137		0.2954	0.2954		0.2954	0.2954	0.0000	1,327.1649	1,327.1649	0.4292		1,337.8957
Total	**0.3355**	**6.6857**	**7.7913**	**0.0137**	**1.9166**	**0.2954**	**2.2120**	**0.9850**	**0.2954**	**1.2804**	**0.0000**	**1,327.1649**	**1,327.1649**	**0.4292**		**1,337.8957**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2169	0.1354	1.5687	5.0200e-003	0.5589	4.0200e-003	0.5629	0.1482	3.7000e-003	0.1519		500.4894	500.4894	0.0126		500.8047
Total	**0.2169**	**0.1354**	**1.5687**	**5.0200e-003**	**0.5589**	**4.0200e-003**	**0.5629**	**0.1482**	**3.7000e-003**	**0.1519**		**500.4894**	**500.4894**	**0.0126**		**500.8047**

3.14 2C Seismic Modification - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	0.9146	9.9869	5.2727	0.0137		0.4106	0.4106		0.3778	0.3778		1,327.0743	1,327.0743	0.4292		1,337.8043
Total	**0.9146**	**9.9869**	**5.2727**	**0.0137**	**4.9143**	**0.4106**	**5.3249**	**2.5256**	**0.3778**	**2.9034**		**1,327.0743**	**1,327.0743**	**0.4292**		**1,337.8043**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2046	0.1225	1.4459	4.8300e-003	0.5589	3.9100e-003	0.5628	0.1482	3.6000e-003	0.1518		481.8463	481.8463	0.0114		482.1304
Total	**0.2046**	**0.1225**	**1.4459**	**4.8300e-003**	**0.5589**	**3.9100e-003**	**0.5628**	**0.1482**	**3.6000e-003**	**0.1518**		**481.8463**	**481.8463**	**0.0114**		**482.1304**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.9166	0.0000	1.9166	0.9850	0.0000	0.9850			0.0000			0.0000
Off-Road	0.3355	6.6857	7.7913	0.0137		0.2954	0.2954		0.2954	0.2954	0.0000	1,327.0743	1,327.0743	0.4292		1,337.8043
Total	**0.3355**	**6.6857**	**7.7913**	**0.0137**	**1.9166**	**0.2954**	**2.2120**	**0.9850**	**0.2954**	**1.2804**	**0.0000**	**1,327.0743**	**1,327.0743**	**0.4292**		**1,337.8043**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2046	0.1225	1.4459	4.8300e-003	0.5589	3.9100e-003	0.5628	0.1482	3.6000e-003	0.1518		481.8463	481.8463	0.0114		482.1304
Total	**0.2046**	**0.1225**	**1.4459**	**4.8300e-003**	**0.5589**	**3.9100e-003**	**0.5628**	**0.1482**	**3.6000e-003**	**0.1518**		**481.8463**	**481.8463**	**0.0114**		**482.1304**

3.15 2B Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	47.3854					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**47.5771**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2046	0.1225	1.4459	4.8300e-003	0.5589	3.9100e-003	0.5628	0.1482	3.6000e-003	0.1518		481.8463	481.8463	0.0114		482.1304
Total	**0.2046**	**0.1225**	**1.4459**	**4.8300e-003**	**0.5589**	**3.9100e-003**	**0.5628**	**0.1482**	**3.6000e-003**	**0.1518**		**481.8463**	**481.8463**	**0.0114**		**482.1304**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	47.3854					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**47.4448**	**1.3570**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2046	0.1225	1.4459	4.8300e-003	0.5589	3.9100e-003	0.5628	0.1482	3.6000e-003	0.1518		481.8463	481.8463	0.0114		482.1304
Total	**0.2046**	**0.1225**	**1.4459**	**4.8300e-003**	**0.5589**	**3.9100e-003**	**0.5628**	**0.1482**	**3.6000e-003**	**0.1518**		**481.8463**	**481.8463**	**0.0114**		**482.1304**

3.16 2F Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.8676	0.0000	3.8676	0.5856	0.0000	0.5856			0.0000			0.0000
Off-Road	1.5043	13.2615	13.7630	0.0249		0.6437	0.6437		0.6092	0.6092		2,386.9229	2,386.9229	0.5188		2,399.8915
Total	**1.5043**	**13.2615**	**13.7630**	**0.0249**	**3.8676**	**0.6437**	**4.5114**	**0.5856**	**0.6092**	**1.1948**		**2,386.9229**	**2,386.9229**	**0.5188**		**2,399.8915**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0870	2.7795	0.9659	0.0127	0.3119	5.2700e-003	0.3172	0.0855	5.0400e-003	0.0905		1,385.6934	1,385.6934	0.0988		1,388.1638
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6136	0.3674	4.3376	0.0145	1.6767	0.0117	1.6884	0.4447	0.0108	0.4555		1,445.5389	1,445.5389	0.0341		1,446.3910
Total	**0.7006**	**3.1469**	**5.3035**	**0.0272**	**1.9885**	**0.0170**	**2.0056**	**0.5301**	**0.0159**	**0.5460**		**2,831.2322**	**2,831.2322**	**0.1329**		**2,834.5548**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5084	0.0000	1.5084	0.2284	0.0000	0.2284			0.0000			0.0000
Off-Road	0.5659	11.6376	16.0109	0.0249		0.6295	0.6295		0.6295	0.6295	0.0000	2,386.9229	2,386.9229	0.5188		2,399.8915
Total	**0.5659**	**11.6376**	**16.0109**	**0.0249**	**1.5084**	**0.6295**	**2.1379**	**0.2284**	**0.6295**	**0.8579**	**0.0000**	**2,386.9229**	**2,386.9229**	**0.5188**		**2,399.8915**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0870	2.7795	0.9659	0.0127	0.3119	5.2700e-003	0.3172	0.0855	5.0400e-003	0.0905		1,385.6934	1,385.6934	0.0988		1,388.1638
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6136	0.3674	4.3376	0.0145	1.6767	0.0117	1.6884	0.4447	0.0108	0.4555		1,445.5389	1,445.5389	0.0341		1,446.3910
Total	**0.7006**	**3.1469**	**5.3035**	**0.0272**	**1.9885**	**0.0170**	**2.0056**	**0.5301**	**0.0159**	**0.5460**		**2,831.2322**	**2,831.2322**	**0.1329**		**2,834.5548**

3.17 2D Seismic Modification - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	0.9146	9.9869	5.2727	0.0137		0.4106	0.4106		0.3778	0.3778		1,327.0743	1,327.0743	0.4292		1,337.8043
Total	**0.9146**	**9.9869**	**5.2727**	**0.0137**	**4.9143**	**0.4106**	**5.3249**	**2.5256**	**0.3778**	**2.9034**		**1,327.0743**	**1,327.0743**	**0.4292**		**1,337.8043**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2046	0.1225	1.4459	4.8300e-003	0.5589	3.9100e-003	0.5628	0.1482	3.6000e-003	0.1518		481.8463	481.8463	0.0114		482.1304
Total	**0.2046**	**0.1225**	**1.4459**	**4.8300e-003**	**0.5589**	**3.9100e-003**	**0.5628**	**0.1482**	**3.6000e-003**	**0.1518**		**481.8463**	**481.8463**	**0.0114**		**482.1304**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.9166	0.0000	1.9166	0.9850	0.0000	0.9850			0.0000			0.0000
Off-Road	0.3355	6.6857	7.7913	0.0137		0.2954	0.2954		0.2954	0.2954	0.0000	1,327.0743	1,327.0743	0.4292		1,337.8043
Total	**0.3355**	**6.6857**	**7.7913**	**0.0137**	**1.9166**	**0.2954**	**2.2120**	**0.9850**	**0.2954**	**1.2804**	**0.0000**	**1,327.0743**	**1,327.0743**	**0.4292**		**1,337.8043**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2046	0.1225	1.4459	4.8300e-003	0.5589	3.9100e-003	0.5628	0.1482	3.6000e-003	0.1518		481.8463	481.8463	0.0114		482.1304
Total	**0.2046**	**0.1225**	**1.4459**	**4.8300e-003**	**0.5589**	**3.9100e-003**	**0.5628**	**0.1482**	**3.6000e-003**	**0.1518**		**481.8463**	**481.8463**	**0.0114**		**482.1304**

3.17 2D Seismic Modification - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	0.8952	9.5487	5.2673	0.0137		0.3918	0.3918		0.3605	0.3605		1,326.9414	1,326.9414	0.4292		1,337.6704
Total	**0.8952**	**9.5487**	**5.2673**	**0.0137**	**4.9143**	**0.3918**	**5.3061**	**2.5256**	**0.3605**	**2.8861**		**1,326.9414**	**1,326.9414**	**0.4292**		**1,337.6704**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1942	0.1116	1.3477	4.6700e-003	0.5589	3.8600e-003	0.5627	0.1482	3.5500e-003	0.1518		465.9213	465.9213	0.0104		466.1813
Total	**0.1942**	**0.1116**	**1.3477**	**4.6700e-003**	**0.5589**	**3.8600e-003**	**0.5627**	**0.1482**	**3.5500e-003**	**0.1518**		**465.9213**	**465.9213**	**0.0104**		**466.1813**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.9166	0.0000	1.9166	0.9850	0.0000	0.9850			0.0000			0.0000
Off-Road	0.3355	6.6857	7.7913	0.0137		0.2954	0.2954		0.2954	0.2954	0.0000	1,326.9414	1,326.9414	0.4292		1,337.6704
Total	**0.3355**	**6.6857**	**7.7913**	**0.0137**	**1.9166**	**0.2954**	**2.2120**	**0.9850**	**0.2954**	**1.2804**	**0.0000**	**1,326.9414**	**1,326.9414**	**0.4292**		**1,337.6704**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1942	0.1116	1.3477	4.6700e-003	0.5589	3.8600e-003	0.5627	0.1482	3.5500e-003	0.1518		465.9213	465.9213	0.0104		466.1813
Total	**0.1942**	**0.1116**	**1.3477**	**4.6700e-003**	**0.5589**	**3.8600e-003**	**0.5627**	**0.1482**	**3.5500e-003**	**0.1518**		**465.9213**	**465.9213**	**0.0104**		**466.1813**

3.18 2E Seismic Modification - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	0.9146	9.9869	5.2727	0.0137		0.4106	0.4106		0.3778	0.3778		1,327.0743	1,327.0743	0.4292		1,337.8043
Total	**0.9146**	**9.9869**	**5.2727**	**0.0137**	**4.9143**	**0.4106**	**5.3249**	**2.5256**	**0.3778**	**2.9034**		**1,327.0743**	**1,327.0743**	**0.4292**		**1,337.8043**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2046	0.1225	1.4459	4.8300e-003	0.5589	3.9100e-003	0.5628	0.1482	3.6000e-003	0.1518		481.8463	481.8463	0.0114		482.1304
Total	**0.2046**	**0.1225**	**1.4459**	**4.8300e-003**	**0.5589**	**3.9100e-003**	**0.5628**	**0.1482**	**3.6000e-003**	**0.1518**		**481.8463**	**481.8463**	**0.0114**		**482.1304**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.9166	0.0000	1.9166	0.9850	0.0000	0.9850			0.0000			0.0000
Off-Road	0.3355	6.6857	7.7913	0.0137		0.2954	0.2954		0.2954	0.2954	0.0000	1,327.0743	1,327.0743	0.4292		1,337.8043
Total	**0.3355**	**6.6857**	**7.7913**	**0.0137**	**1.9166**	**0.2954**	**2.2120**	**0.9850**	**0.2954**	**1.2804**	**0.0000**	**1,327.0743**	**1,327.0743**	**0.4292**		**1,337.8043**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2046	0.1225	1.4459	4.8300e-003	0.5589	3.9100e-003	0.5628	0.1482	3.6000e-003	0.1518		481.8463	481.8463	0.0114		482.1304
Total	**0.2046**	**0.1225**	**1.4459**	**4.8300e-003**	**0.5589**	**3.9100e-003**	**0.5628**	**0.1482**	**3.6000e-003**	**0.1518**		**481.8463**	**481.8463**	**0.0114**		**482.1304**

3.18 2E Seismic Modification - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	0.8952	9.5487	5.2673	0.0137		0.3918	0.3918		0.3605	0.3605		1,326.9414	1,326.9414	0.4292		1,337.6704
Total	**0.8952**	**9.5487**	**5.2673**	**0.0137**	**4.9143**	**0.3918**	**5.3061**	**2.5256**	**0.3605**	**2.8861**		**1,326.9414**	**1,326.9414**	**0.4292**		**1,337.6704**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1942	0.1116	1.3477	4.6700e-003	0.5589	3.8600e-003	0.5627	0.1482	3.5500e-003	0.1518		465.9213	465.9213	0.0104		466.1813
Total	**0.1942**	**0.1116**	**1.3477**	**4.6700e-003**	**0.5589**	**3.8600e-003**	**0.5627**	**0.1482**	**3.5500e-003**	**0.1518**		**465.9213**	**465.9213**	**0.0104**		**466.1813**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.9166	0.0000	1.9166	0.9850	0.0000	0.9850			0.0000			0.0000
Off-Road	0.3355	6.6857	7.7913	0.0137		0.2954	0.2954		0.2954	0.2954	0.0000	1,326.9414	1,326.9414	0.4292		1,337.6704
Total	**0.3355**	**6.6857**	**7.7913**	**0.0137**	**1.9166**	**0.2954**	**2.2120**	**0.9850**	**0.2954**	**1.2804**	**0.0000**	**1,326.9414**	**1,326.9414**	**0.4292**		**1,337.6704**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1942	0.1116	1.3477	4.6700e-003	0.5589	3.8600e-003	0.5627	0.1482	3.5500e-003	0.1518		465.9213	465.9213	0.0104		466.1813
Total	**0.1942**	**0.1116**	**1.3477**	**4.6700e-003**	**0.5589**	**3.8600e-003**	**0.5627**	**0.1482**	**3.5500e-003**	**0.1518**		**465.9213**	**465.9213**	**0.0104**		**466.1813**

3.19 2G Seismic Modification - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	0.9146	9.9869	5.2727	0.0137		0.4106	0.4106		0.3778	0.3778		1,327.0743	1,327.0743	0.4292		1,337.8043
Total	**0.9146**	**9.9869**	**5.2727**	**0.0137**	**4.9143**	**0.4106**	**5.3249**	**2.5256**	**0.3778**	**2.9034**		**1,327.0743**	**1,327.0743**	**0.4292**		**1,337.8043**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2046	0.1225	1.4459	4.8300e-003	0.5589	3.9100e-003	0.5628	0.1482	3.6000e-003	0.1518		481.8463	481.8463	0.0114		482.1304
Total	**0.2046**	**0.1225**	**1.4459**	**4.8300e-003**	**0.5589**	**3.9100e-003**	**0.5628**	**0.1482**	**3.6000e-003**	**0.1518**		**481.8463**	**481.8463**	**0.0114**		**482.1304**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.9166	0.0000	1.9166	0.9850	0.0000	0.9850			0.0000			0.0000
Off-Road	0.3355	6.6857	7.7913	0.0137		0.2954	0.2954		0.2954	0.2954	0.0000	1,327.0743	1,327.0743	0.4292		1,337.8043
Total	**0.3355**	**6.6857**	**7.7913**	**0.0137**	**1.9166**	**0.2954**	**2.2120**	**0.9850**	**0.2954**	**1.2804**	**0.0000**	**1,327.0743**	**1,327.0743**	**0.4292**		**1,337.8043**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2046	0.1225	1.4459	4.8300e-003	0.5589	3.9100e-003	0.5628	0.1482	3.6000e-003	0.1518		481.8463	481.8463	0.0114		482.1304
Total	**0.2046**	**0.1225**	**1.4459**	**4.8300e-003**	**0.5589**	**3.9100e-003**	**0.5628**	**0.1482**	**3.6000e-003**	**0.1518**		**481.8463**	**481.8463**	**0.0114**		**482.1304**

3.19 2G Seismic Modification - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	0.8952	9.5487	5.2673	0.0137		0.3918	0.3918		0.3605	0.3605		1,326.9414	1,326.9414	0.4292		1,337.6704
Total	**0.8952**	**9.5487**	**5.2673**	**0.0137**	**4.9143**	**0.3918**	**5.3061**	**2.5256**	**0.3605**	**2.8861**		**1,326.9414**	**1,326.9414**	**0.4292**		**1,337.6704**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1942	0.1116	1.3477	4.6700e-003	0.5589	3.8600e-003	0.5627	0.1482	3.5500e-003	0.1518		465.9213	465.9213	0.0104		466.1813
Total	**0.1942**	**0.1116**	**1.3477**	**4.6700e-003**	**0.5589**	**3.8600e-003**	**0.5627**	**0.1482**	**3.5500e-003**	**0.1518**		**465.9213**	**465.9213**	**0.0104**		**466.1813**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.9166	0.0000	1.9166	0.9850	0.0000	0.9850			0.0000			0.0000
Off-Road	0.3355	6.6857	7.7913	0.0137		0.2954	0.2954		0.2954	0.2954	0.0000	1,326.9414	1,326.9414	0.4292		1,337.6704
Total	**0.3355**	**6.6857**	**7.7913**	**0.0137**	**1.9166**	**0.2954**	**2.2120**	**0.9850**	**0.2954**	**1.2804**	**0.0000**	**1,326.9414**	**1,326.9414**	**0.4292**		**1,337.6704**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1942	0.1116	1.3477	4.6700e-003	0.5589	3.8600e-003	0.5627	0.1482	3.5500e-003	0.1518		465.9213	465.9213	0.0104		466.1813
Total	**0.1942**	**0.1116**	**1.3477**	**4.6700e-003**	**0.5589**	**3.8600e-003**	**0.5627**	**0.1482**	**3.5500e-003**	**0.1518**		**465.9213**	**465.9213**	**0.0104**		**466.1813**

3.20 2l Southern Parking Lot - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0609					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0937**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2046	0.1225	1.4459	4.8300e-003	0.5589	3.9100e-003	0.5628	0.1482	3.6000e-003	0.1518		481.8463	481.8463	0.0114		482.1304
Total	**0.2046**	**0.1225**	**1.4459**	**4.8300e-003**	**0.5589**	**3.9100e-003**	**0.5628**	**0.1482**	**3.6000e-003**	**0.1518**		**481.8463**	**481.8463**	**0.0114**		**482.1304**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5609	11.2952	17.2957	0.0228		0.6093	0.6093		0.6093	0.6093	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0609					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6219**	**11.2952**	**17.2957**	**0.0228**		**0.6093**	**0.6093**		**0.6093**	**0.6093**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2046	0.1225	1.4459	4.8300e-003	0.5589	3.9100e-003	0.5628	0.1482	3.6000e-003	0.1518		481.8463	481.8463	0.0114		482.1304
Total	**0.2046**	**0.1225**	**1.4459**	**4.8300e-003**	**0.5589**	**3.9100e-003**	**0.5628**	**0.1482**	**3.6000e-003**	**0.1518**		**481.8463**	**481.8463**	**0.0114**		**482.1304**

3.21 2l Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.6261					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**0.8177**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2046	0.1225	1.4459	4.8300e-003	0.5589	3.9100e-003	0.5628	0.1482	3.6000e-003	0.1518		481.8463	481.8463	0.0114		482.1304
Total	**0.2046**	**0.1225**	**1.4459**	**4.8300e-003**	**0.5589**	**3.9100e-003**	**0.5628**	**0.1482**	**3.6000e-003**	**0.1518**		**481.8463**	**481.8463**	**0.0114**		**482.1304**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.6261					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**0.6855**	**1.3570**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2046	0.1225	1.4459	4.8300e-003	0.5589	3.9100e-003	0.5628	0.1482	3.6000e-003	0.1518		481.8463	481.8463	0.0114		482.1304
Total	**0.2046**	**0.1225**	**1.4459**	**4.8300e-003**	**0.5589**	**3.9100e-003**	**0.5628**	**0.1482**	**3.6000e-003**	**0.1518**		**481.8463**	**481.8463**	**0.0114**		**482.1304**

3.22 2F Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7864	6.8814	7.4598	0.0132		0.3186	0.3186		0.3041	0.3041		1,239.4993	1,239.4993	0.2370		1,245.4233
Total	**0.7864**	**6.8814**	**7.4598**	**0.0132**		**0.3186**	**0.3186**		**0.3041**	**0.3041**		**1,239.4993**	**1,239.4993**	**0.2370**		**1,245.4233**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1792	5.9339	1.8889	0.0205	0.5567	7.1800e-003	0.5639	0.1603	6.8600e-003	0.1671		2,201.3620	2,201.3620	0.1319		2,204.6591
Worker	0.2046	0.1225	1.4459	4.8300e-003	0.5589	3.9100e-003	0.5628	0.1482	3.6000e-003	0.1518		481.8463	481.8463	0.0114		482.1304
Total	**0.3837**	**6.0563**	**3.3348**	**0.0254**	**1.1156**	**0.0111**	**1.1267**	**0.3085**	**0.0105**	**0.3189**		**2,683.2083**	**2,683.2083**	**0.1433**		**2,686.7895**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4456	6.6348	8.4644	0.0132		0.3876	0.3876		0.3876	0.3876	0.0000	1,239.4993	1,239.4993	0.2370		1,245.4233
Total	**0.4456**	**6.6348**	**8.4644**	**0.0132**		**0.3876**	**0.3876**		**0.3876**	**0.3876**	**0.0000**	**1,239.4993**	**1,239.4993**	**0.2370**		**1,245.4233**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1792	5.9339	1.8889	0.0205	0.5567	7.1800e-003	0.5639	0.1603	6.8600e-003	0.1671		2,201.3620	2,201.3620	0.1319		2,204.6591
Worker	0.2046	0.1225	1.4459	4.8300e-003	0.5589	3.9100e-003	0.5628	0.1482	3.6000e-003	0.1518		481.8463	481.8463	0.0114		482.1304
Total	**0.3837**	**6.0563**	**3.3348**	**0.0254**	**1.1156**	**0.0111**	**1.1267**	**0.3085**	**0.0105**	**0.3189**		**2,683.2083**	**2,683.2083**	**0.1433**		**2,686.7895**

3.22 2F Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7351	6.4450	7.4142	0.0132		0.2797	0.2797		0.2668	0.2668		1,239.6361	1,239.6361	0.2343		1,245.4926
Total	**0.7351**	**6.4450**	**7.4142**	**0.0132**		**0.2797**	**0.2797**		**0.2668**	**0.2668**		**1,239.6361**	**1,239.6361**	**0.2343**		**1,245.4926**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1752	5.9200	1.8352	0.0205	0.5567	7.0700e-003	0.5638	0.1603	6.7500e-003	0.1670		2,193.7230	2,193.7230	0.1298		2,196.9691
Worker	0.1942	0.1116	1.3477	4.6700e-003	0.5589	3.8600e-003	0.5627	0.1482	3.5500e-003	0.1518		465.9213	465.9213	0.0104		466.1813
Total	**0.3694**	**6.0315**	**3.1829**	**0.0251**	**1.1156**	**0.0109**	**1.1265**	**0.3085**	**0.0103**	**0.3188**		**2,659.6443**	**2,659.6443**	**0.1402**		**2,663.1503**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4317	6.6050	8.4537	0.0132		0.3818	0.3818		0.3818	0.3818	0.0000	1,239.6361	1,239.6361	0.2343		1,245.4926
Total	**0.4317**	**6.6050**	**8.4537**	**0.0132**		**0.3818**	**0.3818**		**0.3818**	**0.3818**	**0.0000**	**1,239.6361**	**1,239.6361**	**0.2343**		**1,245.4926**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1752	5.9200	1.8352	0.0205	0.5567	7.0700e-003	0.5638	0.1603	6.7500e-003	0.1670		2,193.7230	2,193.7230	0.1298		2,196.9691
Worker	0.1942	0.1116	1.3477	4.6700e-003	0.5589	3.8600e-003	0.5627	0.1482	3.5500e-003	0.1518		465.9213	465.9213	0.0104		466.1813
Total	**0.3694**	**6.0315**	**3.1829**	**0.0251**	**1.1156**	**0.0109**	**1.1265**	**0.3085**	**0.0103**	**0.3188**		**2,659.6443**	**2,659.6443**	**0.1402**		**2,663.1503**

3.23 3A Demo Interim Housing - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0872	0.0000	0.0872	0.0132	0.0000	0.0132			0.0000			0.0000
Off-Road	1.4593	12.7120	13.7865	0.0249		0.5981	0.5981		0.5647	0.5647		2,387.0143	2,387.0143	0.5162		2,399.9203
Total	**1.4593**	**12.7120**	**13.7865**	**0.0249**	**0.0872**	**0.5981**	**0.6853**	**0.0132**	**0.5647**	**0.5779**		**2,387.0143**	**2,387.0143**	**0.5162**		**2,399.9203**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.9600e-003	0.0619	0.0219	2.8000e-004	9.6000e-003	1.2000e-004	9.7200e-003	2.5600e-003	1.1000e-004	2.6700e-003		30.9227	30.9227	2.2100e-003		30.9780
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1942	0.1116	1.3477	4.6700e-003	0.5589	3.8600e-003	0.5627	0.1482	3.5500e-003	0.1518		465.9213	465.9213	0.0104		466.1813
Total	**0.1961**	**0.1735**	**1.3696**	**4.9500e-003**	**0.5685**	**3.9800e-003**	**0.5725**	**0.1508**	**3.6600e-003**	**0.1544**		**496.8440**	**496.8440**	**0.0126**		**497.1592**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0340	0.0000	0.0340	5.1500e-003	0.0000	5.1500e-003			0.0000			0.0000
Off-Road	0.5659	11.6376	16.0109	0.0249		0.6295	0.6295		0.6295	0.6295	0.0000	2,387.0143	2,387.0143	0.5162		2,399.9203
Total	**0.5659**	**11.6376**	**16.0109**	**0.0249**	**0.0340**	**0.6295**	**0.6636**	**5.1500e-003**	**0.6295**	**0.6347**	**0.0000**	**2,387.0143**	**2,387.0143**	**0.5162**		**2,399.9203**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.9600e-003	0.0619	0.0219	2.8000e-004	9.6000e-003	1.2000e-004	9.7200e-003	2.5600e-003	1.1000e-004	2.6700e-003		30.9227	30.9227	2.2100e-003		30.9780
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1942	0.1116	1.3477	4.6700e-003	0.5589	3.8600e-003	0.5627	0.1482	3.5500e-003	0.1518		465.9213	465.9213	0.0104		466.1813
Total	**0.1961**	**0.1735**	**1.3696**	**4.9500e-003**	**0.5685**	**3.9800e-003**	**0.5725**	**0.1508**	**3.6600e-003**	**0.1544**		**496.8440**	**496.8440**	**0.0126**		**497.1592**

3.23 3A Demo Interim Housing - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0872	0.0000	0.0872	0.0132	0.0000	0.0132			0.0000			0.0000
Off-Road	1.3596	11.6342	13.6632	0.0249		0.5226	0.5226		0.4930	0.4930		2,387.3390	2,387.3390	0.5139		2,400.1866
Total	**1.3596**	**11.6342**	**13.6632**	**0.0249**	**0.0872**	**0.5226**	**0.6098**	**0.0132**	**0.4930**	**0.5062**		**2,387.3390**	**2,387.3390**	**0.5139**		**2,400.1866**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.9500e-003	0.0609	0.0220	2.8000e-004	0.0177	1.1000e-004	0.0178	4.5400e-003	1.1000e-004	4.6500e-003		30.7510	30.7510	2.2000e-003		30.8061
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1850	0.1020	1.2514	4.4900e-003	0.5589	3.7900e-003	0.5627	0.1482	3.4800e-003	0.1517		447.5881	447.5881	9.4800e-003		447.8250
Total	**0.1869**	**0.1629**	**1.2735**	**4.7700e-003**	**0.5766**	**3.9000e-003**	**0.5805**	**0.1528**	**3.5900e-003**	**0.1564**		**478.3391**	**478.3391**	**0.0117**		**478.6311**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0340	0.0000	0.0340	5.1500e-003	0.0000	5.1500e-003			0.0000			0.0000
Off-Road	0.5659	11.6376	16.0109	0.0249		0.6295	0.6295		0.6295	0.6295	0.0000	2,387.3390	2,387.3390	0.5139		2,400.1866
Total	**0.5659**	**11.6376**	**16.0109**	**0.0249**	**0.0340**	**0.6295**	**0.6636**	**5.1500e-003**	**0.6295**	**0.6347**	**0.0000**	**2,387.3390**	**2,387.3390**	**0.5139**		**2,400.1866**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.9500e-003	0.0609	0.0220	2.8000e-004	0.0177	1.1000e-004	0.0178	4.5400e-003	1.1000e-004	4.6500e-003		30.7510	30.7510	2.2000e-003		30.8061
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1850	0.1020	1.2514	4.4900e-003	0.5589	3.7900e-003	0.5627	0.1482	3.4800e-003	0.1517		447.5881	447.5881	9.4800e-003		447.8250
Total	**0.1869**	**0.1629**	**1.2735**	**4.7700e-003**	**0.5766**	**3.9000e-003**	**0.5805**	**0.1528**	**3.5900e-003**	**0.1564**		**478.3391**	**478.3391**	**0.0117**		**478.6311**

3.24 3C Demolition - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1128	0.0000	0.1128	0.0171	0.0000	0.0171			0.0000			0.0000
Off-Road	1.4593	12.7120	13.7865	0.0249		0.5981	0.5981		0.5647	0.5647		2,387.0143	2,387.0143	0.5162		2,399.9203
Total	**1.4593**	**12.7120**	**13.7865**	**0.0249**	**0.1128**	**0.5981**	**0.7108**	**0.0171**	**0.5647**	**0.5818**		**2,387.0143**	**2,387.0143**	**0.5162**		**2,399.9203**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.4500e-003	0.0774	0.0274	3.5000e-004	8.7300e-003	1.5000e-004	8.8800e-003	2.3900e-003	1.4000e-004	2.5300e-003		38.6534	38.6534	2.7600e-003		38.7225
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1942	0.1116	1.3477	4.6700e-003	0.5589	3.8600e-003	0.5627	0.1482	3.5500e-003	0.1518		465.9213	465.9213	0.0104		466.1813
Total	**0.1966**	**0.1889**	**1.3751**	**5.0200e-003**	**0.5676**	**4.0100e-003**	**0.5716**	**0.1506**	**3.6900e-003**	**0.1543**		**504.5747**	**504.5747**	**0.0132**		**504.9037**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0440	0.0000	0.0440	6.6600e-003	0.0000	6.6600e-003			0.0000			0.0000
Off-Road	0.5659	11.6376	16.0109	0.0249		0.6295	0.6295		0.6295	0.6295	0.0000	2,387.0143	2,387.0143	0.5162		2,399.9203
Total	**0.5659**	**11.6376**	**16.0109**	**0.0249**	**0.0440**	**0.6295**	**0.6735**	**6.6600e-003**	**0.6295**	**0.6362**	**0.0000**	**2,387.0143**	**2,387.0143**	**0.5162**		**2,399.9203**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.4500e-003	0.0774	0.0274	3.5000e-004	8.7300e-003	1.5000e-004	8.8800e-003	2.3900e-003	1.4000e-004	2.5300e-003		38.6534	38.6534	2.7600e-003		38.7225
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1942	0.1116	1.3477	4.6700e-003	0.5589	3.8600e-003	0.5627	0.1482	3.5500e-003	0.1518		465.9213	465.9213	0.0104		466.1813
Total	**0.1966**	**0.1889**	**1.3751**	**5.0200e-003**	**0.5676**	**4.0100e-003**	**0.5716**	**0.1506**	**3.6900e-003**	**0.1543**		**504.5747**	**504.5747**	**0.0132**		**504.9037**

3.25 3B New Field - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	0.8952	9.5487	5.2673	0.0137		0.3918	0.3918		0.3605	0.3605		1,326.9414	1,326.9414	0.4292		1,337.6704
Total	**0.8952**	**9.5487**	**5.2673**	**0.0137**	**4.9143**	**0.3918**	**5.3061**	**2.5256**	**0.3605**	**2.8861**		**1,326.9414**	**1,326.9414**	**0.4292**		**1,337.6704**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1942	0.1116	1.3477	4.6700e-003	0.5589	3.8600e-003	0.5627	0.1482	3.5500e-003	0.1518		465.9213	465.9213	0.0104		466.1813
Total	**0.1942**	**0.1116**	**1.3477**	**4.6700e-003**	**0.5589**	**3.8600e-003**	**0.5627**	**0.1482**	**3.5500e-003**	**0.1518**		**465.9213**	**465.9213**	**0.0104**		**466.1813**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.9166	0.0000	1.9166	0.9850	0.0000	0.9850			0.0000			0.0000
Off-Road	0.3355	6.6857	7.7913	0.0137		0.2954	0.2954		0.2954	0.2954	0.0000	1,326.9414	1,326.9414	0.4292		1,337.6704
Total	**0.3355**	**6.6857**	**7.7913**	**0.0137**	**1.9166**	**0.2954**	**2.2120**	**0.9850**	**0.2954**	**1.2804**	**0.0000**	**1,326.9414**	**1,326.9414**	**0.4292**		**1,337.6704**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1942	0.1116	1.3477	4.6700e-003	0.5589	3.8600e-003	0.5627	0.1482	3.5500e-003	0.1518		465.9213	465.9213	0.0104		466.1813
Total	**0.1942**	**0.1116**	**1.3477**	**4.6700e-003**	**0.5589**	**3.8600e-003**	**0.5627**	**0.1482**	**3.5500e-003**	**0.1518**		**465.9213**	**465.9213**	**0.0104**		**466.1813**

3.25 3B New Field - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	0.8185	8.5672	5.1161	0.0137		0.3416	0.3416		0.3143	0.3143		1,326.9417	1,326.9417	0.4292		1,337.6707
Total	**0.8185**	**8.5672**	**5.1161**	**0.0137**	**4.9143**	**0.3416**	**5.2559**	**2.5256**	**0.3143**	**2.8399**		**1,326.9417**	**1,326.9417**	**0.4292**		**1,337.6707**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1850	0.1020	1.2514	4.4900e-003	0.5589	3.7900e-003	0.5627	0.1482	3.4800e-003	0.1517		447.5881	447.5881	9.4800e-003		447.8250
Total	**0.1850**	**0.1020**	**1.2514**	**4.4900e-003**	**0.5589**	**3.7900e-003**	**0.5627**	**0.1482**	**3.4800e-003**	**0.1517**		**447.5881**	**447.5881**	**9.4800e-003**		**447.8250**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.9166	0.0000	1.9166	0.9850	0.0000	0.9850			0.0000			0.0000
Off-Road	0.3355	6.6857	7.7913	0.0137		0.2954	0.2954		0.2954	0.2954	0.0000	1,326.9417	1,326.9417	0.4292		1,337.6707
Total	**0.3355**	**6.6857**	**7.7913**	**0.0137**	**1.9166**	**0.2954**	**2.2120**	**0.9850**	**0.2954**	**1.2804**	**0.0000**	**1,326.9417**	**1,326.9417**	**0.4292**		**1,337.6707**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1850	0.1020	1.2514	4.4900e-003	0.5589	3.7900e-003	0.5627	0.1482	3.4800e-003	0.1517		447.5881	447.5881	9.4800e-003		447.8250
Total	**0.1850**	**0.1020**	**1.2514**	**4.4900e-003**	**0.5589**	**3.7900e-003**	**0.5627**	**0.1482**	**3.4800e-003**	**0.1517**		**447.5881**	**447.5881**	**9.4800e-003**		**447.8250**

3.26 2F Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.2261					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**5.4069**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1942	0.1116	1.3477	4.6700e-003	0.5589	3.8600e-003	0.5627	0.1482	3.5500e-003	0.1518		465.9213	465.9213	0.0104		466.1813
Total	**0.1942**	**0.1116**	**1.3477**	**4.6700e-003**	**0.5589**	**3.8600e-003**	**0.5627**	**0.1482**	**3.5500e-003**	**0.1518**		**465.9213**	**465.9213**	**0.0104**		**466.1813**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.2261					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**5.2855**	**1.3570**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1942	0.1116	1.3477	4.6700e-003	0.5589	3.8600e-003	0.5627	0.1482	3.5500e-003	0.1518		465.9213	465.9213	0.0104		466.1813
Total	**0.1942**	**0.1116**	**1.3477**	**4.6700e-003**	**0.5589**	**3.8600e-003**	**0.5627**	**0.1482**	**3.5500e-003**	**0.1518**		**465.9213**	**465.9213**	**0.0104**		**466.1813**

3.27 3C North Parking Lot - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0735					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0616**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1942	0.1116	1.3477	4.6700e-003	0.5589	3.8600e-003	0.5627	0.1482	3.5500e-003	0.1518		465.9213	465.9213	0.0104		466.1813
Total	**0.1942**	**0.1116**	**1.3477**	**4.6700e-003**	**0.5589**	**3.8600e-003**	**0.5627**	**0.1482**	**3.5500e-003**	**0.1518**		**465.9213**	**465.9213**	**0.0104**		**466.1813**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5609	11.2952	17.2957	0.0228		0.6093	0.6093		0.6093	0.6093	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0735					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6344**	**11.2952**	**17.2957**	**0.0228**		**0.6093**	**0.6093**		**0.6093**	**0.6093**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1942	0.1116	1.3477	4.6700e-003	0.5589	3.8600e-003	0.5627	0.1482	3.5500e-003	0.1518		465.9213	465.9213	0.0104		466.1813
Total	**0.1942**	**0.1116**	**1.3477**	**4.6700e-003**	**0.5589**	**3.8600e-003**	**0.5627**	**0.1482**	**3.5500e-003**	**0.1518**		**465.9213**	**465.9213**	**0.0104**		**466.1813**

3.27 3C North Parking Lot - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	0.0735					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9886**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**		**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1850	0.1020	1.2514	4.4900e-003	0.5589	3.7900e-003	0.5627	0.1482	3.4800e-003	0.1517		447.5881	447.5881	9.4800e-003		447.8250
Total	**0.1850**	**0.1020**	**1.2514**	**4.4900e-003**	**0.5589**	**3.7900e-003**	**0.5627**	**0.1482**	**3.4800e-003**	**0.1517**		**447.5881**	**447.5881**	**9.4800e-003**		**447.8250**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5609	11.2952	17.2957	0.0228		0.6093	0.6093		0.6093	0.6093	0.0000	2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	0.0735					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6344**	**11.2952**	**17.2957**	**0.0228**		**0.6093**	**0.6093**		**0.6093**	**0.6093**	**0.0000**	**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1850	0.1020	1.2514	4.4900e-003	0.5589	3.7900e-003	0.5627	0.1482	3.4800e-003	0.1517		447.5881	447.5881	9.4800e-003		447.8250
Total	**0.1850**	**0.1020**	**1.2514**	**4.4900e-003**	**0.5589**	**3.7900e-003**	**0.5627**	**0.1482**	**3.4800e-003**	**0.1517**		**447.5881**	**447.5881**	**9.4800e-003**		**447.8250**

3.28 3C Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	1.1322					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**1.3129**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1942	0.1116	1.3477	4.6700e-003	0.5589	3.8600e-003	0.5627	0.1482	3.5500e-003	0.1518		465.9213	465.9213	0.0104		466.1813
Total	**0.1942**	**0.1116**	**1.3477**	**4.6700e-003**	**0.5589**	**3.8600e-003**	**0.5627**	**0.1482**	**3.5500e-003**	**0.1518**		**465.9213**	**465.9213**	**0.0104**		**466.1813**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	1.1322					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**1.1916**	**1.3570**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1942	0.1116	1.3477	4.6700e-003	0.5589	3.8600e-003	0.5627	0.1482	3.5500e-003	0.1518		465.9213	465.9213	0.0104		466.1813
Total	**0.1942**	**0.1116**	**1.3477**	**4.6700e-003**	**0.5589**	**3.8600e-003**	**0.5627**	**0.1482**	**3.5500e-003**	**0.1518**		**465.9213**	**465.9213**	**0.0104**		**466.1813**

3.28 3C Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	1.1322					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**1.3030**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1850	0.1020	1.2514	4.4900e-003	0.5589	3.7900e-003	0.5627	0.1482	3.4800e-003	0.1517		447.5881	447.5881	9.4800e-003		447.8250
Total	**0.1850**	**0.1020**	**1.2514**	**4.4900e-003**	**0.5589**	**3.7900e-003**	**0.5627**	**0.1482**	**3.4800e-003**	**0.1517**		**447.5881**	**447.5881**	**9.4800e-003**		**447.8250**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	1.1322					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**1.1916**	**1.3570**	**1.8324**	**2.9700e-003**		**0.0951**	**0.0951**		**0.0951**	**0.0951**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1850	0.1020	1.2514	4.4900e-003	0.5589	3.7900e-003	0.5627	0.1482	3.4800e-003	0.1517		447.5881	447.5881	9.4800e-003		447.8250
Total	**0.1850**	**0.1020**	**1.2514**	**4.4900e-003**	**0.5589**	**3.7900e-003**	**0.5627**	**0.1482**	**3.4800e-003**	**0.1517**		**447.5881**	**447.5881**	**9.4800e-003**		**447.8250**

Appendix B

Greenhouse Gas Emissions Calculation Worksheets

ESA

Emissions Summary

ESA

Burroughs Middle School
GHG Construction Emissions - Unmitigated

Phase	Vendor Idling (CO2e)	On-Site (CO2e)	Off-Site (CO2e)	Total CO2e
1A Building Site Access (2020)		10.10	7.42	18
1A Build LAN Room (2020)	0.8627	5.08	15.17	21
1A Paving Architectural Coating (2020)		1.28	7.42	9
1B Demolition (2020)	0.0523	22.87	5.57	28
1C Electrical and LV Trench (2020)		49.01	11.13	60
1D Utilities Installation (2020)		22.87	5.19	28
1D Temporary Parking (2020)		3.03	0.74	4
1D Paving Architectural Coating (2020)		0.38	0.74	1
1D Temporary Parking (2021)		20.19	4.79	25
1D Paving Architectural Coating (2021)		2.56	4.79	7
1D Bungalow Installation (2021)	6.2303	36.71	76.42	119
2A Seismic Modification (2021)		145.68	57.44	203
2A Seismic Modification (2022)		157.78	59.99	218
2A Seismic Modification (2023)		74.64	27.32	102
2B Demolition (2021)	0.2029	23.96	11.39	36
2B Building Construction (2021)	23.826	124.24	285.39	433
2B Building Construction (2022)	28.158	146.86	332.61	508
2B Building Construction (2023)	13.104	68.35	149.82	231
2B Architectural Coating (2023)		1.66	2.89	5
2C Seismic Modification (2022)		66.75	25.38	92
2C Seismic Modification (2023)		142.60	52.20	195
2D Seismic Modification(2023)		78.89	28.88	108
2D Seismic Modification(2024)		77.06	27.28	104
2E Seismic Modification (2023)		78.89	28.88	108
2E Seismic Modification (2024)		51.57	18.26	70
2F Demolition & Soil Remediation (2023)	1.09	22.86	27.35	51
2G Seismic Modification (2023)		78.89	28.88	108
2G Seismic Modification (2024)		24.88	8.81	34
2I Parking Lot (2023)		130.22	28.66	159
2I Paving Architectural Coating (2023)		16.49	28.66	45
2F Building Construction (2023)	11.80	61.58	134.96	208
2F Building Construction (2024)	20.79	108.47	235.61	365
2F Architectural Coating (2024)		2.17	3.65	6
3A Demo Interim Housing (2024)	0.22	94.71	19.92	115
3A Demo Interim Housing (2025)	0.11	46.81	9.48	56
3B New Field (2024)		52.79	18.69	71
3B New Field (2025)		26.09	8.87	35
3C Demolition (2024)	0.05	23.95	5.12	29
3C North Parking Lot (2024)		49.46	10.52	60
3C Paving Architectural Coating (2024)		6.26	10.52	17
3C North Parking Lot (2025)		58.53	11.97	70
3C Paving Architectural Coating (2025)		7.41	11.97	19
Total				**4,182**
Amortized (30 years)				**139**

Project Summary	
Year	**Total CO2e**
2020	169
2021	824
2022	818
2023	1,320
2024	871
2025	181
Total	**4,182**
Amortized (30 years)	**139**

CalEEMod Annual Output

ESA

LAUSD Burroughs - Unmitigated

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Junior High School	95.16	1000sqft	2.18	95,160.00	0
Other Asphalt Surfaces	2.00	Acre	2.00	87,120.00	0
Other Non-Asphalt Surfaces	2.00	Acre	2.00	87,120.00	0
Parking Lot	1.00	Acre	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	11			**Operational Year**	2025
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Project-specific phasing

Off-road Equipment - Project-Specific Construction Assumptions

Off-road Equipment - Project-Specific Construction Assumptions

Off-road Equipment - Project-Specific Construction Assumptions

Off-road Equipment - Project-Specific Construction Assumptions

Off-road Equipment -

Off-road Equipment - Project-Specific Construction Assumptions

Off-road Equipment - Project-Specific Construction Assumptions

Off-road Equipment -

Off-road Equipment - Project-Specific Construction Assumptions

Off-road Equipment - Project-Specific Construction Assumptions

Off-road Equipment - Project-Specific Construction Assumptions

Off-road Equipment - Project-Specific Construction Assumptions

Off-road Equipment - Project-Specific Construction Assumptions

Off-road Equipment -

Off-road Equipment - Project-Specific Construction Assumptions

Off-road Equipment - Project-Specific Construction Assumptions

Off-road Equipment - Project-Specific Construction Assumptions

Off-road Equipment -

Off-road Equipment - Project-Specific Construction Assumptions

Off-road Equipment - Project-Specific Construction Assumptions

Off-road Equipment - Project-Specific Construction Assumptions

Off-road Equipment -

Trips and VMT - Maximum of 50 workers during the school year and 150 during summer months.

10 Concrete Trucks added to CalEEMod default 77 vendor trucks to 2B and 2E

Demolition -

Grading -

Architectural Coating - Project components

Vehicle Trips - Construction-only

Energy Use - Construction-Only

Water And Wastewater - Construction-Only

Solid Waste - Construction-Only

Construction Off-road Equipment Mitigation - Water Exposed Area 3 times daily; Equipment > 50 HP Tier 3

Table Name	Column Name	Default Value	New Value

tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	125,000.00	33,226.00
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	125,000.00	4,792.00
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	125,000.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	125,000.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	125,000.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	125,000.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	375,000.00	99,678.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	375,000.00	14,376.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	375,000.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	375,000.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	375,000.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	375,000.00	0.00
tblArchitecturalCoating	ConstArea_Parking	13,068.00	0.00
tblArchitecturalCoating	ConstArea_Parking	13,068.00	0.00
tblArchitecturalCoating	ConstArea_Parking	13,068.00	52,272.00
tblArchitecturalCoating	ConstArea_Parking	13,068.00	60,984.00
tblArchitecturalCoating	ConstArea_Parking	13,068.00	17,424.00
tblArchitecturalCoating	ConstArea_Parking	13,068.00	26,136.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	13.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	20.00	13.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	20.00	129.00
tblConstructionPhase	NumDays	20.00	17.00
tblConstructionPhase	NumDays	20.00	107.00
tblConstructionPhase	NumDays	20.00	23.00
tblConstructionPhase	NumDays	300.00	601.00
tblConstructionPhase	NumDays	300.00	301.00
tblConstructionPhase	NumDays	300.00	9.00
tblConstructionPhase	NumDays	300.00	65.00
tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	20.00	21.00
tblConstructionPhase	NumDays	20.00	130.00
tblConstructionPhase	NumDays	20.00	22.00

tblConstructionPhase	NumDays	20.00	21.00
tblConstructionPhase	NumDays	30.00	623.00
tblConstructionPhase	NumDays	30.00	345.00
tblConstructionPhase	NumDays	30.00	257.00
tblConstructionPhase	NumDays	30.00	215.00
tblConstructionPhase	NumDays	30.00	171.00
tblConstructionPhase	NumDays	30.00	130.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	20.00	129.00
tblConstructionPhase	NumDays	20.00	107.00
tblConstructionPhase	NumDays	20.00	23.00
tblEnergyUse	LightingElect	2.59	0.00
tblEnergyUse	LightingElect	0.35	0.00
tblEnergyUse	NT24E	1.59	0.00
tblEnergyUse	NT24NG	1.08	0.00
tblEnergyUse	T24E	1.74	0.00
tblEnergyUse	T24NG	9.32	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	7.00	4.00

tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00

tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblSolidWaste	SolidWasteGenerationRate	325.00	0.00
tblTripsAndVMT	VendorTripNumber	77.00	87.00
tblTripsAndVMT	VendorTripNumber	77.00	87.00
tblTripsAndVMT	WorkerTripNumber	15.00	150.00
tblTripsAndVMT	WorkerTripNumber	8.00	50.00
tblTripsAndVMT	WorkerTripNumber	13.00	50.00
tblTripsAndVMT	WorkerTripNumber	196.00	50.00
tblTripsAndVMT	WorkerTripNumber	8.00	50.00
tblTripsAndVMT	WorkerTripNumber	39.00	50.00
tblTripsAndVMT	WorkerTripNumber	13.00	150.00
tblTripsAndVMT	WorkerTripNumber	8.00	50.00
tblTripsAndVMT	WorkerTripNumber	8.00	50.00
tblTripsAndVMT	WorkerTripNumber	8.00	50.00
tblTripsAndVMT	WorkerTripNumber	15.00	50.00

tblTripsAndVMT	WorkerTripNumber	39.00	150.00
tblTripsAndVMT	WorkerTripNumber	39.00	50.00
tblTripsAndVMT	WorkerTripNumber	196.00	50.00
tblTripsAndVMT	WorkerTripNumber	13.00	50.00
tblTripsAndVMT	WorkerTripNumber	13.00	50.00
tblTripsAndVMT	WorkerTripNumber	8.00	50.00
tblTripsAndVMT	WorkerTripNumber	39.00	50.00
tblTripsAndVMT	WorkerTripNumber	15.00	50.00
tblTripsAndVMT	WorkerTripNumber	39.00	50.00
tblTripsAndVMT	WorkerTripNumber	196.00	150.00
tblTripsAndVMT	WorkerTripNumber	13.00	50.00
tblTripsAndVMT	WorkerTripNumber	13.00	50.00
tblTripsAndVMT	WorkerTripNumber	13.00	50.00
tblTripsAndVMT	WorkerTripNumber	15.00	50.00
tblTripsAndVMT	WorkerTripNumber	39.00	50.00
tblTripsAndVMT	WorkerTripNumber	196.00	50.00
tblVehicleTrips	WD_TR	13.78	0.00
tblWater	IndoorWaterUseRate	5,155,251.11	0.00
tblWater	OutdoorWaterUseRate	13,256,360.00	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					

2020	0.2714	1.0480	0.9606	1.8900e-003	0.0528	0.0537	0.1064	0.0139	0.0507	0.0646	0.0000	167.3007	167.3007	0.0282	0.0000	168.0065
2021	0.5444	4.4492	2.9493	8.6900e-003	0.9220	0.1573	1.0793	0.3791	0.1472	0.5263	0.0000	790.7078	790.7078	0.1132	0.0000	793.5384
2022	0.3991	4.2362	2.7947	8.6600e-003	1.2721	0.1443	1.4164	0.5465	0.1345	0.6810	0.0000	786.3512	786.3512	0.1211	0.0000	789.3790
2023	1.0223	6.2208	5.2369	0.0143	2.4763	0.2383	2.7146	1.0839	0.2211	1.3050	0.0000	1,287.5608	1,287.5608	0.2393	0.0000	1,293.5425
2024	0.4887	3.8323	3.4707	9.4100e-003	1.1871	0.1417	1.3287	0.5098	0.1322	0.6420	0.0000	846.1210	846.1210	0.1432	0.0000	849.6998
2025	0.1301	0.7284	1.0094	2.0400e-003	0.1806	0.0326	0.2132	0.0713	0.0304	0.1016	0.0000	180.1679	180.1679	0.0385	0.0000	181.1304
Maximum	**1.0223**	**6.2208**	**5.2369**	**0.0143**	**2.4763**	**0.2383**	**2.7146**	**1.0839**	**0.2211**	**1.3050**	**0.0000**	**1,287.5608**	**1,287.5608**	**0.2393**	**0.0000**	**1,293.5425**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.1962	0.6729	1.0396	1.8900e-003	0.0521	0.0344	0.0865	0.0138	0.0344	0.0482	0.0000	167.3006	167.3006	0.0282	0.0000	168.0064
2021	0.3440	3.2531	3.3266	8.6900e-003	0.5051	0.1104	0.6154	0.1875	0.1101	0.2977	0.0000	790.7074	790.7074	0.1132	0.0000	793.5380
2022	0.2142	3.1913	3.3143	8.6600e-003	0.6450	0.1091	0.7541	0.2537	0.1089	0.3626	0.0000	786.3508	786.3508	0.1211	0.0000	789.3785
2023	0.7168	5.0157	6.4944	0.0143	1.2257	0.2111	1.4368	0.4927	0.2109	0.7036	0.0000	1,287.5599	1,287.5599	0.2393	0.0000	1,293.5416
2024	0.3013	3.3503	4.1870	9.4100e-003	0.6219	0.1414	0.7632	0.2418	0.1412	0.3830	0.0000	846.1205	846.1205	0.1432	0.0000	849.6992
2025	0.0891	0.7728	1.1969	2.0400e-003	0.1045	0.0407	0.1452	0.0368	0.0407	0.0775	0.0000	180.1677	180.1677	0.0385	0.0000	181.1302
Maximum	**0.7168**	**5.0157**	**6.4944**	**0.0143**	**1.2257**	**0.2111**	**1.4368**	**0.4927**	**0.2109**	**0.7036**	**0.0000**	**1,287.5599**	**1,287.5599**	**0.2393**	**0.0000**	**1,293.5416**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**34.82**	**20.76**	**-19.10**	**0.00**	**48.21**	**15.73**	**44.58**	**52.92**	**9.76**	**43.61**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	8-1-2020	10-31-2020	0.7975	0.5534
2	11-1-2020	1-31-2021	0.8016	0.5729
3	2-1-2021	4-30-2021	1.6804	1.2233
4	5-1-2021	7-31-2021	1.1107	0.7712
5	8-1-2021	10-31-2021	1.1114	0.7719
6	11-1-2021	1-31-2022	1.0697	0.7672
7	2-1-2022	4-30-2022	0.9523	0.7300
8	5-1-2022	7-31-2022	0.9832	0.7535
9	8-1-2022	10-31-2022	1.4171	0.9956
10	11-1-2022	1-31-2023	1.3457	0.9738
11	2-1-2023	4-30-2023	1.1615	0.8962
12	5-1-2023	7-31-2023	1.8931	1.5314
13	8-1-2023	10-31-2023	2.3971	1.8860
14	11-1-2023	1-31-2024	1.9361	1.5326
15	2-1-2024	4-30-2024	1.2114	0.9598
16	5-1-2024	7-31-2024	0.6604	0.5872
17	8-1-2024	10-31-2024	1.0762	0.9382
18	11-1-2024	1-31-2025	1.2443	1.1488
19	2-1-2025	4-30-2025	0.4505	0.4620
		Highest	2.3971	1.8860

2.2 Overall Operational

Construction only analysis

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	1A Build Site Access	Paving	8/1/2020	8/14/2020	5	10	
2	1A Paving	Architectural Coating	8/1/2020	8/14/2020	5	10	
3	1A Build LAN Room	Building Construction	8/17/2020	8/27/2020	5	9	
4	1B Demolition	Demolition	8/28/2020	9/25/2020	5	21	
5	1C Electrical and LV Trench	Trenching	9/28/2020	11/27/2020	5	45	
6	1D Utilities Installation	Trenching	11/28/2020	12/28/2020	5	21	
7	1D Temporary Parking	Paving	12/29/2020	1/28/2021	5	23	
8	1D Paving	Architectural Coating	12/29/2020	1/28/2021	5	23	
9	1D Bungalow Installation	Building Construction	1/29/2021	4/29/2021	5	65	
10	2A Seismic Modification	Grading	2/1/2021	6/21/2023	5	623	
11	2B Demolition	Demolition	2/21/2021	3/23/2021	5	22	
12	2B Building Construction	Building Construction	3/1/2021	6/19/2023	5	601	
13	2C Seismic Modification	Grading	8/1/2022	11/24/2023	5	345	
14	2B Architectural Coating	Architectural Coating	6/1/2023	6/19/2023	5	13	
15	2F Demolition	Demolition	7/1/2023	7/31/2023	5	21	
16	2D Seismic Modification	Grading	7/1/2023	6/25/2024	5	257	
17	2E Seismic Modification	Grading	7/1/2023	4/26/2024	5	215	
18	2G Seismic Modification	Grading	7/1/2023	2/26/2024	5	171	
19	2I Southern Parking Lot	Paving	7/1/2023	12/28/2023	5	129	
20	2I Paving	Architectural Coating	7/1/2023	12/28/2023	5	129	
21	2F Building Construction	Building Construction	8/1/2023	9/24/2024	5	301	
22	3A Demo Interim Housing	Demolition	9/1/2024	2/28/2025	5	130	
23	3C Demolition	Demolition	9/1/2024	10/1/2024	5	22	
24	3B New Field	Grading	9/1/2024	2/28/2025	5	130	
25	2F Architectural Coating	Architectural Coating	9/1/2024	9/24/2024	5	17	

26	3C North Parking Lot	Paving	10/24/2024	3/21/2025	5	107	
27	3C Paving	Architectural Coating	10/24/2024	3/21/2025	5	107	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 5

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 99,678; Non-Residential Outdoor: 33,226; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
1A Build Site Access	Pavers	2	8.00	130	0.42
1A Build Site Access	Paving Equipment	2	8.00	132	0.36
1A Build Site Access	Rollers	2	8.00	80	0.38
1A Build LAN Room	Cranes	1	4.00	231	0.29
1A Build LAN Room	Forklifts	1	6.00	89	0.20
1A Build LAN Room	Generator Sets	1	6.00	84	0.74
1A Build LAN Room	Tractors/Loaders/Backhoes	1	6.00	97	0.37
1A Build LAN Room	Welders	1	6.00	46	0.45
1B Demolition	Concrete/Industrial Saws	1	6.00	81	0.73
1B Demolition	Crushing/Proc. Equipment	1	6.00	85	0.78
1B Demolition	Excavators	1	6.00	158	0.38
1B Demolition	Other Construction Equipment	1	6.00	172	0.42
1B Demolition	Rubber Tired Dozers	1	6.00	247	0.40
1C Electrical and LV Trench	Concrete/Industrial Saws	1	6.00	81	0.73
1C Electrical and LV Trench	Crushing/Proc. Equipment	1	6.00	85	0.78
1C Electrical and LV Trench	Excavators	1	6.00	158	0.38
1C Electrical and LV Trench	Other Construction Equipment	1	6.00	172	0.42
1C Electrical and LV Trench	Rubber Tired Dozers	1	6.00	247	0.40
1D Utilities Installation	Concrete/Industrial Saws	1	6.00	81	0.73

1D Utilities Installation	Crushing/Proc. Equipment	1	6.00	85	0.78
1D Utilities Installation	Excavators	1	6.00	158	0.38
1D Utilities Installation	Other Construction Equipment	1	6.00	172	0.42
1D Utilities Installation	Rubber Tired Dozers	1	6.00	247	0.40
1D Temporary Parking	Pavers	2	8.00	130	0.42
1D Temporary Parking	Paving Equipment	2	8.00	132	0.36
1D Temporary Parking	Rollers	2	8.00	80	0.38
1D Bungalow Installation	Cranes	1	4.00	231	0.29
1D Bungalow Installation	Forklifts	1	6.00	89	0.20
1D Bungalow Installation	Generator Sets	1	6.00	84	0.74
1D Bungalow Installation	Tractors/Loaders/Backhoes	1	6.00	97	0.37
1D Bungalow Installation	Welders	1	6.00	46	0.45
2A Seismic Modification	Excavators	0	8.00	158	0.38
2A Seismic Modification	Graders	1	6.00	187	0.41
2A Seismic Modification	Rubber Tired Dozers	1	6.00	247	0.40
2A Seismic Modification	Scrapers	0	8.00	367	0.48
2A Seismic Modification	Tractors/Loaders/Backhoes	1	6.00	97	0.37
2B Demolition	Concrete/Industrial Saws	1	6.00	81	0.73
2B Demolition	Crushing/Proc. Equipment	1	6.00	85	0.78
2B Demolition	Excavators	1	6.00	158	0.38
2B Demolition	Other Construction Equipment	1	6.00	172	0.42
2B Demolition	Rubber Tired Dozers	1	6.00	247	0.40
2B Building Construction	Cranes	1	4.00	231	0.29
2B Building Construction	Forklifts	1	6.00	89	0.20
2B Building Construction	Generator Sets	1	6.00	84	0.74
2B Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
2B Building Construction	Welders	1	6.00	46	0.45
2C Seismic Modification	Excavators	0	8.00	158	0.38
2C Seismic Modification	Graders	1	6.00	187	0.41
2C Seismic Modification	Rubber Tired Dozers	1	6.00	247	0.40

2C Seismic Modification	Scrapers	0	8.00	367	0.48
2C Seismic Modification	Tractors/Loaders/Backhoes	1	6.00	97	0.37
2B Architectural Coating	Air Compressors	1	6.00	78	0.48
2D Seismic Modification	Excavators	0	8.00	158	0.38
2D Seismic Modification	Graders	1	6.00	187	0.41
2D Seismic Modification	Rubber Tired Dozers	1	6.00	247	0.40
2D Seismic Modification	Scrapers	0	8.00	367	0.48
2D Seismic Modification	Tractors/Loaders/Backhoes	1	6.00	97	0.37
2E Seismic Modification	Excavators	0	8.00	158	0.38
2E Seismic Modification	Graders	1	6.00	187	0.41
2E Seismic Modification	Rubber Tired Dozers	1	6.00	247	0.40
2E Seismic Modification	Scrapers	0	8.00	367	0.48
2E Seismic Modification	Tractors/Loaders/Backhoes	1	6.00	97	0.37
2F Demolition	Concrete/Industrial Saws	1	6.00	81	0.73
2F Demolition	Crushing/Proc. Equipment	1	6.00	85	0.78
2F Demolition	Excavators	1	6.00	158	0.38
2F Demolition	Other Construction Equipment	1	6.00	172	0.42
2F Demolition	Rubber Tired Dozers	1	6.00	247	0.40
2G Seismic Modification	Excavators	0	8.00	158	0.38
2G Seismic Modification	Graders	1	6.00	187	0.41
2G Seismic Modification	Rubber Tired Dozers	1	6.00	247	0.40
2G Seismic Modification	Scrapers	0	8.00	367	0.48
2G Seismic Modification	Tractors/Loaders/Backhoes	1	6.00	97	0.37
2I Southern Parking Lot	Pavers	2	8.00	130	0.42
2I Southern Parking Lot	Paving Equipment	2	8.00	132	0.36
2I Southern Parking Lot	Rollers	2	8.00	80	0.38
2F Building Construction	Cranes	1	4.00	231	0.29
2F Building Construction	Forklifts	1	6.00	89	0.20
2F Building Construction	Generator Sets	1	6.00	84	0.74
2F Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37

2F Building Construction	Welders	1	6.00	46	0.45
3A Demo Interim Housing	Concrete/Industrial Saws	1	6.00	81	0.73
3A Demo Interim Housing	Crushing/Proc. Equipment	1	6.00	85	0.78
3A Demo Interim Housing	Excavators	1	6.00	158	0.38
3A Demo Interim Housing	Other Construction Equipment	1	6.00	172	0.42
3A Demo Interim Housing	Rubber Tired Dozers	1	6.00	247	0.40
3B New Field	Excavators	0	8.00	158	0.38
3B New Field	Graders	1	6.00	187	0.41
3B New Field	Rubber Tired Dozers	1	6.00	247	0.40
3B New Field	Scrapers	0	8.00	367	0.48
3B New Field	Tractors/Loaders/Backhoes	1	6.00	97	0.37
3C Demolition	Concrete/Industrial Saws	1	6.00	81	0.73
3C Demolition	Crushing/Proc. Equipment	1	6.00	85	0.78
3C Demolition	Excavators	1	6.00	158	0.38
3C Demolition	Other Construction Equipment	1	6.00	172	0.42
3C Demolition	Rubber Tired Dozers	1	6.00	247	0.40
2F Architectural Coating	Air Compressors	1	6.00	78	0.48
3C North Parking Lot	Pavers	2	8.00	130	0.42
3C North Parking Lot	Paving Equipment	2	8.00	132	0.36
3C North Parking Lot	Rollers	2	8.00	80	0.38
1A Paving	Air Compressors	1	6.00	78	0.48
1D Paving	Air Compressors	1	6.00	78	0.48
2I Paving	Air Compressors	1	6.00	78	0.48
3C Paving	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
1A Build Site Access	6	150.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

1A Build LAN Room	5	150.00	77.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
1B Demolition	5	50.00	0.00	10.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
1C Electrical and LV Trench	5	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
1D Utilities Installation	5	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
1D Temporary Parking	6	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
1D Bungalow Installation	5	50.00	77.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
2A Seismic Modification	3	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
2B Demolition	5	50.00	0.00	163.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
2B Building Construction	5	50.00	87.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
2C Seismic Modification	3	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
2B Architectural Coating	1	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
2D Seismic Modification	3	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
2E Seismic Modification	3	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
2F Demolition	5	150.00	0.00	375.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
2G Seismic Modification	3	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
2I Southern Parking Lot	6	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
2F Building Construction	5	50.00	87.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
3A Demo Interim Housing	5	50.00	0.00	52.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
3B New Field	3	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
3C Demolition	5	50.00	0.00	11.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
2F Architectural Coating	1	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
3C North Parking Lot	6	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
1A Paving	1	150.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
1D Paving	1	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
2I Paving	1	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
3C Paving	1	50.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 1A Build Site Access - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.7800e-003	0.0703	0.0733	1.1000e-004		3.7600e-003	3.7600e-003		3.4600e-003	3.4600e-003	0.0000	10.0141	10.0141	3.2400e-003	0.0000	10.0951
Paving	3.9300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0107**	**0.0703**	**0.0733**	**1.1000e-004**		**3.7600e-003**	**3.7600e-003**		**3.4600e-003**	**3.4600e-003**	**0.0000**	**10.0141**	**10.0141**	**3.2400e-003**	**0.0000**	**10.0951**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3400e-003	2.5700e-003	0.0285	8.0000e-005	8.2300e-003	6.0000e-005	8.2900e-003	2.1900e-003	6.0000e-005	2.2400e-003	0.0000	7.4147	7.4147	2.1000e-004	0.0000	7.4201
Total	**3.3400e-003**	**2.5700e-003**	**0.0285**	**8.0000e-005**	**8.2300e-003**	**6.0000e-005**	**8.2900e-003**	**2.1900e-003**	**6.0000e-005**	**2.2400e-003**	**0.0000**	**7.4147**	**7.4147**	**2.1000e-004**	**0.0000**	**7.4201**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.8000e-003	0.0565	0.0865	1.1000e-004		3.0500e-003	3.0500e-003		3.0500e-003	3.0500e-003	0.0000	10.0141	10.0141	3.2400e-003	0.0000	10.0951
Paving	3.9300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.7300e-003**	**0.0565**	**0.0865**	**1.1000e-004**		**3.0500e-003**	**3.0500e-003**		**3.0500e-003**	**3.0500e-003**	**0.0000**	**10.0141**	**10.0141**	**3.2400e-003**	**0.0000**	**10.0951**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3400e-003	2.5700e-003	0.0285	8.0000e-005	8.2300e-003	6.0000e-005	8.2900e-003	2.1900e-003	6.0000e-005	2.2400e-003	0.0000	7.4147	7.4147	2.1000e-004	0.0000	7.4201
Total	**3.3400e-003**	**2.5700e-003**	**0.0285**	**8.0000e-005**	**8.2300e-003**	**6.0000e-005**	**8.2900e-003**	**2.1900e-003**	**6.0000e-005**	**2.2400e-003**	**0.0000**	**7.4147**	**7.4147**	**2.1000e-004**	**0.0000**	**7.4201**

3.3 1A Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1211					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2100e-003	8.4200e-003	9.1600e-003	1.0000e-005		5.5000e-004	5.5000e-004		5.5000e-004	5.5000e-004	0.0000	1.2766	1.2766	1.0000e-004	0.0000	1.2791
Total	**0.1224**	**8.4200e-003**	**9.1600e-003**	**1.0000e-005**		**5.5000e-004**	**5.5000e-004**		**5.5000e-004**	**5.5000e-004**	**0.0000**	**1.2766**	**1.2766**	**1.0000e-004**	**0.0000**	**1.2791**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3400e-003	2.5700e-003	0.0285	8.0000e-005	8.2300e-003	6.0000e-005	8.2900e-003	2.1900e-003	6.0000e-005	2.2400e-003	0.0000	7.4147	7.4147	2.1000e-004	0.0000	7.4201
Total	**3.3400e-003**	**2.5700e-003**	**0.0285**	**8.0000e-005**	**8.2300e-003**	**6.0000e-005**	**8.2900e-003**	**2.1900e-003**	**6.0000e-005**	**2.2400e-003**	**0.0000**	**7.4147**	**7.4147**	**2.1000e-004**	**0.0000**	**7.4201**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1211					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0000e-004	6.7800e-003	9.1600e-003	1.0000e-005		4.8000e-004	4.8000e-004		4.8000e-004	4.8000e-004	0.0000	1.2766	1.2766	1.0000e-004	0.0000	1.2791
Total	**0.1214**	**6.7800e-003**	**9.1600e-003**	**1.0000e-005**		**4.8000e-004**	**4.8000e-004**		**4.8000e-004**	**4.8000e-004**	**0.0000**	**1.2766**	**1.2766**	**1.0000e-004**	**0.0000**	**1.2791**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3400e-003	2.5700e-003	0.0285	8.0000e-005	8.2300e-003	6.0000e-005	8.2900e-003	2.1900e-003	6.0000e-005	2.2400e-003	0.0000	7.4147	7.4147	2.1000e-004	0.0000	7.4201
Total	**3.3400e-003**	**2.5700e-003**	**0.0285**	**8.0000e-005**	**8.2300e-003**	**6.0000e-005**	**8.2900e-003**	**2.1900e-003**	**6.0000e-005**	**2.2400e-003**	**0.0000**	**7.4147**	**7.4147**	**2.1000e-004**	**0.0000**	**7.4201**

3.4 1A Build LAN Room - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.7100e-003	0.0407	0.0349	6.0000e-005		2.2300e-003	2.2300e-003		2.1300e-003	2.1300e-003	0.0000	5.0575	5.0575	1.0100e-003	0.0000	5.0829
Total	**4.7100e-003**	**0.0407**	**0.0349**	**6.0000e-005**		**2.2300e-003**	**2.2300e-003**		**2.1300e-003**	**2.1300e-003**	**0.0000**	**5.0575**	**5.0575**	**1.0100e-003**	**0.0000**	**5.0829**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.1700e-003	0.0372	9.3700e-003	9.0000e-005	2.1800e-003	1.8000e-004	2.3700e-003	6.3000e-004	1.7000e-004	8.0000e-004	0.0000	8.4770	8.4770	5.7000e-004	0.0000	8.4912
Worker	3.0000e-003	2.3100e-003	0.0256	7.0000e-005	7.4100e-003	6.0000e-005	7.4600e-003	1.9700e-003	5.0000e-005	2.0200e-003	0.0000	6.6733	6.6733	1.9000e-004	0.0000	6.6781
Total	**4.1700e-003**	**0.0395**	**0.0350**	**1.6000e-004**	**9.5900e-003**	**2.4000e-004**	**9.8300e-003**	**2.6000e-003**	**2.2000e-004**	**2.8200e-003**	**0.0000**	**15.1503**	**15.1503**	**7.6000e-004**	**0.0000**	**15.1692**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.3000e-003	0.0304	0.0384	6.0000e-005		1.8500e-003	1.8500e-003		1.8500e-003	1.8500e-003	0.0000	5.0575	5.0575	1.0100e-003	0.0000	5.0829
Total	**2.3000e-003**	**0.0304**	**0.0384**	**6.0000e-005**		**1.8500e-003**	**1.8500e-003**		**1.8500e-003**	**1.8500e-003**	**0.0000**	**5.0575**	**5.0575**	**1.0100e-003**	**0.0000**	**5.0829**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.1700e-003	0.0372	9.3700e-003	9.0000e-005	2.1800e-003	1.8000e-004	2.3700e-003	6.3000e-004	1.7000e-004	8.0000e-004	0.0000	8.4770	8.4770	5.7000e-004	0.0000	8.4912
Worker	3.0000e-003	2.3100e-003	0.0256	7.0000e-005	7.4100e-003	6.0000e-005	7.4600e-003	1.9700e-003	5.0000e-005	2.0200e-003	0.0000	6.6733	6.6733	1.9000e-004	0.0000	6.6781
Total	**4.1700e-003**	**0.0395**	**0.0350**	**1.6000e-004**	**9.5900e-003**	**2.4000e-004**	**9.8300e-003**	**2.6000e-003**	**2.2000e-004**	**2.8200e-003**	**0.0000**	**15.1503**	**15.1503**	**7.6000e-004**	**0.0000**	**15.1692**

3.5 1B Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.1200e-003	0.0000	1.1200e-003	1.7000e-004	0.0000	1.7000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0220	0.2054	0.1540	2.6000e-004		0.0109	0.0109		0.0103	0.0103	0.0000	22.7429	22.7429	5.0700e-003	0.0000	22.8696
Total	**0.0220**	**0.2054**	**0.1540**	**2.6000e-004**	**1.1200e-003**	**0.0109**	**0.0121**	**1.7000e-004**	**0.0103**	**0.0105**	**0.0000**	**22.7429**	**22.7429**	**5.0700e-003**	**0.0000**	**22.8696**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.0000e-005	1.4400e-003	3.0000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	3.0000e-005	0.0000	0.3794	0.3794	3.0000e-005	0.0000	0.3801
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3400e-003	1.8000e-003	0.0199	6.0000e-005	5.7600e-003	4.0000e-005	5.8000e-003	1.5300e-003	4.0000e-005	1.5700e-003	0.0000	5.1903	5.1903	1.5000e-004	0.0000	5.1940
Total	**2.3800e-003**	**3.2400e-003**	**0.0202**	**6.0000e-005**	**5.8500e-003**	**4.0000e-005**	**5.8900e-003**	**1.5500e-003**	**4.0000e-005**	**1.6000e-003**	**0.0000**	**5.5697**	**5.5697**	**1.8000e-004**	**0.0000**	**5.5741**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.4000e-004	0.0000	4.4000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.9400e-003	0.1222	0.1681	2.6000e-004		6.6100e-003	6.6100e-003		6.6100e-003	6.6100e-003	0.0000	22.7429	22.7429	5.0700e-003	0.0000	22.8696
Total	**5.9400e-003**	**0.1222**	**0.1681**	**2.6000e-004**	**4.4000e-004**	**6.6100e-003**	**7.0500e-003**	**7.0000e-005**	**6.6100e-003**	**6.6800e-003**	**0.0000**	**22.7429**	**22.7429**	**5.0700e-003**	**0.0000**	**22.8696**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.0000e-005	1.4400e-003	3.0000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	3.0000e-005	0.0000	0.3794	0.3794	3.0000e-005	0.0000	0.3801
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3400e-003	1.8000e-003	0.0199	6.0000e-005	5.7600e-003	4.0000e-005	5.8000e-003	1.5300e-003	4.0000e-005	1.5700e-003	0.0000	5.1903	5.1903	1.5000e-004	0.0000	5.1940
Total	**2.3800e-003**	**3.2400e-003**	**0.0202**	**6.0000e-005**	**5.8500e-003**	**4.0000e-005**	**5.8900e-003**	**1.5500e-003**	**4.0000e-005**	**1.6000e-003**	**0.0000**	**5.5697**	**5.5697**	**1.8000e-004**	**0.0000**	**5.5741**

3.6 1C Electrical and LV Trench - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0471	0.4401	0.3301	5.6000e-004		0.0234	0.0234		0.0221	0.0221	0.0000	48.7348	48.7348	0.0109	0.0000	49.0064
Total	**0.0471**	**0.4401**	**0.3301**	**5.6000e-004**		**0.0234**	**0.0234**		**0.0221**	**0.0221**	**0.0000**	**48.7348**	**48.7348**	**0.0109**	**0.0000**	**49.0064**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0100e-003	3.8600e-003	0.0427	1.2000e-004	0.0123	1.0000e-004	0.0124	3.2800e-003	9.0000e-005	3.3700e-003	0.0000	11.1221	11.1221	3.2000e-004	0.0000	11.1301
Total	**5.0100e-003**	**3.8600e-003**	**0.0427**	**1.2000e-004**	**0.0123**	**1.0000e-004**	**0.0124**	**3.2800e-003**	**9.0000e-005**	**3.3700e-003**	**0.0000**	**11.1221**	**11.1221**	**3.2000e-004**	**0.0000**	**11.1301**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0127	0.2618	0.3603	5.6000e-004		0.0142	0.0142		0.0142	0.0142	0.0000	48.7347	48.7347	0.0109	0.0000	49.0063
Total	**0.0127**	**0.2618**	**0.3603**	**5.6000e-004**		**0.0142**	**0.0142**		**0.0142**	**0.0142**	**0.0000**	**48.7347**	**48.7347**	**0.0109**	**0.0000**	**49.0063**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0100e-003	3.8600e-003	0.0427	1.2000e-004	0.0123	1.0000e-004	0.0124	3.2800e-003	9.0000e-005	3.3700e-003	0.0000	11.1221	11.1221	3.2000e-004	0.0000	11.1301
Total	**5.0100e-003**	**3.8600e-003**	**0.0427**	**1.2000e-004**	**0.0123**	**1.0000e-004**	**0.0124**	**3.2800e-003**	**9.0000e-005**	**3.3700e-003**	**0.0000**	**11.1221**	**11.1221**	**3.2000e-004**	**0.0000**	**11.1301**

3.7 1D Utilities Installation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0220	0.2054	0.1540	2.6000e-004		0.0109	0.0109		0.0103	0.0103	0.0000	22.7429	22.7429	5.0700e-003	0.0000	22.8696
Total	**0.0220**	**0.2054**	**0.1540**	**2.6000e-004**		**0.0109**	**0.0109**		**0.0103**	**0.0103**	**0.0000**	**22.7429**	**22.7429**	**5.0700e-003**	**0.0000**	**22.8696**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3400e-003	1.8000e-003	0.0199	6.0000e-005	5.7600e-003	4.0000e-005	5.8000e-003	1.5300e-003	4.0000e-005	1.5700e-003	0.0000	5.1903	5.1903	1.5000e-004	0.0000	5.1940
Total	**2.3400e-003**	**1.8000e-003**	**0.0199**	**6.0000e-005**	**5.7600e-003**	**4.0000e-005**	**5.8000e-003**	**1.5300e-003**	**4.0000e-005**	**1.5700e-003**	**0.0000**	**5.1903**	**5.1903**	**1.5000e-004**	**0.0000**	**5.1940**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.9400e-003	0.1222	0.1681	2.6000e-004		6.6100e-003	6.6100e-003		6.6100e-003	6.6100e-003	0.0000	22.7429	22.7429	5.0700e-003	0.0000	22.8696
Total	**5.9400e-003**	**0.1222**	**0.1681**	**2.6000e-004**		**6.6100e-003**	**6.6100e-003**		**6.6100e-003**	**6.6100e-003**	**0.0000**	**22.7429**	**22.7429**	**5.0700e-003**	**0.0000**	**22.8696**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3400e-003	1.8000e-003	0.0199	6.0000e-005	5.7600e-003	4.0000e-005	5.8000e-003	1.5300e-003	4.0000e-005	1.5700e-003	0.0000	5.1903	5.1903	1.5000e-004	0.0000	5.1940
Total	**2.3400e-003**	**1.8000e-003**	**0.0199**	**6.0000e-005**	**5.7600e-003**	**4.0000e-005**	**5.8000e-003**	**1.5300e-003**	**4.0000e-005**	**1.5700e-003**	**0.0000**	**5.1903**	**5.1903**	**1.5000e-004**	**0.0000**	**5.1940**

3.8 1D Temporary Parking - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.0300e-003	0.0211	0.0220	3.0000e-005		1.1300e-003	1.1300e-003		1.0400e-003	1.0400e-003	0.0000	3.0042	3.0042	9.7000e-004	0.0000	3.0285
Paving	5.1000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.5400e-003**	**0.0211**	**0.0220**	**3.0000e-005**		**1.1300e-003**	**1.1300e-003**		**1.0400e-003**	**1.0400e-003**	**0.0000**	**3.0042**	**3.0042**	**9.7000e-004**	**0.0000**	**3.0285**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3000e-004	2.6000e-004	2.8500e-003	1.0000e-005	8.2000e-004	1.0000e-005	8.3000e-004	2.2000e-004	1.0000e-005	2.2000e-004	0.0000	0.7415	0.7415	2.0000e-005	0.0000	0.7420
Total	**3.3000e-004**	**2.6000e-004**	**2.8500e-003**	**1.0000e-005**	**8.2000e-004**	**1.0000e-005**	**8.3000e-004**	**2.2000e-004**	**1.0000e-005**	**2.2000e-004**	**0.0000**	**0.7415**	**0.7415**	**2.0000e-005**	**0.0000**	**0.7420**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.4000e-004	0.0169	0.0259	3.0000e-005		9.1000e-004	9.1000e-004		9.1000e-004	9.1000e-004	0.0000	3.0042	3.0042	9.7000e-004	0.0000	3.0285
Paving	5.1000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.3500e-003**	**0.0169**	**0.0259**	**3.0000e-005**		**9.1000e-004**	**9.1000e-004**		**9.1000e-004**	**9.1000e-004**	**0.0000**	**3.0042**	**3.0042**	**9.7000e-004**	**0.0000**	**3.0285**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3000e-004	2.6000e-004	2.8500e-003	1.0000e-005	8.2000e-004	1.0000e-005	8.3000e-004	2.2000e-004	1.0000e-005	2.2000e-004	0.0000	0.7415	0.7415	2.0000e-005	0.0000	0.7420
Total	**3.3000e-004**	**2.6000e-004**	**2.8500e-003**	**1.0000e-005**	**8.2000e-004**	**1.0000e-005**	**8.3000e-004**	**2.2000e-004**	**1.0000e-005**	**2.2000e-004**	**0.0000**	**0.7415**	**0.7415**	**2.0000e-005**	**0.0000**	**0.7420**

3.8 1D Temporary Parking - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0126	0.1292	0.1465	2.3000e-004		6.7800e-003	6.7800e-003		6.2400e-003	6.2400e-003	0.0000	20.0235	20.0235	6.4800e-003	0.0000	20.1854
Paving	3.4200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0160**	**0.1292**	**0.1465**	**2.3000e-004**		**6.7800e-003**	**6.7800e-003**		**6.2400e-003**	**6.2400e-003**	**0.0000**	**20.0235**	**20.0235**	**6.4800e-003**	**0.0000**	**20.1854**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0800e-003	1.5400e-003	0.0175	5.0000e-005	5.4900e-003	4.0000e-005	5.5300e-003	1.4600e-003	4.0000e-005	1.4900e-003	0.0000	4.7833	4.7833	1.3000e-004	0.0000	4.7865
Total	**2.0800e-003**	**1.5400e-003**	**0.0175**	**5.0000e-005**	**5.4900e-003**	**4.0000e-005**	**5.5300e-003**	**1.4600e-003**	**4.0000e-005**	**1.4900e-003**	**0.0000**	**4.7833**	**4.7833**	**1.3000e-004**	**0.0000**	**4.7865**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.6100e-003	0.1130	0.1730	2.3000e-004		6.0900e-003	6.0900e-003		6.0900e-003	6.0900e-003	0.0000	20.0235	20.0235	6.4800e-003	0.0000	20.1854
Paving	3.4200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.0300e-003**	**0.1130**	**0.1730**	**2.3000e-004**		**6.0900e-003**	**6.0900e-003**		**6.0900e-003**	**6.0900e-003**	**0.0000**	**20.0235**	**20.0235**	**6.4800e-003**	**0.0000**	**20.1854**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0800e-003	1.5400e-003	0.0175	5.0000e-005	5.4900e-003	4.0000e-005	5.5300e-003	1.4600e-003	4.0000e-005	1.4900e-003	0.0000	4.7833	4.7833	1.3000e-004	0.0000	4.7865
Total	**2.0800e-003**	**1.5400e-003**	**0.0175**	**5.0000e-005**	**5.4900e-003**	**4.0000e-005**	**5.5300e-003**	**1.4600e-003**	**4.0000e-005**	**1.4900e-003**	**0.0000**	**4.7833**	**4.7833**	**1.3000e-004**	**0.0000**	**4.7865**

3.9 1D Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0184					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6000e-004	2.5300e-003	2.7500e-003	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	0.3830	0.3830	3.0000e-005	0.0000	0.3837
Total	**0.0188**	**2.5300e-003**	**2.7500e-003**	**0.0000**		**1.7000e-004**	**1.7000e-004**		**1.7000e-004**	**1.7000e-004**	**0.0000**	**0.3830**	**0.3830**	**3.0000e-005**	**0.0000**	**0.3837**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3000e-004	2.6000e-004	2.8500e-003	1.0000e-005	8.2000e-004	1.0000e-005	8.3000e-004	2.2000e-004	1.0000e-005	2.2000e-004	0.0000	0.7415	0.7415	2.0000e-005	0.0000	0.7420
Total	**3.3000e-004**	**2.6000e-004**	**2.8500e-003**	**1.0000e-005**	**8.2000e-004**	**1.0000e-005**	**8.3000e-004**	**2.2000e-004**	**1.0000e-005**	**2.2000e-004**	**0.0000**	**0.7415**	**0.7415**	**2.0000e-005**	**0.0000**	**0.7420**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0184					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.0000e-005	2.0400e-003	2.7500e-003	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	0.3830	0.3830	3.0000e-005	0.0000	0.3837
Total	**0.0185**	**2.0400e-003**	**2.7500e-003**	**0.0000**		**1.4000e-004**	**1.4000e-004**		**1.4000e-004**	**1.4000e-004**	**0.0000**	**0.3830**	**0.3830**	**3.0000e-005**	**0.0000**	**0.3837**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3000e-004	2.6000e-004	2.8500e-003	1.0000e-005	8.2000e-004	1.0000e-005	8.3000e-004	2.2000e-004	1.0000e-005	2.2000e-004	0.0000	0.7415	0.7415	2.0000e-005	0.0000	0.7420
Total	**3.3000e-004**	**2.6000e-004**	**2.8500e-003**	**1.0000e-005**	**8.2000e-004**	**1.0000e-005**	**8.3000e-004**	**2.2000e-004**	**1.0000e-005**	**2.2000e-004**	**0.0000**	**0.7415**	**0.7415**	**2.0000e-005**	**0.0000**	**0.7420**

3.9 1D Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1229					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1900e-003	0.0153	0.0182	3.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004	0.0000	2.5533	2.5533	1.8000e-004	0.0000	2.5576
Total	**0.1251**	**0.0153**	**0.0182**	**3.0000e-005**		**9.4000e-004**	**9.4000e-004**		**9.4000e-004**	**9.4000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.8000e-004**	**0.0000**	**2.5576**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0800e-003	1.5400e-003	0.0175	5.0000e-005	5.4900e-003	4.0000e-005	5.5300e-003	1.4600e-003	4.0000e-005	1.4900e-003	0.0000	4.7833	4.7833	1.3000e-004	0.0000	4.7865
Total	**2.0800e-003**	**1.5400e-003**	**0.0175**	**5.0000e-005**	**5.4900e-003**	**4.0000e-005**	**5.5300e-003**	**1.4600e-003**	**4.0000e-005**	**1.4900e-003**	**0.0000**	**4.7833**	**4.7833**	**1.3000e-004**	**0.0000**	**4.7865**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1229					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.9000e-004	0.0136	0.0183	3.0000e-005		9.5000e-004	9.5000e-004		9.5000e-004	9.5000e-004	0.0000	2.5533	2.5533	1.8000e-004	0.0000	2.5576
Total	**0.1235**	**0.0136**	**0.0183**	**3.0000e-005**		**9.5000e-004**	**9.5000e-004**		**9.5000e-004**	**9.5000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.8000e-004**	**0.0000**	**2.5576**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0800e-003	1.5400e-003	0.0175	5.0000e-005	5.4900e-003	4.0000e-005	5.5300e-003	1.4600e-003	4.0000e-005	1.4900e-003	0.0000	4.7833	4.7833	1.3000e-004	0.0000	4.7865
Total	**2.0800e-003**	**1.5400e-003**	**0.0175**	**5.0000e-005**	**5.4900e-003**	**4.0000e-005**	**5.5300e-003**	**1.4600e-003**	**4.0000e-005**	**1.4900e-003**	**0.0000**	**4.7833**	**4.7833**	**1.3000e-004**	**0.0000**	**4.7865**

3.10 1D Bungalow Installation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0305	0.2677	0.2475	4.3000e-004		0.0139	0.0139		0.0132	0.0132	0.0000	36.5286	36.5286	7.1700e-003	0.0000	36.7080
Total	**0.0305**	**0.2677**	**0.2475**	**4.3000e-004**		**0.0139**	**0.0139**		**0.0132**	**0.0132**	**0.0000**	**36.5286**	**36.5286**	**7.1700e-003**	**0.0000**	**36.7080**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.1900e-003	0.2434	0.0615	6.3000e-004	0.0158	5.0000e-004	0.0163	4.5500e-003	4.7000e-004	5.0200e-003	0.0000	60.7624	60.7624	3.9200e-003	0.0000	60.8603
Worker	6.7500e-003	5.0100e-003	0.0567	1.7000e-004	0.0178	1.3000e-004	0.0180	4.7300e-003	1.2000e-004	4.8600e-003	0.0000	15.5456	15.5456	4.2000e-004	0.0000	15.5561
Total	**0.0139**	**0.2484**	**0.1182**	**8.0000e-004**	**0.0336**	**6.3000e-004**	**0.0342**	**9.2800e-003**	**5.9000e-004**	**9.8800e-003**	**0.0000**	**76.3080**	**76.3080**	**4.3400e-003**	**0.0000**	**76.4163**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0157	0.2178	0.2761	4.3000e-004		0.0131	0.0131		0.0131	0.0131	0.0000	36.5286	36.5286	7.1700e-003	0.0000	36.7080
Total	**0.0157**	**0.2178**	**0.2761**	**4.3000e-004**		**0.0131**	**0.0131**		**0.0131**	**0.0131**	**0.0000**	**36.5286**	**36.5286**	**7.1700e-003**	**0.0000**	**36.7080**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.1900e-003	0.2434	0.0615	6.3000e-004	0.0158	5.0000e-004	0.0163	4.5500e-003	4.7000e-004	5.0200e-003	0.0000	60.7624	60.7624	3.9200e-003	0.0000	60.8603
Worker	6.7500e-003	5.0100e-003	0.0567	1.7000e-004	0.0178	1.3000e-004	0.0180	4.7300e-003	1.2000e-004	4.8600e-003	0.0000	15.5456	15.5456	4.2000e-004	0.0000	15.5561
Total	**0.0139**	**0.2484**	**0.1182**	**8.0000e-004**	**0.0336**	**6.3000e-004**	**0.0342**	**9.2800e-003**	**5.9000e-004**	**9.8800e-003**	**0.0000**	**76.3080**	**76.3080**	**4.3400e-003**	**0.0000**	**76.4163**

3.11 2A Seismic Modification - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.6659	0.0000	0.6659	0.3113	0.0000	0.3113	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1518	1.6913	0.7259	1.6400e-003		0.0749	0.0749		0.0689	0.0689	0.0000	144.5093	144.5093	0.0467	0.0000	145.6778
Total	**0.1518**	**1.6913**	**0.7259**	**1.6400e-003**	**0.6659**	**0.0749**	**0.7407**	**0.3113**	**0.0689**	**0.3802**	**0.0000**	**144.5093**	**144.5093**	**0.0467**	**0.0000**	**145.6778**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0249	0.0185	0.2094	6.3000e-004	0.0658	5.0000e-004	0.0663	0.0175	4.6000e-004	0.0179	0.0000	57.3991	57.3991	1.5400e-003	0.0000	57.4377
Total	**0.0249**	**0.0185**	**0.2094**	**6.3000e-004**	**0.0658**	**5.0000e-004**	**0.0663**	**0.0175**	**4.6000e-004**	**0.0179**	**0.0000**	**57.3991**	**57.3991**	**1.5400e-003**	**0.0000**	**57.4377**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2597	0.0000	0.2597	0.1214	0.0000	0.1214	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0403	0.8023	0.9350	1.6400e-003		0.0355	0.0355		0.0355	0.0355	0.0000	144.5092	144.5092	0.0467	0.0000	145.6776
Total	**0.0403**	**0.8023**	**0.9350**	**1.6400e-003**	**0.2597**	**0.0355**	**0.2951**	**0.1214**	**0.0355**	**0.1569**	**0.0000**	**144.5092**	**144.5092**	**0.0467**	**0.0000**	**145.6776**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0249	0.0185	0.2094	6.3000e-004	0.0658	5.0000e-004	0.0663	0.0175	4.6000e-004	0.0179	0.0000	57.3991	57.3991	1.5400e-003	0.0000	57.4377
Total	**0.0249**	**0.0185**	**0.2094**	**6.3000e-004**	**0.0658**	**5.0000e-004**	**0.0663**	**0.0175**	**4.6000e-004**	**0.0179**	**0.0000**	**57.3991**	**57.3991**	**1.5400e-003**	**0.0000**	**57.4377**

3.11 2A Seismic Modification - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.7110	0.0000	0.7110	0.3361	0.0000	0.3361	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1381	1.5334	0.7353	1.7800e-003		0.0658	0.0658		0.0605	0.0605	0.0000	156.5179	156.5179	0.0506	0.0000	157.7834
Total	**0.1381**	**1.5334**	**0.7353**	**1.7800e-003**	**0.7110**	**0.0658**	**0.7768**	**0.3361**	**0.0605**	**0.3966**	**0.0000**	**156.5179**	**156.5179**	**0.0506**	**0.0000**	**157.7834**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0254	0.0181	0.2095	6.6000e-004	0.0713	5.2000e-004	0.0718	0.0189	4.8000e-004	0.0194	0.0000	59.9551	59.9551	1.5100e-003	0.0000	59.9929
Total	**0.0254**	**0.0181**	**0.2095**	**6.6000e-004**	**0.0713**	**5.2000e-004**	**0.0718**	**0.0189**	**4.8000e-004**	**0.0194**	**0.0000**	**59.9551**	**59.9551**	**1.5100e-003**	**0.0000**	**59.9929**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2773	0.0000	0.2773	0.1311	0.0000	0.1311	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0436	0.8691	1.0129	1.7800e-003		0.0384	0.0384		0.0384	0.0384	0.0000	156.5177	156.5177	0.0506	0.0000	157.7832
Total	**0.0436**	**0.8691**	**1.0129**	**1.7800e-003**	**0.2773**	**0.0384**	**0.3157**	**0.1311**	**0.0384**	**0.1695**	**0.0000**	**156.5177**	**156.5177**	**0.0506**	**0.0000**	**157.7832**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0254	0.0181	0.2095	6.6000e-004	0.0713	5.2000e-004	0.0718	0.0189	4.8000e-004	0.0194	0.0000	59.9551	59.9551	1.5100e-003	0.0000	59.9929
Total	**0.0254**	**0.0181**	**0.2095**	**6.6000e-004**	**0.0713**	**5.2000e-004**	**0.0718**	**0.0189**	**4.8000e-004**	**0.0194**	**0.0000**	**59.9551**	**59.9551**	**1.5100e-003**	**0.0000**	**59.9929**

3.11 2A Seismic Modification - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4017	0.0000	0.4017	0.1661	0.0000	0.1661	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0563	0.6142	0.3243	8.4000e-004		0.0253	0.0253		0.0232	0.0232	0.0000	74.0399	74.0399	0.0240	0.0000	74.6386
Total	**0.0563**	**0.6142**	**0.3243**	**8.4000e-004**	**0.4017**	**0.0253**	**0.4269**	**0.1661**	**0.0232**	**0.1893**	**0.0000**	**74.0399**	**74.0399**	**0.0240**	**0.0000**	**74.6386**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0113	7.7500e-003	0.0914	3.0000e-004	0.0337	2.4000e-004	0.0340	8.9600e-003	2.2000e-004	9.1800e-003	0.0000	27.3065	27.3065	6.4000e-004	0.0000	27.3227
Total	**0.0113**	**7.7500e-003**	**0.0914**	**3.0000e-004**	**0.0337**	**2.4000e-004**	**0.0340**	**8.9600e-003**	**2.2000e-004**	**9.1800e-003**	**0.0000**	**27.3065**	**27.3065**	**6.4000e-004**	**0.0000**	**27.3227**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1566	0.0000	0.1566	0.0648	0.0000	0.0648	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0206	0.4112	0.4792	8.4000e-004		0.0182	0.0182		0.0182	0.0182	0.0000	74.0399	74.0399	0.0240	0.0000	74.6385
Total	**0.0206**	**0.4112**	**0.4792**	**8.4000e-004**	**0.1566**	**0.0182**	**0.1748**	**0.0648**	**0.0182**	**0.0829**	**0.0000**	**74.0399**	**74.0399**	**0.0240**	**0.0000**	**74.6385**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0113	7.7500e-003	0.0914	3.0000e-004	0.0337	2.4000e-004	0.0340	8.9600e-003	2.2000e-004	9.1800e-003	0.0000	27.3065	27.3065	6.4000e-004	0.0000	27.3227
Total	**0.0113**	**7.7500e-003**	**0.0914**	**3.0000e-004**	**0.0337**	**2.4000e-004**	**0.0340**	**8.9600e-003**	**2.2000e-004**	**9.1800e-003**	**0.0000**	**27.3065**	**27.3065**	**6.4000e-004**	**0.0000**	**27.3227**

3.12 2B Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0176	0.0000	0.0176	2.6700e-003	0.0000	2.6700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0214	0.1983	0.1599	2.7000e-004		0.0103	0.0103		9.7200e-003	9.7200e-003	0.0000	23.8244	23.8244	5.2600e-003	0.0000	23.9559
Total	**0.0214**	**0.1983**	**0.1599**	**2.7000e-004**	**0.0176**	**0.0103**	**0.0279**	**2.6700e-003**	**9.7200e-003**	**0.0124**	**0.0000**	**23.8244**	**23.8244**	**5.2600e-003**	**0.0000**	**23.9559**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.3000e-004	0.0218	4.8000e-003	6.0000e-005	1.4000e-003	7.0000e-005	1.4700e-003	3.8000e-004	6.0000e-005	4.5000e-004	0.0000	6.1164	6.1164	4.4000e-004	0.0000	6.1274
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2900e-003	1.7000e-003	0.0192	6.0000e-005	6.0300e-003	5.0000e-005	6.0800e-003	1.6000e-003	4.0000e-005	1.6400e-003	0.0000	5.2616	5.2616	1.4000e-004	0.0000	5.2651
Total	**2.9200e-003**	**0.0235**	**0.0240**	**1.2000e-004**	**7.4300e-003**	**1.2000e-004**	**7.5500e-003**	**1.9800e-003**	**1.0000e-004**	**2.0900e-003**	**0.0000**	**11.3779**	**11.3779**	**5.8000e-004**	**0.0000**	**11.3925**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					6.8800e-003	0.0000	6.8800e-003	1.0400e-003	0.0000	1.0400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.2200e-003	0.1280	0.1761	2.7000e-004		6.9200e-003	6.9200e-003		6.9200e-003	6.9200e-003	0.0000	23.8244	23.8244	5.2600e-003	0.0000	23.9559
Total	**6.2200e-003**	**0.1280**	**0.1761**	**2.7000e-004**	**6.8800e-003**	**6.9200e-003**	**0.0138**	**1.0400e-003**	**6.9200e-003**	**7.9600e-003**	**0.0000**	**23.8244**	**23.8244**	**5.2600e-003**	**0.0000**	**23.9559**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.3000e-004	0.0218	4.8000e-003	6.0000e-005	1.4000e-003	7.0000e-005	1.4700e-003	3.8000e-004	6.0000e-005	4.5000e-004	0.0000	6.1164	6.1164	4.4000e-004	0.0000	6.1274
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2900e-003	1.7000e-003	0.0192	6.0000e-005	6.0300e-003	5.0000e-005	6.0800e-003	1.6000e-003	4.0000e-005	1.6400e-003	0.0000	5.2616	5.2616	1.4000e-004	0.0000	5.2651
Total	**2.9200e-003**	**0.0235**	**0.0240**	**1.2000e-004**	**7.4300e-003**	**1.2000e-004**	**7.5500e-003**	**1.9800e-003**	**1.0000e-004**	**2.0900e-003**	**0.0000**	**11.3779**	**11.3779**	**5.8000e-004**	**0.0000**	**11.3925**

3.13 2B Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1033	0.9061	0.8377	1.4500e-003		0.0469	0.0469		0.0448	0.0448	0.0000	123.6354	123.6354	0.0243	0.0000	124.2425
Total	**0.1033**	**0.9061**	**0.8377**	**1.4500e-003**		**0.0469**	**0.0469**		**0.0448**	**0.0448**	**0.0000**	**123.6354**	**123.6354**	**0.0243**	**0.0000**	**124.2425**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0275	0.9309	0.2353	2.3900e-003	0.0603	1.9000e-003	0.0622	0.0174	1.8100e-003	0.0192	0.0000	232.3659	232.3659	0.0150	0.0000	232.7404
Worker	0.0229	0.0170	0.1920	5.8000e-004	0.0603	4.5000e-004	0.0608	0.0160	4.2000e-004	0.0164	0.0000	52.6159	52.6159	1.4200e-003	0.0000	52.6513
Total	**0.0504**	**0.9478**	**0.4272**	**2.9700e-003**	**0.1207**	**2.3500e-003**	**0.1230**	**0.0334**	**2.2300e-003**	**0.0357**	**0.0000**	**284.9818**	**284.9818**	**0.0164**	**0.0000**	**285.3916**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0530	0.7371	0.9345	1.4500e-003		0.0442	0.0442		0.0442	0.0442	0.0000	123.6353	123.6353	0.0243	0.0000	124.2424
Total	**0.0530**	**0.7371**	**0.9345**	**1.4500e-003**		**0.0442**	**0.0442**		**0.0442**	**0.0442**	**0.0000**	**123.6353**	**123.6353**	**0.0243**	**0.0000**	**124.2424**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0275	0.9309	0.2353	2.3900e-003	0.0603	1.9000e-003	0.0622	0.0174	1.8100e-003	0.0192	0.0000	232.3659	232.3659	0.0150	0.0000	232.7404
Worker	0.0229	0.0170	0.1920	5.8000e-004	0.0603	4.5000e-004	0.0608	0.0160	4.2000e-004	0.0164	0.0000	52.6159	52.6159	1.4200e-003	0.0000	52.6513
Total	**0.0504**	**0.9478**	**0.4272**	**2.9700e-003**	**0.1207**	**2.3500e-003**	**0.1230**	**0.0334**	**2.2300e-003**	**0.0357**	**0.0000**	**284.9818**	**284.9818**	**0.0164**	**0.0000**	**285.3916**

3.13 2B Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1105	0.9663	0.9774	1.7200e-003		0.0475	0.0475		0.0453	0.0453	0.0000	146.1499	146.1499	0.0283	0.0000	146.8580
Total	**0.1105**	**0.9663**	**0.9774**	**1.7200e-003**		**0.0475**	**0.0475**		**0.0453**	**0.0453**	**0.0000**	**146.1499**	**146.1499**	**0.0283**	**0.0000**	**146.8580**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0305	1.0439	0.2632	2.8000e-003	0.0713	1.9500e-003	0.0732	0.0206	1.8700e-003	0.0224	0.0000	272.1884	272.1884	0.0171	0.0000	272.6155
Worker	0.0254	0.0181	0.2095	6.6000e-004	0.0713	5.2000e-004	0.0718	0.0189	4.8000e-004	0.0194	0.0000	59.9551	59.9551	1.5100e-003	0.0000	59.9929
Total	**0.0559**	**1.0620**	**0.4727**	**3.4600e-003**	**0.1426**	**2.4700e-003**	**0.1451**	**0.0395**	**2.3500e-003**	**0.0419**	**0.0000**	**332.1435**	**332.1435**	**0.0186**	**0.0000**	**332.6085**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0601	0.8667	1.1021	1.7200e-003		0.0512	0.0512		0.0512	0.0512	0.0000	146.1498	146.1498	0.0283	0.0000	146.8579
Total	**0.0601**	**0.8667**	**1.1021**	**1.7200e-003**		**0.0512**	**0.0512**		**0.0512**	**0.0512**	**0.0000**	**146.1498**	**146.1498**	**0.0283**	**0.0000**	**146.8579**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0305	1.0439	0.2632	2.8000e-003	0.0713	1.9500e-003	0.0732	0.0206	1.8700e-003	0.0224	0.0000	272.1884	272.1884	0.0171	0.0000	272.6155
Worker	0.0254	0.0181	0.2095	6.6000e-004	0.0713	5.2000e-004	0.0718	0.0189	4.8000e-004	0.0194	0.0000	59.9551	59.9551	1.5100e-003	0.0000	59.9929
Total	**0.0559**	**1.0620**	**0.4727**	**3.4600e-003**	**0.1426**	**2.4700e-003**	**0.1451**	**0.0395**	**2.3500e-003**	**0.0419**	**0.0000**	**332.1435**	**332.1435**	**0.0186**	**0.0000**	**332.6085**

3.13 2B Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0476	0.4163	0.4513	8.0000e-004		0.0193	0.0193		0.0184	0.0184	0.0000	68.0295	68.0295	0.0130	0.0000	68.3547
Total	**0.0476**	**0.4163**	**0.4513**	**8.0000e-004**		**0.0193**	**0.0193**		**0.0184**	**0.0184**	**0.0000**	**68.0295**	**68.0295**	**0.0130**	**0.0000**	**68.3547**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0105	0.3645	0.1098	1.2600e-003	0.0332	4.2000e-004	0.0336	9.5700e-003	4.0000e-004	9.9700e-003	0.0000	122.7615	122.7615	7.0100e-003	0.0000	122.9367
Worker	0.0111	7.6300e-003	0.0899	3.0000e-004	0.0332	2.4000e-004	0.0334	8.8100e-003	2.2000e-004	9.0300e-003	0.0000	26.8625	26.8625	6.3000e-004	0.0000	26.8784
Total	**0.0217**	**0.3721**	**0.1997**	**1.5600e-003**	**0.0664**	**6.6000e-004**	**0.0670**	**0.0184**	**6.2000e-004**	**0.0190**	**0.0000**	**149.6240**	**149.6240**	**7.6400e-003**	**0.0000**	**149.8151**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0270	0.4014	0.5121	8.0000e-004		0.0235	0.0235		0.0235	0.0235	0.0000	68.0294	68.0294	0.0130	0.0000	68.3546
Total	**0.0270**	**0.4014**	**0.5121**	**8.0000e-004**		**0.0235**	**0.0235**		**0.0235**	**0.0235**	**0.0000**	**68.0294**	**68.0294**	**0.0130**	**0.0000**	**68.3546**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0105	0.3645	0.1098	1.2600e-003	0.0332	4.2000e-004	0.0336	9.5700e-003	4.0000e-004	9.9700e-003	0.0000	122.7615	122.7615	7.0100e-003	0.0000	122.9367
Worker	0.0111	7.6300e-003	0.0899	3.0000e-004	0.0332	2.4000e-004	0.0334	8.8100e-003	2.2000e-004	9.0300e-003	0.0000	26.8625	26.8625	6.3000e-004	0.0000	26.8784
Total	**0.0217**	**0.3721**	**0.1997**	**1.5600e-003**	**0.0664**	**6.6000e-004**	**0.0670**	**0.0184**	**6.2000e-004**	**0.0190**	**0.0000**	**149.6240**	**149.6240**	**7.6400e-003**	**0.0000**	**149.8151**

3.14 2C Seismic Modification - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3170	0.0000	0.3170	0.1440	0.0000	0.1440	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0584	0.6487	0.3111	7.5000e-004		0.0278	0.0278		0.0256	0.0256	0.0000	66.2191	66.2191	0.0214	0.0000	66.7545
Total	**0.0584**	**0.6487**	**0.3111**	**7.5000e-004**	**0.3170**	**0.0278**	**0.3448**	**0.1440**	**0.0256**	**0.1696**	**0.0000**	**66.2191**	**66.2191**	**0.0214**	**0.0000**	**66.7545**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0107	7.6600e-003	0.0886	2.8000e-004	0.0302	2.2000e-004	0.0304	8.0100e-003	2.0000e-004	8.2200e-003	0.0000	25.3656	25.3656	6.4000e-004	0.0000	25.3816
Total	**0.0107**	**7.6600e-003**	**0.0886**	**2.8000e-004**	**0.0302**	**2.2000e-004**	**0.0304**	**8.0100e-003**	**2.0000e-004**	**8.2200e-003**	**0.0000**	**25.3656**	**25.3656**	**6.4000e-004**	**0.0000**	**25.3816**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1236	0.0000	0.1236	0.0561	0.0000	0.0561	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0185	0.3677	0.4285	7.5000e-004		0.0163	0.0163		0.0163	0.0163	0.0000	66.2190	66.2190	0.0214	0.0000	66.7544
Total	**0.0185**	**0.3677**	**0.4285**	**7.5000e-004**	**0.1236**	**0.0163**	**0.1399**	**0.0561**	**0.0163**	**0.0724**	**0.0000**	**66.2190**	**66.2190**	**0.0214**	**0.0000**	**66.7544**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0107	7.6600e-003	0.0886	2.8000e-004	0.0302	2.2000e-004	0.0304	8.0100e-003	2.0000e-004	8.2200e-003	0.0000	25.3656	25.3656	6.4000e-004	0.0000	25.3816
Total	**0.0107**	**7.6600e-003**	**0.0886**	**2.8000e-004**	**0.0302**	**2.2000e-004**	**0.0304**	**8.0100e-003**	**2.0000e-004**	**8.2200e-003**	**0.0000**	**25.3656**	**25.3656**	**6.4000e-004**	**0.0000**	**25.3816**

3.14 2C Seismic Modification - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.5993	0.0000	0.5993	0.2991	0.0000	0.2991	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1075	1.1735	0.6195	1.6100e-003		0.0483	0.0483		0.0444	0.0444	0.0000	141.4584	141.4584	0.0458	0.0000	142.6022
Total	**0.1075**	**1.1735**	**0.6195**	**1.6100e-003**	**0.5993**	**0.0483**	**0.6476**	**0.2991**	**0.0444**	**0.3435**	**0.0000**	**141.4584**	**141.4584**	**0.0458**	**0.0000**	**142.6022**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0216	0.0148	0.1746	5.8000e-004	0.0645	4.6000e-004	0.0649	0.0171	4.2000e-004	0.0175	0.0000	52.1710	52.1710	1.2300e-003	0.0000	52.2018
Total	**0.0216**	**0.0148**	**0.1746**	**5.8000e-004**	**0.0645**	**4.6000e-004**	**0.0649**	**0.0171**	**4.2000e-004**	**0.0175**	**0.0000**	**52.1710**	**52.1710**	**1.2300e-003**	**0.0000**	**52.2018**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2337	0.0000	0.2337	0.1167	0.0000	0.1167	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0394	0.7856	0.9155	1.6100e-003		0.0347	0.0347		0.0347	0.0347	0.0000	141.4583	141.4583	0.0458	0.0000	142.6020
Total	**0.0394**	**0.7856**	**0.9155**	**1.6100e-003**	**0.2337**	**0.0347**	**0.2684**	**0.1167**	**0.0347**	**0.1514**	**0.0000**	**141.4583**	**141.4583**	**0.0458**	**0.0000**	**142.6020**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0216	0.0148	0.1746	5.8000e-004	0.0645	4.6000e-004	0.0649	0.0171	4.2000e-004	0.0175	0.0000	52.1710	52.1710	1.2300e-003	0.0000	52.2018
Total	**0.0216**	**0.0148**	**0.1746**	**5.8000e-004**	**0.0645**	**4.6000e-004**	**0.0649**	**0.0171**	**4.2000e-004**	**0.0175**	**0.0000**	**52.1710**	**52.1710**	**1.2300e-003**	**0.0000**	**52.2018**

3.15 2B Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3080					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2500e-003	8.4700e-003	0.0118	2.0000e-005		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004	0.0000	1.6596	1.6596	1.0000e-004	0.0000	1.6621
Total	**0.3093**	**8.4700e-003**	**0.0118**	**2.0000e-005**		**4.6000e-004**	**4.6000e-004**		**4.6000e-004**	**4.6000e-004**	**0.0000**	**1.6596**	**1.6596**	**1.0000e-004**	**0.0000**	**1.6621**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1900e-003	8.2000e-004	9.6600e-003	3.0000e-005	3.5700e-003	3.0000e-005	3.5900e-003	9.5000e-004	2.0000e-005	9.7000e-004	0.0000	2.8861	2.8861	7.0000e-005	0.0000	2.8878
Total	**1.1900e-003**	**8.2000e-004**	**9.6600e-003**	**3.0000e-005**	**3.5700e-003**	**3.0000e-005**	**3.5900e-003**	**9.5000e-004**	**2.0000e-005**	**9.7000e-004**	**0.0000**	**2.8861**	**2.8861**	**7.0000e-005**	**0.0000**	**2.8878**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3080					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.9000e-004	8.8200e-003	0.0119	2.0000e-005		6.2000e-004	6.2000e-004		6.2000e-004	6.2000e-004	0.0000	1.6596	1.6596	1.0000e-004	0.0000	1.6621
Total	**0.3084**	**8.8200e-003**	**0.0119**	**2.0000e-005**		**6.2000e-004**	**6.2000e-004**		**6.2000e-004**	**6.2000e-004**	**0.0000**	**1.6596**	**1.6596**	**1.0000e-004**	**0.0000**	**1.6621**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1900e-003	8.2000e-004	9.6600e-003	3.0000e-005	3.5700e-003	3.0000e-005	3.5900e-003	9.5000e-004	2.0000e-005	9.7000e-004	0.0000	2.8861	2.8861	7.0000e-005	0.0000	2.8878
Total	**1.1900e-003**	**8.2000e-004**	**9.6600e-003**	**3.0000e-005**	**3.5700e-003**	**3.0000e-005**	**3.5900e-003**	**9.5000e-004**	**2.0000e-005**	**9.7000e-004**	**0.0000**	**2.8861**	**2.8861**	**7.0000e-005**	**0.0000**	**2.8878**

3.16 2F Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0406	0.0000	0.0406	6.1500e-003	0.0000	6.1500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0158	0.1393	0.1445	2.6000e-004		6.7600e-003	6.7600e-003		6.4000e-003	6.4000e-003	0.0000	22.7365	22.7365	4.9400e-003	0.0000	22.8600
Total	**0.0158**	**0.1393**	**0.1445**	**2.6000e-004**	**0.0406**	**6.7600e-003**	**0.0474**	**6.1500e-003**	**6.4000e-003**	**0.0126**	**0.0000**	**22.7365**	**22.7365**	**4.9400e-003**	**0.0000**	**22.8600**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.0000e-004	0.0297	9.9000e-003	1.3000e-004	3.2200e-003	5.0000e-005	3.2800e-003	8.8000e-004	5.0000e-005	9.4000e-004	0.0000	13.3333	13.3333	9.3000e-004	0.0000	13.3565
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.7900e-003	3.9700e-003	0.0468	1.5000e-004	0.0173	1.2000e-004	0.0174	4.5900e-003	1.1000e-004	4.7000e-003	0.0000	13.9863	13.9863	3.3000e-004	0.0000	13.9945
Total	**6.6900e-003**	**0.0337**	**0.0567**	**2.8000e-004**	**0.0205**	**1.7000e-004**	**0.0207**	**5.4700e-003**	**1.6000e-004**	**5.6400e-003**	**0.0000**	**27.3196**	**27.3196**	**1.2600e-003**	**0.0000**	**27.3510**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0158	0.0000	0.0158	2.4000e-003	0.0000	2.4000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.9400e-003	0.1222	0.1681	2.6000e-004		6.6100e-003	6.6100e-003		6.6100e-003	6.6100e-003	0.0000	22.7365	22.7365	4.9400e-003	0.0000	22.8600
Total	**5.9400e-003**	**0.1222**	**0.1681**	**2.6000e-004**	**0.0158**	**6.6100e-003**	**0.0225**	**2.4000e-003**	**6.6100e-003**	**9.0100e-003**	**0.0000**	**22.7365**	**22.7365**	**4.9400e-003**	**0.0000**	**22.8600**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.0000e-004	0.0297	9.9000e-003	1.3000e-004	3.2200e-003	5.0000e-005	3.2800e-003	8.8000e-004	5.0000e-005	9.4000e-004	0.0000	13.3333	13.3333	9.3000e-004	0.0000	13.3565
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.7900e-003	3.9700e-003	0.0468	1.5000e-004	0.0173	1.2000e-004	0.0174	4.5900e-003	1.1000e-004	4.7000e-003	0.0000	13.9863	13.9863	3.3000e-004	0.0000	13.9945
Total	**6.6900e-003**	**0.0337**	**0.0567**	**2.8000e-004**	**0.0205**	**1.7000e-004**	**0.0207**	**5.4700e-003**	**1.6000e-004**	**5.6400e-003**	**0.0000**	**27.3196**	**27.3196**	**1.2600e-003**	**0.0000**	**27.3510**

3.17 2D Seismic Modification - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3447	0.0000	0.3447	0.1669	0.0000	0.1669	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0595	0.6492	0.3427	8.9000e-004		0.0267	0.0267		0.0246	0.0246	0.0000	78.2536	78.2536	0.0253	0.0000	78.8863
Total	**0.0595**	**0.6492**	**0.3427**	**8.9000e-004**	**0.3447**	**0.0267**	**0.3714**	**0.1669**	**0.0246**	**0.1914**	**0.0000**	**78.2536**	**78.2536**	**0.0253**	**0.0000**	**78.8863**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0119	8.1900e-003	0.0966	3.2000e-004	0.0357	2.5000e-004	0.0359	9.4700e-003	2.3000e-004	9.7000e-003	0.0000	28.8606	28.8606	6.8000e-004	0.0000	28.8776
Total	**0.0119**	**8.1900e-003**	**0.0966**	**3.2000e-004**	**0.0357**	**2.5000e-004**	**0.0359**	**9.4700e-003**	**2.3000e-004**	**9.7000e-003**	**0.0000**	**28.8606**	**28.8606**	**6.8000e-004**	**0.0000**	**28.8776**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1344	0.0000	0.1344	0.0651	0.0000	0.0651	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0218	0.4346	0.5064	8.9000e-004		0.0192	0.0192		0.0192	0.0192	0.0000	78.2535	78.2535	0.0253	0.0000	78.8862
Total	**0.0218**	**0.4346**	**0.5064**	**8.9000e-004**	**0.1344**	**0.0192**	**0.1536**	**0.0651**	**0.0192**	**0.0843**	**0.0000**	**78.2535**	**78.2535**	**0.0253**	**0.0000**	**78.8862**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0119	8.1900e-003	0.0966	3.2000e-004	0.0357	2.5000e-004	0.0359	9.4700e-003	2.3000e-004	9.7000e-003	0.0000	28.8606	28.8606	6.8000e-004	0.0000	28.8776
Total	**0.0119**	**8.1900e-003**	**0.0966**	**3.2000e-004**	**0.0357**	**2.5000e-004**	**0.0359**	**9.4700e-003**	**2.3000e-004**	**9.7000e-003**	**0.0000**	**28.8606**	**28.8606**	**6.8000e-004**	**0.0000**	**28.8776**

3.17 2D Seismic Modification - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3379	0.0000	0.3379	0.1632	0.0000	0.1632	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0568	0.6063	0.3345	8.7000e-004		0.0249	0.0249		0.0229	0.0229	0.0000	76.4401	76.4401	0.0247	0.0000	77.0582
Total	**0.0568**	**0.6063**	**0.3345**	**8.7000e-004**	**0.3379**	**0.0249**	**0.3628**	**0.1632**	**0.0229**	**0.1861**	**0.0000**	**76.4401**	**76.4401**	**0.0247**	**0.0000**	**77.0582**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0111	7.2900e-003	0.0880	3.0000e-004	0.0348	2.5000e-004	0.0351	9.2500e-003	2.3000e-004	9.4800e-003	0.0000	27.2632	27.2632	6.1000e-004	0.0000	27.2785
Total	**0.0111**	**7.2900e-003**	**0.0880**	**3.0000e-004**	**0.0348**	**2.5000e-004**	**0.0351**	**9.2500e-003**	**2.3000e-004**	**9.4800e-003**	**0.0000**	**27.2632**	**27.2632**	**6.1000e-004**	**0.0000**	**27.2785**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1318	0.0000	0.1318	0.0636	0.0000	0.0636	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0213	0.4245	0.4948	8.7000e-004		0.0188	0.0188		0.0188	0.0188	0.0000	76.4400	76.4400	0.0247	0.0000	77.0581
Total	**0.0213**	**0.4245**	**0.4948**	**8.7000e-004**	**0.1318**	**0.0188**	**0.1505**	**0.0636**	**0.0188**	**0.0824**	**0.0000**	**76.4400**	**76.4400**	**0.0247**	**0.0000**	**77.0581**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0111	7.2900e-003	0.0880	3.0000e-004	0.0348	2.5000e-004	0.0351	9.2500e-003	2.3000e-004	9.4800e-003	0.0000	27.2632	27.2632	6.1000e-004	0.0000	27.2785
Total	**0.0111**	**7.2900e-003**	**0.0880**	**3.0000e-004**	**0.0348**	**2.5000e-004**	**0.0351**	**9.2500e-003**	**2.3000e-004**	**9.4800e-003**	**0.0000**	**27.2632**	**27.2632**	**6.1000e-004**	**0.0000**	**27.2785**

3.18 2E Seismic Modification - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3363	0.0000	0.3363	0.1660	0.0000	0.1660	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0595	0.6492	0.3427	8.9000e-004		0.0267	0.0267		0.0246	0.0246	0.0000	78.2536	78.2536	0.0253	0.0000	78.8863
Total	**0.0595**	**0.6492**	**0.3427**	**8.9000e-004**	**0.3363**	**0.0267**	**0.3630**	**0.1660**	**0.0246**	**0.1905**	**0.0000**	**78.2536**	**78.2536**	**0.0253**	**0.0000**	**78.8863**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0119	8.1900e-003	0.0966	3.2000e-004	0.0357	2.5000e-004	0.0359	9.4700e-003	2.3000e-004	9.7000e-003	0.0000	28.8606	28.8606	6.8000e-004	0.0000	28.8776
Total	**0.0119**	**8.1900e-003**	**0.0966**	**3.2000e-004**	**0.0357**	**2.5000e-004**	**0.0359**	**9.4700e-003**	**2.3000e-004**	**9.7000e-003**	**0.0000**	**28.8606**	**28.8606**	**6.8000e-004**	**0.0000**	**28.8776**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1312	0.0000	0.1312	0.0647	0.0000	0.0647	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0218	0.4346	0.5064	8.9000e-004		0.0192	0.0192		0.0192	0.0192	0.0000	78.2535	78.2535	0.0253	0.0000	78.8862
Total	**0.0218**	**0.4346**	**0.5064**	**8.9000e-004**	**0.1312**	**0.0192**	**0.1504**	**0.0647**	**0.0192**	**0.0839**	**0.0000**	**78.2535**	**78.2535**	**0.0253**	**0.0000**	**78.8862**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0119	8.1900e-003	0.0966	3.2000e-004	0.0357	2.5000e-004	0.0359	9.4700e-003	2.3000e-004	9.7000e-003	0.0000	28.8606	28.8606	6.8000e-004	0.0000	28.8776
Total	**0.0119**	**8.1900e-003**	**0.0966**	**3.2000e-004**	**0.0357**	**2.5000e-004**	**0.0359**	**9.4700e-003**	**2.3000e-004**	**9.7000e-003**	**0.0000**	**28.8606**	**28.8606**	**6.8000e-004**	**0.0000**	**28.8776**

3.18 2E Seismic Modification - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2347	0.0000	0.2347	0.1101	0.0000	0.1101	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0381	0.4058	0.2239	5.8000e-004		0.0167	0.0167		0.0153	0.0153	0.0000	51.1607	51.1607	0.0166	0.0000	51.5744
Total	**0.0381**	**0.4058**	**0.2239**	**5.8000e-004**	**0.2347**	**0.0167**	**0.2514**	**0.1101**	**0.0153**	**0.1255**	**0.0000**	**51.1607**	**51.1607**	**0.0166**	**0.0000**	**51.5744**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.4000e-003	4.8800e-003	0.0589	2.0000e-004	0.0233	1.6000e-004	0.0235	6.1900e-003	1.5000e-004	6.3400e-003	0.0000	18.2471	18.2471	4.1000e-004	0.0000	18.2572
Total	**7.4000e-003**	**4.8800e-003**	**0.0589**	**2.0000e-004**	**0.0233**	**1.6000e-004**	**0.0235**	**6.1900e-003**	**1.5000e-004**	**6.3400e-003**	**0.0000**	**18.2471**	**18.2471**	**4.1000e-004**	**0.0000**	**18.2572**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0915	0.0000	0.0915	0.0430	0.0000	0.0430	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0143	0.2841	0.3311	5.8000e-004		0.0126	0.0126		0.0126	0.0126	0.0000	51.1606	51.1606	0.0166	0.0000	51.5743
Total	**0.0143**	**0.2841**	**0.3311**	**5.8000e-004**	**0.0915**	**0.0126**	**0.1041**	**0.0430**	**0.0126**	**0.0555**	**0.0000**	**51.1606**	**51.1606**	**0.0166**	**0.0000**	**51.5743**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.4000e-003	4.8800e-003	0.0589	2.0000e-004	0.0233	1.6000e-004	0.0235	6.1900e-003	1.5000e-004	6.3400e-003	0.0000	18.2471	18.2471	4.1000e-004	0.0000	18.2572
Total	**7.4000e-003**	**4.8800e-003**	**0.0589**	**2.0000e-004**	**0.0233**	**1.6000e-004**	**0.0235**	**6.1900e-003**	**1.5000e-004**	**6.3400e-003**	**0.0000**	**18.2471**	**18.2471**	**4.1000e-004**	**0.0000**	**18.2572**

3.19 2G Seismic Modification - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3276	0.0000	0.3276	0.1651	0.0000	0.1651	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0595	0.6492	0.3427	8.9000e-004		0.0267	0.0267		0.0246	0.0246	0.0000	78.2536	78.2536	0.0253	0.0000	78.8863
Total	**0.0595**	**0.6492**	**0.3427**	**8.9000e-004**	**0.3276**	**0.0267**	**0.3543**	**0.1651**	**0.0246**	**0.1896**	**0.0000**	**78.2536**	**78.2536**	**0.0253**	**0.0000**	**78.8863**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0119	8.1900e-003	0.0966	3.2000e-004	0.0357	2.5000e-004	0.0359	9.4700e-003	2.3000e-004	9.7000e-003	0.0000	28.8606	28.8606	6.8000e-004	0.0000	28.8776
Total	**0.0119**	**8.1900e-003**	**0.0966**	**3.2000e-004**	**0.0357**	**2.5000e-004**	**0.0359**	**9.4700e-003**	**2.3000e-004**	**9.7000e-003**	**0.0000**	**28.8606**	**28.8606**	**6.8000e-004**	**0.0000**	**28.8776**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1278	0.0000	0.1278	0.0644	0.0000	0.0644	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0218	0.4346	0.5064	8.9000e-004		0.0192	0.0192		0.0192	0.0192	0.0000	78.2535	78.2535	0.0253	0.0000	78.8862
Total	**0.0218**	**0.4346**	**0.5064**	**8.9000e-004**	**0.1278**	**0.0192**	**0.1470**	**0.0644**	**0.0192**	**0.0836**	**0.0000**	**78.2535**	**78.2535**	**0.0253**	**0.0000**	**78.8862**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0119	8.1900e-003	0.0966	3.2000e-004	0.0357	2.5000e-004	0.0359	9.4700e-003	2.3000e-004	9.7000e-003	0.0000	28.8606	28.8606	6.8000e-004	0.0000	28.8776
Total	**0.0119**	**8.1900e-003**	**0.0966**	**3.2000e-004**	**0.0357**	**2.5000e-004**	**0.0359**	**9.4700e-003**	**2.3000e-004**	**9.7000e-003**	**0.0000**	**28.8606**	**28.8606**	**6.8000e-004**	**0.0000**	**28.8776**

3.19 2G Seismic Modification - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1266	0.0000	0.1266	0.0546	0.0000	0.0546	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0184	0.1958	0.1080	2.8000e-004		8.0300e-003	8.0300e-003		7.3900e-003	7.3900e-003	0.0000	24.6775	24.6775	7.9800e-003	0.0000	24.8770
Total	**0.0184**	**0.1958**	**0.1080**	**2.8000e-004**	**0.1266**	**8.0300e-003**	**0.1346**	**0.0546**	**7.3900e-003**	**0.0620**	**0.0000**	**24.6775**	**24.6775**	**7.9800e-003**	**0.0000**	**24.8770**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5700e-003	2.3500e-003	0.0284	1.0000e-004	0.0113	8.0000e-005	0.0113	2.9900e-003	7.0000e-005	3.0600e-003	0.0000	8.8015	8.8015	2.0000e-004	0.0000	8.8064
Total	**3.5700e-003**	**2.3500e-003**	**0.0284**	**1.0000e-004**	**0.0113**	**8.0000e-005**	**0.0113**	**2.9900e-003**	**7.0000e-005**	**3.0600e-003**	**0.0000**	**8.8015**	**8.8015**	**2.0000e-004**	**0.0000**	**8.8064**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0494	0.0000	0.0494	0.0213	0.0000	0.0213	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8800e-003	0.1371	0.1597	2.8000e-004		6.0600e-003	6.0600e-003		6.0600e-003	6.0600e-003	0.0000	24.6775	24.6775	7.9800e-003	0.0000	24.8770
Total	**6.8800e-003**	**0.1371**	**0.1597**	**2.8000e-004**	**0.0494**	**6.0600e-003**	**0.0554**	**0.0213**	**6.0600e-003**	**0.0273**	**0.0000**	**24.6775**	**24.6775**	**7.9800e-003**	**0.0000**	**24.8770**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5700e-003	2.3500e-003	0.0284	1.0000e-004	0.0113	8.0000e-005	0.0113	2.9900e-003	7.0000e-005	3.0600e-003	0.0000	8.8015	8.8015	2.0000e-004	0.0000	8.8064
Total	**3.5700e-003**	**2.3500e-003**	**0.0284**	**1.0000e-004**	**0.0113**	**8.0000e-005**	**0.0113**	**2.9900e-003**	**7.0000e-005**	**3.0600e-003**	**0.0000**	**8.8015**	**8.8015**	**2.0000e-004**	**0.0000**	**8.8064**

3.20 2l Southern Parking Lot - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0666	0.6574	0.9407	1.4700e-003		0.0329	0.0329		0.0303	0.0303	0.0000	129.1733	129.1733	0.0418	0.0000	130.2177
Paving	3.9300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0705**	**0.6574**	**0.9407**	**1.4700e-003**		**0.0329**	**0.0329**		**0.0303**	**0.0303**	**0.0000**	**129.1733**	**129.1733**	**0.0418**	**0.0000**	**130.2177**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0119	8.1300e-003	0.0958	3.2000e-004	0.0354	2.5000e-004	0.0356	9.4000e-003	2.3000e-004	9.6300e-003	0.0000	28.6386	28.6386	6.8000e-004	0.0000	28.6555
Total	**0.0119**	**8.1300e-003**	**0.0958**	**3.2000e-004**	**0.0354**	**2.5000e-004**	**0.0356**	**9.4000e-003**	**2.3000e-004**	**9.6300e-003**	**0.0000**	**28.6386**	**28.6386**	**6.8000e-004**	**0.0000**	**28.6555**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0362	0.7285	1.1156	1.4700e-003		0.0393	0.0393		0.0393	0.0393	0.0000	129.1731	129.1731	0.0418	0.0000	130.2176
Paving	3.9300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0401**	**0.7285**	**1.1156**	**1.4700e-003**		**0.0393**	**0.0393**		**0.0393**	**0.0393**	**0.0000**	**129.1731**	**129.1731**	**0.0418**	**0.0000**	**130.2176**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0119	8.1300e-003	0.0958	3.2000e-004	0.0354	2.5000e-004	0.0356	9.4000e-003	2.3000e-004	9.6300e-003	0.0000	28.6386	28.6386	6.8000e-004	0.0000	28.6555
Total	**0.0119**	**8.1300e-003**	**0.0958**	**3.2000e-004**	**0.0354**	**2.5000e-004**	**0.0356**	**9.4000e-003**	**2.3000e-004**	**9.6300e-003**	**0.0000**	**28.6386**	**28.6386**	**6.8000e-004**	**0.0000**	**28.6555**

3.21 2l Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0404					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0124	0.0840	0.1168	1.9000e-004		4.5700e-003	4.5700e-003		4.5700e-003	4.5700e-003	0.0000	16.4685	16.4685	9.9000e-004	0.0000	16.4931
Total	**0.0527**	**0.0840**	**0.1168**	**1.9000e-004**		**4.5700e-003**	**4.5700e-003**		**4.5700e-003**	**4.5700e-003**	**0.0000**	**16.4685**	**16.4685**	**9.9000e-004**	**0.0000**	**16.4931**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0119	8.1300e-003	0.0958	3.2000e-004	0.0354	2.5000e-004	0.0356	9.4000e-003	2.3000e-004	9.6300e-003	0.0000	28.6386	28.6386	6.8000e-004	0.0000	28.6555
Total	**0.0119**	**8.1300e-003**	**0.0958**	**3.2000e-004**	**0.0354**	**2.5000e-004**	**0.0356**	**9.4000e-003**	**2.3000e-004**	**9.6300e-003**	**0.0000**	**28.6386**	**28.6386**	**6.8000e-004**	**0.0000**	**28.6555**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0404					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.8300e-003	0.0875	0.1182	1.9000e-004		6.1300e-003	6.1300e-003		6.1300e-003	6.1300e-003	0.0000	16.4685	16.4685	9.9000e-004	0.0000	16.4931
Total	**0.0442**	**0.0875**	**0.1182**	**1.9000e-004**		**6.1300e-003**	**6.1300e-003**		**6.1300e-003**	**6.1300e-003**	**0.0000**	**16.4685**	**16.4685**	**9.9000e-004**	**0.0000**	**16.4931**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0119	8.1300e-003	0.0958	3.2000e-004	0.0354	2.5000e-004	0.0356	9.4000e-003	2.3000e-004	9.6300e-003	0.0000	28.6386	28.6386	6.8000e-004	0.0000	28.6555
Total	**0.0119**	**8.1300e-003**	**0.0958**	**3.2000e-004**	**0.0354**	**2.5000e-004**	**0.0356**	**9.4000e-003**	**2.3000e-004**	**9.6300e-003**	**0.0000**	**28.6386**	**28.6386**	**6.8000e-004**	**0.0000**	**28.6555**

3.22 2F Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0429	0.3750	0.4066	7.2000e-004		0.0174	0.0174		0.0166	0.0166	0.0000	61.2828	61.2828	0.0117	0.0000	61.5757
Total	**0.0429**	**0.3750**	**0.4066**	**7.2000e-004**		**0.0174**	**0.0174**		**0.0166**	**0.0166**	**0.0000**	**61.2828**	**61.2828**	**0.0117**	**0.0000**	**61.5757**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.4900e-003	0.3283	0.0989	1.1400e-003	0.0299	3.8000e-004	0.0303	8.6200e-003	3.6000e-004	8.9800e-003	0.0000	110.5868	110.5868	6.3100e-003	0.0000	110.7446
Worker	0.0100	6.8700e-003	0.0810	2.7000e-004	0.0299	2.1000e-004	0.0301	7.9400e-003	2.0000e-004	8.1400e-003	0.0000	24.1985	24.1985	5.7000e-004	0.0000	24.2128
Total	**0.0195**	**0.3352**	**0.1799**	**1.4100e-003**	**0.0598**	**5.9000e-004**	**0.0604**	**0.0166**	**5.6000e-004**	**0.0171**	**0.0000**	**134.7853**	**134.7853**	**6.8800e-003**	**0.0000**	**134.9574**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0243	0.3616	0.4613	7.2000e-004		0.0211	0.0211		0.0211	0.0211	0.0000	61.2827	61.2827	0.0117	0.0000	61.5756
Total	**0.0243**	**0.3616**	**0.4613**	**7.2000e-004**		**0.0211**	**0.0211**		**0.0211**	**0.0211**	**0.0000**	**61.2827**	**61.2827**	**0.0117**	**0.0000**	**61.5756**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.4900e-003	0.3283	0.0989	1.1400e-003	0.0299	3.8000e-004	0.0303	8.6200e-003	3.6000e-004	8.9800e-003	0.0000	110.5868	110.5868	6.3100e-003	0.0000	110.7446
Worker	0.0100	6.8700e-003	0.0810	2.7000e-004	0.0299	2.1000e-004	0.0301	7.9400e-003	2.0000e-004	8.1400e-003	0.0000	24.1985	24.1985	5.7000e-004	0.0000	24.2128
Total	**0.0195**	**0.3352**	**0.1799**	**1.4100e-003**	**0.0598**	**5.9000e-004**	**0.0604**	**0.0166**	**5.6000e-004**	**0.0171**	**0.0000**	**134.7853**	**134.7853**	**6.8800e-003**	**0.0000**	**134.9574**

3.22 2F Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0706	0.6187	0.7118	1.2700e-003		0.0269	0.0269		0.0256	0.0256	0.0000	107.9596	107.9596	0.0204	0.0000	108.4696
Total	**0.0706**	**0.6187**	**0.7118**	**1.2700e-003**		**0.0269**	**0.0269**		**0.0256**	**0.0256**	**0.0000**	**107.9596**	**107.9596**	**0.0204**	**0.0000**	**108.4696**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0164	0.5769	0.1692	1.9900e-003	0.0526	6.6000e-004	0.0533	0.0152	6.3000e-004	0.0158	0.0000	194.0967	194.0967	0.0110	0.0000	194.3705
Worker	0.0167	0.0110	0.1330	4.6000e-004	0.0527	3.7000e-004	0.0530	0.0140	3.4000e-004	0.0143	0.0000	41.2169	41.2169	9.2000e-004	0.0000	41.2399
Total	**0.0331**	**0.5879**	**0.3022**	**2.4500e-003**	**0.1053**	**1.0300e-003**	**0.1063**	**0.0292**	**9.7000e-004**	**0.0302**	**0.0000**	**235.3135**	**235.3135**	**0.0119**	**0.0000**	**235.6104**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0414	0.6341	0.8116	1.2700e-003		0.0367	0.0367		0.0367	0.0367	0.0000	107.9595	107.9595	0.0204	0.0000	108.4695
Total	**0.0414**	**0.6341**	**0.8116**	**1.2700e-003**		**0.0367**	**0.0367**		**0.0367**	**0.0367**	**0.0000**	**107.9595**	**107.9595**	**0.0204**	**0.0000**	**108.4695**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0164	0.5769	0.1692	1.9900e-003	0.0526	6.6000e-004	0.0533	0.0152	6.3000e-004	0.0158	0.0000	194.0967	194.0967	0.0110	0.0000	194.3705
Worker	0.0167	0.0110	0.1330	4.6000e-004	0.0527	3.7000e-004	0.0530	0.0140	3.4000e-004	0.0143	0.0000	41.2169	41.2169	9.2000e-004	0.0000	41.2399
Total	**0.0331**	**0.5879**	**0.3022**	**2.4500e-003**	**0.1053**	**1.0300e-003**	**0.1063**	**0.0292**	**9.7000e-004**	**0.0302**	**0.0000**	**235.3135**	**235.3135**	**0.0119**	**0.0000**	**235.6104**

3.23 3A Demo Interim Housing - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.7900e-003	0.0000	3.7900e-003	5.7000e-004	0.0000	5.7000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0635	0.5530	0.5997	1.0800e-003		0.0260	0.0260		0.0246	0.0246	0.0000	94.1976	94.1976	0.0204	0.0000	94.7069
Total	**0.0635**	**0.5530**	**0.5997**	**1.0800e-003**	**3.7900e-003**	**0.0260**	**0.0298**	**5.7000e-004**	**0.0246**	**0.0251**	**0.0000**	**94.1976**	**94.1976**	**0.0204**	**0.0000**	**94.7069**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.0000e-005	2.7400e-003	9.3000e-004	1.0000e-005	4.1000e-004	1.0000e-005	4.2000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	1.2326	1.2326	9.0000e-005	0.0000	1.2347
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.5700e-003	5.0000e-003	0.0603	2.1000e-004	0.0239	1.7000e-004	0.0240	6.3400e-003	1.5000e-004	6.4900e-003	0.0000	18.6764	18.6764	4.2000e-004	0.0000	18.6868
Total	**7.6500e-003**	**7.7400e-003**	**0.0612**	**2.2000e-004**	**0.0243**	**1.8000e-004**	**0.0245**	**6.4500e-003**	**1.5000e-004**	**6.6000e-003**	**0.0000**	**19.9090**	**19.9090**	**5.1000e-004**	**0.0000**	**19.9215**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.4800e-003	0.0000	1.4800e-003	2.2000e-004	0.0000	2.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0246	0.5062	0.6965	1.0800e-003		0.0274	0.0274		0.0274	0.0274	0.0000	94.1975	94.1975	0.0204	0.0000	94.7068
Total	**0.0246**	**0.5062**	**0.6965**	**1.0800e-003**	**1.4800e-003**	**0.0274**	**0.0289**	**2.2000e-004**	**0.0274**	**0.0276**	**0.0000**	**94.1975**	**94.1975**	**0.0204**	**0.0000**	**94.7068**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.0000e-005	2.7400e-003	9.3000e-004	1.0000e-005	4.1000e-004	1.0000e-005	4.2000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	1.2326	1.2326	9.0000e-005	0.0000	1.2347
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.5700e-003	5.0000e-003	0.0603	2.1000e-004	0.0239	1.7000e-004	0.0240	6.3400e-003	1.5000e-004	6.4900e-003	0.0000	18.6764	18.6764	4.2000e-004	0.0000	18.6868
Total	**7.6500e-003**	**7.7400e-003**	**0.0612**	**2.2000e-004**	**0.0243**	**1.8000e-004**	**0.0245**	**6.4500e-003**	**1.5000e-004**	**6.6000e-003**	**0.0000**	**19.9090**	**19.9090**	**5.1000e-004**	**0.0000**	**19.9215**

3.23 3A Demo Interim Housing - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.8800e-003	0.0000	1.8800e-003	2.8000e-004	0.0000	2.8000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0292	0.2501	0.2938	5.3000e-004		0.0112	0.0112		0.0106	0.0106	0.0000	46.5638	46.5638	0.0100	0.0000	46.8144
Total	**0.0292**	**0.2501**	**0.2938**	**5.3000e-004**	**1.8800e-003**	**0.0112**	**0.0131**	**2.8000e-004**	**0.0106**	**0.0109**	**0.0000**	**46.5638**	**46.5638**	**0.0100**	**0.0000**	**46.8144**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.0000e-005	1.3300e-003	4.6000e-004	1.0000e-005	3.7000e-004	0.0000	3.8000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.6058	0.6058	4.0000e-005	0.0000	0.6068
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5600e-003	2.2600e-003	0.0277	1.0000e-004	0.0118	8.0000e-005	0.0119	3.1300e-003	7.0000e-005	3.2100e-003	0.0000	8.8675	8.8675	1.9000e-004	0.0000	8.8722
Total	**3.6000e-003**	**3.5900e-003**	**0.0281**	**1.1000e-004**	**0.0122**	**8.0000e-005**	**0.0123**	**3.2300e-003**	**7.0000e-005**	**3.3100e-003**	**0.0000**	**9.4733**	**9.4733**	**2.3000e-004**	**0.0000**	**9.4791**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.3000e-004	0.0000	7.3000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0122	0.2502	0.3442	5.3000e-004		0.0135	0.0135		0.0135	0.0135	0.0000	46.5637	46.5637	0.0100	0.0000	46.8143
Total	**0.0122**	**0.2502**	**0.3442**	**5.3000e-004**	**7.3000e-004**	**0.0135**	**0.0143**	**1.1000e-004**	**0.0135**	**0.0137**	**0.0000**	**46.5637**	**46.5637**	**0.0100**	**0.0000**	**46.8143**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.0000e-005	1.3300e-003	4.6000e-004	1.0000e-005	3.7000e-004	0.0000	3.8000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.6058	0.6058	4.0000e-005	0.0000	0.6068
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5600e-003	2.2600e-003	0.0277	1.0000e-004	0.0118	8.0000e-005	0.0119	3.1300e-003	7.0000e-005	3.2100e-003	0.0000	8.8675	8.8675	1.9000e-004	0.0000	8.8722
Total	**3.6000e-003**	**3.5900e-003**	**0.0281**	**1.1000e-004**	**0.0122**	**8.0000e-005**	**0.0123**	**3.2300e-003**	**7.0000e-005**	**3.3100e-003**	**0.0000**	**9.4733**	**9.4733**	**2.3000e-004**	**0.0000**	**9.4791**

3.24 3C Demolition - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2400e-003	0.0000	1.2400e-003	1.9000e-004	0.0000	1.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0161	0.1398	0.1517	2.7000e-004		6.5800e-003	6.5800e-003		6.2100e-003	6.2100e-003	0.0000	23.8201	23.8201	5.1500e-003	0.0000	23.9489
Total	**0.0161**	**0.1398**	**0.1517**	**2.7000e-004**	**1.2400e-003**	**6.5800e-003**	**7.8200e-003**	**1.9000e-004**	**6.2100e-003**	**6.4000e-003**	**0.0000**	**23.8201**	**23.8201**	**5.1500e-003**	**0.0000**	**23.9489**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.0000e-005	8.7000e-004	2.9000e-004	0.0000	9.0000e-005	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.3896	0.3896	3.0000e-005	0.0000	0.3903
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9200e-003	1.2600e-003	0.0152	5.0000e-005	6.0300e-003	4.0000e-005	6.0800e-003	1.6000e-003	4.0000e-005	1.6400e-003	0.0000	4.7228	4.7228	1.1000e-004	0.0000	4.7254
Total	**1.9500e-003**	**2.1300e-003**	**0.0155**	**5.0000e-005**	**6.1200e-003**	**4.0000e-005**	**6.1800e-003**	**1.6300e-003**	**4.0000e-005**	**1.6700e-003**	**0.0000**	**5.1124**	**5.1124**	**1.4000e-004**	**0.0000**	**5.1157**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.8000e-004	0.0000	4.8000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.2200e-003	0.1280	0.1761	2.7000e-004		6.9200e-003	6.9200e-003		6.9200e-003	6.9200e-003	0.0000	23.8201	23.8201	5.1500e-003	0.0000	23.9489
Total	**6.2200e-003**	**0.1280**	**0.1761**	**2.7000e-004**	**4.8000e-004**	**6.9200e-003**	**7.4000e-003**	**7.0000e-005**	**6.9200e-003**	**6.9900e-003**	**0.0000**	**23.8201**	**23.8201**	**5.1500e-003**	**0.0000**	**23.9489**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.0000e-005	8.7000e-004	2.9000e-004	0.0000	9.0000e-005	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.3896	0.3896	3.0000e-005	0.0000	0.3903
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9200e-003	1.2600e-003	0.0152	5.0000e-005	6.0300e-003	4.0000e-005	6.0800e-003	1.6000e-003	4.0000e-005	1.6400e-003	0.0000	4.7228	4.7228	1.1000e-004	0.0000	4.7254
Total	**1.9500e-003**	**2.1300e-003**	**0.0155**	**5.0000e-005**	**6.1200e-003**	**4.0000e-005**	**6.1800e-003**	**1.6300e-003**	**4.0000e-005**	**1.6700e-003**	**0.0000**	**5.1124**	**5.1124**	**1.4000e-004**	**0.0000**	**5.1157**

3.25 3B New Field - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2223	0.0000	0.2223	0.1108	0.0000	0.1108	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4154	0.2291	6.0000e-004		0.0170	0.0170		0.0157	0.0157	0.0000	52.3645	52.3645	0.0169	0.0000	52.7879
Total	**0.0389**	**0.4154**	**0.2291**	**6.0000e-004**	**0.2223**	**0.0170**	**0.2394**	**0.1108**	**0.0157**	**0.1265**	**0.0000**	**52.3645**	**52.3645**	**0.0169**	**0.0000**	**52.7879**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.5700e-003	5.0000e-003	0.0603	2.1000e-004	0.0239	1.7000e-004	0.0240	6.3400e-003	1.5000e-004	6.4900e-003	0.0000	18.6764	18.6764	4.2000e-004	0.0000	18.6868
Total	**7.5700e-003**	**5.0000e-003**	**0.0603**	**2.1000e-004**	**0.0239**	**1.7000e-004**	**0.0240**	**6.3400e-003**	**1.5000e-004**	**6.4900e-003**	**0.0000**	**18.6764**	**18.6764**	**4.2000e-004**	**0.0000**	**18.6868**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0867	0.0000	0.0867	0.0432	0.0000	0.0432	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0146	0.2908	0.3389	6.0000e-004		0.0129	0.0129		0.0129	0.0129	0.0000	52.3644	52.3644	0.0169	0.0000	52.7878
Total	**0.0146**	**0.2908**	**0.3389**	**6.0000e-004**	**0.0867**	**0.0129**	**0.0996**	**0.0432**	**0.0129**	**0.0561**	**0.0000**	**52.3644**	**52.3644**	**0.0169**	**0.0000**	**52.7878**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.5700e-003	5.0000e-003	0.0603	2.1000e-004	0.0239	1.7000e-004	0.0240	6.3400e-003	1.5000e-004	6.4900e-003	0.0000	18.6764	18.6764	4.2000e-004	0.0000	18.6868
Total	**7.5700e-003**	**5.0000e-003**	**0.0603**	**2.1000e-004**	**0.0239**	**1.7000e-004**	**0.0240**	**6.3400e-003**	**1.5000e-004**	**6.4900e-003**	**0.0000**	**18.6764**	**18.6764**	**4.2000e-004**	**0.0000**	**18.6868**

3.25 3B New Field - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1230	0.0000	0.1230	0.0562	0.0000	0.0562	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0176	0.1842	0.1100	2.9000e-004		7.3400e-003	7.3400e-003		6.7600e-003	6.7600e-003	0.0000	25.8813	25.8813	8.3700e-003	0.0000	26.0906
Total	**0.0176**	**0.1842**	**0.1100**	**2.9000e-004**	**0.1230**	**7.3400e-003**	**0.1303**	**0.0562**	**6.7600e-003**	**0.0629**	**0.0000**	**25.8813**	**25.8813**	**8.3700e-003**	**0.0000**	**26.0906**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5600e-003	2.2600e-003	0.0277	1.0000e-004	0.0118	8.0000e-005	0.0119	3.1300e-003	7.0000e-005	3.2100e-003	0.0000	8.8675	8.8675	1.9000e-004	0.0000	8.8722
Total	**3.5600e-003**	**2.2600e-003**	**0.0277**	**1.0000e-004**	**0.0118**	**8.0000e-005**	**0.0119**	**3.1300e-003**	**7.0000e-005**	**3.2100e-003**	**0.0000**	**8.8675**	**8.8675**	**1.9000e-004**	**0.0000**	**8.8722**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0480	0.0000	0.0480	0.0219	0.0000	0.0219	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.2100e-003	0.1437	0.1675	2.9000e-004		6.3500e-003	6.3500e-003		6.3500e-003	6.3500e-003	0.0000	25.8813	25.8813	8.3700e-003	0.0000	26.0905
Total	**7.2100e-003**	**0.1437**	**0.1675**	**2.9000e-004**	**0.0480**	**6.3500e-003**	**0.0543**	**0.0219**	**6.3500e-003**	**0.0283**	**0.0000**	**25.8813**	**25.8813**	**8.3700e-003**	**0.0000**	**26.0905**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5600e-003	2.2600e-003	0.0277	1.0000e-004	0.0118	8.0000e-005	0.0119	3.1300e-003	7.0000e-005	3.2100e-003	0.0000	8.8675	8.8675	1.9000e-004	0.0000	8.8722
Total	**3.5600e-003**	**2.2600e-003**	**0.0277**	**1.0000e-004**	**0.0118**	**8.0000e-005**	**0.0119**	**3.1300e-003**	**7.0000e-005**	**3.2100e-003**	**0.0000**	**8.8675**	**8.8675**	**1.9000e-004**	**0.0000**	**8.8722**

3.26 2F Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0444					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5400e-003	0.0104	0.0154	3.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	2.1703	2.1703	1.2000e-004	0.0000	2.1733
Total	**0.0460**	**0.0104**	**0.0154**	**3.0000e-005**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**2.1703**	**2.1703**	**1.2000e-004**	**0.0000**	**2.1733**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4800e-003	9.8000e-004	0.0118	4.0000e-005	4.6600e-003	3.0000e-005	4.7000e-003	1.2400e-003	3.0000e-005	1.2700e-003	0.0000	3.6494	3.6494	8.0000e-005	0.0000	3.6515
Total	**1.4800e-003**	**9.8000e-004**	**0.0118**	**4.0000e-005**	**4.6600e-003**	**3.0000e-005**	**4.7000e-003**	**1.2400e-003**	**3.0000e-005**	**1.2700e-003**	**0.0000**	**3.6494**	**3.6494**	**8.0000e-005**	**0.0000**	**3.6515**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0444					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.1000e-004	0.0115	0.0156	3.0000e-005		8.1000e-004	8.1000e-004		8.1000e-004	8.1000e-004	0.0000	2.1703	2.1703	1.2000e-004	0.0000	2.1733
Total	**0.0449**	**0.0115**	**0.0156**	**3.0000e-005**		**8.1000e-004**	**8.1000e-004**		**8.1000e-004**	**8.1000e-004**	**0.0000**	**2.1703**	**2.1703**	**1.2000e-004**	**0.0000**	**2.1733**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4800e-003	9.8000e-004	0.0118	4.0000e-005	4.6600e-003	3.0000e-005	4.7000e-003	1.2400e-003	3.0000e-005	1.2700e-003	0.0000	3.6494	3.6494	8.0000e-005	0.0000	3.6515
Total	**1.4800e-003**	**9.8000e-004**	**0.0118**	**4.0000e-005**	**4.6600e-003**	**3.0000e-005**	**4.7000e-003**	**1.2400e-003**	**3.0000e-005**	**1.2700e-003**	**0.0000**	**3.6494**	**3.6494**	**8.0000e-005**	**0.0000**	**3.6515**

3.27 3C North Parking Lot - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0242	0.2334	0.3583	5.6000e-004		0.0115	0.0115		0.0106	0.0106	0.0000	49.0650	49.0650	0.0159	0.0000	49.4617
Paving	1.8000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0260**	**0.2334**	**0.3583**	**5.6000e-004**		**0.0115**	**0.0115**		**0.0106**	**0.0106**	**0.0000**	**49.0650**	**49.0650**	**0.0159**	**0.0000**	**49.4617**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.2700e-003	2.8100e-003	0.0339	1.2000e-004	0.0134	9.0000e-005	0.0135	3.5700e-003	9.0000e-005	3.6600e-003	0.0000	10.5189	10.5189	2.4000e-004	0.0000	10.5248
Total	**4.2700e-003**	**2.8100e-003**	**0.0339**	**1.2000e-004**	**0.0134**	**9.0000e-005**	**0.0135**	**3.5700e-003**	**9.0000e-005**	**3.6600e-003**	**0.0000**	**10.5189**	**10.5189**	**2.4000e-004**	**0.0000**	**10.5248**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0137	0.2767	0.4237	5.6000e-004		0.0149	0.0149		0.0149	0.0149	0.0000	49.0649	49.0649	0.0159	0.0000	49.4617
Paving	1.8000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0155**	**0.2767**	**0.4237**	**5.6000e-004**		**0.0149**	**0.0149**		**0.0149**	**0.0149**	**0.0000**	**49.0649**	**49.0649**	**0.0159**	**0.0000**	**49.4617**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.2700e-003	2.8100e-003	0.0339	1.2000e-004	0.0134	9.0000e-005	0.0135	3.5700e-003	9.0000e-005	3.6600e-003	0.0000	10.5189	10.5189	2.4000e-004	0.0000	10.5248
Total	**4.2700e-003**	**2.8100e-003**	**0.0339**	**1.2000e-004**	**0.0134**	**9.0000e-005**	**0.0135**	**3.5700e-003**	**9.0000e-005**	**3.6600e-003**	**0.0000**	**10.5189**	**10.5189**	**2.4000e-004**	**0.0000**	**10.5248**

3.27 3C North Parking Lot - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0265	0.2489	0.4228	6.6000e-004		0.0121	0.0121		0.0112	0.0112	0.0000	58.0558	58.0558	0.0188	0.0000	58.5253
Paving	2.1300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0287**	**0.2489**	**0.4228**	**6.6000e-004**		**0.0121**	**0.0121**		**0.0112**	**0.0112**	**0.0000**	**58.0558**	**58.0558**	**0.0188**	**0.0000**	**58.5253**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.8000e-003	3.0500e-003	0.0373	1.3000e-004	0.0159	1.1000e-004	0.0160	4.2200e-003	1.0000e-004	4.3300e-003	0.0000	11.9609	11.9609	2.5000e-004	0.0000	11.9672
Total	**4.8000e-003**	**3.0500e-003**	**0.0373**	**1.3000e-004**	**0.0159**	**1.1000e-004**	**0.0160**	**4.2200e-003**	**1.0000e-004**	**4.3300e-003**	**0.0000**	**11.9609**	**11.9609**	**2.5000e-004**	**0.0000**	**11.9672**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0163	0.3276	0.5016	6.6000e-004		0.0177	0.0177		0.0177	0.0177	0.0000	58.0558	58.0558	0.0188	0.0000	58.5252
Paving	2.1300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0184**	**0.3276**	**0.5016**	**6.6000e-004**		**0.0177**	**0.0177**		**0.0177**	**0.0177**	**0.0000**	**58.0558**	**58.0558**	**0.0188**	**0.0000**	**58.5252**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.8000e-003	3.0500e-003	0.0373	1.3000e-004	0.0159	1.1000e-004	0.0160	4.2200e-003	1.0000e-004	4.3300e-003	0.0000	11.9609	11.9609	2.5000e-004	0.0000	11.9672
Total	**4.8000e-003**	**3.0500e-003**	**0.0373**	**1.3000e-004**	**0.0159**	**1.1000e-004**	**0.0160**	**4.2200e-003**	**1.0000e-004**	**4.3300e-003**	**0.0000**	**11.9609**	**11.9609**	**2.5000e-004**	**0.0000**	**11.9672**

3.28 3C Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0277					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.4300e-003	0.0299	0.0444	7.0000e-005		1.4900e-003	1.4900e-003		1.4900e-003	1.4900e-003	0.0000	6.2555	6.2555	3.5000e-004	0.0000	6.2643
Total	**0.0322**	**0.0299**	**0.0444**	**7.0000e-005**		**1.4900e-003**	**1.4900e-003**		**1.4900e-003**	**1.4900e-003**	**0.0000**	**6.2555**	**6.2555**	**3.5000e-004**	**0.0000**	**6.2643**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.2700e-003	2.8100e-003	0.0339	1.2000e-004	0.0134	9.0000e-005	0.0135	3.5700e-003	9.0000e-005	3.6600e-003	0.0000	10.5189	10.5189	2.4000e-004	0.0000	10.5248
Total	**4.2700e-003**	**2.8100e-003**	**0.0339**	**1.2000e-004**	**0.0134**	**9.0000e-005**	**0.0135**	**3.5700e-003**	**9.0000e-005**	**3.6600e-003**	**0.0000**	**10.5189**	**10.5189**	**2.4000e-004**	**0.0000**	**10.5248**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0277					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.4600e-003	0.0333	0.0449	7.0000e-005		2.3300e-003	2.3300e-003		2.3300e-003	2.3300e-003	0.0000	6.2555	6.2555	3.5000e-004	0.0000	6.2643
Total	**0.0292**	**0.0333**	**0.0449**	**7.0000e-005**		**2.3300e-003**	**2.3300e-003**		**2.3300e-003**	**2.3300e-003**	**0.0000**	**6.2555**	**6.2555**	**3.5000e-004**	**0.0000**	**6.2643**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.2700e-003	2.8100e-003	0.0339	1.2000e-004	0.0134	9.0000e-005	0.0135	3.5700e-003	9.0000e-005	3.6600e-003	0.0000	10.5189	10.5189	2.4000e-004	0.0000	10.5248
Total	**4.2700e-003**	**2.8100e-003**	**0.0339**	**1.2000e-004**	**0.0134**	**9.0000e-005**	**0.0135**	**3.5700e-003**	**9.0000e-005**	**3.6600e-003**	**0.0000**	**10.5189**	**10.5189**	**2.4000e-004**	**0.0000**	**10.5248**

3.28 3C Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0328					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.9500e-003	0.0332	0.0525	9.0000e-005		1.4900e-003	1.4900e-003		1.4900e-003	1.4900e-003	0.0000	7.4044	7.4044	4.0000e-004	0.0000	7.4145
Total	**0.0378**	**0.0332**	**0.0525**	**9.0000e-005**		**1.4900e-003**	**1.4900e-003**		**1.4900e-003**	**1.4900e-003**	**0.0000**	**7.4044**	**7.4044**	**4.0000e-004**	**0.0000**	**7.4145**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.8000e-003	3.0500e-003	0.0373	1.3000e-004	0.0159	1.1000e-004	0.0160	4.2200e-003	1.0000e-004	4.3300e-003	0.0000	11.9609	11.9609	2.5000e-004	0.0000	11.9672
Total	**4.8000e-003**	**3.0500e-003**	**0.0373**	**1.3000e-004**	**0.0159**	**1.1000e-004**	**0.0160**	**4.2200e-003**	**1.0000e-004**	**4.3300e-003**	**0.0000**	**11.9609**	**11.9609**	**2.5000e-004**	**0.0000**	**11.9672**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0328					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7200e-003	0.0394	0.0531	9.0000e-005		2.7600e-003	2.7600e-003		2.7600e-003	2.7600e-003	0.0000	7.4044	7.4044	4.0000e-004	0.0000	7.4145
Total	**0.0346**	**0.0394**	**0.0531**	**9.0000e-005**		**2.7600e-003**	**2.7600e-003**		**2.7600e-003**	**2.7600e-003**	**0.0000**	**7.4044**	**7.4044**	**4.0000e-004**	**0.0000**	**7.4145**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.8000e-003	3.0500e-003	0.0373	1.3000e-004	0.0159	1.1000e-004	0.0160	4.2200e-003	1.0000e-004	4.3300e-003	0.0000	11.9609	11.9609	2.5000e-004	0.0000	11.9672
Total	**4.8000e-003**	**3.0500e-003**	**0.0373**	**1.3000e-004**	**0.0159**	**1.1000e-004**	**0.0160**	**4.2200e-003**	**1.0000e-004**	**4.3300e-003**	**0.0000**	**11.9609**	**11.9609**	**2.5000e-004**	**0.0000**	**11.9672**

Appendix E1

Archaeological and Paleontological Resources Report

ESA

Confidential – Not For Public Distribution

Burroughs Middle School Comprehensive Modernization Project City of Los Angeles, California

Archaeological and Paleontological Resources Report

Prepared for
Los Angeles Unified School District
333 South Beaudry Avenue
Los Angeles, CA 90017

July 2018

ESA

Confidential – Not For Public Distribution

Burroughs Middle School Comprehensive Modernization Project City of Los Angeles, California

Archaeological and Paleontological Resources Report

July 2018

Prepared for:
Los Angeles Unified School District
333 South Beaudry Avenue
Los Angeles, CA 90017

Prepared by:
ESA
2121 Alton Parkway, Suite 100
Irvine, CA 92606

Project Director
Monica Strauss, M.A., R.P.A.

Principal Investigators:
Michael Bever, PhD., R.P.A.
Alyssa Bell, Ph.D.

Report Authors:
Fatima Clark, B.A.
Alyssa Bell, Ph.D.

Project Location:
Hollywood (CA) USGS 7.5-minute Topographic Quad, Section 22 of Township 1 South, Range 14 West

Acreage: Approx. 10.4 acres

2121 Alton Parkway
Suite 100
Irvine, CA 92606
949.753.7001
www.esassoc.com

Bend	Oakland	San Francisco
Camarillo	Orlando	Santa Monica
Delray Beach	Pasadena	Sarasota
Destin	Petaluma	Seattle
Irvine	Portland	Sunrise
Los Angeles	Sacramento	Tampa
Miami	San Diego	

D211085.33

OUR COMMITMENT TO SUSTAINABILITY | ESA helps a variety of public and private sector clients plan and prepare for climate change and emerging regulations that limit GHG emissions. ESA is a registered assessor with the California Climate Action Registry, a Climate Leader, and founding reporter for the Climate Registry. ESA is also a corporate member of the U.S. Green Building Council and the Business Council on Climate Change (BC3). Internally, ESA has adopted a Sustainability Vision and Policy Statement and a plan to reduce waste and energy within our operations. This document was produced using recycled paper.

Table of Contents

Burroughs Middle School
Comprehensive Modernization Project
City of Los Angeles, California
Archaeological and Paleontological Resources Report

Page

Executive Summary **ES-1**

1. Introduction **1**
1.1 Project Location 1
1.2 Project Description 4

2. Setting **4**
2.1 Environmental Setting 4
2.2 Geologic Setting 4
2.3 Cultural Setting 5
2.4 Ethnographic Setting 6
2.5 Historic Setting 8

3. Regulatory Framework **10**
3.1 State 10
3.2 Local 15

4. Archival Research **20**
4.1 SCCIC Records Search 20
4.2 LACM Paleontological Records Search 22

5. Additional Research **23**
5.1 Historic Map Review 23
5.2 Paleontological Resources Literature Review 23
5.3 Geotechnical Investigation Review 24

6. Sacred Lands File Search **26**

7. Conclusion and Recommendations **26**
7.1 Archaeological Resources 26
7.2 Paleontological Resources 28

References Cited **30**

Page

Appendices

A. Personnel
B. SCCIC Records Search Results
C. LACM Database Search Results
D. Sacred Lands File Search

Figures

1 Regional Location 2
2 Project Location 3
3 Geology Map 25

Tables

1 SUP Program EIR – Applicable Cultural Resources Standard Conditions..... 16
2 Previous Cultural Resources Investigations within 1/2-Mile of the Proposed Project .. 21

EXECUTIVE SUMMARY

Burroughs Middle School Comprehensive Modernization Project City of Los Angeles, California Archaeological and Paleontological Resources Report

The Los Angeles Unified School District (LAUSD or District) has retained Environmental Science Associates (ESA) to prepare an Environmental Impact Report (EIR) pursuant to the statutes of the California Environmental Quality Act (CEQA) for the Burroughs Middle School Comprehensive Modernization Project (proposed Project). The proposed Project is a site-specific school upgrade and modernization project being completed by LAUSD under the School Upgrade Program (SUP). The SUP Environmental Impact Report (Program EIR) was certified by LAUSD on November 10, 2015.[1] The proposed Project would include the demolition and removal of approximately 60,000 square feet (sf) of existing buildings, construction of new facilities totaling approximately 86,000 sf, and modernization of about 93,000 sf of buildings. LAUSD is the lead agency pursuant to CEQA.

The 10.4-acre proposed Project site is located at 600 South McCadden Place, within the Wilshire Community Plan Area of the City of Los Angeles and approximately 5 miles northwest of Downtown Los Angeles. It is bounded by West 6th Street to the north, Wilshire Boulevard to the south, single-family residences that front South June Street to the east, and South McCadden Place to the west. Specifically, the proposed Project site is located in Section 22, Township 1 South, Range 14 West, of the Hollywood 7.5-minute United States Geological Survey (USGS) topographic quadrangle.

A records search was conducted at the South Central Coastal Information Center (SCCIC), housed at California State University Fullerton on December 6, 2017. The records search indicates that 22 cultural resources studies have been conducted within ½-mile of the proposed Project and that none of these studies have included the Project site. The records search results also indicate that no archaeological resources have been previously recorded within the ½-mile radius, or within the Project site.

[1] LAUSD. 2015. School Upgrade Program Final Environmental Impact Report, http://achieve.lausd.net/ceqa. Adopted by the Board of Education on November 10, 2015.

A Sacred Lands File (SLF) check conducted by the California Native American Heritage Commission (NAHC) on November 29, 2017 indicated that no Native American cultural resources are known to be located within the proposed Project site.

Because the Project site is fully developed and no natural ground surface exposures exists, an archaeological resources survey was not conducted.

Archival research indicates that the proposed Project site has the potential for both historic-period and prehistoric archaeological resources. The southern portion of the Project site was developed with a small building as early as 1894. At around this same time, an unnamed tributary/drainage from Ballona Creek is depicted in topographic maps within the western portion of the Project site. Review of the geotechnical report prepared for the proposed Project indicates that fill soils with significant amounts of debris (including brick fragments) were encountered in the Project site. Given this, the Project site has the potential to contain historic-period archaeological resources, both those associated with former uses of the property and within the imported fill soils, as indicated by the brick fragment remnants exposed during the geotechnical investigation for the Project. Moreover, the Project site is located in the immediate vicinity of a historical-period thoroughfare, Wilshire Boulevard, and the La Brea Tar Pits (used during prehistoric and ethnographic time periods), located approximately one mile west of the Project site. Specifically, the route of Wilshire Boulevard, located immediately south of the Project site, is known to have been used during prehistoric times by the Gabrielino as a route to the La Brea Tar Pits, an important source of resources. Lastly, the former drainage (composed of Quaternary Alluvium deposits) that once crossed the Project site may have attracted prehistoric and historic period inhabitants to the area. The alluvial deposits associated with the drainage have the potential to contain buried and preserved archaeological sites.

Based on the results of these studies, the Project site has high potential for containing buried archaeological resources. Since the proposed Project includes ground disturbance, implementation of the proposed Project could result in a significant impact to archaeological resources that qualify as historical resources or unique archaeological resources under CEQA. The Project will incorporate LAUSD's Standard Conditions of Approval (SC), SC-CUL-7 through SC-CUL-13, to ensure that potential impacts remain less than significant. These conditions include retention of an on-call qualified archaeologist (SC-CUL-7), implementation of an archaeological resources monitoring program (SC-CUL-9), halting and re-directing work in the event of a discovery until it is evaluated for significance (SC-CUL-8 and SC-CUL-10), cultural resources sensitivity training (SC-CUL-11), Phase III Data Recovery/Mitigation Program if an unanticipated significant resource is discovered and cannot be avoided (SC-CUL-12), and consultation with local Native American representatives regarding documentation and recovery of Native American resources (SC-CUL-13). Incorporation of these SCs would ensure that the Project would have a less than significant impact on archaeological resources.

The surficial geology of the Project site consists of younger Quaternary Alluvium across the southeastern corner and older Quaternary Alluvium across the remainder of the site. A paleontological records search was conducted by the Natural History Museum of Los Angeles County (LACM) on December 11, 2017. The results indicate that while no fossil localities are

known from the Project site, significant fossil vertebrate remains can be found within older Quaternary Alluvium deposits at relatively shallow depth in the general area. Three fossil localities (LACM 1198, 5599, and 1814) are located approximately 0.10 to 0.62 miles away from the Project site that have produced fossil specimens of mastodon, camel, and bovid at depths from 2 to 17 feet below ground surface. LACM 1814 is associated with asphalt impregnated sands like those of the Rancho La Brea asphalt deposits found at Hancock Park, located west of the Project site. These have yielded millions of fossil specimens. A review of geologic mapping and the scientific literature indicates that the surficial older Quaternary Alluvium has the potential to preserve significant fossil resources at any depth. Furthermore, the younger Quaternary Alluvium is likely underlain by older Quaternary Alluvium at an unknown depth.

ESA recommends that the Project comply with SC-CUL-14 to ensure that potential impacts to paleontological resources remain less than significant, and identifies the following mitigation measures: paleontological resources sensitivity training (CUL-1), paleontological monitoring (CUL-2), halting and redirecting work if discovery is made until it is evaluated for significance (CUL-3), and coordination with the paleontological staff of the La Brea Tar Pits & Museum.

Burroughs Middle School Comprehensive Modernization Project City of Los Angeles, California

Archaeological and Paleontological Resources Report

1. Introduction

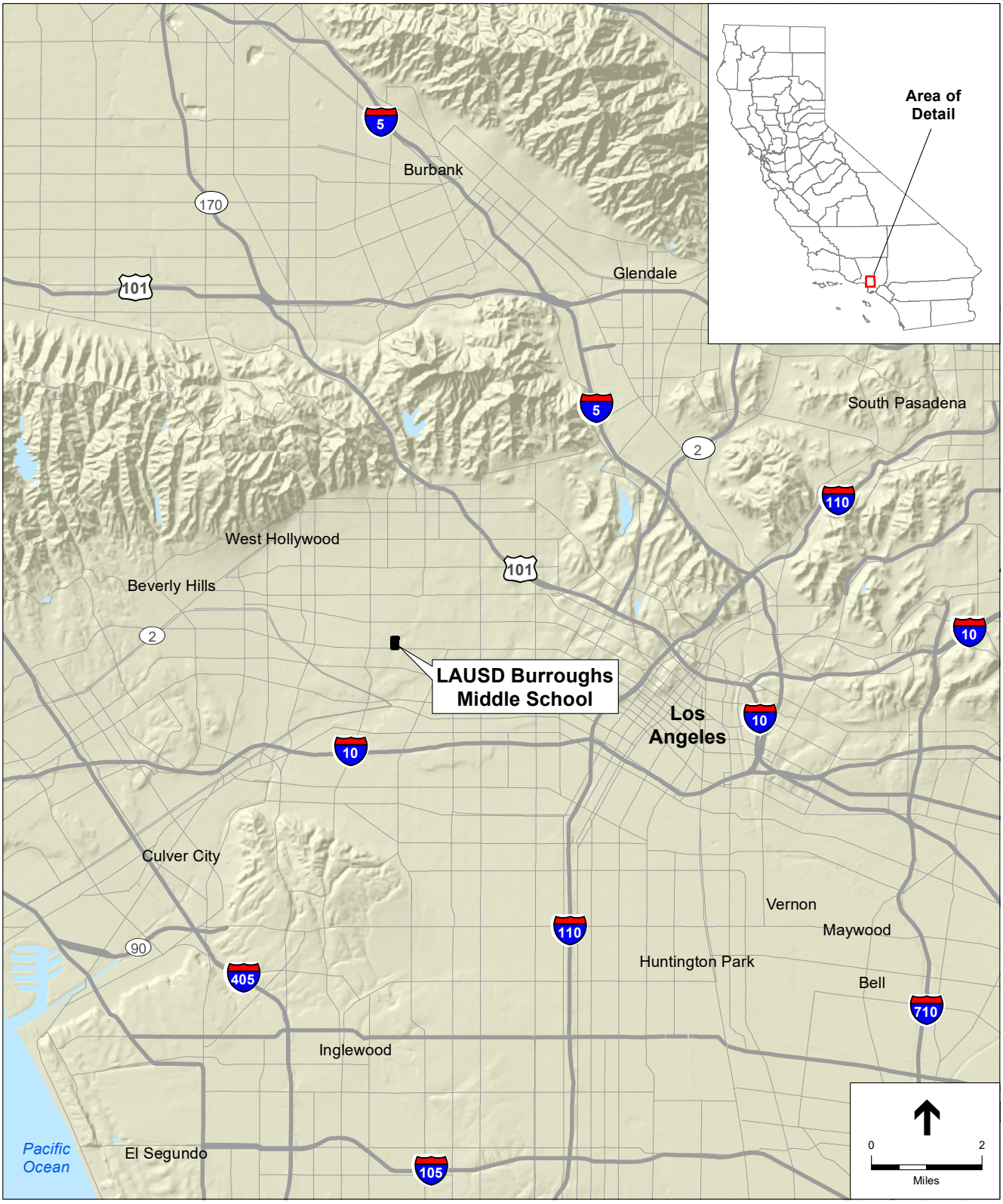
The Los Angeles Unified School District (LAUSD or District) has retained Environmental Science Associates (ESA) to prepare an Environmental Impact Report (EIR) pursuant to the statutes of the California Environmental Quality Act (CEQA) for the Burroughs Middle School Comprehensive Modernization Project (proposed Project). The proposed Project is a site-specific school upgrade and modernization project being completed by LAUSD under the School Upgrade Program (SUP). The SUP Environmental Impact Report (Program EIR) was certified by LAUSD on November 10, 2015.[2] The proposed Project would include the demolition and removal of approximately 60,000 square feet (sf) of existing buildings, construction of new facilities totaling approximately 86,442 sf, and modernization of about 93,000 sf of buildings. LAUSD is the lead agency pursuant to CEQA. This report documents the results of an archaeological and paleontological resources assessment conducted by ESA in support of the EIR for the proposed project. Because the proposed Project site is fully developed, an archaeological field survey was not conducted.

ESA personnel involved in the preparation of this report are as follows: Monica Strauss, M.A., R.P.A., Project Director; Michael Bever, PhD., R.P.A., Principal Investigator; Alyssa Bell, Ph.D., Paleontological Principal Investigator and report author; Fatima Clark, B.A., report author; and Jessie Lee, GIS specialist. Resumes of key personnel are included in **Appendix A**.

1.1 Project Location

The 10.4-acre proposed Project site is located within the Wilshire Community Plan Area of the City of Los Angeles, approximately five miles northwest of downtown Los Angeles (**Figure 1**). The proposed Project is located at 600 South McCadden Place and is bounded by West 6th Street to the north, Wilshire Boulevard to the south, single-family residences that front South June Street to the east, and South McCadden Place to the west. Specifically, the proposed Project site is located in Section 22, Township 1 South, Range 14 West, of the Hollywood 7.5-minute USGS topographic quadrangle (**Figure 2**).

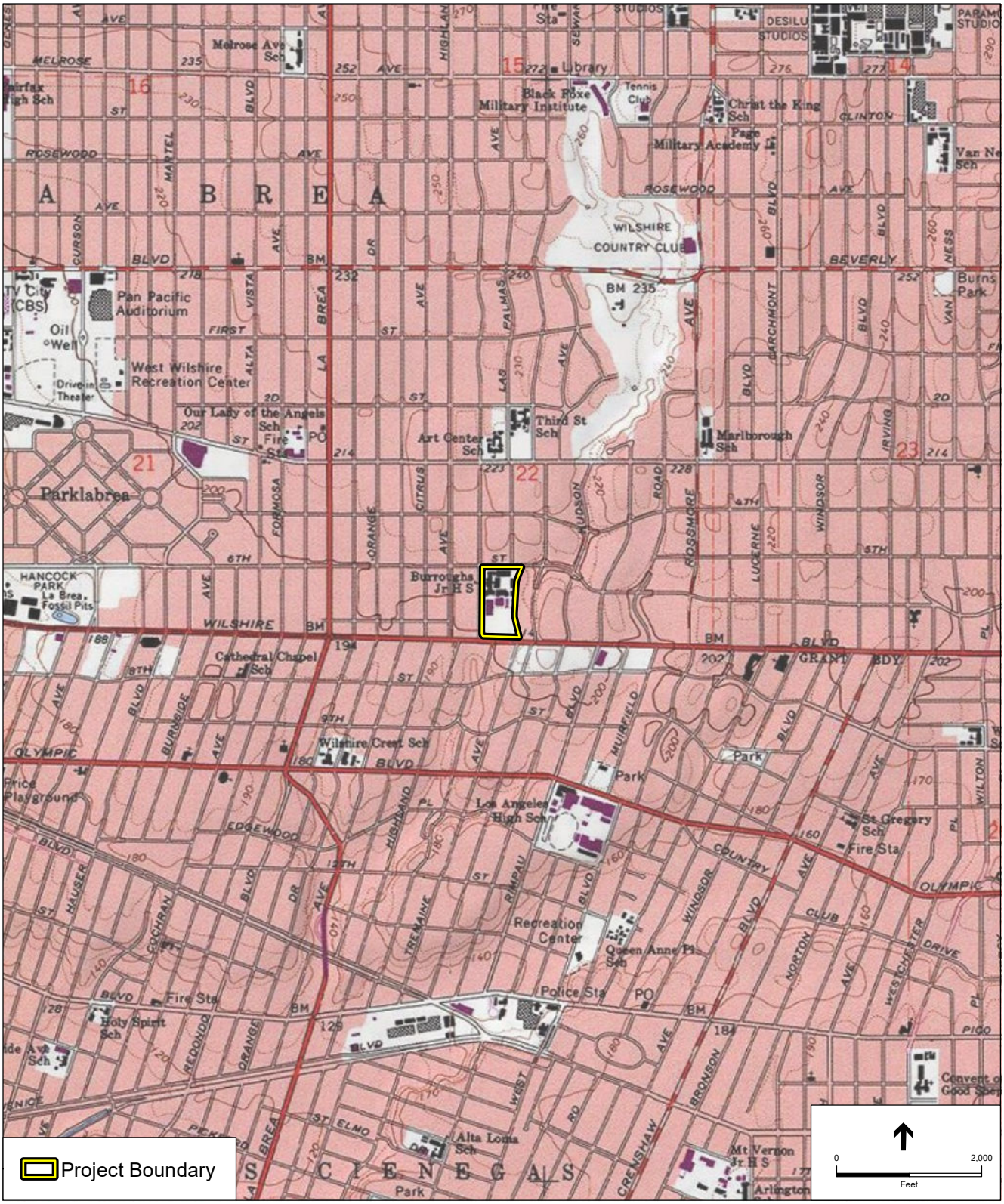
[2] LAUSD. 2015. School Upgrade Program Final Environmental Impact Report, http://achieve.lausd.net/ceqa. Adopted by the Board of Education on November 10, 2015.



SOURCE: Los Angeles County GIS.

LAUSD Burroughs Middle School Comprehensive Modernization Project . 211085.33

Figure 1
Project Vicinity



SOURCE: USGS Topographic Series (Hollywood, CA).

LAUSD Burroughs Middle School Comprehensive Modernization Project . 211085.33

Figure 2
Project Location

1.2 Project Description

The proposed Project would include renovations, modernizations, and new construction at Burroughs Middle School, including the demolition and removal of buildings (Shop Building, Girls' Locker Building, Cafeteria-Classroom Building and approximately 12 classrooms located in portable buildings). The Project would include the construction of buildings (a two-story Specialty Classroom Building, a three-story Food Services/Multi-Purpose Room Building, and Classroom/Lockers Building). The Project includes building modifications and the remodeling of 31 classrooms. Lastly, the Project would result in demolition of potentially historic buildings. However, the Project would be designed to preserve and enhance character-defining features associated with the campus.

Site upgrades that would be completed throughout the campus include: site-wide infrastructure, including plumbing, electrical and storm drain; site-wide upgrades to remove identified and prioritized barriers to program accessibility; and landscape, hardscape, and exterior paint. Landscape improvements may include repair or replacement of irrigation systems, including: lawn sprinklers and sprinkler controls; trees, shrubs, and other vegetation; landscaping plant material; utilitarian landscape components, such as sprinkler piping; and fencing and freestanding exterior walls.

2. Setting

2.1 Environmental Setting

The proposed Project site is currently a middle school composed of a number of standing buildings, as well as landscaped and hardscaped surfaces. The Project site is located in a highly urbanized portion of the Los Angeles Basin in an area dominated by residential and business development.

2.2 Geologic Setting

The Project site is situated in the Los Angeles Basin, in the northern Peninsular Ranges geomorphic province. The Peninsular Ranges extend from the Los Angeles coastline east to the San Bernardino Fault and from the San Diego coastline to the Colorado Desert and is characterized by northwest-trending mountains and valleys (Norris and Webb, 1990). The Los Angeles Basin is a structural depression approximately 50 miles long and 20 miles wide (Ingersoll and Rumelhart, 1999). The Los Angeles basin developed as a result of tectonic forces along the San Andreas fault zone, with subsidence occurring 18 – 3 million years ago (Mya) (Critelli et al., 1995). While sediments dating back to the Cretaceous (66 million years ago) are preserved in the basin, continuous sedimentation began in the middle Miocene (around 13 million years ago) (Yerkes et al., 1965). Since that time, eroded sediments from the surrounding highlands have been deposited in the basin, resulting in thousands of feet of accumulation (Yerkes et al., 1965). Most of these sediments were marine in nature, until sea level dropped in the Pleistocene and deposition of the terrestrial alluvial sediments that compose the uppermost units in the Los Angeles Basin began.

The Los Angeles Basin is subdivided into four structural blocks, with the Project site occurring in the Central Block, where sediments range from 32,000 to 35,000 feet thick (Yerkes et al., 1965). The Central Block is wedge-shaped, extending from the Santa Monica Mountains in the northwest, where it is about 10 miles wide, to the San Joaquin Hills in the southeast, where it widens to around 20 miles across (Yerkes et al., 1965).

The rapid sedimentation of the Los Angeles Basin resulted in the preservation of the organic content of much of the marine sediments, forming the most productive oil-producing district in California (Yerkes et al., 1965). The Project site is to the immediate southeast of the Salt Lake Oil Field which is roughly centered along Beverly Boulevard (Dibblee and Ehrenspeck, 1991). These oil-producing sediments are relevant to the paleontology of the area, as they are the cause of the world-famous La Brea Tar Pits, located at Hancock Park about one mile west of the Project site. The asphaltic sands of the La Brea Tar Pits form when petroleum seeps upward into the overlying alluvial sediments (Spencer et al., 2003). In places where the petroleum reached the surface, sticky pools of asphalt were left behind as the lighter petroleum products evaporated (Akersten et al., 1983). These pools would then trap most organisms that came into contact with them, including everything from pollen and plant seeds to mammoths, analogous to how fly-paper or quick sand works (Harris, 2015). The deposits at the La Brea Tar Pits are recognized as one of the densest fossil deposits in the world.

2.3 Cultural Setting

2.3.1 Prehistoric Overview

The chronology of southern California is typically divided into three general time periods: the Early Holocene (9,600 cal B.C. to 5,600 cal B.C.), the Middle Holocene (5,600 cal B.C. to 1,650 cal B.C.), and the Late Holocene (1,650 cal B.C. to cal A.D. 1769). This chronology is manifested in the archaeological record by particular artifacts and burial practices that indicate specific technologies, economic systems, trade networks, and other aspects of culture.

While it is not certain when humans first came to California, their presence in southern California by about 9,600 cal B.C. has been well documented. At Daisy Cave, on San Miguel Island, cultural remains have been radiocarbon dated to between 9,150 and 9,000 cal B.C. (Byrd and Raab, 2007). During the Early Holocene (9,600 cal B.C. to 5,600 cal B.C.), the climate of Southern California became warmer and more arid and human populations, who likely lived in small bands, appear to have resided mainly in coastal or inland desert areas. As the climate dried, they began to exploit a wider range of plant and animal resources (Byrd and Raab, 2007).

During the Middle Holocene (5,600 cal B.C. to 1,650 cal B.C.), there is evidence for the processing of acorns for food and a shift toward a more generalized economy. The first confirmed evidence of human occupation in the Los Angeles area is associated with the Millingstone cultures, which appeared in California around 6,000-5,000 cal B.C. (Byrd and Raab, 2007; Wallace,1955; Warren, 1968). Millingstone cultures were characterized by the collection and processing of plant foods, particularly acorns, and the hunting of a wider variety of game animals (Byrd and Raab, 2007; Wallace, 1955). Millingstone cultures also established more permanent settlements that were located primarily on the coast and in the vicinity of estuaries, lagoons,

lakes, streams, and marshes where a variety of resources, including seeds, fish, shellfish, small mammals, and birds, were exploited. Early Millingstone occupations are typically identified by the presence of handstones (manos) and millingstones (metates), while those Millingstone occupations dating later than approximately 3,000 B.C. contain a mortar and pestle complex as well, signifying the exploitation of acorns in the region.

During the Late Holocene (1,650 cal B.C. to cal A.D. 1769), many aspects of Millingstone culture persisted, but a number of socioeconomic changes occurred (Erlandson, 1994; Wallace, 1955; Warren, 1968). The native populations of southern California were becoming less mobile and populations began to gather in small sedentary villages with satellite resource-gathering camps. Increasing population size necessitated the intensified use of existing terrestrial and marine resources (Erlandson, 1994). Evidence indicates that the overexploitation of larger, high-ranked food resources may have led to a shift in subsistence, towards a focus on acquiring greater amounts of smaller resources, such as shellfish and small-seeded plants (Byrd and Raab, 2007). Between about A.D. 800 and A.D. 1350, there was an episode of sustained drought, known as the Medieval Climatic Anomaly (MCA) (Jones et al., 1999). While this climatic event did not appear to reduce the human population, it did lead to a change in subsistence strategies in order to deal with the substantial stress on resources. The Late Holocene marks a period in which specialization in labor emerged, trading networks became an increasingly important means by which both utilitarian and non-utilitarian materials were acquired, and travel routes were extended. Trade during this period reached its zenith as asphaltum (tar), seashells, and steatite were traded from Catalina Island (*Pimu* or *Pimugna)* and coastal southern California to the Great Basin. The bow and arrow was introduced sometime after cal A.D. 500, largely replacing the dart and atlatl (Byrd and Raab, 2007). Major technological changes appeared as well, particularly with the advent of the bow and arrow sometime after cal A.D. 500, which largely replaced the use of the dart and atlatl (Byrd and Raab, 2007).

2.4 Ethnographic Setting

2.4.1 Gabrielino

The Project site is located in a region traditionally occupied by the Takic-speaking Gabrielino Indians. The term “Gabrielino” is a general term that refers to those Native Americans who were administered by the Spanish at the Mission San Gabriel Arcángel. Prior to European colonization, the Gabrielino occupied a diverse area that included: the watersheds of the Los Angeles, San Gabriel, and Santa Ana rivers; the Los Angeles basin; and the islands of San Clemente, San Nicolas, and Santa Catalina (Kroeber, 1925). Their neighbors included the Chumash to the north, the Juañeno to the south, and the Serrano and Cahuilla to the east. The Gabrielino are reported to have been second only to the Chumash in terms of population size and regional influence (Bean and Smith, 1978). The Gabrielino language is part of the Takic branch of the Uto-Aztecan language family.

The Gabrielino Indians were hunter-gatherers and lived in permanent communities located near stable water and food supplies. Community populations generally ranged from 50 to 100 inhabitants, although larger settlements may have existed. The Gabrielino are estimated to have had a population numbering around 5,000 in the pre-contact period (Kroeber, 1925).

Villages are reported to have been the most abundant in the San Fernando Valley, the Glendale Narrows area north of downtown, and around the Los Angeles River's coastal outlets (Gumprecht 2001). The nearest villages to the Project site were *Kuruvungna* and *Yangna*, located approximately 7 miles southwest and 6 miles east of the Project site, respectively (McCawley, 1996).

The Project site is also located approximately one mile east of the La Brea Tar Pits, which were visited by the Gabrielino in prehistoric and historic times for the purpose of extracting tar, a prized resource for making weapons, vessels and jewelry, and waterproofing for canoes and roofing (Selden and Nudds, 2004). The alignment of present-day Wilshire Boulevard, which is located immediately south of the Project site, was constructed on a trail established by the Gabrielino which connected the village of *Yangna* to the tar pits (Roderick and Lynxwiler, 2005).

Subsistence consisted of hunting, fishing, and gathering. Small terrestrial game were hunted with deadfalls, rabbit drives, and by burning undergrowth, while larger game such as deer were hunted using bows and arrows. Fish were taken by hook and line, nets, traps, spears, and poison (Bean and Smith, 1978). The primary plant resources were the acorn, gathered in the fall and processed in mortars and pestles, and various seeds that were harvested in late spring and summer and ground with manos and metates. The seeds included chia and other sages, various grasses, and islay or holly-leafed cherry.

Gabrielino society was characterized by patrilineal, non-localized clans, each clan consisting of several lineages. The Gabrielino inhabited large circular, domed houses constructed of willow poles thatched with tule (Bean and Smith, 1978). These houses could sometimes hold up to 50 people. Other village structures of varying sizes served as sweathouses, ceremonial enclosures, and granaries.

At the time of Spanish contact, many Gabrielino practiced a religion that was centered around the mythological figure *Chinigchinich* (Bean and Smith, 1978). This religion may have been relatively new when the Spanish arrived, and was spreading at that time to other neighboring Takic groups. The Gabrielino practiced both cremation and inhumation of their dead. A wide variety of grave offerings, such as stone tools, baskets, shell beads, projectile points, bone and shell ornaments, and otter skins, were interred with the deceased.

Coming ashore on Santa Catalina Island in October of 1542, Juan Rodriguez Cabrillo was the first European to make contact with the Gabrielino-Tongva; the 1769 expedition of Portolá also passed through Gabrielino territory (Bean and Smith, 1978). Native Americans suffered severe depopulation and their traditional culture was radically altered after Spanish contact. Nonetheless, Gabrielino descendants still reside in the greater Los Angeles and Orange County areas and maintain an active interest in their heritage.

2.4.2 CA-LAN-159 ("La Brea Woman")

In 1914, the remains of "La Brea Woman" (or CA-LAN-159) were discovered at Pit 10 of the La Brea Tar Pits approximately six to nine feet below the ground surface (Heizer, 1949). Speculations have been made that La Brea Woman was between 25 to 30 years old at death,

although her age has not been scientifically confirmed (Kennedy, 1989). There have also been many attempts at dating La Brea Woman's skeleton. In 1971, bone collagen extracted from La Brea Woman's remains yielded a date of 9,000 Radiocarbon Years Before Present ("RYBP"); however; Erlandson (1994) suggests that these dates be regarded with caution given the problems with dating bone collagen and decontaminating samples from tar seeps. Several bones of Pleistocene fauna that exhibit possible butchering marks that were found associated with the remains should also be regarded with caution. A mano, shell beads, and extinct fauna are also known to have been discovered in association with the human remains. The shell beads were studied by Chester King in 1988 and he believes that they are similar to the ones found in Level 1 at the Malaga Cove site in the Santa Monica Bay, which suggests that an early Holocene age (i.e., 12,000 to 8,000 years before present) for the remains is valid. Michael Moratto has also hypothesized that the extinct fauna discovered with La Brea Woman's remains (with different radio carbon dates of 12,650 RYBP and 15,200 RYBP) raise the possibility of a late Pleistocene human presence in the Los Angeles area (Erlandson, 1994). The remains of a domestic dog were also identified and analyzed more than seventy years after they were recovered from Pit 10 and are likely associated with La Brea Woman (Reynolds, 1985). Lastly, a wooden foreshaft (perhaps for an atlatl), dart shafts and a cogstone were recovered from Pits 61 and 67 of the tar pits (Heizer, 1949).

2.5 Historic Setting

2.5.1 Spanish Period (A.D. 1769-1821)

Although Spanish explorers made brief visits to the region in 1542 and 1602, sustained European exploration of southern California began in 1769, when Gaspar de Portolá and a small Spanish contingent began their exploratory journey along the California coast from San Diego to Monterey. This was followed in 1776 by the expedition of Father Francisco Garcés (Johnson and Earle, 1990). In the late 18th century, the Spanish began establishing missions in California and forcibly relocating and converting native peoples. In 1771, Father Junipero Serra founded the Mission San Gabriel Arcángel, located approximately 13 miles northeast of the Project site (California Missions Resource Center, 2003). Disease and hard labor took a toll on the native population in California; by 1900, the Native Californian population had declined by as much as 90 percent (Cook, 1978). In addition, native economies were disrupted, trade routes were interrupted, and native ways of life were significantly altered.

In an effort to promote Spanish settlement of Alta California, Spain granted several large land concessions from 1784 to 1821. At this time, unless certain requirements were met, Spain retained title to the land (State Lands Commission, 1982).

2.5.2 Mexican Period (A.D. 1821-1848)

The Mexican Period began when Mexico won its independence from Spain in 1821. Mexico continued to promote settlement of California with the issuance of land grants. In 1833, Mexico began the process of secularizing the missions, reclaiming the majority of mission lands and redistributing them as land grants. According to the terms of the Secularization Law of 1833 and

Regulations of 1834, at least a portion of the lands would be returned to the Native populations, but this did not always occur (Milliken et al., 2009).

Many ranchos continued to be used for cattle grazing by settlers during the Mexican Period. Hides and tallow from cattle became a major export for Californios, many of whom became wealthy and prominent members of society. The Californios led generally easy lives, leaving the hard work to vaqueros and Indian laborers (Pitt, 1994; Starr, 2007).

2.5.3 American Period (1846–present)

In 1846, the Mexican-American War broke out. Mexican forces were eventually defeated in 1847 and Mexico ceded California to the United States as part of the Treaty of Guadalupe Hildalgo in 1848. California officially became one of the United States in 1850. While the treaty recognized the right of Mexican citizens to retain ownership of land granted to them by Spanish or Mexican authorities, the claimant was required to prove their right to the land before a patent was given. The process was lengthy, and generally resulted in the claimant losing at least a portion of their land to attorney's fees and other costs associated with proving ownership (Starr, 2007).

When the discovery of gold in northern California was announced in 1848, a huge influx of people from other parts of North America flooded into California. The increased population provided an additional outlet for the Californios' cattle. As demand increased, the price of beef skyrocketed and Californios reaped the benefits. However, a devastating flood in 1861, followed by droughts in 1862 and 1864, led to a rapid decline of the cattle industry; over 70 percent of cattle perished during these droughts (McWilliams, 1946; Dinkelspiel, 2008). This event, coupled with the burden of proving ownership of their lands, caused many Californios to lose their lands during this period (McWilliams, 1946). Former ranchos were subsequently subdivided and sold for agriculture and residential settlement.

The first transcontinental railroad was completed in 1869, connecting San Francisco with the eastern United States. Newcomers poured into northern California. Southern California experienced a trickle-down effect, as many of these newcomers made their way south. The Southern Pacific Railroad extended this line from San Francisco to Los Angeles in 1876. The second transcontinental line, the Santa Fe, was completed in 1886 and caused a fare war, driving fares to an unprecedented low. Settlers flooded into the region and the demand for real estate skyrocketed. As real estate prices soared, land that had been farmed for decades outlived its agricultural value and was sold to become residential communities. The subdivision of the large ranchos took place during this time (Meyer, 1981; McWilliams, 1946). During the first three decades of the 20th century, more than 2 million people moved to Los Angeles County, transforming it from a largely agricultural region into a major metropolitan area.

3. Regulatory Framework

3.1 State

3.1.1 California Environmental Quality Act

CEQA is the principal statute governing environmental review of projects occurring in the State and is codified at *Public Resources Code (PRC) Section 21000 et seq.* CEQA requires lead agencies to determine if a proposed project would have a significant effect on the environment, including significant effects on historical or unique archaeological resources. Under CEQA (Section 21084.1), a project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment.

The *CEQA Guidelines* (Title 14 California Code of Regulations [CCR] Section 15064.5) recognize that historical resources include: (1) a resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (California Register); (2) a resource included in a local register of historical resources, as defined in PRC Section 5020.1(k) or identified as significant in a historical resource survey meeting the requirements of PRC Section 5024.1(g); and (3) any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California by the lead agency, provided the lead agency's determination is supported by substantial evidence in light of the whole record. The fact that a resource does not meet the three criteria outlined above does not preclude the lead agency from determining that the resource may be an historical resource as defined in PRC Sections 5020.1(j) or 5024.1.

If a lead agency determines that an archaeological site is a historical resource, the provisions of Section 21084.1 of CEQA and Section 15064.5 of the *CEQA Guidelines* apply. If an archaeological site does not meet the criteria for a historical resource contained in the *CEQA Guidelines*, then the site may be treated in accordance with the provisions of Section 21083, which is as a unique archaeological resource. As defined in Section 21083.2 of CEQA a "unique" archaeological resource is an archaeological artifact, object, or site, about which it can be clearly demonstrated that without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- Contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information;
- Has a special and particular quality such as being the oldest of its type or the best available example of its type; or,
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

If an archaeological site meets the criteria for a unique archaeological resource as defined in Section 21083.2, then the site is to be treated in accordance with the provisions of Section 21083.2, which state that if the lead agency determines that a project would have a significant

effect on unique archaeological resources, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place (Section 21083.1(a)). If preservation in place is not feasible, mitigation measures shall be required. The *CEQA Guidelines* note that if an archaeological resource is neither a unique archaeological nor a historical resource, the effects of the project on those resources shall not be considered a significant effect on the environment (*CEQA Guidelines* Section 15064.5(c)(4)).

A significant effect under CEQA would occur if a project results in a substantial adverse change in the significance of a historical resource as defined in *CEQA Guidelines* Section 15064.5(a). Substantial adverse change is defined as "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired" (*CEQA Guidelines* Section 15064.5(b)(1)). According to *CEQA Guidelines* Section 15064.5(b)(2), the significance of a historical resource is materially impaired when a project demolishes or materially alters in an adverse manner those physical characteristics that:

A. Convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register; or

B. Account for its inclusion in a local register of historical resources pursuant to section 5020.1(k) of the Public Resources Code or its identification in a historical resources survey meeting the requirements of section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or

C. Convey its historical significance and that justify its eligibility for inclusion in the California Register as determined by a Lead Agency for purposes of CEQA.

Paleontological Resources

The CEQA Guidelines (Title 14, Chapter 3 of the California Code of Regulations, Section 15000 et seq.), define the procedures, types of activities, individuals, and public agencies required to comply with CEQA. As part of CEQA's Initial Study process, one of the questions that must be answered by the lead agency relates to paleontological resources: "Will the proposed project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?" (CEQA Guidelines Section 15023, Appendix G, Section XIV, Part a).

The loss of any identifiable fossil that could yield information important to prehistory, or that embodies the distinctive characteristics of a type of organism, environment, period of time, or geographic region, would be a significant environmental impact. Direct impacts to paleontological resources primarily concern the potential destruction of nonrenewable paleontological resources and the loss of information associated with these resources. This includes the unauthorized collection of fossil remains. If potentially fossiliferous bedrock or surficial sediments are disturbed, the disturbance could result in the destruction of paleontological resources and subsequent loss of information (significant impact). At the project-specific level, direct impacts can be mitigated to a less than significant level through the implementation of paleontological mitigation.

The CEQA threshold of significance for a significant impact to paleontological resources is reached when a project is determined to "directly or indirectly destroy a significant paleontological resource or unique geologic feature." In general, for projects that are underlain by paleontologically sensitive geologic units, the greater the amount of ground disturbance, the higher the potential for significant impacts to paleontological resources. For projects that are directly underlain by geologic units with no paleontological sensitivity, there is no potential for impacts on paleontological resources unless sensitive geologic units which underlie the non-sensitive unit are also affected.

3.1.2 California Register of Historical Resources

The California Register is "an authoritative listing and guide to be used by State and local agencies, private groups, and citizens in identifying the existing historical resources of the State and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change" (PRC Section 5024.1[a]). The criteria for eligibility for the California Register are based upon National Register criteria (PRC Section 5024.1[b]). Certain resources are determined by the statute to be automatically included in the California Register, including California properties formally determined eligible for, or listed in, the National Register.

To be eligible for the California Register, a prehistoric or historic-period property must be significant at the local, state, and/or federal level under one or more of the following four criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. Is associated with the lives of persons important in our past;
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
4. Has yielded, or may be likely to yield, information important in prehistory or history.

A resource eligible for the California Register must meet one of the criteria of significance described above, and retain enough of its historic character or appearance (integrity) to be recognizable as a historical resource and to convey the reason for its significance. It is possible that a historic resource may not retain sufficient integrity to meet the criteria for listing in the National Register, but it may still be eligible for listing in the California Register.

Additionally, the California Register consists of resources that are listed automatically and those that must be nominated through an application and public hearing process. The California Register automatically includes the following:

- California properties listed on the National Register and those formally determined eligible for the National Register;
- California Registered Historical Landmarks from No. 770 onward; and,
- Those California Points of Historical Interest that have been evaluated by the OHP and have been recommended to the State Historical Commission for inclusion on the California Register.

Other resources that may be nominated to the California Register include:

- Historical resources with a significance rating of Category 3 through 5 (those properties identified as eligible for listing in the National Register, the California Register, and/or a local jurisdiction register);
- Individual historical resources;
- Historical resources contributing to historic districts; and,
- Historical resources designated or listed as local landmarks, or designated under any local ordinance, such as an historic preservation overlay zone.

3.1.3 Assembly Bill 52 and Related Public Resources Code Sections

Assembly Bill (AB) 52 was approved by California State Governor Edmund Gerry "Jerry" Brown, Jr. on September 25, 2014. The act amended California PRC Section 5097.94, and added PRC Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3. AB 52 applies specifically to projects for which a Notice of Preparation (NOP) or a Notice of Intent to Adopt a Negative Declaration or Mitigated Negative Declaration (MND) will be filed on or after July 1, 2015. The primary intent of AB 52 was to include California Native American Tribes early in the environmental review process and to establish a new category of resources related to Native Americans that require consideration under CEQA, known as tribal cultural resources. PRC Section 21074(a)(1) and (2) defines tribal cultural resources as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American Tribe" that are either included or determined to be eligible for inclusion in the California Register or included in a local register of historical resources, or a resource that is determined to be a tribal cultural resource by a lead agency, in its discretion and supported by substantial evidence. On July 30, 2016, the California Natural Resources Agency adopted the final text for tribal cultural resources update to Appendix G of the CEQA Guidelines, which was approved by the Office of Administrative Law on September 27, 2016.

PRC Section 21080.3.1 requires that within 14 days of a lead agency determining that an application for a project is complete, or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact, or a tribal representative, of California Native American Tribes that are traditionally and culturally affiliated with the geographic area of the project (as defined in PRC Section 21073) and who have requested in writing to be informed by the lead agency (PRC Section 21080.3.1(b)). Tribes interested in consultation must respond in writing within 30 days from receipt of the lead agency's formal notification and the lead agency must begin consultation within 30 days of receiving the tribe's request for consultation (PRC Sections 21080.3.1(d) and 21080.3.1(e)).

PRC Section 21080.3.2(a) identifies the following as potential consultation discussion topics: the type of environmental review necessary; the significance of tribal cultural resources; the significance of the project's impacts on the tribal cultural resources; project alternatives or appropriate measures for preservation; and mitigation measures. Consultation is considered concluded when either: (1) the parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or (2) a party, acting in good faith and

after reasonable effort, concludes that mutual agreement cannot be reached (PRC Section 21080.3.2(b)).

If a California Native American tribe has requested consultation pursuant to Section 21080.3.1 and has failed to provide comments to the lead agency, or otherwise failed to engage in the consultation process, or if the lead agency has complied with Section 21080.3.1(d) and the California Native American tribe has failed to request consultation within 30 days, the lead agency may certify an EIR or adopt an MND (PRC Section 21082.3(d)(2) and (3)).

PRC Section 21082.3(c)(1) states that any information, including, but not limited to, the location, description, and use of the tribal cultural resources, that is submitted by a California Native American tribe to the lead (or public) agency during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public without the prior consent of the tribe that provided the information. If the lead agency publishes any information submitted by a California Native American tribe during the consultation or environmental review process, that information shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public.

3.3.4 California Health and Safety Code Section 7050.5

California Health and Safety Code Section 7050.5 requires that in the event human remains are discovered, the County Coroner be contacted to determine the nature of the remains. In the event the remains are determined to be Native American in origin, the Coroner is required to contact the California Native American Heritage Commission (NAHC) within 24 hours to relinquish jurisdiction.

3.3.5 California Public Resources Code Section 5097.98

California PRC Section 5097.98, as amended by Assembly Bill 2641, provides procedures in the event human remains of Native American origin are discovered during project implementation. PRC Section 5097.98 requires that no further disturbances occur in the immediate vicinity of the discovery, that the discovery is adequately protected according to generally accepted cultural and archaeological standards, and that further activities take into account the possibility of multiple burials. PRC Section 5097.98 further requires the NAHC, upon notification by a County Coroner, designate and notify a Most Likely Descendant (MLD) regarding the discovery of Native American human remains. Once the MLD has been granted access to the site by the landowner and inspected the discovery, the MLD then has 48 hours to provide recommendations to the landowner for the treatment of the human remains and any associated grave goods.

In the event that no descendant is identified, or the descendant fails to make a recommendation for disposition, or if the land owner rejects the recommendation of the descendant, the landowner may, with appropriate dignity, reinter the remains and burial items on the property in a location that will not be subject to further disturbance.

3.3.6 Public Resources Code Section 5097.5 and Section 30244

Other state requirements for paleontological resource management are included in PRC Section 5097.5 and Section 30244. These statutes prohibit the removal of any paleontological site or feature from public lands without permission of the jurisdictional agency, define the removal of paleontological sites or features as a misdemeanor, and require reasonable mitigation of adverse impacts to paleontological resources from developments on public (state, county, city, district) lands.

3.2 Local

3.2.1 City of Los Angeles General Plan

The City of Los Angeles General Plan (adopted 2001) states as its objective, to "protect the city's archaeological and paleontological resources for historical, cultural, research, and/or educational purposes" by continuing "to identify and protect significant archaeological and paleontological resources known to exist or that are identified during land development, demolition, or property modification activities."

In addition, the City will:

> *continue to protect historic and cultural sites and/or resources potentially affected by proposed land development, demolition, or property modification activities…The city's environmental guidelines require the applicant to secure services of a bona fide archaeologist to monitor excavations or other subsurface activities associated with a development project in which all or a portion is deemed to be of archaeological significance. Discovery of archaeological materials may temporarily halt the project until the site has been assessed, potential impacts evaluated and, if deemed appropriate, the resources protected, documented and/or removed (*City of Los Angeles, 2001*).*

The General Plan also contains the following statement regarding paleontological resources:

> *Pursuant to CEQA, if a land development project is within a potentially significant paleontological area, the developer is required to contact a bona fide paleontologist to arrange for assessment of the potential impact and mitigation of potential disruption of or damage to the site. If significant paleontological resources are uncovered during project execution, authorities are to be notified and the designated paleontologist may order excavations stopped, within reasonable time limits, to enable assessment, removal or protection of the resources. For Los Angeles city and county, the Los Angeles County Museum of Natural History, including the George C. Page Museum, provides advice concerning paleontological resources.*

In addition, the Los Angeles Municipal Code (LAMC) Section 91.106.4.5 states that the Building Department "shall not issue a permit to demolish, alter or remove a building or structure of historical, archaeological or architectural consequence if such building or structure has been officially designated" by a federal, state, or local authority.

3.2.2 LAUSD

The SUP Program EIR was certified by LAUSD on November 10, 2015.[3] The overall purpose of the EIR was to inform LAUSD (lead agency), responsible agencies, decision makers, and the general public of the potential environmental effects from implementation of the SUP, and to streamline future CEQA compliance. The SUP Program EIR included Standard Conditions to provide sufficient performance standards for future projects to reduce environmental impacts. The following Standard Conditions are applicable to archaeological and paleontological resources.

TABLE 1
SUP PROGRAM EIR – APPLICABLE CULTURAL RESOURCES STANDARD CONDITIONS

Reference	Topic	Trigger for Compliance	Implementation Phase	Standard Conditions
SC-CUL-7	Archaeological Resource	Project area is deemed highly sensitive for archaeological resources.	Prior to and during grading, excavation, or other ground disturbing activities	LAUSD shall retain a qualified archaeologist to be available on-call. The qualified archaeologist shall meet the Secretary of the Interior's Professional Qualifications Standards (48 Federal Register 44738–39).
SC-CUL-8	Historic and Archaeological Resource	Historical or unique archaeological resources are discovered during construction activities.	During grading, excavation, or other ground disturbing activities	The contractor shall halt construction activities in the immediate area and notify the LAUSD. LAUSD shall retain a qualified archeologist to make an immediate evaluation of significance and appropriate treatment of the resource. To complete this assessment, the qualified archeologist will be afforded the necessary time to recover, analyze, and curate the find. The qualified archeologist shall recommend the extent of archeological monitoring necessary to ensure the protection of any other resources that may be in the area. Construction activities may continue on other parts of the building site while evaluation and treatment of historical or unique archaeological resources takes place.
SC-CUL-9	Archaeological Resource Monitoring Program	Phase I Archaeological Site Investigation shows a strong possibility that unique resources, and/or unique architectural resources have been identified on a site.	Prior to the start of construction	LAUSD shall implement an archaeological monitoring program for construction activities at a site prepared by a qualified archaeologist under the following conditions: (1) when a Phase I Site Investigation shows a strong possibility that unique archeological resources are buried on the site; and/or (2) when unique architectural resources have been identified on a site, but LAUSD does not implement a Phase III Data Recovery/Mitigation Program because the resources can be recovered through the archaeological monitoring program.
SC-CUL-10	Archaeological Resource	Evidence of prehistoric or historic cultural resources is uncovered.	During grading, excavation, or other ground disturbing activities	All work shall stop within a 30-foot radius of the discovery. Work shall not continue until the discovery has been evaluated by a qualified archaeologist. The qualified archaeologist shall assess the find(s) and, if it is determined to be of value, shall draft a monitoring program and oversee the remainder of the grading program. Should evidence of prehistoric or historic cultural resources be found the archaeologist shall monitor all ground-disturbing activities related to the proposed project. Any significant archaeological resources found shall be preserved as determined

[3] LAUSD. 2015. School Upgrade Program Final Environmental Impact Report, http://achieve.lausd.net/ceqa. Adopted by the Board of Education on November 10, 2015.

Reference	Topic	Trigger for Compliance	Implementation Phase	Standard Conditions
				necessary by the archaeologist and offered to a local museum or repository willing to accept the resource. Any resulting reports shall also be forwarded to the South Central Coastal Information Center at the California State University, Fullerton.
SC-CUL-11	Archaeological Resource	Project construction requires archaeological monitoring	Prior to the start grading, excavation, or other ground disturbing activities	Cultural resources sensitivity training shall be conducted by a qualified archaeologist for all construction workers involved in moving soil or working near soil disturbance. This training shall review the types of archaeological resources that might be found, along with laws for the protection of resources.
SC-CUL-12	Archaeological Resource	Unique archaeological resources are discovered and LAUSD determines not to avoid them by abandoning the site or redesigning the project	During grading, excavation, or other ground disturbing activities	LAUSD shall determine whether it is feasible to prepare and implement a Phase III Data Recovery/Mitigation Program. A Phase III Data Recovery/Mitigation Program would be designed by a Qualified Archaeologist to recover a statistically valid sample of the archaeological remains and to document the site to a level where the impacts can be determined to be less than significant. All documentation shall be prepared in the standard format of the ARMR Guidelines, as prepared by the OHP. Once a Phase III Data Recovery/Mitigation Program is completed, an archaeological monitor shall be present on site to oversee the grading, demolition activities, and/or initial construction activities to ensure that construction proceeds in accordance with the adopted Phase III Data Recovery/Mitigation Program. The extent of the Phase III Data Recovery/Mitigation Program and the extent and duration of the archaeological monitoring program depend on site-specific factors.
SC-CUL-13	Native American Resource	Evidence of Native American Resources is Uncovered	During grading, excavation, or other ground-disturbing activities (Construction)	All work shall stop within a 30-foot radius of the discovery. Work shall not continue until the discovery has been evaluated by a qualified archaeologist and the local Native American representative has been contacted and consulted to assist in the accurate recordation and recovery of the resources.
SC-CUL-14	Paleontological Resource	Cultural Resources Assessment identifies the project area as sensitive for paleontological resources.	During grading, excavation, or other ground disturbing activities	LAUSD shall have paleontological monitor on-call during construction activities. This monitor shall provide the construction crew(s) with a brief summary of the sensitivity, the rationale behind the need for protection of these resources, and information on the initial identification of paleontological resources. If paleontological resources are uncovered during construction, the on-call paleontologist shall be notified and afforded the necessary time and funds to recover, analyze, and curate the find(s). Subsequently, the monitor shall remain on site for the duration of the ground disturbances to ensure the protection of any other resources that may be in the area.
SC-CUL-15	Paleontological Resource	Project area is deemed highly sensitive for paleontological resources.	During grading, excavation, or other ground disturbing activities	The paleontological monitor shall be on site for all ground altering activities and shall advise LAUSD as to necessary means of protecting potentially significant paleontological resources, including, but not limited to, possible cessation of construction activities in the immediate area of a find. If resources are identified during the monitoring program, the paleontologist shall be

Reference	Topic	Trigger for Compliance	Implementation Phase	Standard Conditions
				afforded the necessary time and funds to recover, analyze, and curate the find(s). Subsequently, the monitor shall remain on site for the duration of the ground disturbances to insure the protection of any other resources that may be in the area.

3.2.3 Society for Vertebrate Paleontology Guidelines

The Society for Vertebrate Paleontology (SVP) has established standard guidelines for acceptable professional practices in the conduct of paleontological resource assessments and surveys, monitoring and mitigation, data and fossil recovery, sampling procedures, and specimen preparation, identification, analysis, and curation. Most practicing professional paleontologists in the nation adhere closely to the SVP's assessment, mitigation, and monitoring requirements as specifically provided in its standard guidelines. Most California State regulatory agencies accept the SVP standard guidelines as a measure of professional practice.

As defined by the SVP (2010: 11), significant nonrenewable paleontological resources are:

> fossils and fossiliferous deposits, here defined as consisting of identifiable vertebrate fossils, large or small, uncommon invertebrate, plant, and trace fossils, and other data that provide taphonomic, taxonomic, phylogenetic, paleoecologic, stratigraphic, and/or biochronologic information. Paleontological resources are considered to be older than recorded human history and/or older than middle Holocene (i.e., older than about 5,000 radiocarbon years).

As defined by the SVP (1995:26), significant fossiliferous deposits are:

> a rock unit or formation which contains significant nonrenewable paleontologic resources, here defined as comprising one or more identifiable vertebrate fossils, large or small, and any associated invertebrate and plant fossils, traces, and other data that provide taphonomic, taxonomic, phylogenetic, ecologic, and stratigraphic information (ichnites and trace fossils generated by vertebrate animals, e.g., trackways, or nests and middens which provide datable material and climatic information).

Based on the significance definitions of the SVP (1995, 2010), all identifiable vertebrate fossils are considered to have significant scientific value. This position is adhered to because vertebrate fossils are relatively uncommon, and only rarely will a fossil locality yield a statistically significant number of specimens of the same genus. Therefore, every vertebrate fossil found has the potential to provide significant new information on the taxon it represents, its paleoenvironment, and/or its distribution. Furthermore, all geologic units in which vertebrate fossils have previously been found are considered to have high sensitivity. Identifiable plant and invertebrate fossils are considered significant if found in association with vertebrate fossils or if defined as significant by project paleontologists, specialists, or local government agencies.

A geologic unit known to contain significant fossils is considered "sensitive" to adverse impacts if there is a high probability that earth-moving or ground-disturbing activities in that rock unit will either directly or indirectly disturb or destroy fossil remains. The limits of the entire rock formation, both areal and stratigraphic, therefore define the scope of the paleontological potential in each case (SVP, 1995).

Fossils are contained within surficial sediments or bedrock, and are therefore not observable or detectable unless exposed by erosion or human activity. In summary, paleontologists cannot know either the quality or quantity of fossils prior to natural erosion or human-caused exposure. As a result, even in the absence of surface fossils, it is necessary to assess the sensitivity of rock units based on their known potential to produce significant fossils elsewhere within the same geologic unit (both within and outside of the study area), a similar geologic unit, or based on whether the unit in question was deposited in a type of environment that is known to be favorable for fossil preservation. Monitoring by experienced paleontologists greatly increases the probability that fossils will be discovered during ground-disturbing activities and that, if these remains are significant, successful mitigation and salvage efforts may be undertaken in order to prevent adverse impacts to these resources.

Paleontological Sensitivity

Paleontological sensitivity is defined as the potential for a geologic unit to produce scientifically significant fossils. This is determined by rock type, past history of the geologic unit in producing significant fossils, and fossil localities recorded from that unit. Paleontological sensitivity is derived from the known fossil data collected from the entire geologic unit, not just from a specific survey. In its "Standard Guidelines for the Assessment and Mitigation of Adverse Impacts to Paleontologic Resources," the SVP (2010: 1-2) defines four categories of paleontological sensitivity (potential) for rock units: high, low, undetermined, and no potential:

> **High Potential**. Rock units from which vertebrate or significant invertebrate, plant, or trace fossils have been recovered are considered to have a high potential for containing additional significant paleontological resources. Rocks units classified as having high potential for producing paleontological resources include, but are not limited to, sedimentary formations and some volcaniclastic formations (e. g., ashes or tephras), and some low-grade metamorphic rocks which contain significant paleontological resources anywhere within their geographical extent, and sedimentary rock units temporally or lithologically suitable for the preservation of fossils (e. g., middle Holocene and older, fine-grained fluvial sandstones, argillaceous and carbonate-rich paleosols, cross-bedded point bar sandstones, fine-grained marine sandstones, etc.). Rock units which contain potentially datable organic remains older than late Holocene, including deposits associated with animal nests or middens, and rock units which may contain new vertebrate deposits, traces, or trackways are also classified as having high potential.
>
> **Low Potential**. Reports in the paleontological literature or field surveys by a qualified professional paleontologist may allow determination that some rock units have low potential for yielding significant fossils. Such rock units will be poorly represented by fossil specimens in institutional collections, or based on general scientific consensus only

preserve fossils in rare circumstances and the presence of fossils is the exception not the rule, e.g. basalt flows or Recent colluvium. Rock units with low potential typically will not require impact mitigation measures to protect fossils.

Undetermined Potential. Rock units for which little information is available concerning their paleontological content, geologic age, and depositional environment are considered to have undetermined potential. Further study is necessary to determine if these rock units have high or low potential to contain significant paleontological resources. A field survey by a qualified professional paleontologist to specifically determine the paleontological resource potential of these rock units is required before a paleontological resource impact mitigation program can be developed. In cases where no subsurface data are available, paleontological potential can sometimes be determined by strategically located excavations into subsurface stratigraphy.

No Potential. Some rock units have no potential to contain significant paleontological resources, for instance high-grade metamorphic rocks (such as gneisses and schists) and plutonic igneous rocks (such as granites and diorites). Rock units with no potential require no protection nor impact mitigation measures relative to paleontological resources.

For geologic units with high potential, full-time monitoring is generally recommended during any project-related ground disturbance (SVP, 2010). For geologic units with low potential, full-time monitoring will not generally be required. For geologic units with undetermined potential, field surveys by a qualified vertebrate paleontologist should be conducted to specifically determine the paleontologic potential of the rock units present within the Project site.

4. Archival Research

4.1 SCCIC Records Search

A records search for the proposed Project was conducted on December 6, 2017 at the California Historic Resources Inventory System (CHRIS) South Central Coastal Information Center (SCCIC) housed at California State University, Fullerton (**Appendix B**). The records search included a review of all recorded archaeological sites within a ½-mile radius of the proposed project, as well as a review of cultural resource reports on file. In addition, the California Points of Historical Interest (PHI), the California Historical Landmarks (CHL), the California Register of Historic Resources (California Register), the National Register, and the California State Historic Resources Inventory (HRI) listings were reviewed for properties within or adjacent to the proposed Project site.

4.1.1 Previous Cultural Resources Investigations

The records search indicates that 22 cultural resources studies have been conducted within a ½-mile of the proposed Project (**Table 2**). Less than 25 percent of the ½-mile records search area has been included in previous studies. Of the 22 studies, one covered a portion of the proposed Project site. However, this study (LA-08020) consisted of conducting archival research and a

historical resources survey for the Los Angeles Rail Rapid Transit Project and did not address archaeological resources. No archaeological surveys have covered the proposed project.[4]

TABLE 2
PREVIOUS CULTURAL RESOURCES INVESTIGATIONS WITHIN 1/2-MILE OF THE PROPOSED PROJECT

Author	SCCIC # (LA-)	Title	Date
Anonymous	01578	*Technical Report Archaeological Resources Los Angeles Rapid Rail Transit Project Draft Environmental Impact Statement and Environmental Impact Report*	1983
Bissell, Ronald M.	01968	*Cultural Resources Literature Review of Metro Rail Red Line Western Extension Alternatives, Los, Angeles, Los Angeles County, California*	1989
Cooley, Theodore G.	01973	*Draft Environmental Impact Statement for US Army Corps of Engineers Regulatory Permit Under Section 404 of the Clean Water Act*	1990
Anonymous	03496	*Draft Environmental Impact Report Transit Corridor Specific Plan Park Mile Specific Plan Amendments*	1985
Duke, Curt	05082	*Cultural Resource Assessment for Pacific Bell Mobile Services Facility La 578-11, County of Los Angeles, Ca*	1999
Dooley, Colleen	05326	*Cultural Resource Assessment for Pacific Bell Mobile Services Facility La 010-02, in the County of Los Angeles, California*	2000
Duke, Curt	05333	*Cultural Resource Assessment for the AT & T Wireless Services Facility Number R137.1, County of Los Angeles, California*	2000
Mason, Roger D.	06401	*Cultural Resources Record Search and Literature Review Report for a Verizon Wireless Telecommunications Facility; Cell Site Mid-Wilshire (99900155): in the City of Los Angeles, Los Angeles County, California*	2001
Mason, Roger D.	06445	*Proposed Verizon Wireless Facility: Mid-Wilshire (99900155) in the City and County of Los Angeles, California*	2001
Duke, Curt	06462	*Cultural Resource Assessment for Pacific Bell Mobile Services Facility La 578-11, County of Los Angeles, California*	1999
Greenwood, Roberta S.	07562	*Additional Information for Dseis, Core Study Alignments 1, 2, 3, 4, and 5*	1987
Unknown	07565	*Technical Report Archaeology Los Angeles Rail Rapid Transit Project "Metro Rail" Core Study, Candidate Alignments 1 to 5*	1987
Hatheway, Roger G., and Kevin J. Peter	07566	*Technical Report Dseis, Core Study Alignments 1, 2, 3, 4, and 5*	1987
Bonner, Wayne H.	07736	*Cultural Resources Records Search Results and Site Visit for Cingular Wireless Candidate El-0092-02 (sbc Switch La Brea), 654 South La Brea Boulevard, Los Angeles , Los Angeles County, California*	2006
Anonymous	08020	*Technical Report: Cultural Resources Los Angeles Rail Rapid Transit Project "metro Rail" Core Study*	1987
Bonner, Wayne H. and Kathleen Crawford	09537	*Cultural Resources Records Search and Site Visit Results for AT&T Candidate EL0092-02(R) (SBC Switch La Brea), 654 South La Brea Avenue, Los Angeles, Los Angeles County, California.*	2008
Anonymous	10507	*Technical Report - Historical/Architectural Resources - Los Angeles Rail Rapid Transit Project "Metro Rail" Draft Environmental Impact Statement and Environmental Impact Report*	1983

[4] It should be noted that three studies (LA-07562, -07565, and -07566) are plotted on SCCIC maps as occurring within the proposed Project site. However, a review of these studies, which pertain to cultural resource investigations for the Los Angeles Rail Rapid Transit Project ("Metro Rail") and the Dseis Core Study Alignments Project (also related to the "Metro Rail") shows that they are incorrectly mapped at the SCCIC and do not occur with the proposed Project site.

Author	SCCIC # (LA-)	Title	Date
Bonner, Wayne	10673	*Cultural Resources Records Search and Site Visit Results for Clearwire Candidate CA-LOS5987B (SBC Switch LA Brea), 666 South La Brea Avenue, Los Angeles, California*	2010
Unknown, Mr./Mrs.	11005	*Westside Subway Extension Historic Property Survey Report and Cultural Resources Technical Report*	2010
Daly, Pam and Nancy Sikes	11642	*Westside Subway Extension Project, Historic Properties and Archaeological Resources Supplemental Survey Technical Reports*	2012
Rogers, Leslie	11785	*Final Environmental Impact Statement/Final Environmental Impact Report for the Westside Subway Extension*	2012
George, Joan, Nicholas Hearth, Josh Smallwood, and Keith Warren	12405	*Archaeological Survey for SSRP H11Burnside and Wilshire Secondary Sewer Renewal Program BOE WO SZC12518*	2013

4.1.2 Previously Recorded Cultural Resources

The records search results indicate that no archaeological resources have been previously recorded within the ½-mile radius, or within the Project site.

4.2 LACM Paleontological Records Search

A paleontological records search was conducted by the Natural History Museum of Los Angeles County (LACM) on December 11, 2017 (**Appendix C**). The results indicate that no fossil localities are known within the Project site. However, there are fossil localities within 0.10 miles from the same sedimentary deposits that occur within the Project site.

According to the LACM, surface deposits on the southeastern portion of the Project site are made up of younger Quaternary Alluvium, which are derived from a drainage that is located in that portion of the Project site. Surface deposits in the rest of the Project site consist of older Quaternary Alluvium, derived as alluvial fan deposits from the Hollywood Hills located to the north. The LACM has also stated that at "relatively shallow depth in this area significant fossil vertebrate remains are found in these deposits" (McLeod, 2017).

The closest vertebrate fossil locality from older Quaternary Alluvium deposits is LACM 1198, located approximately 0.10 miles south of the Project site (near the intersection of 8th Street and Tremaine Avenue), which produced a fossil specimen of mastodon (*Mammut*) at a depth of 17 feet below ground surface. LACM 5599, located approximately 0.35 miles southwest of the Project site (near the intersection of Longwood Avenue and Olympic Boulevard), yielded a fossil camel (*Camelops*) at a depth of 12 feet below ground surface. LACM 1814, located approximately 0.62 miles southwest of the Project site (near the intersection of La Brea Avenue and Sycamore Avenue) produced a specimen of fossil bovid (*Preptoceras sinclairi*) at a depth of 2 feet below ground surface. Additionally, LACM 1814 consists of asphaltic sands, like those of the La Brea Tar Pits to the west of the Project site in Hancock Park.

The LACM has reported that excavations of older Quaternary Alluvium deposits throughout the Project site could yield vertebrate fossil remains and that any substantial excavations should be closely monitored (McLeod, 2017).

5. Additional Research

5.1 Historic Map Review

Historic maps were examined to provide historical information about the proposed Project site and vicinity, and to contribute to an assessment of the proposed project's archaeological sensitivity. Available historic topographic maps include: 1894 Los Angeles 15-minute topographic quadrangle; 1896, 1898, 1900, and 1902 Santa Monica 15-minute quadrangles; 1921 Santa Monica 15-minute topographic quadrangle; 1924, 1926, 1953, 1966, 1972, 1981, and 1991 Hollywood 7.5-minute topographic quadrangles (Worley Parsons, 2016). Sanborn Fire Insurance maps were available for the years 1926, 1950, and 1969 (Worley Parsons, 2016).

The review of topographic maps indicates that from 1894 through 1902, a small building was located on the southern portion of the Project site and that an unnamed tributary of Ballona Creek followed a northeast to southwest direction across the western portion of the Project site. By 1921, the Project site appears to have been undeveloped. By 1924 and 1926, a school is depicted within the northwest portion of the Project site and residential development appears in the immediate vicinity. From 1953 through 1991, the Project site was occupied by the John Burroughs Junior High School, with several different structures.

Review of the 1926 Sanborn map also indicates that the northern portion of the Project site was developed as the John Burroughs Junior High School, which consisted of six different buildings including a large building with an auditorium, classrooms with restrooms, a gymnasium, a dressing room, and an auto repair and wood working shop. Review of the 1950 Sanborn map indicates that additional buildings had been added to the school by that date, including a music room, a greenhouse building, a girl's gymnasium, and two small structures (one north of a lunch shelter and the other east of the auto repair and wood working shop). Review of the 1969 Sanborn map indicates that by this time, several buildings (including a greenhouse building, music room, lathe building, and the two small structures) had been removed. Two new classroom buildings, a new music room building, and three small storage sheds had been added.

5.2 Paleontological Resources Literature Review

A desktop review was conducted to assess the potential of the geologic units in the Project site to preserve fossil resources. The surficial geology of the Project site has been mapped by Dibblee and Ehrenspeck (1991) at a scale of 1:24,000. The Project site consists of younger Quaternary Alluvium (Qa) in the southeastern area and older Quaternary Alluvium (Qae) across the remainder of the site (**Figure 3**). These units are discussed in detail below.

> **Younger Quaternary Alluvium (Qa)**. These sediments date to the Holocene (up to 10,000 years old) and consist of alluvial clay, sand, and gravel deposited by minor stream flow (Dibblee and Ehrenspeck, 1991). While these sediments are too young in the

surficial and upper layers to preserve fossil resources (under 5,000 years old, per the SVP, 2010), they increase in age with depth and therefore may preserve fossils in deeper layers. Therefore, this unit has **low-to-high paleontological sensitivity**, depending on depth. While the exact depth at which this transition occurs is not known in the Project site, elsewhere in the Los Angeles Basin fossils have been found in layers of younger Quaternary Alluvium at depths of 10-15 feet below ground surface (Jefferson, 1991 a, b).

Older Quaternary Alluvium. These sediments date to the Pleistocene (over 10,000 years old) and are similar in lithology to the younger Quaternary Alluvium described above (Dibblee and Ehrenspeck, 1991). These Pleistocene sediments have a rich fossil history in southern California (Jefferson, 1991a and b; Miller, 1971; Scott, 2010). The most common Pleistocene terrestrial mammal fossils include the bones of mammoth, bison, deer, and small mammals, but other taxa, including horse, lion, cheetah, wolf, camel, antelope, peccary, mastodon, capybara, and giant ground sloth, have been reported (Jefferson, 1991 a and b; Graham and Lundelius, 1994). In addition to illuminating the striking differences between Southern California in the Pleistocene versus today, this abundant fossil record has been vital in studies of extinction (e.g. Sandom et al., 2014; Scott, 2010), ecology (e.g. Connin et al., 1998), and climate change (e.g. Roy et al., 1996). Due to the rich fossil history of these sediments throughout the Los Angeles Basin and Southern California, they have **high paleontological sensitivity.**

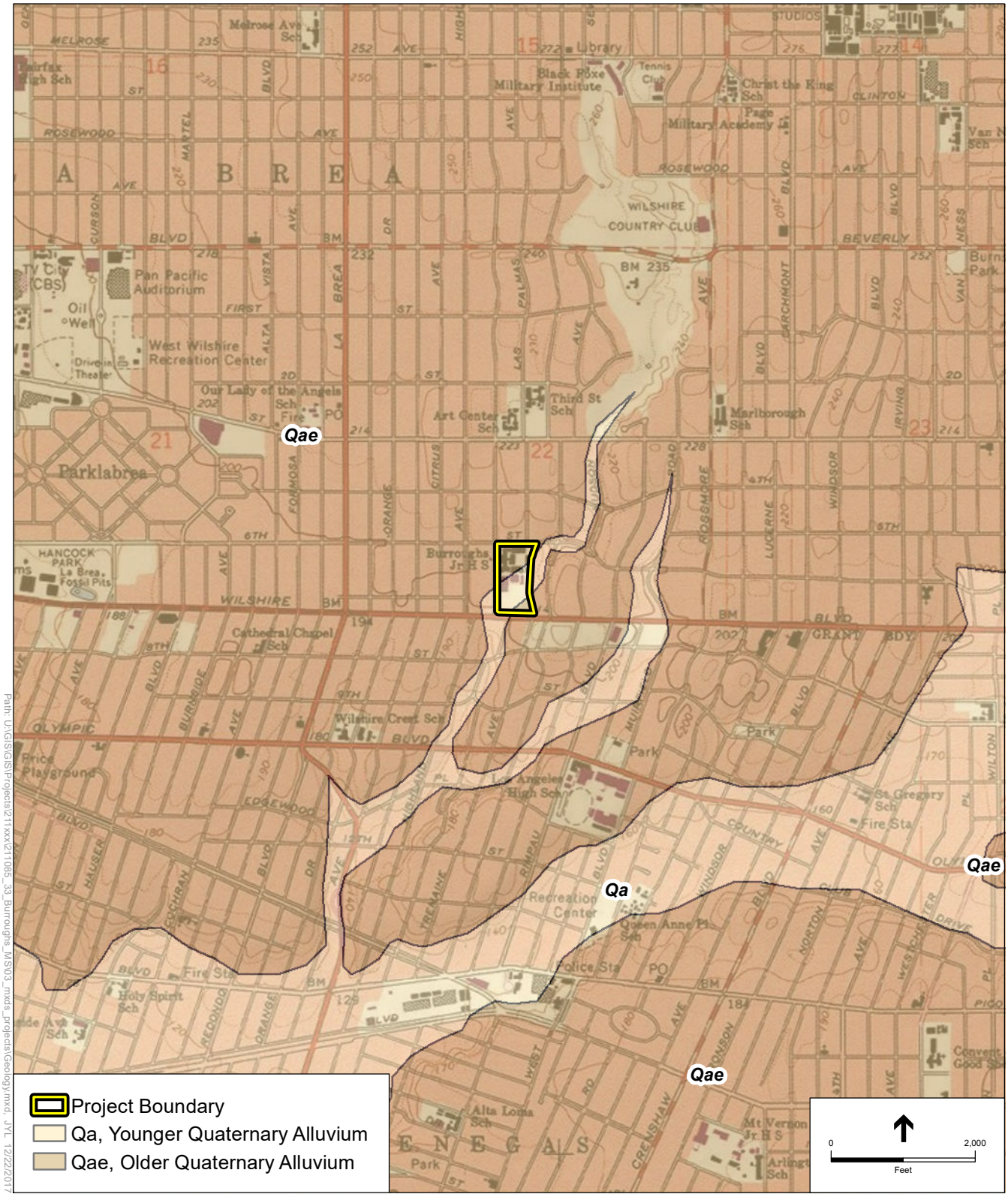
It should be noted that while the geotechnical study discussed below did not identify asphaltic sands in the subsurface of the Project site, the proximity of the Project site to the La Brea Tar Pits (one mile to the west) and fossil locality LACM 1814 (0.62 miles to the southwest), indicates that asphaltic sands may be encountered during construction. As discussed above, these deposits have preserved millions of fossils at the La Brea Tar Pits, and have **high paleontological sensitivity**.

5.3 Geotechnical Investigation Review

A report prepared by Amec Foster Wheeler (2015) detailing the results of a geotechnical investigation for the proposed Project was reviewed. Two geotechnical borings were drilled to depths of 50 feet below the existing ground surface to evaluate the underlying soil conditions of the Project site.

Review of the boring logs and Plot Plan indicates that Boring 1 was drilled in the center portion of the Project site and that fill soils (consisting of sandy silt and sandy clay with some brick fragments[5]) were encountered down to 11 feet in thickness. The boring logs and Plot Plan indicate that Boring 2 was drilled in the northeastern portion of the Project site and that fill soils (made up of sandy lean clay) were encountered down to 3 feet in thickness. Amec Foster Wheeler (2015) has also indicated that previous investigations conducted by them throughout different portions of the Project site encountered fill soils with significant amount of debris. Previous borings near Boring 1 also encountered petroleum-soaked fill soils. The fill soils are underlain by Holocene to Pleistocene-age alluvial deposits, which generally consist of "interbedded and interfingered sand, silt, and clay" (Amec Foster Wheeler, 2015).

5 Brick fragments are debris which may indicate the presence of subsurface historic-period archaeological deposits.



SOURCE: Dibblee Geological Foundation

LAUSD Burroughs Middle School Comprehensive Modernization Project . 211085.33

Figure 3
Geology

6. Sacred Lands File Search

The NAHC maintains a confidential Sacred Lands File (SLF) which contains sites of traditional, cultural, or religious value to the Native American community. The NAHC was contacted on November 27, 2017 to request a search of the SLF. The NAHC responded to the request in a letter dated November 29, 2017 (**Appendix D**). The SLF yielded negative results; however, the NAHC noted that the negative results of the SLF search does not preclude the existence of Native American resources within the Project site (Quinn, 2017).

7. Conclusion and Recommendations

7.1 Archaeological Resources

No archaeological resources were identified within the Project site as a result of this study. However, this does not preclude the possibility that subsurface archaeological deposits underlie the project.

Archival research indicates that the southern portion of the Project site was developed with a small building as early as 1894. At around this same time, an unnamed tributary/drainage from Ballona Creek is depicted in topographic maps within the western portion of the Project site. Review of the geotechnical report prepared for the proposed Project indicates that fill soils with significant amount of debris (including brick fragments) were encountered in the Project site. Given this, the Project site has the potential to contain historic-period archaeological resources, both those associated with former uses of the property and within the imported fill soils, as indicated by the brick fragment remnants exposed during the geotechnical investigation for the project. Moreover, the Project site is located in the immediate vicinity of a historical-period thoroughfare, Wilshire Boulevard, and the La Brea Tar Pits (used during prehistoric and ethnographic time periods), located approximately one mile west of the project site. Specifically, the route of Wilshire Boulevard, located immediately south of the Project site, is known to have been used during prehistoric times by the Gabrielino as a route to the La Brea Tar Pits, an important source of resources. Lastly, the former drainage (composed of Quaternary Alluvium deposits) that once crossed the Project site may have attracted prehistoric and historic period inhabitants to the area. The alluvial deposits associated with the drainage have the potential to contain buried and preserved archaeological sites.

Given these findings, the Project site has the potential to contain buried historic-period and prehistoric archaeological resources under the current foundations of the school buildings and surface parking lots. Since the proposed Project includes ground disturbance, implementation could result in a significant impact to archaeological resources that qualify as historical resources or unique archaeological resources under CEQA. As such, LAUSD's Standard Conditions of Approval (SCs), SC-CUL-7 through SC-CUL-13 would be incorporated to ensure that impacts are less than significant:

> **SC-CUL-7:** LAUSD shall retain a qualified archaeologist to be available on-call. The qualified archaeologist shall meet the Secretary of the Interior's Professional Qualifications Standards (48 Federal Register 44738–39).

SC-CUL-8: If historical or unique archaeological resources are discovered during construction activities, the contractor shall halt construction activities in the immediate area and notify the LAUSD. LAUSD shall retain a qualified archeologist to make an immediate evaluation of significance and appropriate treatment of the resource. To complete this assessment, the qualified archeologist will be afforded the necessary time to recover, analyze, and curate the find. The qualified archeologist shall recommend the extent of archeological monitoring necessary to ensure the protection of any other resources that may be in the area. Construction activities may continue on other parts of the building site while evaluation and treatment of historical or unique archaeological resources takes place.

SC-CUL-9: LAUSD shall implement an archaeological monitoring program for construction activities at a site prepared by a qualified archaeologist under the following conditions: (1) when a Phase I Site Investigation shows a strong possibility that unique archeological resources are buried on the site; and/or (2) when unique architectural resources have been identified on a site, but LAUSD does not implement a Phase III Data Recovery/Mitigation Program because the resources can be recovered through the archaeological monitoring program.

The Project site has a strong possibility of containing subsurface archaeological materials that could qualify as historical resources or unique archaeological resources, and these resources could be impacted by construction. Given this, per condition (1) of SC-CUL-9, an archaeological monitoring program shall be implemented during Project-related ground disturbing activity.

SC-CUL-10: If evidence of prehistoric or historic cultural resources is uncovered, all work shall stop within a 30-foot radius of the discovery. Work shall not continue until the discovery has been evaluated by a qualified archaeologist. The qualified archaeologist shall assess the find(s) and, if it is determined to be of value, shall draft a monitoring program and oversee the remainder of the grading program. Should evidence of prehistoric or historic cultural resources be found the archaeologist shall monitor all ground-disturbing activities related to the proposed project. Any significant archaeological resources found shall be preserved as determined necessary by the archaeologist and offered to a local museum or repository willing to accept the resource. Any resulting reports shall also be forwarded to the South Central Coastal Information Center at the California State University, Fullerton.

SC-CUL-11: Cultural resources sensitivity training shall be conducted by a qualified archaeologist for all construction workers involved in moving soil or working near soil disturbance. This training shall review the types of archaeological resources that might be found, along with laws for the protection of resources.

SC-CUL-12: If archeological resources qualifying as unique archaeological resources are discovered and LAUSD determines not to avoid them by abandoning the site or redesigning the project, LAUSD will determine whether it is feasible to prepare and implement a Phase III Data Recovery/Mitigation Program. A Phase III Data Recovery/Mitigation Program would be designed by the Qualified Archaeologist to recover a statistically valid sample of the archaeological remains and to document the site to a level where the impacts can be determined to be less than significant. All documentation will be prepared in the standard format of the ARMR Guidelines, as prepared by the OHP. Once a Phase III Data Recovery/Mitigation Program is completed,

an archaeological monitor will be present on site to oversee the grading, demolition activities, and/or initial construction activities to ensure that construction proceeds in accordance with the adopted Phase III Data Recovery/Mitigation Program. The extent of the Phase III Data Recovery/Mitigation Program and the extent and duration of the archaeological monitoring program depend on site-specific factors.

SC-CUL-13: If evidence of Native American resources is uncovered during construction, then all work shall stop within a 30-foot radius of the discovery. Work shall not continue until the discovery has been evaluated by a qualified archaeologist and the local Native American representative has been contacted and consulted to assist in the accurate recordation and recovery of the resources.

7.2 Paleontological Resources

No paleontological resources have been identified within the Project site. However, background research conducted for the Project indicates that the proposed Project is underlain by Holocene-aged younger Quaternary Alluvium in the southeastern area and Pleistocene-aged older Quaternary Alluvium across the remainder of the site. Younger Quaternary Alluvium has low-to-high paleontological sensitivity, increasing with depth, and is underlain by older Quaternary alluvium. Excavations in the upper levels of these sediments are unlikely to encounter fossil resources, while deeper excavations (estimated at 10 feet or greater in depth) risk disturbing fossil resources. Older Quaternary Alluvium has high paleontological sensitivity. Excavations into this unit at any depth risks disturbing fossil resources. Additionally, the records search from the LACM indicates that one of the nearby fossil localities (LACM 1814, approximately 0.62 miles southwest of the Project site) was preserved in asphaltic sands, which have high paleontological sensitivity and have produced millions of fossils from the La Brea Tar Pits, one mile west of the Project site. Ground-disturbing activities for the proposed Project could result in a significant impact to unique paleontological resources under CEQA. As such, SC-CUL-14 and the associated mitigation measures CUL-1 through -4 would be incorporated to ensure that impacts remain less than significant:

SC-CUL-14: LAUSD shall have a paleontological monitor on-call during construction activities. This monitor shall provide the construction crew(s) with a brief summary of the sensitivity, the rationale behind the need for protection of these resources, and information on the initial identification of paleontological resources. If paleontological resources are uncovered during construction, the on-call paleontologist shall be notified and afforded the necessary time and funds to recover, analyze, and curate the find(s). Subsequently, the monitor shall remain on site for the duration of the ground disturbances to ensure the protection of any other resources that may be in the area.

CUL-1: The Qualified Paleontologist shall conduct initial construction worker paleontological resources sensitivity training prior to the start of ground disturbing activities (including vegetation removal, pavement removal, etc.). In the event construction crews are phased, additional trainings shall be conducted for new construction personnel. Subsequent training session may be provided by a paleontological monitor or in a video format. The training session shall focus on the recognition of the types of paleontological resources that could be encountered within the Project site and the procedures to be followed if they are found. Documentation shall be retained demonstrating that all construction personnel attended the training.

CUL-2: Paleontological monitoring of previously undisturbed sediment shall be conducted by a qualified paleontological monitor (SVP, 2010) under the supervision of the Qualified Paleontologist as follows:

- In areas mapped as younger Quaternary Alluvium (Qa), full-time paleontological monitoring shall commence once excavations have exceeded 10 feet in depth. Monitoring is not necessary in shallow excavations (<10 feet) or in artificial fill.

- In areas mapped as older Quaternary Alluvium (Qae), full-time paleontological monitoring shall be conducted for all ground-disturbing activities, regardless of depth. Monitoring is not necessary in artificial fill.

Monitors shall have the authority to temporarily halt or divert work away from exposed fossils in order to recover the fossil specimens. Any significant fossils collected during project-related excavations shall be prepared to the point of identification and curated into an accredited repository with retrievable storage. Monitors shall prepare daily logs detailing the types of activities and soils observed, and any discoveries. The Qualified Paleontologist shall prepare a final monitoring and mitigation report to document the results of the monitoring effort.

CUL-3: If construction or other Project personnel discover any potential fossils during construction, regardless of the depth of work or location, work at the discovery location shall cease in a 50-foot radius of the discovery until the Qualified Paleontologist has assessed the discovery and made recommendations as to the appropriate treatment. If the find is deemed significant, it should be salvaged following the standards of the SVP (SVP, 2010) and curated with a certified repository.

CUL-4: Should fossils be encountered in asphaltic sands during the course of excavations, the Qualified Paleontologist will contact the paleontological staff of the La Brea Tar Pits & Museum for coordination of excavation and salvage procedures. Any fossil material from asphaltic sands shall be collected and deposited at the La Brea Tar Pits & Museum, with preparation and curation fees to be assessed on a case-by-case basis.

References Cited

Akersten, W., C. Shaw, and G. Jefferson. et al., 1983. Rancho La Brea: status and future. Paleobiology 9: 211-217.

Amec Foster Wheeler. 2015. *Report of Preliminary Geotechnical Investigation, Proposed Modernization for John Burroughs Middle School,* prepared for Los Angeles Unified School District, August 2015.

Bean, Lowell J., and Charles R. Smith.1978. Gabrielino, in *California*, edited by R.F. Heizer, pp. 538-549 Handbook of North American Indians, Vol. 8, W. C. Sturtevant, general editor, Smithsonian Institution, Washington, D.C.

Byrd, Brian F., and L. Mark Raab. 2007. Prehistory of the Southern Bight: Models for a New Millennium, in *California Prehistory: Colonization, Culture, and Complexity*, edited by Terry L. Jones and Kathryn A. Klar, pp. 215-227.

California Missions Resource Center, *San Gabriel Arcángel - The Fourth of the California Missions*, electronic document, http://www.missionscalifornia.com/keyfacts/san-gabriel-arcangel.html, accessed November 4, 2014, 2003.

City of Los Angeles, *City of Los Angeles General Plan, Adopted 2001*, Los Angeles, California, 2001.

Connin, S., J. Betancourt, and J. Quade. 1998. Late Pleistocene C4 plant dominance and summer rainfall in the Southwestern United States from isotopic study of herbivore teeth. Quaternary Research 50: 179-193.

Cook, Sherburne F., Historical Demography. In *California*, edited by Robert F. Heizer, pp. 91–98, Handbook of North American Indians, Vol. 8, W. C. Sturtevant, general editor, Smithsonian Institution, Washington, D.C., 1978.

Critelli, S. P. Rumelhart, and R. Ingersoll, 1995. Petrofacies and provenance of the Puente Formation (middle to upper Miocene), Los Angeles Basin, southern California: implications for rapid uplift and accumulation rates. Journal of Sedimentary Research A65: 656-667.

Dibblee, T. and Ehrenspeck, H.1991. Geologic map of the Hollywood and Burbank (south 1/2) quadrangles, Los Angeles, California. Dibblee Geologic Foundation map DF-30. Scale 1:24,000.

Dinkelspiel, Frances. 2008. *Towers of Gold*, St. Martin's Press, New York, NY.

Erlandson, Jon M. 1994. *Early Hunter-Gatherers of the California Coast*, Plenum Press, New York, NY.

Graham, R.W., and E.L. Lundelius. 1994. FAUNMAP: A database documenting the late Quaternary distributions of mammal species in the United States. Illinois State Museum Scientific Papers XXV (1).

Gumprecht, Blake.2001. *Los Angeles River: Its Life, and Possible Rebirth,* The Johns Hopkins University Press, Baltimore, 1999, Reprinted 2001.

Harris, J., ed. 2015. La Brea and Beyond: The Paleontology of Asphalt-Preserved Biotas. Natural History Museum of Los Angeles County, Science Series 42. 176 p.

Heizer, R. F. 1949. DPR Site Form for CA-LAN-159. Record on file at the South Central Coastal Information Center.

Ingersoll, Raymond V. and Peter E. Rumelhart. 1999. Three-stage evolution of the Los Angeles Basin, southern California. Geology 27: 593-596.

Jefferson, G.T. 1991a. A catalogue of Late Quaternary Vertebrates from California: Part One, nonmarine lower vertebrate and avian taxa. Natural History Museum of Los Angeles County Technical Reports No. 5.

_____.1991b. A catalogue of Late Quaternary Vertebrates from California: Part Two, Mammals. Natural History Museum of Los Angeles County Technical Reports No. 7.

Johnson, John R. and David D. Earle. 1990. Tataviam Geography and Ethnohistory. *Journal of California and Great Basin Anthropology* 12(2): 191-214.

Jones, Terry L., Gary M. Brown, L. Mark Raab, Janet L. McVickar, W. Geoffrey Spaulding, Douglas J. Kennett, Andrew York, and Phillip L. Walke, . Environmental Imperatives Reconsidered: Demographic Crises in Western North America during the Medieval Climactic Anomaly, *Current Anthropology*, 40(2): 137-70, 1999.

Kennedy, G.E. 1989. A note on the ontogenetic age of the Rancho La Brea hominid, Los Angeles, California, *Bulletin, Southern California Academy of Sciences* 88(3): 123-126.

Kroeber, Alfred L.. 1925. *Handbook of Indians of California*. Dover Publications, Inc., New York, NY.

McCawley, William. 1996. *The First Angelinos: The Gabrielino Indians of Los Angeles*, Malki Museum Press, Banning, CA.

McLeod, Samuel. 2017. Paleontological Records Check for the proposed Burroughs Middle School Comprehensive Modernization Project, in the City of Los Angeles, Los Angeles County, project area. Results on file at ESA.

McWilliams, Carey. 1946. *Southern California: An Island on the Land*, Gibbs Smith, Layton, UT.

Meyer, Larry.1981. *Los Angeles, 1781-1981*: *A special bicentennial issue of California history, Spring 1981*, California Historical Society, Los Angeles, CA.

Miller, W. E. 1971. Pleistocene Vertebrates of the Los Angeles Basin and Vicinity: exclusive of Rancho La Brea. Los Angeles County Museum of Natural History, No. 10.

Milliken, Randall, Laurence H. Shoup, and Beverly R. Ortiz. 2009. *Ohlone/Costanoan Indians of the San Francisco Peninsula and their Neighbors, Yesterday and Today*, prepared by Archaeological and Historical Consultants, Oakland, California, prepared for National Park Service Golden Gate National Recreation Area, San Francisco, California, June 2009.

Norris, R. M., and R. W. Webb. 1990. Geology of California, second edition: John Wiley & Sons, New York.

Pitt, Leonard. 1994. *The Decline of the Californios: A Social History of the Spanish-speaking Californians, 1846-1890*, University of California Press, Berkeley.

Quinn, Steven. 2017. Results of a Sacred Lands File Search conducted for the Burroughs Middle School Comprehensive Modernization Project, Los Angeles County. Results prepared by the Native American Heritage Commission, dated November 29, 2017.

Reynolds, Richard L. 1985. Domestic Dog Associated with Human Remains at Rancho La Brea. Southern California Academy of Sciences 84(2): 76-85.

Roderick, Kevin and J. Eric Lynxwiler, Wilshire Boulevard: Grand Concourse of Los Angeles, Santa Monica: Angel City Press, 2005.

Roy, K., J. Valentine, D. Jablonski, and S. Kidwell. 1996. Scales of climatic variability and time averaging in Pleistocene biotas: implications for ecology and evolution. Trends in Ecology and Evolution 11: 458-463.

Sandom, C., S. Faurby, B. Sandel, and J.-C. Svenning. 2014. Global late Quaternary megafauna extinctions linked to humans, not climate change. Proceedings of the Royal Society B 281, 9 pp.

Scott, E. 2010. Extinctions, scenarios, and assumptions: Changes in latest Pleistocene large herbivore abundance and distribution in western North America. Quaternary International 217: 225-239.

Selden, Paul A. and John R. Nudds, *Evolution of fossil ecosystems*, Manson, London, 2004.

Spencer L., B. Van Valkenburgh, and J. H. Harris. 2003. Taphonomic analysis of large mammals recovered from the Pleistocene Rancho La Brea tar seeps. Paleobiology 29: 561-575.

SVP (Society of Vertebrate Paleontology). 1995. Assessment and mitigation of adverse impacts to nonrenewable paleontologic resources: standard guidelines. Society of Vertebrate Paleontology News Bulletin 163:22-27.

SVP (Society of Vertebrate Paleontology). 2010. Standard procedures for the assessment and mitigation of adverse impacts to paleontological resources. http://vertpaleo.org/Membership/Member-Ethics/SVP_Impact_Mitigation_Guidelines.aspx, 2010, accessed January 3, 2017.

Starr, Kevin. 2007. *California: A History*, Modern Library, New York, NY.

State Lands Commission (SLC). 1982. Grants of Land in California Made by Spanish or Mexican Authorities, www.slc.ca.gov/reports/grants_of_land/part_1.pdf, accessed February 8, 2012, 1982.

Wallace, William J. 1955. Suggested Chronology for Southern California Coastal Archaeology. *Southwestern Journal of Anthropology* 11(3): 214-230.

Warren, Claude. 1968. Cultural Tradition and Ecological Adaptation on the Southern California Coast, In *Archaic Prehistory in the Western United States*, edited by C. Irwin-Williams, pp. 1-14, Eastern New Mexico University Contributions in Anthropology, 1(3).

Worley Parsons, 2016. *Phase I Environmental Site Assessment for the John Burroughs Middle School.* Prepared May 2016.

Yerkes, R. F., T. H. McCulloh, J. E. Schoellhamer, and J. G. Vedder. 1965. Geology of the Los Angeles Basin, Califonria – an introduction. U.S. Geological Survey Professional Paper 420-A. 64 p.

APPENDIX A

Personnel

Monica Strauss, RPA

Director, Southern California Cultural Resources Group

EDUCATION

M.A., Archaeology, California State University, Northridge

B.A., Anthropology, California State University, Northridge

AA, Humanities, Los Angeles Pierce College

20 YEARS EXPERIENCE

SPECIALIZED EXPERIENCE

Treatment of Historic and Prehistoric Human Remains

Archaeological Monitoring

Complex Shell Midden Sites

Groundstone Analysis

PROFESSIONAL AFFILIATIONS

Register of Professional Archaeologists (RPA), #12805

Society for California Archaeology (SCA)

Society for American Archaeology (SAA)

QUALIFICATIONS

Exceeds Secretary of Interior Standards

CA State BLM Permitted

Monica has successfully completed dozens of cultural resources projects throughout California and the greater southwest, where she assists clients in navigating cultural resources compliance issues in the context of CEQA, NEPA, and Section 106. Monica has extensive experience with archaeological resources, historic buildings and infrastructure, landscapes, and Tribal resources, including Traditional Cultural Properties. Monica manages a staff of cultural resources specialists throughout the region who conduct Phase 1 archaeological/paleontological and historic architectural surveys, construction monitoring, Native American consultation, archaeological testing and treatment, historic resource significance evaluations, and large-scale data recovery programs. She maintains excellent relationships with agency staff and Tribal representatives. Additionally, Monica manages a general compliance monitoring team who support clients and agencies in ensuring the daily in-field compliance of overall project mitigation measures.

Relevant Experience

Topock Compressor Station Remediation CEQA Services. Mohave County, AZ and San Bernardino County, CA. *Cultural Resources Project Director*. Monica is overseeing the preparation of cultural resources EIR sections and is providing project support to the California Department of Toxic Substances Control (DTSC), including facilitating Native American involvement. DTSC provides oversight of the site investigation and cleanup activities for the Pacific Gas and Electric Company (PG&E) Topock Gas Compressor Station, located in San Bernardino County, 15 miles southeast of Needles, California. Groundwater samples taken under and near the Station were found to be contaminated with hexavalent chromium and other chemicals as result of past disposal activities. Soils contamination is also present at the site, requiring investigation and cleanup. These activities are highly scrutinized by the regional Native American Tribes because the area has important cultural and religious significance. ESA is currently preparing an EIR for soil investigations and will be conducting CEQA evaluations that tier off of the Program EIR for the Groundwater Remedy. Additional project-specific EIRs may be required for the final remedy, which is currently undergoing engineering design. ESA will provide these services as well as lead the Native American and public participation efforts.

Los Angeles Department of Water and Power, Path 46 Clearance Surveys, San Bernardino, CA. *Field Director.* ESA has been tasked by Los Angeles Department of Water and Power (LADWP) to conduct required surveys for the Path 46 Transmission Line Clearances Project. The project's objective is to restore required code clearances to the transmission conductors, which will be accomplished by grading the ground surface underneath the transmission lines to achieve required height consistency. The work is being conducted in compliance with BLM guidelines and federal laws and statutes. Biological, archaeological, and paleontological resource surveys are currently being conducted for the 77

proposed grading areas, staging areas, and roads. Reports will be written documenting the results of the surveys and providing recommendations on the areas for access, staging areas, and soil distribution that would have the least amount of impacts on natural resources. Monica is providing support to LADWP in their coordination with the BLM, including providing oversight of map preparation, field surveys, and preparation of pre-field research designs and post-field technical reports.

Santa Clarita Valley Sanitation District, Facilities Plan Update EIR, Los Angeles County, CA. *Cultural Resources Senior Reviewer.* Monica is currently serving as senior reviewer for the Phase I cultural resources study for the project. The study identified 23 cultural resources within or adjacent to the project, including the historical San Fernando Road. The resources were documented and evaluated for their eligibility to the California Register in a technical report and the results were incorporated into the EIR. The project includes installation of an approximately 35-mile recycled water pipeline from the Santa Clarita Valley to east Los Angeles.

Ballona Wetlands Restoration EIS/EIR, Los Angeles County, CA. *Cultural Resources Project Director.* As part of the development of the restoration plan for the Ballona Wetlands, the ESA project team characterized existing conditions that included water and sediment sampling and analysis. The water and sediment quality sampling was performed to develop and evaluate potential restoration alternatives, and to develop a conceptual plan. The ESA project team compiled existing data on and conducted additional sampling for water and sediment to assess potential effects on the proposed wetland restoration habitat from the use of urban runoff and tidal in-flow from Ballona Creek. These data were used to complete a baseline report and restoration alternatives assessment. Monica is assisting the CSCC in fulfilling Army Corps of Engineers requirements under Section 106 of the National Historic Preservation Act. In addition, she is coordinating with Tribal members and is overseeing a team of resource specialists who are compiling cultural resources technical in preparation of the EIR's Cultural Resources section.

Bureau of Land Management, Soda Mountain Solar Project, San Bernardino County, CA. *Cultural Resources Director*. ESA prepared a joint EIS/EIR for a 358-megawatt (MW) photovoltaic (PV) solar power plant and related infrastructure on approximately 4,397 acres of public land administered by the BLM near the town of Baker and the Mojave National Preserve. The project includes a substation, switchyard, operations and maintenance buildings, and interconnection to a Los Angeles Department of Water and Power 500 kV transmission line. If BLM approves the requested ROW grant, it will be necessary for the BLM to amend the California Desert Conservation Area Plan to identify the ROW area as appropriate for the proposed solar energy development use. ESA also provided support to BLM related to cultural resources and Section 106 of the NHPA. Monica provided technical and compliance oversight for third-party review of cultural resources studies and for the cultural resources section of the joint EIS/EIR.

Los Angeles Department of Water and Power Moapa Road Repair Cultural and Biological Resources Assessment, Clark County, NV. *Project Director.* The Los Angeles Department of Water and Power (LADWP) is seeking to conduct roadway

repairs following flash flooding to several locations of LADWP transmission line access roads on Bureau of Land Management (BLM) lands. ESA conducted cultural and biological resources assessments to identify sensitive resources within the project area. Monica provided general oversight of the project and led the coordination with the BLM Las Vegas Field Office.

Santa Susana Field Laboratory, Ventura County, CA. *Cultural Resources Project Director.* The Santa Susana Field Laboratory is a former rocket engine test, nuclear, and liquid metals research facility located on a 2,849- acre portion of the Simi Hills in Simi Valley, California. The uses of hazardous substances such as trichloroethylene and other solvents, heavy metals, and radioactive material at the field laboratory have resulted in soil and/or groundwater contamination. The field laboratory is currently the focus of a comprehensive environmental investigation and cleanup program conducted by Boeing, the U.S. Department of Energy (DOE), and the National Aeronautics and Space Administration (NASA) and overseen by the Department of Toxic Substances Control (DTSC). ESA is preparing a Program EIR that will evaluate soil and groundwater remediation activities. Because there are multiple responsible parties with separate cleanup actions, the Program EIR will provide a framework for tiered environmental documents to be prepared to address the development and refinement of remediation approaches and actions. Monica is overseeing a team of specialists who are conducting a geoarcheological and archaeological district studies for use in addressing impacts to archaeological resources in the EIR. Monica provides strategic guidance to DTSC on cultural resources-related issues, including Tribal outreach, approach to the Traditional Cultural Property, resource evaluations, and treatment of cultural resources on a project and program level.

Los Angeles Department of Water and Power Lone Pine Landfill Paleontological Resources Recovery, Inyo County, CA. *Cultural Resources Project Director.* At the request of LADWP, ESA responded to a discovery of large mammal bone at the Lone Pine Landfill in an area where borrow materials were being excavated. ESA conducted geologic map research and recovered what was identified as a mammoth tusk. The tusk was stabilized, prepared for curation, and transported to a storage facility. Monica provided senior oversight of the paleontological resources recovery team and conducted paleontological resources sensitivity training and guidance to landfill staff in the event additional material are encountered.

Desert Sunlight Solar Farm, Riverside County, CA. *Third-Party Compliance Monitoring Manager.* Monica provided oversight to compliance monitors who conducted daily monitoring of site activities, assisted contractors in avoiding non-compliance issues, and prepared weekly reports, and she coordinated with First Solar and the BLM on compliance issues. ESA also assists with evaluation and approvals of project Variance Requests.

Michael R. Bever, PhD, RPA

Senior Cultural Resources Specialist

EDUCATION

Ph.D., Anthropology, Southern Methodist University, Dallas

M.A., Anthropology, Southern Methodist University, Dallas

B.A., Anthropology, with honors, History minor, University of California, Davis

23 YEARS EXPERIENCE

PROFESSIONAL CERTIFICATIONS

Register of Professional Archaeologists (RPA), #16583

Secretary of the Interior and Caltrans Qualified as Principal Investigator

Certified in CA and NV as Principal under BLM Cultural Resources Use Permit

Riverside County Certification List for Archaeology

40-Hour HAZWOPER Certification

PROFESSIONAL AFFILIATIONS

Society for American Archaeology

Society for California Archaeology

Dr. Michael Bever has over 20 years of experience in archaeology and cultural resources management. He has worked throughout the western United States, with a focus in California. He has experience and specialized training in project management, business development, and cultural resources practice oversight, and has directed projects involving a wide breadth of resource types in compliance with federal and state laws and regulations. Dr. Bever's experience includes all manner of cultural resources studies and documentation for projects both large and small, and he has presented various cultural resources management training courses in both professional and academic settings.

In addition to work in cultural resources management, Dr. Bever has held tenure-track professorships at the University of Texas at Austin and the University of Nevada, Reno. A published expert in the earliest prehistory of North America, he is well-versed in archaeological research design and all aspects of archaeological field and laboratory research.

Relevant Experience

SDUSD On-call Consulting Services for Multiple Capital Improvement Projects, San Diego, CA. *Cultural Resources Manager.* ESA holds a current on-call contract with the San Diego Unified School District (SDUSD) for CEQA and environmental services related to capital improvement projects at their various facility locations. SDUSD is using bond funds to repair, renovate and revitalize District schools. These projects include safety and security upgrades, Americans with Disabilities Act upgrades, new/renovated facilities athletic facilities improvements, and whole site modernizations. Dr. Bever leads the cultural resources group in preparing archaeological, paleontological and historical (built) resources studies in support of these projects.

SDUSD Joint Occupancy Project at Scripps Ranch, San Diego Unified School District, San Diego, CA. *Cultural Resources Manager.* ESA is preparing a highly controversial EIR for the San Diego Unified School District (District). The District proposes demolition of existing structures on the approximately 6.7-acre project site, and the construction of a mixed-use development, including residential units and a Student Makerspace and Community Center building. Dr. Bever directed a Phase I cultural resources inventory and preparation of the cultural resources section of an EIR. No resources were identified, given that the project occurs atop a massive deposit of artificial fill.

Los Angeles County Sanitation District, Joint Water Pollution Control Plant Biogas Conditioning System Project, Carson, CA. *Cultural Resources Manager.* ESA prepared the Mitigated Negative Declaration (MND) for the Joint Water Pollution Control Plant (JWPCP) Biogas Conditioning System project. The MND

SPECIALIZED EXPERIENCE AND TRAINING

Advanced Project Management, ESA

Project Management and Advanced Project Management, Project Management Institute

Best Practices in Historic Preservation, City of San Diego and California Office of Historic Preservation

Paleontological Monitor Training, San Jose State University

Numerous CEQA, NEPA and Section 106 training programs

Effective Presentation Skills: The Shortlist Interview Toolbox, The Professional Voice

evaluated the installation of a biogas conditioning system and associated pipelines (biogas supply pipeline, tail gas return pipeline, drain water pipeline) within the JWPCP and across a public roadway. Dr. Bever directed the cultural resources studies for this fast-paced MND preparation, which involved a Phase 1 archaeological study with a site survey, and participation in Native American consultation with the District.

Los Cerritos Wetlands and Oil Production Project EIR, Long Beach, CA. *Cultural Resources Specialist***.** ESA is has prepared an EIR for the Los Cerritos Wetlands and Oil Production project in the City of Long Beach. The project includes a comprehensive wetlands restoration that will restore a privately owned oil field in the City of Long Beach through the creation of a wetlands mitigation bank. The project will occur on four properties and will relocate and modernize existing oil production facilities. In addition, the project will include the construction of facilities to support oil production and will include a visitor's center and pedestrian paths on the newly restored wetlands. Dr. Bever conducted peer review of archaeological, historical, and paleontological resources technical reports, provided assistance with AB 52 consultation, and prepared the cultural resources section of the EIR.

Cultural Resources Mitigation Compliance for High School No. 12, Grossmont Union High School District, Alpine, CA. *Project Director*. Dr. Bever oversaw and directed various studies for a new high school that will be constructed in the City of Alpine. The project involved coordination with multiple specialists, including prehistoric and historical archaeologists, and architectural historians, to develop plans to evaluate and treat multiple cultural resources. To date, the project has involved test excavation and evaluation of several prehistoric archaeological sites, evaluation of six standing structures, data recovery excavation, HAER documentation, and monitoring. Documents prepared include testing and evaluation reports, a historic properties treatment plan, an MOA, and a draft data recovery report. Future work will include extensive monitoring of grading for construction of the school. Because of the sensitive nature of the prehistoric cultural resources, coordination with local Native American groups, both in project planning and in field monitoring, as well as with the District and USACE has been essential.

On-Call Cultural Resources Services, Southern California Edison, Various Locations, CA. *Project Director*. Dr. Bever directed multiple small and large projects involving cultural resources inventory for installation, maintenance, replacement and demolition of transmission lines and associated facilities. Tasks included records searches, Native American and federal agency coordination, survey, evaluation, and report preparation. Documents were prepared for SCE under both CEQA and Section 106 of the NHPA.

On-Call Cultural Resources Services, Southern California Gas Company, Various Locations, CA. *Project Director*. Dr. Bever served as director for cultural resources services for the Southern California Gas Company, including records searches, feasibility studies, field survey, excavation, and construction monitoring. Recent projects include archaeological testing and monitoring of an historic period site near the historic San Gabriel Mission in San Gabriel, California, as part of a gas pipeline replacement project. Also provided in-house cultural resources adjunct staff support.

Los Angeles to Anaheim High Speed Train, California High-Speed Rail Authority/Federal Railroad Authority, Los Angeles and Orange Counties, CA. *Archaeological Resources Manager*. Dr. Bever prepared technical report and EIS documents summarizing survey, archival research and sensitivity studies for prehistoric and historical archaeological resources associated with a thirty mile proposed rail line through the Los Angeles Basin. Documents were prepared for California High-Speed Rail Authority and FRA.

Cogswell Reservoir Sediment Removal Project, Los Angeles National Forest, Los Angeles County, CA. *Cultural Resources Manager.* ESA retained by the County of Los Angeles Department of Public Works, Water Resources Division to prepare a Cultural Resources Assessment in support of the Cogswell Reservoir Sediment Removal Project. The purpose of the project is to remove debris and sediment from Cogswell Reservoir associated with the August 26, 2009 Station Fire in the Angeles National Forest. Dr. Bever managed the cultural resources study, which involved coordination with the United States Forest Service, preparation of a work plan and Archaeological Resources Protection Act permit, field survey, and preparation of a Cultural Resources Assessment Report meeting both CEQA and Section 106 of the National Historic Preservation Act requirements.

Ballona Wetlands Restoration Project, California State Coastal Conservancy, Los Angeles, CA. *Cultural Resources Manager*. The historical Ballona Wetlands, which is now reduced to 577 acres (and only 12 percent of that is tidally influenced), once occupied a 2,000-acre expanse of critical coastal habitat and included some of the most diverse wetland habitat types in the Los Angeles Basin due to the presence of both freshwater and saltwater environments. The Ballona Wetlands Restoration EIR/EIS evaluates four alternatives that include the following key elements: ecosystem restoration, flood and stormwater management (by allowing a naturalized, rather than concrete-lined, Ballona Creek), public access improvements, infrastructure and utility modifications (including abandonment and relocation of Southern California Gas Company monitoring wells and pipelines), a full-scale implementation and restoration program, a state-of-the-art monitoring and adaptive management program, and ongoing operations and maintenance activities. Over more than seven years, Dr. Bever has directed or overseen aspects of the cultural resources studies for the Ballona Wetlands Restoration Project. The cultural resources component of the project has involved field survey and excavation, archival research, geoarchaeological assessment, SHPO and USACE outreach, and reporting to document cultural resources in the area. The area is considered exceptionally sensitive to local Native American groups and extensive consultation and coordination with local tribes and the California Department of Parks and Recreation has been essential. Documents, including cultural resources technical studies and an EIR/EIS, were prepared for the California Coastal Conservancy and the USACE.

Alyssa Bell, PhD

Paleontologist

EDUCATION

Ph.D., Vertebrate Paleontology; University of Southern California

M.S., Environmental Microbiology; University of Tennessee

B.A. with honors, Ecology and Systematics; William Jewell College & Homerton College, Cambridge University

10 YEARS EXPERIENCE

Dr. Alyssa Bell has supervised and peformed field work, authored project reports, and provided scientific and compliance direction and quality control for paleontological projects throughout Southern California. Dr. Bell has accumulated a wealth of field experience, working with crews from a variety of institutions on field sites in California, Arizona, New Mexico, South Dakota, and Utah, and has led her own expeditions in Montana. She has performed all manner of investigations from surveys and assessments to monitoring and fossil idenfitication over the last 15 years as a part of her academic pursuits and professional consultation, with the last three years being exclusively professional endeavors.

In addition to consulting, Dr. Bell serves as a postdoctoral fellow at the Dinosaur Institute of the Natural History Museum of Los Angeles County (LACM). There she is involved in pursuing her own research into fossil birds as well as working with the Institute's field projects and museum-wide education and outreach initiatives. She has also published peer-reviewed articles and book chapters and given numerous presentations at scientific conferences on both her paleontological and microbiological research.

Relevant Experience

ICHA Area 10 (PA 10-2 & 10-4) Archaeological and Paleontological Monitoring, Irvine, CA. *Principal Investigator & Project Paleontologist.* Dr. Bell managed the curatorial process for fossils collected during monitoring of pre-construction activities at the University of California, Irvine, and authored the final report.

Suncrest Reactive Power Support Project, San Diego County, CA. *Principal Investigator.* Dr. Bell authored the paleontological assessment for the Proponent's Environmental Assessment (PEA) in support for a dynamic reactive power support facility and associated 230-kilovolt (kV) transmission line near Alpine, California. The application for Certificate of Public Convenience and Necessary was filed in summer 2015 and the PEA was deemed complete in December 2015.

Washington National Archaeological and Paleontological Monitoring (Access Culver City), Culver City, CA. *Principal Investigator & Project Paleontologist.* Dr. Bell managed the curatorial process for fossils collected during monitoring of pre-construction activities at the Washington national site in Culver City, CA and authored the final report.

OTO Hotels Santa Monica Archaeological and Paleontological Service, Santa Monica, CA. *Principal Investigator.* Dr. Bell supervised paleontological monitoring and mitigation services during construction excavations and grading. Services included implementation of a paleontological mitigation monitoring program and reporting.

Sacred Heart Specific Plan Environmental Impact Report (EIR), La Canada Flintridge, CA. *Principal Investigator.* Dr. Bell prepared paleontological studies and

developed monitoring & mitigation recommendations for the Sacred Heart development project.

Sixth & Bixel Paleontological Monitoring Services Project, Los Angeles, CA. *Principal Investigator & Project Paleontologist.* Dr. Bell supervised paleontological monitoring of preconstruction activities in support of a development project encompassing two parcels in downtown Los Angeles. During these activities, monitors identified and recovered numerous significant vertebrate fossils. Dr. Bell supervised the excavation of fossilized whale remains discovered on-site, and oversaw the collection and curation of all fossil specimens.

Natural and Cultural Support for the Gordon Mull Subdivision EIR, Glendora, CA. *Principal Investigator.* Dr. Bell collected the necessary data to prepare the technical sections and mitigation recommendations to support an EIR prepared by another firm to address the Gordon Mull Subdivision in the city of Glendora. The project is proposes to redevelop a 71-acre, 19-lot located in the San Gabriel Foothills.

Lake Elsinore Lakeshore Town Center Permitting, Riverside County, CA. *Principal Investigator.* Dr. Bell provided paleontological studies and developed monitoring and mitigation recommendations for the Lake Elsinore Town Center project in Riverside County.

San Pedro Plaza Park - Phase III Archaeological Monitor, Los Angeles, CA. *Principal Investigator.* Dr. Bell identified fossils during the mitigation measurement-required archaeological monitoring of earthmoving activities in San Pedro Park Plaza. She is also responsible for curation of the fossil material and authorship of the paleontological section of the final report.

City of Hope Specific Plan and EIR, Duarte, CA. *Principal Investigator.* Dr. Bell provided paleontological resource studies for the City of Hope Specific Plan Project.

Blythe Solar Power Project, Units 1 & 2, Riverside County, CA. *Project Paleontologist.* Dr. Bell supervised paleontological monitoring of preconstruction activities for a solar photo-voltaic cell power-generating facility outside the city of Blythe. As a part of her role, she provided oversight and management of paleontological monitors and development of the final monitoring report.

Industrial Project Environmental Impact Report, Colton, CA. *Principal Investigator.* Dr. Bell provided a paleontological resources study for a six-acre industrial project site at the southwest corner of Agua Mansa Road and Rancho Avenue in the city of Colton.

Mojave Solar Project Paleontological Reporting, San Bernardino County, CA. *Principal Investigator.* Dr. Bell managed curation of fossil materials and authored the final report of paleontological monitoring services provided for construction activities in support of a solar field development project in San Bernardino County.

El Camino Real Bridge Replacement Environmental Services, Atascadero, CA. *Principal Investigator.* Dr. Bell provided environmental services, including preparation of all California Environmental Quality Act (CEQA)/National Environmental Policy Act (NEPA) documentation, technical studies, and permitting, for the replacement of the El Camino Real Bridge over Santa Margarita Creek in Atascadero.

Recycled Water Transmission Water Main Paleo Monitoring, Fresno, CA. *Principal Investigator.* Dr. Bell developed a monitoring and mitigation plan for the city of Fresno recycled water main construction project.

Shafter Wasco Irrigation District Natural and Cultural Resource Evaluations and Air Quality, Kern County CA. *Principal Investigator.* Dr. Bell provided paleontological studies and developed recommendations for the monitoring and mitigation of paleontological resources for the project.

Valentine EIR, Kern County, CA. *Principal Investigator.* Dr. Bell provided paleontological resources support for a 2,000-acre solar PV project in the Mojave Desert. Deliverables included comprehensive technical reports, GIS impact analysis, strategic and permitting support, and a paleontological field survey in the preparation of an EIR and other permitting requirements.

Valentine Solar EIR 115MW Supplemental Reports, Kern County, CA. *Principal Investigator.* Dr. Bell provided paleontological studies in support of changes to the previously established Valentine Solar project.

Valentine Solar Biological and Paleontological Study Updates, Rosamond, Kern County, CA. *Principal Investigator & Project Paleontologist.* Dr. Bell provided paleontological studies, carried out a paleontological survey, and developed monitoring and mitigation guidelines for the Valentine Solar project.

Field Research

2006-Present. The Dinosaur Institute, LACM. Coordinator and Team Leader on expeditions in Montana (Niobrara and Pierre Shale Formations) and Arizona (Chinle Formation). Field assistant on expeditions to Montana (Hell Creek Formation), Utah (Morrison Formation), Arizona (Chinle Formation), New Mexico (Kirtland Formation), and California (Aztec Sandstone). During this period approximately four-six weeks are spent in the field in various locations every year.

2015. Principal Investigator, Field Manager. SWCA Environmental Consultants. Supervision of all paleontological field work, including excavation of a partial whale fossil from a downtown Los Angeles construction site and numerous monitoring projects.

2014. University of Southern California. Field Assistant on an expedition to South Africa (Pre-Cambrian).

2005. Cambridge University. Field Assistant on an expedition in Badlands National Park, South Dakota (White River Group).

2002-2004. Montana State University Northern. Field Assistant on excavations in Montana (Judith River Formation).

Publications

Bell, A. and L. Chiappe, 2015. Identification of a new Hesperornithiform from the Cretaceous Niobrara Chalk and implications for ecologic diversity among early diving birds. PLOS One 10: e0141690.

Bell, A. and L. Chiappe, 2015. A species-level phylogeny of the Cretaceous Hesperornithiformes (Aves: Ornithuromorpha): implications for body size

evolution among the earliest diving birds. Journal of Systematic Palaeontology 14: 239-251.

Liu, D., L. Chiappe, Y. Zhang, A. Bell, Q. Meng, Q. Ji, and X. Wang, 2014. An advanced, new long-legged bird from the Early Cretaceous of the Jehol Group (northeastern China): insights into the temporal divergence of modern birds. Zootaxa 3884: 253-266.

Bell, A. and L. Chiappe, 2011. Statistical approach for inferring the ecology of Mesozoic birds. Journal of Systematic Paleontology 9: 119-133.

Bell, A. and M.J. Everhart, 2011. Remains of small avians from a Late Cretaceous (Cenomanian) microsite in north central Kansas. Transactions of the Kansas Academy of Science 114: 115-123

O'Connor, J., L. Chiappe, and A. Bell, 2011. Pre-modern birds: avian divergences in the Mesozoic in Kaiser, G. and G. Dyke, Living Dinosaurs. Oxford: Wiley-Blackwell Publishing. pp. 39-114.

Bell, A., L.M. Chiappe, G.M. Ericksson, S. Suzuki, M. Watabe, R. Barsbold, and K. Tsogtbaatar, 2010. Description and ecologic analysis of Hollanda luceria, a Late Cretaceous bird from the Gobi Desert (Mongolia). Cretaceous Research 31: 16-26.

Bell, A., L. McKay, A. Layton, and D. Williams, 2009. Factors influencing the persistence of fecal Bacteroides in stream water. Journal of Environmental Quality 38: 1224-1232.

Bell, A. and M.J. Everhart, 2009. A new specimen of Parahesperornis (Aves: Hesperornithiformes) from the Smoky Hill Chalk (Early Campanian) of western Kansas. Transactions of the Kansas Academy of Science 112: 7-14.

Everhart, M.J. and A. Bell, 2009. A hesperornithiform limb bone from the basal Greenhorn Formation (Late Cretaceous; Middle Cenomanian) of north central Kansas. Journal of Vertebrate Paleontology 29: 952-956.

Conference Presentations

Bell, A., Y.-H.Wu, L. M. Chiappe, 2016. Use of morphometric data in taxonomy and functional morphology: a case study of modern and Cretaceous diving birds. 35th International Geological Congress. Cape Town, South Africa.

Bell, A., 2011. Inferring the ecology of extinct European birds from the Mesozoic and Tertiary. European Association of Vertebrate Paleontology. Heraklion, Crete.

Bell, A. and L.M. Chiappe, 2010. Identifying trends in avian ecomorphology. International Ornithological Congress. Sao Paulo, Brazil.

Bell, A., L.M. Chiappe, and J. O'Connor, 2009. Ecological diversity of Mesozoic birds: morphometric analysis with a phylogenetic perspective. Society of Vertebrate Paleontology. Bristol, United Kingdom.

Bell, A., Z.J. Tseng, and L. Chiappe, 2008. Diving mechanics of the extinct Hesperornithiformes: comparison to modern diving birds. Society of Vertebrate Paleontology. Cleveland, Ohio.

Bell, A., L. Chiappe, S. Susuki, and M. Watanabe, 2008. Phylogenetic and morphometric analysis of a new ornithuromorph from the Barun Goyot Formation, Southern Mongolia. Society of Avian Paleontology and Evolution. Sydney, Australia.

Bell, A., 2008. Diving mechanics of the extinct Hesperornithiformes: comparison to modern diving birds. CalPaleo. Sacramento, California.

Bell, A., L. McKay, A. Layton, D. Williams, 2007. Persistence of Bacteroides in surface water. American Society for Microbiology. Chicago, Illinois.

Bell, A., L. McKay, and A. Layton, 2006. Survival and transport of Bacteroides in streams. Geological Society of America, Southeastern Section. Knoxville, Tennessee.

Bell, A., L. McKay, and A. Layton, 2006. Survival and transport of Bacteroides in streams. American Water Resources Association, Tennessee Division. Nashville, Tennessee.

Bell, A., 2004. Avian phylogenetics: a combined molecular and morphological analysis. David Nelson Duke Colloquium. Kansas City, Missouri.

Fatima Clark

Archaeologist

EDUCATION

B.A., Anthropology, California State University, Fullerton

8 YEARS EXPERIENCE

PROFESSIONAL AFFILIATIONS

Society for California Archaeology

SPECIALIZED TRAINING

Workshop: The Art and Science of Flintknapping, California Desert Studies Center, 2013

Successful CEQA, Compliance-Southern California Edison, Environmental Training, 2011

Cultural Resources Protection under CEQA and Other Legislative Mandates, UCLA Extension, 2010

PROFESSIONAL AFFILIATIONS

Society for California Archaeology

Fatima Clark has eight years of hands-on archaeological experience and is practiced in project management and client and agency coordination. Her field experience is complimented by the course study and participation in numerous archaeological excavations in California, Arizona, and Peru. Fatima has written California Environmental Quality Act (CEQA)-level technical reports, Environmental Impact Report (EIR) sections, Initial Study sections, archaeological peer reviews, archaeological monitoring reports, and reports pursuant to Caltrans requirements. She is also experienced in performing archaeological testing, site recordation, laboratory analysis, pedestrian surveys, records searches through several California Historical Resources Information Systems-Information Centers, and monitoring for a wide variety of projects, including mixed-use, residential, and energy, water, and road infrastructure projects. In addition to her archaeology background, Fatima has been cross-trained in conducting paleontological surveys and monitoring and has co-authored and managed associated reports.

Representative Experience

Real Estate Development. Fatima has provided a full range of archaeological services to numerous projects throughout Southern California. Her role in these projects have consisted of conducting coordination management between construction personnel managers and archaeological monitors, writing Phase I and monitoring reports, conducting pedestrian surveys, monitoring, and performing records searches and laboratory work of recovered artifacts during monitoring and Phase II archaeological testing. Recent project experience includes the Uptown Newport Village Project in Newport Beach, the Shriners Hospital for Children in Pasadena, the San Juan Medical Office Building in San Juan Capistrano, the Isla Verde Residential Project in Moreno Valley, the Frontier Chino Project, and the 220-acre Aidlin Property Residential Project in the Stevenson Ranch community of unincorporated Los Angeles County.

Infrastructure. Fatima has served a number of clients and lead agencies in the provision of a variety of archaeological services, including municipalities, water agencies, Caltrans, large engineering firms, and energy providers. She served as an in-house consultant to Southern California Edison (SCE) for nearly six years, during which time she worked on a wide variety of environmental compliance projects. Fatima also served as the Project Manager for the I-10 Freeway/Pepper Avenue Interchange Project in Colton, and is currently the La Costa Chevron Drainage Improvements Project in Encinitas. Other projects include the Badlands Landfill stockpile project for Riverside County, the Palos Verdes pipeline project and Crenshaw Reservoir project for the California Water Service Company, and the San Clemente Recycled Water project.

Paleontology. Fatima's experience in paleontological resources has included projects throughout Southern California. Because of her cross-training, she is often called to perform monitoring and surveys on a variety of project types. Her monitoring projects are diverse in nature and include everything from residential to petroleum-related projects. Fatima's paleontology projects include the 7.5 acre Highgrove community library site in Riverside County and the proposed San Clemente Recycled Water Project study areas associated with the installation, transmission, distribution of pipelines, and expansion of facilities at water treatment plants.

Construction Monitoring. Fatima's monitoring projects are diverse in nature and encompass everything from residential to petroleum-related projects. Her archaeological monitoring includes a number of projects for the City of San Juan Capistrano, Burbank Water & Power, as well as work at the Orange County Great Park (on the former El Toro MCAS), with the city of Mission Viejo, for the Cascade Solar Project, the Willow Heights project in Diamond Bar, and various Lennar Homes and John Laing Homes Housing development projects.

Her paleontological monitoring projects include monitoring and fossil salvage at a proposed school site off of Mulholland that dated back to the Miocene era. She also performed construction monitoring for paleontological resources during the grading of three large basins for the installation of storm drains at the Lytle Creek North Water Quality Basin Relocation project site. Additional experience includes monitoring at the Brio Residential Development in La Habra, monitoring for resources in contaminated soils at the Orange County Great Park (Heritage Fields) project site (formerly the El Toro Marine Corps Air Station), and at the Arroyo Grande Oil Field Project in San Luis Obispo, where she also performed sediment sampling.

APPENDIX B

SCCIC Records Search Results

RECORD SEARCH COMPLETION SHEET

ESA

Name of Staff Conducting Search: Fatima Clark 1:25 – 3:15

ESA Contact and Phone Number: (949) 753-7001

Project Name and Number: LAUSD Burroughs Middle School Project (D21005 33)

Project Location: City County Los Angeles

Quad(s): Hollywood

Date: 12/06/17	Total Hours spent:	Invoice No:	Number of Copies:

Archaeological Sites and Studies Radius (check one): ☐ 1/4 mile ☒ 1/2 mile ☐ 1 mile

Built Environment Radius (check one): Adjacent ☐ 1/8 mile ☐ 1/4 mile ☒

Sites:

0				

Studies:

FEIS/FEIR not acquired

HPSR not acquired 11005	*1578	– 11785	6401	
10507	*3496	– 11642 HPSR not acquired	6445	
8020	1968	10673		
Not acquired – 7562	12405	7736		
Acquired *7565	9537	6462		
*7566	5326	5082		
FEIS/FEIR – 1973 not acquired	5333			

4 pp.
22 xcel lines

RECORD SEARCH COMPLETION SHEET

ESA

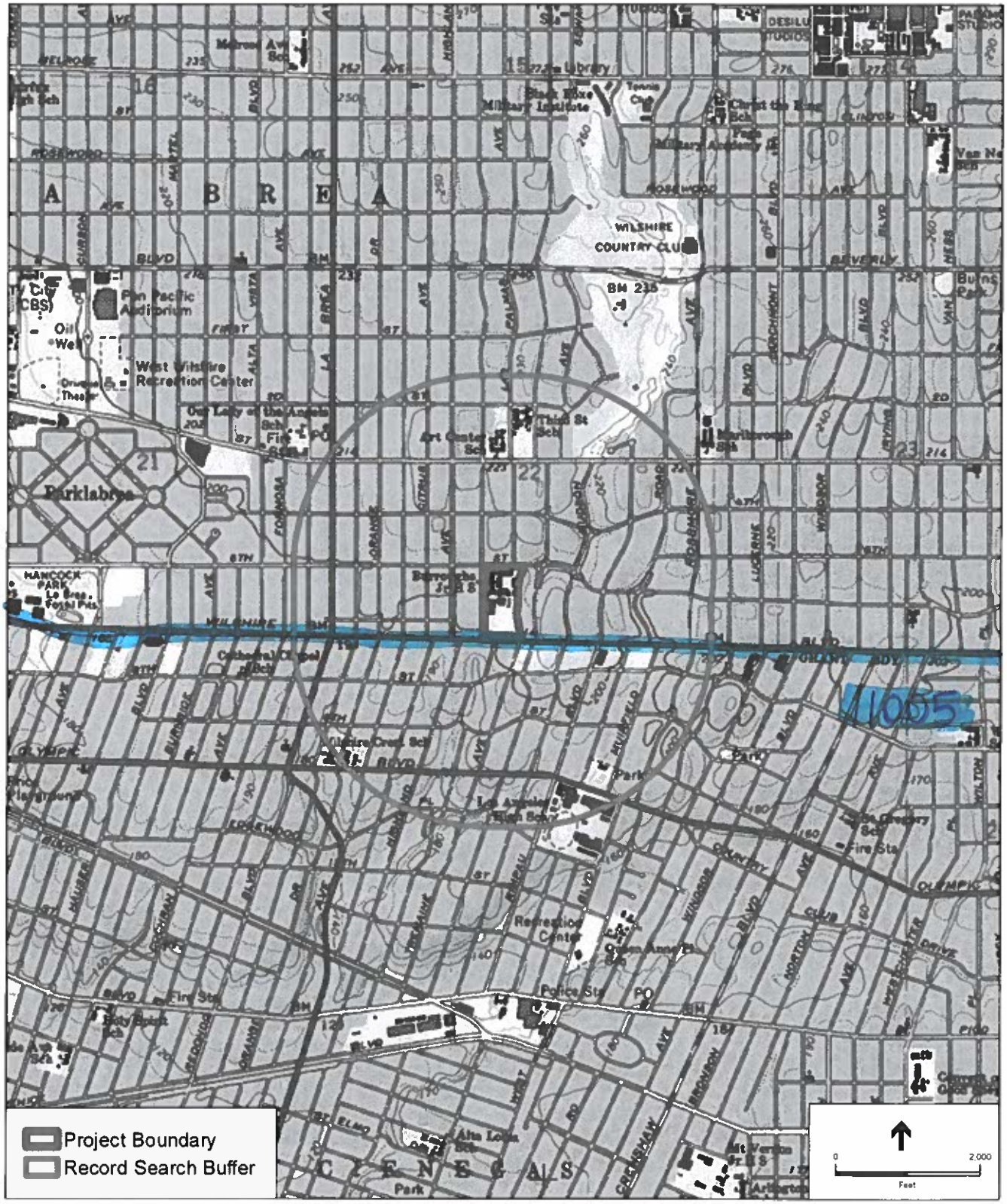
- ☐ Pull all site records and photocopy. Check quad names on the DPR form and compare the plotted locations on your map to the DPR location maps to make sure you copied the right form! No sites w/in ½ mile
- ☐ Request printed copied of bibliography and CD with spreadsheet of studies. Check the printed list against the studies you've listed on page 1 of this form. Check the quad names for each listing to identify any discrepancies and ensure you've written down the correct number.
- ☒ Copy reports that overlap the project area and that document resources in or near the project area.

- ☒ Pull historic topo maps and photocopy
- ☒ Check and copy National Register of Historic Places and Copied Archsite DOE
- ☒ Check and copy Mapped LA City Historic Cultural Monuments
- ☐ Check and copy HRI Listings – we have City of LA - HRI at office
- ☒ Check and copy Mapped Points of Historical Interest

Tips:

- Write legibly! Someone else may have to interpret your handwriting.
- Use separate maps for resources and studies. Write "Resources" or "Studies" on the map.
- Use an ink color that contrast the base map when mapping resources. If the base map is red, use a blue pen. If the base map is gray, use a red pen.
- Write the site number in the margin as well as next to the poly. It can be difficult to read the small numbers next to the poly.
- Use a wide variety of colored highlighters when mapping studies.
- Write the report number in the margin and highlight it with the same color.
- Use multiple sheets if you have a large number of studies to plot.
- Make notes of any discrepancies or oddities, or anything that requires further clarification. Ask IC staff for help if something doesn't make sense to you.
- If in doubt, need clarification, or have questions, please call the ESA contact on page 1 of this form before you leave the IC.
- Make sure that you double check everything before you leave the info center. This is our one chance to get it right!

Studies



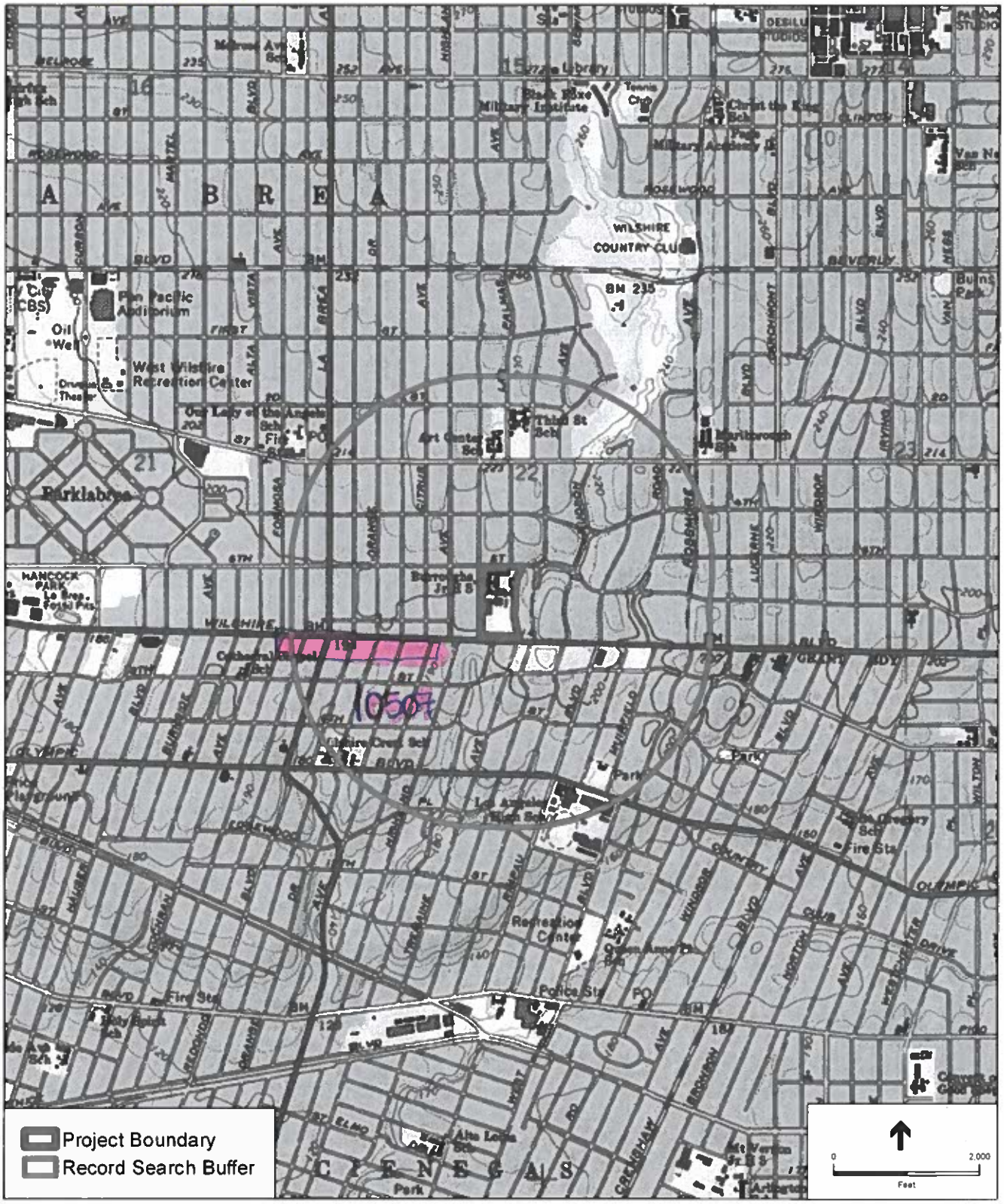
SOURCE: USGS Topographic Series (Hollywood, CA).

LAUSD Burroughs Middle School Comprehensive Modernization Project . 211085.33

Figure X

Record Search Map

Studies



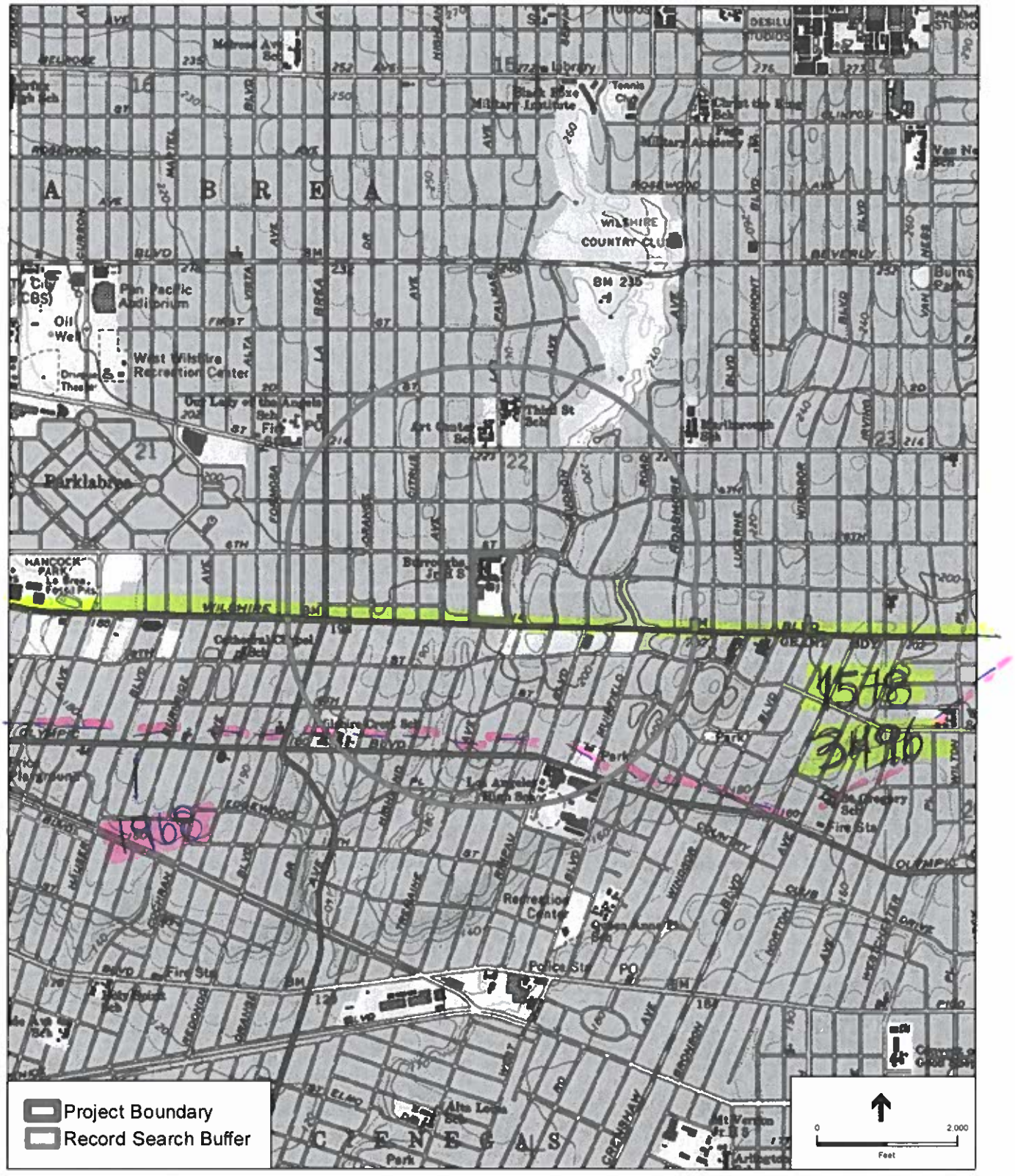
SOURCE: USGS Topographic Series (Hollywood, CA)

LAUSD Burroughs Middle School Comprehensive Modernization Project . 211085.33

Figure X

Record Search Map

Studies



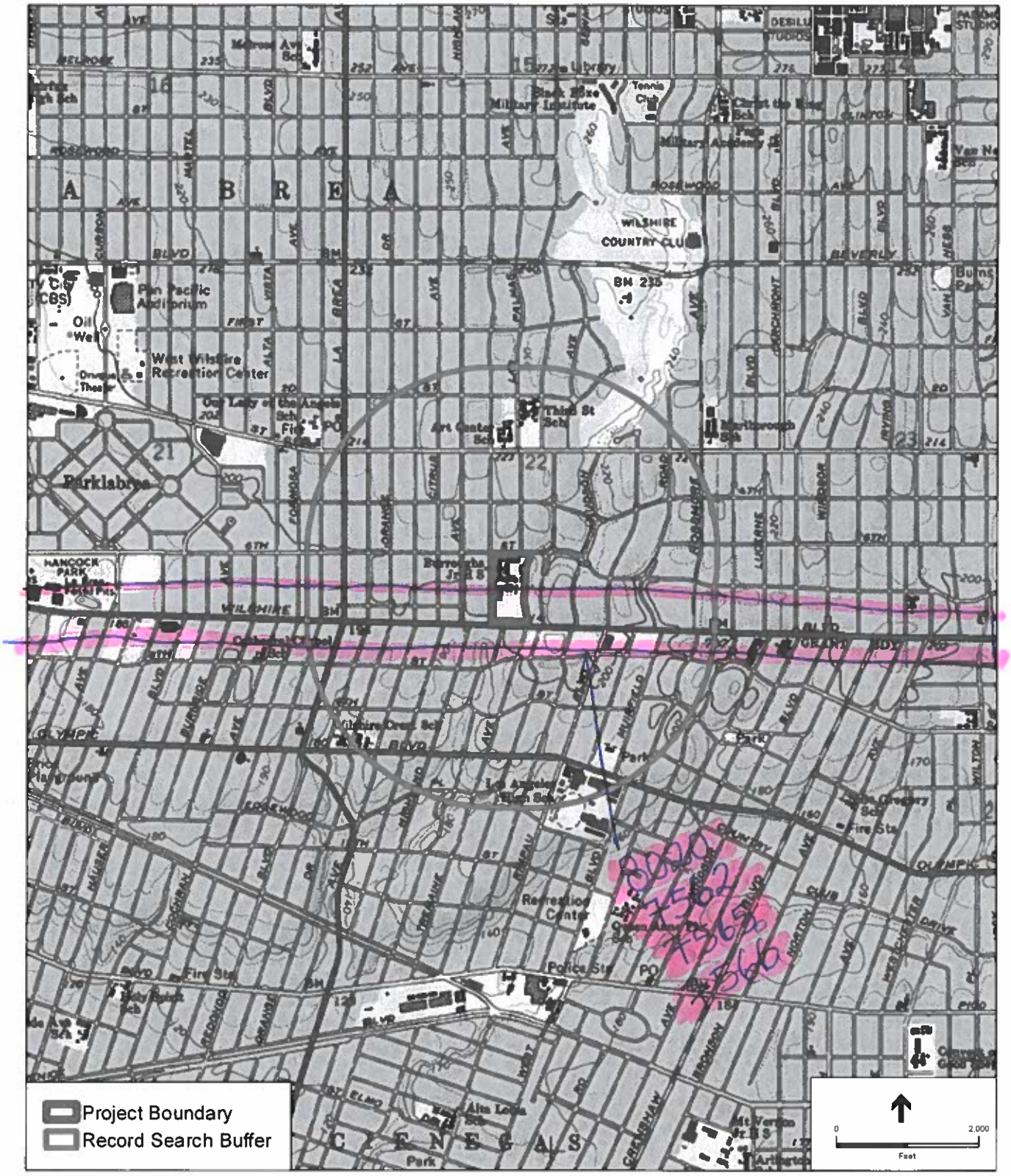
SOURCE: USGS Topographic Series (Hollywood, CA).

LAUSD Burroughs Middle School Comprehensive Modernization Project . 211085.33

Figure X

Record Search Map

Studies



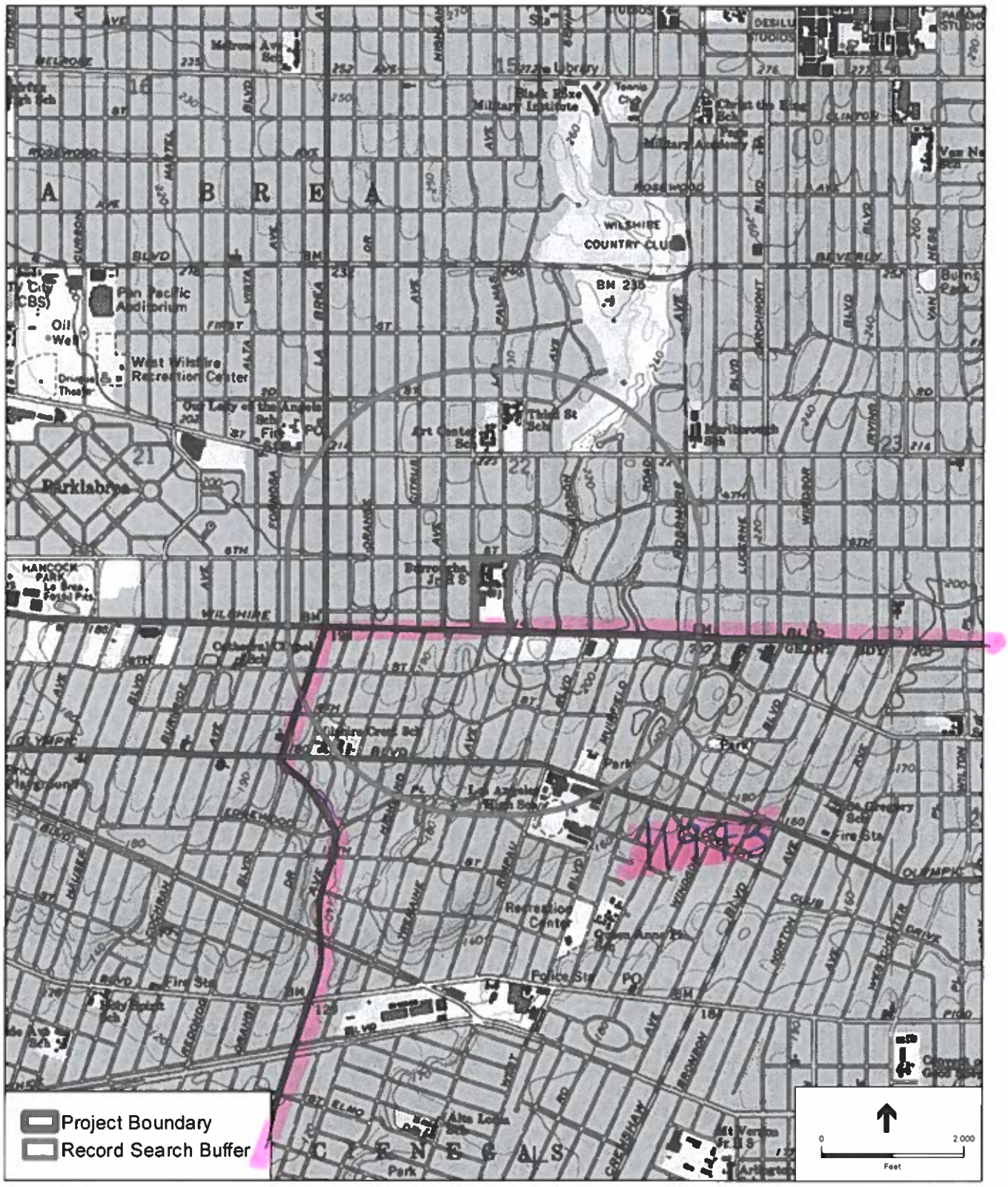
SOURCE: USGS Topographic Series (Hollywood, CA).

LAUSD Burroughs Middle School Comprehensive Modernization Project . 211085.33

Figure X

Record Search Map

Studies



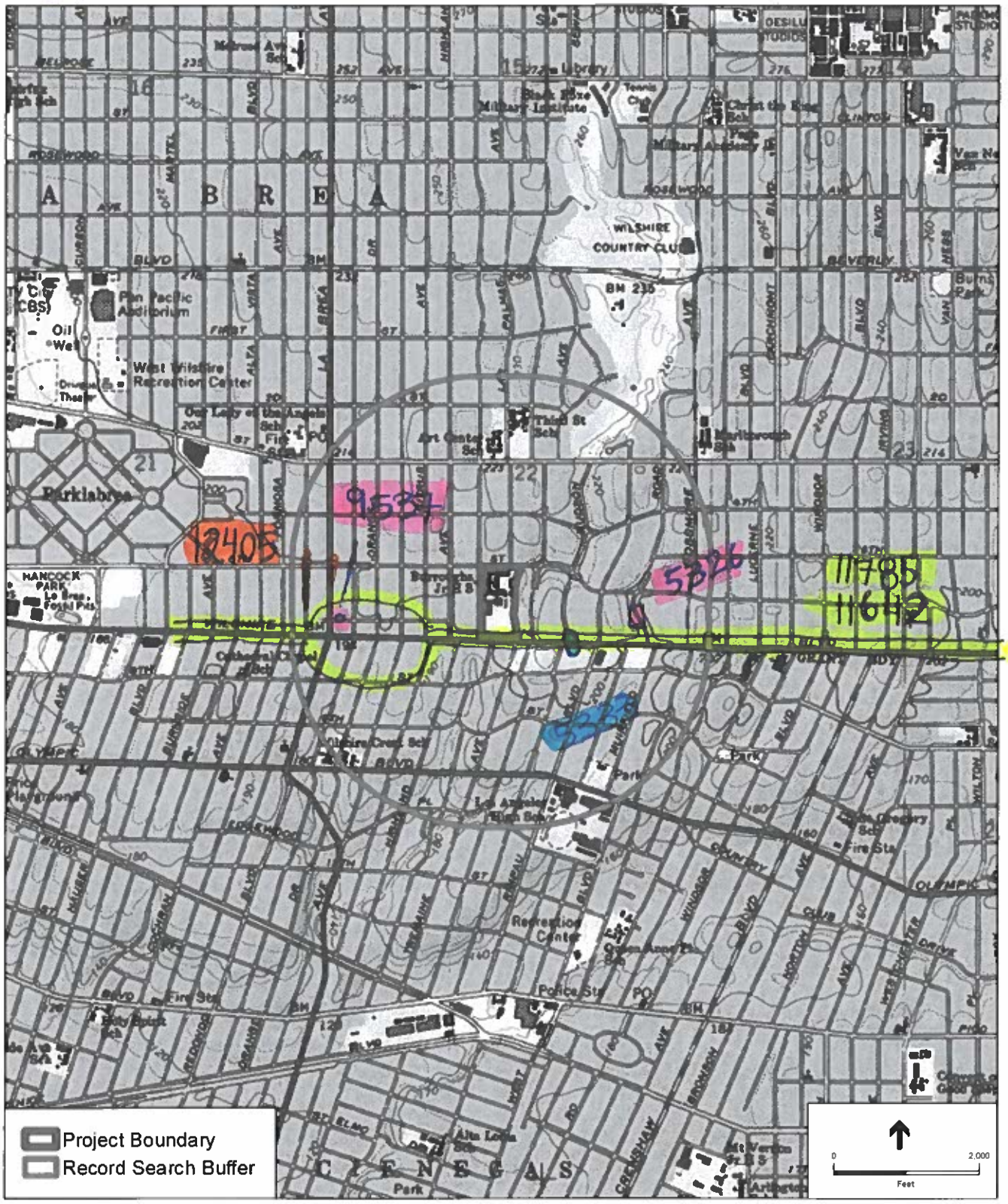
SOURCE: USGS Topographic Series (Hollywood, CA)

LAUSD Burroughs Middle School Comprehensive Modernization Project . 211085.33

Figure X

Record Search Map

studies



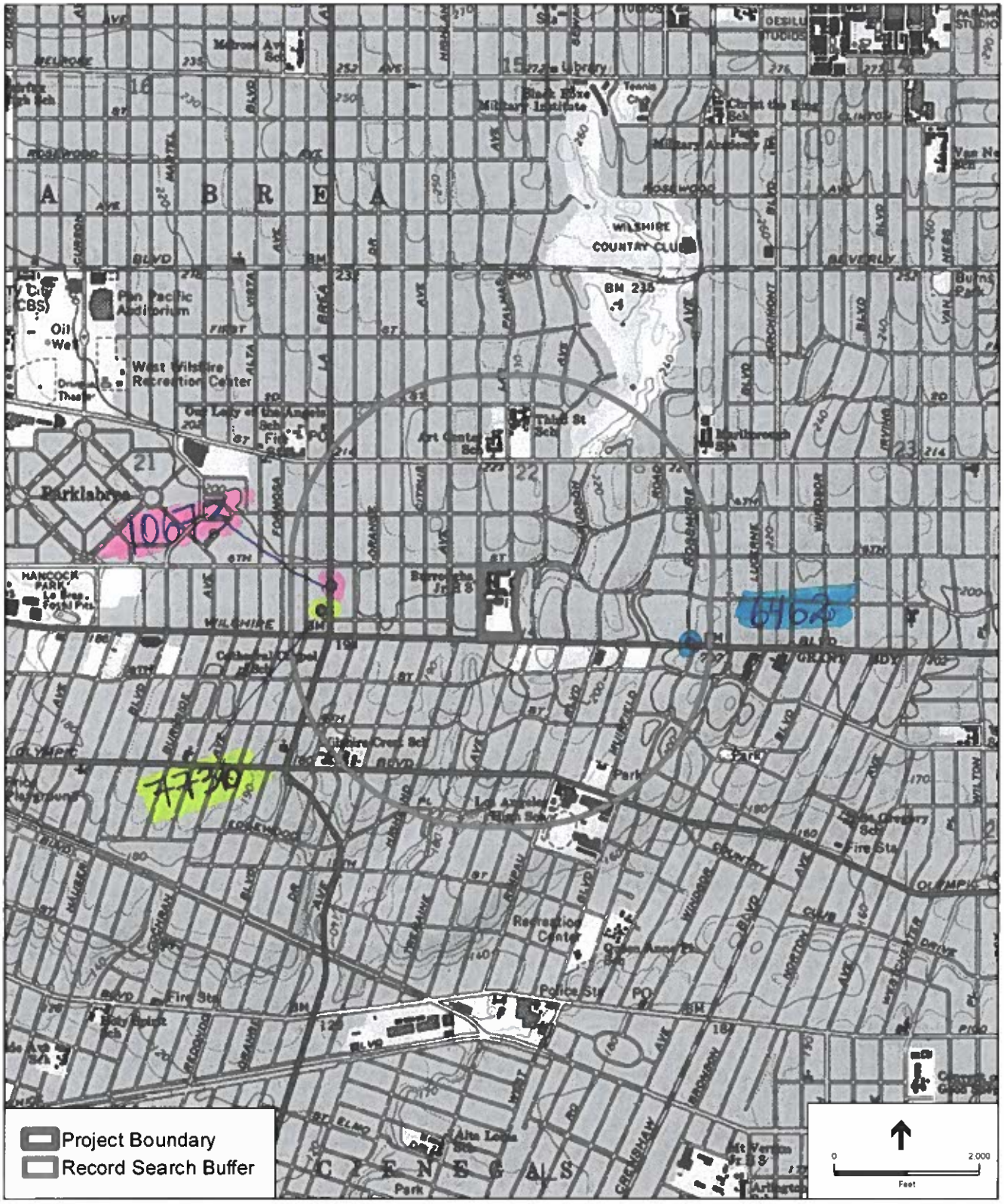
SOURCE: USGS Topographic Series (Hollywood, CA).

LAUSD Burroughs Middle School Comprehensive Modernization Project . 211085.33

Figure X

Record Search Map

Studies



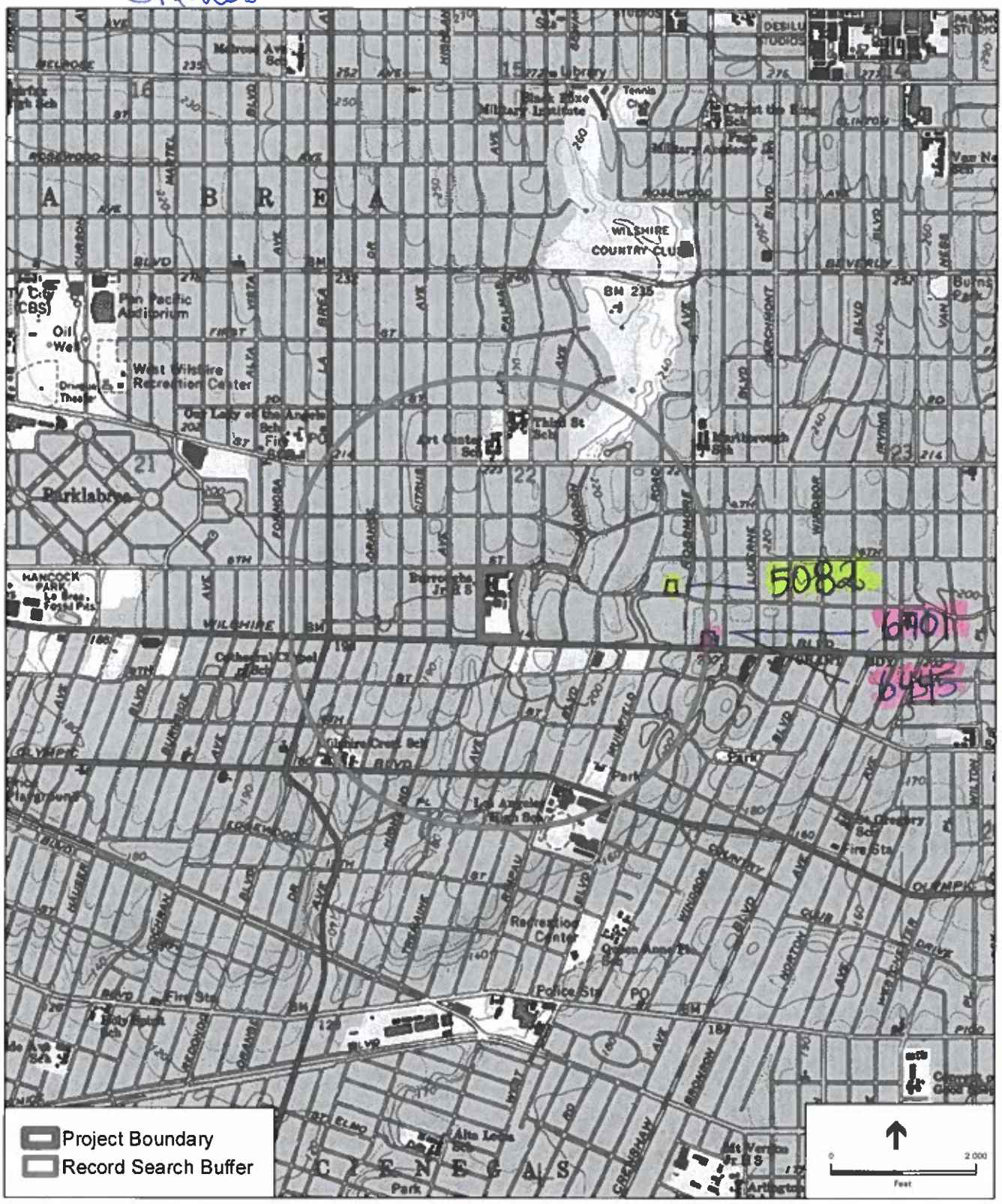
SOURCE: USGS Topographic Series (Hollywood, CA)

LAUSD Burroughs Middle School Comprehensive Modernization Project . 211085.33

Figure X

Record Search Map

Studies



SOURCE: USGS Topographic Series (Hollywood, CA).

LAUSD Burroughs Middle School Comprehensive Modernization Project . 211085.33

Figure X

Record Search Map

Report List

LAUSD Burroughs Middle School Project (D211085-33)

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
LA-01578		1983	Anonymous	Technical Report Archaeological Resources Los Angeles Rapid Rail Transit Project Draft Environmental Impact Statement and Environmental Impact Report	Westec Services, Inc.	
LA-01968	Paleo -	1989	Bissell, Ronald M.	Cultural Resources Literature Review of Metro Rail Red Line Western Extension Alternatives, Los, Angeles, Los Angeles County, California	RMW Paleo Associates, Inc.	19-000159, 19-001261
LA-01973		1990	Cooley, Theodore G.	Draft Environmental Impact Statement for US Army Corps of Engineers Regulatory Permit Under Section 404 of the Clean Water Act	ERCE	19-000157, 19-000167, 19-000253, 19-000300, 19-000621, 19-000647, 19-000657, 19-001606, 19-001607, 19-001608
LA-03496			Anonymous	Draft Environmental Impact Report Transit Corridor Specific Plan Park Mile Specific Plan Amendments	Unknown	19-000159, 19-001945
LA-05082		1999	Duke, Curt	Cultural Resource Assessment for Pacific Bell Mobile Services Facility La 578-11, County of Los Angeles, Ca	LSA Associates, Inc.	
LA-05326		2000	Dooley, Colleen	Cultural Resource Assessment for Pacific Bell Mobile Services Facility La 010-02, in the County of Los Angeles, California	LSA Associates, Inc.	
LA-05333		2000	Duke, Curt	Cultural Resource Assessment for the At&t Wireless Services Facility Number R137.1, County of Los Angeles, California	LSA Associates, Inc.	
LA-06401		2001	Mason, Roger D.	Cultural Resources Record Search and Literature Review Report for a Verizon Wireless Telecommunications Faclity; Cell Site Mid-wilshire (99900155): in the City of Los Angeles, Los Angeles County, California	Chambers Group, Inc.	19-174623
LA-06445		2001	Mason, Roger D.	Proposed Verizon Wireless Facility: Mid-wilshire (99900155) in the City and County of Los Angeles, California	Chambers Group, Inc.	
LA-06462		1999	Duke, Curt	Cultural Resource Assessment for Pacific Bell Mobile Services Facility La 578-11, County of Los Angeles, California	LSA Associates, Inc.	
LA-07562		1987	Greenwood, Roberta S.	Additional Information for Dseis, Core Study Alignments 1, 2, 3, 4, and 5	Greenwood and Associates	
LA-07565		1987	Unknown	Technical Report Archaeology Los Angeles Rail Rapid Transit Project "Metro Rail" Core Study, Candidate Alignments 1 to 5	Greenwood and Associates	

Report List

LAUSD Burroughs Middle School Project (D211085-33)

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
LA-07566		1987	Hatheway, Roger G. and Peter, Kevin J.	Technical Report Dseis, Core Study Alignments 1, 2, 3, 4, and 5	Greenwood and Associates	
LA-07736		2006	Bonner, Wayne H.	Cultural Resources Records Search Results and Site Visit for Cingular Wireless Candidate El-0092-02 (sbc Switch La Brea), 654 South La Brea Boulevard, Los Angeles , Los Angeles County, California	Michael Brandman Associates	
LA-08020		1987	Anonymous	Technical Report: Cultural Resources Los Angeles Rail Rapid Transit Project "metro Rail" Core Study	Southern California Rapid Transit District	19-174623, 19-187937, 19-187938, 19-187939, 19-187940, 19-187941
LA-09537		2008	Bonner, Wayne H. and Kathleen Crawford	Cultural Resources Records Search and Site Visit Results for AT&T Candidate EL0092-02(R) (SBC Switch La Brea), 654 South La Brea Avenue, Los Angeles, Los Angeles County, California.	Michael Brandman Associates	19-002964, 19-170998, 19-186732, 19-186734, 19-187936
LA-10507		1983	Anonymous	Technical Report - Historical/Architectural Resources - Los Angeles Rail Rapid Transit Project "Metro Rail" Draft Environmental Impact Statement and Environmental Impact Report	Westec Services, Inc.	
LA-10673		2010	Bonner, Wayne	Cultural Resources Records Search and Site Visit Results for Clearwire Candidate CA-LOS5987B (SBC Switch LA Brea), 666 South La Brea Avenue, Los Angeles, California	Michael Brandman Associates	19-002964, 19-170998, 19-186732, 19-186734, 19-187936

Report List

LAUSD Burroughs Middle School Project (D211085-33)

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
LA-11005		2010	Unknown, Mr./Mrs.	Westside Subway Extension Historic Property Survey Report and Cultural Resources Technical Report	Cogstone	19-167175, 19-167579, 19-167580, 19-167596, 19-168245, 19-168608, 19-170997, 19-171001, 19-171030, 19-173043, 19-173051, 19-173428, 19-174110, 19-174178, 19-175235, 19-175237, 19-176757, 19-176758, 19-177029, 19-177101, 19-177313, 19-177314, 19-177320, 19-177904, 19-178102, 19-178105, 19-178106, 19-188522, 19-189247, 19-189248, 19-189249, 19-189250, 19-189251, 19-189252, 19-189253, 19-189254, 19-189255, 19-189256, 19-189257, 19-189258, 19-189259, 19-189260, 19-189261, 19-189262, 19-189263, 19-189264, 19-189265, 19-189266, 19-189267, 19-189268, 19-189269, 19-189270, 19-189271, 19-189272, 19-189273, 19-189274, 19-189275, 19-189276, 19-189277, 19-189278, 19-189279, 19-189280, 19-189281, 19-189282, 19-189283, 19-189284, 19-189285, 19-189286, 19-189287, 19-189288, 19-189289, 19-189290, 19-189291, 19-189292, 19-189293, 19-189294, 19-189295, 19-189296, 19-189297, 19-189298, 19-189299, 19-189300, 19-189301, 19-189302, 19-189303, 19-189304, 19-189305, 19-189306, 19-189307, 19-189308

Report List

LAUSD Burroughs Middle School Project (D211085-33)

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
LA-11642		2012	Daly, Pam and Sikes, Nancy	Westside Subway Extension Project, Historic Properties and Archaeological Resources Supplemental Survey Technical Reports	Cogstone	19-000159, 19-001261, 19-002563, 19-002610, 19-003169, 19-003336, 19-003338, 19-003339, 19-003340, 19-003352, 19-003353, 19-003683, 19-004112, 19-004113, 19-004174, 19-004192, 19-004193, 19-100882, 19-150194, 19-150195, 19-167175, 19-170997, 19-170998, 19-171001, 19-173043, 19-173045, 19-173051, 19-173428, 19-174110, 19-175235, 19-175237, 19-177029, 19-177101, 19-177312, 19-177313, 19-177314, 19-177320, 19-186804, 19-187307, 19-187308, 19-188522, 19-188524, 19-189247, 19-189249, 19-189250, 19-189253, 19-189262, 19-189263, 19-189267, 19-189268, 19-189269, 19-189270, 19-189273, 19-189274, 19-189304, 19-189305, 19-189306, 19-189308, 19-189313, 19-189314, 19-189315, 19-189316
LA-11785		2012	Rogers, Leslie	Final Environmental Impact Statement/Final Environmental Impact Report for the Westside Subway Extension	U.S. Department of Transportation Fedreral Transit Admin. & LA County Metro Transit Authority	
LA-12405		2013	George, Joan, Hearth, Nicholas, Smallwood, Josh, and Warren, Keith	Archaeological Survey for SSRP H11Burnside and Wilshire Secondary Sewer Renewal Program BOE WO SZC12518	Applied EarthWorks	19-000159, 19-001261, 19-002964, 19-003045, 19-170998, 19-170999, 19-171000, 19-171001, 19-171002, 19-171003, 19-171004, 19-171006, 19-171007, 19-171010, 19-173425, 19-173810, 19-175224, 19-175225, 19-175226, 19-175227, 19-175228, 19-175229, 19-175230, 19-175231, 19-175232, 19-175237, 19-186732, 19-186734, 19-187936

APPENDIX C

LACM Database Search Results

Natural History Museum
of Los Angeles County
900 Exposition Boulevard
Los Angeles, CA 90007

tel 213.763.DINO
www.nhm.org

NATURAL HISTORY MUSEUM
LOS ANGELES COUNTY

Vertebrate Paleontology Section
Telephone: (213) 763-3325

e-mail: smcleod@nhm.org

11 December 2017

ESA PCR
2121 Alton Parkway, Suite 100
Irvine, CA 92606

Attn: Fatima Clark, Archaeologist

re: Paleontological Records Check for the proposed Burroughs Middle School Comprehensive Modernization Project, in the City of Los Angeles, Los Angeles County, project area

Dear Fatima:

I have conducted a thorough search of our Vertebrate Paleontology records for the proposed Burroughs Middle School Comprehensive Modernization Project, in the City of Los Angeles, Los Angeles County, project area as outlined on the portion of the Hollywood USGS topographic quadrangle map that you sent to me via e-mail on 27 November 2017. We have no vertebrate fossil localities that lie directly within the proposed project area, but we do have localities nearby from the same sedimentary deposits that occur within the proposed project area.

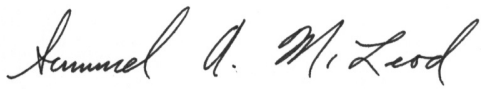
Surface deposits for most of the southeastern portion of the proposed project area consist of younger Quaternary Alluvium, derived from the slight drainage there. Surface deposits in the rest of the proposed project area consist of older Quaternary Alluvium, derived as alluvial fan deposits from the Hollywood Hills to the north. At relatively shallow depth in this area significant fossil vertebrate remains are found in these deposits. Our closest vertebrate fossil locality is LACM 1198, due south of the proposed project area near the intersection of 8th Street and Tremaine Avenue, that produced fossil mastodon, *Mammut*, at a depth of 17 feet. Just west of south of the western border of the proposed project area, near the intersection of Longwood Avenue and Olympic Boulevard, our locality LACM 5599 produced fossil camel, *Camelops*, at a depth of 12 feet. A little further to the west, along Sycamore Avenue just north of La Brea Avenue, our locality LACM 1814 produced a specimen of fossil bovid, *Preptoceras sinclairi*, at

a depth of only 2 feet. This latter locality was associated with asphalt impregnated sands such as surround the famous and extremely fossiliferous Rancho La Brea asphalt deposits just west of the proposed project area in Hancock Park, where we have a great number of vertebrate fossil localities.

Even relatively shallow excavations in the Quaternary Alluvium exposed throughout the proposed project area may well encounter significant vertebrate fossil remains. Any substantial excavations in the proposed project area, therefore, should be monitored closely to quickly and professionally recover any fossil remains discovered while not impeding development. Also, sediment samples should be collected and processed to determine the small fossil potential in the proposed project area. Any fossils collected should be placed in an accredited scientific institution for the benefit of current and future generations.

This records search covers only the vertebrate paleontology records of the Natural History Museum of Los Angeles County. It is not intended to be a thorough paleontological survey of the proposed project area covering other institutional records, a literature survey, or any potential on-site survey.

Sincerely,



Samuel A. McLeod, Ph.D.
Vertebrate Paleontology

enclosure: invoice

APPENDIX D

Sacred Lands File Search

NATIVE AMERICAN HERITAGE COMMISSION
Environmental and Cultural Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
(916) 373-3710

November 29, 2017

Fatima Clark
ESA

Sent by E-mail: fclark@esassoc.com

RE: Burroughs Middle School Comprehensive Modernization Project, Los Angeles County

Dear Ms. Clark:

A records search of the Native American Heritage Commission (NAHC) *Sacred Lands File* was completed for the area of potential project effect (APE) referenced above with negative results. Please note that the absence of specific site information in the *Sacred Lands File* does not indicate the absence of Native American cultural resources in any APE.

Attached is a list of tribes culturally affiliated to the project area. I suggest you contact all of the listed Tribes. If they cannot supply information, they might recommend others with specific knowledge. The list should provide a starting place to locate areas of potential adverse impact within the APE. By contacting all those on the list, your organization will be better able to respond to claims of failure to consult. If a response has not been received within two weeks of notification, the NAHC requests that you follow-up with a telephone call to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from any of these individuals or groups, please notify me. With your assistance we are able to assure that our lists contain current information. If you have any questions or need additional information, please contact via email: steven.quinn@nahc.ca.gov.

Sincerely,

Steven Quinn

Steven Quinn
Staff Services Analyst

Native American Heritage Commission
Native American Contact List
Los Angeles County
11/29/2017

Gabrieleno Band of Mission Indians - Kizh Nation
Andrew Salas, Chariperson
P.O. Box 393 Gabrieleno
Covina, CA, 91723
Phone: (626) 926 - 4131
gabrielenoindians@yahoo.com

Gabrieleno/Tongva San Gabriel Band of Mission Indians
Anthony Morales, Chairperson
P.O. Box 693 Gabrieleno
San Gabriel, CA, 91778
Phone: (626) 483 - 3564
Fax: (626) 286-1262
GTTribalcouncil@aol.com

Gabrielino /Tongva Nation
Sandonne Goad, Chairperson
106 1/2 Judge John Aiso St., Gabrielino
#231
Los Angeles, CA, 90012
Phone: (951) 807 - 0479
sgoad@gabrielino-tongva.com

Gabrielino Tongva Indians of California Tribal Council
Robert Dorame, Chairperson
P.O. Box 490 Gabrielino
Bellflower, CA, 90707
Phone: (562) 761 - 6417
Fax: (562) 761-6417
gtongva@gmail.com

Gabrielino-Tongva Tribe
Charles Alvarez,
23454 Vanowen Street Gabrielino
West Hills, CA, 91307
Phone: (310) 403 - 6048
roadkingcharles@aol.com

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Burroughs Middle School Comprehensive Modernization Project, Los Angeles County.

Appendix E2

Historic Resources Technical Report

ESA

LOS ANGELES UNIFIED SCHOOL DISTRICT

HISTORIC RESOURCES SURVEY REPORT

Prepared by

Sapphos Environmental, Inc.
for the
Los Angeles Unified School District
Office of Environmental Health and Safety

June 2014

TABLE OF CONTENTS

Executive Summary **1**

I Introduction **3**
Project Description and Purpose 4
Historic Resources and CEQA 4
Previous Historic Resources Surveys and Studies 5

II Survey Methods and Procedures **7**
Definitions of California Historic Resources Status Codes 9

III Summary of the LAUSD Historic Context Statement **10**
Theme: LAUSD | Educating the Baby Boom: The Postwar Modern, Functionalist School Plant, 1945–1969 11
Eligibility Standards 12
Character-Defining Features | Buildings/Structures 12
Character-Defining Features | Campus/District 12
Integrity Considerations 13
Theme: LAUSD and the Civil Rights Movement, 1954–1980 15
Eligibility Standards 16
Character-Defining Features 16
Integrity Considerations 16
Architectural Styles: Mid-Century Modernism | Regional Modernism 17
Typical Character-Defining Features 18
Mid-Century Modernism | Expressionistic/Organic Subtype 18
Architects and Builders of LAUSD Properties 19

IV Survey Results **20**
Mapped Results: District Overview and Area Maps 21
District Overview 21
Area A1 (San Fernando Valley) 22
Area A2 (San Fernando Valley) 23
Area A3 (San Fernando Valley) 24
Area B1 (Topanga, Pacific Palisades) 25
Area B2 (West Los Angeles) 26
Area B3 (Central Los Angeles) 27
Area C1 (Palos Verdes, San Pedro) 28
Area C2 (San Pedro, Carson, South Los Angeles) 29
Eligible Campuses: Overview 30
Ineligible Campuses: Overview 37

V Updated LAUSD Historic Resources Inventory **58**

VI Conclusion | Recommendations **80**

VII Selected Bibliography and Endnotes **82**

Appendix A Department of Parks and Recreation Forms, Eligible Campuses
Appendix B LAUSD Historic Context Statement, 1870 to 1969 (on CD)

FIGURE LIST

1 Grover Cleveland Senior High School 1
2 Chatsworth Senior High School 1
3 Los Angeles Unified School District Boundary 2
4 Leapwood Avenue Elementary School 3
5 Leapwood Avenue Elementary School 3
6 Susan Miller Dorsey High School 8
7 Susan Miller Dorsey High School 8
8 Children at Vernon Avenue Junior High School 10
9 Baldwin Hills Elementary School 11
10 Baldwin Hills Elementary School 11
11 "The East LA Blow Out," Lincoln High School 15
12 Fernangeles Elementary School 17
13 Parmelee Avenue Elementary School 17
14 Grover Cleveland High School 18
15 Grover Cleveland High School 18
16a District Overview: Results of Los Angeles Unified School District Historic Resources Survey, 2013/2014 21
16b Results, Map A1 (San Fernando Valley), Los Angeles Unified School District Historic Resources Survey, 2013/2014 22
16c Results, Map A2 (San Fernando Valley), Los Angeles Unified School District Historic Resources Survey, 2013/2014 23
16d Results, Map A3 (San Fernando Valley), Los Angeles Unified School District Historic Resources Survey, 2013/2014 24
16e Results, Map B1 (Topanga, Pacific Palisades), Los Angeles Unified School District Historic Resources Survey, 2013/2014 25
16f Results, Map B2 (West Los Angeles), Los Angeles Unified School District Historic Resources Survey, 2013/2014 26
16g Results, Map B3 (Central Los Angeles), Los Angeles Unified School District Historic Resources Survey, 2013/2014 27
16h Results, Map C1 (Palos Verdes, San Pedro), Los Angeles Unified School District Historic Resources Survey, 2013/2014 28
16i Results, Map C2 (San Pedro, Carson, South Los Angeles), Los Angeles Unified School District Historic Resources Survey, 2013/2014 29

TABLE LIST

V-1 Grover Cleveland Senior High School 60

Figures 1 and 2. San Fernando Valley postwar schools: at left, Grover Cleveland Senior High School (1959), Charles Matcham & Stewart Granger and Associates, Reseda-West Van Nuys; at right, Chatsworth Senior High School (1963), Wilson & Associates, Chatsworth. Source: Sapphos Environmental, Inc., 2013.

EXECUTIVE SUMMARY

This report presents the results of a historic resources survey conducted for the Los Angeles Unified School District (LAUSD) by Sapphos Environmental, Inc. between October 2013 and February 2014. Debi Howell-Ardila, senior architectural historian, served as project manager, survey team lead, and principal author of the LAUSD Historic Resources Survey Report. Marilyn Novell, historic resources coordinator, contributed to fieldwork, research, data management, and documenting survey results on Department of Parks and Recreation forms. Carole Zellie, historic resources manager, provided oversight and input. All staff meet and/or exceed the Secretary of the Interior's Professional Qualifications Standards for architectural history. Gwenn Godek of the LAUSD Office of Environmental Health and Safety served as project administrator and manager.

This survey represents a first step in a district-wide historic resources survey of as-yet unevaluated LAUSD campuses and properties. The information compiled in this report, including the *LAUSD Historic Context Statement, 1870 to 1969*, is intended to provide the district with a basis for proactively identifying, documenting, and maintaining its historically significant school buildings and campuses in advance of district-wide redevelopment efforts.

Included in this survey were a total of 55 LAUSD campuses, which span the extent of the district (Figure 3, *Los Angeles Unified School District boundary*). At the time of the survey, all campuses were 45 years of age or older, with dates of construction ranging from the late 1940s through early 1970s; a majority had not been previously surveyed or evaluated. The survey sample included elementary, middle, and senior high schools, as well as several specialty facilities or campuses.

Of the 55 campuses surveyed, 14 campuses appear to be eligible for the National Register of Historic Places (NRHP) and/or the California Register of Historical Resources (CRHR). Eligible campuses are described in detail in Section 4, Survey Results, and documented on Department of Parks and Recreation (DPR) Primary and Building, Structure, and Object forms, which are included in Appendix A.

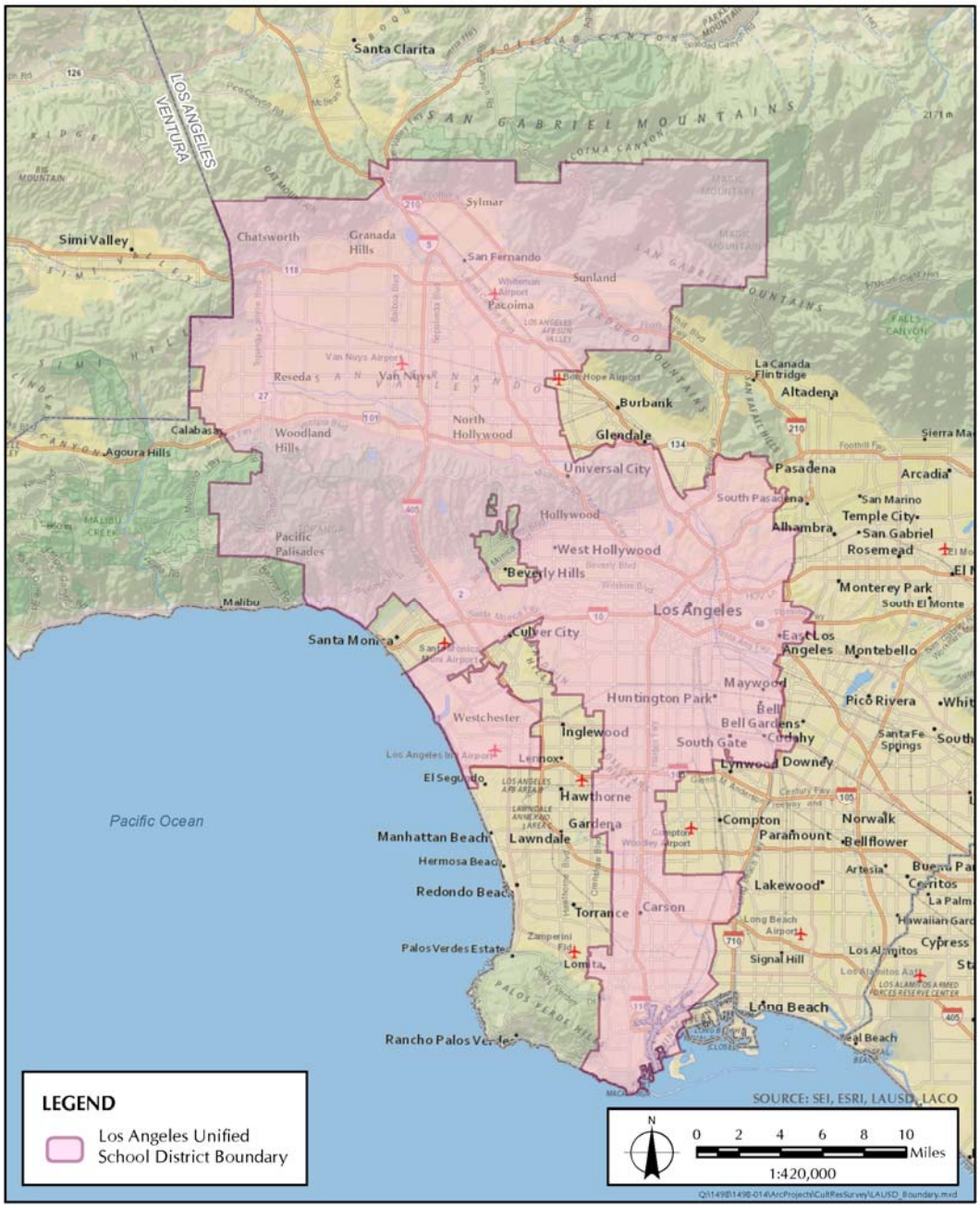


Figure 3. Los Angeles Unified School District boundary. Source: Sapphos Environmental, Inc., 2014.

Figures 4 and 5. Leapwood Avenue Elementary School (1962), Carson. Source: Sapphos Environmental, Inc., 2014.

I. INTRODUCTION

With nearly 800 campuses and a geographic span of over 700 square miles, LAUSD is the second largest public school system in the United States. The district includes all of incorporated Los Angeles, as well as unincorporated areas throughout Los Angeles County. LAUSD's northern portion spans the San Fernando Valley, including Granada Hills, Chatsworth, Reseda, Woodland Hills, Van Nuys, Sylmar, San Fernando, Pacoima, and Sunland. Along the west, LAUSD includes western Los Angeles, Pacific Palisades, Venice, and Westchester. Along the east, LAUSD borders Glendale, Monterey Park, Montebello, Commerce, Downey, and Long Beach. Within LAUSD, extending south from Los Angeles, are the communities of Vernon, Huntington Park, Maywood, Bell, South Gate, Gardena, and Carson. LAUSD's southernmost portion includes San Pedro, Lomita, and Rancho Palos Verdes.

Since its founding in 1872, LAUSD has commissioned, designed, and acquired a remarkable collection of buildings, campuses, and facilities. These properties reflect more than a century of social, architectural, and technological advances, as well as ongoing educational and curricular reform. Extant properties range from a wood-framed schoolhouse of the late nineteenth century to superblock campuses displaying Mid-Century Modern architectural styles.

In the early 2000s, in conjunction with the Getty Conservation Institute, LAUSD launched the district's first comprehensive Historic Resources Survey. This work resulted in findings of federal and/or state eligibility for 123 schools (local eligibility criteria were not included in these surveys; public schools are statutorily exempt in the California State Government Code from local landmark designation).[1] With a project scope focused primarily on the pre–World War II era, however, many postwar campuses were either not surveyed or not subject to context-driven evaluations. Since the 2001–2004 surveys, approximately 175 additional campuses have passed the 45-year mark, signaling the need for future evaluation. Another approximately 125 campuses constructed between 1945 and 1955 have been evaluated only at the reconnaissance level, and only from the public right-of-way.[2]

Project Description and Purpose

In advance of campus-wide redevelopment, LAUSD contracted with Sapphos Environmental, Inc. to provide historic resource consulting services to inform master planning efforts and environmental review pursuant to the California Environmental Quality Act (CEQA). The scope of work is three-fold:

1. Preparation of a comprehensive LAUSD Historic Context Statement;
2. Historic resource surveys of 55 campuses; and
3. Updating the LAUSD Historic Resources Inventory database.

The 55 campuses surveyed included school plants that have not yet been subject to historic resource evaluations due to age (i.e., schools built primarily between 1955 and 1969) and schools that were previously identified as warranting re-evaluation once they reached 45 years of age. These included: (1) 10 high schools; (2) 22 schools identified in the 2002 "Phase 2" Getty survey as warranting re-evaluation; and (3) 23 elementary and junior high schools.

Historic Resources and CEQA

In addition to helping inform master planning efforts for LAUSD, this Historic Resources Survey and report are designed to facilitate compliance with CEQA, which requires lead agencies to consider the potential effects of proposed projects on historic resources as defined by CEQA. CEQA identifies a historic resource as a property that is listed in—or is eligible for listing in—the NRHP, CRHR, or local registers. NRHP-listed properties are automatically included in the CRHR. The criteria for both are similar and described below, with the NRHP letter (A, B, C, and D) followed by the corresponding CRHR number (1, 2, 3, and 4). In keeping with the 2001–2004 LAUSD Historic Resources Surveys, local criteria were not included.[3]

Resources that may be eligible for listing include buildings, sites, structures, objects, and historic districts. To qualify as a historic resource under CEQA, a resource must be significant at the local, state, or national level under one or more of the following criteria:

A/1: For an association with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States (NRHP Criterion A; CRHR Criterion 1);

B/2: For an association with the lives of persons important to local, California, or national history (NRHP Criterion B; CRHR Criterion 2);

C/3: As an embodiment of the distinctive characteristics of a type, period, region, or method of construction, representative of the work of a master or high artistic values (NRHP Criterion C; CRHR Criterion 3); or

D/4: Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation (NRHP Criterion D; CRHR Criterion 4).

There is no specific age threshold for CRHR eligibility; rather, the regulations specify that enough time must have passed for a property to be evaluated within its historic context.

Resources eligible for listing in the CRHR must retain enough of their historic character or appearance to be recognizable as historic resources and to convey the reasons for their significance. It is possible that resources that may not retain sufficient integrity for listing in the NRHP may still be eligible for the CRHR. The evaluation of integrity is based on how a property's physical features and attributes tell the story of its historic significance. The NRHP has defined the following seven aspects of historic integrity: Location, Design, Setting, Materials, Workmanship, Feeling, and Association.[4]

Previous Historic Resources Surveys and Studies

The consultants reviewed past LAUSD property surveys, including the following three historic resource surveys, as well as one in-progress project:

(1) **Historic resource surveys following the 1994 Northridge Earthquake**
Conducted for the Federal Emergency Management Agency (FEMA) and carried out in support of compliance under Section 106 of the National Historic Preservation Act, these surveys identified approximately 39 out of 71 campuses surveyed as historic (i.e., eligible for listing in the NRHP or for designation under a local ordinance);

(2) **"Phase 1" Getty survey**
This 2001–2002 historic resource survey was funded through a Planning Grant from Preserve LA, a program of the J. Paul Getty Trust. The survey included approximately 190 campuses, with results incorporating and expanding on the 1994 FEMA survey; a database of 410 schools aged 45 years or older was prepared as part of the project;

(3) **"Phase 2" Getty survey**
This 2002–2004 expansion of Phase 1 considered approximately 220 campuses;

(4) **SurveyLA**
A multi-year, citywide historic resource survey, partially funded by the J. Paul Getty Trust and covering all of Los Angeles; led by the City of Los Angeles Office of Historic Resources, the project is in its final phase as of spring 2014. Numerous LAUSD properties appear to be eligible for federal, state, or local listing and are therefore presumed historic resources for the purposes of CEQA. Final results from SurveyLA will be incorporated into the California State Historic Resources Inventory.

Included in the compiled LAUSD Historic Resources Inventory prepared for this report are eligibility findings from the 2001–2004 Phase 1 and Phase 2 Getty surveys (i.e., all campuses found eligible for either the NRHP and/or the CRHR). Eligibility findings for LAUSD schools made through SurveyLA, which is in progress as of June 2014, are available through the City of Los Angeles Office of Historic Resources.[5]

II. SURVEY METHODS AND PROCEDURES

The survey process used by Sapphos Environmental, Inc. staff was based on recognized professional standards, including those recommended by the National Park Service and the California Office of Historic Preservation guided by California Historic Resources Status Codes. Proceeding in stages, the survey method was as follows:

1. Pre-field research on each campus;
2. Fieldwork, including on-campus site inspections;
3. Compilation of results, with data entered into a property list including Assessor's Parcel Number; address; principal dates of construction; architect, designer, and/or contractor, if known; and past and present evaluation results;
4. Analysis, with compiled data and results of site inspections studied and compared with applicable criteria as well as the findings of the LAUSD Historic Context Statement;
5. Evaluation/Designation, wherein each campus was found either eligible or not eligible and assigned a California Historic Resources Status Code indicating evaluation findings.

Before beginning survey work, Sapphos Environmental, Inc. completed a comprehensive Historic Context Statement to guide evaluations. The complete LAUSD Historic Context Statement is included in this report as Appendix B. Framed in accordance with the NRHP Multiple Property Documentation (MPD) approach, the LAUSD Historic Context Statement identifies themes of significance, property types, eligibility standards, and integrity thresholds for LAUSD school properties from the late nineteenth century through 1969. By using the MPD approach, properties sharing a given theme of significance are assessed consistently, in comparison with resources that share similar physical characteristics and historical associations. In this way, the Historic Context Statement was designed to provide a consistent framework for evaluations both for the current scope of work and future LAUSD historic resource surveys.

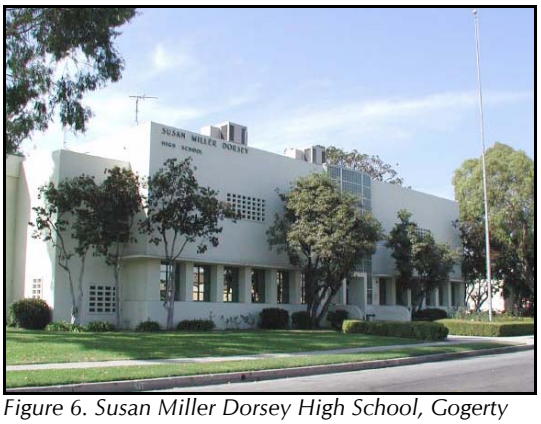


Figure 6. Susan Miller Dorsey High School, Gogerty and Noerenberg, Los Angeles (1937). Source: LAUSD.

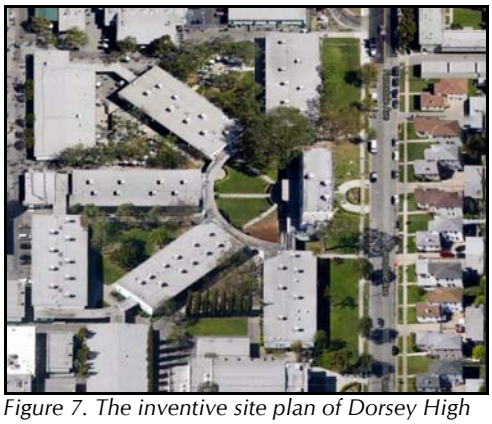


Figure 7. The inventive site plan of Dorsey High School. Source: Google Maps, 2013.

Survey results were incorporated into the LAUSD Historic Resource Inventory database; the inventory compiles 2013/2014 survey results with eligibility findings from the 2001–2004 Phase 1 and Phase 2 Getty surveys. The LAUSD Historic Resources Inventory prepared for this report is ArcGIS-compatible and designed for future use as an ArcGIS layer.

Campus-specific research incorporated a wide variety of sources, online databases and archives, as well as available print sources. Sapphos Environmental, Inc. staff investigated the origins and history of each school. This included research on architects, designers, or contractors involved in the school's design and construction; significant teachers, students, administrators, or other individuals who might have had an association with the school over time; and how the school reflected or fit within patterns of development, such as suburbanization, or significant events.

Staff members also reviewed and compiled data collected as part of LAUSD's Pre-Planning Surveys; relevant information was obtained from the Pre-Planning Surveys for all 55 campuses, including dates of construction, site maps, and plans.[6]

For site inspections, survey teams documented the principal buildings, structures, general character-defining features, and alterations. DPR Primary and Building, Structure, and Object forms were prepared for all campuses appearing to have either individual buildings or districts eligible for federal or state landmark designation. For potential historic districts, the identification of contributors and non-contributors was outside the scope of the current project, but is a suggested next step, as projects are proposed for school campuses including buildings, structures, related features, or historic districts appearing eligible for federal or state landmark designation and therefore qualifying as historic resources under CEQA.

Definitions of California Historic Resources Status Codes

The following are the California Historic Resources Status Codes assigned in the course of this survey and incorporated into the Historic Resources Inventory; codes also include eligibility findings from the 2001–2004 Phase 1 and Phase 2 Getty surveys:

1S/1D: Properties listed in the NRHP or CRHR either as individual resources (1S) or contributors to historic districts (1D).

2S/2D: Officially determined eligible for NRHP (and therefore also for the CRHR) as a single property or as a district contributor. As official evaluations, these codes were not modified during either the Phase 1 or Phase 2 studies.

3S: Appears individually eligible for the NRHP as a result of survey evaluation. These properties should also be understood as eligible for the CRHR.

3D: Appears eligible as a historic district for the NRHP as a result of survey evaluation. These properties should also be understood as eligible for the CRHR.

3CS: Appears individually eligible for the CRHR as a result of a survey evaluation.

3CD: Appears eligible for the CRHR as a potential historic district as a result of survey evaluation.

6Y: Officially determined ineligible for the NRHP.

6Z: Does not appear eligible for the NRHP or the CRHR, in the opinion of the surveyor.

Given that all codes from 1 to 5 denote properties eligible for either federal, state, or local listing, all codes from 1 to 5 correspond to properties considered to be historic resources for the purposes of CEQA.

Figure 8. Children at Vernon Avenue Junior High School, Los Angeles, circa 1925. Source: LAPL Photo Collection.

III. SUMMARY OF THE LAUSD HISTORIC CONTEXT STATEMENT

The complete *Los Angeles Unified School District Historic Context Statement, 1870 to 1969*, follows this report as Appendix B. Prepared in accordance with the National Register Multiple Property Documentation approach, the study provided the survey team with a consistent, context-driven framework for evaluations of LAUSD campuses and buildings.[7]

To summarize, research conducted for the *Los Angeles Unified School District Historic Context* revealed four distinct periods and corresponding themes of significance:

(1) Founding Years, 1870s through 1909;
(2) Progressive Education Movement: Standardization and Expansion, 1910 to 1933;
(3) Era of Reform: Great Depression, Earthquake, and Early Experiments in the Modern, Functionalist School Plant, 1933 to 1944; and
(4) Educating the Baby Boom: Postwar Expansion and the Modern, Functionalist School Plant, 1945 to 1969.

Themes of significance associated with each era were developed, along with eligibility standards, character-defining features, and integrity thresholds. Additional sections describe the typical architectural styles of LAUSD schools, along with character-defining features for each, as well as a list of some of the leading architects and designers participating in the design of extant LAUSD schools and campuses. Given this survey's focus on unevaluated properties, constructed between the late 1940s and 1969, evaluations primarily drew upon the final era, from 1945 to 1969. The following section presents the applicable themes of significance, architectural style descriptions, and architects/designers corresponding to the era of 1945 to 1969.

Figure 9. Baldwin Hills Elementary School, Robert Alexander, architect, Los Angeles (1949–1951). Source: Getty Research Institute, Shulman Archives.

Figure 10. Early finger-plan school, Baldwin Hills Elementary School. Source: Google Maps, 2013.

CONTEXT: PUBLIC AND PRIVATE INSTITUTIONAL DEVELOPMENT | EDUCATION

THEME: LAUSD | EDUCATING THE BABY BOOM: THE POSTWAR MODERN FUNCTIONALIST SCHOOL PLANT, 1945–1969

By the 1950s, many of the design ideas considered experimental in the 1930s had matured and become the national standard for schools. Stylistically, schools might include some historicist detailing reflecting popular styles (such as Colonial Revival). However, overall, a unified campus design, building types and plans that accommodated a high degree of indoor-outdoor integration, ample outdoor spaces, and sheltered corridors marked the typology as the mature version of the functionalist school plant. The priority remained the creation of a domestic scale for schools. Campuses displayed a one-story massing for elementary schools, and up to two stories for middle and high schools. Site plans, which often featured a decentralized, pavilion–like layout, lacked the formality and monumentality that characterized earlier eras of school design.

School types expressive of these ideals include the finger-plan (1940s through 1950s) and cluster-plan (1950s), and variations on their basic themes. Combinations of these basic forms, which flexed according to available lot size and school enrollment, are also evident.

For LAUSD, the postwar years brought another round of reform as well as unprecedented expansion. Given the postwar classroom shortage, many campuses were constructed quickly, from standardized plans used district-wide, in designs that convey some of these ideas. The most intact and well-designed campuses among these, though, uniquely represent this era of reform and the midcentury modern school.

Property Type:	Institutional/Educational
Property Subtypes:	Elementary Schools, Junior High Schools, and High Schools
Period of Significance:	1945 to 1969
Area of Significance:	Education
Geographic Location:	Citywide; with concentrations in the San Fernando Valley and West Los Angeles
Area of Significance:	A/1

Eligibility Standards

- Clearly embodies the characteristics of a postwar modern functionalist school campus
- Displays a unified, functional site design, with buildings extending across the site and oriented in relation to outdoor spaces (courtyards, patios, outdoor play areas)
- One-story massing for elementary schools; up to two-stories for junior/high schools
- Classrooms, in detailing and plans, clearly express their function, with axial, finger-like wings, plentiful fenestration, and connections to the outdoors
- Retains most of the associative and character-defining features from the period of significance

Character-Defining Features | Buildings/Structures

- Building plans and site design clearly express their function; classroom wings often exhibit one-story "finger-like" wings, arranged on an axis
- Easily identifiable indoor-outdoor spaces, connections to classrooms through the incorporation of patios, courtyards, and outdoor canopied corridors
- One-story massing, particularly for elementary schools; up to two to three stories for junior and high schools
- Building types and plans expressive of postwar ideals in school design; these can include (1) finger-plan schools (usually in 1940s through 1950s); (2) cluster-plan schools (beginning in 1950s); and (3) variations and combinations of these typologies clearly expressive of the ideals for informality, indoor-outdoor connections, and zoned planning for the site
- Varying elevations might display differentiated window sizes and configurations, in order to tailor interior light to sun patterns and create cross-lit classrooms

Character-Defining Features | Campus/District

- Unified campus design includes most or all of the following attributes: lack of formality and monumentality; low massing (usually one story for classrooms and up to two stories for auditoriums/multipurpose rooms); strong geometric ordering of buildings and outdoor spaces; decentralized, pavilion-like layout; rational, function-

driven site design; buildings extend across the site; buildings are oriented to outdoor spaces (courtyards, patios, outdoor areas), purposeful indoor-outdoor integration

- Automobile traffic/drop-off areas separated from campus; linked to interior via extended canopied corridors
- Buildings often turn inward, toward green spaces, courtyards, and lawns
- Outdoor corridors, sheltered beneath simple canopies, forming links between the buildings of the campus
- Classrooms often consist of a series of axial, modular units
- An informal, domestic scale for the buildings and campus might be especially evident in elementary schools
- Swaths of patios, terraces, and plantings adjacent to and alternating with buildings
- Generous expanses of windows, including steel- and wood-framed multi-light windows, in awning and hopper casements, clerestories, and fixed panes
- Flat roof or broken-plane roof often used for lighting and acoustical issues
- Modular design, with a rhythmic, asymmetrical but balanced composition
- Usually displays a modern design idiom, usually either regional modernist (with use of native materials such as stone, brick, and wood siding and/or framing), International Style modernist, or, by the early 1960s, Late Modern (more expressive and sculptural)
- Some examples might include some degree of historicist detailing or styles popular in the postwar period (such as American Colonial Revival); these are less common than modernist examples
- May have been designed by a prominent architect of the period
- Often associated with post–World War II suburbanization and growth near major employment centers beyond the city periphery (such as the San Fernando Valley and southwest Los Angeles)
- Often built in residential neighborhoods on large expanses of land, with large areas devoted to landscape design and playing fields (in particular for high school campuses)

Integrity Considerations

- Retains most of the essential physical features from the period of significance
- School expansion and new construction over the years, in particular in the postwar period, might have resulted in the addition of in-fill buildings and structures in areas that were originally designed open spaces. Such new additions should not interfere with or serve as a visual impairment to the designed connections between buildings, in particular classroom wings, and adjacent outdoor patios and spaces.

- Many postwar schools were designed to be easily expandable as enrollment increased; the original site design and building types and plans should be readily discernible. If additional wings were added or the campus extended, the additions should be compatible with and visually subordinate to the original.
- Some materials may have been removed or altered
- Modern lighting and fencing of site acceptable
- Should retain integrity of Setting, Materials, Design, Workmanship, Feeling, and Association from its period of significance
- Addition of portable or permanent buildings after the period of significance acceptable as long as original campus design is intact

Comments: This theme would most often apply to a campus evaluated as a historic district. Individual buildings and/or campuses exhibiting distinctive design features might also qualify under Criteria C/3, as the embodiment of the distinctive characteristics of a type/period or method of construction, as an example of the work of a master architect, or for high artistic values.

Figure 11. The "East LA Blow Out," Lincoln High School, 16 September 1968. Students protested for "better schools for Mexican Americans. Sal Castro was a teacher there and spearheaded the movement." Source: LAPL, Herald-Examiner Collection, 00041327.

CONTEXT: PUBLIC AND PRIVATE INSTITUTIONAL DEVELOPMENT | EDUCATION

THEME: LAUSD AND THE CIVIL RIGHTS MOVEMENT, 1954–1980

This theme of significance begins with the filing of the landmark U.S. Supreme Court case *Brown v. The Board of Education Topeka, Kansas*. Although *Brown v. Board of Education* addressed state laws that did not exist in California—namely, laws allowing for racially segregated public schools—this case and the Civil Rights Movement helped generate and focus attention on related issues in Los Angeles. Issues touched on racial division and cultural identity, equal access, and how to create more balance and diversity in public schools. Signaling the end of this period of significance is the U.S. Supreme Court decision effectively ending mandatory school busing as a solution to racial imbalance in California's public schools. Although this issue continued to form part of the social context for LAUSD, this period captures an era of intense debate and activism on the part of community members, parents, politicians and jurists, as well as teachers and administrators.

A school eligible under this theme might be the site of significant integration initiatives, challenges, or community activities related to the Civil Rights Movement and school integration. This might include initiatives for equal access to schools and/or to employment opportunities in LAUSD schools.

In addition, a school might qualify under this theme for a long-term association with a figure who was significant in the Civil Rights Movement and school integration.

Property Type:	Institutional/Educational
Property Subtypes:	Elementary Schools, Junior High Schools, and High Schools
Period of Significance:	1954 to 1980
Area of Significance:	Education/Ethnic Heritage
Geographic Location:	Citywide
Area of Significance:	A/1 and/or B/2

Eligibility Standards

- Was constructed during the theme of significance
- Was the site of significant integration initiatives, challenges, or activities related to the Civil Rights Movement and school integration
- Directly reflects the movement for equal access to schools, through integration activities, events, or protests, and/or equal access to employment opportunities in LAUSD schools
- Has a well-established, long-term association with a figure who was significant in the Civil Rights Movement and school integration (eligibility under B/2)

Character-Defining Features

- Retains most of the associative and character-defining features from the period of significance

Integrity Considerations

- Retains integrity of Location, Design, Setting, Feeling, Association
- Some materials may have been removed or altered
- If there are multiple buildings on campus constructed during the period of significance, these should be evaluated as a potential historic district

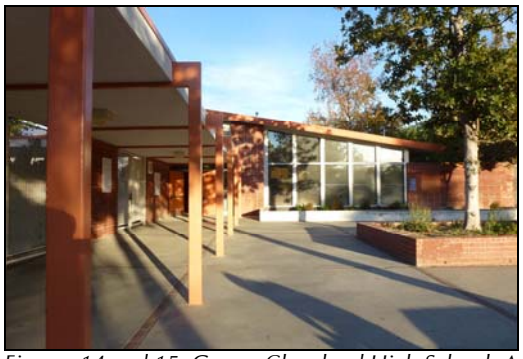
Figures 12 and 13. At left, Fernangeles Elementary School (1954), Sun Valley. At right, Parmelee Avenue Elementary School (1962), southeastern Los Angeles. Source: Sapphos Environmental, Inc., 2014.

ARCHITECTURAL STYLES

MID-CENTURY MODERNISM / REGIONAL MODERNISM (POST-1945)

Mid-Century Modernism, or Regional Modernism, represents a middle ground between the formal, machine-age aesthetic of the International Style and a regional idiom reflecting local precedent and identity. In the postwar period through the 1960s, as practiced in Southern California, Mid-Century Modernism took its cues from the region's first-generation modernist architects such as Richard Neutra, Rudolph Schindler, Gregory Ain, Frank Lloyd Wright, and Harwell Hamilton Harris. In the postwar period, second-generation practitioners such as Raphael Soriano, Whitney Smith, and A. Quincy Jones, among many others, established Los Angeles as a center for innovative architectural design and culture.

Mid-Century Modernism is characterized by an honest expression of structure and function, with little applied ornament. Aesthetic effect is achieved through an asymmetrical but balanced, rhythmic design composition, often expressed in modular post-and-beam construction. Whether wood or steel, post-and-beam construction allowed for open floor plans, ease of expansion, and generous expanses of glazing to heighten indoor-outdoor integration. Infill panels of wood or glass are common, with glazing often extending to the gable. Buildings are generally one to two-stories, with an emphasis on simple, geometric forms. Capped with low-pitched gabled or flat roofs, a Mid-Century Modern building often displays wide eaves and cantilevered canopies, supported on spider-leg or post supports. Sheathing materials vary, with wood, stucco, brick and stone, or steel-framing and glass. Windows are generally flush-mounted, with metal frames.



Figures 14 and 15. Grover Cleveland High School, Administration Building (left) and typical classroom wing (right), Matcham & Granger and Associates (1959), Reseda. Source: Sapphos Environmental, Inc., 2013.

This style was seen in postwar institutional and commercial buildings, as well as residences, from 1945 until circa 1975.

Typical Character-Defining Features

- Horizontal design composition and massing; generally one to two stories; simple, geometric volumes; flat or shed roof, often with wide, cantilevered overhangs
- Exterior materials include stucco, brick, or concrete; modular design and planning
- Simply treated, natural materials and excellent craftsmanship
- Direct expression of structural systems, often in wood or steel post-and-beam
- Lack of historicizing ornament
- Generous expanses of fenestration, including bands of grouped multi-light windows
- Extensive use of sheltered exterior corridors, with flat or slightly sloped roofs supported by posts, piers, or pipe columns

Mid-Century Modernism | Expressionistic/Organic Subtype

- A more dynamic Mid-Century Modernism: combines sculptural forms with basic geometric volumes; curved, sweeping wall surfaces; dynamic, expressionistic roof forms, including butterfly, folded plate or barrel vault roof forms

ARCHITECTS AND BUILDERS OF LAUSD PROPERTIES

Since the early years of LAUSD, the school buildings and campuses of LAUSD have been designed by some of the region's most prominent master architects as well as the district's own architectural department. The following architects and firms were responsible for numerous designs of extant buildings throughout the district, since the early twentieth century:

- Thornton Abell
- Ain, Johnson & Day (Gregory Ain, Joseph Johnson, and Alfred Day)
- Robert Evans Alexander
- Allison & Allison (David Clark Allison and James Edward Allison)
- John C. Austin
- Austin and Ashley (John C. Austin and Frederic Ashley)
- Austin, Field & Fry (John C. Austin, Robert Field, Jr., Charles Eugene Fry)
- Edwin Bergstrom
- Daniel, Mann, Johnson & Mendenhall, DMJM (Phillip Daniel, Arthur Mann, Kenneth Johnson, Irvan Mendenhall)
- Stiles O. Clements
- Roland Coate
- Edelman and Zimmerman
- Sidney Eisenshtat
- Henry L. Gogerty
- Heitschmidt & Thompson (Earl Heitschmidt and Whiting Thompson)
- Frank Hudson
- Hudson & Munsell
- Stewart S. Granger
- Myron Hunt
- Hunt & Chambers
- Hunt & Burns
- Gordon B. Kaufmann
- George Lindsey
- Marsh, Smith, & Powell (Norman Marsh, David Smith, and Herbert James Powell)
- A. C. Martin
- Matcham & Granger (Charles O. Matcham Sr. and Stewart S. Granger)
- Alfred S. Nibecker
- Richard Neutra
- C.E. Noerenberg and Johnson
- Parkinson and Parkinson
- Charles Plummer
- Alfred Rosenheim
- Sumner Spaulding
- Spaulding & Rex (Sumner Spaulding and John Rex)
- William Stockwell
- Whiting Thompson
- Walker and Eisen
- Adrian Wilson & Associates

IV. SURVEY RESULTS

As a result of the LAUSD Historic Resources Survey, 2013/2014, the following 14 of 55 LAUSD campuses were found to include properties that appear eligible for either the NRHP and/or the CRHR. These campuses therefore include one or more buildings, structures, and/or related features that are presumed historic resources for purposes of CEQA:

1. 156th Street Elementary School — Eligible for CRHR (3CD)
2. Castle Heights Elementary School — Eligible for CRHR (3CD)
3. Chatsworth Senior High School — Eligible for NRHP (3D)
4. Cleveland Senior High School — Eligible for NRHP (3D)
5. Colfax Avenue Elementary School — Eligible for CRHR (3CD)
6. Dodson Middle School — Eligible for CRHR (3CD)
7. Fernangeles Elementary School — Eligible for CRHR (3CD)
8. Leapwood Avenue Elementary School — Eligible for NRHP (3D)
9. Narbonne Senior High School — Eligible for CRHR (3CD)
10. Pacoima Middle School — Eligible for CRHR (3CD)
11. Palisades Senior High School — Eligible for NRHP (3D)
12. Parmelee Avenue Elementary School — Eligible for CRHR (3CD)
13. Topanga Charter Elementary School — Eligible for NRHP (3D)
14. Webster Middle School — Eligible for CRHR (3CD)

Properties found eligible for the National Register under Criteria A/1, as representing the ideals and design principals of LAUSD from the era, were highly exceptional examples of the school type, though minor alterations might have been noted. Properties found eligible for the California Register only under the same criteria were generally outstanding examples of the applicable school type but exhibited a higher number of alterations.

The following sections present: (1) an overall district map, as well as detailed area maps, showing survey results, and (2) a pictorial overview of all eligible and non-eligible campuses, including school name, address, dates of construction, architect/designer (if known), and evaluation findings. Section 5 provides a tabulated version of the updated LAUSD Historic Resources Inventory.

Mapped Results: District Overview and Area Maps

Below is a composite map of the study area showing all LAUSD campuses, with eligibility indicated for campuses evaluated in the Historic Resources Survey, 2013/2014. The subsequent pages present enlarged versions of each subdivision of the composite map.

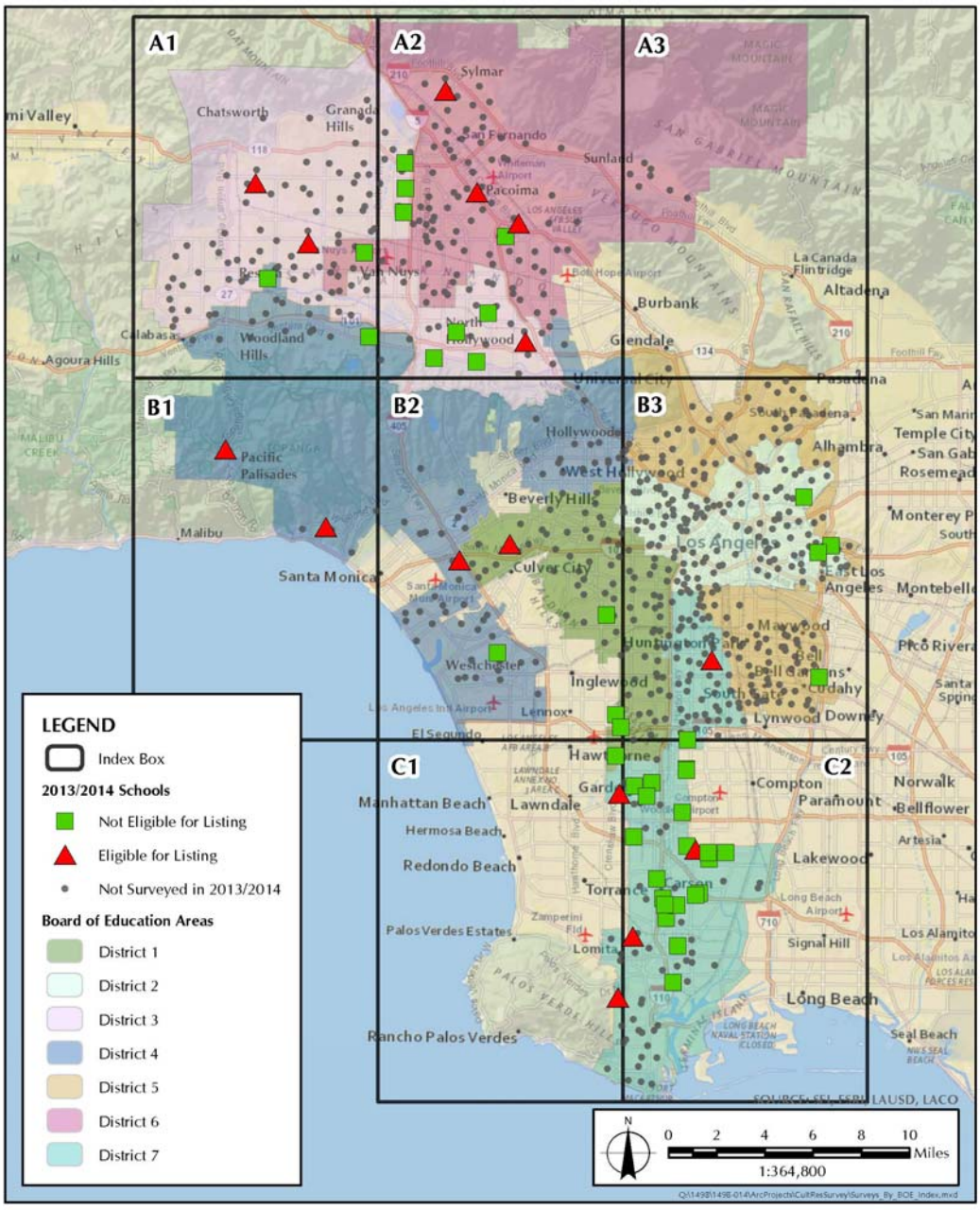


Figure 16a. District overview: Results of Los Angeles Unified School District Historic Resources Survey, 2013/2014. Source: Sapphos Environmental, Inc., 2014.

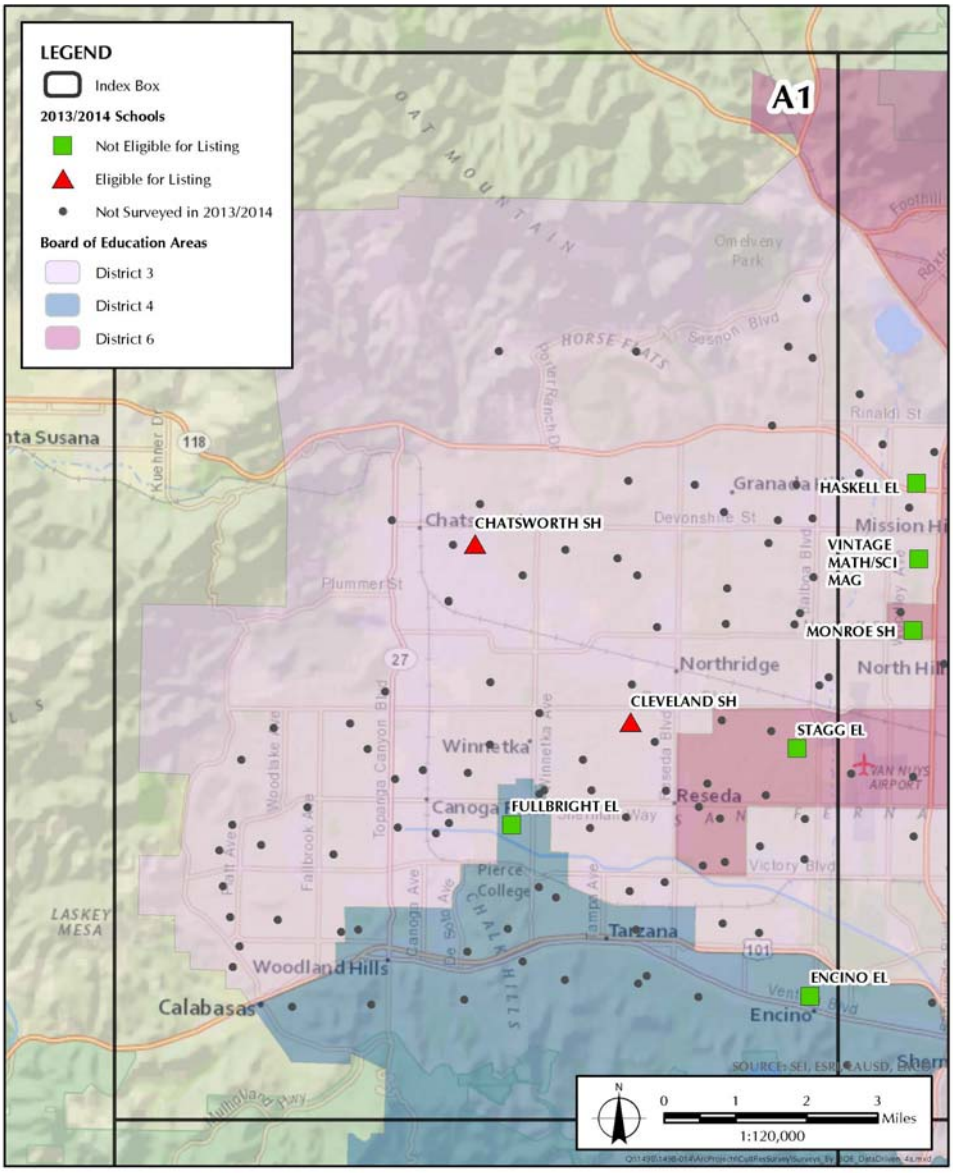


Figure 16b. Results, Map A1 (San Fernando Valley), Los Angeles Unified School District Historic Resources Survey, 2013/2014. Source: Sapphos Environmental, Inc., 2014.

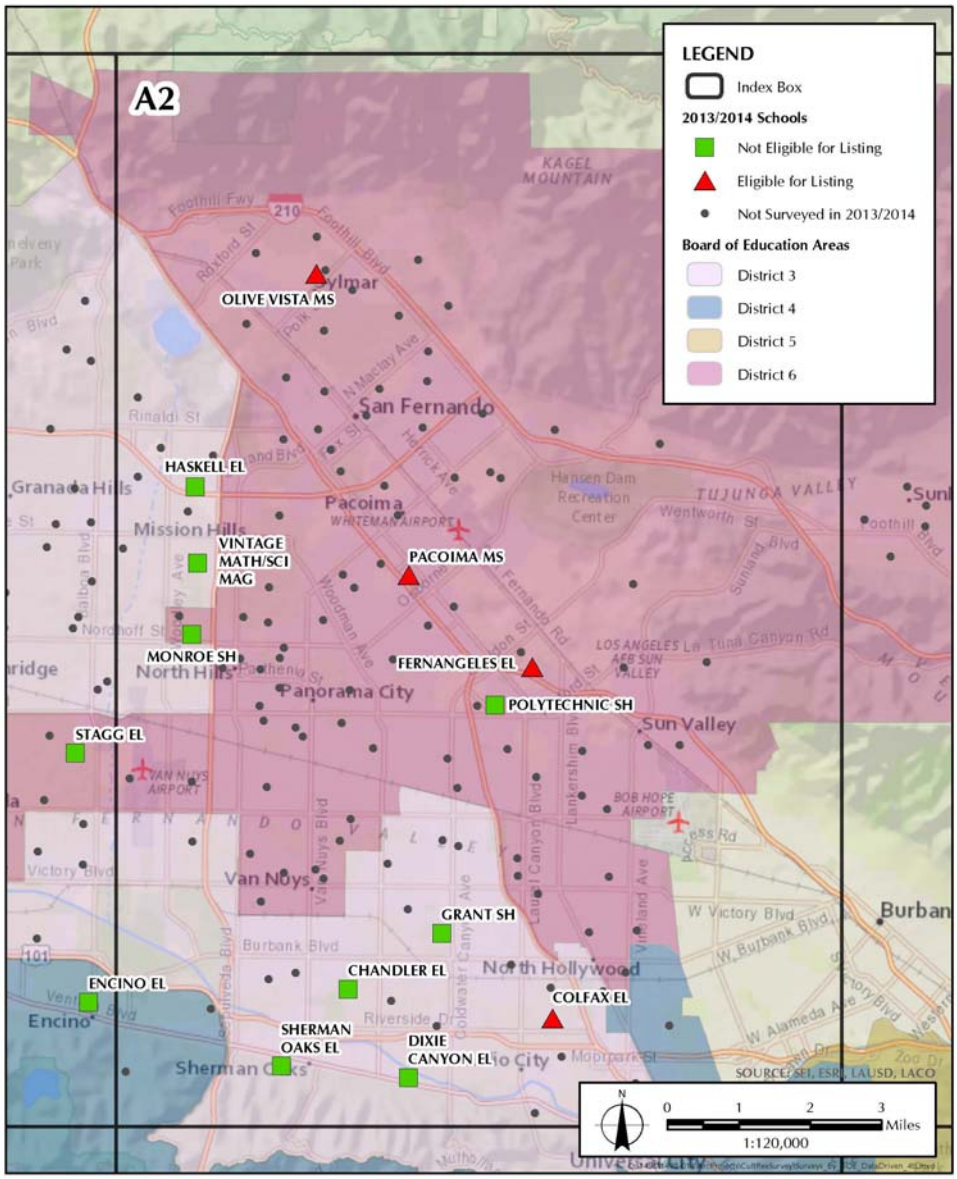


Figure 16c. Results, Map A2 (San Fernando Valley), Los Angeles Unified School District Historic Resources Survey, 2013/2014. Source: Sapphos Environmental, Inc., 2014.

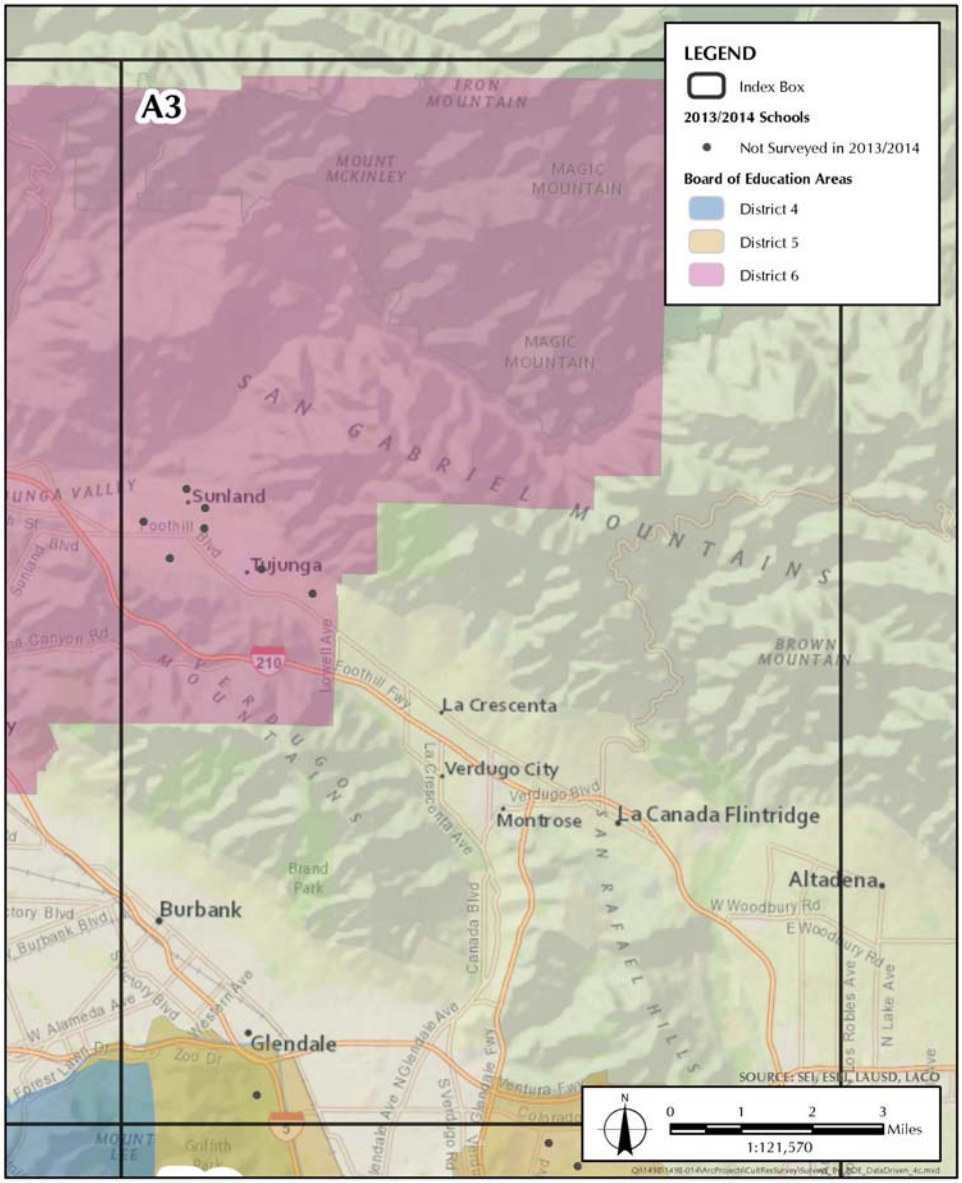


Figure 16d. Results, Map A3 (San Fernando Valley), Los Angeles Unified School District Historic Resources Survey, 2013/2014. Source: Sapphos Environmental, Inc., 2014.

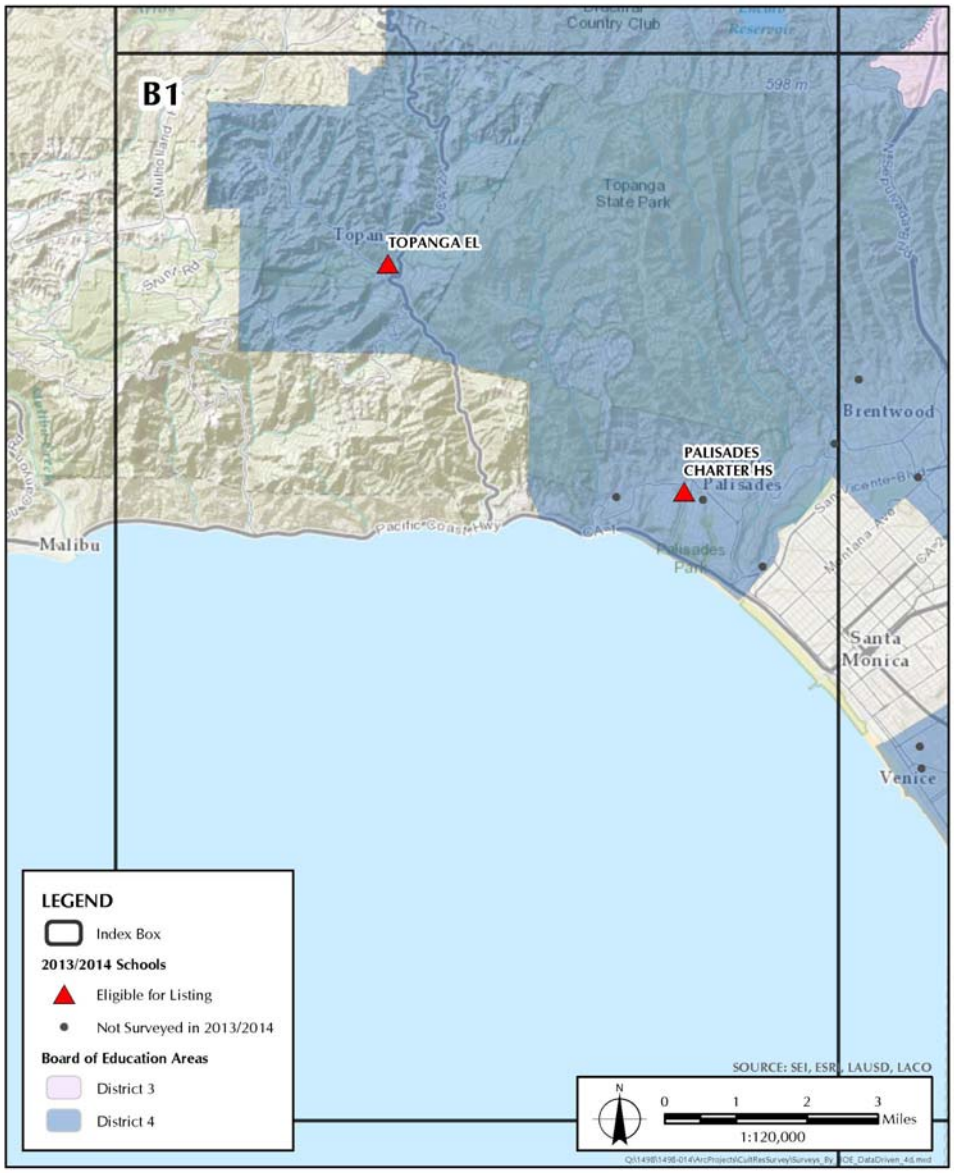


Figure 16e. Results, Map B1 (Topanga, Pacific Palisades), Los Angeles Unified School District Historic Resources Survey, 2013/2014. Source: Sapphos Environmental, Inc., 2014.

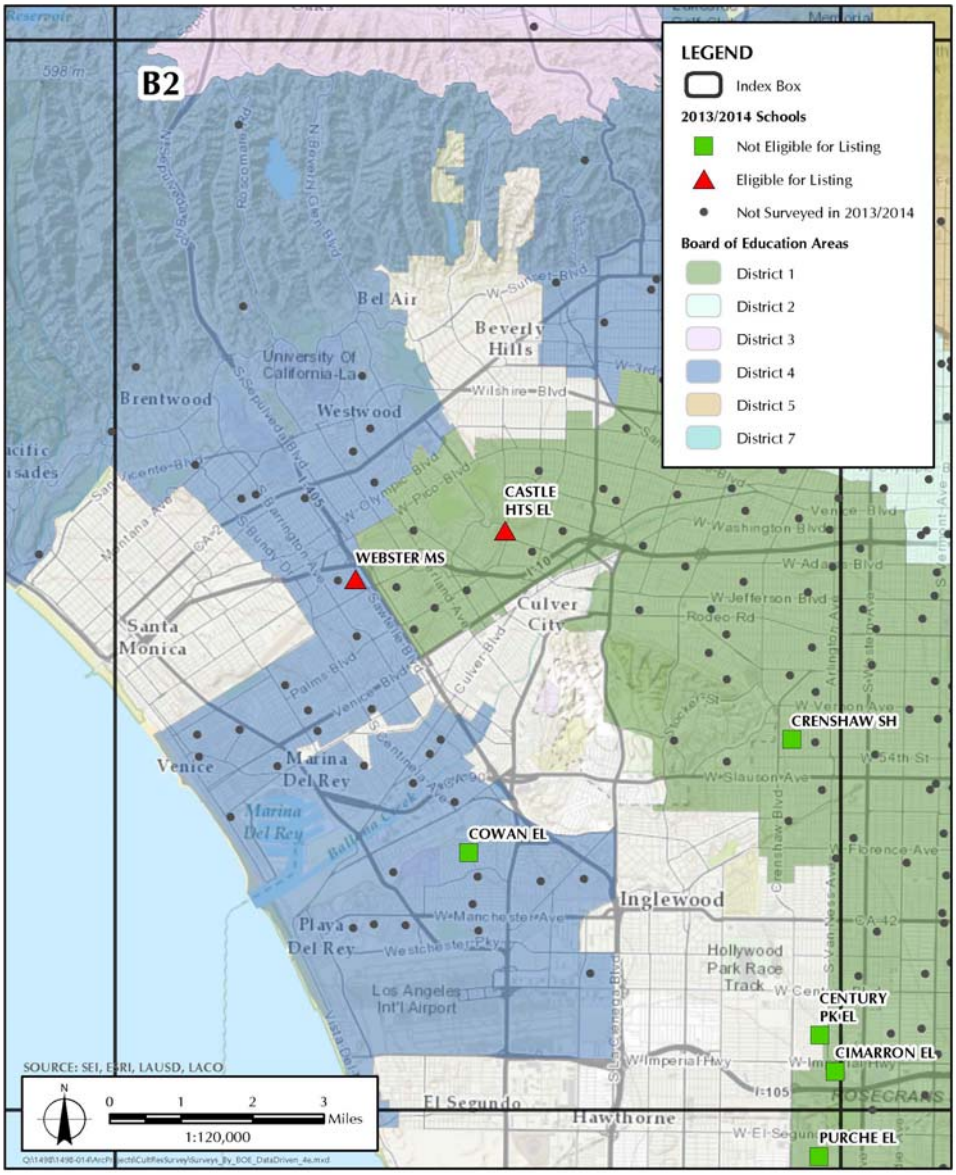


Figure 16f. Results, Map B2 (West Los Angeles), Los Angeles Unified School District Historic Resources Survey, 2013/2014. Source: Sapphos Environmental, Inc., 2014.

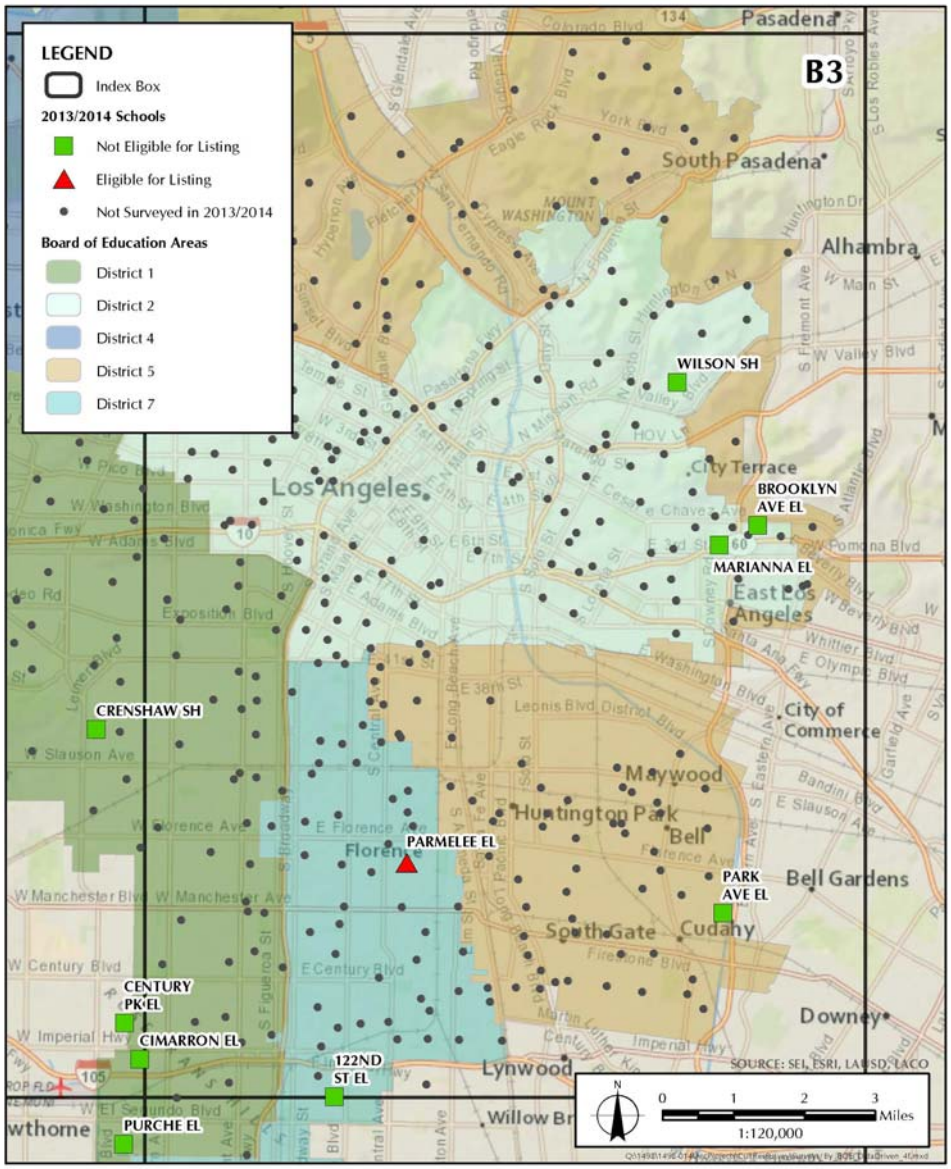


Figure 16g. Results, Map B3 (Central Los Angeles), Los Angeles Unified School District Historic Resources Survey, 2013/2014. Source: Sapphos Environmental, Inc., 2014.

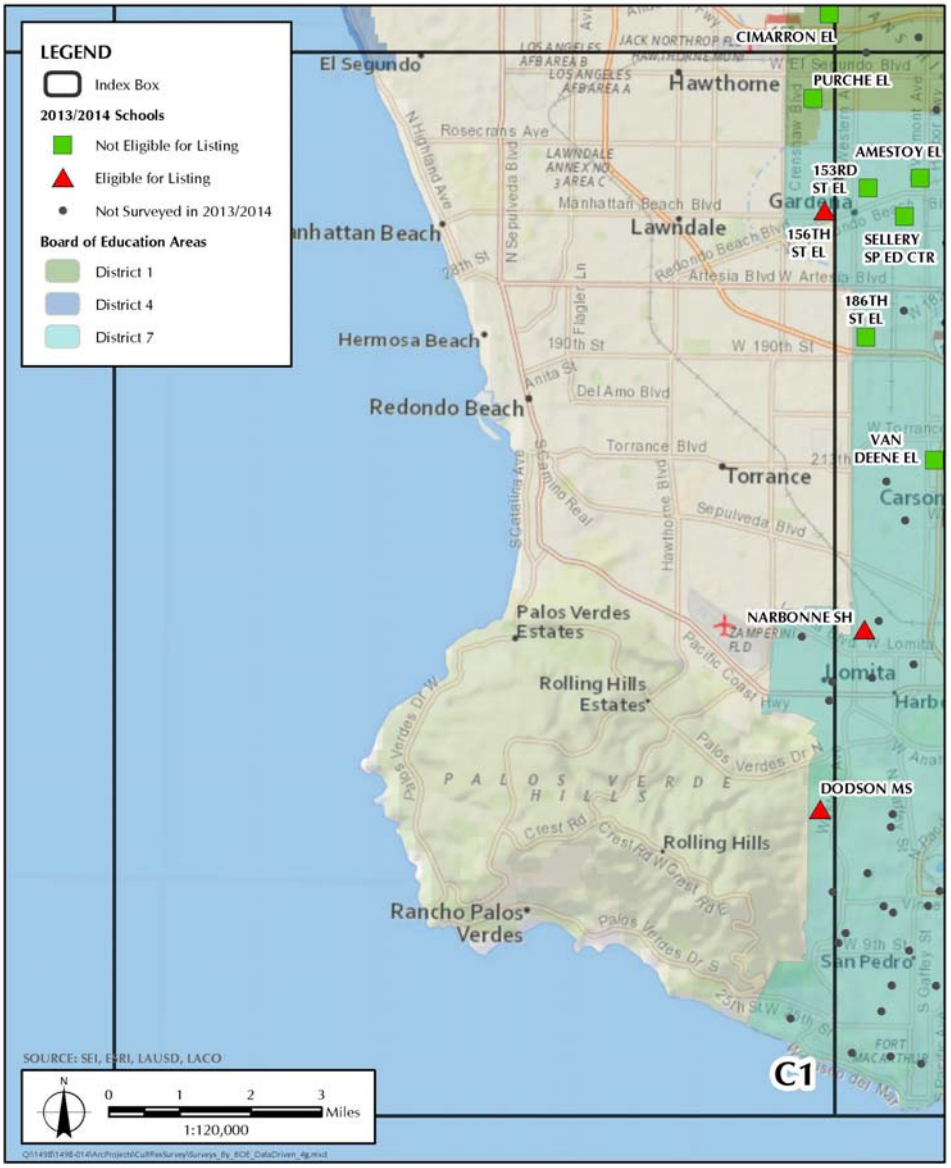


Figure 16h. Results, Map C1 (Palos Verdes, San Pedro), Los Angeles Unified School District Historic Resources Survey, 2013/2014. Source: Sapphos Environmental, Inc., 2014.

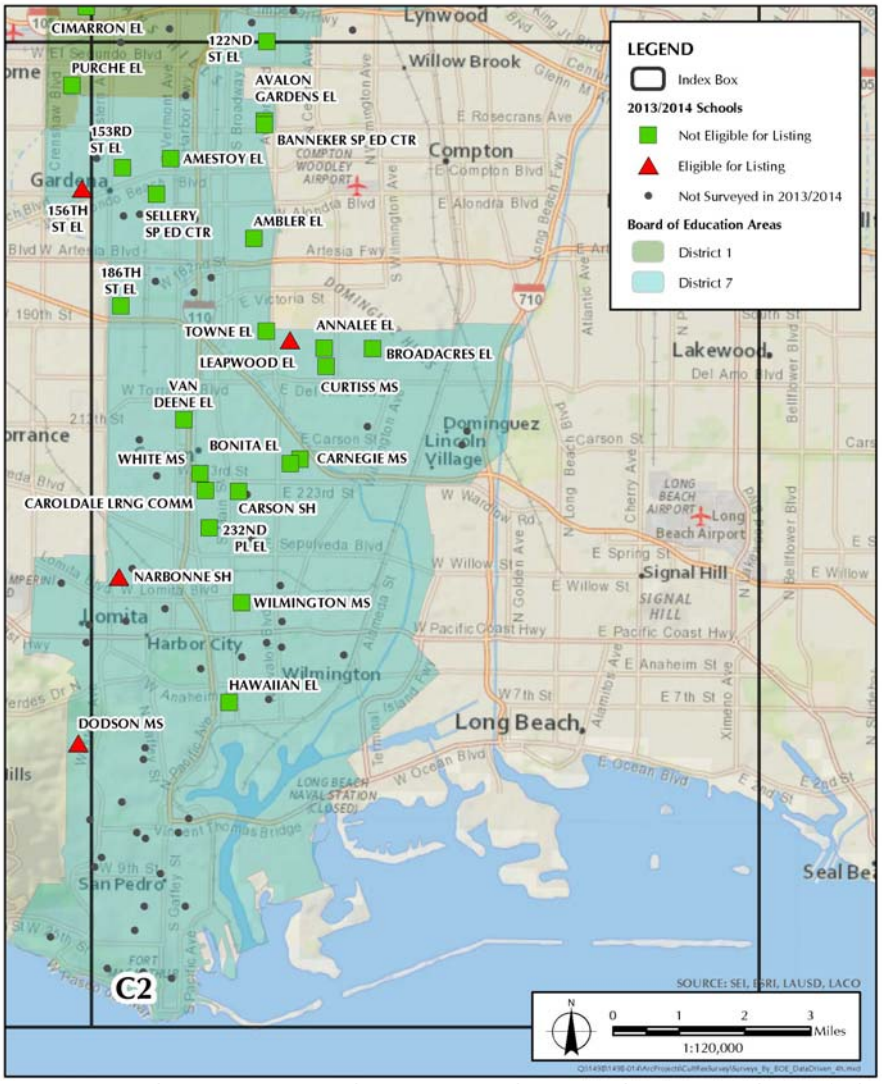


Figure 16i. Results, Map C2 (San Pedro, Carson, South Los Angeles), Los Angeles Unified School District Historic Resources Survey, 2013/2014. Source: Sapphos Environmental, Inc., 2014.

ELIGIBLE CAMPUSES: OVERVIEW

School Name: 156th Street Elementary School
Address: 2100 West 156th Street, Gardena
Date(s) of Construction: 1953
Architect/Designer: Unknown
Eligibility Criteria: CRHR 1
CHR Status Code: 3CD

Notes: Campus core appears eligible as a historic district under CRHR Criterion 1, in the context of institutional architecture/educational facilities in Los Angeles. Excellent and intact example of the standardized finger-plan school used throughout LAUSD in the postwar period. Exemplifies LAUSD design principles of the era. CRHR eligible only (due to alterations).

School Name: Castle Heights Elementary School
Address: 9755 Cattaraugus Avenue, Los Angeles
Date(s) of Construction: 1951
Architect/Designer: Unknown
Eligibility Criteria: CRHR 1
CHR Status Code: 3CD

Notes: Campus core appears eligible as a historic district under CRHR Criterion 1, in the context of institutional architecture/educational facilities in Los Angeles. Castle Heights Elementary School is an excellent example of a postwar indoor-outdoor LAUSD campus. Exemplifies LAUSD design principles of the postwar era.

School Name: Chatsworth Senior High School
Address: 10027 Lurline Avenue, Chatsworth
Date(s) of Construction: 1963
Architect/Designer: Unknown
Eligibility Criteria: NRHP 1, 3; CRHR A, C
CHR Status Code: 3D

Notes: The campus core appears eligible as a historic district under Criteria A/1, in the context of institutional architecture/educational facilities in Los Angeles. Excellent, intact example of postwar LAUSD school; exemplifies LAUSD design ideals and principles of the era. Also eligible as a historic district under Criteria C/3, as an excellent example of Mid-Century Modern design applied to institutional architecture. Some alterations, but intact and exceptional example that is eligible for the NRHP and CRHR.

School Name: Cleveland Senior High School
Address: 8140 Vanalden Avenue, Reseda
Date(s) of Construction: 1959–1960
Architect/Designer: Matcham and Granger & Associates
Eligibility Criteria: NRHP 1, 3; CRHR, A, C
CHR Status Code: 3D

Notes: The campus core appears eligible as a historic district under the NRHP and CRHR Criteria A/1, in the context of institutional architecture/educational facilities in Los Angeles. As an intact, indoor-outdoor finger- and cluster-plan school, Cleveland Senior High School exemplifies LAUSD design ideals and principles of the era. Also eligible as a historic district under Criteria 3, as an excellent example of Mid-Century Modern style applied to institutional architecture. Some alterations, but intact and exceptional example that is eligible for the NRHP and CRHR.

School Name: Colfax Avenue Elementary School
Address: 11724 Addison St., North Hollywood
Date(s) of Construction: 1950–1955
Architect/Designer: Unknown
Eligibility Criteria: CRHR 1
CHR Status Code: 3CD

Notes: Appears eligible as a historic district under CRHR Criterion 1, in the context of institutional architecture/educational facilities in Los Angeles. Colfax Avenue Elementary School is an excellent, intact example of an indoor-outdoor, postwar finger-plan school. Exemplifies LAUSD design ideals and principles of the era. Some replaced/filled-in windows and non-original hardscaping; CRHR eligible as historic district.

School Name: Dodson Middle School
Address: 28014 South Montereina Drive, Rancho Palos Verdes
Date(s) of Construction: 1960
Architect/Designer: Unknown
Eligibility Criteria: CRHR 1
CHR Status Code: 3CD

Notes: Campus core appears eligible as a historic district under CRHR Criterion 1, in the context of institutional architecture/educational facilities in Los Angeles. Excellent and intact example of an indoor-outdoor, postwar finger-plan school. Exemplifies LAUSD design principles of the era. CRHR eligible only (due to alterations).

School Name: Fernangeles Elementary School
Address: 12001 Art Street, Sun Valley
Date(s) of Construction: 1954
Architect/Designer: Unknown
Eligibility Criteria: CRHR 1
CHR Status Code: 3CD

Notes: Campus core appears eligible as a historic district under CRHR Criterion 1, in the context of institutional architecture/educational facilities in Los Angeles. Administration building and assembly room form a distinctive entrance to the school and architectural anchor for adjacent neighborhood. From the interior, these buildings frame a courtyard and outdoor dining area. Site design includes expansive central lawn with mature (original) trees. Due to alterations, CRHR eligible only.

School Name: Leapwood Avenue Elementary School
Address: 19302 Leapwood Avenue, Carson
Date(s) of Construction: 1962
Architect/Designer: Unknown
Eligibility Criteria: NRHP A; CRHR 1
CHR Status Code: 3D

Notes: Campus core appears eligible as a historic district under CRHR Criterion 1, in the context of institutional architecture/educational facilities in Los Angeles. Outstanding example of a one- and two-story school with a finger- and cluster-plan campus design.

School Name: Narbonne Senior High School
Address: 24300 South Western Avenue, Harbor City
Date(s) of Construction: 1955–1960
Architect/Designer: Daniel, Mann, Johnson & Mendenhall
Eligibility Criteria: CRHR 1
CHR Status Code: 3CD

Notes: Campus core appears eligible as a historic district under CRHR Criterion 1, in the context of institutional architecture/educational facilities in Los Angeles. Excellent, innovative example of postwar LAUSD school; exemplifies LAUSD design ideals and principles of the era. Some replaced / filled-in windows and non-original seismic supports. CRHR eligible only (due to alterations).

School Name: Pacoima II Middle School
Address: 9919; 9921 Laurel Canyon Boulevard, Pacoima
Date(s) of Construction: 1953 - 1957
Architect/Designer: Unknown
Eligibility Criteria: CRHR 1
CHR Status Code: 3CD

Notes: Campus core appears eligible as a historic district under CRHR Criterion 1, in the context of institutional architecture/educational facilities in Los Angeles. Excellent, intact example of postwar LAUSD school; exemplifies LAUSD design ideals and principles of the era. A number of alterations, including many filled-in / covered over clerestory windows, which has compromised the integrity of some classroom wings. CRHR eligible only (due to alterations). Site of a 1957 mid-air collision of two aircrafts.

School Name: Palisades Senior High School
Address: 15777 Bowdoin Street, Pacific Palisades
Date(s) of Construction: 1961
Architect/Designer: Adrian Wilson and Associates
Eligibility Criteria: NRHP 1, 3; CRHR, A, C
CHR Status Code: 3D

Notes: Campus core appears eligible as a historic district under Criteria A/1, in the context of institutional architecture/educational facilities in Los Angeles. Excellent, intact example of postwar LAUSD school; exemplifies LAUSD design ideals and principles of the era. Also eligible as a historic district under Criteria C/3, as an excellent example of Mid-Century Modern design (expressionist subtype) applied to institutional architecture in Los Angeles. Few visible alterations; eligible for NRHP and CRHR as historic district.

School Name: Parmelee Avenue Elementary School
Address: 1338 E. 76th Place, Los Angeles
Date(s) of Construction: 1962, 1964, 1965
Architect/Designer: Unknown
Eligibility Criteria: CRHR 1
CHR Status Code: 3CD

Notes: Campus core appears eligible as a historic district under CRHR Criterion 1, in the context of institutional architecture/educational facilities in Los Angeles. Outstanding example of a one- and two-story school with a cluster-plan campus design and ample indoor-outdoor integration. CRHR eligible only (due to alterations).

School Name: Topanga Elementary School
Address: 22075 Topanga School Road, Topanga
Date(s) of Construction: 1953, 1955
Architect/Designer: Unknown
Eligibility Criteria: NRHP 1, 3; CRHR, A, C
CHR Status Code: 3D

Notes: Campus core appears eligible as a historic district under Criteria A/1, in the context of institutional architecture/educational facilities in Los Angeles. Excellent, intact example of postwar LAUSD school; exemplifies LAUSD design ideals and principles of the era. Also eligible as a historic district under Criteria C/3 as an excellent example of the Mid-Century Modern style applied to institutional architecture.

School Name: Webster Middle School
Address: 11330 Graham Place, Los Angeles
Date(s) of Construction: 1954–1958
Architect/Designer: Building Dept., Los Angeles Board of Education
Eligibility Criteria: CRHR 1
CHR Status Code: 3CD

Notes: Campus core appears eligible as a historic district under CRHR Criterion 1, in the context of institutional architecture/educational facilities in Los Angeles. Outstanding example of a postwar, indoor-outdoor school employing an innovative site plan. CRHR eligible only (due to alterations).

INELIGIBLE CAMPUSES: OVERVIEW

School Name: 122nd Street Elementary School
Address: 405 East 122nd Street, Los Angeles
Date(s) of Construction: 1963
Architect/Designer: Unknown

Notes: Not eligible. In terms of the context of institutional architecture/educational facilities in Los Angeles, this campus is a typical but not outstanding example of a postwar LAUSD campus. Additionally, under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criterion 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

School Name: 153rd Street Elementary School
Address: 1605 W 153rd Street, Gardena
Date(s) of Construction: 1957–1958
Architect/Designer: Ain, Johnson & Day

Notes: Not eligible. This campus has many of the character-defining features of a postwar finger-plan school but not all the eligibility standards required under Criteria A/1 as an exemplification of LAUSD design ideals for postwar schools. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, this campus was designed by master architects Ain, Johnson & Day; however, the school plan and design overall do not stand out as an outstanding exemplar of the firm's work.

School Name: 186th Street Elementary School
Address: 1581 West 186th Street, Gardena
Date(s) of Construction: 1955–1962
Architect/Designer: John Kewell & Associates

Notes: Not eligible. Not typical of LAUSD design principles of the era; site design does not exhibit an exceptionally unified plan. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect. Displays some characteristics of Mid-Century Modern design, but the design does not rise to the level required for eligibility for either the NRHP or CRHR.

School Name: 232nd Place Elementary School
Address: 23240 Archibald Avenue, Carson
Date(s) of Construction: 1957–1968
Architect/Designer: A. Quincy Jones and Frederick E. Emmons & Associates; landscape architect Curtis Dixon Anderson

Notes: Not eligible. Campus and its classroom wings and buildings represent typical but not outstanding examples of a postwar finger-plan school. Lack of indoor-outdoor integration in campus plan; arcades are replaced with tunnel-like corridors. Represents the work of master architects A. Quincy Jones and Frederick E. Emmons & Associates, but is not an exceptional example of their many buildings throughout Southern California. The campus is not eligible under other applicable criteria.

School Name: Ambler Avenue Elementary School
Address: 319 East Sherman Drive, Carson
Date(s) of Construction: 1966
Architect/Designer: Unknown

Notes: Not eligible. Campus plan and buildings have many of the typical character-defining features of postwar LAUSD schools. However, the school does not qualify as an outstanding exemplification of postwar LAUSD design ideas. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

School Name: Amestoy Elementary School
Address: 1048 West 149th Street, Gardena
Date(s) of Construction: 1949–1957
Architect/Designer: Unknown

Notes: Not eligible. Not typical of LAUSD design principles of the era; site design does not exhibit an exceptionally unified plan. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

School Name: Annalee Avenue Elementary School
Address: 19410 South Annalee Avenue, Los Angeles
Date(s) of Construction: 1966–1967
Architect/Designer: Unknown

Notes: Not eligible. The school campus and buildings represent a typical but not exemplary embodiment of LAUSD design principles of the era. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

School Name: Avalon Gardens Elementary School
Address: 13940 South San Pedro Street, Los Angeles
Date(s) of Construction: 1948–1955
Architect/Designer: Unknown

Notes: Not eligible. This campus has many of the character-defining features of a postwar finger-plan school, but the range of construction dates, from 1948 to 1955, produced a campus plan that is not sufficiently unified to qualify under Criteria A/1 as an exemplification of LAUSD design ideals for postwar schools (under the context of institutional architecture/educational facilities in Los Angeles). In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

School Name: Banneker Special Education Center
Address: 14024 South San Pedro Street, Los Angeles
Date(s) of Construction: 1972–1978
Architect/Designer: Unknown

Notes: Not eligible. In terms of the context of institutional architecture/educational facilities in Los Angeles, the campus is not representative of LAUSD design principles of the era. Additionally, under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

School Name: Bonita Street Elementary School
Address: 21929 Bonita Street, Carson
Date(s) of Construction: 1958
Architect/Designer: Unknown

Notes: Not eligible. Campus plan and buildings have many of the typical character-defining features of postwar LAUSD schools. However, taken as a whole, the campus is a common but not outstanding exemplification of postwar LAUSD design ideas. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

School Name: Broadacres Elementary School
Address: 19424 South Broadacres Avenue, Carson
Date(s) of Construction: 1967
Architect/Designer: Unknown

Notes: Not eligible. In terms of the context of institutional architecture/educational facilities, the campus does not represent an outstanding example of LAUSD design principles of the era. Additionally, under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

School Name: Brooklyn Avenue Elementary School
Address: 4620 Cesar Chavez Avenue, Los Angeles
Date(s) of Construction: 1960–1975
Architect/Designer: Unknown

Notes: Not eligible. In terms of the context of institutional architecture/educational facilities in Los Angeles, the campus is not representative of LAUSD design principles of the era. Additionally, under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

School Name: Carnegie Middle School
Address: 21820 Bonita Street, Carson
Date(s) of Construction: 1965
Architect/Designer: Unknown

Notes: Not eligible. The campus overall is not typical of LAUSD design principles of the era. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

School Name: Caroldale Learning Community
Address: 22424 Caroldale Avenue, Carson
Date(s) of Construction: 1960–1969
Architect/Designer: Unknown

Notes: Not eligible. The campus overall is not typical of LAUSD design principles of the era. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

School Name: Carson Senior High School
Address: 22328 South Main Street, Carson
Date(s) of Construction: 1962–1969
Architect/Designer: Austin, Field, and Fry

Notes: Not eligible. Campus plan and buildings have many of the typical character-defining features of postwar LAUSD schools. However, taken as a whole, the campus is a common but not outstanding exemplification of postwar LAUSD design ideas. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

School Name: Century Park Elementary School
Address: 10935 South Spinning Avenue, Inglewood
Date(s) of Construction: 1948–1959
Architect/Designer: Unknown

Notes: Not eligible. Not typical of LAUSD design principles of the era; all of the original classrooms in addition to the auditorium are located in a single building; classrooms on double-loaded interior corridor. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

School Name: Chandler Elementary School
Address: 14030 Weddington Street, Van Nuys
Date(s) of Construction: 1949–1956
Architect/Designer: Unknown

Notes: Not eligible. Campus plan and buildings have many of the typical character-defining features of postwar LAUSD schools. However, taken as a whole, the campus is a common but not outstanding exemplification of postwar LAUSD design ideas. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

School Name: Cimarron Elementary School
Address: 11559 Cimarron Avenue, Los Angeles
Date(s) of Construction: 1953–1957
Architect/Designer: Unknown

Notes: Not eligible. The school campus and buildings represent a typical but not exemplary embodiment of LAUSD design principles of the era. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

School Name: Cowan Avenue Elementary School
Address: 7615 Cowan Avenue, Los Angeles
Date(s) of Construction: 1953–1958
Architect/Designer: Unknown

Notes: Not eligible. Campus plan and buildings have many of the typical character-defining features of postwar LAUSD schools. However, taken as a whole, the campus is a common but not outstanding exemplification of postwar LAUSD design ideas. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

School Name: Crenshaw Senior High School
Address: 5010 11th Avenue, Los Angeles
Date(s) of Construction: 1968
Architect/Designer: Unknown

Notes: Not eligible. Not typical of LAUSD design principles of the era. In terms of eligibility under Criteria A/1, research showed that construction of Crenshaw High School reflected post-Watts Riots investment in South Los Angeles schools. Research conducted within the parameters of the current scope, however, did not identify a broader, contextual pattern to justify eligibility under Criteria A/1 on this basis. In addition, research did not show that this campus was the site of a significant event. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

School Name: Curtiss Middle School
Address: 1254 East Helmick Street, Carson, Los Angeles
Date(s) of Construction: 1969
Architect/Designer: Unknown

Notes: Not eligible. The school campus and buildings represent a typical but not exemplary embodiment of LAUSD design principles of the era. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or work of a master architect.

School Name: Dixie Canyon Avenue Elementary School
Address: 4220 Dixie Canyon Avenue, Sherman Oaks
Date(s) of Construction: 1949–1961
Architect/Designer: Unknown

Notes: Not eligible. Campus plan and buildings have many of the typical character-defining features of postwar LAUSD schools. However, taken as a whole, the campus is a common but not outstanding exemplification of postwar LAUSD design ideas. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

School Name: Encino Elementary School
Address: 16941 Addison Street, Encino, Los Angeles
Date(s) of Construction: 1949–1961
Architect/Designer: Unknown

Notes: Not eligible. Campus plan and buildings have many of the typical character-defining features of postwar LAUSD schools. However, taken as a whole, the campus is a common but not outstanding exemplification of postwar LAUSD design ideas. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

School Name: Francis Polytechnic Senior High School
Address: 12431 Roscoe Boulevard, Sun Valley
Date(s) of Construction: 1957
Architect/Designer: Austin, Field, and Fry

Notes: Not eligible. Campus plan and buildings have many of the typical character-defining features of postwar LAUSD schools. However, taken as a whole, the campus is a common but not outstanding exemplification of postwar LAUSD design ideas. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

School Name: Fullbright Avenue Elementary School
Address: 6940 Fullbright Avenue, Canoga Park
Date(s) of Construction: 1954
Architect/Designer: Unknown

Notes: Not eligible. Campus plan and buildings have many of the typical character-defining features of postwar LAUSD schools. However, taken as a whole, the campus is a common but not outstanding exemplification of postwar LAUSD design ideas. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

School Name: Grant Senior High School
Address: 13000 Oxnard Street, Valley Glen
Date(s) of Construction: 1958–1964
Architect/Designer: J. E. Stanton and William F. Stockwell

Notes: Not eligible. Campus plan and buildings have many of the typical character-defining features of postwar LAUSD schools. However, taken as a whole, the campus is a common but not outstanding exemplification of postwar LAUSD design ideas. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design. Designed by prominent architectural firm, Stanton & Stockwell (J.E. Stanton & William F. Stockwell), but the school is not the most representative or intact example of the firm's work.

School Name: Haskell Avenue Elementary School
Address: 15850 Tulsa Street, Granada Hills
Date(s) of Construction: 1953–1965
Architect/Designer: Unknown

Notes: Not eligible. In terms of the context of institutional architecture/educational facilities in Los Angeles, this campus exhibits most of the character-defining features of the indoor-outdoor, finger-plan school constructed throughout LAUSD in the postwar period. However, due to alterations (primarily in-filled windows, altered window and door openings), the campus does not retain sufficient integrity to convey its period of significance.

School Name: Hawaiian Avenue Elementary School
Address: 540 Hawaiian Avenue, Wilmington
Date(s) of Construction: 1948–1966
Architect/Designer: Unknown

Notes: Not eligible. The campus overall is not typical of LAUSD design principles of the era. The 1948 Administration Building is noteworthy, but due to alterations (replaced windows), it does not retain integrity. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation.

In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

School Name: Marianna Elementary School
Address: 4215 East Gleason Street, Los Angeles
Date(s) of Construction: 1958–1964
Architect/Designer: Unknown

Notes: Not eligible. In terms of the context of institutional architecture/educational facilities in Los Angeles, this campus is a typical but not outstanding example of a postwar LAUSD campus. Additionally, under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

School Name: Monroe Senior High School
Address: 9229 North Haskell Avenue, North Hills
Date(s) of Construction: 1957
Architect/Designer: Heitschmidt and Thompson

Notes: Not eligible. Campus plan and buildings have many of the typical character-defining features of postwar LAUSD schools. However, taken as a whole, the campus is a common but not outstanding exemplification of postwar LAUSD design ideas. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

School Name: Park Avenue Elementary School
Address: 8020 Park Avenue, Cudahy
Date(s) of Construction: 1968
Architect/Designer: Unknown

Notes: Not eligible. In terms of the context of institutional architecture/educational facilities in Los Angeles, the campus is a common but not outstanding example of LAUSD design principles of the era. Additionally, under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

School Name: Purche Elementary School
Address: 13210 Purche Avenue, Gardena
Date(s) of Construction: 1957
Architect/Designer: Unknown

Notes: Not eligible. The school campus and buildings represent a typical but not exemplary embodiment of LAUSD design principles of the era. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

School Name: Sellery Special Education Center
Address: 15804 South Budlong Avenue, Gardena
Date(s) of Construction: 1961–1963
Architect/Designer: Unknown

Notes: This school was custom-built to serve a special needs population of children with severe handicaps. As such, the plan and building types vary from typical LAUSD plan typologies. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect. The school displays many character-defining features of the Mid-Century Modern architectural style. However, the school is not an outstanding or distinctive example of the Mid-Century Modern architectural style and does not qualify under Criteria C/3.

School Name: Sherman Oaks Elementary School
Address: 14755 Greenleaf Street, Sherman Oaks
Date(s) of Construction: 1948–1976
Architect/Designer: Unknown

Notes: Not eligible. Campus plan and buildings have many of the typical character-defining features of postwar LAUSD schools. However, taken as a whole, the campus is a common but not outstanding exemplification of postwar LAUSD design ideas. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

School Name: Stagg Street Elementary School
Address: 7839 Amestoy Avenue, Van Nuys
Date(s) of Construction: 1954–1958
Architect/Designer: Unknown

Notes: Not eligible. In terms of the context of institutional architecture/educational facilities in Los Angeles, this campus exhibits most of the character-defining features of the indoor-outdoor, finger-plan school constructed throughout LAUSD in the postwar period. However, due to alterations (primarily in-filled windows, altered window and door openings), the campus does not retain sufficient integrity to convey its period of significance.

School Name: Towne Avenue Elementary School
Address: 18924 Towne Avenue, Carson
Date(s) of Construction: 1958
Architect/Designer: Unknown

Notes: Not eligible. In terms of the context of institutional architecture/educational facilities in Los Angeles, this campus is a typical but not outstanding example of a postwar LAUSD campus. Additionally, under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

School Name: Van Deene Elementary School
Address: 826 West Javelin Street, Torrance
Date(s) of Construction: 1960–1965
Architect/Designer: Unknown

Notes: Not eligible; very typical but not outstanding example of LAUSD design ideals of the era. Appears to be drawn from one of the standardized plans for schools during this period. Not the site of significant event or representative of a significant pattern of development. Not an outstanding example of architectural design or the work of a master architect.

School Name: Vintage Street Elementary School (Vintage Street Fundamental Magnet School)
Address: 15848 Stare Street, North Hills
Date(s) of Construction: 1953
Architect/Designer: Unknown

Notes: Not eligible. In terms of the context of institutional architecture/educational facilities in Los Angeles, this campus exhibits most of the character-defining features of the indoor-outdoor, finger-plan school constructed throughout LAUSD in the postwar period. However, due to alterations (primarily in-filled windows, altered window and door openings, and changes to the design configuration of the entrance and auditorium), the campus does not retain sufficient integrity to convey its period of significance.

School Name: White Middle School
Address: 22102 South Figueroa Street, Carson
Date(s) of Construction: 1956
Architect/Designer: Unknown

Notes: Not eligible. Campus plan and buildings have many of the typical character-defining features of postwar LAUSD schools. However, taken as a whole, the campus is a common but not outstanding exemplification of postwar LAUSD design ideas. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

School Name: Wilmington II Middle School
Address: 1700 Gulf Avenue, Wilmington
Date(s) of Construction: 1951–1962
Architect/Designer: Unknown

Notes: Not eligible. The campus overall is not typical of LAUSD design principles of the era. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

School Name: Wilson Senior High School
Address: 4500 Multnomah Street, Los Angeles
Date(s) of Construction: 1970
Architect/Designer: Unknown

Notes: Not eligible. The campus overall is not typical of LAUSD design principles of the era. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.

V. UPDATED LAUSD HISTORIC RESOURCES INVENTORY

This section presents a tabulated version of the updated LAUSD Historic Resources Inventory. The inventory compiles results from the LAUSD Historic Resources Survey, 2013/2014, with eligibility findings from the 2001–2004 Phase 1 and Phase 2 Getty Historic Resources Surveys. The compiled results are presented in an Excel spreadsheet format and an Access Database format compatible with ArcGIS.

[This page left intentionally blank]

TABLE V-1
UPDATED LAUSD HISTORIC RESOURCES INVENTORY WITH COMPILED RESULTS FROM THE LAUSD HISTORIC RESOURCES SURVEY, 2013/2014, AND THE GETTY HISTORIC RESOURCES SURVEYS, 2001/2004

Assessor Parcel Number	LAUSD Campus #	Campus Name	School Type	Street #	Street Direction	Street Name	Street Type	City	ZIP	Principal Construction Dates: Start Date	Principal Construction Dates: End Date	Year Opened	Former Names & Dates	CR Status (2001-2004 Getty Surveys)	Evaluation Results / Notes	Found Eligible in 2013 / 2014 Survey?	CHR Status Code
4063-012-900	13673	**156th Street Elementary School**	ES	2100	W	156th	St	Gardena	90249	1953		1953		6Z/7N	Campus core appears eligible as a historic district under California Register Criterion 1, in the context of institutional architecture/educational facilities in Los Angeles. Excellent and intact example of the standardized indoor-outdoor, postwar finger-plan school used throughout LAUSD in the postwar period. Exemplifies LAUSD design principles of the era. California Register eligible only (due to alterations).	Yes	3CD
4308-019-900	13680	**Castle Heights Elementary School**	ES	9755		Cattaraugus	Ave	Los Angeles	90034	1951	1961	1951		6Z/7N	Campus core appears eligible as a historic district under California Register Criterion 1, in the context of institutional architecture/educational facilities in Los Angeles. Castle Heights Elementary School is an excellent example of a postwar, indoor-outdoor LAUSD campus. Exemplifies LAUSD design principles of the postwar era.	Yes	3CD
2355-013-900	13681	**Colfax Avenue Elementary School**	ES	11724		Addison	St	North Hollywood	91607	1950	1955	1951		6Z/7N	Campus core appears eligible as a historic district under California Register Criterion 1, in the context of institutional architecture/educational facilities in Los Angeles. Colfax Avenue Elementary School is an excellent, intact example of an indoor-outdoor, postwar finger-plan school. Exemplifies LAUSD design ideals and principles of the era. Some replaced/filled-in windows and non-original hardscaping; CRHR eligible as historic district.	Yes	3CD
2631-019-904	13594	**Fernangeles Elementary School**	ES	12001		Art	St	Sun Valley	91352	1948	1954	1946		6Z/7N	Campus core appears eligible as a historic district under California Register Criterion 1, in the context of institutional architecture/educational facilities in Los Angeles. Administration building and assembly room form a distinctive, 1950s-flavored entrance to the school and anchor for the residential community around it. From the interior, these two buildings frame a courtyard and outdoor dining area. Site design features buildings and facilities oriented around an expansive lawn with mature (original) trees. Due to alterations on many of the classrooms, however, including clerestories that have been covered and sheathed in stucco, contributing buildings appear eligible for the California Register only.	Yes	3CD
2505-025-900	13707	**Olive Vista Middle School**	MS	14600		Tyler	St	Sylmar	91342	1958	1968	1958		6Z/7N	Campus core appears eligible as a historic district under Criteria C/3, as an excellent example of Mid-Century Modern design applied to institutional architecture. The elements of the campus that are considered contributors are the complex of buildings and structures at the entrance of the campus on Tyler Street, consisting of the Administration Building, the Library, the Health and Counseling Building, and the entrance portal that unifies the northwest side of the campus and forms a distinctive 1950s Mid-Century Modern entrance. Because the other structures on	Yes	3CD

TABLE V-1
UPDATED LAUSD HISTORIC RESOURCES INVENTORY WITH COMPILED RESULTS FROM THE LAUSD HISTORIC RESOURCES SURVEY, 2013/2014, AND THE GETTY HISTORIC RESOURCES SURVEYS, 2001/2004

Assessor Parcel Number	LAUSD Campus #	Campus Name	School Type	Street #	Street Direction	Street Name	Street Type	City	ZIP	Principal Construction Dates: Start Date	Principal Construction Dates: End Date	Year Opened	Former Names & Dates	CR Status (2001-2004 Getty Surveys)	Evaluation Results / Notes	Found Eligible in 2013 / 2014 Survey?	CHR Status Code
															campus and the site plan are not outstanding examples of LAUSD design principles or architecture, California Register eligible only.		
2622-001-900	13750	**Pacoima II Middle School**	MS	9919; 9921		Laurel Canyon	Blvd	Pacoima	91331	1953	1957	1954	Pacoima Junior High School	6Z/7N	Campus core appears eligible as a historic district under California Register Criterion 1, in the context of institutional architecture/educational facilities in Los Angeles. Excellent, intact example of postwar LAUSD school; exemplifies LAUSD design ideals and principles of the era. A number of alterations, including many filled-in/stucco'd over clerestories, may compromise the integrity of some classroom wings. California Register eligible only (due to alterations).Site of infamous 1957 mid-air collision of two aircraft.	Yes	3CD
4258-016-900	13741	**Webster, Daniel Middle School**	MS	11330		Graham	Pl	Los Angeles	90064	1954	1958	1954	Richland JHS 1954	6Z/7N	Campus core appears eligible as a historic district under California Register Criterion 1, in the context of institutional architecture/educational facilities in Los Angeles. Excellent example of postwar LAUSD middle school campus; exemplifies LAUSD design ideals and principles of the era. Inventive site plan, with classroom wings radiating outward from a central circular core, and extensive network of arcades creates classroom spaces well integrated with designed outdoor spaces throughout the campus. Some alterations (to Auditorium and to some classroom wings, mostly consisting of in-filled windows). Eligible for CRHR as a district.	Yes	3CD
7552-017-900	13846	**Dodson Middle School (Rudecinda Sepulveda Dodson Middle School)**	MS	28014	S	Montereina	Dr	Rancho Palos Verdes	90275	1960		1960		N/A	Campus core appears eligible as a historic district under California Register Criterion 1, in the context of institutional architecture/educational facilities in Los Angeles. Excellent and intact example of an indoor-outdoor, postwar finger-plan school. Exemplifies LAUSD design principles of the era. California Register eligible only (due to alterations).	Yes	3CD
7439-015-900	13407	**Narbonne Senior High School**	SH	24300	S	Western	Ave	Harbor City	90710	1956		1938		N/A	Campus core appears eligible as a historic district under California Register Criterion 1, in the context of institutional architecture/educational facilities in Los Angeles. Excellent, intact example of postwar LAUSD school; exemplifies LAUSD design ideals and principles of the era. Highly inventive site plan, in the form of a spiral, allows for maximum indoor-outdoor integrated classrooms on compact, urban site. Some replaced/filled-in windows and seismic supports visible on building exteriors. California Register eligible only (due to alterations).	Yes	3CD

TABLE V-1
UPDATED LAUSD HISTORIC RESOURCES INVENTORY WITH COMPILED RESULTS FROM THE LAUSD HISTORIC RESOURCES SURVEY, 2013/2014, AND THE GETTY HISTORIC RESOURCES SURVEYS, 2001/2004

Assessor Parcel Number	LAUSD Campus #	Campus Name	School Type	Street #	Street Direction	Street Name	Street Type	City	ZIP	Principal Construction Dates: Start Date	Principal Construction Dates: End Date	Year Opened	Former Names & Dates	CR Status (2001-2004 Getty Surveys)	Evaluation Results / Notes	Found Eligible in 2013 / 2014 Survey?	CHR Status Code
6024-022-900	13815	**Parmelee Elementary School**	ES	1338	E	76th	Pl	Los Angeles	90001	1962	1965	1962		N/A	Campus core appears eligible as a historic district under California Register Criterion 1, in the context of institutional architecture/educational facilities in Los Angeles. Outstanding example of a one- and two-story school with a cluster-plan campus design and ample indoor-outdoor integration. California Register eligible only (due to alterations).	Yes	3CD
2741-002-900	13870	**Chatsworth Senior High School**	SH	10027		Lurline	Ave	Chatsworth	91311	1963		1963		N/A	Campus core appears eligible as a historic district under Criteria A/1, in the context of institutional architecture/educational facilities in Los Angeles. Excellent, intact example of postwar LAUSD school; exemplifies LAUSD design ideals and principles of the era. Inventive site plan, with classrooms radiating outward from a central landscaped quad. Also eligible as a historic district under Criteria C/3, as an excellent example of Mid-Century Modern design applied to institutional architecture. Some alterations, but intact and exceptional example that is eligible for both National Register and California Register.	Yes	3D
2104-004-905	13753	**Cleveland, Grover Senior High School**	SH	8140		Vanalden	Ave	Reseda	91335	1959	1960	1950		N/A	Campus core appears eligible as a historic district under National Register and California Register Criteria A/1, in the context of institutional architecture/educational facilities in Los Angeles. As an intact, indoor-outdoor finger-plan school, Cleveland Senior High School exemplifies LAUSD design ideals and principles of the era. Also eligible as a historic district under Criteria A/3, as an excellent example of Mid-Century Modern style applied to institutional architecture. Some replaced/filled-in windows and non-original hardscaping.	Yes	3D
7321-018-900	13817	**Leapwood Elementary School**	ES	19302		Leapwood	Ave	Carson	90746	1962		1963		N/A	Campus core appears eligible as a historic district under National Register and California Register Criteria A/1, in the context of institutional architecture/educational facilities in Los Angeles. Outstanding example of a one- and two-story school with a cluster-plan campus design and ample indoor-outdoor integration. Few visible alterations.	Yes	3D
4413-021-905	13742	**Palisades Charter Senior High School**	SH	15777		Bowdoin	St	Pacific Palisades	90272	1961		1958		N/A	Campus core appears eligible as a historic district under Criteria A/1, in the context of institutional architecture/educational facilities in Los Angeles. Excellent, intact example of postwar LAUSD school; exemplifies LAUSD design ideals and principles of the era. Also eligible as a historic district under Criteria C/3, as an excellent example of Mid-Century Modern design (expressionist subtype) applied to institutional architecture in Los Angeles. Few visible alterations; eligible for National Register and California Register as historic district.	Yes	3D
4445-	13816	**Topanga Charter**	ES	22075		Topanga	Rd	Topanga	90290	1953	1955	1940		N/A	Campus core appears eligible as a historic district	Yes	3D

TABLE V-1
UPDATED LAUSD HISTORIC RESOURCES INVENTORY WITH COMPILED RESULTS FROM THE LAUSD HISTORIC RESOURCES SURVEY, 2013/2014, AND THE GETTY HISTORIC RESOURCES SURVEYS, 2001/2004

Assessor Parcel Number	LAUSD Campus #	Campus Name	School Type	Street #	Street Direction	Street Name	Street Type	City	ZIP	Principal Construction Dates: Start Date	Principal Construction Dates: End Date	Year Opened	Former Names & Dates	CR Status (2001-2004 Getty Surveys)	Evaluation Results / Notes	Found Eligible in 2013 / 2014 Survey?	CHR Status Code
005-902		**Elementary School**				School									under Criteria A/1, in the context of institutional architecture/educational facilities in Los Angeles. Excellent, intact example of postwar LAUSD school; exemplifies LAUSD design ideals and principles of the era. Also eligible as a historic district under Criteria C/3 as an excellent example of the Mid-Century Modern style applied to institutional architecture.		
6103-017-900	13812	**153rd Street Elementary School**	ES	1605	W	153rd	St	Gardena	90247	1957	1958	1956		6Z/7N	Not eligible. This campus has many of the character-defining features of a postwar finger-plan school but not all the eligibility standards required under Criteria A/1 as an exemplification of LAUSD design ideals for postwar schools. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, this campus was designed by master architects Ain, Johnson & Day; however, the school plan and design overall do not stand out as an outstanding exemplar of the firm's work.	No	6Z
6108-003-900	13303	**186th Street Elementary School**	ES	1581	W	186th	St	Gardena	90248	1955	1962	1907	McKinley Home 1907; 182nd St 1924; 184th St 1925	6Z/7N	Not eligible. Not typical of LAUSD design principles of the era; site design does not exhibit an exceptionally unified plan. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect. Displays some characteristics of Mid-Century Modern design, but the design does not rise to the level required for eligibility for either the National Register or California Register.	No	6Z
6114-030-902	13426	**Amestoy Elementary School**	ES	1048	W	149th	St	Gardena	90247	1949	1957	1915	Amestoy Avenue 1915	6Z/7N	Not eligible. Not typical of LAUSD design principles of the era; site design does not exhibit an exceptionally unified plan. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural	No	6Z

TABLE V-1
UPDATED LAUSD HISTORIC RESOURCES INVENTORY WITH COMPILED RESULTS FROM THE LAUSD HISTORIC RESOURCES SURVEY, 2013/2014, AND THE GETTY HISTORIC RESOURCES SURVEYS, 2001/2004

Assessor Parcel Number	LAUSD Campus #	Campus Name	School Type	Street #	Street Direction	Street Name	Street Type	City	ZIP	Principal Construction Dates: Start Date	Principal Construction Dates: End Date	Year Opened	Former Names & Dates	CR Status (2001-2004 Getty Surveys)	Evaluation Results / Notes	Found Eligible in 2013 / 2014 Survey?	CHR Status Code
															design or the work of a master architect.		
6131-013-900	13618	**Avalon Gardens Elementary School**	ES	13940	S	San Pedro	St	Los Angeles	90061	1948	1955	1952		6Z/7N	Not eligible. This campus has many of the character-defining features of a postwar finger-plan school, but the range of construction dates, from 1948 to 1955, produced a campus plan that is not sufficiently unified to qualify under Criteria A/1 as an exemplification of LAUSD design ideals for postwar schools (under the context of institutional architecture/educational facilities in Los Angeles). In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.	No	6Z
4029-021-900	13675	**Century Park Elementary School**	ES	10935	S	Spinning	Ave	Inglewood	90303	1948	1959	1947		6Z/7N	Not eligible. Not typical of LAUSD design principles of the era; all of the original classrooms in addition to the auditorium are located in a single building; classrooms on double-loaded interior corridor. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.	No	6Z
2247-020-900	13619	**Chandler Elementary School**	ES	14030		Weddington	St	Van Nuys	91401	1949	1956	1949		6Z/7N	Not eligible. Campus plan and buildings have many of the typical character-defining features of postwar LAUSD schools. However, taken as a whole, the campus is a common but not outstanding exemplification of postwar LAUSD design ideas. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.	No	6Z

TABLE V-1
UPDATED LAUSD HISTORIC RESOURCES INVENTORY WITH COMPILED RESULTS FROM THE LAUSD HISTORIC RESOURCES SURVEY, 2013/2014, AND THE GETTY HISTORIC RESOURCES SURVEYS, 2001/2004

Assessor Parcel Number	LAUSD Campus #	Campus Name	School Type	Street #	Street Direction	Street Name	Street Type	City	ZIP	Principal Construction Dates: Start Date	Principal Construction Dates: End Date	Year Opened	Former Names & Dates	CR Status (2001-2004 Getty Surveys)	Evaluation Results / Notes	Found Eligible in 2013 / 2014 Survey?	CHR Status Code
4110-016-900	13622	**Cowan Avenue Elementary School**	ES	7615		Cowan	Ave	Los Angeles	90045	1953	1958	1949		6Z/7N	Not eligible. Campus plan and buildings have many of the typical character-defining features of postwar LAUSD schools. However, taken as a whole, the campus is a common but not outstanding exemplification of postwar LAUSD design ideas. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.	No	6Z
2360-011-900	13677	**Dixie Canyon Avenue**	ES	4220		Dixie Canyon	Ave	Sherman Oaks	91423	1949	1961	1947		6Z/7N	Not eligible. Campus plan and buildings have many of the typical character-defining features of postwar LAUSD schools. However, taken as a whole, the campus is a common but not outstanding exemplification of postwar LAUSD design ideas. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.	No	6Z
2258-016-902	13500	**Encino Elementary School**	ES	16941		Addison	St	Encino	91316	1947	1961	1923		6Z/7N	Not eligible. Campus plan and buildings have many of the typical character-defining features of postwar LAUSD schools. However, taken as a whole, the campus is a common but not outstanding exemplification of postwar LAUSD design ideas. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.	No	6Z

TABLE V-1
UPDATED LAUSD HISTORIC RESOURCES INVENTORY WITH COMPILED RESULTS FROM THE LAUSD HISTORIC RESOURCES SURVEY, 2013/2014, AND THE GETTY HISTORIC RESOURCES SURVEYS, 2001/2004

Assessor Parcel Number	LAUSD Campus #	Campus Name	School Type	Street #	Street Direction	Street Name	Street Type	City	ZIP	Principal Construction Dates: Start Date	Principal Construction Dates: End Date	Year Opened	Former Names & Dates	CR Status (2001-2004 Getty Surveys)	Evaluation Results / Notes	Found Eligible in 2013 / 2014 Survey?	CHR Status Code
2136-009-900	13661	**Fullbright Avenue Elementary School**	ES	6940		Fullbright	Ave	Canoga Park	91306	1954	1954	1955		6Z/7N	Not eligible. Campus plan and buildings have many of the typical character-defining features of postwar LAUSD schools. However, taken as a whole, the campus is a common but not outstanding exemplification of postwar LAUSD design ideas. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.	No	6Z
2667-020-900	13736	**Haskell Avenue Elementary School**	ES	15850		Tulsa	St	Granada Hills	91344	1953	1965	1956	Haskell Avenue 1956	6Z/7N	Not eligible. In terms of the context of institutional architecture/educational facilities in Los Angeles, this campus exhibits most of the character-defining features of the indoor-outdoor, finger-plan school constructed throughout LAUSD in the postwar period. However, due to alterations (primarily in-filled windows, altered window and door openings), the campus does not retain sufficient integrity to convey its period of significance.	No	6Z
7417-012-900	13648	**Hawaiian Avenue Elementary School**	ES	540		Hawaiian	Ave	Wilmington	90744	1948	1966	1942	Hawaiian Avenue School	6Z/7N	Not eligible. The campus overall is not typical of LAUSD design principles of the era. The 1948 Administration Building is noteworthy but, due to alterations (replaced windows), it does not retain integrity. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.	No	6Z
2276-012-902	13517	**Sherman Oaks Elementary School**	ES	14755		Greenleaf	St	Sherman Oaks	91403	1948	1976	1924	Cahuenga Park 1924; Dickens Street 1929	6Z/7N	Not eligible. Campus plan and buildings have many of the typical character-defining features of postwar LAUSD schools. However, taken as a whole, the campus is a common but not outstanding exemplification of postwar LAUSD design ideas. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state,	No	6Z

TABLE V-1
UPDATED LAUSD HISTORIC RESOURCES INVENTORY WITH COMPILED RESULTS FROM THE LAUSD HISTORIC RESOURCES SURVEY, 2013/2014, AND THE GETTY HISTORIC RESOURCES SURVEYS, 2001/2004

Assessor Parcel Number	LAUSD Campus #	Campus Name	School Type	Street #	Street Direction	Street Name	Street Type	City	ZIP	Principal Construction Dates: Start Date	Principal Construction Dates: End Date	Year Opened	Former Names & Dates	CR Status (2001-2004 Getty Surveys)	Evaluation Results / Notes	Found Eligible in 2013 / 2014 Survey?	CHR Status Code
															or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.		
2204-014-900	13722	**Stagg Street Elementary School**	ES	7839		Amestoy	Ave	Van Nuys	91406	1954	1958	1953		6Z/7N	Not eligible. In terms of the context of institutional architecture/educational facilities in Los Angeles, this campus exhibits most of the character-defining features of the indoor-outdoor, finger-plan school constructed throughout LAUSD in the postwar period. However, due to alterations (primarily in-filled windows, altered window and door openings), the campus does not retain sufficient integrity to convey its period of significance.	No	6Z
2669-015-900	13694	**Vintage Street Elementary School (Vintage Street Fundamental Magnet School)**	ES	15848		Stare	St	North Hills	91343	1953	1955	1955	Vintage Street 1955	6Z/7N	Not eligible. In terms of the context of institutional architecture/educational facilities in Los Angeles, this campus exhibits most of the character-defining features of the indoor-outdoor, finger-plan school constructed throughout LAUSD in the postwar period. However, due to alterations (primarily in-filled windows, altered window and door openings, and changes to the design configuration of the entrance and Auditorium), the campus does not retain sufficient integrity to convey its period of significance.	No	6Z
7414-008-900	13538	**Wilmington II Middle School**	MS	1700		Gulf	Ave	Wilmington	90744	1951	1962	1949		6Z/7N	Not eligible. The campus overall is not typical of LAUSD design principles of the era. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.	No	6Z
6086-021-906	13868	**122nd Street Elementary School**	ES	405	E	122nd	St	Los Angeles	90061	1963	1963	1963		N/A	Not eligible. In terms of the context of institutional architecture/educational facilities in Los Angeles, this campus is a typical but not outstanding example of a postwar LAUSD campus. Additionally, under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.	No	6Z

TABLE V-1
UPDATED LAUSD HISTORIC RESOURCES INVENTORY WITH COMPILED RESULTS FROM THE LAUSD HISTORIC RESOURCES SURVEY, 2013/2014, AND THE GETTY HISTORIC RESOURCES SURVEYS, 2001/2004

Assessor Parcel Number	LAUSD Campus #	Campus Name	School Type	Street #	Street Direction	Street Name	Street Type	City	ZIP	Principal Construction Dates: Start Date	Principal Construction Dates: End Date	Year Opened	Former Names & Dates	CR Status (2001-2004 Getty Surveys)	Evaluation Results / Notes	Found Eligible in 2013 / 2014 Survey?	CHR Status Code
7363-020-900	13709	**232nd Place Elementary School**	ES	23240		Archibald	Ave	Carson	90745	1957	1968	1953		N/A	Not eligible. Campus and its classroom wings and buildings represent typical but not outstanding examples of a postwar finger-plan school. Lack of indoor-outdoor integration in campus plan; arcades are replaced with tunnel-like corridors. Represents the work of master architects A. Quincy Jones and Frederick E. Emmons & Associates but is not an exceptional example of their many buildings throughout Southern California. The campus is not eligible under other applicable criteria.	No	6Z
6126-012-900	13833	**Ambler Avenue Elementary School**	ES	319	E	Sherman	Dr	Carson	90746	1966		1966		N/A	Not eligible. Campus plan and buildings have many of the typical character-defining features of postwar LAUSD schools. However, the school does not qualify as an outstanding exemplification of postwar LAUSD design ideas. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.	No	6Z
7322-005-900	13760	**Annalee Avenue Elementary School**	ES	19410	S	Annalee	Ave	Los Angeles	90746	1966	1967	1965		N/A	Not eligible. The school campus and buildings represent a typical but not exemplary embodiment of LAUSD design principles of the era. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding/distinctive example of architectural design or the work of a master architect.	No	6Z
6131-013-900		**Banneker Special Education Center**		14024	S	San Pedro	St	Los Angeles	90061	1972	1978	1968	Alternate/former name Benjamin Banneker School	N/A	Not eligible. In terms of the context of institutional architecture/educational facilities in Los Angeles, the campus is not representative of LAUSD design principles of the era. Additionally, under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.	No	6Z

TABLE V-1
UPDATED LAUSD HISTORIC RESOURCES INVENTORY WITH COMPILED RESULTS FROM THE LAUSD HISTORIC RESOURCES SURVEY, 2013/2014, AND THE GETTY HISTORIC RESOURCES SURVEYS, 2001/2004

Assessor Parcel Number	LAUSD Campus #	Campus Name	School Type	Street #	Street Direction	Street Name	Street Type	City	ZIP	Principal Construction Dates: Start Date	Principal Construction Dates: End Date	Year Opened	Former Names & Dates	CR Status (2001-2004 Getty Surveys)	Evaluation Results / Notes	Found Eligible in 2013 / 2014 Survey?	CHR Status Code
7332-003-900	13796	**Bonita Street Elementary School**	ES	21929		Bonita	St	Carson	90745	1958	1958	1958		N/A	Not eligible. Campus plan and buildings have many of the typical character-defining features of postwar LAUSD schools. However, taken as a whole, the campus is a common but not outstanding exemplification of postwar LAUSD design ideas. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.	No	6Z
7320-013-900	13837	**Broadacres Elementary School**	ES	19424	S	Broadacres	Ave	Carson	90746	1967	1967	1967		N/A	Not eligible. In terms of the context of institutional architecture/educational facilities, the campus does not represent an outstanding example of LAUSD design principles of the era. Additionally, under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.	No	6Z
5235-021-906	13471	**Brooklyn Avenue Elementary School**	ES	4620		Cesar Chavez	Ave	Los Angeles	90022	1960	1975	1922		N/A	Not eligible. In terms of the context of institutional architecture/educational facilities in Los Angeles, the campus is not representative of LAUSD design principles of the era. Additionally, under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.	No	6Z
7332-004-901	13761	**Carnegie Middle School**	MS	21820		Bonita	St	Carson	90745	1965		1965		N/A	Not eligible. The campus overall is not typical of LAUSD design principles of the era. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In	No	6Z

TABLE V-1
UPDATED LAUSD HISTORIC RESOURCES INVENTORY WITH COMPILED RESULTS FROM THE LAUSD HISTORIC RESOURCES SURVEY, 2013/2014, AND THE GETTY HISTORIC RESOURCES SURVEYS, 2001/2004

Assessor Parcel Number	LAUSD Campus #	Campus Name	School Type	Street #	Street Direction	Street Name	Street Type	City	ZIP	Principal Construction Dates: Start Date	Principal Construction Dates: End Date	Year Opened	Former Names & Dates	CR Status (2001-2004 Getty Surveys)	Evaluation Results / Notes	Found Eligible in 2013 / 2014 Survey?	CHR Status Code
															terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.		
7341-024-900	13843	**Caroldale Learning Community**	ES	22424		Caroldale	Ave	Carson	90745	1960	1969	1960		N/A	Not eligible. The campus overall is not typical of LAUSD design principles of the era. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.	No	6Z
7333-001-900	13869	**Carson Senior High School**	SH	22328	S	Main	St	Carson	90745	1962	1969	1962		N/A	Not eligible. Campus plan and buildings have many of the typical character-defining features of postwar LAUSD schools. However, taken as a whole, the campus is a common but not outstanding exemplification of postwar LAUSD design ideas. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.	No	6Z
4057-005-900	13660	**Cimarron Elementary School**	ES	11559		Cimarron	Ave	Los Angeles	90044	1953	1957	1955		N/A	Not eligible. The school campus and buildings represent a typical but not exemplary embodiment of LAUSD design principles of the era. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.	No	6Z
5014-001-922	13766	**Crenshaw**	SH	5010		11TH	Ave	Los Angeles	90043	1968	1968	1968		N/A	Not eligible. Not typical of LAUSD design principles of the era. In terms of eligibility under Criteria A/1, research showed that construction of Crenshaw High School reflected post-Watts Riots investment in South Los Angeles schools. Given project limitations and	No	6Z

TABLE V-1
UPDATED LAUSD HISTORIC RESOURCES INVENTORY WITH COMPILED RESULTS FROM THE LAUSD HISTORIC RESOURCES SURVEY, 2013/2014, AND THE GETTY HISTORIC RESOURCES SURVEYS, 2001/2004

Assessor Parcel Number	LAUSD Campus #	Campus Name	School Type	Street #	Street Direction	Street Name	Street Type	City	ZIP	Principal Construction Dates: Start Date	Principal Construction Dates: End Date	Year Opened	Former Names & Dates	CR Status (2001-2004 Getty Surveys)	Evaluation Results / Notes	Found Eligible in 2013 / 2014 Survey?	CHR Status Code
															scope, however, research did not identify a broader, contextual pattern to justify eligibility under Criteria A/1. In addition, research did not show that this campus was the site of a significant event. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.		
7380-004-900	13775	**Curtiss Middle School**	MS	1254	E	Helmick	St	Carson	90746	1969	1969	1969		N/A	Not eligible. The school campus and buildings represent a typical but not exemplary embodiment of LAUSD design principles of the era. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.	No	6Z
2634-019-900	13734	**Francis, John H., Polytechnic Senior High School**	SH	12431		Roscoe	Blvd	Sun Valley	91352	1957	1957	1957	Los Angeles Commercial High School, 1900; Los Angeles Polytechnic High, 1905-1953 (LAT, Oct 14, 1956)	N/A	Not eligible. Campus plan and buildings have many of the typical character-defining features of postwar LAUSD schools. However, taken as a whole, the campus is a common but not outstanding exemplification of postwar LAUSD design ideas. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.	No	6Z
2341-024-900	13674	**Grant, Ulysses S. Senior High School**	SH	13000		Oxnard	St	Valley Glen	91401	1958	1964	1958		N/A	Not eligible. Campus plan and buildings have many of the typical character-defining features of postwar LAUSD schools. However, taken as a whole, the campus is a common but not outstanding exemplification of postwar LAUSD design ideas. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated	No	6Z

TABLE V-1
UPDATED LAUSD HISTORIC RESOURCES INVENTORY WITH COMPILED RESULTS FROM THE LAUSD HISTORIC RESOURCES SURVEY, 2013/2014, AND THE GETTY HISTORIC RESOURCES SURVEYS, 2001/2004

Assessor Parcel Number	LAUSD Campus #	Campus Name	School Type	Street #	Street Direction	Street Name	Street Type	City	ZIP	Principal Construction Dates: Start Date	Principal Construction Dates: End Date	Year Opened	Former Names & Dates	CR Status (2001-2004 Getty Surveys)	Evaluation Results / Notes	Found Eligible in 2013 / 2014 Survey?	CHR Status Code
															with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design. Designed by prominent architectural firm, Stanton & Stockwell (J.E. Stanton & William F. Stockwell), but the school is not the most representative or intact example.		
5234-008-900	13479	**Marianna Elementary School**	ES	4215	E	Gleason	St	Los Angeles	90063	1958	1964	1924		N/A	Not eligible. In terms of the context of institutional architecture/educational facilities in Los Angeles, this campus is a typical but not outstanding example of a postwar LAUSD campus. Additionally, under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.	No	6Z
2671-013-900	13704	**Monroe, James Senior High School**	SH	9229	N	Haskell	Ave	North Hills	91343	1957	1957	1958		N/A	Not eligible. Campus plan and buildings have many of the typical character-defining features of postwar LAUSD schools. However, taken as a whole, the campus is a common but not outstanding exemplification of postwar LAUSD design ideas. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.	No	6Z
6224-001-900	13861	**Park Avenue Elementary School**	ES	8020		Park	Ave	Cudahy	90210	1968	1968	1968		N/A	Not eligible. In terms of the context of institutional architecture/educational facilities in Los Angeles, the campus is a common but not outstanding example of LAUSD design principles of the era. Additionally, under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding/distinctive example of architectural design or the work of a master architect.	No	6Z

TABLE V-1
UPDATED LAUSD HISTORIC RESOURCES INVENTORY WITH COMPILED RESULTS FROM THE LAUSD HISTORIC RESOURCES SURVEY, 2013/2014, AND THE GETTY HISTORIC RESOURCES SURVEYS, 2001/2004

Assessor Parcel Number	LAUSD Campus #	Campus Name	School Type	Street #	Street Direction	Street Name	Street Type	City	ZIP	Principal Construction Dates: Start Date	Principal Construction Dates: End Date	Year Opened	Former Names & Dates	CR Status (2001-2004 Getty Surveys)	Evaluation Results / Notes	Found Eligible in 2013 / 2014 Survey?	CHR Status Code
4060-018-900	13655	**Purche Elementary School**	ES	13210		Purche	Ave	Gardena	90249	1957	1957	1957		N/A	Not eligible. The school campus and buildings represent a typical but not exemplary embodiment of LAUSD design principles of the era. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.	No	6Z
6113-004-902	13855	**Sellery Special Education Center**	ES	15804	S	Budlong	Ave	Gardena	90247	1961	1963	1961	C. Morley Sellery Elementary School	N/A	This school was custom-built to serve a special needs population of children with severe handicaps. As such, the plan and building types vary from typical LAUSD plan typologies. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect. The school displays many character-defining features of the Mid-Century Modern architectural style. However, the school is not a distinctive example of the Mid-Century Modern architectural style and does not qualify under Criteria C/3.	No	6Z
7341-002-902	13708	**Stephen M. White Middle School**	MS	22102	S	Figueroa	St	Carson	90745	1956	1956	1956		N/A	Not eligible. Campus plan and buildings have many of the typical character-defining features of postwar LAUSD schools. However, taken as a whole, the campus is a common but not outstanding exemplification of postwar LAUSD design ideas. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.	No	6Z

TABLE V-1
UPDATED LAUSD HISTORIC RESOURCES INVENTORY WITH COMPILED RESULTS FROM THE LAUSD HISTORIC RESOURCES SURVEY, 2013/2014, AND THE GETTY HISTORIC RESOURCES SURVEYS, 2001/2004

Assessor Parcel Number	LAUSD Campus #	Campus Name	School Type	Street #	Street Direction	Street Name	Street Type	City	ZIP	Principal Construction Dates: Start Date	Principal Construction Dates: End Date	Year Opened	Former Names & Dates	CR Status (2001-2004 Getty Surveys)	Evaluation Results / Notes	Found Eligible in 2013 / 2014 Survey?	CHR Status Code
7338-021-901	13755	**Towne Avenue Elementary School**	ES	18924		Towne	Ave	Carson	90746	1958	1958	1953		N/A	Not eligible. In terms of the context of institutional architecture/educational facilities in Los Angeles, this campus is a typical but not outstanding example of a postwar LAUSD campus. Additionally, under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.	No	6Z
7345-006-900	13788	**Van Deene Elementary School**	ES	826	W	Javelin	St	Torrance	90502	1960	1965	1960		N/A	Not eligible; very typical but not outstanding example of LAUSD design ideals of the era. Appears to be drawn from one of the standardized plans for schools during this period. Not the site of significant event or representative of a significant pattern of development. Not an outstanding example of architectural design or the work of a master architect.	No	6Z
5215-040-901	13778	**Wilson, Woodrow Senior High School**	SH	4500		Multnomah	St	Los Angeles	90032	1970	1970	1969		N/A	Not eligible. The campus overall is not typical of LAUSD design principles of the era. In terms of eligibility under Criteria A/1, research did not show that this campus was the site of a significant event or representative of a significant pattern of development. In terms of eligibility under Criteria B/2, research did not show that the campus was associated with a person of significance in the community, state, or nation. In terms of eligibility under Criteria 3, the campus and its buildings are not an outstanding or distinctive example of architectural design or the work of a master architect.	No	6Z
	13429	**Cienega**	ES	2611	S	Orange	Dr	Los Angeles	90016	1924-1969		1917	Sprague School 1917	2			
	13427	**Angeles Mesa**	ES	2611	W	52nd	St	Los Angeles	90043	1917-1968		1917		2S	Annexed from Hyde Park School District 1917; HUD DOE 1989 Crit AC		
	13350	**Buchanan Street**	ES	5024		Buchanan	St	Los Angeles	90042	1937-1996		1913	Illinois Avenue 1913	2S1	Ross Montgomery		
	13326	**002nd Street**	ES	1942	E	2nd	St	Los Angeles	90033	1923	1969	1895		2S2			
		017th Street	ES	644	W	17th	St	Los Angeles	90015	1926		1881	Georgia Street 1881; Montgomery Street 1885	2S2	Closed 1939; now Admin Ofc-SH Div		
	13335	**024th Street**	ES	2055	W	24th	St	Los Angeles	90018	1926-1971		1904		2S2	per GAP listing; not on OHP data base		
		Arlington Heights	ES	1717		Seventh	Ave	Los Angeles	90019	1937-1968		1910	Arlington Hts 1910; Seventh Avenue 1914	2S2	District; GAP db: at Mt. Vernon JHS		
	13458	**Bandini Street**	ES	425	N	Bandini	St	San Pedro	90731	1923-1977		1923		2S2	looked altered		

TABLE V-1
UPDATED LAUSD HISTORIC RESOURCES INVENTORY WITH COMPILED RESULTS FROM THE LAUSD HISTORIC RESOURCES SURVEY, 2013/2014, AND THE GETTY HISTORIC RESOURCES SURVEYS, 2001/2004

Assessor Parcel Number	LAUSD Campus #	Campus Name	School Type	Street #	Street Direction	Street Name	Street Type	City	ZIP	Principal Construction Dates: Start Date	Principal Construction Dates: End Date	Year Opened	Former Names & Dates	CR Status (2001-2004 Getty Surveys)	Evaluation Results / Notes	Found Eligible in 2013 / 2014 Survey?	CHR Status Code
	13373	**Belvedere I**	ES	3724	E	1st	St	Los Angeles	90063	1922-1962		1912		2S2			
	13416	**Canoga Park I**	ES	7438		Topanga Canyon	Blvd	Canoga Park	91303	1935-1969		1915	Owensmouth School 1915	2S2	Annexed from San Fernando 1915		
		Eshelman Avenue	ES	25902		Eshelman	Ave	Lomita	90717	1925-1969				2S2			
		Garvanza	ES	317	N	Avenue 62		Los Angeles	90042	1922-1966		1899	Garvanza 1899; Eagle Rock Ave 1903; 62nd Ave 1908	2S2			
		Gompers, Samuel Intermediate	MS	234	E	112th	St	Los Angeles	90061	1937-1962		1937	Gompers, Samuel 1937	2S2			
		Grant II	ES	1530	N	Wilton	Pl	Los Angeles	90028	1922-1990		1910		2S2			
		Gulf Avenue	ES	828	W	L	St	Wilmington	90744	1926-1969		1923		2S2			
		Hamilton, Alexander	SH	2955	S	Robertson	Blvd	Los Angeles	90034	1931-1974		1931		2S2			
		Hancock Park	ES	408	S	Fairfax	Ave	Los Angeles	90036	1937-1958		1937		2S2			
		Hollenbeck	MS	2510	E	6th	St	Los Angeles	90023	1923-1976		1914	Boyle Hts Inter. #1 1914	2S2			
		LA CES/Pasteur, Louis	Mag	5931	W	18th	St	Los Angeles	90035	1937-1961		1937		2S2	Closed 1987		
		Le Conte, Joseph	MS	1316	N	Bronson	Ave	Los Angeles	90028	1922-1977		1922	Le Conte Junior 1922	2S2			
		Lincoln, Abraham II	SH	3501	N	Broadway		Los Angeles	90031	1937-1980		1878	var.ES1878;Ave21Inter1911; LincolnHigh1918	2S2			
		Los Feliz	ES	1740	N	New Hampshire	Ave	Los Angeles	90027	1937		1910		2S2			
		Manual Arts	SH	4131	S	Vermont	Ave	Los Angeles	90037	1935-1989		1910		2S2	Donald Parkinson		
		Marshall, John	SH	3939		Tracy	St	Los Angeles	90027	1931-1992		1931		2S2			
		Miramonte	ES	1400	E	68th	St	Los Angeles	90001	1936-1969		1912		2S2	Annexed 1912		
		Morningside	ES	576	N	Maclay	Ave	San Fernando	91340	1915-1995		1915		2S2	Annexed from Morningside School District 1915		
		North Hollywood III	SH	5231		Colfax	Ave	North Hollywood	91601	1926-		1927	Lankershim HS 1927	2S2			
		Reseda I	ES	7265		Amigo	Ave	Reseda	91335	1936-1955		1916	Marian Avenue 1916	2S2	Annexed from San Fernando 1915		
		Ritter	ES	11108		Watts	Ave	Los Angeles	90059	1932-1968		1928		2S2	Annexed from Palomar District 1927		
		San Fernando II	MS	130	N	Brand	Blvd	San Fernando	91340	1916-1975		1915	San Fernando HS 1915	2S2	Annexed from San Fernando 1915		
		San Pedro I	SH	1001	W	15th	St	San Pedro	90731	1936-1971		1909		2S2	Annexed 1900; sold in late 1930s; new site built late 1930s		
		San Pedro II	AS	950	W	Santa Cruz	St	San Pedro	90731	1926				2S2			
		Santa Monica Boulevard	ES	1022	N	Van Ness	Ave	Los Angeles	90038	1937-1993		1910	Santa Monica Avenue 1910	2S2	Annexed 1910		
		Soto Street	ES	1020	S	Soto	St	Los Angeles	90023	1937		1914	?	2S2			
		South Gate I	MS	4100		Firestone	Blvd	South Gate	90280	1941-1966		1941		2S2			

TABLE V-1
UPDATED LAUSD HISTORIC RESOURCES INVENTORY WITH COMPILED RESULTS FROM THE LAUSD HISTORIC RESOURCES SURVEY, 2013/2014, AND THE GETTY HISTORIC RESOURCES SURVEYS, 2001/2004

Assessor Parcel Number	LAUSD Campus #	Campus Name	School Type	Street #	Street Direction	Street Name	Street Type	City	ZIP	Principal Construction Dates: Start Date	Principal Construction Dates: End Date	Year Opened	Former Names & Dates	CR Status (2001-2004 Getty Surveys)	Evaluation Results / Notes	Found Eligible in 2013 / 2014 Survey?	CHR Status Code
		University II	SH	11800		Texas	Ave	Los Angeles	90025	1924-1978		1922	Sawtelle 1922; Harding, Warren G. 1925	2S2			
		Van Ness	ES	501	N	Van Ness	Ave	Los Angeles	90004	1923		1916		2S2			
		Vine Street	ES	955	N	Vine	St	Los Angeles	90038	1922-1995		1909	Colgrove School 1909	2S2	Annexed 1909		
	13265	**010th Street**	ES	1000		Grattan	St	Los Angeles	90015	1922-1983		1888		3CS			
	13348	**049th Street**	ES	750	E	49th	St	Los Angeles	90011	1923-1969		1913		3CS			
	13366	**Adams, John**	MS	151	W	30th	St	Los Angeles	90007	1927-1964		1911	30th St Intermediate 1911	3CS			
	13608	**Apperson Street**	ES	10233		Woodward	Ave	Sunland	91040	1949-1957		1949		3CS			
	13488	**Bell**	SH	4328		Bell	Ave	Bell	90201	1925-1989		1926		3CS			
	13533	**Broadway**	ES	1015		Lincoln	Blvd	Venice	90291	1936-1963		1926	Abraham Lincoln 1926	3CS	Annexed from Venice 1926		
	13558	**Bryson Avenue**	ES	4470		Missouri	Ave	South Gate	90280	1925-1977		1931		3CS	McNerney annexed 1931		
	13415	**Canoga Park II**	SH	6850		Topanga Canyon	Blvd	Canoga Park	91303	1930-1977		1915	Owensmouth HS 1915	3CS	Aud.only; annexed from San Fernando 1915		
	13435	**Carson Street**	ES	161	E	Carson	St	Carson	90745	1927-1966		1921	Boulevard Acres 1920	3CS			
		Eagle Rock I	ES	2057		Fair Park	Ave	Los Angeles	90041	1917-1919		1923		3CS	Annexed 1923		
		Euclid Avenue	ES	806		Euclid	Ave	Los Angeles	90023	1923-1970		1907		3CS			
		Fairfax	SH	7850		Melrose	Ave	Los Angeles	90046	1942-1968		1924		3CS	Parkinson & Parkinson		
		Fries Avenue	ES	1301		Fries	Ave	Wilmington	90744	1924-1977		1923		3CS			
		Graham	ES	8407	S	Fir	Ave	Los Angeles	90001	1925-1975		1924		3CS			
		Hobart Boulevard	ES	980	S	Hobart	Blvd	Los Angeles	90006	1937-1968		1906		3CS			
		Humphreys Avenue	ES	500	S	Humphreys	Ave	Los Angeles	90022	1923-1969		1922		3CS			
		Jordan, David Starr	SH	2265	E	103rd	St	Los Angeles	90002	1927-1970		1925		3CS	Annexed 1925		
		Kester Avenue	ES	5353		Kester	Ave	Van Nuys	91411	1951-1957		1951		3CS	Richard Neutra		
		King Jr., Martin Luther	ES	3989	S	Hobart	Blvd	Los Angeles	90062	1936-1972		1914	Santa Barbara Ave 1914; Santa Barbara 1968	3CS			
		Lankershim I	ES	5250		Bakman	Ave	North Hollywood	91601	1912-1982		1910		3CS	Annexed 1910		
		Leland Street	ES	2120		Leland	St	San Pedro	90731	1924-1977		1922		3CS			
		Lokrantz, Sven Special Ed Ctr	SS	19451		Wyandotte	St	Reseda	91335	1960-1975		1961		3CS	Sidney Eisenstadt		
		Lomita Fundamental Magnet	ES	2211	W	247th	St	Lomita	90717	1937-1968		1909	Lomita 1909	3CS			

TABLE V-1
UPDATED LAUSD HISTORIC RESOURCES INVENTORY WITH COMPILED RESULTS FROM THE LAUSD HISTORIC RESOURCES SURVEY, 2013/2014, AND THE GETTY HISTORIC RESOURCES SURVEYS, 2001/2004

Assessor Parcel Number	LAUSD Campus #	Campus Name	School Type	Street #	Street Direction	Street Name	Street Type	City	ZIP	Principal Construction Dates: Start Date	Principal Construction Dates: End Date	Year Opened	Former Names & Dates	CR Status (2001-2004 Getty Surveys)	Evaluation Results / Notes	Found Eligible in 2013 / 2014 Survey?	CHR Status Code
		Mann, Horace	MS	7001	S	St. Andrews	Pl	Los Angeles	90047	1926-1977		1926	Mann JHS 1926	3CS	A. M. Edelman & A. C. Zimmerman		
		Mar Vista	ES	3330		Granville	Ave	Los Angeles	90066	1949-1957		1947		3CS			
		Muir, John	MS	5929	S	Vermont	Ave	Los Angeles	90044	1922-1971		1922		3CS	John C. Austin		
		Nightingale, Florence	MS	3311	N	Figueroa	St	Los Angeles	90065	1937-1969		1937		3CS			
		Norwood Street	ES	2020		Oak	St	Los Angeles	90007	1939-1969		1895		3CS			
		Pacoima I	ES	11016		Norris	Ave	Pacoima	91331	1916-1969		1915		3CS	Paul V. Tuttle & A. W. Angel; annexed from San Fernando 1915		
		Palms II	MS	10860		Woodbine	St	Los Angeles	90034	1949-1960		1949		3CS			
		Perez, Alfonso B. Special Education Center	SS	4540		Michigan	Ave	Los Angeles	90022	1926-1981		1926	BelvedereGardens1926;EugeneSt1926;McDonnellAve1959	3CS			
		Point Fermin	ES	3333		Kerckhoff	Ave	San Pedro	90731	1921-1925		1912		3CS	Hunt & Burns		
		Salvin, Sophia T. Special Education Center	SS	1925		Budlong	Ave	Los Angeles	90007	1937-1974		1896	see previous entry	3CS			
		San Gabriel Avenue	ES	8628		San Gabriel	Ave	South Gate	90280	1924-1937		1932		3CS	Annexed from Huntington Park 1932		
		San Pedro Street	ES	1635	S	San Pedro	St	Los Angeles	90015	1927-1997		1866		3CS			
		Solano Avenue	ES	615		Solano	Ave	Los Angeles	90012	1924		1904		3CS			
		South Park	ES	8510		Towne	Ave	Los Angeles	90003	1936-1966		1907	South Park Avenue 1907	3CS	Walker & Eisen		
		State Street	ES	3211		Santa Ana	St	South Gate	90280	1924-1937		1932		3CS	Annexed from Huntington park 1932		
		State Street Children's Center	CC	3210		Broadway		Huntington Park	90255	1931		1943		3CS			
		Sterry, Nora Children's Center	CC	1747		Sawtelle	Blvd	Los Angeles	90025	1914			Flower Guild	3CS			
		Sun Valley	MS	7330		Bakman	Ave	Sun Valley	91352	1944-1954		1950		3CS			
		Utah Street	ES	255	N	Clarence	St	Los Angeles	90033	1937-1970		1904		3CS			
		Van Nuys II	MS	5435		Vesper	Ave	Van Nuys	91411	1948-1958		1948		3CS			
		Vernon City	ES	2360	E	Vernon	Ave	Los Angeles	90058	1929-1942		1928		3CS	Annexed from Vernon City District 1928		
		Victoria Avenue	ES	3320		Missouri	Ave	South Gate	90280	1929-1976		1925	Home Gardens 1925	3CS	Annexed from Watts 1925		
		Warner Avenue	ES	615		Holmby	Ave	Los Angeles	90024	1949-1977		1927		3CS			
		West Vernon Avenue	ES	4312	S	Grand	Ave	Los Angeles	90037	1937-1976		1905		3CS			
		Wilton Place	ES	745	S	Wilton	Pl	Los Angeles	90005	1922-1996		1905		3CS			
		Yorkdale	ES	5687		Meridian	St	Los Angeles	90042	1923-1966		1912		3CS	Annexed from Annandale School District 1911		
	13307	**052nd Street II**	ES	816	W	51st	St	Los Angeles	90037	1922-1969		1908		3S			
	13339	**066th Street**	ES	6600	S	San Pedro	St	Los Angeles	90003	1927-1965		1909		3S	Fitzhugh & Teal/Gene Verge		
	13672	**109th Street**	ES	10915		McKinley	Ave	Los Angeles	90059	1940-1976		1926		3S	Survey evaluation		
	13401	**Aldama**	ES	632	N	Avenue 50		Los Angeles	90042	1923-1927		1924	Aldama Street 1924	3S	Charles F. Plummer		

TABLE V-1
UPDATED LAUSD HISTORIC RESOURCES INVENTORY WITH COMPILED RESULTS FROM THE LAUSD HISTORIC RESOURCES SURVEY, 2013/2014, AND THE GETTY HISTORIC RESOURCES SURVEYS, 2001/2004

Assessor Parcel Number	LAUSD Campus #	Campus Name	School Type	Street #	Street Direction	Street Name	Street Type	City	ZIP	Principal Construction Dates: Start Date	Principal Construction Dates: End Date	Year Opened	Former Names & Dates	CR Status (2001-2004 Getty Surveys)	Evaluation Results / Notes	Found Eligible in 2013 / 2014 Survey?	CHR Status Code
	13402	**Alta Loma**	ES	1745		Vineyard	Ave	Los Angeles	90019	1935-1972		1915	Sprague Avenue 1915	3S	Charles M. Hutchinson		
	13595	**Baldwin Hills**	ES	5421		Rodeo	Rd	Los Angeles	90016	1949-1973		1943		3S	Robert Alexander (aka University ES?)		
	13340	**Barton Hill**	ES	423	N	Pacific	Ave	San Pedro	90731	1923-1965		1909		3S			
	13274	**Berendo**	MS	1157	S	Berendo	St	Los Angeles	90006	1937-1992		1896	Pico Hgts1896;BerendoSt1903;BerendoInterme d1911	3S			
	13448	**Burroughs, John**	MS	600	S	McCadden	Pl	Los Angeles	90005	1923-1978		1922		3S			
	13453	**Corona Avenue**	ES	3825		Bell	Ave	Bell	90201	1935-1968		1926		3S	Richard Neutra; annexed from Bell 1926		
	13510	**Dorris Place**	ES	2225		Dorris	Pl	Los Angeles	90031	1928-1970		1925		3S			
		Dorsey, Susan Miller	SH	3537		Farmdale	Ave	Los Angeles	90016	1937-1961		1937		3S	Gogerty & Noerenberg		
		El Sereno II	MS	2839	N	Eastern	Ave	Los Angeles	90032	1937-1968		1937	Farmdale1915;ElSerenoAreaHS1936;WdrwWilsonHS1937	3S			
		Emerson, Ralph Waldo	MS	1650		Selby	Ave	Los Angeles	90024	1937-1957		1935		3S	Richard Neutra		
		Fremont, John C.	SH	7676	S	San Pedro	St	Los Angeles	90003	1924-1976		1924		3S	Edwin Bergstrom; auditorium only		
		Glassell Park	ES	2211	W	Avenue 30		Los Angeles	90065	1924-1952		1912	Washington Park 1912	3S			
		Hamasaki, Morris K. School	ES	4865	E	First	St	Los Angeles	90022	1927-1962		1926	Riggin Avenue 1926; Riggin 1968	3S			
		Hollywood	SH	1521	N	Highland	Ave	Los Angeles	90028	1910-1977		1910		3S			
		Huntington Park	SH	6020		Miles	Ave	Huntington Park	90255	1923-1991		1909		3S	Annexed 1932		
		Irving, Washington	MS	3010		Estara	Ave	Los Angeles	90065	1937-1990		1937		3S			
		Jefferson, Thomas	SH	1319	E	41st	St	Los Angeles	90011	1936-1970		1917	Jefferson High 1917	3S	Stiles O. Clements		
		Old Canyon School	N/A	421		Entrada	Dr	Santa Monica	90402	1894				3S			
		Old Farmdale School	N/A	2839	N	Eastern	Ave	Los Angeles	90032	1894				3S	Bradbeer & Ferris		
		Old Vernon Avenue School	N/A	450	N	Grand	Ave	Los Angeles	90012	1876				3S	1884 per Building Directory; restored 1976		
		Pacific Palisades	ES	800		Via de la Paz		Pacific Palisades	90272	1931-1960		1922	Palisades School 1922	3S			
		Reed, Walter	MS	4525		Irvine	Ave	North Hollywood	91602	1939-1958		1939	N.Hollywood JHS 1939	3S			
		Rowan Avenue	ES	600	S	Rowan	Ave	Los Angeles	90023	1916-1963		1912	Belvedere #2	3S	Annexed 1912		
		South Gate II	SH	3351		Firestone	Blvd	South Gate	90280	1930-1988		1932		3S	George M. Lindsey & Erwood P. Elden		
		Van Nuys III	SH	6535		Cedros	Ave	Van Nuys	91411	1933-1976		1915		3S	Annexed from San Fernando 1915		
		Venice	SH	13000		Venice	Blvd	Los Angeles	90066	1935-1969		1925		3S	Annexed 1925		

TABLE V-1
UPDATED LAUSD HISTORIC RESOURCES INVENTORY WITH COMPILED RESULTS FROM THE LAUSD HISTORIC RESOURCES SURVEY, 2013/2014, AND THE GETTY HISTORIC RESOURCES SURVEYS, 2001/2004

Assessor Parcel Number	LAUSD Campus #	Campus Name	School Type	Street #	Street Direction	Street Name	Street Type	City	ZIP	Principal Construction Dates: Start Date	Principal Construction Dates: End Date	Year Opened	Former Names & Dates	CR Status (2001-2004 Getty Surveys)	Evaluation Results / Notes	Found Eligible in 2013 / 2014 Survey?	CHR Status Code
		Verdugo Hills	SH	10625		Plainview	Ave	Tujunga	91042	1937-1970		1936	Calvin Coolidge High 1936	3S			
		Virgil II	MS	152	N	Vermont	Ave	Los Angeles	90004	1924-1978		1912	Virgil Ave Inter 1912; Virgil School 1914	3S	1924 CR South by Hunt & Burns		
		Virginia Road	ES	2925		Virginia	Rd	Los Angeles	90016	1924-1977		1924		3S			
		Wright, Orville	MS	6550	W	80th	St	Los Angeles	90045	1948-1951		1956		3S			

VI. CONCLUSION | RECOMMENDATIONS

The LAUSD Historic Resources Survey, 2013/2014, recommended a total of 14 of 55 campuses as eligible for either the NRHP and/or CRHR. Consequently, these campuses include buildings, structures, and features that are presumed historic resources under CEQA. The survey pool included a variety of LAUSD property types, including elementary, middle, and senior high schools, as well as special education centers. This variety was also reflected in the selection of campuses that appear to be eligible.

The following recommendations may further and expand the survey results in this report:

1. **Update and expand the *LAUSD Historic Resources Survey***
   LAUSD should update its comprehensive Historic Resources Survey in order to consider all as-yet unevaluated LAUSD assets. The survey could be initially broadened to include all post–1945 school buildings and campuses that have not yet been subject to context-driven evaluation. According to the *Los Angeles Unified School District History of Schools, 1855 to 1972*, there are roughly 175 campuses constructed between 1955 and 1969, as well as approximately 125 campuses constructed between 1945 and 1954.[8]

   The current survey examined 55 campuses, with approximately 245 remaining unevaluated.

   A comprehensive survey update would provide a cost-effective method for guiding district-wide redevelopment plans and CEQA compliance. It would also assist LAUSD in continuing stewardship of its many historically significant school buildings and campuses.

2. **Intensive-Level, District Recordation for Eligible Campuses**
   Proposed modernization or redevelopment projects may include the LAUSD campuses found eligible as historic districts in this survey or included in the LAUSD Historic Resources Inventory database. It is recommended that, prior to or concurrent with project planning, LAUSD commission an intensive-level survey by a qualified architectural historian to document all eligible and non-eligible buildings and structures (contributors and non-contributors) to the historic district. The qualified architectural historian should ideally meet and exceed the Secretary of the Interior's Professional Qualifications Standards for Architectural History and possess a minimum of 5 years of full-time experience conducting historic resource evaluations. It is further recommended that contributors and non-contributors be documented in ArcGIS maps for ease of use by LAUSD Facilities Services Division staff.

3. **Expand the *LAUSD Historic Context Statement* and *Historic Resources Survey* to include the period to 1980**
   Pursuant to Measure Q, district-wide modernization and redevelopment will unfold gradually, over many years. Broadening the LAUSD Historic Context Statement and survey to consider all schools constructed in the past 35 years (rather than 45 years) would allow the district to take proactive steps to identify historically significant campuses (and therefore historic resources under CEQA) prior to redevelopment planning and work. This would also bring the LAUSD comprehensive Historic Resources Survey up to date with the City of Los Angeles Office of Historic Resources citywide survey, SurveyLA.

4. **Conduct archival research to expand property eligibility under additional criteria**
   In the current scope, campus-specific work included research on events, patterns of development, and significant people associated with the schools included in the accompanying survey. However, scope limitations precluded extensive research on LAUSD's history that might result in eligibility under Criteria A/1 (such as LAUSD and the Civil Rights Movement) and Criteria B/2 (for an association with significant figures in the history of public schools in Los Angeles). These and other areas should receive further study. (The context of the Civil Rights Movement and Los Angeles schools was addressed, however, in the NRHP MPD form for African-Americans in Los Angeles.[9])

VII. SELECTED BIBLIOGRAPHY

Bhatia, Pavan, "Modern Concept for Los Angeles Public Schools," Doctoral Dissertation (Cambridge, MA: Harvard University Graduate School of Design, Advanced Management Development Program in Real Estate, July 2009).

Blumenson, John J.-G., *Identifying American Architecture* (New York: W.W. Norton & Company, 1977).

California Office of Historic Preservation, *California Register and National Register: A Comparison (for Purposes of Determining Eligibility for the California Register),* Technical Assistance Series No. 6. (Sacramento, CA, 14 March 2006).

California Office of Historic Preservation, *Instructions for Recording Historical Resources* (Sacramento, CA, March 1995).

Donovan, John J., *School Architecture: Principles and Practices* (New York: The MacMillan Company, 1921).

Eales, John R., "A Brief, General History of the Los Angeles City School System," Doctoral Dissertation (Los Angeles: University of California, June 1956).

Gebhard, David, and Robert Winter, *A Guide to Architecture in Los Angeles and Southern California* (Santa Barbara, CA: Peregrine Smith, Inc., 1977).

Harris, Cyril M., *American Architecture: An Illustrated Encyclopedia* (New York: W.W. Norton & Company, 1998).

Heumann & Associates and Anne Doehne, Science Applications International Corporation, March 2002, "Historic Schools of the Los Angeles Unified School District," a presentation prepared for LAUSD Facilities Services Division (March 2002).

Hille, R. Thomas, *Modern Schools: A Century of Design for Education* (Hoboken, NJ: John Wiley & Sons, 2011), 13.

Lee, Antoinette, and Linda F. McClelland, U.S. Department of the Interior, National Park Service, *National Register Bulletin No. 16B, How to Complete the National Register Multiple Property Documentation Form (1999).*

McAlester, Virginia, and Lee McAlester, *A Field Guide to American House* (New York: Alfred A. Knopf, 2004).

Mock, Elizabeth, *Built in USA, 1932 – 1944: A Survey of Contemporary American Architecture*, The Museum of Modern Art (New York: Simon & Shuster, 1944).

Ogata, Amy F., "Building for Learning in Postwar American Elementary Schools," *Journal of the Society of Architectural Historians* 67, no. 4 (December 2008): 562–91.

Science Applications International Corporation, *Historic Context Statement: Los Angeles Unified School District*, prepared for Los Angeles Unified School District (Pasadena, CA: March 2002).

U.S. Department of the Interior, National Park Service, "How to Apply the National Register Criteria for Evaluation," National Register Bulletin No. 15 (Washington, DC, 2002).

U.S. Department of the Interior, National Park Service, "How to Complete the National Register Form," National Register Bulletin No. 16A (Washington, DC, 1997).

U.S. Department of the Interior, National Park Service, "How to Complete the National Register Multiple Property Documentation Form," National Register Bulletin No. 16B (Washington, DC, 1999).

Whiffen, Marcus, American Architecture since 1780: A Guide to the Styles (Cambridge, MA: MIT Press, 1981).

ENDNOTES

1 California State Government Code, Section 53094 permits 'the governing board of a school district, by vote of two-thirds of its members . . . [to] render a city or county zoning ordinance inapplicable to a proposed use of property by such school district . . .' The legislative history of section 53094 indicates that 'the Legislature deliberately accorded different treatment to school districts than to other local agencies because it was well aware that school construction was subject to almost complete control by the state. . . . The Legislature accordingly provided in section 53094 that school districts, as opposed to other local agencies, should retain the right to exempt themselves from local zoning ordinances.'" (*Santa Clara, supra*, 22 Cal.App.3d at p. 158 fn. 3.) Court of Appeal, State of California, Second Appellate District, Division 7, Los Angeles Unified School District, Petitioner and Appellant, versus City of Maywood, et al., Respondents and Defendants. Nos. B238629, B238630, Los Angeles Superior Court. Filed 13 February 2013.

2 These figures are drawn from: Los Angeles Unified School District, Educational Housing Branch, School Planning Division, Los Angeles Unified School District History of Schools, 1855 to 1972, January 1973.

3 As noted above, under the provisions of California State Government Code Section 53094, California school districts, including LAUSD, are generally exempt from local zoning ordinance provisions, including for landmark designation. See endnote 1 for further detail.

4 U.S. Department of the Interior, National Park Service, National Register Bulletin 15, How to Apply the National Register Criteria for Evaluation (Washington, DC: 1990, revised 1997).

5 See http://www.preservation.lacity.org/survey for survey results.

6 See the Website of the Los Angeles Unified School District for Pre-Planning Surveys. Search engine for Pre-Planning Survey available at: http://mo.laschools.org/planlausd/content. Accessed 14 March 2014.

7 Lee, Antoinette, and Linda F. McClelland, U.S. Department of the Interior, National Park Service, "How to Complete the National Register Multiple Property Documentation Form," *National Register Bulletin* No. 16B (1999).

8 These figures are drawn from: Los Angeles Unified School District, Educational Housing Branch, School Planning Division, Los Angeles Unified School District History of Schools, 1855 to 1972, January 1973.

9 Grimes, Teresa, 31 December 2008, National Register of Historic Places, "Historic Resources Associated with African Americans in Los Angeles, Los Angeles County, California" (Washington, DC: US Department of the Interior, National Park Service).

APPENDIX A
DEPARTMENT OF PARKS AND RECREATION FORMS, ELIGIBLE CAMPUSES

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #_____
HRI #_____
Trinomial_____
NRHP Status Code 3CD
Other Listings_____
Review Code_____ Reviewer_____ Date_____

Page 1 of 6 **Resource name(s) or number** (assigned by recorder) 156th Street Elementary School

P1. Other Identifier:
***P2. Location:** ☐Not for Publication ■Unrestricted
***a. County** Los Angeles County
***b. USGS 7.5' Quad** Inglewood, CA **Date** 1981 **T** 3S **R** 14W; SW ¼ **of** SE ¼ **of Sec** 23; S.B.**B.M.**
c. Address 2100 West 156th Street City Gardena Zip 90249
e. Other Locational Data: APN: # 4063-012-900

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries.)

Located in a residential neighborhood in the city of Gardena, the 156th Street Elementary School occupies a 4.9-acre site bounded by West 156th Street to the north, an alleyway to the south, an LAUSD facility to the east, and Van Ness Avenue to the west. Built in 1953 in a standardized school plan, the campus consists of a series of stucco-clad, one-story rectilinear buildings, with a central courtyard. The campus layout is characterized by finger-like classroom wings, arranged in a grid. Linking the classroom wings of the campus is a network of sheltered corridors, capped with flat roofs, with wood planks and cross beams and simple pipe supports. Campus buildings and structures display a similar massing, detailing, and Mid-Century Modern–influenced architectural style. *(See Continuation Sheet)*

***P3b. Resource Attributes:** (list attributes and codes) HP15. Educational Building.

***P4. Resources Present**: ☐Building ☐Structure ☐Object ☐Site ■District ☐Element of District ☐Other

P5a. Photo

P5b. Description of Photo (view, date, accession #) Classroom building, northwest elevation
15 January 2014

***P6. Date Constructed/Age and Sources:** ■ Historic ☐ Prehistoric ☐ Both
1953 (Los Angeles Unified School District)

***P7. Owner and Address:**
Los Angeles Unified School District

***P8. Recorded by:**
Debi Howell-Ardila and Marilyn Novell
Sapphos Environmental, Inc.
430 North Halstead Street
Pasadena, CA 91107

***P9. Date Recorded:**
10 March 2014

***P10. Survey Type:**
Intensive

***P11. Report Citation:** (Cite survey report and other sources, or enter "none")
Sapphos Environmental, Inc. March 2014. *Los Angeles Unified School District Historic Context Statement, 1870 to 1969*. Pasadena, CA.
Sapphos Environmental, Inc. June 2014. *Los Angeles Unified School District Historic Resources Survey Report*. Pasadena, CA.

***Attachments:** ☐None ☐Location Map ☐Sketch Map ■Continuation Sheet ■Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (list)

BUILDING, STRUCTURE, AND OBJECT RECORD

***NHRP Status Code** 3CD

 ***Resource Name or #:** 156th Street Elementary School

B1. Historic Name: 156th Street Elementary School
B2. Common Name: Same
B3. Original Use: Institutional (Educational Facility)
B4. Present Use: Institutional (Educational Facility)
***B5. Architectural Style:** Mid-Century Modern–influenced
***B6. Construction History:** (Construction date, alterations, and date of alterations):

According to records on file with the Los Angeles Unified School District, the campus core was constructed in 1953. A $338,990 contract was awarded for the construction of a semi-permanent frame and stucco building to accommodate 520 students at the school, with the Hudson Construction Company serving as contractor ("Contract for Gardena School Let" 1953). All of the campus's permanent buildings, structures, and facilities date from 1953. The grounds also contain four portable/temporary buildings dating from 1997 located south of the campus core.

A number of alterations and repairs have taken place over the years, including seismic and systems upgrades, the removal of windows to accommodate the installation of air-conditioning units, the retrofitting of electrical systems, the removal and replacement of gutters and downspouts (*LAUSD Pre-Planning Survey, 156th Street Elementary School*, provides a list of repairs and improvements performed since the late 1990s). Alterations to the original buildings on campus include the replacement of some original windows and hardscaping.

***B7. Moved?** ■**No** ☐**Yes** ☐**Unknown** **Date:**_____ **Original Location:**_____
***B8. Related Features:** Landscaping/mature trees
B9a. Architect: Unknown **b. Builder:** Hudson Construction Company
***B10. Significance: Theme**, Institutional (Educational Facility), "Educating the Baby Boom: Postwar Expansion and the Functional, Modern School Plant, 1945-1969" **Area** Los Angeles
Period of Significance: 1953 (District) **Property Type:** Institutional (Educational Facility)
Applicable Criteria: CRHR: 1
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity)

The campus core of the 156th Street Elementary School appears eligible for the California Register of Historical Resources as a district under Criterion 1 as an excellent, intact example of a postwar finger-plan school in the Los Angeles Unified School District. The campus plan and buildings exemplify LAUSD design principles and ideals from the postwar period (as described in the *Los Angeles Unified School District Historic Context Statement, 1870 to 1969* [Sapphos Environmental, Inc. 2014]). While drawing on standardized plans used districtwide, the campus represents a relatively early example of LAUSD's postwar finger-plan school. Character-defining features include a unified site plan with mature landscaping, a network of arcades, Mid-Century Modern-influenced design, one-story massing, and incorporation of generous expanses of windows oriented to the outdoors. Due to alterations, such as the replacement of some windows, the campus is eligible for the California Register only.

B11. Additional Resource Attributes: None

***B12. References:** *See Continuation Sheet*

B13. Remarks: None

***B14. Evaluator:** Debi Howell-Ardila, MHP

***Date of Evaluation:** 15 January 2014

(This space reserved for official comments.)

Sketch Map, with north arrow required

***Recorded by** Debi Howell-Ardila and Marilyn Novell ***Date:** 10 March 2014 ☒ Continuation ☐ Update

***P3a. Description (continued):**

Buildings are capped with low-pitched shed roofs, terminating in thin, unadorned fascia and shallow eaves. Fenestration generally consists of multi-light, wood-frame windows in a variety of configurations. At the western elevations, classrooms display bands of awning clerestories. Eastern elevations display grouped, four-over-four, double-hung wood sashes. A network of sheltered arcades provides shade and circulation corridors between classroom wings and facilities. Windows occupy approximately 70 percent of the wall height on the eastern elevations and mark the location of the interior classrooms. Classroom entrances consist of wood doors topped with four-light transoms.

Located on the western portion of the campus, the assembly building/cafeteria is rectangular in plan and symmetrical in design composition. It consists of a two-story main block, capped with a flat roof and clad in stucco. The assembly building is accessed via a projecting one-story entrance wing, located on the north elevation. The entrance displays paired wood doors, flanked with thin, attached brick piers, and sheltered beneath a flat cantilevered roof. This roofline forms a continuous horizontal course across the façade and around side elevations. Projecting from the second story on the façade is a perpendicular stucco blade wall, which extends above the height of the building. The entrance is flanked by stack-laid brick piers and planters and two symmetrical bands of multi-light wood-framed windows. The brick motif is continued in the entrance steps and a wall extending from the Assembly Building to the campus entrance. Transoms over the entrance door and some of the windows on the main elevation appear to have been filled in. On the east elevation of the building is an open-air lunch pavilion.

The buildings and structures comprising the campus core are in good repair and enhanced with mature landscaping. Alterations include the removal of a number of windows on the east elevations of classroom buildings to accommodate air-conditioning units and the asphalt paving of open spaces between classroom buildings.

P5b. Photo (continued): (view and date)

156th Street Elementary School, Assembly Building, viewed from the northwest.
Source: Sapphos Environmental, Inc., 15 January 2014.

***Recorded by** Debi Howell-Ardila and Marilyn Novell ***Date:** 10 March 2014 ☒ Continuation ☐ Update

P5b. Photo (continued): (view and date)

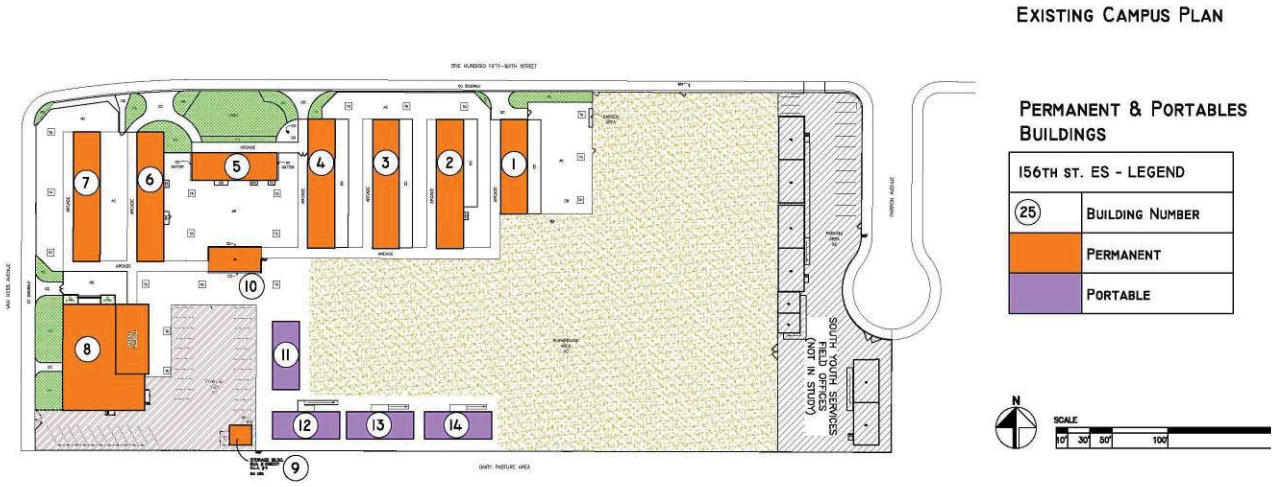
156th Street Elementary School, procession of finger-like classroom buildings. Northwest perspective. Source: Sapphos Environmental, Inc., 15 January 2014.

156th Street Elementary School, Classroom Building 7, grouping of windows and door viewed from the southeast. Source: Sapphos Environmental, Inc., 15 January 2014.

***Recorded by** Debi Howell-Ardila and Marilyn Novell ***Date:** 15 January 2014 ☒ Continuation ☐ Update

P5b. Photo (continued): (view and date)

156th Street Elementary School, asphalt hardscaping to the east of the Administration Building, viewed from the southeast. Source: Sapphos Environmental, Inc., 15 January 2014.



156th Street Elementary School, Site Plan, with permanent buildings marked in orange and portable buildings marked in purple. Source: Los Angeles Unified School District Pre-Planning Survey, 156th Street Elementary School, October 17, 2011.

***B12. References (continued):**

Bhatia, Pavan, "Modern Concept for Los Angeles Public Schools," Doctoral Dissertation (Cambridge, MA: Harvard University Graduate School of Design, Advanced Management Development Program in Real Estate, July 2009).

Blumenson, John J.-G., *Identifying American Architecture* (New York: W.W. Norton & Company, 1977).

California Office of Historic Preservation, *California Register and National Register: A Comparison (for Purposes of Determining Eligibility for the California Register),* Technical Assistance Series No. 6. (Sacramento, CA, 14 March 2006).

California Office of Historic Preservation, *Instructions for Recording Historical Resources* (Sacramento, CA, March 1995).

"Contract for Gardena School Let." *Los Angeles Times* (28 April 1953).

Donovan, John J., *School Architecture: Principles and Practices* (New York: The MacMillan Company, 1921).

Eales, John R., "A Brief, General History of the Los Angeles City School System," Doctoral Dissertation (Los Angeles: University of California, June 1956).

Gebhard, David, and Robert Winter, *A Guide to Architecture in Los Angeles and Southern California* (Santa Barbara, CA: Peregrine Smith, Inc., 1977).

Harris, Cyril M., *American Architecture: An Illustrated Encyclopedia* (New York: W.W. Norton & Company, 1998).

Heumann & Associates and Anne Doehne, Science Applications International Corporation, March 2002, "Historic Schools of the Los Angeles Unified School District," a presentation prepared for LAUSD Facilities Services Division (March 2002).

Hille, R. Thomas, *Modern Schools: A Century of Design for Education* (Hoboken, NJ: John Wiley & Sons, 2011), 13.

Lee, Antoinette, and Linda F. McClelland, U.S. Department of the Interior, National Park Service, *National Register Bulletin No. 16B, How to Complete the National Register Multiple Property Documentation Form* (1999).

Los Angeles Unified School District. *Los Angeles Unified School District Pre-Planning Survey* (2011).

McAlester, Virginia, and Lee McAlester, *A Field Guide to American House* (New York: Alfred A. Knopf, 2004).

Mock, Elizabeth, *Built in USA, 1932 – 1944: A Survey of Contemporary American Architecture*, The Museum of Modern Art (New York: Simon & Shuster, 1944).

Ogata, Amy F., "Building for Learning in Postwar American Elementary Schools," *Journal of the Society of Architectural Historians* 67, no. 4 (December 2008): 562–91.

Los Angeles Unified School District. *Los Angeles Unified School District Pre-Planning Survey* (2011).

Sapphos Environmental, Inc., *Los Angeles Unified School District Historic Context Statement, 1870 to 1969* (Pasadena, CA, March 2014).

Science Applications International Corporation, *Historic Context Statement: Los Angeles Unified School District*, prepared for Los Angeles Unified School District (Pasadena, CA: March 2002).

U.S. Department of the Interior, National Park Service, "How to Apply the National Register Criteria for Evaluation," National Register Bulletin No. 15 (Washington, DC, 2002).

U.S. Department of the Interior, National Park Service, "How to Complete the National Register Form," National Register Bulletin No. 16A (Washington, DC, 1997).

U.S. Department of the Interior, National Park Service, "How to Complete the National Register Multiple Property Documentation Form," National Register Bulletin No. 16B (Washington, DC, 1999).

Whiffen, Marcus, *American Architecture since 1780: A Guide to the Styles* (Cambridge, MA: MIT Press, 1981).

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #_____
HRI #_____
Trinomial_____
NRHP Status Code 3CD
Other Listings_____
Review Code_____ Reviewer_____ Date_____

Page 1 of 7 **Resource name(s) or number** (assigned by recorder) Castle Heights Elementary School

P1. Other Identifier:
***P2. Location:** ☐Not for Publication ■Unrestricted
***a. County** Los Angeles County
***b. USGS 7.5' Quad** Beverly Hills, CA **Date** 1981 **T** **R** N/A
c. Address 9755 Cattaraugus Avenue City Los Angeles Zip 90034
e. Other Locational Data: APN: # 4308-019-900

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries.)

Located on a 5.1-acre site in west Los Angeles, Castle Heights Elementary School is bounded by Beverlywood Street on the north, Cattaraugus Avenue on the south, Castle Heights Avenue on the east, and Beverwil Drive on the west. The campus core was constructed in 1951 in a predominantly residential neighborhood. Displaying a Mid-Century Modern architectural style, the original campus consists of four principal buildings: a one-story administration building/classroom, a two-story auditorium/cafeteria, separate kindergarten, and a one-story classroom wing. Following the curve of Castle Heights Avenue on the east is a curved classroom building, constructed in 1961.

(See Continuation Sheet)

***P3b. Resource Attributes:** (list attributes and codes) HP15. Educational Building. HP29. Landscape architecture.

***P4. Resources Present**: ☐Building ☐Structure ☐Object ☐Site ■District ☐Element of District ☐Other

P5a. Photo

P5b. Photo: (view and date)
Auditorium, view from southeast, 23 January 2014

***P6. Date Constructed/Age and Sources:**
■ Historic ☐ Prehistoric ☐ Both
1951/1961 (Los Angeles Unified School District)

***P7. Owner and Address:**
Los Angeles Unified School District

***P8. Recorded by:**
Debi Howell-Ardila and Marilyn Novell
Sapphos Environmental, Inc.
430 North Halstead Street
Pasadena, CA 91107

***P9. Date Recorded:**
10 March 2014

***P10. Survey Type:** Intensive

***P11. Report Citation:** (Cite survey report and other sources, or enter "none")
Sapphos Environmental, Inc. March 2014. *Los Angeles Unified School District Historic Context Statement, 1870 to 1969*. Pasadena, CA.
Sapphos Environmental, Inc. June 2014. *Los Angeles Unified School District Historic Resources Survey Report*. Pasadena, CA.

***Attachments:** ☐None ☐Location Map ☐Sketch Map ■Continuation Sheet ■Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (list)

BUILDING, STRUCTURE, AND OBJECT RECORD

*NHRP Status Code 3CD

 *Resource Name or #: Castle Heights Elementary School

B1. Historic Name: Castle Heights Elementary School
B2. Common Name: Same
B3. Original Use: Institutional (Educational Facility)
B4. Present Use: Institutional (Educational Facility)
*B5. **Architectural Style:** Mid-Century Modern
*B6. **Construction History:** (Construction date, alterations, and date of alterations):

According to records on file with the Los Angeles Unified School District (LAUSD), the campus core was constructed in 1951, with an additional classroom building added in 1961. All of the campus's permanent buildings, structures, and facilities date from this period. Portable buildings were added between 1990 and 1998 to the north of the campus core.

A number of alterations and repairs have taken place over the years, including seismic and systems upgrades and the removal/replacement of original windows to accommodate installation of air-conditioning units (the *LAUSD Pre-Planning Survey, Castle Heights Elementary School* lists repairs and improvements carried out since the late 1990s). Alterations to the original buildings on campus include the removal and infilling of original clerestory and transom windows.

*B7. **Moved?** ■No ☐Yes ☐Unknown **Date:**_____ **Original Location:**_____
*B8. **Related Features:** Landscaping/mature trees
B9a. Architect: Unknown b. Builder: Unknown

*B10. **Significance:** **Theme**, Institutional (Educational Facility), "Educating the Baby Boom: Postwar Expansion and the Functional, Modern School Plant, 1945-1969" **Area** Los Angeles
Period of Significance: 1951-1961 (District) **Property Type:** Institutional (Educational Facility)
Applicable Criteria: CRHR: 1
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity)

The core of the campus of Castle Heights Elementary School appears eligible for the California Register of Historical Resources as a district under Criterion 1 as an excellent, intact example of an indoor-outdoor postwar school in the Los Angeles Unified School District. The campus plan and buildings exemplify LAUSD design principles and ideals from the postwar period (as described in the *Los Angeles Unified School District Historic Context Statement, 1870 to 1969*). The campus retains integrity of location, design, setting, workmanship, feeling, and association. However, due to alterations, the campus is not eligible for the National Register of Historic Places and is eligible for the California Register only.

B11. Additional Resource Attributes: None

*B12. **References:**
Sapphos Environmental, Inc., March 2014, *Los Angeles Unified School District Historic Context Statement, 1870 to 1969* (Pasadena, CA).
(See Continuation Sheet)

B13. Remarks: None

*B14. **Evaluator:** Debi Howell-Ardila, MHP

*Date of Evaluation: 10 March 2014

Sketch Map, with north arrow required

(This space reserved for official comments.)

***P3a. Description (continued):**

The principal entrance is set back from the street and fronted by a lawn with mature trees and landscaping. Through the entrance breezeway, the campus opens to an expansive central courtyard containing a small lawn and a number of mature trees in brick planters. The courtyard is flanked by classrooms on the east and west, the cafeteria/auditorium on the south, and recreational areas on the north.

Rectangular in plan and sheathed in smooth stucco, the auditorium/cafeteria is two stories in height and capped with a flat roof and no eaves. The principal entrance is located on the south elevation; it consists of recessed double doors elevated on two concrete steps. The entrance's original side lights appear to have been filled in. Attached brick piers and a planter accent the primary elevation of the auditorium. Fenestration generally consists of multi-light wood-framed windows in a variety of configurations, including hopper casements and fixed panes. On the north elevation, a breezeway with an open skylight provides a transitional space between the auditorium, the cafeteria, and classrooms.

Classroom wings are one story in height and rectangular in plan, capped with flat roofs and no eaves. Exterior walls are clad in smooth stucco, with minimal adornment. Classrooms display groupings of six four-over-four, wood-framed double-hung sashes with simple wood surrounds. Doors are integrated into the window grouping and include fixed-pane transoms. Attached brick piers accent the exterior of the buildings, echoing the ornamental theme displayed at the entrance to the campus.

A later addition to the campus is the curved classroom along Castle Heights Avenue. The stucco-clad building forms a continuous, curved line along Castle Heights Avenue, where it is setback from the sidewalk and lined by a series of concrete planters. Stack-bond brick planters and wall cladding at the north and south ends of the building reiterate the decorative elements throughout the campus. One classroom deep, the building displays a curved recessed corridor with pole supports that open onto a landscaped courtyard. Two single-light, double-hung sashes grouped with a unadorned door and a small filled-in transom mark each classroom.

Buildings and structures comprising the campus core are in good repair. Alterations include the removal and infilling of some original windows, including on the auditorium and 1961 classroom, the replacement of windows with air-conditioning units, and placement of storage sheds in the main courtyard outside of classrooms. The campus otherwise retains sufficient integrity to convey its period of significance.

P5b. Photo (continued): (view and date)

Castle Heights Elementary School, Cafeteria/Auditorium, south elevation as seen from Cattaraugus Avenue. Source: Sapphos Environmental, Inc., 23 January 2014.

***Recorded by** Debi Howell-Ardila and Marilyn Novell ***Date:** 10 March 2014 ☒ Continuation ☐ Update

P5b. Photo (continued): (view and date)

Castle Heights Elementary School, landscaping and Administration Building, viewed from the west. Source: Sapphos Environmental, Inc., 23 January 2014.

Castle Heights Elementary School, main courtyard, viewed from the south. Source: Sapphos Environmental, Inc., 23 January 2014.

***Recorded by** Debi Howell-Ardila and Marilyn Novell ***Date:** 10 March 2014 ☒ Continuation ☐ Update

P5b. Photo (continued): (view and date)

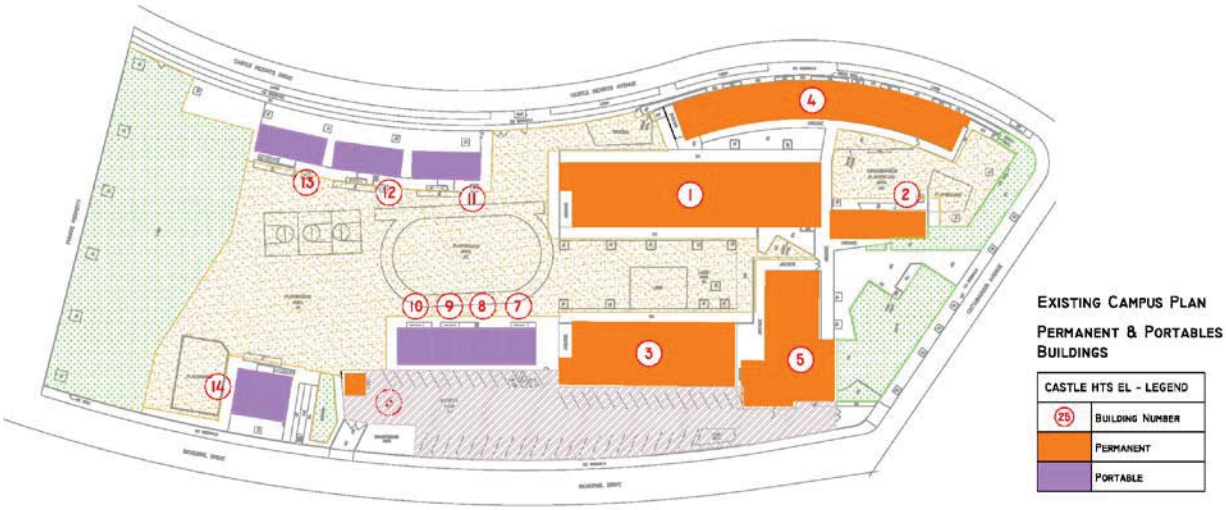
Castle Heights Elementary School, Kindergarten Building, viewed from the southwest. Source: Sapphos Environmental, Inc., 23 January 2014.

Castle Heights Elementary School, courtyard between classrooms, viewed from the south. Source: Sapphos Environmental, Inc., 23 January 2014.

***Recorded by** Debi Howell-Ardila and Marilyn Novell ***Date:** 10 March 2014 ☒ Continuation ☐ Update

P5b. Photo (continued): (view and date)

Castle Heights Elementary School, classroom building as seen from Castle Heights Avenue from the southeast. Source: Sapphos Environmental, Inc., 23 January 2014.



Castle Heights Elementary School, Site Plan, with permanent buildings marked in orange and portable buildings marked in purple. Source: Los Angeles Unified School District Pre-Planning Survey, Castle Heights Elementary School, 15 June 2010.

***B12. References (continued):**

Bhatia, Pavan, "Modern Concept for Los Angeles Public Schools," Doctoral Dissertation (Cambridge, MA: Harvard University Graduate School of Design, Advanced Management Development Program in Real Estate, July 2009).

Blumenson, John J.-G., *Identifying American Architecture* (New York: W.W. Norton & Company, 1977).

California Office of Historic Preservation, *California Register and National Register: A Comparison (for Purposes of Determining Eligibility for the California Register),* Technical Assistance Series No. 6. (Sacramento, CA, 14 March 2006).

California Office of Historic Preservation, *Instructions for Recording Historical Resources* (Sacramento, CA, March 1995).

"Contracts Awarded for Two Schools Total $1,174,571." *Los Angeles Times* (21 July 1950).

Donovan, John J., *School Architecture: Principles and Practices* (New York: The MacMillan Company, 1921).

Eales, John R., "A Brief, General History of the Los Angeles City School System," Doctoral Dissertation (Los Angeles: University of California, June 1956).

Gebhard, David, and Robert Winter, *A Guide to Architecture in Los Angeles and Southern California* (Santa Barbara, CA: Peregrine Smith, Inc., 1977).

Harris, Cyril M., *American Architecture: An Illustrated Encyclopedia* (New York: W.W. Norton & Company, 1998).

Heumann & Associates and Anne Doehne, Science Applications International Corporation, March 2002, "Historic Schools of the Los Angeles Unified School District," a presentation prepared for LAUSD Facilities Services Division (March 2002).

Hille, R. Thomas, *Modern Schools: A Century of Design for Education* (Hoboken, NJ: John Wiley & Sons, 2011), 13.

Lee, Antoinette, and Linda F. McClelland, U.S. Department of the Interior, National Park Service, *National Register Bulletin No. 16B, How to Complete the National Register Multiple Property Documentation Form (1999).*

Los Angeles Unified School District. *Los Angeles Unified School District Pre-Planning Survey* (2011).

McAlester, Virginia, and Lee McAlester, *A Field Guide to American House* (New York: Alfred A. Knopf, 2004).

Mock, Elizabeth, *Built in USA, 1932 – 1944: A Survey of Contemporary American Architecture*, The Museum of Modern Art (New York: Simon & Shuster, 1944).

Ogata, Amy F., "Building for Learning in Postwar American Elementary Schools," *Journal of the Society of Architectural Historians* 67, no. 4 (December 2008): 562–91.

Sapphos Environmental, Inc., *Los Angeles Unified School District Historic Context Statement, 1870 to 1969* (Pasadena, CA, March 2014).

Science Applications International Corporation, *Historic Context Statement: Los Angeles Unified School District*, prepared for Los Angeles Unified School District (Pasadena, CA: March 2002).

U.S. Department of the Interior, National Park Service, "How to Apply the National Register Criteria for Evaluation," National Register Bulletin No. 15 (Washington, DC, 2002).

U.S. Department of the Interior, National Park Service, "How to Complete the National Register Form," National Register Bulletin No. 16A (Washington, DC, 1997).

U.S. Department of the Interior, National Park Service, "How to Complete the National Register Multiple Property Documentation Form," National Register Bulletin No. 16B (Washington, DC, 1999).

Whiffen, Marcus, American Architecture since 1780: A Guide to the Styles (Cambridge, MA: MIT Press, 1981).

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #_____
HRI #_____
Trinomial_____
NRHP Status Code 3D
Other Listings_____
Review Code_____ Reviewer_____ Date_____

Page 1 of 6 **Resource name(s) or number** (assigned by recorder) Chatsworth Senior High School

P1. Other Identifier:
***P2. Location:** ☐Not for Publication ■Unrestricted
***a. County** Los Angeles County
***b. USGS 7.5' Quad** Oat Mountain, CA **Date** 1969 **T** 2N **R** 16W; W ½ **of** SW ¼ **of** Sec 17. S.B.**B.M.**
c. Address 10027 Lurline Avenue City Chatsworth Zip 91311
e. Other Locational Data: APN: # 2741-002-900

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries.)

Located on a 37.5-acre site in northwestern San Fernando Valley, Chatsworth Senior High School is bounded by Lemarsh Street on the north, Lurline Avenue on the east, Vintage Street on the south, and De Soto Avenue on the west. The campus core displays the textbook features of the postwar indoor-outdoor school plant, with low (generally one story) classroom wings extending across a large site, and ample outdoor courtyards and landscaping, connected by an extensive system of arcades. Constructed in 1963 in a Mid-Century Modern architectural style, the focal point of the campus is an oval-shaped central lawn, with eight one-story classroom wings radiating outward from the lawn. The central lawn is bisected by a concrete walkway and accented with mature trees and landscaping. An outdoor auditorium, with concrete steps and stage, are located in the lawn's northwestern portion. Anchoring both sides of the lawn are the Administration Building in the southeast portion of the campus and the cafeteria, outdoor dining area, and multipurpose room in the northwest portion. Throughout the core of the campus, landscaped courtyards with walkways, benches, and landscaping line each classroom wing.

The Administration Building consists of a one-story building, rectangular in plan and capped with a low-pitched, front-gabled roof. The building is sheathed in stucco and brick. Windows display a variety of configurations, including fixed lights, transoms, multi-light double-hung sashes, and awning casements. *(See Continuation Sheet)*

***P3b. Resource Attributes:** (list attributes and codes) HP15. Educational Building. HP29. Landscape architecture.

***P4. Resources Present**: ☐Building ☐Structure ☐Object ☐Site ■District ☐Element of District ☐Other

P5a. Photo

P5b. Photo: (view and date) Southeast elevation, 7 November 2013

***P6. Date Constructed/Age and Sources:** ■ Historic ☐ Prehistoric ☐ Both 1963 (Los Angeles Unified School District)

***P7. Owner and Address:**
Los Angeles Unified School District

***P8. Recorded by:**
Debi Howell-Ardila, MHP
Sapphos Environmental, Inc.
430 North Halstead Street
Pasadena, CA 91107

***P9. Date Recorded:** 2 January 2014

***P10. Survey Type:** Intensive

***P11. Report Citation:** (Cite survey report and other sources, or enter "none") Sapphos Environmental, Inc. March 2014. *Los Angeles Unified School District Historic Context Statement, 1870 to 1969*. Pasadena, CA.
Sapphos Environmental, Inc. June 2014. *Los Angeles Unified School District Historic Resources Survey Report*. Pasadena, CA.

***Attachments:** ☐None ☐Location Map ☐Sketch Map ■Continuation Sheet ■Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (list)

BUILDING, STRUCTURE, AND OBJECT RECORD

*NHRP Status Code 3D

 *Resource Name or #: Chatsworth Senior High School

B1. Historic Name: Chatsworth Senior High School
B2. Common Name: Same
B3. Original Use: Institutional (Educational Facility) B4. Present Use: Institutional (Educational Facility)
*B5. **Architectural Style:** Mid-Century Modern
*B6. **Construction History:** (Construction date, alterations, and date of alterations):

According to records on file with the Los Angeles Unified School District, construction was completed on Chatsworth Senior High School in 1963. A majority of the campus's extant buildings, structures, and facilities date from this period. The grounds also include several portable/temporary buildings from the 1940s and 1950s. After construction of the campus (especially during the 1980s and 2000s), additional modular, portable buildings and structures were added, primarily in the campus's southwestern portion. A number of alterations and repairs have taken place over the years, including seismic and systems upgrades, the installation of air-conditioner units, and safety improvements (see *LAUSD Pre-Planning Survey, Chatsworth Senior High School* for list of repairs and improvements carried out since the 1990s). Alterations to original buildings on campus include the infilling of original window openings with air-conditioners or other materials (such as wood paneling); such changes are visible on several classroom wings. The Multipurpose Room and Gymnasium also appear to have had window openings/doors altered or filled in.

*B7. **Moved?** ■No ☐Yes ☐Unknown **Date:**_____ **Original Location:**_____
*B8. **Related Features:** Landscaping/mature trees, hardscaping, benches
B9a. Architect: Unknown b. Builder: Unknown
*B10. **Significance:** **Theme**, Institutional (Educational Facility), "Educating the Baby Boom: Postwar Expansion and the Functional, Modern School Plant, 1945-1969" **Area** Los Angeles
Period of Significance: 1963 (District) **Property Type:** Institutional (Educational Facility)
Applicable Criteria: NRHP: A and C; CRHR: 1 and 3.
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity)

The campus core of Chatsworth Senior High School appears eligible as a district under Criteria A/1 as an excellent, intact example of an indoor-outdoor postwar school in the Los Angeles Unified School District. The campus plan and buildings exemplify LAUSD design principles and ideals from the postwar period (as described in the Los Angeles Unified School District Historic Context Statement, 1870 to 1969). The construction of Chatsworth Senior High School in 1963 also reflects the continuing postwar suburban expansion of the San Fernando Valley. The campus is also eligible under Criteria C/3 as an excellent example of the Mid-Century Modern style applied to institutional architecture.

With plans launched in 1961, Chatsworth Senior High School was designed to accommodate overflow student populations from Canoga Park, Cleveland, and Granada Hills high schools. The school was originally designed to accommodate up to 2,500 students. Although the campus shows some signs of alteration, such as the removal of original hardscaping, windows, and doors, the campus core retains integrity of location, design, setting, workmanship, feeling, and association.

B11. Additional Resource Attributes: HP15. Educational Facility.
HP 29. Landscape Architecture.

*B12. **References:** *(See Continuation Sheet)*

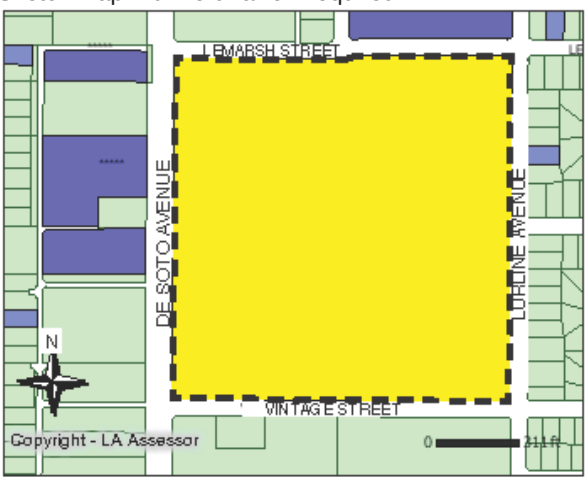
B13. Remarks: None

*B14. **Evaluator:** Debi Howell-Ardila, MHP

*Date of Evaluation: 7 November 2013

(This space reserved for official comments.)

Sketch Map with north arrow required



***Recorded by** Debi Howell-Ardila ***Date:** 2 January 2014 ☒ Continuation ☐ Update

***P3a. Description (continued):**

Swaths of wide horizontal louvers provide shade along the façade the Administration Building. The campus also displays a generous setback, with the Administration Building fronted by an expansive lawn and several mature trees.

The eight wings of the campus core, which include the main classroom wings and campus library, are largely identical in plan, configuration, and architectural detailing. Classrooms consist of rectangular, one-story buildings capped with low-pitched, front-gabled roofs. Roof lines terminate in thin gable bargeboards. At the ends of the roof gables, eaves extend and turn downward at a 90-degree angle, providing additional shading for the interior. These wings have double-loaded corridors with classrooms along each side. Generous bands of fixed and casement windows line the classroom wings; in a typical fenestration pattern for postwar LAUSD schools, windows occupy approximately 60 percent of the exterior wall height. Sheathing materials used on classroom wings vary; facing the central lawn, primary and secondary elevation walls are sheathed in smooth stucco, with some scoring detailing. The elevation facing the exterior of the campus displays patterned Roman brick sheathing and a cantilevered shelter over the entrance.

The entrances on both sides of the classroom wings feature similar architectural detailing. Flanking the entrances are thin, square piers, sheathed in off-white brick. Entrances consist of sets of metal doors with fixed and side lights, capped with clerestory windows. On all classroom wings, decorative tile work and horizontal vents accent the apexes of the roof gables. On the interior of the campus, the cantilevered roofs over entrances extend to form covered canopies. The concrete-clad canopies are capped with flat roofs and rest on thin, spider-leg supports.

Beyond the campus core, the school includes a music room, gymnasium, playing fields, and a shop building, as well as other ancillary buildings and structures. Alterations include the replacement of some original hardscaping and windows, and the infilling of original window openings with air-conditioner units. The core of the campus is otherwise intact. The original entrance of the gymnasium also appears to have been altered, with original windows and doors filled in on the eastern portion of the façade.

P5b. Photo (continued): (view and date)

Chatsworth Senior High School, Classroom Wing D, northwest (outward facing) elevation.
Source: Sapphos Environmental, Inc., 7 November 2013.

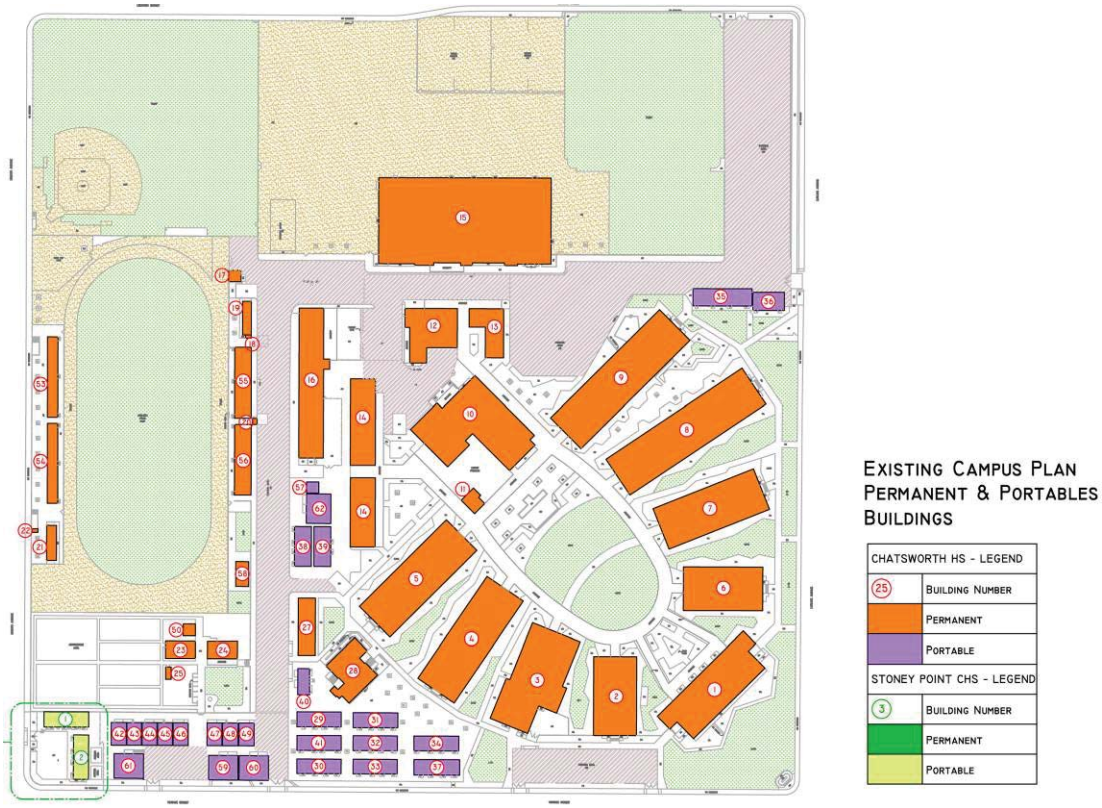
P5b. Photo (continued): (view and date)

Chatsworth Senior High School, Classroom Building 8, seen from the curved arcade, which forms a network throughout the campus. West perspective. Source: Sapphos Environmental, Inc., 7 November 2013.

Chatsworth Senior High School, oval-shaped lawn and arcade system. Southeast perspective. Source: Sapphos Environmental, Inc., 7 November 2013.

***Recorded by** Debi Howell-Ardila ***Date:** 2 January 2014 ☒ Continuation ☐ Update

P5b. Photo (continued): (view and date)



Chatsworth Senior High School, Site Plan, with permanent buildings marked in orange and portable buildings marked in purple. Source: Los Angeles Unified School District Pre-Planning Survey, Chatsworth Senior High School, December 2010.

***B12. References (continued):**

Bhatia, Pavan, "Modern Concept for Los Angeles Public Schools," Doctoral Dissertation (Cambridge, MA: Harvard University Graduate School of Design, Advanced Management Development Program in Real Estate, July 2009).

Blumenson, John J.-G., *Identifying American Architecture* (New York: W.W. Norton & Company, 1977).

California Office of Historic Preservation, *California Register and National Register: A Comparison (for Purposes of Determining Eligibility for the California Register),* Technical Assistance Series No. 6. (Sacramento, CA, 14 March 2006).

California Office of Historic Preservation, *Instructions for Recording Historical Resources* (Sacramento, CA, March 1995).

"Contracts Awarded for 2 Major Schools." *Los Angeles Times* (3 August 1961).

Donovan, John J., *School Architecture: Principles and Practices* (New York: The MacMillan Company, 1921).

Eales, John R., "A Brief, General History of the Los Angeles City School System," Doctoral Dissertation (Los Angeles: University of California, June 1956).

Gebhard, David, and Robert Winter, *A Guide to Architecture in Los Angeles and Southern California* (Santa Barbara, CA: Peregrine Smith, Inc., 1977).

Harris, Cyril M., *American Architecture: An Illustrated Encyclopedia* (New York: W.W. Norton & Company, 1998).

Heumann & Associates and Anne Doehne, Science Applications International Corporation, March 2002, "Historic Schools of the Los Angeles Unified School District," a presentation prepared for LAUSD Facilities Services Division (March 2002).

Hille, R. Thomas, *Modern Schools: A Century of Design for Education* (Hoboken, NJ: John Wiley & Sons, 2011), 13.

Lee, Antoinette, and Linda F. McClelland, U.S. Department of the Interior, National Park Service, *National Register Bulletin No. 16B, How to Complete the National Register Multiple Property Documentation Form (1999).*

Los Angeles Unified School District. *Los Angeles Unified School District Pre-Planning Survey* (2011).

McAlester, Virginia, and Lee McAlester, *A Field Guide to American House* (New York: Alfred A. Knopf, 2004).

Mock, Elizabeth, *Built in USA, 1932 – 1944: A Survey of Contemporary American Architecture*, The Museum of Modern Art (New York: Simon & Shuster, 1944).

"New School Will Expect Much from Students, Says Principal." *Los Angeles Times* (23 January 1963).

Ogata, Amy F., "Building for Learning in Postwar American Elementary Schools," *Journal of the Society of Architectural Historians* 67, no. 4 (December 2008): 562–91.

Sapphos Environmental, Inc., *Los Angeles Unified School District Historic Context Statement, 1870 to 1969* (Pasadena, CA, March 2014).

Science Applications International Corporation, *Historic Context Statement: Los Angeles Unified School District*, prepared for Los Angeles Unified School District (Pasadena, CA: March 2002).

U.S. Department of the Interior, National Park Service, "How to Apply the National Register Criteria for Evaluation," National Register Bulletin No. 15 (Washington, DC, 2002).

U.S. Department of the Interior, National Park Service, "How to Complete the National Register Form," National Register Bulletin No. 16A (Washington, DC, 1997).

U.S. Department of the Interior, National Park Service, "How to Complete the National Register Multiple Property Documentation Form," National Register Bulletin No. 16B (Washington, DC, 1999).

Whiffen, Marcus, American Architecture since 1780: A Guide to the Styles (Cambridge, MA: MIT Press, 1981).

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #_____
HRI #_____
Trinomial_____
NRHP Status Code 3D
Other Listings_____
Review Code_____ Reviewer_____ Date_____

Page 1 of 7 **Resource name(s) or number** (assigned by recorder) Cleveland Senior High School

P1. Other Identifier:
***P2. Location:** ☐Not for Publication ■Unrestricted
***a. County** Los Angeles County
***b. USGS 7.5' Quad** Canoga Park, CA **Date** 1967 **T** 2N **R** 16W; Unsectioned; S.B.**B.M.**
c. Address 8140 Vanalden Avenue City Reseda Zip 91335
e. Other Locational Data: APN: # 2104-004-905

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries.)

Located in northwest Reseda in the San Fernando Valley, Grover Cleveland Senior High School occupies a 33-acre site bounded by Roscoe Boulevard on the north, the Los Angeles River on the east, Wilbur Avenue on the southeast, Strathern Street on the south, and Vanalden Avenue on the west.

Constructed in 1959/1960 in the Mid-Century Modern style, the campus core displays the textbook features of the postwar indoor-outdoor school plant, with low (generally one story) classroom wings extending across a large site, and with outdoor courtyards and plantings, connected by an extensive network of arcades. The site plan combines the features of a finger-plan and a cluster-plan school, with axial, double-loaded classroom wings grouped around shared courtyard spaces and a large central lawn. The central lawn provides gathering spaces for students and doubles as an outdoor auditorium, with a raised concrete platform along the eastern portion of the lawn. A low wall, characterized by alternating panels of brick cladding and decorative grillwork, fronts the central lawn. The principal entrance to the school is located in the Administration Building, which is located along the northeastern portion of the lot. Classrooms extend outward from the main entrance, in a symmetrical plan linked by arcades. Courtyards and outdoor spaces throughout the campus exhibit mature trees and plantings, built-in concrete benches, planters and hardscaping. *(See Continuation Sheet)*

***P3b. Resource Attributes:** (list attributes and codes) HP15. Educational Building. HP29. Landscape architecture.

***P4. Resources Present**: ☐Building ☐Structure ☐Object ☐Site ■District ☐Element of District ☐Other

P5a. Photo

P5b. Photo: (view and date) Southwest elevation, 6 November 2013

***P6. Date Constructed/Age and Sources:** ■ Historic ☐ Prehistoric ☐ Both 1959/1960 (Los Angeles Unified School District)

***P7. Owner and Address:**
Los Angeles Unified School District

***P8. Recorded by:**
Debi Howell-Ardila and Marilyn Novell
Sapphos Environmental, Inc.
430 North Halstead Street
Pasadena, CA 91107

***P9. Date Recorded:**
29 January 2014

***P10. Survey Type:** Intensive

***P11. Report Citation:** (Cite survey report and other sources, or enter "none")

Sapphos Environmental, Inc. March 2014. *Los Angeles Unified School District Historic Context Statement, 1870 to 1969*. Pasadena, CA.
Sapphos Environmental, Inc. June 2014. *Los Angeles Unified School District Historic Resources Survey Report*. Pasadena, CA.

***Attachments:** ☐None ☐Location Map ☐Sketch Map ■Continuation Sheet ■Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (list)

BUILDING, STRUCTURE, AND OBJECT RECORD

*NHRP Status Code 3D

 *Resource Name or #: Cleveland Senior High School

B1. Historic Name: Grover Cleveland Senior High School
B2. Common Name: Same
B3. Original Use: Institutional (Educational Facility) B4. Present Use: Institutional (Educational Facility)
*B5. **Architectural Style:** Mid-Century Modern
*B6. **Construction History:** (Construction date, alterations, and date of alterations):

Grover Cleveland Senior High School was constructed in 1959–1960 at an estimated cost of $5 million (*Los Angeles Times*, 22 September 1957). A majority of the campus's extant buildings, structures, and facilities date from this period. The grounds also include a number of portable/temporary buildings, most of which were added during the mid-1980s and early 2000s. A number of alterations and repairs have taken place over the years, including seismic and systems upgrades, the installation of air-conditioning units, and safety improvements (see *LAUSD Pre-Planning Survey, Cleveland Senior High School* for list of repairs and improvements carried out since the 1990s). Alterations to original buildings on campus include the infilling of some original window openings with air-conditioner units; such changes are visible on several of the classroom wings.

*B7. **Moved?** ■No ☐Yes ☐Unknown **Date:**_____ **Original Location:**_____
*B8. **Related Features:** Landscaping/mature trees, hardscaping, benches
B9a. Architect: Charles O. Matcham, Stewart S. Granger and Associates b. Builder: Unknown
*B10. **Significance:** **Theme**, Institutional (Educational Facility), "Educating the Baby Boom: Postwar Expansion and the Functional, Modern School Plant, 1945-1969" **Area** Los Angeles
Period of Significance: 1959-1960 (District) **Property Type:** Institutional (Educational Facility)
Applicable Criteria: NRHP: A and C; CRHR: 1 and 3.
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity)

The campus core of Cleveland Senior High School appears eligible as a district under Criteria A/1 as an excellent, intact example of an indoor-outdoor postwar school in the Los Angeles Unified School District. The campus plan and buildings exemplify LAUSD design principles and ideals from the postwar period, specifically as an example of a finger-plan and cluster-plan school (as described in the *Los Angeles Unified School District Historic Context Statement, 1870 to 1969*). The construction of Cleveland Senior High School in 1959 also reflects the continuing postwar suburban expansion of the San Fernando Valley. The campus is also eligible under Criteria C/3 as an excellent example of the Mid-Century Modern style applied to institutional architecture.

With plans launched in 1957, Cleveland Senior High School was designed to accommodate 3,000 students in the rapidly expanding San Fernando Valley. Although the campus shows some signs of alteration, such as the removal of original hardscaping and windows, the campus core retains integrity of location, design, setting, workmanship, feeling, and association.

B11. Additional Resource Attributes: HP15. Educational Facility. HP 29. Landscape Architecture.

*B12. **References:** *(See Continuation Sheet)*

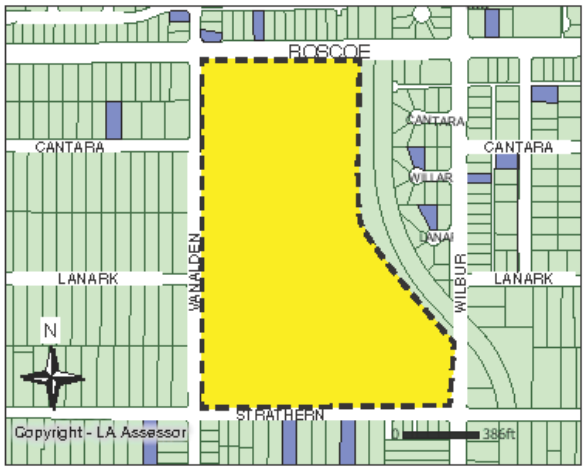
B13. Remarks: None

*B14. **Evaluator:** Debi Howell-Ardila, MHP

***Date of Evaluation:** 7 November 2013

(This space reserved for official comments.)

Sketch Map, with north arrow required



***Recorded by** Debi Howell-Ardila and Marilyn Novell ***Date:** 29 January 2014 ☒ Continuation ☐ Update

***P3a. Description (continued):**

The defining feature of the campus is the Administration Building, which is located along the northeastern portion of the lot. The one-story building is rectangular in plan and capped with a very low-pitched, front-gabled roof. Projecting from the north half of the building, a brick-clad wall separates the entrance from an adjacent parking lot. On the primary (east) elevation, wood-framed, full-height windows face the drop-off area for students and look out onto extensive landscaping, brick planters, and mature trees. Decorative detailing is primarily reserved for the entrance, which is centered beneath the gable and displays Roman-patterned brick and a flat-roofed cantilevered shelter. Horizontal vents mark the gable apex. A recessed courtyard with landscaping is located on the south elevation.

The main entrance is centered on the building and consists of paired metal doors, sheltered by a flat-roof arcade that provides a transition from the exterior to the interior of the school. A wall composed of alternating panels of brick and decorative grillwork separates the entrance arcade from an adjacent parking lot. As on the campus interior, the arcade is characterized by a stucco-clad shelter supported on steel, spider-leg supports (along the central lawn, the arcade is supported on thick, brick-clad piers). The structure is frankly expressed, with exposed steel supports exposed beneath the arcades. In a configuration that also characterizes classroom wings throughout the campus, the gable of the Administration Building displays shallow eaves trimmed with thin bargeboards. Along the side of the building, the roof line ends in medium cantilevered eaves sheathed in stucco. (This roof configuration and detailing are echoed in the classroom wings throughout campus.)

Typical classroom wings follow this pattern, with one-story rectangular buildings, capped with low-pitched front-gabled roofs. Along the length of the classrooms, windows are recessed and generally consist of two-over-two, double-hung wood sashes, grouped in rows that mark the location of the classrooms inside. These window groupings mark the classrooms on the interior and occupy approximately 60 percent of the exterior wall height. A variety of fenestration types and patterns are seen throughout campus, including a number of fixed pane, clerestories, and casements. Sheathing materials include stucco, with some decorative scoring, and patterned Roman brick. *(See Continuation Sheet, p. 4)*

P5b. Photo (continued): (view and date)

Cleveland Senior High School, Administration Building. Southwest perspective.
Source: Sapphos Environmental, Inc., 6 November 2013.

***Recorded by** Debi Howell-Ardila and Marilyn Novell ***Date:** 29 January 2014 ☒ Continuation ☐ Update

***P3a. Description (continued):**

Beyond the campus core, the school includes a library (on the northwestern side of campus), cafeteria and sheltered outdoor dining area, gymnasium and recreational fields (in the southern portion of the lot), as well as a number of facilities and portable buildings/structures, installed primarily in the 1980s. All buildings on campus are one story with the exception of one classroom building, the cafeteria, and gymnasium. Overall, the campus core is in good repair and enhanced by extensive original (and new) landscaping. Visible alterations include some replaced hardscaping and concrete benches in the courtyards, the addition of security grills and air-conditioning units in some of the original window openings.

P5b. Photo (continued): (view and date)

Cleveland Senior High School, typical classroom building. East perspective.
Source: Sapphos Environmental, Inc., 6 November 2013.

Cleveland Senior High School, typical classroom building. Southwest perspective.
Source: Sapphos Environmental, Inc., 6 November 2013.

***Recorded by** Debi Howell-Ardila and Marilyn Novell ***Date:** 29 January 2014 ☒ Continuation ☐ Update

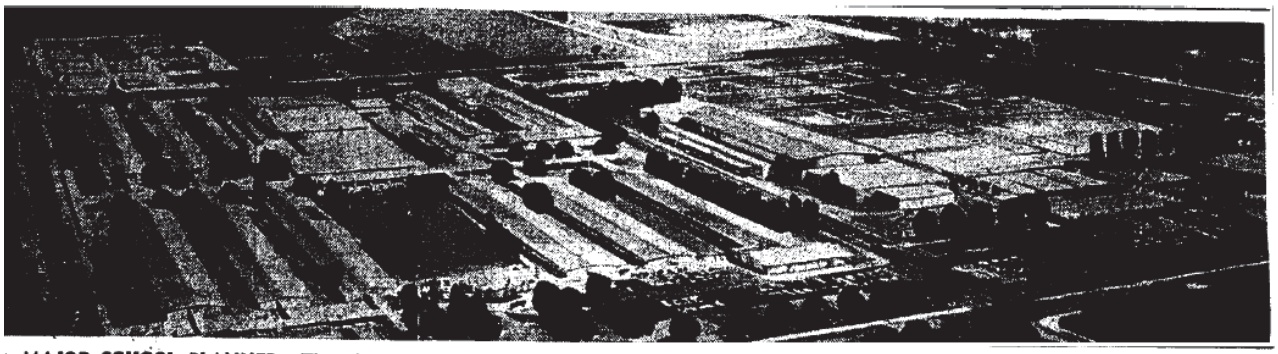
P5b. Photo (continued): (view and date)

Cleveland Senior High School, typical inter-classroom courtyard and landscaping. Southeast perspective. Source: Sapphos Environmental, Inc., 6 November 2013.

Cleveland Senior High School, typical classroom building. Southwest perspective. Source: Sapphos Environmental, Inc., 6 November 2013.

***Recorded by** Debi Howell-Ardila and Marilyn Novell ***Date:** 29 January 2014 ☒ Continuation ☐ Update

P5b. Photo (continued): (view and date)



MAJOR SCHOOL PLANNED—This drawing indicates design and magnitude of Grover Cleveland Senior High School, $5,000,000 project proposed to be built on Northridge site for accommodation of 3000 students. Plans are by architectural firm of Charles O. Matcham, Stewart S. Granger and Associates. School will be constructed in two phases. Entire completion set September of 1959.

Los Angeles Times, 22 September 1957. Announcement of construction of Grover Cleveland High School, to be constructed as an estimated cost of $5 million, to accommodate 3,000 students. Campus design by Charles O. Matcham, Stewart S. Granger and Associates.

Cleveland Senior High School, Site Plan, with permanent buildings marked in orange and portable buildings marked in purple. Source: Los Angeles Unified School District Pre-Planning Survey, Cleveland Senior High School, March 2012.

***B12. References (continued):**

Bhatia, Pavan, "Modern Concept for Los Angeles Public Schools," Doctoral Dissertation (Cambridge, MA: Harvard University Graduate School of Design, Advanced Management Development Program in Real Estate, July 2009).

Blumenson, John J.-G., *Identifying American Architecture* (New York: W.W. Norton & Company, 1977).

California Office of Historic Preservation, *California Register and National Register: A Comparison (for Purposes of Determining Eligibility for the California Register),* Technical Assistance Series No. 6. (Sacramento, CA, 14 March 2006).

California Office of Historic Preservation, *Instructions for Recording Historical Resources* (Sacramento, CA, March 1995).

Donovan, John J., *School Architecture: Principles and Practices* (New York: The MacMillan Company, 1921).

Eales, John R., "A Brief, General History of the Los Angeles City School System," Doctoral Dissertation (Los Angeles: University of California, June 1956).

Gebhard, David, and Robert Winter, *A Guide to Architecture in Los Angeles and Southern California* (Santa Barbara, CA: Peregrine Smith, Inc., 1977).

Harris, Cyril M., *American Architecture: An Illustrated Encyclopedia* (New York: W.W. Norton & Company, 1998).

Heumann & Associates and Anne Doehne, Science Applications International Corporation, March 2002, "Historic Schools of the Los Angeles Unified School District," a presentation prepared for LAUSD Facilities Services Division (March 2002).

Hille, R. Thomas, *Modern Schools: A Century of Design for Education* (Hoboken, NJ: John Wiley & Sons, 2011), 13.

Lee, Antoinette, and Linda F. McClelland, U.S. Department of the Interior, National Park Service, *National Register Bulletin No. 16B, How to Complete the National Register Multiple Property Documentation Form (1999).*

McAlester, Virginia, and Lee McAlester, *A Field Guide to American House* (New York: Alfred A. Knopf, 2004).

Mock, Elizabeth, *Built in USA, 1932 – 1944: A Survey of Contemporary American Architecture*, The Museum of Modern Art (New York: Simon & Shuster, 1944).

"New $5,000,000 High School's Plans Stated." *Los Angeles Times* (September 22, 1957).

Ogata, Amy F., "Building for Learning in Postwar American Elementary Schools," *Journal of the Society of Architectural Historians* 67, no. 4 (December 2008): 562–91.

Los Angeles Unified School District. *Los Angeles Unified School District Pre-Planning Survey* (2011).

Sapphos Environmental, Inc., *Los Angeles Unified School District Historic Context Statement, 1870 to 1969* (Pasadena, CA, March 2014).

Science Applications International Corporation, *Historic Context Statement: Los Angeles Unified School District*, prepared for Los Angeles Unified School District (Pasadena, CA: March 2002).

U.S. Department of the Interior, National Park Service, "How to Apply the National Register Criteria for Evaluation," National Register Bulletin No. 15 (Washington, DC, 2002).

U.S. Department of the Interior, National Park Service, "How to Complete the National Register Form," National Register Bulletin No. 16A (Washington, DC, 1997).

U.S. Department of the Interior, National Park Service, "How to Complete the National Register Multiple Property Documentation Form," National Register Bulletin No. 16B (Washington, DC, 1999).

Whiffen, Marcus, *American Architecture since 1780: A Guide to the Styles* (Cambridge, MA: MIT Press, 1981).

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #_____
HRI #_____
Trinomial_____
NRHP Status Code 3CD
Other Listings_____
Review Code_____ Reviewer_____ Date_____

 Resource name(s) or number (assigned by recorder) Colfax Avenue Elementary School

P1. Other Identifier:
***P2. Location:** ☐Not for Publication ■Unrestricted
***a. County** Los Angeles County
***b. USGS 7.5' Quad** Sherman Village, CA **Date** 1972 **T** 2N **R** 16W; Unsectioned; S.B.**B.M.**
c. Address 11724 Addison Street City North Hollywood Zip 91607
e. Other Locational Data: APN: # 2355-013-900

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries.)

Located on an 8-acre site in the Valley Village area of the San Fernando Valley, Colfax Avenue Elementary School is bounded by Colfax Avenue on the east, Huston Street on the south, Morella Avenue on the west, and Addison Street on the north. The campus exhibits the textbook features of a postwar, finger-plan school, with axial, one-story classroom wings, one room deep, extending across the site. Indoor-outdoor integration is created through the generous use of windows, which occupy approximately 80 percent of the wall height along eastern elevations, as well as through the incorporation of courtyards adjacent to classroom wings, outdoor gathering and recreational areas, and mature landscaping and trees.

The core of the campus consists of five rectilinear classroom wings, linked on both sides by continuous arcades. The arcades, which form circulation corridors throughout the main campus, display flat-roofed shelters, terminating in broad, unadorned wood fascia. Wood rafters and planks, visible from beneath the sheltered corridors, form the roof structure. Simple metal poles serve as supports for corridors throughout campus. Classroom wings display the differentiated fenestration patterns and roof eave treatment typical of postwar schools from this era (though ordinarily the orientation of the building would have been north-south, with fewer windows on the sunny, south side, and broad expanses of windows on the north side). In this case, the orientation of classroom wings is east-west, with fewer windows/clerestories on the west, and generous expanses of windows on the east. *(See Continuation Sheet)*

***P3b. Resource Attributes:** (list attributes and codes) HP15. Educational Building. HP29. Landscape architecture.

***P4. Resources Present**: ☐Building ☐Structure ☐Object ☐Site ■District ☐Element of District ☐Other

P5a. Photo

P5b. Photo: (view and date) Northwest elevation, 15 January 2014

***P6. Date Constructed/Age and Sources: :** ■ Historic ☐ Prehistoric ☐ Both 1950-1955 (Los Angeles Unified School District)

***P7. Owner and Address:**
Los Angeles Unified School District

***P8. Recorded by:**
Debi Howell-Ardila, MHP
Sapphos Environmental, Inc.
430 North Halstead Street
Pasadena, CA 91107

***P9. Date Recorded:** 20 January 2014

***P10. Survey Type:** Intensive

***P11. Report Citation:** (Cite survey report and other sources, or enter "none") Sapphos Environmental, Inc. March 2014. *Los Angeles Unified School District Historic Context Statement, 1870 to 1969*. Pasadena, CA.
Sapphos Environmental, Inc. June 2014. *Los Angeles Unified School District Historic Resources Survey Report*. Pasadena, CA.

***Attachments:** ☐None ☐Location Map ☐Sketch Map ■Continuation Sheet ■Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (list)

BUILDING, STRUCTURE, AND OBJECT RECORD

*NHRP Status Code 3CD

 *Resource Name or #: Colfax Avenue Elementary School

B1. Historic Name: Colfax Avenue Elementary School
B2. Common Name: Same
B3. Original Use: Institutional (Educational Facility) B4. Present Use: Institutional (Educational Facility)
*B5. **Architectural Style:** Mid-Century Modern–influenced
*B6. **Construction History:** (Construction date, alterations, and date of alterations):

According to records on file with the Los Angeles Unified School District, construction on the core of the campus was completed in 1950/1951. In 1955, a two-story auditorium was added in the northeastern corner of the parcel, at Colfax Avenue and Addison Street. The eastern portion of the campus grounds also includes several portable/temporary buildings from the late 1980s and early 1990s. A number of alterations and repairs have taken place over the years, including seismic and systems upgrades, the installation of air-conditioner units, replacement of original hardscaping, new fencing, and various safety improvements (see *LAUSD Pre-Planning Survey, Colfax Avenue Elementary School* for list of repairs and improvements carried out since the 1990s). In addition, alterations to original classroom wings include the infilling of some clerestory casements and entry glazing, as well as replacement of original windows with air-conditioner units; such changes are visible on several of the classroom wings.

*B7. **Moved?** ■No ☐Yes ☐Unknown **Date:**_____ **Original Location:**_____
*B8. **Related Features:** Landscaping/mature trees, hardscaping, benches
B9a. Architect: Unknown b. Builder: Unknown
*B10. **Significance:** **Theme**, Institutional (Educational Facility),
"Educating the Baby Boom: Postwar Expansion and the Functional, Modern School Plant, 1945-1969" **Area** Los Angeles
Period of Significance: 1950-1955 (District) **Property Type:** Institutional (Educational Facility)
Applicable Criteria: CRHR: 1.
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity)

The campus core of Colfax Avenue Elementary School appears eligible for the California Register of Historical Resources under Criterion 1 as an excellent, intact example of a modern, indoor-outdoor postwar elementary school in Los Angeles. The campus plan and buildings exemplify LAUSD design principles and ideals from the postwar period (as described in *the Los Angeles Unified School District Historic Context Statement, 1870 to 1969*). The construction of Colfax Avenue Elementary School in 1950/1951 also reflects the rapid postwar suburban expansion of the San Fernando Valley.

The campus exhibits some alterations, such as the removal of original hardscaping and windows and the infilling of original clerestory hopper casement windows, which spanned the length of classroom wings on the west elevations. While many of the casements appear to have been painted over or filled in with wood, the original size and configuration of the windows is still visible. Overall, the campus core (which includes the site plan, the relationship of buildings to outdoor spaces, and original plantings) retains integrity of location, design, setting, workmanship, feeling, and association. However, due to alterations, the campus is not eligible for the National Register and is eligible for the California Register only.

B11. Additional Resource Attributes: HP15. Educational Building. HP29. Landscape Architecture.

*B12. **References:** *(See Continuation Sheet)*

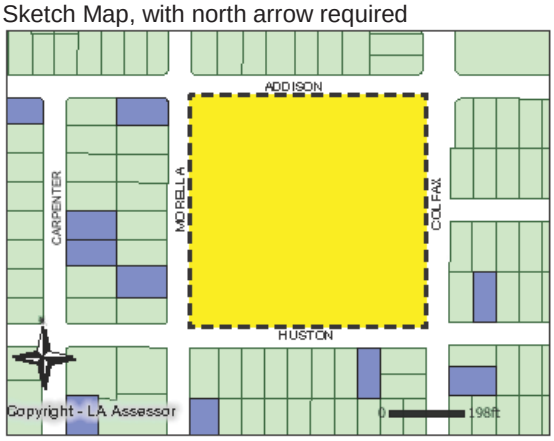
B13. Remarks: None

*B14. **Evaluator:** Debi Howell-Ardila, MHP

*Date of Evaluation: 24 January 2014

(This space reserved for official comments.)

Sketch Map, with north arrow required



Recorded by Debi Howell-Ardila **Date:** 23 January 2014 ☒ Continuation ☐ Update

***P3a. Description (continued):**

Along the west elevations, classroom windows are sheltered beneath wide cantilevered eaves, with wood beams and planks and broad, unadorned fascia boards. A slightly sloping shed roof caps the classroom buildings, with the slightly higher side located on the east. Clerestory windows appear to have originally spanned the west elevations of the classrooms (they are now filled in). On the east elevation, roof eaves are slightly shallower, also displaying wood beams and fascia boards. The main entrances to classrooms are located on the east elevation and generally consist of original metal doors with single-pane fixed windows. On the east elevations, classrooms are lined with generous expanses of wood-framed windows (which span roughly 80 percent of the wall height, from roof line nearly to the ground). Also on the east elevations of the classrooms are two square built-in mechanical service rooms, which appear to house air-conditioning units. These mechanical service rooms are flush with the roofline and accessed via paired metal doors.

The Administration Building, which serves as the main entrance to the campus, is located on the northeastern portion of the lot, on Addison Street. One story in height, the building is roughly rectangular in shape, with a street-level façade displaying recessed wings and features. The building is capped with a very low-pitched side-gable roof, terminating in shallow eaves with exposed wood beams. Broad, unadorned wood fascia boards terminate the roof line. A projecting, cantilevered shelter marks the entrance to the Administration Building. The entrance shelter has a flat roof with wide eaves and wood fascia boards, which display the school name. The roof line is trimmed with an open wood grid, marking a transitional space from the outside to the inside. The design composition of the façade is simple. The wall plane varies, with portions of the façade featuring wide expanses of wood-framed windows, set flush with the roof eaves, and recessed sheltered with sets of double-hung wood-framed windows, accented with brick planters along the ground. The façade includes a simple ornamental detail of a diamond-patterned metal screen and an angled wood grid serving as a roof support.

The campus exhibits many of the characteristics typical of Mid-Century Modernism. The Administration Building and classroom wings display a horizontal design composition, with very low-pitched or flat roofs and wide, cantilevered overhangs. There is an overall lack of applied ornament; campus buildings consist of simple, geometric volumes, with modular site planning. All classrooms are lined with windows, which appear to be wood-framed, multi-light double-hung sashes. *(See Continuation Sheet, p. 4)*

P5b. Photo (continued): (view and date)

Colfax Avenue Elementary School, Administration Building, view from inside campus. Southwest perspective. Source: Sapphos Environmental, Inc., 21 January 2014.

Recorded by Debi Howell-Ardila **Date:** 23 January 2014 ☒ Continuation ☐ Update

***P3a. Description (continued):**

Extending southward from the classroom wings and library are an outdoor dining area, capped with a flat roof supported on metal poles, a playground and recreational fields, and other facilities extending through the south portion of the campus. Mature trees appearing to date to the original construction era (early 1950s) are located throughout the campus, in particular in the northern portion. In the northeastern corner of the campus is the two-story auditorium building, constructed in 1955.

Alterations include the infilling of clerestory lights along the west elevations of classrooms, the apparent addition of mechanical sheds along the east elevations, the replacement of original hardscaping , as well as the addition of security gates at the entrance and bars on some of the windows. In addition, since the school's construction, a number of portable structures have been added, primarily in the southeastern portion of campus. The campus is otherwise in good repair, intact, and enhanced through landscaping and mature trees (including a number of old eucalyptus along Addison Street).

P5b. Photo (continued): (view and date)

Colfax Avenue Elementary School, detail, Administration Building. Eaves extend to form an open grid around the entrance wing. Northeast perspective. Source: Sapphos Environmental, Inc., 21 January 2014.

P5b. Photo (continued): (view and date)

Colfax Avenue Elementary School, typical west-elevation classroom wing and mature trees. North perspective. Source: Sapphos Environmental, Inc., 21 January 2014.

Colfax Avenue Elementary School, arcades connect all classrooms along the north and south expanses of campus. East perspective. Source: Sapphos Environmental, Inc., 21 January 2014.

Recorded by Debi Howell-Ardila **Date:** 23 January 2014 ☒ Continuation ☐ Update

P5b. Photo (continued): (view and date)

Colfax Avenue Elementary School, Site Plan, with permanent buildings marked in orange and portable buildings marked in purple. Source: Los Angeles Unified School District Pre-Planning Survey, Colfax Avenue Elementary

***B12. References (continued):**

Bhatia, Pavan, "Modern Concept for Los Angeles Public Schools," Doctoral Dissertation (Cambridge, MA: Harvard University Graduate School of Design, Advanced Management Development Program in Real Estate, July 2009).

Blumenson, John J.-G., *Identifying American Architecture* (New York: W.W. Norton & Company, 1977).

California Office of Historic Preservation, *California Register and National Register: A Comparison (for Purposes of Determining Eligibility for the California Register),* Technical Assistance Series No. 6. (Sacramento, CA, 14 March 2006).

California Office of Historic Preservation, *Instructions for Recording Historical Resources* (Sacramento, CA, March 1995).

Donovan, John J., *School Architecture: Principles and Practices* (New York: The MacMillan Company, 1921).

Eales, John R., "A Brief, General History of the Los Angeles City School System," Doctoral Dissertation (Los Angeles: University of California, June 1956).

Gebhard, David, and Robert Winter, *A Guide to Architecture in Los Angeles and Southern California* (Santa Barbara, CA: Peregrine Smith, Inc., 1977).

Harris, Cyril M., *American Architecture: An Illustrated Encyclopedia* (New York: W.W. Norton & Company, 1998).

Heumann & Associates and Anne Doehne, Science Applications International Corporation, March 2002, "Historic Schools of the Los Angeles Unified School District," a presentation prepared for LAUSD Facilities Services Division (March 2002).

Hille, R. Thomas, *Modern Schools: A Century of Design for Education* (Hoboken, NJ: John Wiley & Sons, 2011), 13.

Lee, Antoinette, and Linda F. McClelland, U.S. Department of the Interior, National Park Service, *National Register Bulletin No. 16B, How to Complete the National Register Multiple Property Documentation Form (1999).*

McAlester, Virginia, and Lee McAlester, *A Field Guide to American House* (New York: Alfred A. Knopf, 2004).

Mock, Elizabeth, *Built in USA, 1932 – 1944: A Survey of Contemporary American Architecture*, The Museum of Modern Art (New York: Simon & Shuster, 1944).

Ogata, Amy F., "Building for Learning in Postwar American Elementary Schools," *Journal of the Society of Architectural Historians* 67, no. 4 (December 2008): 562–91.

Los Angeles Unified School District. *Los Angeles Unified School District Pre-Planning Survey* (2011).

Sapphos Environmental, Inc., *Los Angeles Unified School District Historic Context Statement, 1870 to 1969* (Pasadena, CA, March 2014).

Science Applications International Corporation, *Historic Context Statement: Los Angeles Unified School District*, prepared for Los Angeles Unified School District (Pasadena, CA: March 2002).

"School Expansion Program Outlined." *Los Angeles Times* (May 3, 1952).

U.S. Department of the Interior, National Park Service, "How to Apply the National Register Criteria for Evaluation," National Register Bulletin No. 15 (Washington, DC, 2002).

U.S. Department of the Interior, National Park Service, "How to Complete the National Register Form," National Register Bulletin No. 16A (Washington, DC, 1997).

U.S. Department of the Interior, National Park Service, "How to Complete the National Register Multiple Property Documentation Form," National Register Bulletin No. 16B (Washington, DC, 1999).

Whiffen, Marcus, American Architecture since 1780: A Guide to the Styles (Cambridge, MA: MIT Press, 1981).

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #_____
HRI #_____
Trinomial_____
NRHP Status Code 3CD
Other Listings_____
Review Code_____ Reviewer_____ Date_____

 Resource name(s) or number (assigned by recorder) Dodson Middle School

P1. Other Identifier:
***P2. Location:** ☐Not for Publication ■Unrestricted
***a. County** Los Angeles County
***b. USGS 7.5' Quad** Torrance, CA **Date** 1981 **T** **R** N/A
c. Address 28014 South Montereina Drive City Rancho Palos Verdes Zip 90275
e. Other Locational Data: APN: # 7552-017-900

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries.)

Located in Rancho Palos Verdes, south of Los Angeles, Rudecinda Sepulveda Dodson Middle School occupies a 20.7-acre site in a residential neighborhood. The campus is generally bounded by Avenue Aprenda on the north, Avenida Estudiante on the south, Avenida Cuaderno on the east, and South Montereina Drive on the west and south. The school was constructed in 1960, with a number of small relocatable/temporary classroom buildings dating from 1935 through 2002, located on the periphery of campus along the west and north. The site plan displays the features of a postwar finger-plan school, designed in the Mid-Century Modern style. At the core of the campus, the focal point is an outdoor assembly area, courtyard, and lawn, which are framed by a two-story Multipurpose Building and one-story Administration Building. Extending from this student quad is a series of axial, finger-like classroom wings, linked by a sheltered arcade. Sheathed in smooth stucco, classrooms are one-story in height, one room deep, and capped with slightly sloped shed roofs with no overhanging eaves. Along the south elevation of classroom wings, a covered arcade, with a wide, wood plank-and-beam roof and simple pipe supports, provides a sheltered circulation corridor. *(See Continuation Sheet)*

***P3b. Resource Attributes:** (list attributes and codes) HP15. Educational Building. HP29. Landscape architecture.

***P4. Resources Present**: ☐Building ☐Structure ☐Object ☐Site ■District ☐Element of District ☐Other

P5a. Photo

P5b. Photo: (view and date) Administration Building, Southwest perspective, 5 February 2014

***P6. Date Constructed/Age and Sources:**
■ Historic ☐ Prehistoric ☐ Both
1960 (Los Angeles Unified School District)

***P7. Owner and Address:**
Los Angeles Unified School District

***P8. Recorded by:**
Debi Howell-Ardila and Marilyn Novell
Sapphos Environmental, Inc.
430 North Halstead Street
Pasadena, CA 91107

***P9. Date Recorded:** 10 March 2014

***P10. Survey Type:** Intensive

***P11. Report Citation:** (Cite survey report and other sources, or enter "none")
Sapphos Environmental, Inc. March 2014. *Los Angeles Unified School District Historic Context Statement, 1870 to 1969*. Pasadena, CA.

Sapphos Environmental, Inc. May 2014. *Los Angeles Unified School District Historic Resources Survey Report*. Pasadena, CA.

***Attachments:** ☐None ☐Location Map ☐Sketch Map ■Continuation Sheet ■Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (list)

BUILDING, STRUCTURE, AND OBJECT RECORD

***NHRP Status Code** 3CD

 ***Resource Name or #:** Dodson Middle School

B1. Historic Name: Rudecinda Sepulveda Dodson Middle School
B2. Common Name: Dodson Middle School
B3. Original Use: Institutional (Educational Facility) B4. Present Use: Institutional (Educational Facility)
***B5. Architectural Style:** Mid-Century Modern
***B6. Construction History:** (Construction date, alterations, and date of alterations):

According to records on file with the Los Angeles Unified School District, the core of the Dodson Middle School campus was constructed in 1960. Nine small portable/temporary buildings at the east and north sides of campus date from 1935 to 2002. A number of alterations and repairs have taken place over the years, including systems upgrades (the *LAUSD Pre-Planning Survey, Dodson Middle School* lists repairs and improvements performed at the school since the 1990s). Visible alterations include the removal of clerestory lights on some classroom wings and in-filling of windows with air conditioning units; expanses of locker storage added to the side elevations of some classroom wings also appear to be nonoriginal.

***B7. Moved?** ■**No** ☐**Yes** ☐**Unknown** **Date:**_____ **Original Location:**_____
***B8. Related Features:** Landscaping/mature trees, hardscaping
B9a. Architect: Unknown b. Builder: Unknown
***B10. Significance:** **Theme**, Institutional (Educational Facility),
"Educating the Baby Boom: Postwar Expansion and the Functional, Modern School Plant, 1945-1969" **Area** Los Angeles
Period of Significance: 1960 (District) **Property Type:** Institutional (Educational Facility)
Applicable Criteria: CRHR: 1.
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity)

The campus core of Dodson Middle School appears eligible as a historic district for the California Register of Historical Resources under Criterion 1 as an excellent, intact example of a postwar finger-plan high school. The campus plan and buildings exemplify LAUSD design principles and ideals from the postwar period (as described in the *Los Angeles Unified School District Historic Context Statement, 1870 to 1969*).

The core of the campus is an outstanding example of a postwar, Mid-Century Modern school exhibiting a finger-plan campus design. Due to alterations, the campus is not eligible for listing on the National Register. Overall, the campus core retains historic integrity and continues to convey the reasons for its significance.

B11. Additional Resource Attributes: HP15. Educational Building. HP29. Landscape Architecture.

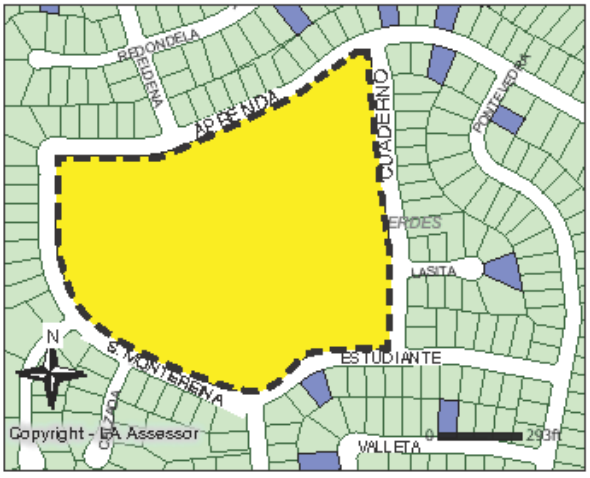
***B12. References:** *(See Continuation Sheet)*

B13. Remarks: None

***B14. Evaluator:** Debi Howell-Ardila, MHP

***Date of Evaluation:** 5 February 2014

Sketch Map, with north arrow required



(This space reserved for official comments.)

Recorded by Debi Howell-Ardila and Marilyn Novell **Date:** 10 March 2014 ☒ Continuation ☐ Update

***P3a. Description (continued):**

Lined with mature trees and plantings, the campus entrance is accessed via an open courtyard paved with patterned red brick. To the east is a one-story, stucco-clad administration building and to the west a one-and-a-half-story library, also clad in stucco. Screening the windows on the library's east side is a prominent band of wide, vertical metal louvers set in a rectangular frame. The administration building is capped with a shed roof and no eaves, with the roof edge trimmed with metal. Connecting the two buildings is an entrance portal capped with a flat roof and shallow overhanging eaves. The portal consists of alternating panels of metal screen gates, trimmed with decorative geometric patterning, and rusticated, faux stone.

The brick pavers continue into an entrance courtyard, where a lawn and elevated concrete stage with semicircular steps form a central gathering area. Clad in stucco, the classroom wings are one-story in height and one room deep, capped with slightly sloped shed roofs. South elevations of the classrooms are lined with sheltered arcades consisting of wood plank and beam ceilings, supported on steel pipe supports. Along most north elevations, the roof terminates in no eaves. Sheltering each window grouping on the north elevations are flat, cantilevered eaves. Windows along the north elevations consist primarily of expansive two-light double-hung sash windows. Windows occupy approximately 60 percent to 70 percent of the wall height, providing natural light and views of courtyards with lawns, foundation plantings, and mature trees.

The buildings and structures comprising the campus core are in good repair, and enhanced with mature landscaping and trees. Alterations include the replacement of some original windows as well as apparent removal of original materials/openings along some classroom exteriors to accommodate the addition of nonoriginal lockers. The campus core is otherwise intact.

P5b. Photo (continued): (view and date)

Dodson Middle School, entrance gate, with rusticated, faux stone. Library appears in left portion of photo. Southeast perspective. Source: Sapphos Environmental, Inc., 5 February 2014.

Recorded by Debi Howell-Ardila and Marilyn Novell **Date:** 10 March 2014 ☒ Continuation ☐ Update

P5b. Photo (continued): (view and date)

Dodson Middle School, Library, viewed from entrance. East perspective. Source: Sapphos Environmental, Inc., 5 February 2014.

Dodson Middle School, Lunch Pavilion and Multi-Purpose Room, view from central courtyard. Southwest perspective. Source: Sapphos Environmental, Inc., 5 February 2014.

Recorded by Debi Howell-Ardila and Marilyn Novell **Date:** 10 March 2014 ☒ Continuation ☐ Update

P5b. Photo (continued): (view and date)

Dodson Middle School, Lunch Pavilion, view through to central courtyard. Northeast perspective. Source: Sapphos Environmental, Inc., 5 February 2014.

Dodson Middle School, Building 14, showing patios. Northwest perspective. Source: Sapphos Environmental, Inc., 5 February 2014.

Recorded by Debi Howell-Ardila and Marilyn Novell **Date:** 10 March 2014 ☒ Continuation ☐ Update

P5b. Photo (continued): (view and date)

Dodson Middle School, Site Plan, with permanent buildings marked in orange and portable buildings marked in purple. Source: Los Angeles Unified School District Pre-Planning Survey, Dodson Middle School, Ver. 2, July 16, 2011.

***B12. References (continued):**

Bhatia, Pavan, "Modern Concept for Los Angeles Public Schools," Doctoral Dissertation (Cambridge, MA: Harvard University Graduate School of Design, Advanced Management Development Program in Real Estate, July 2009).

Blumenson, John J.-G., *Identifying American Architecture* (New York: W.W. Norton & Company, 1977).

California Office of Historic Preservation, *California Register and National Register: A Comparison (for Purposes of Determining Eligibility for the California Register),* Technical Assistance Series No. 6. (Sacramento, CA, 14 March 2006).

California Office of Historic Preservation, *Instructions for Recording Historical Resources* (Sacramento, CA, March 1995).

Donovan, John J., *School Architecture: Principles and Practices* (New York: The MacMillan Company, 1921).

Eales, John R., "A Brief, General History of the Los Angeles City School System," Doctoral Dissertation (Los Angeles: University of California, June 1956).

Gebhard, David, and Robert Winter, *A Guide to Architecture in Los Angeles and Southern California* (Santa Barbara, CA: Peregrine Smith, Inc., 1977).

Harris, Cyril M., *American Architecture: An Illustrated Encyclopedia* (New York: W.W. Norton & Company, 1998).

Heumann & Associates and Anne Doehne, Science Applications International Corporation, March 2002, "Historic Schools of the Los Angeles Unified School District," a presentation prepared for LAUSD Facilities Services Division (March 2002).

Hille, R. Thomas, *Modern Schools: A Century of Design for Education* (Hoboken, NJ: John Wiley & Sons, 2011), 13.

Lee, Antoinette, and Linda F. McClelland, U.S. Department of the Interior, National Park Service, *National Register Bulletin No. 16B, How to Complete the National Register Multiple Property Documentation Form (1999).*

Los Angeles Unified School District. *Los Angeles Unified School District Pre-Planning Survey* (2011).

McAlester, Virginia, and Lee McAlester, *A Field Guide to American House* (New York: Alfred A. Knopf, 2004).

Mock, Elizabeth, *Built in USA, 1932 – 1944: A Survey of Contemporary American Architecture*, The Museum of Modern Art (New York: Simon & Shuster, 1944).

Ogata, Amy F., "Building for Learning in Postwar American Elementary Schools," *Journal of the Society of Architectural Historians* 67, no. 4 (December 2008): 562–91.

Sapphos Environmental, Inc., *Los Angeles Unified School District Historic Context Statement, 1870 to 1969* (Pasadena, CA, March 2014).

Science Applications International Corporation, *Historic Context Statement: Los Angeles Unified School District*, prepared for Los Angeles Unified School District (Pasadena, CA: March 2002).

U.S. Department of the Interior, National Park Service, "How to Apply the National Register Criteria for Evaluation," National Register Bulletin No. 15 (Washington, DC, 2002).

U.S. Department of the Interior, National Park Service, "How to Complete the National Register Form," National Register Bulletin No. 16A (Washington, DC, 1997).

U.S. Department of the Interior, National Park Service, "How to Complete the National Register Multiple Property Documentation Form," National Register Bulletin No. 16B (Washington, DC, 1999).

Whiffen, Marcus, *American Architecture since 1780: A Guide to the Styles* (Cambridge, MA: MIT Press, 1981).

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #_____
HRI #_____
Trinomial_____
NRHP Status Code 3CD
Other Listings_____
Review Code_____ Reviewer_____ Date_____

Page 1 of 5 **Resource name(s) or number** (assigned by recorder) Fernangeles Elementary School

P1. Other Identifier:
***P2. Location:** ☐Not for Publication ■Unrestricted
***a. County** Los Angeles County
***b. USGS 7.5' Quad** Van Nuys, CA **Date** 1972 **T** 2N **R** 14W; Unsectioned Area S.B.**B.M.**
c. Address 12001 Art Street City Sun Valley Zip 91352
e. Other Locational Data: APN: # 2631-019-904

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries.)

Located on a 6.7-acre site in San Fernando Valley immediately north of the Interstate 5 freeway, Fernangeles Elementary School is bounded by Wicks Street on the northwest, Oneida Avenue on the southwest, a residential neighborhood on the northeast, and Art Street on the southeast. The campus core displays many typical features of a cluster- and finger-plan campus, with classrooms grouped around a central courtyard and axial classroom wings. The focal point of the campus from the exterior is the Administration Building and Assembly Building, which create a distinctive, Mid-Century Modern-style entrance to the school at the southwestern portion of the property. The two buildings form an interior courtyard, which is ringed by a grid-like trellis near the entrance and covered arcade, consisting of a wood-plank roof and wood cross beams, resting on simple pole supports. While the campus classrooms display extensive alterations (mostly in the form of the removal and in-filling of original clerestory windows), the two buildings at the campus entrance remain relatively intact and are highly representative of LAUSD's standardized postwar school, both in terms of style and building plan/features. *(See Continuation Sheet)*

***P3b. Resource Attributes:** (list attributes and codes) HP15. Educational Building. HP29. Landscape architecture.

***P4. Resources Present**: ☐Building ☐Structure ☐Object ☐Site ■District ☐Element of District ☐Other

P5a. Photo

P5b. Photo: (view and date)
Administration Building (left) and Assembly Building (right), southwest perspective, 15 January 2014

***P6. Date Constructed/Age and Sources:** ■ Historic ☐ Prehistoric ☐ Both 1954 (Los Angeles Unified School District)

***P7. Owner and Address:**
Los Angeles Unified School District

***P8. Recorded by:**
Debi Howell-Ardila and Marilyn Novell
Sapphos Environmental, Inc.
430 North Halstead Street
Pasadena, CA 91107

***P9. Date Recorded:**
15 January 2014

***P10. Survey Type:** Intensive

***P11. Report Citation:** (Cite survey report and other sources, or enter "none")
Sapphos Environmental, Inc. March 2014. *Los Angeles Unified School District Historic Context Statement, 1870 to 1969*. Pasadena, CA.

Sapphos Environmental, Inc. May 2014. *Los Angeles Unified School District Historic Resources Survey Report*. Pasadena, CA.

***Attachments:** ☐None ☐Location Map ☐Sketch Map ■Continuation Sheet ■Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (list)

BUILDING, STRUCTURE, AND OBJECT RECORD

***NHRP Status Code** 3CD

 ***Resource Name or #:** Fernangeles Elementary School

B1. Historic Name: Fernangeles Elementary School
B2. Common Name: Same
B3. Original Use: Institutional (Educational Facility) B4. Present Use: Institutional (Educational Facility)
***B5. Architectural Style:** Mid-Century Modern
***B6. Construction History:** (Construction date, alterations, and date of alterations):

According to records on file with the Los Angeles Unified School District, construction was completed on most of the extant campus of Fernangeles Elementary School in 1954. To accommodate expanding enrollment, over 20 portable buildings have been added to the campus since its construction, with a majority of these located in the northern and eastern portions of the property. As of 2014, portable buildings represent 67 percent of the classroom space on campus, with most added in the 1990s. A number of alterations and repairs have taken place over the years, including systems upgrades and the installation of air-conditioner units (see *LAUSD Pre-Planning Survey, Fernangeles Elementary School* for list of repairs and improvements carried out since the 1990s). The most visible alterations on the exterior include the removal of original windows and in-filling and covering of original window openings with stucco; this includes bands of original clerestory windows lining the west elevations of classroom wings. In other areas, original windows have been replaced with air-conditioning units. The Administration Building and Multipurpose Room also appear to have some in-filled windows.

***B7. Moved?** ■**No** ☐**Yes** ☐**Unknown** **Date:**_____ **Original Location:**_____
***B8. Related Features:** Landscaping/mature trees, hardscaping, benches
B9a. Architect: Unknown b. Builder: Unknown
***B10. Significance:** **Theme**, Institutional (Educational Facility),
"Educating the Baby Boom: Postwar Expansion and the Functional, Modern School Plant, 1945-1969" **Area** Los Angeles
Period of Significance: 1954 (District) **Property Type:** Institutional (Educational Facility)
Applicable Criteria: CRHR: 1.
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity)

The grouping of the Fernangeles Elementary School Administration Building, Assembly Building, interior courtyard and landscaping features appears eligible for the California Register of Historical Resources as a district under Criterion 1 in the context of institutional architecture/educational facilities in the Los Angeles Unified School District. The Adminstration Building and Assembly Building form a distinctive, Mid-Century Modern–style entrance to the school and represent a recognizable anchor for the neighboring residential community. The finding of eligibility applies to the identified buildings and features, which, while exhibiting some alterations, continue to convey the reasons for their significance. Subsequent survey of contributing and noncontributing features will be necessary to make a detailed determination regarding all contributors and noncontributors to the historic district within the campus grounds.

B11. Additional Resource Attributes: HP15. Educational Facility.

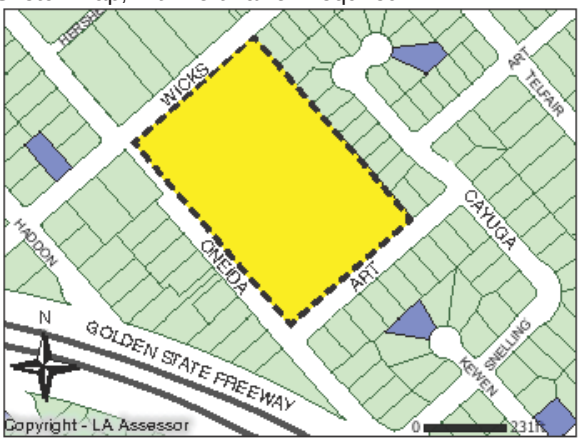
***B12. References:** *(See Continuation Sheet)*

B13. Remarks: None

***B14. Evaluator:** Debi Howell-Ardila, MHP

***Date of Evaluation:** 15 January 2014

Sketch Map, with north arrow required



(This space reserved for official comments.)

Recorded by Debi Howell-Ardila and Marilyn Novell **Date:** 15 January 2014 ☒ Continuation ☐ Update

***P3a. Description (continued):**

The Assembly Building and Administration Building are connected by a brick wall and gate capped by a flat-roofed arcade. This gate serves as the entrance to campus; on the interior, it passes beneath a wood-grid trellis and opens onto a courtyard ringed with covered arcades. The approach to the main entrance also displays a series of tiered brick planters with landscaping. Matching stack-bond brick sheathes the south elevation of the Administration Building. Set at a right angle with the Assembly Building, the Administration Building is rectangular in plan, one story in height, and capped with a flat roof and tapered, shallow eaves. Fenestration consists of various configurations and types, and the building is clad in stucco. In a feature typical for Southern Californian Mid-Century Modern architecture, the roof line extends on the northern portion of the Administration Building in a wood-grid trellis, which encloses a tree.

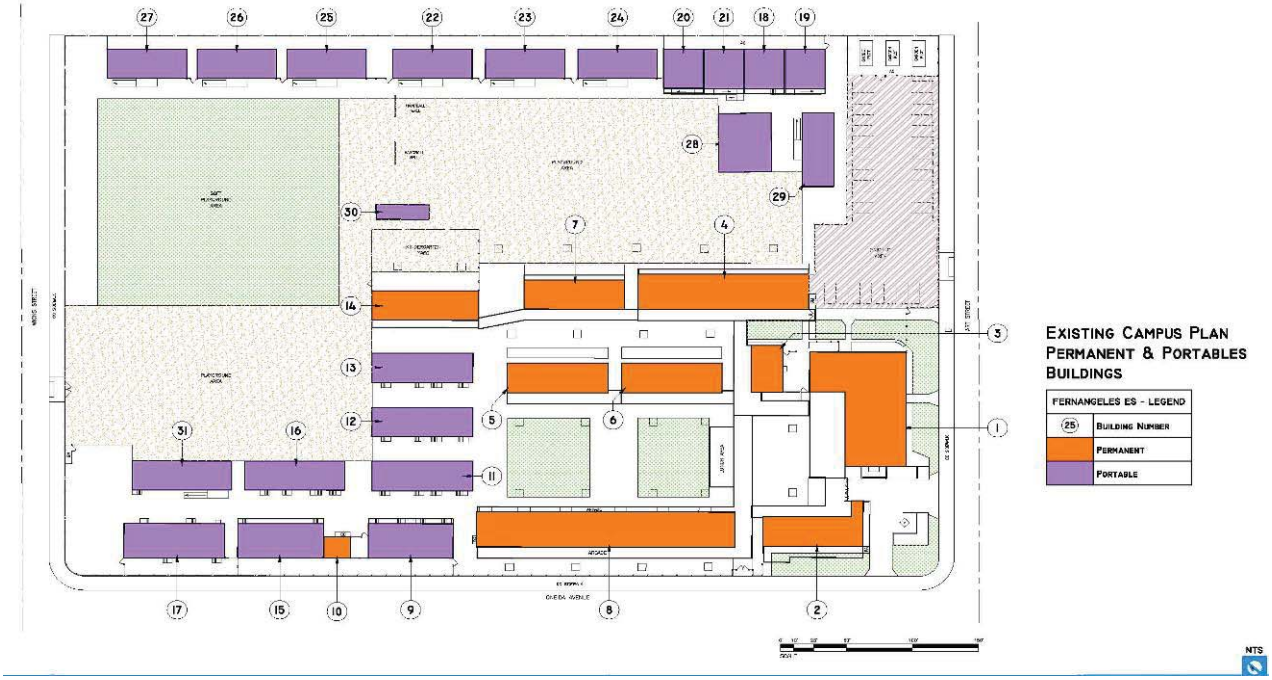
The Assembly Building is roughly two stories in height, rectangular in plan, and clad in smooth stucco. The main portion of the building is capped with a flat roof with no overhanging eaves. Located on the southwest elevation, the main entrance to the Assembly Building consists of a pair of doors elevated on brick steps. The entrance is flanked by thin, stack-bond brick piers, which project from the wall, and two identical bands of recessed multilight windows.

Alterations include the apparent removal and filling-in of windows in variation locations. It also appears that windows have been covered at the upper level of the southwest elevation of the Assembly Building. The buildings are otherwise relatively intact and in fair repair overall.

P5b. Photo (continued): (view and date)

Fernangeles Elementary School, Administration Building, view from southeast.
Source: Sapphos Environmental, Inc., 15 January 2014.

Fernangeles Elementary School, entrance trellis, courtyard, and covered dining area. Southern perspective. Source: Sapphos Environmental, Inc., 15 January 2014.



Fernangeles Elementary School, Site Plan, with permanent buildings marked in orange and portable buildings marked in purple. Source: Los Angeles Unified School District Pre-Planning Survey, Fernangeles Elementary School, October 11, 2011.

***B12. References (continued):**

Bhatia, Pavan, "Modern Concept for Los Angeles Public Schools," Doctoral Dissertation (Cambridge, MA: Harvard University Graduate School of Design, Advanced Management Development Program in Real Estate, July 2009).

Blumenson, John J.-G., *Identifying American Architecture* (New York: W.W. Norton & Company, 1977).

California Office of Historic Preservation, *California Register and National Register: A Comparison (for Purposes of Determining Eligibility for the California Register),* Technical Assistance Series No. 6. (Sacramento, CA, 14 March 2006).

California Office of Historic Preservation, *Instructions for Recording Historical Resources* (Sacramento, CA, March 1995).

Donovan, John J., *School Architecture: Principles and Practices* (New York: The MacMillan Company, 1921).

Eales, John R., "A Brief, General History of the Los Angeles City School System," Doctoral Dissertation (Los Angeles: University of California, June 1956).

Harris, Cyril M., *American Architecture: An Illustrated Encyclopedia* (New York: W.W. Norton & Company, 1998).

Heumann & Associates and Anne Doehne, Science Applications International Corporation, March 2002, "Historic Schools of the Los Angeles Unified School District," a presentation prepared for LAUSD Facilities Services Division (March 2002).

Hille, R. Thomas, *Modern Schools: A Century of Design for Education* (Hoboken, NJ: John Wiley & Sons, 2011), 13.

Lee, Antoinette, and Linda F. McClelland, U.S. Department of the Interior, National Park Service, *National Register Bulletin No. 16B, How to Complete the National Register Multiple Property Documentation Form (1999).*

Los Angeles Unified School District. *Los Angeles Unified School District Pre-Planning Survey* (2011).

McAlester, Virginia, and Lee McAlester, *A Field Guide to American Houses* (New York: Alfred A. Knopf, 2004).

Mock, Elizabeth, *Built in USA, 1932 – 1944: A Survey of Contemporary American Architecture*, The Museum of Modern Art (New York: Simon & Shuster, 1944).

Ogata, Amy F., "Building for Learning in Postwar American Elementary Schools," *Journal of the Society of Architectural Historians* 67, no. 4 (December 2008): 562–91.

Sapphos Environmental, Inc., *Los Angeles Unified School District Historic Context Statement, 1870 to 1969* (Pasadena, CA, March 2014).

Science Applications International Corporation, *Historic Context Statement: Los Angeles Unified School District*, prepared for Los Angeles Unified School District (Pasadena, CA: March 2002).

U.S. Department of the Interior, National Park Service, "How to Apply the National Register Criteria for Evaluation," National Register Bulletin No. 15 (Washington, DC, 2002).

U.S. Department of the Interior, National Park Service, "How to Complete the National Register Form," National Register Bulletin No. 16A (Washington, DC, 1997).

U.S. Department of the Interior, National Park Service, "How to Complete the National Register Multiple Property Documentation Form," National Register Bulletin No. 16B (Washington, DC, 1999).

Whiffen, Marcus, *American Architecture since 1780: A Guide to the Styles* (Cambridge, MA: MIT Press, 1981).

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #_____
HRI #_____
Trinomial_____
NRHP Status Code 3D
Other Listings_____
Review Code_____ Reviewer_____ Date_____

 Resource name(s) or number (assigned by recorder) Leapwood Avenue Elementary School

P1. Other Identifier:
***P2. Location:** ☐Not for Publication ■Unrestricted
***a. County** Los Angeles County
***b. USGS 7.5' Quad** Torrance, CA **Date** 1981 **T** 4S **R** 13W; Unsectioned Area S.B.**B.M.**
c. Address 19302 Leapwood Avenue City Carson Zip 90746
e. Other Locational Data: APN: # 7321-018-900

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries.)

Leapwood Avenue Elementary School is located in a residential neighborhood in the city of Carson, south of Los Angeles. The campus occupies a 7.1-acre site bounded by Brenner Drive to the north, Eddington Drive to the east, East Elsmere Drive to the south, and Leapwood Avenue to the west. Constructed in 1962, the campus core consists of a series of two-story classrooms, assembly building, administration building, and two kindergarten buildings, all oriented around a central lawn and open-air lunch pavilion. A network of sheltered corridors and exterior stairways links the buildings throughout the campus core. Three temporary buildings are located at the eastern portion of the campus.

The campus entrance is set back from Leapwood Avenue by a lawn lined with landscaping and a row of mature trees. Defining the principal entrance are the assembly building to the south and the administration building to the north. Linking the two buildings is a sheltered entrance courtyard, capped with a low-pitched roof with a large, square skylight perforating the center. A concrete planter with landscaping is positioned beneath the skylight. The roof of the entry courtyard mirrors treatment of the arcades on the interior of the campus, with the low-pitched, side-gabled roofs and concrete-block piers. *(See Continuation Sheet)*

***P3b. Resource Attributes:** (list attributes and codes) HP15. Educational Building. HP29. Landscape architecture.

***P4. Resources Present**: ☐Building ☐Structure ☐Object ☐Site ■District ☐Element of District ☐Other

P5a. Photo

P5b. Photo: (view and date)
Assembly and Administration Building, northwest perspective
12 February 2014

***P6. Date Constructed/Age and Sources:**
■ Historic ☐ Prehistoric ☐ Both
1962 (Los Angeles Unified School District)

***P7. Owner and Address:**
Los Angeles Unified School District

***P8. Recorded by:**
Debi Howell-Ardila and Marilyn Novell
Sapphos Environmental, Inc.
430 North Halstead Street
Pasadena, CA 91107

***P9. Date Recorded:** 1 March 2014

***P10. Survey Type:** Intensive-level

***P11. Report Citation:** (Cite survey report and other sources, or enter "none")
Sapphos Environmental, Inc. March 2014. *Los Angeles Unified School District Historic Context Statement, 1870 to 1969*. Pasadena, CA.

Sapphos Environmental, Inc. June 2014. *Los Angeles Unified School District Historic Resources Survey Report*. Pasadena, CA.

***Attachments:** ☐None ☐Location Map ☐Sketch Map ■Continuation Sheet ■Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (list)

BUILDING, STRUCTURE, AND OBJECT RECORD

***NHRP Status Code** 3D

 ***Resource Name or #:** Leapwood Avenue Elementary School

B1. Historic Name: Leapwood Avenue Elementary School
B2. Common Name: Same
B3. Original Use: Institutional (Educational Facility) B4. Present Use: Institutional (Educational Facility)
***B5. Architectural Style:** Mid-Century Modern–influenced
***B6. Construction History:** (Construction date, alterations, and date of alterations):

According to records on file with the Los Angeles Unified School District, construction of Leapwood Avenue Elementary School was completed in 1962. The total cost was just over $834,000, which was financed with school bond funds (*Los Angeles Times*, 1961). Three portable/temporary buildings were added at the eastern perimeter of campus in the 1990s. A number of alterations have taken place over the years, including systems upgrades, the removal of windows to accommodate the installation of air-conditioning units, replacement of gutters and downspouts, new fencing, and various other improvements, including the addition of an access ramp at the campus entrance (the *LAUSD Pre-Planning Survey, Leapwood Avenue Elementary School* lists repairs and improvements performed since the 1990s). In addition, security grilles have been added to windows throughout the campus, and storage units have been placed outside some of the classrooms.

***B7. Moved?** ■**No** ☐**Yes** ☐**Unknown** **Date:**_____ **Original Location:**_____
***B8. Related Features:** Landscaping/mature trees
B9a. Architect: Unknown b. Builder: Unknown
***B10. Significance:** Theme, Institutional (Educational Facility), "Educating the Baby Boom: Postwar Expansion and the Functional, Modern School Plant, 1945-1969" **Area** Los Angeles
Period of Significance: 1962 (District) **Property Type:** Institutional (Educational Facility)
Applicable Criteria: NRHP: A; CRHR: 1.
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity)

The core of the campus of Leapwood Avenue Elementary School appears eligible for the National Register of Historic Places and California Register of Historical Resources under Criteria A/1 as an excellent, intact example of a postwar finger- and cluster-plan school campus in the Los Angeles Unified School District. The campus plan and buildings exemplify LAUSD design principles and ideals (as described in the Los Angeles Unified School District Historic Context Statement, 1870 to 1969). The campus combines one- and two-story massing with a finger- and cluster-plan site design. Overall, the campus core (which includes the site plan, the relationship of buildings to outdoor spaces, and original plantings) retains sufficient integrity to convey its period of significance.

B11. Additional Resource Attributes: HP15. Educational Building. HP29. Landscape Architecture.

***B12. References**: *(See Continuation Sheet)*

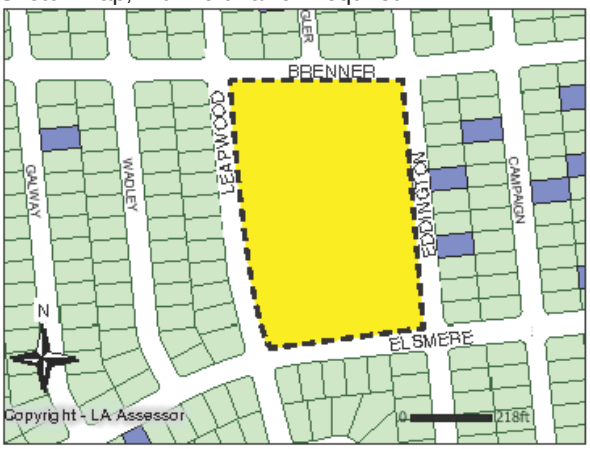
B13. Remarks: None

***B14. Evaluator:** Debi Howell-Ardila, MHP

***Date of Evaluation:** 12 February 2014

(This space reserved for official comments.)

Sketch Map, with north arrow required



Recorded by Debi Howell-Ardila and Marilyn Novell **Date:** 10 March 2014 ☒ Continuation ☐ Update

***P3a. Description (continued):**

Most buildings on campus are clad in stucco and capped with low-pitched, gabled roofs with wide overhanging eaves. The two-story classroom building displays a folded-plate overhang, which shelters the corridor below. The floor of the upper corridor is supported on concrete-clad beams. A railing made of metal mesh panels, with decorative geometric detailing, encloses the second-story corridor and walkway. The corridors of the classroom building are free of vertical roof supports, exhibiting a clean, open look. Arcades capped with flat roofs, supported on steel-pipe supports, provide circulation corridors throughout the campus core.

Throughout campus, fenestration consists of a variety of treatments and configurations. Classrooms are lined with grouped, steel-frame windows, with clerestories lining the top and opaque panels along the bottom. At each side of the window bays are classroom entrances. (These are topped with panels that appear to have originally been transom lights.) Connected to the main classroom building via sheltered corridors is a freestanding restroom facility, adjacent to the campus's central courtyard. The facility is capped with a low-pitched, gabled roof with shallow overhanging eaves. Covered corridors line the facility along three sides. On the north elevation, fenestration consists of a band of multi-light, awning-style casements, with a thin rectangular light fixed pane below. A vent pierces the gable. Located south of central courtyard is a freestanding lunch pavilion. Octagonal in form, the roof is supported by a central concrete block pylon, with thin concrete block piers supporting each point of the roof eaves.

In terms of design, the campus exhibits characteristics typical of 1960's Mid-Century Modernism. Although the main classroom building is two stories, its broad overhanging eaves, ample fenestration, and flat roof give the building a strong horizontality. The campus buildings exhibit simple orthogonal massing with minimal ornament and a strong site plan that clusters a variety of building types around a unifying courtyard. With generous use of windows and exterior corridors and access to courtyards and mature landscaped areas, the campus exhibits a high degree of indoor-outdoor integration. The buildings and structures comprising the campus core are in good repair, with minimal alterations.

P5b. Photo (continued): (view and date)

Leapwood Avenue Elementary School, Classroom Building 5, view from inside campus. Southwest perspective. Source: Sapphos Environmental, Inc.,12 February 2014.

Recorded by Debi Howell-Ardila and Marilyn Novell **Date:** 10 March 2014 ☒ Continuation ☐ Update

P5b. Photo (continued): (view and date)

Leapwood Avenue Elementary School, Classroom building showing wide overhang with folded plate. Source: Sapphos Environmental, Inc., 12 February 2014.

Leapwood Avenue Elementary School, octagonal lunch pavilion. East perspective. Source: Sapphos Environmental, Inc., 12 February 2014.

Recorded by Debi Howell-Ardila and Marilyn Novell **Date:** 10 March 2014 ☒ Continuation ☐ Update

P5b. Photo (continued): (view and date)

Leapwood Avenue Elementary School, Site Plan, with permanent buildings marked in orange and portable buildings marked in purple. Source: Los Angeles Unified School District Pre-Planning Survey, Leapwood Avenue Elementary School, December 16, 2010.

***B12. References (continued):**

Bhatia, Pavan, "Modern Concept for Los Angeles Public Schools," Doctoral Dissertation (Cambridge, MA: Harvard University Graduate School of Design, Advanced Management Development Program in Real Estate, July 2009).

Blumenson, John J.-G., *Identifying American Architecture* (New York: W.W. Norton & Company, 1977).

California Office of Historic Preservation, *California Register and National Register: A Comparison (for Purposes of Determining Eligibility for the California Register),* Technical Assistance Series No. 6. (Sacramento, CA, 14 March 2006).

California Office of Historic Preservation, *Instructions for Recording Historical Resources* (Sacramento, CA, March 1995).

Donovan, John J., *School Architecture: Principles and Practices* (New York: The MacMillan Company, 1921).

"Double-Decking." *Los Angeles Times,* 5 November 1961.

Eales, John R., "A Brief, General History of the Los Angeles City School System," Doctoral Dissertation (Los Angeles: University of California, June 1956).

Gebhard, David, and Robert Winter, *A Guide to Architecture in Los Angeles and Southern California* (Santa Barbara, CA: Peregrine Smith, Inc., 1977).

Harris, Cyril M., *American Architecture: An Illustrated Encyclopedia* (New York: W.W. Norton & Company, 1998).

Heumann & Associates and Anne Doehne, Science Applications International Corporation, March 2002, "Historic Schools of the Los Angeles Unified School District," a presentation prepared for LAUSD Facilities Services Division (March 2002).

Hille, R. Thomas, *Modern Schools: A Century of Design for Education* (Hoboken, NJ: John Wiley & Sons, 2011), 13.

Lee, Antoinette, and Linda F. McClelland, U.S. Department of the Interior, National Park Service, *National Register Bulletin No. 16B, How to Complete the National Register Multiple Property Documentation Form (1999).*

McAlester, Virginia, and Lee McAlester, *A Field Guide to American House* (New York: Alfred A. Knopf, 2004).

Mock, Elizabeth, *Built in USA, 1932 – 1944: A Survey of Contemporary American Architecture*, The Museum of Modern Art (New York: Simon & Shuster, 1944).

Ogata, Amy F., "Building for Learning in Postwar American Elementary Schools," *Journal of the Society of Architectural Historians* 67, no. 4 (December 2008): 562–91.

Los Angeles Unified School District. *Los Angeles Unified School District Pre-Planning Survey* (2011).

Sapphos Environmental, Inc., *Los Angeles Unified School District Historic Context Statement, 1870 to 1969* (Pasadena, CA, March 2014).

Science Applications International Corporation, *Historic Context Statement: Los Angeles Unified School District*, prepared for Los Angeles Unified School District (Pasadena, CA: March 2002).

U.S. Department of the Interior, National Park Service, "How to Apply the National Register Criteria for Evaluation," National Register Bulletin No. 15 (Washington, DC, 2002).

U.S. Department of the Interior, National Park Service, "How to Complete the National Register Form," National Register Bulletin No. 16A (Washington, DC, 1997).

U.S. Department of the Interior, National Park Service, "How to Complete the National Register Multiple Property Documentation Form," National Register Bulletin No. 16B (Washington, DC, 1999).

Whiffen, Marcus, *American Architecture since 1780: A Guide to the Styles* (Cambridge, MA: MIT Press, 1981).

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #_____
HRI #_____
Trinomial_____
NRHP Status Code 3CD
Other Listings_____
Review Code_____ Reviewer_____ Date_____

Page 1 of 5 **Resource name(s) or number** (assigned by recorder) Narbonne Senior High School

P1. Other Identifier:
***P2. Location:** ☐Not for Publication ■Unrestricted
***a. County** Los Angeles County
***b. USGS 7.5' Quad** Torrance, CA **Date** 1981 **T** 4S **R** 14W; Unsectioned; S.B.**B.M.**
c. Address 24300 South Western Avenue City Harbor City Zip 90710
e. Other Locational Data: APN: # 7439-015-900

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries.)

Located on a 37.5-acre site in a residential neighborhood in the Harbor City area, Narbonne Senior High School is bounded by 242nd Street on the north, 247th Street on the south, President Avenue on the east, and South Western Avenue on the west. The spiral-shaped site plan exhibits an innovative adaptation of the finger-plan school, with classroom wings radiating outward, in a spoke-like arrangement. At the center of spiral plan is a curved arcade, capped with a flat-roof with a coffered concrete ceiling and oversized steel-pole supports. This arcade system provides circulation corridors throughout the campus core. Located in the center of the circular arcade is a circular central open lawn, with a raised concrete stage and outdoor seating area. Classroom wings are generally rectangular in plan, one story in height, and primarily double-loaded, with two rows of classrooms on each side and a central hallway. The design of the classroom wings emphasizes the horizontal axis through the use of flat roofs ending in wide cantilevered roof eaves. Generous expanses of steel-frame, multi-light windows face onto landscaped courtyards between the buildings. *(See Continuation Sheet)*

***P3b. Resource Attributes:** (list attributes and codes) HP15. Educational Building. HP29. Landscape architecture.

***P4. Resources Present**: ☐Building ☐Structure ☐Object ☐Site ■District ☐Element of District ☐Other

P5a. Photo

P5b. Photo: (view and date)
Auditorium, West perspective
4 February 2014

***P6. Date Constructed/Age and Sources:** ■ Historic ☐ Prehistoric ☐ Both 1955–1960 (Los Angeles Unified School District)

***P7. Owner and Address:**
Los Angeles Unified School District

***P8. Recorded by:**
Debi Howell-Ardila and Marilyn Novell
Sapphos Environmental, Inc.
430 North Halstead Street
Pasadena, CA 91107

***P9. Date Recorded:** 4 February 2014

***P10. Survey Type:** Intensive

***P11. Report Citation:** (Cite survey report and other sources, or enter "none")
Sapphos Environmental, Inc. March 2014. *Los Angeles Unified School District Historic Context Statement, 1870 to 1969*. Pasadena, CA.

Sapphos Environmental, Inc. June 2014. *Los Angeles Unified School District Historic Resources Survey Report*. Pasadena, CA.

***Attachments:** ☐None ☐Location Map ☐Sketch Map ■Continuation Sheet ■Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (list)

BUILDING, STRUCTURE, AND OBJECT RECORD

***NHRP Status Code** 3CD

B1. Historic Name: Nathaniel A. Narbonne Senior High School
B2. Common Name: Same
B3. Original Use: Institutional (Educational Facility) B4. Present Use: Institutional (Educational Facility)
***B5. Architectural Style:** Mid-Century Modern-influenced
***B6. Construction History:** (Construction date, alterations, and date of alterations):

According to records on file with the Los Angeles Unified School District, the core of the Narbonne Senior High School campus was constructed in phases between 1955 and 1960. (Contemporaneous accounts in the *Los Angeles Times* also track the development history of the site; see "Unique School Design Planned for Lomita Site," *Los Angeles Times*, 1954; "Work Started on Large New School Portion," *Los Angeles Times*, 1955). In addition, numerous small portable/relocatable buildings dating from 1950 to 2002 are located throughout the campus. A number of alterations and repairs have taken place over the years, including systems and seismic upgrades (including the apparent incorporation of concrete support beams beneath cantilevered roof eaves on some of the classroom wings) and the removal of windows to accommodate the installation of air-conditioning units (see *LAUSD Pre-Planning Survey, Narbonne High School,* for a list of repairs and improvements performed since the 1990s). Other visible alterations include the filling-in of numerous transom windows over classroom entrances.

***B7. Moved?** ■**No** ☐**Yes** ☐**Unknown** **Date:**_____ **Original Location:**_____
***B8. Related Features:** Landscaping/mature trees
B9a. Architect: Daniel, Mann, Johnson & Mendenhall b. Builder: Morley Building Co.
***B10. Significance: Theme**, Institutional (Educational Facility),
"Educating the Baby Boom: Postwar Expansion and the Functional, Modern School Plant, 1945-1969" **Area** Los Angeles
Period of Significance: 1955-1960 (District) **Property Type:** Institutional (Educational Facility)
Applicable Criteria: CRHR: 1.
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity)

The campus core of Narbonne Senior High School appears eligible for the California Register of Historical Resources under Criterion 1 as an excellent, intact example of an innovative finger-plan school campus. The spiral campus plan represents a creative interpretation of LAUSD design principles and ideals from the postwar period (as described in the Los Angeles Unified School District Historic Context Statement, 1870 to 1969). Designed and engineered by architects Daniel, Mann, Johnson & Mendenhall, classroom wings and buildings extend outward in a spoke-like pattern from a central hub, a concept that the designers intended would reduce cross-campus travel distances and maximize available lot acreage. The plan was said to be a variation on the older finger plan, which included a long central corridor; in the spiral plan, the corridor is curved around a central open court ("Work Started on Large New School Portion," *Los Angeles Times*, 1955). Overall, the campus core retains sufficient integrity to convey the reasons for its significance. Due to alterations, the historic district does not appear eligible for listing on the National Register.

B11. Additional Resource Attributes: HP15. Educational Building. HP29. Landscape Architecture.

***B12. References:** *(See Continuation Sheet)*

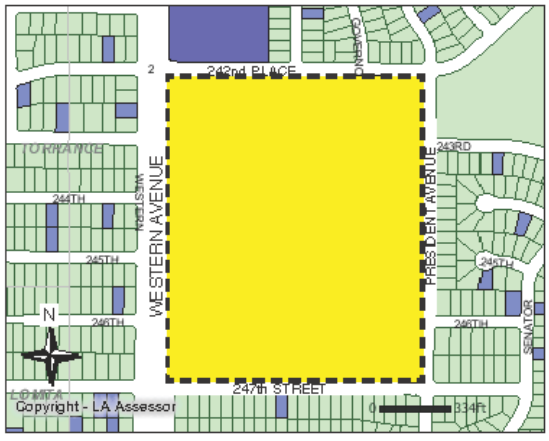
B13. Remarks: None

***B14. Evaluator:** Debi Howell-Ardila, MHP

***Date of Evaluation:** 4 February 2014

(This space reserved for official comments.)

Sketch Map with north arrow required



Recorded by Debi Howell-Ardila and Marilyn Novell **Date:** 4 February 2014 ☒ Continuation ☐ Update

***P3a. Description (continued):**

Additional facilities on campus include an auditorium, a multi-purpose building, and two gymnasiums. All of the campus buildings are clad in smooth stucco. At the vehicle drop-off entrance to the campus, a semi-circular driveway is defined by low brick planters and is flush with a concrete walkway beneath a flat-roofed arcade.

P5b. Photo (continued): (view and date)

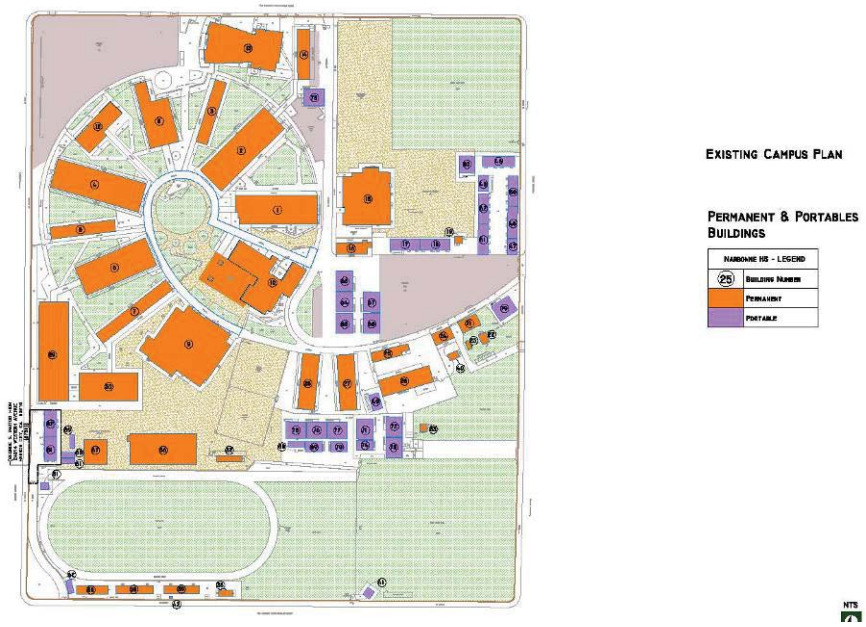
Narbonne High School, Administration Building. North perspective. Source: Sapphos Environmental, Inc., 4 February 2014.

Narbonne High School, Arcade, South perspective. Source: Sapphos Environmental, Inc., 4 February 2014.

Recorded by Debi Howell-Ardila and Marilyn Novell **Date:** 4 February 2014 ☒ Continuation ☐ Update

P5b. Photo (continued): (view and date)

Narbonne High School, Central lawn. South perspective. Source: Sapphos Environmental, Inc., 4 February 2014.



Narbonne High School, Site Plan, with permanent buildings marked in orange and portable buildings marked in purple. Source: Los Angeles Unified School District Pre-Planning Survey, Narbonne High School, Ver. 5, March 15, 2012.

***B12. References (continued):**

Bhatia, Pavan, "Modern Concept for Los Angeles Public Schools," Doctoral Dissertation (Cambridge, MA: Harvard University Graduate School of Design, Advanced Management Development Program in Real Estate, July 2009).

Blumenson, John J.-G., *Identifying American Architecture* (New York: W.W. Norton & Company, 1977).

California Office of Historic Preservation, *California Register and National Register: A Comparison (for Purposes of Determining Eligibility for the California Register),* Technical Assistance Series No. 6. (Sacramento, CA, 14 March 2006).

California Office of Historic Preservation, *Instructions for Recording Historical Resources* (Sacramento, CA, March 1995).

Donovan, John J., *School Architecture: Principles and Practices* (New York: The MacMillan Company, 1921).

Eales, John R., "A Brief, General History of the Los Angeles City School System," Doctoral Dissertation (Los Angeles: University of California, June 1956).

Gebhard, David, and Robert Winter, *A Guide to Architecture in Los Angeles and Southern California* (Santa Barbara, CA: Peregrine Smith, Inc., 1977).

Harris, Cyril M., *American Architecture: An Illustrated Encyclopedia* (New York: W.W. Norton & Company, 1998).

Heumann & Associates and Anne Doehne, Science Applications International Corporation, March 2002, "Historic Schools of the Los Angeles Unified School District," a presentation prepared for LAUSD Facilities Services Division (March 2002).

Hille, R. Thomas, *Modern Schools: A Century of Design for Education* (Hoboken, NJ: John Wiley & Sons, 2011), 13.

Lee, Antoinette, and Linda F. McClelland, U.S. Department of the Interior, National Park Service, *National Register Bulletin No. 16B, How to Complete the National Register Multiple Property Documentation Form (1999).*

McAlester, Virginia, and Lee McAlester, *A Field Guide to American House* (New York: Alfred A. Knopf, 2004).

Mock, Elizabeth, *Built in USA, 1932 – 1944: A Survey of Contemporary American Architecture*, The Museum of Modern Art (New York: Simon & Shuster, 1944).

Ogata, Amy F., "Building for Learning in Postwar American Elementary Schools," *Journal of the Society of Architectural Historians* 67, no. 4 (December 2008): 562–91.

"Pupils Go in Circles in 'Spiraled' School," *Los Angeles Times,* May 11, 1958.

Los Angeles Unified School District. *Los Angeles Unified School District Pre-Planning Survey* (2011).

Sapphos Environmental, Inc., *Los Angeles Unified School District Historic Context Statement, 1870 to 1969* (Pasadena, CA, March 2014).

Science Applications International Corporation, *Historic Context Statement: Los Angeles Unified School District*, prepared for Los Angeles Unified School District (Pasadena, CA: March 2002).

U.S. Department of the Interior, National Park Service, "How to Apply the National Register Criteria for Evaluation," National Register Bulletin No. 15 (Washington, DC, 2002).

U.S. Department of the Interior, National Park Service, "How to Complete the National Register Form," National Register Bulletin No. 16A (Washington, DC, 1997).

U.S. Department of the Interior, National Park Service, "How to Complete the National Register Multiple Property Documentation Form," National Register Bulletin No. 16B (Washington, DC, 1999).

"Unique School Design Planned for Lomita Site," *Los Angeles Times,* April 4, 1954; "Work Started on Large New School Portion," *Los Angeles Times,* September 18, 1955.

Whiffen, Marcus, *American Architecture since 1780: A Guide to the Styles* (Cambridge, MA: MIT Press, 1981).

"Work Started on Large New School Portion," *Los Angeles Times,* September 18, 1955.

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #_____
HRI #_____
Trinomial_____
NRHP Status Code 3CD
Other Listings_____
Review Code_____ Reviewer_____ Date_____

Page 1 **of** 5 **Resource name(s) or number** (assigned by recorder) Pacoima Middle School

P1. Other Identifier:
***P2. Location:** ☐Not for Publication ■Unrestricted
***a. County** Los Angeles County
***b. USGS 7.5' Quad** San Fernando and Van Nuys, CA **Date** 1988 and 1972 **T** 2N **R** 15W; Unsectioned, S.B.**B.M.**
c. Address 9919 Laurel Canyon Boulevard City Pacoima Zip 91331
e. Other Locational Data: APN: # 7552-017-900

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries.)

Located in San Fernando Valley in the community of Pacoima, the Pacoima Middle School occupies a 23.7-acre site bounded by Laurel Canyon Boulevard on the northeast, Kagel Canyon Street on the southeast, Cranford Avenue on the southwest, and Terra Bella Street on the northwest. Interstate 5 (Golden State Freeway) runs immediately adjacent to Cranford Avenue. The spoke-like site plan and general design and configuration of the classrooms display the typical features of LAUSD's standardized finger-plan school from the postwar era. Classroom buildings extend outward from the main entrance and courtyard, which include the Administration Building and Library at the eastern corner of the campus. Designed in a Mid-Century Modern-influenced style, classroom wings are one-story, single-loaded, stucco-clad rectangular buildings capped with slightly sloping shed rooms. Classroom entrances open off flat-roofed arcades, and a wall of windows defines each classroom on the opposite side. Covered arcades with steel pipe supports and flat roofs provide circulation throughout the campus. A central quad and the open areas between the classroom buildings are planted with lawns and mature trees. Typical of the postwar LAUSD high school campus, a two-story gymnasium is sited outside the campus core, near recreation areas. The auditorium and the cafeteria are also set apart from the classroom buildings on the edge of campus. Alterations include a number of removed and/or in-filled or stuccoed windows, including bands of clerestory lights. In fair repair, the campus core retains sufficient integrity to convey its period of significance.

***P3b. Resource Attributes:** (list attributes and codes) HP15. Educational Building. HP29. Landscape architecture.

***P4. Resources Present**: ☐Building ☐Structure ☐Object ☐Site ■District ☐Element of District ☐Other

P5a. Photo

P5b. Photo: (view and date)
Entrance, east perspective
13 March 2014

***P6. Date Constructed/Age and Sources:**
■ Historic ☐ Prehistoric ☐ Both
1955 (Los Angeles Unified School District)

***P7. Owner and Address:**
Los Angeles Unified School District

***P8. Recorded by:**
Debi Howell-Ardila and Marilyn Novell
Sapphos Environmental, Inc.
430 North Halstead Street
Pasadena, CA 91107

***P9. Date Recorded:** 27 March 2014

***P10. Survey Type:** Intensive

***P11. Report Citation:** (Cite survey report and other sources, or enter "none")

Sapphos Environmental, Inc. March 2014. *Los Angeles Unified School District Historic Context Statement, 1870 to 1969*. Pasadena, CA. Sapphos Environmental, Inc. June 2014. *Los Angeles Unified School District Historic Resources Survey Report*. Pasadena, CA.

***Attachments:** ☐None ☐Location Map ☐Sketch Map ■Continuation Sheet ■Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (list)

BUILDING, STRUCTURE, AND OBJECT RECORD

***NHRP Status Code** 3CD

 ***Resource Name or #:** Pacoima Middle School

B1. Historic Name: Pacoima Junior High School
B2. Common Name: Pacoima Middle School
B3. Original Use: Institutional (Educational Facility) B4. Present Use: Institutional (Educational Facility)
***B5. Architectural Style:** Mid-Century Modern-influenced
***B6. Construction History:** (Construction date, alterations, and date of alterations):

According to records on file with the Los Angeles Unified School District, the core of the Pacoima Middle School campus was constructed in 1955. Nine small portable/temporary buildings at the east and north sides of campus date from 1935 to 2002. A number of alterations and repairs have taken place over the years, including seismic and systems upgrades (the *LAUSD Pre-Planning Survey, Pacoima Middle School* lists repairs and improvements performed at the school since the 1990s). Other alterations include the removal of clerestory lights on some classroom wings and in-filling of windows with air-conditioning units.

***B7. Moved?** ■**No** ☐**Yes** ☐**Unknown** **Date:**_____ **Original Location:**_____
***B8. Related Features:** Landscaping/mature trees, hardscaping
B9a. Architect: Unknown b. Builder: Unknown
***B10. Significance:** **Theme**, Institutional (Educational Facility),
"Educating the Baby Boom: Postwar Expansion and the Functional, Modern School Plant, 1945-1969" **Area** Los Angeles
Period of Significance: 1955 (District) **Property Type:** Institutional (Educational Facility)
Applicable Criteria: CRHR: 1.
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity)

The campus core of Pacoima Middle School appears eligible as a historic district for the California Register of Historical Resources under Criterion 1 as an outstanding example of the standardized indoor-outdoor postwar school. Considered in the context of institutional architecture/educational facilities in Los Angeles, the campus plan and buildings exemplify LAUSD design principles and ideals from the period (as described in the *Los Angeles Unified School District Historic Context Statement, 1870 to 1969*). A number of alterations, including many filled-in or stuccoed clerestories, appear to have compromised the integrity of some classroom wings. Because of these alterations, the campus is not eligible for listing on the National Register. Overall, the campus core (which includes the site plan, the relationship of buildings to outdoor spaces, and original plantings) retains sufficient integrity to convey the reasons for its significance. Of historic note was Pacoima Middle School's role as the site of a 1957 plane crash in which seven students were killed and 74 other people injured when a transport plane collided with a jet over the school yard ("7 Killed, 74 Hurt in School Air Crash" 1957).

B11. Additional Resource Attributes: HP15. Educational Building.

***B12. References:** *(See Continuation Sheet)*

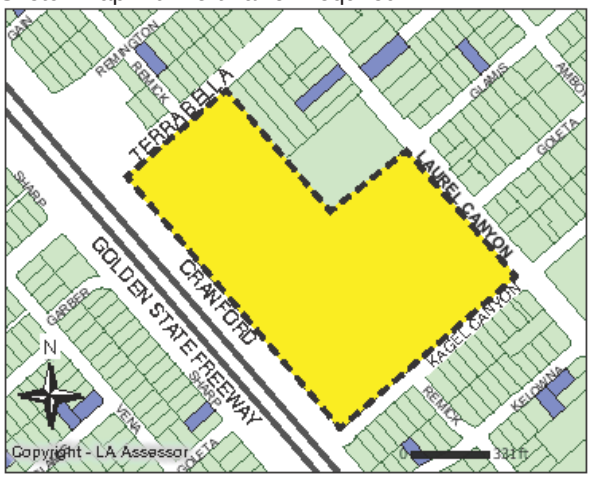
B13. Remarks: None

***B14. Evaluator:** Debi Howell-Ardila, MHP, and Marilyn Novell

***Date of Evaluation:** 27 March 2014

(This space reserved for official comments.)

Sketch Map with north arrow required



Recorded by Debi Howell-Ardila and Marilyn Novell **Date:** 27 March 2014 ☒ Continuation ☐ Update

P5b. Photo (continued): (view and date)

Pacoima Middle School, Central quad. Source: Sapphos Environmental, Inc., 13 March 2014.

Pacoima Middle School, Typical classroom building. Source: Sapphos Environmental, Inc., 13 March 2014.

Recorded by Debi Howell-Ardila and Marilyn Novell **Date:** 27 March 2014 ☒ Continuation ☐ Update

P5b. Photo (continued): (view and date)

Pacoima Middle School, Windows on typical classroom building. Source: Sapphos Environmental, Inc., 13 March 2014.

Pacoima Middle School, Site Plan, with permanent buildings marked in orange and portable buildings marked in purple. Source: Los Angeles Unified School District Pre-Planning Survey, Pacoima Middle School, July 2010.

***B12. References (continued):**

"7 Killed, 74 Hurt in School Air Crash," *Los Angeles Times,* February 1, 1957.

Bhatia, Pavan, "Modern Concept for Los Angeles Public Schools," Doctoral Dissertation (Cambridge, MA: Harvard University Graduate School of Design, Advanced Management Development Program in Real Estate, July 2009).

Blumenson, John J.-G., *Identifying American Architecture* (New York: W.W. Norton & Company, 1977).

"Boy's Suit for Damages in Air Tragedy Settled," *Los Angeles Times,* June 10, 1959.

California Office of Historic Preservation, *California Register and National Register: A Comparison (for Purposes of Determining Eligibility for the California Register),* Technical Assistance Series No. 6. (Sacramento, CA, 14 March 2006).

California Office of Historic Preservation, *Instructions for Recording Historical Resources* (Sacramento, CA, March 1995).

"Crash Hero: Teacher's Act Saves Boy's Life," *Los Angeles Times,* February 1, 1957.

Donovan, John J., *School Architecture: Principles and Practices* (New York: The MacMillan Company, 1921).

Eales, John R., "A Brief, General History of the Los Angeles City School System," Doctoral Dissertation (Los Angeles: University of California, June 1956).

Gebhard, David, and Robert Winter, *A Guide to Architecture in Los Angeles and Southern California* (Santa Barbara, CA: Peregrine Smith, Inc., 1977).

"Flash! An Integration Program That Works," *Los Angeles Times,* January 24, 1978.

Harris, Cyril M., *American Architecture: An Illustrated Encyclopedia* (New York: W.W. Norton & Company, 1998).

Heumann & Associates and Anne Doehne, Science Applications International Corporation, March 2002, "Historic Schools of the Los Angeles Unified School District," a presentation prepared for LAUSD Facilities Services Division (March 2002).

Hille, R. Thomas, *Modern Schools: A Century of Design for Education* (Hoboken, NJ: John Wiley & Sons, 2011), 13.

Lee, Antoinette, and Linda F. McClelland, U.S. Department of the Interior, National Park Service, *National Register Bulletin No. 16B, How to Complete the National Register Multiple Property Documentation Form (1999).*

McAlester, Virginia, and Lee McAlester, *A Field Guide to American House* (New York: Alfred A. Knopf, 2004).

Mock, Elizabeth, *Built in USA, 1932 – 1944: A Survey of Contemporary American Architecture*, The Museum of Modern Art (New York: Simon & Shuster, 1944).

Ogata, Amy F., "Building for Learning in Postwar American Elementary Schools," *Journal of the Society of Architectural Historians* 67, no. 4 (December 2008): 562–91.

"Pacoimans Will Mark Air Tragedy," *Los Angeles Times,* January 26, 1958.

Los Angeles Unified School District. *Los Angeles Unified School District Pre-Planning Survey* (2011).

Sapphos Environmental, Inc., *Los Angeles Unified School District Historic Context Statement, 1870 to 1969* (Pasadena, CA, March 2014).

"Saw at Fall: Students Hurt by Debris Tell of Tragedy," *Los Angeles Times,* February 1, 1957.

Science Applications International Corporation, *Historic Context Statement: Los Angeles Unified School District*, prepared for Los Angeles Unified School District (Pasadena, CA: March 2002).

U.S. Department of the Interior, National Park Service, "How to Apply the National Register Criteria for Evaluation," National Register Bulletin No. 15 (Washington, DC, 2002).

U.S. Department of the Interior, National Park Service, "How to Complete the National Register Form," National Register Bulletin No. 16A (Washington, DC, 1997).

U.S. Department of the Interior, National Park Service, "How to Complete the National Register Multiple Property Documentation Form," National Register Bulletin No. 16B (Washington, DC, 1999).

Whiffen, Marcus, *American Architecture since 1780: A Guide to the Styles* (Cambridge, MA: MIT Press, 1981).

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #_____
HRI #_____
Trinomial_____
NRHP Status Code 3D
Other Listings_____
Review Code_____ Reviewer_____ Date_____

 Resource name(s) or number (assigned by recorder) Palisades Charter Senior High School

P1. Other Identifier:
***P2. Location:** ☐Not for Publication ■Unrestricted
***a. County** Los Angeles County
***b. USGS 7.5' Quad** Topanga, CA **Date** 1981 **T** 1S **R** 16W; Unsectioned Area, S.B.**B.M.**
c. Address 14777 Bowdoin Street City Pacific Palisades Zip 90272
e. Other Locational Data: APN: # 4413-021-905

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries.)

Located on a 30.8-acre hillside site in Pacific Palisades, Palisades Charter Senior High School is bounded by Sunset Boulevard (north), Temescal Canyon Road (east), El Medio Avenue (west), and Bowdoin Street, which transects the campus. The two halves of campus are linked with pedestrian tunnels running beneath Bowdoin Street. Constructed in 1961 in an expressionist, Mid-Century Modern style, Palisades Charter Senior High School displays the textbook characteristics of a postwar indoor-outdoor high school campus. The heart of the campus consists of an expansive central lawn and gathering area, around which classrooms, an outdoor dining area, and other facilities are oriented. The central lawn includes mature trees, landscaping, benches, and an elevated stage. Classroom wings are generally two stories in height, rectangular in plan, and unified beneath a continuous folded-plate roof. Wall expanses are clad in patterned brick, with exposed stucco piers providing decorative accents. Broad, sheltered walkways fronted by simple metal grills and diagonal structural supports line upper stories of classrooms. Providing circulation corridors throughout campus is a network of sheltered arcades, which consist of steel I-beam roofs resting on simple, steel posts. To the east of the central lawn is an outdoor dining area, sheltered beneath a stylized zig-zag roof resting on simple pipe supports. South of Bowdoin Street, recreational facilities include a track, football stadium, and various recreational facilities and ancillary structures. *(See Continuation Sheet)*

***P3b. Resource Attributes:** (list attributes and codes) HP15. Educational Building. HP29. Landscape architecture.

***P4. Resources Present**: ☐Building ☐Structure ☐Object ☐Site ■District ☐Element of District ☐Other

P5a. Photo

P5b. Photo: (view and date)
Southeast elevation
23 January 2014

***P6. Date Constructed/Age and Sources:** ■ Historic ☐ Prehistoric ☐ Both 1961 (Los Angeles Unified School District)

***P7. Owner and Address:**
Los Angeles Unified School District

***P8. Recorded by:**
Debi Howell-Ardila and Marilyn Novell
Sapphos Environmental, Inc.
430 North Halstead Street
Pasadena, CA 91107

***P9. Date Recorded:**
3 February 2014

***P10. Survey Type:** Intensive

***P11. Report Citation:** (Cite survey report and other sources, or enter "none")
Sapphos Environmental, Inc. March 2014. *Los Angeles Unified School District Historic Context Statement, 1870 to 1969*. Pasadena, CA.
Sapphos Environmental, Inc. June 2014. *Los Angeles Unified School District Historic Resources Survey Report*. Pasadena, CA.

***Attachments:** ☐None ☐Location Map ☐Sketch Map ■Continuation Sheet ■Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (list)

BUILDING, STRUCTURE, AND OBJECT RECORD

*NHRP Status Code 3D

 *Resource Name or #: Palisades Charter Senior High School

B1. Historic Name: Palisades Charter Senior High School
B2. Common Name: Pacific Palisades Senior High School
B3. Original Use: Institutional (Educational Facility) B4. Present Use: Institutional (Educational Facility)
*B5. **Architectural Style:** Mid-Century Modern/Expressionistic
*B6. **Construction History:** (Construction date, alterations, and date of alterations):

According to records on file with the Los Angeles Unified School District, construction was completed on Palisades Charter Senior High School in 1961. A majority of the campus's extant buildings, structures, and facilities date from this period. The grounds also include several portable/temporary buildings, most of which were installed in the 1990s (and located primarily in the northern portion of campus and near the football stadium). A number of minor alterations have taken place over the years, including seismic and systems upgrades, safety and security improvements (see *LAUSD Pre-Planning Survey, Palisades Charter Senior High School* for list of repairs and improvements carried out since the 1990s). Alterations to original buildings on campus include the addition of X-shaped cross-bracing on outdoor walkways, the addition of security grills on some windows, and the in-filling/replacement of some original windows. The campus is otherwise highly intact and in good repair.

*B7. **Moved?** ■No ☐Yes ☐Unknown **Date:**_____ **Original Location:**_____
*B8. **Related Features:** Landscaping/mature trees, hardscaping, benches
B9a. Architect: Adrian Wilson and Associates b. Builder: Unknown
*B10. **Significance:** **Theme**, Institutional (Educational Facility),
"Educating the Baby Boom: Postwar Expansion and the Functional, Modern School Plant, 1945-1969" **Area** Los Angeles
Period of Significance: 1961 (District) **Property Type:** Institutional (Educational Facility)
Applicable Criteria: NRHP: A and C; CRHR: 1 and 3.
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity)

The campus core of Palisades Charter Senior High School appears eligible for the National Register of Historic Places (NRHP) and the California Register of Historical Resources (CRHR) as a district under Criteria A/1 as an excellent, intact example of a postwar indoor-outdoor educational facility in Los Angeles. The campus plan and buildings exemplify the design principles and ideals of the Los Angeles Unified School District from the postwar period (as described in the *Los Angeles Unified School District Historic Context Statement, 1870 to 1969*). The campus core also appears eligible for the NRHP and CRHR as a district under Criteria C/3 as an excellent example of the Mid-Century Modern style (Expressionist subtype) applied to institutional architecture.
(See Continuation Sheet)

B11. Additional Resource Attributes: HP15. Educational Facility. HP 29. Landscape Architecture.

*B12. **References:** *(See Continuation Sheet)*

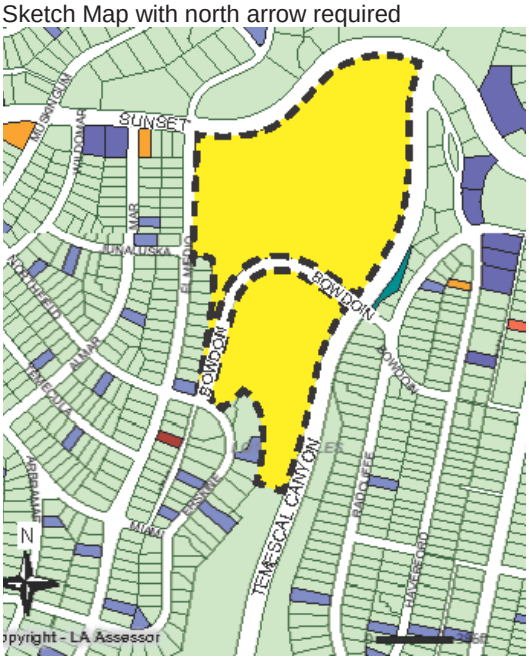
B13. Remarks: None

*B14. **Evaluator:** Debi Howell-Ardila, MHP

*Date of Evaluation: 4 February 2014

(This space reserved for official comments.)

Sketch Map with north arrow required



Recorded by Debi Howell-Ardila and Marilyn Novell **Date:** 4 February 2014 ☒ Continuation ☐ Update

***P3a. Description (continued):**

The principal entrance to campus is located on Bowdoin Street, with the main entry flanked by the Administration Building on the west and the Assembly Room/Cafeteria on the east. Arcades extend to the sidewalk and lead into the main campus. Architectural details on these signature buildings are reflected throughout the campus. Features include exterior walls clad in brick and stucco, sheltered beneath cantilevered overhanging eaves. Marking the centered entrance bays are a set of floor-to-ceiling stucco-clad piers. Formed by gaps in the brick cladding, these full-height piers provide visual interest on the exterior walls, which consist of broad expanses of brick sheathing. Continuous bands of metal sunshades line the southern elevation of the Administration Building. A variety of fenestration patterns are seen throughout campus, including steel-framed casements, fixed panes, clerestories, and transoms. Exterior walls of classrooms have built-in lockers. Throughout the core of the campus, landscaped courtyards with walkways, benches, and greenery provide outdoor spaces for gathering.

School facilities include a shop building, outdoor pool, parking areas, portable buildings and structures, added primarily in the 1990s, as well as other ancillary buildings and structures. Alterations include various safety and systems upgrades, the installation of security grills on some windows, and the in-filling of some windows. The core of the campus is otherwise highly intact and in good repair.

***B10. Significance (continued):**

With its "ultra-modern" design and $6-million cost, Palisades Senior High School was said to be the "most expensive and most architecturally distinctive plant in the Los Angeles city schools system" when it was built in 1961 ("Palisades High School Readied for Occupancy," *Los Angeles Times*, 1961). Due to its location—in a constricted valley, nestled in the hillsides of Pacific Palisades—the campus required $1-million of earth-moving activities to prepare the site. Los Angeles firm Adrian Wilson and Associates, responsible for design and engineering specifications, envisioned the school as a series of classroom wings focused on a central quadrangle, in a compact but open campus plan accommodating up to 3,000 students ("Record Earth-Moving Job at School Site Told" 1961). The campus core exhibits few signs of alteration and retains a high degree of integrity of location, design, setting, materials, workmanship, feeling, and association.

P5b. Photo (continued): (view and date)

Palisades Charter Senior High School, entrance arcade and courtyard.
Southeastern perspective. Source: Sapphos Environmental, Inc., 23 January 2014.

Recorded by Debi Howell-Ardila and Marilyn Novell **Date:** 4 February 2014 ☒ Continuation ☐ Update

P5b. Photo (continued): (view and date)

Palisades Charter Senior High School, outdoor dining area with zig-zag roof canopy. Southwest perspective. Source: Sapphos Environmental, Inc., 23 January 2014.

Palisades Charter Senior High School, typical classroom and courtyard. Southwestern perspective. Source: Sapphos Environmental, Inc., 23 January 2014.

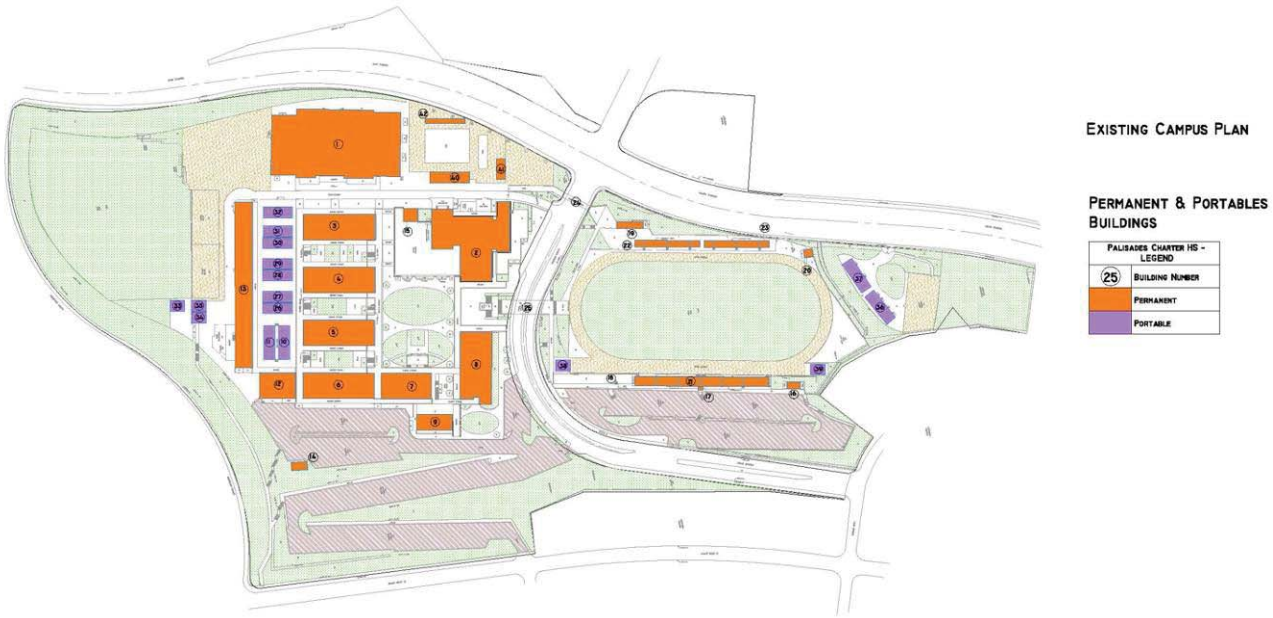
P5b. Photo (continued): (view and date)

Palisades Charter Senior High School under construction, as of circa 1961. Source: J. Paul Getty Trust, Getty Research Institute, Julius Shulman Photography Archive, # gri_2004_r_10_b271_f18_001.

Palisades Charter Senior High School, as of circa 1961. Source: J. Paul Getty Trust, Getty Research Institute, Julius Shulman Photography Archive, # gri_2004_r_10_b278_f03_007.

Recorded by Debi Howell-Ardila and Marilyn Novell **Date:** 4 February 2014 ☒ Continuation ☐ Update

P5b. Photo (continued): (view and date)



Palisades Senior High School, Site Plan, with permanent buildings marked in orange and portable buildings marked in purple. Source: Los Angeles Unified School District Pre-Planning Survey, Palisades Charter Senior High School, March 2012.

***B12. References (continued):**

Bhatia, Pavan, "Modern Concept for Los Angeles Public Schools," Doctoral Dissertation (Cambridge, MA: Harvard University Graduate School of Design, Advanced Management Development Program in Real Estate, July 2009).

Blumenson, John J.-G., *Identifying American Architecture* (New York: W.W. Norton & Company, 1977).

California Office of Historic Preservation, *California Register and National Register: A Comparison (for Purposes of Determining Eligibility for the California Register),* Technical Assistance Series No. 6. (Sacramento, CA, 14 March 2006).

California Office of Historic Preservation, *Instructions for Recording Historical Resources* (Sacramento, CA, March 1995).

Donovan, John J., *School Architecture: Principles and Practices* (New York: The MacMillan Company, 1921).

Eales, John R., "A Brief, General History of the Los Angeles City School System," Doctoral Dissertation (Los Angeles: University of California, June 1956).

Gebhard, David, and Robert Winter, *A Guide to Architecture in Los Angeles and Southern California* (Santa Barbara, CA: Peregrine Smith, Inc., 1977).

Harris, Cyril M., *American Architecture: An Illustrated Encyclopedia* (New York: W.W. Norton & Company, 1998).

Heumann & Associates and Anne Doehne, Science Applications International Corporation, March 2002, "Historic Schools of the Los Angeles Unified School District," a presentation prepared for LAUSD Facilities Services Division (March 2002).

Hille, R. Thomas, *Modern Schools: A Century of Design for Education* (Hoboken, NJ: John Wiley & Sons, 2011), 13.

Lee, Antoinette, and Linda F. McClelland, U.S. Department of the Interior, National Park Service, *National Register Bulletin No. 16B, How to Complete the National Register Multiple Property Documentation Form (1999).*

McAlester, Virginia, and Lee McAlester, *A Field Guide to American House* (New York: Alfred A. Knopf, 2004).

Mock, Elizabeth, *Built in USA, 1932 – 1944: A Survey of Contemporary American Architecture*, The Museum of Modern Art (New York: Simon & Shuster, 1944).

Ogata, Amy F., "Building for Learning in Postwar American Elementary Schools," *Journal of the Society of Architectural Historians* 67, no. 4 (December 2008): 562–91.

"Palisades School Readied for Occupancy," *Los Angeles Times,* September 3, 1961.

"Record Earth-Moving Job at School Site Told, *Los Angeles Times,* June 11, 1961.

Los Angeles Unified School District. *Los Angeles Unified School District Pre-Planning Survey* (2011).

Sapphos Environmental, Inc., *Los Angeles Unified School District Historic Context Statement, 1870 to 1969* (Pasadena, CA, March 2014).

Science Applications International Corporation, *Historic Context Statement: Los Angeles Unified School District*, prepared for Los Angeles Unified School District (Pasadena, CA: March 2002).

"School Dedication Set for Saturday," *Los Angeles Times,* November 5, 1961.

U.S. Department of the Interior, National Park Service, "How to Apply the National Register Criteria for Evaluation," National Register Bulletin No. 15 (Washington, DC, 2002).

U.S. Department of the Interior, National Park Service, "How to Complete the National Register Form," National Register Bulletin No. 16A (Washington, DC, 1997).

U.S. Department of the Interior, National Park Service, "How to Complete the National Register Multiple Property Documentation Form," National Register Bulletin No. 16B (Washington, DC, 1999).

Whiffen, Marcus, American Architecture since 1780: A Guide to the Styles (Cambridge, MA: MIT Press, 1981).

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #_____
HRI #_____
Trinomial_____
NRHP Status Code 3CD
Other Listings_____
Review Code_____ Reviewer_____ Date_____

Page 1 **of** 7 **Resource name(s) or number** (assigned by recorder) Parmelee Elementary School

P1. Other Identifier:
***P2. Location:** ☐Not for Publication ■Unrestricted
***a. County** Los Angeles County
***b. USGS 7.5' Quad** Inglewood, CA **Date** 1981 **T** 2S **R** 13W; SE ¼ **of** NW ¼ **of Sec** 28, S.B.**B.M.**
c. Address 1338 E. 76th Place City Los Angeles Zip 90001
e. Other Locational Data: APN: # 6024-022-900

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries.)

Parmelee Elementary School is located in a residential area of the Florence-Graham neighborhood in the City of Los Angeles. The campus occupies a 6.3-acre site bounded by East 76th Place to the north, East 77th Place to the south, Parmelee Avenue to the east, and Hooper Avenue to the west. The school consists of three two-story classroom buildings and three two-story utility buildings, in addition to a one-story administration building and two kindergarten buildings, all constructed in 1962. An Assembly Building and associated lunch pavilion were added in 1964, and nine temporary/portable buildings were added between 1960 and 2005 to the east and south of the campus core. All permanent buildings on the campus core are linked by sheltered corridors and wide overhanging eaves.

Parmlee Elementary School exhibits the typical features of a finger- and cluster-plan school. With generous use of windows and exterior corridors and access to courtyards and mature landscaped areas, the campus displays the indoor-outdoor connection typical of this school typology. The use of exposed cast-concrete structural elements and sculptural forms is associated with the style as it transitioned to the 1960s. *(See Continuation Sheet)*

***P3b. Resource Attributes:** (list attributes and codes) HP15. Educational Building. HP29. Landscape architecture.

***P4. Resources Present**: ☐Building ☐Structure ☐Object ☐Site ■District ☐Element of District ☐Other

P5a. Photo

P5b. Photo: (view and date)
Assembly Building, northeast perspective
21 February 2014

***P6. Date Constructed/Age and Sources:**
■ Historic ☐ Prehistoric ☐ Both
1962, 1964, 1965 (Los Angeles Unified School District)

***P7. Owner and Address:**
Los Angeles Unified School District

***P8. Recorded by:**
Marilyn Novell
Sapphos Environmental, Inc.
430 North Halstead Street
Pasadena, CA 91107

***P9. Date Recorded:** 21 February 2014

***P10. Survey Type:** Intensive

***P11. Report Citation:** (Cite survey report and other sources, or enter "none") Sapphos Environmental, Inc. March 2014. *Los Angeles Unified School District Historic Context Statement, 1870 to 1969*. Pasadena, CA.

Sapphos Environmental, Inc. June 2014. *Los Angeles Unified School District Historic Resources Survey Report*. Pasadena, CA.

***Attachments:** ☐None ☐Location Map ☐Sketch Map ■Continuation Sheet ■Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (list)

BUILDING, STRUCTURE, AND OBJECT RECORD

*NHRP Status Code 3CD

 *Resource Name or #: Parmelee Elementary School

B1. Historic Name: Parmelee Elementary School
B2. Common Name: Same
B3. Original Use: Institutional (Educational Facility) B4. Present Use: Institutional (Educational Facility)
*B5. **Architectural Style:** Mid-Century Modern
*B6. **Construction History:** (Construction date, alterations, and date of alterations):

According to records on file with the Los Angeles Unified School District, the core of the Parmelee Elementary School campus was completed in 1962, with the assembly building added in 1964 and the lunch pavilion in 1965. Construction of the school cost more than $1.2 million ("Pupils to Get Preview of New Parmelee School," *Los Angeles Times*, 1962). In 1965, an arson fire destroyed four classrooms ("School Hit by Two-Alarm Fire," *Los Angeles Times*, 1965). Three portable/temporary buildings were added at the eastern perimeter of the campus in the 1990s. A number of alterations and repairs have taken place over the years, including seismic and systems upgrades, the removal of windows to accommodate the installation of air-conditioning units, and various safety improvements (see *LAUSD Pre-Planning Survey, Parmelee Elementary School,* for a list of repairs and improvements performed since the 1990s). In addition, security grilles have been added to windows throughout the campus.

*B7. **Moved?** ■No ☐Yes ☐Unknown **Date:**_____ **Original Location:**_____
*B8. **Related Features:** Landscaping/mature trees, hardscaping
B9a. Architect: Unknown b. Builder: Unknown
*B10. **Significance:** **Theme**, Institutional (Educational Facility),
"Educating the Baby Boom: Postwar Expansion and the Functional, Modern School Plant, 1945-1969" **Area** Los Angeles
Period of Significance: 1962-1965 (District) **Property Type:** Institutional (Educational Facility)
Applicable Criteria: CRHR: 1.
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity)

The campus core of Parmelee Elementary School appears eligible for the California Register of Historical Resources under Criterion 1 as an excellent, intact example of a postwar finger- and cluster-plan elementary school. The campus plan and buildings exemplify LAUSD design principles and ideals from the postwar period (as described in the *Los Angeles Unified School District Historic Context Statement, 1870 to 1969*). The campus core also appears eligible under Criterion 3 as an outstanding, intact example of the Mid-Century Modern style applied to institutional architecture. Due to alterations, the campus is not eligible for listing on the National Register and is eligible for the California Register only. Overall, the campus core (which includes the site plan, the relationship of buildings to outdoor spaces, and original plantings) retains integrity of location, design, setting, workmanship, feeling, and association.

B11. Additional Resource Attributes: HP15. Educational Building. HP29. Landscape Architecture.

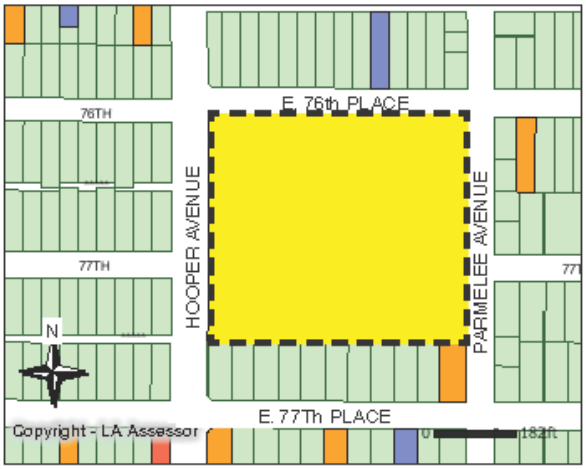
*B12. **References:** *(See Continuation Sheet)*

B13. Remarks: None

*B14. **Evaluator:** Debi Howell-Ardila and Marilyn Novell

*Date of Evaluation: 21 February 2014

Sketch Map with north arrow required



(This space reserved for official comments.)

***P3a. Description (continued):**

The two-story auditorium and a small two-story classroom/utility building linking two of the classroom wings are clad in red brick over a convex barrel surface. The north and south elevations of the auditorium and the west elevation of the utility building display a curved façade that contrasts with rectilinear overhanging roofs and heavy cast-concrete beams. In plan, orthogonal one-story wings to the south and west of the curvilinear auditorium and a projecting one-story entrance at the east elevation present a complex arrangement of forms. At the main elevation, recessed entry doors are placed asymmetrically beneath a broad overhanging eaves supported by a brick pier.

The roof of the major east-west arcade is constructed of corrugated metal and suspended from the cross-beam of a single row of heavy cast-concrete pilons. Exposed vertical cast-concrete structural elements and exterior stairways contribute to a sturdy-appearing architecture throughout the campus. Inlaid blond brickwork on the north elevation of the auditorium and the west elevation of the administration building and a terra cotta screen on the curved façade of Building 6 contribute Mid-Century-Modern details to the campus. Cladding of the buildings throughout the campus varies between red brick and stucco, with structural concrete marking the locations of the classrooms and the corners of the classroom wings. Three two-story classroom buildings have back-to-back classrooms opening onto exterior corridors with views of courtyards. At the upper level, a metal handrail and mesh balustrade is supported by slender inward-curving metal stanchions. The floor of the upper-level corridor shelters the corridor below.

The lunch pavilion has a tripartite roof; the central section is in the form of a folded “butterfly” roof with the ends rising in a V shape above the two lower roofs at either side to allow circulation of air. The roofs are supported by steel poles. Otherwise, roofs throughout the campus are flat with wide fascia. Windows in the classroom wings are arranged in groups of four three-part fixed panes flanked by a plain metal door with a fixed transom on each side. The upper tier of windows and the transoms appear to be filled in on the administration building.

The campus design exhibits many of the characteristics typical of Mid-Century Modernism in the Expressionistic subtype as applied in the 1960s. Although the classroom buildings are two stories in height, their broad overhanging eaves and flat roof retain a simple, horizontal effect. The campus buildings have simple orthogonal massing with minimal ornament, and the site has a strong site plan that clusters a variety of building types around a unifying courtyard.

Recorded by Marilyn Novell **Date:** 21 February 2014 ☒ Continuation ☐ Update

P5b. Photo (continued): (view and date)

Parmelee Elementary School, Utilities Building (Building 6), view from inside campus. Southwest perspective. Source: Sapphos Environmental, Inc., 21 February 2014.

Parmelee Elementary School, Administrative Building, viewed from entrance. Northwest perspective. Source: Sapphos Environmental, Inc., 21 February 2014.

Recorded by Marilyn Novell **Date:** 21 February 2014 ☒ Continuation ☐ Update

P5b. Photo (continued): (view and date)

Parmelee Elementary School, Lunch Pavilion with Auditorium behind. Southeast perspective. Source: Sapphos Environmental, Inc., 21 February 2014.

Parmelee Elementary School, main east-west arcade. Southeast perspective. Source: Sapphos Environmental, Inc., 21 February 2014.

Recorded by Marilyn Novell **Date:** 21 February 2014 ☒ Continuation ☐ Update

P5b. Photo (continued): (view and date)

Parmelee Elementary School, Classroom Building, Southwest perspective. Source: Sapphos Environmental, Inc., 21 February 2014.

Parmelee Elementary School, Site Plan, with permanent buildings marked in orange and portable buildings marked in purple. Source: Los Angeles Unified School District Pre-Planning Survey, Parmelee Elementary School, Ver. 4, May 7, 2011.

***B12. References (continued):**

Bhatia, Pavan, "Modern Concept for Los Angeles Public Schools," Doctoral Dissertation (Cambridge, MA: Harvard University Graduate School of Design, Advanced Management Development Program in Real Estate, July 2009).

Blumenson, John J.-G., *Identifying American Architecture* (New York: W.W. Norton & Company, 1977).

California Office of Historic Preservation, *California Register and National Register: A Comparison (for Purposes of Determining Eligibility for the California Register),* Technical Assistance Series No. 6. (Sacramento, CA, 14 March 2006).

California Office of Historic Preservation, *Instructions for Recording Historical Resources* (Sacramento, CA, March 1995).

Donovan, John J., *School Architecture: Principles and Practices* (New York: The MacMillan Company, 1921).

Eales, John R., "A Brief, General History of the Los Angeles City School System," Doctoral Dissertation (Los Angeles: University of California, June 1956).

Gebhard, David, and Robert Winter, *A Guide to Architecture in Los Angeles and Southern California* (Santa Barbara, CA: Peregrine Smith, Inc., 1977).

Harris, Cyril M., *American Architecture: An Illustrated Encyclopedia* (New York: W.W. Norton & Company, 1998).

Heumann & Associates and Anne Doehne, Science Applications International Corporation, March 2002, "Historic Schools of the Los Angeles Unified School District," a presentation prepared for LAUSD Facilities Services Division (March 2002).

Hille, R. Thomas, *Modern Schools: A Century of Design for Education* (Hoboken, NJ: John Wiley & Sons, 2011), 13.

"L.A. Schools Expected to Be Nation's Largest," *Los Angeles Times,* January 28, 1962.

Lee, Antoinette, and Linda F. McClelland, U.S. Department of the Interior, National Park Service, *National Register Bulletin No. 16B, How to Complete the National Register Multiple Property Documentation Form (1999).*

McAlester, Virginia, and Lee McAlester, *A Field Guide to American House* (New York: Alfred A. Knopf, 2004).

Mock, Elizabeth, *Built in USA, 1932 – 1944: A Survey of Contemporary American Architecture*, The Museum of Modern Art (New York: Simon & Shuster, 1944).

Ogata, Amy F., "Building for Learning in Postwar American Elementary Schools," *Journal of the Society of Architectural Historians* 67, no. 4 (December 2008): 562–91.

"Pupils to Get Preview of New Parmelee School," *Los Angeles Times,* March 16, 1962.

Los Angeles Unified School District. *Los Angeles Unified School District Pre-Planning Survey* (2011).

Sapphos Environmental, Inc., *Los Angeles Unified School District Historic Context Statement, 1870 to 1969* (Pasadena, CA, March 2014).

Science Applications International Corporation, *Historic Context Statement: Los Angeles Unified School District*, prepared for Los Angeles Unified School District (Pasadena, CA: March 2002).

"School Hit by Two-Alarm Fire," *Los Angeles Times,* March 13, 1965.

U.S. Department of the Interior, National Park Service, "How to Apply the National Register Criteria for Evaluation," National Register Bulletin No. 15 (Washington, DC, 2002).

U.S. Department of the Interior, National Park Service, "How to Complete the National Register Form," National Register Bulletin No. 16A (Washington, DC, 1997).

U.S. Department of the Interior, National Park Service, "How to Complete the National Register Multiple Property Documentation Form," National Register Bulletin No. 16B (Washington, DC, 1999).

Whiffen, Marcus, *American Architecture since 1780: A Guide to the Styles* (Cambridge, MA: MIT Press, 1981).

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #_____
HRI #_____
Trinomial_____
NRHP Status Code 3CD
Other Listings_____
Review Code_____ Reviewer_____ Date_____

Page 1 **of** 7 **Resource name(s) or number** (assigned by recorder) Topanga Charter Elementary School

P1. Other Identifier:
***P2. Location:** ☐Not for Publication ■Unrestricted
***a. County** Los Angeles County
***b. USGS 7.5' Quad** Topanga, CA **Date** 1981 **T** 1S **R** 16W; W ½ **of** SW ¼ **of Sec** 7; S.B.**B.M.**
c. Address 22075 Topanga School Road City Topanga Zip 90290
e. Other Locational Data: APN: # 4445-005-902

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries.)

Topanga Charter Elementary School is located in the Santa Monica Mountains on the western edge of Los Angeles County on a 12.2-acre site in heavily wooded, rugged terrain. The campus is on a cul-de-sac at the end of Topanga School Road, a semi-private road off Topanga Canyon Boulevard. The acreage downslope from the campus core is geologically unstable, and approximately half of the site remains undeveloped.

Despite its unique mountainous setting and dense vegetation, the campus displays many of the classic features of the postwar indoor-outdoor school, with low, single-loaded classroom wings connected by a system of arcades and exterior corridors. Immersed in this natural setting, the buildings are placed on various levels on terraced hillsides to accommodate the steep topography, with one classroom placed downslope from the Administration Building and the Assembly Building at a higher level shared with the main playground and temporary buildings. Each classroom has access to the outdoors and abundant air and natural light. Constructed in 1953 and 1955, the steel-reinforced red brick buildings display clean, simple lines with steep shed roofs and extensive windows typical of the Mid-Century Modern architectural style of the period. *(See Continuation Sheet)*

***P3b. Resource Attributes:** (list attributes and codes) HP15. Educational Building

***P4. Resources Present**: ☐Building ☐Structure ☐Object ☐Site ■District ☐Element of District ☐Other

P5a. Photo

P5b. Photo: (view and date)
Administration Building, view from west
6 March 2014

***P6. Date Constructed/Age and Sources:** ■ Historic ☐ Prehistoric ☐ Both 1953, 1955 (Los Angeles Unified School District)

***P7. Owner and Address:**
Los Angeles Unified School District

***P8. Recorded by:**
Marilyn Novell
Sapphos Environmental, Inc.
430 North Halstead Street
Pasadena, CA 91107

***P9. Date Recorded:** 6 March 2014

***P10. Survey Type:** Intensive

***P11. Report Citation:** (Cite survey report and other sources, or enter "none") Sapphos Environmental, Inc. March 2014. *Los Angeles Unified School District Historic Context Statement, 1870 to 1969*. Pasadena, CA.
Sapphos Environmental, Inc. June 2014. *Los Angeles Unified School District Historic Resources Survey Report*. Pasadena, CA.

***Attachments:** ☐None ☐Location Map ☐Sketch Map ■Continuation Sheet ■Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (list)

BUILDING, STRUCTURE, AND OBJECT RECORD

***NHRP Status Code** 3D

 ***Resource Name or #:** Topanga Charter Elementary School

B1. Historic Name: Topanga Charter Elementary School
B2. Common Name: Topanga Elementary School
B3. Original Use: Institutional (Educational Facility) B4. Present Use: Institutional (Educational Facility)
***B5. Architectural Style:** Mid-Century Modern
***B6. Construction History:** (Construction date, alterations, and date of alterations):

According to records on file with the Los Angeles Unified School District, construction was completed on Topanga Elementary School in 1953 and 1955. With the exception of a lunch shelter built in 1940, all of the campus's buildings, structures, and facilities date from this period. The grounds also include four portable/temporary buildings from the 1990s. A number of alterations and repairs have taken place over the years, including seismic and systems upgrades, the installation of systems on roofs, and safety improvements (see *LAUSD Pre-Planning Survey, Topanga Charter Elementary School,* for a list of repairs and improvements carried out since the 1990s). However, permanent alterations are minimal, apparently limited to the painting over and filling in of clerestory windows on the Assembly Building.

***B7. Moved?** ■**No** ☐**Yes** ☐**Unknown** **Date:**_____ **Original Location:**_____
***B8. Related Features:** None
B9a. Architect: Unknown b. Builder: Unknown
***B10. Significance:** **Theme**, Institutional (Educational Facility),
"Educating the Baby Boom: Postwar Expansion and the Functional, Modern School Plant, 1945-1969" **Area** Los Angeles
Period of Significance: 1953-1955 (District) **Property Type:** Institutional (Educational Facility)
Applicable Criteria: NRHP: A and C; CRHR: 1 and 3.
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity)

The campus core of Topanga Charter Elementary School appears eligible as a district under Criterion A/1 as an excellent, intact example of a modern, indoor-outdoor postwar school in the Los Angeles Unified School District. The campus plan and buildings exemplify LAUSD design principles and ideals from the postwar period (as described in the *Los Angeles Unified School District Historic Context Statement, 1870 to 1969*). The campus core also appears eligible under Criterion C/3 as an excellent example of the Mid-Century Modern style applied to institutional architecture.

The campus shows minimal signs of alteration, and the campus core retains integrity of location, design, setting, workmanship, feeling, and association.

B11. Additional Resource Attributes: HP15. Educational Facility.

***B12. References:** *(See Continuation Sheet)*

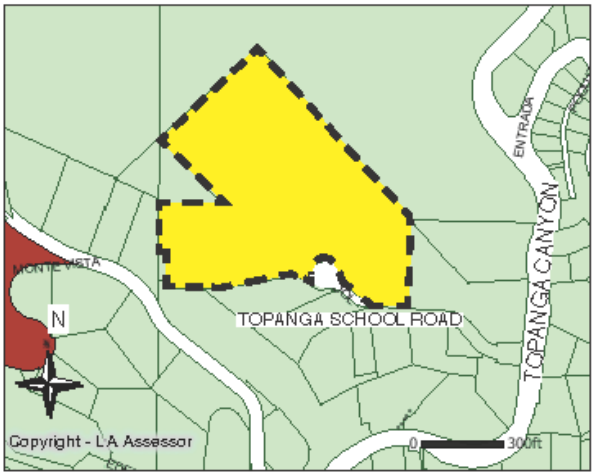
B13. Remarks: None

***B14. Evaluator:** Debi Howell-Ardila and Marilyn Novell

***Date of Evaluation:** 6 March 2013

(This space reserved for official comments.)

Sketch Map with north arrow required



***P3a. Description (continued):**

Topanga Charter Charter Elementary School (formerly called Topanga Charter Elementary School) was featured in a *Los Angeles Times* photo feature focusing on the open-air architecture of new L.A. schools. In 1961, the financially strapped Topanga Charter Elementary School District, consisting of a single school, voted for annexation to Los Angeles ("More and Better Schools Rising in Southland for New Generations" 1954; "Plans Studied to Add Junior College Districts" 1961; "Topanga Charter School to Be Joined to L.A. Group" 1961).

The two main classroom buildings and the Administration Building were constructed in 1953, with a classroom/sanitary building and an assembly building added in 1955. Steep shed roofs slope down from the back of the building, with a wide overhanging eave sheltering the corridor below. The ceilings of the corridors are composed of diagonal wood planks with doubled cross-beams. The cross-beams are bolted to an additional single beam at an angle of approximately 30 degrees that serves as support for a series of horizontal aluminum louvers that run the length of the corridor.

Built of reinforced masonry with no interior wall cladding, all of the campus buildings display the exposed red brick of the exterior inside the classrooms, further contributing to a melding of indoors and outdoors. On the southeast elevations of the two main classroom buildings and the south elevation of a third classroom building are banks of windows filling approximately 70 percent of the height of the wall. The arrangement of each bank of windows consists of alternately fixed and awning-style steel-framed windows set in vertical wood mullions. Grouped with the banks of windows defining each classroom is a single, unadorned wood door to one side with an outward-opening wood-veneer hopper transom. On the back of each classroom is a bank of seven clerestory windows, each composed of a band of awning-type windows with a fixed window below, providing the classrooms with cross-ventilation and additional natural light.

The shed roof of the Administration Building slopes from a low point at the back up toward the front, where it faces the central courtyard. The roof has a wide, flat wood fascia with no overhanging eaves. At the courtyard side of the building, a flat-roofed corridor supported by plain steel posts sits just above the northwest-facing windows. A series of unadorned wide doors with fixed transoms open onto the corridor, with banks of windows in various groupings. Each set of windows consists of a large awning-type window with a fixed light above and below.

A paved trail leads up a wooded pathway to the upper level of the campus, where the Assembly Building and Lunch Shelter, as well as four temporary buildings and the main playground, are located. The Assembly Building is a double-height block with a side-gabled roof and clerestory windows, and a lower one-story, side-gabled wing that houses offices and auxiliary rooms extends along the south and east elevations. A wide overhanging eave at the set-back entrance on the southeast corner of the lower section is supported by three red-brick piers.

Recorded by Marilyn Novell **Date:** 6 March 2014 ☒ Continuation ☐ Update

P5b. Photo (continued): (view and date)

Topanga Charter Elementary School, view of arcades connecting classroom buildings and Administration Building, from central courtyard, west perspective. Source: Sapphos Environmental, Inc., 6 March 2014.

Topanga Charter Elementary School, Classroom Building 3, east elevation. Source: Sapphos Environmental, Inc., 6 March 2014.

P5b. Photo (continued): (view and date)

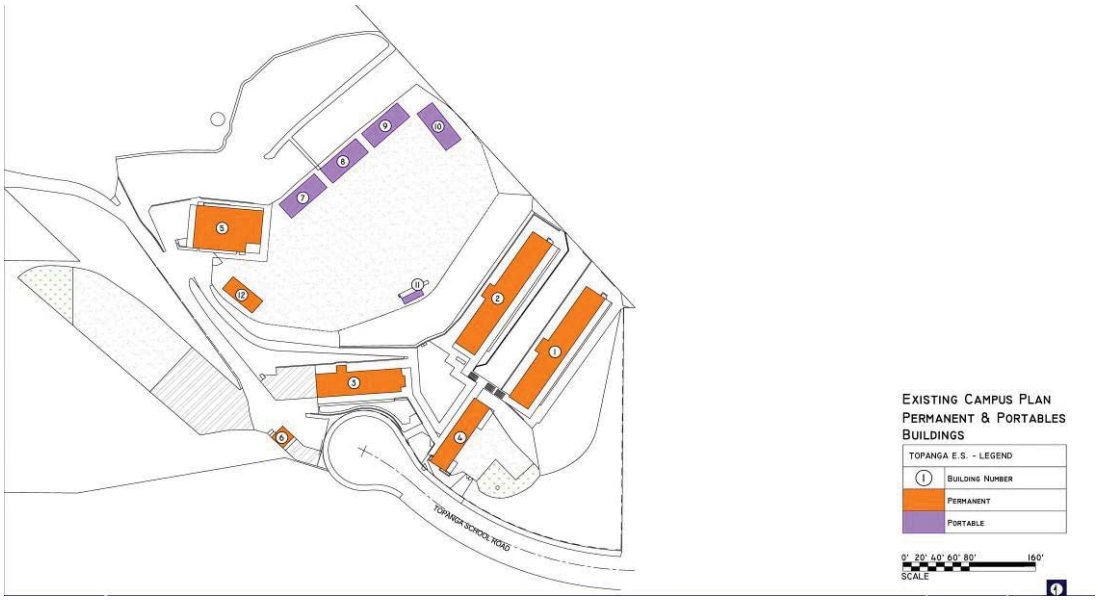
Topanga Charter Elementary School, typical classroom grouping of windows and door on southeast elevations. Source: Sapphos Environmental, Inc., 6 March 2014.

Topanga Charter Elementary School, view of corridor ceiling, classroom building. Source: Sapphos Environmental, Inc., 6 March 2014.

Recorded by Marilyn Novell **Date:** 6 March 2014 ☒ Continuation ☐ Update

P5b. Photo (continued): (view and date)

Topanga Charter Elementary School, Assembly Building, east elevation. Source: Sapphos Environmental, Inc., 6 March 2014.



Topanga Charter Elementary School, Site Plan, with permanent buildings marked in orange and portable buildings marked in purple. Source: Los Angeles Unified School District Pre-Planning Survey, Topanga Charter Elementary School, Version 5, March 2012.

***B12. References (continued):**

Bhatia, Pavan, "Modern Concept for Los Angeles Public Schools," Doctoral Dissertation (Cambridge, MA: Harvard University Graduate School of Design, Advanced Management Development Program in Real Estate, July 2009).

Blumenson, John J.-G., *Identifying American Architecture* (New York: W.W. Norton & Company, 1977).

California Office of Historic Preservation, *California Register and National Register: A Comparison (for Purposes of Determining Eligibility for the California Register),* Technical Assistance Series No. 6. (Sacramento, CA, 14 March 2006).

California Office of Historic Preservation, *Instructions for Recording Historical Resources* (Sacramento, CA, March 1995).

Donovan, John J., *School Architecture: Principles and Practices* (New York: The MacMillan Company, 1921).

Eales, John R., "A Brief, General History of the Los Angeles City School System," Doctoral Dissertation (Los Angeles: University of California, June 1956).

Gebhard, David, and Robert Winter, *A Guide to Architecture in Los Angeles and Southern California* (Santa Barbara, CA: Peregrine Smith, Inc., 1977).

Harris, Cyril M., *American Architecture: An Illustrated Encyclopedia* (New York: W.W. Norton & Company, 1998).

Heumann & Associates and Anne Doehne, Science Applications International Corporation, March 2002, "Historic Schools of the Los Angeles Unified School District," a presentation prepared for LAUSD Facilities Services Division (March 2002).

Hille, R. Thomas, *Modern Schools: A Century of Design for Education* (Hoboken, NJ: John Wiley & Sons, 2011), 13.

Lee, Antoinette, and Linda F. McClelland, U.S. Department of the Interior, National Park Service, *National Register Bulletin No. 16B, How to Complete the National Register Multiple Property Documentation Form (1999).*

Los Angeles Unified School District. *Los Angeles Unified School District Pre-Planning Survey* (2012).

McAlester, Virginia, and Lee McAlester, *A Field Guide to American House* (New York: Alfred A. Knopf, 2004).

Mock, Elizabeth, *Built in USA, 1932 – 1944: A Survey of Contemporary American Architecture*, The Museum of Modern Art (New York: Simon & Shuster, 1944).

"More and Better Schools Rising in Southland for New Generations," *Los Angeles Times,* January 2, 1954.

Ogata, Amy F., "Building for Learning in Postwar American Elementary Schools," *Journal of the Society of Architectural Historians* 67, no. 4 (December 2008): 562–91.

"Plans Studied to Add Junior College Districts," *Los Angeles Times,* March 2, 1961.

Sapphos Environmental, Inc., *Los Angeles Unified School District Historic Context Statement, 1870 to 1969* (Pasadena, CA, March 2014).

Science Applications International Corporation, *Historic Context Statement: Los Angeles Unified School District*, prepared for Los Angeles Unified School District (Pasadena, CA: March 2002).

"Topanga School to Be Joined to L.A. Group," *Los Angeles Times,* October 5, 1961.

U.S. Department of the Interior, National Park Service, "How to Apply the National Register Criteria for Evaluation," National Register Bulletin No. 15 (Washington, DC, 2002).

U.S. Department of the Interior, National Park Service, "How to Complete the National Register Form," National Register Bulletin No. 16A (Washington, DC, 1997).

U.S. Department of the Interior, National Park Service, "How to Complete the National Register Multiple Property Documentation Form," National Register Bulletin No. 16B (Washington, DC, 1999).

Whiffen, Marcus, *American Architecture since 1780: A Guide to the Styles* (Cambridge, MA: MIT Press, 1981).

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #_____
HRI #_____
Trinomial_____
NRHP Status Code 3CD
Other Listings_____
Review Code_____ Reviewer_____ Date_____

Page 1 of 7 **Resource name(s) or number** (assigned by recorder) Daniel Webster Middle School

P1. Other Identifier:
***P2. Location:** ☐Not for Publication ■Unrestricted
***a. County** Los Angeles County
***b. USGS 7.5' Quad** Beverly Hills, CA **Date** 1981 **T** **R** N/A
c. Address 11330 Graham Place City Los Angeles Zip 90064
e. Other Locational Data: APN: # 4258-016-900

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries.)

Located on a 24-acre site in west Los Angeles, Daniel Webster Middle School is bounded on the north by Graham Place and, further north, Interstate 10, Sawtelle Boulevard and Interstate 405 (on the east), National Boulevard (on the south), and Butler Avenue (on the west). Constructed in 1954, the campus is located in a residential neighborhood of primarily single-family homes. The site plan is largely symmetrical, with a swath of landscaping, courtyards, and an open lawn forming an axis through the center. Classroom buildings, facilities, and circulation corridors form a ring around this central open space in the campus core. With a Mid-Century Modern–influenced style, the campus is generally low in scale and massing, with a decentralized, outdoor-oriented plan. The core of the campus consists of a series of finger-like classroom wings, radiating outward from a U-shaped, central lawn. An extensive network of sheltered arcades, made of wood plank roofs and beams, resting on simple steel pipe supports and railings, ring the central lawn and provide circulation corridors throughout campus. The central lawn and a landscaped courtyard at the entrance display an abundance of plantings and mature trees. At the southern portion of the central lawn is an elevated concrete stage. *(See Continuation Sheet)*

***P3b. Resource Attributes:** (list attributes and codes) HP15. Educational Building. HP29. Landscape architecture.

***P4. Resources Present**: ☐Building ☐Structure ☐Object ☐Site ■District ☐Element of District ☐Other

P5a. Photo

P5b. Photo: (view and date)
Northwest elevation
23 January 2014

***P6. Date Constructed/Age and Sources:** ■ Historic ☐ Prehistoric ☐ Both 1954 (Los Angeles Unified School District)

***P7. Owner and Address:**
Los Angeles Unified School District

***P8. Recorded by:**
Marilyn Novell
Sapphos Environmental, Inc.
430 North Halstead Street
Pasadena, CA 91107

***P9. Date Recorded:**
4 February 2014

***P10. Survey Type:** Intensive

***P11. Report Citation:** (Cite survey report and other sources, or enter "none")
Sapphos Environmental, Inc. March 2014. *Los Angeles Unified School District Historic Context Statement, 1870 to 1969*. Pasadena, CA.
Sapphos Environmental, Inc. June 2014. *Los Angeles Unified School District Historic Resources Survey Report*. Pasadena, CA.

***Attachments:** ☐None ☐Location Map ☐Sketch Map ■Continuation Sheet ■Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (list)

BUILDING, STRUCTURE, AND OBJECT RECORD

***NHRP Status Code** 3CD

 ***Resource Name or #:** Webster Middle School

B1. Historic Name: Richland Junior High School (original name)
B2. Common Name: Webster Middle School
B3. Original Use: Institutional (Educational Facility) B4. Present Use: Institutional (Educational Facility)
***B5. Architectural Style:** Mid-Century Modern-influenced
***B6. Construction History:** (Construction date, alterations, and date of alterations):

According to records on file with the Los Angeles Unified School District, construction was completed on Webster Middle School in 1954. A majority of the campus's extant buildings, structures, and facilities date from 1954. The grounds also include some portable buildings, with clusters located primarily in the southeastern and northwestern portions of campus. A number of alterations have taken place over the years, including seismic and systems upgrades, safety and security improvements (see *LAUSD Pre-Planning Survey, Webster Middle School* for list of repairs and improvements carried out since the 1990s). Alterations to original buildings on campus include the removal and infilling of original windows (in particular a number of clerestories on classroom wings). The campus is otherwise intact and in good repair.

***B7. Moved?** ■**No** ☐**Yes** ☐**Unknown** **Date:**_____ **Original Location:**_____
***B8. Related Features:** Landscaping/mature trees, hardscaping, benches
B9a. Architect: Building Dept., Los Angeles Board of Education b. Builder: Building Dept., Los Angeles Board of Education
***B10. Significance: Theme**, Institutional (Educational Facility),
"Educating the Baby Boom: Postwar Expansion and the Functional, Modern School Plant, 1945-1969" **Area** Los Angeles
Period of Significance: 1954 (District) **Property Type:** Institutional (Educational Facility)
Applicable Criteria: CRHR: 1.
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity)

The campus core of Webster Middle School appears eligible for the California Register of Historical Resources (CRHR) as a district under Criterion 1 as an excellent, intact example of a postwar indoor-outdoor educational facility in Los Angeles. The campus plan and buildings exemplify the design principles and ideals of the Los Angeles Unified School District from the postwar period (as described in the Los Angeles Unified School District Historic Context Statement, 1870 to 1969). Following a major bond initiative in 1952, plans for the school were announced with fanfare. With a sketch of the school's design, the *Los Angeles Times* thus described plans for the school: "One of the biggest school projects slated for Los Angeles in recent years is the starter of the $130,000,000 school building expansion program… It's the Richland Junior High School to be built on a 27-acre site at the west side of Sawtelle Bouelvard. The new school group of structures, designed to accommodate 1600 students, is estimated to cost $2,445,000" ("Big School Project Launches Program: Will Mark Start of $130,000,000 Expansion Plan," *Los Angeles Times*, 1952). The campus core exhibits some signs of alteration but retains a high degree of integrity of location, design, setting, workmanship, feeling, and association.

B11. Additional Resource Attributes: HP15. Educational Facility. HP 29. Landscape Architecture.

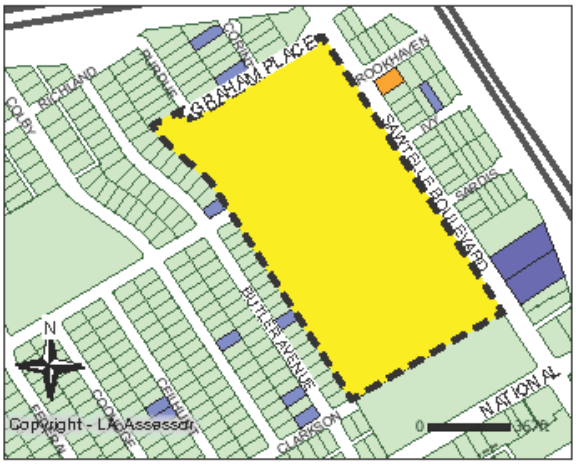
***B12. References:** *(See Continuation Sheet)*

B13. Remarks: None

***B14. Evaluator:** Debi Howell-Ardila, MHP

***Date of Evaluation:** 4 February 2014

Sketch Map with north arrow required



(This space reserved for official comments.)

Recorded by Marilyn Novell **Date:** 4 February 2014 ☒ Continuation ☐ Update

***P3a. Description (continued):**

The signature buildings for the campus are located along the north, on Graham Place: these consist of the Auditorium (a two-story, brick and stucco-clad building in the northeast corner of campus), the Health and Counseling Building (a one-story, brick and stucco-clad building, set back from the street), an entrance gate, arcades, and landscaped courtyard, and a Library (one- and one-half stories, sheathed in brick and stucco). A low wall, consisting of alternating panels of brick and decorative metal framing and grillwork, separate the campus from the public right-of-way. This wall is flanked by two gates made of large brick-clad piers, capped with a flat roof and flared cornice (the entrance on the eastern side has been closed off with a security gate).

The Health and Counseling Building and Library have little applied ornament; the focal point of the design is the use of continuous bands of windows, mostly grouped rectangular lights, with both fixed and casement windows.

Classroom buildings are generally one-story high, one-room deep, and rectangular in plan. Most classrooms are capped with a low-pitched shed roof, with thin, unadorned eaves. Along the north elevations, classrooms have continuous bands of windows, which occupy approximately 70 percent of the wall height. The north elevation windows primarily consist of four-over-four wood-framed double-hung sashes. Along south elevations, indirect light is provided through the use of clerestory lights, some of which appear to be operable casement windows. Projecting from the south elevations of classrooms are wide, one-story arcades, with flat roofs, wood plank and beam structure, and simple steel pipe supports.

Throughout the core of the campus, landscaped courtyards with walkways, benches, and landscaping provide outdoor spaces for gathering. Beyond the campus core, school facilities also include a gymnasium and recreational fields, portable buildings and structures, added primarily in the 1990s, as well as other ancillary buildings and structures. Alterations include various safety and systems upgrades, the installation of security grills on some windows, and the infilling of numerous windows. The core of the campus is otherwise intact and in good repair.

P5b. Photo (continued): (view and date)

Webster Middle School, entrance courtyard. Southeastern perspective.
Source: Sapphos Environmental, Inc., 23 January 2014.

P5b. Photo (continued): (view and date)

Webster Middle School features an extensive system of arcades, lined by landscaping and trees. Northeast perspective. Source: Sapphos Environmental, Inc., 23 January 2014.

Webster Middle School, typical classroom and courtyard configuration. West perspective. Source: Sapphos Environmental, Inc., 23 January 2014.

Recorded by Marilyn Novell **Date:** 4 February 2014 ☒ Continuation ☐ Update

P5b. Photo (continued): (view and date)

Webster Middle School: the Auditorium is sited for easy public access and linked to the school by the campus's extensive arcade system. Northwestern elevation.
Source: Sapphos Environmental, Inc., 23 January 2014.

Webster Middle School, typical south-elevation design and configuration of classroom wings. Southeastern elevation. Source: Sapphos Environmental, Inc., 23 January 2014.

Recorded by Marilyn Novell **Date:** 4 February 2014 ☒ Continuation ☐ Update

P5b. Photo (continued): (view and date)

Webster Middle School, Site Plan, with permanent buildings marked in orange and portable buildings marked in purple. Source: Los Angeles Unified School District Pre-Planning Survey, Webster Middle School, February 2011.

***B12. References (continued):**

Bhatia, Pavan, "Modern Concept for Los Angeles Public Schools," Doctoral Dissertation (Cambridge, MA: Harvard University Graduate School of Design, Advanced Management Development Program in Real Estate, July 2009).

"Big School Project Launches Program: Will Mark Start of $130,000,000 Expansion Plan," *Los Angeles Times* (13 July 1952).

Blumenson, John J.-G., *Identifying American Architecture* (New York: W.W. Norton & Company, 1977).

California Office of Historic Preservation, *California Register and National Register: A Comparison (for Purposes of Determining Eligibility for the California Register),* Technical Assistance Series No. 6. (Sacramento, CA, 14 March 2006).

California Office of Historic Preservation, *Instructions for Recording Historical Resources* (Sacramento, CA, March 1995).

Donovan, John J., *School Architecture: Principles and Practices* (New York: The MacMillan Company, 1921).

Eales, John R., "A Brief, General History of the Los Angeles City School System," Doctoral Dissertation (Los Angeles: University of California, June 1956).

Gebhard, David, and Robert Winter, *A Guide to Architecture in Los Angeles and Southern California* (Santa Barbara, CA: Peregrine Smith, Inc., 1977).

Harris, Cyril M., *American Architecture: An Illustrated Encyclopedia* (New York: W.W. Norton & Company, 1998).

Heumann & Associates and Anne Doehne, Science Applications International Corporation, March 2002, "Historic Schools of the Los Angeles Unified School District," a presentation prepared for LAUSD Facilities Services Division (March 2002).

Hille, R. Thomas, *Modern Schools: A Century of Design for Education* (Hoboken, NJ: John Wiley & Sons, 2011), 13.

Lee, Antoinette, and Linda F. McClelland, U.S. Department of the Interior, National Park Service, *National Register Bulletin No. 16B, How to Complete the National Register Multiple Property Documentation Form (1999).*

Los Angeles Unified School District. *Los Angeles Unified School District Pre-Planning Survey* (2011).

McAlester, Virginia, and Lee McAlester, *A Field Guide to American House* (New York: Alfred A. Knopf, 2004).

Mock, Elizabeth, *Built in USA, 1932 – 1944: A Survey of Contemporary American Architecture*, The Museum of Modern Art (New York: Simon & Shuster, 1944).

Ogata, Amy F., "Building for Learning in Postwar American Elementary Schools," *Journal of the Society of Architectural Historians* 67, no. 4 (December 2008): 562–91.

Sapphos Environmental, Inc., *Los Angeles Unified School District Historic Context Statement, 1870 to 1969* (Pasadena, CA, March 2014).

Science Applications International Corporation, *Historic Context Statement: Los Angeles Unified School District*, prepared for Los Angeles Unified School District (Pasadena, CA: March 2002).

U.S. Department of the Interior, National Park Service, "How to Apply the National Register Criteria for Evaluation," National Register Bulletin No. 15 (Washington, DC, 2002).

U.S. Department of the Interior, National Park Service, "How to Complete the National Register Form," National Register Bulletin No. 16A (Washington, DC, 1997).

U.S. Department of the Interior, National Park Service, "How to Complete the National Register Multiple Property Documentation Form," National Register Bulletin No. 16B (Washington, DC, 1999).

Whiffen, Marcus, *American Architecture since 1780: A Guide to the Styles* (Cambridge, MA: MIT Press, 1981).

APPENDIX B
LAUDS HISTORIC CONTEXT STATEMENT, 1870 TO 1969
(ON CD)

LOS ANGELES UNIFIED SCHOOL DISTRICT

HISTORIC CONTEXT STATEMENT, 1870 to 1969

Prepared by

Sapphos Environmental, Inc.
for the
Los Angeles Unified School District
Office of Environmental Health and Safety

March 2014

TABLE OF CONTENTS

I Introduction 1

Project Summary and Scope 2
Purpose of Historic Context Statements 4
Historic Resources and CEQA 4
Focus and Parameters of the LAUSD Historic Context Statement 5
Project Team 7
Report Preparation and Methodology 7
Study Contents 8

II Summary of Themes of Significance 9

III Historic Context and Background 17

A. Founding Years, 1870s through 1909 18

National Context | Developments 19
Effects on School Buildings and Campuses 21
Los Angeles City School Districts | Developments and Context 23
Formation of the Los Angeles City School Districts 24
Early Currents of Change 25
The Boom of the 1880s and Los Angeles City Schools 25
Civic Pride and the Turn-of-the-Century School 27

B. Progressive Education Movement: Standardization and Expansion, 1910 to 1933 29

National Context | Developments 29
Effects on School Buildings and Campuses 31
Los Angeles City School Districts | Developments and Context 39
Building Program 39
Alfred S. Nibecker Jr. and the District Architecture and and Building Department 42
Building Code Reform 42
The Roaring '20s and Enrollment Expansion 43
Curriculum Shifts 44
Social Responsiveness and Broadened Mission for Public Schools 45
Legislative Reform and Public Education 46

Cover illustrations, clockwise: Reseda Elementary School (1936), Music Room, Orville Wright Middle School (1948-1952), and Chatsworth Senior High School (1963). Source: LAUSD and Sapphos Environmental, Inc.

C. Era of Reform: Great Depression, Earthquake, and Early Experiments in the Modern, Functionalist School Plant, 1933 to 1945 49

National Context | Developments 49
Effects on School Buildings and Campuses 51
The Functionalist, Modern Movement in School Design 51
William Edmond Lescaze 52
Richard Neutra 53
Franklin & Kump and Finger-Plan Schools 56
Post-Long Beach Earthquake: The Era of the PWA Moderne | Streamline Moderne 59
Marsh, Smith and Powell 59
Los Angeles City School District's *The Progressive Elementary School: A Handbook* 61
Los Angeles City School Districts | Context and Developments 62
Long Beach Earthquake and the Field Act 62
PWA Funding and the Post–Long Beach Earthquake Building Boom for Schools 62
Early Experiments in the Finger-Plan School 65
Great Depression and World War II: Curriculum Shifts 67
Los Angeles Public Schools and World War II 68

D. Educating the Baby Boom: Postwar Expansion and the Modern, Functional School Plant, 1945 to 1969 71

National Context | Developments 71
1930's Reform Comes of Age: The Modern, Child-Centered School 73
Educational Facilities Laboratories 75
Effects on School Buildings and Campuses 77
1940s: The Decade of the Finger-Plan School 82
1950s: The Advent of the Cluster-Plan School 87
1960s: The Open-Plan School 93
School Construction Systems Development 95
Los Angeles City School Districts | Context and Developments 97
The Building Program 97
Postwar Expansion and Educating the Baby Boom 101
Formation of the Los Angeles Unified School District 105
Changing Times: LAUSD in the 1950s and 1960s 105
Civil Rights and School Integration 108
Early Litigation 111
Summary: The Postwar Modern, Functional School 114

IV Architectural Character 115

Late-Nineteenth-Century Victorian Era Styles 116
Early Twentieth Century: Beaux-Arts Classicism and Neo-Classical Revival 117
Early Twentieth Century: Indigenous Revival Styles and Historic Eclecticism 118
Mission Revival and Spanish Colonial Revival 119
Renaissance Revival Style 120
Gothic Revival / Collegiate Gothic 121
Art Deco 122
Streamline Moderne | Moderne 123
PWA Moderne 124
Early Modernism | International Style 125
Mid-Century Modernism / Regional Modernism 126
Architects 132

V Themes of Significance 133

Context: Public and Private Institutional Development | Education
Theme: LAUSD | Founding Years 133
Eligibility Standards 133
Character-Defining Features 133
Integrity Considerations 133

Theme: LAUSD | Pre-1933 Long Beach Earthquake
School Plants, 1910–1933 135
Eligibility Standards 135
Character-Defining Features | Buildings/Structures 135
Character-Defining Features | Campus/District 135
Integrity Considerations 136

Theme: LAUSD | Post-1933 Long Beach Earthquake
School Plants, 1933–1945 137
Eligibility Standards 137
Character-Defining Features | Buildings/Structures 137
Character-Defining Features | Campus/District 138
Integrity Considerations 138

Theme: LAUSD | Early Experiments in the Modern,
Functionalist School Plant, 1933–1945 139
Eligibility Standards 139
Character-Defining Features | Buildings/Structures 139
Character-Defining Features | Campus/District 140
Integrity Considerations 140

Theme: LAUSD | Educating the Baby Boom: The Postwar Modern,
Functionalist School Plant, 1945–1969 141
Eligibility Standards 141
Character-Defining Features | Buildings/Structures 141
Character-Defining Features | Campus/District 142
Integrity Considerations 143

Theme: LAUSD and the Civil Rights Movement 144
Eligibility Standards 144
Character-Defining Features 144
Integrity Considerations 144

VI Conclusion and Recommendations 145

VII Endnotes and Selected Bibliography 157

FIGURE LIST

1	Point Fermin Elementary School	1
2	Los Angeles Unified School District Boundary	2
3	Children at Vernon Avenue Junior High School	3
4–5	Left, Grover Cleveland Senior High School; Right, Chatsworth Senior High School	4
6	Orville Wright Middle School	7
7	Garvanza School	8
8	Schoolhouse, West Los Angeles	8
9	10th Street Elementary School, Los Angeles	10
10–2	Reseda Elementary School	11
13–4	Dorsey High School	12
15	Emerson Middle School	12
16–7	Baldwin Hills Elementary School	13
18	Orville Wright Middle School	13
19	The "East LA Blow Out," Lincoln High School, 16 September 1968	14
20	"School Integrationists," in a 1963 Hunger Strike	14
21–5	Chatsworth High School	15
26	Old Farmdale School	16
27	Los Angeles High School	17
28	Palos Verdes High School	17
29	Old Vernon Avenue School	18
30	Old Canyon School	18
31	Old Farmdale School	19
32	79th Street School	19
33	Typical British Classroom Design, as of 1900.	20
34	The "Modern American School," as of 1906	21
35–6	From *The Modern American School*, 1906	22
37	Original Manual Arts High School	23
38	Central School	24
39	State Normal School	25
40–1	Los Angeles Polytechnic High School	26
42	San Fernando Union High School	27
43–4	San Fernando Middle School	28
45	10th Street Elementary School	28
46	Los Angeles High School.	29
47	Lincoln High School	30
48–9	Civic Pride and the Monumental Public School	31
50–1	Grammar School No. 2	32
52	Open-Air Classrooms in Northern and Southern California	33
53–4	Stanford University Elementary School	34
55	Fishburn Avenue Elementary School	36
56	John C. Fremont High School	36

57 Garfield High School 37
58 Hyde Park Elementary School 38
59 Morningside Elementary School 39
60–1 John Burroughs Middle School 40
62 John Burroughs Middle School 41
63–4 University High School 42
65–6 Vernon City Elementary School 43
67–8 Lafayette Junior High School 44
69 Central Junior High School 45
70 Frank Wiggins Trade School 46
71 Dorsey High School 48
72 Corona Avenue Elementary School 49
73 Richard J. Neutra School 50
74 Hollywood High School 50
75 Thomas Jefferson High School 51
76 Corona Avenue Elementary School 52
77–8 Corona Avenue Elementary School 53
79 Emerson Junior High School 54
80 Emerson Middle School. 54
81 Emerson Middle School 55
82 Acalanes Union High School 56
83 Acalanes Union High School. 57
84–5 Crow Island Elementary School 58
86–7 Hollywood High School 59
88–9 Manual Arts High School 60
90 Franklin Junior High School 62
91 Lincoln High Tent Village 63
92 Children Attending School in Tents, One Year Following the Long Beach Earthquake 64
93 Reseda Elementary School 65
94 South Gate Middle School 65
95–6 Dorsey High School 66
97 Lincoln High School War Bond Drive, 1945 67
98 The Women of Frank Wiggins Trade School, 1943 68
99 World War II in the Los Angeles Public Schools: Materials Drive, Crescent Heights Boulevard Elementary School 69
100 Victory Garden at Manual Arts High School 70
101 Jose High School 72
102 Fern Drive School 72
103 Oso Avenue Elementary School 73
104 Image for a 1959 Article on the "Back to Back Construction" of Schools Taking Place in the San Fernando Valley 73
105 Thomas Jefferson Elementary School 74
106 Manor Elementary School 75

107 Inglewood High 75
108 Grover Cleveland High School 77
109 Acalanes Union High School 78
110 Orville Wright Middle School 78
111 *Architectural Forum*, 1949 79
112 Fern Drive School 80
113 Thomas Jefferson Elementary School 80
114 El Monte School 81
115 Kester Avenue Elementary School 81
116 San Jose High School 82
117 Acalanes Union High School 83
118 Kelly Junior High 83
119 Russell Wilkerson Elementary School 83
120–1 Huston Elementary School 84
122 Kester Avenue Elementary School 84
123–5 Kester Avenue Elementary School 85
126–7 Baldwin Hills Elementary School 86
128–9 West Columbia Elementary School 87
130 Heathcote Elementary School 87
131 The Architect's Collaborative 88
132–3 John Muir Elementary School 89
134–5 Orville Wright Middle School 90
136 Westchester High School 91
137 Porter Middle School 91
138–9 Orville Wright Middle School. 92
140 George K. Porter Middle School 93
141 Paul Klapper School. 94
142 Thurston School 94
143 School Construction Systems Development. 95
144 Van Duzen Elementary School 96
145 Hoover High School. 97
146 Burton Elementary School. 98
147 Pacific Palisades Charter Senior High School 98
148–9 Fernangeles Elementary School 99
150–1 Narbonne High School 100
152 Leapwood Avenue Elementary School 101
153–5 Chatsworth High School 102
156–7 Colfax Avenue Elementary School, ... 103
158–9 Palisades Charter Senior High School, ... 104
160–1 Palisades Charter Senior High School 105
162 The 1960s Arrive at LAUSD 106
163–4 School Busing, 1964 108
165 1963 Hunger Strike by School Integrationists 109
166 The "East LA Blow Out," Lincoln High School, 16 September 1968 110

167 Voluntary Busing as a Solution to Racial Imbalance and Overcrowding..... 112
168 Palos Verdes High School,..... 114
169 Old Vernon Avenue School..... 116
170 Old Canyon School..... 116
171 Farmdale School..... 116
172–3 San Fernando Middle School..... 117
174–5 Joseph Le Conte Middle School..... 118
176–7 Hamilton Senior High School..... 118
178 Reseda Elementary School..... 119
179 Verdugo Hills High School..... 119
180 El Sereno Middle School..... 120
181 University High School..... 120
182 John Marshall High School..... 121
183–4 Huntington Park High School..... 122
185 Florence Nightingale Middle School..... 122
186 Thomas Jefferson High School..... 123
187 Venice High School..... 123
188 Hollenbeck Middle School..... 124
189 Hollywood Union High School..... 124
190 Canoga Park High School..... 124
191–2 Emerson Middle School..... 125
193 Fernangeles Elementary School..... 126
194 Parmlee Avenue Elementary School..... 126
195 Pacoima Middle School..... 126
196–7 Grover Cleveland High School..... 127
198 Orville Wright Middle School..... 128
199 Palisades Charter High School..... 128
200–1 John Marshall High School..... 129
202 Gulf Avenue Elementary School..... 129
203 John Muir Middle School..... 129
204–5 Hamasaki Elementary School..... 129
206 Ritter Elementary School..... 130
207 University High School..... 130
208 South Gate High School..... 130
209 Walter Reed Middle School..... 130
210–1 John Burroughs Middle School..... 130
212 Eagle Rock Elementary School..... 131
213 North Hollywood High School..... 131
214 Aldama Elementary School..... 131
215 Pacific Palisades Elementary School..... 131
216 Horace Mann Middle School..... 131
217 Canoga Park Elementary School..... 131
218 Old Vernon Avenue School..... 133
219 Old Canyon School..... 133

220–1 University High School 134
222–3 Vernon City Elementary School 134
224 Fishburn Avenue Elementary School 134
225 Marshall Senior High School 136

Figure 1. Point Fermin Elementary School, Administration Building, Sumner P. Hunt & Silas Burns, San Pedro (1917–1925; remodeled in 1936 following Long Beach Earthquake). Source: LAUSD Point Fermin Elementary School Pre-Planning Survey, 2010.

I. INTRODUCTION

Behind every building type and feature comprising our built environment—whether commercial or residential buildings, urban plans, or parks—is a long history of practitioners who tried to harness the best ideas and technologies of their day to create quality environments for living and working. In California and throughout the United States, few other areas have generated as much debate and study, however, as environments for learning.

Whether in 1900 or 1960, reform-minded architects and designers, school boards, and educators used similar language to present their ideas for the most "modern" classroom and campus. Through this time, ideas evolved, of course. But the debate has always been shaped by the latest ideas about teaching methods and curricula, childhood development, and optimal environmental conditions for comfort, safety, and efficiency. Fueled by a national network of education-related organizations and publications, this has been a shared, ongoing project throughout the United States since the Progressive Era.

Spanning the early 1870s to 1969, this Historic Context Statement explores over a century of development of the Los Angeles Unified School District (LAUSD), examined in the context of school design in the United States. Since the Progressive Education Movement gained momentum in the early twentieth century, national standardization has been at the heart of school reform, in terms of both classroom curriculum and design. Therefore, the local story is best understood against the backdrop of the national context. This study explores the ways in which LAUSD's schools and campuses reflect a century of national practice, reform, and regional variation.

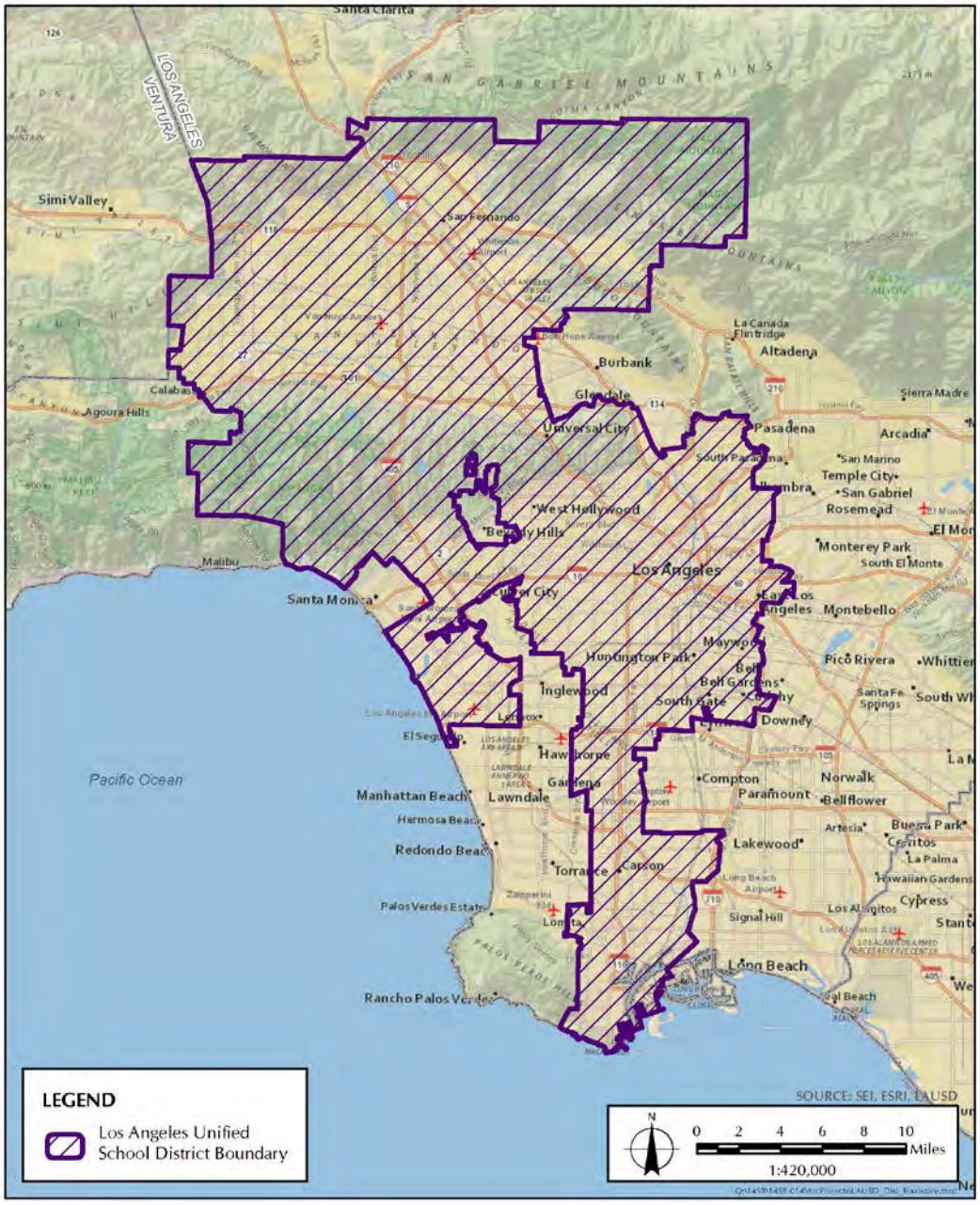


Figure 2. Los Angeles Unified School District Boundary. Source: Sapphos Environmental, Inc., 2014.

Figure 3. Children at Vernon Avenue Junior High School, Los Angeles, circa 1925. Source: LAPL Photo Collection.

Project Summary and Scope

With nearly 800 campuses and a geographic span of over 700 square miles, LAUSD is the second largest public school system in the United States. The district's northern portion spans the San Fernando Valley, including Granada Hills, Chatsworth, Reseda, Woodland Hills, Van Nuys, Sylmar, San Fernando, Pacoima, and Sunland. Along the west, the district includes western Los Angeles, Pacific Palisades, Venice, and Westchester. Along the east, LAUSD borders Glendale, Monterey Park, Montebello, Commerce, Downey, and Long Beach. Within the district, extending south from Los Angeles, are the communities of Vernon, Huntington Park, Maywood, Bell, South Gate, Gardena, and Carson. LAUSD's southernmost portion includes San Pedro, Lomita, and Rancho Palos Verdes.

Since its founding in 1872, the district has commissioned, designed, and acquired a remarkable collection of buildings, campuses, and facilities. These properties reflect over a century of social, architectural, and technological advances, as well as ongoing educational and curricular reform. Extant properties range from the wood-framed schoolhouse of the late nineteenth century to superblock campuses displaying Mid-Century Modern architectural styles.

In July 2013, in anticipation of district-wide modernization efforts, LAUSD contracted Sapphos Environmental, Inc. to provide historic resource consulting services to inform master planning efforts and environmental review under the California Environmental Quality Act (CEQA). The scope of work includes updating the LAUSD Historic Context Statement, conducting historic resource surveys of 55 unevaluated campuses, and preparing design and procedural guidelines to help guide facilities management and planning efforts.

Figures 4 and 5. San Fernando Valley schools: on left, Grover Cleveland Senior High School (1959), Charles Matcham & Stewart Granger and Associates, Reseda-West Van Nuys. On right, Chatsworth Senior High School (1963), Adrian Wilson & Associates, Chatsworth. Source: Sapphos Environmental, Inc., 2013.

Purpose of Historic Context Statements

The *LAUSD Historic Context Statement* follows the National Register of Historic Places (NRHP) Multiple Property Documentation (MPD) format, which provides a consistent framework for evaluating properties sharing similar periods, geographic distribution, and historic themes.[1] The MPD approach defines themes of significance, eligibility standards, and related property types. Properties sharing a theme of significance are then assessed consistently, in comparison with resources that share similar physical characteristics and historical associations.

According to federal, state, and local law, landmark eligibility is not just tied to architectural style but also to significant people, events and patterns of development. Historic context statements facilitate the consistent consideration of these criteria. Three principal components go into context statements: historic themes, geographic areas, and chronological periods. Contexts offer more than a chronological history; they identify the patterns and events that drove development of an area—or, in this case, a building type, educational facilities—and caused the building type to acquire the form and appearance for which it became known.

Because of the high degree of national standardization of school curricula and facilities design, in particular during the postwar period, the *LAUSD Historic Context Statement* provides a framework for evaluating school plants not only in Los Angeles but also in other school districts throughout California and beyond.

Historic Resources and CEQA

The *LAUSD Historic Context Statement* is also designed to facilitate compliance with CEQA, which requires lead agencies to consider the impacts of proposed projects on historic resources. CEQA identifies a historic resource as a property that is listed on—or eligible for listing on—the NRHP, California Register of Historical Resources (CRHR), or local registers.

NRHP-listed properties are automatically included on the CRHR. The criteria for both are similar and described below, with the NRHP letter (A, B, C, and D) followed by the corresponding CRHR number (1, 2, 3, and 4). In keeping with the 2001–2004 Phase 1 and 2 LAUSD historic resources survey, this survey does not include local criteria.[2]

Resources that may be eligible for listing include buildings, sites, structures, objects, and historic districts. To qualify as a historic resource under CEQA, a resource must be significant at the local, state, or national level under one or more of the following criteria:

A/1: For an association with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States (NRHP Criterion A; CRHR Criterion 1);

B/2: For an association with the lives of persons important to local, California, or national history (NRHP Criterion B; CRHR Criterion 2);

C/3: As an embodiment of the distinctive characteristics of a type, period, region, or method of construction, representative of the work of a master or high artistic values (NRHP Criterion C; CRHR Criterion 3); or

D/4: Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation (NRHP Criterion D; CRHR Criterion 4).

Resources eligible for listing in the California Register must retain enough of their historic character or appearance to be "recognizable as historic resources and to convey the reasons for their significance."[3] Some resources that do not retain sufficient integrity for listing in the National Register may still be eligible for the California Register. There is no specific age threshold for California Register eligibility; rather, the regulations specify that enough time must have passed for a property to be evaluated within its historic context.

Focus and Parameters of the LAUSD Historic Context Statement

This Historic Context Statement creates a framework for evaluating Los Angeles's public schools at a critical juncture, as LAUSD begins planning for campus-wide modernization and redevelopment. Emphasized in this study, therefore, was the question of potential eligibility of schools under Criteria A/1, as outstanding examples of LAUSD design ideals and principles. The history and context of Los Angeles public school design and educational architecture are the particular focus of this study. Because the postwar era largely fell outside the scope of the 2002 LAUSD historic context statement, the postwar era is examined in detail.

This study represents not a comprehensive history but rather a first step in better understanding the evolution of school design in the district. Project limitations precluded extensive research on additional aspects of LAUSD's history that might result in eligibility

under Criteria A/1 and Criteria B/2. Campus-specific research was conducted on all pertinent topics for each of the schools surveyed. Subsequent research that establishes additional themes for the district overall would be an excellent area for future study. For example, this study offers a short section on LAUSD and the Civil Rights Movement; in addition, this topic was addressed in the National Register of Historic Places Multiple Property Documentation form for African-Americans in Los Angeles.[4] Given how broad and rich the topic is, however, ample opportunities remain for further research.

In terms of evaluations under Criteria C/3, this study also includes a section on the typical architectural styles of LAUSD schools. This material draws on and expands the 2002 LAUSD Historic Context Statement as well as the guidelines prepared by the City of Los Angeles Office of Historic Resources for historic resource survey work.

Inclusion in this context does not indicate eligibility for listing. Rather, the range of LAUSD campuses, past and present, illustrated or described here serves to define the context, themes of significance, and features of properties that might be found significant upon further study.

Figure 6. Orville Wright Middle School (originally Westchester High School), Spaulding & Rex, architects (1948-1952). Source: LAUSD Orville Wright Middle School Pre-Planning Survey, 2012.

Project Team

Debi Howell-Ardila, senior architectural historian with Sapphos Environmental, Inc., served as project manager, principal investigator, and author of the LAUSD Historic Context Statement. Carole Zellie, historic resources manager, provided guidance and input. Marilyn Novell, historic resources coordinator, provided valuable research assistance, and Matthew Adams, senior technical editor, provided editorial expertise. Gwenn Godek of the LAUSD Office of Environmental Health and Safety served as project administrator and manager. The study also benefited from the feedback of LAUSD Facilities Services Divisions staff Mitra Nehorai; Janet Hansen, deputy manager of the City of Los Angeles Office of Historic Resources; and Linda Dishman, executive director, and Adrian Scott Fine, director of advocacy, of the Los Angeles Conservancy.

Report Preparation and Methodology

A wide range of repositories and archives were consulted in the course of this study. Among them were the combined collections of the University of Southern California (USC) libraries; the Los Angeles Public Library, including the Photo Collection, California Index, and Sanborn Fire Insurance Maps; the Getty Research Institute; and the historic *Los Angeles Times* and other digital newspaper collections. The photographic collections of the Getty Research Institute and the USC Digital Archive were also used. A variety of primary source materials were provided by LAUSD.

Research also explored an array of online and print sources. These included historic photographs and aerial images, reports, studies, and treatises on school architecture (ca. 1900 to 1950). Other sources included books, trade publication and newspaper articles, and architectural plans. Scholarly articles as well as specialized studies and chronologies of LAUSD were also consulted.

Also informing this study was a review of past LAUSD historic resource contexts and surveys, including the multiphase survey conducted by Leslie Heumann and Associates and Science Applications International Corporation between 2001 and 2004. In addition, Sapphos Environmental, Inc. reviewed the findings of historic resource surveys conducted through SurveyLA, a citywide, multiyear initiative of the City of Los Angeles Office of Historic Resources. To complement the work of SurveyLA, this Historic Context Statement reflects and draws upon the basic structure of context, themes, and property types used in SurveyLA for institutional architecture in Los Angeles. With a focus on the patterns and trends that shaped LAUSD's history and schools, as well as on-site access to district campuses, this context provides a supplemental framework to help inform and guide evaluations.

In accordance with LAUSD and the City of Los Angeles Office of Historic Resources, once complete, the LAUSD Historic Context Statement and Historic Resources Inventory database will be provided to the Office of Historic Resources. The Historic Resources Inventory being developed by Sapphos Environmental, Inc. is Arc-GIS compatible and can easily be utilized as an Arc-GIS layer in future historic resource surveys carried out for the City of Los Angeles.

Study Contents

This report consists of six sections: Section I, Introduction; Section II, Summary of Themes of Significance; Section III, Historic Context and Background; Section IV, Architectural Character; Section V, Themes of Significance; Section VI, Conclusion and Recommendations; and Section VII, Selected Bibliography. Four distinct eras for LAUSD were identified: Founding Years, 1870s to 1909; Progressive Education Movement: Standardization and Expansion, 1910 to 1933; Era of Reform: Great Depression, Earthquake, and Early Experiments in the Modern, Functional School Plant, 1933 to 1945; and Educating the Baby Boom: Postwar Expansion and the Functional, Modern School Plant, 1946 to 1969.

Figure 7. Garvanza School, 1910.
Source: USC Digital Library.

Figure 8. Circa 1900, Schoolhouse, West Los Angeles.
Source: LAPL Photo Collection.

II. SUMMARY OF THEMES OF SIGNIFICANCE

Themes of significance were prepared for extant school property types. No known examples exist of some important types, notably the monumental, early-twentieth-century big-block school that was once a LAUSD standard. This school type was usually constructed of unreinforced, fire-resistant masonry. However, the material's earthquake vulnerability meant that most of these schools were either destroyed or damaged beyond repair in the 1933 Long Beach earthquake, or were subsequently replaced to comply with new building codes.

In order to facilitate cross-agency coordination, this section draws on relevant material developed by the City of Los Angeles Office of Historic Resources for historic resource evaluations. Information used in SurveyLA to evaluate institutional properties was consulted and adapted where appropriate.

CONTEXT: PUBLIC AND PRIVATE INSTITUTIONAL DEVELOPMENT | EDUCATION

THEME: LAUSD | FOUNDING YEARS, 1875–1894

This theme is embodied in Los Angeles's remaining one- and two-story wood-frame schoolhouses that generally display Late Victorian or vernacular styles. Only three nineteenth-century schoolhouses are known to remain from LAUSD's founding years. Schools constructed during this period display traditional modes of school design, before the Progressive Education Movement and widespread reform changed national construction standards and before increased urbanization necessitated larger-capacity school plants.

THEME: LAUSD | PRE–1933 LONG BEACH EARTHQUAKE SCHOOL PLANTS, 1910–1933

This theme reflects an important period for Los Angeles schools. First, it occurred after the Progressive Education Movement had triggered widespread reform of school design throughout the United States. This resulted in a more differentiated, expansive school plant, with specialized facilities and program-specific buildings and classrooms; this ended the era of the monumental, big-block school. Second, this period occurred before a statewide overhaul of school building codes and practices after the 1933 Long Beach earthquake.

This period also began as the 1920s ushered in a school building boom and period-revival golden age in Southern Californian architecture. The importance placed on public education was expressed through beautifully designed school buildings, often created by the region's leading architects. Campus design became more unified, with elaborate approaches and entrances. The advent of more grand entrances, as well as the incorporation of separate auditoriums, sited for ease of public access, reflected a growing sense that public education was a community affair.

Figure 9. 10th Street Elementary School, Los Angeles (1922). Source: LAUSD.

Replacing the big-block school, with internal corridors, was a generally lower-massed, spread-out campus. In some examples, designers replaced hallways with covered outdoor walkways. Building plans also evolved, as the traditional rectangular plan took on adjacent wings, in H-shaped, T-shaped, or U-shaped buildings that facilitated the creation of sheltered outdoor spaces and patios. Lower massing was particularly common for elementary schools.

Because most pre-1933 schools were substantially remodeled following the Long Beach earthquake, intact examples from this era are relatively rare. It is common to find 1920s-era schools that were remodeled following the earthquake; such schools might exhibit the building plans and configurations typical of the 1920s but with 1930s PWA Moderne and Streamline Moderne detailing.

Figures 10 and 11. Post–Long Beach Earthquake school: H-shaped plan and Mission Revival style of Reseda Elementary School (1936). Aerial photographs from 1959 (left) and circa 2010 (right). Source: U.S. Dept. of Agriculture, historicaerials.com (left) and LAUSD Reseda Elementary School Pre-Planning Survey (right).

THEME: LAUSD | POST–1933 LONG BEACH EARTHQUAKE SCHOOLS, 1933–1945

Following the 1933 Long Beach earthquake, state and city legislation regarding school building codes and practices shifted the character of LAUSD schools and campuses. Requirements of the Field Act (1934), such as maintaining one-story massing for elementary schools and no more than two stories for junior and high schools, mirrored reforms already under way. Classroom wings continued to be designed for connections to the outdoors, with L-, H-, U-, and T-shaped buildings accommodating sheltered courtyard and patio spaces. Continuing another trend under way in the 1920s, campuses displayed an increasingly unified site design, with sheltered corridors linking campus buildings.

The advances of the Progressive Education Movement also continued to shift school plant design. Campuses were increasingly differentiated, with administration buildings, auditoriums and gymnasiums, separate classroom, shop, and specialty wings, and cafeterias. Adequate indirect lighting and ventilation were provided through the use of generous bands of windows, including multilight sashes, casements, and clerestories. Stylistically, these buildings were less ornamental than their 1920s period-revival counterparts. An emphasis was placed on traditional Southern Californian styles, such as the Spanish Colonial and Mission Revival. Other styles included Streamline Moderne, Art Deco, and Late Moderne. Much post-earthquake reconstruction was funded through the Public Works Administration (PWA), and many schools exhibit a range of PWA Moderne styles.

Figure 12. Reseda Elementary School, 1936. The spare Mission Revival style was in keeping with the post-Field Act requirement for one-story massing and the post–Long Beach Earthquake trend to design in the "traditional Southern Californian" mode. Source: LAUSD.

Figure 13. Susan Miller Dorsey High School, Gogerty and Noerenberg, Los Angeles (1937). Source: LAUSD.

Figure 14. The inventive site plan of Dorsey High School. Source: Google Maps, 2013.

THEME: LAUSD | EARLY EXPERIMENTS IN THE MODERN, FUNCTIONALIST SCHOOL, 1933–1945

Although this category shares general characteristics with the preceding theme (Post–1933 Long Beach Earthquake Schools), it is distinguished by an experimental approach to school design that emerged during the Great Depression. Such schools reflect the most avant-garde ideas of the era and the beginning of modern, functionalist school design. Stylistically, the proto-modernist school need not be purely "modern" in the sense of lacking any ornamental detailing. The significant changes reflected a philosophy that went a step further than did the schools of the 1920s in designing for function and integrating school buildings with exterior spaces. During the postwar construction boom, many of the same ideas that characterized these experimental schools became the norm throughout Los Angeles and the United States.

The notable differences between the two themes (or periods) relate to scale, site plan, and functional, child-centered design. The proto-modernist school has an explicitly domestic scale, with low ceilings and a lack of monumental design or massing. These schools generally exhibit a decentralized, nonhierarchical campus, with a strong geometric patterning applied to the site plan. Classroom wings generally consist of one-room-deep rectilinear buildings, lined with adjacent patios and landscaping. Building plans clearly express their function, with (usually) one-story massing, generous expanses of glazing, window sizes and configurations tailored to sun patterns and doors opening directly onto patio areas and courtyards. The preferred typology was the early version of the "finger-plan" school, with rectilinear classroom wings extending from a central axis.

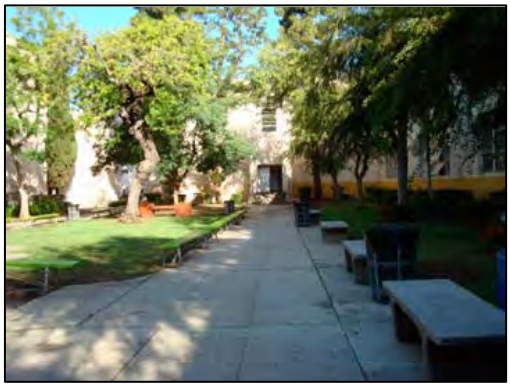


Figure 15. Emerson Middle School, Richard Neutra (1937–1940), example of open green spaces lining classroom wings. Source: LAUSD Emerson Middle School, Pre-Planning Survey, 2011.

Figure 16. Baldwin Hills Elementary School, Robert Alexander, architect, Los Angeles (1949–1951). Source: Getty Research Institute, Shulman Archives.

Figure 17. Early finger-plan school, Baldwin Hills Elementary School. Source: Google Maps, 2013.

THEME: LAUSD | EDUCATING THE BABY BOOM: THE POSTWAR MODERN FUNCTIONALIST SCHOOL PLANT, 1945–1969

By the 1950s, many of the design ideas considered experimental in the 1930s had matured and become the national standard for schools. Stylistically, schools might include some historicist detailing reflecting popular styles (such as Colonial Revival). But, overall, a unified campus design, building types and plans that accommodated a high degree of indoor-outdoor integration, ample outdoor spaces, and sheltered corridors marked the typology as the mature version of the functionalist school plant. The priority remained the creation of a domestic scale for schools. Campuses displayed a one-story massing for elementary schools, and up to two stories for middle and high schools. Site plans, which often featured a decentralized, pavilion-like layout, lacked the formality and monumentality that characterized earlier eras of school design.

School types expressive of these ideals include the finger-plan (1940s–1950s) and cluster-plan (1950s), and variations on their basic themes. Combinations of these basic forms, which flexed according to available lot size and school enrollment, are also evident.

For LAUSD, the postwar years brought another round of reform as well as unprecedented expansion. Given the postwar classroom shortage, many campuses were constructed quickly, from standardized plans used district-wide, in designs that convey some of these ideas. The most intact and well-designed campuses among these, though, uniquely represent this era of reform and the midcentury modern school.

Figure 18. Orville Wright Middle School, Spaulding & Rex (1948–1952); balanced, indirect classroom lighting. Source: LAUSD Orville Wright Middle School, Pre-Planning Survey, 2012.

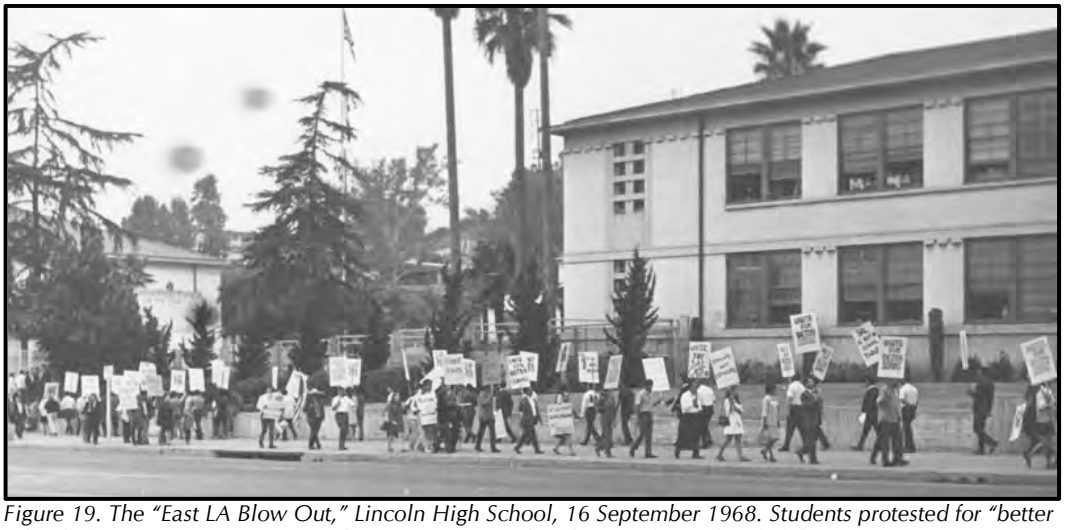


Figure 19. The "East LA Blow Out," Lincoln High School, 16 September 1968. Students protested for "better schools for Mexican Americans. Sal Castro was a teacher there and spearheaded the movement." Source: LAPL, Herald-Examiner Collection, 00041327.

THEME: LAUSD AND THE CIVIL RIGHTS MOVEMENT, 1954–1980

This theme of significance begins with the filing of the landmark U.S. Supreme Court case *Brown v. The Board of Education, Topeka, Kansas*. Although *Brown v. Board of Education* addressed state laws that did not exist in California—namely, laws allowing for racially segregated public schools—this case and the Civil Rights Movement helped generate and focus attention on related issues in Los Angeles. Issues touched on racial division and cultural identity, equal access, and how to create more balance and diversity in public schools. Signaling the end of this period of significance is the U.S. Supreme Court decision effectively ending mandatory school busing as a solution to racial imbalance in California's public schools. Although this issue continued to form part of the social context for LAUSD, this period captures an era of intense debate and activism on the part of community members, parents, politicians and jurists, as well as teachers and administrators.

A school eligible under this theme might be the site of significant integration initiatives, challenges, or community activities related to the Civil Rights Movement and school integration. This might include initiatives for equal access to schools and/or to employment opportunities in LAUSD schools.

In addition, a school might qualify under this theme for a long-term association with a figure who was significant in the Civil Rights Movement and school integration.

Figure 20. "School integrationists," in a 1963 hunger strike for better racial integration of Los Angeles public schools. Source: LAPL, Shades of Los Angeles, #00041605.

Figure 21. Postwar school: Chatsworth High School (1963), curved outdoor corridor and mature landscaping of student quad and courtyard. Source: Sapphos Environmental, Inc., 2013.

Figure 22. Chatsworth High School, classroom. Source: Sapphos Environmental, Inc., 2013.

Figure 23. Chatsworth High School, aerial view of site plan and design. Source: Google Maps, 2013.

Figure 24. Chatsworth High School, courtyard. Source: Sapphos Environmental, Inc., 2013.

Figure 25. Chatsworth High School, courtyard. Source: Sapphos Environmental, Inc., 2013.

Figure 26. Old Farmdale School circa 1950. Source: LAPL Photographic Collection.

III. HISTORIC CONTEXT AND BACKGROUND

This section provides a broad overview of the trends and patterns of development that shaped the facilities of the Los Angeles Unified School District since its founding in the 1870s. The following eras are covered:

A. Founding Years, 1870s through 1909

B. Progressive Education Movement: Standardization and Expansion, 1910 to 1933

C. Era of Reform: Great Depression, Earthquake, and Early Experiments in the Modern, Functionalist School Plant, 1933 to 1945

D. Educating the Baby Boom: Postwar Expansion and the Modern, Functionalist School Plant, 1945 through 1969

Each era is broken down into three sections: (1) National Context and Developments, exploring the trends in educational methods and curricula, as well as background information on school plant design; (2) Effects on School Buildings and Campuses, exploring how these trends resulted in changes to school plant facilities; and (3) Los Angeles City School Districts: Developments and Context, presenting Los Angeles–specific events that resulted in changes to educational policy and school plant design in Los Angeles and the region as a whole.

Sections also include a variety of historic and current photographs, with national and local examples illustrating the trends, patterns of development, and significant themes in the evolution of school plant design. Until 1961, what became the LAUSD comprised two separate entities: the Los Angeles City School District, covering primary education; and the Los Angeles City High School District. Throughout the Historic Context Statement, references to the district therefore reflect the administrative structure at the time (as the Los Angeles City school districts).

Figure 27. Los Angeles High School, 1891.
Source: LAPL Photo Collection.

Figure 28. Palos Verdes High School, 1961.
Source: Getty Research Institute, Shulman Archives.

A. FOUNDING YEARS: 1870s THROUGH 1909[5]

Only three schools are known to remain from this early era in the history of the Los Angeles Unified School District: the Old Vernon Avenue School (1876; 450 N. Grand Avenue); the Old Farmdale School (1889; 2839 N. Eastern Avenue, in El Sereno); and, in present-day Santa Monica, the Old Canyon School (1894), now serving as the library for an elementary school. The Old Farmdale School, a Queen Anne Revival–style building attributed to architects Bradbeer and Ferris, was restored and rededicated as a museum in 1976.

Few resources remain, but the late-nineteenth- and early-twentieth-century context helps set the stage for the eras that followed. During the period considered in this context, school architects and educators shared a sense of urgency in describing the importance of the safe, well-designed school. Whether in 1906 or 1966, they used remarkably similar language to describe their era's contributions to designing the ideal "modern American school."

Describing the district's founding years helps illustrate the evolution of school plant design and the challenges faced by successive generations of architects and educators. Well into the postwar period, late-nineteenth-century educational philosophies and facilities remained a point of comparison, an example of what to avoid. In 1965, writing about modern Californian school design, State Department of Education official Charles D. Gibson declared that "big block schools with internal corridors and windowless classrooms are becoming a rarity, with most schools returning to the campus plan concept, using landscaped courts and natural materials to create informal environments."[6]

In fact, by 1965, the battle against the big-block school had long since been won. But the specter of the imposing, factory-like school plant remained the example against which new ideas were measured.

Figure 29. Old Vernon Avenue School, built in 1876. Source: LAUSD Vernon City Elementary School Pre-Planning Survey, 2011.

Figure 30. Old Canyon School, built in 1894. Source: LAUSD.

NATIONAL CONTEXT | DEVELOPMENTS

In the early years of American school design, the most typical building type for educational facilities had been the wood-framed, one-room schoolhouse—a basic typology that attempted "to be all things for all children," as well as all things for all teachers and educational methods.[7] Rapid urbanization throughout the United States called for a new approach. Large-scale schools, with classrooms accommodating several dozen pupils, were needed. With the increased demand, public schools started separating children into grades, with separate classrooms for each rather than a single large room housing all grades.

The new building typology tended to be rectangular in plan, with multistory massing, sanitation systems and facilities placed in a basement, and classrooms designed for large groups of students seated in rows. High ceilings accommodated tall windows, which provided the main source of interior illumination. In his study of the history of the American school, R. Thomas Hille observed that "a typical urban school from this era was organized in a single block of one or two floors, with standardized classrooms on each floor organized symmetrically around a central hallway. ... School furniture was already standardized and typically included individual desks organized in rows and bolted to the floor."[8]

This typology fit the curricula and methods of the time. Before the Progressive Education Movement gained momentum throughout the United States, beginning in the 1880s, primary and secondary schools continued to follow traditional methods emphasizing rote memorization and discipline, in an atmosphere that was regimented and authoritarian (rather than flexible and participatory).

In this respect, Los Angeles's early schools were similar to schools around the country. Los Angeles educators and administrators followed the philosophy of Johann Heinrich Pestalozzi (1746–1827), an influential Swiss pedagogue and reformer, and his "emphasis on the disciplinary values of the subjects taught."[9]

Figure 31. Old Farmdale School, opened in 1899. Source: LAUSD.

Figure 32. 79th Street School, South Central Los Angeles (now McKinley Avenue Elementary School), shown in 1925 aerial photo. Source: LAPL Photo Collection.

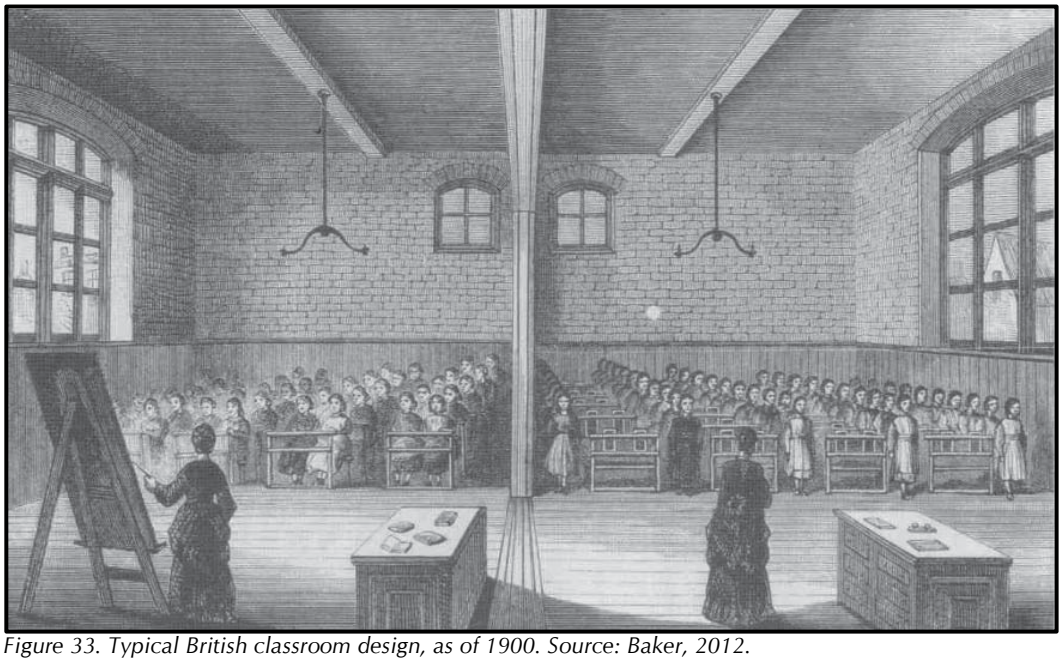


Figure 33. Typical British classroom design, as of 1900. Source: Baker, 2012.

Pestalozzi's thinking mirrored the trends of American education at the time, with an emphasis on memorization and recitation. In Los Angeles schools, "All pupils did the same lessons in the same way. There was no recognition of individual differences."[10] Early school officials emphasized the "disciplinary values of their subjects" and uniform teaching methods for all students and classes.[11]

At this time, the effects of the Progressive Era—the period of social activism and political reform associated with the 1890s through the 1920s—were becoming evident in the public schools. In Los Angeles, when promoting the activities and accomplishments of the schools, district officials began describing a general liberalization of teaching methods and curriculum. The new programs were based less on discipline—including, as one official proudly pointed out, a diminishing reliance on corporal punishment—and were more participatory and tailored to children's nature and needs.

In this way, as the nineteenth century came to a close, "the foundations were laid against regimented instruction," in Los Angeles as elsewhere; "the concept of the pupil as the passive recipient, the sponge soaking up information in preparation of adult life, was abandoned. The broader concept of education as an integral part of the life process, of learning by doing through creative participation, slowly replaced the old accepted theory."[12] In subsequent decades, these evolving philosophies would also shift ideas about school plant design.

EFFECTS ON SCHOOL BUILDINGS AND CAMPUSES

It took time for school plant design to catch up with evolving educational methods. As noted Connecticut school architect Warren Richards Briggs (1850–1933) argued in 1906, "no one will deny [that] the public system of education has been carried in our country during the last half century to a degree of perfection heretofore unknown to any country of the world." Yet, he wrote, "can it be said, however, with equal assurance that our school buildings have kept pace with our educational systems? Are they as complete in their design and construction as the educational system in its plan and equipment?"[13]

Among architects and educators it was widely recognized that reform and standardization were needed. During the late nineteenth century, especially in urban schools, systems for sanitation and safety "were less than ideal and varied considerably from location to location, with little in the way of regulatory oversight."[14] This area was the first to be widely studied and significantly changed during this time, as many resources were devoted to developing and improving health and safety standards and systems.[15]

In Briggs's 1906 book, *Modern American School Buildings*, the architect contributed one of many guides available for standardized schools. The scale of Briggs's schools remained imposing and monumental, with the entire school contained within a single, multistory building. But the new standardized schools offered the best building infrastructure available at the time, with improved heating, ventilation, and sanitation systems, as well as recommendations for the ideal size and configuration for windows, doors, emergency exits, and other features.

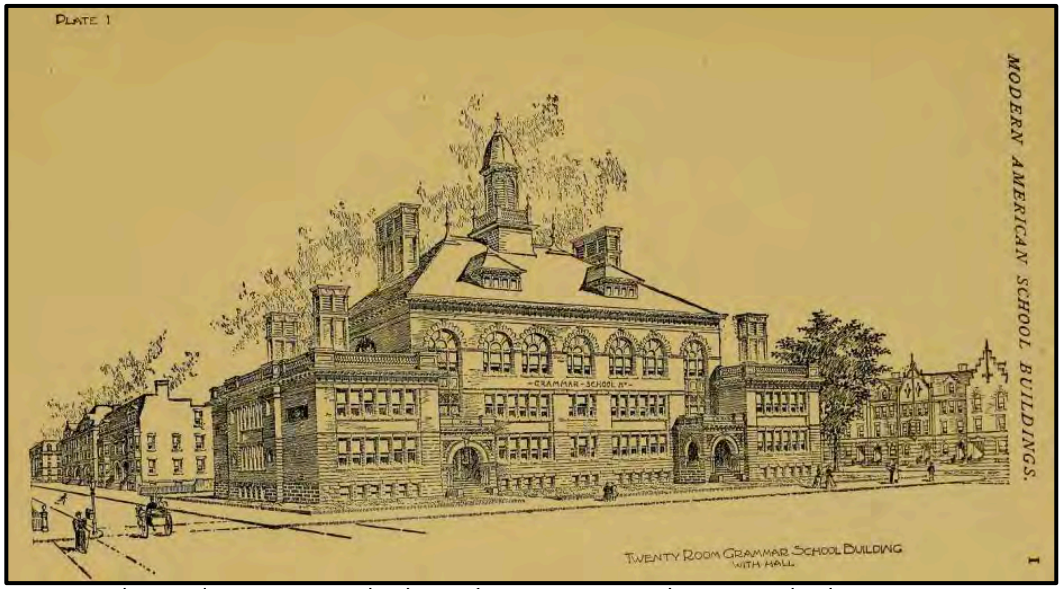


Figure 34. The "Modern American School," as of 1906, a 20-room elementary school. Source: Briggs, 1906.

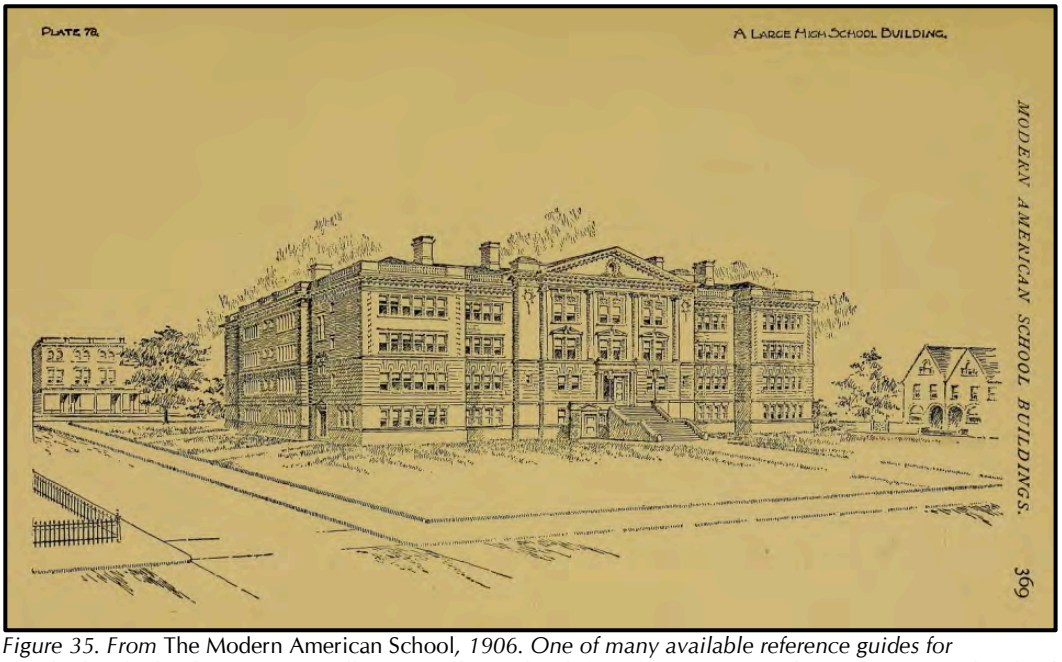


Figure 35. From The Modern American School*, 1906. One of many available reference guides for standardized school construction. Illustration shows sketch for a four-story, neo-classical "Large High-School Building." Source: Briggs, 1906.*

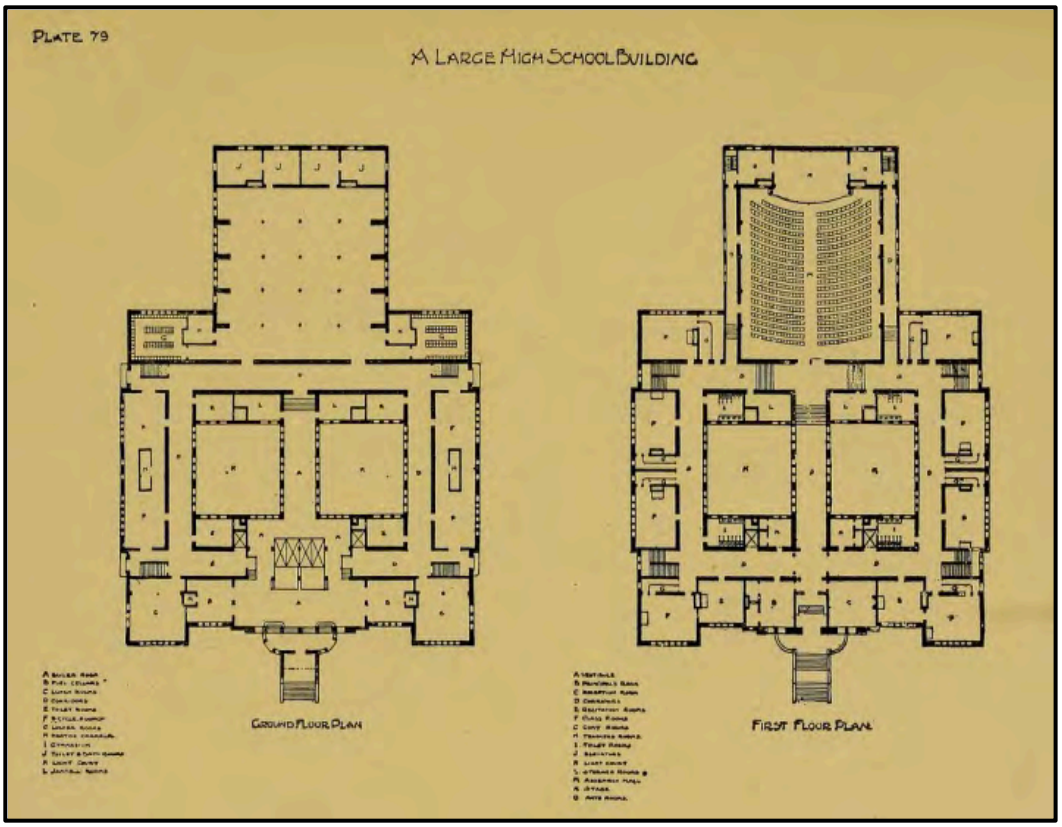


Figure 36. From The Modern American School*, 1906. Plan for first two stories of neo-classical "Large High-School Building." Source: Briggs, 1906.*

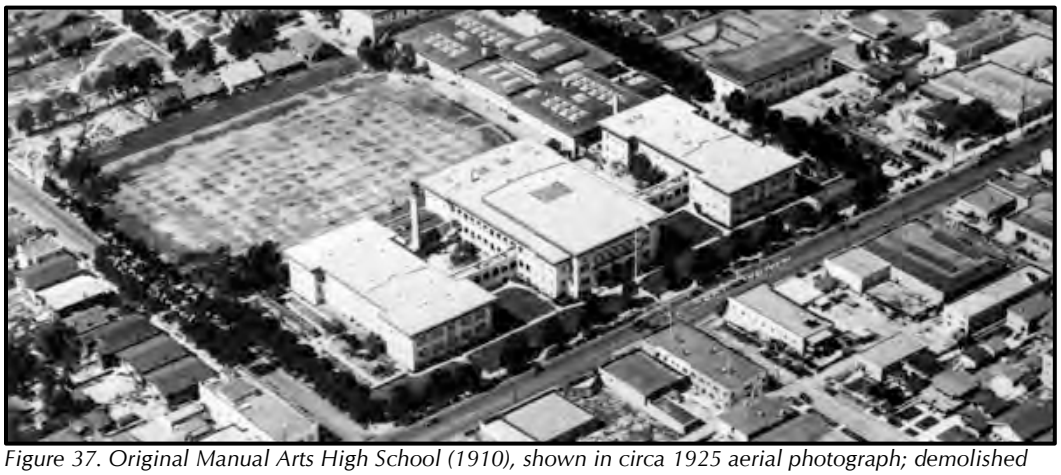


Figure 37. Original Manual Arts High School (1910), shown in circa 1925 aerial photograph; demolished and rebuilt following the 1933 Long Beach Earthquake. Source: LAPL Photo Collection.

In the early twentieth century, the movement to standardize and improve schools gained momentum and took off in earnest. American school architecture "advanced from the low point of complete neglect to a high point of monumentalism. School buildings changed from small, shabby units to large, beautiful edifices, glorifying the people's devotion to education."[16] Education-related organizations and trade publications around the country helped forward the cause. Overall, urban school plants still tended to be imposing "big-block" institutions "designed to house as many students as possible."[17]

But the seed had been planted among a national network of educators and administrators that the classroom should be a comfortable, safe place. Advances in health and hygiene research translated into changes in school plant design. By the end of the nineteenth century, for example, a better understanding of ventilation and disease prevention, in particular for tuberculosis, affected approaches to fenestration and building siting and led to an increasing emphasis on cross-ventilation. Overall, the issue of how to design the most healthy and efficient school remained the topic of intense study and debate, as these ideas continued to evolve through the first quarter of the twentieth century.

LOS ANGELES CITY SCHOOL DISTRICTS | DEVELOPMENTS AND CONTEXT

As elsewhere, the earliest schools in Los Angeles were utilitarian and vernacular in style, constructed to serve newly established communities emerging throughout the region during this time. Early schools were generally wood framed and sheathed, with a simple communal room or two serving all of the school's needs. The late nineteenth century was the era that "introduced the bell tower as a signature element of a school building, perhaps modeling school buildings on early churches."[18] Three late-nineteenth-century school buildings survive in Los Angeles.

As school buildings turned from vernacular, domestic-scaled forms to more monumental statements of civic pride, the model became Beaux-Arts Academic Classicism: "The Classical Revival was especially favored, and impressive porticos of colossal columns

proclaimed the importance attached to education."[19] School buildings came to resemble grand civic buildings, with monumental scale, classical styling, symmetrical design composition, and a rational program. Spanning the nineteenth and twentieth centuries, this era brought improved technologies and industrial-strength materials, allowing buildings to rise to two or three stories in height. Most of these buildings were unreinforced masonry construction—more fireproof, but also more vulnerable to earthquakes—and many of these schools were destroyed or damaged beyond repair by the 1933 Long Beach earthquake.

Formation of the Los Angeles City School Districts

In 1872, little more than two decades after California's entry to the United States, the Los Angeles City School District was founded. The timing of the district's establishment was tied to state legislation requiring, among other things, that each city in California create a board of education. In 1879, amendments to the state constitution gave cities the authority to establish school curricula and methods, and Los Angeles educators set to the task of developing a program of study for their new district. Curricular improvements and reform in Los Angeles, as elsewhere, remained the topics of ongoing debate and refinement throughout the late nineteenth century and into the twentieth.

Figure 38. Central School (1873) at Temple and Broadway Streets in downtown Los Angeles, 1931 photo (demolished). Source: USC Digital Archive.

As the new district was launched, two schools were constructed in the early 1870s. One of these was the wood-framed Central School, located at Temple and Broadway Streets (then Fort Street) in downtown Los Angeles. Constructed in 1873 for $25,000, Central School became home to the county's first high school, which occupied four rooms of the two-story building.

In a 1936 series of articles exploring "landmarks almost forgotten in the march of progress," the *Los Angeles Times* recalled that when the school was constructed, it was "so big and grand that they came from miles around to see it, quite the finest school south of San Francisco. Its lines were classic, and it had a cupola with a clock in it. … The teachers like the wide corridors and generous windows and the transoms over the doors. The earthquake, which did so much damage to newer school buildings, didn't harm the [Central] school in the least."[20] In 1882, Los Angeles's first teaching college, the State Normal School, was constructed downtown near the present-day site of the Los Angeles Public Library.

Early Currents of Change

One shift during this period was a growing sense that public education and schools should be a community affair, with a mission to serve the needs of the population. One example of this is seen in a citywide poll launched in 1900 by the Los Angeles Board of Education. With an extended list of questions, the poll was distributed to all city residents in order to solicit input on district curricula and teaching methods. The stated goal of the board in creating the survey was to initiate "the freest and most open discussion of public school work by all interested."[21] All citizens of Los Angeles were asked to offer opinions on the subjects taught at all grade levels, with a particular amount of attention going toward the newly established kindergarten program, as well as the amount of homework assigned and classroom conditions. After surveys were distributed throughout the city, results were tallied and discussed at a public meeting, in what would ultimately become an ongoing effort to solicit community input.

Similarly, in this era, a range of special-needs schools were established, including facilities for the deaf, blind, physically disabled, or cognitively impaired; special facilities were also provided for children suffering from tuberculosis. In addition, vocational schools with more hands-on, skills-related curricula were established in these early years. The 1904 Polytechnic High School was one example of this initiative.

The Boom of the 1880s and Los Angeles City Schools

In the 1880s, as has been well documented, Los Angeles experienced a significant population boom. One factor fueling this expansion was a speculative land rush, fueled by the completion of the transcontinental railroad and price wars between competing railway lines. The "boom of the 1880s" brought prosperity and development throughout Southern

Figure 39. Los Angeles's first teaching college, State Normal School (1882), downtown Los Angeles, in a circa 1900 photo. In the 1920s, this site became the location for the Los Angeles Public Library. Source: LAPL Photo Collection.

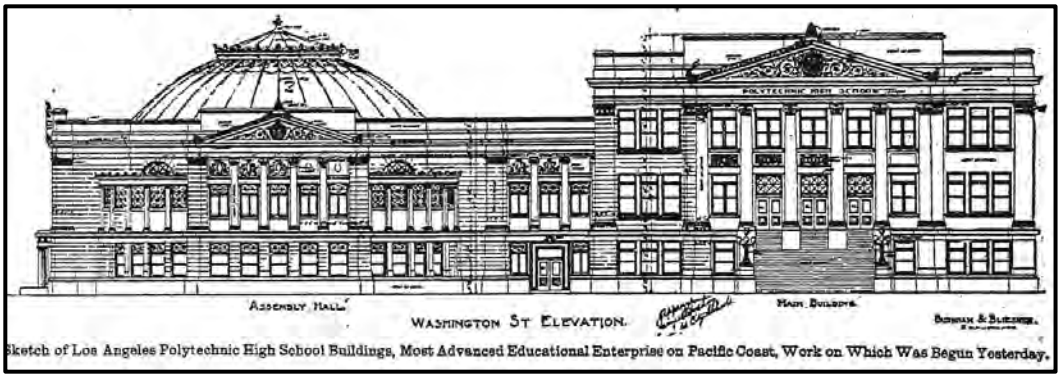


Figure 40. Elevation sketch of Los Angeles Polytechnic High School (1904), by Los Angeles architects Burnham & Bliesser. Source: Los Angeles Times, *July 9, 1904.*

California (though the boom had collapsed by 1890). Between 1880 and 1900, the population of Los Angeles expanded tenfold, growing from 10,000 to more than 100,000. In another decade, these numbers would triple, expanding to nearly 320,000 by 1910, greatly testing the capacity of the fledgling school district and board.

Although the district carried out an extensive building campaign during its first decade, keeping pace with population growth was a constant struggle. The city's schools quickly became overcrowded. As of 1874, the Los Angeles Board of Education recorded a total of six schools with nearly 900 students in the district. Within one decade, by 1884, the number of students within the district had nearly quadrupled, expanding to almost 3,500. By 1890, the Los Angeles Board of Education operated a total of 178 classrooms, which, in the spirit of the times, were classified not in terms of grade level but according to classroom capacity to house students.[22]

Figure 41. Neo-Classical Los Angeles Polytechnic High School (1904), Burnham & Bliesser (demolished). Source: LAPL Photo Collection.

Rapid population growth produced multiple problems for the fledgling Los Angeles Board of Education and school districts. Among them, according to the board's 1884 annual report, were a lack of scholastic uniformity among schools; significant gaps in the educational levels of pupils; crowded classrooms, which necessitated turning students away; and poor financial support. In addition, board president Frank A. Gibson "bemoaned" a governing structure by which state boards of education lacked the authority to issue bonds for school-building campaigns.[23] Within five years of the publication of this annual report, state policy changed. Cities were given the authority to issue bonds for municipal projects and improvements, including school construction. In

Figure 42. Grand, neo-classical high school beyond the city core: San Fernando Union High School (circa 1900), shown in a circa 1900 image (original location unknown). Source: USC Digital Archive.

1899, the City of Los Angeles sold bonds amounting to $200,000, generating proceeds for a turn-of-the-century building campaign for new schools.[24]

The funding provided through the bond measure temporarily helped ease overcrowding. However, the respite was short-lived. The board and district struggled to accommodate ever-expanding enrollment figures. Reflecting on the school year 1892–1893, the superintendent of the Los Angeles Board of Education wrote, "There seems to be no way to get entirely rid of these half-day schools in our rapidly and continuously growing city."[25] In the 1900s, this problem remained an issue, with rapidly increasing enrollment each year. Indeed, overcrowding continued to represent one of the most pressing challenges facing Los Angeles school districts throughout this era (and throughout the twentieth century).

Civic Pride and the Turn-of-the-Century School

On the city periphery, as undeveloped lands slowly gave way to residential and farming communities, utilitarian wood-framed schoolhouses continued to serve the needs of new communities. But in the city core, grand new schools reflected the city's economic and institutional success. In its first few decades, the district added many monumental large-scale schools. Designed by the city's nascent field of architects, the buildings were generally self-contained, multistory buildings exhibiting the palette of styles popular in the era, including late Victorian, Romanesque, Classical Revival, and Beaux-Arts styles. The district's educational facilities and slowly modernizing methods mirrored Los Angeles's transformation from an outpost of 10,000 in 1880 to a metropolis of nearly 320,000 by 1910.[26] Of the district's rapid growth, the *Los Angeles Times* noted in 1898 that

> while it is altogether unnecessary to draw comparisons, it may be said that there is no other city in the United States that can show a proportionately great increase in school population. To say that Los Angeles is proud of her school record and of the large and well-appointed buildings erected for the education of her children is but to repeat that which the parents of the children well know and appreciate. No expense has been spared in providing every modern acquirement.[27]

Figures 43. and 44. A rare remnant of the neo-classical era in school design: San Fernando Middle School, Auditorium, John C. Austin, architect (1916). Source: Heumann & Associates and SAIC for LAUSD.

On January 1, 1898, the *Los Angeles Times* took stock of a decade of expansion of the city's public schools, which by then included 57 facilities with nearly 400 classrooms, estimated in value at $1.25 million. The new, progressive tone was evident in the article. "Play is the business of childhood," the reporter wrote, so the new kindergarten facility is "the playschool for the little ones," with a day filled with varied arts and crafts activities. "By those simple methods, which afford an amusement rather than a task, the mind of the child is set in motion."[28]

The monumentality and beauty of the city's public schools were also celebrated as forwarding the cause of education. The fine buildings, along with updated classroom activities and subjects, would inspire the older pupil to attend school rather than "lie awake all night scheming how he might play hookey all next day." "How different it all is from days gone by," the reporter concluded wistfully.[29]

In this way, for Los Angeles, providing the most modern, up-to-date curricula and facilities became important symbols of the city's growth, economic success, and stature as an urban center worthy of comparison to San Francisco, its well-established rival to the north. With the 1908 groundbreaking for the Los Angeles Aqueduct, and the subsequent wave of land annexations to the city, the area covered by the Los Angeles City School Districts would expand even more in the 1910s and into the 1920s, bringing new challenges for the city's school districts.

Figure 45. 10th Street Elementary School, 10th St. and Olympic Blvd., Los Angeles, in 1926 photo. The oldest extant building on campus is the Administration Building, constructed in 1922. Source: LAPL Photo Collection.

B. PROGRESSIVE EDUCATION MOVEMENT: STANDARDIZATION AND EXPANSION, 1910 TO 1933

"One of the important functions of school architecture is to sell education to the public. This is accomplished by making attractive that side of education the public sees most."
—John J. Donovan, *School Architecture: Principles and Practices*, 1921

NATIONAL CONTEXT | DEVELOPMENTS

Throughout the early part of the twentieth century, Progressive Era reform inspired a broad restructuring of educational methods and curricula in the United States. Reform was guided by the theories of educators and philosophers such as John Dewey (1859–1952) of the Columbia University Teachers College. Dissatisfied with authoritarian teaching methods emphasizing passivity and rote learning—and factory-like schools—Dewey and others argued that a student's natural curiosity and real-life needs should shape the classroom environment and curriculum. Dewey and the Progressive Education Movement stressed "learning both abstract concepts and real skills through projects ... children should move freely through classrooms, use materials other than textbooks ... explore the physical world through hands-on projects."[30]

By the 1910s, the Progressive Education Movement had gained momentum. Educators and administrators interested in reform advocated for more hands-on, child-centered methods and curricula. Key to this movement was the notion that the classroom should flex to the needs of each student. Anthropologist William Henry Holmes (1846–1933) thus noted the change in 1912: "Within the past few years we have been coming to measure education by a new standard, the standard of individual achievement. This means that we have begun to differentiate the abilities of children ... not in terms of a general standard, but in terms of what each individual is able to do within the range of his own ability."[31] This new standard brought changes to classroom dynamics, school structures, and to schools themselves.

Figure 46. Los Angeles High School (1917), in 1925 photo. Although the school still occupies this site, at 4600 W. Olympic Boulevard in Central Los Angeles, this building is no longer extant; most of the existing campus core was constructed between 1964 and 1978. Source: LAPL Photo Collection.

Figure 47. Lincoln High School (1918), northeast Los Angeles, shown here in circa 1925 photo. After sustaining significant damage during the 1933 Long Beach Earthquake, the school was reconstructed beginning in 1936/1937. Source: LAPL Photo Collection.

The 1910s in Los Angeles also brought a number of developments that ultimately affected public schools. In addition to the 1913 opening of the Los Angeles Aqueduct, the film industry settled in the Los Angeles area during this time, and its economic strength drew new residents. Also in the early 1910s, the region's first collegiate school of architecture was taking shape at USC. By 1925, USC began conferring the region's only professional degree in architecture.[32] This helped establish the city's architectural profession and culture by training architects and attracting faculty throughout the country.

During this period, the role of the public school also changed, with a greater focus on serving community needs. An expansion of specialized programs and facilities served new groups, including working teenagers and adults. The school plant itself also took on a greater role as a community-gathering place, with auditoriums, outdoor spaces, and public rooms sited and designed to double as gathering areas. Artfully designed and landscaped approaches and entrances to schools represented an acknowledgment of this change and the need for positive relations with the community. Summing up the changes to educational philosophy in the early twentieth century, W. H. Crocker (1861–1937), editor of *The American Architect*, wrote,

> During the past quarter century, each succeeding year has witnessed the broadening development of public education. The relation of the school to the community has radically changed. Systems of education have been evolved as the result of the careful observation of those engaged in pedagogy, and these systems have become broadened and extended. ... With this evolution and extension of educational methods it was logical to assume that the modern schoolhouse would keep pace in its designing and planning.[33]

Figures 48. and 49. Civic pride and the monumental public school. On the left: Historic postcard of Union High School (1910), later Hollywood High, Hollywood. Source: LAPL Photo Collection. On the right: Union High School in a circa 1915 photo. Located at 1521 N. Highland Avenue, the building is extant but significantly altered; it is currently in use as the Hollywood High School Museum. Source: LAPL Photo Collection.

In fact, modern schoolhouse design was initially slower to keep up with the times. But by the early 1920s, the Progressive Education Movement had brought significant changes to two main realms: first, teaching methods and curricula became more hands-on and individualized, less rigid and authoritarian; and second, environments for learning were transformed to facilitate these new ideas. As architectural historian Amy Ogata wrote, "Historians of education are still divided on the real impact of progressivism on American education, but its effect on the *architectural* discourse was profound and enduring."[34]

EFFECT ON SCHOOL BUILDINGS AND CAMPUSES

Educational philosophies and methods—and eventually schools themselves—changed substantially during this period. For their communities, school plants remained important symbols of civic identity and pride. The buildings were increasingly functional, but the wish to create beautiful temples to learning, reflecting the community's aspirations for itself and its youth, remained strong: "There is nothing more impressive or hopeful in American democracy than the devotion of the people to education. … Unconsciously the spirit has been to represent truly this national devotion to education in the architecture of public schools."[35]

As architects and designers began experimenting with the new ideas of this period, school plants became "more flexible and adaptable, and more accommodating of the new methods of teaching."[36] The keys became functionality, adaptability, and programmatic differentiation of buildings and spaces, for interiors and for the site overall. The increasing emphasis on natural light and fresh air brought the incorporation of bays of windows, which would march across the building elevations and span each floor of classroom wings.

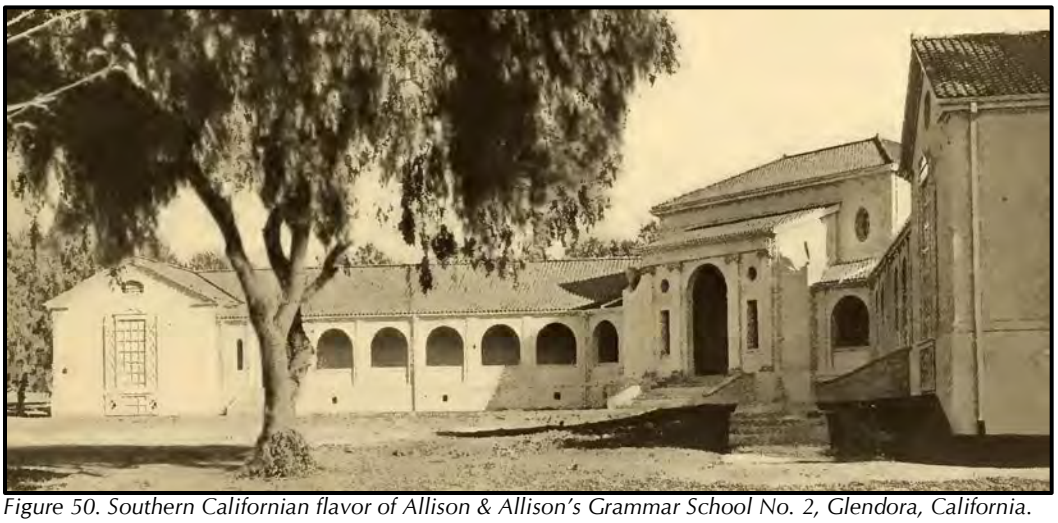


Figure 50. Southern Californian flavor of Allison & Allison's Grammar School No. 2, Glendora, California. Source: Donovan, 1921.

With a growing network of education-related organizations and publications, the push for modernization was a shared project for architects and educators around the United States. One of the era's most defining documents in this respect—one that became a standard office reference for architects—was John J. Donovan's 1921 *School Architecture: Principles and Practices*. Encyclopedic in scope, Donovan's volume offered a richly illustrated guide with the latest ideas in everything from construction to costs, campus planning and landscape development, to each feature of a modern school plant, whether vocational, elementary, junior, or high school. A wealth of drawings and floor plans illustrated the ideas described by Donovan and other school architects in the volume. In 1954, renowned school architect William Wayne Caudill referred to Donovan's book as "the 'bible'": "Any account of the architectural development of school buildings in the United States certainly would not be complete without a statement concerning the writings of Donovan."[37]

John J. Donovan's School Architecture: Principles and Practices

A native of Massachusetts and alumni of the Massachusetts Institute of Technology, John J. Donovan (1876–1949) moved to Oakland, California, in 1911 to supervise the construction of Oakland City Hall. Donovan resided and practiced in Oakland for the rest of his career, completing many high-profile commissions including libraries, schools, and infrastructure projects. Although he lived and practiced in Northern California, Donovan's book became a standard reference throughout the United States.

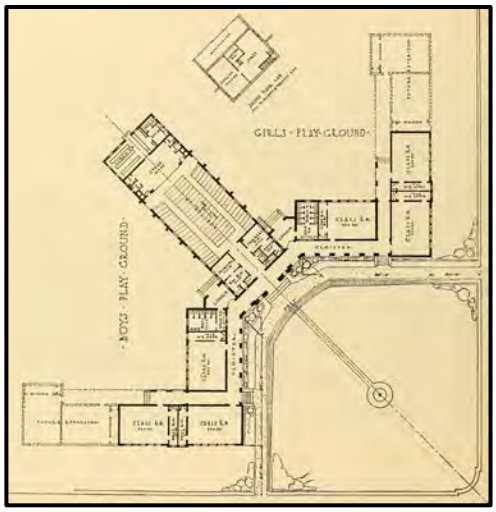


Figure 51. Open-air plan, Allison & Allison's Grammar School No. 2. Source: Donovan, 1921.

Figure 52. Open-air classrooms in northern and southern California. On left, Leland Stanford Jr. University Elementary School, Palo Alto, California. On right, Francis W. Parker Elementary School, San Diego, California. Source: Donovan, 1921.

Shift away from Monumental Scale and Beaux-Arts Classicism

Donovan documented and proposed examples of how to plan for the new school. In terms of scale, the schools were less monumental, less imposing. For primary grades especially, Donovan wrote, "Vainglorious attempts to build monumentally are fatal to both child and adult, for instead of attracting the child's interest they are most likely to repel and make fearful." Rather, he continued, "the architecture of the elementary school should be symbolic of quiet simplicity, expressing in permanent materials much the same charm that the little child has for those who appreciate and love children."[38]

Stylistically as well, from the 1910s through the 1920s, there was a move away from Beaux-Arts Classicism and Classical Revival styles toward the period-eclectic styles commonly used in domestic architecture. The significant innovations and departures from earlier eras were in building plan, layout, and interior program. Using a range of national examples, Donovan's illustrations and narrative showed a new approach to school design that was focused on artful, functional site planning, and coordination of campus buildings.

During this time in Southern California, as in many other parts of the region, architecture was entering a golden age. Responding to the boom in construction, architects and designers were both meeting and fueling demand for the menu of period-eclectic styles popular at the time. In Southern California, architects drew on the heritage of the region, including the Arts and Crafts movement and Spanish Colonial past, to forge a unique architectural identity.

Importance of Indoor-Outdoor Integration

One of the most significant shifts during this era was the emphasis on outdoor spaces in schools. In 1910, in another guide for designing "modern" schoolhouses, architect Alfred D. Hamlin observed that "however perfect the heating and ventilating plant, and however faultless its operation, let it be clearly understood and always remembered that no artificial

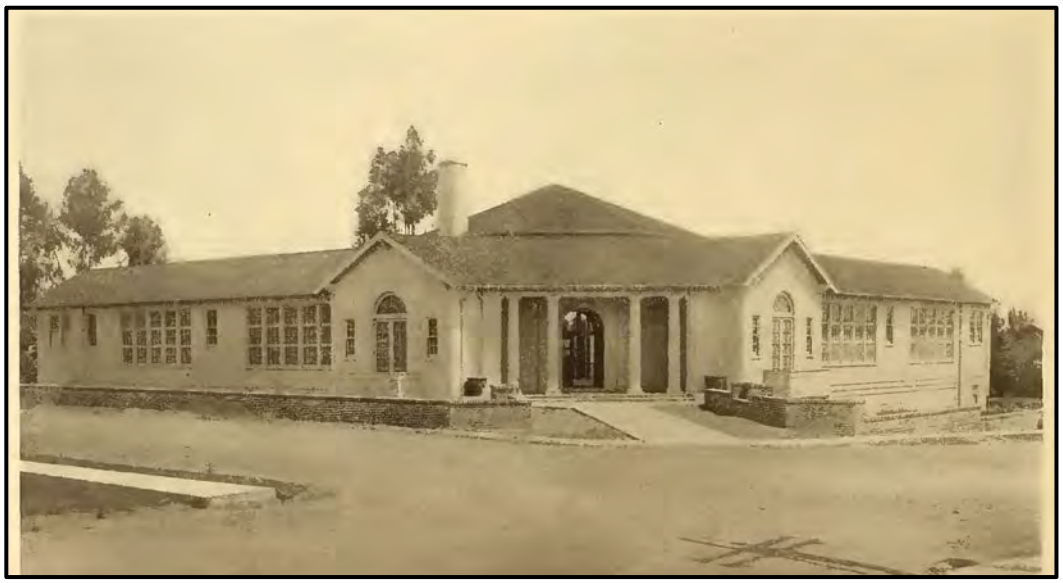


Figure 53. A lack of monumentality, low scale, and U-shaped plan characterize John J. Donovan's Stanford University Elementary School, Palo Alto, California. Source: Donovan, 1921.

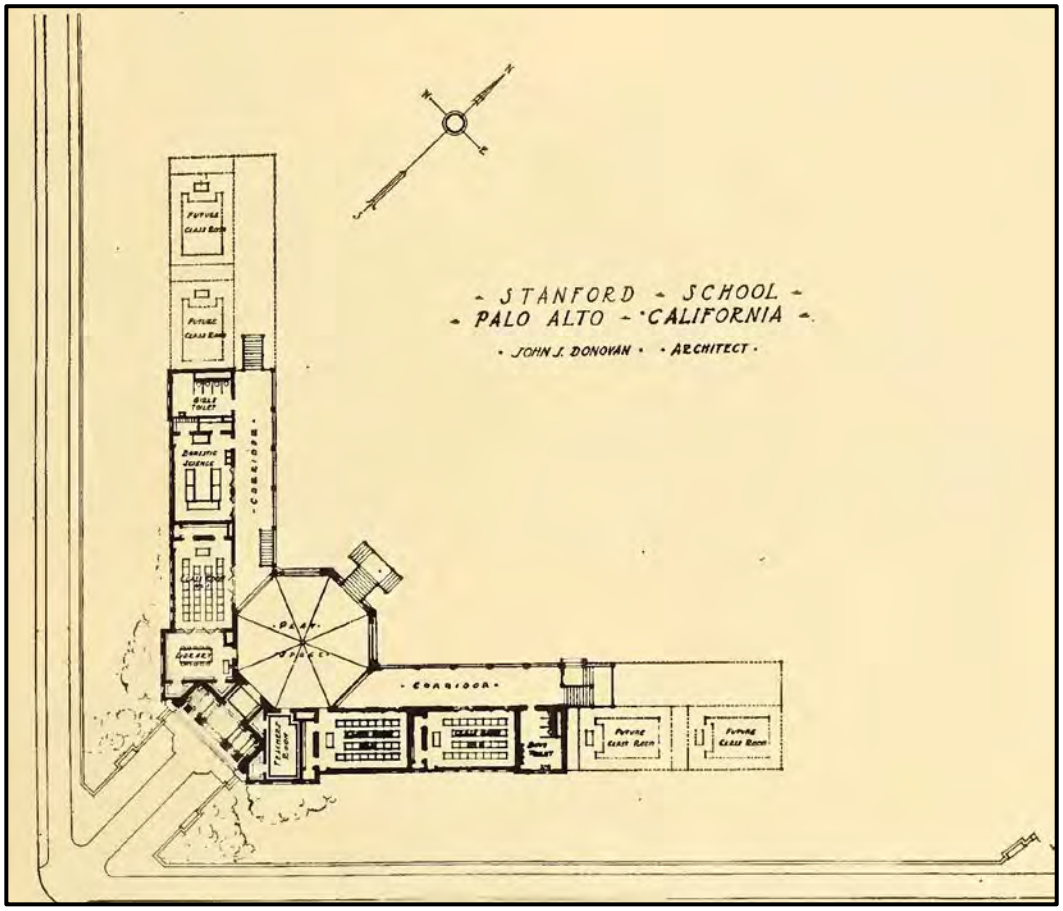


Figure 54. U-shaped campus plan, Stanford University Elementary School, Palo Alto, California. The plan allows for easy indoor-outdoor spaces as well as expansion as the school grows. The locations for four "future class rooms" are sketched in at each end of the plan. Source: Donovan, 1921.

heating and ventilation can ever take the place of fresh outdoor air and sunshine."[39] Rapid urbanization throughout the United States brought increased acknowledgment of the need for and benefits of outdoor activities. During this era, Hille wrote, "Connections to the out-of-doors were important for reasons of health and hygiene, providing access to natural light, fresh air, and exercise, and places for new kinds of learning activities."[40]

These ideas translated into clear changes in school design. Plans became "more open and interconnected, with more transparency and spatial complexity—both inside and out."[41] Schools capturing these ideas in particular abounded in Donovan's book. Simple changes to the traditional big-block school, such as adding adjacent or parallel wings, created numerous possibilities for outdoor spaces. The school branched out and turned in on itself, with building plans including elongated L shapes, T shapes, H shapes, or U shapes, all of which spread out the interior program and opened up possibilities for courtyard spaces and interconnections.

Many of the examples Donovan used to illustrate the latest ideas were drawn from Northern and Southern California. As Donovan said of these Californian schools, "Elevating the building and spreading its area over more ground brought forth many interesting developments in plan of single units and groups of units which of course led to delightful exterior compositions of the modified Romanesque, Spanish, Italian, English, and modern Renaissance. Thus it is that the school architecture of California has found a permanent spot in the sun."[42]

In this respect, California led the way. With its relatively mild climate—not to mention rapidly growing population, need for new schools, and room to grow—Southern California in particular was an early proving ground for the open-air campus and school. (For the region's residential architecture as well, outdoor living came to exemplify the good life and contemporary design in the "Californian" mode, a label that itself was becoming a marker for the latest ideas.)

This was an idea promoted by the Los Angeles school district officials as well. In 1911, M. C. Bettinger, assistant superintendent of the Los Angeles City School District, told the *Los Angeles Times* that in the city's schools "the custom of studying and even reciting out of doors is growing. The children take their books and go out under the trees, sit on the benches or the ground."[43] Bettinger said, "In my district I heartily encourage this custom." He evoked the language of reform when he declared that outdoor study provided a means of "getting away from the factory system of education. … This is especially desirable in the lower grades, when the children grow restless, and look longingly out toward the fields and the hills."[44]

Figure 55. One-story scale and E-shaped plan of Fishburn Avenue Elementary School (1923), extant in Maywood, south of Los Angeles, shown here in 1927 aerial photo. Source: LAPL Photo Collection.

Figure 56. The grand approach, unified campus plan, and H-shaped building of John C. Fremont High School (1924), shown in 1932 aerial photo. Located in south Los Angeles, limited portions of the original campus are extant. Note series of window bays on each floor, letting in natural light and fresh air. Source: LAPL Photo Collection.

Site Planning and Layout

Unified site planning, the incorporation of landscape architecture, and a spread-out campus became increasingly important in this era. These qualities enhanced patterns of circulation, created more outdoor gathering spaces, and built connections between campus buildings based on use. Spreading out the plan, Donovan wrote, created "many opportunities for pleasing courts, and approaches, at the same time furnishing to the plan spaces for lawns, shrubs, trees."[45]

Because of the acreage requirements for an extended campus plan, though, such schools were often added on the city periphery. Donovan wrote, "The trend of the times is to locate secondary schools in sparsely settled sections of the cities where the buildings may be spread out and their height reduced. This is desirable, as it means better lighting, better natural ventilation, fewer fire hazards."[46] This was the case in Southern California as well, with many examples of open-air campuses located in what were, at the time, the expanding suburbs beyond the city core. This trend in campus planning also made school plant design, planning, and construction an interdisciplinary project, involving teams of architects, landscape designers, and school facilities personnel.

Buildings were designed with generous setbacks, taking into account adjacent traffic to ensure that classrooms were adequately buffered from street noise. More comprehensive site planning also allowed architects and school planners to think ahead to future expansion needs, in terms of both individual buildings that could be expanded and buildings and structures that might be added.

Figure 57. Garfield High School (1925), in 1929 photo. While the campus still occupies this site, very little of the original campus appears intact. Note semicircular driveway and approach to school, generous setback, use of landscaping, and unified campus plan. Expanses of window bays span each elevation. Source: LAPL Photo Collection.

Figure 58. Expansive site plan of Hyde Park Elementary School (1923), south Los Angeles, shown in 1927 aerial photo. The site is still occupied by a school (LAUSD's Young Empowered Scholars Academy), though little of the original campus appears extant. Source: LAPL Photo Collection.

The notion of campus planning was becoming more important as well, especially for upper grades. High schools were expected to be "about double the size" of junior highs, with the "character of the college campus": "The day has arrived when high schools are being planned as groups of buildings, not more than two or three stories high, with the different departments in separate buildings connected by open or inclosed arcades or wings."[47] This trend was best suited to expansive lots, though, rather than dense urban environments. For urban schools without much acreage to work with, multiple stories were often necessary, with classrooms organized in blocks with adjacent wings and double-loaded corridors. Although Donovan conceded that in the "larger cities, due to the cost of land, it may be necessary to have the high school under one roof," his book illustrated how variations in plans and programs still created opportunities for visual interest and outdoor spaces.

In addition to limited acreage, limited funding played a role in determining how far a campus could spread out across a site. Resources were not always available to design and construct an entire campus. In the Los Angeles city school districts in this period, buildings would be added as enrollment increased, usually starting with the administration building—usually the flagship building of the campus—and classroom wings, then eventually including additional classrooms, a cafeteria, and a gymnasium, depending on the grade level of the school. Purposeful site planning also allowed architects to factor into their designs the patterns of the sun and interior illumination, in order to make the best of natural light in the classroom.

According to Donovan, as of 1921, the finer points of building siting, orientation, and interior lighting had been "carefully documented and thoroughly understood by architects at the time."[48] Conventional wisdom held that window areas should equal approximately 40 to 50 percent of the total wall area of the room's longest side. Windows would extend up to 6 inches from the ceiling, to maximize light. In this way, the repetitive bays of windows, on

each floor with classroom space, became one of the trademark features of 1920s schools in particular. Views out the windows were also considered important, because students should have the chance to look out the window and "rest their eyes at times."[49] Ceilings also tended to be high, ranging typically from 12 to 15 feet, "a minimum standard that in many places was regulated by building codes."[50] High ceilings helped with ventilation and accommodated tall windows, which provided the main light source until the advent of fluorescent lighting in the 1930s.

LOS ANGELES CITY SCHOOL DISTRICTS | DEVELOPMENTS AND CONTEXT

Building Program

During this time in Southern California, the boom in construction and resources brought a golden age for period-revival architecture. Buildings reflected a wide palette of styles and stylistic hybrids; schools exhibited the ornamental programs of Romanesque, Italian Renaissance, Spanish Colonial, and Collegiate Gothic Revival styles. In terms of materials, schools during this period were generally, though not always, of masonry construction. Brick was a popular structural and decorative cladding material, as were hollow clay tile and concrete, the latter often manipulated to resemble stone or other materials.

While the 1920s boom provided opportunities to test new ideas, the era remained transitional, with some new construction showing the new lower massing and open site plans recommended by Donovan, and some schools still adopting a more monumental decorative program and higher massing. As elsewhere, the most common building plan types during this period were increasingly rectilinear with perpendicular wings in T, H, and U shapes, providing areas for courtyards and outdoor spaces. Ordinarily the interior would consist of classrooms lining a double-loaded corridor.

Figure 59. Craftsman-style Morningside Elementary School (1915), George Lindsey, architect. Morningside Elementary remains LAUSD's oldest school building still serving its original purpose. Source: LAUSD.

Figure 60. John Burroughs Middle School (1922), central Los Angeles, shown in 1926 aerial photo. This school is extant and shown in the illustration below. Source: LAPL Photo Collection.

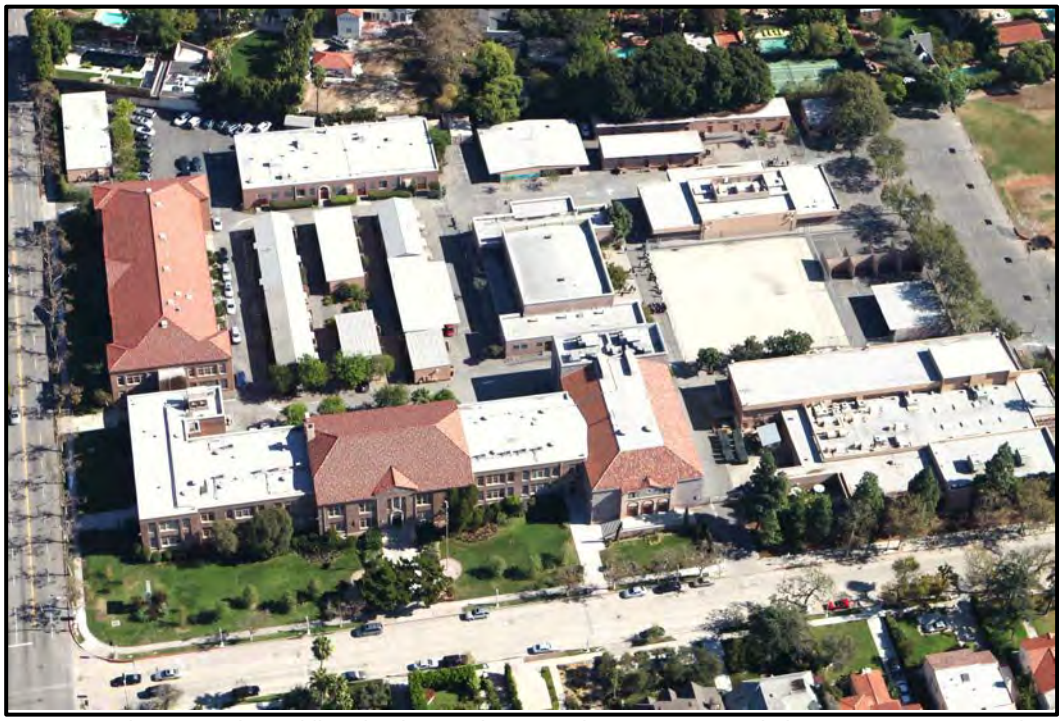


Figure 61. John Burroughs Middle School, central Los Angeles, in recent aerial photo. Source: LAUSD John Burroughs Middle School Pre-Planning Survey, 2011.

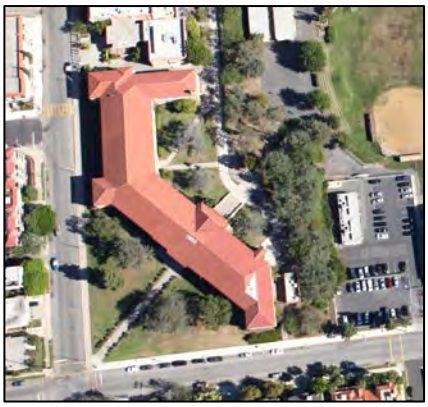
Figure 62. John Burroughs Middle School (1922). This Renaissance Revival–style school is one of the most intact 1920s schools in the district. Source: LAUSD John Burroughs Middle School Pre-Planning Survey, 2011.

Construction generally unfolded in phases as school enrollment grew. Between the mid-1910s and 1930, elementary schools, for example, were typically constructed in three stages. The first stage usually brought an administrative office, the flagship building of the school, as well as a kindergarten and a nine-classroom wing. The second stage took place once enrollment reached 400, with the addition of more classrooms, facilities for home economics and manual education, and a cafeteria. When enrollment reached 900, the third stage took place, which usually brought a new auditorium, classrooms, or other service rooms as needed. Kindergartens tended to be self-contained and separate from other classes. Gymnasiums, shops, and specialized facilities for home economics, wood shop, and other coursework were also added for junior high and high schools.

During this era, newspapers of the day reflected much civic pride in—and promotion of—the city's new public schools. In 1914, when Los Angeles's public schools were singled out as "models for the rest of the state" (in comparison with San Francisco's schools, which were declared substandard), the bragging rights this conferred made news in the *Los Angeles Times*:

> A city is known by the schools it keeps and nobody can ignore the fact that Los Angeles owes no small measure of her astonishing growth, her rapidly increasingly wealth and commercial stranding, her desirable American population, to the acknowledged high efficiency of her public school system.[51]

Keeping up with ever-expanding enrollment figures remained a struggle, however. By the end of the 1910s, high enrollment and little funding for new facilities had again led to overcrowded classrooms and the need for half-day sessions. In April 1919, the Los Angeles Board of Education took temporary measures, building 30 bungalows to relieve the overcrowding, in advance of bond funding for a wider building campaign.



Figures 63 and 64. Spread-out plan and Renaissance Revival style of University High School (1924), west Los Angeles. Source: LAUSD University High School Pre-Planning Survey, 2011.

The 1920s brought dramatic expansion in school construction. By 1927, $60 million in bond issues had been sold for the construction of new schools, as well as additions to existing facilities. More than 200 permanent facilities were constructed in 6 years. As a reporter for the *Los Angeles Times* wrote in 1927,

> Los Angeles is in many respects such a super city that it is difficult to write about her without using superlatives. In speaking of her public schools, however, one may be pardoned—especially an outsider—for according them high praise, since they are the product of teachers and officers who are laboring unselfishly for the public good.[52]

Alfred S. Nibecker Jr. and the District Architecture and Building Department

Guiding the Los Angeles school districts through rapid expansion in 1920s, disaster and depression during the 1930s, and the great postwar boom through the mid-1950s was district architect and business manager Alfred S. Nibecker, Jr. In the 1920s, Nibecker began private practice in Los Angeles; he joined the Los Angeles City Board of Education as an architect in 1926, where he remained until his retirement in 1955. In his three-decade career with the school district, Nibecker oversaw the construction of, and contributed designs to, hundreds of school plant projects. Many commissions were completed by the district's in-house staff, but many others were handled by a range of the region's best architects and builders, with an increasing number of firms specializing in school design. In addition to his work with the Los Angeles City school districts, Nibecker was a fellow of the American Institute of Architects and served on the National Committee on School House Construction, the National Advisory Council on School Building Problems, run under the auspices of the U.S. Department of the Interior, Office of Education. In 1955, Nibecker was made an honorary member of the Structural Engineers Association of Southern California, the association's highest award.

Building Code Reform

New building codes attempted to keep pace with the construction boom and ensure safety. In 1914, with the focus still on fire hazards, Los Angeles voters approved a law requiring the replacement of wood-framed schools with masonry structures. Of course, the vulnerability

of masonry construction to earthquakes was not yet fully known. Therefore, most schools constructed in Los Angeles post-1914 utilized masonry construction, with brick construction used for a majority of the new schools.

In 1925, in response to the devastating Santa Barbara earthquake, the state adopted new building codes aimed at strengthening seismic safety. In 1927, the City of Los Angeles followed suit and revised its local building ordinance and added supplemental steps and requirements to ensure the structural stability of schools. Improvements included fire-resistant corridors, stairs, and exterior walls and reinforced concrete beams within floors and roofs. When the March 1933 Long Beach earthquake hit, schools built after 1927, under the new requirements, proved more resilient than those constructed before the laws took effect.

As before, the new schools of the district generated much civic pride, with newspapers of the day praising new campuses for their beauty and modern facilities. As *Los Angeles Times* reporter Neeta Marquis wrote in 1928, "Let us of Los Angeles who often grow depressed at times over the inadequacies of our city administration in other departments take heart of grace from the efficiency and stability of the factory which is turned out our citizens of tomorrow, our public schools."[53]

The Roaring '20s and Enrollment Expansion

The basic shift in philosophy coincided with the continuing, remarkable expansion of Los Angeles, not only in terms of population growth but also geographical range. In anticipation of the ample water supply promised by the Los Angeles Aqueduct, constructed between 1908 and 1913, Los Angeles experienced rapid population and land growth through annexation of neighboring cities. As of 1910, the population of the City of Los Angeles stood at 319,000, and the area served by the Los Angeles City School District spanned more than 85 square miles, with more than 46,500 students enrolled. Within just 6 years, by 1916, enrollment in the Los Angeles City School District had nearly doubled to more than 78,000 students, and the expanse of the district quadrupled, growing from 85 square miles

Figures 65 and 66. Vernon City Elementary School (1929), with Spanish Colonial Revival arcades moving school corridors outside. Source: LAUSD Vernon City Elementary School Pre-Planning Survey, 2011.

Figure 67. One of Los Angeles's earliest middle schools, Lafayette Junior High School (1911), in 1925 photo. Located in southern downtown Los Angeles, the school closed in 1955 due to decreasing enrollment figures. Source: LAPL Photo Collection.

Figure 68. Winter 1933 class at Lafayette Junior High School. Source: LAPL Photo Collection.

to approximately 400.[54] Some areas annexed by the Los Angeles City School District already had schools to serve their own needs; more often, though, new schools were required. Between 1911 and 1915, a total of 22 schools had been annexed to the district, with an additional 31 elementary and high school buildings under construction.[55]

During the boom of the 1920s, Los Angeles film and aeronautics industries remained strong draws for new settlers. In one decade, between 1920 and 1930, Los Angeles's population doubled, climbing to 1.2 million, making the city the fifth largest in the United States. At a high point during the 1920s, new residential subdivisions were being established at the rate of 40 per week in the City of Los Angeles. By 1930, Los Angeles spanned 441 square miles.[56] This represented a twelvefold expansion in 30 years.

Concurrently, Los Angeles's public school enrollment grew nineteenfold during the 1920s. The construction boom in schools helped accommodate the enrollment increase, but the need for new schools and classrooms remained a constant issue. By 1933, the Los Angeles City School District included a student population of 300,000, attending 384 schools—293 of them elementary schools; 22 junior high schools; 32 senior high schools; and continuation, trade, and junior college facilities rounding out the remainder.[57]

Curriculum Shifts

The Los Angeles City school districts followed the curriculum modernization and reform trends seen in the rest of the United States. By the early 1910s, the city's public schools had made a decisive move "away from the uniformity that was so much prized at the turn of the century. Diversification now marked the schools and the officials made that fact known."[58]

The heart of reform was designing curricula that flexed according to the students—their abilities, needs, psychological well-being, and their inherent curiosity and love of learning. For example, the new course of study in elementary schools was based on the idea that

Figure 69. Central Junior High School, as of circa 1925. Located in downtown Los Angeles on Hill Street, this school closed in 1946. Source: LAPL Photo Collection.

"individuals should progress in accordance with their individual capacities" and was organized in "large units with the activity approach emphasized throughout."[59]

In 1911, Los Angeles established a new intermediate level for schools, launching the third junior high school system in the United States, behind Columbus, Ohio, and Berkeley, California. Vocational schools and junior colleges (as an extension of the high school curriculum) were also greatly expanded in this period.

Social Responsiveness and a Broadened Mission for Public Schools

In Los Angeles and elsewhere, this era saw a broadened role for public schools as community centers. Public education became more inclusive and socially responsive to underserved populations. During the first quarter of the twentieth century, a range of special-needs schools were established, including special facilities for the deaf, blind, physically disabled, or cognitively impaired; special facilities were also provided for children suffering from tuberculosis. National trends and legislation prompted the establishment of evening high schools, for adults seeking to broaden or finish their education; part-time high schools, to help meet the new requirement for working children between the ages of 14 and 18 to attend school part time; and vocational schools. Cafeterias and nurseries became part of schools—the first for nourishment, and the second to ensure that older children tasked with caring for younger siblings could attend school while their parents worked. Schools also offered assimilation and language programs for the city's significant immigrant population.

The first evening high school opened in 1907 in Los Angeles at the Polytechnic High School. Offered initially as a means for working adults to obtain a high school education or diploma, night schools blossomed in popularity; and by the post–World War I period, they served as informal community centers, with offerings expanding to include a variety of course offerings.

Legislative Reform and Public Education

The two other major changes to Los Angeles's public schools were prompted by legislation at the state and federal level. Beginning in the early 1910s, legislation began emerging throughout the United States making part-time school compulsory for teenagers. The first such law was introduced in Wisconsin in 1911, with California following in 1919.

In 1913, a presidential commission was formed to assess the need for vocational training throughout the United States. One of the results of this commission was the 1917 Smith-Hughes Act, which, among other things, initiated new compulsory education requirements for school-aged children and provided federal funding for vocational schools and coursework, in particular in agriculture. In Los Angeles, specialized vocational training had been available as early as 1905, with Polytechnic High School. Throughout the early part of the twentieth century, technical schools offered specialized coursework, such as commercial courses at Polytechnic, industrial and household arts at the Manual Arts High Schools, and agriculture at Gardena High School.[60]

The state law that emerged from the Smith-Hughes Act required that all working children between the ages of 14 and 18 attend a minimum of 144 hours of class instruction per year.[61] In 1920, in response, Los Angeles public schools launched a program in part-time education, making use of "a large number of rented locations."[62] In 1926, Los Angeles's largest part-time high school—aptly named the Part-Time High School—became Metropolitan High School (located at 234 W. Venice Boulevard in Los Angeles, the campus became the Los Angeles Metropolitan Junior College in 1950).

Figure 70. Frank Wiggins Trade School, circa 1925. Located in downtown Los Angeles on Olive Street, this school closed in 1951. Source: USC Digital Archive.

The Frank Wiggins Trade School, the first of its kind in the district, was established in 1925 on Grand Avenue in downtown Los Angeles (though it was relocated in 1927 to South Olive Street). Named for the longtime secretary of the Los Angeles Chamber of Commerce, the Frank Wiggins Trade School provided a course of adult education in specific vocations and placement of students in the

occupations for which they had been trained. Among its other curricula, the school offered the first professional culinary training program in the nation, an offshoot of the home economics program. The trade school evolved into the Los Angeles Trade-Technical College, still operational today as part of the nine campus, 882-square-mile Los Angeles Community College District.

The establishment of the District's first junior college in 1929 was represented as the crowning accomplishment of the administration then in office. The school district purchased the Vermont Avenue campus of the former State Normal School when it relocated to Westwood and established the Los Angeles Junior College, which was an immediate success. The curriculum constituted the freshman and sophomore years of college and included semiprofessional courses for students interested in a 2-year education, as well as certificate work for those planning to qualify for subsequent admission to a university.

Together with trade schools, junior colleges filled an important social need by supplying focused adult education and career training during the Depression years, and enrollment steadily increased as the war approached.

Figure 71. Susan Miller Dorsey High School (1937), extant in mid-city Los Angeles near Baldwin Hills. The school's yearbook, "Circle," took its name from the innovative site plan and arc of outdoor corridors. Source: Circle, Dorsey High School Yearbook, 1942.

C. ERA OF REFORM: GREAT DEPRESSION, EARTHQUAKE, AND EARLY EXPERIMENTS IN THE FUNCTIONALIST SCHOOL, 1933 TO 1945

"The old school was primarily designed to impress the adult and the new school primarily designed to impress and provide comfort to the pupil."
—William Wayne Caudill, *Better Design for Schools*, 1954

NATIONAL CONTEXT | DEVELOPMENTS

In the simple epigraph above, architect William Wayne Caudill (1914–1983) captured the evolving ideas about twentieth-century school design. Traditional schools had often been built as self-contained, monumental blocks, in Classical Revival and Beaux Arts–inspired styles designed to impart prestige. In the first quarter of the twentieth century, reformers started moving away from the multistory, block-style school in favor of a more flexible, program-differentiated school plant.

Figure 72. Indoor-outdoor classroom, Corona Avenue Elementary School, Richard Neutra, 1935. Extant in Bell, California, south of Los Angeles. Source: USC Digital Archive.

The reform movement was not concerned with bringing modernist style, per se, to school plant design. The real push was for a more "functional" school. If the function of a school was educating children—and if educational methods and curricula had improved and evolved—then school plant design had to evolve as well. Building plans, campuses, and interiors were increasingly designed to be more child-centered and flexible: "The broadening curriculum, the more active methods of learning, and emphasis upon doing and working with things rather than merely studying books—all have focused attention upon the importance of the physical environment."[63]

Continuing the trend begun in the 1920s, integration of classrooms with the outdoors became one key factor for school plant improvement. The early-twentieth-century recognition of the importance of children's playgrounds and an increasing emphasis on the benefits of outdoor living fueled this movement. Wrote Elizabeth Mock in 1943, "If we grant the importance of encouraging the child's awareness of nature along with his sense of freedom, we can then understand the present tendency towards ground-level classrooms, each with its own door to the outside and its adjacent outdoor class area."[64]

Numerous proposals were forwarded for including more indoor-outdoor connections for classrooms and campuses, whether through the use of patios, courtyards, or playing fields. So central was the concern for outdoor classrooms and recreation that, by the 1930s, the trend became known as the "open-air school" movement, with its emphasis on "air, light, outdoor learning, and easy circulation through the school buildings."[65] Site planning was also carried out with an eye toward environmental factors, such as sun patterns, interior cross-lighting, and ventilation. With its mild climate and room to grow, Southern California pioneered some of the nation's best and earliest examples of open-air schools in the 1930s.[66]

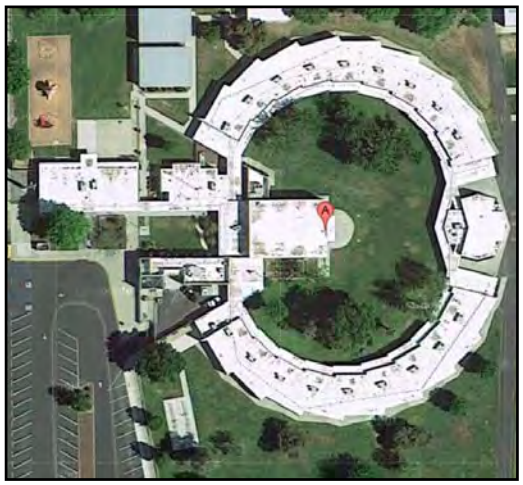


Figure 73. Richard J. Neutra School, Lemoore, California (Central Valley), 1960, based on Neutra's 1928 design. Source: Google Maps, 2013.

As in the 1920s, schools continued to play an increasingly important role as gathering places for the community. This was reflected in campus site planning, with auditoriums sited for public accessibility and separate entrances allowing for school-time access by the public that would not interrupt studies. Architects, designers, and school staff actively sought ways to adapt schools to this expanded function within the community, and innovations in this regard were amply noted in the education- and architecture-related trade magazines.

In the 1930s, an expanding field of research in the building sciences aided those tasked with designing comfortable classrooms for children. Controlling, designing for, and regulating the environmental conditions of classrooms became the topic of numerous studies, including in the science of proper lighting, ventilation, and safety systems (the field of acoustics came into play in the postwar period).

A new focus on defining and better understanding building typologies and their specific needs also grew out of this era, with the idea of creating better environments and lowering costs through standardization.[67]

Figure 74. Hollywood High School, Marsh, Smith & Powell (1935), in 1939 photo. The school is still located in Hollywood on Sunset Boulevard and Highland Avenues. Source: LAPL Photo Collection.

Figure 75. Thomas Jefferson High School, Stiles O. Clements, 1936 image. Extant in south Los Angeles, on East 41st Street. Source: LAPL Photo Collection.

By the mid-1930s, the advent of the New Deal and the PWA (later the Works Progress Administration) sponsored a generation of new building. Throughout the United States, PWA funding helped buoy school construction during the Great Depression, with approximately 70 percent of all new school construction in the 1930s funded through the agency.[68] In Southern California, following the 1933 Long Beach earthquake and the urgent need for new facilities (described in detail below), PWA funding for school construction and reconstruction totaled over $13 million, a sum accounting for 62 percent of the spending overall.[69]

Throughout the United States, PWA buildings, including dozens of schools, became known for their distinctive Streamline Moderne styling. In Southern California, Streamline Moderne ideas were also applied to historic-eclectic styles that had been popular in the 1920s, creating new stylistic hybrids.

EFFECTS ON SCHOOL BUILDINGS AND CAMPUSES

The Functionalist, Modern Movement in School Design

By the 1930s, progressive educational reform had brought major changes: teaching methods and materials were becoming more hands-on, practical, and engaged; and the environments for learning were themselves transformed to facilitate the new ideas. As architectural historian Amy Ogata wrote, "Historians of education are still divided on the real impact of progressivism on American education, but its effect on the architectural discourse was profound and enduring."[70]

Compared with school buildings and campuses just a decade before, schools were increasingly nonmonumental in their scale, site plan, and design. One-story buildings were increasingly used for all grade levels, in particular for elementary schools. In a companion piece to the Museum of Modern Art exhibit *Modern Architecture for the Modern School*, Elizabeth Mock wrote in 1943 that "if the architect is guided primarily by his desire to create a building for children, the result will almost certainly be a one-story school, built as close to the ground as possible. This is the easiest way to open each room to the outside, and the easiest way to attain suitable scale."[71]

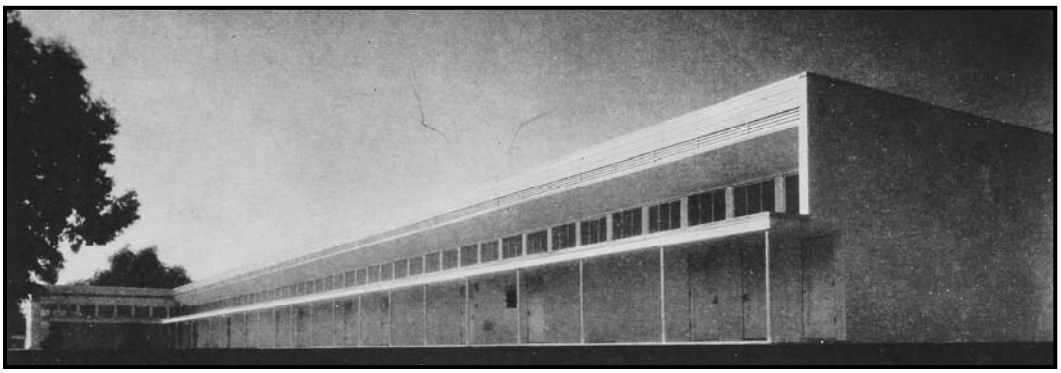


Figure 76. Richard Neutra's Corona Avenue Elementary School addition, 1934/1935. Extant in Bell, California, southeast of downtown Los Angeles. Source: Built in USA, 1944.

The emergence of modern architectural design provided a quantum leap forward for this new wave of reform. Modernism embraced honesty in structure and materials and a functional design driven not by a given style or ornamental program but by the building's purpose. By the postwar period, this debate had been settled, and modernism did become the preferred (though not exclusive) idiom for American school plants. But in the 1930s, this movement, which brought together ideas about educational reform, modern architecture, and research in building sciences, was just taking root.

William Edmond Lescaze

One architect who actively advocated for a more modern, functional approach to school design in the 1930s was William Edmond Lescaze (1896–1969). Between 1929 and 1932, Lescaze, along with partner George Howe (1886–1955), designed one of the era's most significant modern buildings in the United States, the Philadelphia Savings Fund Society building, considered to be the country's first example of a skyscraper in the International Style.[72] In the mid-1930s, Lescaze published articles in architectural magazines as well as specialized education-related trade journals to argue for more functionalist, modern schools:

> If buildings have an influence on us, should we not insist that our school buildings work well, and be good looking? Of course we should. But do they work well, and are they good looking? Alas, no! Most of the schools are massive, uninspiring, uninviting buildings. Pediments of limestone, a few columns and, when we can afford them, a tower or a cupola! Just as you may order lettuce salad with French dressing or mayonnaise, you may have a school building Gothic or Colonial!
>
> There can be no school planning worthy of the name unless the functions of the building are clearly understood, clearly expressed: and that understanding, expressing clearly the functions of a building, has been achieved by all good architecture in the past, and is what modern architecture is today attempting to achieve.[73]

Figure 77. Corona Avenue Elementary School, 1935. Source: LAPL Photo Collection.

Figure 78. Same outdoor classrooms, circa 1950. Source: Getty Research Institute, Shulman Archives.

The key to this, Lescaze argued, was moving beyond historic eclecticism:

> Modern functions cannot be fitted into old forms, nor can twentieth-century "uses" be combined with twelfth-century "beauties"! The buildings of the past are beautiful not because they are a "style." They are beautiful because the men responsible for them devoted all their skill, their taste, their understanding, to fulfilling the purposes, the functions, of these buildings. In other words, these buildings grew out of the life of their time, to meet the requirements of their time. And that is exactly what our buildings must do.[74]

Richard Neutra

As of 1936, Lescaze wrote, there was only one truly modern school building in the United States: Richard Neutra's 1934/1935 Corona Bell Elementary School in Los Angeles. Like Lescaze, Neutra (1892–1970) was European-born and educated and had come to the United States in the 1920s. Neutra had long been working on the problem of the modern school plant, with a philosophy steeped in Progressive-era notions of deinstitutionalizing the classroom. As Esther McCoy wrote, Neutra's ideas about school design

> grew out of the conviction that tensions begin to accumulate in a child when he is taken from the home and living room into a school and classroom, to be moored to the floor, and forced to look up at a teacher sitting above him on a platform. … Neutra saw great advantages in classrooms, especially for elementary grades, which resembled living rooms filled with group action—but a living room such as only a handful of architects had conceived at that time, one connected to a patio by a movable glass front.[75]

In 1928, Neutra had proposed a ring-plan school consisting of an outdoor, sheltered corridor providing circulation and access to finger-like classroom wings separated by landscaped patios and gardens. The elliptical plan was inventive and practical, as it made use of a compact lot and shortened distances between classrooms. (The plan was radical for 1928 but perfectly in the spirit of the times by 1960, when it was constructed as the Richard J. Neutra School by Neutra and his partner Robert Alexander in Lemoore, California.)

Figure 79. Emerson Junior High (now Middle) School, Richard Neutra, 1937, Los Angeles. This school is extant and located on Selby Avenue near Santa Monica Boulevard in west Los Angeles. Source: Julius Shulman Archives, J. Paul Getty Trust, Getty Research Institute.

Figure 80. Seamless connections between classrooms and outside patios. Emerson Middle School, 1937. Source: Julius Shulman Archives, J. Paul Getty Trust, Getty Research Institute.

Figure 81. Richard Neutra's Emerson Middle School (1937), extant, west Los Angeles. Source: LAPL Photo Collection.

In 1934, Neutra was given the opportunity to translate theory into practice. In the wake of the Long Beach earthquake, the architect was chosen to design an addition for the Corona Avenue Elementary School. His simple, L-shaped plan quickly became a prototype for Californian (and American) schools and "a classic in its field."[76]

The addition consists of a linear, one-story wing of single classrooms. On one side, covered passageways provide circulation corridors and, as Esther McCoy noted, evoke the arcades of Spanish Colonial architecture. On the west elevation, sliding glass walls provide direct access to outdoor play areas and classrooms. Landscaping creates divisions between classes, and 6-foot roof eaves provide shelter and transitional space. With this, Neutra perfectly melded outside and in and presaged the ways in which postwar architects would create seamless indoor-outdoor spaces.

The construction system of earthquake-friendly wood framing with generous expanses of single-pane windows adds to the sense of weightlessness and integration with the site. With a band of high clerestories on one side and full-length windows on the other, Neutra controlled classroom illumination and provided cross-ventilation. As McCoy wrote, the Corona School "banished the 'listening classroom,' which had its effect upon education methods, for the teacher became a part of the group as soon as students were no longer restricted to fixed seats."[77]

As the decade progressed, the ideas of architects like Lescaze and Neutra started to take hold. In 1937, Neutra designed a second pioneering example of a functionalist school plant, with the steel-framed Ralph Waldo Emerson Junior High School in Los Angeles. In this school, the architect continued the same themes of indoor-outdoor integration on a more constricted urban site. Emerson Junior High's "basic plan organization and massing are clearly expressive of function, with classrooms efficiently organized along double-loaded hallways in freely arranged wings. … The restrictions of the site are compensated by Neutra's inventive plan, making use of outdoor spaces, like a rooftop, for outdoor access."[78] As with the Corona Avenue project, Neutra created seamless connections between classrooms and patios with movable walls and landscaping.

Franklin & Kump and Finger-Plan Schools

Beyond Los Angeles in this era, other prototypes that became influential in the postwar period were under construction. One of the most important of these was Franklin & Kump and Associates' Acalanes Union High School in Lafayette, California, east of San Francisco. Franklin & Kump's rational "finger-plan" school perfectly captured the ideas of the day and became the most common school plan typology in the United States in the 1940s.

Constructed in 1939/1940, Acalanes Union High School was designed for a large rural site, with one-story wings extending outward in finger-like wings. Classrooms consist of open lofts with adjustable plywood partitions dividing the interiors. The pavilion-like site plan, low scale, and finger-like classrooms provide ample opportunities for outdoor access.

As with Neutra's early experiments, Acalanes Union High School moved interior hallways outside, with sheltered outdoor corridors throughout the campus. A recessed terrace off the dining room provided outdoor seating areas for lunch, and lockers were installed on exterior walls. The finger-like plan also allowed for cross-lighting and ventilation for each classroom. To the north, students enjoyed outdoor views through full-length windows. To the south, bands of high clerestory lights provided balanced illumination without glare.

Modular design and construction allowed for easy expansion of the school as enrollment increased. The campus included a variety of facilities, including gymnasium and playing fields, workshops, dining room, a network of classroom wings, and a parking area, all

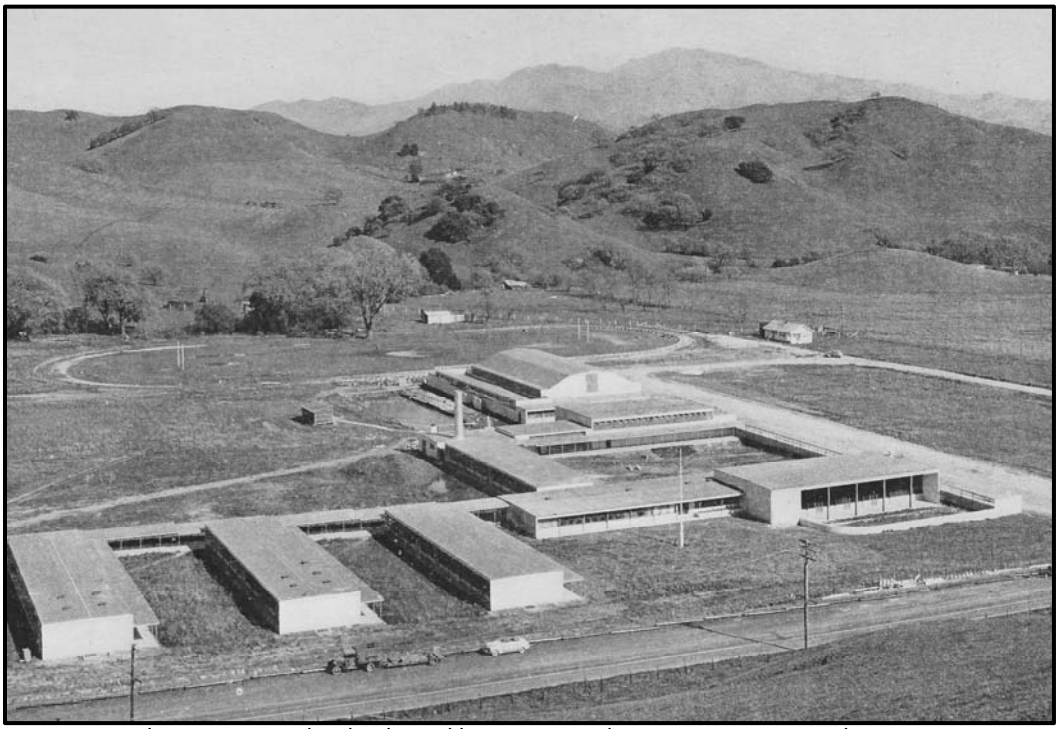


Figure 82. Acalanes Union High School, Franklin & Kump and Associates. Source: Built in USA, 1944.

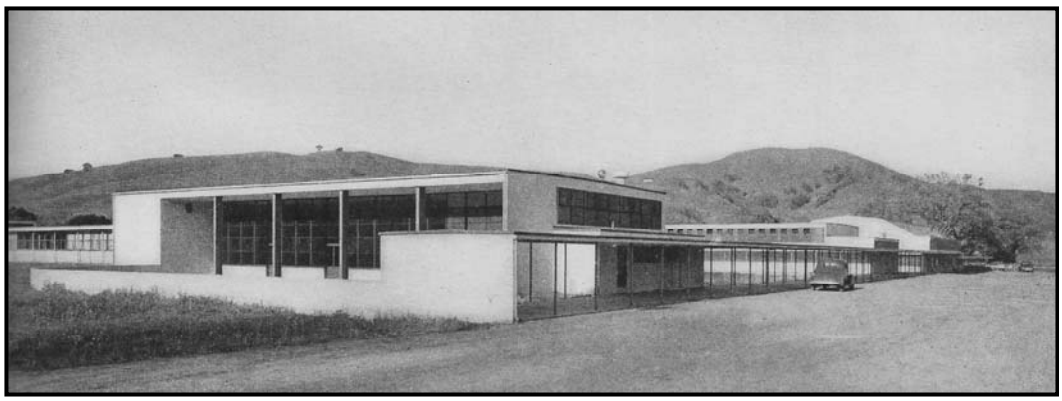


Figure 83. Franklin & Kump and Associates, Acalanes Union High School, Lafayette, California, 1939/1940. Source: Built in USA, 1944.

configured in a unified site plan. In keeping with 1930s planning trends, pedestrians and automobiles were separated through the use of a 500-foot-long canopied passageway, which connects the street and drop-off areas with the school entrance.

Although Franklin & Kump's school was published nationally on multiple occasions prior to 1945, it was in the postwar era that the school typology and plan took off. Pre-1945, Elizabeth Mock included the school in *Built in USA*, the Museum of Modern Art's 1944 exhibit and publication showcasing American regional modernism. Acalanes Union High School was one of only three other schools constructed between 1932 and 1944 included in the volume (Neutra's Corona Avenue project was among them).

Also included in the Museum of Modern Art's *Built in USA* was Eliel and Eero Saarinen's 1939/1940 Crow Island Elementary School in Winnetka, Illinois. Crow Island was another early experiment in how to interpret new ideas about education into function-driven, modern schools. The Saarinens, along with Perkins, Wheeler, and Will, proposed a domestic-scaled modular school, with an innovative pin-wheel plan, finger-like classrooms, plentiful opportunities for outdoor play, cross-lighting, and ventilation. This plan also was widely published and imitated in the postwar period.

Figure 84. Another highly influential pre-1945 modern, functional school design: Eliel and Eero Saarinen's Crow Island Elementary School in Winnetka, Illinois, 1939/1940. Source: Built in USA, 1944.

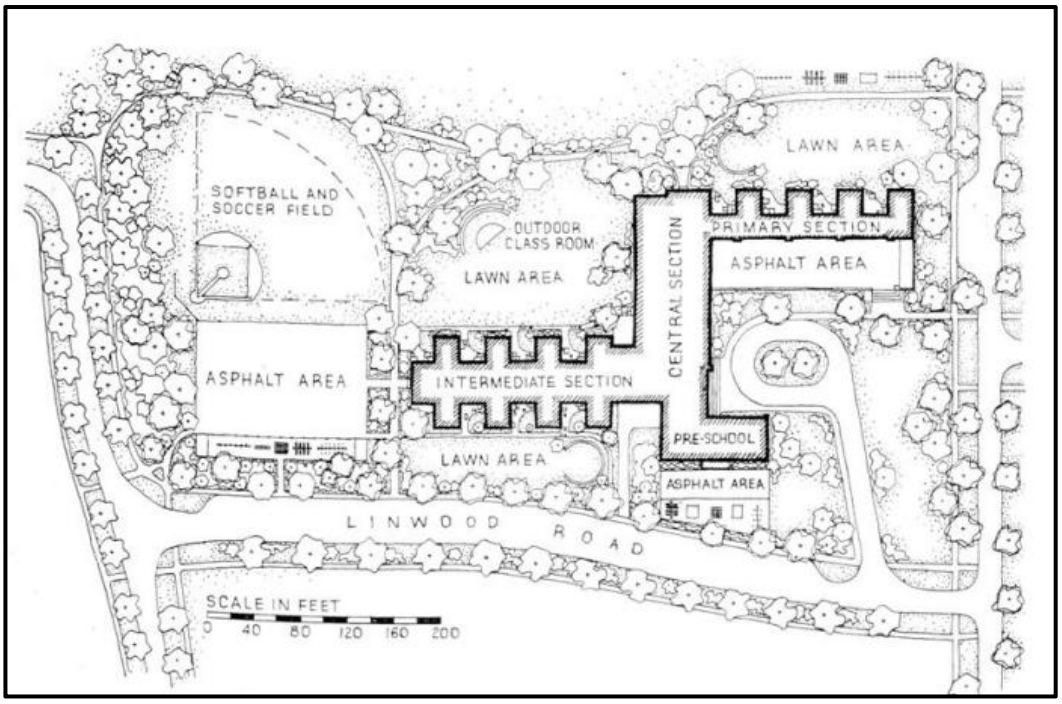


Figure 85. Plan, Eliel and Eero Saarinen's Crow Island Elementary School. Source: Built in USA, 1944.

Figures 86 and 87. Hollywood High School, Science Building, Marsh, Smith & Powell (1935), in 1939 (left) and 2002 (right). Extant in Hollywood, on Sunset Boulevard and Highland Avenue. Source: LAPL Photo Collection and LAUSD.

Post–Long Beach Earthquake: The Era of the PWA Moderne | Streamline Moderne

Not all examples of the functional school plant were modernist in the sense of being antihistoricist. Most 1930s schools continued to display stylistic programs and ornamentation, though tastes had shifted to PWA Moderne, Streamline Moderne, Art Deco, and streamlined versions of historic-eclectic styles, such as the Spanish Colonial Revival. School plants embracing the new ideas might express their function clearly, with a differentiated, unified campus plan, but they might also display a specific style. These examples were widely praised and published as representative of the 1930's movement toward more functional school plants.

Several of the most significant Southern Californian firms to point the way forward in this regard on a national scale were James Edward and David Clark Allison; Sumner Spaulding and John Rex; Donald and John Parkinson; and Norman Marsh, David Smith and Herbert James Powell (later Marsh, Smith and Morgridge). During this era, these firms, among others, participated actively in school construction, designing more functional, child-centered, open-air schools that were also historicist to varying degrees.

In the postwar period, Spaulding & Rex, Marsh, Smith & Powell, and the successor firm to the Parkinsons' partnership continued to play an active role in school plant design, by then in stylistic idioms that forwarded the cause of modernism.

Marsh, Smith and Powell

During the 1930s and early 1940s, Marsh, Smith and Powell designed numerous school commissions that garnered national attention. Their work brought together the latest ideas in functional site plans and child-centered buildings and classrooms, with the all-important indoor-outdoor spaces and connections. The same issue of *Architectural Record* featuring Lescaze's 1936 call to American architects used a Marsh, Smith and Powell school, Roosevelt Elementary School in Santa Monica, to illustrate the new trends.

Figure 88. Post–Long Beach earthquake reconstruction at Manual Arts High School, Parkinson & Parkinson, circa 1935. Extant in mid-city Los Angeles, on South Vermont Avenue and West Martin Luther King Jr. Boulevard. Source: LAPL Photo Collection.

Figure 89. Manual Arts High School, Parkinson & Parkinson, circa 1935. Source: LAUSD.

The firm, consisting of Norman Foote Marsh, David D. Smith, and Herbert James Powell, was also featured in a 1938 issue of *Architect and Engineer* in order to illustrate the "progress" made in American school design during the decade: "The architects of California can well take pride in that which has been accomplished during the last twenty-five years. Their school buildings are beautiful—they are practical, they are utilitarian, and they are economical. To the credit of the architectural profession, the architecture of educational buildings has kept abreast with the progress of education."[79]

Los Angeles City School District's The Progressive Elementary School: A Handbook

Southern California's version of the open-air, functional school was also brought to a national audience in 1938's *The Progressive Elementary School: A Handbook for Principals, Teachers and Parents*. The guidebook was written by Robert Hill Lane, the assistant superintendent of schools in Los Angeles and vice president of the Progressive Education Association. Published by Houghton Mifflin Company and prepared in conjunction with the Los Angeles City School District and State Department of Education, Lane's handbook explored the region's array of modern, functional, open-air school plants.

The handbook drew on the wealth of post–Long Beach earthquake examples with numerous illustrations and plates. It also described the philosophical underpinnings of the movement: the desire to create more child-friendly, inviting schools and classrooms. The handbook was one of many primers and guides on modern schools, but *The Progressive Elementary School* brought Los Angeles school plant design to a national audience.

The trend continued away from the institutional, monumental school block and toward more approachable, flexible facilities and plants. A few years before the end of World War II, the movement had footholds throughout the United States, just in time to decisively shape the character of schools designed during the postwar building boom. As one commentator noted in 1942,

> Here and there throughout the country there appear signs of another basic change in school architecture. It is primarily a movement away from the monumentalism of the past four decades. People are not using their school buildings to sell their communities. The school building is being developed as a more intimate and better integrated element of the community, a place closely association with child and adult living.[80]

The era of reform in progressive educational methods and school plants had thus come of age by the end of the Great Depression and just prior to 1945. Many prototypes and proposals emerged throughout the 1930s, with many examples from Southern California. By the time the war ended and construction began in earnest, these pre-1945 examples suggested the direction and the future shape of the modern, functional American school plant.

Figure 90. Franklin Junior High School, Long Beach, March 1933. Source: National Information Service for Earthquake Engineering, University of California, Berkeley.

LOS ANGELES CITY SCHOOL DISTRICTS | CONTEXT AND DEVELOPMENTS

Long Beach Earthquake and the Field Act

The March 1933 Long Beach earthquake was one of the decade's most significant events for the region's built environment. The 6.5-magnitude earthquake caused significant damage and losses; in Long Beach, more than two-thirds of the city's schools were in need of demolition and reconstruction.[81] In Los Angeles, 40 unreinforced masonry school buildings were destroyed.[82] In addition, after a survey of Los Angeles schools within 10 days of the earthquake, all damaged or "precariously placed" chimneys, parapets, fire walls, and ornamentation were removed. Fortunately, the earthquake took place when school was not in session.

The Long Beach earthquake posed a disaster for the district but also an opportunity for the region's architects. While change and reform in school plant design were already underway, the Long Beach earthquake and the mini–school construction boom it triggered provided ample opportunities to test new ideas about school architecture and campus planning in Southern California.

These changes also affected the state overall. One month following the earthquake, through the efforts of California Assembly member Charles Field, the State of California adopted the Field Act. Similar legislation had already been passed following the 1925 earthquake in the City of Santa Barbara. With this, the state had adopted building codes tailored to upgrading seismic stability. In 1927, the City of Los Angeles revised its own City Building Ordinance and adopted additional requirements for schoolhouse construction. All new construction after 1927 adopted the updated building codes, which included requirements for fire-resistant corridors, stairs, and exterior walls and for reinforced concrete beams within floors and roofs. By the time the 1933 earthquake struck, these post-1927 schools indeed proved more resilient.

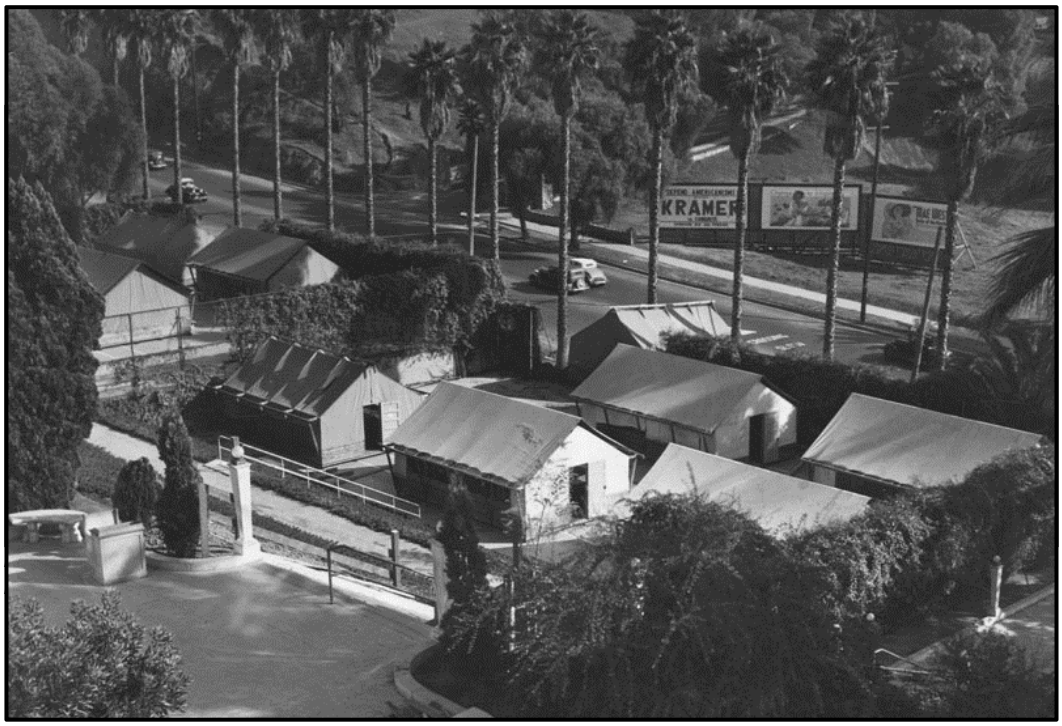


Figure 91. October 1934, Lincoln High Tent Village, awaiting reconstruction of classrooms. Source: LAPL Photo Collection.

Through the Field Act, the lessons learned in the Long Beach earthquake were used to further strengthen school building codes. The law directed the State Division of Architecture to design and enforce regulations to ensure earthquake-resistant buildings. State oversight and implementation of building codes/construction inspections were also established. Additionally, the City of Los Angeles Board of Education again revisited its own building codes. Post-1933 elementary school buildings were not to exceed one story in height, and high school buildings were limited to two stories (this would change over time, given the tremendous demand for classroom space in the postwar period and relative scarcity and expense of large lots). New buildings incorporated the latest construction techniques and prominently showcased the use of modern materials such as steel and reinforced concrete. On sites where soil load-bearing properties were found to be too low for steel and concrete, demolished schools were replaced with relatively earthquake-resistant wood-frame buildings. In cases where damaged buildings were rehabilitated, methods included installing reinforcing steel columns, beams, and diagonal bracing, exterior refacing with reinforced gunite and installation of reinforced concrete walls.

Some of the requirements of the Field Act were well aligned with the goals of progressive architects for more child-scaled, one-story schools. In a 1942 article on modern trends in school architecture, one commentator observed the overlapping influences: "Much emphasis has been given to the open plan in California. It is possible that this development has not grown so much from changing educational practice as it has from structural needs."[83] The author's insight had come from an *Architectural Record* article on a new

"open plan" school in El Monte, California. As *Architectural Record* pointed out, however, "'Two factors determined the choice of open plan, with departments housed in separate structures: the local soil-bearing value was very low; the buildings had to be designed to resist earthquake stresses.'"[84] In this way, the new requirements were compatible with the trend of the times toward one-story, open-plan buildings and campuses.

PWA Funding and the Post–Long Beach Earthquake Building Boom for Schools

Following the earthquake, the district planned for phased reconstruction. Available at the time were a total of $5.3 million in unsold bonds. The PWA purchased the bonds and granted additional matching funds for school reconstruction efforts. A total of $12.1 million was ultimately raised for the 1933 to 1935 reconstruction program. Approximately $250,000 funded the construction of temporary classroom housing, in order to minimize the interruption of the school year. An estimated 879 tents and 139 bungalows were initially erected to house the district's enrollment of 300,000 students.

As the school reconstruction program progressed, final steps included reinforcing or replacing 132 unreinforced masonry buildings, strengthening 275 buildings constructed since 1927, replacing 51 wood-frame buildings, and eliminating all temporary classroom housing. By 1937, over $34 million had been spent on post-earthquake school construction, repairs, retrofitting, and rehabilitation. The advent of World War II put substantial investments in schools on hold (after war's end, a $75 million bond issue kick-started these efforts).

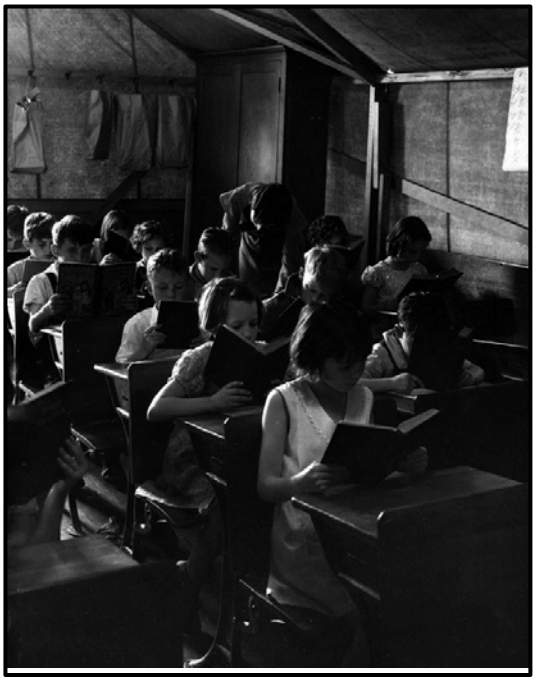


Figure 92. Children attending school in tents, one year following the Long Beach earthquake, March 1934. Source: LAPL Photo Collection.

As reconstruction began, Los Angeles City school districts intended to build new seismically sound buildings but also facilities with regionally inflected styles. As the *Los Angeles Times* reported in 1934, new and repaired buildings would be designed for "absolute safety with simplicity and beauty of architecture in harmony with the atmosphere and traditions of Southern California."[85] Many designs were executed by the district's architectural department, under the direction of Alfred Nibecker, but bids were also issued to outside architects, with the intention of awarding the work to a wide field of architects. In addition, new buildings were to be explicitly Southern Californian in design but "free of needless ornamentation."[86] This represented a move away from 1920s period-

Figure 93. Reseda Elementary School, 1936. The spare Mission Revival style was in keeping with the post-Long Beach earthquake trend to design in the "traditional Southern Californian" mode. This school is extant and located on Wyandotte Street, Reseda, San Fernando Valley. Source: LAUSD.

Figure 94. South Gate Middle School, 1941. A streamlined mix of Moderne, classical and modern elements. This school is extant and located on Firestone Boulevard, South Gate. Source: LAUSD.

revival styles but also a nod to earthquake safety, since applied ornament often failed and fell to the ground during earthquakes.

Early Experiments with the Finger-Plan School

Other school plants began exploring the new currents in modern, function-driven design. Henry L. Gogerty and C. E. Noerenberg's Susan Miller Dorsey High School is one such example. While the 1937 design drew inspiration from the PWA Moderne, the classrooms, patio spaces, and radial site plan, with classrooms extending outward like spokes of a wheel, were innovative for the time. With this site plan, the architects created an early form of condensed finger-plan school, which made use of a smaller site but provided the ample air, cross-lighting, and outdoor access possible with one-story finger-like classrooms. A circular outdoor corridor, sheltered beneath wide overhanging eaves with thin post supports, acted as the outdoor hallway for the campus, providing circulation to all classrooms and the main entrance. Adopting the language of functionalist reform, *Southwest Builder and Contractor* praised how the designs "architecturally and structurally express in functional form the outer envelope of a process of public education."[87]

Figure 95. Susan Miller Dorsey High School, 1937, Gogerty and Noerenberg, mid-city Los Angeles. Adopting the language of formalist reform, Southwest Builder and Contractor *praised how the design expressed "in functional form the outer envelope of a process of public education." Source: LAUSD.*

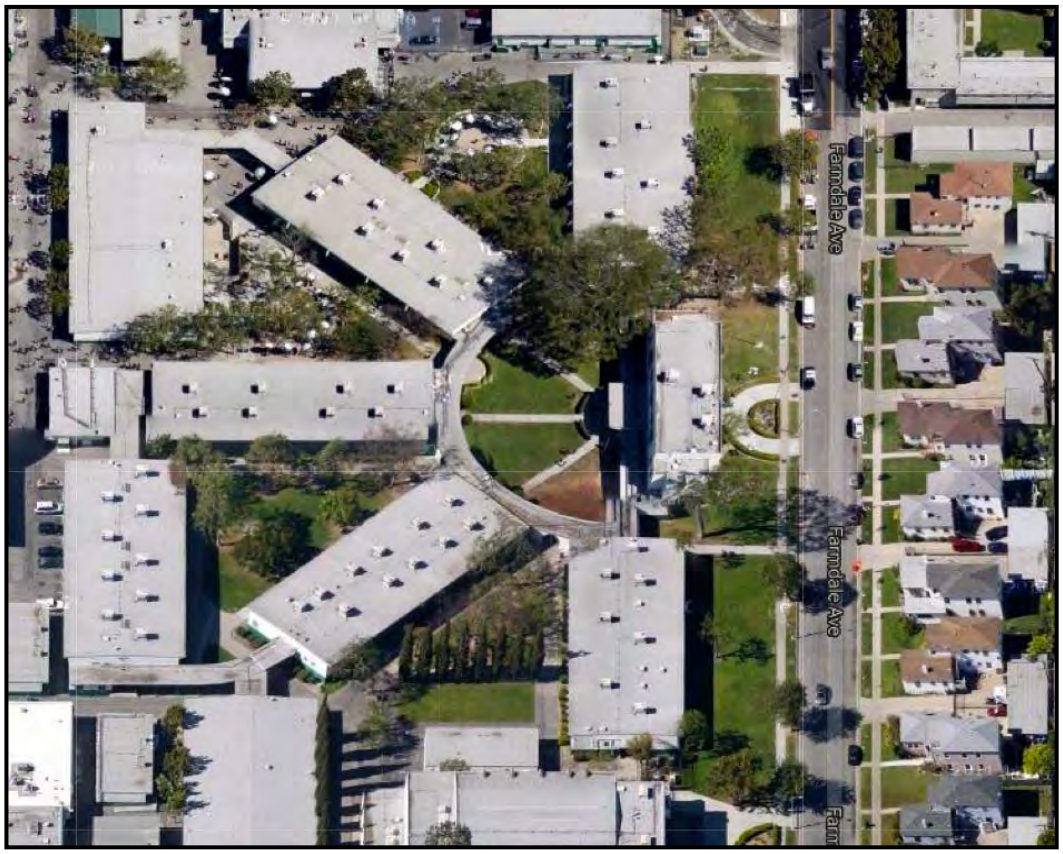


Figure 96. The inventive site plan and semicircle corridors of Dorsey High School. Source: Google Maps, 2013.

Great Depression and World War II: Curriculum Shifts

Just as the Long Beach earthquake struck in 1933, the Great Depression hit its nadir, and within the decade, the advent of World War II brought another round of readjustment. This period brought many changes to the operations and curricula of Los Angeles's public schools. Overall the decade was characterized by experimentation and liberalization of the curricula, in particular for secondary students. The general trend moved away from college preparatory studies and toward a more generalized program. Courses and new areas of emphasis came to reflect the realities of the era and the individual needs of students. A few examples include the expansion of social studies courses to consider contemporary issues and problems and a shift in the sciences toward more applied topics, aimed at the consumer rather than the future researcher.[88]

Through this era, the notion of the public school as an important gathering place for the community took a new turn. Schools became the focal point for a number of initiatives aimed at mitigating the social costs of the Great Depression, and later at supporting the troops during World War II.

By 1935, two federal programs had been launched that ultimately had a significant presence in Los Angeles public schools: the Emergency Education Program and the National Young Administration. Established in 1933, the Emergency Education Program provided federal

Figure 97. Lincoln High School War Bond Drive, 1945. Source: LAPL Photo Collection.

Figure 98. The women of Frank Wiggins Trade School, 1943. Source: LAPL Photo Collection.

funding to hire unemployed teachers to provide instruction to adults. With this, teachers were again gainfully employed and adults were able to further their training and education. By 1934, Los Angeles public schools provided approximately 200 such classes at 52 different campuses.[89]

In 1935, Congress authorized the National Youth Administration (NYA) program, aimed at providing jobs to teenagers and young adults in order to help them remain in school. The program was open to those aged 16 to 25, who earned no more than $6 a month. Through the NYA, Los Angeles public schools provided employment to thousands of students. After World War II began, this program continued but shifted its focus to defense-related classes.

Los Angeles Public Schools and World War II

World War II brought another round of adjustments to an educational system already reeling from the Great Depression. The focus on every front of American life for defense-related support brought major shifts. New classes for secondary students included defense-related training and specialized programs in aircraft recognition and aviation mechanics. At the city's vocational schools, applied skills were emphasized. The Frank Wiggins Trade School began teaching auto mechanics to female students, since the "war has taken away many a guy with the monkey wrench, and so today industrial schools are opening new courses for

women auto mechanics to fill the gap."[90] Coursework during the war and immediately after reflected the sociopolitical background of the time, with school districts offering programs in democratic systems of government, the functions of the United Nations, and, for a short time, "moral and spiritual values."[91] Geography courses took on a more international view, exposing students to a wider array of countries around the world.

The war also impacted activities in the city's elementary schools, where students were given opportunities to participate in a variety of war-related drives and programs. By 1942, Los Angeles City school districts had created nearly 30 different ways for students to support the war effort. The goal was organizing "every school so that each pupil and teacher had a part in supporting the war program" and inspiring "each child to be so patriotic that he would, of his own volition, carry on a program which would help the war effort."[92]

Figure 99. World War II in the Los Angeles public schools: materials drive, Crescent Heights Boulevard Elementary School, circa 1943. Source: LAPL Photo Collection.

Figure 100. Victory Garden at Manual Arts High School, 1942: "Students in a gardening class at Manual Arts High School learning about vegetables. The students and teachers during the spring term of 1942 had over 500 Victory Gardens to help in the war effort." Source: LAPL Photo Collection.

Two federal programs brought significant changes to the operations and curricula of Los Angeles public schools. The first program was the National Defense Training (NDT) program, which provided $15 million to American schools, $400,000 of which went to Los Angeles, for vocational and war-related training programs. Congress authorized the program in 1940 (before the U.S. entry into the war); by September 1940, the Los Angeles Board of Education had launched programs in 13 high schools and 10 evening high schools. Training programs included welding and shipbuilding, mechanics, and aircraft production and maintenance. The program continued to grow, and by 1942, Los Angeles City public schools housed the largest NDT program in the United States.[93] In August 1942, the NDT program because the War Production Training program.

In 1942, following the U.S. entry into the war, Congress established the Rural War Production Training program. A branch was established in Los Angeles, with classes targeted to working teenagers and adults attending evening high schools. Referred to as the Out-of-School Youth and Adults program, this initiative was more geared toward food production than industrial production (as with the NDT program). Canneries were established in schools throughout the district as a result of the program, which was renamed "Food Production War Training" in 1943. After the war, though federal funding of the project ended, the Los Angeles Board of Education continued the program, and community canning projects remained in place at a number of area high schools.

D. EDUCATING THE BABY BOOM: POSTWAR EXPANSION & THE FUNCTIONAL, MODERN SCHOOL, 1945 TO 1969

"Above all the school must be childlike.... It must be a place for living, a place for use, good hard use, for it is to be successively the home for a procession of thousands of children through the years. It must be warm, personal and intimate [so] that it shall be to each of these thousands 'My school.'"
—An American educator, writing to his architect, *Architectural Forum*, 1952[94]

NATIONAL CONTEXT | DEVELOPMENTS

With the end of World War II, the United States turned its attention to the long-awaited postwar—and post–Great Depression—expansion. The magnitude of the construction and population boom that followed, and its effect on the built environment, have been well documented. A wealth of literature has been devoted to the era's severe housing crisis, for example, and the array of initiatives launched to address it.

Less widely explored in the literature, but equally pressing at the time, was a dire classroom shortage. In 1949–1950, enrollment at U.S. elementary and secondary schools stood at 25.1 million. In one decade, this number expanded by nearly 50 percent to approximately 36 million; by 1971, it reached 46 million.[95] In 1955, in the midst of this boom, "editors at the *Architectural Forum* worried, 'every 15 minutes enough babies are born to fill another classroom and we are already 250,000 classrooms behind.' The rising population of young American children made school building, together with housing, the most widely discussed architectural challenge after World War II."[96]

Perhaps in no other state of the union was this growth felt more acutely than in California. The booming birth rate was accompanied by a wave of in-migration, as new settlers were drawn by established employment centers in, among other things, the aerospace industry, which had shifted operations to peacetime production. In Southern California, one region with a particularly strong pull in this regard was the San Fernando Valley. The postwar construction boom transformed miles of the San Fernando Valley's agricultural lands into new residential communities, and the population—and demands on schools—expanded accordingly.

School districts around the country struggled to keep up with unprecedented demand and overcrowded classrooms. Adding to the challenges facing school districts was the need not only for new schools, in particular in emerging suburban communities, but also the need to repair and maintain aging school plants, facilities, and equipment.

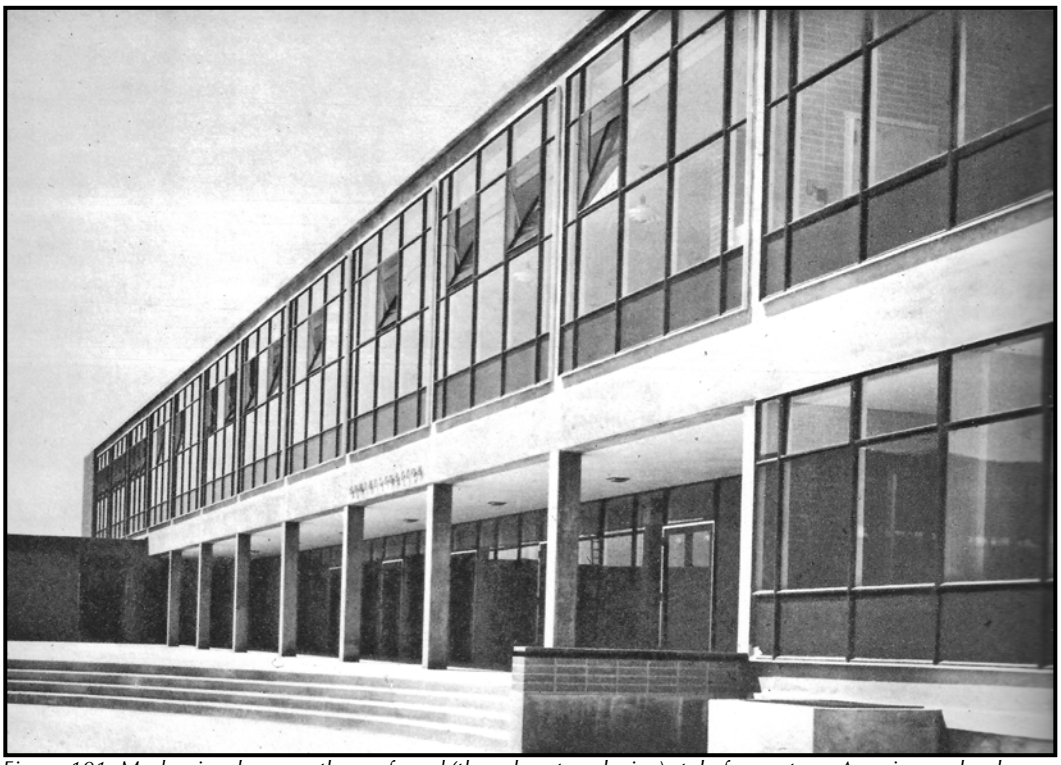


Figure 101. Modernism became the preferred (though not exclusive) style for postwar American schools. Ernst J. Kump, San Jose High School, 1952. Source: Built in USA, 1952.

Figure 102. Fern Drive School, 1956, Smith, Powell, & Morgridge, Fullerton. A functionalist postwar school need not also adopt a modern, machine-age aesthetic. The notion of providing a child-friendly environment often translated into incorporating forms and details commonly used in residential architecture. Source: J. Paul Getty Trust, Getty Research Institute, Julius Shulman Archives.

Figure 103. Oso Avenue Elementary School, 1959, Woodland Hills. Most students "come from new tracts still opening in West Valley." Source: LAPL Photos.

Figure 104. Image for a 1959 article on the "back to back construction" of schools taking place in the San Fernando Valley. Source: LAPL Photos.

1930s Reform Comes of Age: The Modern, Child-Centered School

In this era, the functional, child-centered school plant that emerged in experimental form in the late 1930s became the norm. Newspapers, magazines, and trade journals in a variety of fields—including architecture, engineering, building trades, education, and school design—began forwarding proposals for the ideal modern school. Organizations devoted to the topic also helped standardize and disseminate these ideas; these included the American Institute of Architects Committee on School Buildings, the National Council on Schoolhouse Construction, the American Association of School Administrators, and the Council of Educational Facilities Planners. Journals and guidebooks proliferated with the latest ideas in school plant design, infrastructure and systems, and, above all, how to meet the demand in the most economical fashion possible. Within the architectural profession, a new subgroup of architects who specialized in school design also started to emerge.

Modernism—whether regionally inflected, wood post-and-beam or the machine-age International Style—became the idiom of choice for expressing the new ideas, for its relative economy, informality, accessibility, and, increasingly, "democratic" spirit:

> All the architecture shall be a setting for childlife. Everywhere children and what they can do shall be the adornment of the structure. The building itself shall be the place of joy in living. But I must warn you. It must be a place which permits the joy in the small things of life, and in democratic living. These two things we must safeguard in children's lives.[97]

While some school plants adopted the period styles popular at the time—including a postwar return to American Colonial Revival—the trend by not only modern architects but also educators was to move beyond historicist styles: "The building must not be too beautiful," wrote one commentator, "lest it be a place for children to keep and not one for them to use. Its materials must be those not easily marred, and permitting some abuse. The

Figure 105. Smith, Powell & Morgridge, Thomas Jefferson Elementary School, 1954. Source: J. Paul Getty Trust, Getty Research Institute, Julius Shulman Archives.

finish and settings must form harmonious background with honest child effort and creation."[98]

While regional variations existed, this was a national project. The extent to which school districts throughout the United States adopted similar approaches and strategies to the modern school plant was noteworthy. Since the early twentieth century and the days of the Progressive Education Movement, national standardization was a key element of reform. But the avenues available to architects, builders, and schools in this regard proliferated in the postwar era.

The National Council on Schoolhouse Construction, for example, addressed the topic in its annual guidebook, *Guide for Planning School Plants*. Written for school facilities managers, planners, and architects, the 1946 version illustrates the extent to which ideas considered experimental just a few years before had become best practices for the nation. The emphasis remained designing schools around their function—serving and educating children. With the psychological well-being of the student the prime consideration, numerous studies were devoted to optimal interior conditions and controls, such as studies in proper lighting, color schemes, and surface reflectivity to "increase morale and to decrease fatigue."[99]

Figure 106. John Lyon Reid, Manor Elementary School, Fairfax, California, 1958. Source: J. Paul Getty Trust, Getty Research Institute, Shulman Archives.

Figure 107. Henry Gogerty, Inglewood High, 1954. Source: J. Paul Getty Trust, Getty Research Institute, Shulman Archives.

Educational Facilities Laboratories (EFL)

The need for schools remained dire through the 1950s. In 1953, the American Institute of Architects established its Committee on School Buildings to address the issue. In 1956, the committee became the Educational Facilities Laboratories (EFL), a nonprofit funded by the Ford Foundation's Fund for the Advancement of Learning. The EFL "brought together educators, architects, manufacturers, and government officials" to "encourage new ideas about both curriculum and architecture."[100] The EFL conducted research, sponsored conferences, and held grant competitions.

With the rate of school construction continuing apace, EFL officials visited Southern California often. In 1962, the EFL sponsored a tour of one of the nations' early open-plan schools in West Covina, California. Attending the tour were Dr. James D. MacConnell, director of the school planning laboratory at Stanford University; Dr. Paul Salmon, superintendent, Covina Valley District; and Dr. Harold B. Gores, president of EFL in New York. In 1965, the EFL conferred an award on Covina High School as one of three outstanding Californian examples of "schools without walls" (the open-plan school, described in more detail below).[101]

In 1964, the EFL sponsored an airplane tour of the United States for 60 educators, including two from Orange County. The EFL flyover tour reflects two noteworthy points about this era in school design: (1) many innovations were best revealed from the air, by looking at the campus design and plan, building siting and configuration; and (2) ideas about how to create the best possible modern school were developed in tandem and shared among architects, builders, researchers, and school officials throughout the United States.[102] Between 1958 and 1976, the EFL invested over $25 million in the rethinking and designing modern American educational facilities.[103]

By the early 1960s, a shortage of teachers, as well as ever-evolving ideas about childhood development and education, prompted a renewed wave of reform. At its heart was an updated version of the Progressive Education Movement: the idea was that schools—both in terms of facility design and teaching methods—were not adequately harnessing a child's natural curiosity and creativity. There was a renewed sense that classrooms should nurture and capitalize on these qualities and adapt to the individual needs and pace of each student.

The national embrace of team teaching (an idea further promoted because of a shortage of qualified teachers) was one result of this movement. As the name implies, team teaching established a system whereby teachers shared pupils and class spaces, and classroom sizes varied throughout the day, depending on the wishes of the teachers. A few dozen students might gather to watch a movie, then break into smaller groups to work on projects. The classroom would be a dynamic rather than static place, with mixed grade levels, multimedia educational methods, and hands-on learning.

This push for more creative, flexible curricula and teaching methods flourished in Southern Californian schools. By 1968, reformed programs had been launched in 18 Southern Californian elementary schools, in conjunction with the League of Cooperating Schools. As in early eras, methods that appeared "traditional" were de-emphasized and a more experimental classroom environment was proposed. The coordinator of the program, Robert E. Keuscher, invoked many of the same ideas shaping curricular reform throughout the twentieth century, with a distinctively 1960's spin:

> Labels are disappearing, there are fewer graded classes. Schedules are more flexible. More and more, curriculum is not worked out in advance; the kids work it out as they go along, and it's more advanced and more scholarly. The teacher is more of a guide than an oracle. The emphasis is shifting from the group to the individual; there is more emphasis on query and discovery.[104]

Of the Southern Californian schools making this transition, Keuscher said, "We're helping these 18 become creative schools, but it's a slow, painful process. Our biggest problem is to make teachers and principals comfortable with change. … But it has been great to emancipate the creative teacher."

Throughout this era, the debate on how to shape a curriculum that best served children, and how to keep up with ever-expanding enrollment figures, continued to evolve. Yet the basic ideas seen in the early twentieth century remained at the heart of educational reform at midcentury. The evolving experiments in curricula and school plant types grew out of the same wish to eliminate institutionalism and to fashion a child-centered curriculum and school plant. The variety of building plans and campuses that grew out of midcentury reform reflected the postwar boom of construction and population, the robust network of publications and organizations disseminating the ideas nationally, and evolving philosophies about childhood development and education.

Figure 108. Grover Cleveland High School, Charles O. Matcham & Stewart S. Granger and Associates, architects (1959), Reseda. Source: Sapphos Environmental, Inc., 2013.

EFFECTS ON SCHOOL BUILDINGS AND CAMPUSES

The stylistic vocabulary of choice for American schools became modern—antihistoricist, decentralized, with function instead of style the driving concern. Of course, modernism did not take hold in earnest for residential design (to the dismay of many architects at the time). But for schools, by 1950, "the battle between 'contemporary' and 'traditional' was won. The public not only began to accept 'modern,' but also demanded it. … This new movement … brought together educators as well as architects, and together they are forwarding the cause of architecture for children."[105]

Although this era brought a major stylistic shift, from the architects' perspective, designing in a modern "style" was not the main concern. Progressive architects at midcentury often sounded a tone of idealism about the social value of their work. As architect William Wayne Caudill explained about school design, "There is no 'modern' style as such. Each new building ideally is the product of specific solutions to individual problems peculiar to that building's particular environs, site, function, budget, and designer. If two new schools are similar in appearance, they are … only because they were designed to perform similar specific functions in similar environments."[106]

This was especially true for architects trained and already practicing in the pre-1945 era. William Wayne Caudill was among them; the Texas architect graduated from MIT in 1939 and, by 1941, had already authored a pioneering study on modern school design, *Space for Teaching*. Throughout the 1940s and into the 1960s, Caudill and his firm specialized in functional, modern classrooms and campuses.

Figure 109. Balanced cross-lighting is achieved through full-length windows on the north elevation and clerestories on the south. Franklin & Kump, Acalanes Union High School. Source: Built in USA, 1944.

By 1969, Caudill had become an international authority on school design, and his firm, Caudill, Rowlett & Scott, had designed educational facilities in 28 states. Caudill's classic finger-plan schools in Blackwell, Oklahoma, designed in the late 1940s and early 1950s, epitomized the school planning ideals of the time. In 2009, all four schools--Huston, Northside, Parkside, and Washington Elementary—were listed on the National Register for their exemplification of postwar ideals of modern American school design.

Whether a postwar school exhibited a modern or mildly historicist design, they likely shared the same basic design principles. Postwar schools were designed to feel decentralized, nonhierarchical, approachable, informal, and child-centered (indeed, domestic-scaled for elementary schools, with lower ceilings making the class feel more like a living room). The preferred massing was one story, with an axial wing of classrooms usually one room deep, to provide cross-lighting, ventilation, and easy access to the outdoors.

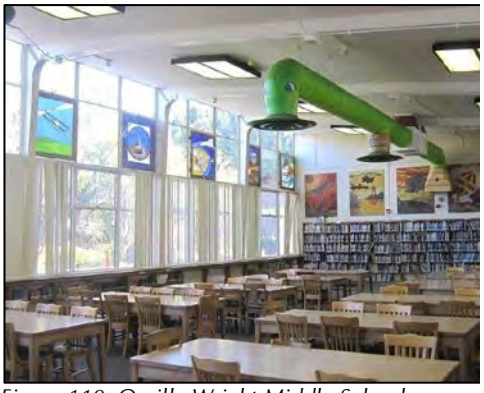


Figure 110. Orville Wright Middle School, library roof slopes upward on north elevation to allow for maximum indirect lighting. Source: LAUSD Orville Wright Middle School, Pre-Planning Survey, 2011.

Postwar schools continued to emphasize and experiment with the limits of indoor-outdoor integration. By the postwar period, one feature that was still experimental in the 1930s was now essential: canopied outdoor corridors. Supports remained simple posts or pilotis, either in steel or wood post-and-beam. It was a feature used in schools throughout the United States. Outdoor corridors lined classroom wings, providing sheltered circulation throughout the campus as well as outdoor gathering spaces.

During this period, size and orientation of windows took cues from the environment: a building with north-south exposure, for example, might feature large-panel, floor-to-ceiling glazing on the north elevation, with bands of clerestory casement windows on south elevations modulating or softening illumination. Experiments in roof configuration and design also tackled the issue not only of lighting but acoustics.

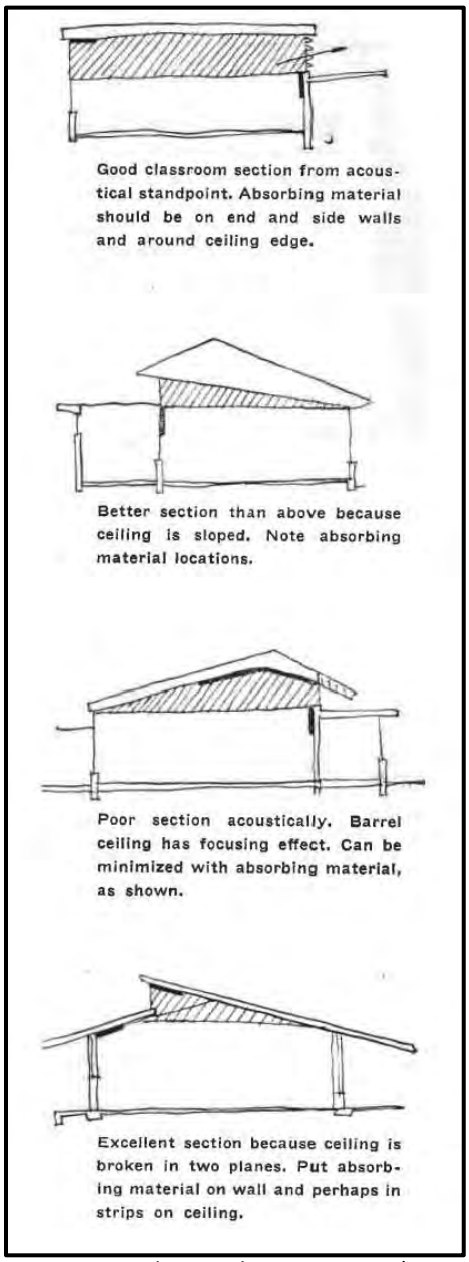


Figure 111. Architectural Forum*, 1949, showing studies of roof configuration and acoustic properties. Source: Baker, 2008.*

Figure 112. Fern Drive School reflected the latest ideas about roof-line configuration and classroom acoustics. Smith, Powell, & Morgridge, 1956, Fullerton. Source: Getty Research Institute, Shulman Archives.

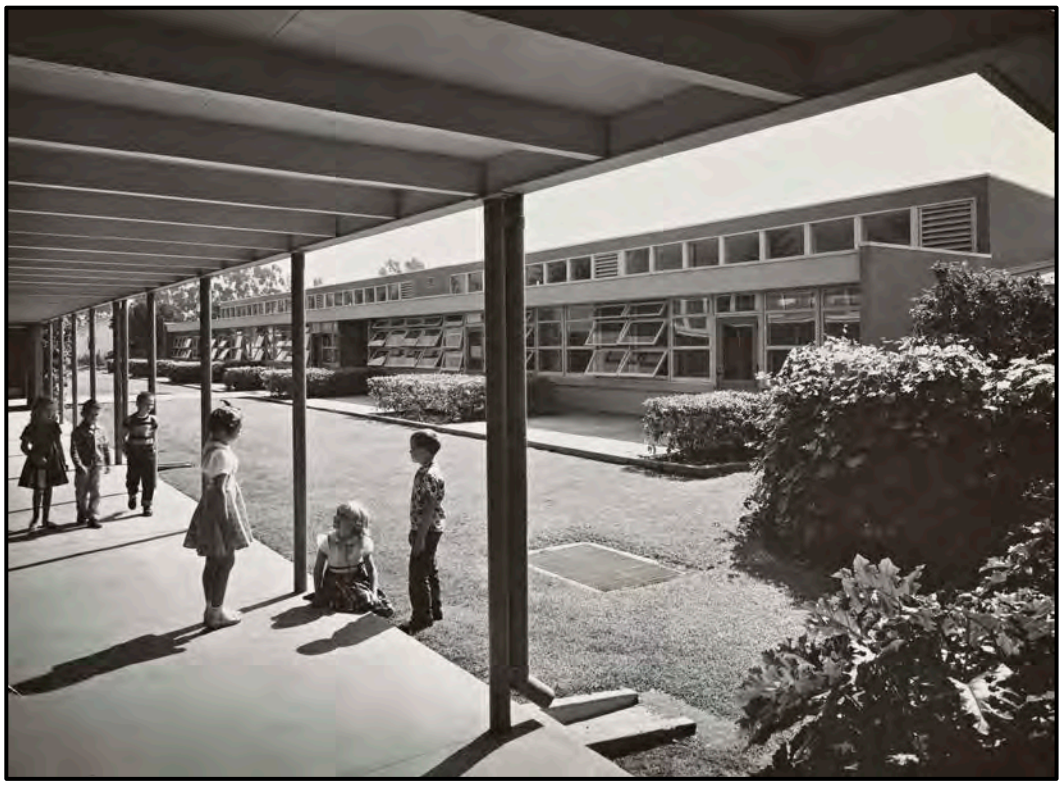


Figure 113. Thomas Jefferson Elementary School, with covered corridors, outdoor courtyard spaces, ample awning casements and clerestories. A sloped shed-roof caps the building for good classroom acoustics. Smith, Powell, & Morgridge, 1954, Anaheim. Source: Getty Research Institute, Shulman Archives.

Figure 114. Hallways move outdoors in postwar schools. El Monte School (1956) Los Angeles County. Source: Getty Research Institute, Shulman Archives.

Figure 115. Classroom and patio are one in Neutra's Kester Avenue Elementary School (1951), extant, Sherman Oaks, San Fernando Valley. Source: Getty Research Institute, Shulman Archives.

When necessary, massing might climb to two (or rarely, three) stories, if real estate was scarce and demand was high. But this allowance was more commonly made for junior and high schools. Roofs were flat, sloped, or occasionally gabled, with simple, exposed construction systems of steel or concrete framing with large-pane in-fill windows. Wide overhanging eaves with simple porch or piloti supports were common for connecting corridors. In terms of materials, the treatment and finishing were simple and unpretentious.

In the postwar period, architects economized through the use of new prefabricated materials, such as plywood, glass, and steel, as well as modular design and coordination, a 1930's movement that took off in the postwar era following the 1945 adoption of the 4-foot module as the American Standard Measurement.[107] Modular design and construction allowed for easy expansion as school enrollment grew and was a common construction technique in Southern Californian schools. (Two early all-steel-frame schools in Los Angeles were the 1937 Emerson Junior High, by Richard Neutra, and the 1959 Justice Street Elementary School in Canoga Park; stylistically unpretentious, the school was promoted as durable, safe, and easily expandable, a concern that remained pressing at the end of the 1950s.)

Modular site planning and design also lent itself particularly well to creating the indoor-outdoor connections now considered essential. As with the residential architecture of the era, school design relied on generous expanses of windows and outdoor access to patios or courtyards to provide students with recreational areas and outdoor classrooms. Throughout the United States, the importance of indoor-outdoor living for both residential and educational architecture remained a central concern. In this respect, California schools continued to garner national attention. In its 1949 series on postwar American schools, for example, *Architectural Forum* commented that "possibly because California's balmy climate ventilates educators' minds as well as their houses, California schools have been less tradition-bound than most. As one of the fastest growing states in the union, California has had plenty of chance to experiment in school design."[108]

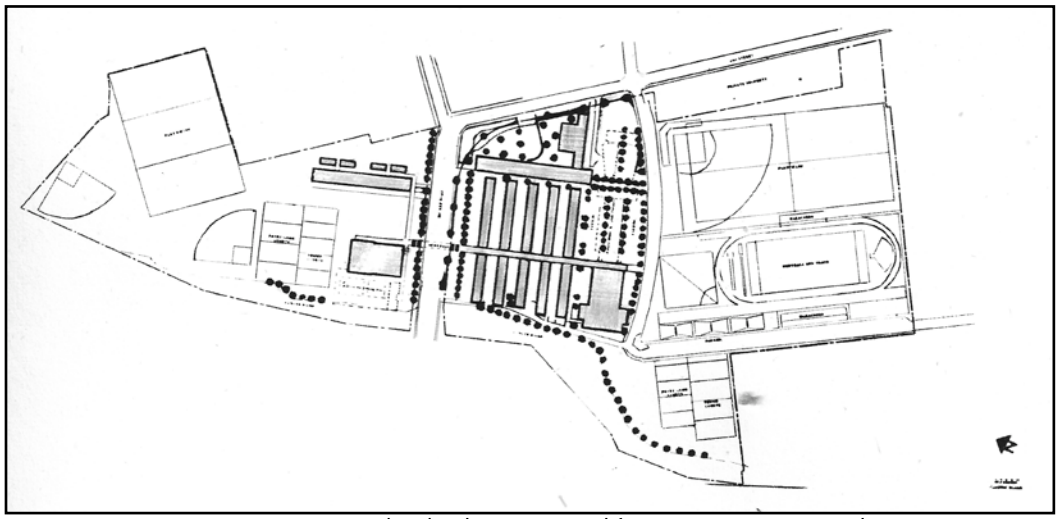


Figure 116. Ernst J. Kump, San Jose High School, San Jose, California, 1952. Source: Built in USA, 1952.

By the 1950s, school design had entered "a new age of innovation," as the decade brought "a proliferation of standardized plans and facades."[109] In California and elsewhere, three main plan types emerged during this period: the finger-plan school, the cluster-plan school, and the open-plan school. As the trends came and went, these plan typologies morphed, hybridized, and changed. But they shared basic design principles, and most reflected the tenets of midcentury modern design.

The 1940s and the Decade of the Finger-Plan School

The plan type that best captured the design principals of the immediate postwar years was the finger-plan school, which was launched in the late 1930s in Franklin & Kump's Acalanes Union High School and the Saarinen's Crow Island Elementary School. According to *Architectural Forum*, this plan type, dubbed the "western finger plan," became the most influential building typology for schools in the 1940s. The finger-plan school resembled

> a tree plan, based on a trunk corridor with side branches. It rests on radical standardization of classrooms; on absolute insistence that all classrooms share the best (north) orientation to sun and air; daylight for all of them from the open-corridor side as well as the main window side. This plan is not only flexible … but extensible indefinitely outward like a tree, by growing at branch-ends and by sprouting new branches.[110]

To illustrate the advantages of the plan in 1949, *Architectural Forum* chose the 1939/1940 Acalanes Union High School, which it described as

> the first large scale school which could serve as a complete demonstration of principles which amounted to a schoolhouse revolution—the revolution of the thirties. Since then, the Acalanes type of school, with its wide ranging, one-story classrooms arranged according to the "finger" plan, has swept the West Coast, is sweeping rapidly across the Midwest on its way to the East Coast.[111]

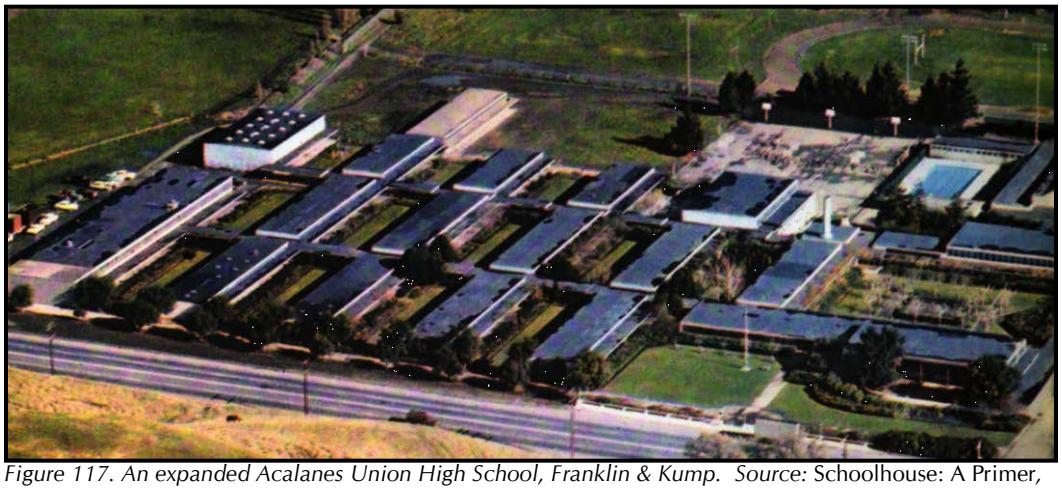


Figure 117. An expanded Acalanes Union High School, Franklin & Kump. Source: Schoolhouse: A Primer, *1958.*

Figure 118. Finger-plan school in Eugene, Oregon, 1947. Kelly Junior High. Source: Pinyerd Historic Postcards.

Figure 119. Exterior of a finger-plan school: G. Russell Wilkerson Elementary School, 1950, El Monte. Source: Getty Research Institute, Shulman Archives.

Acalanes had been published nationally, on multiple occasions, prior to 1945, but it was in the postwar period that the "schoolhouse revolution" it started took off in earnest. In the immediate postwar period, numerous examples could be found on the West Coast. Even though the plan type spread through the United States, the Californian roots and flavor of Acalanes Union High School were often highlighted.

In 1958, a self-described "primer" on how to build a good modern public school described Acalanes High School's divided "rows of classrooms with open-ended corridors of greenery, to achieve good ventilation, sound isolation, and a remarkable California-like architectural comfort."[112]

Built in USA included another California finger-plan school in its 1952 edition, San Jose High School, also by Ernest J. Kump. In San Jose High School, Kump proposed a slightly more condensed finger-plan, with concrete-frame construction, generous expanses of windows set flush to the wall plane, and a sheltered corridor with unadorned post supports providing circulation and outdoor spaces.

Figure 120. Huston Elementary School, Caudill, Rowlett & Scott, 1949, Blackwell, OK. Source: Getty Research Institute, Shulman Archives.

Figure 121. Huston Elementary School, Blackwell, OK. Source: Google Maps, 2013.

With many of the early experimental schools located in California, the issue arose of whether these prototypes would work in the rest of the country. In a 1943 article on modern American schools, Elizabeth Mock commented on this question: "Many people have the illusion that such schools are impractical. 'Fine for California,' they will say, 'but not for this climate. Too costly to build and heat."[113] However, Mock argued, modern materials and construction techniques were sound and economical enough to mitigate these problems. William Caudill appears to have agreed, as evidenced in his four classic finger-plan schools in Blackwell, Oklahoma (all now listed, as noted earlier, on the National Register of Historic Places).

As the popularity of the finger-plan school increased, its basic form changed to accommodate climate variations. Modifications on the plan included double-loaded hallways to provide the same level of indoor-outdoor connections, light, and ventilation, but with one less elevation exposed to the exterior. In the Midwest, the spread-out finger-plan became a compact trunk, with double-loaded corridors providing better insulation. Other plan innovations included a zigzag building plan, with an interior connecting walkway, in order to double-load corridors but also maximize window space for each classroom.

Two examples of more condensed finger-plan schools are seen in Richard Neutra's Kester Avenue Elementary School in Sherman Oaks and Robert Evans Alexander's Baldwin Hills Elementary School in Los Angeles, both from 1949 to 1951. Neutra designed the finger-plan of the Kester Avenue Elementary School around a compact central axis, with classroom wings alternating with landscaped patios. With its seamless connections between classrooms and outdoor play areas, the Kester Avenue facility displayed, in Esther

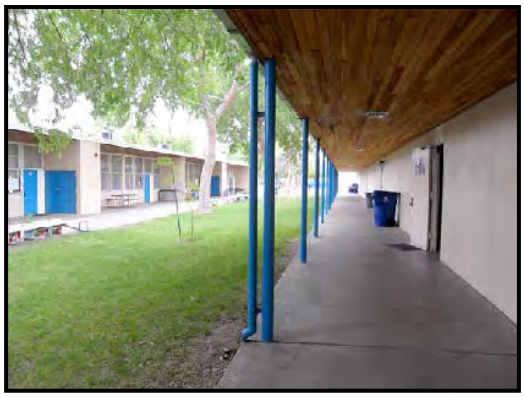
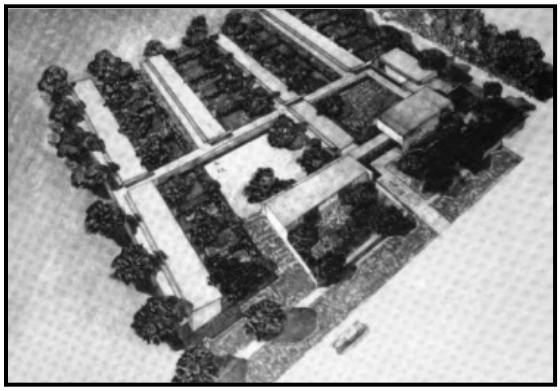


Figure 122. Kester Avenue Elementary School, Richard Neutra (1951), Sherman Oaks. Source: LAUSD Kester Avenue Elementary School Pre-Planning Survey, 2011.

McCoy's word, the "essentials of the open-air classroom ... restated in a more refined form."[114] Canopied passageways supported with light steel columns provided circulation and outdoor gathering areas.

Baldwin Hills Elementary School was constructed as part of the groundbreaking garden city of Baldwin Hills Village. Architect Robert Alexander arranged the school along a central corridor/axis, with parallel classroom wings extending from each side in lengths tailored to fit the site. Swaths of greenery divide the classroom wings, which are sheltered beneath wide overhanging eaves. The focal point of the entrance is a dramatic, cantilevered canopy, resting on a simple steel I-beam. The design otherwise is spare, unpretentious, and modern.

Figure 123. Kester Avenue Elementary School, Richard Neutra (1951), Sherman Oaks. Source: LAUSD Kester Avenue Elementary School Pre-Planning Survey, 2011.



Figures 124 and 125. Neutra's conceptual sketch of Kester Avenue Elementary School and the current aerial view. Source: McCoy, Neutra *(left) and LAUSD Kester Avenue Elementary School Pre-Planning Survey, 2011 (right).*

Figure 126. Robert Evans Alexander, Baldwin Hills Elementary School, 1949-1951. Source: The J. Paul Getty Trust, Getty Research Institute, Shulman Archives.

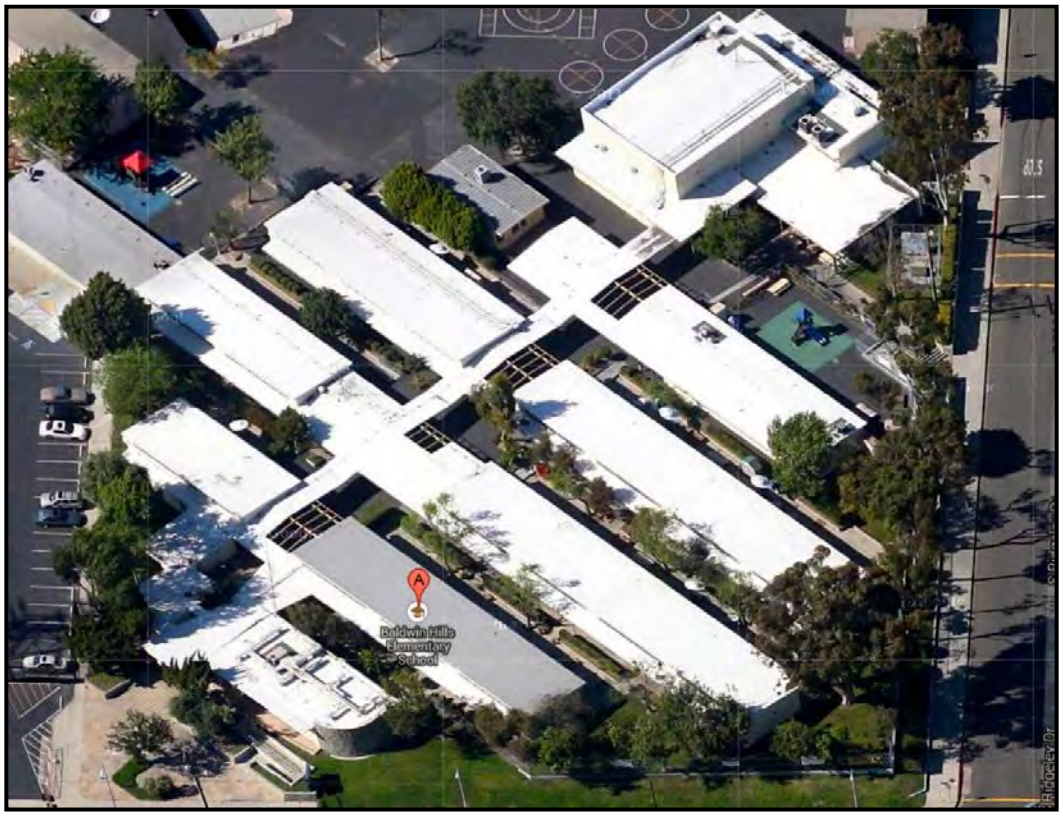
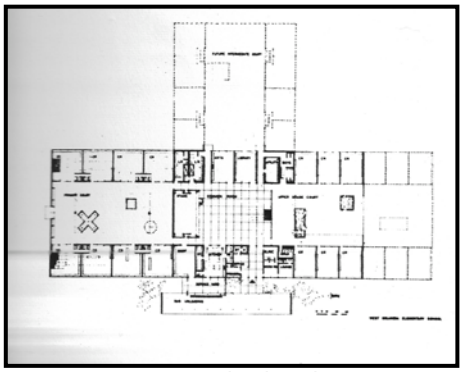


Figure 127. Neutra & Alexander, Baldwin Hills Elementary School. Aerial shows the condensed finger-plan design used to create the preferred one-story massing, set off by swaths of landscaping and patios, but with a more compact site plan. Source: Google Maps, 2013.



Figures 128 and 129. Cluster-plan school, Donald Barthelme & Associates, West Columbia Elementary School, West Columbia Texas, 1950. Source: Built in USA, 1952.

The 1950s and the Advent of the Cluster-Plan School

By the early 1950s, the popularity of the finger-plan school had begun to decline.[115] First, the design required large swaths of land to accommodate the extended site plan. Second, the plan increased cross-campus walk times and communication. In some scenarios, it also made more sense to build upward instead of outward. On hillside locations, where an expanded footprint meant doubling or tripling already expensive grading costs, the finger-plan school was not a viable option. In mass circulation and trade magazines of the day, though, the one-story scale was still preferred, in particular for elementary schools (the exception remained densely developed urban sites, where one could only expand upward).

The need for cost-effective school design and construction was an additional factor in the move away from the finger-plan. By the early 1950s, there were signs that the immediate postwar focus on carefully harnessing and controlling light—including orienting the building on a north-south axis to create the perfect blend of cross-lighting—was becoming too time-consuming. Not all sites would be large enough, and not all building programs well-funded enough, to justify having such an expenditure of design time devoted to fenestration alone. In 1952, *Architectural Record* observed that, in national school design,

> in more and more localities we can expect substantially less emphasis on daylighting. Natural light is so variable that it can seldom be relied on during the entire school day without considerable recourse to electric light. Control of daylight to prevent glare has been found costly and involved.[116]

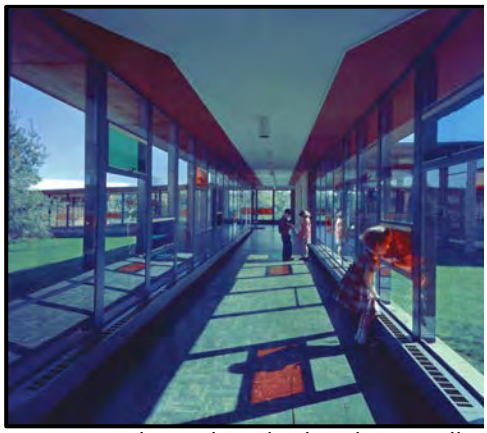


Figure 130. Cluster-plan school, Perkins & Will, Heathcote Elementary School, Scarsdale, New York, 1953. Source: Ogata, 2008.

With high demand and restricted funding for new schools a constant issue, the possibility of a more compact campus plan became the subject of study, a few early prototypes, then a new trend, the cluster-plan school, by the early

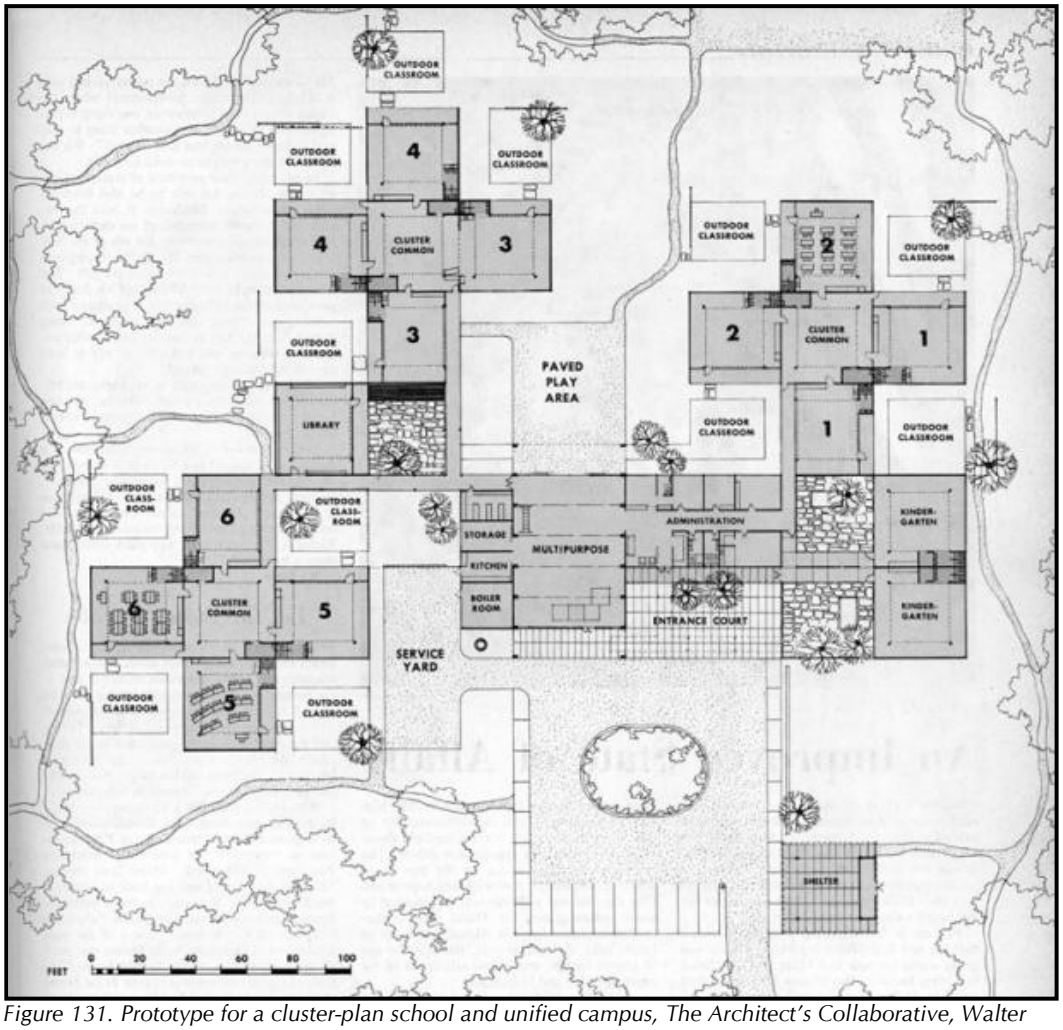
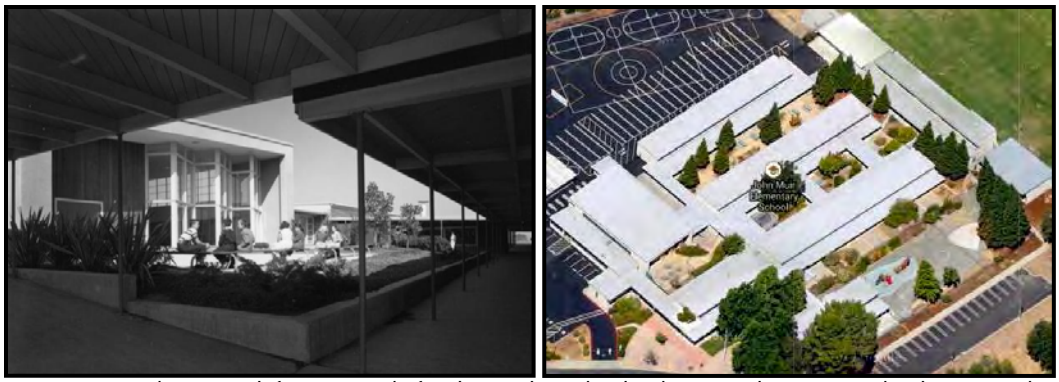


Figure 131. Prototype for a cluster-plan school and unified campus, The Architect's Collaborative, Walter Gropius, 1954. Source: Ogata, 2008.

1950s. The cluster-plan school offered a logical solution to these issues. It retained the low massing and indoor-outdoor access and views for all classrooms. But rather than extending wings along an axis, the plan called for grouping them as modular, standalone units around a shared central courtyard. Classrooms still had generous expanses of windows, but now views took in the courtyard and other classrooms, which provided a more communal, neighborhood-like setting. As architectural historian Amy Ogata observed, the plan type provided "both economy and a meaningful spatial experience. In organization and details, the prominent cluster schools of the early and mid-1950s reflected a new sensitivity to the child's perception."[117]

As with the finger-plan, the new typology was interpreted and designed in many different variations, but the basic ideas remained the same.

Even in California, with space to grow, the cluster-plan became the preferred typology in the 1950s. Finger-plan schools were still built—usually the condensed or modified typologies



Figures 132 and 133. On left: Courtyard of a cluster-plan school: John Muir Elementary School (1951), John Lyon Reid, Martinez, California (northern California). Source: Ogata, 2008. On right, aerial of John Lyon Reid, John Muir Elementary School. Source: Google Maps, 2013.

already emerging by the late 1940s. But by the early 1960s, the cluster-plan school had "almost universally replaced the finger plan concept."[118] In a five-year study of the state's school plants, the California Department of Education praised the cluster-plan for more efficient land utilization and for encouraging "cooperation between teachers by allowing them to share multiuse classrooms, resources center, and teacher preparation areas, all adjacent to their classrooms. … Better acoustical control and lighting is evident, and technology is enabling these comfort factors to be coordinated with flexible interiors."[119]

The advantages of this plan were many: more child-friendly in its scale and setting, especially for younger children; more communal, with more shared spaces; and easier to supervise. With this plan, what had been the corner of the room on the interior became the front row on the courtyard.

One early example in California was John Lyon Reid's 1951 John Muir Elementary School in Martinez, California, northeast of San Francisco. In his design, Reid employed a typical pavilion-like plan, with long one-story classrooms separated by patios and landscaping, accessed via sheltered walkways with wide eaves. The classroom wings are clustered around cross-wings, creating a courtyard setting. As with the Saarinens' Crow Island school, Reid's L-shaped classrooms created enclosed outdoor areas for outdoor play and recreation. In a demonstration of the nonhierarchical, informal campus, Reid also eliminated the formal auditorium and designed instead an all-purpose room, "for meetings, lunches, and play, that looked onto a central courtyard through large sharply angled windows."[120]

Within the Los Angeles City School District, Sumner Spaulding and John Rex's Orville Wright Middle School (originally Westchester High School) was another early example of a finger-plan and cluster-plan hybrid, this time for a high school campus. The school incorporated the best of midcentury modern design, by one of the region's renowned firms, with the newest design principles for school plants. Completed in stages between 1948 and 1952, Orville Wright Middle School was constructed for a growing residential community near one of Los Angeles's centers for the aerospace industry.

Figure 134. Orville Wright Middle School (originally Westchester High School), Spaulding & Rex, 1948-1952. Source: Getty Research Institute, Julius Shulman Archive.

Figure 135. Orville Wright Middle School. Bands of clerestory windows provide balanced lighting for classrooms. Source: Flight, Westchester High School Yearbook, 1956, www.e-yearbook.com.

Figure 136. Westchester High School (now Orville Wright Middle School), Spaulding & Rex (1948-1952), west Los Angeles. Source: J. Getty Trust, Getty Research Institute, Shulman Archives.

In a spare, modernist design, Spaulding & Rex incorporated the same modular design, low massing, and easy indoor-outdoor connections typical of the era (and midcentury modernism in Southern California). Cross-lighting was provided through bands of clerestories and single-pane fixed and casement windows. A network of canopied corridors linked buildings and facilities throughout the campus. In a nod to the aerospace industry employing much of the adjacent community, the campus cafeteria featured a circular, space-age design.

The campus overall displays a decentralized but unified plan, zoned for automobile and pedestrian-only areas, with pavilion-like classrooms wings "clustered" around courtyards. In the "Curating the City" program for modern architecture, the Los Angeles Conservancy noted that Spaulding and Rex's Westchester High School took the basic tenets of the International Style and Southern Californian educational architecture and "turned them into a spectacular example of a Mid-Century Modern school. … This campus is a wonderfully intact and very vibrant testament to the power of good 'design for learning.'"[121]

Another LAUSD example of a hybrid finger- and cluster-plan school is the George K. Porter Middle High in Granada Hills. Built in 1959 and designed by Rowland H. Crawford, the campus displays a pavilion-like plan, with axial classroom wings connected by a central corridor. Swaths of landscaped patios divide the classrooms. Interrupting the axis, the focal point of the campus is a landscaped quad, with an expansive lawn ringed by trees creating a neighborhood, park-like setting.

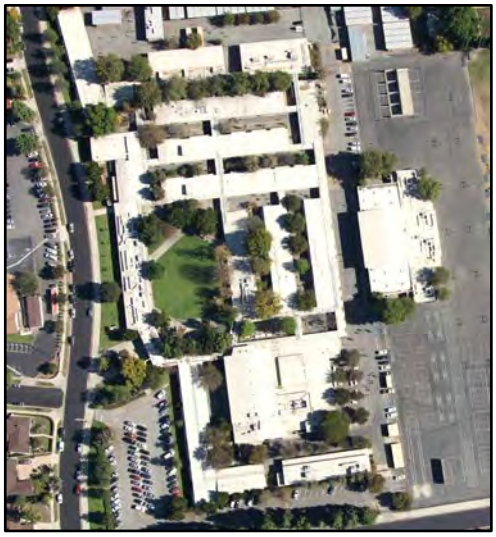


Figure 137. Combination cluster- and finger-plan, George K. Porter Middle School, Granada Hills, California, 1958. Source: LAUSD Porter Middle School Pre-Planning Survey, 2011.

Figure 138. 1953 aerial, Orville Wright Middle School. Source: USDA, www.historicaerials.com.

Figure 139. As of 2012, the campus plan of Spaulding & Rex's Orville Wright Middle School remains largely intact. Source: LAUSD Orville Wright Middle School Pre-Planning Survey, 2012.

Figure 140. George K. Porter Middle School (1958), Granada Hills, San Fernando Valley (extant). Source: Getty Research Institute, Julius Shulman Archives.

Typical of modern campus planning, and similar to Orville Wright Middle School, the site plan turns inward on itself. Automobile traffic and drop-off areas are located on the exterior, with extended canopied corridors providing access to the campus.

The George K. Porter Junior High also reflects how Los Angeles's still-expanding suburbs provided a testing ground for modern design and programming ideas school plants. The school is located in Granada Hills, also home of Joseph Eicher's celebrated midcentury modern tract of Balboa Highlands, now a Historic Preservation Overlay Zone in the City of Los Angeles. These buildings and so many others like them reflect how the suburbs continued to expand, especially throughout the San Fernando Valley, and how by the late 1950s midcentury modernism enjoyed wide acceptance among the public.

The 1960s and the Open-Plan School

Another wave of school plant reform in the early 1960s brought calls for more flexibility. To accommodate the new method of "team teaching," the focus became designing completely adaptable interiors, with movable walls and few built-ins, in a new typology known as the open-plan school.

In light of this new trend, the finger-plan of the 1940s—those "once-daring school plants with long corridors and classrooms located on one or both sides were now dismissed as hopelessly dull 'egg-crates.'"[122] Basic features like load-bearing interior walls came to be seen as too limiting. As the EFL wrote in a study, "'Old walls should not stifle new ideas. Identical boxes must not enforce the same program on all students and teachers; each is a unique individual. Fixed furnishings must not quash spontaneous inquiry.'"[123] The school capable of serving the needs of students, the EFL concluded, offered space to "accommodate groups of various sizes from 100 students down to one or two students studying by themselves" and "space allowing for the rapid shifting of group size or change in group's activity."[124]

Figure 141. Caudill, Rowlett, & Scott, Paul Klapper School, New York, 1966-1967. Source: Ogata, 2008.

EFL findings were well publicized and widely published, first finding audience in the nation's many education-related trade publications and into mass-market newspapers. Reporting on the findings of an EFL study, the *Los Angeles Times* wrote that "if you were to take the roof off most schools and look in, you would see a series of identical rooms, approximately 30x40 ft., strung along both sides of a corridor. This is the floor plan of an obsolete school."[125] This description, of course, fit the classic finger-plan school, and many cluster-plan schools, considered cutting-edge just one decade before.

Figure 142. Thurston School, Open Plan Model (1967), Flewelling & Mood. Source: Getty Research Institute, Julius Shulman Photography Archive.

What this meant in terms of school design was a less low-slung, spread-out campus; the buildings were more compact, with higher ceilings. The idea of cross-lighting and ventilation provided by the long rectangular classroom wing fell out of favor. They were no longer as essential, since, in the early 1960s, improved air-conditioning systems diminished the importance of cross-ventilation and less glazing was generally

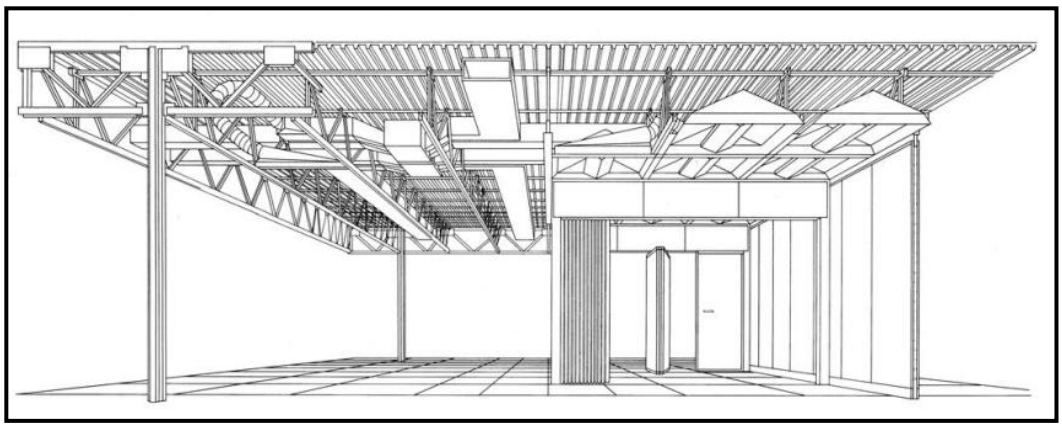


Figure 143. Standardized, demountable components for an open-school, School Construction Systems Development. Source: Ogata, 2008.

used. Since the open-plan school had to accommodate interior spaces separated by non-load-bearing walls, roof spans had to be long and high, with a steel structural system providing, essentially, a large high space into which the school's program could be designed. Massing increased, and corridors moved back inside.

Although the most obvious changes brought by the open-school plan were to school interiors, the shift was also discernible on the exterior. Some—but not all—open-plan schools adopted the circular form, with architect William Caudill arguing that the circular form best served team teaching, since the circular plan offered "continuous movement of children."[126]

Architects also experimented with hexagonal building shapes, either with self-enclosed campuses or smaller circular classrooms clustered around a common area or courtyards (in yet another variation bringing together two plan types). One of the "most adventurous examples" of the plan type, according to architectural historian Amy Ogata, was Caudill, Rowlett & Scott's Paul Klapper School in New York, constructed in 1966/1967.

School Construction Systems Development (SCSD)

In efforts to promote the open-plan school, the EFL awarded a substantial grant to develop "an economical, standardized building system" through its School Construction Systems Development (SCSD) program.[127] The program developed, standardized and manufactured modular components and structural systems for open-plan schools. The SCSD school components and infrastructure were standardized but aesthetically flexible, allowing for design and plan variations so that "architects were not limited in plan layout."[128] High roof spans of 60 to 70 feet provided the structural template into which the school's interior program could be designed.

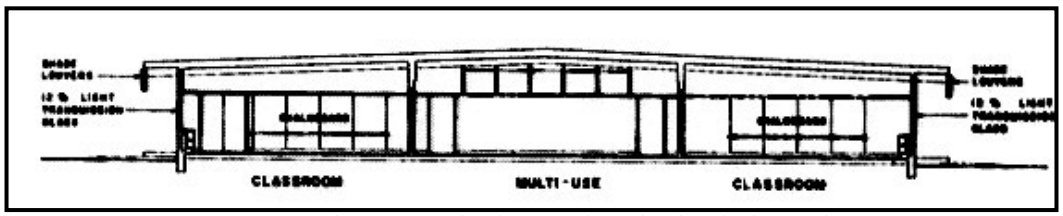


Figure 144. Section, Van Duzen Elementary School, open-plan school with cluster-plan configuration. Source: Gibson, 1965.

The SCSD system was promoted nationally. In 1962, the program "had the commitment of twelve California school districts to develop and build schools worth 25 million dollars."[129] Ultimately, 13 SCSD schools were constructed in California. The formation of the SCSD also grew out of the astronomical costs facing school districts and boards to keep up with demand; the goal was creating prototypes that offered economical, good design, reflecting the latest ideas in educational methods and school plant design. Modern school architects around the nation experimented with the new ideas.

Ultimately, in spite of high expectations, open-plan schools "faced problems of practicality and perception."[130] Problems related to acoustics plagued open schools, for example. The gap between theory and practice also became an issue, as the open-plan school did not in and of itself guarantee that teachers would adopt the creative, flexible team-teaching strategies that had prompted design reform in the first place. Much national debate and discussion about the open-plan school took place in the educational and architectural trade press. By the mid-1970s, the open-plan school had joined the finger-plan and cluster-core plan as experiments in school design that declining quickly in popularity.

As with the finger- and cluster-plans, there were many combinations of the main plan types. The Van Duzen Elementary School in Northern California, for example, represented one of first "cluster plan schools built in California with open planning."[131] Constructed in the early 1960s for a cooperative/team teaching program, the school consisted of three parallel classroom wings, open and flexible on the interior, but configured around an exterior courtyard, for the benefits of the clustered site plan.

Constructed in 1964, the Round Meadow Elementary School, in Hidden Hills, was another example of an open-plan school, this time in Southern California. Again, the cluster-plan idea played a role in the design: "This school is designed so that each building can work as a cluster-type 'little school.'"[132] At the center of each open-plan building was a multipurpose area, with a resource center and library. The buildings tended to be higher, with more wall space and fewer windows. The interior was made flexible through the use of folding walls, and a relative lack of windows was compensated for through a modern air-conditioning unit. As with the earlier postwar typologies, the open-plan type accommodated a variety of stylistic variations.

Figure 145. New community, new school: Hoover High School, Lakewood (1963). Source: The J. Paul Getty Trust, Getty Research Institute, Julius Shulman Archives.

LOS ANGELES CITY SCHOOL DISTRICTS | CONTEXT & DEVELOPMENTS

The Building Program

In the postwar period, the order of the day for Los Angeles City school districts was keeping up with demand. Overseeing the first decade of postwar expansion was Alfred Nibecker, who had served as chief architect for the architectural department of the district since the 1920s. As before, Nibecker oversaw design and construction of schools, with a variety of commissions still shared between area architects, in particular those who had begun to specialize in school design, and the in-house team of the district. In 1955, Nibecker was made an honorary member of the Structural Engineers Association of Southern California, the association's highest award. That same year, he retired. Following his retirement, the board appointed Ernst Raymond C. Billerbeck as district architect.[133]

As school construction expanded in the suburbs, however, enrollment figures at several downtown schools were in sharp decline, resulting in the closing of a number of campuses in the postwar period (among them Central Junior High, founded in 1911 and closed in 1946; and Lafayette Junior High, founded in 1911 and closed in 1955). Between 1946 and 1953, the enrollment of Lafayette Junior High dropped by one-half, falling from nearly 1,400 in 1946 to 700 in 1953/1954, reflecting the population shift from the city to the suburbs.[134]

During this period, standardized construction techniques and components, with variations reflecting differences in site conditions and demand, allowed the district to expedite construction. Standardization meant that many campuses throughout the district, in particular schools constructed during the 1950s, display identical or similar elements and features. Common modular components (for elementary, middle, and senior high schools) included classroom wings that are one-room deep, one story in height, with a finger-link rectangular plan. These buildings are often capped with a slightly sloped shed roof. Along one side (intended for southern exposure), clerestories span the building below the roof line. Shade is provided through either wide (usually cantilevered) roof eaves, in steel or wood, or a wide, sheltered arcade. These arcades generally rise to the level of roof clerestories and are supported on simple pipe supports.

Figure 146. San Fernando Valley expansion: Panorama City, Burton Elementary School, 1951. Source: The J. Paul Getty Trust, Getty Research Institute, Julius Shulman Archives.

Figure 147. Pacific Palisades Charter Senior High School (1961), Adrian Wilson & Associates, Pacific Palisades, west Los Angeles. Source: Sapphos Environmental, Inc., 2014.

Figures 148 and 149. Fernangeles Elementary School (1954), Sun Valley, San Fernando Valley. Image on the left shows the Administration Building and Auditorium; image on right shows the student lawn and landscaping, from the vantage point of sheltered outdoor dining area. Source: Sapphos Environmental, Inc., 2014.

Along the opposite side (meant for northern exposure), window glazing is generous, usually occupying 60 to 80 percent of the wall height in grouped, multi-light, operable windows. The grouping of windows marks the location of the classroom inside, and treatments vary, from wood-framed, multi-light double-hung sashes to steel-framed casements.

By the 1960s, it became more common to see double-loaded classroom wings (for senior high schools especially, but also for some elementary schools where demand was high and available acreage was scarce). By double-loading corridors but retaining the preferred one-story massing, schools accommodated more students while also providing a more domestic scaled, indoor-outdoor campus. Also in the early 1960s, for sites with less acreage, campuses incorporated more two-story buildings, with designs still drawing upon the postwar ideals for an informal, indoor-outdoor campus.

Many slight variations of another classic feature of postwar schools, sheltered corridors, appear on campuses throughout the district as well. Intended to move hallways outside, sheltered corridors might display wood plank and beam roof structures, resting on simple piers or steel pipe supports, capped with a flat or slightly sloped roof. Many examples form an elaborate network connecting all buildings and facilities of the campus.

Many LAUSD schools constructed during this period, from the late 1940s through the 1950s, also display standard campus components and site designs. Some basic elements include an auditorium, usually cited close to the public entrance to the campus, with a low, one-story entrance wing giving way to a two-story high interior. Stylistically, the auditorium generally reflects the character-defining features or influence of Mid-Century Modern design. Detailing is spare, and materials vary. For the auditorium, and usually for the equally public administration building, brick cladding and piers flank entrances and/or accenting building bases. Other typical materials include stucco, steel, and scored concrete.

Figure 150. Narbonne High School (1956), Daniel, Mann, Johnson & Mendenhall (DMJM), Lomita, southern Los Angeles. Image shows one example of the swaths of greenery and landscaping between classroom wings. Source: MSP Architects (McDonald, Soutar & Paz, Inc.).

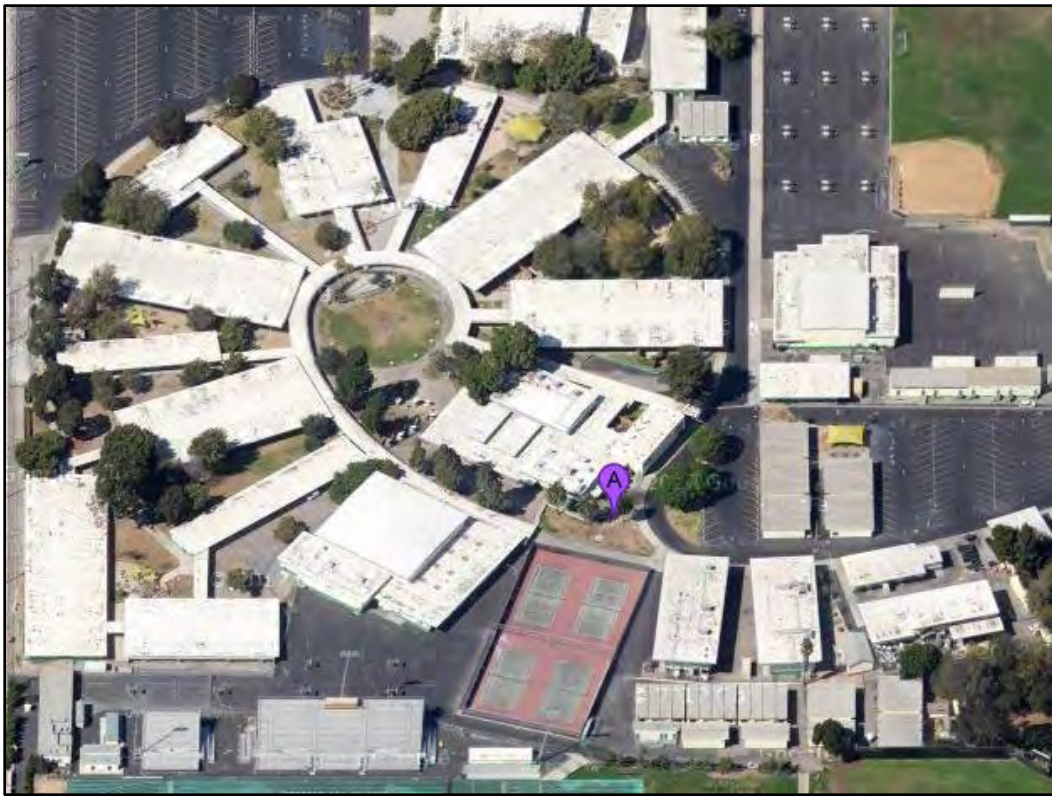


Figure 151. Narbonne High School (1956), aerial view. The finger-plan school forms a spiral, allowing for the benefits of the landscaped, expansive site plan and low, one- and two-story deep classroom wings providing easy outdoor access and views. The use of the spiral plan creates these features on a relatively restricted lot. Source: Google Maps, 2013.

Figure 152. Leapwood Avenue Elementary School (1962), Carson; image on left shows two-story, double-loaded classroom; image on right shows landscaping and patios between classrooms, connecting corridors, and wide arcade eaves. Source: Sapphos Environmental, Inc., 2014.

Other common features for elementary, middle, and senior high schools included the incorporation of a centrally located, sheltered outdoor dining area and adjacent Cafeteria/Multipurpose Building, outdoor assembly area and landscaped lawn/quad and recreation fields along the periphery of campus (the latter two features are more common for middle and senior high schools). Elementary schools often incorporated a separate area for kindergarten classes. Usually located near the Administration building, the kindergarten areas have their own patios and recreation areas, adjacent to the classroom wing.

Postwar Expansion and Educating the Baby Boom

After the tumult of Great Depression and World War II, the Board of Education of Los Angeles, in spite of a turn toward architectural modernism, shifted away from the experiments of the 1930s and back toward a more traditional, college-focused curriculum. In September 1945, the Board of Education added its voice to a movement to carry out district-wide achievement testing for students and reevaluate the curriculum, partly in order to stop the "'drift toward laissez-faire, experimental, and lax methods.'"[135] The curriculum was revamped, with a renewed emphasis on the "3 Rs" and additional coursework in American history and geography.

The biggest challenge facing the district at the time was keeping up with demand. In Southern California, one of the areas with the most rapid growth was the San Fernando Valley. Between 1930 and 1950, population expansion in the valley was remarkable even for Southern California. With new settlers drawn by the area's emerging aerospace and entertainment industries, residential expansion had already been under way by the 1920s and 1930s. By the onset of the Great Depression, for example, the valley had become one of the United States' most important hubs for the aviation industry. Given this concentration of jobs, population doubled from approximately 51,000 in 1930 to 112,000 by 1940. With the advent of World War II and an infusion of federal funds for wartime spending, these figures skyrocketed by another 50 percent in 5 years, from 112,000 in 1940 to 176,000 by 1945. Between 1945 and 1950, a nearly fourfold increase was recorded, with figures climbing to 402,000. Given the magnitude of this expansion, a majority of post-1945 school construction for the district overall took place throughout the San Fernando Valley.

Figures 153 and 154. Chatsworth High School (1963), San Fernando Valley. Double-loaded axial classroom wings fan out from a spoke-like plan, centered on a landscaped quad area. Photo on the right shows detail of courtyard spaces and landscaping lining all classrooms. Source: Sapphos Environmental, Inc., 2013.

This created another challenge for the Los Angeles City school district. Overcrowding led to the need to offer "half-day" sessions for children, where attendance happened in shifts of half-days. Bond issues in 1946, 1952, and 1955 addressed the pressing need for new school construction, and the resulting funds paid for the construction and expansion of numerous schools.[136] The 1946 bond issue provided $75 million, which helped generate 66 new schools, with a total of over 2,300 classrooms, over 480 cafeterias, gyms, auditoriums, and other ancillary buildings.[137] In addition, over $7.8 million went toward land for new schools, $3.2 million for maintenance and improvements to an aging stock of facilities, $4.5 million for grounds improvements, and $10.6 million for equipment. In spite of these investments, another $148 million was proposed for a 1952 bond issue.

In 1948, district-wide enrollment stood at 301,000 students; by 1949, this figure had increased by 15,000, with enrollment reaching over 316,000.[138] By the end of the 1950s baby boom, however, the student population of the Los Angeles City school district more than doubled, climbing from 316,000 to over 645,000. A further increase of 28,000 pupils was predicted for the school year 1960–1961.[139]

Although the district temporarily succeeded in decreasing the need for half-day sessions in 1948–1949, by 1952 the sheer numbers threaten to overwhelm its ability to keep up. Without a new building campaign, the number of students needing to attend half-day sessions was predicted to increase from 11,355 in 1952 to 100,000 by 1957.[140] By 1965, in the San Fernando Valley, demand was so great that school district officials began predicting that school plants would soon occupy high-rises, a trend that was not desired but seen as a possibility.

Figure 155. Chatsworth High School, aerial view of site plan and design. Source: Google Maps, 2013.

Figures 156 and 157. Colfax Avenue Elementary School (1950-1955), North Hollywood-Valley Village. Source: Sapphos Environmental, Inc., 2014.

Funding was not the only challenge facing the district. There was a pressing need for new construction, but also a shortage of trained architects in the immediate postwar years (this tide started to turn in the 1950s). In 1949, the State of California issued a "renewed plea for draftsman and designers," as the state's ambitious postwar building program for institutional construction was falling behind schedule due to a personnel shortage.[141]

These years profoundly impacted the growth and organization of the school district. The geographic area served by the school district fluctuated over time, expanding during the 1920s and 1930s as it annexed adjacent school districts and served new areas. As of 1935, the school district enrolled 300,000 students housed in 384 schools, including 293 elementary schools, 22 junior high schools, 35 high schools, a trade school, and a junior college; and it served an area of over 1,095 square miles.

During the late 1930s and 1940s, the general trend in school district organization was toward decentralization; as communities grew and developed their own identities, they might split off and form stand-alone districts. For example, between 1936 and 1945, the Beverly Hills, Torrance, Culver City, and William S. Hart Union High School districts formed after leaving the Los Angeles City School District.

Even so, throughout the district, enrollment steadily increased. Rapid postwar residential development perpetuated the need for funds for additional classroom space, facilities, equipment, and other resources. To examine apportionment of state aid to school districts, in 1954 the state legislature created the State Commission on School Districts and directed it to examine unification and other means of reorganization of school districts in the state. The state's policy thereafter was the encouragement of unification for reasons of streamlining administrative functions and costs, enlarging tax bases and reducing dependence on state aid. Developing suburbs were, accordingly, encouraged to align themselves with the existing Los Angeles City School District, further contributing to its growth.

Figure 158. Palisades Charter Senior High School (1961), Adrian Wilson & Associates, extant, Pacific Palisades. Source: The J. Paul Getty Trust, Getty Research Institute, Julius Shulman Archives.

Figure 159. Palisades Charter Senior High School (1961), Adrian Wilson & Associates, extant, Pacific Palisades. Source: Getty Research Institute, Julius Shulman Archives.

Figures 160 and 161. On left, Palisades Charter Senior High School (1961), Adrian Wilson & Associates. On right, Daniel Webster Middle School (1954-1958), Palms-Mar Vista. Source: Sapphos Environmental, Inc., 2014.

Formation of the Los Angeles Unified School District

Through the 1950s, the Los Angeles City School District remained organized as three separate entities: an Elementary School District, High School District, and Junior College District. In the late 1950s, calls for unifying Los Angeles's elementary and high school districts into one unified entity began gathering momentum. The movement for district consolidation was seen throughout the region and state in this era. As of 1959, the State of California spent upwards of $1.5 billion for public education, spread across 1,721 separate districts, "a maze related to the state's unending growth."[142]

Supported by the State Board of Education, the Los Angeles City School District and Board of Education, as well as California's governor at the time, Edmund Brown, district unification would "bring advantages in curriculum, staff and financing."[143] Proponents of the measure argued that unification would help bring costs under control by streamlining administrative procedures and eliminating duplication. In addition, a unified district would also provide a "continuity of education along a solid plane from the kindergarten to the senior year," as Los Angeles City School District superintendent Ellis Jarvis argued.[144]

These efforts culminated in three ballot measures, Propositions C, D, and E, included in the 1960 national primary elections. The propositions easily passed. As of July 1961, the LAUSD came into being as the second largest school system in the United States, and the Los Angeles Junior College District became an independent entity.

Changing Times: LAUSD in the 1950s and 1960s

In 1960, the *Los Angeles Times* education editor, Dick Turpin, observed that "growth, the word most nearly synonymous with California, has brought many problems to the state and education has had a major share of them."[145] At this juncture for LAUSD, enrollment in 1959–1960 stood at 645,000; by 1960–1961, enrollment figures were expected to climb by 28,000 pupils.[146] The school year 1960–1961 also brought the opening and staffing of 15 new schools.

Figure 162. The 1960s arrive at LAUSD. Caption, left image: Teachers on strike, circa 1969. Source: LAPL, Shades of LA, #00003951. Caption, right image: "Thousands of teachers and supporters staged a mass demonstration in front of city hall." 19 September 1969. Source: LAPL, Shades of LA, #00058154.

The extended postwar boom of school construction and expansion had brought dozens of new schools to the district. Between 1946 and 1962, a total of $649.5 million in bond issues had funded the expansion. But population growth continued through the 1960s, exerting a constant pressure for new classrooms.

In 1962, the *Los Angeles Times* reported that California had become the most populous state in the nation and that this population boom was having a negative impact on the state's schools. As a result, LAUSD had increased half-day sessions for the first time since the 1950s, during the height of the baby boom. Half-day sessions had hit a high mark in 1957, with over 48,000 classes adopting the partial schedule; this number had steadily dropped in the intervening years. But by 1962, the numbers were again on the rise, with an estimated 20,000 half-day sessions needed in the fall of 1962. Other solutions, such as the temporary fix of busing students from overcrowded to less crowded schools, was one proposed but problematic solution in the early 1960s.

Even as the need to expand and upgrade continued, signs of voter fatigue for school bond measures were becoming evident. In 1962, a defeated bond measure of $128 million would have funded new schools and expansion in areas most impacted by enrollment increases and/or overcrowding, among them, the San Fernando Valley and central Los Angeles. By 1963, for example, enrollment in the San Fernando Valley accounted for one-third of the total for the district.[147] Even with the additional funds, keeping up with demand still would have proved onerous: "Had the measures passed," reported *Los Angeles Times* education editor Dick Turpin, "the city school system could barely have kept pace with the city's surging enrollment wave. Now additional half-day sessions are certain."[148]

Through the 1960s, however, the tide continued to turn against school bond measures. In 1969, for the fourth time in a row, Los Angeles voters rejected a tax increase to provide funding for "the already troubled Los Angeles city schools. A bond issue for the construction of new schools was also a victim of nonsupport."[149] This trend was statewide: joining Los Angeles voters in this rejection of school bond measures were Culver City, Ventura, and San Diego, among many others. Between 1966 and 1968, "52 percent of all propositions designed to provide more funds for California schools ... have been defeated."[150]

In an editorial in the *Los Angeles Times*, Warren L. Steinberg, a consultant with LAUSD's Center for Planned Change, commented on the trend:

> California businessmen and politicians—in addition to exploiting the beauties of the California scenery and climate—have long attributed much of the success in luring business to the state to an educational system that provides a large source of skilled manpower. Again, why do Californians reject support for one of the state's most precious assets—schools? Some will answer that it is a taxpayers' revolt, that school taxes are the only taxes on which the average citizen gets to vote and that there is no other way that the individual can show his wrath at the steadily climbing tax bite.

Steinberg captured the mood of the era, not just with respect to funding, in his concluding comments in the piece:

> Our children need to ponder basic educational problems: When will equal educational opportunity be a reality, what is the place of religion in the school, what should be taught in the schools, how much is good education worth, what is the role of home and school, how free should academic freedom be, what part should students have in determining the education they will receive? Unless schools turn out a better educational product and begin to teach students the history and place of education in our society, we can expect more propositions to fail their ABCs. [151]

As the decade ended, though, the "voter revolt" against school bond measures continued, and Los Angeles city schools were tasked with serving a substantial student population with ever-diminishing resources. In 1969, for the first time in its history, LAUSD's student enrollment dropped. The news made headlines in the *Los Angeles Times*: "'This is a new development for us,' said a surprised Asst. Supt. Frederick Fox. 'The trend (of growth) has been broken.'"[152]

Figures 163 and 164. School busing, 1964. On left: Loyola Village School, Playa del Rey, welcomes 82 pupils from Manchester Avenue School. Source: LAPL Herald-Examiner Collection, #00042149. On right: "Miss Ina Metcalfe, principal of Osage Avenue School, greets some of 69 pupils who were transferred to Osage from the 66th Street School. The transfer of 151 pupils from two predominantly African American schools to two all-white schools was accomplished without incident." Source: LAPL Herald-Examiner Collection, #00055171.

Civil Rights and School Integration

As the 1960s ended with this novel news—of an enrollment decrease—school officials cited the dual causes of decreasing birth rates as well as the widespread move of many families to new suburban areas outside the district. An additional factor in this shift was increasing racial tension and growing pressure on the district to correct the racial imbalance that had become evident in many schools.

In the postwar period, addressing and correcting decades of de facto racial segregation represented a significant challenge for LAUSD.[153] By the 1960s, as the Civil Rights movement gained momentum, this long-brewing issue finally came to a head and formed an important part of the social context shaping the district during this time.

Throughout the early twentieth century, racial discrimination and segregation in housing had been reflected in the demographics of Southern Californian schools. A new wave of openly discriminatory housing practices in the 1930s helped maintain and worsen these divisions. In the mid- to late 1930s, surveyors for the Home Owners Loan Corporation (HOLC) studied the demographic breakdown of communities throughout the United States, including in Southern California. The HOLC provided long-term mortgage loans to, mostly, Anglo-American clients. In addition to discriminating against potential clients, the HOLC's "security maps" helped lenders discriminate against entire neighborhoods. In this climate, ethnic diversity was considered to be a security risk.

In order to document the presence of what they termed "subversive races," HOLC surveyors went block by block throughout Los Angeles, interviewing residents and creating neighborhood profiles describing, among other things, racial composition. Hundreds of data sheets, with detailed demographic information, were created for Los Angeles alone. Neighborhoods would be assigned a color denoting the level of risk, with an inordinate amount of weight being assigned on the basis of who lived there: green usually meant that a

neighborhood was entirely Anglo-American; yellow meant that a few ethnic minority members lived in the neighborhood; and red was reserved for neighborhoods with predominantly minority populations, usually African-American.

Figure 165. 1963 hunger strike by school integrationists: "A year-long study on the subject of de facto segregation was scheduled to be presented to the Board of Education." Source: LAPL, Shades of Los Angeles, #00041605.

This practice, which became known as "redlining," fueled discrimination and racially restrictive lending practices and intensified segregation in Los Angeles.[154] As restrictive housing and lending practices continued in the postwar period, racial segregation became particularly pronounced in newly constructed suburbs, in particular in the San Fernando Valley. The student populations of schools reflected this: "The Valley, regardless of the region—North, East, or West—was by far the most racially segregated region of the Los Angeles School District," according to a 1967 report released by the school district.[155] Among thousands of students at Birmingham, Canoga Park, Chatsworth, Cleveland, Granada Hills, Grant, Reseda, Taft, and Van Nuys high schools, there was a combined total of 19 African-American students.[156]

However, additional factors contributed to the marked racial imbalance in so many Los Angeles public schools. As architectural historian Teresa Grimes, et al., noted:

> According to Josh Sides, school segregation in Southern California was the product of racial geography, willful neglect, and racial gerrymandering. In this respect, the civil rights battle over education was very much tied to housing. If black families were restricted to living in certain areas with substandard schools, there was de facto school segregation.
>
> While the LAUSD officially mandated that students attend the school closest to them, white students in racially mixed neighborhoods were able to seek a waiver and attend a predominately white school. This practice, combined with segregated residential patterns, resulted in de facto segregation well into the 1950s. When the NAACP started investigating the schools system in 1953 and U.S. Supreme Court handed down the landmark Brown v. Board of Education case in 1954, schools became a central focus of the Los Angeles civil rights movement. Resistance from both the LAUSD and white parents in affected neighborhoods throughout the city led to a protracted battle over school desegregation well into the 1970s.[157]

Figure 166. The "East LA Blow Out," Lincoln High School, 16 September 1968. Students protested for "better schools for Mexican Americans. Sal Castro was a teacher there and spearheaded the movement." Source: LAPL, Herald-Examiner Collection, 00041327.

In the early 1960s, the NAACP and the American Civil Liberties Union (ACLU), along with a coalition of other organizations, launched a campaign of sit-ins, marches, and other nonviolent action, calling upon the Los Angeles Board of Education to adopt policies aimed at correcting racial segregation and broadening the curriculum. This coalition asserted the need for (1) the Los Angeles Board of Education to redraw its school boundaries, (2) black students in overcrowded schools to elect to attend predominantly white schools, and (3) black teachers to be hired throughout the district.[158] By the mid-1960s, a variety of groups joined forces, arguing for classes and subjects more reflective of the diverse histories and cultures of LAUSD students.

The issue also touched on school boundaries. In 1963, African-American leaders in Los Angeles staged protests, asking that "elementary and secondary school boundaries be redrawn around these 'Negro districts,' that that minority students be transferred from crowded schools to less crowded ones in a 15-mile radius, and that "barriers" to promotion of certified Negro personnel be eliminated."[159] With the Watts uprising in 1965, attitudes were intensified on all sides of the integration issue. Some citizens became more adamant that de facto segregation should remain in place, while other community members, activists, and students began arguing for and asserting the legal rights of all students to equal educational facilities and opportunities.

In 1968, Latin-American students in East Los Angeles staged a series of school strikes popularly known as the "East L.A. Blowout."[160] During the first week of March 1968, approximately 15,000 students walked out of classes at Woodrow Wilson, Garfield, Abraham Lincoln, Theodore Roosevelt, Belmont, Venice, and Jefferson high schools with demands for an "equal, qualitative, and culturally relevant education."[161]

Early Litigation

In 1954, in the landmark case *Brown v. Topeka Board of Education,* the U.S. Supreme Court declared that separate public schools for black and white children were "inherently unequal" and therefore violated the constitutional rights for equal protection for minority children.[162] Impacts of this decision were felt in Southern California. The Los Angeles Board of Education had cited "color-blindness" as its official policy, stating that racial segregation in housing patterns was beyond their control.[163] However, when the policies of the nearby Pasadena School Board (which mirrored those of Los Angeles) were challenged in a 1963 lawsuit brought by the National Association for the Advancement of Colored People (NAACP), the California Supreme Court ruled that school boards must attempt to eliminate racial segregation, regardless of its causes.[164]

In 1963 in Los Angeles, the ACLU filed *Crawford v. Los Angeles City Board of Education*, a class-action school desegregation lawsuit filed behalf of two African-American high school students, Mary Ellen Crawford and Inita Watkins.[165] The lawsuit highlighted two schools—both located in the southern portion of the district, only one mile apart—with pronounced racial imbalance: Jordan Senior High School in Watts, whose student population was 99 percent African-American, and South Gate Senior High School, which had 97 percent Anglo-American students.[166]

The case of *Crawford v. Los Angeles City Board of Education* became a watershed for Los Angeles schools. Filed in 1963, and effectively ending in the U.S. Supreme Court in 1982, the case "encapsulated and propelled the legal and political framework of an era."[167] As a result of the lawsuit, the California Supreme Court ordered LAUSD to formulate a plan to correct de facto racial imbalance in the schools. The most controversial solution proposed and implemented was busing students; programs were first established on a voluntary basis, then in a mandatory program that was hotly debated from the 1960s through the early 1980s, when a constitutional amendment passed by California's voters and affirmed by the U.S. Supreme Court ended the practice.

Crawford v. Los Angeles City Board of Education initially sought to halt the expenditure of public funds to renovate Jordan Senior High School until it was desegregated.[168] The suit was filed in 1963 but amended twice: in 1966, it was broadened to include Mexican-American students, and in 1968, the ACLU further amended the case to call for district-wide desegregation.[169] In 1970, as a result of lawsuit, a Los Angeles City Superior Court affirmed the presence of segregated schools in Los Angeles and ordered the district to take steps to correct racial imbalance. This prompted "a protracted fight over how to desegregate the increasingly diverse and increasingly racially segregated Los Angeles Unified School District."[170]

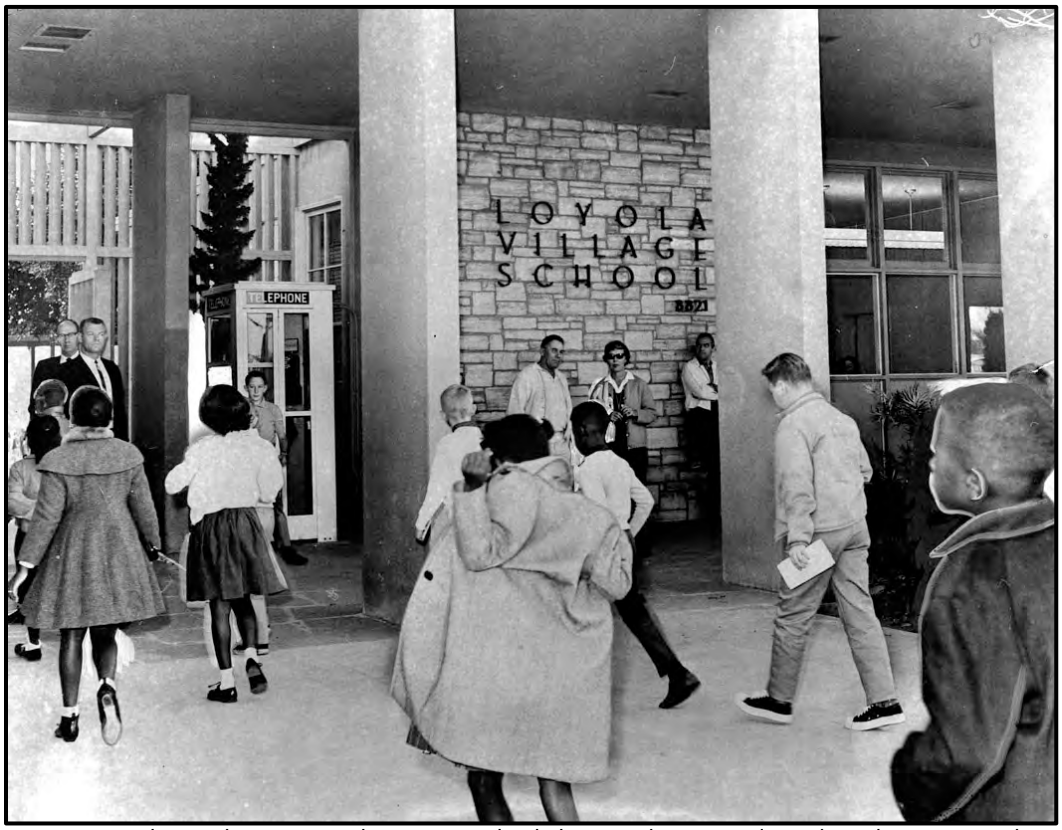


Figure 167. Voluntary busing as a solution to racial imbalance and overcrowding: This February 1964 photo shows children from Manchester Avenue School entering Loyola Village School. The caption read, "The transfer program is designed to cut half-day sessions at schools which are overcrowded by transporting pupils to schools with undersized classes." Source: LAPL, Herald-Examiner Collection, #LAPL00041639.

As mentioned, the most controversial solution involved busing students to correct racial imbalance as well as overcrowding. As early as the 1950s, and increasing in the 1960s, many communities and schools within LAUSD began exploring busing programs. In 1964, much attention was paid to a busing exchange program between relatively new schools in western Los Angeles (Loyola Village Elementary School and Osage Avenue School) and schools in older, more urbanized sections of Los Angeles (Manchester Avenue Elementary School and 66th Street School). In September 1967, a parents' group in Pacoima, in the San Fernando Valley, succeeded in establishing a busing program for 60 Pacoima students; the students would be taken by bus to the predominantly Anglo-American Encino Elementary School.[171]

During this period, in the late 1970s, two schools launched a voluntary, experimental program. Hobart Boulevard Elementary School, a multiracial school within the City of Los Angeles, partnered with Dixie Canyon Elementary School in the San Fernando Valley. In a program funded for a limited time by the Los Angeles School Board, approximately 70 second- and third-grade students from each school made the half-hour trip by bus to attend their partner school for a semester. The next semester, a new group of children would participate in the program. When the program was approved, the *Los Angeles Times* described it as "two schools, and one big step to integration": "The Anglo parents sat for more than two hours making a decision. Carefully, thoughtfully, they weighed the arguments. … But when the meeting was over, more than 100 parents of children in Dixie Canyon Elementary School in the San Fernando Valley agreed to participate in a voluntary two-way integration plan with Hobart Boulevard Elementary School, a multiracial inner-city school."[172] Writing in support of the program in the *Los Angeles Times*, Judith R. Birnberg, a Dixie Canyon Elementary School parent, stated that

> Socially, Hobart couldn't be more ideal: children attending the school have come from 42 different countries, and such a mix is already affecting my son. …Too many parents base their resistance to integration on the unknown. They assume minority schools are inferior, they assume the time traveling by bus will be a burden to their children; they assume children are haunted by the same fears clouding their own lives. But the time has come for parents to learn from their children.[173]

In 1977, in response to a California Supreme Court ruling calling for a "reasonable and feasible" integration plan, the Los Angeles Board of Education designed a program for mandatory busing. Under the plan, approximately 55,000 fourth- through eighth-grade students would be bused to school in 1978, with an estimated 112,000 students to follow in 1979.[174] The program was controversial and contested on a number of fronts. Just two years after the Los Angeles Board of Education proposed its plan, California's Proposition 1 sought to reverse it through a constitutional ban on mandatory busing. On the ballot in November 1979, Proposition 1 passed handily, with 70 percent of voters supporting the end of the practice.[175] On appeal in 1982, the US Supreme Court found Proposition 1 constitutional and upheld the ban on mandatory busing.

While this ruling solved one question, the issue of racial imbalance, cultural sensitivity in hiring practices and curricula, and encouraging diversity continued to shape the local- and state-level conversations about public schools through the 1960s, into the 1980s, and beyond. This issue continued to unfold in the courts on many fronts, as well as local and state governmental offices, school boards and classrooms, communities and families throughout Southern California. In this way, civil rights, ethnic identity, culture, and equal access shaped the sociopolitical context for school districts such as LAUSD in this period.

Summary: The Postwar Modern, Functional School Plant

In the postwar period, the functional modern school plant quickly became the norm throughout the United States and in Los Angeles. As school districts struggled to keep up with demand, architects had ample opportunities to test new ideas. The emphasis on the child-friendly school meant a continuing focus on improving and standardizing environmental controls, such as lighting, ventilation, heating and cooling systems, and interior design. While three main plan types emerged during this era—the finger-plan, cluster-plan, and open-plan school—there were many combinations and variations on the basic themes. Stylistically, as well, postwar schools might exhibit textbook features of the International Style, more regionally inflected modernism, or variations on the styles popular in the postwar period.

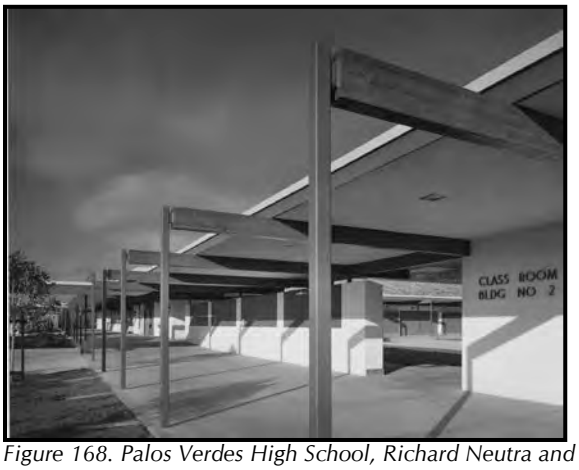


Figure 168. Palos Verdes High School, Richard Neutra and Robert Alexander (1961). Source: The J. Paul Getty Trust, Getty Research Institute, Julius Shulman Archives.

First and foremost, the postwar school was designed to be more informal, accessible, and child-friendly. A more accessible school generally signaled lower massing, though junior and high schools might still climb two or three stories, especially given the pressing need for more schools. In general, the preferred, more domestic scale was reflected in one-story massing and low ceilings, which made classrooms more intimate. Generous panels of glazing provided light and outdoor access, with larger windows on north elevations and often clerestory windows on southern sides, to balance cross-lighting. With the advent of air-conditioning, schools in the early 1960s tended to diminish generous expanses of glazing. The need for economical construction and finely tuned environmental features and controls accompanied a continued national call for standardization of school design.

Campus planning and site-specific design also became increasingly important, as new residential areas emerged from former agricultural lands, and school builders and planners had the acreage to plan an entire campus created for new residential communities. In this era, ideas about planning at the scale of the neighborhood included the generous use of outdoor spaces and landscaping and a zoned design that turned the campus inward and separated pedestrians and automobile traffic, for safety and accessibility. Although many variations were proposed, the modern campus plan called for "small separate units connected by arcades or passageways and attractively grouped. This type of arrangement is quite flexible and eliminates much of the institutional atmosphere of the large compact structures."[176]

SECTION IV ARCHITECTURAL CHARACTER

As described in Section III, early-twentieth-century reform brought a more functional approach to school design throughout the United States. Priorities shifted, and designing according to function rather than style became the starting point for architects and builders. In this way, Los Angeles's public schools generally display a scale and function that are unique to their purpose as educational facilities. Even so, as the focal point for the community's identity and commitment to education, public schools also showcased outstanding architectural design by the region's leading practitioners. Throughout the twentieth century, the public schools of Los Angeles have reflected both the increased emphasis on functionality as well as the significant stylistic trends of the day.

The following summary of the typical architectural styles reflected in LAUSD schools serves to introduce the topic and sketch the main character-defining features and eras for each style. This section draws upon and expands the architectural character section of the 2002 LAUSD Historic Context Statement and presentation prepared by Leslie Heumann & Associates and Science Applications International Corporation of Pasadena, California.[177] This updated version draws upon additional field observations, as well as recognized guides and studies.[178]

In order to ensure cross-agency compatibility, the authors of this section also considered and adapted, where appropriate, the standards used by the City of Los Angeles Office of Historic Resources and Department of Planning for historic resource surveys.

This section is not intended to be an exhaustive list of styles but rather an introduction and general framework for understanding the principal styles, as well as stylistic evolution, of LAUSD school plants. Descriptions of each style include the general period during which the style was used and its typical character-defining features.

The broad stylistic categories presented here were compiled with an understanding that architectural design is more dynamic than a fixed label might suggest. Styles and trends come together through a combination of architectural precedent, historical interpretation, creative license of designers, and the agency of clients. Therefore, architectural styles are best understood as cultural hybrids incorporating elements from a variety of sources. In this way, these descriptions offer a broad palette for identify stylistic influences and character.

Figure 169. Old Vernon Avenue School (1876).
Source: Heumann & Associates and SAIC for LAUSD.

Figure 170. Old Canyon School (1894).
Source: Heumann & Associates/SAIC for LAUSD.

LATE-NINETEENTH-CENTURY STYLES

Some of the earliest schoolhouses built in Los Angeles were one- and two-story, vernacular-type wood buildings, generally modeled at the scale of domestic and small civic buildings and easily enlarged or modified to accommodate growth or multiple uses. During this era of school construction, the bell tower, echoing church design, was introduced as a signature element. Three known examples of Los Angeles's early wood-framed schoolhouses have survived; in Los Angeles, this construction type was in use from the earliest years of the district through approximately 1910. The library building at Canyon Elementary School, for example, was built in 1894.

Typical Character-Defining Features:

- One- to two-story massing
- Wood-framed construction
- Horizontal wood or wood shingle siding
- Open cupola or bell tower
- Simple vernacular exteriors, or Queen Anne or Colonial Revival detailing
- Wood-framed, double-hung sash windows, often in groupings

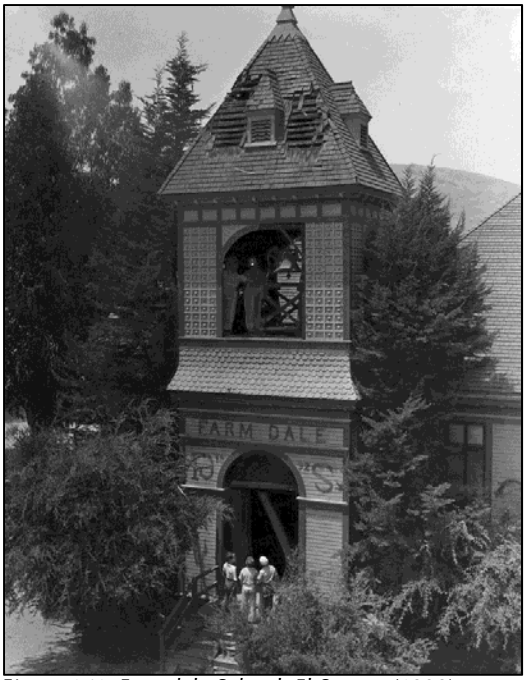


Figure 171. Farmdale School, El Sereno (1892).
Source: LAPL Photo Archive.

EARLY TWENTIETH CENTURY: BEAUX-ARTS CLASSICISM & NEO-CLASSICAL REVIVAL

Early twentieth-century buildings brought a new architectural vocabulary to LAUSD school design. The monumental classical motifs of Beaux Arts Classicism, evident in courthouses and city halls accommodated a new scale of two and three stories. This scale was demanded by expanding enrollment and a need for increased capacity and rooms differentiated by grade level and curriculum.

Beaux Arts Classicism and Neo-Classical Revival styles were especially favored by designers following the lead of McKim, Mead and White and other prominent national firms. The impressive porticos, with classical orders and colossal columns, advertised the importance placed on public education. Primarily of masonry construction, most of these schools fell victim to the 1933 Long Beach Earthquake. The San Fernando Middle School Auditorium, constructed as part of a 6-year high school in 1916, is one of the few remaining examples of this era.

Figure 172. A rare remnant of the Neo-Classical era in school design: San Fernando Middle School, Auditorium, John C. Austin, architect (1916). Source: Heumann & Associates and SAIC for LAUSD.

Figure 173. Detail, San Fernando Middle School (1916). Source: Heumann & Associates and SAIC for LAUSD.

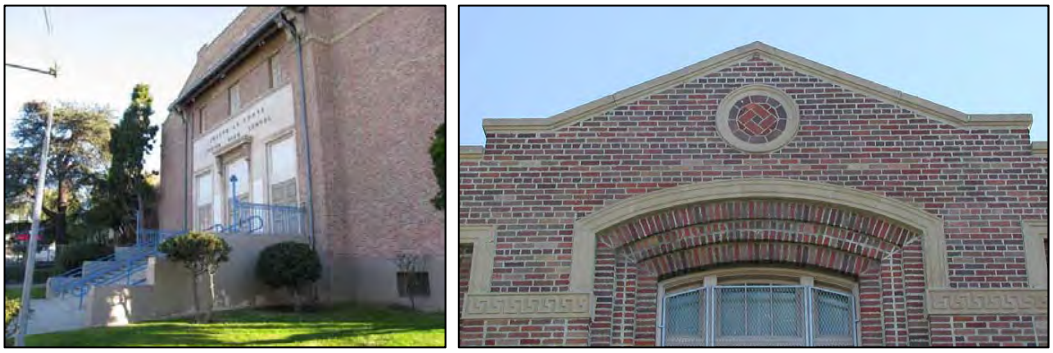
Typical Character-Defining Features:

- Monumental scale
- Formal, symmetrical design composition
- Smooth stone, masonry, or concrete exteriors (often scored to resemble masonry)
- Elaborated entrance, often featuring portico with columns
- Classical detailing, such as use of gables and entablature, columns, and pilasters
- Multilight grouped windows with wood surrounds

EARLY TWENTIETH CENTURY: INDIGENOUS REVIVAL STYLES AND THE ERA OF HISTORIC ECLECTICISM

As of 2013, a substantial number of LAUSD's remaining school buildings were constructed between the early 1920s and World War II. These schools reflect the eclectic menu of revival styles popular at the time for a range of building types. Period-revival styles seen in LAUSD schools include Italian Renaissance Revival, Collegiate Gothic Revival, and Tudor Revival. In addition, for Southern California's emerging architectural profession and academy, this era brought a new emphasis on the region's indigenous architectural traditions and a desire to infuse design with local character. Indigenous revival styles that rose in popularity during this period included, most notably for LAUSD public schools, the Spanish Colonial and Mission Revival. Designers expressed regional character and flavor by relating buildings to the outdoors, with one-story schools easily opened to exterior spaces, and by providing open loggias and arcades for circulation.

Where design was a priority, the stylistic program of the school is generally most clearly expressed in the campus's public buildings, such as the auditorium or administration building, and at primary entrances to buildings or classroom wings.



Figures 174 and 175. Renaissance Revival Style: Joseph Le Conte Middle School, Edgar Cline (1922). Source: LAUSD Le Conte Middle School Pre-Planning Survey, 2012 (left) Heumann & Associates and SAIC for LAUSD (right).

Figures 176 and 177. Northern Italian Renaissance: Hamilton Senior High School Administration Building, John C. Austin & Frederick C. Ashley, (1931). Source: LAUSD Hamilton Senior High School Pre-Planning Survey, 2010 (left) Heumann & Associates and SAIC for LAUSD (right).

MISSION REVIVAL AND SPANISH COLONIAL REVIVAL

Beginning with efforts to restore California's missions in the late nineteenth century, Southern Californian architects began looking toward regional history for stylistic cues. The region's climate and Hispanic heritage figured prominently in these new directions. The Mission Revival vocabulary, most popular between 1890 and 1920, drew inspiration from Southwestern missions. Identifying features include curved parapets and red tiled, low-pitched roofs. Arches were used liberally, and wall surfaces commonly displayed smooth stucco. The Spanish Colonial Revival flourished between 1915 and 1940, reaching its apex during the 1920s and 1930s. This movement was catalyzed by architect Bertram Goodhue's 1915 designs for Panama-California Exposition in San Diego. The Spanish Colonial Revival style became one of the most popular idioms for a range of building types. Architects and builders embraced the style, which was employed for many LAUSD schools. The rise in popularity of the Spanish Colonial Revival style also coincided with the move toward more child-scaled schools, with lower massing and open, expansive campuses. With its emphasis on arcaded corridors and patios, the style fit this movement particularly well.

Spanish Colonial Revival buildings tend to be asymmetrical and sheathed with smooth stucco. Roofs generally consist of gabled, gabled and flat, and (less commonly) hipped roofs, clad in red clay tiles. Arched openings, whether for windows, doors, or gates, are a textbook feature. Secondary materials—including wood, wrought iron, and polychromatic tile—provide decorative accents. Windows are generally wood framed or metal, with molded wood surrounds or lintels.

Typical Character-Defining Features:

- Stucco-clad walls (usually smooth finish); occasionally might have brick or cast stone
- Asymmetrical design
- Use of towers, turrets, or cupolas
- Low-pitched gabled or hipped roof covered in red clay tiles or flat roof with parapet wall
- Shallow eaves or deeper eaves, lined with exposed carved wood brackets
- Arched openings for windows, doors, and use of arcades
- Secondary materials can include wrought iron, polychromatic tile, and cast stone
- Exterior patios and courtyards

Figure 178. Post-earthquake Mission Revival Style: Reseda Elementary School (1936). Source: Heumann & Associates and SAIC for LAUSD.

Figure 179. Late example of Spanish Colonial Revival: Verdugo Hills High School (1948). Source: Heumann & Associates and SAIC for LAUSD.

RENAISSANCE REVIVAL STYLE

In the late nineteenth and early twentieth centuries, the Renaissance Revival style began as a fairly literal translation of sixteenth-century Italian *palazzi* into two- and three-story buildings. The style evolved into one of the most popular of the 1920s, in particular for midrise office buildings. McKim, Mead, and White designed some of the United States' most elegant expressions of the revival during its earlier years. During the 1920s, local architects such as Walker and Eisen and John and Donald Parkinson designed many of Los Angeles's best examples.

Renaissance Revival buildings in Southern California are generally sheathed in brick or stucco. Facades are symmetrical or highly regular and divided into bays by the fenestration pattern or by piers, which are often treated as columns with bases and capitals. Variations in surface finishes, fenestration, and level of detail visually distinguish each section, creating a horizontal emphasis that is reinforced by prominent belt courses. A cornice, set above a frieze and/or architrave, traditionally tops a Renaissance Revival building. Windows on top stories are often distinguished from lower stories by different surrounds and configuration.

Figure 180. El Sereno Middle School, originally Woodrow Wilson High School (1937). Source: Heumann & Associates and SAIC for LAUSD.

Typical Character-Defining Features:

- Rectangular massing
- Brick, stucco, and concrete, with trim of terra cotta or cast stone and bases of granite or masonry
- Horizontal emphasis; differentiated treatment of stories
- Symmetry and regularity
- Brick, stucco, or concrete exterior, often scored to resemble masonry
- Gabled and/or hipped roof, often sheathed in clay tiles
- Linear fenestration pattern
- Belt courses and cornices
- Classical detailing
- Cast stone or terra cotta architectural ornament

Figure 181. University High School (1924). A spring located on the school campus is registered as California Historical Landmark No. 522; the spring marks the location of three significant events: where the Portola Expedition camped in 1769, Father Junipero Serra gave Mass in 1770, and where the City of Santa Monica once obtained its water supply. Source: Heumann & Associates and SAIC for LAUSD.

GOTHIC REVIVAL / COLLEGIATE GOTHIC

Popularized by writers and art critics such as John Ruskin (1819–1900), the English Gothic Revival movement looked back to and idealized the preindustrial Medieval era as a more pure and moral golden age, for society as well as for architecture. First popularized for religious buildings and for school buildings—the "Collegiate Gothic"—the style began appearing in the Los Angeles area in the late 1800s. Few buildings were constructed locally in this style, and even fewer remain.

Most extant Collegiate Gothic schools in Los Angeles were constructed during the height of the period-revival era. In the 1930s, in school design, the style fell out of favor as more up-to-date architectural idioms began emerging. The 1933 Long Beach earthquake, and then the 1934 Field Act, hastened the need for widespread school repairs and new construction, which accelerated the stylistic shift during this period.

Gothic Revival schools share the same emphasis on verticality that characterizes other applications of the style. The emphasis on the vertical is often expressed through the use of uninterrupted piers or attached ornament, which extend from the ground to the roof. The style also makes liberal use of mullions, towers, spires, and pinnacles. Windows are arranged in vertical channels of glass, sometimes topped with pointed arches. Brick and concrete were the materials of choice, often accented by cast stone.

Typical Character-Defining Features:

- Concrete or brick exterior
- Emphasis on the vertical axis
- Attenuated windows and openings
- Use of full-length columns or pilasters
- Steeply gabled roof
- Liberal use of cast stone or terra cotta ornament and sculptural detailing
- Stylized openings, with Tudor, pointed, or round arches
- Windows and doorways outlined with archivolts and topped with decorative crowns
- Windows with mullions

Figure 182. John Marshall High School, George Lindsey, architect (1931). Source: Heumann & Associates and SAIC for LAUSD.

Figures 183 and 184. Huntington Park High School, Administration Building (1936). Source: Heumann & Associates and SAIC for LAUSD.

ART DECO

As architects and designers began exploring alternatives to historic revival styles, one of the earliest modern alternatives was Art Deco. The term grew out of the 1925 exposition in Paris showcasing the "nouveau," or new directions in design and decorative arts, at the *Le Musee des Arts Decoratifs*.

The idiom is highly decorative but rejects copying or adapting historical revival styles. Instead, ornamentation draws on geometric and foliate patterns and motifs, such as zigzags and chevrons, light, and color. Primarily in use between the 1920s and 1930s, the style was used most often in commercial, industrial, and institutional buildings.

Typical Character-Defining Features:

- Emphasis on verticality through building massing, applied exterior features, and ornament
- Use of stylized, geometric motifs and decorative features, such as zigzags and chevrons
- Generally features smooth stucco- or concrete-clad wall surfaces
- Often features towers or other elements projecting beyond the roofline
- Often features steel-frame casement and fixed windows

Figure 185. PWA Moderne with Art Deco influence: Florence Nightingale Middle School, John C. Austin & Frederick M. Ashley, architects (1937-1939). Source: Heumann & Associates and SAIC for LAUSD.

Figure 186. Streamline Moderne: Thomas Jefferson High School, Stiles O. Clements (1933). Source: LAUSD.

STREAMLINE MODERNE | MODERNE

The Streamline Moderne became a popular style during the Great Depression and World War II period. Its clean lines and minimalist ornament both celebrated the modern machine-age and signaled the period of austerity triggered by the Great Depression. Compared with its more ornamental predecessor, the Art Deco style, Streamline Moderne is more restrained in its ornamental program and emphasizes the horizontal rather than the vertical. This is achieved through incorporating bands of windows, decorative raised or grooved horizontal lines, flat canopies with banded fascia, and narrow coping at the roofline. Other characteristics include smooth wall surfaces, usually clad in stucco, glass block or porthole windows, and rounded corners. Reference to aerodynamic design is a signature of the style.

Compared with the Streamline Moderne, Moderne buildings also tend to be horizontal in emphasis but more clean-lined and rectilinear in their massing and detailing. Moderne designs are generally characterized by flat roofs, smooth stucco exteriors, and use of metal casement windows that often meet at the corners of the building.

Typical Character-Defining Features:

- Horizontal emphasis, massing, and accents, such as moldings and continuous sill courses
- Smooth stucco or concrete exterior finish
- Curvilinear/rounded wall surfaces, corners, and features
- Recessed windows with no surrounds
- Flat or nearly flat roof

Figure 187. Moderne: Venice High School, Austin & Ashley, architects (1935-1937). Source: Heumann & Associates and SAIC for LAUSD.

Figure 188. Hollenbeck Middle School, Alfred P. Rosenheim, architect (1936). Source: Heumann & Associates and SAIC for LAUSD.

Figure 189. Hollywood Union High School, Marsh, Smith & Powell (1934-1935). Source: Heumann & Associates and SAIC for LAUSD.

PWA MODERNE

Created by the National Industrial Recovery Act, the Public Works Administration (PWA) was founded within a few months of the March 1933 Long Beach Earthquake. Following widespread damage to Los Angeles public schools in the wake of the earthquake, much school reconstruction work was funded by the PWA. Consequently, a substantial number of Los Angeles public schools either built or remodeled during this time exhibit some degree of PWA Moderne styling. Also referred to as "Stripped Classicism," the PWA Moderne often incorporates elements of a number of styles, including Classical Revival, Spanish Colonial Revival, Art Deco, and Streamline Moderne.

Compared with the Streamline Moderne, the PWA Moderne was more formal and symmetrical in its overall design, with less emphasis on curvilinear shapes and horizontality. This style is found throughout the United States, particularly for institutional buildings funded through the PWA. Although the PWA program was terminated in 1943, buildings continued to display these stylistic features.

Typical Character-Defining Features:

- Emphasis on the vertical axis
- Symmetrical, formal design composition and massing
- Smooth wall surfaces, generally exhibiting stucco, concrete, and/or polished stone (rarely includes brick exterior elements)
- Usually displays a flat roof
- Piers, often fluted or reeded, separating recessed window channels
- Incorporation of shallow relief panels and interior murals

Figure 190. PWA Moderne meets Spanish Colonial Revival style: Canoga Park High School Auditorium (1939). Source: Heumann & Associates and SAIC for LAUSD.

Figures 191 and 192. Emerson Middle School, Richard Neutra, architect (1937-1940). Source: LAUSD Emerson Middle School Pre-Planning Survey.

EARLY MODERNISM | INTERNATIONAL STYLE (PRE-1945)

This style coincides with the emergence of modern architectural design and culture in Los Angeles, at a time when modernism was still in an experimental stage and carried out by a relatively small group of architects and designers. Although many of these same ideas informed postwar modern styles, this era was unique and experimental. The City of Los Angeles Office of Historic Resources describes this stylistic theme as follows:

> With precedents in Europe dating to the first decades of the twentieth century, Los Angeles was one of the first American centers of the International Style due in large part to the import of ideas by Viennese expatriates Rudolph Schindler and Richard Neutra. Although never catching on as a widely-accepted style for domestic architecture, the International Style was embraced and regionalized by a number of Los Angeles architects and designers who established a formidable local Modernist tradition.
>
> Rudolph Schindler came to Los Angeles from Austria in 1920 to oversee construction on the Barnsdall House (Hollyhock House) for the office of Frank Lloyd Wright. Fellow Austrian Richard Neutra came to Los Angeles at Schindler's urging in 1925. Schindler, Lloyd Wright and Neutra and the architects of the so-called "Second Generation" architects continued to design buildings in Los Angeles in the postwar years; however, by this time the work of these architects and their protégés took on an expression of a more regional modernism (see Mid-Century Modernism).[179]

Typical Character-Defining Features:

- Horizontal emphasis
- Use of simple, geometric volumes
- Smooth, unadorned wall surfaces, often sheathed in stucco or concrete
- Flat or nearly flat roof, often with cantilevered eaves
- Use of corner and casement windows, often with steel frames
- Windows generally set flush with the wall plane, with minimal trim or surrounds
- Continuous bands of windows emphasize the horizontal axis

Figures 193 and 194. On left, Fernangeles Elementary School (1954), Sun Valley. On right, Parmlee Avenue Elementary School (1962), southeastern Los Angeles. Source: Sapphos Environmental, Inc., 2014.

MID-CENTURY MODERNISM / REGIONAL MODERNISM (POST-1945)

Mid-Century Modernism, or Regional Modernism, represents a middle ground between the formal, machine-age aesthetic of the International Style and a regional idiom reflecting local precedent and identity. In the postwar period through the 1960s, as practiced in Southern California, Mid-Century Modernism took its cues from the region's first-generation modernist architects such as Richard Neutra, Rudolph Schindler, Gregory Ain, Frank Lloyd Wright, and Harwell Hamilton Harris. In the postwar period, second-generation practitioners such as Raphael Soriano, Whitney Smith, and A. Quincy Jones, among many others, established Los Angeles as a center for innovative architectural design and culture.

Mid-Century Modernism is characterized by an honest expression of structure and function, with little applied ornament. Aesthetic effect is achieved through an asymmetrical but balanced, rhythmic design composition, often expressed in modular post-and-beam construction. Whether wood or steel, post-and-beam construction allowed for open floor plans, ease of expansion, and generous expanses of glazing to heighten indoor-outdoor integration. Infill panels of wood or glass are common, with glazing often extending to the gable. Buildings are generally one to two-stories, with an emphasis on simple, geometric forms. Capped with low-pitched gabled or flat roofs, a Mid-Century Modern building often displays wide eaves and cantilevered canopies, supported on spider-leg or post supports. Sheathing materials vary, with wood, stucco, brick and stone, or steel-framing and glass. Windows are generally flush-mounted, with metal frames.

Figure 195. Pacoima Middle School, Administrative Building (1955), Wilmington. Source: LAUSD Pacoima Middle School Pre-Planning Survey, 2010.

Figures 196 and 197. Grover Cleveland High School, Administrative Building (left) and typical classroom wing (right), Matcham & Granger and Associates (1959), Reseda. Source: Sapphos Environmental, Inc., 2013.

This style was seen in postwar institutional and commercial buildings, as well as residences, from 1945 until circa 1975, when Title 24 restrictions on the use of glass curtailed the expansive glazing that characterizes the style.

Typical Character-Defining Features:

- Horizontal design composition and massing; generally one to two stories
- Simple, geometric volumes
- Flat or shed roof, often with wide, cantilevered overhangs
- Exterior materials include stucco, brick, or concrete
- Modular design and planning
- Aesthetic qualities derive from use of simply treated materials and excellent craftsmanship
- Direct expression of structural systems, often in wood or steel post-and-beam
- Lack of historicizing ornament
- Generous expanses of fenestration, including bands of grouped multi-light windows
- Extensive use of sheltered exterior corridors, with flat or slightly sloped roofs supported by posts, piers, or pipe columns

Figure 198. Orville Wright Middle School, Cafeteria, Spaulding & Rex (1951). Source: LAUSD Wright Middle School Pre-Planning Survey, 2012.

Figure 199. Palisades Charter High School, Wilson & Associates (1961). Source: LAUSD Palisades Charter High School Pre-Planning Survey, 2012.

Mid-Century Modernism | Expressionistic/Organic Subtype:

- Combines sculptural forms with basic geometric volumes
- Curved, sweeping wall surfaces
- Expressionistic roof forms, including butterfly, folded plate or barrel vault roof forms

ILLUSTRATIONS OF LAUSD ARCHITECTURAL STYLES

COLLEGIATE GOTHIC

Figures 200 and 201. John Marshall High School, George Lindsey (1931). Source: Heumann & Associates and SAIC for LAUSD.

TUDOR REVIVAL

Figure 202. Gulf Avenue Elementary School, Henry Harwood Hewitt & Norman Miller (1926). Source: Heumann & Associates and SAIC for LAUSD.

Figure 203. John Muir Middle School, John C. Austin (1922). Source: Heumann & Associates and SAIC for LAUSD.

MEDITERRANEAN REVIVAL

Figures 204 and 205. Mediterranean Revival: Hamasaki Elementary School, originally Riggin School (1927). Source: Heumann & Associates and SAIC for LAUSD.

RENAISSANCE REVIVAL STYLE

Figure 206. Ritter Elementary School (1932). Source: Heumann & Associates and SAIC for LAUSD.

Figure 207. University High School (circa 1922). Source: Heumann & Associates and SAIC, LAUSD.

Figure 208. Italian Renaissance Revival: South Gate High School, George Lindsey & Erwood Elden (1930). Source: Heumann & Associates and SAIC for LAUSD.

Figure 209. Renaissance-inspired Walter Reed Middle School, originally North Hollywood Junior High School, John Austin (1939). Source: Heumann & Assoc. and SAIC for LAUSD.

Figures 210 and 211. John Burroughs Middle School (1922). Source: Heumann & Associates and SAIC for LAUSD.

SPANISH COLONIAL REVIVAL

Figure 212. Eagle Rock Elementary School (circa 1919). Source: Heumann & Associates and SAIC for LAUSD.

Figure 213. North Hollywood High School, Hunt & Chambers (1926). Source: Heumann & Associates and SAIC for LAUSD.

Figure 214. Aldama Elementary School, Charles Plummer (1924). Source: Heumann & Associates and SAIC for LAUSD.

Figure 215. Pacific Palisades Elementary School, Albert Nibecker (1930). Source: Heumann & Associates and SAIC for LAUSD.

Figure 216. Spanish Eclectic: Horace Mann Middle School (1926). Source: Heumann & Associates and SAIC for LAUSD.

Figure 217. Canoga Park Elementary School, Sumner Spaulding (1935). Source: Heumann & Associates and SAIC for LAUSD.

ARCHITECTS

Since the early years of the district, the school buildings and campuses of LAUSD have been designed by some of the region's most prominent master architects region as well as the district's own architectural department. The following architects and firms were responsible for numerous designs of extant buildings throughout the district, since the early twentieth century:

- Thornton Abell
- Ain, Johnson & Day (Gregory Ain, Joseph Johnson, and Alfred Day)
- Robert Evans Alexander
- Allison & Allison (David Clark Allison and James Edward Allison)
- John C. Austin
- Austin and Ashley (John C. Austin and Frederic Ashley)
- Austin, Field & Fry (John C. Austin, Robert Field, Jr., Charles Eugene Fry)
- Edwin Bergstrom
- Daniel, Mann, Johnson & Mendenhall, DMJM (Phillip Daniel, Arthur Mann, Kenneth Johnson, Irvan Mendenhall)
- Stiles O. Clements
- Roland Coate
- Edelman and Zimmerman
- Sidney Eisenshtat
- Henry L. Gogerty
- Heitschmidt & Thompson (Earl Heitschmidt and Whiting Thompson)
- Frank Hudson
- Hudson & Munsell
- Stewart S. Granger
- Myron Hunt
- Hunt & Chambers
- Hunt & Burns
- Gordon B. Kaufmann
- George Lindsey
- Marsh, Smith, & Powell (Norman Marsh, David Smith, and Herbert James Powell)
- A. C. Martin
- Matcham & Granger (Charles O. Matcham Sr. and Stewart S. Granger)
- Alfred S. Nibecker
- Richard Neutra
- C.E. Noerenberg and Johnson
- Parkinson and Parkinson
- Charles Plummer
- Alfred Rosenheim
- Sumner Spaulding
- Spaulding & Rex (Sumner Spaulding and John Rex)
- William Stockwell
- Whiting Thompson
- Walker and Eisen
- Adrian Wilson & Associates

SECTION V THEMES OF SIGNIFICANCE

CONTEXT: PUBLIC AND PRIVATE INSTITUTIONAL DEVELOPMENT | EDUCATION
THEME: LAUSD | FOUNDING YEARS

Property Type:	Institutional/Educational
Property Subtypes:	Wood-Framed School House
Period of Significance:	1872 to 1894
Area of Significance:	Education
Geographic Location:	Citywide (rare)
Area of Significance:	A/1

Eligibility Standards:

- Is a rare example of an educational facility from the founding years of the Los Angeles City School District

Character-Defining Features:

- Retains most of the essential physical features from the period of significance
- Wood siding
- Bell tower; some Victorian-era ornamental detailing
- One-story massing
- Wood-framed, double-hung windows

Integrity Considerations:

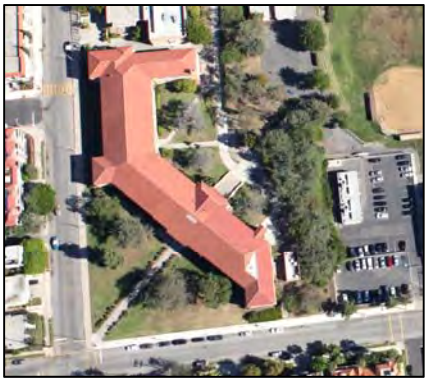
- Should retain integrity of Design, Feeling, and Association from the period of significance
- Some materials may have been removed or altered
- Modern lighting and fencing of site acceptable alterations

Figure 218. Old Vernon Avenue School, built in 1876. Source: LAUSD.

Figure 219. Old Canyon School, built in 1894. Source: LAUSD.

THEME: LAUSD | PRE-1933 LONG BEACH EARTHQUAKE SCHOOL PLANTS, 1920-1933

Pictorial Overview



Figures 220 and 221. The expansive plan and Renaissance Revival-style of University High School (1924). Designed open spaces have been retained for nearly a century. Source: LAUSD University High School Pre-Planning Survey, 2011.

Figures 222 and 223. Vernon City Elementary School (1929), with courtyards and Spanish Colonial Revival arcades placing school corridors outside. Source: LAUSD Vernon City Elementary School Pre-Planning Survey, 2011.

Figure 224. One-story scale and E-shaped plan of Fishburn Avenue Elementary School (1926), in 1927 aerial photo. Source: LAPL Photo Collection.

CONTEXT: PUBLIC AND PRIVATE INSTITUTIONAL DEVELOPMENT | EDUCATION
THEME: LAUSD | PRE–1933 LONG BEACH EARTHQUAKE SCHOOL PLANTS, 1910–1933

Property Type:	Institutional/Educational
Property Subtypes:	Elementary, Junior High, and High School Buildings and Campuses
Period of Significance:	1910 to 1933
Area of Significance:	Education
Geographic Location:	Citywide
Area of Significance:	A/1

Eligibility Standards:

- Embodies LAUSD school planning and design ideals and principles of the era
- One of few remaining schools from the pre–1933 Long Beach earthquake era that was not substantially altered or remodeled
- Retains most of the associative and character-defining features from the period of significance

Character-Defining Features | Buildings/Structures:

- Articulated buildings plans, facilitating the creation of outdoor spaces (often T-shaped, E-shaped, U-shaped, and H-shaped plans)
- Generally low massing, usually one to two stories (with two to three stories more common for middle and senior high schools)
- Includes designed outdoor spaces, such as courtyards and patios, adjacent to classroom wings
- Exteriors usually lined with rows of grouped windows, including wood-framed multilight windows; expanses of windows often mark the location of classrooms
- Designed in popular period-revival styles of the era (including Spanish Colonial Revival, Renaissance Revival, Mediterranean Revival, and Collegiate Gothic)
- Often designed by prominent architects of the era

Character-Defining Features | Campus/District:

- Emphasis on a more spread-out site plan, with designed outdoor spaces
- More varied collection of buildings, differentiated by function and use (rather than a single building with all functions inside)
- Might include an elaborate administration building, usually the focal point of the campus, as well as classroom wings, auditoriums, gymnasiums, and outdoor recreation areas
- Middle or senior high schools might include a gymnasium designed in the style of the campus overall

Integrity Considerations:

- Most pre-1933 schools were substantially remodeled following the Long Beach earthquake
- Designed outdoor spaces, such as courtyards and patios, should be intact in use, if not with landscape design and hardscaping; development pressures over the years often resulted in these open spaces being in-filled with new construction; overall sense of relationship of building to designed outdoor spaces should be intact
- Should retain integrity of Materials, Design, Workmanship, Feeling, and Association from its period of significance
- Intact campus groupings from a single period of time are not common
- Some materials and features may have been removed or altered
- Modern lighting and fencing of site acceptable

Comments:
Schools from this period generally include additional buildings and structures added after the period of significance (in particular after World War II), which may be non-contributing.

Eligible properties under this theme may be a single building (generally the Administration Building, in combination with a classroom wings) or a grouping (campus) of buildings constructed during the period of significance.

Buildings and campuses exhibiting distinctive design features might also qualify under Criteria C/3, as the embodiment of the distinctive characteristics of a type, period, region, or method of construction, an excellent example of the work of a master architect, or for high artistic values.

Figure 225. Marshall Senior High School (1931). The school has expanded over the years but also retains many of its designed open spaces and courtyards. Source: LAUSD Marshall Senior High School Pre-Planning Survey, 2010.

CONTEXT: PUBLIC AND PRIVATE INSTITUTIONAL DEVELOPMENT | EDUCATION
THEME: LAUSD | POST–1933 LONG BEACH EARTHQUAKE SCHOOL PLANTS, 1933–1945

Property Type:	Institutional/Educational
Property Subtypes:	Elementary, Junior High, and High School Buildings and Campuses
Period of Significance:	1933 to 1945
Area of Significance:	Education
Geographic Location:	Citywide
Area of Significance:	A/1

Eligibility Standards:

- Exemplifies post–Long Beach earthquake school planning and design concepts of the period, including requirements under the 1934 Field Act
- One-story massing for elementary schools; up to two-stories for junior/high schools
- Retains most of the associative and character-defining features from the period of significance

Character-Defining Features | Buildings/Structures:

- One-story massing for elementary schools; up to two stories for middle and senior high schools
- Reinforced concrete, steel- or wood-frame construction
- Classroom wings designed for easy access and views to outdoors—with variations including L-, H-, T-shaped building plans
- Generous expanses of windows, including steel- and wood-framed multilight windows, awning and hopper casements, clerestories, and large-pane fixed windows; window groupings often mark the location of classrooms
- Stylistically more streamlined and less ornamental than 1920s period-revival styles
- Emphasis on "traditional Southern Californian" styles, such as Spanish Colonial and Mission Revival
- Styles can also include PWA Streamline Moderne, Art Deco, Late Moderne, and proto-modern styles
- May have been partially or fully funded through Works Progress Administration (WPA), 1935 to 1943
- WPA projects may include significant interior artwork such as murals, paintings and sculpture
- May have been designed by a prominent architect of the period

Character-Defining Features | Campus/District:

- Unified site plan consisting of buildings and structures designed and sited according to their use
- Use of designed outdoor and landscaped spaces, for outdoor study, recreation and dining
- Often displays connecting sheltered corridors throughout campus
- Emphasis on a more expansive site plan
- Varied collection of buildings, differentiated by function and use (rather than a single building with all functions inside)
- Might include an elaborate administration building, located near the campus entrance; administration buildings usually serve as the focal point of the campus
- Campus often composed of groupings of classroom wings, auditoriums, gymnasiums, cafeterias, and outdoor recreation and dining areas
- Middle or senior high schools might include a gymnasium designed in the style of the campus overall

Integrity Considerations:

- Should retain most of the essential physical features from the period of significance
- Some materials may have been removed or altered
- Modern lighting and fencing of site acceptable
- Schools from this period generally include buildings constructed after the period of significance, in particular post-World War II buildings, which may be non-contributing
- Eligible properties under this theme may be a single building, if it exemplifies the design ideals of the era, or a grouping (campus) of buildings constructed during the period of significance
- Intact campus groupings from the pre-1945 era are not common
- Many pre-1933 schools were substantially remodeled following the Long Beach earthquake—may retain a 1920s plan but with 1930s stylistic detailing.
- Pre-1933 schools rehabilitated post-1933 might exhibit added seismic supports of steel columns, beams, or diagonal bracing; original masonry might be covered by concrete/stucco sheathing
- Should retain integrity of Materials, Design, Workmanship, Feeling, and Association from its period of significance

Comments: Buildings exhibiting distinctive design features might also qualify under Criteria C/3, as the embodiment of the distinctive characteristics of a type/period or method of construction, as an example of the work of a master architect, or for high artistic values.

CONTEXT: PUBLIC AND PRIVATE INSTITUTIONAL DEVELOPMENT | EDUCATION
THEME: LAUSD | EARLY EXPERIMENTS IN THE MODERN, FUNCTIONALIST SCHOOL PLANT, 1933–1945

Property Type:	Institutional/Educational
Property Subtypes:	Elementary Schools, Junior High Schools, and High Schools
Period of Significance:	1933 to 1945
Area of Significance:	Education
Geographic Location:	Citywide; rare
Area of Significance:	A/1

Eligibility Standards:

- Clearly expresses the experimental ideas emerging during this period for the modern, functionalist school plant
- One-story massing for elementary schools; up to two-stories for junior/high schools
- Classrooms, in detailing and plans, clearly express their function, with axial, finger-like wings, plentiful fenestration, and connections to the outdoors
- Retains most of the associative and character-defining features from the period of significance

Character-Defining Features | Buildings/Structures:

- One-story massing for elementary schools; up to two stories for middle and senior high schools
- Usually reinforced concrete, steel- or wood-frame construction, clad in cement/stucco
- Classrooms are often single- or double-loaded finger-like wings, arranged along a central axis or semicircle
- Classrooms open directly onto patios/play areas through glass doors or movable walls
- Varying elevations might display differentiated window sizes and configurations, in order to tailor interior light to sun patterns and create cross-lit classrooms
- Windows are plentiful and include steel- and wood-framed multilight windows, in double-hung sashes, awning and hopper casements, clerestories, and fixed panes
- Displays an informal, nonmonumental scale and spare ornamental program
- Stylistically modern; might display influence of Late Moderne or PWA Streamline Moderne
- May have been partially or fully funded through WPA, 1935 to 1943; WPA projects may include significant interior artwork such as murals, paintings and sculpture
- May have been designed by a prominent architect of the period

Character-Defining Features | Campus/District:

- A unified, nonmonumental, nonhierarchical site plan
- Displays inventive site plan incorporating buildings, landscaped courtyards, and circulation corridors into a unified campus design
- Swaths of landscaped patios and terraces adjacent to classroom wings
- Designed outdoor spaces, including patios, courtyards
- Use of outdoor corridors, with simple canopy supports and posts or *pilotis*, form links between classrooms and other buildings

Integrity Considerations:

- School expansion and new construction over the years, in particular in the postwar period, might have resulted in the addition of in-fill buildings and structures in areas that were originally designed open spaces. Such new additions should not interfere with or serve as a visual impairment to the designed connections between buildings, in particular classroom wings, and adjacent outdoor patios and spaces.
- Some materials may have been removed or altered
- Modern lighting and fencing of site acceptable
- Should retain integrity of Materials, Design, Workmanship, Feeling, and Association from its period of significance

Comments: Buildings exhibiting distinctive design features might also qualify under Criteria C/3, as the embodiment of the distinctive characteristics of a type/period or method of construction, as an example of the work of a master architect, or for high artistic values.

CONTEXT: PUBLIC AND PRIVATE INSTITUTIONAL DEVELOPMENT | EDUCATION
THEME: LAUSD | EDUCATING THE BABY BOOM: THE POSTWAR MODERN, FUNCTIONALIST SCHOOL PLANT, 1945–1969

Property Type:	Institutional/Educational
Property Subtypes:	Elementary Schools, Junior High Schools, and High Schools
Period of Significance:	1945 to 1969
Area of Significance:	Education
Geographic Location:	Citywide; with concentrations in the San Fernando Valley and west Los Angeles
Area of Significance:	A/1

Eligibility Standards:

- Clearly embodies the characteristics of a postwar modern functionalist school campus
- Displays a unified, functional site design, with buildings extending across the site and oriented in relation to outdoor spaces (courtyards, patios, outdoor play areas)
- One-story massing for elementary schools; up to two-stories for junior/high schools
- Classrooms, in detailing and plans, clearly express their function, with axial, finger-like wings, plentiful fenestration, and connections to the outdoors
- Retains most of the associative and character-defining features from the period of significance

Character-Defining Features | Buildings/Structures:

- Building plans and site design clearly express their function; classroom wings often exhibit one-story "finger-like" wings, arranged on an axis
- Easily identifiable indoor-outdoor spaces, connections to classrooms through the incorporation of patios, courtyards, and outdoor canopied corridors
- One-story massing, particularly for elementary schools; up to two to three stories for junior and high schools
- Building types and plans expressive of postwar ideals in school design; these can include (1) finger-plan schools (usually in 1940s through 1950s); (2) cluster-plan schools (beginning in 1950s); and (3) variations and combinations of these typologies clearly expressive of the ideals for informality, indoor-outdoor connections, and zoned planning for the site
- Varying elevations might display differentiated window sizes and configurations, in order to tailor interior light to sun patterns and create cross-lit classrooms

Character-Defining Features | Campus/District:

- Unified campus design includes most or all of the following attributes: lack of formality and monumentality; low massing (usually one stories for classrooms and up to two stories for auditoriums/multipurpose rooms); strong geometric ordering of buildings and outdoor spaces; decentralized, pavilion-like layout; rational, function-driven site design; buildings extend across the site; buildings are oriented to outdoor spaces (courtyards, patios, outdoor areas), purposeful indoor-outdoor integration
- Automobile traffic/drop-off areas separated from campus; linked to interior via extended canopied corridors
- Buildings often turn inward, toward green spaces and courtyards, lawns
- Outdoor corridors, sheltered beneath simple canopies, forming links between the buildings of the campus
- Classrooms often consist of a series of axial, modular units
- An informal, domestic scale for the buildings and campus might be especially evident in elementary schools
- Swaths of patios, terraces, and plantings adjacent to and alternating with buildings
- Generous expanses of windows, including steel- and wood-framed multilight windows, in awning and hopper casements, clerestories, and fixed panes
- Flat roof or broken-plane roof often used for lighting and acoustical issues
- Modular design, with a rhythmic, asymmetrical but balanced composition
- Usually displays a modern design idiom, usually either regional modernist (with use of native materials such as stone, brick, and wood siding and/or framing), International Style modernist, or, by the early 1960s, Late Modern (more expressive and sculptural)
- Some examples might include some degree of historicist detailing or styles popular in the postwar period (such as American Colonial Revival); these are less common than modernist examples
- May have been designed by a prominent architect of the period
- Often associated with post–World War II suburbanization and growth near major employment centers beyond the city periphery (such as the San Fernando Valley and southwest Los Angeles)
- Often built in residential neighborhoods on large expanses of land, with swaths of land devoted to landscape design and playing fields (in particular for high school campuses)

Integrity Considerations:

- Retains most of the essential physical features from the period of significance
- School expansion and new construction over the years, in particular in the postwar period, might have resulted in the addition of in-fill buildings and structures in areas that were originally designed open spaces. Such new additions should not interfere with or serve as a visual impairment to the designed connections between buildings, in particular classroom wings, and adjacent outdoor patios and spaces.
- Many postwar schools were designed to be easily expandable as enrollment increased; the original site design and building types and plans should be readily discernible. If additional wings were added or the campus extended, the additions should be compatible with and visually subordinate to the original.
- Some materials may have been removed or altered
- Modern lighting and fencing of site acceptable
- Should retain integrity of Setting, Materials, Design, Workmanship, Feeling, and Association from its period of significance
- Addition of portable or permanent buildings after the period of significance acceptable as long as original campus design is intact

Comments: This theme would most often apply to a campus evaluated as a historic district. Individual buildings and/or campuses exhibiting distinctive design features might also qualify under Criteria C/3, as the embodiment of the distinctive characteristics of a type/period or method of construction, as an example of the work of a master architect, or for high artistic values.

CONTEXT: PUBLIC AND PRIVATE INSTITUTIONAL DEVELOPMENT | EDUCATION
THEME: LAUSD AND THE CIVIL RIGHTS MOVEMENT, 1954–1980

Property Type:	Institutional/Educational
Property Subtypes:	Elementary Schools, Junior High Schools, and High Schools
Period of Significance:	1954 to 1980
Area of Significance:	Education/Ethnic Heritage
Geographic Location:	Citywide
Area of Significance:	A/1 and/or B/2

Eligibility Standards:

- Was constructed during the theme of significance
- Was the site of significant integration initiatives, challenges, or activities related to the Civil Rights Movement and school integration
- Directly reflects the movement for equal access to schools and/or to employment opportunities in LAUSD schools
- Has a well-established, long-term association with a figure who was significant in the Civil Rights Movement and school integration (eligibility under B/2)

Character-Defining Features:

- Retains most of the associative and character-defining features from the period of significance

Integrity Considerations:

- Retains integrity of Location, Design, Setting, Feeling, Association
- Some materials may have been removed or altered
- If there are multiple buildings on campus constructed during the period of significance, these should be evaluated as a potential historic district

SECTION VI CONCLUSION | RECOMMENDATIONS

LAUSD is the second largest public school system in the United States and encompasses nearly 800 campuses distributed across more than 700 miles. Since its founding in 1872, the district has commissioned, designed, and acquired a remarkable collection of buildings, campuses, and facilities. These properties reflect more than a century of social, architectural, and technological advances, as well as ongoing educational and curricular reform. Extant properties range from a few late-nineteenth-century, wood-framed schoolhouses to mid-twentieth-century superblock campuses exemplary of modernist architectural design.

This Historic Context Statement represents a first step in creating a framework for context-driven evaluations of educational facilities in Los Angeles (and beyond). As LAUSD begins planning for campus-wide redevelopment and modernization under Measure Q, to be launched in 2014, this study provides a guide for conducting evaluations of LAUSD's many historically significant buildings and campuses.

Through research conducted for this study, four distinct periods emerged: (1) Founding Years, 1870s through 1909; (2) Progressive Education Movement: Standardization and Expansion, 1910 to 1933; (3) Era of Reform: Great Depression, Earthquake, and Early Experiments in the Modern, Functionalist School Plant, 1933 to 1944; and (4) Educating the Baby Boom: Postwar Expansion and the Modern, Functionalist School Plant, 1945 to 1969. Specific themes of significance associated with each era were prepared for this study, along with eligibility standards, character-defining features, and integrity thresholds for each.

Given the project need and parameters, this study focused on the potential eligibility of school buildings and campuses under Criteria A/1, as outstanding examples of LAUSD design ideals and principles, according to the era under consideration. Because the postwar era largely fell outside the scope of 2002 survey work, and postwar schools will be the focus of much of the modernization work for LAUSD in the coming years, the postwar era was explored in detail in the present study.

In addition, by identifying the character-defining features that lend campuses historic significance, this study also establishes a framework for the development of district-wide design guidelines. The guidelines are being prepared by Sapphos Environmental, Inc. to be included in environmental compliance documentation currently being prepared by LAUSD.

Recommendations | Areas for Further Research

Additional research on areas and topics beyond the current scope would further broaden the framework for evaluating significant events, people, and the architectural legacy of LAUSD. Recommendations related to the Historic Context Statement and historic resources survey are as follows:

1. **Expand the LAUSD Historic Context Statement and Historic Resources Survey to include the period to 1980**
   Pursuant to Measure Q, district-wide modernization and redevelopment will unfold gradually, over many years. Broadening the LAUSD Historic Context Statement and survey to consider all schools constructed in the past 35 years (rather than 45 years) would allow the district to take proactive steps to identify historically significant campuses (and therefore historic resources under CEQA) prior to redevelopment planning and work. This would also bring the LAUSD Comprehensive Historic Resources Survey up to date with the City of Los Angeles Office of Historic Resources citywide survey, SurveyLA.

2. **Conduct additional archival research to expand property eligibility under additional criteria**
   In the current scope, campus-specific work included research on events, patterns of development, and significant people associated with the schools included in the accompanying survey. However, project limitations precluded extensive research on LAUSD's history that might result in eligibility under Criteria A/1 (such as LAUSD and the Civil Rights Movement) and Criteria B/2 (for an association with significant figures in the history of public schools in Los Angeles). These areas represent excellent areas for further study. (The context of the Civil Rights Movement and Los Angeles schools was addressed, however, in the National Register of Historic Places Multiple Property Documentation form for African-Americans in Los Angeles.[180])

3. **Expand study of school plant property types and subtypes**
   As a general framework, this treated senior high, middle, and elementary schools, as well as other LAUSD educational facilities, with a broad brush, as a single property type. Noteworthy distinctions, generally in scale and massing, were noted throughout the context. Should subsequent survey work reveal significant distinctions among educational property types, these differences could be incorporated into an updated Historic Context Statement.

4. Update and expand the LAUSD Historic Resources Survey

Sapphos Environmental, Inc. also recommends that LAUSD take proactive steps to update its comprehensive historic resources survey, in order to consider all as-yet unevaluated LAUSD assets. With planning for district-wide modernization work under way, it will be critical that the LAUSD survey be comprehensively updated.

The survey could be initially broadened to include all post-1945 school buildings and campuses that have not yet been subject to context-driven evaluation. According to the *Los Angeles Unified School District History of Schools, 1855 to 1972*, this includes roughly 175 campuses constructed between 1955 and 1969, as well as approximately 125 campuses constructed between 1945 and 1954.[181] (The current scope with Sapphos Environmental, Inc. covers 55 campuses.)

A comprehensive survey update would help streamline and guide district-wide redevelopment plans and help LAUSD in its continuing stewardship of its many historically significant school buildings and campuses.

[This page intentionally left blank]

ENDNOTES

1. Lee, Antoinette, and Linda F. McClelland, U.S. Department of the Interior, National Park Service, "How to Complete the National Register Multiple Property Documentation Form," *National Register Bulletin* No. 16B (1999).
2. Local criteria were not included in this study. Under the provisions of California State Government Code, Section 53094, the properties of California school districts, including LAUSD, are statutorily exempt from most provisions of local ordinances, including landmark designation. California State Government Code, Section 53094 permits "the governing board of a school district, by vote of two-thirds of its members . . . [to] render a city or county zoning ordinance inapplicable to a proposed use of property by such school district . . . ." The legislative history of Section 53094 indicates that "the Legislature deliberately accorded different treatment to school districts than to other local agencies because it was well aware that school construction was subject to almost complete control by the state. . . . The Legislature accordingly provided in section 53094 that school districts, as opposed to other local agencies, should retain the right to exempt themselves from local zoning ordinances (*Santa Clara, supra*, 22 Cal.App.3d at p. 158 fn. 3.)," Court of Appeal, State of California, Second Appellate District, Division 7, *Los Angeles Unified School District, Petitioner and Appellant, v. City of Maywood, et al.*, Respondents and Defendants, Nos. B238629, B238630, Los Angeles Superior Court, filed 13 February 2013.
3. California Office of Historic Preservation, "California Register and National Register: A Comparison (for Purposes of Determining Eligibility for the California Register)," *Technical Assistance Series* No. 6. (Sacramento, CA, 14 March 2006). Available at: http://ohp.parks.ca.gov/pages/1056/files/06CalReg&NatReg_090606.pdf
4. Grimes, Teresa, "Historic Resources Associated with African Americans in Los Angeles, Los Angeles County, California," *National Register of Historic Places* (Washington, DC: U.S. Department of the Interior, National Park Service, 31 December 2008).
5. For additional background on the pre-1870s context of education in Los Angeles and the administrative structure of the district, see Science Applications International Corporation, *Historic Context Statement: Los Angeles Unified School District*, prepared for Los Angeles Unified School District (Pasadena, CA: March 2002), 12.
6. Gibson, Charles D., *California School Buildings, 1960 to 1965* (Sacramento: California State Department of Education, 1966), 1.
7. Bhatia, Pavan, "Modern Concept for Los Angeles Public Schools," Doctoral Dissertation (Cambridge, MA: Harvard University Graduate School of Design, Advanced Management Development Program in Real Estate, July 2009), 28.
8. Hille, R. Thomas, *Modern Schools: A Century of Design for Education* (Hoboken, NJ: John Wiley & Sons, 2011), 13.
9. Eales, John R., "A Brief, General History of the Los Angeles City School System," Doctoral Dissertation (Los Angeles: University of California, June 1956), 78.
10. Ibid., 78.
11. Ibid., 78.
12. Bhatia, "Modern Concept," 30.
13. Briggs, Warren Richard, *Modern American School Buildings* (New York: J. Wiley & Sons, 1906), 8.
14. Hille, *Modern Schools*, 13–14.
15. See, for example, Baker, Lindsay, "A History of School Design and Its Indoor Environmental Standards, 1900 to Today," PhD Dissertation (Berkeley: Department of Architecture, Center for the Built Environment, University of California, Berkeley, January 2012).

16. Engelhardt, N.L., Jr., "Trends in School Architecture and Design," *Review of Educational Research* 12, no. 2 (April 1942): 171–77, at 174.
17. Baker, "A History of School Design," 4.
18. Science Applications International Corporation, *Historic Context Statement: Los Angeles Unified School District*, 12.
19. Ibid.
20. Turner, Timothy G., "Rediscovering Los Angeles," *Los Angeles Times*, 13 April 1936.
21. "Course of Study: What Methods Best in Our Schools? All Citizens, Good and True, Appealed to by Committee of Ten," *Los Angeles Times*, 17 May 1900.
22. Eales, "A Brief, General History," 63.
23. Los Angeles Board of Education, *Annual Report, 1884-85*, cited in Eales, "A Brief, General History," 62–63.
24. Eales, "A Brief, General History," 63.
25. Ibid.
26. Population figures from Fogelson, Robert M., *The Fragmented Metropolis: Los Angeles, 1850-1903* (Berkeley: University of California Press, 1967), 78.
27. "Los Angeles Public Schools," *Los Angeles Times*, 1 January 1898.
28. "Los Angeles Public Schools: Schools and Teachers," *Los Angeles Times*, 1 January 1898.
29. Ibid.
30. Ogata, Amy F., "Building for Learning in Postwar American Elementary Schools," *Journal of the Society of Architectural Historians* 67, no. 4 (December 2008): 562–91, at 564.
31. Holmes, William Henry, *School Organization and the Individual Child: A Book for School Executives and Teachers* (Worcester, MA: The Davis Press, 1912), 1.
32. Howell-Ardila, Deborah, "Writing Our Own Program: The USC Experiment in Modern Architectural Pedagogy," Master of Historic Preservation Thesis (Los Angeles, CA: USC School of Architecture, December 2010)
33. Donovan, John J., *School Architecture: Principles and Practices* (New York: The MacMillan Company, 1921), ix.
34. Ogata, "Building for Learning," 564, emphasis added.
35. Donovan, *School Architecture*.
36. Hille, *Modern Schools*, 14.
37. Caudill, William Wayne, *Toward Better School Design* (New York: FW Dodge Corporation, 1954), 16. Caudill himself was an early leader in the community of reform-minded school architects and designers. In 1946, California Department of Education official Charles Gibson informed Caudill that his book, *Space for Teachin*g, was often used in Californian schools. Wrote Gibson to Caudill, "Your reputation as an authority on school design is already established in California. We use your Bulletin 'Space for Teaching' almost as a Bible in this state." Cited in Ogata, "Building for Learning," footnote 76.
38. Donovan, *School Architecture*, 96.
39. Hamlin, Alfred D. F., *Modern School Houses, Being a Series of Authoritative Articles on Planning, Sanitation, Heating and Ventilation*, vol. 1 (New York: The Swetland Publishing Company, 1910), 9. Cited in Baker, "A History of School Design," 6.
40. Hille, *Modern Schools*, p. 17.
41. Ibid.
42. Donovan, *School Architecture*, 48.
43. "In the Public Schools," *Los Angeles Times*, 3 December 1911. "In the Public Schools" was a weekly column with news and notes of interest from Southern Californian schools, published in the *Los Angeles Times* in the early 1910s.

44. Ibid. In the Los Angeles City School District, Bettinger singled out the outdoor study programs at Micheltoreno Street School, Griffin Avenue, Loreto Street, and 21st Street Intermediate School. Said Bettinger, "Nearly always at these schools the passer-by will note a happy group of children studying and discussing their lessons out in the fresh air and sunshine."
45. Donovan, *School Architecture*, 9.
46. Ibid.
47. Ibid.
48. Ibid., 6.
49. Ibid., 7.
50. Hille, *Modern Schools*, 14.
51. "City's Schools Highly Praised: Pamphlet Draws Comparisons Showing San Francisco System Interior," *Los Angeles Times*, 17 May 1914.
52. Barnhill, O.H., "The Los Angeles School's Business Department," *The American School Board Journal* (February 1927): 51–52.
53. Marquis, Neeta, "A Tour through a Great Modern Plant and a Glimpse into the Stupendous Development of the Mechanical and Business Side of Our Educational System," *Los Angeles Times*, 29 January 1928.
54. This figure of 400 square miles is equivalent to 112 more square miles than the City itself at the time. This reflects the fact that school districts, as state, rather than city, agencies, pursuant to the Education Code of 1872, included both incorporated cities and adjacent unincorporated land, as well as portions of other incorporated Cities. See Science Applications International Corporation, *Preliminary Historic Resources Survey of the Los Angeles Unified School District*, prepared for the Los Angeles Unified School District, Facilities Services Division (Pasadena, CA: June 2002), 6.
55. Leslie Heumann & Associates and Anne Doehne, Science Applications International Corporation, March 2002, "Historic Schools of the Los Angeles Unified School District," a presentation prepared for LAUSD Facilities Services Division (March 2002), 6.
56. Population statistics are drawn from Fogelson, *Fragmented Metropolis*, 78. School-related statistics are drawn from Eales, "A Brief, General History," 172.
57. Los Angeles City Board of Education, *The Reconstruction Program of the Los Angeles City Schools, 1933 – 1935 (inclusive)* (1933), 5.
58. Eales, "A Brief, General History," 164.
59. Ibid., 165.
60. Ibid., 158.
61. Ibid., 155.
62. Ibid.
63. Holy, T.C., "Needed Research in the Field of School Buildings and Equipment," *Review of Educational Research* 5, no. 4 (1935): 406–11. Cited in Baker, "A History of School Design," 8–9.
64. Mock, Elizabeth, and Rudolf Mock, "Schools Are for Children," *The American School and University* 15 (1943): 37–42.
65. Baker, "A History of School Design," 8.

66. Throughout the United States, the Great Depression ushered in modern reform in many realms of architectural practice, pedagogy, and design. Two major examples in Southern California were in education and housing reform. In the early 1930s, Los Angeles's only collegiate school of architecture at USC shed its Beaux-Arts influenced curriculum and launched a modern curriculum. USC's design philosophy emphasized the same qualities advocated by school plant reformers: functional, modern design, thoughtful, integrated site planning, and indoor-outdoor integration as the key for the "good life." See Howell-Ardila, "Writing Our Own Program." In terms of housing reform, the Garden Apartment movement also emphasized these qualities as the key to providing better housing and living conditions for all. These movements shared practitioners and proponents, as well as the conviction that "modern" architecture was as much a social movement as it was an aesthetic one. For an outstanding history of the Garden Apartment movement in Los Angeles, see Architectural Resources Group, Inc., *Garden Apartments of Los Angeles Historic Context Statement*, prepared for the Los Angeles Conservancy (Los Angeles, CA, October 2012). Throughout the United States in the 1930s, these ideas occasioned a major shift in the national conversation about modern architecture.
67. Sachs, Avigail, "Research for Architecture: Building a Discipline and Modernizing the Profession," PhD Dissertation (Berkeley: University of California, 2009), 161.
68. Baker, "A History of School Design," 8.
69. Eales, "A Brief, General History," 228.
70. Ogata, "Building for Learning," 564.
71. Mock, Elizabeth, *Built in USA, 1932 – 1944: A Survey of Contemporary American Architecture*, The Museum of Modern Art (New York: Simon & Shuster, 1944), p. 41.
72. In 1938, Lescaze completed work on CBS Columbia Square in Los Angeles, another International Style building now enjoying Historic-Cultural Landmark status.
73. Lescaze, William, "The Functional Approach to School Planning," *Architectural Record* (June 1936): 481–97, at 481.
74. Ibid., 482.
75. McCoy, Esther, *Richard Neutra* (New York: G. Braziller, 1960), 20.
76. Mock, *Built in USA, 1932 – 1944*.
77. McCoy, *Richard Neutra*, 20–21. McCoy observed that one precedent for Neutra's design would have been Bruno Taut's 1927 Municipal School in Berlin, which also featured a wall that opened onto a terrace sheltered beneath wide overhanging eaves, with clerestory lighting on other elevations.
78. Hille, *Modern Schools*, 81–82.
79. "Progress in School Design, As Evidenced in the Work of Marsh, Smith & Powell, Architects," *The Architect & Engineer* (November 1938): 14–22.
80. Engelhardt, p. 175.
81. Sapphos Environmental, Inc., *City of Long Beach Historic Context Statement*, prepared for the City of Long Beach Department of Development Services (Long Beach, CA, 2009).
82. Los Angeles City Board of Education, *The Reconstruction Program of the Los Angeles City Schools, 1933 – 1935 (inclusive)* (Los Angeles, CA: 1933), 5.
83. Engelhardt, "Trends in School Architecture and Design," 176.
84. Ibid.
85. "Safety, Simplicity and Old-California Beauty Combined in Mission-Type Schools of Reconstruction Program," *Los Angeles Times*, 9 January 1934.
86. Ibid.
87. *Southwest Builder and Contractor*, 8 October 1937, 12.
88. Eales, "A Brief, General History," 272.
89. Ibid., 208.

90. *Los Angeles Herald-Examiner*, 14 September 1943.
91. Eales, "A Brief, General History," 277.
92. Ibid.
93. Ibid., 236.
94. Quoted in Engelhardt, "Trends in School Architecture and Design," 175.
95. Ogata, "Building for Learning," 1.
96. Ibid.
97. Engelhardt, "Trends in School Architecture and Design," 175.
98. Ibid.
99. Ogata, "Building for Learning," 570.
100. Ibid., 581.
101. Diamond, Robert S., "'Ugly Duckling' School Wins Design Honors," *Los Angeles Times*, 12 August 1965.
102. "Educators Will Take Air Tour," *Los Angeles Times*, 21 June 1964.
103. Ogata, "Building for Learning," 581.
104. Murphy, Jean, "Panel Views New Trends in Education," *Los Angeles Times*, 22 February 1968.
105. Caudill, *Toward Better School Design*, 16.
106. Ibid., 17.
107. Greg Hise describes the origins of the movement for "a new conception of modern houses," and the work of Farwell Bemis, one of the early authors of the movement to place manufacturing technology in the service of housing. Hise, Greg, *Magnetic Los Angeles: Planning the Twentieth-Century Metropolis* (Baltimore, MD: Johns Hopkins University Press, 1997), 56–85.
108. "Case Studies" and "Pioneer School Has Proved the Value of Its Scientific Design," *Architectural Forum* 91 (October 1949): 103–14, at 104.
109. Tanner, C. K., and J. A. Lackney, *Educational Facilities Planning* (Boston: Pearson, Allyn & Bacon, 2005), 12; cited in Baker, "A History of School Design," 11.
110. "Case Studies" and "Pioneer School."
111. Ibid.
112. McQuade, Walter, *Schoolhouse: A Primer about the Building of the American Public School Plant* (New York: Simon &Schuster, 1958), 206.
113. Mock, *Built in USA, 1932 – 1944*, 41.
114. McCoy, *Richard Neutra*, 22.
115. If the finger-plan school remained the dominant trend for so long in spite of these shortcomings, it is in large part because the plan represented the perfect counterpoint to what reformers were still reacting against: the institutional "big block schools with internal corridors and windowless classrooms" (Gibson, *California School Buildings*, 1) These words came from the California Department of Education in 1965, long after the battle against the late-nineteenth-century big-block school had already been won. It is noteworthy that, even as late as 1965, the specter of the unfriendly, institutional school still provided the antithesis against which new ideas were measured.
116. Lopez, Frank G., "Schools: Architectural Record's Building Types Study Number 184: Some Trends in School Design," *Architectural Record* (March 1952): 132–141, 150–154.
117. Ogata, "Building for Learning," 572.
118. Gibson, *California School Buildings*, 1.
119. Ibid.
120. Ogata, "Building for Learning," 569.
121. Los Angeles Conservancy, "Curating the City: Modern Architecture in Los Angeles," Westchester High School. Available at: https://www.laconservancy.org/locations/orville-wright-middle-school.
122. Ogata, "Building for Learning," 581.

123. Ibid., 581–82.
124. "'Flexible' School Called Teamwork Aid," *Los Angeles Times*, 24 November 1961.
125. Ibid.
126. Ogata, "Building for Learning," 583.
127. Ibid., 582.
128. Rydeen, James E., "Standardizing Schools," *American School and University* 75, no. 1 (September 2002): 50.
129. Ogata, "Building for Learning," 582.
130. Ibid., 583.
131. Gibson, *California School Buildings*, 129.
132. Ibid., 106.
133. "Prominent Architect Honored by Engineers," *Los Angeles Times*, 1 January 1956.
134. Herriott, M. E., "Death of a School," *The Clearing House* 30, no. 2 (October 1955): 90–93.
135. Los Angeles Board of Education, *Minutes*, 10 September 1945, 5–6. Quoted in Eales, "A Brief, General History," 279.
136. For an excellent history of the San Fernando Valley, see Roderick, Kevin, *The San Fernando Valley: America's Suburb* (Los Angeles: Los Angeles Times Books, 2001).
137. Zeman, Ray, "School Costs Rise with Enrollment, 100,000 Half-Day Students Seen in Five Years Unless Bonds Carry," *Los Angeles Times*, 6 March 1952.
138. Ibid.
139. Turpin, Dick, "1960-61 School Budget of $254,589,414 OKd," *Los Angeles Times*, 9 August 1960.
140. Zeman, "School Costs Rise with Enrollment."
141. "State Renews Appeal for Architects," *Los Angeles Times*, 18 April 1949.
142. Turpin, Dick, "School Unity May Plug Tax Drain," *Los Angeles Times*, 1 May 1960.
143. Callan, Mary Ann, "Officials Urge School Merger: Unification Plan Told to PTA School Merger," *Los Angeles Times*, 5 November 1959.
144. The *Los Angeles Times* published a series of articles on this issue in late 1959. This quote is drawn from: Turpin, Dick, "Unified Schools Savings Viewed, Experts See Advantages in Child Training as Well as Substantial Economies in Plan," *Los Angeles Times*, 10 November 1959.
145. Turpin, "School Unity Map Plug Tax Drain."
146. Turpin, Dick, "1960-61 School Budget of $254,589,414 OKd."
147. "Quarter Million Students Expected at 176 Schools: Buildings and Personnel Ready for Huge Influx," *Los Angeles times*, 15 September 1963.
148. Turpin, Dick, "Failure of Bond Issues, Tax Increase Linked to More Half-Day Sessions," *Los Angeles Times*, 10 September 1962.
149. Steinberg, Warren L., "Down to Defeat Again: Education Tax and Bonds Victims of Our Ignorance," *Los Angeles Times*, 6 April 1969.
150. Ibid.
151. Ibid.
152. McCurdy, Jack, "L.A. City School Enrollments Drop for First Time in History," *Los Angeles Times*, 3 October 1969.
153. While a comprehensive history of the topic is beyond the scope of the current study, a topic is addressed in various secondary sources, including the in-depth study provided in Sosa, Herbert R, "Fragmented Diversity: School Desegregation, Student Activism, and Busing in Los Angeles, 1963–1982" (PhD dis., University of Michigan, Ann Arbor, 2013).
154. Nicolaides, Becky M., *My Blue Heaven: Life and Politics in the Working-Class Suburbs of Los Angeles, 1920–1965* (Chicago, IL: University of Chicago Press, 2002), 179.

155. Public Information Office of the LACSD, Results Announced of Mandated Racial, Ethnic Survey in Schools, 16 January 1967, fol. Race Question Genl Cont, 1966–1967 Part VII, Box 964, RQC-LAUSD; Sosa, "Fragmented Diversity."
156. Ibid.
157. Grimes, "Historic Resources Associated with African Americans in Los Angeles."
158. *California Eagle,* 13 June 1963; *South Gate Press*, 27 June 1963; **[QQ:]***Hendrick, The Education of Non-Whites*, 104–105; in Nicolaides, *My Blue Heaven*, 288–9.
159. *Los Angeles Times*, 3 July 1963.
160. Schneider, Jack, "Escape from Los Angeles: White Flight from Los Angeles and Its Schools, 1960–1980," *Journal of Urban History* 34: 995, 1003.
161. Simpson, Kelly, 7 March 2012, "East L.A. Blowouts: Walking Out for Justice in the Classrooms," available from KCET: http://www.kcet.org/socal/departures/landofsunshine/highland-park/east-la-blowout-walking-out-for-justice-in-the-classrooms.html (10 September 2013).
162. *Brown v. Board of Education of Topeka, Kan.,* 347 U.S. 483 (1954).
163. Kurashige, Scott, *The Shifting Grounds of Race: Black and Japanese Americans in the Making of Multiethnic Los Angeles* (Princeton, NJ: Princeton University Press, 2010), 273.
164. *Jackson v. Pasadena City School District,* 59 Cal. 2d, 876.
165. Sosa, "Fragmented Diversity," 1.
166. Nicolaides, *My Blue Heaven*, 288–9.
167. Sosa, "Fragmented Diversity," xiv.
168. Nicolaides, *My Blue Heaven*, 291.
169. Sosa, "Fragmented Diversity," 19.
170. Ibid., 2.
171. See, among others, Fanucchi, Ken, "Pacoima Pupils Transfer to Encino Blocked," *Los Angeles Times*, 29 August 1967; "Compromise Reached to Bus Some Negro Students to Encino," *Los Angeles Times*, 1 September 1967; "Parents Win Victory in Bus Campaign," *Los Angeles Times*, 4 September 1967.
172. Boyarsky, Bill, "Dixie Canyon-Hobart Plan: Two Schools—and One Big Step to Integration," *Los Angeles Times*, 17 August 1977.
173. Birnberg, Judith R., "Flash! An Integration Program That Works," *Los Angeles Times*, 24 January 1978.
174. Lindsey, Robert, "Los Angeles Schools Plan Busing Amid White Flight," *New York Times*, 11 October 1977.
175. Ettinger, David S., "The Quest to Desegregate Los Angeles Schools," *Los Angeles Lawyer* (March 2003), 56; *Crawford v. Board of Educ. of the City of Los Angeles*, 113 Cal. App. 3d 633, 642 & n.2 (1980), 62–3.
176. Engelhardt, "Trends in School Architecture and Design," 176.
177. The scope of the 2002 survey included a detailed look at all pre-1945 LAUSD campuses, with a focus on representative architectural styles and their character-defining features. This study reframes those results to ensure continuity. Photos in this section attributed to Heumann & Associates are drawn from: Leslie Heumann & Associates and Anne Doehne, Science Applications International Corporation, "Historic Schools of the Los Angeles Unified School District."
178. Blumenson, John J.-G., *Identifying American Architecture* (New York: W.W. Norton & Company, 1977); Gebhard, David, and Robert Winter, *A Guide to Architecture in Los Angeles and Southern California* (Santa Barbara, CA: Peregrine Smith, Inc., 1977), 683–708; Harris, Cyril M., *American Architecture: An Illustrated Encyclopedia* (New York: W.W. Norton & Company, 1998); McAlester, Virginia, and Lee McAlester, *A Field Guide to American House* (New York: Alfred A. Knopf, 2004); and Whiffen, Marcus, *American Architecture since 1780: A Guide to the Styles* (Cambridge, MA: MIT Press, 1981).

179. These descriptions are drawn and adapted from the City of Los Angeles Office of Historic Resources guidelines for evaluating modern resources in Los Angeles. Excerpts in this passage were drawn from: Architectural Resources Group, "Pre-War Modernism," prepared for the City of Los Angeles Office of Historic Resources (Los Angeles, CA, n.d.). The "Early Modern" category fits within the SurveyLA context as follows: Context: Architecture and Engineering, 1850 – 1980; Sub-Context: LA Modernism, 1919 – 1975; Theme: Pre-War Modernism, 1919 – 1945, International Style, 1920 – 1945.
180. Grimes, "Historic Resources Associated with African Americans in Los Angeles."
181. These figures are drawn from: Los Angeles Unified School District, Educational Housing Branch, School Planning Division, Los Angeles Unified School District History of Schools, 1855 to 1972 (January 1973).

VII. SELECTED BIBLIOGRAPHY

Architectural Resources Group, Pasadena, California, *Garden Apartments of Los Angeles Historic Context Statement*, prepared for the Los Angeles Conservancy (Los Angeles, CA, October 2012).

Architectural Resources Group, Pasadena, California, "Pre-War Modernism," prepared for the City of Los Angeles Office of Historic Resources (Los Angeles, CA, n.d.).

Baker, Lindsay, "A History of School Design and Its Indoor Environmental Standards, 1900 to Today," PhD Dissertation (Berkeley: Department of Architecture, Center for the Built Environment, University of California, Berkeley, January 2012).

Barnhill, O.H., "The Los Angeles School's Business Department," *The American School Board Journal* (February 1927): 51–52.

Bhatia, Pavan, "Modern Concept for Los Angeles Public Schools," Doctoral Dissertation (Cambridge, MA: Harvard University Graduate School of Design, Advanced Management Development Program in Real Estate, July 2009), 28.

Birnberg, Judith R., "Flash! An Integration Program That Works," *Los Angeles Times*, 24 January 1978.

Blumenson, John J.-G., *Identifying American Architecture* (New York: W.W. Norton & Company, 1977).

Boyarsky, Bill, "Dixie Canyon-Hobart Plan: Two Schools—and One Big Step to Integration," *Los Angeles Times*, 17 August 1977.

Briggs, Warren Richard, *Modern American School Buildings* (New York: J. Wiley & Sons, 1906), 8.

California Office of Historic Preservation, "California Register and National Register: A Comparison (for Purposes of Determining Eligibility for the California Register)," *Technical Assistance Series* No. 6. (Sacramento, CA, 14 March 2006). Available at: http://ohp.parks.ca.gov/pages/1056/files/06CalReg&NatReg_090606.pdf

California Office of Historic Preservation, *Instructions for Recording Historical Resources* (Sacramento, CA, March 1995).

Callan, Mary Ann, "Officials Urge School Merger: Unification Plan Told to PTA School Merger," *Los Angeles Times*, 5 November 1959.

"Case Studies" and "Pioneer School Has Proved the Value of Its Scientific Design," *Architectural Forum* 91 (October 1949): 103–14, at 104.

Caudill, William Wayne, *Toward Better School Design* (New York: FW Dodge Corporation, 1954), 16.

Caughey, John W., *The Shame of Los Angeles: Segregated Schools, 1970–1971* (Los Angeles, CA: Quail Books, 1971).

"City's Schools Highly Praised: Pamphlet Draws Comparisons Showing San Francisco System Interior," *Los Angeles Times*, 17 May 1914.

"Compromise Reached to Bus Some Negro Students to Encino," *Los Angeles Times*, 1 September 1967.

"Course of Study: What Methods Best in Our Schools? All Citizens, Good and True, Appealed to by Committee of Ten," *Los Angeles Times*, 17 May 1900.

Diamond, Robert S., "'Ugly Duckling' School Wins Design Honors," *Los Angeles Times*, 12 August 1965.

Donovan, John J., *School Architecture: Principles and Practices* (New York: The MacMillan Company, 1921), ix.

Eales, John R., "A Brief, General History of the Los Angeles City School System," Doctoral Dissertation (Los Angeles: University of California, June 1956), 78.

"Educators Will Take Air Tour," *Los Angeles Times*, 21 June 1964.

Engelhardt, N.L., Jr., "Trends in School Architecture and Design," *Review of Educational Research* 12, no. 2 (April 1942): 171–77, at 174.

Ettinger, David S., "The Quest to Desegregate Los Angeles Schools," *Los Angeles Lawyer* (March 2003), 56.

Fanucchi, Ken, "Pacoima Pupils Transfer to Encino Blocked," *Los Angeles Times*, 29 August 1967.

Flamming, Douglas, *Bound for Freedom: Black Los Angeles in Jim Crow America* (Berkeley: University of California Press, 2005), 90.

"'Flexible' School Called Teamwork Aid," *Los Angeles Times*, 24 November 1961.

Fogelson, Robert M. *The Fragmented Metropolis: Los Angeles, 1850-1903* (Berkeley: University of California Press, 1967).

Gebhard, David, and Robert Winter, *Architecture in Los Angeles: A Complete Guide* (Salt Lake City, UT: Gibbs M. Smith, Inc., Peregrine Smith Books, 1985).

Gebhard, David, and Robert Winter, *A Guide to Architecture in Los Angeles and Southern California* (Santa Barbara, CA: Peregrine Smith, Inc., 1977), 683–708.

Gibson, Charles D., *California School Buildings, 1960 to 1965* (Sacramento: California State Department of Education, 1966), 1.

Grimes, Teresa, "Historic Resources Associated with African Americans in Los Angeles, Los Angeles County, California," *National Register of Historic Places* (Washington, DC: U.S. Department of the Interior, National Park Service, 31 December 2008).

Grimes, Teresa, "National Register of Historic Places Multiple Property Documentation Form" (Los Angeles, CA: Christopher A. Joseph & Associates, 31 December 2008).

Hamlin, Alfred D. F., *Modern School Houses, Being a Series of Authoritative Articles on Planning, Sanitation, Heating and Ventilation*, vol. 1 (New York: The Swetland Publishing Company, 1910), 9.

Harris, Cyril M., *American Architecture: An Illustrated Encyclopedia* (New York: W.W. Norton & Company, 1998).

Harris, Dianne, *Little White Houses: How the Postwar Home Constructed Race in America* (Minneapolis: University of Minnesota Press, 2013).

Herriott, M. E., "Death of a School," *The Clearing House* 30, no. 2 (October 1955): 90–93.

Hille, R. Thomas, *Modern Schools: A Century of Design for Education* (Hoboken, NJ: John Wiley & Sons, 2011), 13.

Hise, Greg, *Magnetic Los Angeles: Planning the Twentieth-Century Metropolis* (Baltimore, MD: Johns Hopkins University Press, 1997), 56–85.

Holmes, William Henry, *School Organization and the Individual Child: A Book for School Executives and Teachers* (Worcester, MA: The Davis Press, 1912), 1.

Holy, T.C., "Needed Research in the Field of School Buildings and Equipment," *Review of Educational Research* 5, no. 4 (1935): 406–11. Cited in Baker, "A History of School Design," 8–9.

Howell-Ardila, Deborah, "Writing Our Own Program: The USC Experiment in Modern Architectural Pedagogy," Master of Historic Preservation Thesis (Los Angeles, CA: USC School of Architecture, December 2010).

"In the Public Schools," *Los Angeles Times*, 3 December 1911.

Kurashige, Scott, *The Shifting Grounds of Race: Black and Japanese Americans in the Making of Multiethnic Los Angeles* (Princeton, NJ: Princeton University Press, 2010), 273.

Lee, Antoinette, and Linda F. McClelland, U.S. Department of the Interior, National Park Service, "How to Complete the National Register Multiple Property Documentation Form," *National Register Bulletin* No. 16B (1999).

Lescaze, William, "The Functional Approach to School Planning," *Architectural Record* (June 1936): 481–97, at 481.

Leslie Heumann & Associates and Anne Doehne, Science Applications International Corporation, March 2002, "Historic Schools of the Los Angeles Unified School District," a presentation prepared for LAUSD Facilities Services Division (March 2002), 6.

Lindsey, Robert, "Los Angeles Schools Plan Busing Amid White Flight," *New York Times*, 11 October 1977.

Lopez, Frank G., "Schools: Architectural Record's Building Types Study Number 184: Some Trends in School Design," *Architectural Record* (March 1952): 132–141, 150–154.

Los Angeles Board of Education, *Minutes*, 10 September 1945, 5–6.

Los Angeles City Board of Education, *The Reconstruction Program of the Los Angeles City Schools, 1933 – 1935 (inclusive)* (1933), 5.

Los Angeles Conservancy, "Curating the City: Modern Architecture in Los Angeles," Westchester High School. Available at: https://www.laconservancy.org/locations/orville-wright-middle-school.

Los Angeles Herald-Examiner, 14 September 1943.

"Los Angeles Public Schools," *Los Angeles Times*, 1 January 1898.

"Los Angeles Public Schools: Schools and Teachers," *Los Angeles Times*, 1 January 1898.

Los Angeles Unified School District, Educational Housing Branch, School Planning Division, *Los Angeles Unified School District History of Schools, 1855 to 1972* (January 1973).

Marquis, Neeta, "A Tour through a Great Modern Plant and a Glimpse into the Stupendous Development of the Mechanical and Business Side of Our Educational System," *Los Angeles Times*, 29 January 1928.

McAlester, Virginia, and Lee McAlester, *A Field Guide to American House* (New York: Alfred A. Knopf, 2004).

McCoy, Esther, "Arts and Architecture Case Study Houses," in *Blueprints for Modern Living*, ed. Elizabeth A.T. Smith (Cambridge, MA: MIT Press, 1989).

McCoy, Esther, *Case Study Houses* (Santa Monica, CA: Hennessey and Ingalls, 1977).

McCoy, Esther, *Richard Neutra* (New York: G. Braziller, 1960), 20.

McCurdy, Jack, "L.A. City School Enrollments Drop for First Time in History," *Los Angeles Times*, 3 October 1969.

McQuade, Walter, *Schoolhouse: A Primer about the Building of the American Public School Plant* (New York: Simon &Schuster, 1958), 206.

McWilliams, Carey, *Southern California: An Island on the Land* (Layton, UT: Gibbs Smith, 1946).

Mock, Elizabeth, *Built in USA, 1932 – 1944: A Survey of Contemporary American Architecture*, The Museum of Modern Art (New York: Simon & Shuster, 1944), p. 41.

Mock, Elizabeth, and Rudolf Mock, "Schools Are for Children," *The American School and University* 15 (1943): 37–42.

Murphy, Jean, "Panel Views New Trends in Education," *Los Angeles Times*, 22 February 1968.

Nicolaides, Becky M., *My Blue Heaven: Life and Politics in the Working-Class Suburbs of Los Angeles, 1920–1965* (Chicago, IL: University of Chicago Press, 2002), 179.

Ogata, Amy F., "Building for Learning in Postwar American Elementary Schools," *Journal of the Society of Architectural Historians* 67, no. 4 (December 2008): 562–91, at 564.

"Parents Win Victory in Bus Campaign," *Los Angeles Times*, 4 September 1967.

"Progress in School Design, As Evidenced in the Work of Marsh, Smith & Powell, Architects," *The Architect & Engineer* (November 1938): 14–22.

"Prominent Architect Honored by Engineers," *Los Angeles Times*, 1 January 1956.

"Quarter Million Students Expected at 176 Schools: Buildings and Personnel Ready for Huge Influx," *Los Angeles times*, 15 September 1963.

Raftery, Judith Rosenberg, *Land of Fair Promise: Politics and Reform in Los Angeles Schools, 1885-1941* (Stanford, CA: Stanford University Press, 1992).

Roderick, Kevin, *The San Fernando Valley: America's Suburb* (Los Angeles: Los Angeles Times Books, 2001).

Rydeen, James E., "Standardizing Schools," *American School and University* 75, no. 1 (September 2002): 50.

Sachs, Avigail, "Research for Architecture: Building a Discipline and Modernizing the Profession," PhD Dissertation (Berkeley: University of California, 2009), 161.

"Safety, Simplicity and Old-California Beauty Combined in Mission-Type Schools of Reconstruction Program," *Los Angeles Times*, 9 January 1934.

Sapphos Environmental, Inc., *City of Long Beach Historic Context Statement*, prepared for the City of Long Beach Department of Development Services (Long Beach, CA, 2009).

Schneider, Jack, "Escape from Los Angeles: White Flight from Los Angeles and Its Schools, 1960–1980," *Journal of Urban History* 34: 995, 1003.

Science Applications International Corporation, *Historic Context Statement: Los Angeles Unified School District*, prepared for Los Angeles Unified School District (Pasadena, CA: March 2002), 12.

Science Applications International Corporation, *Preliminary Historic Resources Survey of the Los Angeles Unified School District*, prepared for the Los Angeles Unified School District, Facilities Services Division (Pasadena, CA: June 2002), 6.

Sides, Josh, *L.A. City Limits: African American Los Angeles from the Great Depression to the Present* (Berkeley: University of California Press, 2006).

Simpson, Kelly, "East L.A. Blowouts: Walking Out for Justice in the Classrooms," KCET (7 March 2012), available at: http://www.kcet.org/socal/departures/landofsunshine/highland-park/east-la-blowout-walking-out-for-justice-in-the-classrooms.html

Sosa, Herbert R, "Fragmented Diversity: School Desegregation, Student Activism, and Busing in Los Angeles, 1963–1982" (PhD dis., University of Michigan, Ann Arbor, 2013).

"State Renews Appeal for Architects," *Los Angeles Times*, 18 April 1949.

Straus, Emily, "The Making of the American School Crisis: Compton, California and the Death of the Suburban Dream" (PhD diss., Brandeis University, Waltham, MA 2006).

Steinberg, Warren L., "Down to Defeat Again: Education Tax and Bonds Victims of Our Ignorance," *Los Angeles Times*, 6 April 1969.

Southwest Builder and Contractor, 8 October 1937, 12.

Tanner, C. K., and J. A. Lackney, *Educational Facilities Planning* (Boston: Pearson, Allyn & Bacon, 2005), 12.

Turner, Timothy G., "Rediscovering Los Angeles," *Los Angeles Times*, 13 April 1936.

Turpin, Dick, "1960-61 School Budget of $254,589,414 OKd," *Los Angeles Times*, 9 August 1960.

Turpin, Dick, "Failure of Bond Issues, Tax Increase Linked to More Half-Day Sessions," *Los Angeles Times*, 10 September 1962.

Turpin, Dick, "School Unity May Plug Tax Drain," *Los Angeles Times*, 1 May 1960.

Turpin, Dick, "Unified Schools Savings Viewed, Experts See Advantages in Child Training as Well as Substantial Economies in Plan," *Los Angeles Times*, 10 November 1959.

U.S. Department of the Interior, National Park Service, "Architectural Character: Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving Their Character," *Preservation Brief* No. 17 (Washington, DC, September 1988).

U.S. Department of the Interior, National Park Service, "Historic Residential Suburbs: Guidelines for Evaluation and Documentation for the National Register of Historic Places," *National Register Bulletin* (Washington, DC, 2002).

U.S. Department of the Interior, National Park Service, "How to Apply the National Register Criteria for Evaluation," *National Register Bulletin* No. 15 (Washington, DC, 2002).

U.S. Department of the Interior, National Park Service, "How to Complete the National Register Form," *National Register Bulletin* No. 16A (Washington, DC, 1997).

U.S. Department of the Interior, National Park Service, "How to Complete the National Register Multiple Property Documentation Form," *National Register Bulletin* No. 16B (Washington, DC, 1999).

U.S. Department of the Interior, National Park Service, "Researching a Historic Property," *National Register Bulletin* No. 39 (Washington, DC, 1998).

Whiffen, Marcus, *American Architecture since 1780: A Guide to the Styles* (Cambridge, MA: MIT Press, 1981).

Wollenberg, Charles, *All Deliberate Speed: Segregation and Exclusion in California Schools, 1855-1975* (Berkeley: University of California Press, 1978).

Zeman, Ray, "School Costs Rise with Enrollment, 100,000 Half-Day Students Seen in Five Years Unless Bonds Carry," *Los Angeles Times*, 6 March 1952.

Appendix F

Phase 1 Environmental Site Assessment

ESA

WorleyParsons

resources & energy

EcoNomics™

Phase I Environmental Site Assessment

John Burroughs Middle School

600 South McCadden Place, Los Angeles, California 90005

308038-11191

May 18, 2016

Decommissioning & Restoration

3176 Pullman Street, Suite 109
Costa Mesa, CA 92626 USA
worleyparsons.com

© Copyright 2016 WorleyParsons

Ralph Beck, as an employee of WorleyParsons, with expertise in environmental due diligence, has reviewed the report with the title **Phase I Environmental Site Assessment, 600 South McCadden Place, Los Angeles, California**. His signature appears below.

"I declare that, to the best of my professional knowledge and belief, I meet the definition of 'environmental professional' as defined in section 312.10 of 40 CFR 312 and I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the property referenced above. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312."

Ralph M. Beck, PG, CAC

May 18, 2016

CONTENTS

EXECUTIVE SUMMARY 1

1. INTRODUCTION 6
   - 1.1 Objective and Purpose 6
   - 1.2 Scope of Services 6
   - 1.3 Significant Assumptions 7
2. SITE DESCRIPTION 8
   - 2.1 Description of On-site Buildings, Structures, and Other Features 8
   - 2.2 Description of Current Site Use and Operations 11
   - 2.3 Description of Past Site Use and Operations 11
   - 2.4 Description of Site Vicinity and Current Uses of Adjoining Properties 11
3. USER-PROVIDED INFORMATION 12
   - 3.1 Title Records 12
   - 3.2 Environmental Liens or Activity and Use Limitations 12
   - 3.3 Specialized Knowledge 12
   - 3.4 Commonly Known or Reasonably Ascertainable Information 12
   - 3.5 Valuation Reduction for Environmental Issues 12
   - 3.6 Owner, Manager, and Occupant Information 12
   - 3.7 Reason for Performing Phase I ESA 13
4. RECORDS REVIEW 14
   - 4.1 Environmental Setting 14
     - 4.1.1 Regional Physiographic Setting 14
     - 4.1.2 Nearest Ecological Interest 14
     - 4.1.3 Geology 15
     - 4.1.4 Location of Nearest Oil and Gas Fields 16
     - 4.1.5 Location of Nearest Exploratory and Production Oil and Gas Wells 16

4.1.6 Potential for Methane and Hydrogen Sulfide 16
4.1.7 Nearest Special Study Zone (Alquist-Priolo Act) 16
4.1.8 Potential for Liquefaction and Landslides 17
4.1.9 Potential for Flooding 17
4.1.10 Hydrogeology 18
4.2 Standard and Additional Environmental Record Sources 18
4.3 Historic Use Information 29
4.3.1 Regulatory Agency Information 29
4.3.2 Fire Insurance Map Search and Review 31
4.3.3 City Directory Search and Review 32
4.3.4 Historic Aerial Photograph Search and Review 32
4.3.5 Historic Topographic Map Search and Review 37
4.3.6 Environmental Data Resources Building Permit Report 38
4.3.7 Environmental Data Resources LienSearch™ Report 39
4.4 Historical Use of Adjoining Properties 39
5. SITE RECONNAISSANCE 40
5.1 Methodology and Limiting Conditions 40
5.2 General Site Setting 40
5.3 Exterior Observations 40
5.4 Interior Observations 41
6. INTERVIEWS 42
6.1 Interview with Site Owner's Representatives 42
7. ON-SITE ISSUES 43
7.1 Hazardous Material Handling (Including Inventory of All Chemicals Observed) 43
7.1.1 Current Hazardous Material Handling Practices 43
7.1.2 Past Hazardous Material Handling Practices 43

7.1.3 Current and Past On-site Underground Storage Tanks (USTs) 43
7.1.4 Current and Past On-site Aboveground Storage Tanks (ASTs) 43
7.2 Solid and Hazardous Waste Handling Practices 44
7.2.1 Waste Handling and Storage 44
7.2.2 On-site Disposal 44
7.2.3 Visible Signs of Releases and Spills 44
7.2.4 Potential Future Environmental Liabilities to District from Past Waste Disposal Practices 44
7.3 Subsurface Impacts to On- and/or Off-site Soil 44
7.3.1 Use of Imported Fill Material 44
7.3.2 Previous Site Assessments 45
7.4 Subsurface Impacts to On- and/or Off-site Groundwater 45
7.4.1 Source for Site Water Supply 45
7.4.2 Site Drainage and Stormwater Issues 45
7.5 Site Permits 45
7.5.1 Site Permits on File with Environmental Regulatory Agencies 46
7.5.2 Site Listings with Regulatory Agencies 46
7.6 Asbestos-containing Materials (ACM) 46
7.6.1 Suspected ACM Sampling and Sampling Results 47
7.7 Lead-based Paint (LBP) 47
7.7.1 Suspected LBP Sampling and Sampling Results 47
7.8 Polychlorinated Biphenyl (PCB)-containing Equipment 47
7.9 Radon 47
7.10 Odors Noticed Indoors 47
7.11 California Department of Education (CDE) Existing Schools Issues 48
7.11.1 Proximity to Power Lines/Electromagnetic Fields 48
7.11.2 Railroads 48

7.11.3 Traffic Noise 48
7.11.4 Faults 48
7.11.5 Flood or Inundation Area 49
7.11.6 Pipelines and Aboveground Storage Tanks (ASTs) 49
7.11.7 Liquefaction and Landslides 49
7.11.8 Traffic and Pedestrian Safety 50
7.11.9 Compatible Zoning 50
7.11.10 Light, Wind and Air Pollution 50
7.11.11 Easements 51
7.11.12 Border Zone Property 51
7.11.13 Cellular Phone Towers 51
7.11.14 Air Pollution 51
7.11.15 Methane Zone 52
7.11.16 Oil Wells 52
7.11.17 Airports 52
7.12 Surrounding Land Uses 52
8. FINDINGS 53
8.1 General Findings 53
8.2 SCHOOL SITE SELECTION CHECKLIST 53
8.3 Known or Suspect Recognized Environmental Conditions 54
9. CONCLUSIONS 56
10. RECOMMENDATIONS 57
11. REFERENCES 58
12. ADDITIONAL SERVICES 60
13. DISCLAIMER 61
13.1 Limitations and Exceptions 61

Figures

FIGURE 1 SITE VICINITY MAP

FIGURE 2 SITE MAP

Appendices

APPENDIX 1 PHOTOGRAPHS

APPENDIX 2 EDR DATABASE REPORT

APPENDIX 3 HISTORIC REFERENCE DOCUMENTS

APPENDIX 4 REGULATORY AGENCY CORRESPONDENCE

APPENDIX 5 INTERVIEW DOCUMENTATION

APPENDIX 6 OEHS EXISTING SCHOOL SITES CHECKLIST

APPENDIX 7 ROOF AND PLOT PLAN SHOWING FORMER LOCATION OF ON-SITE HEATING OIL TANK

APPENDIX 8 PART PLOT PLAN SHOWING FORMER LOCATION OF ON-SITE INCINERATOR

EXECUTIVE SUMMARY

WorleyParsons performed a Phase I Environmental Site Assessment (ESA) of the John Burroughs Middle School, located at 600 South McCadden Place, Los Angeles, California (the Site). The Site consists of an approximately 10.53-acre middle school and is located within Los Angeles County assessor's parcel number (APN) 5507-017-900 with the Site's center located approximately at Latitude N34°03'48.70" and Longitude W118°20'10.53". The Site is bounded to the north by single-family dwellings across West 6th Street, to the east by single-family dwellings and a commercial building, to the south by multi-family dwellings, Wilshire Private School, and commercial buildings across Wilshire Boulevard, and to the west by single and multi-family dwellings across South McCadden Place.

ON-SITE FINDINGS

The Site was undeveloped land from at least 1894 to 1921 with the exception of a small building located on the southern portion of the Site adjacent to Wilshire Boulevard.. The first permit recorded on file for the Site was issued on June 21, 1910, for the construction of a two-story building. The next permit issued for the Site was dated April 23, 1923, for the construct on the first and second floors of a cafeteria building. The Site opened as "John Burroughs Junior High School" in 1924. Throughout the years, various construction activities at the Site added and removed various structures, added parking lots and paved areas.

The Site contains three two-story administrative/classroom buildings, 22 single-story multi-purpose buildings that contain such things as classrooms, restrooms, gymnasiums, lounges and storage rooms. Two paved parking areas are located in the northeast corner and the southwest corner of the Site. Two tennis courts are located in the center of the Site. A paved and dirt playground area is located in the southern portion of the Site.

Four dry-type electrical transformers were observed during the Site inspection; one located adjacent to the south of Building No. 9 (Shop Building), two located north and one located inside of Building No. 20 (Cafeteria/Classroom Building. A fenced area at a lower elevation (i.e. basement level) containing two compressed gas cylinders and an idle emergency generator are located adjacent to the southern portion of Building No. 1 (Main and Auditorium Building) and the entrance to a locked LADWP equipment room.

Gasoline is stored in a 55-gallon steel drum in a flammable materials' storage building located to the southeast of Building No. 9 (Shop Building). The gasoline is used to fuel landscaping equipment at the Site. Minor staining was observed on the concrete floor of the flammable materials' storage building. However, the floor was in good condition with no visible cracks or gaps that could act as conduits to the subsurface.

No other evidence of releases or spills of hazardous materials or petroleum products was identified at the Site during the reconnaissance inspection. Additionally, no evidence of underground storage tanks

(USTs), aboveground storage tanks (ASTs), pits, ponds, lagoons, or hazardous material/petroleum products use, storage or disposal was observed at the Site during the Site reconnaissance inspection.

Additionally, no evidence of dumping, landfilling, distressed vegetation, or other evidence suggesting the possible release of hazardous substances and/or petroleum products was observed during the Site reconnaissance inspection.

A Roof and Plot Plan, dated January 22, 1923, was provided by LAUSD, which indicates that an above ground heating oil tank was located on-Site, east of Building No. 1 (the Main/Auditorium Building). Additionally, a Plot Plan, dated May 1935, was provided by LAUSD, which indicates that an incinerator was located to the southwest of Building No. 9 (Shop Building).

OFF-SITE FINDINGS

From at least 1928 until 1938, the Site was surrounded by vacant undeveloped lots and single-family residential dwellings across 6th Street to the north, adjacent to the east of the Site, across Wilshire Boulevard to the south, and across South McCadden Place to the west. Between at least 1938 and 1964, two “oil and gas” service stations were located to the west of the Site. The first of these was located approximately 60 feet west of the Site at the northwest corner of McCadden Place and Wilshire Boulevard (cross/upgradient with respect the reported groundwater flow direction). The second was located approximately 250 west of the Site on the northeast corner of Highland Avenue and Wilshire Boulevard. Commercial buildings started appearing along Wilshire Boulevard as early 1938.

The Site is currently bordered to the north by single-family dwellings across West 6th Street, to the east by single-family dwellings and a multi-tenant commercial building, to the south by multi-family dwellings, the Wilshire Private School, and commercial buildings across Wilshire Boulevard, and to the west by single and multi-family dwellings across South McCadden Place. No evidence of hazardous material and/or petroleum product releases was observed on these properties during the reconnaissance inspection.

Federal, State, and local regulatory database lists were reviewed for cases including, but not limited to, USTs, ASTs, hazardous waste sites, hazardous waste generators, Brownfield sites, hazardous material/petroleum product release sites, abandoned sites, and sites with deed restrictions and/or institutional controls within the specified radii of standards established by the American Society of Testing and Materials (ASTM). The John Burroughs Middle School, was identified in the RCRA-LGQ, FINDS, HAZNET, and EMI databases for generation of various hazardous wastes, including asbestos, polychlorinated biphenyls (PCBs), organic and inorganic wastes generated during the renovation of Site buildings and Site operations.

OPINION OF ON-SITE FINDINGS

Based on the age of the existing Site buildings, it is possible that lead-based paint (LBP) has been applied to the exterior finishes of the buildings. As such, it is possible that LBP residue is present in

soils around the perimeters of the existing and former buildings. It is possible that organochlorinated pesticides (OCP) in the form of termiticides have been applied around the foundations of these Site buildings. There is the potential presence of arsenic underneath pavement that may have been applied as an herbicide. Based on the age of the existing Site buildings, it is possible that asbestos-containing materials (ACM) are present in building materials. Due to the former presence of a heating oil AST, it is possible that releases or spills of fuel oil have impacted soils in the former location of the tank adjacent to the east of Building No. 1 (Main/Auditorium Building). Due to the former presence of an incinerator, it is possible that burn ash is present in soils in the former location of the incinerator adjacent to the southwest corner of Building No. 9 (Shop Building).

It is possible that soil and groundwater in the vicinity of the former heating oil AST may be impacted by releases of spills associated with operation of the former tank. Additionally, it is possible that soils in the vicinity of the former incinerator may be impacted by burn ash containing combustion by-products such as polycyclic aromatic hydrocarbons (PAHs), furans and heavy metals.

It is WorleyParsons' opinion that the potential presence of LBP residue, OCPs, and arsenic in soil and ACM in the Site building materials constitute recognized environmental conditions (RECs). It is also WorleyParsons' opinion that the potential presence of petroleum hydrocarbons in soils and groundwater and burn ash in soils constitute RECs.

OPINION OF OFF-SITE FINDINGS

An environmental database report prepared by Environmental Data Resources, Inc. (EDR) was reviewed for local, state, and federal listings for properties within the Site vicinity. Regulatory database lists were reviewed for cases pertaining to leaking USTs and ASTs, hazardous waste sites, and abandoned sites within the specified radii of standards established by the ASTM. Based on the status of these facilities, their distance from the Site, and the reported groundwater flow direction, these sites are not considered RECs.

Two gasoline service stations were located west of the southern portion of the Site (approximately 60 feet and 250 feet west of the Site and cross/upgradient with respect the groundwater flow direction), at the northwest intersection of South McCadden Place and Wilshire Boulevard and the northeast corner of South Highland Avenue and Wilshire Boulevard, from at least 1938 to at least 1964. Based on their upgradient location relative to the reported groundwater flow direction and their proximity to the Site, is it WorleyParsons' opinion that these former service stations constitute RECs.

Based on the findings of this investigation, no other RECs, historic RECs (HRECs), controlled RECs (CRECs) or de minimus conditions have been identified at the Site.

EXISTING SCHOOL SITES CHECKLIST

A LAUSD Office of Environmental Health Services (OEHS) Existing School Sites checklist was completed as part of this Phase I ESA in accordance with California Department of Education (CDE)

requirements. Based on the findings of this investigation, no affirmative answers to the checklist were made with the exception of the following:

- The Site is located within a dam inundation area. However, the Project is not expected to create a new or exacerbate an existing significant safety hazard to students from flooding or dam inundation.
- The Site is located within the Hollywood Fault special study zone and is regulated under the Alquist-Priolo Earthquake Fault Zoning Act (Public Resources Code 2621, Division 2, Chapter 7.5). Based on this, the Project may create a new or exacerbate an existing significant safety hazard to students from an active earthquake fault or fault trace which may be onsite.
- According to the EDR report, a facility with a registered 2,200 gallon AST of unknown contents is located approximately 910 feet west (crossgradient with respect to the groundwater flow direction). However, the Project is not expected to create a new or exacerbate an existing significant safety hazard to students from this existing nearby AST.
- The Site is located within residential and commercial neighborhoods and is located adjacent to a major arterial street, Wilshire Boulevard. Based on this, the Project may create a new or exacerbate an existing significant safety hazard to students from the adjacent major arterial street.
- Information provided by the City of Los Angeles NavigateLA Web site, information provided by the LADBS, and the City's Public Works Departments, the Site lies within a City of Los Angeles designated methane zone. Based on this, the Project may create a new or exacerbate an existing significant safety hazard to students from a known methane zone.

CONCLUSIONS AND RECOMMENDATIONS

WorleyParsons has performed a Phase I ESA of the Site in conformance with the scope and limitations of ASTM Standard Practice E1527-13 and requirements set forth by the LAUSD and the CDE. Any exceptions to or deletions from this practice are described in Section 13 of this report. This assessment has revealed no evidence of RECs in connection with the Site with the exception of the following:

a) Potential presence of LBP residue in shallow soils around the drip lines of the existing and former buildings at the Site.

b) Potential presence of OCP in shallow soils around the foundations of the existing and former buildings at the Site.

c) Potential presence of arsenic in shallow soils under pavement at the Site.

d) Potential presence of ACM in Site building materials.

e) Potential presence of hydrocarbons in groundwater due to the historical presence of two gasoline service stations approximately 60 feet west of the Site.

f) Potential presence of petroleum products in soil and groundwater due to the historical presence of fuel oil AST located adjacent to Building No. 1 (Main/Auditorium Building).

g) Potential presence of burn ash in soils due to the historical presence of an incinerator located adjacent to Building No. 9 (Shop Building).

WorleyParsons recommends completion of a site investigation within the boundary of the planned development area that includes collection of soil samples for the evaluation of LBP, OCP, arsenic, petroleum hydrocarbons, PAH's, and metals, and if present, a human health risk assessment to determine if the levels pose a risk to future Site occupants. WorleyParsons also recommends completion of a hazardous Material Property Condition Survey to identify and quantify all hazardous materials present at the Site including asbestos, lead-based-paint, mold, PCBs, mercury, tritium, radium, and/or other hazardous materials, in order that work plans and specifications may be developed for the safe abatement by a licensed and qualified contractor(s) prior to removal/renovation of any Site buildings.

1. INTRODUCTION

This report presents the results of a Phase I Environmental Site Assessment (Phase I ESA) performed by WorleyParsons for the Los Angeles Unified School District (LAUSD) for the John Burroughs Middle School (hereinafter referred to as the "Site"). The Site consists of approximately 10.53-acres and is located at 600 South McCadden Place in Los Angeles, California (Figures 1 and 2). The Site is located within Los Angeles County assessor's parcel number (APN) 5507-017-900 with the Site's center located approximately at Latitude N34°03'48.70" and Longitude W118°20'10.53". The Site is bounded to the north by single-family dwellings across West 6th Street, to the east by single-family dwellings and a commercial building, to the south by multi-family dwellings, Wilshire Private School, and commercial buildings across Wilshire Boulevard, and to the west by single and multi-family dwellings across South McCadden Place. It is WorleyParsons' understanding that the LAUSD plans to modernize the existing administrative/auditorium, gymnasium and selected classroom, and demolish or remove the cafeteria/classroom building, the shop building and selected classroom buildings at the Site (hereinafter referred to as "the Project").

1.1 Objective and Purpose

The purpose of this Phase I ESA was to assist in the evaluation of Site-specific safety factors that may be caused or exacerbated by the Project and the potential impact of these safety factors on students at Site. The objective of the Phase I ESA is to identify recognized environmental conditions (RECs) in order to assist in the evaluation of historical land use at the Site, assess for potential environmental impacts on- and off-site, and determine the degree to which any potential environmental impacts may affect on-Site occupants, off-Site individuals, and the environment. The Phase I ESA was also intended to assist in determining whether further action is needed to characterize and/or mitigate environmental impacts identified during the Phase I ESA.

According to American Society for Testing and Materials (ASTM) Standard Practice E1527-13, the term REC means the presence or likely presence of hazardous substances and/or petroleum products on or near a property under conditions that indicate an existing release, a past release or the material threat of a release into structures on the property or into the ground, groundwater or surface water of the property. WorleyParsons understands that the purpose of this Phase I ESA is to perform due diligence with respect to RECs at the Site in accordance with good commercial and customary practice for conducting an environmental site assessment of a property.

1.2 Scope of Services

The Phase I ESA was performed in general accordance with the American Society for Testing and Materials (ASTM) Designation E 1527-13*, Standard Practice for Environmental Site Assessments:*

Phase I Environmental Site Assessment Process: Phase I Environmental Site Assessment Process and WorleyParsons proposal dated March 14, 2016.

The Phase I ESA scope of work included the following tasks:

a) Contacted the appropriate city, county, and regional agencies regarding records for the Site;

b) Reviewed selected government database lists;

c) Reviewed documents as provided by the LAUSD;

d) Performed a fire insurance map search and review;

e) Performed a city directory search and review;

f) Performed a building permits search and review;

g) Performed a property tax search and review;

h) Performed a search and review of available current land title records for environmental cleanup liens and other activity and use limitations, such as engineering controls and institutional controls;

i) Performed an aerial photograph search and review;

j) Performed a historical topographic map search and review;

k) Completed the OEHS Existing School Sites checklist; and

l) Prepared and submitted this Phase I ESA report to the client.

The scope of work for this Phase I ESA did not include collection of environmental samples such as air, soil and groundwater, building materials/finishes suspected of containing asbestos or lead-based paint, or equipment suspected of containing polychlorinated biphenyls (PCBs) or mercury. The scope of work did not include an assessment of the presence of sensitive or endangered species and/or wildlife habitats. This Phase I ESA also did not include an assessment of the environmental compliance status of the Site or a health-based risk assessment.

1.3 Significant Assumptions

WorleyParsons assumes that the purpose of this Phase I ESA is to provide all appropriate inquiry into the previous ownership and use of the Site consistent with good commercial and customary practice in an effort to minimize liability. WorleyParsons also assumes that the information provided by the LAUSD, regulatory database provider, regulatory agencies, and other 3rd parties is true and reliable.

2. SITE DESCRIPTION

The Site consists of an approximately 10.53-acre middle school. The Site is bounded to the north by single-family dwellings across West 6th Street, to the east by single-family dwellings and a commercial building, to the south by multi-family dwellings, Wilshire Private School, and commercial buildings across Wilshire Boulevard, and to the west by single and multi-family dwellings across South McCadden Place.

The location of the Site is shown on Figures 1 and 2 and is identified as APN 5507-017-900 by the Los Angeles County Assessor's office. The findings of a reconnaissance inspection of the Site are contained in Section 5.

2.1 Description of On-site Buildings, Structures, and Other Features

The table below provides a list and description of all 25 buildings located on-Site, as provided by the LAUSD.

LOS ANGELES UNIFED SCHOOL DISTRICT – OFFICE OF ENVIRONMENTAL HEALTH & SAFETY
PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT
JOHN BURROUGHS MIDDLE SCHOOL, 600 S. MCCADDEN PLACE, LOS ANGELES, CALIFORNIA 90005

Bldg No.	Floor	Description	Quantity
1	Basement	All Purpose Room/Area/Space	1
		Arcades	1
		Boiler Room	1
		Boy's Toilet	1
		Corridor	1
		Dark Room	1
		Electric Shop	1
		Elevator Machine Room	1
		General Classroom	3
		Girl's Toilet	1
		Mechanical	2
		Mechanical Room	1
		Office	1
		Stairs (interior)	2
		Switch Board Room	1
		Vault	1
		Vestibule	1
	First Floor	Administration	1
		Arcades	1
		Auditorium	1
		Clerk's Room	1
		Closet	1
		Computer Room	1
		Corridor	3
		Cot Room	1
		Counselling Office	1
		Elevator Machine Room	1
		Entry (covered)	2
		General Classroom	8
		General Science	1
		Group Guidance (Conference)	1
		Health's Office	1
		Janitor	1
		Office	7
		Oral Arts Classroom	1
		Passage	1
		Principal's Office	1
		Public Area/Space	1
		Stairs (interior)	5
		Storage	3
		Teacher's Lounge	1
		Toilet	5
		Vault	1
		Vice Principal's Office	2
		Waiting Room	2
	Second Floor	Balcony	1
		Book Room	2
		Book Storage	1
		Choral Room/Classroom	1
		Corridor	3
		Elevator Machine Room	1
		General Classroom	11
		Janitor	1
		Mechanical Room	1
		Media Center	1
		Reading Center	1
		Stairs (interior)	5
		Teacher's Lounge	2
		Toilet	1

Bldg No.	Floor	Description	Quantity
2	Basement	Boiler Room	1
		Storage	1
	First Floor	Arcades	1
		Boy's Toilet	2
		Corrective Room (Boy's)	1
		Corridor	1
		Drying Room	1
		Gymnasium	1
		Locker Room (Boy's)	1
		Office	1
		Shower Room (Boy's)	1
		Weight Room	1
3	Main Floor	Arcades	1
		General Classroom	2
		Toilet	1
4	Main Floor	General Classroom	2
5	Main Floor	General Classroom	2
6	Main Floor	General Classroom	2
7	Basement	Custodian Room	1
		Entry (covered)	1
	First Floor	Arcades	1
		Boy's Toilet	1
		Corridor	1
		General Classroom	7
		General Science	1
		Girl's Toilet	1
		Library's Office	1
		Office	1
		Stairs (interior)	3
		Text Book Room	1
		Work Room	1
	Second Floor	Arcades (Full Charge)	1
		Arts Classroom	2
		Corridor	1
		Dark Room	1
		General Classroom	6
		Individual Education Program (ESL)	1
		Stairs (interior)	3
		Teacher's Lounge	1
		Typing Classroom	1
		Work Room	1

Bldg No.	Floor	Description	Quantity
8	Main Floor	General Science	2
		Work Room	1

Bldg No.	Floor	Description	Quantity
20	First Floor	Arcades	2
		Arcades (Full Charge)	1

9	Main Floor	Drafting Room	1
		General Science	1
		Graphic Arts	1
		Lumber Storage	1
		Mechanical Room	1
		Metal	1
		Storage	3
		Toilet	1
		Wood	1
10	Main Floor	Storage (Portable Building)	1
11	Main Floor	Tool Room	1
12	Main Floor	Storage (Portable Building)	1
13	Main Floor	Flammable Storage	1
14	Main Floor	Arcades	3
		Electric Shop	1
		Home Making	1
		Kitchen Area	2
		Storage	1
15	Main Floor	Storage (Portable Building)	1
16	Main Floor	Educable Handicapped	2
17	Main Floor	Arcades	2
		Corrective Room (Girl's)	1
		Corridor	1
		Cot Room	1
		Dressing Room	1
		Drying Room	1
		Locker/Shower Room (Girl's)	1
		Mechanical Room	1
		Office	1
		Shower Room	1
		Shower Room (Girl's)	1
		Storage	4
		Toilet	1
18	Main Floor	General Classroom	2
19	Main Floor	Storage (Portable Building)	1
		Boy's Toilet	1
		Can Wash	1
		Change Room	1
		Corridor	2
		Custodian Room	1
		Dining (open)	1
		Dish Washing	1
		Dressing Room	1
		Electric Room	1
		Elevator Machine Room	1
		Faculty Dining	1
		Faculty Serving	1
		Food Storage	2
		Freezer Area	1
		Girl's Toilet	1
		Kitchen Area	2
		Lunch Shelter	1
		Mechanical Room	1
		Men's Toilet	1
		Office	1
		Paper Storage	1
		Pop Corn Room	1
		Shaft Elevator	1
		Stairs (exterior)	1
		Storage	1
		Store	3
		Student Dining Area	1
		Toilet	2
		Vestibule	1
		Wardrobe	1
		Women's Restroom	1
		Women's Toilet	1
	Second Floor	Arcades	1
		Bridge	1
		Clothing Room	1
		Foods Room	1
		Home Living Room	1
		Instrumental Music Classroom	1
		Shaft Elevator	1
		Stairs (exterior)	1
		Teacher's Work Room	1
21	Main Floor	General Classroom	2
22	Main Floor	General Classroom	1
23	Main Floor	General Classroom	1
24	Main Floor	General Classroom	1
25	Main Floor	General Classroom	1

Two paved parking areas are located on-Site, on in the northeast corner and the other in the southwest corner. Two tennis courts are located in the center of the Site. A paved and dirt playground area is

located in the southern portion of the Site. The location of the buildings described in the table above along with other features is presented in Figure 2.

2.2 Description of Current Site Use and Operations

The approximately 10.53-acres Site is currently in use as a middle school. Additional details regarding the Site are contained in Section 5 of this report.

2.3 Description of Past Site Use and Operations

Prior to John Burroughs Middle School (previously John Burroughs Junior High School) opening in 1924, the Site was undeveloped land. However, a records search at the Los Angeles Department of Building and Safety (LADBS) indicated that a permit was issued on June 21, 1910 for the construction of one two-story building. No other permits were identified for the Site prior to the construction of the school site in the early 1920s.

2.4 Description of Site Vicinity and Current Uses of Adjoining Properties

The immediate Site vicinity consists of residential, commercial, and institutional properties. The Site is bounded to the north by single-family dwellings across West 6th Street, to the east by single-family dwellings and a commercial building (Korea Business Plaza located at 4801 Wilshire Boulevard) on the northwest corner of Wilshire Boulevard and S. June Street, to the south by multi-family dwellings, a school (Wilshire Private School at 4900 Wilshire Boulevard) on the southwest corner of Wilshire Boulevard and S. Longwood Avenue, and commercial buildings (Lebanese American Foundation located at 4800 Wilshire Boulevard) and Farmers Insurance located at 4750 Wilshire Boulevard) across Wilshire Boulevard, and to the west by single and multi-family dwellings across South McCadden Place.

3. USER-PROVIDED INFORMATION

3.1 Title Records

No title records were provided by the LAUSD as part of this Phase I ESA.

3.2 Environmental Liens or Activity and Use Limitations

No information regarding environmental liens or activity and use limitations were provided by LAUSD as part of this Phase I ESA.

WorleyParsons ordered an environmental liens and Activity and Use Limitation (AULs) report for the Site from EDR. The findings of this report indicate that no environmental liens or AULs were found for the Site.

3.3 Specialized Knowledge

The Site is currently in use as a middle school. No other specialized knowledge regarding the Site was provided by the LAUSD as part of this Phase I ESA.

3.4 Commonly Known or Reasonably Ascertainable Information

The Site was undeveloped land prior to the construction of the existing school site and its opening to the public in 1924. No other additional commonly known or reasonably ascertainable information was provided by the LAUSD as part of this Phase I ESA.

3.5 Valuation Reduction for Environmental Issues

No estimated valuation reduction related to known environmental issues associated with the Site was provided by LAUSD as part of this Phase I ESA.

3.6 Owner, Manager, and Occupant Information

Based on information provided by the LAUSD and obtained during research of the Site, the Site is currently owned and operated by the LAUSD as part of the John Burroughs Middle School. Interviews regarding the current and historic use of the Site were conducted by Mr. Michael Huma, of WorleyParsons, on Wednesday, April 20, 2016, with Mr. Andrew Fowler, Project Manager for the LAUSD Office of Environmental Health Services (OEHS) and Mr. Martin Nevarez, the John Burroughs Middle School Plant Manager. The findings of these interviews are discussed in Section 5. During the Site reconnaissance, LAUSD provided a plot plan of the Site as well as a list and description of the

buildings on-Site and the quantity of various types of rooms, corridors, etc. present in the respective buildings (presented in the table in Section 2.1 above).

3.7 Reason for Performing Phase I ESA

The purpose of this Phase I ESA was to identify RECs in order to assist in the evaluation of historical land use at the Site, assess for potential environmental impacts on- and off-site, and determine the degree to which any potential environmental impacts may affect on-Site occupants, off-Site individuals, and the environment. The Phase I ESA was conducted to meet school modification construction and existing school expansion requirements set forth by the California Department of Education, as well as assist in determining whether further action is needed to characterize and/or mitigate environmental impacts identified during the Phase I ESA.

4. RECORDS REVIEW

4.1 Environmental Setting

4.1.1 Regional Physiographic Setting

The Site is located within the Central Block of the Los Angeles Basin approximately 3 miles south of the Santa Monica Mountains in the Peninsular Ranges Geomorphic Province of Southern California. The province is separated by northwest trending valleys, subparallel to faults branching from the San Andreas Fault, with granitic rock intruding the older metamorphic rocks. The Peninsular Ranges extend into lower California and are bound on the north by the Transverse Ranges and on the east by the Colorado Desert. The Los Angeles Basin and the island group (Santa Catalina, Santa Barbara, and the distinctly terraced San Clemente and San Nicolas islands), together with the surrounding continental shelf (cut by deep submarine fault troughs), are included in this province (California Department of Water Resources [DWR], 1961).

Topographic Setting

According to the United States Geological Survey (USGS) Topographic Map, Hollywood, California Quadrangle, the Site is approximately 213 feet above mean sea level (AMSL). The topography in the Site vicinity slopes toward the south-southwest (EDR, 2016b).

Nearest Surface Water Body

The nearest surface water bodies to the Site are MacArthur Park Lake, Echo Lake, and the Los Angeles River, approximately 3.2, 4.3 and 6.2 miles east of the Site, respectively.

4.1.2 Nearest Ecological Interest

Based on the information provided by the California Environmental Resources Evaluation System (CERES) database, the Information Center for the Environment Mapping Database (ICEMAPS), and the County of Los Angeles, Department of Regional Planning interactive GIS mapping application <http://planning.lacounty.gov/gis/interactive>, the closest area of significant ecological interest is MacArthur Park Lake, Echo Lake, and the State Water Resources Control Board Riverine Waterbody (Los Angeles River) area approximately 3.2, 4.3 and 6.2 miles east of the Site, respectively.

4.1.3 Geology

Regional Geology

The Site is located within the Central Block of the Los Angeles Basin, in the Peninsular Ranges Geomorphic Province near the border of the Transverse Ranges Geomorphic Province. The Site is located in an area of coalescing alluvial fan deposits shed from the nearby Santa Monica Mountains located approximately 3 miles north of the Site. The local topography in the Site vicinity is flat with a gentle slope towards the south.

The area is mapped as late to middle Pleistocene alluvial fan deposits composed of silt, sand, and gravel. Area topography generally slopes southward (Yerkes and Campbell, 2005; USGS, 1979).

The Site is located in an area of naturally occurring petroleum. The Site is not located within the boundaries of a defined oil field but several oil fields are present in the Site vicinity, including the Salt Lake Oil Field to the north and west, South Salt Lake Oil Field to the west-southwest, Beverly Hills Oil Field to the southwest, and Las Cienegas Oil Field to the South of the Site (California Department of Conservation, Division of Oil, Gas and Geothermal Resources, 2003). Crude oil is commonly encountered in the shallow subsurface soil and groundwater in this part of Los Angeles. The historic La Brea Tar Pits are located approximately 1 mile west of the Site. According to the Department of Public Works, Bureau of Engineering, the Site lies within a methane zone. Due to the naturally petroliferous area in which the Site is located, there is a potential for the presence of methane or hydrogen sulfide gas in the shallow subsurface at the Site and vicinity.

The nearest active faults to the Site include the Hollywood Fault, located approximately 3 miles north of the Site and the Santa Monica Fault, located approximately 4.5 miles west of the Site.

Local Geology

On November 29 and 30, 2005, Western Environmental Engineers Co. advanced three soil boreholes at 5020-5044 Wilshire Boulevard, approximately 550 feet west-southwest of the Site. The deepest boreholes were advanced to a total depth of 44 feet below ground surface (bgs). Soils identified in the borehole logs include silty clay from surface to 20 feet bgs and silty sand from 20 to 44 feet bgs. A confining layer was encountered at approximately 44 feet bgs. Groundwater was encountered at 27 feet bgs (Western Environmental Engineers Co., 2005). Groundwater wells at this location were gauged on September 11, 2013; depth to water ranged from 169.39 to 172.67 feet AMSL. The groundwater flow direction was reported towards the southeast at a hydraulic gradient of 0.04 feet/feet (Conestoga-Rovers and Associates, 2014).

4.1.4 Location of Nearest Oil and Gas Fields

Based on the California Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR) Map 118, the Site is not located within an oil and gas field (DOGGR, 2003). The closest oil and gas field is the Salt Lake Oil Field, located approximately 0.28 mile to the north and 0.40 mile west of the Site (DOGGR, 2003).

4.1.5 Location of Nearest Exploratory and Production Oil and Gas Wells

Based on the DOGGR oil and gas well map 118, the closest current or historic plugged and abandoned oil and/or gas well to the Site is the plugged and abandoned oil wells Chevron U.S.A. Inc. “Highland Corehole” 1 and Chevron U.S.A. Inc. “Highland Corehole” 2, located approximately 0.24 miles west-southwest of the Site (DOGGR, 2003).

4.1.6 Potential for Methane and Hydrogen Sulfide

Methane and hydrogen sulfide are gases associated with the decay of organic matter. In the natural environment, these gases form in localities such as old marine rocks (including oil-bearing strata), peat bogs, marshes and swamps. Anthropogenic sources of these gases may include landfills, waste pools, and the refinement of petroleum products.

Based on the information provided by the City of Los Angeles NavigateLA Web site and information provided by the City of Los Angeles Building and Safety (LADBS) and the City’s Public Works Departments, the Site lies within a City of Los Angeles designated methane zone.

4.1.7 Nearest Special Study Zone (Alquist-Priolo Act)

Based on a review of the Special Studies Zone Maps provided by the California Department of Conservation Division of Mines and Geology (DMG), the Site is located within the Hollywood Fault special study zone and is regulated under the Alquist-Priolo Earthquake Fault Zoning Act (Public Resources Code 2621, Division 2, Chapter 7.5). The Hollywood Fault is located within the central portion of the Santa Monica-Hollywood-Raymond Fault system, which is collectively part of a greater than 200-km long west-trending system of oblique, reverse and left-lateral faults that separate the Transverse Ranges Geomorphic Province of California on the north from the Peninsular Ranges Geomorphic Province on the south (Dolan et al., 1997).

4.1.8 Potential for Liquefaction and Landslides

Liquefaction Potential

Based on Section 1, Liquefaction Evaluation Report, of the 1998 DMG Seismic Hazard Zone Report for the Hollywood 7.5-Minute Quadrangle, three Holocene soil inventory types were identified in the Hollywood Quadrangle as being susceptibility to liquefaction when saturated. These Holocene soil inventory types included active stream channels consisting of loose to dense sand, gravel, and silty sand, alluvial fans consisting of loose to moderately dense sand, gravel, and sandy silt, and floodplains, streams, alluvial fans consisting of loose to moderately dense sand, silt, and clay (DMG, 1998).

Liquefaction analyses of geotechnical data recorded in logs of boreholes drilled in the Hollywood Quadrangle show that young, saturated sandy soils are potentially liquefiable. Younger alluvium deposited in canyon bottoms and incised channels generally lack adequate geotechnical borehole information. The soil characteristics and groundwater conditions in these cases are assumed to be similar to those in deposits where subsurface information is available (DMG, 1998).

According to the California Geological Survey, Earthquake Zone of Required Investigation, Hollywood Quadrangle map released on November 6, 2014, the Site does not lie within a mapped liquefaction zone (California Department of Conservation, 2014).

Landslide Potential

Based on Section 2, Earthquake-Induced Landslide Evaluation Report, of the 1998 DMG report and on information provided by the California Geological Survey Earthquake Zones of Required Investigation Hollywood Quadrangle (2014), the Site is not located within an earthquake-induced landslide potential zone (DMG, 1998 and California Department of Conservation, 2014).

4.1.9 Potential for Flooding

The Site is not located within a 100 or 500-year flood zone as described by Federal Emergency Management Agency (FEMA). However, the area to the east of the Site along June Street is located within a 500-year flood zone (FEMA, 2008; EDR, 2016a). This area has a 0.2% annual chance of a flood, 1% annual chance of a flood with average depths of less than 1 foot or with drainage areas less than 1 square mile, and is an area protected by levees from the 1% annual chance flood.

4.1.10 Hydrogeology

Regional Hydrogeology

The Site is within the Coastal Plain of the Los Angeles Groundwater Basin, within the Hollywood Subbasin, which covers 16.4 square miles (California Department of Water Resources (DWR), 2004). The Hollywood Subbasin is bounded to the north by the Santa Monica Mountains and the Hollywood Fault, to the east by the Elysian Hills, to the west by the Inglewood fault zone, and south by the La Brea “High” (an anticline having impermeable rock close to the surface). Hollywood Subbasin groundwater has existing and designated beneficial uses for municipal and domestic supply, industrial service supply, industrial process supply, and agricultural supply (Regional Water Quality Control Board, Los Angeles Region [RWQCB], 1994). The only naturally occurring surface water bodies within one mile of the Site are ponds associated with the La Brea Tar Pits, located approximately 1 mile west of the Site.

Local Hydrogeology

Records of groundwater conditions in the general Site vicinity were reviewed at the Los Angeles Department of Public Works (LADPW), Hydrogeologic Records Division, to obtain groundwater depth near the Site. The nearest water well to the Site is Observation Well 2642M, located approximately 1.35 miles northwest of the Site. Groundwater in the well was measured at approximately 14.7 feet below top of casing or 195.5 feet AMSL, on September 23, 2015 (LADPW, 2016).

On September 11, 2013, depth to water at 5020-5044 Wilshire Boulevard, approximately 550 feet west-southwest of the Site, ranged from depth to water ranged from 169.39 to 172.67 feet AMSL. Groundwater flow direction was reported towards the southeast at a hydraulic gradient of 0.04 feet/feet (Conestoga-Rovers and Associates, 2014).

Nearest Groundwater Production Wells

There is one groundwater observation well, 2642M, located approximately 1.35 miles northwest of the Site and no groundwater production wells located within a 0.25 mile radius of the Site (EDR, 2016a and LACDPW, 2016).

4.2 Standard and Additional Environmental Record Sources

WorleyParsons contracted with EDR to research the available databases containing valuable environmental regulatory database information. EDR researched each database for sites located within the minimum standard search radius, as identified by ASTM 1527-13. Details of sites found in the databases are included in the EDR report (see Appendix 2). Please note that the distance and direction of sites listed within the EDR search radius, as related to the Site, are based on the EDR

report and Google Earth. Additionally, direction of gradient of each site listed in the radius report with respect to the Site is based on the expected shallow groundwater flow direction to the southeast.

EDR Radius Report Summary: Site

Site Name	Address	Database	Distance and Direction	Oversight Agency and Property Status	EDR Map ID/Page No.
Los Angeles Unified School District, Burroughs Middle School	**600 South McCadden Place, Los Angeles, CA 90005**	**EMI**	**Site**	**California Environmental Protection Air Resource Board and South Coast Air Quality Mangement District.** **No emmissions released in 1990.**	**A1/8**

EDR Radius Report Summary: Site (continued)

Los Angeles Unified School District, Burroughs Middle School	600 South McCadden Place, Los Angeles, CA 90005	HAZNET	Site	Department of Toxic Substance Control (DTSC). 0.015 tons of other inorganic waste (2010). 14 tons of asbestos containing waste (2008). 14 tons of asbestos containing waste (2008). 26 tons of asbestos containing waste (2007). 77.52 tons of asbestos containing waste (2006). 235.98 tons of asbestos containing waste (2005). 134.84 tons of asbestos containing waste (2004). 0.18 tons of other organic solids (2002). 50.56 tons of other inorganic solid waste (2001). 1.05 tons of polychlorinated biphenyls (PCBs) and material containing PCBs (2001). 9.2708 tons of asbestos containing waste (1999). 5.0568 tons of asbestos containing waste (1998). 1.6856 tons of asbestos containing waste (1995).	A2/8
Los Angeles Unified School District, Burroughs Middle School	600 South McCadden Place, Los Angeles, CA 90005	FINDS, ECHO	Site	Facility Index System (FINDS). Site is listed as a Hazardous Waste Biennial Reporter. United States Environmental Protection Agency's Enforcement and Compliance History Online (ECHO). No violations reported.	A3/10
Los Angeles Unified School District, Burroughs Middle School	600 South McCadden Place, Los Angeles, CA 90005	RCRA-LQG	Site	Large quantity generator; No violations reported.	A4/12

EDR Radius Report Summary: Sites within 0 to ⅛ Mile of Site

Site Name	Address	Database	Distance and Direction	Oversight Agency and Property Status	EDR Map ID/Page No.
Farmers Insurance Group	4750 Wilshire Boulevard, Los Angeles, CA 90005	CA FID UST, EMI, UST SWEEPS UST	Approx. 215 feet southeast (downgradient)	CA FID UST. Active status. EMI. Air emissions report for 1987. UST. SWEEPS UST. Active status.	B6/17 B7/18
The Original 23 Minute Photo #2	5001 Wilshire Boulevard, Suite 113, Los Angeles, CA 90036	RCRA-SQG, FINDS, HAZNET, ECHO	Approx. 620 feet west (cross/upgradient)	RCRA-SQG. No violations reported. FINDS. HAZNET. 0.7253 tons of PCBs (1995). 1.3255 tons of photochemicals/ photoprocessing waste (1994). 1.1586 tons of photochemicals/ photoprocessing waste (1993). ECHO. No violations reported.	C8/18
TLC Dry Cleaner and Laundry	5001 Wilshire Boulevard, Suite 108, Los Angeles, CA 90036	EDR Hist Cleaner	Approx. 620 feet west (cross/upgradient)	EDR source. Historical dry cleaner.	C9/23
Ted and Hedy Orden	5001 Wilshire Boulevard, Los Angeles, CA 90036	Hist UST	Approx. 620 feet west (cross/upgradient)	Hist UST. 9,943 gallon waste oil UST last used in 1978.	C10/24

EDR Radius Report Summary: Sites within 0 to ⅛ Mile of Site (continued)

TLC Cleaners	**5001 Wilshire Boulevard, Suite 108, Los Angeles, CA 90036**	**RCRA-SQG, FINDS, HAZNET, ECHO**	**Approx. 620 feet west (cross/upgradient)**	**RCRA-SQG. No violations reported.** **FINDS.** **HAZNET. 0.12 tons of halogenated solvents (2005).** **Unreported tons of aqueous solution with total organic residues less than 10 percent (2005).** **0.57 tons of halogenated solvents (2004).** **Unreported tons of aqueous solution with total organic residues less than 10 percent (2004).** **0.06 tons of halogenated solvents (2002).** **0.0542 tons of halogenated solvents (1999).** **0.0417 tons of halogenated solvents (1998).** **0.0625 tons of halogenated solvents (1997).**	**C11/25**
A Auto Glass	**5001 Wilshire Boulevard, Los Angeles, CA 90036**	**EDR Hist Auto**	**Approx. 620 feet west (cross/upgradient)**	**Historical automobile shop.**	**C12/30**

EDR Radius Report Summary: Sites within 0 to ⅛ Mile of Site (continued)

Tidewater Service Station	5020 Wilshire Boulevard, Los Angeles, CA 90036	LUST, HAZNET	Approx. 540 feet west-southwest (crossgradient)	LUST. RWQCB agency. Other solvent or non-petroleum hydrocarbon contamination in groundwater. Case closed February 21, 2014. HAZNET. 0.0015 tons of photochemicals/ photoprocessing waste (1998). 0.0417 tons of metal sludge (alkaline solution (pH>=12.5) with metals) (1997). 0.0502 tons of metal sludge (1997). 0.0417 tons of metal sludge (alkaline solution (pH>=12.5) with metals) (1996). 0.0650 tons of metal sludge (alkaline solution (pH>=12.5) with metals) (1995).	C13/30
Fromex Citrus One Hour Photo	5020 Wilshire Boulevard, Los Angeles, CA 90036	RCRA-SQG, FINDS, ECHO	Approx. 540 feet west-southwest (crossgradient)	RCRA-SQG. No violations reported. FINDS. ECHO. No violations reported.	C14/35
Bartel H S	5020 Wilshire Boulevard, Los Angeles, CA 90036	EDR Hist Auto	Approx. 540 feet west-southwest (crossgradient)	Historical gasoline and oil service station present in 1942.	C15/38
Midway Car Rental	4751 Wilshire Boulevard, Los Angeles, CA 90036	EDR Hist Auto	Approx. 270 feet east (cross/downgradient)	Historical automobile station present in 2009.	B16/39
Highland Express Cleaners	5034 Wilshire Boulevard, Los Angeles, CA 90036	SLIC, EMI	Approx. 600 feet west-southwest (crossgadient)	SLIC. RWQCB Agency. Tetrachloroethylene contamination in soil and soil vapor. EMI. Emissions details for the years 1987 and 1990.	C17/39
Life Line Mobile Mobile Screening	5055 Wilshire Boulevard, Los Angeles, CA 90036	CUPA Listing	Approx. 655 feet west-southwest (crossgadient)	EPA agency. Status is inactive.	C19/44

EDR Radius Report Summary: Sites within ⅛ to ¼ Mile of Site

Site Name	Address	Database	Distance and Direction	Oversight Agency and Property Status	EDR Map ID/Page No.
Farmers Insurance Group	4680 Wilshire Boulevard, Los Angeles, CA 90005	CA FID UST, EMI	Approx. 0.21 mile east (cross/downgradient)	CA FID UST. State Water Resource Control Board Facility Inventory Database. Active status. EMI. Air emissions report for the years, 1987, 1990, 2002, 2003, 2004, 2008, 2009, 2010, 2011, 2012, 2013.	B5/13
Carnation Company	5045 Wilshire Boulevard, Los Angeles, CA 90036	RCRA NonGen/NLP, FINDS, ECHO	Approx. 780 feet west-southwest (crossgadient)	Resource Conservation and Recovery Act. EPA agency. No violations. FINDSs. ECHO. No violations reported.	C18/40
Unknown	5055 Wilshire Boulevard, #14249, Los Angeles, CA 90036	AST	Approx. 910 feet west (crossgadient)	2,200 gallon aboveground storage tank (AST).	C20/44
Lou Ehlers Cadillac (Former)	5050-5070 Wilshire Boulevard, Los Angeles, CA 90036	LUST	Approx. 775 feet west-southwest (crossgadient)	Waste / motor / hydraulic / lubricating oil contamination in soil. Case closed December 21, 2009.	C21/44
Everbest Business Machines	5104 Wilshire Boulevard, Los Angeles, CA 90036	RCRA-SQG, FINDS, ECHO	Approx. 0.23 mile west-southwest (crossgadient)	RCRA-SQG. No violations reported. FINDS. ECHO. No violations reported.	D23/46
Carnation Office (Former)	5115 Wilshire Boulevard, Los Angeles, CA 90036	LUST	Approx. 0.22 mile west (cross/upgadient)	LUST. Hydrocarbons contamination in groundwater. Case closed on July 31, 1996.	D24/50
Avalon Wilshire	5115 Wilshire Boulevard, Los Angeles, CA 90036	RCRA-LQG, HAZNET	Approx. 0.22 mile west (cross/upgadient)	RCRA-LQG. Generator of corrosive and reactive waste. No violations reported. HAZNET. 24.23 tons of alkaline solution without metals pH >= 12.5 (2006). 19.95 tons of alkaline solution without metals pH >= 12.5 (2005).	D25/51
UNK	5115 Wilshire Boulevard, Los Angeles, CA 90036	SWEEPS UST, CA FID UST	Approx. 0.22 mile west (cross/upgadient)	SWEEPS UST. Unreported amount of UST or product stored. CA FID UST. Inactive status.	D26/54

EDR Radius Report Summary: Sites within ⅛ to ¼ Mile of Site (continued)

Site Name	Address	Database	Distance and Direction	Oversight Agency and Property Status	EDR Map ID/Page No.
Carnation Office (Former)	5115 Wilshire Boulevard, Los Angeles, CA 90036	LUST, HIST CORTESE	Approx. 0.22 mile west (cross/upgadient)	LUST. Other solvent or non-petroleum hydrocarbon contamination of aquifer. Case closed July 31, 1996.	D27/55

EDR Radius Report Summary: Sites within ¼ to ½ Mile of Site

Site Name	Address	Database	Distance and Direction	Oversight Agency and Property Status	EDR Map ID/Page No.
Lou Ehlers Cadillac	5151 Wilshire Boulevard, Los Angeles, CA 90036	UST	Approx. 0.28 mile west (cross/upgadient)	Underground storage tank, unknown capacity and substance being stored.	D22/46
Lou Ehlers Cadillac	5151 Wilshire Boulevard, Los Angeles, CA 90036	LUST	Approx. 0.28 mile west (cross/upgadient)	LUST. Gasoline contamination in aquifer. Case closed August 22, 1996.	E28/56
Lou Ehlers Cadillac	5151 Wilshire Boulevard, Los Angeles, CA 90036	LUST	Approx. 0.28 mile west (cross/upgadient)	LUST. Case closed February 20, 2013.	E29/57

EDR Radius Report Summary: Sites within ¼ to ½ Mile of Site

Site Name	Address	Database	Distance and Direction	Oversight Agency and Property Status	EDR Map ID/Page No.
Lou Ehlers Cadillac	5151 Wilshire Boulevard, Los Angeles, CA 90036	RCRA-SQG, LUST, SWEEPS UST, CA FID UST, FINDS, EMI, HAZNET, HIST CORTESE, ECHO	Approx. 0.28 mile west (cross/upgadient)	RCRA-SQG. Small quantity generator of ignitable waste. No violations reported. LUST. Gasoline contamination in groundwater. Case closed August 22, 1996. SWEEPS UST. Active status. CA FID UST. Active status. FINDS. EMI. Air emissions for the years 1990 and 1995. HAZNET. 6.51 tons of unspecified aqueous solution (2008). 53.95 tons of contaminated soil from site clean-up (2008). 75.852 tons of other organic solids (2008). 0.4587 tons of unspecified oil-containing waste. HIST CORTESE. ECHO. No violations reported.	E30/59
TOSCO S.S. #1116	5436 6th Street West, Los Angeles, CA 90036	LUST, HIST CORTESE	Approx. 0.41 mile west (crossgadient)	LUST. Gasoline contamination in aquifer. Case eligible for closure.	33/70
La Brea Avenue Motors	401 South La Brea Avenue, La Brea, CA 90036	Envirostor	Approx. 0.43 mile west-northwest (upgadient)	Tetrachloroethylene, trichloroethylene, hydrocarbons contamination in soil and soil vapor.	G34/78
Vacant Building	400 La Brea Avenue, Los Angeles, CA 90036	LUST	Approx. 0.39 mile west-northwest (upgadient)	LUST. Other solvent or non-petroleum hydrocarbon. Case closed September 29, 2008.	G35/79

EDR Radius Report Summary: Sites within ¼ to ½ Mile of Site

Site Name	Address	Database	Distance and Direction	Oversight Agency and Property Status	EDR Map ID/Page No.
Third Street Elementary School	201 South June Street, Los Angeles, CA 90004	Envirostor, SCH	Approx. 0.29 mile north (upgadient)	Envirostor. Volatile and semi-volatile organic compounds, metals, PCBs in soil and soil vapor. SCH. Department of Toxic Substance Control (DTSC) site cleanup program.	36/82
La Brea Avenue Motors	359 South La Brae Avenue, La Brea, CA 90036	Envirostor	Approx. 0.43 mile northwest (upgadient)	Envirostor. Volatile organic compounds, motor oil.	H37/88
La Brea Dodge Inc.	339 South La Brea Avenue, Los Angeles, CA 90036	RCRA-SQG, LUST, FINDS, ECHO	Approx. 0.46 mile northwest (upgadient)	RCRA-SQG. No violations reported. LUST. Solvent contamination to groundwater. Case closed June 18, 1996. FINDS. ECHO. No violations reported.	H39/90
La Brea Dodge Inc.	339 South La Brea Avenue, Los Angeles, CA 90036	Envirostor, VCP, HIST CORTESE	Approx. 0.46 mile northwest (upgadient)	Envirostor. Volatile organic compounds. Preliminary endangerment assessment report. VCP. DTSC, voluntary cleanup program. HIST CORTESE.	H40/96
Celebrity Car Leasing (Former)	816 La Brea Avenue South, Los Angeles, CA 90036	LUST, HIST CORTESE	Approx. 0.45 mile southwest (crossgadient)	LUST. Other solvent or non-petroleum hydrocarbon contamination in groundwater. Case closed June 11, 1997. HIST CORTESE.	I42/109
Horowitz Property	303 La Brea Avenue South, Los Angeles, CA 90036	LUST	Approx. 0.47 mile northwest (crossgadient)	LUST. Gasoline contamination in groundwater. Case closed December 23, 2011.	43/111

EDR Radius Report Summary: Sites within ¼ to ½ Mile of Site

Site Name	Address	Database	Distance and Direction	Oversight Agency and Property Status	EDR Map ID/Page No.
Los Altos Cleaners	453 South La Brea, Los Angeles, CA 90036	Envirostor, EMI	Approx. 0.41 mile west-northwest (crossgadient)	Envirostor. Volatile organic compounds contamination in soil and soil vapor. Preliminary endangerment assessment report. EMI. Emissions report for the years 1987, 1990.	44/114
Shell Service Station (Former)	4647 Laurel Canyon Blvd., North Hollywood, CA 91607	LUST RCRA-SQG FINDS HAZNET	Approx. 0.48 mile south-southwest (crossgradient)	RWQCB. Hydrocarbon contamination to soil. Case closed. Small quanity generator with no violations found. DTSC. 0.22 tons, 0.68 tons, 6.25 tons of aqueous solution with total organic residues less than 10% (2002). 0.5 tons of waste oil and mixed oil (2002). 0.25 tons other empty containers 30 gallons or more (2002).	H28/38

EDR Radius Report Summary: Sites within ½ to 1 Mile of Site

Site Name	Address	Database	Distance and Direction	Oversight Agency and Property Status	EDR Map ID/Page No.
EXXON #7-7221 (Former)	307 La Brea Avenue North, Los Angeles, CA 90036	LUST, ENF, HIST CORTESE	Approx. 0.90 mile northwest (upgadient)	LUST. Gasoline contamination in groundwater. Case closed January 15, 2009. ENF.	H41/99
Lankershim Elementary Expansion	11241/11261 Magnolia Blvd., North Hollywood, CA 91601	ENVIROSTOR SCH	Approx. 0.66 mile east-northeast (cross/downgradient)	DTSC. Site investigation closed Feb 6, 2002. No specific contaminants found.	29/42
Executive Cleaners	12514 Riverside , Los Angeles, CA 91607	ENVIROSTOR LA Co. Site Mitigation	Approx. 0.90 mile west-southwest (crossgradient)	Local agency. Evaluation as of Jul 5, 2000.	32/49

4.3 Historic Use Information

4.3.1 Regulatory Agency Information

Regional Water Quality Control Board, Los Angeles Region

WorleyParsons contacted the RWQCB, to determine whether files exist for the Site based on the existing or historic Site addresses. See Appendix 4 for copies of agency correspondence. No files were found for the Site address.

California Environmental Protection Agency, Department of Toxic Substances Control

WorleyParsons contacted the California Environmental Protection Agency, Department of Toxic Substances Control (DTSC), in Chatsworth, California, to determine whether files exist for the Site. See Appendix 4 for agency correspondence. No files were found for the Site address.

Los Angeles County Fire Department, DHS Health Hazardous Materials Unit

WorleyParsons contacted the Los Angeles County Fire Department, Health Hazardous Materials Unit, which includes the Los Angeles County Public Health Investigation Unit (PHI), to determine whether files exist for the Site. See Appendix 4 for agency correspondence. No files were found for the Site address.

City of Los Angeles Fire Department, Fire Prevention – Underground Tank Unit

WorleyParsons contacted the City of Los Angeles Fire Department, Fire Prevention – Underground Tank Unit (LAFD-UST) to determine whether files exist for the Site. See Appendix 4 for agency correspondence. No files were found for the Site address.

City of Los Angeles Fire Department, Hazardous Materials Unit

WorleyParsons contacted the City of Los Angeles Fire Department, Hazardous Materials Unit (LAFD-Hazmat) to determine whether files exist for the Site. See Appendix 4 for a copy of agency correspondence. A response to WorleyParsons' request for file information for the Site was not received from the Hazardous Materials Unit; however, the lack of a response is not considered to constitute a significant data gap.

City of Los Angeles, Department of Building and Safety

WorleyParsons contacted the LADBS to determine whether files exist for the Site.

The LABDS reported that 26 building alteration permits were filed for the Site beginning on June 21, 1910 and ending October 24, 1960. The LABDS reported that 23 new building construction permits were filed for the Site beginning on April 5, 1927, and ending August 28, 1940. The LABDS reported that one building relocation permit was filed for the Site on September 23, 1929. The LABDS reported that three building addition permits were filed for the Site beginning on September 26, 1932 and ending November 10, 1936.

County of Los Angeles Department of Public Works, Industrial Waste Management Division

WorleyParsons contacted the County of Los Angeles Department of Public Works, Industrial Waste Management Division (LACPW-IWMD), to determine whether files exist for the Site. The online file review searches for files related to the UST program, Industrial Waste, and Stormwater certification program. See Appendix 4 for a copy of the online search. No files were found for the Site address.

Office of the State Fire Marshal, Pipeline Division

As part of this Phase I ESA, WorleyParsons requested records for the Site vicinity from the Pipeline Division of the State Fire Marshal's Office. The Office of the State Marshal indicated that there are no pipelines jurisdictional to the State Fire Marshal in the area of the Site. The Office of the State Marshal also recommends use of the National Pipeline Mapping System (NPMS) as a resource tool (State Fire Marshal's Office, 2016).

The NPMS is a dataset containing locations of and information about gas transmission and hazardous liquid pipelines and Liquefied Natural Gas (LNG) plants which are under the jurisdiction of the Pipeline and Hazardous Materials Safety Administration (PHMSA). The NPMS also contain voluntarily submitted breakout tank data. The data is used by PHMSA for emergency response, pipeline inspections, regulatory management and compliance, and analysis purposes. It is used by government officials, pipeline operators, and the general public for a variety of tasks including emergency response, smart growth planning, critical infrastructure protection, and environmental protection.

According to the NPMS database, no hazardous liquid pipelines are located within one mile of the Site (NPMS, 2016).

4.3.2 Fire Insurance Map Search and Review

WorleyParsons requested that EDR conduct a historical Sanborn Fire Insurance Maps search for the Site and immediate vicinity (EDR, 2016c). Maps of the Site and vicinity from 1926, 1950 and 1969 were identified and reviewed. A summary of WorleyParsons' review of these maps is included below. Copies of these maps are contained in Appendix 3.

1926

On-site

The Site is identified as John Burroughs Junior High School. The northern portion of the Site is occupied by 6 buildings consisting of a main building with an auditorium, a buildings containing classrooms and restrooms, a gymnasium building, a dressing room building, and an auto repair and wood working shop building.

Off-site

The Site is bordered to the north by single-family dwellings and vacant land across West 6th Street, to the east by single-family dwellings and vacant land, to the south by Wilshire Boulevard, and to the west by single-family dwellings and vacant land across South McCadden Place.

1950

On-site

The Site is identified as John Burroughs Junior High School. The northern portion of the Site is occupied by 13 buildings with following additional buildings being added since the 1926; a music room building, a greenhouse building, a girls' gymnasium, lathe building, one small structure located north of a lunch shelter and another small structure east of the auto repair and wood working shop building.

Off-site

The Site is bordered to the north by single-family dwellings across West 6th Street, to the east by single-family dwellings and vacant land, to the south by Wilshire Boulevard followed by single-family dwellings and vacant land, and to the west by single-family dwellings, vacant land, and two "gas & oil" service stations (located at the northwest corner of South McCadden Place and Wilshire Boulevard) across South McCadden Place.

1969

On-site

The Site is identified as John Burroughs Junior High School. The northern portion of the Site is occupied by 14 buildings. The music room building, greenhouse building, lathe building, and small structures located north of the lunch shelter and east of the auto repair and wood working shop building on the 1950 map are no longer present. New buildings at the Site include a new music room building, two new classroom buildings, and three, small storage sheds behind the auto repair and wood working shop building, including one identified as a solvent storage and another as a gardener's storage.

Off-site

The Site is bordered to the north by single-family dwellings across West 6th Street, to the east by single-family dwellings and vacant land, to the south by a private school, single-family dwellings and vacant land across Wilshire Boulevard, and to the west by single-family dwellings and vacant land across South McCadden Place.

4.3.3 City Directory Search and Review

WorleyParsons contracted with EDR to research available historical and current city directories based on the Site address. A copy of the complete EDR City Directory Abstract is included in Appendix 3. The following information on Site use and/or occupants was identified (EDR, 2016d).

600 South McCadden Place, Los Angeles, CA 90005

- 1929, 1933, 1937, 1942, 1958, 1962, 1967, 1971, 1976, 1981, 1986, 1990, 2006: Burroughs Junior High School.
- 2008 and 2013: Burroughs Middle School.

4.3.4 Historic Aerial Photograph Search and Review

WorleyParsons contracted with EDR to research available historic aerial photographs of the Site and vicinity. Copies of the aerial photographs are included in Appendix 3 and the Site is outlined. The information below was obtained from the aerial photographs (EDR, 2016e).

1928, Scale 1"= 500'

On-site

The Site is occupied by the John Burroughs Junior High School with approximately 10 structures present in the northern portion of the Site, including the auditorium building, gymnasium, class room buildings, auto repair and wood working shop building (shop building), lathe building and green house. The mid to southern portion of the Site is occupied by a dirt lot.

Off-site

Single-family dwellings and a relatively small amount of vacant land lots are visible to the north, east, south, and west.

1938, Scale 1" = 500'

On-site

The Site is occupied by the John Burroughs Junior High School with approximately 13 structures present in the northern portion of the Site. The girl's gymnasium and two additional classroom buildings are now present on the northern portion of the Site. Tennis and hand ball courts have been added in the central portion of the Site. The mid to southern portion of the Site is occupied by an empty grassy area.

Off-site

The surrounding properties appear similar to the previous map with the exception of a service station present at the northeast corner of Highland Avenue and Wilshire Boulevard (approximately 250 feet west of the southern portion of the Site). Commercial buildings are under construction to the east-southeast, west, and to the west-southwest of the Site.

1948, Scale 1"= 500'

On-site

The Site is occupied by the John Burroughs Junior High School with approximately 12 structures present in the northern portion of the Site. The music building is now present to the south of the shop building and a lunch shelter is present to the south of the girls' gymnasium. Three small class room buildings visible in the previous photograph are no longer present. The remainder of the Site appears similar to the previous photograph.

Off-site

The surrounding properties appear similar to the previous photograph. The two “oil & gas” service stations visible in the 1950 Sanborn Fire Insurance Map are visible to the west of the southern portion of the Site at the northwest corner of South McCadden Place and Wilshire Boulevard and at the northeast corner of Highland Avenue and Wilshire Boulevard.

1952, Scale 1”= 500’

On-site

The Site appears similar to the previous photograph.

Off-site

The surrounding properties appear similar to the previous photograph.

1964, Scale 1”= 500’

On-site

The Site is occupied by the John Burroughs Junior High School with approximately 13 structures present in the northern portion of the Site. New classroom buildings are present to the south of the auditorium and the shop building. A new music building is also present to the south of the shop building and a solvent storage shed and gardening tools storage shed (as identified on the 1969 Sanborn Map) are now visible to the east of the shop building. The old music building, lath building, green house and a small structure behind the shop building are no longer present. The remainder of the Site appears similar to the previous photograph.

Off-site

Additional commercial buildings have been constructed along Wilshire Boulevard to the south of the Site. A school is present to the south of the Site across Wilshire Boulevard.

1977, Scale 1”= 500’

On-site

The Site is occupied by the John Burroughs Middle School with approximately 21 structures present in the northern portion of the Site. The science/workshop building is present in the northeast corner of the Site. Six new storage buildings are present along the eastern boundary of the property, which includes

three to the east of the shop building, which have replaced the gardening tool and solvent storage sheds visible in the previous photograph. Four new classroom buildings are now present to the north of the boys' gymnasium and two apparent bus shelters are visible to the south of the handball courts. The girls' gymnasium and the classroom building south of the auditorium appear to have been demolished. Construction of the existing cafeteria/classroom building appears to be underway. Parking lots are now present in the northeastern and southwestern corners of the Site.

Off-site

The surrounding properties appear similar to the previous photograph with the exception of the two service stations observed in the previous photographs, which are no longer present. These service stations have been replaced by a commercial low-rise building and a parking lot.

1979, Scale 1"= 500'

On-site

In this photograph, the existing cafeteria/classroom building and girls' gymnasium are present on the Site. The remainder of the Site appears similar to the previous aerial photograph.

Off-site

The surrounding properties appear similar to the previous photograph.

1981, Scale 1"= 500'

On-site

In this photograph, the music building is no longer present and a track and field and other playground associated features are now visible on the southern portion of the Site. The remainder of the Site appears similar to the previous photograph.

Off-site

The surrounding properties appear similar to the previous photograph with the exception of additional commercial development to the southeast of the Site across Wilshire Boulevard.

1989, Scale 1"= 500'

On-site

In this photograph, eight additional classroom buildings have been constructed at the Site: four to the east of the girls' gymnasium and four to the north of the boys' gymnasium. One of the storage buildings located east of the girls' gymnasium in the previous photographs is no longer present. The track and field visible in the previous photograph is no longer present and has been replaced by an asphalt-paved parking lot.

Off-site

Numerous commercial buildings have been constructed along Wilshire Boulevard to the south of the Site. A commercial building has been constructed adjacent to the southeast corner of the Site on the northwest corner of Wilshire Boulevard and S. June Street. The remainder of the surrounding properties appear similar to the previous photograph.

1994, Scale 1"= 500'

On-site

In this photograph, one of the classroom buildings east of the girls' gymnasium is no longer present. The remainder of the Site appears similar to the previous photograph.

Off-site

The surrounding properties appear similar to the previous photograph.

2002, Scale 1"= 500'

On-site

In this photograph, a new classroom building has been constructed to the south of the tennis courts. The remainder of the Site appears similar to the previous photograph.

Off-site

The surrounding properties appear similar to the previous photograph.

2005, 2009, 2010 and 2012, Scale 1"= 500'

On-site

The Site appears similar to the previous photograph.

Off-site

The surrounding properties appear similar to the previous photograph.

4.3.5 Historic Topographic Map Search and Review

WorleyParsons contracted with EDR to research available historic topographic maps that include the Site and vicinity. Copies of the historic topographic maps from 1894 through 2012 are included in Appendix 3. The following is a summary of information obtained from the historic topographic maps (EDR, 2016b).

1894 Los Angeles Quadrangle, 15' Series

On this map, a small building is depicted at the southern end of the Site adjacent to Wilshire Boulevard. Two similar structures are adjacent to south of the Site across Wilshire Boulevard. No other obvious development is depicted on the Site or neighboring properties on this map.

1896, 1898, 1900 and 1902 Santa Monica Quadrangles, 15' Series

On these maps, the Site and vicinity appear substantially similar to the 1894 map.

1921 Santa Monica Quadrangle, 15' Series

On this map, the Site and adjacent properties consist of undeveloped land. Significant development has occurred in the Site vicinity. The La Brea Oil Field is now visible to the northwest of the Site.

1924 Hollywood Quadrangle, 7.5' Series

On this map, a school building is visible on the Site. The existing adjacent streets to the north, east and west of the Site are now visible. Residential development has occurred in the Site vicinity.

1926 Hollywood Quadrangle, 7.5' Series

On this map, the Site and adjacent properties are similar to the previous map. "Fossil Pits" (the La Brea Tar Pits) are now visible west of the Site.

1953 Hollywood Quadrangle, 7.5' Series

On this map, the Site is occupied by the John Burroughs Junior High School with seven structures depicted. The adjacent properties appear to be residential.

1966 Hollywood Quadrangle, 7.5' Series

On this map, the Site is occupied by the John Burroughs Junior High School with 13 structures depicted. The adjacent properties are similar to the previous map.

1972 Hollywood Quadrangle, 7.5' Series

On this map, the Site is occupied by the John Burroughs Junior High School with eight structures depicted. The adjacent properties are similar to the previous map.

1981 Hollywood Quadrangle, 7.5' Series

On this map, the Site is occupied by the John Burroughs Junior High School with 10 structures depicted. The adjacent properties are similar to the previous map.

1991 Hollywood Quadrangle, 7.5' Series

On this map, the Site is occupied by the John Burroughs Junior High School with 11 structures depicted. The adjacent properties are similar to the previous map.

2012 Hollywood Quadrangle, 7.5' Series

No structures or development is depicted on this map at the Site or adjacent properties.

4.3.6 Environmental Data Resources Building Permit Report

WorleyParsons contracted with EDR to research available building department records for indications of environmental conditions. A copy of the EDR Building Permit Report is included in Appendix 3. The following is a summary of information obtained from the EDR Building Permit Report (EDR, 2016g).

EDR searched numerous building department records including the City of Los Angeles, Department of Building and Safety, in Los Angeles, California, from 1988 to 2015. The EDR Building Permit Report identified two permits associated to the Site. One "No Plan Check Reconnect Two Boilers; Power is Existing" permit was issued on July 29, 2008, and another "No Plan Check Install Boiler" permit was issued on July 29, 2008. No other permits were identified in the EDR Building Permit Report.

4.3.7 Environmental Data Resources LienSearch™ Report

WorleyParsons contracted with EDR to search for available current land title records for environmental cleanup liens and other activity and use limitations, such as engineering controls and institutional controls. A copy of the EDR LienSearch™ Report is included in Appendix 3. The following is a summary of information obtained from the EDR Building Permit Report (EDR, 2016h).

The legal description states "All that certain piece or parcel of land being a portion of Lots 14 and 15 of Tract 215, filed in Map Book 14, at Pages 42-43, situate and lying in the County of Los Angeles, State of California." According to the Los Angeles County Assessor, the current legal owner is the Los Angeles Unified School District. Records were searched at the Los Angeles County Recorder's Office back to 1980. No conveyance was found of record for the subject property.

No deeds were found for the Site. No environmental liens were found for the Site. No other Activity and Use Limitations (AULs) were found for the Site.

4.4 Historical Use of Adjoining Properties

Based on the information obtained for Section 4.3, Historic Use Information, the properties adjacent to the Site have consisted of single-family dwellings from at least 1928 until the present. Two "oil & gas" service stations were present to the west of the southern portion of the Site (cross/upgradient with respect to the reported groundwater flow direction), across from South McCadden Place, from at least 1938 to at least 1964.

5. SITE RECONNAISSANCE

On April 20, 2016, a reconnaissance inspection of the Site was conducted by Mr. Michael Huma of WorleyParsons. Mr. Huma was escorted by Mr. Martin Nevarez, Plant Manager of the John Burroughs Middle School and accompanied by Mr. Andrew Fowler, Project Manager/Consultant of the LAUSD OEHS. The purpose of the Site reconnaissance was to inspect the Site, its current operations and observe the neighboring properties for evidence of the use and/or the release of hazardous materials or petroleum products that may impact the Site in accordance with ASTM Standard Practice 1527-13 (ASTM, 2013).

5.1 Methodology and Limiting Conditions

The majority of the Site was visually inspected and observations of the adjacent properties were made from the Site's boundaries and/or public streets and sidewalks. WorleyParsons' personnel were not allowed to access classrooms or take photographs of the interior portions of the Site due to students being present at the Site. WorleyParsons' personnel were allowed to access the plant manager's office, pump station room and boiler room in the main/auditorium building; the elevator control room sprinkler room, and old transformer room in the cafeteria/classroom building; as well as the flammable materials storage building.

Photographs documenting Site conditions at the time of the reconnaissance inspection are included in Appendix 1.

5.2 General Site Setting

The Site consists of the approximately 10.53-acre John Burroughs Middle School with a 3.78-acre playground area, located at 600 South McCadden Place in Los Angeles, California.

The Site contains three two-story administrative/classroom buildings, 22 single-story multi-purpose buildings that contain such things as classrooms, restrooms, gymnasiums, lounges, stores, storage rooms, etc. Descriptions of the buildings located on-Site are presented in Section 2.1 above.

The Site is primarily surrounded by single family residential properties.

5.3 Exterior Observations

Site: The Site contains administrative buildings, an auditorium building, classroom buildings, gymnasium buildings, a cafeteria building, a shop building, and multi-purpose buildings. Descriptions of the buildings located on-Site are presented in Section 2.1. Basketball courts are located in the mid-southern portion of the Site. A playground area is located in the southern portion of the Site. Parking lots are located in the southwestern and northeastern portions of the Site. Solid waste is stored in nine waste bins and recyclable waste is stored in three waste bins all serviced by Republic Services. Four

electrical transformers were observed during the Site inspection; one located adjacent to the south of Building No. 9 (Shop Building), two located north of the Building No. 20 (Cafeteria/Classroom Building), and another located in the sprinkler room in Building No. 20 (Cafeteria/Classroom Building). A Los Angeles Department of Water and Power (LADWP) electrical equipment room is located in the southern portion of Building No. 1 (Main and Auditorium Building). This room was locked and inaccessible. A fenced area with a lower elevation (i.e. basement level) containing two compressed gas cylinders and an idle generator, is located adjacent to the southern portion of Building No. 1 (Main and Auditorium Building) and adjacent to the west of the LADWP equipment room.

No evidence of the use, storage or release of hazardous materials or petroleum products was observed in the exterior areas of the Site with the exception of the idle emergency generator located on the east side of Building No.1 (Main and Auditorium Building), which appears to have been gasoline fueled.

Surrounding Properties: The Site is surrounded by single family residential properties to the north across West 6th Street and to the east. The Site is bordered to the west by single-family dwellings and multi-family residential buildings across from South McCadden Place. The Site is bordered to the south by the Wilshire Private School and multi-family residential buildings across from Wilshire Boulevard. No evidence of the use, storage or release of hazardous materials or petroleum products was observed on the surrounding properties.

5.4 Interior Observations

The interiors of the classrooms were not inspected due to the presence of students during the Site reconnaissance visit. Non-hazardous materials are stored in the plant manager's office. These materials consisted of twelve 5-gallon containers of Super Polymer 85, five 5-gallon containers of Ultra-Hide Interior Wax, thirty 1-gallon containers of Exterior 100% Acrylic Flat Paint, four 5-gallon Floor Finish Wax, forty 1-gallon containers of Gloss Finish Interior/Exterior 100% Acrylic Enamel. Various other non-hazardous janitorial materials are present on-Site as well such as Windex. The boiler room, located in Building No. 1 (Main and Auditorium Building), contained four 1-gallon containers of Floor Stripper XS-100, liquid hand soap, and one 1-gallon containers of mistolin (all-purpose cleaner). The sprinkler shut off room contained numerous minor cleaning supplies such as soap and Windex, one 2-liter container of Quick Fill Compact 905, two 1-gallon containers of bleach, three 1-gallon cans of paint, and six 5-gallon containers SuperSport One Waterborne Finish. Numerous fluorescent tube lights were stored in boxes in a storage building located to the southeast of Building No. 9 (Shop Building), adjacent to the flammable materials storage building.

Gasoline, used for fueling landscaping equipment, is stored in a 55-gallon steel drum in the flammable materials' storage building located to the southeast of Building No. 9 (Shop Building). Minor staining was observed on the concrete floor of the flammable storage building. However, the floor was in relatively good condition with no visible cracks or gaps that could act as conduits to the subsurface.

6. INTERVIEWS

6.1 Interview with Site Owner's Representatives

On April 20, 2016, WorleyParsons interviewed Mr. Martin Nevarez, Plant Manager, of the John Burroughs Middle School and Mr. Andrew Fowler, the LAUSD OEHS Project Manager for the Site regarding the current and historic use of the Site. Mr. Nevarez has been associated with the Site since 2009. During this time, Mr. Nevarez and Mr. Fowler indicated that the Site has been used as a school and to the best of their knowledge has always been in use as a school since 1924. Mr. Nevarez reported, to the best of his knowledge, that no hazardous materials or associated wastes are stored at the Site, with the exception of a gasoline stored in a 55-gallon steel drum in the flammable storage building located southeast of Building No. 9 (Shop Building). Additionally, to the best of their knowledge, no releases of such materials have occurred at the Site.

A Roof and Plot Plan, dated January 22, 1923, was obtained from Mr. Fowler following the Site reconnaissance on April 20, 2016, which indicates that a heating oil tank was located on-Site, east of Building No. 1 (the Main/Auditorium Building). A copy of this plan in contained in Appendix 7.

A Part Plot Plan, dated May 1935, was obtained from Mr. Fowler following the Site reconnaissance on April 20, 2016, which indicates that an incinerator was located to the southwest of Building No. 9 (Shop Building) (Appendix 8).

Details regarding the interviews with Mr. Nevarez and Mr. Fowler are contained in Appendix 5.

7. ON-SITE ISSUES

The following conditions and practices were observed during the Site reconnaissance conducted on Wednesday, April 20, 2016.

7.1 Hazardous Material Handling (Including Inventory of All Chemicals Observed)

No hazardous material handling and no chemicals were observed on-Site during the Site reconnaissance with the exception of gasoline stored in a 55-gallon steel drum in the flammable materials storage building located southeast of Building No. 9 (Shop Building), paint, floor finish wax, enamels, and janitorial supplies noted in Section 5. The John Burroughs Middle School is registered as a large quantity hazardous waste generator for PCBs and asbestos abatement work previously conducted at the Site.

7.1.1 Current Hazardous Material Handling Practices

Hazardous material handling practices on-Site are comprised of the use of standard janitorial supplies for classroom and restroom cleaning as needed. One 55-gallon steel drum containing gasoline used to fuel Site landscaping equipment is stored in the flammable materials' storage building located southeast of Building No. 9 (Shop Building).

7.1.2 Past Hazardous Material Handling Practices

According to Mr. Nevarez, the Plant Manager for the John Burroughs Middle School, hazardous materials have not been stored or handled on the Site with the exception of standard janitorial supplies and one 55-gallon steel drum containing gasoline.

7.1.3 Current and Past On-site Underground Storage Tanks (USTs)

Based on the data obtained for the Site, no evidence was found regarding current and/or past USTs on-site.

7.1.4 Current and Past On-site Aboveground Storage Tanks (ASTs)

A Roof and Plot Plan, dated January 22, 1923, was obtained from Mr. Fowler following the Site reconnaissance on April 20, 2016, which indicates that a heating oil AST was located on-Site, east of the center portion of Building No. 1 (the Main/Auditorium Building). A copy of this plan is contained in Appendix 7.

7.2 Solid and Hazardous Waste Handling Practices

No solid and hazardous material handling practices were observed on-Site during the Site reconnaissance with the exception of solid waste stored in nine waste bins and recyclable waste stored in three waste bins located adjacent to the northwest of Building No. 20 (Cafeteria/Classroom Building).

7.2.1 Waste Handling and Storage

Solid waste is stored in nine waste bins and recyclable waste is stored in three waste bins all serviced by Republic Services. The waste bins are stored adjacent to the northwest of Building No. 20 (Cafeteria/Classroom Building).

7.2.2 On-site Disposal

No disposal of waste occurs on-Site. However, a Plot Plan, dated May 1935, provided by LAUSD, indicates that an incinerator, presumably for solid waste burning, was located near the southwest corner of Building No. 9 (Shop Building).

7.2.3 Visible Signs of Releases and Spills

Staining from apparent gasoline spills were observed near the 55-gallon steel drum containing gasoline that is stored in the flammable materials storage building located southeast of the Building No. 9 (Shop Building). According to Mr. Nevarez, no hazardous materials or petroleum product releases have occurred at the Site.

7.2.4 Potential Future Environmental Liabilities to District from Past Waste Disposal Practices

Based on the data obtained as part of this investigation, no evidence of potential future environmental liabilities to the LAUSD from past waste disposal practices was identified.

7.3 Subsurface Impacts to On- and/or Off-site Soil

No evidence of subsurface impacts to on- or off-Site soil was observed on-Site during the Site reconnaissance.

7.3.1 Use of Imported Fill Material

The use of fill material in the construction of the Site is likely, although positive proof of the use of fill or its source has not been identified from the data obtained as part of this Phase I ESA.

7.3.2 Previous Site Assessments

No previous assessment reports were identified for the Site.

7.4 Subsurface Impacts to On- and/or Off-site Groundwater

Based on the data obtained as part of this investigation, no information has been found to suggest subsurface impacts to on- and/or off-site soil or groundwater.

7.4.1 Source for Site Water Supply

Potable water is supplied to the Site by the LADWP.

7.4.2 Site Drainage and Stormwater Issues

No site drainage or stormwater issues were identified on-Site during the Site reconnaissance.

7.5 Site Permits

The LABDS reported that 26 building alteration permits were filed for the Site, beginning on June 21, 1910 and ending October 24, 1960.

The LABDS reported that 23 new building construction permits were filed for the Site, beginning on April 5, 1927 and ending August 28, 1940.

The LABDS reported that one building relocation permit was filed for the Site on September 23, 1929.

The LABDS reported that three building addition permits were filed for the Site, beginning on September 26, 1932 and ending November 10, 1936.

The EDR Building Permit Report identified two permits associated to the Site. One “No Plan Check Reconnect Two Boilers; Power is Existing” permit was issued on July 29, 2008, and another “No Plan Check Install Boiler” permit was issued on July 29, 2008. No other permits were identified in the EDR Building Permit Report (EDR, 2016g).

7.5.1 Site Permits on File with Environmental Regulatory Agencies

Current Permits

No current permits for the Site were found on file with environmental regulatory agencies.

Historical Permits

No historical permits for the Site were found on file with environmental regulatory agencies.

Noncompliance and Permit Violations

No information was found regarding non-compliance or permit violations for the Site.

7.5.2 Site Listings with Regulatory Agencies

Based on the data obtained, the Site address (600 South McCadden Place, John Burroughs Middle School) is listed in the following regulatory databases:

- **RCRA-LQG**. The Site is listed as a large quantity hazardous waste generator. According to the EDR report, no violations associated with the generation of this waste have been reported.
- **HAZNET and FINDS**. The Site is listed in the HAZNET and FINDS database for generation of 50.575 tons of inorganic waste, 0.18 tons of organic solids, 1.05 tons of PCBs, and 504.3532 tons of asbestos containing waste.
- **EMI**. The Site is listed in the EMI database. In 1990 it was determined that no emissions were being released from the Site.
- **ECHO**. The Site is listed in the ECHO database. No information was reported in the database. No violations were reported.

According to Mr. Nevarez, these materials are not stored on the Site. Additionally, based on the Site reconnaissance inspection, no evidence of the storage or release of such materials was observed at the Site.

7.6 Asbestos-containing Materials (ACM)

Based on the estimated age of the on-site buildings, there is a potential for asbestos-containing materials (ACM) to be present. However, sampling and analysis of suspect ACM was not included in the Phase I ESA scope of work.

7.6.1 Suspected ACM Sampling and Sampling Results

Sampling of suspect ACM was not included in the scope of work for this Phase I ESA.

7.7 Lead-based Paint (LBP)

Based on the estimated age of the on-site buildings, there is a potential for lead-based paint (LBP) to be present. However, sampling and analysis of suspect LBP was not included in the Phase I ESA scope of work.

7.7.1 Suspected LBP Sampling and Sampling Results

Sampling of suspect LBP was not included in the scope of work for this Phase I ESA.

7.8 Polychlorinated Biphenyl (PCB)-containing Equipment

Four electric transformers were observed during the Site inspection; one located adjacent to the south of Building No. 9 (Shop Building) in a fenced-in area, two located north of Building No. 20 (Cafeteria/Classroom Building) in an open area, and one located inside of Building No. 20 (Cafeteria/Classroom Building) in the sprinkler shutoff room. All four transformers are dry-type manufactured by General Electric.

7.9 Radon

The United States Environmental Protection Agency (USEPA) and the USGS have evaluated the radon potential in the United States and have included Los Angeles County in Zone 2, or moderate radon potential (from 2 to 4 picoCuries per liter). Current information on radon in California is available at <http://www.conservation.ca.gov/cgs/minerals/hazardous_minerals/radon/Documents/sr182map.pdf> and <http://www.epa.gov/radon/states/california.html>.

Radon gas testing was not included in the scope of work for this Phase I ESA. However, according to the Radon Potential Zone Map for Southern Los Angeles County, California, the Site is in an area for Low Potential for Indoor Radon Levels above 4.0 picoCuries per liter (California Department of Conservation, California Geological Survey, 2005).

7.10 Odors Noticed Indoors

No odors were noticed indoors during the Site reconnaissance inspection.

7.11 California Department of Education (CDE) Existing Schools Issues

An LAUSD OEHS Existing School Sites checklist was completed as part of this Phase I ESA in accordance with California Department of Education (CDE) requirements. A summary of the checklist is provided in the sections below. A copy of the checklist is contained in Appendix 6.

7.11.1 Proximity to Power Lines/Electromagnetic Fields

Pursuant to CCR, Title 5, Section 14010(c), the property line for a new school site shall be the following minimum distances from the edge of a high-voltage power line easement: 100 feet for 50–133 kV lines; 150 feet for 220–230 kV lines; and 350 feet for 500–550 kV lines. Based on the Site reconnaissance, no high-voltage power transmission lines were observed within the vicinity of the Site. Additionally, WorleyParsons contacted Southern California Edison (SCE) for information regarding the presence of easements for aboveground or underground power lines of 50 kilovolts or greater within 100 feet of the Site. According to SCE and the following website <http://www.gosolarcalifornia.ca.gov/utilities/>, the utility provider for the Site area is the LADWP. WorleyParsons contacted the Los Angeles Department of Water and Power by telephone and described the nature of the call, however, as of the date of this report no information has been received by WorleyParsons from the Los Angeles Department of Water and Power regarding high-voltage power transmission lines in the Site area. During the Site reconnaissance inspection, no 50–133 kV lines, 220–230 kV lines, or 500–550 kV lines were observed within 100, 150, or 350 feet of the Site, respectively.

7.11.2 Railroads

Based on aerial photographs and topographic maps, no railroad lines are located within 1,500 feet of the Site. Based on this, the Project is not expected to create a new or exacerbate an existing significant safety hazard to students from railroads within 1,500 feet of the Site.

7.11.3 Traffic Noise

The Site is located within a residential and commercial area. No major highways or freeways are located adjacent to the Site. Based on this, the Project is not expected to create a new or exacerbate an existing significant safety hazard to students from adjacent roads or freeways that will adversely affect the educational program.

7.11.4 Faults

Based on a review of the Special Studies Zone Maps provided by the California Department of Conservation Division of Mines and Geology (DMG), the Site is located within the Hollywood Fault special study zone and is regulated under the Alquist-Priolo Earthquake Fault Zoning Act (Public

Resources Code 2621, Division 2, Chapter 7.5). The Hollywood Fault is located within the central portion of the Santa Monica-Hollywood-Raymond Fault system, which is collectively part of a greater than 200-km long west-trending system of oblique, reverse and left-lateral faults that separate the Transverse Ranges Geomorphic Province of California from the Peninsular Ranges Geomorphic Province (Dolan et al., 1997).

Based on this, the Project may create a new or exacerbate an existing significant safety hazard to students from an active earthquake fault or fault trace which may be onsite.

7.11.5 Flood or Inundation Area

According to EDR, the Site is not located with either a 100-year or 500-year flood zone (EDR 2016a).

However, the area to the east of the Site along June Street is located within a 500-year flood zone (FEMA, 2008; EDR, 2016a). This area has a 0.2% annual chance of a flood, 1% annual chance of a flood with average depths of less than 1 foot or with drainage areas less than 1 square mile, and is an area protected by levees from the 1% annual chance flood

According to the County of Los Angeles, the Site is located within a dam inundation area (County of Los Angeles, 2014). However, the Project is not expected to create a new or exacerbate an existing significant safety hazard to students from flooding or dam inundation.

7.11.6 Pipelines and Aboveground Storage Tanks (ASTs)

During the Site reconnaissance inspection, no ASTs or associated pipelines were observed on-Site or the surrounding properties. According to the EDR report, one facility with a registered 2,200 gallon AST of unknown contents is located approximately 910 feet west of the Site. However, the Project is not expected to create a new or exacerbate an existing significant safety hazard to students from the presence of this nearby AST.

A Roof and Plot Plan, dated January 22, 1923, was obtained from Mr. Andrew Fowler, the Los Angeles Unified School District Office of Environmental Health Services Project Manager for the Site, following the Site reconnaissance on April 20, 2016. This plot plan indicates that a heating oil AST was located on-Site, east of the center portion of Building No. 1 (the Main/Auditorium Building). A copy of this plot plan is contained in Appendix 7. The location of the former AST is depicted on Figure 2.

7.11.7 Liquefaction and Landslides

Based on Section 1, Liquefaction Evaluation Report, of the 1998 DMG Seismic Hazard Zone Report for the Hollywood 7.5-Minute Quadrangle, three Holocene soil inventory types were identified in the Hollywood Quadrangle as being susceptibility to liquefaction when saturated. These Holocene soil inventory types included; active stream channels consisting of loose to dense sand, gravel, and silty

sand; alluvial fans consisting of loose to moderately dense sand, gravel, and sandy silt; and floodplains, streams, alluvial fans consisting of loose to moderately dense sand, silt, and clay (DMG, 1998).

Liquefaction analyses of geotechnical data recorded in logs of boreholes drilled in the Hollywood Quadrangle show that young, saturated sandy soils are potentially liquefiable. Younger alluvium deposited in canyon bottoms and incised channels generally lack adequate geotechnical borehole information. The soil characteristics and groundwater conditions in these cases are assumed to be similar to those in deposits where subsurface information is available (DMG, 1998).

According to the California Geological Survey, Earthquake Zone of Required Investigation Hollywood Quadrangle, map released on November 6, 2014, the Site does not lie within a mapped liquefaction zone (California Department of Conservation, 2014).

Based on Section 2, Earthquake-Induced Landslide Evaluation Report, of the 1998 DMG report and on information provided by the California Geological Survey Earthquake Zones of Required Investigation Hollywood Quadrangle (2014), the Site is not located within an earthquake-induced landslide potential zone (DMG, 1998 and California Department of Conservation, 2014).

Based on this, the Project is not expected to create a new or exacerbate an existing significant safety hazard to students from liquefaction or landslides.

7.11.8 Traffic and Pedestrian Safety

The Site is located within a residential and commercial neighborhood and is located adjacent to the north of a major arterial street, Wilshire Boulevard. Based on this, the Project may create a new or exacerbate an existing significant safety hazard to students from the adjacent major arterial street.

7.11.9 Compatible Zoning

The Project involves construction of new and the renovation of existing buildings at the Site and is not expected to affect existing zoning for the Site and vicinity. Based on this, the Project is not expected to create a new or exacerbate an existing significant safety hazard to students from the zoning surrounding the Site.

7.11.10 Light, Wind and Air Pollution

The Project involves construction of new and renovation of existing buildings as well as Site upgrades to vehicular circulation, landscape and hardscape, accessibility and exterior paint. Based on this, the Project is not expected to create a new or exacerbate an existing significant safety hazard to students from light, wind or air pollution.

7.11.11 Easements

No easements were reported at the Site. Based on this, the Project is not expected to create a new or exacerbate an existing significant safety hazard to students, which may restrict access or building placement.

7.11.12 Border Zone Property

Pursuant to CCR, Title 5, Section 14010(t), a school site shall not be located on or within 2,000 feet from a significant disposal site for hazardous waste. If the school site is located with 2,000 feet then the school district shall contact the Department of Toxic Substance Control for a determination of whether the property should be considered a Hazardous Waste Property or Border Zone Property. Based on information obtained from an EDR research of available environmental databases in the vicinity of the Site, WorleyParsons obtained the following information related to hazardous substance release or disposal sites:

- ENVIROSTOR Database – DTSC: no Federal or State National Priority List sites found within the 2,000 feet of the Site.
- USEPA: no current or former hazardous or solid waste disposal properties found within 2,000 feet of the Site.
- SWF/LF – California Department of Resources Recovery and Recycling; no landfills were listed within 2,000 feet of the Site.
- WMUDS/SWAT database – State Water Resources Control Board (SWRCB): no sites were listed within 2,000 feet of the Site.

Based on this, the Project is not expected to create a new or exacerbate an existing significant safety hazard to students from a significant disposal site for hazardous waste within 2,000 ft. of the Site.

7.11.13 Cellular Phone Towers

According to www.CellReception.com, a database that maps towers registered with the Federal Communications Commission (FCC), no cellular phone towers are located within one mile of the Site.

7.11.14 Air Pollution

The closest major roadways to the Site are State Highways 2 and 10, located approximately 1.86 mile south and 2.38 miles northeast of the Site, respectively. No railroad lines are located within 500 feet of the Site. Based on this, the Project is not expected to create a new or exacerbate an existing significant safety hazard to students from a major transportation corridor.

The Site is located within a residential and commercial neighborhood. The Project involves construction of new and the renovation of existing buildings as well as Site upgrades to vehicular circulation, landscape and hardscape, accessibility and exterior paint. Based on this, the Project is not expected to create a new or exacerbate an existing significant safety hazard to students from a major stationary source of emissions within 500 feet of the Site.

7.11.15 Methane Zone

Based on the information provided by the City of Los Angeles NavigateLA Web site, information provided by the City of Los Angeles Building and Safety (LADBS), and the City's Public Works Departments, the Site lies within a City of Los Angeles designated methane zone. Per the California Department of Conservation, Division of Oil, Gas and Geothermal Resources, the Site is not located within a designated oil field. Based on this, the Project may create a new or exacerbate an existing significant safety hazard to students from a known methane zone.

7.11.16 Oil Wells

Based on the DOGGR oil and gas well map 118, there are no current or historic plugged and abandoned oil and/or gas well on the Site. The closest current or historic plugged and abandoned oil and/or gas well to the Site are the plugged and abandoned oil wells Chevron U.S.A. Inc. "Highland Corehole" 1 and "Highland Corehole" 2, located approximately 0.24 miles west-southwest of the Site (DOGGR, 2003). Based on this, the Project is not expected to create a new or exacerbate an existing significant safety hazard to students from an on-site oil well.

7.11.17 Airports

The closest airport to the Site is the Santa Monica Airport, located approximately 6.84 miles southwest of the Site. Based on this, the Project is not expected to create a new or exacerbate an existing significant safety hazard to students from an airport within two nautical miles of the Site.

7.12 Surrounding Land Uses

Based on documents reviewed, the land surrounding the Site consists of residential and commercial properties.

8. FINDINGS

8.1 General Findings

The Site consists of the approximately 10.53-acre John Burroughs Middle School located at 600 South McCadden Place in Los Angeles, California. The Site contains school buildings, storage buildings, two parking lots and a playground area. No evidence of the storage or release of hazardous materials were reported at the Site or observed during the Site reconnaissance inspection with the exception of small quantities of janitorial supplies and a 55-gallon steel drum containing gasoline, stored in a flammable materials storage building located southeast of Building No. 9 (Shop Building). Staining on the concrete floor adjacent to this drum was observed during the reconnaissance inspection. The John Burroughs Middle School is identified as a large quantity hazardous waste generator; as a results of past school renovation activities, which included the abatement of asbestos and PCB-containing equipment. According to Mr. Martin Nevarez, the Site Plant Manager, these wastes are not and have not been disposed at the Site.

Historically, according to topographic maps, the Site contained a small structure from at least 1894 to 1902. A records search at the LADBS indicated that a permit was issued on June 21, 1910 for the construction of a two-story building at the Site. According to the Los Angeles County Assessor, the current legal owner is the LAUSD. According to Mr. Andrew Fowler, Project Manager for the LAUSD, and Mr. Martin Nevarez, the John Burroughs Middle School Plant Manager, the school opened in 1924.

The Site is bounded to the north by single-family dwellings across West 6th Street, to the east by single-family dwellings and a commercial building, to the south by multi-family dwellings, Wilshire Private School, and multi-tenant commercial buildings across Wilshire Boulevard, and to the west by single-family dwellings and multi-family buildings across South McCadden Place.

8.2 SCHOOL SITE SELECTION CHECKLIST

An LAUSD OEHS Existing School Sites checklist was completed as part of this Phase I ESA in accordance with California Department of Education (CDE) requirements. Based on the findings of this investigation, no affirmative answers to the checklist were made with the exception of the following:

- The Site is located within a dam inundation area. However, the Project is not expected to create a new or exacerbate an existing significant safety hazard to students from flooding or dam inundation.
- The Site is located within the Hollywood Fault special study zone and is regulated under the Alquist-Priolo Earthquake Fault Zoning Act (Public Resources Code 2621, Division 2, Chapter 7.5). Based on this, the Project may create a new or exacerbate an existing significant safety hazard to students from an active earthquake fault or fault trace which may be onsite.

- According to the EDR report, one facility with a registered 2,200 gallon AST of unknown contents is located approximately 910 feet west of the Site. However, the Project is not expected to create a new or exacerbate an existing significant safety hazard to students from the presence of this existing AST.
- The Site is located within a residential and commercial neighborhood and is located adjacent north to a major arterial street, Wilshire Boulevard. Based on this, the Project may create a new or exacerbate an existing significant safety hazard to students from the adjacent major arterial street.
- Information provided by the City of Los Angeles NavigateLA Web site, information provided by the LADBS, and the City's Public Works Departments, the Site lies within a City of Los Angeles designated methane zone. Based on this, the Project may create a new or exacerbate an existing significant safety hazard to students from a known methane zone.

8.3 Known or Suspect Recognized Environmental Conditions

It is WorleyParsons' opinion that RECs exist at the Site. These RECs include the potential presence of LBP residue, OCP, and arsenic in soils at the Site; ACM in the Site building materials, the historical presence of a heating oil AST on-Site, the historical presence of an incinerator on-Site, and the former presence of two nearby off-site gasoline service stations.

Based on the age of the existing Site buildings, it is possible that lead-based paint (LBP) has been applied to the exterior finishes of the buildings. As such, it is possible that LBP residue is present in soils around the perimeters of the existing and former buildings. It is possible that organochlorinated pesticides (OCP) in the form of termiticides have been applied around the foundations of these Site buildings or in the areas. There is the potential presence of arsenic underneath pavement that may have been applied as an herbicide. Based on the age of the existing Site buildings, it is possible that asbestos-containing materials (ACM) are present in building materials.

Two "oil and gas" service stations were located west of the Site (approximately 60 feet west of the Site and cross/upgradient with respect the reported groundwater flow direction), at the northwest intersection of South McCadden Place and Wilshire Boulevard and at the northeast corner of South Highland Avenue and Wilshire Boulevard, from at least 1938 to at least 1964. Based on their location relative to the Site, it is possible that groundwater beneath the Site has been impacted by releases of petroleum hydrocarbons at these facilities.

A heating oil AST was located on the Site adjacent to the east of Building No. 1 (Main/Auditorium Building). Based on this, it is possible that leaks or spills from this tank have impacted soil and groundwater at the Site.

An incinerator, presumably for solid waste, was located on the Site near the southwest corner of Building No. 9 (Shop Building). Based on this, it is possible that adjacent soils have been impacted by

burn ash containing combustion by-products such as polycyclic aromatic hydrocarbons (PAHs), furans, and heavy metals.

9. CONCLUSIONS

WorleyParsons has performed a Phase I ESA of the Site in conformance with the scope and limitations of ASTM Standard Practice E1527-13 and requirements set forth by the LAUSD and the CDE. Any exceptions to or deletions from this practice are described in Section 13 of this report. This assessment has revealed no evidence of RECs in connection with the Site with the exception of the following:

a) Potential presence of LBP residue in shallow soils around the drip lines of the existing and former buildings at the Site.

b) Potential presence of OCP in shallow soils around the foundations of the existing and former buildings at the Site.

c) Potential presence of arsenic in shallow soils under pavement at the Site.

d) Potential presence of ACM in Site building materials.

e) Potential presence of hydrocarbons in groundwater due to the historical presence of two gasoline service stations approximately 60 and 250 feet west of the Site.

f) Potential presence of petroleum products in soil and groundwater due to the historical presence of an heating oil AST located adjacent to Building No. 1 (Main/Auditorium Building).

g) Potential presence of burn ash in soils due to the historical presence of an incinerator located adjacent to Building No. 9 (Shop Building).

10. RECOMMENDATIONS

WorleyParsons recommends completion of a site investigation within the boundary of the planned development area that includes collection of soil samples for the evaluation of LBP, OCP, arsenic, petroleum hydrocarbons, PAH's, and metals, and if present, a human health risk assessment to determine if the levels pose a risk to future Site occupants. WorleyParsons also recommends completion of a hazardous Material Property Condition Survey to identify and quantify all hazardous materials present at the Site including asbestos, lead-based-paint, mold, PCBs, mercury, tritium, radium, and/or other hazardous materials, in order that work plans and specifications may be developed for the safe abatement by a licensed and qualified contractor(s) prior to removal/renovation of any Site buildings.

11. REFERENCES

American Society for Testing and Materials. 2013. Standard Practice for Environmental Site Assessment: Phase I Environmental Site Assessment Process. Designation E1527-13.

California Department of Conservation, California Geological Survey, 2005. *Radon Potential Zone Map for Southern Los Angeles County, California*. January, 2005.

California Department of Conservation, California Geological Survey, 2014. Earthquake Zones of Required Investigation Hollywood 7.5-Minute Quadrangle, Los Angeles County, California. November 6, 2014.

California Department of Conservation, Division of Oil, Gas and Geothermal Resources. Map 118. September 17, 2003.

California Department of Conservation, Division of Mines and Geology, 1998. Seismic Hazard Zone Report for the Hollywood 7.5-Minute Quadrangle, Los Angeles County, California. 1998.

California Department of Water Resources. 1961. Planned Utilization of the Ground Water Basins of the Coastal Plain of Los Angeles County. Bulletin No. 104. June 1961.

City of Los Angeles, Department of Public Works, NavigateLA database, <http://navigatela.lacity.org>

Conestoga-Rovers and Associates, 2014. Second Semi-Annual 2013 Groundwater Monitoring and Sampling Report, Former Tidewater Service Station, Phillips 66 Site 4712, Chevron Site 301636, 5020 Wilshire Boulevard, Los Angeles, California. January 13, 2014.

Dolan, J.F., Sieh, K., Rockwell, T.K., Guptill, P., and Miller, G. 1997. *Active tectonics, paleoseismology, and seismic hazards of the Hollywood fault, northern Los Angeles basin, California: GSA Bulletin, v. 109, no. 12, pp. 1595-1616*.

Environmental Data Resources, Inc. 2016a. Database Inquiry No. 4564097.2s. The EDR Radius Map Report with GeoCheck. March 15, 2016.

Environmental Data Resources, Inc. 2016b. Database Inquiry No. 4564097.4. The EDR Historical Topo Map Report. March 14, 2016.

Environmental Data Resources, Inc. 2016c. Database Inquiry No. 4564097.3s. Certified Sanborn Map Report. March 14, 2016.

Environmental Data Resources, Inc. 2016d. Database Inquiry No. 4564097.5. The EDR-City Directory Abstract. March 31, 2016.

Environmental Data Resources, Inc. 2016e. Database Inquiry No. 4564097.12. The EDR Aerial Photo Decade Package. March 15, 2016.

Environmental Data Resources, Inc. 2016g. Database Inquiry No. 4564097.8. EDR Building Permit Report. March 15, 2016.

Environmental Data Resources, Inc. 2016h. Database Inquiry No. 4564097.7S. The EDR Environmental LienSearch™. March 22, 2016.

Environmental Data Resources, Inc. 2016i. Database Inquiry No. 4564097.6. The EDR Property Tax Map Report. March 14, 2016.

Federal Emergency Management Agency, 2008. Flood Insurance Rate Map, Los Angeles County, California and Incorporated Areas, Map Number 06037C1605F. September 26, 2008.

Los Angeles County Department of Public Works, 2016. Groundwater Wells Website, obtained April 25, 2016. <http://dpw.lacounty.gov/general/wells/>

NPMS, 2016. National Pipeline Mapping System database website. Accessed April 21, 2016. <https://www.npms.phmsa.dot.gov>

Western Environmental Engineers Co., 2005. Phase II Environmental Site Assessment and Installation of Groundwater Monitoring Well at Highland Express Cleaners/Former Tidewater Retail Service Station, 5020-5044 Wilshire Boulevard, Los Angeles, CA 90036. January 4, 2005.

Yerkes, Robert F. and Campbell, Russel H., 2005. Preliminary Geologic Map of Los Angeles 30'x60' Quadrangle, Southern California, Scale 1:100,000.

United States Geological Survey, 1979. Topographic map of Los Angeles 40'x60' Quadrangle, Southern California, Scale 1:100,000.

California Department of Water Resources, 2004. Coastal Plain of Los Angeles Groundwater Basin, Hollywood Subbasin, California's Groundwater Bulletin 118: dated February 27.

Regional Water Quality Control Board, Los Angeles Region, 1994. Water Quality Control Plan, Los Angeles Region, June 13.

12. ADDITIONAL SERVICES

No additional services outside the proposed scope of work in WorleyParsons' proposal, dated February 23, 2016 were conducted as part of this Phase I ESA.

13. DISCLAIMER

The information presented in this document was compiled and interpreted exclusively for the purposes stated in Section 1 of the document. WorleyParsons provided this report for the Los Angeles Unified School District solely for the purpose noted above.

WorleyParsons has exercised reasonable skill, care, and diligence to assess the information acquired during the preparation of this report, but makes no guarantees or warranties as to the accuracy or completeness of this information. The information contained in this report is based upon, and limited by, the circumstances and conditions acknowledged herein, and upon information available at the time of its preparation. The information provided by others is believed to be accurate but cannot be guaranteed.

WorleyParsons does not accept any responsibility for the use of this report for any purpose other than that stated in Section 1 and does not accept responsibility to any third party for the use in whole or in part of the contents of this report. Any alternative use, including that by a third party, or any reliance on, or decisions based on this document, is the responsibility of the alternative user or third party.

No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior permission of WorleyParsons.

Any questions concerning the information or its interpretation should be directed to M. Huma or R. Beck.

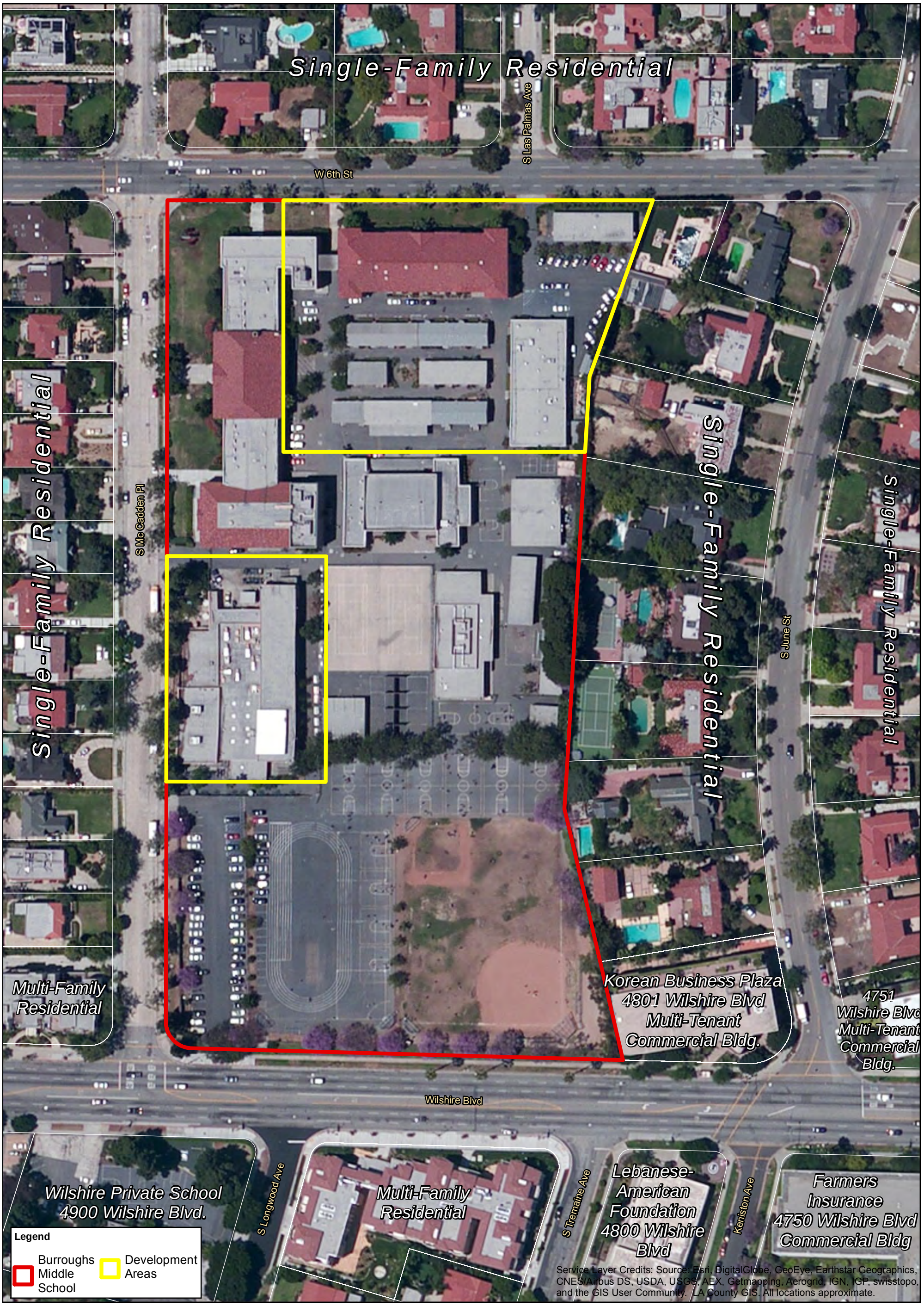
13.1 Limitations and Exceptions

Site-specific activities performed by WorleyParsons and information collected regarding these activities is summarized in the following sections. The findings of this Phase I ESA are presented in Section 8. Conclusions drawn and recommendations made by WorleyParsons, based on the information collected as part of the Phase I ESA, are presented in Sections 9 and 10, respectively. This Phase I ESA was conducted in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions.

The observations and conclusions presented in this report are professional opinions based on the scope of activities, work schedule, and information obtained through the Phase I ESA described herein. Opinions presented herein apply to site conditions existing at the time of our study and cannot necessarily be taken to apply to site conditions or changes that we are not aware of or have not had the opportunity to evaluate. It must be recognized that conclusions drawn from these data are limited to the amount, type, distribution, and integrity of the information collected at the time of the investigation, as well as the methods utilized to collect and evaluate the data, and that a full and complete determination of environmental risks cannot be made. Although WorleyParsons has taken

steps to obtain true copies of information available from third parties, we make no representation or warranty with respect to the accuracy or completeness of this information.

FIGURES



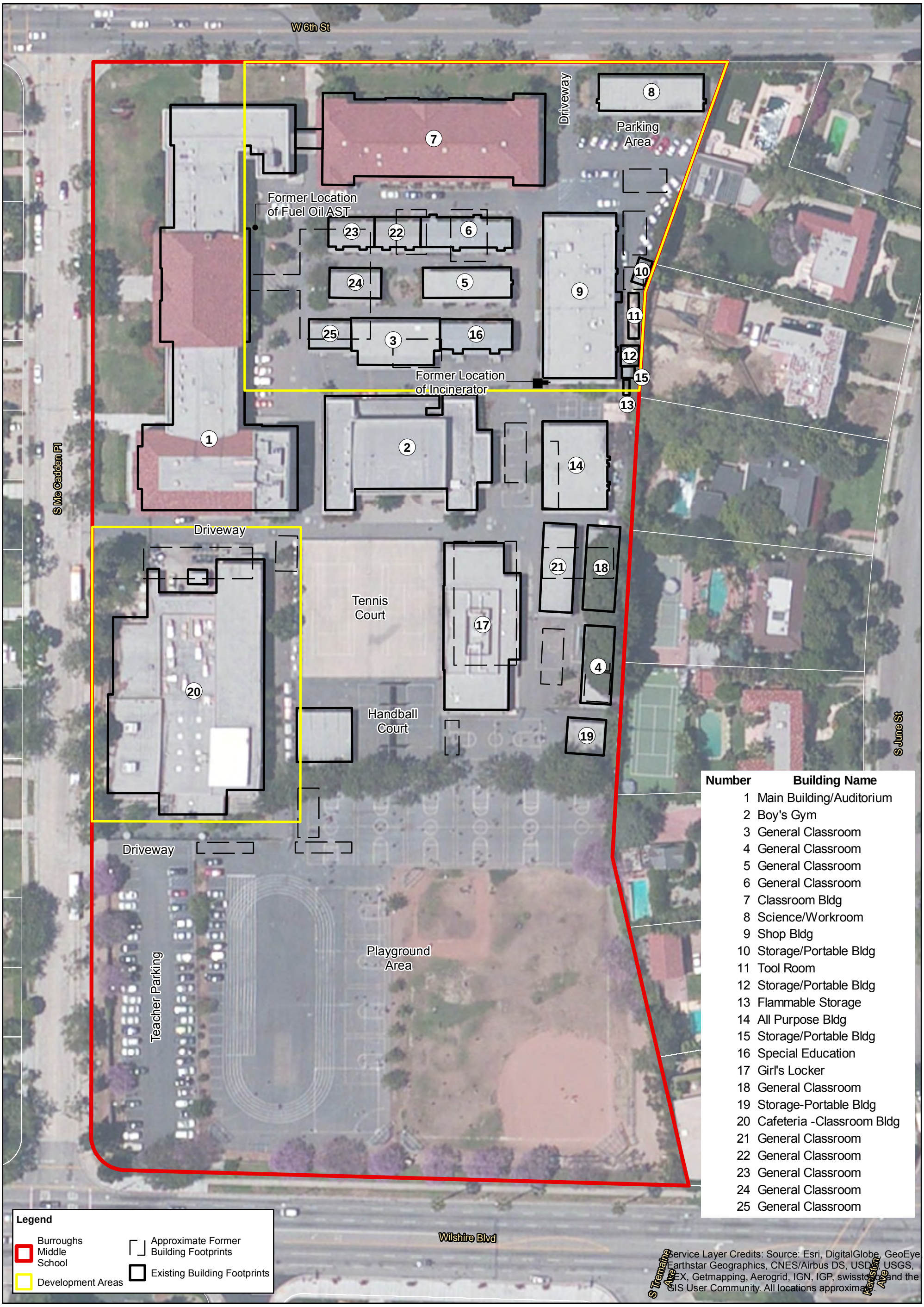
N
W E
S
0 200
Feet

LOS ANGELES UNIFIED SCHOOL DISTRICT
JOHN BURROUGHS MIDDLE SCHOOL
600 S. MCCADDEN PL. LOS ANGELES, CA 90005

Advisian
WorleyParsons Group

SITE MAP

SWL	RB	5/17/2016
308038-11191		1



Number	Building Name
1	Main Building/Auditorium
2	Boy's Gym
3	General Classroom
4	General Classroom
5	General Classroom
6	General Classroom
7	Classroom Bldg
8	Science/Workroom
9	Shop Bldg
10	Storage/Portable Bldg
11	Tool Room
12	Storage/Portable Bldg
13	Flammable Storage
14	All Purpose Bldg
15	Storage/Portable Bldg
16	Special Education
17	Girl's Locker
18	General Classroom
19	Storage-Portable Bldg
20	Cafeteria -Classroom Bldg
21	General Classroom
22	General Classroom
23	General Classroom
24	General Classroom
25	General Classroom

Legend

- Burroughs Middle School
- Development Areas
- Approximate Former Building Footprints
- Existing Building Footprints

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community. All locations approximate.

N W E S

0 150

Feet

LOS ANGELES UNIFIED SCHOOL DISTRICT
JOHN BURROUGHS MIDDLE SCHOOL
600 S, MCCADDEN PL. LOS ANGELES, CA 90005

Advisian
WorleyParsons Group

CURRENT AND HISTORICAL BUILDING AND STRUCTURE LOCATIONS

SWL	RB	5/18/2016
308038-11191		2

APPENDIX 1

PHOTOGRAPHS

WorleyParsons Photographic Log

Client: Los Angeles Unified School District
Site Name: John Burroughs Middle School — Location: 600 South McCadden Place, Los Angeles, CA
Photographer: Michael Huma — Date: April 20, 2016

Photo 1: Western portion of the Site, looking southeast.

Photo 2: Northern portion of the Site, looking southwest.

WorleyParsons Photographic Log

Client: Los Angeles Unified School District
Site Name: John Burroughs Middle School — Location: 600 South McCadden Place, Los Angeles, CA
Photographer: Michael Huma — Date: April 20, 2016

Photo 3: Single-family dwellings located adjacent east of the Site, looking southwest.

Photo 4: Southern portion of the Site, looking northeast.

WorleyParsons Photographic Log

Client: Los Angeles Unified School District
Site Name: John Burroughs Middle School
Location: 600 South McCadden Place, Los Angeles, CA
Photographer: Michael Huma
Date: April 20, 2016

Photo 5: Korea Business Plaza (4801 Wilshire Boulevard) adjacent to southeast corner of the Site. View looking northwest.

Photo 6: Adjacent properties south of the Site across Wilshire Boulevard, Wilshire Private School (4900 Wilshire Boulevard), looking southwest.

WorleyParsons Photographic Log

Client: Los Angeles Unified School District
Site Name: John Burroughs Middle School — Location: 600 South McCadden Place, Los Angeles, CA
Photographer: Michael Huma — Date: April 20, 2016

Photo 7: Adjacent properties south of the Site across Wilshire Boulevard, multi-family dwellings, looking southeast.

Photo 8: Adjacent properties south of the Site across Wilshire Boulevard, Lebanese American Foundation (4800 Wilshire Boulevard), looking southeast.

WorleyParsons Photographic Log

Client: Los Angeles Unified School District
Site Name: John Burroughs Middle School — Location: 600 South McCadden Place, Los Angeles, CA
Photographer: Michael Huma — Date: April 20, 2016

Photo 9: Adjacent property south and southeast of the Site across Wilshire Boulevard, Farmers Insurance (4750 Wilshire Boulevard), looking south-southeast.

Photo 10: Multi-family dwellings located west of the southern portion of the Site, across South McCadden Place, looking west-northwest.

WorleyParsons Photographic Log

Client: Los Angeles Unified School District
Site Name: John Burroughs Middle School — Location: 600 South McCadden Place, Los Angeles, CA
Photographer: Michael Huma — Date: April 20, 2016

Photo 11: Single-family dwellings located west of the Site, across South McCadden Place, looking southwest.

Photo 12: Single-family dwellings located northwest of the Site, looking northwest.

Photo 13: Single-family dwellings located north of the Site, looking northwest.

Photo 14: 55-gallon drum storing gasoline and hydrocarbon staining/spill, in the flammable materials storage building, located southeast of Building No. 9 (Shop Building).

WorleyParsons Photographic Log

Client: Los Angeles Unified School District
Site Name: John Burroughs Middle School — Location: 600 South McCadden Place, Los Angeles, CA
Photographer: Michael Huma — Date: April 20, 2016

Photo 15: Super Polymer 85 containers stored in the Plant Manager's office located in Building No. 1 (Main/Auditorium Building.

Photo 16: Paint stored in the Plant Manager's office located in Building No. 1 (Main/Auditorium Building).

WorleyParsons Photographic Log

Client: Los Angeles Unified School District
Site Name: John Burroughs Middle School — Location: 600 South McCadden Place, Los Angeles, CA
Photographer: Michael Huma — Date: April 20, 2016

Photo 17: Paints stored in the Plant Manager's office located in Building No. 1 (Main/Auditorium Building).

Photo 18: Supersport One floor finishing compound, stored in the sprinkler room located in the north portion of Building No. 20 (Cafeteria Building).

WorleyParsons Photographic Log

Client: Los Angeles Unified School District
Site Name: John Burroughs Middle School — Location: 600 South McCadden Place, Los Angeles, CA
Photographer: Michael Huma — Date: April 20, 2016

Photo 19: Transformer stored in the sprinkler room located in the northern portion of Building No. 20 (Cafeteria Building).

Photo 20: Transformer located south of Building No. 9 (Shop Building).

WorleyParsons Photographic Log

Client: Los Angeles Unified School District
Site Name: John Burroughs Middle School — Location: 600 South McCadden Place, Los Angeles, CA
Photographer: Michael Huma — Date: April 20, 2016

Photo 21: Two transformers located next to the waste and recycling bins, located north of the Building No. 20 (Cafeteria Building).

Photo 22: Waste bins located north of Building No. 20 (Cafeteria Building).

WorleyParsons Photographic Log

Client: Los Angeles Unified School District
Site Name: John Burroughs Middle School — Location: 600 South McCadden Place, Los Angeles, CA
Photographer: Michael Huma — Date: April 20, 2016

Photo 23: Recycling bins located north of Building No. 20 (Cafeteria Building).

Photo 24: Los Angeles Department of Water and Power electrical equipment room, located in the eastern portion of Building No. 1 (Main/Auditorium Building).

WorleyParsons Photographic Log

Client: Los Angeles Unified School District
Site Name: John Burroughs Middle School — Location: 600 South McCadden Place, Los Angeles, CA
Photographer: Michael Huma — Date: April 20, 2016

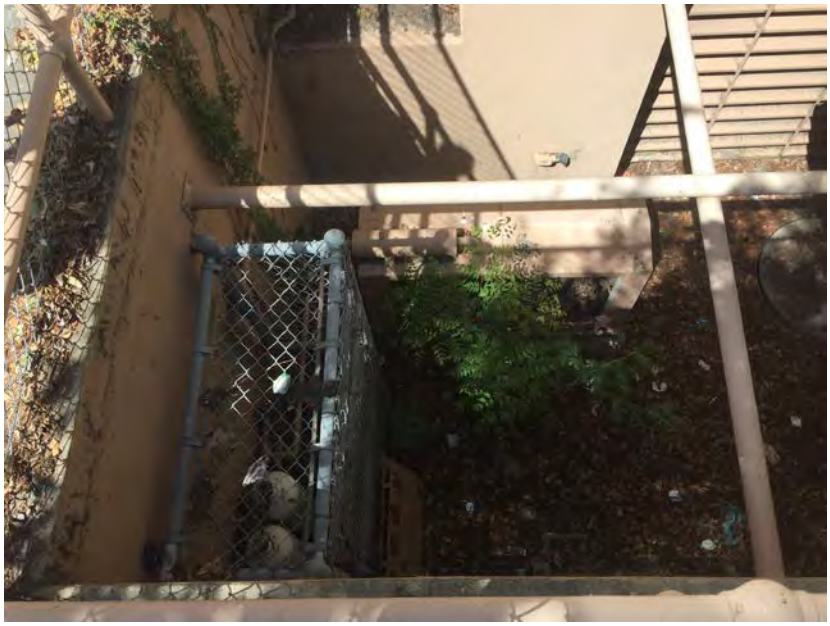


Photo 25: Old generator and compressed gas cylinders located adjacent to the east of Building No. 1 (Main/Auditorium Building).

Photo 26: Compressed gas cylinders located adjacent to the east of Building No. 1 (Main/Auditorium Building).

APPENDIX 2

EDR DATABASE REPORT

Burroughs Middle School
600 S. McCadden Place
Los Angeles, CA 90005

Inquiry Number: 4564097.2s
March 15, 2016

The EDR Radius Map™ Report with GeoCheck®

EDR® Environmental Data Resources Inc

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION	PAGE
Executive Summary	ES1
Overview Map	2
Detail Map	3
Map Findings Summary	4
Map Findings	8
Orphan Summary	116
Government Records Searched/Data Currency Tracking	GR-1

GEOCHECK ADDENDUM

Physical Setting Source Addendum	A-1
Physical Setting Source Summary	A-2
Physical Setting Source Map	A-10
Physical Setting Source Map Findings	A-11
Physical Setting Source Records Searched	PSGR-1

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. **NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT.** Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

Copyright 2016 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

600 S. MCCADDEN PLACE
LOS ANGELES, CA 90005

COORDINATES

Latitude (North):	34.0635420 - 34° 3' 48.75''
Longitude (West):	118.3362540 - 118° 20' 10.51''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	376684.8
UTM Y (Meters):	3769812.2
Elevation:	213 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	5630741 HOLLYWOOD, CA
Version Date:	2012

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20120428, 20120505
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
600 S. MCCADDEN PLACE
LOS ANGELES, CA 90010

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1	LA UNI SCH DIST, BUR	600 S MC CADDEN PL	EMI		TP
A2	LAUSD/ BURROUGHS JH	600 S MCCADDEN PL	HAZNET		TP
A3	LAUSD-BURROUGHS JUNI	600 S MC CADDEN PL	FINDS, ECHO		TP
A4	LAUSD-BURROUGHS JUNI	600 S MC CADDEN PL	RCRA-LQG		TP
B5	FARMERS INSURANCE GR	4680 WILSHIRE BLVD	CA FID UST, EMI	Higher	443, 0.084, SE
B6	FARMERS INSURANCE GR	4750 WILSHIRE BLVD	CA FID UST, EMI	Higher	443, 0.084, SE
B7	FARMERS INSURANCE	4750 WILSHIRE BLVD	UST, SWEEPS UST	Higher	443, 0.084, SE
C8	ORIGINAL 23 MINUTE P	5001 WILSHIRE BLVD S	RCRA-SQG, FINDS, HAZNET, ECHO	Lower	564, 0.107, WSW
C9		5001 WILSHIRE BLVD	EDR Hist Cleaner	Lower	564, 0.107, WSW
C10	TED AND HEDY ORDEN	5001 WILSHIRE BLVD	HIST UST	Lower	564, 0.107, WSW
C11	T L C CLEANERS	5001 WILSHIRE BLVD S	RCRA-SQG, FINDS, HAZNET, ECHO	Lower	564, 0.107, WSW
C12		5001 WILSHIRE BLVD	EDR Hist Auto	Lower	564, 0.107, WSW
C13	TIDEWATER SERVICE ST	5020 WILSHIRE BOULEV	LUST, HAZNET	Lower	569, 0.108, WSW
C14	FROMEX CITRUS ONE HO	5020 WILSHIRE BLVD	RCRA-SQG, FINDS, ECHO	Lower	569, 0.108, WSW
C15	BARTEL H S	5020 WILSHIRE BLVD	EDR Hist Auto	Lower	569, 0.108, WSW
B16		4751 WILSHIRE BLVD	EDR Hist Auto	Higher	594, 0.112, ESE
C17	HIGHLAND EXPRESS CLE	5034 WILSHIRE BOULEV	SLIC, EMI	Lower	748, 0.142, WSW
C18	CARNATION COMPANY	5045 WILSHIRE BLVD	RCRA NonGen / NLR, FINDS, ECHO	Lower	756, 0.143, WSW
C19	LIFE LINE MOBILE MOB	5042 WILSHIRE BLVD #	CUPA Listings	Lower	776, 0.147, WSW
C20		5055 WILSHIRE BLVD	AST	Lower	799, 0.151, WSW
C21	LOU EHLERS CADILLAC	5050-5070 WILSHIRE B	LUST	Lower	813, 0.154, WSW
D22	LOU EHLERS CADILLAC	5151 CARLING WA	UST	Lower	1134, 0.215, West
D23	EVERBEST BUSINESS MA	5104 WILSHIRE BLVD	RCRA-SQG, FINDS, ECHO	Lower	1152, 0.218, WSW
D24	CARNATION OFFICE (FO	5115 WILSHIRE BLVD	LUST	Lower	1221, 0.231, WSW
D25	AVALON WILSHIRE	5115 WILSHIRE BLVD	RCRA-LQG, HAZNET	Lower	1221, 0.231, WSW
D26	UNK	5115 WILSHIRE BLVD	SWEEPS UST, CA FID UST	Lower	1221, 0.231, WSW
D27	CARNATION OFFICE (FO	5115 WILSHIRE BLVD	LUST, HIST CORTESE	Lower	1221, 0.231, WSW
E28	LOU EHLERS CADILLAC	5151 WILSHIRE BLVD	LUST	Lower	1457, 0.276, WSW
E29	LOU EHLERS CADILLAC	5151 WILSHIRE BOULEV	LUST	Lower	1457, 0.276, WSW
E30	LOU EHLERS CADILLAC	5151 WILSHIRE BLVD	RCRA-SQG, LUST, SWEEPS UST, CA FID UST, FINDS,...	Lower	1457, 0.276, WSW
F31	UNOCAL #5312	706 LA BREA AVE N	LUST	Lower	2114, 0.400, WSW
F32	UNOCAL #5312	706 LA BREA	HIST CORTESE	Lower	2114, 0.400, WSW
33	TOSCO S.S. #1116	5436 6TH ST W	LUST, HIST CORTESE	Lower	2135, 0.404, West
G34	LA BREA AVENUE MOTOR	401 SOUTH LA BREA AV	ENVIROSTOR	Lower	2200, 0.417, WNW
G35	VACANT BUILDING	400 LA BREA AVE.	LUST	Lower	2204, 0.417, WNW
36	THIRD STREET ELEMENT	201 SOUTH JUNE STREE	ENVIROSTOR, SCH	Higher	2242, 0.425, North
H37	LA BREA AVENUE MOTOR	359 SOUTH LA BREA AV	ENVIROSTOR	Lower	2375, 0.450, WNW
I38	LIBERTY CAR & TRUCK	800 LA BREA	HIST CORTESE	Lower	2390, 0.453, WSW
H39	LA BREA DODGE INC	339 S LA BREA AVE	RCRA-SQG, LUST, FINDS, ECHO	Higher	2470, 0.468, NW

MAPPED SITES SUMMARY

Target Property Address:
600 S. MCCADDEN PLACE
LOS ANGELES, CA 90010

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
H40	LA BREA DODGE	339 LA BREA	ENVIROSTOR, VCP, HIST CORTESE	Higher	2470, 0.468, NW
H41	EXXON #7-7221 (FORME	307 LA BREA AVE N	LUST, ENF, HIST CORTESE	Higher	2483, 0.470, NW
I42	CELEBRITY CAR LEASIN	816 LA BREA AVE S	LUST, HIST CORTESE	Lower	2486, 0.471, WSW
43	HOROWITZ PROPERTY	303 LA BREA S.	LUST	Higher	2527, 0.479, NW
44	LOS ALTOS CLEANERS	453 S LA BREA	ENVIROSTOR, EMI	Lower	3360, 0.636, WNW

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following records. For more information on this property see page 8 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
LA UNI SCH DIST, BUR 600 S MC CADDEN PL LOS ANGELES, CA 90005	EMI Facility Id: 13512	N/A
LAUSD/ BURROUGHS JH 600 S MCCADDEN PL LOS ANGELES, CA 90005	HAZNET GEPAID: CAD982039505	N/A
LAUSD-BURROUGHS JUNI 600 S MC CADDEN PL LOS ANGELES, CA 90005	FINDS Registry ID:: 110042020782 ECHO	N/A
LAUSD-BURROUGHS JUNI 600 S MC CADDEN PL LOS ANGELES, CA 90005	RCRA-LQG EPA ID:: CAD982039505	CAD982039505

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL ---------- National Priority List
Proposed NPL ---------- Proposed National Priority List Sites
NPL LIENS ---------- Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL ---------- National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY ---------- Federal Facility Site Information listing

CERCLIS ---------- Comprehensive Environmental Response, Compensation, and Liability Information System

Federal CERCLIS NFRAP site list

CERCLIS-NFRAP ---------- CERCLIS No Further Remedial Action Planned

Federal RCRA CORRACTS facilities list

CORRACTS ---------- Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF ---------- RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-CESQG ---------- RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

LUCIS ---------- Land Use Control Information System
US ENG CONTROLS ---------- Engineering Controls Sites List
US INST CONTROL ---------- Sites with Institutional Controls

Federal ERNS list

ERNS ---------- Emergency Response Notification System

State- and tribal - equivalent NPL

RESPONSE ---------- State Response Sites

State and tribal landfill and/or solid waste disposal site lists

SWF/LF ---------- Solid Waste Information System

State and tribal leaking storage tank lists

INDIAN LUST ---------- Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

FEMA UST ---------- Underground Storage Tank Listing
INDIAN UST ---------- Underground Storage Tanks on Indian Land

State and tribal voluntary cleanup sites

INDIAN VCP ---------- Voluntary Cleanup Priority Listing

State and tribal Brownfields sites

BROWNFIELDS ---------- Considered Brownfieds Sites Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS ---------- A Listing of Brownfields Sites

EXECUTIVE SUMMARY

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT	Waste Management Unit Database
SWRCY	Recycler Database
HAULERS	Registered Waste Tire Haulers Listing
INDIAN ODI	Report on the Status of Open Dumps on Indian Lands
ODI	Open Dump Inventory
DEBRIS REGION 9	Torres Martinez Reservation Illegal Dump Site Locations

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL	National Clandestine Laboratory Register
AOCONCERN	San Gabriel Valley Areas of Concern
HIST Cal-Sites	Historical Calsites Database
SCH	School Property Evaluation Program
CDL	Clandestine Drug Labs
Toxic Pits	Toxic Pits Cleanup Act Sites
US CDL	Clandestine Drug Labs

Local Land Records

LIENS	Environmental Liens Listing
LIENS 2	CERCLA Lien Information
DEED	Deed Restriction Listing

Records of Emergency Release Reports

HMIRS	Hazardous Materials Information Reporting System
CHMIRS	California Hazardous Material Incident Report System
LDS	Land Disposal Sites Listing
MCS	Military Cleanup Sites Listing
SPILLS 90	SPILLS 90 data from FirstSearch

Other Ascertainable Records

FUDS	Formerly Used Defense Sites
DOD	Department of Defense Sites
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR	Financial Assurance Information
EPA WATCH LIST	EPA WATCH LIST
2020 COR ACTION	2020 Corrective Action Program List
TSCA	Toxic Substances Control Act
TRIS	Toxic Chemical Release Inventory System
SSTS	Section 7 Tracking Systems
ROD	Records Of Decision
RMP	Risk Management Plans
RAATS	RCRA Administrative Action Tracking System
PRP	Potentially Responsible Parties
PADS	PCB Activity Database System
ICIS	Integrated Compliance Information System
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS	Material Licensing Tracking System
COAL ASH DOE	Steam-Electric Plant Operation Data

EXECUTIVE SUMMARY

COAL ASH EPA ---- Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER ---- PCB Transformer Registration Database
RADINFO ---- Radiation Information Database
HIST FTTS ---- FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS ---- Incident and Accident Data
CONSENT ---- Superfund (CERCLA) Consent Decrees
INDIAN RESERV ---- Indian Reservations
FUSRAP ---- Formerly Utilized Sites Remedial Action Program
UMTRA ---- Uranium Mill Tailings Sites
LEAD SMELTERS ---- Lead Smelter Sites
US AIRS ---- Aerometric Information Retrieval System Facility Subsystem
US MINES ---- Mines Master Index File
CA BOND EXP. PLAN ---- Bond Expenditure Plan
Cortese ---- "Cortese" Hazardous Waste & Substances Sites List
DRYCLEANERS ---- Cleaner Facilities
ENF ---- Enforcement Action Listing
Financial Assurance ---- Financial Assurance Information Listing
LOS ANGELES CO. HMS ---- HMS: Street Number List
HWP ---- EnviroStor Permitted Facilities Listing
HWT ---- Registered Hazardous Waste Transporter Database
MINES ---- Mines Site Location Listing
MWMP ---- Medical Waste Management Program Listing
NPDES ---- NPDES Permits Listing
PEST LIC ---- Pesticide Regulation Licenses Listing
PROC ---- Certified Processors Database
Notify 65 ---- Proposition 65 Records
LA Co. Site Mitigation ---- Site Mitigation List
UIC ---- UIC Listing
WASTEWATER PITS ---- Oil Wastewater Pits Listing
WDS ---- Waste Discharge System
WIP ---- Well Investigation Program Case List
FUELS PROGRAM ---- EPA Fuels Program Registered Listing

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP ---- EDR Proprietary Manufactured Gas Plants

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF ---- Recovered Government Archive Solid Waste Facilities List
RGA LUST ---- Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

EXECUTIVE SUMMARY

STANDARD ENVIRONMENTAL RECORDS

Federal RCRA generators list

RCRA-LQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

A review of the RCRA-LQG list, as provided by EDR, and dated 06/09/2015 has revealed that there is 1 RCRA-LQG site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
AVALON WILSHIRE	*5115 WILSHIRE BLVD*	*WSW 1/8 - 1/4 (0.231 mi.)*	*D25*	*51*

RCRA-SQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

A review of the RCRA-SQG list, as provided by EDR, and dated 06/09/2015 has revealed that there are 4 RCRA-SQG sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
ORIGINAL 23 MINUTE P	*5001 WILSHIRE BLVD S*	*WSW 0 - 1/8 (0.107 mi.)*	*C8*	*18*
T L C CLEANERS	*5001 WILSHIRE BLVD S*	*WSW 0 - 1/8 (0.107 mi.)*	*C11*	*25*
FROMEX CITRUS ONE HO	*5020 WILSHIRE BLVD*	*WSW 0 - 1/8 (0.108 mi.)*	*C14*	*35*
EVERBEST BUSINESS MA	*5104 WILSHIRE BLVD*	*WSW 1/8 - 1/4 (0.218 mi.)*	*D23*	*46*

State- and tribal - equivalent CERCLIS

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 11/07/2015 has revealed that there are 5 ENVIROSTOR sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
THIRD STREET ELEMENT	*201 SOUTH JUNE STREE*	*N 1/4 - 1/2 (0.425 mi.)*	*36*	*82*

Facility Id: 19820044
Status: No Further Action

LA BREA DODGE	***339 LA BREA***	***NW 1/4 - 1/2 (0.468 mi.)***	***H40***	***96***
Facility Id: 60001395 Status: No Further Action				

Lower Elevation	Address	Direction / Distance	Map ID	Page
LA BREA AVENUE MOTOR Facility Id: 60001610 Status: No Further Action	401 SOUTH LA BREA AV	WNW 1/4 - 1/2 (0.417 mi.)	G34	78
LA BREA AVENUE MOTOR Facility Id: 60001611 Status: No Further Action	359 SOUTH LA BREA AV	WNW 1/4 - 1/2 (0.450 mi.)	H37	88
LOS ALTOS CLEANERS Facility Id: 60001631 Status: No Further Action	***453 S LA BREA***	***WNW 1/2 - 1 (0.636 mi.)***	***44***	***114***

State and tribal leaking storage tank lists

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the State Water Resources Control Board Leaking Underground Storage Tank Information System.

A review of the LUST list, as provided by EDR, and dated 12/14/2015 has revealed that there are 14 LUST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
LA BREA DODGE INC Status: Completed - Case Closed Facility Id: 900360034 Status: Case Closed Global Id: T0603700884 Global ID: T0603700884	***339 S LA BREA AVE***	***NW 1/4 - 1/2 (0.468 mi.)***	***H39***	***90***
EXXON #7-7221 (FORME Status: Completed - Case Closed Facility Id: 900380216 Status: Remedial action (cleanup) Underway Global Id: T0603700931 Global ID: T0603700931	***307 LA BREA AVE N***	***NW 1/4 - 1/2 (0.470 mi.)***	***H41***	***99***
HOROWITZ PROPERTY Status: Completed - Case Closed Global Id: T10000001949	303 LA BREA S.	NW 1/4 - 1/2 (0.479 mi.)	43	111

Lower Elevation	Address	Direction / Distance	Map ID	Page
TIDEWATER SERVICE ST Status: Completed - Case Closed Global Id: SL0603709506	***5020 WILSHIRE BOULEV***	***WSW 0 - 1/8 (0.108 mi.)***	***C13***	***30***
LOU EHLERS CADILLAC	5050-5070 WILSHIRE B	WSW 1/8 - 1/4 (0.154 mi.)	C21	44

Status: Completed - Case Closed Global Id: T10000000665				
CARNATION OFFICE (FO Facility Id: 900360161 Status: Case Closed Global ID: T0603700897	5115 WILSHIRE BLVD	WSW 1/8 - 1/4 (0.231 mi.)	D24	50
CARNATION OFFICE (FO Status: Completed - Case Closed Global Id: T0603700897	***5115 WILSHIRE BLVD***	***WSW 1/8 - 1/4 (0.231 mi.)***	***D27***	***55***
LOU EHLERS CADILLAC Status: Completed - Case Closed Global Id: T0603700882	5151 WILSHIRE BLVD	WSW 1/4 - 1/2 (0.276 mi.)	E28	56
LOU EHLERS CADILLAC Status: Completed - Case Closed Global Id: T10000000685	5151 WILSHIRE BOULEV	WSW 1/4 - 1/2 (0.276 mi.)	E29	57
LOU EHLERS CADILLAC Facility Id: 900360016 Status: Case Closed Global ID: T0603700882	***5151 WILSHIRE BLVD***	***WSW 1/4 - 1/2 (0.276 mi.)***	***E30***	***59***
UNOCAL #5312 Status: Completed - Case Closed Facility Id: 900380207 Status: Case Closed Global Id: T0603700930 Global ID: T0603700930	706 LA BREA AVE N	WSW 1/4 - 1/2 (0.400 mi.)	F31	68
TOSCO S.S. #1116 Status: Open - Eligible for Closure Status: Completed - Case Closed Facility Id: 900360216 Status: Leak being confirmed Global Id: T10000000379 Global Id: T0603700902 Global ID: T0603700902	***5436 6TH ST W***	***W 1/4 - 1/2 (0.404 mi.)***	***33***	***70***
VACANT BUILDING Status: Completed - Case Closed Global Id: T0603705714	400 LA BREA AVE.	WNW 1/4 - 1/2 (0.417 mi.)	G35	79
CELEBRITY CAR LEASIN Status: Completed - Case Closed Facility Id: 900360170 Status: Case Closed Global Id: T0603700898 Global ID: T0603700898	***816 LA BREA AVE S***	***WSW 1/4 - 1/2 (0.471 mi.)***	***I42***	***109***

SLIC: SLIC Region comes from the California Regional Water Quality Control Board.

A review of the SLIC list, as provided by EDR, and dated 12/14/2015 has revealed that there is 1 SLIC site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
HIGHLAND EXPRESS CLE	***5034 WILSHIRE BOULEV***	***WSW 1/8 - 1/4 (0.142 mi.)***	***C17***	***39***

Facility Status: Completed - Case Closed
Facility Status: Site Assessment
Global Id: SLT410412836

State and tribal registered storage tank lists

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

A review of the UST list, as provided by EDR, and dated 12/14/2015 has revealed that there are 2 UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
FARMERS INSURANCE Facility Id: 25223	***4750 WILSHIRE BLVD***	***SE 0 - 1/8 (0.084 mi.)***	***B7***	***18***

Lower Elevation	Address	Direction / Distance	Map ID	Page
LOU EHLERS CADILLAC Facility Id: 25240	5151 CARLING WA	W 1/8 - 1/4 (0.215 mi.)	D22	46

AST: A listing of aboveground storage tank petroleum storage tank locations.

A review of the AST list, as provided by EDR, and dated 08/01/2009 has revealed that there is 1 AST site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
Not reported	5055 WILSHIRE BLVD	WSW 1/8 - 1/4 (0.151 mi.)	C20	44

State and tribal voluntary cleanup sites

VCP: Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

A review of the VCP list, as provided by EDR, and dated 11/07/2015 has revealed that there is 1 VCP site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
LA BREA DODGE Status: No Further Action Facility Id: 60001395	***339 LA BREA***	***NW 1/4 - 1/2 (0.468 mi.)***	***H40***	***96***

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Registered Storage Tanks

SWEEPS UST: Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

A review of the SWEEPS UST list, as provided by EDR, and dated 06/01/1994 has revealed that there are 2 SWEEPS UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
FARMERS INSURANCE Status: A Comp Number: 6464	***4750 WILSHIRE BLVD***	***SE 0 - 1/8 (0.084 mi.)***	***B7***	***18***

Lower Elevation	Address	Direction / Distance	Map ID	Page
UNK Comp Number: 7848	***5115 WILSHIRE BLVD***	***WSW 1/8 - 1/4 (0.231 mi.)***	***D26***	***54***

HIST UST: Historical UST Registered Database.

A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there is 1 HIST UST site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
TED AND HEDY ORDEN Facility Id: 00000050673	5001 WILSHIRE BLVD	WSW 0 - 1/8 (0.107 mi.)	C10	24

CA FID UST: The Facility Inventory Database contains active and inactive underground storage tank locations. The source is the State Water Resource Control Board.

A review of the CA FID UST list, as provided by EDR, and dated 10/31/1994 has revealed that there are 3 CA FID UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
FARMERS INSURANCE GR Facility Id: 19004378 Status: A	***4680 WILSHIRE BLVD***	***SE 0 - 1/8 (0.084 mi.)***	***B5***	***13***
FARMERS INSURANCE GR Facility Id: 19056242 Status: A	***4750 WILSHIRE BLVD***	***SE 0 - 1/8 (0.084 mi.)***	***B6***	***17***

Lower Elevation	Address	Direction / Distance	Map ID	Page
UNK	***5115 WILSHIRE BLVD***	***WSW 1/8 - 1/4 (0.231 mi.)***	***D26***	***54***

Facility Id: 19003390
Status: I

Other Ascertainable Records

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 06/09/2015 has revealed that there is 1 RCRA NonGen / NLR site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
CARNATION COMPANY	***5045 WILSHIRE BLVD***	***WSW 1/8 - 1/4 (0.143 mi.)***	***C18***	***40***

CUPA Listings: A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

A review of the CUPA Listings list, as provided by EDR, has revealed that there is 1 CUPA Listings site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
LIFE LINE MOBILE MOB Status: Inactive, non-billable	5042 WILSHIRE BLVD #	WSW 1/8 - 1/4 (0.147 mi.)	C19	44

HIST CORTESE: The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

A review of the HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there are 8 HIST CORTESE sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
LA BREA DODGE Reg Id: 900360034	***339 LA BREA***	***NW 1/4 - 1/2 (0.468 mi.)***	***H40***	***96***
EXXON #7-7221 (FORME Reg Id: 900380216	***307 LA BREA AVE N***	***NW 1/4 - 1/2 (0.470 mi.)***	***H41***	***99***

Lower Elevation	Address	Direction / Distance	Map ID	Page
CARNATION OFFICE (FO Reg Id: 900360161	***5115 WILSHIRE BLVD***	***WSW 1/8 - 1/4 (0.231 mi.)***	***D27***	***55***
LOU EHLERS CADILLAC	***5151 WILSHIRE BLVD***	***WSW 1/4 - 1/2 (0.276 mi.)***	***E30***	***59***

Reg Id: 900360016				
UNOCAL #5312 Reg Id: 900380207	706 LA BREA	WSW 1/4 - 1/2 (0.400 mi.)	F32	70
TOSCO S.S. #1116 Reg Id: 900360216	***5436 6TH ST W***	***W 1/4 - 1/2 (0.404 mi.)***	***33***	***70***
LIBERTY CAR & TRUCK Reg Id: 900380025	800 LA BREA	WSW 1/4 - 1/2 (0.453 mi.)	I38	90
CELEBRITY CAR LEASIN Reg Id: 900360170	***816 LA BREA AVE S***	***WSW 1/4 - 1/2 (0.471 mi.)***	***I42***	***109***

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR Hist Auto: EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Auto list, as provided by EDR, has revealed that there are 3 EDR Hist Auto sites within approximately 0.125 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
Not reported	4751 WILSHIRE BLVD	ESE 0 - 1/8 (0.112 mi.)	B16	39

Lower Elevation	Address	Direction / Distance	Map ID	Page
Not reported	5001 WILSHIRE BLVD	WSW 0 - 1/8 (0.107 mi.)	C12	30
BARTEL H S	5020 WILSHIRE BLVD	WSW 0 - 1/8 (0.108 mi.)	C15	38

EDR Hist Cleaner: EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Cleaner list, as provided by EDR, has revealed that there is 1 EDR Hist Cleaner site within approximately 0.125 miles of the target property.

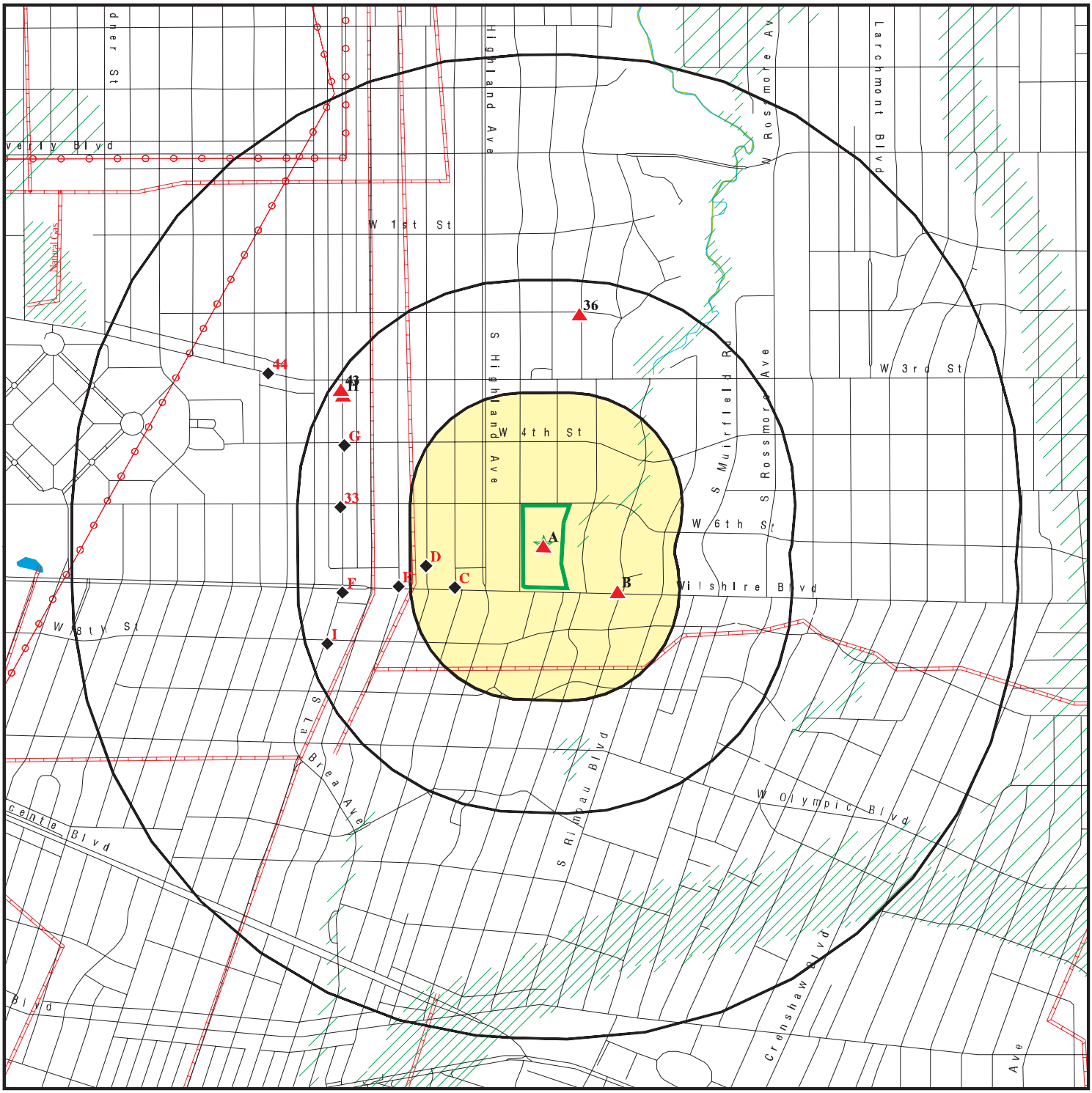
Lower Elevation	Address	Direction / Distance	Map ID	Page
Not reported	5001 WILSHIRE BLVD	WSW 0 - 1/8 (0.107 mi.)	C9	23

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 5 records.

Site Name	Database(s)
HOLLYWOOD GRAND PRIX	LUST
CENTRAL LOS ANGELES MIDDLE SCHOOL	FINDS, ECHO
BELMONT/HOLLYWOOD NO. 1	ENVIROSTOR, SCH
CENTRAL LOS ANGELES MIDDLE SCHOOL	ENVIROSTOR, SCH
LOS ANGELES ELEMENTARY SCHOOL NO.	ENVIROSTOR, SCH

OVERVIEW MAP - 4564097.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

National Priority List Sites

Dept. Defense Sites

0 1/4 1/2 1 Miles

Indian Reservations BIA

Power transmission lines

Pipelines

100-year flood zone

500-year flood zone

National Wetland Inventory

State Wetlands

Areas of Concern

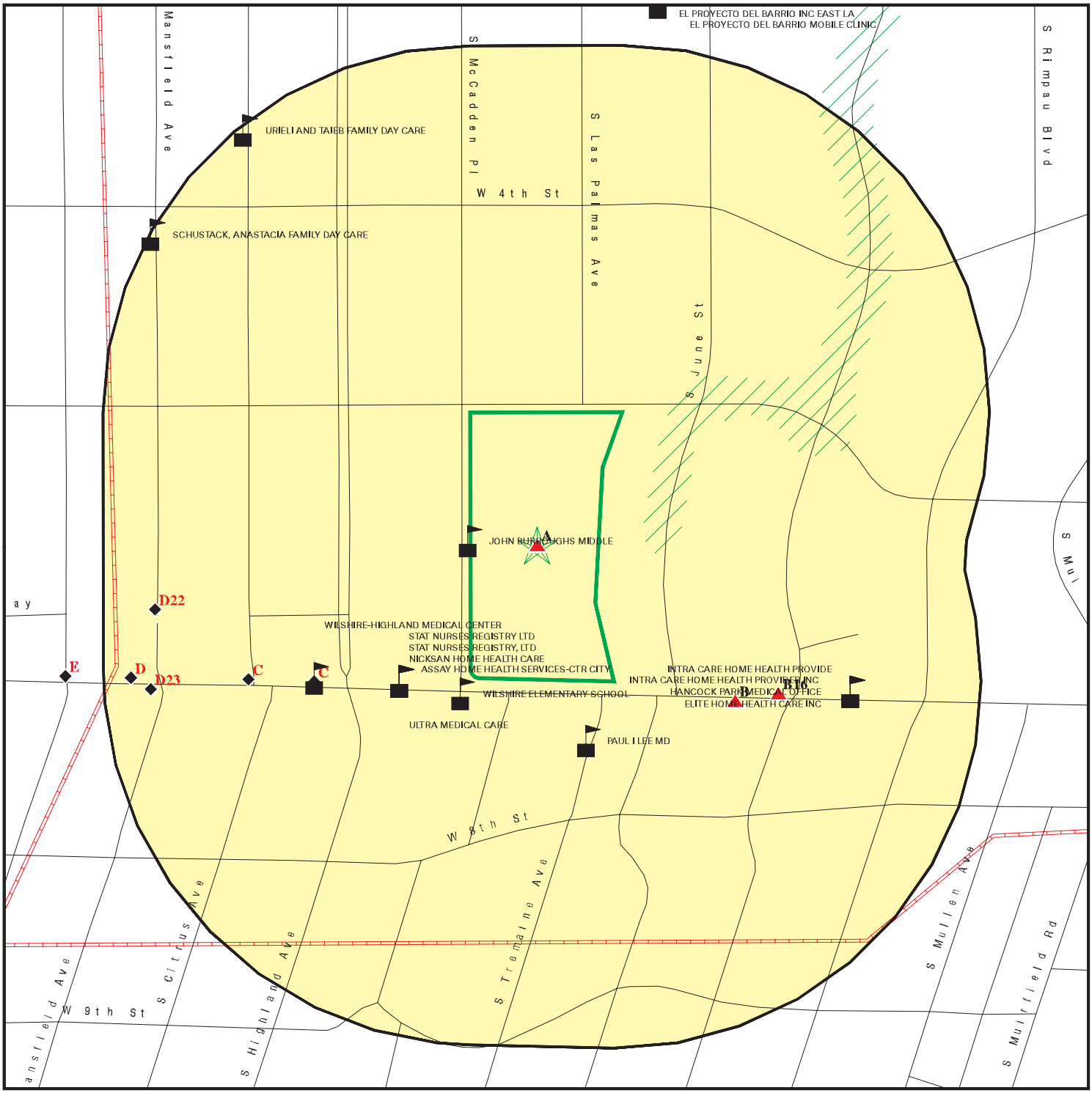
N

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Burroughs Middle School	CLIENT: WorleyParsons
ADDRESS: 600 S. McCadden Place Los Angeles CA 90005	CONTACT: Ralph Beck INQUIRY #: 4564097.2s
LAT/LONG: 34.063542 / 118.336254	DATE: March 15, 2016 9:33 am

Copyright © 2016 EDR, Inc. © 2015 TomTom Rel. 2015.

DETAIL MAP - 4564097.2S



0 1/16 1/8 1/4 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Pipelines
- 100-year flood zone
- 500-year flood zone
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	Burroughs Middle School	CLIENT:	WorleyParsons
ADDRESS:	600 S. McCadden Place Los Angeles CA 90005	CONTACT:	Ralph Beck
		INQUIRY #:	4564097.2s
LAT/LONG:	34.063542 / 118.336254	DATE:	March 15, 2016 9:34 am

Copyright © 2016 EDR, Inc. © 2015 TomTom Rel. 2015.

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	0.001		0	NR	NR	NR	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
CERCLIS	0.500		0	0	0	NR	NR	0
Federal CERCLIS NFRAP site list								
CERCLIS-NFRAP	0.500		0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250	1	0	1	NR	NR	NR	2
RCRA-SQG	0.250		3	1	NR	NR	NR	4
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	0.001		0	NR	NR	NR	NR	0
State- and tribal - equivalent NPL								
RESPONSE	1.000		0	0	0	0	NR	0
State- and tribal - equivalent CERCLIS								
ENVIROSTOR	1.000		0	0	4	1	NR	5
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
LUST	0.500		1	3	10	NR	NR	14

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		0	0	0	NR	NR	0
SLIC	0.500		0	1	0	NR	NR	1
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		1	1	NR	NR	NR	2
AST	0.250		0	1	NR	NR	NR	1
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
INDIAN VCP	0.500		0	0	0	NR	NR	0
VCP	0.500		0	0	1	NR	NR	1
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
HAULERS	0.001		0	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	0.001		0	NR	NR	NR	NR	0
AOCONCERN	1.000		0	0	0	0	NR	0
HIST Cal-Sites	1.000		0	0	0	0	NR	0
SCH	0.250		0	0	NR	NR	NR	0
CDL	0.001		0	NR	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	0	NR	0
US CDL	0.001		0	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
SWEEPS UST	0.250		1	1	NR	NR	NR	2
HIST UST	0.250		1	0	NR	NR	NR	1
CA FID UST	0.250		2	1	NR	NR	NR	3
Local Land Records								
LIENS	0.001		0	NR	NR	NR	NR	0
LIENS 2	0.001		0	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	0.001		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
CHMIRS	0.001		0	NR	NR	NR	NR	0
LDS	0.001		0	NR	NR	NR	NR	0
MCS	0.001		0	NR	NR	NR	NR	0
SPILLS 90	0.001		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	1	NR	NR	NR	1
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001		0	NR	NR	NR	NR	0
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001		0	NR	NR	NR	NR	0
FTTS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	0.001		0	NR	NR	NR	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001		0	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
FINDS	0.001	1	0	NR	NR	NR	NR	1
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
Cortese	0.500		0	0	0	NR	NR	0
CUPA Listings	0.250		0	1	NR	NR	NR	1
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
EMI	0.001	1	0	NR	NR	NR	NR	1
ENF	0.001		0	NR	NR	NR	NR	0
Financial Assurance	0.001		0	NR	NR	NR	NR	0
HAZNET	0.001	1	0	NR	NR	NR	NR	1
HIST CORTESE	0.500		0	1	7	NR	NR	8
LOS ANGELES CO. HMS	0.001		0	NR	NR	NR	NR	0
HWP	1.000		0	0	0	0	NR	0
HWT	0.250		0	0	NR	NR	NR	0
MINES	0.001		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
MWMP	0.250		0	0	NR	NR	NR	0
NPDES	0.001		0	NR	NR	NR	NR	0
PEST LIC	0.001		0	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
Notify 65	1.000		0	0	0	0	NR	0
LA Co. Site Mitigation	0.001		0	NR	NR	NR	NR	0
UIC	0.001		0	NR	NR	NR	NR	0
WASTEWATER PITS	0.500		0	0	0	NR	NR	0
WDS	0.001		0	NR	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
ECHO	0.001	1	0	NR	NR	NR	NR	1
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		3	NR	NR	NR	NR	3
EDR Hist Cleaner	0.125		1	NR	NR	NR	NR	1
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LF	0.001		0	NR	NR	NR	NR	0
RGA LUST	0.001		0	NR	NR	NR	NR	0
- Totals --		5	13	13	22	1	0	54

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

A1 **LA UNI SCH DIST, BURROUGHS JUN** **EMI** **S106834237**
Target **600 S MC CADDEN PL** **N/A**
Property **LOS ANGELES, CA 90005**

Site 1 of 4 in cluster A

Actual:
213 ft.

EMI:

Year:	1990
County Code:	19
Air Basin:	SC
Facility ID:	13512
Air District Name:	SC
SIC Code:	8211
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

A2 **LAUSD/ BURROUGHS JH** **HAZNET** **S113013238**
Target **600 S MCCADDEN PL** **N/A**
Property **LOS ANGELES, CA 90005**

Site 2 of 4 in cluster A

Actual:
213 ft.

HAZNET:

envid:	S113013238
Year:	2010
GEPAID:	CAD982039505
Contact:	SOE AUNG
Telephone:	2137455939
Mailing Name:	Not reported
Mailing Address:	333 S BEAUNDRY AVE 28TH FLR
Mailing City,St,Zip:	LOS ANGELES, CA 900170000
Gen County:	Not reported
TSD EPA ID:	CAD028409019
TSD County:	Not reported
Waste Category:	Other inorganic solid waste
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.015
Cat Decode:	Other inorganic solid waste
Method Decode:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	Los Angeles

envid:	S113013238
Year:	2008
GEPAID:	CAD982039505
Contact:	YI HWA KIM DEPUTY DIRECTOR
Telephone:	2137435086
Mailing Name:	Not reported
Mailing Address:	333 S Beaudry Ave 20th Fl
Mailing City,St,Zip:	Los Angeles, CA 900170000
Gen County:	Not reported
TSD EPA ID:	CAD009007626

LAUSD/ BURROUGHS JH (Continued) **S113013238**

TSD County: Not reported
Waste Category: Asbestos containing waste
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 8
Cat Decode: Asbestos containing waste
Method Decode: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization
Facility County: Los Angeles

envid: S113013238
Year: 2008
GEPAID: CAD982039505
Contact: YI HWA KIM DEPUTY DIRECTOR
Telephone: 2137435086
Mailing Name: Not reported
Mailing Address: 333 S Beaudry Ave 20th Fl
Mailing City,St,Zip: Los Angeles, CA 900170000
Gen County: Not reported
TSD EPA ID: AZC950823111
TSD County: Not reported
Waste Category: Asbestos containing waste
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 6
Cat Decode: Asbestos containing waste
Method Decode: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization
Facility County: Los Angeles

envid: S113013238
Year: 2007
GEPAID: CAD982039505
Contact: YI HWA KIM DEPUTY DIRECTOR
Telephone: 2137435086
Mailing Name: Not reported
Mailing Address: 333 S Beaudry Ave 20th Fl
Mailing City,St,Zip: Los Angeles, CA 900170000
Gen County: Not reported
TSD EPA ID: AZC950823111
TSD County: Not reported
Waste Category: Asbestos containing waste
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 26
Cat Decode: Asbestos containing waste
Method Decode: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization
Facility County: Los Angeles

envid: S113013238
Year: 2006
GEPAID: CAD982039505
Contact: YI HWA KIM DEPUTY DIRECTOR
Telephone: 2137435086
Mailing Name: Not reported
Mailing Address: 333 S Beaudry Ave 20th Fl
Mailing City,St,Zip: Los Angeles, CA 900170000
Gen County: Not reported
TSD EPA ID: CAD009007626

LAUSD/ BURROUGHS JH (Continued) **S113013238**

TSD County: Not reported
Waste Category: Asbestos containing waste
Disposal Method: Disposal, Land Fill
Tons: 10.11
Cat Decode: Asbestos containing waste
Method Decode: Disposal, Land Fill
Facility County: Los Angeles

Click this hyperlink while viewing on your computer to access
14 additional CA_HAZNET: record(s) in the EDR Site Report.

A3 **LAUSD-BURROUGHS JUNIOR HIGH** **FINDS 1014679210**
Target **600 S MC CADDEN PL** **ECHO N/A**
Property **LOS ANGELES, CA 90005**

Site 3 of 4 in cluster A

Actual:
213 ft.

FINDS:

Registry ID: 110042020782

Environmental Interest/Information System
HAZARDOUS WASTE BIENNIAL REPORTER

ECHO:

Envid:	1014679210
Registry ID:	110042020782
FIPS Code:	06037
EPA Region:	09
Indian Country Flag:	Not reported
Federal Flag:	Not reported
US Mexico Border Flag:	Not reported
Chesapeake Bay Flag:	Not reported
NAA Flag:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Map Icon:	NONE-UNK-MN-N.png
Collection Method:	Not reported
Reference Point:	Not reported
Accuracy Meters:	Not reported
Derived Tribes:	Not reported
Derived Huc:	Not reported
Derived WBD:	Not reported
Derived STCT FPS:	Not reported
Derived Zip:	Not reported
Derived CD113:	Not reported
Derived CB2010:	Not reported
Percent Minority:	Not reported
Pop Den:	Not reported
Major Flag:	Not reported
Active Flag:	Not reported
MYRTK Universe:	NNN
Inspection Count:	0
Date Last Inspection:	Not reported
Days Last Inspection:	Not reported
Informal Count:	0

LAUSD-BURROUGHS JUNIOR HIGH (Continued) **1014679210**

Date Last Informal Action:	Not reported
Formal Action Count:	0
Date Last Formal Action:	Not reported
Total Penalties:	0
Penalty Count:	Not reported
Date Last Penalty:	Not reported
Last Penalty Amount:	Not reported
QTRS in NC:	Not reported
Programs in SNC:	0
Curr Compliance Status:	Not reported
Curr SNC Flag:	N
3yr Compliance Status:	Not reported
AFS Flag:	N
NPDES Flag:	N
SDWIS Flag:	N
RCRA Flag:	N
TRI Flag:	N
GHG Flag:	N
AFS IDS:	Not reported
CAA Permit Types:	Not reported
CAA NAICS:	Not reported
CAA SICS:	Not reported
CAA Evaluation Count:	Not reported
CAA Days Last Evaluation:	Not reported
CAA Informal Count:	Not reported
CAA Formal Action Count:	Not reported
CAA Date Last Formal Action:	Not reported
CAA Penalties:	Not reported
CAA Last Penality Date:	Not reported
CAA Last Penality Amount:	Not reported
CAA Qtrs in NC:	Not reported
CAA Curr Compliance Status:	Not reported
CAA Curr HPV Flag:	N
CAA 3yr Compl Qtrs Status:	Not reported
NPDES IDS:	Not reported
CWA Permit Types:	Not reported
CWA Compliance Tracking:	Not reported
CWA NAICS:	Not reported
CWA SICS:	Not reported
CWA Inspection Count:	Not reported
CWA Days Last Inspection:	Not reported
CWA Informal Count:	Not reported
CWA Formal Action Count:	Not reported
CWA Date Last Formal Action:	Not reported
CWA Penalties:	Not reported
CWA Last Penality Date:	Not reported
CWA Last Penality Amount:	Not reported
CWA Qtrs in NC:	Not reported
CWA Curr Compliance Status:	Not reported
CWA Curr SNC Flag:	N
CWA 13QTRS Compl Status:	Not reported
CWA 13QTRS EFFLNT Exceedances:	Not reported
CWA 3tr QNCR Codes:	Not reported
RCRA IDS:	Not reported
RCRA Permit Types:	Not reported
RCRA NAICS:	Not reported
RCRA Inspection Count:	Not reported

LAUSD-BURROUGHS JUNIOR HIGH (Continued) **1014679210**

RCRA Days Last Evaluation:	Not reported
RCRA Informal Count:	Not reported
RCRA Formal Action Count:	Not reported
RCRA Date Last Formal Action:	Not reported
RCRA Penalties:	Not reported
RCRA Last Penality Date:	Not reported
RCRA Last Penality Amount:	Not reported
RCRA QTRS in NC:	Not reported
RCRA Curr Compliance Status:	Not reported
RCRA Curr SNC Flag:	N
RCRA 3yr Compl Qtrs Status:	Not reported
SDWA IDS:	Not reported
SDWA System Types:	Not reported
SDWA Informal Count:	Not reported
SDWA Formal Action Count:	Not reported
SDWA Curr Compliance Status:	Not reported
SDWA Curr SNC Flag:	N
TRI IDS:	Not reported
TRI Releases Transfers:	Not reported
TRI on Site Releases:	Not reported
Tri off Site Transfers:	Not reported
TRI Reporter in Past:	Not reported
FEC Case IDS:	Not reported
FEC Number of Cases:	Not reported
FEC Last Case Date:	Not reported
FEC Total Penalties:	Not reported
GHG IDS:	Not reported
GHG CO2 Release:	Not reported
DFR URL:	http://echo.epa.gov/detailed_facility_report?fid=110042020782
Facility SIC Codes:	Not reported
Facility NAICS Codes:	Not reported
Facility Date Last Inspection EPA:	Not reported
Facility Date Last Inspection State:	Not reported
Facility Date Last Formal ACT EPA:	Not reported
Facility Date Last Formal ACT ST:	Not reported
Facility Date Last Inforamal ACT EPA:	Not reported
Facility Date Last Informal ACT ST:	Not reported
Facility Federal Agency:	Not reported
TRI Reporter:	Not reported
Facility IMP Water Flag:	Not reported

A4 **LAUSD-BURROUGHS JUNIOR HIGH** **RCRA-LQG** **1007199770**
Target **600 S MC CADDEN PL** **CAD982039505**
Property **LOS ANGELES, CA 90005**

Site 4 of 4 in cluster A

Actual:
213 ft.

RCRA-LQG:

Date form received by agency:	01/25/2002
Facility name:	LAUSD-BURROUGHS JUNIOR HIGH
Facility address:	600 S MC CADDEN PL LOS ANGELES, CA 90005
EPA ID:	CAD982039505
Mailing address:	1449 S SAN PEDRO ST LOS ANGELES, CA 90015
Contact:	SOE AUNG
Contact address:	Not reported Not reported

LAUSD-BURROUGHS JUNIOR HIGH (Continued) **1007199770**

Contact country: US
Contact telephone: (213) 743-5086
Contact email: Not reported
EPA Region: 09
Classification: Large Quantity Generator
Description: Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

B5 **FARMERS INSURANCE GROUP** **CA FID UST S101583548**
SE **4680 WILSHIRE BLVD** **EMI N/A**
< 1/8 **LOS ANGELES, CA 90005**
0.084 mi.
443 ft. **Site 1 of 4 in cluster B**

Relative:
Higher

Actual:
222 ft.

CA FID UST:
Facility ID: 19004378
Regulated By: UTNKA
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 2130000000
Mail To: Not reported
Mailing Address: 4680 WILSHIRE BLVD
Mailing Address 2: Not reported
Mailing City,St,Zip: LOS ANGELES 900050000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported

FARMERS INSURANCE GROUP (Continued) **S101583548**

EPA ID: Not reported
Comments: Not reported
Status: Active

EMI:

Year:	1987
County Code:	19
Air Basin:	SC
Facility ID:	17793
Air District Name:	SC
SIC Code:	6512
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	1
SOX - Oxides of Sulphur Tons/Yr:	5
Particulate Matter Tons/Yr:	1
Part. Matter 10 Micrometers & Smllr Tons/Yr:	1

Year:	1990
County Code:	19
Air Basin:	SC
Facility ID:	17793
Air District Name:	SC
SIC Code:	6311
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	1
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2002
County Code:	19
Air Basin:	SC
Facility ID:	17793
Air District Name:	SC
SIC Code:	6411
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year: 2003

FARMERS INSURANCE GROUP (Continued) **S101583548**

County Code:	19
Air Basin:	SC
Facility ID:	17793
Air District Name:	SC
SIC Code:	6411
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2004
County Code:	19
Air Basin:	SC
Facility ID:	17793
Air District Name:	SC
SIC Code:	6411
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.0069838
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0.0449
NOX - Oxides of Nitrogen Tons/Yr:	0.0535
SOX - Oxides of Sulphur Tons/Yr:	0.000321
Particulate Matter Tons/Yr:	0.00407
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2008
County Code:	19
Air Basin:	SC
Facility ID:	17793
Air District Name:	SC
SIC Code:	6411
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.0427267302910075601
Reactive Organic Gases Tons/Yr:	.018225
Carbon Monoxide Emissions Tons/Yr:	.27102
NOX - Oxides of Nitrogen Tons/Yr:	.33469
SOX - Oxides of Sulphur Tons/Yr:	.002098
Particulate Matter Tons/Yr:	.430335
Part. Matter 10 Micrometers & Smllr Tons/Yr:	.307335

Year:	2009
County Code:	19
Air Basin:	SC
Facility ID:	17793
Air District Name:	SC
SIC Code:	6411
Air District Name:	SOUTH COAST AQMD

FARMERS INSURANCE GROUP (Continued) **S101583548**

Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	9.5407990845359905E-2
Reactive Organic Gases Tons/Yr:	5.0375000000000003E-2
Carbon Monoxide Emissions Tons/Yr:	0.65102000000000004
NOX - Oxides of Nitrogen Tons/Yr:	0.98468999999999995
SOX - Oxides of Sulphur Tons/Yr:	8.5509999999999996E-3
Particulate Matter Tons/Yr:	4.0503349999999996
Part. Matter 10 Micrometers & Smllr Tons/Yr:	2.85584696

Year:	2010
County Code:	19
Air Basin:	SC
Facility ID:	17793
Air District Name:	SC
SIC Code:	6411
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.11883049325820701
Reactive Organic Gases Tons/Yr:	6.1499999999999999E-2
Carbon Monoxide Emissions Tons/Yr:	0.65232000000000001
NOX - Oxides of Nitrogen Tons/Yr:	0.98858999999999997
SOX - Oxides of Sulphur Tons/Yr:	8.5400000000000007E-3
Particulate Matter Tons/Yr:	4.0614400000000002
Part. Matter 10 Micrometers & Smllr Tons/Yr:	2.86466368

Year:	2011
County Code:	19
Air Basin:	SC
Facility ID:	17793
Air District Name:	SC
SIC Code:	6411
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.11883049326
Reactive Organic Gases Tons/Yr:	0.0615
Carbon Monoxide Emissions Tons/Yr:	0.65232
NOX - Oxides of Nitrogen Tons/Yr:	0.98859
SOX - Oxides of Sulphur Tons/Yr:	0.00854
Particulate Matter Tons/Yr:	4.06144
Part. Matter 10 Micrometers & Smllr Tons/Yr:	2.86466368

Year:	2012
County Code:	19
Air Basin:	SC
Facility ID:	17793
Air District Name:	SC
SIC Code:	6411
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.11883049326
Reactive Organic Gases Tons/Yr:	0.0615
Carbon Monoxide Emissions Tons/Yr:	0.65232
NOX - Oxides of Nitrogen Tons/Yr:	0.98859

FARMERS INSURANCE GROUP (Continued) **S101583548**

SOX - Oxides of Sulphur Tons/Yr:	0.0043321
Particulate Matter Tons/Yr:	0.29208
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0.22611168
Year:	2013
County Code:	19
Air Basin:	SC
Facility ID:	17793
Air District Name:	SC
SIC Code:	6411
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.27223294442
Reactive Organic Gases Tons/Yr:	0.11674
Carbon Monoxide Emissions Tons/Yr:	1.7374
NOX - Oxides of Nitrogen Tons/Yr:	2.10222
SOX - Oxides of Sulphur Tons/Yr:	0.01234263
Particulate Matter Tons/Yr:	0.9605
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0.720134

B6 **FARMERS INSURANCE GROUP** **CA FID UST** **S101588010**
SE **4750 WILSHIRE BLVD** **EMI** **N/A**
< 1/8 **LOS ANGELES, CA 90005**
0.084 mi.
443 ft. **Site 2 of 4 in cluster B**

Relative:
Higher

Actual:
222 ft.

CA FID UST:

Facility ID:	19056242
Regulated By:	UTNKA
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2130000000
Mail To:	Not reported
Mailing Address:	4750 WILSHIRE BLVD
Mailing Address 2:	Not reported
Mailing City,St,Zip:	LOS ANGELES 900050000
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

EMI:

Year:	1987
County Code:	19
Air Basin:	SC
Facility ID:	56532
Air District Name:	SC
SIC Code:	6512
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0

FARMERS INSURANCE GROUP (Continued) **S101588010**

Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	1
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

B7 **FARMERS INSURANCE** **UST** **U003781503**
SE **4750 WILSHIRE BLVD** **SWEEPS UST** **N/A**
< 1/8 **LOS ANGELES, CA 90010**
0.084 mi.
443 ft. **Site 3 of 4 in cluster B**

Relative:
Higher

Actual:
222 ft.

UST:

Facility ID:	25223
Permitting Agency:	LOS ANGELES, CITY OF
Latitude:	34.0629035
Longitude:	-118.3327477

SWEEPS UST:

Status:	Active
Comp Number:	6464
Number:	1
Board Of Equalization:	Not reported
Referral Date:	09-28-93
Action Date:	09-28-93
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	Not reported
Tank Status:	Not reported
Capacity:	Not reported
Active Date:	Not reported
Tank Use:	Not reported
STG:	Not reported
Content:	Not reported
Number Of Tanks:	Not reported

C8 **ORIGINAL 23 MINUTE PHOTO #2 THE** **RCRA-SQG** **1000235401**
WSW **5001 WILSHIRE BLVD STE 113** **FINDS** **CAD982491714**
< 1/8 **LOS ANGELES, CA 90036** **HAZNET**
0.107 mi. **ECHO**
564 ft. **Site 1 of 13 in cluster C**

Relative:
Lower

Actual:
198 ft.

RCRA-SQG:

Date form received by agency:	06/11/1990
Facility name:	ORIGINAL 23 MINUTE PHOTO #2 THE
Facility address:	5001 WILSHIRE BLVD STE 113 LOS ANGELES, CA 90036
EPA ID:	CAD982491714
Mailing address:	WILSHIRE BLVD STE 113 LOS ANGELES, CA 90036
Contact:	ENVIRONMENTAL MANAGER
Contact address:	5001 WILSHIRE BLVD STE 113 LOS ANGELES, CA 90036
Contact country:	US
Contact telephone:	(213) 965-1790

ORIGINAL 23 MINUTE PHOTO #2 THE (Continued) **1000235401**

Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: BRIAN LEE
Owner/operator address: 5001 WILSHIRE BLVD STE 113
LOS ANGELES, CA 90036
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

FINDS:

Registry ID: 110002829841

Environmental Interest/Information System
California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal

ORIGINAL 23 MINUTE PHOTO #2 THE (Continued) **1000235401**

facilities.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZNET:

envid:	1000235401
Year:	1995
GEPAID:	CAD982491714
Contact:	IAN S KIM
Telephone:	4155551212
Mailing Name:	Not reported
Mailing Address:	5001 WILSHIRE BLVE STE 113
Mailing City,St,Zip:	LOS ANGELES, CA 900366104
Gen County:	Not reported
TSD EPA ID:	CAD108040858
TSD County:	Not reported
Waste Category:	Photochemicals/photoprocessing waste
Disposal Method:	Recycler
Tons:	.7253
Cat Decode:	Photochemicals/photoprocessing waste
Method Decode:	Recycler
Facility County:	Los Angeles

envid:	1000235401
Year:	1994
GEPAID:	CAD982491714
Contact:	IAN S KIM
Telephone:	4155551212
Mailing Name:	Not reported
Mailing Address:	5001 WILSHIRE BLVE STE 113
Mailing City,St,Zip:	LOS ANGELES, CA 900366104
Gen County:	Not reported
TSD EPA ID:	CAD108040858
TSD County:	Not reported
Waste Category:	Photochemicals/photoprocessing waste
Disposal Method:	Recycler
Tons:	1.3255
Cat Decode:	Photochemicals/photoprocessing waste
Method Decode:	Recycler
Facility County:	Los Angeles

envid:	1000235401
Year:	1993
GEPAID:	CAD982491714
Contact:	IAN S KIM
Telephone:	4155551212
Mailing Name:	Not reported
Mailing Address:	5001 WILSHIRE BLVE STE 113
Mailing City,St,Zip:	LOS ANGELES, CA 900366104
Gen County:	Not reported
TSD EPA ID:	CAD108040858

ORIGINAL 23 MINUTE PHOTO #2 THE (Continued) **1000235401**

TSD County:	Not reported
Waste Category:	Photochemicals/photoprocessing waste
Disposal Method:	Recycler
Tons:	0.88349999999
Cat Decode:	Photochemicals/photoprocessing waste
Method Decode:	Recycler
Facility County:	Los Angeles

envid:	1000235401
Year:	1993
GEPAID:	CAD982491714
Contact:	IAN S KIM
Telephone:	4155551212
Mailing Name:	Not reported
Mailing Address:	5001 WILSHIRE BLVE STE 113
Mailing City,St,Zip:	LOS ANGELES, CA 900366104
Gen County:	Not reported
TSD EPA ID:	CAD108040858
TSD County:	Not reported
Waste Category:	Photochemicals/photoprocessing waste
Disposal Method:	Not reported
Tons:	0.27510000000
Cat Decode:	Photochemicals/photoprocessing waste
Method Decode:	Not reported
Facility County:	Los Angeles

ECHO:

Envid:	1000235401
Registry ID:	110002829841
FIPS Code:	06037
EPA Region:	09
Indian Country Flag:	N
Federal Flag:	Not reported
US Mexico Border Flag:	N
Chesapeake Bay Flag:	Not reported
NAA Flag:	Y
Latitude:	34.06211
Longitude:	-118.33848
Map Icon:	RCRA-IC-MN-N.png
Collection Method:	ADDRESS MATCHING-HOUSE NUMBER
Reference Point:	ENTRANCE POINT OF A FACILITY OR STATION
Accuracy Meters:	50
Derived Tribes:	Not reported
Derived Huc:	18070104
Derived WBD:	180701040200
Derived STCT FPS:	06037
Derived Zip:	90036
Derived CD113:	37
Derived CB2010:	060372110005015
Percent Minority:	71.624
Pop Den:	18365.69
Major Flag:	Not reported
Active Flag:	Y
MYRTK Universe:	NNN
Inspection Count:	0
Date Last Inspection:	Not reported
Days Last Inspection:	Not reported

ORIGINAL 23 MINUTE PHOTO #2 THE (Continued) **1000235401**

Informal Count:	0
Date Last Informal Action:	Not reported
Formal Action Count:	0
Date Last Formal Action:	Not reported
Total Penalties:	0
Penalty Count:	0
Date Last Penalty:	Not reported
Last Penalty Amount:	Not reported
QTRS in NC:	0
Programs in SNC:	0
Curr Compliance Status:	No Violation
Curr SNC Flag:	N
3yr Compliance Status:	_____
AFS Flag:	N
NPDES Flag:	N
SDWIS Flag:	N
RCRA Flag:	Y
TRI Flag:	N
GHG Flag:	N
AFS IDS:	Not reported
CAA Permit Types:	Not reported
CAA NAICS:	Not reported
CAA SICS:	Not reported
CAA Evaluation Count:	Not reported
CAA Days Last Evaluation:	Not reported
CAA Informal Count:	Not reported
CAA Formal Action Count:	Not reported
CAA Date Last Formal Action:	Not reported
CAA Penalties:	Not reported
CAA Last Penality Date:	Not reported
CAA Last Penality Amount:	Not reported
CAA Qtrs in NC:	Not reported
CAA Curr Compliance Status:	Not reported
CAA Curr HPV Flag:	N
CAA 3yr Compl Qtrs Status:	Not reported
NPDES IDS:	Not reported
CWA Permit Types:	Not reported
CWA Compliance Tracking:	Not reported
CWA NAICS:	Not reported
CWA SICS:	Not reported
CWA Inspection Count:	Not reported
CWA Days Last Inspection:	Not reported
CWA Informal Count:	Not reported
CWA Formal Action Count:	Not reported
CWA Date Last Formal Action:	Not reported
CWA Penalties:	Not reported
CWA Last Penality Date:	Not reported
CWA Last Penality Amount:	Not reported
CWA Qtrs in NC:	Not reported
CWA Curr Compliance Status:	Not reported
CWA Curr SNC Flag:	N
CWA 13QTRS Compl Status:	Not reported
CWA 13QTRS EFFLNT Exceedances:	Not reported
CWA 3tr QNCR Codes:	Not reported
RCRA IDS:	CAD982491714
RCRA Permit Types:	SQG
RCRA NAICS:	Not reported

ORIGINAL 23 MINUTE PHOTO #2 THE (Continued) **1000235401**

RCRA Inspection Count:	Not reported
RCRA Days Last Evaluation:	Not reported
RCRA Informal Count:	Not reported
RCRA Formal Action Count:	Not reported
RCRA Date Last Formal Action:	Not reported
RCRA Penalties:	Not reported
RCRA Last Penality Date:	Not reported
RCRA Last Penality Amount:	Not reported
RCRA QTRS in NC:	0
RCRA Curr Compliance Status:	No Violation
RCRA Curr SNC Flag:	N
RCRA 3yr Compl Qtrs Status:	
SDWA IDS:	Not reported
SDWA System Types:	Not reported
SDWA Informal Count:	Not reported
SDWA Formal Action Count:	Not reported
SDWA Curr Compliance Status:	Not reported
SDWA Curr SNC Flag:	N
TRI IDS:	Not reported
TRI Releases Transfers:	Not reported
TRI on Site Releases:	Not reported
Tri off Site Transfers:	Not reported
TRI Reporter in Past:	Not reported
FEC Case IDS:	Not reported
FEC Number of Cases:	Not reported
FEC Last Case Date:	Not reported
FEC Total Penalties:	Not reported
GHG IDS:	Not reported
GHG CO2 Release:	Not reported
DFR URL:	http://echo.epa.gov/detailed_facility_report?fid=110002829841
Facility SIC Codes:	Not reported
Facility NAICS Codes:	Not reported
Facility Date Last Inspection EPA:	Not reported
Facility Date Last Inspection State:	Not reported
Facility Date Last Formal ACT EPA:	Not reported
Facility Date Last Formal ACT ST:	Not reported
Facility Date Last Inforamal ACT EPA:	Not reported
Facility Date Last Informal ACT ST:	Not reported
Facility Federal Agency:	Not reported
TRI Reporter:	Not reported
Facility IMP Water Flag:	Not reported

C9 **EDR Hist Cleaner** **1015068228**
WSW **5001 WILSHIRE BLVD** **N/A**
< 1/8 **LOS ANGELES, CA 90036**
0.107 mi.
564 ft. **Site 2 of 13 in cluster C**

Relative:
Lower

Actual:
198 ft.

EDR Historical Cleaners:

Name:	TLC DRY CLEANERS & LAUNDRY
Year:	2001
Address:	5001 WILSHIRE BLVD
Name:	TLC DRY CLEANERS & LAUNDR
Year:	2002
Address:	5001 WILSHIRE BLVD
Name:	TLC DRY CLEANERS & LAUNDRY

(Continued) **1015068228**

Year: 2003
Address: 5001 WILSHIRE BLVD

Name: TLC DRY CLEANERS & LAUNDRY
Year: 2004
Address: 5001 WILSHIRE BLVD

Name: T L C DRY CLEANERS & LAUNDRY
Year: 2007
Address: 5001 WILSHIRE BLVD

Name: TLC DRY CLEANERS & LAUNDRY
Year: 2010
Address: 5001 WILSHIRE BLVD

Name: T L C DRY CLEANERS & LAUNDRY
Year: 2011
Address: 5001 WILSHIRE BLVD

Name: T L C DRY CLEANERS & LAUNDRY
Year: 2012
Address: 5001 WILSHIRE BLVD

C10 **TED AND HEDY ORDEN** **HIST UST** **U001561438**
WSW **5001 WILSHIRE BLVD** **N/A**
< 1/8 **LOS ANGELES, CA 90036**
0.107 mi.
564 ft. **Site 3 of 13 in cluster C**

Relative:
Lower

Actual:
198 ft.

HIST UST:
File Number: 000289B7
URL: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/000289B7.pdf
Region: STATE
Facility ID: 00000050673
Facility Type: Other
Other Type: Not reported
Contact Name: ROBERT T. FLESH
Telephone: 2139239876
Owner Name: TED & HEDY ORDEN
Owner Address: 10000 LAKEWOOD BLVD.
Owner City,St,Zip: DOWNEY, CA 90240
Total Tanks: 0004

Tank Num: 001
Container Num: 189-1
Year Installed: Not reported
Tank Capacity: 00009943
Tank Used for: WASTE
Type of Fuel: 06
Container Construction Thickness: .25
Leak Detection: None

Tank Num: 002
Container Num: 189-2
Year Installed: Not reported
Tank Capacity: 00009943
Tank Used for: WASTE
Type of Fuel: 06

TED AND HEDY ORDEN (Continued) **U001561438**

Container Construction Thickness: .25
Leak Detection: None

Tank Num: 003
Container Num: 189-3
Year Installed: Not reported
Tank Capacity: 00009943
Tank Used for: WASTE
Type of Fuel: 06
Container Construction Thickness: .25
Leak Detection: None

Tank Num: 004
Container Num: 189-4
Year Installed: Not reported
Tank Capacity: 00000250
Tank Used for: WASTE
Type of Fuel: WASTE OIL
Container Construction Thickness: 12
Leak Detection: None

Click here for Geo Tracker PDF:

C11 **T L C CLEANERS** **RCRA-SQG** **1001085744**
WSW **5001 WILSHIRE BLVD STE 108** **FINDS** **CAR000010728**
< 1/8 **LOS ANGELES, CA 90036** **HAZNET**
0.107 mi. **ECHO**
564 ft. **Site 4 of 13 in cluster C**

Relative:
Lower

Actual:
198 ft.

RCRA-SQG:
Date form received by agency: 04/01/1996
Facility name: T L C CLEANERS
Facility address: 5001 WILSHIRE BLVD STE 108
LOS ANGELES, CA 90036
EPA ID: CAR000010728
Mailing address: WILSHIRE BLVD STE 108
LOS ANGELES, CA 90036
Contact: DAVID NEMANPOUR
Contact address: 5001 WILSHIRE BLVD STE 108
LOS ANGELES, CA 90036
Contact country: US
Contact telephone: (213) 931-1909
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: DAVID NEMANPOUR
Owner/operator address: 5001 WILSHIRE BLVD STE 108
LOS ANGELES, CA 90036
Owner/operator country: Not reported
Owner/operator telephone: (213) 931-1909

T L C CLEANERS (Continued) **1001085744**

Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

FINDS:

Registry ID: 110009552484

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZNET:
envid: 1001085744
Year: 2005
GEPAID: CAR000010728
Contact: DAVID NEMANPOUR
Telephone: 2139311909
Mailing Name: Not reported
Mailing Address: 5001 WILSHIRE BLVD STE 108
Mailing City,St,Zip: LOS ANGELES, CA 900366104
Gen County: Not reported
TSD EPA ID: NVR000076158
TSD County: Not reported
Waste Category: Halogenated solvents (chloroforms, methyl chloride, perchloroethylene, etc)
Disposal Method: Not reported
Tons: 0.12
Cat Decode: Halogenated solvents (chloroforms, methyl chloride, perchloroethylene, etc)
Method Decode: Not reported
Facility County: Los Angeles

T L C CLEANERS (Continued) **1001085744**

envid: 1001085744
Year: 2005
GEPAID: CAR000010728
Contact: DAVID NEMANPOUR
Telephone: 2139311909
Mailing Name: Not reported
Mailing Address: 5001 WILSHIRE BLVD STE 108
Mailing City,St,Zip: LOS ANGELES, CA 900366104
Gen County: Not reported
TSD EPA ID: NVR000076158
TSD County: Not reported
Waste Category: Hydrocarbon solvents (benzene, hexane, Stoddard, Etc.)
Disposal Method: Not reported
Tons: Not reported
Cat Decode: Hydrocarbon solvents (benzene, hexane, Stoddard, Etc.)
Method Decode: Not reported
Facility County: Los Angeles

envid: 1001085744
Year: 2005
GEPAID: CAR000010728
Contact: DAVID NEMANPOUR
Telephone: 2139311909
Mailing Name: Not reported
Mailing Address: 5001 WILSHIRE BLVD STE 108
Mailing City,St,Zip: LOS ANGELES, CA 900366104
Gen County: Not reported
TSD EPA ID: NVR000076158
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Not reported
Tons: Not reported
Cat Decode: Aqueous solution with total organic residues less than 10 percent
Method Decode: Not reported
Facility County: Los Angeles

envid: 1001085744
Year: 2004
GEPAID: CAR000010728
Contact: DAVID NEMANPOUR
Telephone: 2139311909
Mailing Name: Not reported
Mailing Address: 5001 WILSHIRE BLVD STE 108
Mailing City,St,Zip: LOS ANGELES, CA 900366104
Gen County: Not reported
TSD EPA ID: NVR000076158
TSD County: Not reported
Waste Category: Halogenated solvents (chloroforms, methyl chloride, perchloroethylene, etc)
Disposal Method: Not reported
Tons: 0.57
Cat Decode: Halogenated solvents (chloroforms, methyl chloride, perchloroethylene, etc)
Method Decode: Not reported
Facility County: Los Angeles

envid: 1001085744
Year: 2004

T L C CLEANERS (Continued) **1001085744**

GEPAID:	CAR000010728
Contact:	DAVID NEMANPOUR
Telephone:	2139311909
Mailing Name:	Not reported
Mailing Address:	5001 WILSHIRE BLVD STE 108
Mailing City,St,Zip:	LOS ANGELES, CA 900366104
Gen County:	Not reported
TSD EPA ID:	NVR000076158
TSD County:	Not reported
Waste Category:	Aqueous solution with total organic residues less than 10 percent
Disposal Method:	Not reported
Tons:	Not reported
Cat Decode:	Aqueous solution with total organic residues less than 10 percent
Method Decode:	Not reported
Facility County:	Los Angeles

Click this hyperlink while viewing on your computer to access
6 additional CA_HAZNET: record(s) in the EDR Site Report.

ECHO:

Envid:	1001085744
Registry ID:	110009552484
FIPS Code:	06037
EPA Region:	09
Indian Country Flag:	N
Federal Flag:	Not reported
US Mexico Border Flag:	N
Chesapeake Bay Flag:	Not reported
NAA Flag:	Y
Latitude:	34.06211
Longitude:	-118.33848
Map Icon:	RCRA-IC-MN-N.png
Collection Method:	ADDRESS MATCHING-HOUSE NUMBER
Reference Point:	ENTRANCE POINT OF A FACILITY OR STATION
Accuracy Meters:	50
Derived Tribes:	Not reported
Derived Huc:	18070104
Derived WBD:	180701040200
Derived STCT FPS:	06037
Derived Zip:	90036
Derived CD113:	37
Derived CB2010:	060372110005015
Percent Minority:	71.624
Pop Den:	18365.69
Major Flag:	Not reported
Active Flag:	Y
MYRTK Universe:	NNN
Inspection Count:	0
Date Last Inspection:	Not reported
Days Last Inspection:	Not reported
Informal Count:	0
Date Last Informal Action:	Not reported
Formal Action Count:	0
Date Last Formal Action:	Not reported
Total Penalties:	0
Penalty Count:	0
Date Last Penalty:	Not reported

T L C CLEANERS (Continued) **1001085744**

Last Penalty Amount:	Not reported
QTRS in NC:	0
Programs in SNC:	0
Curr Compliance Status:	No Violation
Curr SNC Flag:	N
3yr Compliance Status:	
AFS Flag:	N
NPDES Flag:	N
SDWIS Flag:	N
RCRA Flag:	Y
TRI Flag:	N
GHG Flag:	N
AFS IDS:	Not reported
CAA Permit Types:	Not reported
CAA NAICS:	Not reported
CAA SICS:	Not reported
CAA Evaluation Count:	Not reported
CAA Days Last Evaluation:	Not reported
CAA Informal Count:	Not reported
CAA Formal Action Count:	Not reported
CAA Date Last Formal Action:	Not reported
CAA Penalties:	Not reported
CAA Last Penality Date:	Not reported
CAA Last Penality Amount:	Not reported
CAA Qtrs in NC:	Not reported
CAA Curr Compliance Status:	Not reported
CAA Curr HPV Flag:	N
CAA 3yr Compl Qtrs Status:	Not reported
NPDES IDS:	Not reported
CWA Permit Types:	Not reported
CWA Compliance Tracking:	Not reported
CWA NAICS:	Not reported
CWA SICS:	Not reported
CWA Inspection Count:	Not reported
CWA Days Last Inspection:	Not reported
CWA Informal Count:	Not reported
CWA Formal Action Count:	Not reported
CWA Date Last Formal Action:	Not reported
CWA Penalties:	Not reported
CWA Last Penality Date:	Not reported
CWA Last Penality Amount:	Not reported
CWA Qtrs in NC:	Not reported
CWA Curr Compliance Status:	Not reported
CWA Curr SNC Flag:	N
CWA 13QTRS Compl Status:	Not reported
CWA 13QTRS EFFLNT Exceedances:	Not reported
CWA 3tr QNCR Codes:	Not reported
RCRA IDS:	CAR000010728
RCRA Permit Types:	SQG
RCRA NAICS:	Not reported
RCRA Inspection Count:	Not reported
RCRA Days Last Evaluation:	Not reported
RCRA Informal Count:	Not reported
RCRA Formal Action Count:	Not reported
RCRA Date Last Formal Action:	Not reported
RCRA Penalties:	Not reported
RCRA Last Penality Date:	Not reported

T L C CLEANERS (Continued) **1001085744**

RCRA Last Penality Amount:	Not reported
RCRA QTRS in NC:	0
RCRA Curr Compliance Status:	No Violation
RCRA Curr SNC Flag:	N
RCRA 3yr Compl Qtrs Status:	
SDWA IDS:	Not reported
SDWA System Types:	Not reported
SDWA Informal Count:	Not reported
SDWA Formal Action Count:	Not reported
SDWA Curr Compliance Status:	Not reported
SDWA Curr SNC Flag:	N
TRI IDS:	Not reported
TRI Releases Transfers:	Not reported
TRI on Site Releases:	Not reported
Tri off Site Transfers:	Not reported
TRI Reporter in Past:	Not reported
FEC Case IDS:	Not reported
FEC Number of Cases:	Not reported
FEC Last Case Date:	Not reported
FEC Total Penalties:	Not reported
GHG IDS:	Not reported
GHG CO2 Release:	Not reported
DFR URL:	http://echo.epa.gov/detailed_facility_report?fid=110009552484
Facility SIC Codes:	Not reported
Facility NAICS Codes:	Not reported
Facility Date Last Inspection EPA:	Not reported
Facility Date Last Inspection State:	Not reported
Facility Date Last Formal ACT EPA:	Not reported
Facility Date Last Formal ACT ST:	Not reported
Facility Date Last Inforamal ACT EPA:	Not reported
Facility Date Last Informal ACT ST:	Not reported
Facility Federal Agency:	Not reported
TRI Reporter:	Not reported
Facility IMP Water Flag:	Not reported

C12 **EDR Hist Auto** **1015523310**
WSW **5001 WILSHIRE BLVD** **N/A**
< 1/8 **LOS ANGELES, CA 90036**
0.107 mi.
564 ft. **Site 5 of 13 in cluster C**

Relative:
Lower

EDR Historical Auto Stations:

Name:	A AUTO GLASS
Year:	2010
Address:	5001 WILSHIRE BLVD

Actual:
198 ft.

C13 **TIDEWATER SERVICE STATION (FORMER)** **LUST** **S113165995**
WSW **5020 WILSHIRE BOULEVARD** **HAZNET** **N/A**
< 1/8 **LOS ANGELES, CA 90036**
0.108 mi.
569 ft. **Site 6 of 13 in cluster C**

Relative:
Lower

LUST:

Region:	STATE
Global Id:	SL0603709506
Latitude:	34.0618981050027

Actual:
197 ft.

TIDEWATER SERVICE STATION (FORMER) (Continued) **S113165995**

Longitude:	-118.339059449074
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	02/21/2014
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	DMB
Local Agency:	Not reported
RB Case Number:	900360316
LOC Case Number:	Not reported
File Location:	Regional Board
Potential Media Affect:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Other Solvent or Non-Petroleum Hydrocarbon
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	SL0603709506
Contact Type:	Regional Board Caseworker
Contact Name:	DAVID M. BJOSTAD
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 W. 4th Street, Suite 200
City:	Los Angeles
Email:	dbjostad@waterboards.ca.gov
Phone Number:	Not reported

Status History:

Global Id:	SL0603709506
Status:	Completed - Case Closed
Status Date:	02/21/2014
Global Id:	SL0603709506
Status:	Open - Case Begin Date
Status Date:	10/18/2000
Global Id:	SL0603709506
Status:	Open - Eligible for Closure
Status Date:	10/25/2013
Global Id:	SL0603709506
Status:	Open - Site Assessment
Status Date:	10/18/2000
Global Id:	SL0603709506
Status:	Open - Site Assessment
Status Date:	07/07/2009

Regulatory Activities:

Global Id:	SL0603709506
Action Type:	RESPONSE
Date:	05/13/2013
Action:	Request for Closure
Global Id:	SL0603709506
Action Type:	ENFORCEMENT
Date:	07/05/2011
Action:	Technical Correspondence / Assistance / Other

TIDEWATER SERVICE STATION (FORMER) (Continued) **S113165995**

Global Id: SL0603709506
Action Type: ENFORCEMENT
Date: 10/24/2011
Action: Technical Correspondence / Assistance / Other

Global Id: SL0603709506
Action Type: Other
Date: 01/02/1965
Action: Leak Reported

Global Id: SL0603709506
Action Type: ENFORCEMENT
Date: 02/21/2014
Action: Closure/No Further Action Letter

Global Id: SL0603709506
Action Type: ENFORCEMENT
Date: 12/18/2013
Action: Notification - Preclosure

Global Id: SL0603709506
Action Type: ENFORCEMENT
Date: 10/19/2006
Action: Technical Correspondence / Assistance / Other

Global Id: SL0603709506
Action Type: RESPONSE
Date: 06/15/2014
Action: Well Destruction Report

Global Id: SL0603709506
Action Type: RESPONSE
Date: 08/13/2013
Action: Site Investigation Workplan - Regulator Responded

Global Id: SL0603709506
Action Type: RESPONSE
Date: 05/17/2013
Action: Request for Closure - Regulator Responded

Global Id: SL0603709506
Action Type: ENFORCEMENT
Date: 01/18/2012
Action: Technical Correspondence / Assistance / Other

Global Id: SL0603709506
Action Type: ENFORCEMENT
Date: 11/08/2010
Action: Technical Correspondence / Assistance / Other

Global Id: SL0603709506
Action Type: ENFORCEMENT
Date: 04/23/2013
Action: Technical Correspondence / Assistance / Other

Global Id: SL0603709506
Action Type: ENFORCEMENT

TIDEWATER SERVICE STATION (FORMER) (Continued) **S113165995**

Date: 04/25/2011
Action: Technical Correspondence / Assistance / Other

Global Id: SL0603709506
Action Type: ENFORCEMENT
Date: 01/12/2011
Action: Technical Correspondence / Assistance / Other

Global Id: SL0603709506
Action Type: ENFORCEMENT
Date: 09/11/2013
Action: Referral to Regional Board

Global Id: SL0603709506
Action Type: ENFORCEMENT
Date: 01/25/2012
Action: Technical Correspondence / Assistance / Other

Global Id: SL0603709506
Action Type: ENFORCEMENT
Date: 05/13/2013
Action: Technical Correspondence / Assistance / Other

HAZNET:
envid: S113165995
Year: 1998
GEPAID: CAL920985439
Contact: KENNETH BLAKE
Telephone: 2139362102
Mailing Name: Not reported
Mailing Address: 5020 WILSHIRE BLVD
Mailing City,St,Zip: LOS ANGELES, CA 900364315
Gen County: Not reported
TSD EPA ID: CAT000613976
TSD County: Not reported
Waste Category: Photochemicals/photoprocessing waste
Disposal Method: Transfer Station
Tons: .0015
Cat Decode: Photochemicals/photoprocessing waste
Method Decode: Transfer Station
Facility County: Los Angeles

envid: S113165995
Year: 1997
GEPAID: CAL920985439
Contact: KENNETH BLAKE
Telephone: 2139362102
Mailing Name: Not reported
Mailing Address: 5020 WILSHIRE BLVD
Mailing City,St,Zip: LOS ANGELES, CA 900364315
Gen County: Not reported
TSD EPA ID: CAD981402522
TSD County: Not reported
Waste Category: Metal sludge (Alkaline solution (pH >= 12.5) with metals)
Disposal Method: Recycler
Tons: .0417

TIDEWATER SERVICE STATION (FORMER) (Continued) **S113165995**

Cat Decode: Metal sludge (Alkaline solution (pH >= 12.5) with metals)
Method Decode: Recycler
Facility County: Los Angeles

envid: S113165995
Year: 1997
GEPAID: CAL920985439
Contact: KENNETH BLAKE
Telephone: 2139362102
Mailing Name: Not reported
Mailing Address: 5020 WILSHIRE BLVD
Mailing City,St,Zip: LOS ANGELES, CA 900364315
Gen County: Not reported
TSD EPA ID: CAT000613976
TSD County: Not reported
Waste Category: Photochemicals/photoprocessing waste
Disposal Method: Transfer Station
Tons: .0085
Cat Decode: Photochemicals/photoprocessing waste
Method Decode: Transfer Station
Facility County: Los Angeles

envid: S113165995
Year: 1996
GEPAID: CAL920985439
Contact: KENNETH BLAKE
Telephone: 2139362102
Mailing Name: Not reported
Mailing Address: 5020 WILSHIRE BLVD
Mailing City,St,Zip: LOS ANGELES, CA 900364315
Gen County: Not reported
TSD EPA ID: CAD981402522
TSD County: Not reported
Waste Category: Metal sludge (Alkaline solution (pH >= 12.5) with metals)
Disposal Method: Recycler
Tons: .0417
Cat Decode: Metal sludge (Alkaline solution (pH >= 12.5) with metals)
Method Decode: Recycler
Facility County: Los Angeles

envid: S113165995
Year: 1995
GEPAID: CAL920985439
Contact: KENNETH BLAKE
Telephone: 2139362102
Mailing Name: Not reported
Mailing Address: 5020 WILSHIRE BLVD
Mailing City,St,Zip: LOS ANGELES, CA 900364315
Gen County: Not reported
TSD EPA ID: CAD981402522
TSD County: Not reported
Waste Category: Metal sludge (Alkaline solution (pH >= 12.5) with metals)
Disposal Method: Recycler
Tons: .0650
Cat Decode: Metal sludge (Alkaline solution (pH >= 12.5) with metals)
Method Decode: Recycler
Facility County: Los Angeles

TIDEWATER SERVICE STATION (FORMER) (Continued) **S113165995**

Click this hyperlink while viewing on your computer to access additional CA_HAZNET: detail in the EDR Site Report.

C14 **FROMEX CITRUS ONE HOUR PHOTO** **RCRA-SQG** **1000298887**
WSW **5020 WILSHIRE BLVD** **FINDS** **CAD982020489**
< 1/8 **LOS ANGELES, CA 90036** **ECHO**
0.108 mi.
569 ft. **Site 7 of 13 in cluster C**

Relative:
Lower

Actual:
197 ft.

RCRA-SQG:

Date form received by agency:	08/03/1987
Facility name:	FROMEX CITRUS ONE HOUR PHOTO
Facility address:	5020 WILSHIRE BLVD LOS ANGELES, CA 90036
EPA ID:	CAD982020489
Contact:	ENVIRONMENTAL MANAGER
Contact address:	5020 WILSHIRE BLVD LOS ANGELES, CA 90036
Contact country:	US
Contact telephone:	(213) 936-2102
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	JAMES KIMBAII
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No

FROMEX CITRUS ONE HOUR PHOTO (Continued) **1000298887**

On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Violation Status: No violations found

FINDS:

Registry ID: 110002778290

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

ECHO:

Envid:	1000298887
Registry ID:	110002778290
FIPS Code:	06037
EPA Region:	09
Indian Country Flag:	N
Federal Flag:	Not reported
US Mexico Border Flag:	N
Chesapeake Bay Flag:	Not reported
NAA Flag:	Y
Latitude:	34.0618
Longitude:	-118.33912
Map Icon:	RCRA-IC-MN-N.png
Collection Method:	ADDRESS MATCHING-HOUSE NUMBER
Reference Point:	CENTER OF A FACILITY OR STATION
Accuracy Meters:	30
Derived Tribes:	Not reported
Derived Huc:	18070104
Derived WBD:	Not reported
Derived STCT FPS:	06037
Derived Zip:	90036
Derived CD113:	37
Derived CB2010:	060372110005015
Percent Minority:	71.432
Pop Den:	18285.44
Major Flag:	Not reported
Active Flag:	Y
MYRTK Universe:	NNN
Inspection Count:	0
Date Last Inspection:	Not reported
Days Last Inspection:	Not reported
Informal Count:	0

FROMEX CITRUS ONE HOUR PHOTO (Continued) **1000298887**

Date Last Informal Action:	Not reported
Formal Action Count:	0
Date Last Formal Action:	Not reported
Total Penalties:	0
Penalty Count:	0
Date Last Penalty:	Not reported
Last Penalty Amount:	Not reported
QTRS in NC:	0
Programs in SNC:	0
Curr Compliance Status:	No Violation
Curr SNC Flag:	N
3yr Compliance Status:	_____
AFS Flag:	N
NPDES Flag:	N
SDWIS Flag:	N
RCRA Flag:	Y
TRI Flag:	N
GHG Flag:	N
AFS IDS:	Not reported
CAA Permit Types:	Not reported
CAA NAICS:	Not reported
CAA SICS:	Not reported
CAA Evaluation Count:	Not reported
CAA Days Last Evaluation:	Not reported
CAA Informal Count:	Not reported
CAA Formal Action Count:	Not reported
CAA Date Last Formal Action:	Not reported
CAA Penalties:	Not reported
CAA Last Penality Date:	Not reported
CAA Last Penality Amount:	Not reported
CAA Qtrs in NC:	Not reported
CAA Curr Compliance Status:	Not reported
CAA Curr HPV Flag:	N
CAA 3yr Compl Qtrs Status:	Not reported
NPDES IDS:	Not reported
CWA Permit Types:	Not reported
CWA Compliance Tracking:	Not reported
CWA NAICS:	Not reported
CWA SICS:	Not reported
CWA Inspection Count:	Not reported
CWA Days Last Inspection:	Not reported
CWA Informal Count:	Not reported
CWA Formal Action Count:	Not reported
CWA Date Last Formal Action:	Not reported
CWA Penalties:	Not reported
CWA Last Penality Date:	Not reported
CWA Last Penality Amount:	Not reported
CWA Qtrs in NC:	Not reported
CWA Curr Compliance Status:	Not reported
CWA Curr SNC Flag:	N
CWA 13QTRS Compl Status:	Not reported
CWA 13QTRS EFFLNT Exceedances:	Not reported
CWA 3tr QNCR Codes:	Not reported
RCRA IDS:	CAD982020489
RCRA Permit Types:	SQG
RCRA NAICS:	81292
RCRA Inspection Count:	Not reported

FROMEX CITRUS ONE HOUR PHOTO (Continued) **1000298887**

RCRA Days Last Evaluation:	Not reported
RCRA Informal Count:	Not reported
RCRA Formal Action Count:	Not reported
RCRA Date Last Formal Action:	Not reported
RCRA Penalties:	Not reported
RCRA Last Penality Date:	Not reported
RCRA Last Penality Amount:	Not reported
RCRA QTRS in NC:	0
RCRA Curr Compliance Status:	No Violation
RCRA Curr SNC Flag:	N
RCRA 3yr Compl Qtrs Status:	
SDWA IDS:	Not reported
SDWA System Types:	Not reported
SDWA Informal Count:	Not reported
SDWA Formal Action Count:	Not reported
SDWA Curr Compliance Status:	Not reported
SDWA Curr SNC Flag:	N
TRI IDS:	Not reported
TRI Releases Transfers:	Not reported
TRI on Site Releases:	Not reported
Tri off Site Transfers:	Not reported
TRI Reporter in Past:	Not reported
FEC Case IDS:	Not reported
FEC Number of Cases:	Not reported
FEC Last Case Date:	Not reported
FEC Total Penalties:	Not reported
GHG IDS:	Not reported
GHG CO2 Release:	Not reported
DFR URL:	http://echo.epa.gov/detailed_facility_report?fid=110002778290
Facility SIC Codes:	Not reported
Facility NAICS Codes:	81292
Facility Date Last Inspection EPA:	Not reported
Facility Date Last Inspection State:	Not reported
Facility Date Last Formal ACT EPA:	Not reported
Facility Date Last Formal ACT ST:	Not reported
Facility Date Last Inforamal ACT EPA:	Not reported
Facility Date Last Informal ACT ST:	Not reported
Facility Federal Agency:	Not reported
TRI Reporter:	Not reported
Facility IMP Water Flag:	Not reported

C15 **BARTEL H S** **EDR Hist Auto** **1009081298**
WSW **5020 WILSHIRE BLVD** **N/A**
< 1/8 **LOS ANGELES, CA**
0.108 mi.
569 ft. **Site 8 of 13 in cluster C**

Relative:
Lower

Actual:
197 ft.

EDR Historical Auto Stations:

Name:	BAR%TEL H S
Year:	1942
Type:	GASOLINE AND OIL SERVICE STATIONS

B16
ESE
< 1/8
0.112 mi.
594 ft.

4751 WILSHIRE BLVD
LOS ANGELES, CA 90010

Site 4 of 4 in cluster B

EDR Hist Auto **1015512550**
N/A

Relative:
Higher

Actual:
222 ft.

EDR Historical Auto Stations:

Name:	MIDWAY CAR RENTAL
Year:	2009
Address:	4751 WILSHIRE BLVD

C17
WSW
1/8-1/4
0.142 mi.
748 ft.

HIGHLAND EXPRESS CLEANERS
5034 WILSHIRE BOULEVARD
LOS ANGELES, CA 90036

Site 9 of 13 in cluster C

SLIC **S103967778**
EMI **N/A**

Relative:
Lower

Actual:
197 ft.

SLIC:

Region:	STATE
Facility Status:	**Completed - Case Closed**
Status Date:	08/16/2013
Global Id:	SLT410412836
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Lead Agency Case Number:	Not reported
Latitude:	34.061802
Longitude:	-118.339131
Case Type:	Cleanup Program Site
Case Worker:	COR
Local Agency:	Not reported
RB Case Number:	1041
File Location:	Regional Board
Potential Media Affected:	Soil, Soil Vapor
Potential Contaminants of Concern:	Tetrachloroethylene (PCE)
Site History:	The property is located on the southeastern corner of Citrus Avenue and Wilshire Boulevard in Los Angeles. The property was previously used as a gas station (Phillips Petroleum Company) from 1934 to 1979. The subject property is currently comprised of a two-story commercial building , which houses several different businesses including the dry cleaning store (5028 -5044 Wilshire Boulevard), and two one-story buildings, consisting of a Starbucks Coffee store (5020 Wilshire Boulevard) and a flower shop (5032 Wilshire Boulevard). In addition, based on the records obtained from the City of Los Angeles Building & Safety Department, the adjacent property at 5000 Wilshire Boulevard (7-11 Store) was a gas station (Union Oil Company) from 1941 to 1961.

Click here to access the California GeoTracker records for this facility:

SLIC REG 4:

Region:	4
Facility Status:	Site Assessment
SLIC:	1041
Substance:	PCE
Staff:	CO

EMI:

Year:	1987
County Code:	19
Air Basin:	SC
Facility ID:	38193

HIGHLAND EXPRESS CLEANERS (Continued) **S103967778**

Air District Name:	SC
SIC Code:	7216
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1990
County Code:	19
Air Basin:	SC
Facility ID:	38193
Air District Name:	SC
SIC Code:	7216
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	5
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

C18 **CARNATION COMPANY** **RCRA NonGen / NLR** **1000307611**
WSW **5045 WILSHIRE BLVD** **FINDS** **CAD981672108**
1/8-1/4 **LOS ANGELES, CA 90036** **ECHO**
0.143 mi.
756 ft. **Site 10 of 13 in cluster C**

Relative:
Lower

Actual:
197 ft.

RCRA NonGen / NLR:

Date form received by agency:	09/22/2008
Facility name:	CARNATION COMPANY
Facility address:	5045 WILSHIRE BLVD LOS ANGELES, CA 90036
EPA ID:	CAD981672108
Contact:	ASHLEY MCGOVERN
Contact address:	5045 WILSHIRE BLVD LOS ANGELES, CA 90036
Contact country:	US
Contact telephone:	323-857-6990
Telephone ext.:	206
Contact email:	ASHLEY.MCGOVERN@TRANSWESTERN.NET
EPA Region:	09
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	CARNATION COMPANY
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999

CARNATION COMPANY (Continued) **1000307611**

Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 05/01/1990
Site name: CARNATION COMPANY
Classification: Not a generator, verified

Violation Status: No violations found

FINDS:

Registry ID: 110002744834

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

ECHO:
Envid: 1000307611

CARNATION COMPANY (Continued) **1000307611**

Registry ID:	110002744834
FIPS Code:	06037
EPA Region:	09
Indian Country Flag:	N
Federal Flag:	Not reported
US Mexico Border Flag:	N
Chesapeake Bay Flag:	Not reported
NAA Flag:	Y
Latitude:	34.06212
Longitude:	-118.33931
Map Icon:	RCRA-IC-MN-N.png
Collection Method:	ADDRESS MATCHING-HOUSE NUMBER
Reference Point:	ENTRANCE POINT OF A FACILITY OR STATION
Accuracy Meters:	50
Derived Tribes:	Not reported
Derived Huc:	18070104
Derived WBD:	180701040200
Derived STCT FPS:	06037
Derived Zip:	90036
Derived CD113:	37
Derived CB2010:	060372110005015
Percent Minority:	71.147
Pop Den:	18238.55
Major Flag:	Not reported
Active Flag:	Not reported
MYRTK Universe:	NNN
Inspection Count:	0
Date Last Inspection:	Not reported
Days Last Inspection:	Not reported
Informal Count:	0
Date Last Informal Action:	Not reported
Formal Action Count:	0
Date Last Formal Action:	Not reported
Total Penalties:	0
Penalty Count:	0
Date Last Penalty:	Not reported
Last Penalty Amount:	Not reported
QTRS in NC:	0
Programs in SNC:	0
Curr Compliance Status:	No Violation
Curr SNC Flag:	N
3yr Compliance Status:	_____
AFS Flag:	N
NPDES Flag:	N
SDWIS Flag:	N
RCRA Flag:	Y
TRI Flag:	N
GHG Flag:	N
AFS IDS:	Not reported
CAA Permit Types:	Not reported
CAA NAICS:	Not reported
CAA SICS:	Not reported
CAA Evaluation Count:	Not reported
CAA Days Last Evaluation:	Not reported
CAA Informal Count:	Not reported
CAA Formal Action Count:	Not reported
CAA Date Last Formal Action:	Not reported

CARNATION COMPANY (Continued) **1000307611**

CAA Penalties:	Not reported
CAA Last Penality Date:	Not reported
CAA Last Penality Amount:	Not reported
CAA Qtrs in NC:	Not reported
CAA Curr Compliance Status:	Not reported
CAA Curr HPV Flag:	N
CAA 3yr Compl Qtrs Status:	Not reported
NPDES IDS:	Not reported
CWA Permit Types:	Not reported
CWA Compliance Tracking:	Not reported
CWA NAICS:	Not reported
CWA SICS:	Not reported
CWA Inspection Count:	Not reported
CWA Days Last Inspection:	Not reported
CWA Informal Count:	Not reported
CWA Formal Action Count:	Not reported
CWA Date Last Formal Action:	Not reported
CWA Penalties:	Not reported
CWA Last Penality Date:	Not reported
CWA Last Penality Amount:	Not reported
CWA Qtrs in NC:	Not reported
CWA Curr Compliance Status:	Not reported
CWA Curr SNC Flag:	N
CWA 13QTRS Compl Status:	Not reported
CWA 13QTRS EFFLNT Exceedances:	Not reported
CWA 3tr QNCR Codes:	Not reported
RCRA IDS:	CAD981672108
RCRA Permit Types:	Other
RCRA NAICS:	311514
RCRA Inspection Count:	Not reported
RCRA Days Last Evaluation:	Not reported
RCRA Informal Count:	Not reported
RCRA Formal Action Count:	Not reported
RCRA Date Last Formal Action:	Not reported
RCRA Penalties:	Not reported
RCRA Last Penality Date:	Not reported
RCRA Last Penality Amount:	Not reported
RCRA QTRS in NC:	0
RCRA Curr Compliance Status:	No Violation
RCRA Curr SNC Flag:	N
RCRA 3yr Compl Qtrs Status:	_____
SDWA IDS:	Not reported
SDWA System Types:	Not reported
SDWA Informal Count:	Not reported
SDWA Formal Action Count:	Not reported
SDWA Curr Compliance Status:	Not reported
SDWA Curr SNC Flag:	N
TRI IDS:	Not reported
TRI Releases Transfers:	Not reported
TRI on Site Releases:	Not reported
Tri off Site Transfers:	Not reported
TRI Reporter in Past:	Not reported
FEC Case IDS:	Not reported
FEC Number of Cases:	Not reported
FEC Last Case Date:	Not reported
FEC Total Penalties:	Not reported
GHG IDS:	Not reported

CARNATION COMPANY (Continued) **1000307611**

GHG CO2 Release:	Not reported
DFR URL:	http://echo.epa.gov/detailed_facility_report?fid=110002744834
Facility SIC Codes:	Not reported
Facility NAICS Codes:	311514
Facility Date Last Inspection EPA:	Not reported
Facility Date Last Inspection State:	Not reported
Facility Date Last Formal ACT EPA:	Not reported
Facility Date Last Formal ACT ST:	Not reported
Facility Date Last Inforamal ACT EPA:	Not reported
Facility Date Last Informal ACT ST:	Not reported
Facility Federal Agency:	Not reported
TRI Reporter:	Not reported
Facility IMP Water Flag:	Not reported

C19 **LIFE LINE MOBILE MOBILE SCREENING** **CUPA Listings** **S111456011**
WSW **5042 WILSHIRE BLVD # 14249** **N/A**
1/8-1/4 **LOS ANGELES, CA 90036**
0.147 mi.
776 ft. **Site 11 of 13 in cluster C**

Relative:
Lower

Actual:
197 ft.

CUPA EL DORADO:

PE:	LIMITED QUANTITY HAULING EXEMPTION
Status:	Inactive, non-billable
Latitude:	Not reported
Longitude:	Not reported

C20 **AST** **A100345205**
WSW **5055 WILSHIRE BLVD** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.151 mi.
799 ft. **Site 12 of 13 in cluster C**

Relative:
Lower

Actual:
198 ft.

AST:

Certified Unified Program Agencies:	City of Los Angeles
Owner:	MCI WORLDCOM
Total Gallons:	2,200

C21 **LOU EHLERS CADILLAC (FORMER)** **LUST** **S109517604**
WSW **5050-5070 WILSHIRE BLVD** **N/A**
1/8-1/4 **LOS ANGELES, CA 90036**
0.154 mi.
813 ft. **Site 13 of 13 in cluster C**

Relative:
Lower

Actual:
197 ft.

LUST:

Region:	STATE
Global Id:	T10000000665
Latitude:	34.061681
Longitude:	-118.340325
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	12/21/2009
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	DPP
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	900360298

LOU EHLERS CADILLAC (FORMER) (Continued) **S109517604**

LOC Case Number: 37057
File Location: Regional Board
Potential Media Affect: Soil
Potential Contaminants of Concern: Waste Oil / Motor / Hydraulic / Lubricating
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:
Global Id: T10000000665
Contact Type: Local Agency Caseworker
Contact Name: ELOY LUNA
Organization Name: LOS ANGELES, CITY OF
Address: 200 North Main Street, Suite 1780
City: LOS ANGELES
Email: eloy.luna@lacity.org
Phone Number: Not reported

Global Id: T10000000665
Contact Type: Regional Board Caseworker
Contact Name: DANIEL PIROTTON
Organization Name: LOS ANGELES RWQCB (REGION 4)
Address: Not reported
City: R4 UNKNOWN
Email: dpirotton@waterboards.ca.gov
Phone Number: 2135766714

Status History:
Global Id: T10000000665
Status: Completed - Case Closed
Status Date: 12/21/2009

Global Id: T10000000665
Status: Open - Case Begin Date
Status Date: 10/15/2008

Global Id: T10000000665
Status: Open - Referred
Status Date: 12/10/2008

Regulatory Activities:
Global Id: T10000000665
Action Type: Other
Date: 10/22/2008
Action: Leak Stopped

Global Id: T10000000665
Action Type: RESPONSE
Date: 02/16/2009
Action: Other Report / Document

Global Id: T10000000665
Action Type: ENFORCEMENT
Date: 01/13/2009
Action: Staff Letter

Global Id: T10000000665

LOU EHLERS CADILLAC (FORMER) (Continued) **S109517604**

Action Type:	ENFORCEMENT
Date:	12/21/2009
Action:	Closure/No Further Action Letter
Global Id:	T10000000665
Action Type:	ENFORCEMENT
Date:	12/03/2009
Action:	Notification - Preclosure
Global Id:	T10000000665
Action Type:	Other
Date:	10/15/2008
Action:	Leak Discovery

D22 **LOU EHLERS CADILLAC** **UST** **U003781514**
West **5151 CARLING WA** **N/A**
1/8-1/4 **LOS ANGELES, CA 90036**
0.215 mi.
1134 ft. **Site 1 of 6 in cluster D**

Relative:
Lower

Actual:
202 ft.

UST:

Facility ID:	25240
Permitting Agency:	LOS ANGELES, CITY OF
Latitude:	34.0679
Longitude:	-118.35282

D23 **EVERBEST BUSINESS MACHINES** **RCRA-SQG** **1000354182**
WSW **5104 WILSHIRE BLVD** **FINDS** **CAD982369209**
1/8-1/4 **LOS ANGELES, CA 90036** **ECHO**
0.218 mi.
1152 ft. **Site 2 of 6 in cluster D**

Relative:
Lower

Actual:
199 ft.

RCRA-SQG:

Date form received by agency:	04/11/1988
Facility name:	EVERBEST BUSINESS MACHINES
Facility address:	5104 WILSHIRE BLVD LOS ANGELES, CA 90036
EPA ID:	CAD982369209
Mailing address:	WILSHIRE BLVD LOS ANGELES, CA 90036
Contact:	ENVIRONMENTAL MANAGER
Contact address:	5104 WILSHIRE BLVD LOS ANGELES, CA 90036
Contact country:	US
Contact telephone:	(213) 933-9557
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

EVERBEST BUSINESS MACHINES (Continued) **1000354182**

Owner/Operator Summary:

Owner/operator name:	ALBERT CAVALIER
Owner/operator address:	NOT REQUIRED
	NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED
	NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Violation Status: No violations found

FINDS:

Registry ID: 110002801941

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

ECHO:

Envid:	1000354182
Registry ID:	110002801941

EVERBEST BUSINESS MACHINES (Continued) **1000354182**

FIPS Code:	06037
EPA Region:	09
Indian Country Flag:	N
Federal Flag:	Not reported
US Mexico Border Flag:	N
Chesapeake Bay Flag:	Not reported
NAA Flag:	Y
Latitude:	34.062143
Longitude:	-118.340803
Map Icon:	RCRA-IC-MN-N.png
Collection Method:	ADDRESS MATCHING-HOUSE NUMBER
Reference Point:	ENTRANCE POINT OF A FACILITY OR STATION
Accuracy Meters:	50
Derived Tribes:	Not reported
Derived Huc:	18070104
Derived WBD:	180701040200
Derived STCT FPS:	06037
Derived Zip:	90036
Derived CD113:	37
Derived CB2010:	060372110006014
Percent Minority:	70.189
Pop Den:	18009.36
Major Flag:	Not reported
Active Flag:	Y
MYRTK Universe:	NNN
Inspection Count:	0
Date Last Inspection:	Not reported
Days Last Inspection:	Not reported
Informal Count:	0
Date Last Informal Action:	Not reported
Formal Action Count:	0
Date Last Formal Action:	Not reported
Total Penalties:	0
Penalty Count:	0
Date Last Penalty:	Not reported
Last Penalty Amount:	Not reported
QTRS in NC:	0
Programs in SNC:	0
Curr Compliance Status:	No Violation
Curr SNC Flag:	N
3yr Compliance Status:	_____
AFS Flag:	N
NPDES Flag:	N
SDWIS Flag:	N
RCRA Flag:	Y
TRI Flag:	N
GHG Flag:	N
AFS IDS:	Not reported
CAA Permit Types:	Not reported
CAA NAICS:	Not reported
CAA SICS:	Not reported
CAA Evaluation Count:	Not reported
CAA Days Last Evaluation:	Not reported
CAA Informal Count:	Not reported
CAA Formal Action Count:	Not reported
CAA Date Last Formal Action:	Not reported
CAA Penalties:	Not reported

EVERBEST BUSINESS MACHINES (Continued) **1000354182**

CAA Last Penality Date:	Not reported
CAA Last Penality Amount:	Not reported
CAA Qtrs in NC:	Not reported
CAA Curr Compliance Status:	Not reported
CAA Curr HPV Flag:	N
CAA 3yr Compl Qtrs Status:	Not reported
NPDES IDS:	Not reported
CWA Permit Types:	Not reported
CWA Compliance Tracking:	Not reported
CWA NAICS:	Not reported
CWA SICS:	Not reported
CWA Inspection Count:	Not reported
CWA Days Last Inspection:	Not reported
CWA Informal Count:	Not reported
CWA Formal Action Count:	Not reported
CWA Date Last Formal Action:	Not reported
CWA Penalties:	Not reported
CWA Last Penality Date:	Not reported
CWA Last Penality Amount:	Not reported
CWA Qtrs in NC:	Not reported
CWA Curr Compliance Status:	Not reported
CWA Curr SNC Flag:	N
CWA 13QTRS Compl Status:	Not reported
CWA 13QTRS EFFLNT Exceedances:	Not reported
CWA 3tr QNCR Codes:	Not reported
RCRA IDS:	CAD982369209
RCRA Permit Types:	SQG
RCRA NAICS:	Not reported
RCRA Inspection Count:	Not reported
RCRA Days Last Evaluation:	Not reported
RCRA Informal Count:	Not reported
RCRA Formal Action Count:	Not reported
RCRA Date Last Formal Action:	Not reported
RCRA Penalties:	Not reported
RCRA Last Penality Date:	Not reported
RCRA Last Penality Amount:	Not reported
RCRA QTRS in NC:	0
RCRA Curr Compliance Status:	No Violation
RCRA Curr SNC Flag:	N
RCRA 3yr Compl Qtrs Status:	
SDWA IDS:	Not reported
SDWA System Types:	Not reported
SDWA Informal Count:	Not reported
SDWA Formal Action Count:	Not reported
SDWA Curr Compliance Status:	Not reported
SDWA Curr SNC Flag:	N
TRI IDS:	Not reported
TRI Releases Transfers:	Not reported
TRI on Site Releases:	Not reported
Tri off Site Transfers:	Not reported
TRI Reporter in Past:	Not reported
FEC Case IDS:	Not reported
FEC Number of Cases:	Not reported
FEC Last Case Date:	Not reported
FEC Total Penalties:	Not reported
GHG IDS:	Not reported
GHG CO2 Release:	Not reported

EVERBEST BUSINESS MACHINES (Continued) **1000354182**

DFR URL:	http://echo.epa.gov/detailed_facility_report?fid=110002801941
Facility SIC Codes:	Not reported
Facility NAICS Codes:	Not reported
Facility Date Last Inspection EPA:	Not reported
Facility Date Last Inspection State:	Not reported
Facility Date Last Formal ACT EPA:	Not reported
Facility Date Last Formal ACT ST:	Not reported
Facility Date Last Inforamal ACT EPA:	Not reported
Facility Date Last Informal ACT ST:	Not reported
Facility Federal Agency:	Not reported
TRI Reporter:	Not reported
Facility IMP Water Flag:	Not reported

D24 **CARNATION OFFICE (FORMER)** **LUST** **S102426363**
WSW **5115 WILSHIRE BLVD** **N/A**
1/8-1/4 **PARK LA BREA, CA 90036**
0.231 mi.
1221 ft. **Site 3 of 6 in cluster D**

Relative:
Lower

Actual:
201 ft.

LUST REG 4:

Region:	4	
Regional Board:	04	
County:	Los Angeles	
Facility Id:	900360161	
Status:	Case Closed	
Substance:	Hydrocarbons	
Substance Quantity:	Not reported	
Local Case No:	Not reported	
Case Type:	Groundwater	
Abatement Method Used at the Site:		Not reported
Global ID:	T0603700897	
W Global ID:	Not reported	
Staff:	UNK	
Local Agency:	19050	
Cross Street:	Not reported	
Enforcement Type:	Not reported	
Date Leak Discovered:	Not reported	
Date Leak First Reported:		1/27/1992
Date Leak Record Entered:	2/6/1992	
Date Confirmation Began:	Not reported	
Date Leak Stopped:	Not reported	
Date Case Last Changed on Database:		2/18/1992
Date the Case was Closed:		7/31/1996
How Leak Discovered:	Not reported	
How Leak Stopped:	Not reported	
Cause of Leak:	UNK	
Leak Source:	UNK	
Operator:	OLD#021892-04	
Water System:	Not reported	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		8680.018865928827214738490638
Source of Cleanup Funding:		UNK
Preliminary Site Assessment Workplan Submitted:		Not reported
Preliminary Site Assessment Began:		1/27/1992
Pollution Characterization Began:		Not reported
Remediation Plan Submitted:		Not reported
Remedial Action Underway:		Not reported
Post Remedial Action Monitoring Began:		Not reported

CARNATION OFFICE (FORMER) (Continued) **S102426363**

Enforcement Action Date:	Not reported
Historical Max MTBE Date:	Not reported
Hist Max MTBE Conc in Groundwater:	Not reported
Hist Max MTBE Conc in Soil:	Not reported
Significant Interim Remedial Action Taken:	Not reported
GW Qualifier:	Not reported
Soil Qualifier:	Not reported
Organization:	Not reported
Owner Contact:	Not reported
Responsible Party:	BUILDING MANAGER
RP Address:	5115 WILSHIRE BLVD., LOS ANGELES CA 90036
Program:	LUST
Lat/Long:	34.0622255 / -1
Local Agency Staff:	PEJ
Beneficial Use:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Suspended:	Not reported
Assigned Name:	Not reported
Summary:	Not reported

D25 **AVALON WILSHIRE** **RCRA-LQG 1008372190**
WSW **5115 WILSHIRE BLVD** **HAZNET CAR000164145**
1/8-1/4 **LOS ANGELES, CA 90036**
0.231 mi.
1221 ft. **Site 4 of 6 in cluster D**

Relative:
Lower

Actual:
201 ft.

RCRA-LQG:

Date form received by agency:	07/20/2005
Facility name:	AVALON WILSHIRE
Facility address:	5115 WILSHIRE BLVD LOS ANGELES, CA 90036
EPA ID:	CAR000164145
Mailing address:	4440 VON KARMAN AVENUE SUITE 300 NEWPORT BEACH, CA 92660
Contact:	BRAD TEETERS
Contact address:	4440 VON KARMAN AVENUE SUITE 300 NEWPORT BEACH, CA 92660
Contact country:	US
Contact telephone:	949-955-6227
Contact email:	Not reported
EPA Region:	09
Classification:	Large Quantity Generator
Description:	Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

AVALON WILSHIRE (Continued) **1008372190**

Owner/Operator Summary:
Owner/operator name: AVALON BAY COMMUNITIES INC
Owner/operator address: 4440 VON KARMAN AVENUE SUITE 300
NEWPORT BEACH, CA 92660
Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 01/01/2005
Owner/Op end date: Not reported

Owner/operator name: AVALON BAY COMMUNITIES INC
Owner/operator address: Not reported
Not reported
Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 01/01/2005
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D003
. Waste name: REACTIVE WASTE

Violation Status: No violations found

HAZNET:
envid: 1008372190
Year: 2006
GEPAID: CAR000164145
Contact: PHIL SILVER / PROJECT MGR
Telephone: 8187842800
Mailing Name: Not reported
Mailing Address: 4440 VON KARMAN AVENUE SUITE 300
Mailing City,St,Zip: NEWPORT BEACH, CA 926600000
Gen County: Not reported
TSD EPA ID: CAD008488025

AVALON WILSHIRE (Continued) **1008372190**

TSD County: Not reported
Waste Category: Alkaline solution without metals pH >= 12.5
Disposal Method: Recycler
Tons: 7.5
Cat Decode: Alkaline solution without metals pH >= 12.5
Method Decode: Recycler
Facility County: Los Angeles

envid: 1008372190
Year: 2006
GEPAID: CAR000164145
Contact: PHIL SILVER / PROJECT MGR
Telephone: 8187842800
Mailing Name: Not reported
Mailing Address: 4440 VON KARMAN AVENUE SUITE 300
Mailing City,St,Zip: NEWPORT BEACH, CA 926600000
Gen County: Not reported
TSD EPA ID: CAD008488025
TSD County: Not reported
Waste Category: Alkaline solution without metals pH >= 12.5
Disposal Method: Recycler
Tons: 8.48
Cat Decode: Alkaline solution without metals pH >= 12.5
Method Decode: Recycler
Facility County: Los Angeles

envid: 1008372190
Year: 2006
GEPAID: CAR000164145
Contact: PHIL SILVER / PROJECT MGR
Telephone: 8187842800
Mailing Name: Not reported
Mailing Address: 4440 VON KARMAN AVENUE SUITE 300
Mailing City,St,Zip: NEWPORT BEACH, CA 926600000
Gen County: Not reported
TSD EPA ID: CAD008488025
TSD County: Not reported
Waste Category: Alkaline solution without metals pH >= 12.5
Disposal Method: Recycler
Tons: 8.25
Cat Decode: Alkaline solution without metals pH >= 12.5
Method Decode: Recycler
Facility County: Los Angeles

envid: 1008372190
Year: 2005
GEPAID: CAR000164145
Contact: BRAD TEETERS
Telephone: 9499556227
Mailing Name: Not reported
Mailing Address: 4440 VON KARMAN AVENUE SUITE 300
Mailing City,St,Zip: NEWPORT BEACH, CA 926600000
Gen County: Not reported
TSD EPA ID: CAD008488025
TSD County: Not reported
Waste Category: Alkaline solution without metals pH >= 12.5
Disposal Method: Recycler

AVALON WILSHIRE (Continued) **1008372190**

Tons: 19.95
Cat Decode: Alkaline solution without metals pH >= 12.5
Method Decode: Recycler
Facility County: Los Angeles

D26 **UNK** **SWEEPS UST** **S101583322**
WSW **5115 WILSHIRE BLVD** **CA FID UST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90016**
0.231 mi.
1221 ft. **Site 5 of 6 in cluster D**

Relative:
Lower

Actual:
201 ft.

SWEEPS UST:
Status: Not reported
Comp Number: 7848
Number: Not reported
Board Of Equalization: Not reported
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: Not reported
Tank Status: Not reported
Capacity: Not reported
Active Date: Not reported
Tank Use: Not reported
STG: Not reported
Content: Not reported
Number Of Tanks: Not reported

CA FID UST:
Facility ID: 19003390
Regulated By: UTNKI
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 2130000000
Mail To: Not reported
Mailing Address: UNK
Mailing Address 2: Not reported
Mailing City,St,Zip: LOS ANGELES 900160000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Inactive

D27 **CARNATION OFFICE (FORMER)** **LUST** **S105024722**
WSW **5115 WILSHIRE BLVD** **HIST CORTESE** **N/A**
1/8-1/4 **PARK LA BREA, CA 90036**
0.231 mi.
1221 ft. **Site 6 of 6 in cluster D**

Relative:
Lower

Actual:
201 ft.

LUST:

Region:	STATE
Global Id:	T0603700897
Latitude:	34.0622255
Longitude:	-118.341047
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	07/31/1996
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	YR
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	900360161
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Other Solvent or Non-Petroleum Hydrocarbon
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603700897
Contact Type:	Regional Board Caseworker
Contact Name:	YUE RONG
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 W. 4TH ST., SUITE 200
City:	Los Angeles
Email:	yrong@waterboards.ca.gov
Phone Number:	Not reported

Global Id:	T0603700897
Contact Type:	Local Agency Caseworker
Contact Name:	ELOY LUNA
Organization Name:	LOS ANGELES, CITY OF
Address:	200 North Main Street, Suite 1780
City:	LOS ANGELES
Email:	eloy.luna@lacity.org
Phone Number:	Not reported

Status History:

Global Id:	T0603700897
Status:	Completed - Case Closed
Status Date:	07/31/1996

Global Id:	T0603700897
Status:	Open - Case Begin Date
Status Date:	01/27/1992

Global Id:	T0603700897
Status:	Open - Site Assessment
Status Date:	01/27/1992

CARNATION OFFICE (FORMER) (Continued) **S105024722**

Regulatory Activities:
- Global Id: T0603700897
- Action Type: Other
- Date: 01/27/1992
- Action: Leak Reported

HIST CORTESE:
- Region: CORTESE
- Facility County Code: 19
- Reg By: LTNKA
- Reg Id: 900360161

E28 **LOU EHLERS CADILLAC** **LUST** **S111760331**
WSW **5151 WILSHIRE BLVD** **N/A**
1/4-1/2 **PARK LA BREA, CA 90036**
0.276 mi.
1457 ft. **Site 1 of 3 in cluster E**

Relative:
Lower

Actual:
201 ft.

LUST:
- Region: STATE
- Global Id: T0603700882
- Latitude: 34.0622415
- Longitude: -118.341885
- Case Type: LUST Cleanup Site
- Status: Completed - Case Closed
- Status Date: 08/22/1996
- Lead Agency: LOS ANGELES RWQCB (REGION 4)
- Case Worker: YR
- Local Agency: LOS ANGELES, CITY OF
- RB Case Number: 900360016
- LOC Case Number: Not reported
- File Location: Not reported
- Potential Media Affect: Aquifer used for drinking water supply
- Potential Contaminants of Concern: Gasoline
- Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:
- Global Id: T0603700882
- Contact Type: Regional Board Caseworker
- Contact Name: YUE RONG
- Organization Name: LOS ANGELES RWQCB (REGION 4)
- Address: 320 W. 4TH ST., SUITE 200
- City: Los Angeles
- Email: yrong@waterboards.ca.gov
- Phone Number: Not reported

- Global Id: T0603700882
- Contact Type: Local Agency Caseworker
- Contact Name: ELOY LUNA
- Organization Name: LOS ANGELES, CITY OF
- Address: 200 North Main Street, Suite 1780
- City: LOS ANGELES
- Email: eloy.luna@lacity.org
- Phone Number: Not reported

LOU EHLERS CADILLAC (Continued) **S111760331**

Status History:

Global Id:	T0603700882
Status:	Completed - Case Closed
Status Date:	08/22/1996
Global Id:	T0603700882
Status:	Open - Case Begin Date
Status Date:	07/10/1987
Global Id:	T0603700882
Status:	Open - Remediation
Status Date:	01/29/1988
Global Id:	T0603700882
Status:	Open - Remediation
Status Date:	04/20/1989
Global Id:	T0603700882
Status:	Open - Site Assessment
Status Date:	07/10/1987
Global Id:	T0603700882
Status:	Open - Site Assessment
Status Date:	01/05/1988
Global Id:	T0603700882
Status:	Open - Verification Monitoring
Status Date:	02/20/1990

Regulatory Activities:

Global Id:	T0603700882
Action Type:	Other
Date:	01/01/1988
Action:	Leak Reported

E29 **LOU EHLERS CADILLAC** **LUST** **S111760470**
WSW **5151 WILSHIRE BOULEVARD** **N/A**
1/4-1/2 **LOS ANGELES, CA 90036**
0.276 mi.
1457 ft. **Site 2 of 3 in cluster E**

Relative:
Lower

Actual:
201 ft.

LUST:

Region:	STATE
Global Id:	T10000000685
Latitude:	34.0639322
Longitude:	-118.3705745
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	02/20/2013
Lead Agency:	LOS ANGELES, CITY OF
Case Worker:	EL
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	Not reported
LOC Case Number:	25973
File Location:	Not reported
Potential Media Affect:	Not reported

LOU EHLERS CADILLAC (Continued) **S111760470**

Potential Contaminants of Concern: Not reported
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:
Global Id: T10000000685
Contact Type: Local Agency Caseworker
Contact Name: ELOY LUNA
Organization Name: LOS ANGELES, CITY OF
Address: 200 North Main Street, Suite 1780
City: LOS ANGELES
Email: eloy.luna@lacity.org
Phone Number: Not reported

Status History:
Global Id: T10000000685
Status: Completed - Case Closed
Status Date: 02/20/2013

Global Id: T10000000685
Status: Open - Assessment & Interim Remedial Action
Status Date: 01/13/2009

Global Id: T10000000685
Status: Open - Case Begin Date
Status Date: 09/04/2008

Regulatory Activities:
Global Id: T10000000685
Action Type: Other
Date: 09/04/2008
Action: Leak Stopped

Global Id: T10000000685
Action Type: ENFORCEMENT
Date: 05/29/2009
Action: Closure/No Further Action Letter - #1

Global Id: T10000000685
Action Type: Other
Date: 09/04/2008
Action: Leak Reported

Global Id: T10000000685
Action Type: Other
Date: 09/04/2008
Action: Leak Discovery

E30
WSW
1/4-1/2
0.276 mi.
1457 ft.

Relative:
Lower

Actual:
201 ft.

LOU EHLERS CADILLAC
5151 WILSHIRE BLVD
LOS ANGELES, CA 90036

Site 3 of 3 in cluster E

Database(s): RCRA-SQG, LUST, SWEEPS UST, CA FID UST, FINDS, EMI, HAZNET, HIST CORTESE, ECHO

EDR ID Number: 1000111719
EPA ID Number: CAD981462690

RCRA-SQG:

Date form received by agency:	08/14/2007
Facility name:	LOU EHLERS CADILLAC
Facility address:	5151 WILSHIRE BLVD LOS ANGELES, CA 90036
EPA ID:	CAD981462690
Contact:	RICK DAGRACA
Contact address:	5151 WILSHIRE BLVD LOS ANGELES, CA 90036
Contact country:	US
Contact telephone:	800-720-3078
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	SONIC AUTOMOTIVE INC
Owner/operator address:	Not reported Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	06/30/2006
Owner/Op end date:	Not reported

Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	SONIC AUTOMOTIVE INC
Owner/operator address:	6415 IDLEWILD RD CHARLOTTE, NC 28212
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	06/30/2006

LOU EHLERS CADILLAC (Continued) **1000111719**

Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D001
. Waste name: IGNITABLE WASTE

Historical Generators:
Date form received by agency: 09/01/1996
Site name: LOU EHLERS CADILLAC DBA
Classification: Large Quantity Generator

Date form received by agency: 09/01/1996
Site name: LOU EHLERS CADILLAC DBA
Classification: Small Quantity Generator

Date form received by agency: 08/03/1994
Site name: LOU EHLERS CADILLAC DBA
Classification: Small Quantity Generator

Violation Status: No violations found

LUST REG 4:
Region: 4
Regional Board: 04
County: Los Angeles
Facility Id: 900360016
Status: Case Closed
Substance: Gasoline
Substance Quantity: Not reported
Local Case No: Not reported
Case Type: Groundwater
Abatement Method Used at the Site: Remove Free Product
Global ID: T0603700882
W Global ID: Not reported
Staff: UNK
Local Agency: 19050
Cross Street: ORANGE
Enforcement Type: Not reported
Date Leak Discovered: Not reported
Date Leak First Reported: 1/1/1988
Date Leak Record Entered: 1/5/1988

LOU EHLERS CADILLAC (Continued) **1000111719**

Date Confirmation Began:	Not reported	
Date Leak Stopped:	Not reported	
Date Case Last Changed on Database:	11/7/1996	
Date the Case was Closed:	8/22/1996	
How Leak Discovered:	Not reported	
How Leak Stopped:	Not reported	
Cause of Leak:	Not reported	
Leak Source:	Tank	
Operator:	EHLERS, LOU	
Water System:	Not reported	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):	8560.185432225714662738754312	
Source of Cleanup Funding:	Tank	
Preliminary Site Assessment Workplan Submitted:	7/10/1987	
Preliminary Site Assessment Began:	Not reported	
Pollution Characterization Began:	1/5/1988	
Remediation Plan Submitted:	1/29/1988	
Remedial Action Underway:	4/20/1989	
Post Remedial Action Monitoring Began:	2/20/1990	
Enforcement Action Date:	Not reported	
Historical Max MTBE Date:	Not reported	
Hist Max MTBE Conc in Groundwater:	Not reported	
Hist Max MTBE Conc in Soil:	Not reported	
Significant Interim Remedial Action Taken:	Yes	
GW Qualifier:	Not reported	
Soil Qualifier:	Not reported	
Organization:	Not reported	
Owner Contact:	Not reported	
Responsible Party:	LOU EHLERS CADILLAC	
RP Address:	5151 WILSHIRE BLVD, LOS ANGELES, CA 90036	
Program:	LUST	
Lat/Long:	34.0622415 / -1	
Local Agency Staff:	PEJ	
Beneficial Use:	Not reported	
Priority:	Not reported	
Cleanup Fund Id:	Not reported	
Suspended:	Not reported	
Assigned Name:	Not reported	
Summary:	ADDITIONAL SAP IN PROGRESS. WELL ABANDONMENT REPORT	11/07/96 -

SWEEPS UST:

Status:	Active
Comp Number:	5678
Number:	1
Board Of Equalization:	Not reported
Referral Date:	02-25-93
Action Date:	02-25-93
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	Not reported
Tank Status:	Not reported
Capacity:	Not reported
Active Date:	Not reported
Tank Use:	Not reported
STG:	Not reported
Content:	Not reported

LOU EHLERS CADILLAC (Continued) **1000111719**

Number Of Tanks: Not reported

CA FID UST:
Facility ID: 19056108
Regulated By: UTNKA
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 2130000000
Mail To: Not reported
Mailing Address: 5151 CARLING WAY
Mailing Address 2: Not reported
Mailing City,St,Zip: LOS ANGELES 900360000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

Facility ID: 19001487
Regulated By: UTNKI
Regulated ID: 00000415
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 2139311871
Mail To: Not reported
Mailing Address: 5151 WILSHIRE BLVD
Mailing Address 2: Not reported
Mailing City,St,Zip: LOS ANGELES 900360000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Inactive

FINDS:

Registry ID: 110002715857

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZARDOUS AIR POLLUTANT MAJOR

EMI:
Year: 1987

LOU EHLERS CADILLAC (Continued) **1000111719**

County Code:	19
Air Basin:	SC
Facility ID:	20997
Air District Name:	SC
SIC Code:	5511
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	7
Reactive Organic Gases Tons/Yr:	7
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1990
County Code:	19
Air Basin:	SC
Facility ID:	20997
Air District Name:	SC
SIC Code:	5511
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	12
Reactive Organic Gases Tons/Yr:	10
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1995
County Code:	19
Air Basin:	SC
Facility ID:	20997
Air District Name:	SC
SIC Code:	5511
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	5
Reactive Organic Gases Tons/Yr:	5
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

HAZNET:

envid:	1000111719
Year:	2008
GEPAID:	CAD981462690
Contact:	ROBERT SANDERS
Telephone:	7045666751
Mailing Name:	Not reported

LOU EHLERS CADILLAC (Continued) **1000111719**

Mailing Address: 6425 IDLEWILD RD
Mailing City,St,Zip: CHARLOTTE, NC 28212
Gen County: Not reported
TSD EPA ID: CAD981696420
TSD County: Not reported
Waste Category: Unspecified aqueous solution
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 6.51
Cat Decode: Unspecified aqueous solution
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: Los Angeles

envid: 1000111719
Year: 2008
GEPAID: CAD981462690
Contact: ROBERT SANDERS
Telephone: 7045666751
Mailing Name: Not reported
Mailing Address: 6425 IDLEWILD RD
Mailing City,St,Zip: CHARLOTTE, NC 28212
Gen County: Not reported
TSD EPA ID: CAD982444481
TSD County: Not reported
Waste Category: Contaminated soil from site clean-up
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 53.95
Cat Decode: Contaminated soil from site clean-up
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: Los Angeles

envid: 1000111719
Year: 2008
GEPAID: CAD981462690
Contact: ROBERT SANDERS
Telephone: 7045666751
Mailing Name: Not reported
Mailing Address: 6425 IDLEWILD RD
Mailing City,St,Zip: CHARLOTTE, NC 28212
Gen County: Not reported
TSD EPA ID: CAD982444481
TSD County: Not reported
Waste Category: Other organic solids
Disposal Method: Other Treatment
Tons: 50.568
Cat Decode: Other organic solids
Method Decode: Other Treatment
Facility County: Los Angeles

envid: 1000111719
Year: 2008
GEPAID: CAD981462690
Contact: ROBERT SANDERS
Telephone: 7045666751
Mailing Name: Not reported
Mailing Address: 6425 IDLEWILD RD

LOU EHLERS CADILLAC (Continued) **1000111719**

Mailing City,St,Zip:	CHARLOTTE, NC 28212
Gen County:	Not reported
TSD EPA ID:	CAD982444481
TSD County:	Not reported
Waste Category:	Unspecified oil-containing waste
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.4587
Cat Decode:	Unspecified oil-containing waste
Method Decode:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	Los Angeles

envid:	1000111719
Year:	2008
GEPAID:	CAD981462690
Contact:	ROBERT SANDERS
Telephone:	7045666751
Mailing Name:	Not reported
Mailing Address:	6425 IDLEWILD RD
Mailing City,St,Zip:	CHARLOTTE, NC 28212
Gen County:	Not reported
TSD EPA ID:	CAD982444481
TSD County:	Not reported
Waste Category:	Other organic solids
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	25.284
Cat Decode:	Other organic solids
Method Decode:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	Los Angeles

Click this hyperlink while viewing on your computer to access
62 additional CA_HAZNET: record(s) in the EDR Site Report.

HIST CORTESE:

Region:	CORTESE
Facility County Code:	19
Reg By:	LTNKA
Reg Id:	900360016

ECHO:

Envid:	1000111719
Registry ID:	110002715857
FIPS Code:	06037
EPA Region:	09
Indian Country Flag:	N
Federal Flag:	Not reported
US Mexico Border Flag:	N
Chesapeake Bay Flag:	Not reported
NAA Flag:	Y
Latitude:	34.06256
Longitude:	-118.34238
Map Icon:	RCRA-IC-MN-N.png
Collection Method:	ADDRESS MATCHING-HOUSE NUMBER
Reference Point:	CENTER OF A FACILITY OR STATION
Accuracy Meters:	30

LOU EHLERS CADILLAC (Continued) **1000111719**

Derived Tribes:	Not reported
Derived Huc:	18070104
Derived WBD:	Not reported
Derived STCT FPS:	06037
Derived Zip:	90036
Derived CD113:	37
Derived CB2010:	060372110006010
Percent Minority:	68.917
Pop Den:	17860.83
Major Flag:	Not reported
Active Flag:	Y
MYRTK Universe:	NNN
Inspection Count:	0
Date Last Inspection:	Not reported
Days Last Inspection:	Not reported
Informal Count:	0
Date Last Informal Action:	Not reported
Formal Action Count:	0
Date Last Formal Action:	Not reported
Total Penalties:	0
Penalty Count:	0
Date Last Penalty:	Not reported
Last Penalty Amount:	Not reported
QTRS in NC:	0
Programs in SNC:	0
Curr Compliance Status:	No Violation
Curr SNC Flag:	N
3yr Compliance Status:	_____
AFS Flag:	N
NPDES Flag:	N
SDWIS Flag:	N
RCRA Flag:	Y
TRI Flag:	N
GHG Flag:	N
AFS IDS:	Not reported
CAA Permit Types:	Not reported
CAA NAICS:	Not reported
CAA SICS:	Not reported
CAA Evaluation Count:	Not reported
CAA Days Last Evaluation:	Not reported
CAA Informal Count:	Not reported
CAA Formal Action Count:	Not reported
CAA Date Last Formal Action:	Not reported
CAA Penalties:	Not reported
CAA Last Penality Date:	Not reported
CAA Last Penality Amount:	Not reported
CAA Qtrs in NC:	Not reported
CAA Curr Compliance Status:	Not reported
CAA Curr HPV Flag:	N
CAA 3yr Compl Qtrs Status:	Not reported
NPDES IDS:	Not reported
CWA Permit Types:	Not reported
CWA Compliance Tracking:	Not reported
CWA NAICS:	Not reported
CWA SICS:	Not reported
CWA Inspection Count:	Not reported
CWA Days Last Inspection:	Not reported

LOU EHLERS CADILLAC (Continued) **1000111719**

CWA Informal Count:	Not reported
CWA Formal Action Count:	Not reported
CWA Date Last Formal Action:	Not reported
CWA Penalties:	Not reported
CWA Last Penality Date:	Not reported
CWA Last Penality Amount:	Not reported
CWA Qtrs in NC:	Not reported
CWA Curr Compliance Status:	Not reported
CWA Curr SNC Flag:	N
CWA 13QTRS Compl Status:	Not reported
CWA 13QTRS EFFLNT Exceedances:	Not reported
CWA 3tr QNCR Codes:	Not reported
RCRA IDS:	CAD981462690
RCRA Permit Types:	SQG
RCRA NAICS:	811111 811192
RCRA Inspection Count:	Not reported
RCRA Days Last Evaluation:	Not reported
RCRA Informal Count:	Not reported
RCRA Formal Action Count:	Not reported
RCRA Date Last Formal Action:	Not reported
RCRA Penalties:	Not reported
RCRA Last Penality Date:	Not reported
RCRA Last Penality Amount:	Not reported
RCRA QTRS in NC:	0
RCRA Curr Compliance Status:	No Violation
RCRA Curr SNC Flag:	N
RCRA 3yr Compl Qtrs Status:	_____
SDWA IDS:	Not reported
SDWA System Types:	Not reported
SDWA Informal Count:	Not reported
SDWA Formal Action Count:	Not reported
SDWA Curr Compliance Status:	Not reported
SDWA Curr SNC Flag:	N
TRI IDS:	Not reported
TRI Releases Transfers:	Not reported
TRI on Site Releases:	Not reported
Tri off Site Transfers:	Not reported
TRI Reporter in Past:	Not reported
FEC Case IDS:	Not reported
FEC Number of Cases:	Not reported
FEC Last Case Date:	Not reported
FEC Total Penalties:	Not reported
GHG IDS:	Not reported
GHG CO2 Release:	Not reported
DFR URL:	http://echo.epa.gov/detailed_facility_report?fid=110002715857
Facility SIC Codes:	Not reported
Facility NAICS Codes:	441110 811111 811192
Facility Date Last Inspection EPA:	Not reported
Facility Date Last Inspection State:	Not reported
Facility Date Last Formal ACT EPA:	Not reported
Facility Date Last Formal ACT ST:	Not reported
Facility Date Last Inforamal ACT EPA:	Not reported
Facility Date Last Informal ACT ST:	Not reported
Facility Federal Agency:	Not reported
TRI Reporter:	Not reported
Facility IMP Water Flag:	Not reported

F31 **UNOCAL #5312** **LUST** **S105051405**
WSW **706 LA BREA AVE N** **N/A**
1/4-1/2 **HOLLYWOOD, CA 90038**
0.400 mi.
2114 ft. **Site 1 of 2 in cluster F**

Relative:
Lower

Actual:
196 ft.

LUST:

Region:	STATE
Global Id:	T0603700930
Latitude:	34.0835346
Longitude:	-118.3439404
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	09/20/1996
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	YR
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	900380207
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603700930
Contact Type:	Regional Board Caseworker
Contact Name:	YUE RONG
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 W. 4TH ST., SUITE 200
City:	Los Angeles
Email:	yrong@waterboards.ca.gov
Phone Number:	Not reported

Global Id:	T0603700930
Contact Type:	Local Agency Caseworker
Contact Name:	ELOY LUNA
Organization Name:	LOS ANGELES, CITY OF
Address:	200 North Main Street, Suite 1780
City:	LOS ANGELES
Email:	eloy.luna@lacity.org
Phone Number:	Not reported

Status History:

Global Id:	T0603700930
Status:	Completed - Case Closed
Status Date:	09/20/1996

Global Id:	T0603700930
Status:	Open - Case Begin Date
Status Date:	02/03/1992

Global Id:	T0603700930
Status:	Open - Remediation
Status Date:	04/07/1992

Global Id:	T0603700930

UNOCAL #5312 (Continued) **S105051405**

Status: Open - Remediation
Status Date: 08/17/1992

Global Id: T0603700930
Status: Open - Site Assessment
Status Date: 07/31/1995

Global Id: T0603700930
Status: Open - Verification Monitoring
Status Date: 12/28/1993

Regulatory Activities:
Global Id: T0603700930
Action Type: Other
Date: 02/03/1992
Action: Leak Reported

LUST REG 4:

Region:	4	
Regional Board:	04	
County:	Los Angeles	
Facility Id:	900380207	
Status:	Case Closed	
Substance:	Gasoline	
Substance Quantity:	Not reported	
Local Case No:	Not reported	
Case Type:	Groundwater	
Abatement Method Used at the Site:		Excavate and Treat
Global ID:	T0603700930	
W Global ID:	Not reported	
Staff:	UNK	
Local Agency:	19050	
Cross Street:	MELROSE AVE	
Enforcement Type:	Not reported	
Date Leak Discovered:	Not reported	
Date Leak First Reported:		2/3/1992
Date Leak Record Entered:	6/9/1992	
Date Confirmation Began:	Not reported	
Date Leak Stopped:	Not reported	
Date Case Last Changed on Database:		3/31/1996
Date the Case was Closed:		9/20/1996
How Leak Discovered:	Not reported	
How Leak Stopped:	Not reported	
Cause of Leak:	UNK	
Leak Source:	UNK	
Operator:	Not reported	
Water System:	Not reported	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		12477.574128255512636244395698
Source of Cleanup Funding:		UNK
Preliminary Site Assessment Workplan Submitted:		Not reported
Preliminary Site Assessment Began:		Not reported
Pollution Characterization Began:		7/31/1995
Remediation Plan Submitted:		4/7/1992
Remedial Action Underway:		8/17/1992

UNOCAL #5312 (Continued) **S105051405**

Post Remedial Action Monitoring Began:	12/28/1993
Enforcement Action Date:	Not reported
Historical Max MTBE Date:	1/1/1965
Hist Max MTBE Conc in Groundwater:	18
Hist Max MTBE Conc in Soil:	Not reported
Significant Interim Remedial Action Taken:	Not reported
GW Qualifier:	Not reported
Soil Qualifier:	Not reported
Organization:	Not reported
Owner Contact:	Not reported
Responsible Party:	ENVIRONMENTAL REMEDATION SERV.
RP Address:	376 S. VALENCIA AVE., BREA CA 92621
Program:	LUST
Lat/Long:	34.0835346 / -1
Local Agency Staff:	PEJ
Beneficial Use:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Suspended:	Not reported
Assigned Name:	Not reported
Summary:	Not reported

F32 **UNOCAL #5312** **HIST CORTESE** **S101297081**
WSW **706 LA BREA** **N/A**
1/4-1/2 **LOS ANGELES, CA 90038**
0.400 mi.
2114 ft. **Site 2 of 2 in cluster F**

Relative:
Lower

Actual:
196 ft.

HIST CORTESE:

Region:	CORTESE
Facility County Code:	19
Reg By:	LTNKA
Reg Id:	900380207

---

33 **TOSCO S.S. #1116** **LUST** **S103282031**
West **5436 6TH ST W** **HIST CORTESE** **N/A**
1/4-1/2 **LOS ANGELES, CA 90036**
0.404 mi.
2135 ft.

Relative:
Lower

Actual:
202 ft.

LUST:

Region:	STATE
Global Id:	T10000000379
Latitude:	34.0646855075755
Longitude:	-118.344243764877
Case Type:	LUST Cleanup Site
Status:	Open - Eligible for Closure
Status Date:	07/03/2015
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	JR
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	900360216A
LOC Case Number:	1196
File Location:	Not reported
Potential Media Affect:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Gasoline

TOSCO S.S. #1116 (Continued) **S103282031**

Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T10000000379
Contact Type:	Regional Board Caseworker
Contact Name:	JAMES RYAN
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	West 4th Street, Suite 200
City:	LOS ANGELES
Email:	jamesw.ryan@waterboards.ca.gov
Phone Number:	2135766711

Global Id:	T10000000379
Contact Type:	Local Agency Caseworker
Contact Name:	ELOY LUNA
Organization Name:	LOS ANGELES, CITY OF
Address:	200 North Main Street, Suite 1780
City:	LOS ANGELES
Email:	eloy.luna@lacity.org
Phone Number:	Not reported

Status History:

Global Id:	T10000000379
Status:	Open - Case Begin Date
Status Date:	10/26/2007

Global Id:	T10000000379
Status:	Open - Eligible for Closure
Status Date:	07/03/2015

Global Id:	T10000000379
Status:	Open - Referred
Status Date:	08/06/2008

Global Id:	T10000000379
Status:	Open - Remediation
Status Date:	02/01/2011

Global Id:	T10000000379
Status:	Open - Site Assessment
Status Date:	10/14/2008

Regulatory Activities:

Global Id:	T10000000379
Action Type:	RESPONSE
Date:	10/15/2010
Action:	Monitoring Report - Semi-Annually

Global Id:	T10000000379
Action Type:	RESPONSE
Date:	10/28/2009
Action:	Soil and Water Investigation Workplan

Global Id:	T10000000379
Action Type:	RESPONSE

TOSCO S.S. #1116 (Continued) **S103282031**

Date: 04/15/2009
Action: Monitoring Report - Quarterly

Global Id: T10000000379
Action Type: RESPONSE
Date: 12/22/2010
Action: Pilot Study / Treatability Workplan

Global Id: T10000000379
Action Type: RESPONSE
Date: 07/17/2011
Action: Pilot Study/ Treatability Report

Global Id: T10000000379
Action Type: RESPONSE
Date: 07/15/2010
Action: Monitoring Report - Semi-Annually

Global Id: T10000000379
Action Type: REMEDIATION
Date: 05/17/2011
Action: Dual Phase Extraction

Global Id: T10000000379
Action Type: REMEDIATION
Date: 05/17/2011
Action: Dual Phase Extraction

Global Id: T10000000379
Action Type: RESPONSE
Date: 01/15/2011
Action: Monitoring Report - Semi-Annually

Global Id: T10000000379
Action Type: RESPONSE
Date: 08/16/2010
Action: Site Assessment Report

Global Id: T10000000379
Action Type: RESPONSE
Date: 10/15/2013
Action: Monitoring Report - Quarterly

Global Id: T10000000379
Action Type: RESPONSE
Date: 07/15/2013
Action: Monitoring Report - Quarterly

Global Id: T10000000379
Action Type: RESPONSE
Date: 10/15/2009
Action: Other Report / Document

Global Id: T10000000379
Action Type: RESPONSE
Date: 03/10/2009
Action: Soil and Water Investigation Report

TOSCO S.S. #1116 (Continued) **S103282031**

Global Id: T10000000379
Action Type: RESPONSE
Date: 01/15/2014
Action: Monitoring Report - Quarterly

Global Id: T10000000379
Action Type: RESPONSE
Date: 01/31/2016
Action: Correspondence

Global Id: T10000000379
Action Type: ENFORCEMENT
Date: 10/14/2008
Action: Staff Letter

Global Id: T10000000379
Action Type: ENFORCEMENT
Date: 02/02/2011
Action: Staff Letter

Global Id: T10000000379
Action Type: RESPONSE
Date: 07/15/2011
Action: Monitoring Report - Semi-Annually

Global Id: T10000000379
Action Type: RESPONSE
Date: 10/15/2011
Action: Monitoring Report - Semi-Annually

Global Id: T10000000379
Action Type: RESPONSE
Date: 04/15/2015
Action: Monitoring Report - Semi-Annually

Global Id: T10000000379
Action Type: RESPONSE
Date: 01/15/2012
Action: Monitoring Report - Quarterly

Global Id: T10000000379
Action Type: RESPONSE
Date: 07/15/2014
Action: Monitoring Report - Quarterly

Global Id: T10000000379
Action Type: RESPONSE
Date: 04/15/2014
Action: Monitoring Report - Quarterly

Global Id: T10000000379
Action Type: RESPONSE
Date: 11/19/2013
Action: Other Workplan - Regulator Responded

Global Id: T10000000379
Action Type: ENFORCEMENT

TOSCO S.S. #1116 (Continued) **S103282031**

Date: 11/30/2015
Action: Notification - Preclosure

Global Id: T10000000379
Action Type: RESPONSE
Date: 10/15/2014
Action: Monitoring Report - Quarterly

Global Id: T10000000379
Action Type: RESPONSE
Date: 03/31/2014
Action: Other Workplan - Regulator Responded

Global Id: T10000000379
Action Type: RESPONSE
Date: 06/03/2014
Action: Other Workplan - Regulator Responded

Global Id: T10000000379
Action Type: RESPONSE
Date: 09/28/2012
Action: Site Assessment Report

Global Id: T10000000379
Action Type: RESPONSE
Date: 04/15/2012
Action: Monitoring Report - Quarterly

Global Id: T10000000379
Action Type: RESPONSE
Date: 07/15/2012
Action: Monitoring Report - Quarterly

Global Id: T10000000379
Action Type: RESPONSE
Date: 03/28/2012
Action: Well Installation Report

Global Id: T10000000379
Action Type: RESPONSE
Date: 11/17/2011
Action: Well Installation Workplan

Global Id: T10000000379
Action Type: RESPONSE
Date: 10/15/2012
Action: Monitoring Report - Quarterly

Global Id: T10000000379
Action Type: RESPONSE
Date: 09/25/2015
Action: Request for Closure - Regulator Responded

Global Id: T10000000379
Action Type: Other
Date: 09/25/2008
Action: Leak Reported

TOSCO S.S. #1116 (Continued) **S103282031**

Global Id: T10000000379
Action Type: RESPONSE
Date: 02/20/2015
Action: Sensitive Receptor Survey Report

Global Id: T10000000379
Action Type: ENFORCEMENT
Date: 06/15/2009
Action: Staff Letter

Global Id: T10000000379
Action Type: RESPONSE
Date: 01/15/2013
Action: Monitoring Report - Quarterly

Global Id: T10000000379
Action Type: RESPONSE
Date: 11/15/2008
Action: Other Report / Document

Global Id: T10000000379
Action Type: RESPONSE
Date: 01/15/2010
Action: Monitoring Report - Semi-Annually

Global Id: T10000000379
Action Type: Other
Date: 10/26/2007
Action: Leak Discovery

Global Id: T10000000379
Action Type: RESPONSE
Date: 07/15/2009
Action: Monitoring Report - Semi-Annually

Global Id: T10000000379
Action Type: RESPONSE
Date: 04/15/2010
Action: Monitoring Report - Quarterly

Region: STATE
Global Id: T0603700902
Latitude: 34.0648803
Longitude: -118.3442573
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 05/05/2000
Lead Agency: LOS ANGELES, CITY OF
Case Worker: EL
Local Agency: LOS ANGELES, CITY OF
RB Case Number: 900360216
LOC Case Number: Not reported
File Location: Not reported
Potential Media Affect: Soil
Potential Contaminants of Concern: Gasoline
Site History: Not reported

TOSCO S.S. #1116 (Continued) **S103282031**

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603700902
Contact Type:	Local Agency Caseworker
Contact Name:	ELOY LUNA
Organization Name:	LOS ANGELES, CITY OF
Address:	200 North Main Street, Suite 1780
City:	LOS ANGELES
Email:	eloy.luna@lacity.org
Phone Number:	Not reported

Global Id:	T0603700902
Contact Type:	Regional Board Caseworker
Contact Name:	YUE RONG
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 W. 4TH ST., SUITE 200
City:	Los Angeles
Email:	yrong@waterboards.ca.gov
Phone Number:	Not reported

Status History:

Global Id:	T0603700902
Status:	Completed - Case Closed
Status Date:	05/05/2000

Global Id:	T0603700902
Status:	Open - Case Begin Date
Status Date:	09/09/1997

Global Id:	T0603700902
Status:	Open - Site Assessment
Status Date:	09/09/1997

Regulatory Activities:

Global Id:	T0603700902
Action Type:	Other
Date:	09/09/1997
Action:	Leak Discovery

Global Id:	T0603700902
Action Type:	Other
Date:	09/09/1997
Action:	Leak Reported

LUST REG 4:

Region:	4
Regional Board:	04
County:	Los Angeles
Facility Id:	900360216
Status:	Leak being confirmed
Substance:	Gasoline
Substance Quantity:	Not reported
Local Case No:	Not reported

TOSCO S.S. #1116 (Continued) **S103282031**

Case Type:	Soil	
Abatement Method Used at the Site:		Not reported
Global ID:	T0603700902	
W Global ID:	Not reported	
Staff:	UNK	
Local Agency:	19050	
Cross Street:	LA BREA AVE	
Enforcement Type:	Not reported	
Date Leak Discovered:	9/9/1997	
Date Leak First Reported:		9/9/1997
Date Leak Record Entered:	3/9/1998	
Date Confirmation Began:	9/9/1997	
Date Leak Stopped:	Not reported	
Date Case Last Changed on Database:		3/9/1999
Date the Case was Closed:		Not reported
How Leak Discovered:	Subsurface Monitoring	
How Leak Stopped:	Not reported	
Cause of Leak:	Not reported	
Leak Source:	Not reported	
Operator:	Not reported	
Water System:	Not reported	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		8761.4381717423284905588517 24
Source of Cleanup Funding:		Not reported
Preliminary Site Assessment Workplan Submitted:		Not reported
Preliminary Site Assessment Began:		Not reported
Pollution Characterization Began:		Not reported
Remediation Plan Submitted:		Not reported
Remedial Action Underway:		Not reported
Post Remedial Action Monitoring Began:		Not reported
Enforcement Action Date:		Not reported
Historical Max MTBE Date:		Not reported
Hist Max MTBE Conc in Groundwater:		Not reported
Hist Max MTBE Conc in Soil:		4.5
Significant Interim Remedial Action Taken:		Not reported
GW Qualifier:	Not reported	
Soil Qualifier:	Not reported	
Organization:	Not reported	
Owner Contact:	Not reported	
Responsible Party:	TOSCO MARKETING CO	
RP Address:	P.O. BOX 25376, SANTA ANA, CA 92799	
Program:	LUST	
Lat/Long:	34.0647473 / -1	
Local Agency Staff:	PEJ	
Beneficial Use:	Not reported	
Priority:	Not reported	
Cleanup Fund Id:	Not reported	
Suspended:	Not reported	
Assigned Name:	Not reported	
Summary:	Not reported	

HIST CORTESE:

Region:	CORTESE
Facility County Code:	19
Reg By:	LTNKA
Reg Id:	900360216

G34
WNW
1/4-1/2
0.417 mi.
2200 ft.

LA BREA AVENUE MOTORS - 401 S. LA BREA PROPERTY
401 SOUTH LA BREA AVENUE
LA BREA, CA 90036

Site 1 of 2 in cluster G

ENVIROSTOR | **S111418021** | **N/A**

Relative:
Lower

Actual:
207 ft.

ENVIROSTOR:

Facility ID:	60001610
Status:	No Further Action
Status Date:	04/03/2012
Site Code:	301552
Site Type:	Evaluation
Site Type Detailed:	Evaluation
Acres:	1.25
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Not reported
Supervisor:	Javier Hinojosa
Division Branch:	Cleanup Chatsworth
Assembly:	50
Senate:	26
Special Program:	Voluntary Cleanup Program
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Responsible Party
Latitude:	34.06668
Longitude:	-118.3442
APN:	NONE SPECIFIED
Past Use:	RETAIL - VEHICLES, VEHICLE MAINTENANCE
Potential COC:	Tetrachloroethylene (PCE TPH-gas Trichloroethylene (TCE
Confirmed COC:	30022-NO 30025-NO 30027-NO
Potential Description:	OTH, SOIL, SV
Alias Name:	301552
Alias Type:	Project Code (Site Code)
Alias Name:	60001610
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	No Further Action Letter
Completed Date:	04/03/2012
Comments:	DTSC issued NFA Determination Letter April 3, 2012.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	05/15/2012
Comments:	CRU Closeout Memo
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Voluntary Cleanup Agreement
Completed Date:	12/09/2011
Comments:	VCA executed
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report

LA BREA AVENUE MOTORS - 401 S. LA BREA PROPERTY (Continued) **S111418021**

Completed Date:	02/10/2012
Comments:	DTSC determined FA is required.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Characterization Workplan
Completed Date:	02/21/2012
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Characterization Report
Completed Date:	04/03/2012
Comments:	DTSC concurs with the conclusion of the SSI Report that further environmental investigation of the Site is not required and approves the Report. DTSC issued No Further Action Determination Letter on April 3, 2012.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Voluntary Cleanup Agreement Termination Notification
Completed Date:	04/12/2012
Comments:	VCA Termination Letter. NFA determination
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

G35 **VACANT BUILDING** **LUST** **S108087215**
WNW **400 LA BREA AVE.** **N/A**
1/4-1/2 **LOS ANGELES, CA 90036**
0.417 mi.
2204 ft. **Site 2 of 2 in cluster G**

Relative:
Lower

Actual:
209 ft.

LUST:

Region:	STATE
Global Id:	T0603705714
Latitude:	34.066859
Longitude:	-118.344018
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	09/29/2008
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	Not reported
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	900360281
LOC Case Number:	F22104
File Location:	Not reported
Potential Media Affect:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Other Solvent or Non-Petroleum Hydrocarbon
Site History:	Not reported

VACANT BUILDING (Continued) **S108087215**

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603705714
Contact Type:	Local Agency Caseworker
Contact Name:	ELOY LUNA
Organization Name:	LOS ANGELES, CITY OF
Address:	200 North Main Street, Suite 1780
City:	LOS ANGELES
Email:	eloy.luna@lacity.org
Phone Number:	Not reported

Status History:

Global Id:	T0603705714
Status:	Completed - Case Closed
Status Date:	09/29/2008
Global Id:	T0603705714
Status:	Open - Case Begin Date
Status Date:	07/03/1989
Global Id:	T0603705714
Status:	Open - Site Assessment
Status Date:	01/27/2006
Global Id:	T0603705714
Status:	Open - Site Assessment
Status Date:	04/20/2007

Regulatory Activities:

Global Id:	T0603705714
Action Type:	ENFORCEMENT
Date:	02/01/2007
Action:	Staff Letter
Global Id:	T0603705714
Action Type:	ENFORCEMENT
Date:	05/04/2007
Action:	Staff Letter
Global Id:	T0603705714
Action Type:	ENFORCEMENT
Date:	09/29/2008
Action:	Closure/No Further Action Letter
Global Id:	T0603705714
Action Type:	ENFORCEMENT
Date:	09/28/2008
Action:	Site Visit / Inspection / Sampling
Global Id:	T0603705714
Action Type:	RESPONSE
Date:	11/15/2006
Action:	Other Report / Document
Global Id:	T0603705714

VACANT BUILDING (Continued) **S108087215**

Action Type:	RESPONSE
Date:	09/15/2006
Action:	Other Report / Document
Global Id:	T0603705714
Action Type:	Other
Date:	01/27/2006
Action:	Leak Reported
Global Id:	T0603705714
Action Type:	RESPONSE
Date:	01/15/2008
Action:	Monitoring Report - Quarterly
Global Id:	T0603705714
Action Type:	ENFORCEMENT
Date:	09/15/2006
Action:	Staff Letter
Global Id:	T0603705714
Action Type:	Other
Date:	07/03/1989
Action:	Leak Discovery
Global Id:	T0603705714
Action Type:	RESPONSE
Date:	04/15/2007
Action:	Other Report / Document
Global Id:	T0603705714
Action Type:	ENFORCEMENT
Date:	01/29/2008
Action:	Staff Letter
Global Id:	T0603705714
Action Type:	RESPONSE
Date:	04/15/2008
Action:	Monitoring Report - Quarterly
Global Id:	T0603705714
Action Type:	RESPONSE
Date:	10/15/2007
Action:	Monitoring Report - Quarterly
Global Id:	T0603705714
Action Type:	RESPONSE
Date:	04/15/2007
Action:	Soil and Water Investigation Workplan

36
North
1/4-1/2
0.425 mi.
2242 ft.

THIRD STREET ELEMENTARY SCHOOL
201 SOUTH JUNE STREET
LOS ANGELES, CA 90004

ENVIROSTOR SCH | **S105628575** | **N/A**

Relative:
Higher

Actual:
231 ft.

ENVIROSTOR:

Facility ID:	19820044
Status:	No Further Action
Status Date:	06/29/2007
Site Code:	300797
Site Type:	School Investigation
Site Type Detailed:	School
Acres:	4.6
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Not reported
Supervisor:	Javier Hinojosa
Division Branch:	Southern California Schools & Brownfields Outreach
Assembly:	50
Senate:	26
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	School District
Latitude:	34.07000
Longitude:	-118.3353
APN:	5513030900
Past Use:	* EDUCATIONAL SERVICES
Potential COC:	Antimony and compounds Arsenic Barium and compounds Beryllium and compounds Cadmium and compounds Chromium III Cobalt Copper and compounds Lead Mercury and compounds Molybdenum Nickel Selenium Silver Thallium and compounds Vanadium and compounds Zinc Aldrin Chlordane DDD DDE DDT Dieldrin Endosulfan Endrin HCH (alpha HCH (beta HCH (gamma) Lindane HCH-technical Heptachlor Heptachlor epoxide Mirex Toxaphene Polychlorinated biphenyls (PCBs 2,4,5-Trichlorophenol 2,4,6-Trichlorophenol 2,4-Dimethylphenol 2,4-Dinitrophenol 2,4-Dinitrotoluene (also see Dinitrotoluene mixture 2,6-Dimethylphenol 2,6-Dinitrotoluene (also see Dinitrotoluene mixture 2-Chlorophenol 2-Methylphenol 2-Nitroaniline 3,3-Dichlorobenzidine 3,4-Dimethylphenol 3-Methylphenol 3-Nitroaniline 4-Chloroaniline 4-Methylphenol 4-Nitroaniline Acenaphthene Anthracene Benz[a]anthracene Benzo[a]pyrene Benzo[b]fluoranthene Benzo[k]fluoranthene Benzyl alcohol Bis(2-chloro-1-methylethyl)ether Bis(2-chloroethyl)ether Bis(2-chloroisopropyl)ether Bis(2-ethylhexyl)phthalate (DEHP) Butyl benzyl phthalate Carbazole Chrysene Dibenz[ah]anthracene Dibenzofuran Dibutyl phthalate Diethyl phthalate Dimethyl phthalate Dinitrotoluene mixture Fluoranthene Fluorene Hexachlorobenzene Hexachloroethane Indeno[1,2,3-cd]pyrene N-Nitroso di-n-propylamine N-Nitrosodimethylamine N-Nitrosodiphenylamine Naphthalene Nitrobenzene Pentachlorophenol Phenol Pyrene Pyridine di-n-Octyl phthalate 1,1,1,2-Tetrachloroethane 1,1,1-Trichloroethane (TCA 1,1,2,2-Tetrachloroethane 1,1,2-Trichloroethane 1,1,2-Trichloropropane 1,1-Dichloroethane 1,1-Dichloroethylene 1,2,3-Trichloropropane 1,2,3-Trichloropropene 1,2,4-Trichlorobenzene 1,2,4-Trimethylbenzene 1,2-Dibromo-3-chloropropane (DBCP 1,2-Dibromoethane (EDB 1,2-Dichlorobenzene 1,2-Dichloroethane (EDC

THIRD STREET ELEMENTARY SCHOOL (Continued) **S105628575**

1,2-Dichloroethylene (cis 1,2-Dichloroethylene (trans 1,2-Dichloropropane 1,3,5-Trimethylbenzene 1,3-Dichlorobenzene 1,3-Dichloropropane 1,3-Dichloropropene 1,4-Dibromobenzene 1,4-Dichlorobenzene Benzene Bromobenzene Bromodichloromethane Bromoform (tribromomethane Bromomethane (Methyl bromide Carbon tetrachloride Chlorobenzene Chloroethane Chloroform Chloromethane (methyl chloride Dibromochloromethane Dichlorodifluoromethane Ethylbenzene Hexachlorobutadiene Methyl ethyl ketone (2-Butanone Methyl isobutyl ketone Methyl tertbutyl ether (MTBE Methylene bromide Methylene chloride Styrene Tetrachloroethylene (PCE Toluene Trichloroethylene (TCE Trichlorofluoromethane Vinyl chloride Xylenes n-Butylbenzene n-Propylbenzene o-Chlorotoluene sec-Butylbenzene tert-Butylbenzene Methane

Confirmed COC: 30001-NO 30003-NO 30004-NO 30006-NO 30007-NO 30008-NO 30010-NO 30013-NO 30015-NO 30016-NO 30542-NO 30564-NO 30565-NO 30571-NO 30572-NO 30578-NO 30022-NO 30026-NO 30058-NO 30067-NO 30078-NO 30084-NO 30087-NO 30093-NO 30473-NO 30474-NO 30476-NO 30477-NO 30479-NO 30481-NO 30484-NO 30485-NO 30499-NO 30506-NO 30515-NO 30309-NO 30311-NO 30312-NO 30313-NO 30314-NO 30315-NO 30316-NO 30318-NO 30357-NO 30094-NO 30096-NO 30104-NO 30105-NO 30108-NO 30137-NO 30152-NO 30156-NO 30179-NO 30180-NO 30182-NO 30183-NO 30185-NO 30188-NO 30192-NO 30193-NO 30195-NO 30196-NO 30200-NO 30202-NO 30207-NO 30231-NO 30232-NO 30240-NO 30242-NO 30272-NO 30536-NO 30383-NO 30587-NO 30593-NO 30594-NO 30386-NO 30392-NO 30394-NO 30412-NO 30384-NO 30387-NO 30393-NO 30400-NO 30402-NO 30407-NO 30411-NO 30413-NO 30414-NO 30424-NO 30425-NO 30448-NO 30550-NO 30567-NO 30116-NO 30135-NO 30245-NO 30027-NO 30085-NO 30088-NO 30095-NO 30103-NO 30106-NO 30113-NO 30126-NO 30136-NO 30143-NO 30178-NO 30181-NO 30186-NO 30191-NO 30194-NO 30201-NO 30212-NO 30230-NO 30233-NO 30241-NO 30261-NO 30028-NO 30243-NO 30423-NO 30451-NO 30043-NO 30080-NO 30127-NO 30154-NO 30482-NO 30308-NO 30475-NO 30478-NO 30480-NO 30483-NO 30525-NO 30563-NO 30566-NO 30570-NO 30577-NO 30535-NO 30146-NO 30187-NO 30018-NO 30021-NO 30023-NO

Potential Description: SOIL, SV

Alias Name: LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type: Alternate Name
Alias Name: THIRD STREET ELEM. SCHOOL
Alias Type: Alternate Name
Alias Name: THIRD STREET ELEMENTARY SCHOOL
Alias Type: Alternate Name
Alias Name: 5513030900
Alias Type: APN
Alias Name: 300797
Alias Type: Project Code (Site Code)
Alias Name: 19820044
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 01/08/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo

THIRD STREET ELEMENTARY SCHOOL (Continued) **S105628575**

Completed Date: 11/01/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 06/29/2007
Comments: CRU Memo completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 05/11/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 12/10/2003
Comments: SSI

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 04/06/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 06/26/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 12/10/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 02/13/2004
Comments: Mitigated Negative Declaration & Initial Study

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 02/01/2000
Comments: PEA Draft Work Plan

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 10/28/1999
Comments: The Source for Enviromental Risk Management Data

THIRD STREET ELEMENTARY SCHOOL (Continued) **S105628575**

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Environmental Oversight Agreement
Completed Date:	02/10/2000
Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

SCH:

Facility ID:	19820044
Site Type:	School Investigation
Site Type Detail:	School
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	4.6
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Not reported
Supervisor:	Javier Hinojosa
Division Branch:	Southern California Schools & Brownfields Outreach
Site Code:	300797
Assembly:	50
Senate:	26
Special Program Status:	Not reported
Status:	No Further Action
Status Date:	06/29/2007
Restricted Use:	NO
Funding:	School District
Latitude:	34.07000
Longitude:	-118.3353
APN:	5513030900
Past Use:	* EDUCATIONAL SERVICES
Potential COC:	Antimony and compounds, Arsenic, Barium and compounds, Beryllium and compounds, Cadmium and compounds, Chromium III, Cobalt, Copper and compounds, Lead, Mercury and compounds, Molybdenum, Nickel, Selenium, Silver, Thallium and compounds, Vanadium and compounds, Zinc, Aldrin, Chlordane, DDD, DDE, DDT, Dieldrin, Endosulfan, Endrin, HCH (alpha, HCH (beta, HCH (gamma) Lindane, HCH-technical, Heptachlor, Heptachlor epoxide, Mirex, Toxaphene, Polychlorinated biphenyls (PCBs, 2,4,5-Trichlorophenol, 2,4,6-Trichlorophenol, 2,4-Dimethylphenol, 2,4-Dinitrophenol, 2,4-Dinitrotoluene (also see Dinitrotoluene mixture, 2,6-Dimethylphenol, 2,6-Dinitrotoluene (also see Dinitrotoluene mixture, 2-Chlorophenol, 2-Methylphenol, 2-Nitroaniline, 3,3-Dichlorobenzidine, 3,4-Dimethylphenol, 3-Methylphenol, 3-Nitroaniline, 4-Chloroaniline, 4-Methylphenol, 4-Nitroaniline, Acenaphthene, Anthracene, Benz[a]anthracene, Benzo[a]pyrene, Benzo[b]fluoranthene, Benzo[k]fluoranthene, Benzyl

THIRD STREET ELEMENTARY SCHOOL (Continued) **S105628575**

alcohol, Bis(2-chloro-1-methylethyl)ether, Bis(2-chloroethyl)ether, Bis(2-chloroisopropyl)ether, Bis(2-ethylhexyl)phthalate (DEHP), Butyl benzyl phthalate, Carbazole, Chrysene, Dibenz[ah]anthracene, Dibenzofuran, Dibutyl phthalate, Diethyl phthalate, Dimethyl phthalate, Dinitrotoluene mixture, Fluoranthene, Fluorene, Hexachlorobenzene, Hexachloroethane, Indeno[1,2,3-cd]pyrene, N-Nitroso di-n-propylamine, N-Nitrosodimethylamine, N-Nitrosodiphenylamine, Naphthalene, Nitrobenzene, Pentachlorophenol, Phenol, Pyrene, Pyridine, di-n-Octyl phthalate, 1,1,1,2-Tetrachloroethane, 1,1,1-Trichloroethane (TCA, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1,2-Trichloropropane, 1,1-Dichloroethane, 1,1-Dichloroethylene, 1,2,3-Trichloropropane, 1,2,3-Trichloropropene, 1,2,4-Trichlorobenzene, 1,2,4-Trimethylbenzene, 1,2-Dibromo-3-chloropropane (DBCP, 1,2-Dibromoethane (EDB, 1,2-Dichlorobenzene, 1,2-Dichloroethane (EDC, 1,2-Dichloroethylene (cis, 1,2-Dichloroethylene (trans, 1,2-Dichloropropane, 1,3,5-Trimethylbenzene, 1,3-Dichlorobenzene, 1,3-Dichloropropane, 1,3-Dichloropropene, 1,4-Dibromobenzene, 1,4-Dichlorobenzene, Benzene, Bromobenzene, Bromodichloromethane, Bromoform (tribromomethane, Bromomethane (Methyl bromide, Carbon tetrachloride, Chlorobenzene, Chloroethane, Chloroform, Chloromethane (methyl chloride, Dibromochloromethane, Dichlorodifluoromethane, Ethylbenzene, Hexachlorobutadiene, Methyl ethyl ketone (2-Butanone, Methyl isobutyl ketone, Methyl tertbutyl ether (MTBE, Methylene bromide, Methylene chloride, Styrene, Tetrachloroethylene (PCE, Toluene, Trichloroethylene (TCE, Trichlorofluoromethane, Vinyl chloride, Xylenes, n-Butylbenzene, n-Propylbenzene, o-Chlorotoluene, sec-Butylbenzene, tert-Butylbenzene, Methane

Confirmed COC: 30001-NO, 30003-NO, 30004-NO, 30006-NO, 30007-NO, 30008-NO, 30010-NO, 30013-NO, 30015-NO, 30016-NO, 30542-NO, 30564-NO, 30565-NO, 30571-NO, 30572-NO, 30578-NO, 30022-NO, 30026-NO, 30058-NO, 30067-NO, 30078-NO, 30084-NO, 30087-NO, 30093-NO, 30473-NO, 30474-NO, 30476-NO, 30477-NO, 30479-NO, 30481-NO, 30484-NO, 30485-NO, 30499-NO, 30506-NO, 30515-NO, 30309-NO, 30311-NO, 30312-NO, 30313-NO, 30314-NO, 30315-NO, 30316-NO, 30318-NO, 30357-NO, 30094-NO, 30096-NO, 30104-NO, 30105-NO, 30108-NO, 30137-NO, 30152-NO, 30156-NO, 30179-NO, 30180-NO, 30182-NO, 30183-NO, 30185-NO, 30188-NO, 30192-NO, 30193-NO, 30195-NO, 30196-NO, 30200-NO, 30202-NO, 30207-NO, 30231-NO, 30232-NO, 30240-NO, 30242-NO, 30272-NO, 30536-NO, 30383-NO, 30587-NO, 30593-NO, 30594-NO, 30386-NO, 30392-NO, 30394-NO, 30412-NO, 30384-NO, 30387-NO, 30393-NO, 30400-NO, 30402-NO, 30407-NO, 30411-NO, 30413-NO, 30414-NO, 30424-NO, 30425-NO, 30448-NO, 30550-NO, 30567-NO, 30116-NO, 30135-NO, 30245-NO, 30027-NO, 30085-NO, 30088-NO, 30095-NO, 30103-NO, 30106-NO, 30113-NO, 30126-NO, 30136-NO, 30143-NO, 30178-NO, 30181-NO, 30186-NO, 30191-NO, 30194-NO, 30201-NO, 30212-NO, 30230-NO, 30233-NO, 30241-NO, 30261-NO, 30028-NO, 30243-NO, 30423-NO, 30451-NO, 30043-NO, 30080-NO, 30127-NO, 30154-NO, 30482-NO, 30308-NO, 30475-NO, 30478-NO, 30480-NO, 30483-NO, 30525-NO, 30563-NO, 30566-NO, 30570-NO, 30577-NO, 30535-NO, 30146-NO, 30187-NO, 30018-NO, 30021-NO, 30023-NO

Potential Description: SOIL, SV
Alias Name: LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type: Alternate Name
Alias Name: THIRD STREET ELEM. SCHOOL
Alias Type: Alternate Name
Alias Name: THIRD STREET ELEMENTARY SCHOOL
Alias Type: Alternate Name

THIRD STREET ELEMENTARY SCHOOL (Continued) **S105628575**

Alias Name: 5513030900
Alias Type: APN
Alias Name: 300797
Alias Type: Project Code (Site Code)
Alias Name: 19820044
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 01/08/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 11/01/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 06/29/2007
Comments: CRU Memo completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 05/11/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 12/10/2003
Comments: SSI

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 04/06/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 06/26/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 12/10/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported

THIRD STREET ELEMENTARY SCHOOL (Continued) **S105628575**

Completed Document Type:	Other Report
Completed Date:	02/13/2004
Comments:	Mitigated Negative Declaration & Initial Study
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Other Report
Completed Date:	02/01/2000
Comments:	PEA Draft Work Plan
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Other Report
Completed Date:	10/28/1999
Comments:	The Source for Enviromental Risk Management Data
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Environmental Oversight Agreement
Completed Date:	02/10/2000
Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

H37 **LA BREA AVENUE MOTORS - 359 S. LA BREA PROPERTY** **ENVIROSTOR** **S111418022**
WNW **359 SOUTH LA BREA AVENUE** **N/A**
1/4-1/2 **LA BREA, CA 90036**
0.450 mi.
2375 ft. **Site 1 of 4 in cluster H**

Relative:
Lower

Actual:
212 ft.

ENVIROSTOR:

Facility ID:	60001611
Status:	No Further Action
Status Date:	04/03/2012
Site Code:	301551
Site Type:	Evaluation
Site Type Detailed:	Evaluation
Acres:	0.31
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Not reported
Supervisor:	Javier Hinojosa
Division Branch:	Cleanup Chatsworth
Assembly:	50
Senate:	26
Special Program:	Voluntary Cleanup Program
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Responsible Party

LA BREA AVENUE MOTORS - 359 S. LA BREA PROPERTY (Continued) **S111418022**

Latitude: 34.06714
Longitude: -118.3442
APN: NONE SPECIFIED
Past Use: VEHICLE MAINTENANCE
Potential COC: Under Investigation Tetrachloroethylene (PCE TPH-diesel TPH-gas TPH-MOTOR OIL Trichloroethylene (TCE 1,1-Dichloroethane 1,1-Dichloroethylene
Confirmed COC: 30022-NO 30024-NO 30025-NO 30192-NO 3002502-NO 30027-NO 30194-NO 31001-NO
Potential Description: OTH, SOIL, SV
Alias Name: 301551
Alias Type: Project Code (Site Code)
Alias Name: 60001611
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 12/09/2011
Comments: VCA executed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 05/15/2012
Comments: CRU Closeout Memo

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: No Further Action Letter
Completed Date: 04/03/2012
Comments: DTSC issued No Further Action Determination Letter on April 3, 2012.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 02/10/2012
Comments: DTSC determined FA is required to fully assess potential site impacts. Additional soil gas investigation and GW assessment is necessary.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Workplan
Completed Date: 02/21/2012
Comments: DTSC approved the work plan on 02/21/2012

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: *Correspondence - Received
Completed Date: 02/15/2012
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Characterization Report
Completed Date: 04/03/2012

LA BREA AVENUE MOTORS - 359 S. LA BREA PROPERTY (Continued) **S111418022**

Comments:	DTSC concurs with the conclusion of the SSI Report that further environmental investigation of the Site is not required and approves the Report. DTSC issued No Further Action Determination Letter on April 3, 2012.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Voluntary Cleanup Agreement Termination Notification
Completed Date:	04/12/2012
Comments:	VCA Termination. NFA required.
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

I38 **LIBERTY CAR & TRUCK RENTA** **HIST CORTESE** **S104159600**
WSW **800 LA BREA** **N/A**
1/4-1/2 **LOS ANGELES, CA 90038**
0.453 mi.
2390 ft. **Site 1 of 2 in cluster I**

Relative:
Lower

Actual:
191 ft.

HIST CORTESE:

Region:	CORTESE
Facility County Code:	19
Reg By:	LTNKA
Reg Id:	900380025

H39 **LA BREA DODGE INC** **RCRA-SQG** **1000164619**
NW **339 S LA BREA AVE** **LUST** **CAD981689060**
1/4-1/2 **LOS ANGELES, CA 90036** **FINDS**
0.468 mi. **ECHO**
2470 ft. **Site 2 of 4 in cluster H**

Relative:
Higher

Actual:
214 ft.

RCRA-SQG:

Date form received by agency:	09/01/1996
Facility name:	LA BREA DODGE INC
Facility address:	339 S LA BREA AVE LOS ANGELES, CA 90036
EPA ID:	CAD981689060
Mailing address:	S LA BREA AVE LOS ANGELES, CA 90036
Contact:	Not reported
Contact address:	Not reported Not reported
Contact country:	US
Contact telephone:	Not reported
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous

LA BREA DODGE INC (Continued) **1000164619**

waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	LA BREA DODGE INC
Owner/operator address:	NOT REQUIRED
	NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED
	NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Violation Status: No violations found

LUST:

Region:	STATE
Global Id:	T0603700884
Latitude:	34.0680372
Longitude:	-118.3441632
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	07/18/1996
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	YR
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	900360034

LA BREA DODGE INC (Continued) **1000164619**

LOC Case Number: Not reported
File Location: Not reported
Potential Media Affect: Aquifer used for drinking water supply
Potential Contaminants of Concern: * Solvents
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:
Global Id: T0603700884
Contact Type: Regional Board Caseworker
Contact Name: YUE RONG
Organization Name: LOS ANGELES RWQCB (REGION 4)
Address: 320 W. 4TH ST., SUITE 200
City: Los Angeles
Email: yrong@waterboards.ca.gov
Phone Number: Not reported

Global Id: T0603700884
Contact Type: Local Agency Caseworker
Contact Name: ELOY LUNA
Organization Name: LOS ANGELES, CITY OF
Address: 200 North Main Street, Suite 1780
City: LOS ANGELES
Email: eloy.luna@lacity.org
Phone Number: Not reported

Status History:
Global Id: T0603700884
Status: Completed - Case Closed
Status Date: 07/18/1996

Global Id: T0603700884
Status: Open - Case Begin Date
Status Date: 01/31/1988

Global Id: T0603700884
Status: Open - Site Assessment
Status Date: 04/06/1988

Regulatory Activities:
Global Id: T0603700884
Action Type: Other
Date: 01/31/1988
Action: Leak Reported

LUST REG 4:
Region: 4
Regional Board: 04
County: Los Angeles
Facility Id: 900360034
Status: Case Closed
Substance: Solvents
Substance Quantity: Not reported
Local Case No: Not reported

LA BREA DODGE INC (Continued) **1000164619**

Case Type:	Groundwater	
Abatement Method Used at the Site:		Not reported
Global ID:	T0603700884	
W Global ID:	Not reported	
Staff:	UNK	
Local Agency:	19050	
Cross Street:	3RD & 4TH ST	
Enforcement Type:	Not reported	
Date Leak Discovered:	Not reported	
Date Leak First Reported:		1/31/1988
Date Leak Record Entered:	4/6/1988	
Date Confirmation Began:	Not reported	
Date Leak Stopped:	Not reported	
Date Case Last Changed on Database:		7/8/1988
Date the Case was Closed:		7/18/1996
How Leak Discovered:	Not reported	
How Leak Stopped:	Not reported	
Cause of Leak:	Not reported	
Leak Source:	Not reported	
Operator:	Not reported	
Water System:	Not reported	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		9596.55248267692521225734662
Source of Cleanup Funding:		Not reported
Preliminary Site Assessment Workplan Submitted:		Not reported
Preliminary Site Assessment Began:		Not reported
Pollution Characterization Began:		4/6/1988
Remediation Plan Submitted:		Not reported
Remedial Action Underway:		Not reported
Post Remedial Action Monitoring Began:		Not reported
Enforcement Action Date:		Not reported
Historical Max MTBE Date:		Not reported
Hist Max MTBE Conc in Groundwater:		Not reported
Hist Max MTBE Conc in Soil:		Not reported
Significant Interim Remedial Action Taken:		Not reported
GW Qualifier:	Not reported	
Soil Qualifier:	Not reported	
Organization:	Not reported	
Owner Contact:	Not reported	
Responsible Party:	CHRYSLER REALTY CORP	
RP Address:	1450 LONG LAKE RD, SUITE 280, TROY MI 48098	
Program:	LUST	
Lat/Long:	34.0680372 / -1	
Local Agency Staff:	PEJ	
Beneficial Use:	Not reported	
Priority:	Not reported	
Cleanup Fund Id:	Not reported	
Suspended:	Not reported	
Assigned Name:	Not reported	
Summary:	ADDITIONAL SI REQUIRED.	

FINDS:

Registry ID: 110002753556

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource

LA BREA DODGE INC (Continued) **1000164619**

Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

ECHO:

Envid:	1000164619
Registry ID:	110002753556
FIPS Code:	06037
EPA Region:	09
Indian Country Flag:	N
Federal Flag:	Not reported
US Mexico Border Flag:	N
Chesapeake Bay Flag:	Not reported
NAA Flag:	Y
Latitude:	34.067903
Longitude:	-118.344037
Map Icon:	RCRA-IC-MN-N.png
Collection Method:	ADDRESS MATCHING-HOUSE NUMBER
Reference Point:	ENTRANCE POINT OF A FACILITY OR STATION
Accuracy Meters:	50
Derived Tribes:	Not reported
Derived Huc:	18070104
Derived WBD:	Not reported
Derived STCT FPS:	06037
Derived Zip:	90036
Derived CD113:	33
Derived CB2010:	060372151022000
Percent Minority:	65.838
Pop Den:	17613.51
Major Flag:	Not reported
Active Flag:	Y
MYRTK Universe:	NNN
Inspection Count:	0
Date Last Inspection:	Not reported
Days Last Inspection:	Not reported
Informal Count:	0
Date Last Informal Action:	Not reported
Formal Action Count:	0
Date Last Formal Action:	Not reported
Total Penalties:	0
Penalty Count:	0
Date Last Penalty:	Not reported
Last Penalty Amount:	Not reported
QTRS in NC:	0
Programs in SNC:	0
Curr Compliance Status:	No Violation
Curr SNC Flag:	N
3yr Compliance Status:	_____
AFS Flag:	N
NPDES Flag:	N
SDWIS Flag:	N
RCRA Flag:	Y
TRI Flag:	N
GHG Flag:	N

LA BREA DODGE INC (Continued) **1000164619**

AFS IDS:	Not reported
CAA Permit Types:	Not reported
CAA NAICS:	Not reported
CAA SICS:	Not reported
CAA Evaluation Count:	Not reported
CAA Days Last Evaluation:	Not reported
CAA Informal Count:	Not reported
CAA Formal Action Count:	Not reported
CAA Date Last Formal Action:	Not reported
CAA Penalties:	Not reported
CAA Last Penality Date:	Not reported
CAA Last Penality Amount:	Not reported
CAA Qtrs in NC:	Not reported
CAA Curr Compliance Status:	Not reported
CAA Curr HPV Flag:	N
CAA 3yr Compl Qtrs Status:	Not reported
NPDES IDS:	Not reported
CWA Permit Types:	Not reported
CWA Compliance Tracking:	Not reported
CWA NAICS:	Not reported
CWA SICS:	Not reported
CWA Inspection Count:	Not reported
CWA Days Last Inspection:	Not reported
CWA Informal Count:	Not reported
CWA Formal Action Count:	Not reported
CWA Date Last Formal Action:	Not reported
CWA Penalties:	Not reported
CWA Last Penality Date:	Not reported
CWA Last Penality Amount:	Not reported
CWA Qtrs in NC:	Not reported
CWA Curr Compliance Status:	Not reported
CWA Curr SNC Flag:	N
CWA 13QTRS Compl Status:	Not reported
CWA 13QTRS EFFLNT Exceedances:	Not reported
CWA 3tr QNCR Codes:	Not reported
RCRA IDS:	CAD981689060
RCRA Permit Types:	SQG
RCRA NAICS:	Not reported
RCRA Inspection Count:	Not reported
RCRA Days Last Evaluation:	Not reported
RCRA Informal Count:	Not reported
RCRA Formal Action Count:	Not reported
RCRA Date Last Formal Action:	Not reported
RCRA Penalties:	Not reported
RCRA Last Penality Date:	Not reported
RCRA Last Penality Amount:	Not reported
RCRA QTRS in NC:	0
RCRA Curr Compliance Status:	No Violation
RCRA Curr SNC Flag:	N
RCRA 3yr Compl Qtrs Status:	_____
SDWA IDS:	Not reported
SDWA System Types:	Not reported
SDWA Informal Count:	Not reported
SDWA Formal Action Count:	Not reported
SDWA Curr Compliance Status:	Not reported
SDWA Curr SNC Flag:	N
TRI IDS:	Not reported

LA BREA DODGE INC (Continued) **1000164619**

TRI Releases Transfers:	Not reported
TRI on Site Releases:	Not reported
Tri off Site Transfers:	Not reported
TRI Reporter in Past:	Not reported
FEC Case IDS:	Not reported
FEC Number of Cases:	Not reported
FEC Last Case Date:	Not reported
FEC Total Penalties:	Not reported
GHG IDS:	Not reported
GHG CO2 Release:	Not reported
DFR URL:	http://echo.epa.gov/detailed_facility_report?fid=110002753556
Facility SIC Codes:	Not reported
Facility NAICS Codes:	Not reported
Facility Date Last Inspection EPA:	Not reported
Facility Date Last Inspection State:	Not reported
Facility Date Last Formal ACT EPA:	Not reported
Facility Date Last Formal ACT ST:	Not reported
Facility Date Last Inforamal ACT EPA:	Not reported
Facility Date Last Informal ACT ST:	Not reported
Facility Federal Agency:	Not reported
TRI Reporter:	Not reported
Facility IMP Water Flag:	Not reported

H40 **LA BREA DODGE** **ENVIROSTOR** **S105024639**
NW **339 LA BREA** **VCP** **N/A**
1/4-1/2 **LOS ANGELES, CA 90036** **HIST CORTESE**
0.468 mi.
2470 ft. **Site 3 of 4 in cluster H**

Relative:
Higher

Actual:
214 ft.

ENVIROSTOR:

Facility ID:	60001395
Status:	No Further Action
Status Date:	02/14/2012
Site Code:	301517
Site Type:	Voluntary Cleanup
Site Type Detailed:	Voluntary Cleanup
Acres:	0.37
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Not reported
Supervisor:	Javier Hinojosa
Division Branch:	Cleanup Chatsworth
Assembly:	50
Senate:	26
Special Program:	Voluntary Cleanup Program
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Responsible Party
Latitude:	34.06775
Longitude:	-118.3440
APN:	5508-001-008, 5508-001-009, 5508-001-010
Past Use:	VEHICLE MAINTENANCE
Potential COC:	Tetrachloroethylene (PCE Trichloroethylene (TCE
Confirmed COC:	Tetrachloroethylene (PCE Trichloroethylene (TCE
Potential Description:	OTH
Alias Name:	5508-001-008
Alias Type:	APN

LA BREA DODGE (Continued) **S105024639**

Alias Name: 5508-001-009
Alias Type: APN
Alias Name: 5508-001-010
Alias Type: APN
Alias Name: 301517
Alias Type: Project Code (Site Code)
Alias Name: 60001395
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 07/22/2011
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: No Further Action Letter
Completed Date: 06/10/2011
Comments: Issued NFA Letter

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement
Completed Date: 01/11/2011
Comments: VCA executed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 03/30/2011
Comments: DTSC issued letter requesting Risk Assessment.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Risk Assessment Report
Completed Date: 06/10/2011
Comments: Response to DTSC comments on Risk Assessment considered acceptable. DTSC issued NFA letter.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement Termination Notification
Completed Date: 06/16/2011
Comments: Sent letter

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

LA BREA DODGE (Continued) **S105024639**

VCP:

Facility ID:	60001395
Site Type:	Voluntary Cleanup
Site Type Detail:	Voluntary Cleanup
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	0.37
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Not reported
Supervisor:	Javier Hinojosa
Division Branch:	Cleanup Chatsworth
Site Code:	301517
Assembly:	50
Senate:	26
Special Programs Code:	Voluntary Cleanup Program
Status:	No Further Action
Status Date:	02/14/2012
Restricted Use:	NO
Funding:	Responsible Party
Lat/Long:	34.06775 / -118.3440
APN:	5508-001-008, 5508-001-009, 5508-001-010
Past Use:	VEHICLE MAINTENANCE
Potential COC:	30022, 30027
Confirmed COC:	30022,30027
Potential Description:	OTH
Alias Name:	5508-001-008
Alias Type:	APN
Alias Name:	5508-001-009
Alias Type:	APN
Alias Name:	5508-001-010
Alias Type:	APN
Alias Name:	301517
Alias Type:	Project Code (Site Code)
Alias Name:	60001395
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	07/22/2011
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	No Further Action Letter
Completed Date:	06/10/2011
Comments:	Issued NFA Letter
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Voluntary Cleanup Agreement
Completed Date:	01/11/2011
Comments:	VCA executed

LA BREA DODGE (Continued) **S105024639**

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	03/30/2011
Comments:	DTSC issued letter requesting Risk Assessment.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Risk Assessment Report
Completed Date:	06/10/2011
Comments:	Response to DTSC comments on Risk Assessment considered acceptable. DTSC issued NFA letter.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Voluntary Cleanup Agreement Termination Notification
Completed Date:	06/16/2011
Comments:	Sent letter

Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

HIST CORTESE:

Region:	CORTESE
Facility County Code:	19
Reg By:	LTNKA
Reg Id:	900360034

H41 **EXXON #7-7221 (FORMER)** **LUST** **S102590673**
NW **307 LA BREA AVE N** **ENF** **N/A**
1/4-1/2 **LOS ANGELES, CA 90036** **HIST CORTESE**
0.470 mi.
2483 ft. **Site 4 of 4 in cluster H**

Relative:
Higher

Actual:
214 ft.

LUST:

Region:	STATE
Global Id:	T0603700931
Latitude:	34.076416630017
Longitude:	-118.34434568882
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	01/15/2009
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	DPP
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	900380216
LOC Case Number:	Not reported
File Location:	Regional Board
Potential Media Affect:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Gasoline

EXXON #7-7221 (FORMER) (Continued) **S102590673**

Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603700931
Contact Type:	Regional Board Caseworker
Contact Name:	DANIEL PIROTTON
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	Not reported
City:	R4 UNKNOWN
Email:	dpirotton@waterboards.ca.gov
Phone Number:	2135766714

Global Id:	T0603700931
Contact Type:	Local Agency Caseworker
Contact Name:	ELOY LUNA
Organization Name:	LOS ANGELES, CITY OF
Address:	200 North Main Street, Suite 1780
City:	LOS ANGELES
Email:	eloy.luna@lacity.org
Phone Number:	Not reported

Status History:

Global Id:	T0603700931
Status:	Completed - Case Closed
Status Date:	01/15/2009

Global Id:	T0603700931
Status:	Open - Case Begin Date
Status Date:	04/13/1992

Global Id:	T0603700931
Status:	Open - Remediation
Status Date:	01/14/2000

Global Id:	T0603700931
Status:	Open - Remediation
Status Date:	03/22/2000

Global Id:	T0603700931
Status:	Open - Site Assessment
Status Date:	05/05/1992

Global Id:	T0603700931
Status:	Open - Site Assessment
Status Date:	04/12/1993

Global Id:	T0603700931
Status:	Open - Site Assessment
Status Date:	11/22/1996

Global Id:	T0603700931
Status:	Open - Site Assessment
Status Date:	04/15/2005

Global Id: T0603700931

EXXON #7-7221 (FORMER) (Continued) **S102590673**

Status: Open - Verification Monitoring
Status Date: 04/30/1992

Regulatory Activities:
Global Id: T0603700931
Action Type: ENFORCEMENT
Date: 12/30/2008
Action: Notification - Preclosure

Global Id: T0603700931
Action Type: RESPONSE
Date: 01/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603700931
Action Type: RESPONSE
Date: 12/27/2006
Action: Request for Closure

Global Id: T0603700931
Action Type: RESPONSE
Date: 07/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603700931
Action Type: ENFORCEMENT
Date: 02/08/2007
Action: Staff Letter

Global Id: T0603700931
Action Type: RESPONSE
Date: 01/15/2006
Action: Monitoring Report - Quarterly

Global Id: T0603700931
Action Type: RESPONSE
Date: 10/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603700931
Action Type: RESPONSE
Date: 07/15/2006
Action: Monitoring Report - Quarterly

Global Id: T0603700931
Action Type: RESPONSE
Date: 07/26/2006
Action: Unknown

Global Id: T0603700931
Action Type: RESPONSE
Date: 04/15/2006
Action: Monitoring Report - Quarterly

Global Id: T0603700931
Action Type: ENFORCEMENT
Date: 01/02/2009

EXXON #7-7221 (FORMER) (Continued) **S102590673**

Action: Site Visit / Inspection / Sampling

Global Id: T0603700931
Action Type: Other
Date: 04/13/1992
Action: Leak Discovery

Global Id: T0603700931
Action Type: Other
Date: 04/30/1992
Action: Leak Reported

Global Id: T0603700931
Action Type: RESPONSE
Date: 07/15/2002
Action: Monitoring Report - Quarterly

Global Id: T0603700931
Action Type: RESPONSE
Date: 07/15/2002
Action: Other Report / Document

Global Id: T0603700931
Action Type: RESPONSE
Date: 10/15/2002
Action: Monitoring Report - Quarterly

Global Id: T0603700931
Action Type: RESPONSE
Date: 10/15/2006
Action: Monitoring Report - Quarterly

Global Id: T0603700931
Action Type: ENFORCEMENT
Date: 12/04/1998
Action: Staff Letter

Global Id: T0603700931
Action Type: RESPONSE
Date: 04/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603700931
Action Type: RESPONSE
Date: 01/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603700931
Action Type: RESPONSE
Date: 01/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603700931
Action Type: ENFORCEMENT
Date: 01/15/2009
Action: Closure/No Further Action Letter

EXXON #7-7221 (FORMER) (Continued) **S102590673**

Global Id: T0603700931
Action Type: RESPONSE
Date: 07/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603700931
Action Type: RESPONSE
Date: 04/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603700931
Action Type: RESPONSE
Date: 04/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603700931
Action Type: RESPONSE
Date: 07/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603700931
Action Type: RESPONSE
Date: 01/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603700931
Action Type: ENFORCEMENT
Date: 02/15/2005
Action: Staff Letter

Global Id: T0603700931
Action Type: RESPONSE
Date: 10/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603700931
Action Type: RESPONSE
Date: 10/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603700931
Action Type: REMEDIATION
Date: 08/01/1996
Action: Soil Vapor Extraction (SVE)

Global Id: T0603700931
Action Type: REMEDIATION
Date: 08/01/2005
Action: Pump & Treat (P&T) Groundwater

Global Id: T0603700931
Action Type: ENFORCEMENT
Date: 05/07/2002
Action: Staff Letter

Global Id: T0603700931
Action Type: ENFORCEMENT

EXXON #7-7221 (FORMER) (Continued) **S102590673**

Date: 07/20/2004
Action: Staff Letter

Global Id: T0603700931
Action Type: RESPONSE
Date: 10/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603700931
Action Type: RESPONSE
Date: 01/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603700931
Action Type: RESPONSE
Date: 10/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603700931
Action Type: RESPONSE
Date: 04/15/2002
Action: Monitoring Report - Quarterly

Global Id: T0603700931
Action Type: RESPONSE
Date: 04/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603700931
Action Type: RESPONSE
Date: 07/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603700931
Action Type: RESPONSE
Date: 07/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603700931
Action Type: REMEDIATION
Date: 02/28/2001
Action: Pump & Treat (P&T) Groundwater

Global Id: T0603700931
Action Type: RESPONSE
Date: 04/15/2008
Action: Monitoring Report - Quarterly

LUST REG 4:
Region: 4
Regional Board: 04
County: Los Angeles
Facility Id: 900380216
Status: Remedial action (cleanup) Underway
Substance: Gasoline
Substance Quantity: Not reported

EXXON #7-7221 (FORMER) (Continued) **S102590673**

Local Case No:	Not reported	
Case Type:	Groundwater	
Abatement Method Used at the Site:		FPVE
Global ID:	T0603700931	
W Global ID:	Not reported	
Staff:	DP	
Local Agency:	19050	
Cross Street:	BEVERLY BLVD	
Enforcement Type:	LET	
Date Leak Discovered:	4/13/1992	
Date Leak First Reported:		4/30/1992
Date Leak Record Entered:	5/11/1992	
Date Confirmation Began:	Not reported	
Date Leak Stopped:	Not reported	
Date Case Last Changed on Database:		7/11/2002
Date the Case was Closed:		Not reported
How Leak Discovered:	OM	
How Leak Stopped:	Not reported	
Cause of Leak:	UNK	
Leak Source:	UNK	
Operator:	ROSENBERG, JOSHUA	
Water System:	Not reported	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		11910.427858303642534995258622
Source of Cleanup Funding:		UNK
Preliminary Site Assessment Workplan Submitted:		5/5/1992
Preliminary Site Assessment Began:		4/12/1993
Pollution Characterization Began:		11/22/1996
Remediation Plan Submitted:		1/14/2000
Remedial Action Underway:		3/22/2000
Post Remedial Action Monitoring Began:		4/30/1992
Enforcement Action Date:		Not reported
Historical Max MTBE Date:		1/27/1997
Hist Max MTBE Conc in Groundwater:		970000
Hist Max MTBE Conc in Soil:		Not reported
Significant Interim Remedial Action Taken:		Yes
GW Qualifier:	Not reported	
Soil Qualifier:	Not reported	
Organization:	Not reported	
Owner Contact:	Not reported	
Responsible Party:	MS. JENNIFER SEDLACHEK	
RP Address:	2300 CLAYTON RD.	
Program:	LUST	
Lat/Long:	34.0762969 / -1	
Local Agency Staff:	PEJ	
Beneficial Use:	Not reported	
Priority:	Not reported	
Cleanup Fund Id:	Not reported	
Suspended:	Not reported	
Assigned Name:	Not reported	
Summary:	Not reported	

ENF:

Region:	4
Facility Id:	226198
Agency Name:	ExxonMobil Environmental Services Company Simi Valley
Place Type:	Facility

EXXON #7-7221 (FORMER) (Continued) **S102590673**

Place Subtype:	Groundwater Cleanup Site
Facility Type:	All other facilities
Agency Type:	Privately-Owned Business
# Of Agencies:	1
Place Latitude:	34.068717
Place Longitude:	-118.344026
SIC Code 1:	2911
SIC Desc 1:	Petroleum Refining
SIC Code 2:	1311
SIC Desc 2:	Crude Petroleum and Natural Gas
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Reg Meas
Design Flow:	2.16000000
Threat To Water Quality:	2
Complexity:	B
Pretreatment:	X - Facility is not a POTW
Facility Waste Type:	Contaminated ground water
Facility Waste Type 2:	Miscellaneous
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	NPDNONMUNIPRCS
Program Category1:	NPDESWW
Program Category2:	NPDESWW
# Of Programs:	1
WDID:	4B196600130
Reg Measure Id:	194009
Reg Measure Type:	Enrollee
Region:	4
Order #:	R4-2002-0125
Npdes# CA#:	CAG834001
Major-Minor:	Minor
Npdes Type:	OTH
Reclamation:	N - No
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	2000
Status:	Historical
Status Date:	09/20/2007
Effective Date:	04/26/2000
Expiration/Review Date:	07/11/2002
Termination Date:	09/20/2007
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	Y
Individual/General:	I

EXXON #7-7221 (FORMER) (Continued) **S102590673**

Fee Code:	15 - WDRs pending rescission
Direction/Voice:	Passive
Enforcement Id(EID):	332426
Region:	4
Order / Resolution Number:	NOV
Enforcement Action Type:	Notice of Violation
Effective Date:	07/13/2007
Adoption/Issuance Date:	07/13/2007
Achieve Date:	Not reported
Termination Date:	07/13/2007
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	NOV sent 7/13/07 for failure to file NOI for coverage under R4-2007-0021.
Description:	NOV sent 7/13/07 for failure to file NOI for coverage under R4-2007-0021 which conditionally terminated enrollment under R4-2002-00125 on 4/11/07.
Program:	NPDNONMUNIPRCS
Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	$0.00
Initial Assessed Amount:	$0.00
Liability $ Amount:	$0.00
Project $ Amount:	$0.00
Liability $ Paid:	$0.00
Project $ Completed:	$0.00
Total $ Paid/Completed Amount:	$0.00

Region:	4
Facility Id:	226198
Agency Name:	ExxonMobil Environmental Services Company Simi Valley
Place Type:	Facility
Place Subtype:	Groundwater Cleanup Site
Facility Type:	All other facilities
Agency Type:	Privately-Owned Business
# Of Agencies:	1
Place Latitude:	34.068717
Place Longitude:	-118.344026
SIC Code 1:	2911
SIC Desc 1:	Petroleum Refining
SIC Code 2:	1311
SIC Desc 2:	Crude Petroleum and Natural Gas
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Reg Meas
Design Flow:	2.16000000
Threat To Water Quality:	2
Complexity:	B
Pretreatment:	X - Facility is not a POTW

EXXON #7-7221 (FORMER) (Continued) **S102590673**

Facility Waste Type:	Contaminated ground water
Facility Waste Type 2:	Miscellaneous
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	NPDNONMUNIPRCS
Program Category1:	NPDESWW
Program Category2:	NPDESWW
# Of Programs:	1
WDID:	4B196600130
Reg Measure Id:	194009
Reg Measure Type:	Enrollee
Region:	4
Order #:	R4-2002-0125
Npdes# CA#:	CAG834001
Major-Minor:	Minor
Npdes Type:	OTH
Reclamation:	N - No
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	2000
Status:	Historical
Status Date:	09/20/2007
Effective Date:	04/26/2000
Expiration/Review Date:	07/11/2002
Termination Date:	09/20/2007
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	Y
Individual/General:	I
Fee Code:	15 - WDRs pending rescission
Direction/Voice:	Passive
Enforcement Id(EID):	251874
Region:	4
Order / Resolution Number:	Telephone call
Enforcement Action Type:	Oral Communication
Effective Date:	02/06/2004
Adoption/Issuance Date:	02/06/2004
Achieve Date:	Not reported
Termination Date:	02/06/2004
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Staff phoned discharger 2/6/04 & described the current monitoring requirements.
Description:	Staff phoned discharger 2/6/04 & described the current monitoring requirements contained in Order R4-2002-0125, which the discharger did not have. Staff faxed a copy to him.
Program:	NPDNONMUNIPRCS
Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	$0.00
Initial Assessed Amount:	$0.00

EXXON #7-7221 (FORMER) (Continued) **S102590673**

Liability $ Amount:	$0.00
Project $ Amount:	$0.00
Liability $ Paid:	$0.00
Project $ Completed:	$0.00
Total $ Paid/Completed Amount:	$0.00

HIST CORTESE:

Region:	CORTESE
Facility County Code:	19
Reg By:	LTNKA
Reg Id:	900380216

I42 **CELEBRITY CAR LEASING (FORMER)** **LUST** **S101297079**
WSW **816 LA BREA AVE S** **HIST CORTESE** **N/A**
1/4-1/2 **LOS ANGELES, CA 90036**
0.471 mi.
2486 ft. **Site 2 of 2 in cluster I**

Relative:
Lower

Actual:
188 ft.

LUST:

Region:	STATE
Global Id:	T0603700898
Latitude:	34.085781
Longitude:	-118.3440336
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	06/11/1997
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	YR
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	900360170
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Other Solvent or Non-Petroleum Hydrocarbon
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603700898
Contact Type:	Regional Board Caseworker
Contact Name:	YUE RONG
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 W. 4TH ST., SUITE 200
City:	Los Angeles
Email:	yrong@waterboards.ca.gov
Phone Number:	Not reported

Global Id:	T0603700898
Contact Type:	Local Agency Caseworker
Contact Name:	ELOY LUNA
Organization Name:	LOS ANGELES, CITY OF
Address:	200 North Main Street, Suite 1780
City:	LOS ANGELES
Email:	eloy.luna@lacity.org
Phone Number:	Not reported

CELEBRITY CAR LEASING (FORMER) (Continued) **S101297079**

Status History:

Global Id:	T0603700898
Status:	Completed - Case Closed
Status Date:	06/11/1997
Global Id:	T0603700898
Status:	Open - Case Begin Date
Status Date:	12/01/1989
Global Id:	T0603700898
Status:	Open - Site Assessment
Status Date:	12/01/1989
Global Id:	T0603700898
Status:	Open - Site Assessment
Status Date:	05/25/1990

Regulatory Activities:

Global Id:	T0603700898
Action Type:	Other
Date:	12/01/1989
Action:	Leak Stopped
Global Id:	T0603700898
Action Type:	Other
Date:	12/01/1989
Action:	Leak Discovery
Global Id:	T0603700898
Action Type:	Other
Date:	05/25/1990
Action:	Leak Reported

LUST REG 4:

Region:	4	
Regional Board:	04	
County:	Los Angeles	
Facility Id:	900360170	
Status:	Case Closed	
Substance:	Hydrocarbons	
Substance Quantity:	Not reported	
Local Case No:	Not reported	
Case Type:	Groundwater	
Abatement Method Used at the Site:		Excavate and Dispose
Global ID:	T0603700898	
W Global ID:	Not reported	
Staff:	UNK	
Local Agency:	19050	
Cross Street:	W. 8TH STREET	
Enforcement Type:	Not reported	
Date Leak Discovered:	12/1/1989	
Date Leak First Reported:		5/25/1990
Date Leak Record Entered:	8/19/1990	
Date Confirmation Began:	12/1/1989	
Date Leak Stopped:	12/1/1989	

CELEBRITY CAR LEASING (FORMER) (Continued) **S101297079**

Date Case Last Changed on Database:		5/30/1997
Date the Case was Closed:		6/11/1997
How Leak Discovered:	Tank Closure	
How Leak Stopped:	Not reported	
Cause of Leak:	UNK	
Leak Source:	UNK	
Operator:	OLD CASE #082190-07	
Water System:	Not reported	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		7501.508948896535465801557414 4
Source of Cleanup Funding:		UNK
Preliminary Site Assessment Workplan Submitted:		12/1/1989
Preliminary Site Assessment Began:		5/25/1990
Pollution Characterization Began:		5/25/1990
Remediation Plan Submitted:		Not reported
Remedial Action Underway:		Not reported
Post Remedial Action Monitoring Began:		Not reported
Enforcement Action Date:		Not reported
Historical Max MTBE Date:		Not reported
Hist Max MTBE Conc in Groundwater:		Not reported
Hist Max MTBE Conc in Soil:		Not reported
Significant Interim Remedial Action Taken:		Not reported
GW Qualifier:	Not reported	
Soil Qualifier:	Not reported	
Organization:	Not reported	
Owner Contact:	Not reported	
Responsible Party:	ARMANDO LOPEZ	
RP Address:	18240 LAKE ENCINO DR., ENCINO CA 91376	
Program:	LUST	
Lat/Long:	34.0601675 / -1	
Local Agency Staff:	PEJ	
Beneficial Use:	Not reported	
Priority:	Not reported	
Cleanup Fund Id:	Not reported	
Suspended:	Not reported	
Assigned Name:	Not reported	
Summary:	05/30/97 - REQUEST FOR CLOSURE	

HIST CORTESE:

Region:	CORTESE
Facility County Code:	19
Reg By:	LTNKA
Reg Id:	900360170

43
NW
1/4-1/2
0.479 mi.
2527 ft.

HOROWITZ PROPERTY
303 LA BREA S.
LOS ANGELES, CA 90036

LUST **S110275287**
N/A

Relative:
Higher

Actual:
214 ft.

LUST:

Region:	STATE
Global Id:	T10000001949
Latitude:	34.0686182807563
Longitude:	-118.344313502312
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed

HOROWITZ PROPERTY (Continued) **S110275287**

Status Date:	12/23/2011
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	JH
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	900360307
LOC Case Number:	37096
File Location:	Not reported
Potential Media Affect:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T10000001949
Contact Type:	Regional Board Caseworker
Contact Name:	JAY HUANG
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 WEST 4TH STREET, SUITE 200
City:	LOS ANGELES
Email:	jhuang@waterboards.ca.gov
Phone Number:	2135766711

Global Id:	T10000001949
Contact Type:	Local Agency Caseworker
Contact Name:	ELOY LUNA
Organization Name:	LOS ANGELES, CITY OF
Address:	200 North Main Street, Suite 1780
City:	LOS ANGELES
Email:	eloy.luna@lacity.org
Phone Number:	Not reported

Status History:

Global Id:	T10000001949
Status:	Completed - Case Closed
Status Date:	12/23/2011

Global Id:	T10000001949
Status:	Open - Case Begin Date
Status Date:	04/02/2010

Global Id:	T10000001949
Status:	Open - Referred
Status Date:	04/02/2010

Global Id:	T10000001949
Status:	Open - Remediation
Status Date:	09/03/2010

Global Id:	T10000001949
Status:	Open - Site Assessment
Status Date:	06/15/2010

Regulatory Activities:

Global Id:	T10000001949
Action Type:	RESPONSE
Date:	12/15/2010

HOROWITZ PROPERTY (Continued) **S110275287**

Action: Soil and Water Investigation Report

Global Id: T10000001949
Action Type: RESPONSE
Date: 06/15/2010
Action: Other Report / Document

Global Id: T10000001949
Action Type: REMEDIATION
Date: 09/01/2011
Action: Excavation

Global Id: T10000001949
Action Type: RESPONSE
Date: 08/15/2010
Action: Soil and Water Investigation Workplan

Global Id: T10000001949
Action Type: RESPONSE
Date: 12/15/2010
Action: Final Remedial Action Report / Corrective Action Report

Global Id: T10000001949
Action Type: ENFORCEMENT
Date: 12/12/2011
Action: Notification - Preclosure

Global Id: T10000001949
Action Type: ENFORCEMENT
Date: 09/03/2010
Action: Staff Letter

Global Id: T10000001949
Action Type: RESPONSE
Date: 11/15/2011
Action: Request for Closure

Global Id: T10000001949
Action Type: ENFORCEMENT
Date: 12/23/2011
Action: Closure/No Further Action Letter

Global Id: T10000001949
Action Type: ENFORCEMENT
Date: 05/04/2010
Action: Staff Letter

Global Id: T10000001949
Action Type: ENFORCEMENT
Date: 06/15/2010
Action: Staff Letter

Global Id: T10000001949
Action Type: Other
Date: 12/01/1994
Action: Leak Discovery

44
WNW
1/2-1
0.636 mi.
3360 ft.

LOS ALTOS CLEANERS
453 S LA BREA
LOS ANGELES, CA 90036

ENVIROSTOR
EMI

S106834719
N/A

Relative:
Lower

Actual:
212 ft.

ENVIROSTOR:

Facility ID:	60001631
Status:	No Further Action
Status Date:	05/15/2012
Site Code:	301558
Site Type:	Evaluation
Site Type Detailed:	Evaluation
Acres:	0.1
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Not reported
Supervisor:	Javier Hinojosa
Division Branch:	Cleanup Chatsworth
Assembly:	50
Senate:	26
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Responsible Party
Latitude:	34.06635
Longitude:	-118.3441
APN:	5508-006-012
Past Use:	DRY CLEANING
Potential COC:	Tetrachloroethylene (PCE
Confirmed COC:	Tetrachloroethylene (PCE
Potential Description:	SOIL, SV
Alias Name:	5508-006-012
Alias Type:	APN
Alias Name:	301558
Alias Type:	Project Code (Site Code)
Alias Name:	60001631
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Voluntary Cleanup Agreement
Completed Date:	02/24/2012
Comments:	VCA
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	05/15/2012
Comments:	CRU memo sent.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	No Further Action Letter
Completed Date:	04/04/2012
Comments:	NFA Letter issued
Completed Area Name:	PROJECT WIDE

LOS ALTOS CLEANERS (Continued) **S106834719**

Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 04/04/2012
Comments: NFA Letter issued

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Voluntary Cleanup Agreement Termination Notification
Completed Date: 04/12/2012
Comments: Sent out VCA end letter

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

EMI:

Year:	1987
County Code:	19
Air Basin:	SC
Facility ID:	36789
Air District Name:	SC
SIC Code:	7216
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	2
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1990
County Code:	19
Air Basin:	SC
Facility ID:	36789
Air District Name:	SC
SIC Code:	7216
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	2
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Count: 5 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
LOS ANGELES	S106517224	HOLLYWOOD GRAND PRIX	4274 & 4278 3RD ST.	90010	LUST
LOS ANGELES	S107735906	BELMONT/HOLLYWOOD NO. 1	OAKWOOD AVENUE/JUANITA AVENUE	90004	ENVIROSTOR, SCH
LOS ANGELES	1010737467	CENTRAL LOS ANGELES MIDDLE SCHOOL	VERMONT AVENUE/WILSHIRE BOULEV	90020	FINDS, ECHO
LOS ANGELES	S107736104	CENTRAL LOS ANGELES MIDDLE SCHOOL	VERMONT AVENUE/WILSHIRE BOULEV	90020	ENVIROSTOR, SCH
LOS ANGELES	S107736635	LOS ANGELES ELEMENTARY SCHOOL NO.	WILSHIRE BOULEVARD/WILTON PLAC	90010	ENVIROSTOR, SCH

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 10/30/2015
Date Data Arrived at EDR: 11/07/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 58

Source: EPA
Telephone: N/A
Last EDR Contact: 01/26/2016
Next Scheduled EDR Contact: 04/18/2016
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 10/30/2015
Date Data Arrived at EDR: 11/07/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 58

Source: EPA
Telephone: N/A
Last EDR Contact: 01/26/2016
Next Scheduled EDR Contact: 04/18/2016
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 10/30/2015
Date Data Arrived at EDR: 11/07/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 58

Source: EPA
Telephone: N/A
Last EDR Contact: 01/26/2016
Next Scheduled EDR Contact: 04/18/2016
Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 03/26/2015
Date Data Arrived at EDR: 04/08/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 64

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 01/06/2016
Next Scheduled EDR Contact: 04/18/2016
Data Release Frequency: Varies

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 11/11/2013
Date Made Active in Reports: 02/13/2014
Number of Days to Update: 94

Source: EPA
Telephone: 703-412-9810
Last EDR Contact: 02/19/2016
Next Scheduled EDR Contact: 06/06/2016
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 11/11/2013
Date Made Active in Reports: 02/13/2014
Number of Days to Update: 94

Source: EPA
Telephone: 703-412-9810
Last EDR Contact: 02/19/2016
Next Scheduled EDR Contact: 06/06/2016
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 06/09/2015
Date Data Arrived at EDR: 06/26/2015
Date Made Active in Reports: 09/16/2015
Number of Days to Update: 82

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 12/18/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 06/09/2015
Date Data Arrived at EDR: 06/26/2015
Date Made Active in Reports: 09/16/2015
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 12/18/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/09/2015
Date Data Arrived at EDR: 06/26/2015
Date Made Active in Reports: 09/16/2015
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 12/18/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 06/09/2015
Date Data Arrived at EDR: 06/26/2015
Date Made Active in Reports: 09/16/2015
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 12/18/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/09/2015
Date Data Arrived at EDR: 06/26/2015
Date Made Active in Reports: 09/16/2015
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 12/18/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Varies

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/28/2015
Date Data Arrived at EDR: 05/29/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 13

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 02/16/2016
Next Scheduled EDR Contact: 05/30/2016
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 09/10/2015
Date Data Arrived at EDR: 09/11/2015
Date Made Active in Reports: 11/03/2015
Number of Days to Update: 53

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 02/29/2016
Next Scheduled EDR Contact: 06/13/2016
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 09/10/2015
Date Data Arrived at EDR: 09/11/2015
Date Made Active in Reports: 11/03/2015
Number of Days to Update: 53

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 02/29/2016
Next Scheduled EDR Contact: 06/13/2016
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 06/22/2015
Date Data Arrived at EDR: 06/26/2015
Date Made Active in Reports: 09/16/2015
Number of Days to Update: 82

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 12/29/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Annually

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 11/07/2015
Date Data Arrived at EDR: 11/07/2015
Date Made Active in Reports: 12/17/2015
Number of Days to Update: 40

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/03/2016
Next Scheduled EDR Contact: 05/16/2016
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 11/07/2015
Date Data Arrived at EDR: 11/07/2015
Date Made Active in Reports: 12/17/2015
Number of Days to Update: 40

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/03/2016
Next Scheduled EDR Contact: 05/16/2016
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 11/16/2015
Date Data Arrived at EDR: 11/18/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 64

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 02/17/2016
Next Scheduled EDR Contact: 05/30/2016
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST REG 6V: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing

For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

LUST REG 7: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks
California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Varies

LUST REG 4: Underground Storage Tank Leak List
Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST REG 9: Leaking Underground Storage Tank Report
Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List
Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

LUST REG 1: Active Toxic Site Investigation
Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST: Geotracker's Leaking Underground Fuel Tank Report

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state. For more information on a particular leaking underground storage tank sites, please contact the appropriate regulatory agency.

Date of Government Version: 12/14/2015
Date Data Arrived at EDR: 12/14/2015
Date Made Active in Reports: 02/08/2016
Number of Days to Update: 56

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 12/14/2015
Next Scheduled EDR Contact: 03/28/2016
Data Release Frequency: Quarterly

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 01/08/2015
Date Data Arrived at EDR: 01/08/2015
Date Made Active in Reports: 02/09/2015
Number of Days to Update: 32

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 01/27/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Quarterly

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 01/07/2016
Date Data Arrived at EDR: 01/08/2016
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 41

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Quarterly

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 10/13/2015
Date Data Arrived at EDR: 10/23/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 118

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Quarterly

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land

Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 11/04/2015
Date Data Arrived at EDR: 11/13/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 52

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land

A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 10/27/2015
Date Data Arrived at EDR: 10/29/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 67

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 02/22/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 03/30/2015
Date Data Arrived at EDR: 04/28/2015
Date Made Active in Reports: 06/22/2015
Number of Days to Update: 55

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 08/20/2015
Date Data Arrived at EDR: 10/30/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 111

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 11/24/2015
Date Data Arrived at EDR: 12/01/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 34

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Semi-Annually

SLIC: Statewide SLIC Cases
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 12/14/2015
Date Data Arrived at EDR: 12/14/2015
Date Made Active in Reports: 02/08/2016
Number of Days to Update: 56

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/14/2015
Next Scheduled EDR Contact: 03/28/2016
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: Semi-Annually

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Varies

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Semi-Annually

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: Annually

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010
Date Data Arrived at EDR: 02/16/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 55

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 01/08/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Varies

UST: Active UST Facilities

Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 12/14/2015
Date Data Arrived at EDR: 12/14/2015
Date Made Active in Reports: 02/08/2016
Number of Days to Update: 56

Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 12/14/2015
Next Scheduled EDR Contact: 03/28/2016
Data Release Frequency: Semi-Annually

AST: Aboveground Petroleum Storage Tank Facilities

A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 08/01/2009
Date Data Arrived at EDR: 09/10/2009
Date Made Active in Reports: 10/01/2009
Number of Days to Update: 21

Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 12/23/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Quarterly

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/20/2015
Date Data Arrived at EDR: 10/29/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 67

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 02/22/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 11/24/2015
Date Data Arrived at EDR: 12/01/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 34

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Semi-Annually

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 11/05/2015
Date Data Arrived at EDR: 11/13/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 52

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 08/20/2015
Date Data Arrived at EDR: 10/30/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 111

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Semi-Annually

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 09/23/2014
Date Data Arrived at EDR: 11/25/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 65

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 10/13/2015
Date Data Arrived at EDR: 10/23/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 118

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Quarterly

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 12/14/2014
Date Data Arrived at EDR: 02/13/2015
Date Made Active in Reports: 03/13/2015
Number of Days to Update: 28

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 01/27/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Quarterly

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 01/07/2016
Date Data Arrived at EDR: 01/08/2016
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 41

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Quarterly

State and tribal voluntary cleanup sites

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 12/28/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng
A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

VCP: Voluntary Cleanup Program Properties
Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 11/07/2015
Date Data Arrived at EDR: 11/07/2015
Date Made Active in Reports: 12/17/2015
Number of Days to Update: 40

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/03/2016
Next Scheduled EDR Contact: 05/16/2016
Data Release Frequency: Quarterly

State and tribal Brownfields sites

BROWNFIELDS: Considered Brownfieds Sites Listing
A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

Date of Government Version: 12/04/2015
Date Data Arrived at EDR: 12/08/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 44

Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 03/07/2016
Next Scheduled EDR Contact: 06/20/2016
Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 12/22/2015
Date Data Arrived at EDR: 12/23/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 12/21/2015
Next Scheduled EDR Contact: 04/04/2016
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: Waste Management Unit Database

Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 02/08/2016
Next Scheduled EDR Contact: 05/23/2016
Data Release Frequency: No Update Planned

SWRCY: Recycler Database

A listing of recycling facilities in California.

Date of Government Version: 12/14/2015
Date Data Arrived at EDR: 12/17/2015
Date Made Active in Reports: 02/08/2016
Number of Days to Update: 53

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 12/17/2015
Next Scheduled EDR Contact: 03/28/2016
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing

A listing of registered waste tire haulers.

Date of Government Version: 11/23/2015
Date Data Arrived at EDR: 11/24/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 58

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 02/14/2016
Next Scheduled EDR Contact: 05/30/2016
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 02/01/2016
Next Scheduled EDR Contact: 05/16/2016
Data Release Frequency: Varies

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations
A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137
Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: No Update Planned

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register
A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 09/17/2015
Date Data Arrived at EDR: 12/04/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 76
Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 03/01/2016
Next Scheduled EDR Contact: 06/13/2016
Data Release Frequency: No Update Planned

HIST CAL-SITES: Calsites Database
The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21
Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program
This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 11/07/2015
Date Data Arrived at EDR: 11/07/2015
Date Made Active in Reports: 12/17/2015
Number of Days to Update: 40
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/03/2016
Next Scheduled EDR Contact: 05/16/2016
Data Release Frequency: Quarterly

CDL: Clandestine Drug Labs
A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 03/10/2015
Date Made Active in Reports: 03/18/2015
Number of Days to Update: 8
Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 01/11/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Varies

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 09/17/2015
Date Data Arrived at EDR: 12/04/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 76

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 03/01/2016
Next Scheduled EDR Contact: 06/13/2016
Data Release Frequency: Quarterly

Local Lists of Registered Storage Tanks

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 11/25/2015
Date Data Arrived at EDR: 12/01/2015
Date Made Active in Reports: 12/17/2015
Number of Days to Update: 16

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 03/14/2016
Next Scheduled EDR Contact: 06/13/2016
Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Land Records

LIENS: Environmental Liens Listing

A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 12/17/2015
Date Data Arrived at EDR: 12/22/2015
Date Made Active in Reports: 02/08/2016
Number of Days to Update: 48

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 03/07/2016
Next Scheduled EDR Contact: 06/20/2016
Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 02/18/2014
Date Data Arrived at EDR: 03/18/2014
Date Made Active in Reports: 04/24/2014
Number of Days to Update: 37

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 03/11/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Varies

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 12/07/2015
Date Data Arrived at EDR: 12/08/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 44

Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 03/08/2016
Next Scheduled EDR Contact: 06/20/2016
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 06/24/2015
Date Data Arrived at EDR: 06/26/2015
Date Made Active in Reports: 09/02/2015
Number of Days to Update: 68

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 12/30/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Annually

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 09/25/2015
Date Data Arrived at EDR: 10/27/2015
Date Made Active in Reports: 11/16/2015
Number of Days to Update: 20

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 01/27/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Varies

LDS: Land Disposal Sites Listing

The Land Disposal program regulates of waste discharge to land for treatment, storage and disposal in waste management units.

Date of Government Version: 12/14/2015
Date Data Arrived at EDR: 12/14/2015
Date Made Active in Reports: 02/08/2016
Number of Days to Update: 56

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/14/2015
Next Scheduled EDR Contact: 03/28/2016
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing

The State Water Resources Control Board and nine Regional Water Quality Control Boards partner with the Department of Defense (DoD) through the Defense and State Memorandum of Agreement (DSMOA) to oversee the investigation and remediation of water quality issues at military facilities.

Date of Government Version: 12/14/2015
Date Data Arrived at EDR: 12/14/2015
Date Made Active in Reports: 02/08/2016
Number of Days to Update: 56

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/14/2015
Next Scheduled EDR Contact: 03/28/2016
Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 06/09/2015
Date Data Arrived at EDR: 06/26/2015
Date Made Active in Reports: 09/16/2015
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 12/18/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Varies

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 01/31/2015
Date Data Arrived at EDR: 07/08/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 97

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 03/11/2016
Next Scheduled EDR Contact: 06/20/2016
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 01/15/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 01/15/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 03/07/2011
Date Data Arrived at EDR: 03/09/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 54

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 02/19/2016
Next Scheduled EDR Contact: 05/30/2016
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 09/01/2015
Date Data Arrived at EDR: 09/03/2015
Date Made Active in Reports: 11/03/2015
Number of Days to Update: 61

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 02/16/2016
Next Scheduled EDR Contact: 05/30/2016
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 02/09/2016
Next Scheduled EDR Contact: 05/23/2016
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 04/22/2013
Date Data Arrived at EDR: 03/03/2015
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 6

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 02/12/2016
Next Scheduled EDR Contact: 05/23/2016
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 01/15/2015
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 14

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 12/23/2015
Next Scheduled EDR Contact: 04/04/2016
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 02/12/2015
Date Made Active in Reports: 06/02/2015
Number of Days to Update: 110

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 02/24/2016
Next Scheduled EDR Contact: 06/06/2016
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 11/25/2013
Date Data Arrived at EDR: 12/12/2013
Date Made Active in Reports: 02/24/2014
Number of Days to Update: 74

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 03/08/2016
Next Scheduled EDR Contact: 06/20/2016
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 08/01/2015
Date Data Arrived at EDR: 08/26/2015
Date Made Active in Reports: 11/03/2015
Number of Days to Update: 69

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 10/17/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 3

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 02/12/2016
Next Scheduled EDR Contact: 05/23/2016
Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 10/15/2014
Date Made Active in Reports: 11/17/2014
Number of Days to Update: 33

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 01/12/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 01/23/2015
Date Data Arrived at EDR: 02/06/2015
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 31

Source: Environmental Protection Agency
Telephone: 202-564-5088
Last EDR Contact: 01/08/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 02/22/2016
Next Scheduled EDR Contact: 06/06/2016
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 02/22/2016
Next Scheduled EDR Contact: 06/06/2016
Data Release Frequency: Quarterly

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 06/26/2015
Date Data Arrived at EDR: 07/10/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 95
Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 02/08/2016
Next Scheduled EDR Contact: 05/23/2016
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76
Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 01/13/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 03/11/2016
Next Scheduled EDR Contact: 06/20/2016
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 02/01/2011
Date Data Arrived at EDR: 10/19/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 83
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 01/29/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/07/2015
Date Data Arrived at EDR: 07/09/2015
Date Made Active in Reports: 09/16/2015
Number of Days to Update: 69

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 01/07/2016
Next Scheduled EDR Contact: 04/18/2016
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012
Date Data Arrived at EDR: 08/07/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 42

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 02/03/2016
Next Scheduled EDR Contact: 05/16/2016
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 04/17/2015
Date Made Active in Reports: 06/02/2015
Number of Days to Update: 46

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 12/23/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 02/24/2015
Date Made Active in Reports: 09/30/2015
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 02/26/2016
Next Scheduled EDR Contact: 06/06/2016
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 12/08/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 34

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 01/15/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 11/23/2015
Date Data Arrived at EDR: 11/24/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 86

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 02/08/2016
Next Scheduled EDR Contact: 05/23/2016
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010
Date Data Arrived at EDR: 10/07/2011
Date Made Active in Reports: 03/01/2012
Number of Days to Update: 146

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 02/22/2016
Next Scheduled EDR Contact: 06/06/2016
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 11/25/2014
Date Data Arrived at EDR: 11/26/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 64

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 01/26/2016
Next Scheduled EDR Contact: 04/18/2016
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/20/2015
Date Data Arrived at EDR: 10/27/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 69

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 12/22/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data
A listing of minor source facilities.

Date of Government Version: 10/20/2015
Date Data Arrived at EDR: 10/27/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 69

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 12/22/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Annually

US MINES: Mines Master Index File
Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 08/18/2015
Date Data Arrived at EDR: 09/01/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 125

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 03/02/2016
Next Scheduled EDR Contact: 06/13/2016
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing
This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005
Date Data Arrived at EDR: 02/29/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 49

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 03/04/2016
Next Scheduled EDR Contact: 06/13/2016
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing
Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 03/04/2016
Next Scheduled EDR Contact: 06/13/2016
Data Release Frequency: Varies

FINDS: Facility Index System/Facility Registry System
Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 07/20/2015
Date Data Arrived at EDR: 09/09/2015
Date Made Active in Reports: 11/03/2015
Number of Days to Update: 55

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 03/08/2016
Next Scheduled EDR Contact: 06/20/2016
Data Release Frequency: Quarterly

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6

Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CORTESE: "Cortese" Hazardous Waste & Substances Sites List

The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 12/28/2015
Date Data Arrived at EDR: 12/29/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 23

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 12/29/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Quarterly

DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 08/10/2015
Date Data Arrived at EDR: 08/27/2015
Date Made Active in Reports: 10/01/2015
Number of Days to Update: 35

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 02/05/2016
Next Scheduled EDR Contact: 06/20/2016
Data Release Frequency: Annually

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 09/25/2015
Date Made Active in Reports: 11/05/2015
Number of Days to Update: 41

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 12/23/2015
Next Scheduled EDR Contact: 04/04/2016
Data Release Frequency: Varies

ENF: Enforcement Action Listing

A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 11/18/2015
Date Data Arrived at EDR: 11/23/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 59

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing

Financial Assurance information

Date of Government Version: 11/02/2015
Date Data Arrived at EDR: 11/07/2015
Date Made Active in Reports: 12/17/2015
Number of Days to Update: 40

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 11/18/2015
Date Data Arrived at EDR: 11/23/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 59

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 02/16/2016
Next Scheduled EDR Contact: 05/30/2016
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 10/14/2015
Date Made Active in Reports: 12/11/2015
Number of Days to Update: 58

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 01/11/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Annually

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HWP: EnviroStor Permitted Facilities Listing

Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 11/23/2015
Date Data Arrived at EDR: 11/24/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 58

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/24/2016
Next Scheduled EDR Contact: 06/06/2016
Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 01/11/2016
Date Data Arrived at EDR: 01/13/2016
Date Made Active in Reports: 02/22/2016
Number of Days to Update: 40

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 01/13/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Quarterly

MINES: Mines Site Location Listing

A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 12/14/2015
Date Data Arrived at EDR: 12/17/2015
Date Made Active in Reports: 02/08/2016
Number of Days to Update: 53

Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 12/17/2015
Next Scheduled EDR Contact: 03/28/2016
Data Release Frequency: Varies

MWMP: Medical Waste Management Program Listing

The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 11/10/2015
Date Data Arrived at EDR: 12/08/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 44

Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 03/08/2016
Next Scheduled EDR Contact: 06/20/2016
Data Release Frequency: Varies

NPDES: NPDES Permits Listing

A listing of NPDES permits, including stormwater.

Date of Government Version: 11/16/2015
Date Data Arrived at EDR: 11/18/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 64

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 02/17/2016
Next Scheduled EDR Contact: 05/30/2016
Data Release Frequency: Quarterly

PEST LIC: Pesticide Regulation Licenses Listing

A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 12/07/2015
Date Data Arrived at EDR: 12/08/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 44

Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 03/08/2016
Next Scheduled EDR Contact: 06/20/2016
Data Release Frequency: Quarterly

PROC: Certified Processors Database

A listing of certified processors.

Date of Government Version: 12/14/2015
Date Data Arrived at EDR: 12/17/2015
Date Made Active in Reports: 03/01/2016
Number of Days to Update: 75

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 12/17/2015
Next Scheduled EDR Contact: 03/28/2016
Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records

Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 09/10/2015
Date Data Arrived at EDR: 01/05/2016
Date Made Active in Reports: 02/12/2016
Number of Days to Update: 38

Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 12/17/2015
Next Scheduled EDR Contact: 04/04/2016
Data Release Frequency: No Update Planned

UIC: UIC Listing

A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 07/23/2015
Date Data Arrived at EDR: 09/15/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 28

Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 12/18/2015
Next Scheduled EDR Contact: 03/28/2016
Data Release Frequency: Varies

WASTEWATER PITS: Oil Wastewater Pits Listing

Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water board?s review found that more than one-third of the region?s active disposal pits are operating without permission.

Date of Government Version: 04/15/2015
Date Data Arrived at EDR: 04/17/2015
Date Made Active in Reports: 06/23/2015
Number of Days to Update: 67

Source: RWQCB, Central Valley Region
Telephone: 559-445-5577
Last EDR Contact: 01/15/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Varies

WDS: Waste Discharge System

Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9

Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 02/19/2016
Next Scheduled EDR Contact: 06/16/2016
Data Release Frequency: Quarterly

WIP: Well Investigation Program Case List

Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13

Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 12/23/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Varies

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 09/20/2015
Date Data Arrived at EDR: 09/23/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 103

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 12/21/2015
Next Scheduled EDR Contact: 04/04/2016
Data Release Frequency: Quarterly

FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 11/23/2015
Date Data Arrived at EDR: 11/24/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 86

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 02/24/2016
Next Scheduled EDR Contact: 06/06/2016
Data Release Frequency: Quarterly

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historic Gas Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historic Dry Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

COUNTY RECORDS

ALAMEDA COUNTY:

Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 01/11/2016
Date Data Arrived at EDR: 01/12/2016
Date Made Active in Reports: 02/22/2016
Number of Days to Update: 41

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 01/11/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Semi-Annually

Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 01/11/2016
Date Data Arrived at EDR: 01/14/2016
Date Made Active in Reports: 03/01/2016
Number of Days to Update: 47

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 01/11/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA Facility List

Cupa Facility List

Date of Government Version: 11/16/2015
Date Data Arrived at EDR: 12/10/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 42

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 03/07/2016
Next Scheduled EDR Contact: 06/20/2016
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA Facility Listing

Cupa facility list.

Date of Government Version: 11/20/2014
Date Data Arrived at EDR: 11/24/2014
Date Made Active in Reports: 01/07/2015
Number of Days to Update: 44

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 02/19/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA Facility Listing

Cupa Facility Listing

Date of Government Version: 02/02/2016
Date Data Arrived at EDR: 02/04/2016
Date Made Active in Reports: 02/22/2016
Number of Days to Update: 18

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 12/28/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 06/08/2015
Date Data Arrived at EDR: 09/22/2015
Date Made Active in Reports: 10/14/2015
Number of Days to Update: 22

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 02/22/2016
Next Scheduled EDR Contact: 05/23/2016
Data Release Frequency: Varies

CONTRA COSTA COUNTY:

Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 12/01/2015
Date Data Arrived at EDR: 12/04/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 48

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 02/01/2016
Next Scheduled EDR Contact: 05/16/2016
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA Facility List
Cupa Facility list

Date of Government Version: 01/22/2016
Date Data Arrived at EDR: 02/05/2016
Date Made Active in Reports: 03/07/2016
Number of Days to Update: 31

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 02/01/2016
Next Scheduled EDR Contact: 05/16/2016
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 11/30/2015
Date Data Arrived at EDR: 12/03/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 49

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 02/01/2016
Next Scheduled EDR Contact: 05/16/2016
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA Resources List
Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 01/05/2016
Date Data Arrived at EDR: 01/08/2016
Date Made Active in Reports: 02/22/2016
Number of Days to Update: 45

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 01/04/2016
Next Scheduled EDR Contact: 04/18/2016
Data Release Frequency: Semi-Annually

HUMBOLDT COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 12/02/2015
Date Data Arrived at EDR: 12/04/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 48

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 02/22/2016
Next Scheduled EDR Contact: 06/06/2016
Data Release Frequency: Varies

IMPERIAL COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 01/25/2016
Date Data Arrived at EDR: 01/27/2016
Date Made Active in Reports: 02/22/2016
Number of Days to Update: 26

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Varies

INYO COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 09/10/2013
Date Data Arrived at EDR: 09/11/2013
Date Made Active in Reports: 10/14/2013
Number of Days to Update: 33

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 02/22/2016
Next Scheduled EDR Contact: 06/06/2016
Data Release Frequency: Varies

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 05/19/2015
Date Data Arrived at EDR: 06/18/2015
Date Made Active in Reports: 07/22/2015
Number of Days to Update: 34

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 02/22/2016
Next Scheduled EDR Contact: 05/23/2016
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 11/19/2015
Date Data Arrived at EDR: 11/23/2015
Date Made Active in Reports: 12/11/2015
Number of Days to Update: 18

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 02/22/2016
Next Scheduled EDR Contact: 06/06/2016
Data Release Frequency: Varies

LAKE COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 01/22/2016
Date Data Arrived at EDR: 01/26/2016
Date Made Active in Reports: 02/22/2016
Number of Days to Update: 27

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 01/19/2016
Next Scheduled EDR Contact: 05/02/2016
Data Release Frequency: Varies

LOS ANGELES COUNTY:

San Gabriel Valley Areas of Concern
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: EPA Region 9
Telephone: 415-972-3178
Last EDR Contact: 12/17/2015
Next Scheduled EDR Contact: 04/04/2016
Data Release Frequency: No Update Planned

HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 11/24/2014
Date Data Arrived at EDR: 01/30/2015
Date Made Active in Reports: 03/04/2015
Number of Days to Update: 33

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 01/08/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Semi-Annually

List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 10/19/2015
Date Data Arrived at EDR: 10/20/2015
Date Made Active in Reports: 11/19/2015
Number of Days to Update: 30

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 01/20/2016
Next Scheduled EDR Contact: 05/02/2016
Data Release Frequency: Varies

City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2015
Date Data Arrived at EDR: 07/27/2015
Date Made Active in Reports: 08/10/2015
Number of Days to Update: 14

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 01/19/2016
Next Scheduled EDR Contact: 05/02/2016
Data Release Frequency: Varies

Site Mitigation List
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 01/15/2015
Date Data Arrived at EDR: 01/29/2015
Date Made Active in Reports: 03/10/2015
Number of Days to Update: 40

Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 02/19/2016
Next Scheduled EDR Contact: 05/02/2016
Data Release Frequency: Annually

City of El Segundo Underground Storage Tank
Underground storage tank sites located in El Segundo city.

Date of Government Version: 03/30/2015
Date Data Arrived at EDR: 04/02/2015
Date Made Active in Reports: 04/13/2015
Number of Days to Update: 11

Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 02/16/2016
Next Scheduled EDR Contact: 05/02/2016
Data Release Frequency: Semi-Annually

City of Long Beach Underground Storage Tank

Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 11/04/2015
Date Data Arrived at EDR: 11/13/2015
Date Made Active in Reports: 12/17/2015
Number of Days to Update: 34

Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Annually

City of Torrance Underground Storage Tank

Underground storage tank sites located in the city of Torrance.

Date of Government Version: 01/12/2016
Date Data Arrived at EDR: 01/15/2016
Date Made Active in Reports: 02/08/2016
Number of Days to Update: 24

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 01/11/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA Facility List

A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 12/11/2015
Date Data Arrived at EDR: 12/14/2015
Date Made Active in Reports: 03/07/2016
Number of Days to Update: 84

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 02/22/2016
Next Scheduled EDR Contact: 06/06/2016
Data Release Frequency: Varies

MARIN COUNTY:

Underground Storage Tank Sites

Currently permitted USTs in Marin County.

Date of Government Version: 10/05/2015
Date Data Arrived at EDR: 10/08/2015
Date Made Active in Reports: 10/15/2015
Number of Days to Update: 7

Source: Public Works Department Waste Management
Telephone: 415-499-6647
Last EDR Contact: 01/19/2016
Next Scheduled EDR Contact: 04/18/2016
Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA Facility List

CUPA facility list.

Date of Government Version: 12/14/2015
Date Data Arrived at EDR: 12/18/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 34

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 02/22/2016
Next Scheduled EDR Contact: 06/06/2016
Data Release Frequency: Varies

MONO COUNTY:

CUPA Facility List
CUPA Facility List

Date of Government Version: 11/24/2015
Date Data Arrived at EDR: 12/01/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 51

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 02/29/2016
Next Scheduled EDR Contact: 06/13/2016
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA Facility Listing
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 12/10/2015
Date Data Arrived at EDR: 12/14/2015
Date Made Active in Reports: 02/12/2016
Number of Days to Update: 60

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 02/22/2016
Next Scheduled EDR Contact: 06/06/2016
Data Release Frequency: Varies

NAPA COUNTY:

Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 12/05/2011
Date Data Arrived at EDR: 12/06/2011
Date Made Active in Reports: 02/07/2012
Number of Days to Update: 63

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 02/29/2016
Next Scheduled EDR Contact: 06/13/2016
Data Release Frequency: No Update Planned

Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 01/15/2008
Date Data Arrived at EDR: 01/16/2008
Date Made Active in Reports: 02/08/2008
Number of Days to Update: 23

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 02/29/2016
Next Scheduled EDR Contact: 06/13/2016
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 01/27/2016
Date Data Arrived at EDR: 02/04/2016
Date Made Active in Reports: 02/22/2016
Number of Days to Update: 18

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 02/01/2016
Next Scheduled EDR Contact: 05/16/2016
Data Release Frequency: Varies

ORANGE COUNTY:

List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 11/01/2015
Date Data Arrived at EDR: 11/17/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 65

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/09/2016
Next Scheduled EDR Contact: 05/23/2016
Data Release Frequency: Annually

List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 08/03/2015
Date Data Arrived at EDR: 08/10/2015
Date Made Active in Reports: 09/11/2015
Number of Days to Update: 32

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/09/2016
Next Scheduled EDR Contact: 05/23/2016
Data Release Frequency: Quarterly

List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 11/01/2015
Date Data Arrived at EDR: 11/11/2015
Date Made Active in Reports: 12/17/2015
Number of Days to Update: 36

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/10/2016
Next Scheduled EDR Contact: 05/23/2016
Data Release Frequency: Quarterly

PLACER COUNTY:

Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 12/09/2015
Date Data Arrived at EDR: 12/11/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 41

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 03/07/2016
Next Scheduled EDR Contact: 06/20/2016
Data Release Frequency: Semi-Annually

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 10/26/2015
Date Data Arrived at EDR: 10/28/2015
Date Made Active in Reports: 11/19/2015
Number of Days to Update: 22

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 12/17/2015
Next Scheduled EDR Contact: 04/04/2016
Data Release Frequency: Quarterly

Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 10/26/2015
Date Data Arrived at EDR: 10/28/2015
Date Made Active in Reports: 11/19/2015
Number of Days to Update: 22

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 12/17/2015
Next Scheduled EDR Contact: 04/04/2016
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

Toxic Site Clean-Up List

List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 11/02/2015
Date Data Arrived at EDR: 01/05/2016
Date Made Active in Reports: 02/12/2016
Number of Days to Update: 38

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 01/05/2016
Next Scheduled EDR Contact: 04/18/2016
Data Release Frequency: Quarterly

Master Hazardous Materials Facility List

Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 11/02/2015
Date Data Arrived at EDR: 01/05/2016
Date Made Active in Reports: 02/12/2016
Number of Days to Update: 38

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 01/05/2016
Next Scheduled EDR Contact: 04/18/2016
Data Release Frequency: Quarterly

SAN BERNARDINO COUNTY:

Hazardous Material Permits

This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 12/14/2015
Date Data Arrived at EDR: 12/18/2015
Date Made Active in Reports: 02/08/2016
Number of Days to Update: 52

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 02/08/2016
Next Scheduled EDR Contact: 05/23/2016
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 09/23/2013
Date Data Arrived at EDR: 09/24/2013
Date Made Active in Reports: 10/17/2013
Number of Days to Update: 23

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 03/07/2016
Next Scheduled EDR Contact: 06/20/2016
Data Release Frequency: Quarterly

Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 10/31/2015
Date Data Arrived at EDR: 11/07/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 58

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Varies

Environmental Case Listing
The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24
Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 03/03/2016
Next Scheduled EDR Contact: 06/20/2016
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

Local Oversite Facilities
A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10
Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 02/08/2016
Next Scheduled EDR Contact: 05/23/2016
Data Release Frequency: Quarterly

Underground Storage Tank Information
Underground storage tank sites located in San Francisco county.

Date of Government Version: 11/29/2010
Date Data Arrived at EDR: 03/10/2011
Date Made Active in Reports: 03/15/2011
Number of Days to Update: 5
Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 02/08/2016
Next Scheduled EDR Contact: 05/23/2016
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 12/18/2015
Date Data Arrived at EDR: 12/22/2015
Date Made Active in Reports: 02/08/2016
Number of Days to Update: 48
Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 12/17/2015
Next Scheduled EDR Contact: 04/04/2016
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 12/07/2015
Date Data Arrived at EDR: 12/10/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 42
Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 02/22/2016
Next Scheduled EDR Contact: 06/21/2016
Data Release Frequency: Varies

SAN MATEO COUNTY:

Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 10/14/2015
Date Data Arrived at EDR: 10/15/2015
Date Made Active in Reports: 11/16/2015
Number of Days to Update: 32

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 03/14/2016
Next Scheduled EDR Contact: 06/27/2016
Data Release Frequency: Annually

Fuel Leak List

A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 12/14/2015
Date Data Arrived at EDR: 12/17/2015
Date Made Active in Reports: 02/08/2016
Number of Days to Update: 53

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 03/14/2016
Next Scheduled EDR Contact: 06/27/2016
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA Facility Listing

CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28

Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 02/22/2016
Next Scheduled EDR Contact: 06/06/2016
Data Release Frequency: Varies

SANTA CLARA COUNTY:

Cupa Facility List

Cupa facility list

Date of Government Version: 11/18/2015
Date Data Arrived at EDR: 11/24/2015
Date Made Active in Reports: 12/11/2015
Number of Days to Update: 17

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 02/22/2016
Next Scheduled EDR Contact: 06/06/2016
Data Release Frequency: Varies

HIST LUST - Fuel Leak Site Activity Report

A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LOP Listing

A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 02/29/2016
Next Scheduled EDR Contact: 06/13/2016
Data Release Frequency: Annually

Hazardous Material Facilities

Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 11/17/2015
Date Data Arrived at EDR: 11/23/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 59

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 02/08/2016
Next Scheduled EDR Contact: 05/23/2016
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA Facility List
CUPA facility listing.

Date of Government Version: 11/18/2015
Date Data Arrived at EDR: 11/23/2015
Date Made Active in Reports: 12/11/2015
Number of Days to Update: 18

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 02/22/2016
Next Scheduled EDR Contact: 06/06/2016
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 12/09/2015
Date Data Arrived at EDR: 12/10/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 42

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 02/22/2016
Next Scheduled EDR Contact: 06/06/2016
Data Release Frequency: Varies

SOLANO COUNTY:

Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 10/30/2015
Date Data Arrived at EDR: 12/14/2015
Date Made Active in Reports: 02/08/2016
Number of Days to Update: 56

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 03/14/2016
Next Scheduled EDR Contact: 06/27/2016
Data Release Frequency: Quarterly

Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 10/30/2015
Date Data Arrived at EDR: 12/14/2015
Date Made Active in Reports: 02/08/2016
Number of Days to Update: 56

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 03/14/2016
Next Scheduled EDR Contact: 06/27/2016
Data Release Frequency: Quarterly

SONOMA COUNTY:

Cupa Facility List
Cupa Facility list

Date of Government Version: 01/11/2016
Date Data Arrived at EDR: 01/14/2016
Date Made Active in Reports: 02/22/2016
Number of Days to Update: 39

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 01/11/2016
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Varies

Leaking Underground Storage Tank Sites
A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 01/05/2016
Date Data Arrived at EDR: 01/07/2016
Date Made Active in Reports: 02/08/2016
Number of Days to Update: 32

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 12/23/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Quarterly

SUTTER COUNTY:

Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 12/07/2015
Date Data Arrived at EDR: 12/08/2015
Date Made Active in Reports: 12/17/2015
Number of Days to Update: 9

Source: Sutter County Department of Agriculture
Telephone: 530-822-7500
Last EDR Contact: 03/07/2016
Next Scheduled EDR Contact: 06/20/2016
Data Release Frequency: Semi-Annually

TUOLUMNE COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 10/29/2015
Date Data Arrived at EDR: 10/30/2015
Date Made Active in Reports: 12/11/2015
Number of Days to Update: 42

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 03/04/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Varies

VENTURA COUNTY:

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks
The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 08/17/2015
Date Made Active in Reports: 09/03/2015
Number of Days to Update: 17

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Quarterly

Inventory of Illegal Abandoned and Inactive Sites
Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 12/30/2015
Next Scheduled EDR Contact: 04/18/2016
Data Release Frequency: Annually

Listing of Underground Tank Cleanup Sites
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 02/14/2016
Next Scheduled EDR Contact: 05/30/2016
Data Release Frequency: Quarterly

Medical Waste Program List

To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 09/28/2015
Date Data Arrived at EDR: 10/28/2015
Date Made Active in Reports: 11/19/2015
Number of Days to Update: 22

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Quarterly

Underground Tank Closed Sites List

Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 11/30/2015
Date Data Arrived at EDR: 12/17/2015
Date Made Active in Reports: 02/08/2016
Number of Days to Update: 53

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 12/17/2015
Next Scheduled EDR Contact: 03/28/2016
Data Release Frequency: Quarterly

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report

Underground storage tank sites located in Yolo county.

Date of Government Version: 10/19/2015
Date Data Arrived at EDR: 10/27/2015
Date Made Active in Reports: 11/19/2015
Number of Days to Update: 23

Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 02/01/2016
Next Scheduled EDR Contact: 04/18/2016
Data Release Frequency: Annually

YUBA COUNTY:

CUPA Facility List

CUPA facility listing for Yuba County.

Date of Government Version: 02/01/2016
Date Data Arrived at EDR: 02/05/2016
Date Made Active in Reports: 02/22/2016
Number of Days to Update: 17

Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 02/01/2016
Next Scheduled EDR Contact: 05/16/2016
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 07/30/2013
Date Data Arrived at EDR: 08/19/2013
Date Made Active in Reports: 10/03/2013
Number of Days to Update: 45

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 02/18/2016
Next Scheduled EDR Contact: 05/30/2016
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 07/17/2015
Date Made Active in Reports: 08/12/2015
Number of Days to Update: 26

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 01/15/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 11/02/2015
Date Data Arrived at EDR: 11/08/2015
Date Made Active in Reports: 12/09/2015
Number of Days to Update: 31

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 02/03/2016
Next Scheduled EDR Contact: 05/16/2016
Data Release Frequency: Annually

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/24/2015
Date Made Active in Reports: 08/18/2015
Number of Days to Update: 25

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 01/19/2016
Next Scheduled EDR Contact: 05/02/2016
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 06/19/2015
Date Made Active in Reports: 07/15/2015
Number of Days to Update: 26

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 03/07/2016
Next Scheduled EDR Contact: 06/06/2016
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 03/19/2015
Date Made Active in Reports: 04/07/2015
Number of Days to Update: 19

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 03/14/2016
Next Scheduled EDR Contact: 06/27/2016
Data Release Frequency: Annually

Oil/Gas Pipelines
Source: PennWell Corporation
Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data
Source: PennWell Corporation
This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish & Game
Telephone: 916-445-0411

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

© 2015 TomTom North America, Inc. All rights reserved. This material is proprietary and the subject of copyright protection and other intellectual property rights owned by or licensed to Tele Atlas North America, Inc. The use of this material is subject to the terms of a license agreement. You will be held liable for any unauthorized copying or disclosure of this material.

GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

BURROUGHS MIDDLE SCHOOL
600 S. MCCADDEN PLACE
LOS ANGELES, CA 90005

TARGET PROPERTY COORDINATES

Latitude (North):	34.063542 - 34° 3' 48.75''
Longitude (West):	118.336254 - 118° 20' 10.51''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	376684.8
UTM Y (Meters):	3769812.2
Elevation:	213 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5630741 HOLLYWOOD, CA
Version Date:	2012

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principal investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

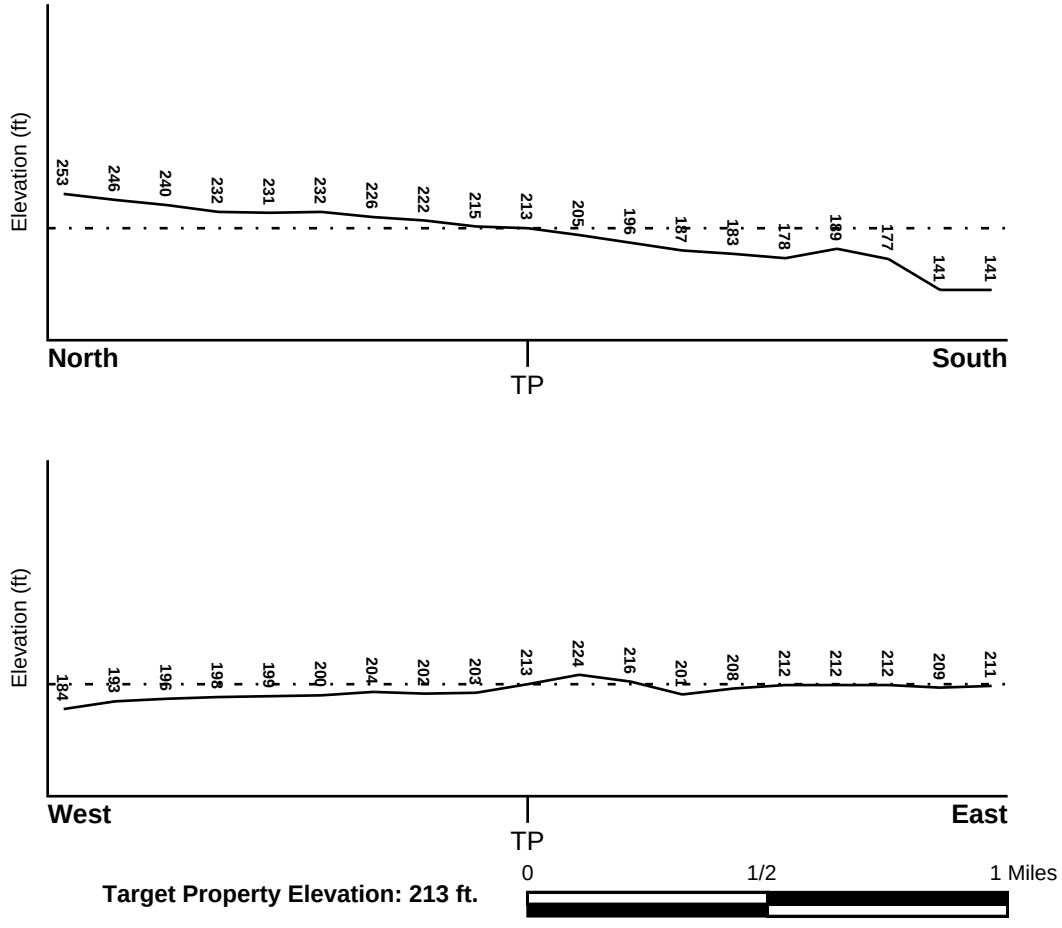
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General SSW

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Target Property County	FEMA Flood Electronic Data
LOS ANGELES, CA	YES - refer to the Overview Map and Detail Map

Flood Plain Panel at Target Property: 06037C - FEMA DFIRM Flood data

Additional Panels in search area: Not Reported

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
HOLLYWOOD	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

* ©1996 Site−specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

Era:	Cenozoic
System:	Quaternary
Series:	Quaternary
Code:	Q *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratifed Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name: URBAN LAND

Soil Surface Texture: variable

Hydrologic Group: Not reported

Soil Drainage Class: Not reported

Hydric Status: Soil does not meet the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 10 inches

Depth to Bedrock Max: > 10 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification			
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	Permeability Rate (in/hr)	Soil Reaction (pH)
1	0 inches	6 inches	variable	Not reported	Not reported	Max: 0.00 Min: 0.00	Max: 0.00 Min: 0.00

OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures:
sandy loam
gravelly - sandy loam
silt loam
clay
fine sand
gravelly - sand
sand
fine sandy loam

Surficial Soil Types:
sandy loam
gravelly - sandy loam
silt loam
clay
fine sand
gravelly - sand
sand
fine sandy loam

Shallow Soil Types:
fine sandy loam
gravelly - loam
sandy clay
sandy clay loam
clay
silty clay
sand

Deeper Soil Types:
gravelly - sandy loam
sandy loam
very gravelly - sandy loam
stratified
very fine sandy loam
weathered bedrock
sand
gravelly - fine sandy loam
silty clay loam
clay loam

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 0.001 miles
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

OTHER STATE DATABASE INFORMATION

STATE OIL/GAS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A1	CAOG11000213973	1/4 - 1/2 Mile WSW
A2	CAOG11000201100	1/4 - 1/2 Mile WSW
3	CAOG11000210803	1/4 - 1/2 Mile North
4	CAOG11000210789	1/4 - 1/2 Mile WNW
B5	CAOG11000210813	1/2 - 1 Mile North
B6	CAOG11000210814	1/2 - 1 Mile North
C7	CAOG11000210812	1/2 - 1 Mile NNW
C8	CAOG11000210811	1/2 - 1 Mile NNW
9	CAOG11000210786	1/2 - 1 Mile NW
C10	CAOG11000210821	1/2 - 1 Mile North
D11	CAOG11000210810	1/2 - 1 Mile NNW
C12	CAOG11000210820	1/2 - 1 Mile NNW
13	CAOG11000210788	1/2 - 1 Mile WNW
D14	CAOG11000210809	1/2 - 1 Mile NNW

STATE OIL/GAS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
D15	CAOG11000210819	1/2 - 1 Mile NNW
16	CAOG11000210768	1/2 - 1 Mile WNW
E17	CAOG11000210475	1/2 - 1 Mile North
E18	CAOG11000210474	1/2 - 1 Mile North
F19	CAOG11000210473	1/2 - 1 Mile NNW
G20	CAOG11000210806	1/2 - 1 Mile NW
D21	CAOG11000210818	1/2 - 1 Mile NNW
22	CAOG11000210637	1/2 - 1 Mile WSW
G23	CAOG11000210808	1/2 - 1 Mile NW
F24	CAOG11000210472	1/2 - 1 Mile NNW
25	CAOG11000210802	1/2 - 1 Mile NW
G26	CAOG11000210805	1/2 - 1 Mile NW
E27	CAOG11000210483	1/2 - 1 Mile North
H28	CAOG11000210817	1/2 - 1 Mile NNW
I29	CAOG11000210471	1/2 - 1 Mile NNW
F30	CAOG11000210482	1/2 - 1 Mile North
G31	CAOG11000210804	1/2 - 1 Mile NW
F32	CAOG11000210481	1/2 - 1 Mile NNW
H33	CAOG11000210470	1/2 - 1 Mile NNW
J34	CAOG11000210791	1/2 - 1 Mile WNW
I35	CAOG11000210480	1/2 - 1 Mile NNW
J36	CAOG11000210790	1/2 - 1 Mile WNW
K37	CAOG11000210816	1/2 - 1 Mile NW
L38	CAOG11000210491	1/2 - 1 Mile North
L39	CAOG11000210492	1/2 - 1 Mile North
L40	CAOG11000210490	1/2 - 1 Mile North
41	CAOG11000210363	1/2 - 1 Mile SW
M42	CAOG11000210807	1/2 - 1 Mile NW
H43	CAOG11000210469	1/2 - 1 Mile NNW
I44	CAOG11000210479	1/2 - 1 Mile NNW
N45	CAOG11000210489	1/2 - 1 Mile North
O46	CAOG11000210766	1/2 - 1 Mile WNW
M47	CAOG11000210656	1/2 - 1 Mile NW
N48	CAOG11000210488	1/2 - 1 Mile NNW
P49	CAOG11000210478	1/2 - 1 Mile NNW
K50	CAOG11000210815	1/2 - 1 Mile NW
Q51	CAOG11000210641	1/2 - 1 Mile NW
R52	CAOG11000210487	1/2 - 1 Mile NNW
L53	CAOG11000210500	1/2 - 1 Mile North
S54	CAOG11000210759	1/2 - 1 Mile West
Q55	CAOG11000210548	1/2 - 1 Mile WNW
N56	CAOG11000210499	1/2 - 1 Mile North
O57	CAOG11000210755	1/2 - 1 Mile WNW
N58	CAOG11000210498	1/2 - 1 Mile NNW
M59	CAOG11000210650	1/2 - 1 Mile NW
O60	CAOG11000210757	1/2 - 1 Mile WNW
P61	CAOG11000210486	1/2 - 1 Mile NNW
S62	CAOG11000210515	1/2 - 1 Mile West
Q63	CAOG11000210640	1/2 - 1 Mile NW
T64	CAOG11000210468	1/2 - 1 Mile NW
65	CAOG11000210477	1/2 - 1 Mile NW
R66	CAOG11000210497	1/2 - 1 Mile NNW
S67	CAOG11000210753	1/2 - 1 Mile West
Q68	CAOG11000210556	1/2 - 1 Mile NW
U69	CAOG11000210774	1/2 - 1 Mile WNW
Q70	CAOG11000210549	1/2 - 1 Mile WNW

STATE OIL/GAS WELL INFORMATION

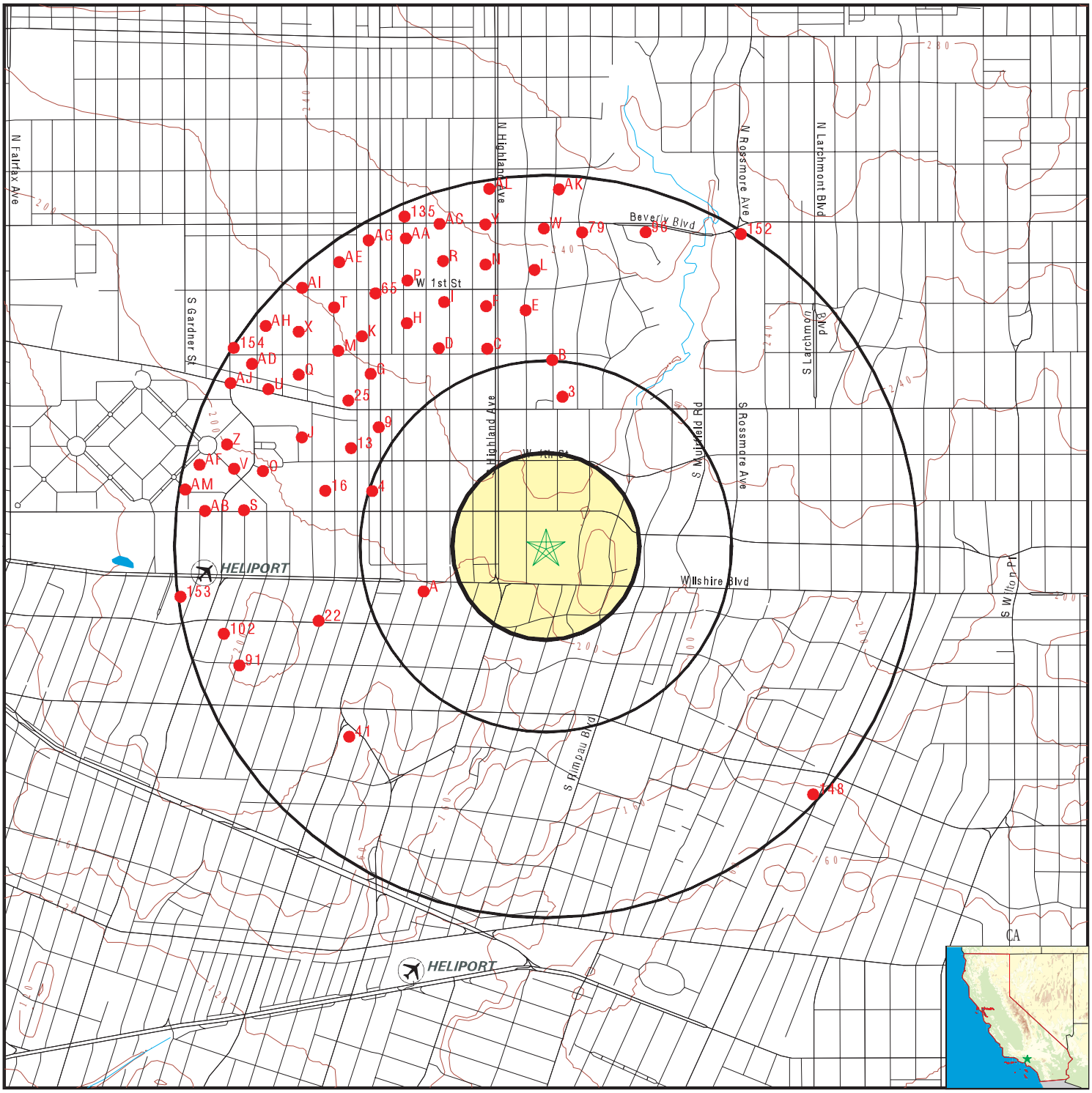
MAP ID	WELL ID	LOCATION FROM TP
V71	CAOG11000210358	1/2 - 1 Mile WNW
P72	CAOG11000210485	1/2 - 1 Mile NNW
R73	CAOG11000210496	1/2 - 1 Mile NNW
W74	CAOG11000210509	1/2 - 1 Mile North
V75	CAOG11000210765	1/2 - 1 Mile WNW
T76	CAOG11000210649	1/2 - 1 Mile NW
W77	CAOG11000210510	1/2 - 1 Mile North
T78	CAOG11000210639	1/2 - 1 Mile NW
79	CAOG11000210511	1/2 - 1 Mile North
W80	CAOG11000210508	1/2 - 1 Mile North
S81	CAOG11000210514	1/2 - 1 Mile West
X82	CAOG11000210642	1/2 - 1 Mile NW
Y83	CAOG11000210507	1/2 - 1 Mile North
Z84	CAOG11000210792	1/2 - 1 Mile WNW
T85	CAOG11000210476	1/2 - 1 Mile NW
V86	CAOG11000210749	1/2 - 1 Mile WNW
AA87	CAOG11000210495	1/2 - 1 Mile NNW
X88	CAOG11000210558	1/2 - 1 Mile NW
V89	CAOG11000210750	1/2 - 1 Mile WNW
Y90	CAOG11000210506	1/2 - 1 Mile NNW
91	CAOG11000210364	1/2 - 1 Mile WSW
U92	CAOG11000210550	1/2 - 1 Mile WNW
W93	CAOG11000210684	1/2 - 1 Mile North
X94	CAOG11000210570	1/2 - 1 Mile NW
AB95	CAOG11000210513	1/2 - 1 Mile West
96	CAOG11000210512	1/2 - 1 Mile NNE
T97	CAOG11000210646	1/2 - 1 Mile NW
T98	CAOG11000210677	1/2 - 1 Mile NW
Y99	CAOG11000210658	1/2 - 1 Mile North
AC100	CAOG11000210505	1/2 - 1 Mile NNW
X101	CAOG11000210643	1/2 - 1 Mile NW
102	CAOG11000210638	1/2 - 1 Mile WSW
V103	CAOG11000210352	1/2 - 1 Mile WNW
X104	CAOG11000210560	1/2 - 1 Mile NW
AB105	CAOG11000210758	1/2 - 1 Mile West
AC106	CAOG11000210355	1/2 - 1 Mile NNW
AD107	CAOG11000210553	1/2 - 1 Mile WNW
Y108	CAOG11000210655	1/2 - 1 Mile NNW
AE109	CAOG11000210484	1/2 - 1 Mile NW
AD110	CAOG11000210551	1/2 - 1 Mile WNW
Z111	CAOG11000210764	1/2 - 1 Mile WNW
AA112	CAOG11000210504	1/2 - 1 Mile NNW
AB113	CAOG11000210752	1/2 - 1 Mile West
AF114	CAOG11000210748	1/2 - 1 Mile WNW
AG115	CAOG11000210494	1/2 - 1 Mile NNW
AB116	CAOG11000210517	1/2 - 1 Mile West
AC117	CAOG11000210653	1/2 - 1 Mile NNW
Z118	CAOG11000210751	1/2 - 1 Mile WNW
AD119	CAOG11000210555	1/2 - 1 Mile NW
AE120	CAOG11000210645	1/2 - 1 Mile NW
AH121	CAOG11000210559	1/2 - 1 Mile NW
AI122	CAOG11000210644	1/2 - 1 Mile NW
AI123	CAOG11000210561	1/2 - 1 Mile NW
AD124	CAOG11000210552	1/2 - 1 Mile WNW
AC125	CAOG11000210652	1/2 - 1 Mile NNW
AA126	CAOG11000210503	1/2 - 1 Mile NNW

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE OIL/GAS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
AB127	CAOG11000210351	1/2 - 1 Mile West
AF128	CAOG11000210516	1/2 - 1 Mile West
AJ129	CAOG11000210772	1/2 - 1 Mile WNW
AJ130	CAOG11000210525	1/2 - 1 Mile WNW
AE131	CAOG11000210493	1/2 - 1 Mile NW
AB132	CAOG11000210754	1/2 - 1 Mile West
AK133	CAOG11000210679	1/2 - 1 Mile North
AK134	CAOG11000210667	1/2 - 1 Mile North
135	CAOG11000210651	1/2 - 1 Mile NNW
AF136	CAOG11000210747	1/2 - 1 Mile WNW
AK137	CAOG11000210681	1/2 - 1 Mile North
AD138	CAOG11000210526	1/2 - 1 Mile WNW
AL139	CAOG11000210657	1/2 - 1 Mile North
AH140	CAOG11000210567	1/2 - 1 Mile NW
AF141	CAOG11000210763	1/2 - 1 Mile WNW
AH142	CAOG11000210554	1/2 - 1 Mile NW
AI143	CAOG11000210562	1/2 - 1 Mile NW
AI144	CAOG11000210647	1/2 - 1 Mile NW
AF145	CAOG11000210761	1/2 - 1 Mile WNW
AE146	CAOG11000210648	1/2 - 1 Mile NW
AM147	CAOG11000210353	1/2 - 1 Mile West
148	CAOG11000200754	1/2 - 1 Mile SE
AL149	CAOG11000210660	1/2 - 1 Mile North
AM150	CAOG11000210760	1/2 - 1 Mile West
AG151	CAOG11000210502	1/2 - 1 Mile NNW
152	CAOG11000216607	1/2 - 1 Mile NNE
153	CAOG11000210369	1/2 - 1 Mile West
154	CAOG11000210537	1/2 - 1 Mile WNW

PHYSICAL SETTING SOURCE MAP - 4564097.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Airports
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location
- HD Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME:	Burroughs Middle School	CLIENT:	WorleyParsons
ADDRESS:	600 S. McCadden Place Los Angeles CA 90005	CONTACT:	Ralph Beck
		INQUIRY #:	4564097.2s
LAT/LONG:	34.063542 / 118.336254	DATE:	March 15, 2016 9:34 am

Copyright © 2016 EDR, Inc. © 2015 TomTom Rel. 2015.

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

A1
WSW
1/4 - 1/2 Mile

OIL_GAS **CAOG11000213973**

District nun:	1	Api number:	03720045
Blm well:	N	Redrill can:	Not Reported
Dryhole:	Y	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Any Field
Area name:	Any Area	Section:	22
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Highland Corehole	Wellnumber:	2
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDH
Site id:	CAOG11000213973		

A2
WSW
1/4 - 1/2 Mile

OIL_GAS **CAOG11000201100**

District nun:	1	Api number:	03701151
Blm well:	N	Redrill can:	Not Reported
Dryhole:	Y	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Any Field
Area name:	Any Area	Section:	22
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Highland Corehole	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDH
Site id:	CAOG11000201100		

3
North
1/4 - 1/2 Mile

OIL_GAS **CAOG11000210803**

District nun:	1	Api number:	03715232
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	22
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	209
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210803		

4
WNW **OIL_GAS** **CAOG11000210789**
1/4 - 1/2 Mile

District nun:	1	Api number:	03715218
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	B
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	46
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	AOG
Site id:	CAOG11000210789		

B5
North **OIL_GAS** **CAOG11000210813**
1/2 - 1 Mile

District nun:	1	Api number:	03715242
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	22
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	unk		

Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	243
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210813		

B6
North
1/2 - 1 Mile

OIL_GAS **CAOG11000210814**

District nun:	1	Api number:	03715243
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	22
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	244
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210814		

C7
NNW
1/2 - 1 Mile

OIL_GAS **CAOG11000210812**

District nun:	1	Api number:	03715241
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	22
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	241
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210812		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

C8
NNW
1/2 - 1 Mile

OIL_GAS **CAOG11000210811**

District nun:	1	Api number:	03715240
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	22
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	240
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210811		

9
NW
1/2 - 1 Mile

OIL_GAS **CAOG11000210786**

District nun:	1	Api number:	03715215
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	41
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210786		

C10
North
1/2 - 1 Mile

OIL_GAS **CAOG11000210821**

District nun:	1	Api number:	03715250
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	22
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	259
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210821		

D11
NNW **OIL_GAS** **CAOG11000210810**
1/2 - 1 Mile

District nun:	1	Api number:	03715239
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	22
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	239
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210810		

C12
NNW **OIL_GAS** **CAOG11000210820**
1/2 - 1 Mile

District nun:	1	Api number:	03715249
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	22
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		

Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	258
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210820		

13
WNW
1/2 - 1 Mile

OIL_GAS **CAOG11000210788**

District nun:	1	Api number:	03715217
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	43
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210788		

D14
NNW
1/2 - 1 Mile

OIL_GAS **CAOG11000210809**

District nun:	1	Api number:	03715238
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	22
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	238
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210809		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

D15
NNW
1/2 - 1 Mile

OIL_GAS **CAOG11000210819**

District nun:	1	Api number:	03715248
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	22
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	257
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210819		

16
WNW
1/2 - 1 Mile

OIL_GAS **CAOG11000210768**

District nun:	1	Api number:	03715197
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	B
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	22
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	AOG
Site id:	CAOG11000210768		

E17
North
1/2 - 1 Mile

OIL_GAS **CAOG11000210475**

District nun:	1	Api number:	03714858
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	22
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	278
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210475		

E18
North **OIL_GAS** **CAOG11000210474**
1/2 - 1 Mile

District nun:	1	Api number:	03714857
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	22
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	277
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210474		

F19
NNW **OIL_GAS** **CAOG11000210473**
1/2 - 1 Mile

District nun:	1	Api number:	03714856
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	22
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		

Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	276
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210473		

G20
NW
1/2 - 1 Mile

OIL_GAS **CAOG11000210806**

District nun:	1	Api number:	03715235
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	219
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210806		

D21
NNW
1/2 - 1 Mile

OIL_GAS **CAOG11000210818**

District nun:	1	Api number:	03715247
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	22
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	256
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210818		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

22
WSW
1/2 - 1 Mile

OIL_GAS **CAOG11000210637**

District nun:	1	Api number:	03715057
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	I
Operator name:	Mesa Oil & Gas Co.		
County name:	Los Angeles	Fieldname:	Any Field
Area name:	Any Area	Section:	28
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Not Reported	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDH
Site id:	CAOG11000210637		

G23
NW
1/2 - 1 Mile

OIL_GAS **CAOG11000210808**

District nun:	1	Api number:	03715237
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	22
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	237
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210808		

F24
NNW
1/2 - 1 Mile

OIL_GAS **CAOG11000210472**

District nun:	1	Api number:	03714855
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	22
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	275
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210472		

25
NW **OIL_GAS** **CAOG11000210802**
1/2 - 1 Mile

District nun:	1	Api number:	03715231
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	200
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210802		

G26
NW **OIL_GAS** **CAOG11000210805**
1/2 - 1 Mile

District nun:	1	Api number:	03715234
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	B
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		

Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	218
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	AOG
Site id:	CAOG11000210805		

E27
North
1/2 - 1 Mile

OIL_GAS **CAOG11000210483**

District nun:	1	Api number:	03714866
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	22
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	295
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210483		

H28
NNW
1/2 - 1 Mile

OIL_GAS **CAOG11000210817**

District nun:	1	Api number:	03715246
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	22
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	255
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210817		

Map ID
Direction
Distance

Database EDR ID Number

I29
NNW
1/2 - 1 Mile

OIL_GAS **CAOG11000210471**

District nun:	1	Api number:	03714854
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	22
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	274
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210471		

F30
North
1/2 - 1 Mile

OIL_GAS **CAOG11000210482**

District nun:	1	Api number:	03714865
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	22
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	294
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210482		

G31
NW
1/2 - 1 Mile

OIL_GAS **CAOG11000210804**

District nun:	1	Api number:	03715233
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	217
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210804		

F32
NNW **OIL_GAS** **CAOG11000210481**
1/2 - 1 Mile

District nun:	1	Api number:	03714864
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	22
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	293
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210481		

H33
NNW **OIL_GAS** **CAOG11000210470**
1/2 - 1 Mile

District nun:	1	Api number:	03714853
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	22
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		

Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	273
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210470		

J34
WNW
1/2 - 1 Mile

OIL_GAS **CAOG11000210791**

District nun:	1	Api number:	03715220
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	51
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210791		

I35
NNW
1/2 - 1 Mile

OIL_GAS **CAOG11000210480**

District nun:	1	Api number:	03714863
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	22
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	292
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210480		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

J36
WNW
1/2 - 1 Mile

OIL_GAS **CAOG11000210790**

District nun:	1	Api number:	03715219
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	50
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210790		

K37
NW
1/2 - 1 Mile

OIL_GAS **CAOG11000210816**

District nun:	1	Api number:	03715245
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	254
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210816		

L38
North
1/2 - 1 Mile

OIL_GAS **CAOG11000210491**

District nun:	1	Api number:	03714874
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	22
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	313
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210491		

L39
North **OIL_GAS** **CAOG11000210492**
1/2 - 1 Mile

District nun:	1	Api number:	03714875
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	22
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	314
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210492		

L40
North **OIL_GAS** **CAOG11000210490**
1/2 - 1 Mile

District nun:	1	Api number:	03714873
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	22
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		

Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	312
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210490		

41
SW
1/2 - 1 Mile

OIL_GAS **CAOG11000210363**

District nun:	1	Api number:	03714688
Blm well:	N	Redrill can:	Not Reported
Dryhole:	Y	Well status:	P
Operator name:	Union Oil Company of California		
County name:	Los Angeles	Fieldname:	Any Field
Area name:	Any Area	Section:	28
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Las Cienegas Core Hole	Wellnumber:	20
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDH
Site id:	CAOG11000210363		

M42
NW
1/2 - 1 Mile

OIL_GAS **CAOG11000210807**

District nun:	1	Api number:	03715236
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	235
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210807		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

H43
NNW
1/2 - 1 Mile

OIL_GAS **CAOG11000210469**

District nun:	1	Api number:	03714852
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	22
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	272
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210469		

I44
NNW
1/2 - 1 Mile

OIL_GAS **CAOG11000210479**

District nun:	1	Api number:	03714862
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	22
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	291
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210479		

N45
North
1/2 - 1 Mile

OIL_GAS **CAOG11000210489**

District nun:	1	Api number:	03714872
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	22
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	311
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210489		

O46
WNW **OIL_GAS** **CAOG11000210766**
1/2 - 1 Mile

District nun:	1	Api number:	03715195
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	20
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210766		

M47
NW **OIL_GAS** **CAOG11000210656**
1/2 - 1 Mile

District nun:	1	Api number:	03715076
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Rancho La Brea Oil co.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		

Comments:	Not Reported		
Leasename:	Not Reported	Wellnumber:	18
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210656		

N48
NNW **OIL_GAS** **CAOG11000210488**
1/2 - 1 Mile

District nun:	1	Api number:	03714871
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	22
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	310
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210488		

P49
NNW **OIL_GAS** **CAOG11000210478**
1/2 - 1 Mile

District nun:	1	Api number:	03714861
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	22
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	290
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210478		

Map ID
Direction
Distance

Database EDR ID Number

K50
NW
1/2 - 1 Mile

OIL_GAS **CAOG11000210815**

District nun:	1	Api number:	03715244
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	252
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210815		

Q51
NW
1/2 - 1 Mile

OIL_GAS **CAOG11000210641**

District nun:	1	Api number:	03715061
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Rancho La Brea Oil co.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Not Reported	Wellnumber:	3
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210641		

R52
NNW
1/2 - 1 Mile

OIL_GAS **CAOG11000210487**

District nun:	1	Api number:	03714870
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	22
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	309
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210487		

L53
North
1/2 - 1 Mile

OIL_GAS **CAOG11000210500**

District nun:	1	Api number:	03714883
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	22
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	330
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210500		

S54
West
1/2 - 1 Mile

OIL_GAS **CAOG11000210759**

District nun:	1	Api number:	03715188
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		

Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	13
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210759		

Q55
WNW
1/2 - 1 Mile

OIL_GAS **CAOG11000210548**

District nun:	1	Api number:	03714932
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	I
Operator name:	Southern California Edison Co.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Clark	Wellnumber:	101
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	AOG
Site id:	CAOG11000210548		

N56
North
1/2 - 1 Mile

OIL_GAS **CAOG11000210499**

District nun:	1	Api number:	03714882
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	22
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	329
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210499		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

O57
WNW
1/2 - 1 Mile

OIL_GAS **CAOG11000210755**

District nun:	1	Api number:	03715184
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	9
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210755		

N58
NNW
1/2 - 1 Mile

OIL_GAS **CAOG11000210498**

District nun:	1	Api number:	03714881
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	22
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	328
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210498		

M59
NW
1/2 - 1 Mile

OIL_GAS **CAOG11000210650**

District nun:	1	Api number:	03715070
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Rancho La Brea Oil co.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Not Reported	Wellnumber:	12
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210650		

O60
WNW **OIL_GAS** **CAOG11000210757**
1/2 - 1 Mile

District nun:	1	Api number:	03715186
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	11
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210757		

P61
NNW **OIL_GAS** **CAOG11000210486**
1/2 - 1 Mile

District nun:	1	Api number:	03714869
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	22
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		

Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	308
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210486		

S62
West
1/2 - 1 Mile

OIL_GAS **CAOG11000210515**

District nun:	1	Api number:	03714898
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	404
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210515		

Q63
NW
1/2 - 1 Mile

OIL_GAS **CAOG11000210640**

District nun:	1	Api number:	03715060
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Rancho La Brea Oil co.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Not Reported	Wellnumber:	2
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210640		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

T64
NW
1/2 - 1 Mile

OIL_GAS **CAOG11000210468**

District nun:	1	Api number:	03714851
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	270
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210468		

65
NW
1/2 - 1 Mile

OIL_GAS **CAOG11000210477**

District nun:	1	Api number:	03714860
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	289
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210477		

R66
NNW
1/2 - 1 Mile

OIL_GAS **CAOG11000210497**

District nun:	1	Api number:	03714880
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	22
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	327
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210497		

S67
West
1/2 - 1 Mile

OIL_GAS **CAOG11000210753**

District nun:	1	Api number:	03715182
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	7
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210753		

Q68
NW
1/2 - 1 Mile

OIL_GAS **CAOG11000210556**

District nun:	1	Api number:	03714940
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Southern California Edison Co.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		

Comments:	Not Reported		
Leasename:	Clark	Wellnumber:	109
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210556		

U69
WNW
1/2 - 1 Mile

OIL_GAS **CAOG11000210774**

District nun:	1	Api number:	03715203
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	28
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210774		

Q70
WNW
1/2 - 1 Mile

OIL_GAS **CAOG11000210549**

District nun:	1	Api number:	03714933
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Southern California Edison Co.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Clark	Wellnumber:	102
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210549		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

V71
WNW
1/2 - 1 Mile

OIL_GAS **CAOG11000210358**

District nun:	1	Api number:	03714683
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	B
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	415
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	AOG
Site id:	CAOG11000210358		

P72
NNW
1/2 - 1 Mile

OIL_GAS **CAOG11000210485**

District nun:	1	Api number:	03714868
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	22
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	307
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210485		

R73
NNW
1/2 - 1 Mile

OIL_GAS **CAOG11000210496**

District nun:	1	Api number:	03714879
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	22
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	326
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210496		

W74
North **OIL_GAS** **CAOG11000210509**
1/2 - 1 Mile

District nun:	1	Api number:	03714892
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	15
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	348
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210509		

V75
WNW **OIL_GAS** **CAOG11000210765**
1/2 - 1 Mile

District nun:	1	Api number:	03715194
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		

Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	19
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210765		

T76
NW
1/2 - 1 Mile

OIL_GAS **CAOG11000210649**

District nun:	1	Api number:	03715069
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Rancho La Brea Oil co.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Not Reported	Wellnumber:	11
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210649		

W77
North
1/2 - 1 Mile

OIL_GAS **CAOG11000210510**

District nun:	1	Api number:	03714893
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	15
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	349
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210510		

Map ID
Direction
Distance

Database EDR ID Number

T78
NW
1/2 - 1 Mile

OIL_GAS **CAOG11000210639**

District nun:	1	Api number:	03715059
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Rancho La Brea Oil co.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Not Reported	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210639		

79
North
1/2 - 1 Mile

OIL_GAS **CAOG11000210511**

District nun:	1	Api number:	03714894
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	B
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	22
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	350
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	AOG
Site id:	CAOG11000210511		

W80
North
1/2 - 1 Mile

OIL_GAS **CAOG11000210508**

District nun:	1	Api number:	03714891
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	15
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	347
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210508		

S81
West
1/2 - 1 Mile

OIL_GAS **CAOG11000210514**

District nun:	1	Api number:	03714897
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	403
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210514		

X82
NW
1/2 - 1 Mile

OIL_GAS **CAOG11000210642**

District nun:	1	Api number:	03715062
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Rancho La Brea Oil co.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		

Comments:	Not Reported		
Leasename:	Not Reported	Wellnumber:	4
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210642		

Y83
North
1/2 - 1 Mile

OIL_GAS **CAOG11000210507**

District nun:	1	Api number:	03714890
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	15
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	346
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210507		

Z84
WNW
1/2 - 1 Mile

OIL_GAS **CAOG11000210792**

District nun:	1	Api number:	03715221
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	54
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210792		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

T85
NW
1/2 - 1 Mile

OIL_GAS **CAOG11000210476**

District nun:	1	Api number:	03714859
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	287
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210476		

V86
WNW
1/2 - 1 Mile

OIL_GAS **CAOG11000210749**

District nun:	1	Api number:	03715178
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	3
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210749		

AA87
NNW
1/2 - 1 Mile

OIL_GAS **CAOG11000210495**

District nun:	1	Api number:	03714878
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	22
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	325
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210495		

X88
NW
1/2 - 1 Mile

OIL_GAS **CAOG11000210558**

District nun:	1	Api number:	03714942
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Southern California Edison Co.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Clark	Wellnumber:	111
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210558		

V89
WNW
1/2 - 1 Mile

OIL_GAS **CAOG11000210750**

District nun:	1	Api number:	03715179
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		

Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	4
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210750		

Y90
NNW
1/2 - 1 Mile

OIL_GAS **CAOG11000210506**

District nun:	1	Api number:	03714889
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	15
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	345
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210506		

91
WSW
1/2 - 1 Mile

OIL_GAS **CAOG11000210364**

District nun:	1	Api number:	03714689
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	B
Operator name:	Union Oil Company of California		
County name:	Los Angeles	Fieldname:	Any Field
Area name:	Any Area	Section:	28
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Masselin	Wellnumber:	4
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	AOG
Site id:	CAOG11000210364		

Map ID
Direction
Distance

Database EDR ID Number

U92
WNW
1/2 - 1 Mile

OIL_GAS **CAOG11000210550**

District nun:	1	Api number:	03714934
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	I
Operator name:	Southern California Edison Co.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Clark	Wellnumber:	103
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	AOG
Site id:	CAOG11000210550		

W93
North
1/2 - 1 Mile

OIL_GAS **CAOG11000210684**

District nun:	1	Api number:	03715104
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Rancho La Brea Oil co.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	15
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Not Reported	Wellnumber:	46
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210684		

X94
NW
1/2 - 1 Mile

OIL_GAS **CAOG11000210570**

District nun:	1	Api number:	03714954
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Southern California Edison Co.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Clark	Wellnumber:	123
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210570		

AB95
West
1/2 - 1 Mile

OIL_GAS **CAOG11000210513**

District nun:	1	Api number:	03714896
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	402
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210513		

96
NNE
1/2 - 1 Mile

OIL_GAS **CAOG11000210512**

District nun:	1	Api number:	03714895
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	B
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	22
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		

Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	352
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	AOG
Site id:	CAOG11000210512		

T97
NW
1/2 - 1 Mile

OIL_GAS **CAOG11000210646**

District nun:	1	Api number:	03715066
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Rancho La Brea Oil co.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Not Reported	Wellnumber:	8
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210646		

T98
NW
1/2 - 1 Mile

OIL_GAS **CAOG11000210677**

District nun:	1	Api number:	03715097
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Rancho La Brea Oil co.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Not Reported	Wellnumber:	39
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210677		

Map ID
Direction
Distance

Database EDR ID Number

Y99
North
1/2 - 1 Mile

OIL_GAS **CAOG11000210658**

District nun:	1	Api number:	03715078
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Rancho La Brea Oil co.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	15
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Not Reported	Wellnumber:	20
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210658		

AC100
NNW
1/2 - 1 Mile

OIL_GAS **CAOG11000210505**

District nun:	1	Api number:	03714888
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	15
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	344
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210505		

X101
NW
1/2 - 1 Mile

OIL_GAS **CAOG11000210643**

District nun:	1	Api number:	03715063
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Rancho La Brea Oil co.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Not Reported	Wellnumber:	5
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210643		

102
WSW **OIL_GAS** **CAOG11000210638**
1/2 - 1 Mile

District nun:	1	Api number:	03715058
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	B
Operator name:	J. C. Pollock		
County name:	Los Angeles	Fieldname:	Any Field
Area name:	Any Area	Section:	28
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Not Reported	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	AOG
Site id:	CAOG11000210638		

V103
WNW **OIL_GAS** **CAOG11000210352**
1/2 - 1 Mile

District nun:	1	Api number:	03714677
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		

Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	407
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210352		

X104
NW
1/2 - 1 Mile

OIL_GAS **CAOG11000210560**

District nun:	1	Api number:	03714944
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Southern California Edison Co.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Clark	Wellnumber:	113
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210560		

AB105
West
1/2 - 1 Mile

OIL_GAS **CAOG11000210758**

District nun:	1	Api number:	03715187
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	12
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210758		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

AC106
NNW
1/2 - 1 Mile

OIL_GAS **CAOG11000210355**

District nun:	1	Api number:	03714680
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	22
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	410
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210355		

AD107
WNW
1/2 - 1 Mile

OIL_GAS **CAOG11000210553**

District nun:	1	Api number:	03714937
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Southern California Edison Co.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Clark	Wellnumber:	106
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210553		

Y108
NNW
1/2 - 1 Mile

OIL_GAS **CAOG11000210655**

District nun:	1	Api number:	03715075
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Rancho La Brea Oil co.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	15
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Not Reported	Wellnumber:	17
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210655		

AE109
NW
1/2 - 1 Mile

OIL_GAS **CAOG11000210484**

District nun:	1	Api number:	03714867
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	305
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210484		

AD110
WNW
1/2 - 1 Mile

OIL_GAS **CAOG11000210551**

District nun:	1	Api number:	03714935
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Southern California Edison Co.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		

Comments:	Not Reported		
Leasename:	Clark	Wellnumber:	104
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210551		

Z111
WNW
1/2 - 1 Mile

OIL_GAS **CAOG11000210764**

District nun:	1	Api number:	03715193
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	18
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210764		

AA112
NNW
1/2 - 1 Mile

OIL_GAS **CAOG11000210504**

District nun:	1	Api number:	03714887
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	15
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	343
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210504		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

AB113
West
1/2 - 1 Mile

OIL_GAS **CAOG11000210752**

District nun:	1	Api number:	03715181
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	6
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210752		

AF114
WNW
1/2 - 1 Mile

OIL_GAS **CAOG11000210748**

District nun:	1	Api number:	03715177
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	2
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210748		

AG115
NNW
1/2 - 1 Mile

OIL_GAS **CAOG11000210494**

District nun:	1	Api number:	03714877
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	324
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210494		

AB116
West
1/2 - 1 Mile

OIL_GAS **CAOG11000210517**

District nun:	1	Api number:	03714900
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	401
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210517		

AC117
NNW
1/2 - 1 Mile

OIL_GAS **CAOG11000210653**

District nun:	1	Api number:	03715073
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Rancho La Brea Oil co.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	15
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		

Comments:	Not Reported		
Leasename:	Not Reported	Wellnumber:	15
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210653		

Z118
WNW
1/2 - 1 Mile

OIL_GAS **CAOG11000210751**

District nun:	1	Api number:	03715180
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	5
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210751		

AD119
NW
1/2 - 1 Mile

OIL_GAS **CAOG11000210555**

District nun:	1	Api number:	03714939
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Southern California Edison Co.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Clark	Wellnumber:	108
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210555		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

AE120
NW
1/2 - 1 Mile

OIL_GAS **CAOG11000210645**

District nun:	1	Api number:	03715065
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Rancho La Brea Oil co.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Not Reported	Wellnumber:	7
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210645		

AH121
NW
1/2 - 1 Mile

OIL_GAS **CAOG11000210559**

District nun:	1	Api number:	03714943
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Southern California Edison Co.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Clark	Wellnumber:	112
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210559		

AI122
NW
1/2 - 1 Mile

OIL_GAS **CAOG11000210644**

District nun:	1	Api number:	03715064
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Rancho La Brea Oil co.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Not Reported	Wellnumber:	6
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210644		

AI123
NW
1/2 - 1 Mile

OIL_GAS **CAOG11000210561**

District nun:	1	Api number:	03714945
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Southern California Edison Co.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Clark	Wellnumber:	114
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210561		

AD124
WNW
1/2 - 1 Mile

OIL_GAS **CAOG11000210552**

District nun:	1	Api number:	03714936
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Southern California Edison Co.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		

Comments:	Not Reported		
Leasename:	Clark	Wellnumber:	105
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210552		

AC125
NNW
1/2 - 1 Mile

OIL_GAS **CAOG11000210652**

District nun:	1	Api number:	03715072
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Rancho La Brea Oil co.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	15
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Not Reported	Wellnumber:	14
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210652		

AA126
NNW
1/2 - 1 Mile

OIL_GAS **CAOG11000210503**

District nun:	1	Api number:	03714886
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	15
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	342
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210503		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

AB127
West
1/2 - 1 Mile

OIL_GAS **CAOG11000210351**

District nun:	1	Api number:	03714676
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	406
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210351		

AF128
West
1/2 - 1 Mile

OIL_GAS **CAOG11000210516**

District nun:	1	Api number:	03714899
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	405
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210516		

AJ129
WNW
1/2 - 1 Mile

OIL_GAS **CAOG11000210772**

District nun:	1	Api number:	03715201
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	26
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210772		

AJ130
WNW **OIL_GAS** **CAOG11000210525**
1/2 - 1 Mile

District nun:	1	Api number:	03714909
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Southern California Edison Co.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Not Reported	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210525		

AE131
NW **OIL_GAS** **CAOG11000210493**
1/2 - 1 Mile

District nun:	1	Api number:	03714876
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		

Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	322
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210493		

AB132
West
1/2 - 1 Mile

OIL_GAS **CAOG11000210754**

District nun:	1	Api number:	03715183
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	8
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210754		

AK133
North
1/2 - 1 Mile

OIL_GAS **CAOG11000210679**

District nun:	1	Api number:	03715099
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Rancho La Brea Oil co.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	15
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Not Reported	Wellnumber:	41
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210679		

Map ID
Direction
Distance

Database EDR ID Number

AK134
North
1/2 - 1 Mile

OIL_GAS **CAOG11000210667**

District nun:	1	Api number:	03715087
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	I
Operator name:	Rancho La Brea Oil co.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	15
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Not Reported	Wellnumber:	29
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	AOG
Site id:	CAOG11000210667		

135
NNW
1/2 - 1 Mile

OIL_GAS **CAOG11000210651**

District nun:	1	Api number:	03715071
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Rancho La Brea Oil co.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	15
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Not Reported	Wellnumber:	13
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210651		

AF136
WNW
1/2 - 1 Mile

OIL_GAS **CAOG11000210747**

District nun:	1	Api number:	03715176
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210747		

AK137
North
1/2 - 1 Mile

OIL_GAS **CAOG11000210681**

District nun:	1	Api number:	03715101
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Rancho La Brea Oil co.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	15
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Not Reported	Wellnumber:	43
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210681		

AD138
WNW
1/2 - 1 Mile

OIL_GAS **CAOG11000210526**

District nun:	1	Api number:	03714910
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Southern California Edison Co.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		

Comments:	Not Reported		
Leasename:	Not Reported	Wellnumber:	2
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210526		

AL139
North
1/2 - 1 Mile

OIL_GAS **CAOG11000210657**

District nun:	1	Api number:	03715077
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Rancho La Brea Oil co.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	15
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Not Reported	Wellnumber:	19
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210657		

AH140
NW
1/2 - 1 Mile

OIL_GAS **CAOG11000210567**

District nun:	1	Api number:	03714951
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Southern California Edison Co.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Clark	Wellnumber:	120
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210567		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

AF141
WNW
1/2 - 1 Mile

OIL_GAS **CAOG11000210763**

District nun:	1	Api number:	03715192
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	17
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210763		

AH142
NW
1/2 - 1 Mile

OIL_GAS **CAOG11000210554**

District nun:	1	Api number:	03714938
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Southern California Edison Co.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Clark	Wellnumber:	107
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210554		

AI143
NW
1/2 - 1 Mile

OIL_GAS **CAOG11000210562**

District nun:	1	Api number:	03714946
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Southern California Edison Co.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Clark	Wellnumber:	115
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210562		

AI144
NW
1/2 - 1 Mile

OIL_GAS **CAOG11000210647**

District nun:	1	Api number:	03715067
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Rancho La Brea Oil co.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Not Reported	Wellnumber:	9
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210647		

AF145
WNW
1/2 - 1 Mile

OIL_GAS **CAOG11000210761**

District nun:	1	Api number:	03715190
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		

Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	15
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210761		

AE146
NW
1/2 - 1 Mile

OIL_GAS **CAOG11000210648**

District nun:	1	Api number:	03715068
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Rancho La Brea Oil co.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Not Reported	Wellnumber:	10
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210648		

AM147
West
1/2 - 1 Mile

OIL_GAS **CAOG11000210353**

District nun:	1	Api number:	03714678
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	408
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210353		

Map ID
Direction
Distance

Database EDR ID Number

148
SE
1/2 - 1 Mile

OIL_GAS **CAOG11000200754**

District nun:	1	Api number:	03700306
Blm well:	N	Redrill can:	Not Reported
Dryhole:	Y	Well status:	P
Operator name:	Union Oil Company of California		
County name:	Los Angeles	Fieldname:	Any Field
Area name:	Any Area	Section:	26
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Las Cienegas Core Hole	Wellnumber:	22
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDH
Site id:	CAOG11000200754		

AL149
North
1/2 - 1 Mile

OIL_GAS **CAOG11000210660**

District nun:	1	Api number:	03715080
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Rancho La Brea Oil co.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	15
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Not Reported	Wellnumber:	22
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210660		

AM150
West
1/2 - 1 Mile

OIL_GAS **CAOG11000210760**

District nun:	1	Api number:	03715189
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	14
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210760		

AG151
NNW
1/2 - 1 Mile

OIL_GAS **CAOG11000210502**

District nun:	1	Api number:	03714885
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	15
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	341
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210502		

152
NNE
1/2 - 1 Mile

OIL_GAS **CAOG11000216607**

District nun:	1	Api number:	03726470
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	B
Operator name:	Chevron U.S.A. Inc.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	22
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		

Comments:	Not Reported		
Leasename:	Salt Lake	Wellnumber:	359
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	AOG
Site id:	CAOG11000216607		

153
West
1/2 - 1 Mile

OIL_GAS **CAOG11000210369**

District nun:	1	Api number:	03714694
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Utah California Consolidated Co.		
County name:	Los Angeles	Fieldname:	Salt Lake, South
Area name:	Any Area	Section:	28
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Not Reported	Wellnumber:	101
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210369		

154
WNW
1/2 - 1 Mile

OIL_GAS **CAOG11000210537**

District nun:	1	Api number:	03714921
Blm well:	N	Redrill can:	Not Reported
Dryhole:	N	Well status:	P
Operator name:	Southern California Edison Co.		
County name:	Los Angeles	Fieldname:	Salt Lake
Area name:	Any Area	Section:	21
Township:	01S	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Not Reported	Wellnumber:	13
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	POG
Site id:	CAOG11000210537		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
90010	11	1

Federal EPA Radon Zone for LOS ANGELES County: 2

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for LOS ANGELES COUNTY, CA

Number of sites tested: 63

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.711 pCi/L	98%	2%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	0.933 pCi/L	100%	0%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish & Game
Telephone: 916-445-0411

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Public Health
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

OTHER STATE DATABASE INFORMATION

California Oil and Gas Well Locations
Source: Department of Conservation
Telephone: 916-323-1779
Oil and Gas well locations in the state.

RADON

State Database: CA Radon
Source: Department of Health Services
Telephone: 916-324-2208
Radon Database for California

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

© 2015 TomTom North America, Inc. All rights reserved. This material is proprietary and the subject of copyright protection and other intellectual property rights owned by or licensed to Tele Atlas North America, Inc. The use of this material is subject to the terms of a license agreement. You will be held liable for any unauthorized copying or disclosure of this material.

APPENDIX 3

HISTORIC REFERENCE DOCUMENTS

Burroughs Middle School
600 S. McCadden Place
Los Angeles, CA 90005

Inquiry Number: 4564097.4
March 14, 2016

EDR Historical Topo Map Report

with QuadMatch™

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Historical Topo Map Report

03/14/16

Site Name:

Burroughs Middle School
600 S. McCadden Place
Los Angeles, CA 90005
EDR Inquiry # 4564097.4

Client Name:

WorleyParsons
181 W Huntington Dr Ste 110
Monrovia, CA 91016
Contact: Ralph Beck

EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by WorleyParsons were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Search Results:

P.O.# NA
Project: LAUSD Burroughs MS

Coordinates:

Latitude:	34.063542 34° 3' 49" North
Longitude:	-118.336254 -118° 20' 11" West
UTM Zone:	Zone 11 North
UTM X Meters:	376687.60
UTM Y Meters:	3770006.92
Elevation:	213.00' above sea level

Maps Provided:

2012	1921
1991	1902
1981	1900
1972	1898
1966	1896
1953	1894
1926	
1924	

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT. Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

Copyright 2016 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2012 Source Sheets

Hollywood
2012
7.5-minute, 24000

1991 Source Sheets

Hollywood
1991
7.5-minute, 24000
Photo Inspected 1991
Photo Revised 1981

1981 Source Sheets

Hollywood
1981
7.5-minute, 24000
Photo Revised 1981
Aerial Photo Revised 1978

1972 Source Sheets

Hollywood
1972
7.5-minute, 24000
Photo Revised 1972
Aerial Photo Revised 1972

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1966 Source Sheets

Hollywood
1966
7.5-minute, 24000
Aerial Photo Revised 1964

1953 Source Sheets

Hollywood
1953
7.5-minute, 24000
Aerial Photo Revised 1952

1926 Source Sheets

Hollywood
1926
7.5-minute, 24000

1924 Source Sheets

Hollywood
1924
7.5-minute, 24000

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1921 Source Sheets

Santa Monica
1921
15-minute, 62500
Edited 1920

1902 Source Sheets

Santa Monica
1902
15-minute, 62500

1900 Source Sheets

Los Angeles
1900
15-minute, 62500

1898 Source Sheets

Santa Monica
1898
15-minute, 62500

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1896 Source Sheets

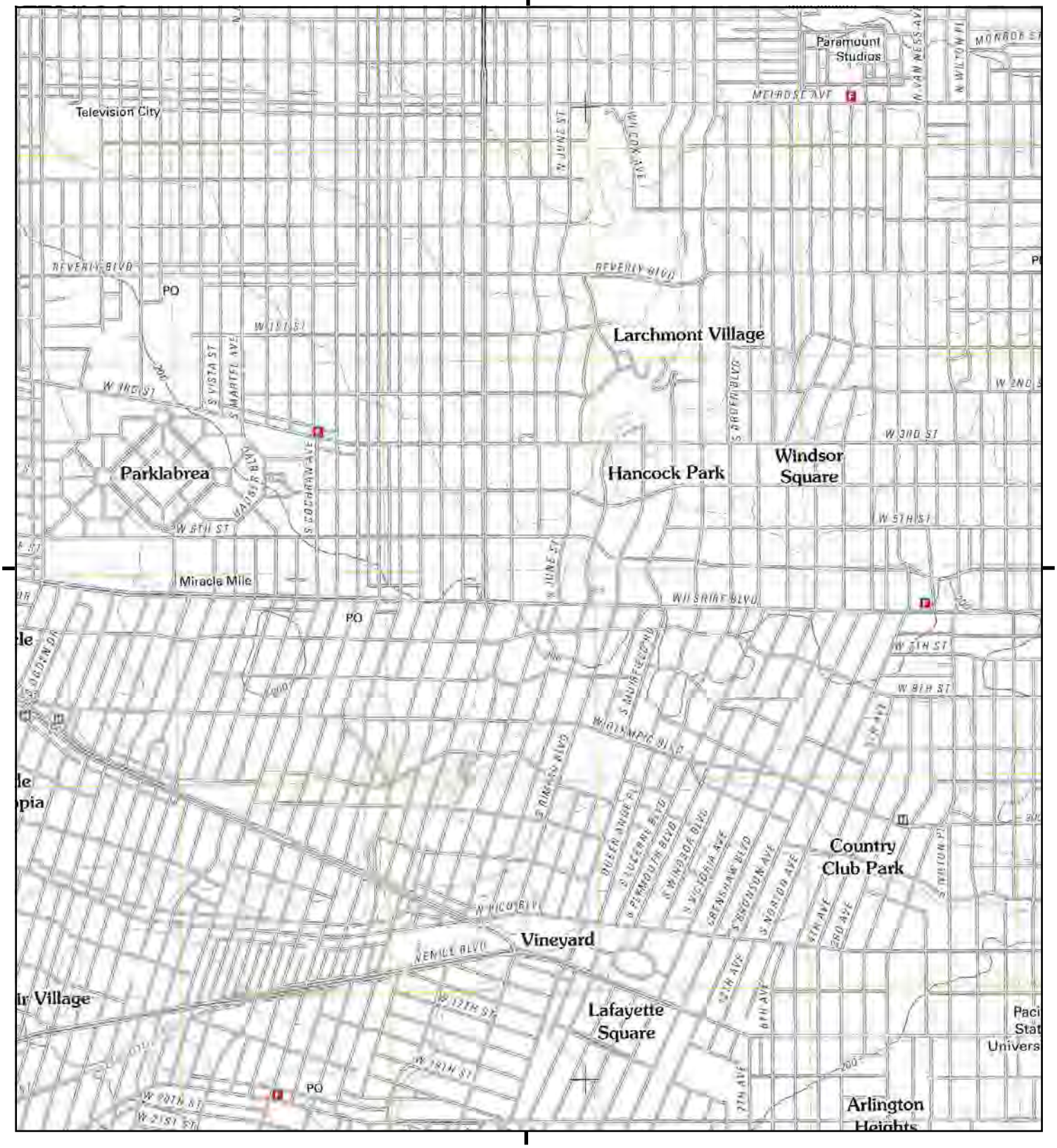
Santa Monica
1896
15-minute, 62500

1894 Source Sheets

Los Angeles
1894
15-minute, 62500

Historical Topo Map

2012



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

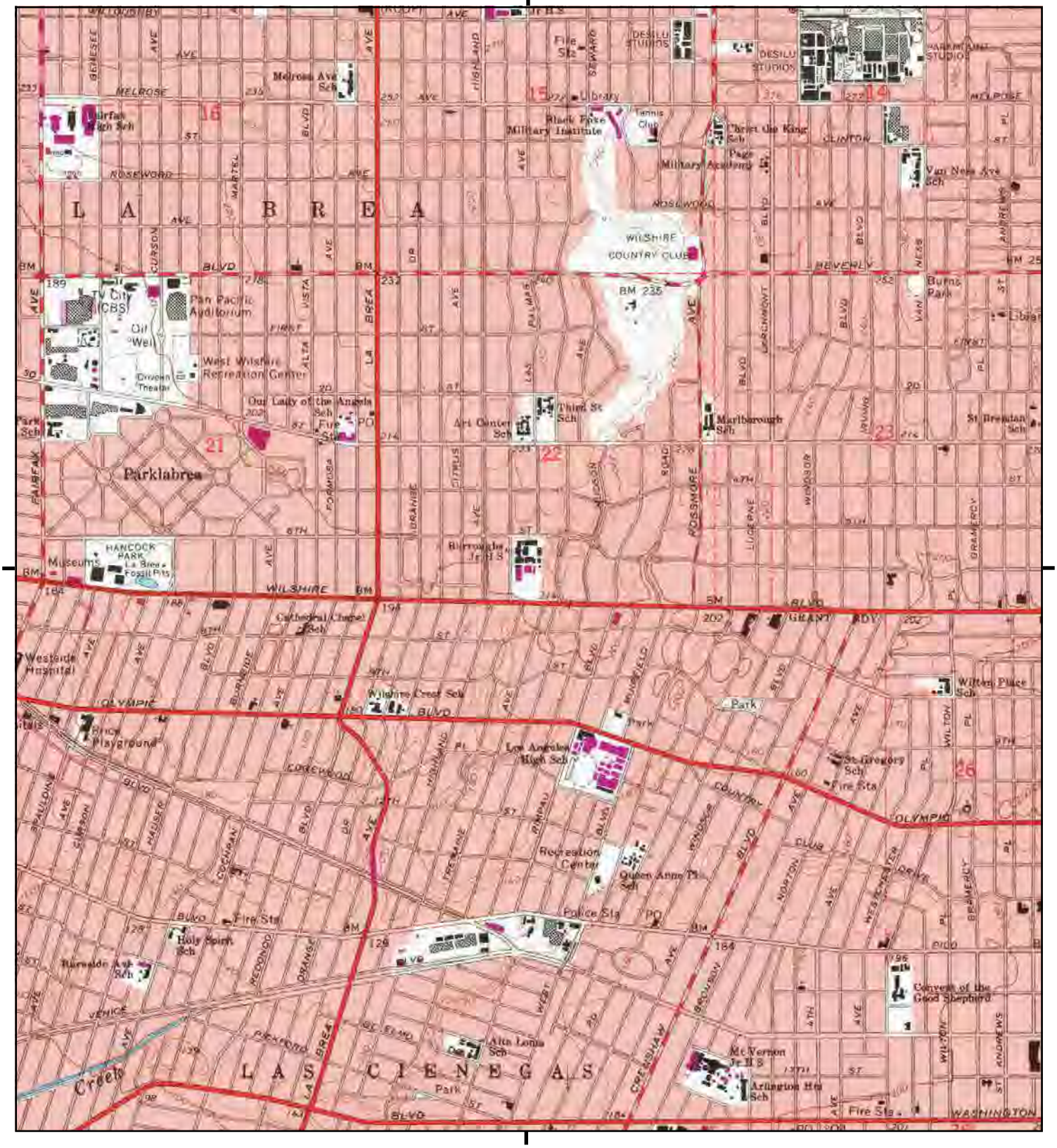
TP, Hollywood, 2012, 7.5-minute

SITE NAME: Burroughs Middle School
ADDRESS: 600 S. McCadden Place
Los Angeles, CA 90005
CLIENT: WorleyParsons

N

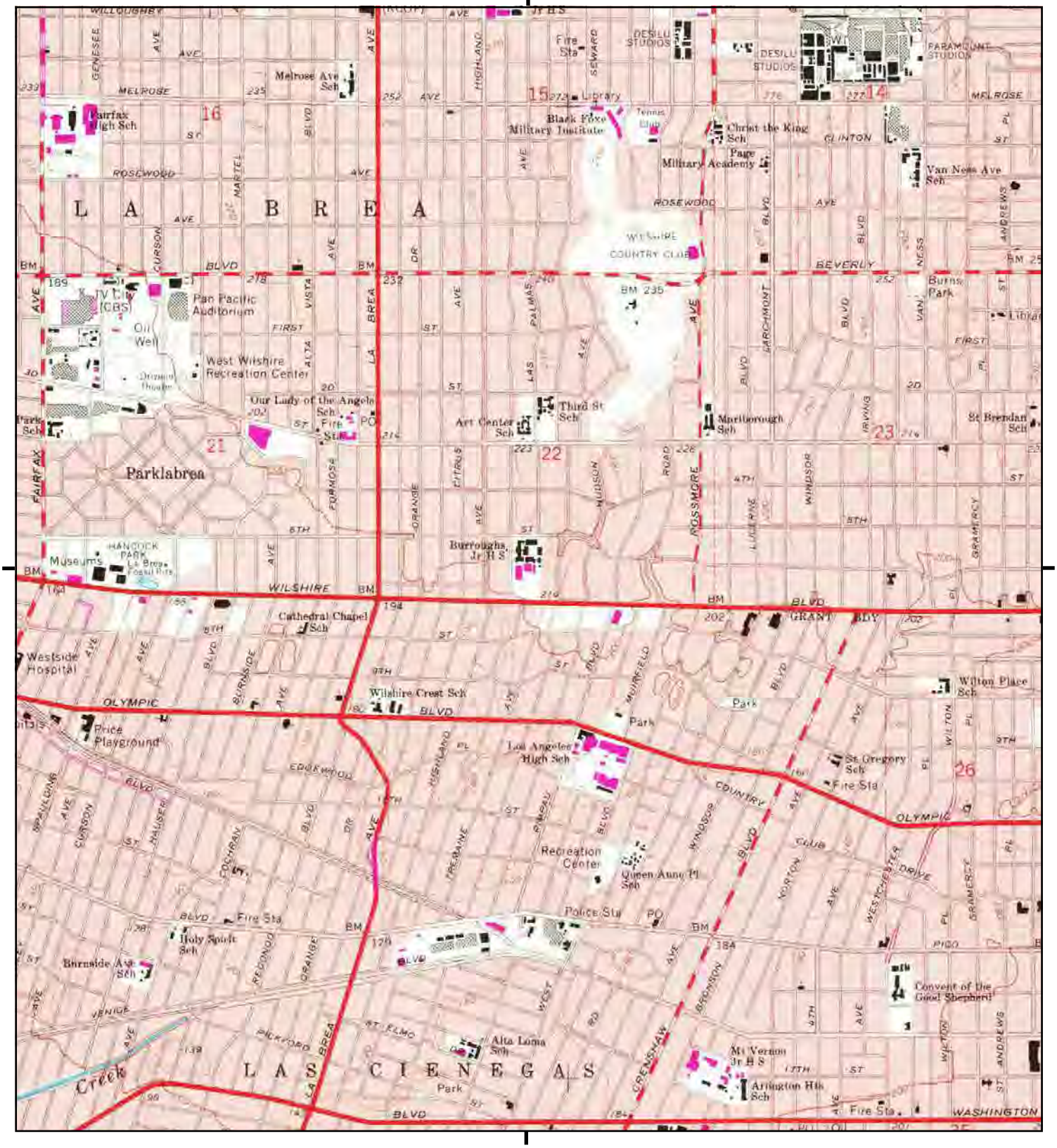
Historical Topo Map

1991


L A B R E A
Parklabrea
L A S C I E N E G A S
WILSHIRE COUNTRY CLUB
Pan Pacific Auditorium
West Wilshire Recreation Center
Our Lady of the Angels Sch
Third St Sch
Art Center Sch
Marlborough Sch
Burroughs Jr H S
Wilshire Crest Sch
Los Angeles High Sch
Recreation Center
Queen Anne Pl Sch
Police Sta
Fire Sta
Holy Spirit Sch
Alta Loma Sch
McVernon Jr H S
Arlington Hts Sch
Convent of the Good Shepherd
Wilton Place Sch
St Gregory Sch
Hancock Park La Brea Fossil Pits
Museums
Westside Hospital
Cathedral Chapel
Park
Playground
Creek
BM 235
WILSHIRE BLVD
OLYMPIC BLVD
SUNSET BLVD
GRANT WAY
FIRST ST
SIXTH ST
WASHINGTON BLVD
VENICE BLVD
ROSEWOOD AVE
MELROSE AVE
HIGHLAND AVE
LA BREA AVE
FAIRFAX AVE
CURSON AVE
ORANGE GROVE BLVD
COUNTRY CLUB DR
WILTON PL
ARDMORE RD
HAUSER BLVD
COCHRAN AVE
REDWOOD AVE
WEST BLVD
CRENSHAW BLVD
ARLINGTON AVE
WESTMORELAND AVE
NORTON AVE
HESPERIA DR
BRAMERCY DR
ANDREWS PL
WINDSOR BLVD
LUCERNE BLVD
ROSSMORE AVE
WILTON PL
SYCAMORE AVE
CITRUS AVE
FORMOSA AVE
ORANGE AVE
SPAULDING AVE
MANSFIELD AVE
FREMONT PL
RIMPAU BLVD
WESTERN AVE
VAN NESS AVE
GENESEE AVE
MARTEL AVE
CURSON AVE
ALTA VISTA
PALMS BLVD
ORCHMONT BLVD
IRVING BLVD
SMO
DR
PO
Fire Sta
Library
Tennis Club
Military Academy
Page Military Academy
Christ the King Sch
Van Ness Ave Sch
Burns Park
St Brendan Sch
Melrose Ave Sch
Fairfax High Sch
Black Foxe Military Institute
DESILU STUDIOS
PARAMOUNT STUDIOS
TV City (CBS)
Oil Well
Drive-In Theater
Park Sch
Rancho Playground
Burnside Ave Sch
Fire Sta
Police Sta
Recreation Center
Park
BM
PO
15
16
19
20
21
22
23
25
26
189
198
202
214
232
252
272
276
288
296
320
336
360
384
396
408
420
432
444
456
468
480
492
504
516
528
540
552
564
576
588
600
612
624
636
648
660
672
684
696
708
720
732
744
756
768
780
792
804
816
828
840
852

Historical Topo Map

1981



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

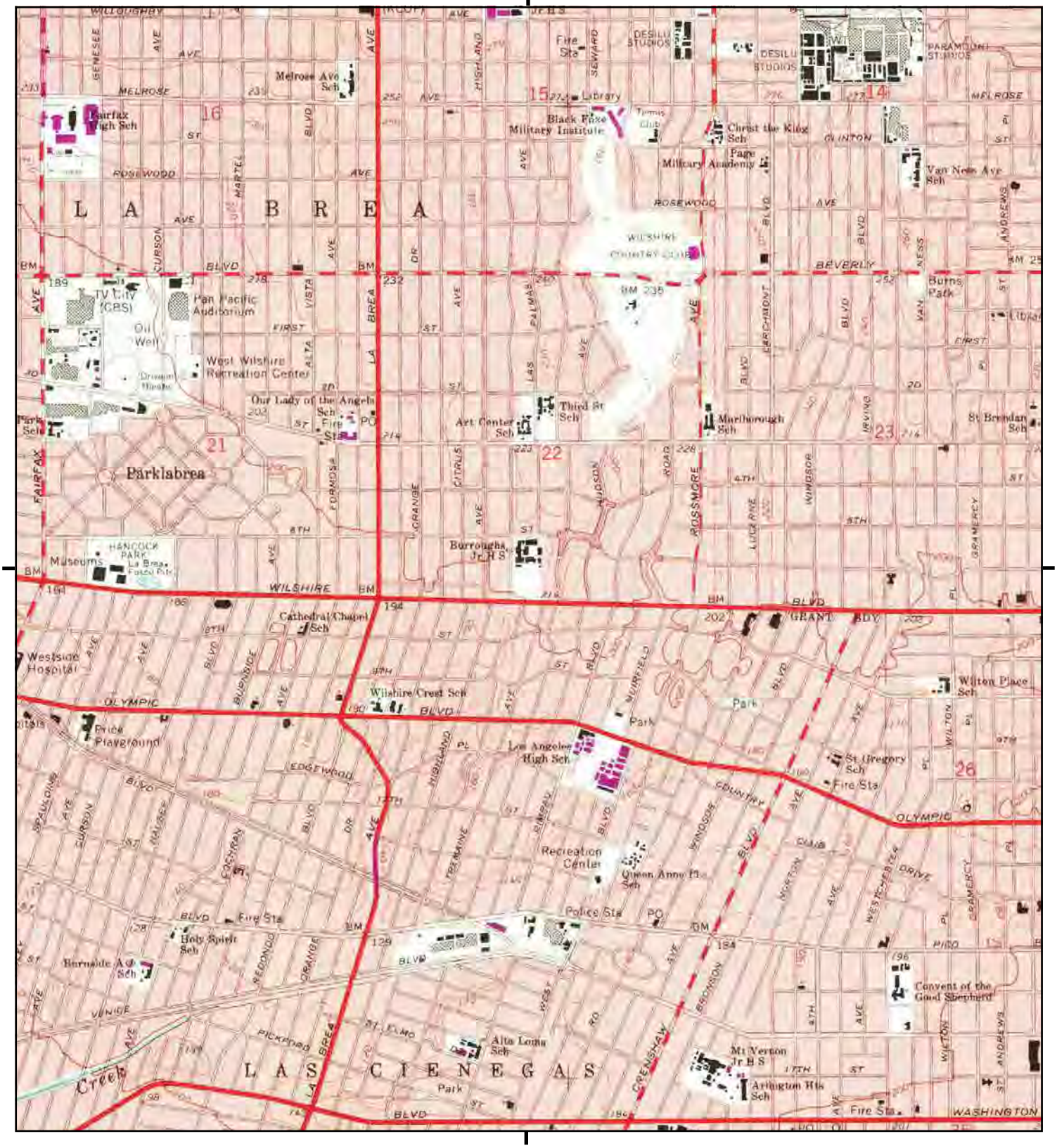
TP, Hollywood, 1981, 7.5-minute

SITE NAME: Burroughs Middle School
ADDRESS: 600 S. McCadden Place
Los Angeles, CA 90005
CLIENT: WorleyParsons

N

Historical Topo Map

1972



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

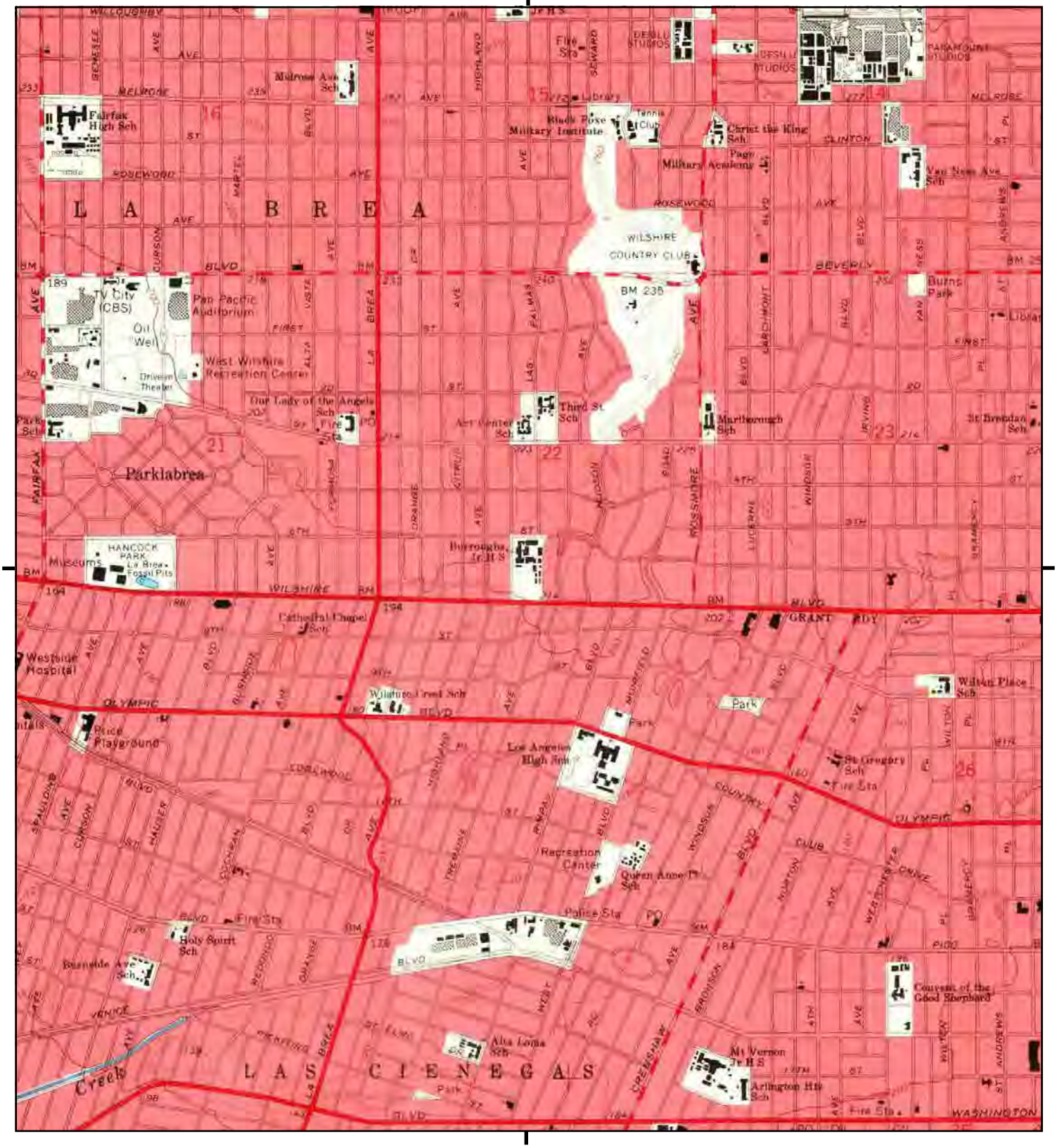
TP, Hollywood, 1972, 7.5-minute

SITE NAME: Burroughs Middle School
ADDRESS: 600 S. McCadden Place
Los Angeles, CA 90005
CLIENT: WorleyParsons

N

Historical Topo Map

1966



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

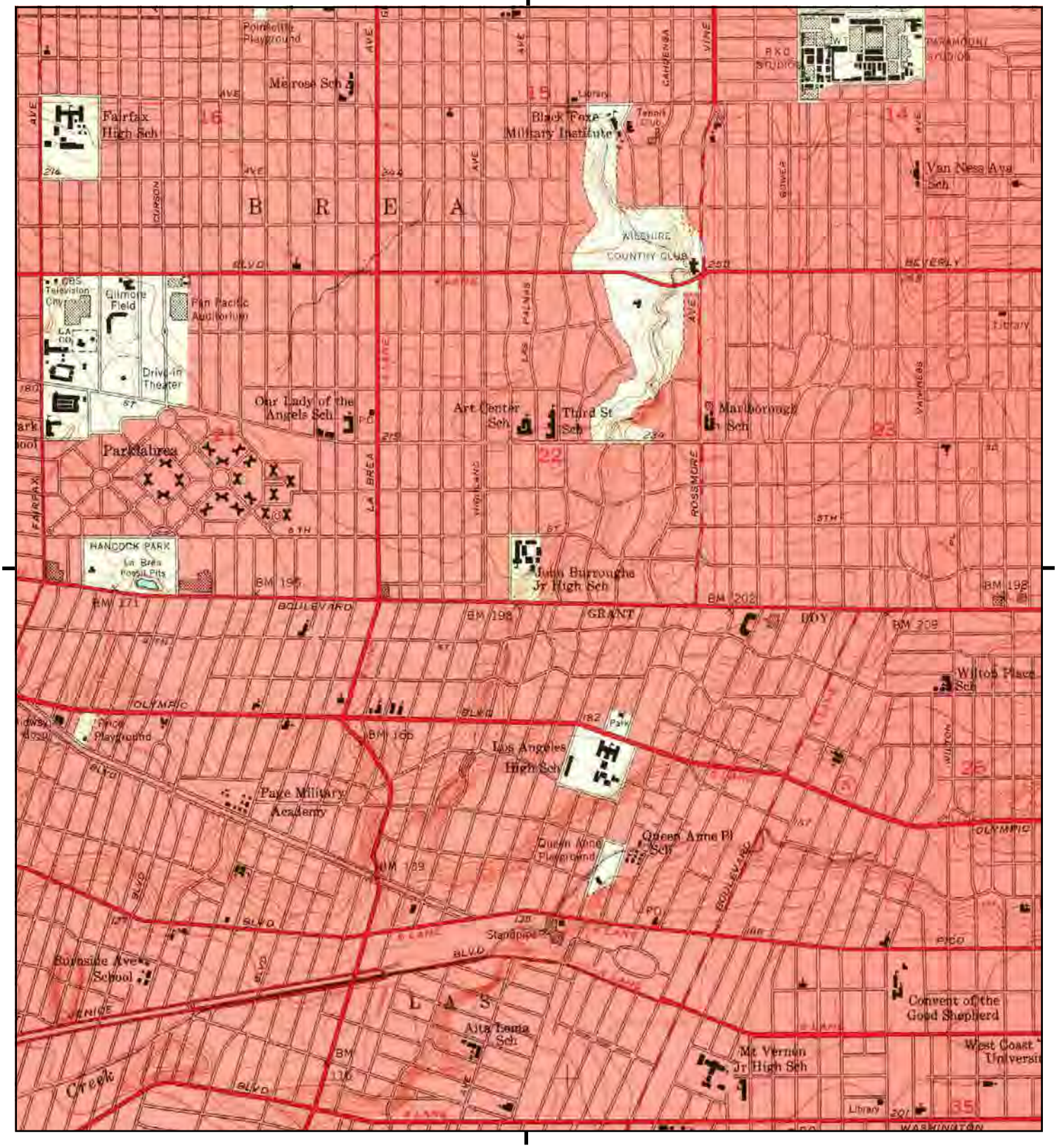
TP, Hollywood, 1966, 7.5-minute

SITE NAME: Burroughs Middle School
ADDRESS: 600 S. McCadden Place
Los Angeles, CA 90005
CLIENT: WorleyParsons

N

Historical Topo Map

1953



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

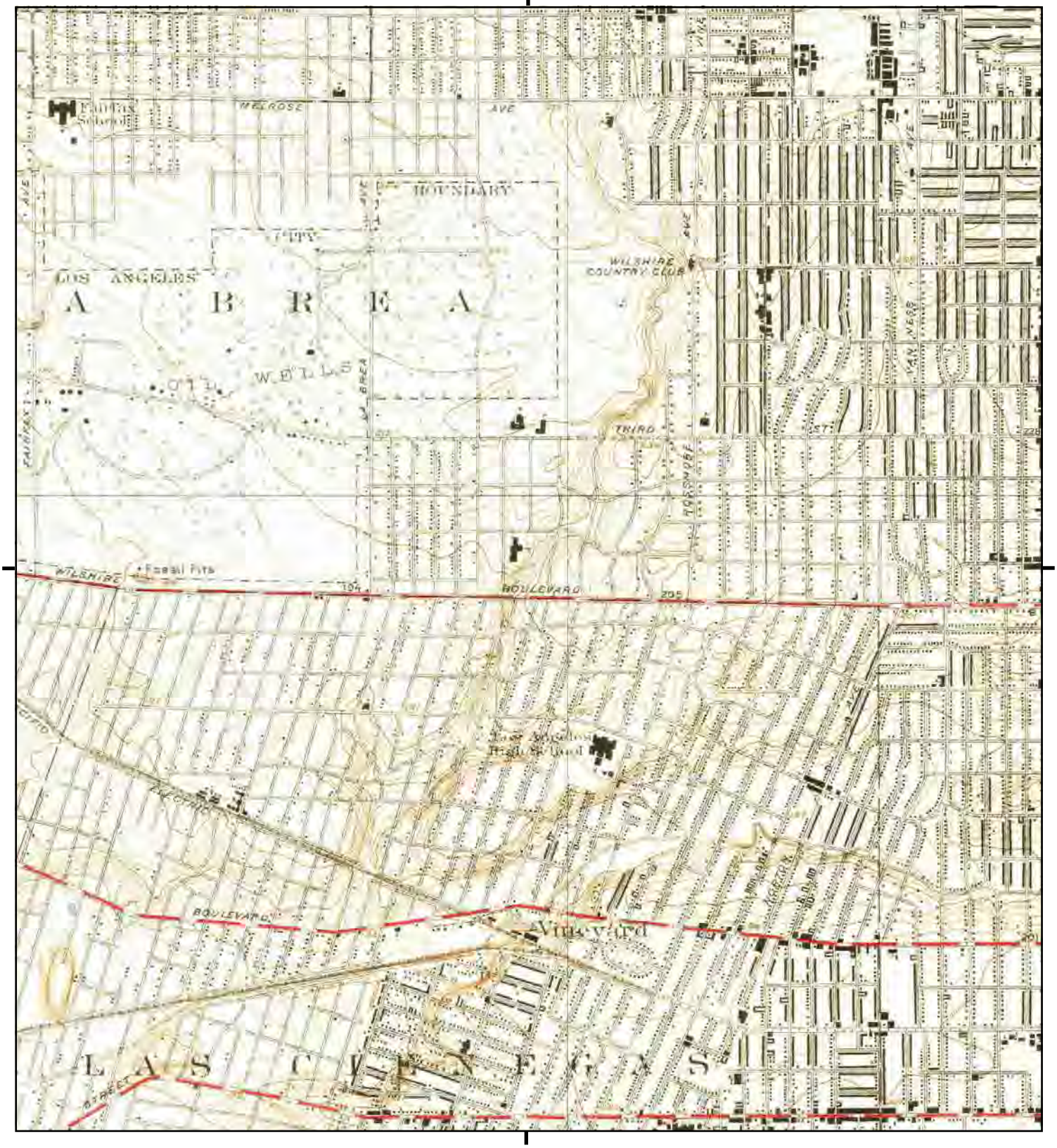
TP, Hollywood, 1953, 7.5-minute

SITE NAME: Burroughs Middle School
ADDRESS: 600 S. McCadden Place
Los Angeles, CA 90005
CLIENT: WorleyParsons

N

Historical Topo Map

1926



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

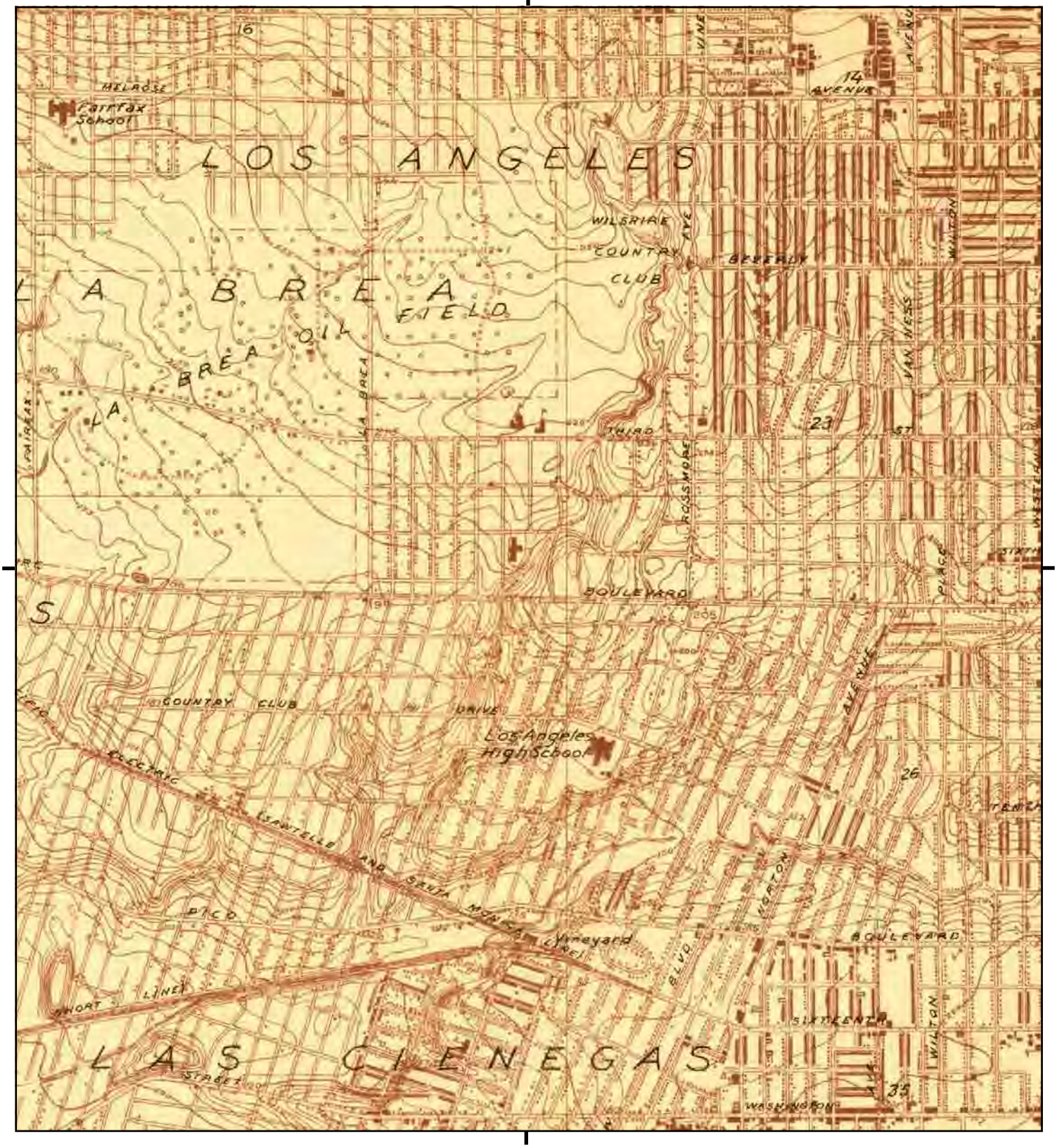
TP, Hollywood, 1926, 7.5-minute

SITE NAME: Burroughs Middle School
ADDRESS: 600 S. McCadden Place
Los Angeles, CA 90005
CLIENT: WorleyParsons

N

Historical Topo Map

1924



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

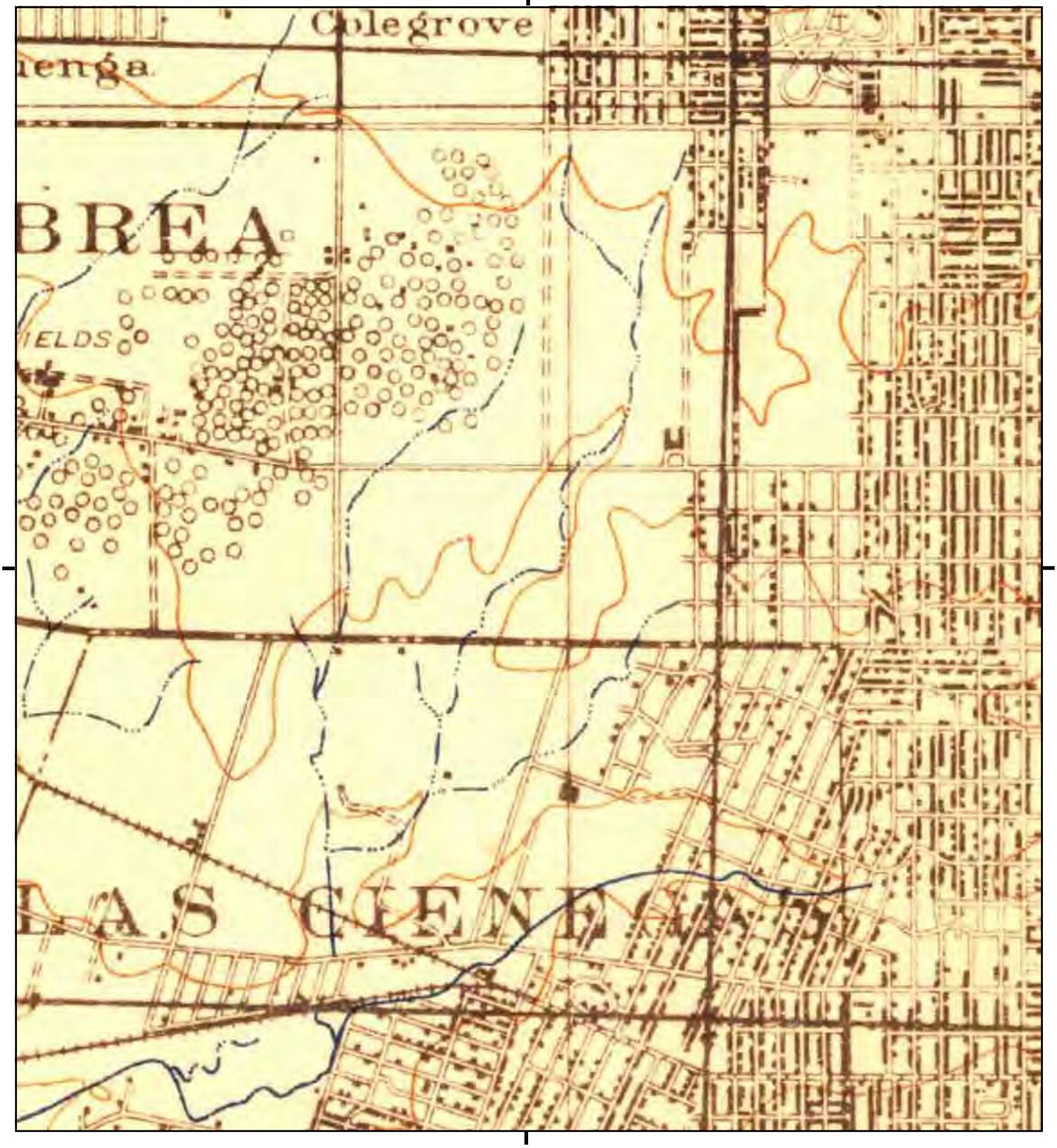
TP, Hollywood, 1924, 7.5-minute

SITE NAME: Burroughs Middle School
ADDRESS: 600 S. McCadden Place
Los Angeles, CA 90005
CLIENT: WorleyParsons

N

Historical Topo Map

1921



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

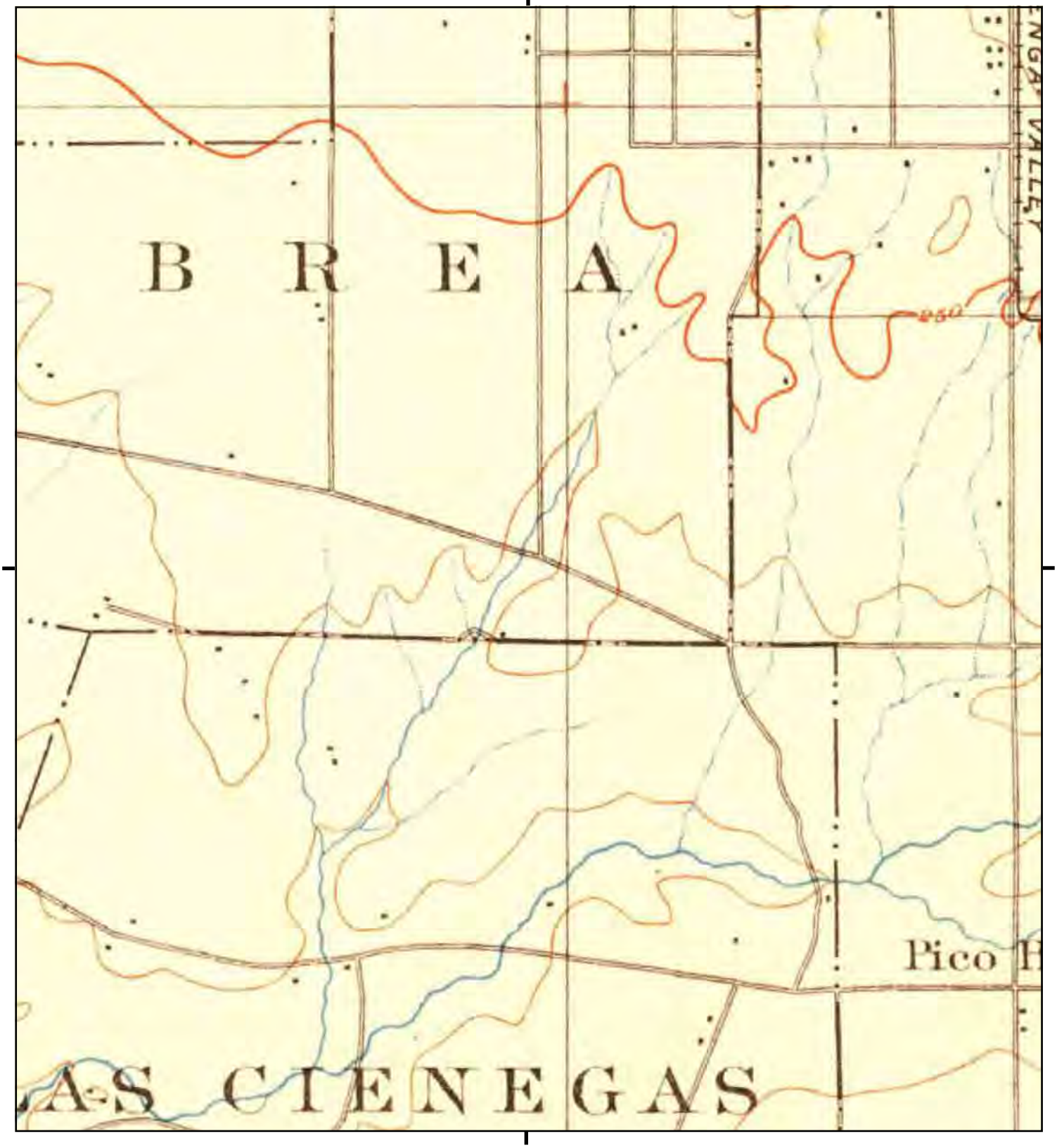
TP, Santa Monica, 1921, 15-minute

SITE NAME: Burroughs Middle School
ADDRESS: 600 S. McCadden Place
Los Angeles, CA 90005
CLIENT: WorleyParsons

N

Historical Topo Map

1902



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

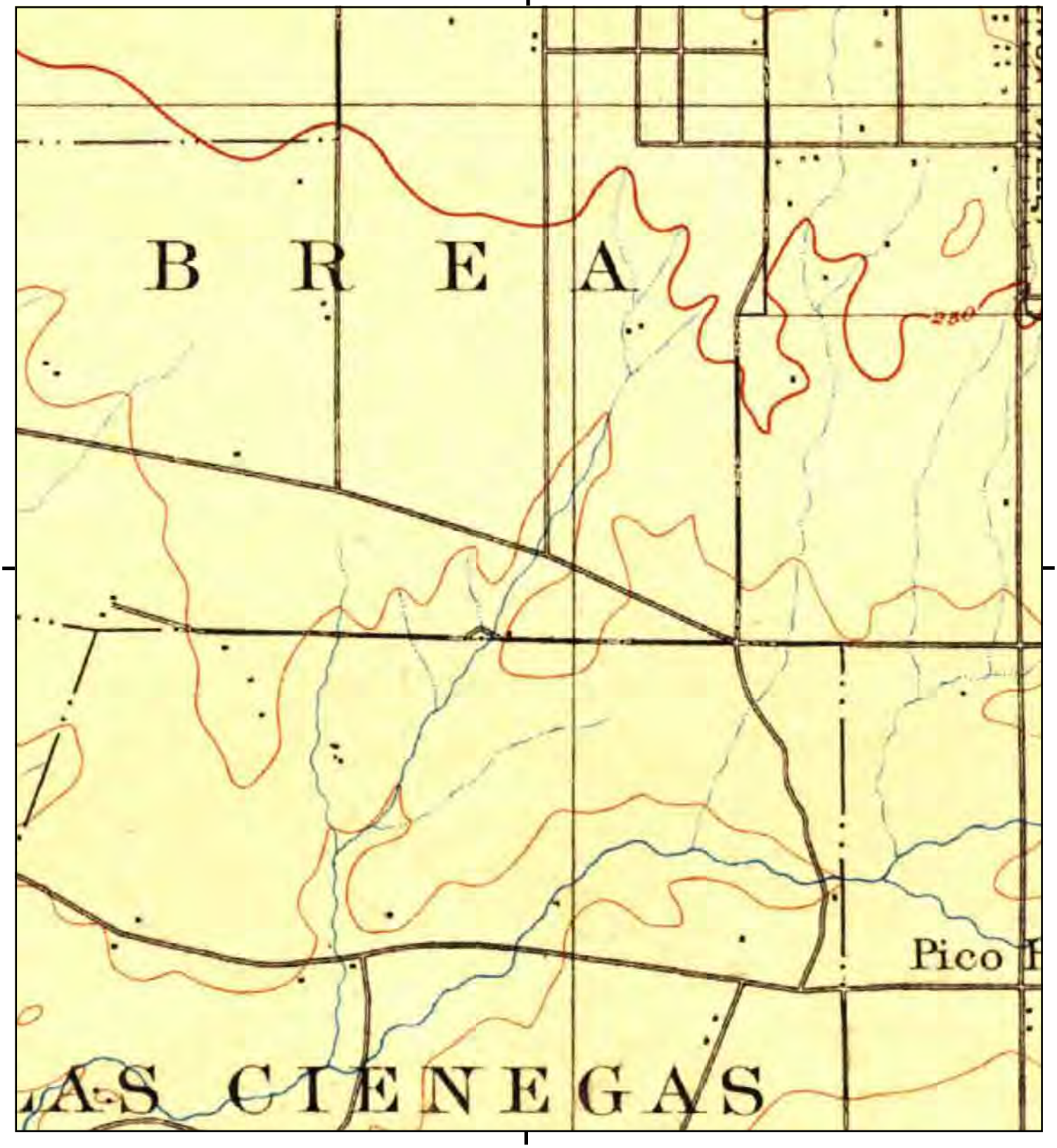
TP, Santa Monica, 1902, 15-minute

SITE NAME: Burroughs Middle School
ADDRESS: 600 S. McCadden Place
Los Angeles, CA 90005
CLIENT: WorleyParsons

N

Historical Topo Map

1900



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

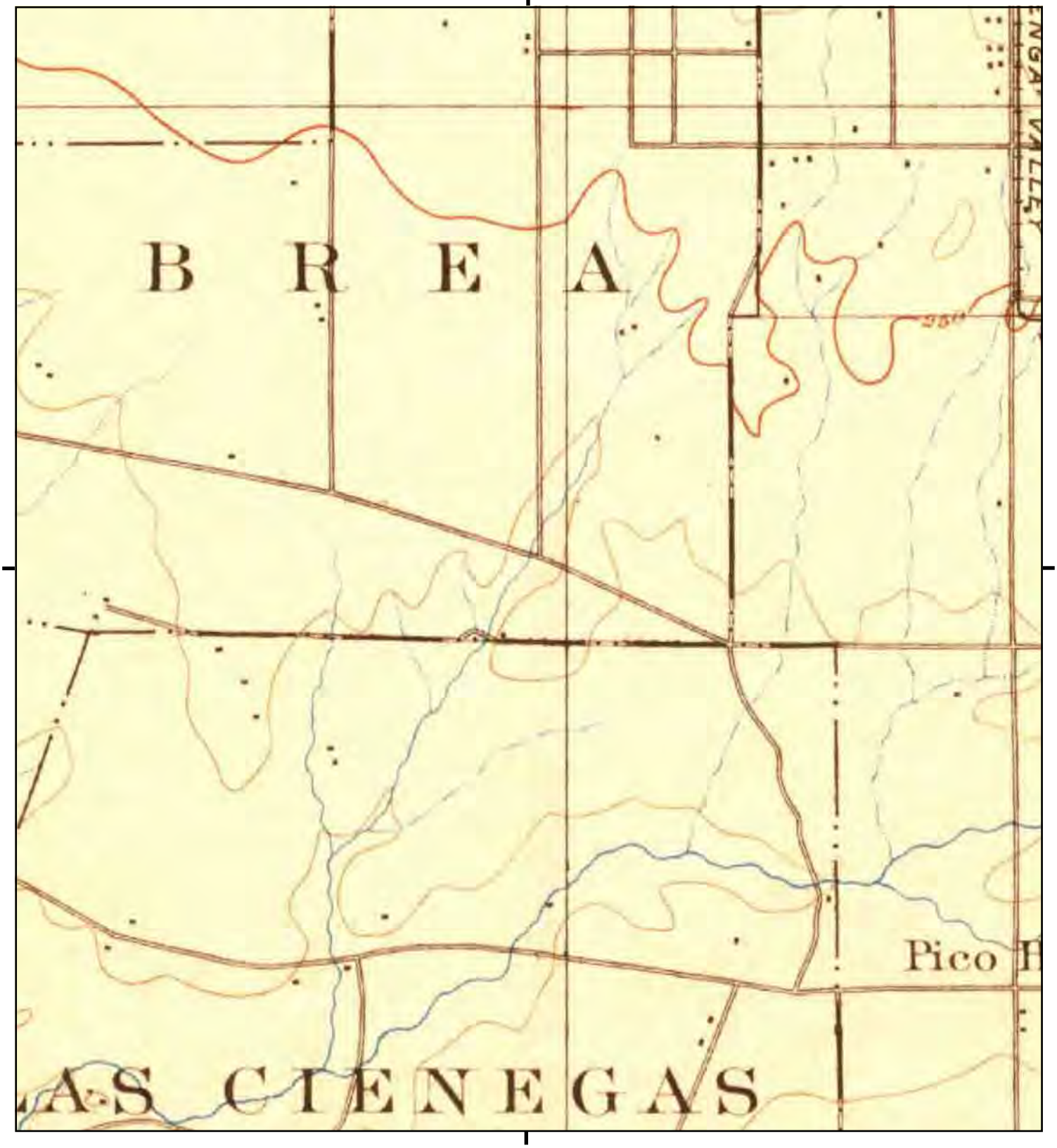
TP, Los Angeles, 1900, 15-minute

SITE NAME: Burroughs Middle School
ADDRESS: 600 S. McCadden Place
Los Angeles, CA 90005
CLIENT: WorleyParsons

N

Historical Topo Map

1898



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

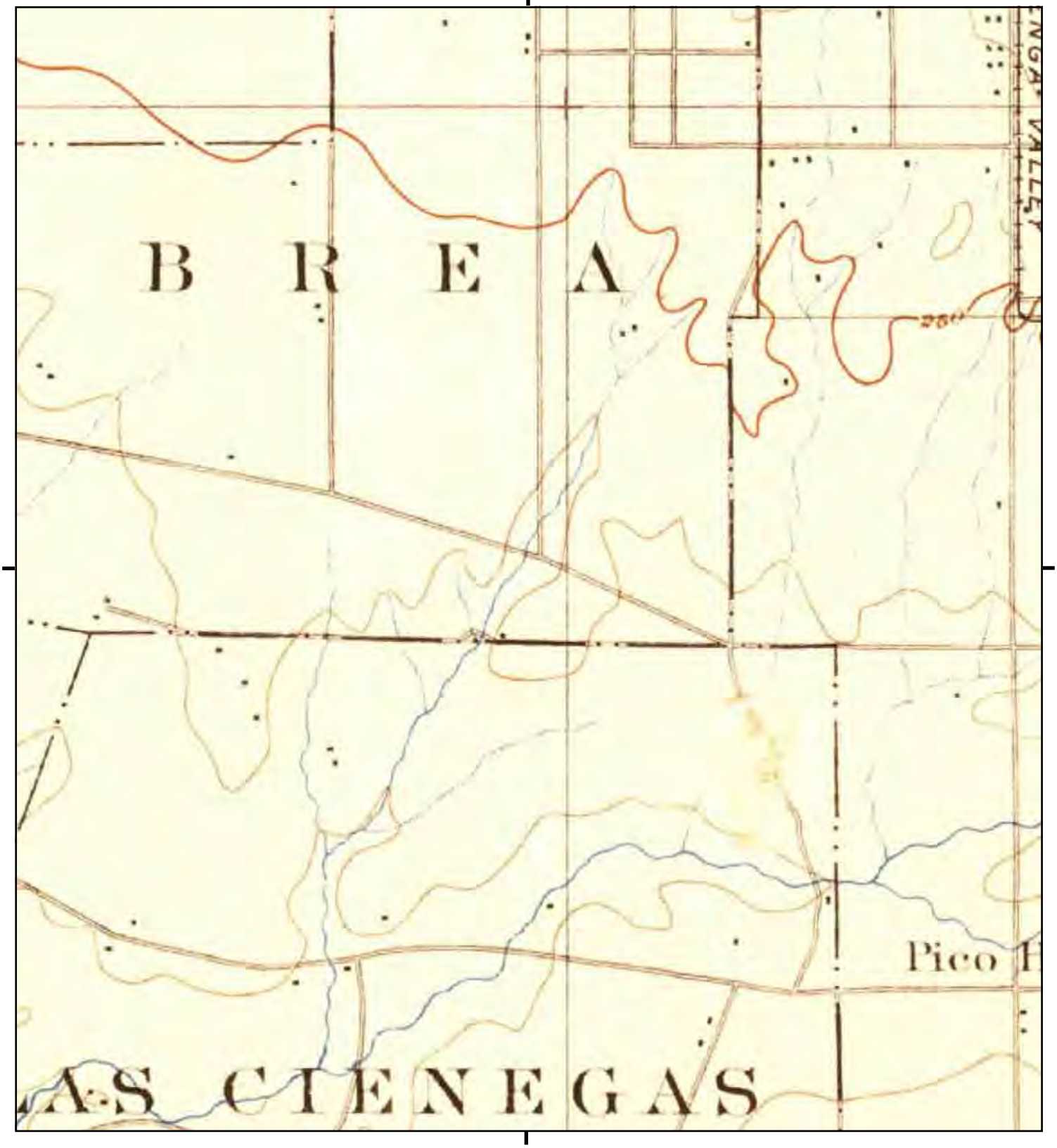
TP, Santa Monica, 1898, 15-minute

SITE NAME: Burroughs Middle School
ADDRESS: 600 S. McCadden Place
Los Angeles, CA 90005
CLIENT: WorleyParsons

N

Historical Topo Map

1896



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

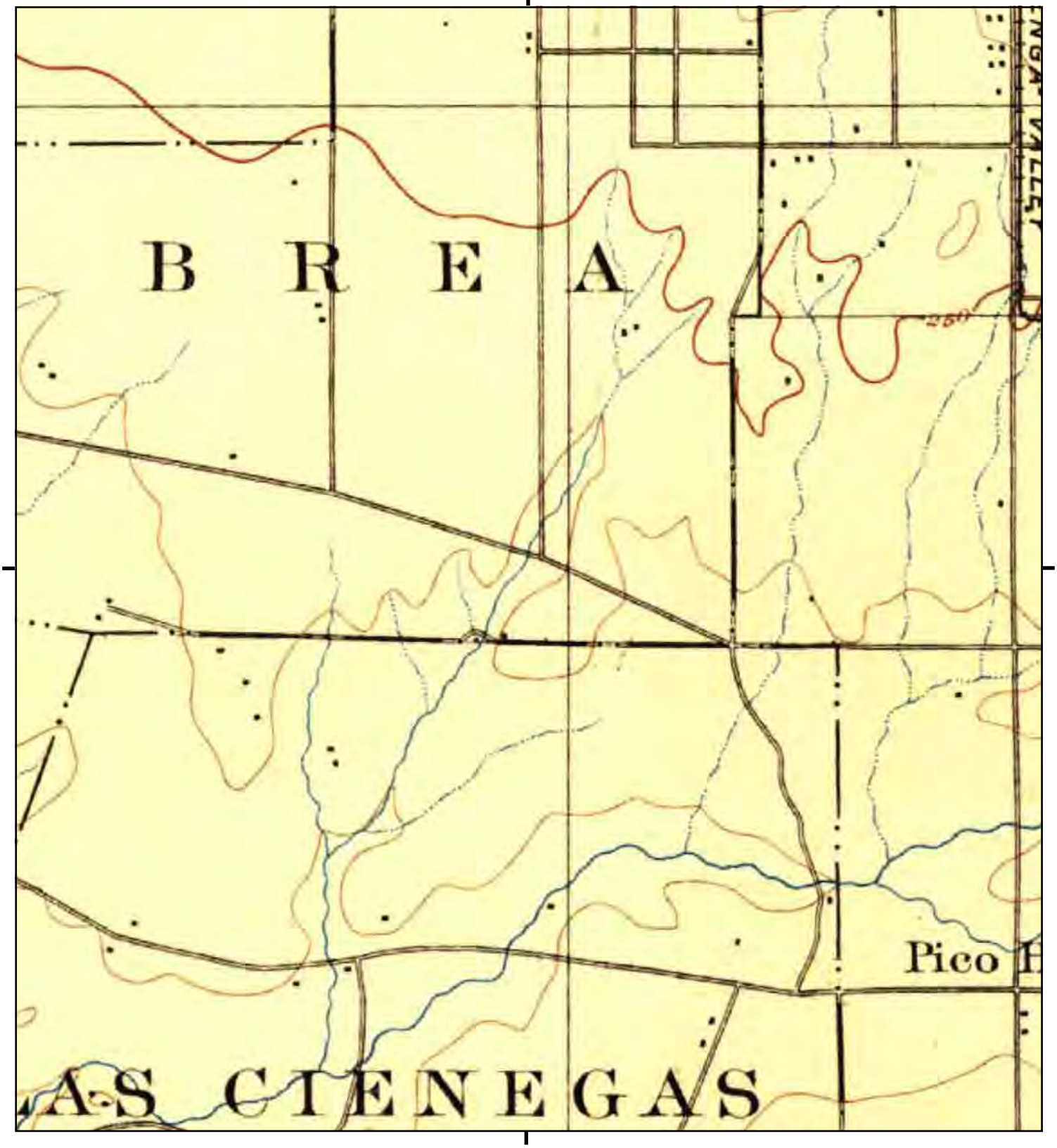
TP, Santa Monica, 1896, 15-minute

SITE NAME: Burroughs Middle School
ADDRESS: 600 S. McCadden Place
Los Angeles, CA 90005
CLIENT: WorleyParsons

N

Historical Topo Map

1894



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Los Angeles, 1894, 15-minute

SITE NAME: Burroughs Middle School
ADDRESS: 600 S. McCadden Place
Los Angeles, CA 90005
CLIENT: WorleyParsons

N

Burroughs Middle School
600 S. McCadden Place
Los Angeles, CA 90005

Inquiry Number: 4564097.3
March 14, 2016

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

03/14/16

Site Name:

Burroughs Middle School
600 S. McCadden Place
Los Angeles, CA 90005
EDR Inquiry # 4564097.3

Client Name:

WorleyParsons
181 W Huntington Dr Ste 110
Monrovia, CA 91016
Contact: Ralph Beck

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by WorleyParsons were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # 8873-49E1-9947

PO # NA

Project LAUSD Burroughs MS

Maps Provided:

1969
1950
1926

Sanborn® Library search results

Certification #: 8873-49E1-9947

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ✓ Library of Congress
- ✓ University Publications of America
- ✓ EDR Private Collection

The Sanborn Library LLC Since 1866™

Limited Permission To Make Copies

WorleyParsons (the client) is permitted to make up to FIVE photocopies of this Sanborn Map transmittal and each fire insurance map accompanying this report solely for the limited use of its customer. No one other than the client is authorized to make copies. Upon request made directly to an EDR Account Executive, the client may be permitted to make a limited number of additional photocopies. This permission is conditioned upon compliance by the client, its customer and their agents with EDR's copyright policy; a copy of which is available upon request.

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT. Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

Copyright 2016 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

Sanborn Sheet Key

This Certified Sanborn Map Report is based upon the following Sanborn Fire Insurance map sheets.

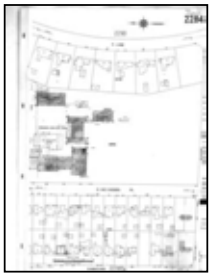
1969 Source Sheets

Volume 22, Sheet 2283
1969

Volume 22, Sheet 2284
1969

1950 Source Sheets

Volume 22, Sheet 2283
1950



Volume 22, Sheet 2284
1950

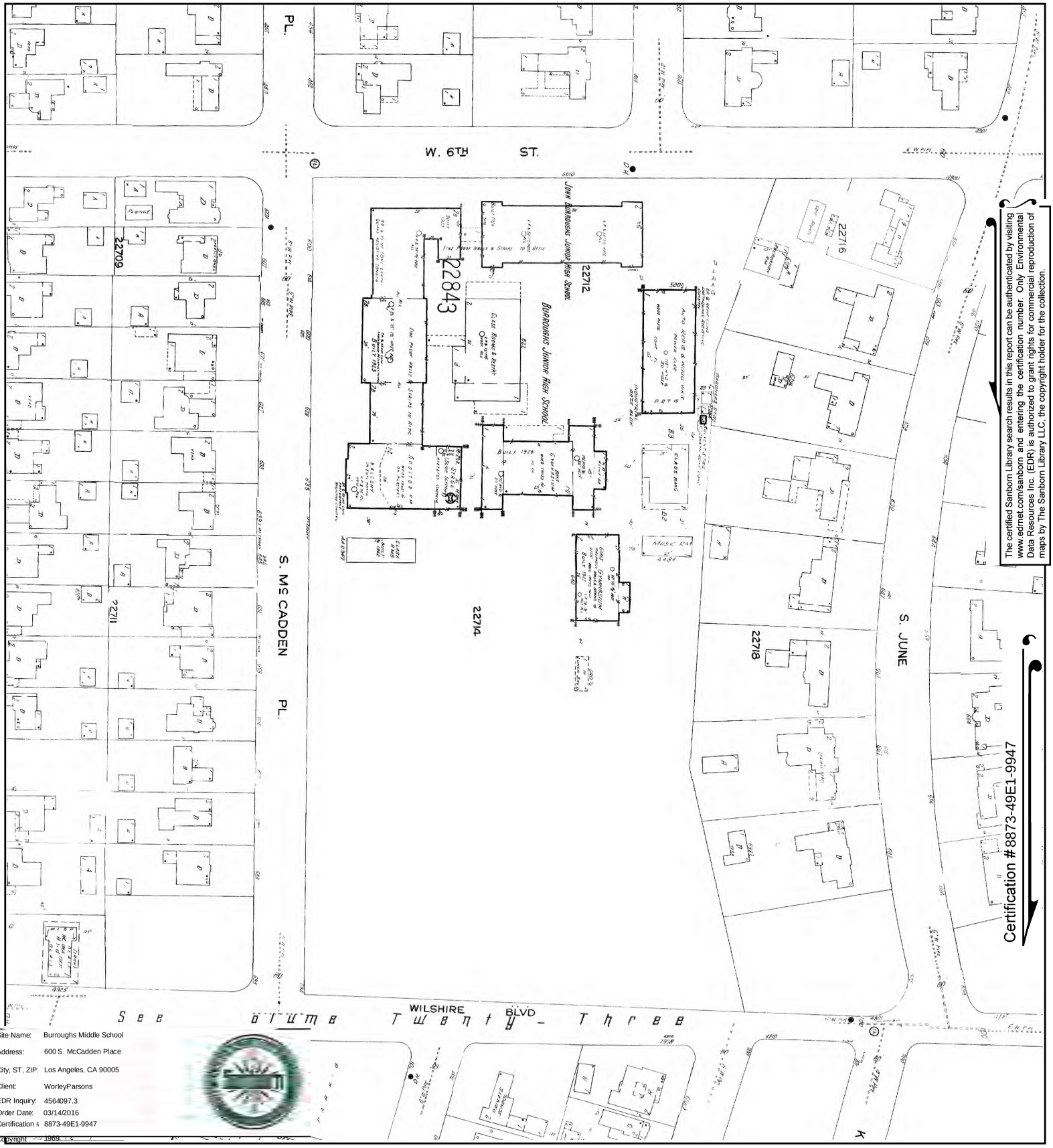
1926 Source Sheets

Volume 22, Sheet 2283
1926

Volume 22, Sheet 2284
1926

Certified Sanborn® Map

1969



The certified Sanborn Library search results in this report can be authenticated by visiting www.edrnet.com/sanborn and entering the certification number. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by The Sanborn Library LLC, the copyright holder for the collection.

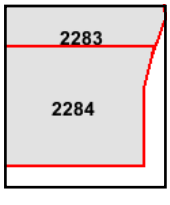
Certification #8873-49E1-9947

Site Name:	Burroughs Middle School
Address:	600 S. McCadden Place
City, ST, ZIP:	Los Angeles, CA 90005
Client:	WorleyParsons
EDR Inquiry:	4564097.3
Order Date:	03/14/2016
Certification #	8873-49E1-9947

Copyright 1969

This Certified Sanborn Map combines the following sheets.
Outlined areas indicate map sheets within the collection.

0 Feet 150 300 600



Volume 22, Sheet 2284
Volume 22, Sheet 2283

N

Certified Sanborn® Map

1950

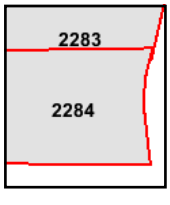
The certified Sanborn Library search results in this report can be authenticated by visiting www.edrnet.com/sanborn and entering the certification number. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by The Sanborn Library LLC, the copyright holder for the collection.

Certification #8873-49E1-9947

Site Name:	Burroughs Middle School
Address:	600 S. McCadden Place
City, ST, ZIP:	Los Angeles, CA 90005
Client:	WorleyParsons
EDR Inquiry:	4564097.3
Order Date:	03/14/2016
Certification #	8873-49E1-9947
Copyright	1950

This Certified Sanborn Map combines the following sheets.
Outlined areas indicate map sheets within the collection.

0 Feet 150 300 600

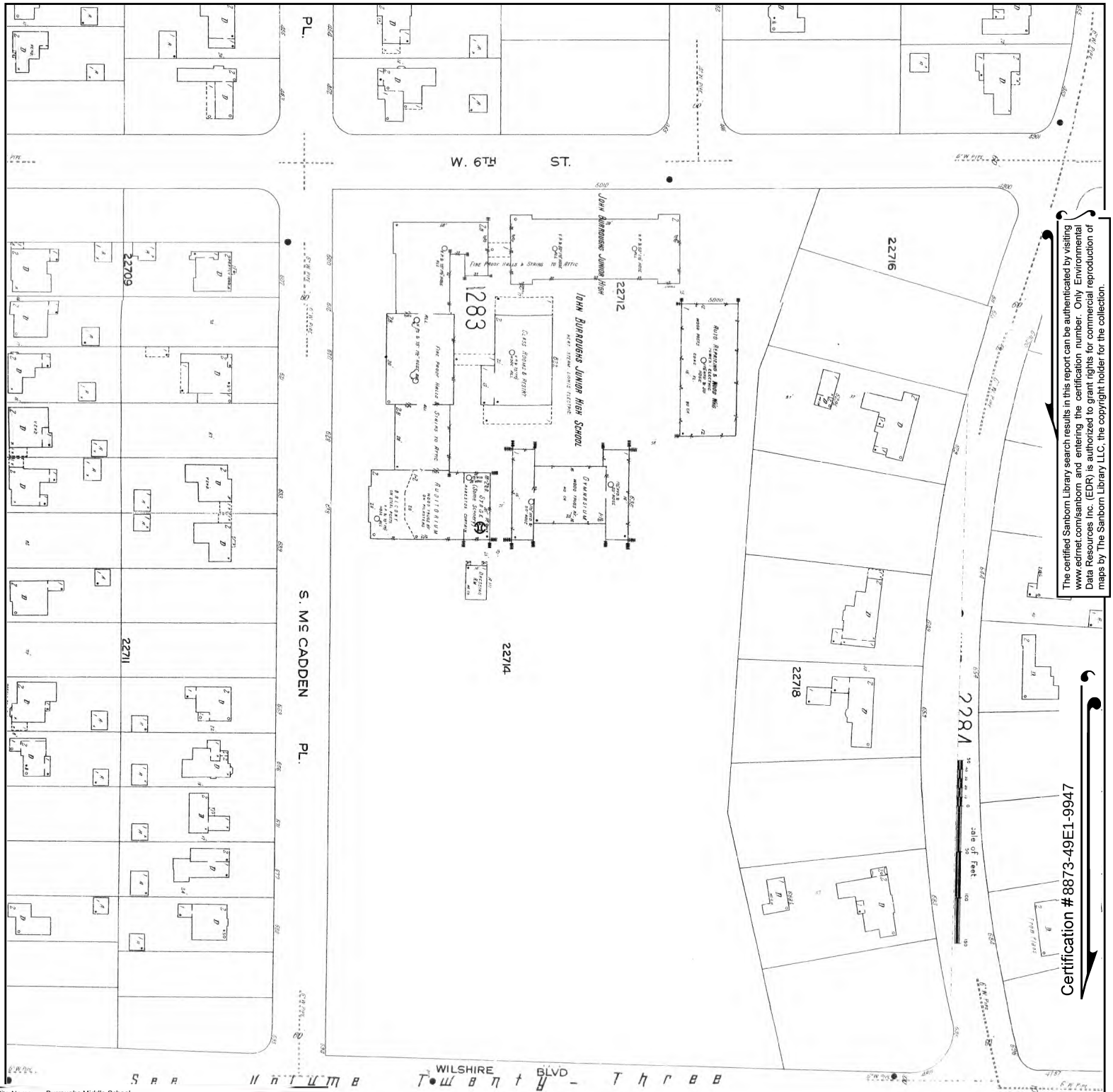


Volume 22, Sheet 2284
Volume 22, Sheet 2283

N

Certified Sanborn® Map

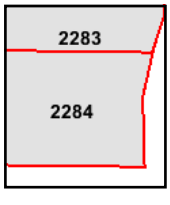
1926



The certified Sanborn Library search results in this report can be authenticated by visiting www.edrnet.com/sanborn and entering the certification number. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by The Sanborn Library LLC, the copyright holder for the collection.

Site Name:	Burroughs Middle School
Address:	600 S. McCadden Place
City, ST, ZIP:	Los Angeles, CA 90005
Client:	WorleyParsons
EDR Inquiry:	4564097.3
Order Date:	03/14/2016
Certification #:	8873-49E1-9947
Copyright	1926

This Certified Sanborn Map combines the following sheets.
Outlined areas indicate map sheets within the collection.



Volume 22, Sheet 2284
Volume 22, Sheet 2283

0 Feet 150 300 600

Burroughs Middle School
600 S. McCadden Place
Los Angeles, CA 90005

Inquiry Number: 4564097.5
March 31, 2016

The EDR-City Directory Abstract

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION

Executive Summary

Findings

City Directory Images

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. **NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OR DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT.** Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction orforecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

Copyright 2016 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc. or its affiliates is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Abstract is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Abstract includes a search and abstract of available city directory data. For each address, the directory lists the name of the corresponding occupant at five year intervals.

Business directories including city, cross reference and telephone directories were reviewed, if available, at approximately five year intervals for the years spanning 1920 through 2013. This report compiles information gathered in this review by geocoding the latitude and longitude of properties identified and gathering information about properties within 332 feet of the target property.

A summary of the information obtained is provided in the text of this report.

RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. An "X" indicates where information was identified in the source and provided in this report.

Year	Source	TP	Adjoining	Text Abstract	Source Image
2013	Cole Information Services	X	X	X	-
2008	Cole Information Services	X	X	X	-
2006	Haines Company, Inc.	X	X	X	-
2004	Haines Company	-	-	-	-
2003	Haines & Company	-	-	-	-
2001	Haines Company, Inc.	-	-	-	-
2000	Haines & Company	-	X	X	-
1999	Haines Company	-	-	-	-
1996	GTE	-	-	-	-
1995	Pacific Bell	-	-	-	-
1992	PACIFIC BELL WHITE PAGES	-	-	-	-
1991	Pacific Bell	-	-	-	-
1990	Pacific Bell	X	X	X	-
1986	Pacific Bell	-	X	X	-
	Pacific Bell	X	X	X	-
1985	Pacific Bell	-	-	-	-
1981	Pacific Telephone	X	X	X	-
1980	Pacific Telephone	-	-	-	-
1976	Pacific Telephone	X	X	X	-
1975	Pacific Telephone	-	-	-	-
1972	R. L. Polk & Co.	-	-	-	-
1971	Pacific Telephone	X	X	X	-
1970	Pacific Telephone	-	-	-	-
1969	Pacific Telephone	-	-	-	-
1967	Pacific Telephone	X	X	X	-

EXECUTIVE SUMMARY

Year	Source	TP	Adjoining	Text Abstract	Source Image
1966	Pacific Telephone	-	-	-	-
1965	GTE	-	-	-	-
1964	Pacific Telephone	-	-	-	-
1963	Pacific Telephone	-	-	-	-
1962	Pacific Telephone	X	X	X	-
1961	R. L. Polk & Co.	-	-	-	-
1960	Pacific Telephone	-	-	-	-
1958	Pacific Telephone	X	X	X	-
1957	Pacific Telephone	-	-	-	-
1956	Pacific Telephone	-	-	-	-
1955	R. L. Polk & Co.	-	-	-	-
1954	R. L. Polk & Co.	-	-	-	-
1952	Los Angeles Directory Co.	-	-	-	-
1951	Los Angeles Directory Co.	-	-	-	-
1950	Pacific Telephone	-	-	-	-
1949	Los Angeles Directory Co.	-	-	-	-
1948	Associated Telephone Company, Ltd.	-	-	-	-
1947	Pacific Directory Co.	-	-	-	-
1946	Southern California Telephone Co	-	-	-	-
1945	R. L. Polk & Co.	-	-	-	-
1944	R. L. Polk & Co.	-	-	-	-
1942	Los Angeles Directory Co.	X	X	X	-
1940	Los Angeles Directory Co.	-	-	-	-
1939	Los Angeles Directory Co.	-	-	-	-
1938	Los Angeles Directory Company Publishers	-	-	-	-
1937	Los Angeles Directory Co.	X	X	X	-
1936	Los Angeles Directory Co.	-	-	-	-
1935	Los Angeles Directory Co.	-	-	-	-
1934	Los Angeles Directory Co.	-	-	-	-
1933	Los Angeles Directory Co.	X	X	X	-
1932	Los Angeles Directory Co.	-	-	-	-
1931	TRIBUNE-NEWS PUBLISHING CO.	-	-	-	-
1930	Los Angeles Directory Co.	-	-	-	-
1929	Los Angeles Directory Co.	X	X	X	-
1928	Los Angeles Directory Co.	-	-	-	-
1927	Los Angeles Directory Co.	-	-	-	-
1926	Los Angeles Directory Co.	-	-	-	-
1925	Los Angeles Directory Co.	-	-	-	-
1924	Los Angeles Directory Co.	-	-	-	-
1923	Los Angeles Directory Co.	-	-	-	-
1921	Los Angeles Directory Co.	-	-	-	-
1920	Los Angeles Directory Co.	-	-	-	-

FINDINGS

TARGET PROPERTY INFORMATION

ADDRESS

600 S. McCadden Place
Los Angeles, CA 90005

FINDINGS DETAIL

Target Property research detail.

S MC CADDEN PL

600 S MC CADDEN PL

Year	*Uses*	*Source*
1986	BURROUGHS JUNIOR HIGH SCHOOL	Pacific Bell

S MCCADDEN PL

600 S MCCADDEN PL

Year	*Uses*	*Source*
2013	BURROUGHS MIDDLE SCHOOL	Cole Information Services
2008	BURROUGHS MIDDLE SCHOOL	Cole Information Services
2006	BURROUGHSJRHI	Haines Company, Inc.
1990	BURROUGHS JUNIOR HIGH SCHOOL	Pacific Bell
1981	BURROUGHS JUNIOR HIGH SCHOOL	Pacific Telephone
1976	Burroughs Junior High School	Pacific Telephone
1971	Burroughs Junior High School	Pacific Telephone
1967	Burroughs Jr High School	Pacific Telephone
1962	Burroughs Jr High School	Pacific Telephone
1958	Burroughs Jr High School	Pacific Telephone
1942	BURROUGHS John Junior High Schoal	Los Angeles Directory Co.
1937	BURROUGHS John Junior High School	Los Angeles Directory Co.
1933	BURROUGHS John Junior High School	Los Angeles Directory Co.
1929	BURROUGHS John Junior High School	Los Angeles Directory Co.
	John Burroughs Junior High School	Los Angeles Directory Co.

FINDINGS

ADJOINING PROPERTY DETAIL

The following Adjoining Property addresses were researched for this report. Detailed findings are provided for each address.

MCCADDEN PL S

621 MCCADDEN PL S

Year	*Uses*	*Source*
2000	DUBOIS C	Haines & Company
	HUNTER Tim	Haines & Company

627 MCCADDEN PL S

Year	*Uses*	*Source*
2000	XXXX	Haines & Company

633 MCCADDEN PL S

Year	*Uses*	*Source*
2000	HART Howard	Haines & Company

639 MCCADDEN PL S

Year	*Uses*	*Source*
2000	MOORE Michael B	Haines & Company
	ROGERS Steve	Haines & Company
	HOLO Sanford	Haines & Company

645 MCCADDEN PL S

Year	*Uses*	*Source*
2000	SMYTH Andrew	Haines & Company

651 MCCADDEN PL S

Year	*Uses*	*Source*
2000	KLEIN Robert	Haines & Company

659 MCCADDEN PL S

Year	*Uses*	*Source*
2000	RODRIGUEZ Melvin	Haines & Company
	ALVARENGA Ines	Haines & Company

665 MCCADDEN PL S

Year	*Uses*	*Source*
2000	HUEBEL H H Jr	Haines & Company

FINDINGS

671 MCCADDEN PL S

Year	*Uses*	*Source*
2000	VOGL Joseph	Haines & Company

677 MCCADDEN PL S

Year	*Uses*	*Source*
2000	KLEIN Donald	Haines & Company

683 MCCADDEN PL S

Year	*Uses*	*Source*
2000	A	Haines & Company
	A CIVIL ENGINEER SV	Haines & Company
	SURVEY LAND SERVICE	Haines & Company
	AERIAL SURVEYS	Haines & Company
	A LAND SURVEY SERVICE	Haines & Company

S MC CADDEN PL

607 S MC CADDEN PL

Year	*Uses*	*Source*
1981	ROLF ERNST TOM	Pacific Telephone

615 S MC CADDEN PL

Year	*Uses*	*Source*
1990	BARADA RICHARD J	Pacific Bell

621 S MC CADDEN PL

Year	*Uses*	*Source*
1990	KUTNER JERRY	Pacific Bell
	KUTNER ETANA	Pacific Bell

633 S MC CADDEN PL

Year	*Uses*	*Source*
1990	HART HOWARD	Pacific Bell
	HART HELENE	Pacific Bell

639 S MC CADDEN PL

Year	*Uses*	*Source*
1981	TARAN EUDICE & BERNARD	Pacific Telephone
	TARAN EUDICE	Pacific Telephone

FINDINGS

645 S MC CADDEN PL

Year	Uses	Source
1990	LEE YEH JA	Pacific Bell

651 S MC CADDEN PL

Year	Uses	Source
1986	ABRAMSON JOE	Pacific Bell

665 S MC CADDEN PL

Year	Uses	Source
1990	HUEBEL H H JR	Pacific Bell

S MCCADDEN PL

603 S MCCADDEN PL

Year	Uses	Source
2006	KIMJae	Haines Company, Inc.
1967	Schwartz Esther S	Pacific Telephone
	Schwartz Edmond L	Pacific Telephone
1962	Taubman Harry	Pacific Telephone
1958	Taubman Harry	Pacific Telephone

607 S MCCADDEN PL

Year	Uses	Source
2008	SOUTHRIDGE CORP	Cole Information Services
2006	o GERBER David	Haines Company, Inc.
1981	CONRAD CASSANDRA	Pacific Telephone
1976	Mc Neil Jos D	Pacific Telephone
1971	Aragon Manuel Jr	Pacific Telephone
1967	Merino Jaime	Pacific Telephone
1962	Ross Wm L Dr	Pacific Telephone
	Ross Robt H	Pacific Telephone
1958	Ross Wm L Dr	Pacific Telephone
1942	Jacobs Arth P clk Bofa	Los Angeles Directory Co.
	HAINES Allan chemist	Los Angeles Directory Co.
	HAINES Martin L	Los Angeles Directory Co.
1937	HAINES Hanchen L Mrs	Los Angeles Directory Co.
	Goldberg Saml	Los Angeles Directory Co.
1933	HAINES MARTIN L Hanchen L Haines & Bisher Attorney at Law	Los Angeles Directory Co.
1929	JACOBSON Paula Mrs	Los Angeles Directory Co.

FINDINGS

Year	Uses	Source
1929	HAINES MARTIN L Hanchen L Andreanl & Halnes Attorney at Law	Los Angeles Directory Co.

615 S MCCADDEN PL

Year	Uses	Source
2013	J MDEIROS & ASSOCIATES INC	Cole Information Services
2006	MEDEIROSJ	Haines Company, Inc.
	MEDEIROSJ	Haines Company, Inc.
	MEDEIROSJ	Haines Company, Inc.
	MEOEIROSJ	Haines Company, Inc.
1990	THEDFORD J SHELLEY	Pacific Bell
1986	BARADA RICHARD J	Pacific Bell
	THEDFORD J SHELLEY	Pacific Bell
1976	Thedford J Shelley	Pacific Telephone
	Barada Richard J	Pacific Telephone
1942	Finch Benj A Nellie	Los Angeles Directory Co.
1937	Finch Benj A Nellie lawyer	Los Angeles Directory Co.
	FINCH Geraldine A	Los Angeles Directory Co.
	FINCH Ruth A	Los Angeles Directory Co.
1933	Finch Benj lawyer	Los Angeles Directory Co.

621 S MCCADDEN PL

Year	Uses	Source
2006	WILLIS Lavetta	Haines Company, Inc.
1976	Singer Steve	Pacific Telephone
	Singer Ralph Jr	Pacific Telephone
1971	Singer Ralph Jr	Pacific Telephone
1967	Singer Ralph Jr	Pacific Telephone
1962	Singer Ralph Jr	Pacific Telephone
1958	Singer Ralph Jr	Pacific Telephone
1942	Babcock Hazel L clk	Los Angeles Directory Co.
	BABCOCK Wm W Ella F pres Hollywood Sound Institute Inc	Los Angeles Directory Co.
1937	BABCOCK Wm W Ella F pres Hollywood Sound Institute	Los Angeles Directory Co.
	BABCOCK Robt W	Los Angeles Directory Co.
	Babcock Hazel L	Los Angeles Directory Co.
1933	SILVERBERG Minor Edna	Los Angeles Directory Co.
	HARRIS Hattie I Mrs	Los Angeles Directory Co.
1929	MACDONALD Kenneth jr Anita Mac Donald & Bryant	Los Angeles Directory Co.

FINDINGS

627 S MCCADDEN PL

Year	Uses	Source
2006	SCHUMAN Antonia	Haines Company, Inc.
	CANTON Rosa	Haines Company, Inc.
1986	DEUTSCH M A	Pacific Bell
1976	Schuman A D	Pacific Telephone
	Needleman Martin R	Pacific Telephone
1971	Deutsch M A	Pacific Telephone
1967	Horan Robt D	Pacific Telephone
1962	Horan Robt D	Pacific Telephone
1958	Horan Robt D	Pacific Telephone
1942	NAGEL Gerry	Los Angeles Directory Co.
	NAGEL Morris Corinne clo mfr	Los Angeles Directory Co.
	Davis Aaron Tillie	Los Angeles Directory Co.
1937	NAGEL Naomi D	Los Angeles Directory Co.
	NAGEL Morris Corinne pres Morris Nagel Inc	Los Angeles Directory Co.
	NAGEL Geraldine K	Los Angeles Directory Co.
	Davis Aaron Matilda	Los Angeles Directory Co.
1933	Ashcraft Clarence S Mary G mgr Ashcraft Automatic Arc Co	Los Angeles Directory Co.

633 S MCCADDEN PL

Year	Uses	Source
2006	HART Howard	Haines Company, Inc.
1981	SMILOVE JONATHAN & MICHAEL	Pacific Telephone
	SMILOVE S	Pacific Telephone
	SMILOVE SIDNEY	Pacific Telephone
1976	Smilove Sidney	Pacific Telephone
1971	Smilove Sidney	Pacific Telephone
1967	Nocerine Dominic	Pacific Telephone
1962	Clampett Ad Mrs	Pacific Telephone
1958	ODonnell M W	Pacific Telephone
1942	Clampett Adam slsmn Domenich Basso	Los Angeles Directory Co.
	ODONNELL Martin W Mary	Los Angeles Directory Co.
1937	Clampett Adam Etta slsmn Antonio Moramarco	Los Angeles Directory Co.
	Clampett Earl	Los Angeles Directory Co.
	Clampett Marietta	Los Angeles Directory Co.
	ODONNELL Matin W Mary D	Los Angeles Directory Co.
1933	ODonnell Martin W Mary L	Los Angeles Directory Co.

FINDINGS

Year	Uses	Source
1929	ODONNELL Martin W Mary	Los Angeles Directory Co.

635 S MCCADDEN PL

Year	Uses	Source
1942	BARRY Frank J jr lawyer	Los Angeles Directory Co.

639 S MCCADDEN PL

Year	Uses	Source
2006	HOLO Sanford	Haines Company, Inc.
1971	Cole Le Roy H	Pacific Telephone
1967	Cole Le Roy H	Pacific Telephone
1962	Cole Le Roy H	Pacific Telephone
1958	Cole Le Roy H	Pacific Telephone
1942	Hirsh Melvin J Pauline	Los Angeles Directory Co.
1933	Apt Emil R	Los Angeles Directory Co.
	Apt Louis C Stephie	Los Angeles Directory Co.
1929	Apt Emil A	Los Angeles Directory Co.
	Apt Louis Stephanie M	Los Angeles Directory Co.

645 S MCCADDEN PL

Year	Uses	Source
2006	SMYTH Andrew	Haines Company, Inc.
1976	Ashley John	Pacific Telephone
1971	Ashley John	Pacific Telephone
1967	Ashley John	Pacific Telephone
1962	Jacoby Rosalie S Mrs	Pacific Telephone
1958	Jacoby Rosalie S Mrs	Pacific Telephone
1942	Mac Caughtry Jos F Margy A slsmn White Motor Co	Los Angeles Directory Co.
1933	WRIGHT Chas C Beulah M slsmn Clinch & Thurtle	Los Angeles Directory Co.
1929	WRIGHT Chas C Beulah slsmn Clinch & Thurtle h	Los Angeles Directory Co.

651 S MCCADDEN PL

Year	Uses	Source
2006	001	Haines Company, Inc.
1976	Abramson Joe	Pacific Telephone
1971	Abramson Joe	Pacific Telephone
1967	Abramson Joe	Pacific Telephone
1962	Abramson Joe	Pacific Telephone

FINDINGS

Year	Uses	Source
1962	Abramson Edna	Pacific Telephone
1958	Abramson Edna	Pacific Telephone
	Abramson Joe	Pacific Telephone
1942	DAY Wm E Edith v pres Kimball Pianos Inc	Los Angeles Directory Co.
1937	Godshall Wm A Frances v pres Blue Diamond Corp	Los Angeles Directory Co.
	Godshall Betty B	Los Angeles Directory Co.
1933	Srere Harry Fanny pres Fairfax Theatre Co	Los Angeles Directory Co.
1929	FLETCHER Paul Loretta	Los Angeles Directory Co.

659 S MCCADDEN PL

Year	Uses	Source
2006	BARUKH Abraham	Haines Company, Inc.
1971	Kuhl Albert Carl MD	Pacific Telephone
1967	Kuhl Albert Carl MD	Pacific Telephone
1962	Parkinson Myron F	Pacific Telephone
1958	Parkinson Myron F	Pacific Telephone
1942	Mc CULLOUGH Russell H Lucille purch agt FWCT Corp	Los Angeles Directory Co.
1937	Lettunich A Bernard teller Bank of Am	Los Angeles Directory Co.
	Gannon Margt K	Los Angeles Directory Co.
	Gannon Geo M Teresa lawyer	Los Angeles Directory Co.
	Gannon Geo D aud	Los Angeles Directory Co.
1933	BERMAN Morris Bessie	Los Angeles Directory Co.

663 S MCCADDEN PL

Year	Uses	Source
1942	NELSON Gordon pres Mission Spring Water Co	Los Angeles Directory Co.

665 S MCCADDEN PL

Year	Uses	Source
2006	HUEBELDorthy	Haines Company, Inc.
1981	HUEBEL H H JR	Pacific Telephone
1976	Huebel H H Jr	Pacific Telephone
1971	Huebel H H Jr	Pacific Telephone
1967	Capel Leon A & Sons	Pacific Telephone
	Hasbel H H Jr	Pacific Telephone
	HUEBEL H H JACK	Pacific Telephone

FINDINGS

Year	Uses	Source
1967	Schrage Bob	Pacific Telephone
1962	Schrage Dorothy Mrs	Pacific Telephone
	Schrage Bob	Pacific Telephone
1958	Schrage Henry	Pacific Telephone
1942	Wents Geo C Uveia	Los Angeles Directory Co.
1937	Wents Geo C Ubeina v pres Diversified Royalties Ltd	Los Angeles Directory Co.
1933	Wents Geo Ubania	Los Angeles Directory Co.
1929	Wents Gao C Ubenia Westn Inv Co h	Los Angeles Directory Co.

671 S MCCADDEN PL

Year	Uses	Source
1981	VOGL JOS C	Pacific Telephone
1976	Vogl Jos C	Pacific Telephone
1942	Selby Ernest S Sarah S	Los Angeles Directory Co.
1937	Selby Ernest S Sara pharm	Los Angeles Directory Co.
	Selby Harry S	Los Angeles Directory Co.
1933	SELBY Peggy clk SFN Bank	Los Angeles Directory Co.
	Selby Ernest S Sara pharm	Los Angeles Directory Co.
	Selby Florence clk	Los Angeles Directory Co.
	Selby Harry	Los Angeles Directory Co.
1929	Selby Ernest S Sarah S clk h	Los Angeles Directory Co.
	Selby Harry S r	Los Angeles Directory Co.

FINDINGS

TARGET PROPERTY: ADDRESS NOT IDENTIFIED IN RESEARCH SOURCE

The following Target Property addresses were researched for this report, and the addresses were not identified in the research source.

Address Researched	Address Not Identified in Research Source
600 S. McCadden Place	2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1985, 1980, 1975, 1972, 1970, 1969, 1966, 1965, 1964, 1963, 1961, 1960, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1936, 1935, 1934, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

ADJOINING PROPERTY: ADDRESSES NOT IDENTIFIED IN RESEARCH SOURCE

The following Adjoining Property addresses were researched for this report, and the addresses were not identified in research source.

Address Researched	Address Not Identified in Research Source
603 S MCCADDEN PL	2013, 2008, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1966, 1965, 1964, 1963, 1961, 1960, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
607 S MC CADDEN PL	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
607 S MCCADDEN PL	2013, 2008, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1980, 1975, 1972, 1970, 1969, 1966, 1965, 1964, 1963, 1961, 1960, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1936, 1935, 1934, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
607 S MCCADDEN PL	2013, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
615 S MC CADDEN PL	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
615 S MCCADDEN PL	2013, 2008, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1985, 1981, 1980, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1936, 1935, 1934, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
615 S MCCADDEN PL	2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
621 MCCADDEN PL S	2013, 2008, 2006, 2004, 2003, 2001, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
621 S MC CADDEN PL	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
621 S MCCADDEN PL	2013, 2008, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1975, 1972, 1970, 1969, 1966, 1965, 1964, 1963, 1961, 1960, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1936, 1935, 1934, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
627 MCCADDEN PL S	2013, 2008, 2006, 2004, 2003, 2001, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
627 S MCCADDEN PL	2013, 2008, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1985, 1981, 1980, 1975, 1972, 1970, 1969, 1966, 1965, 1964, 1963, 1961, 1960, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1936, 1935, 1934, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
633 MCCADDEN PL S	2013, 2008, 2006, 2004, 2003, 2001, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
633 S MC CADDEN PL	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
633 S MCCADDEN PL	2013, 2008, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1980, 1975, 1972, 1970, 1969, 1966, 1965, 1964, 1963, 1961, 1960, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1936, 1935, 1934, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
635 S MCCADDEN PL	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
639 MCCADDEN PL S	2013, 2008, 2006, 2004, 2003, 2001, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
639 S MC CADDEN PL	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
639 S MCCADDEN PL	2013, 2008, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1970, 1969, 1966, 1965, 1964, 1963, 1961, 1960, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
645 MCCADDEN PL S	2013, 2008, 2006, 2004, 2003, 2001, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
645 S MC CADDEN PL	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
645 S MCCADDEN PL	2013, 2008, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1975, 1972, 1970, 1969, 1966, 1965, 1964, 1963, 1961, 1960, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
651 MCCADDEN PL S	2013, 2008, 2006, 2004, 2003, 2001, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
651 S MC CADDEN PL	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
651 S MCCADDEN PL	2013, 2008, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1975, 1972, 1970, 1969, 1966, 1965, 1964, 1963, 1961, 1960, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1936, 1935, 1934, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
659 MCCADDEN PL S	2013, 2008, 2006, 2004, 2003, 2001, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
659 S MCCADDEN PL	2013, 2008, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1970, 1969, 1966, 1965, 1964, 1963, 1961, 1960, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1936, 1935, 1934, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
663 S MCCADDEN PL	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
665 MCCADDEN PL S	2013, 2008, 2006, 2004, 2003, 2001, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
665 S MC CADDEN PL	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
665 S MCCADDEN PL	2013, 2008, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1980, 1975, 1972, 1970, 1969, 1966, 1965, 1964, 1963, 1961, 1960, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1936, 1935, 1934, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
671 MCCADDEN PL S	2013, 2008, 2006, 2004, 2003, 2001, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
671 S MCCADDEN PL	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1980, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1936, 1935, 1934, 1932, 1931, 1930, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
677 MCCADDEN PL S	2013, 2008, 2006, 2004, 2003, 2001, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
683 MCCADDEN PL S	2013, 2008, 2006, 2004, 2003, 2001, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

Burroughs Middle School
600 S. McCadden Place
Los Angeles, CA 90005

Inquiry Number: 4564097.12
March 15, 2016

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

03/15/16

Site Name:

Burroughs Middle School
600 S. McCadden Place
Los Angeles, CA 90005
EDR Inquiry # 4564097.12

Client Name:

WorleyParsons
181 W Huntington Dr Ste 110
Monrovia, CA 91016
Contact: Ralph Beck

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:

Year	Scale	Details	Source
2012	1"=500'	Flight Year: 2012	USDA/NAIP
2010	1"=500'	Flight Year: 2010	USDA/NAIP
2009	1"=500'	Flight Year: 2009	USDA/NAIP
2005	1"=500'	Flight Year: 2005	USDA/NAIP
2002	1"=500'	Flight Date: June, 10 2002	USGS
1994	1"=500'	Acquisition Date: May, 31 1994	USGS/DOQQ
1989	1"=500'	Flight Date: August, 22 1989	USGS
1981	1"=500'	Flight Date: February, 21 1981	EDR Proprietary Brewster Pacific
1979	1"=500'	Flight Date: February, 05 1979	EDR Proprietary Brewster Pacific
1977	1"=500'	Flight Date: April, 25 1977	EDR Proprietary Brewster Pacific
1964	1"=500'	Flight Date: July, 28 1964	USGS
1952	1"=500'	Flight Date: August, 01 1952	USGS
1948	1"=500'	Flight Date: July, 10 1948	USGS
1938	1"=500'	Flight Date: May, 22 1938	USGS
1928	1"=500'	Flight Date: January, 01 1928	USGS

When delivered electronically by EDR, the aerial photo images included with this report are for ONE TIME USE ONLY. Further reproduction of these aerial photo images is prohibited without permission from EDR. For more information contact your EDR Account Executive.

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT. Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

Copyright 2016 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

INQUIRY #: 4564097.12
YEAR: 1928
= 500'
N
EDR

INQUIRY #: 4564097.12
YEAR: 1938
= 500'
N
EDR

INQUIRY #: 4564097.12
YEAR: 1948
= 500'
N
EDR

I
INQUIRY #: 4564097.12
YEAR: 1952
= 500'
N
EDR

INQUIRY #: 4564097.12
YEAR: 1964
= 500'
N
EDR

INQUIRY #: 4564097.12
YEAR: 1977
= 500'
N
EDR

INQUIRY #: 4564097.12

YEAR: 1979

= 500'

N

EDR

INQUIRY #: 4564097.12

YEAR: 1981

= 500'

N

EDR

INQUIRY #: 4564097.12
YEAR: 1989
= 500'
N
EDR

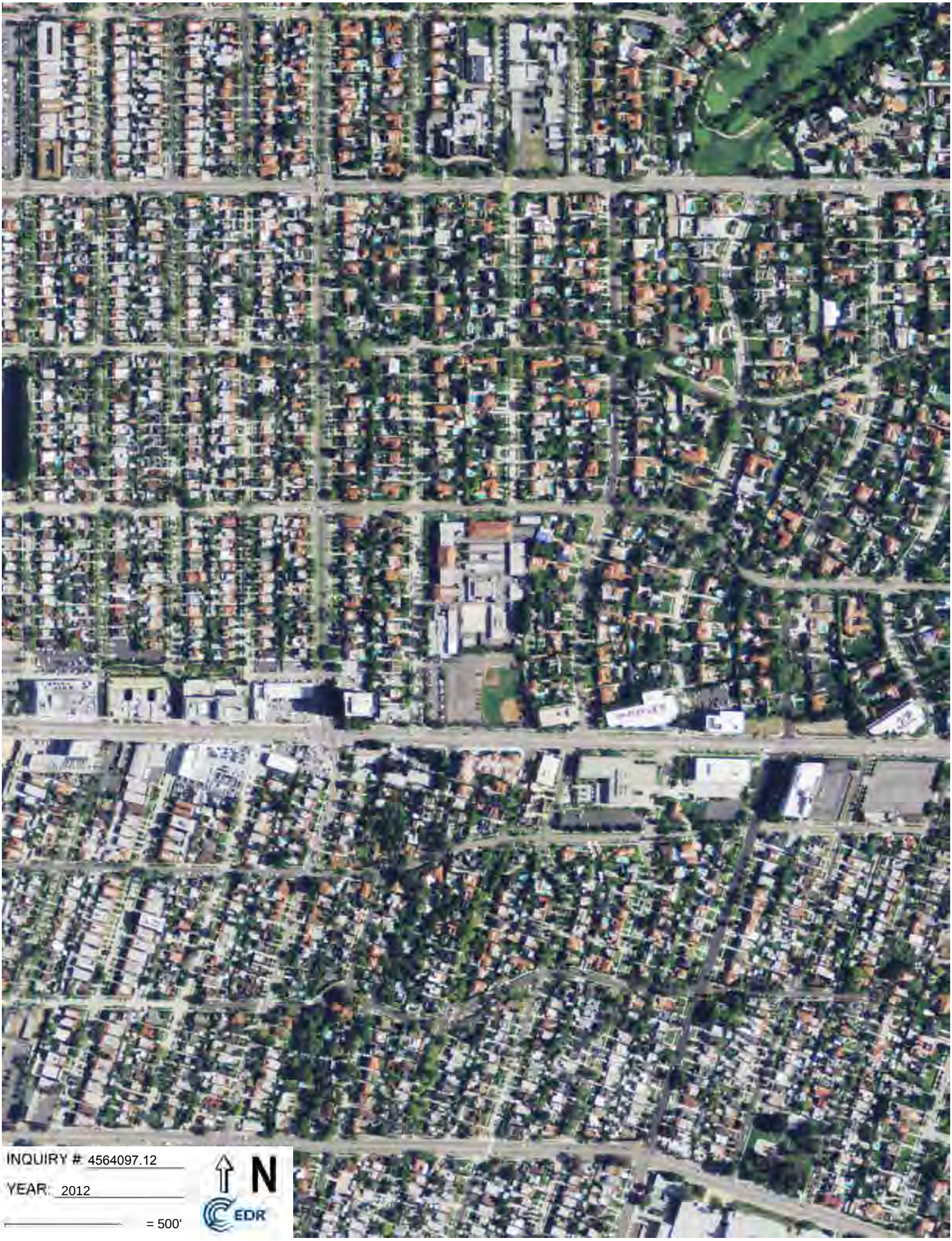
INQUIRY #: 4564097.12
YEAR: 1994
= 500'
N
EDR

INQUIRY #: 4564097.12
YEAR: 2002
= 500'
N
EDR

INQUIRY #: 4564097.12
YEAR: 2005
= 500'
N
EDR

INQUIRY #: 4564097.12
YEAR: 2009
= 500'
N
EDR

INQUIRY #: 4564097.12
YEAR: 2010
= 500'
N
EDR


INQUIRY #: 4564097.12
YEAR: 2012
= 500'
N
EDR

Burroughs Middle School
600 S. McCadden Place
Los Angeles, CA 90005

Inquiry Number: 4564097.8
March 14, 2016

EDR Building Permit Report

Target Property and Adjoining Properties

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION

About This Report

Executive Summary

Findings

Glossary

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. **NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OR DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT.** Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction orforecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

Copyright 2016 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc. or its affiliates is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

EDR BUILDING PERMIT REPORT

About This Report

The EDR Building Permit Report provides a practical and efficient method to search building department records for indications of environmental conditions. Generated via a search of municipal building permit records gathered from more than 1,600 cities nationwide, this report will assist you in meeting the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

Building permit data can be used to identify current and/or former operations and structures/features of environmental concern. The data can provide information on a target property and adjoining properties such as the presence of underground storage tanks, pump islands, sumps, drywells, etc., as well as information regarding water, sewer, natural gas, electrical connection dates, and current/former septic tanks.

ASTM and EPA Requirements

ASTM E 1527-13 lists building department records as a "standard historical source," as detailed in § 8.3.4.7: "Building Department Records - The term building department records means those records of the local government in which the property is located indicating permission of the local government to construct, alter, or demolish improvements on the property." ASTM also states that "Uses in the area surrounding the property shall be identified in the report, but this task is required only to the extent that this information is revealed in the course of researching the property itself."

EPA's Standards and Practices for All Appropriate Inquires (AAI) states: "§312.24: Reviews of historical sources of information. (a) Historical documents and records must be reviewed for the purposes of achieving the objectives and performance factors of §312.20(e) and (f). Historical documents and records may include, but are not limited to, aerial photographs, fire insurance maps, building department records, chain of title documents, and land use records."

Methodology

EDR has developed the EDR Building Permit Report through our partnership with BuildFax, the nation's largest repository of building department records. BuildFax collects, updates, and manages building department records from local municipal governments. The database now includes 30 million permits, on more than 10 million properties across 1,600 cities in the United States.

The EDR Building Permit Report comprises local municipal building permit records, gathered directly from local jurisdictions, including both target property and adjoining properties. Years of coverage vary by municipality. Data reported includes (where available): date of permit, permit type, permit number, status, valuation, contractor company, contractor name, and description.

Incoming permit data is checked at seven stages in a regimented quality control process, from initial data source interview, to data preparation, through final auditing. To ensure the building department is accurate, each of the seven quality control stages contains, on average, 15 additional quality checks, resulting in a process of approximately 105 quality control "touch points."

For more information about the EDR Building Permit Report, please contact your EDR Account Executive at (800) 352-0050.

EDR® Environmental Data Resources Inc

BUILD FAX PROPERTY HISTORY

EXECUTIVE SUMMARY: SEARCH DOCUMENTATION

A search of building department records was conducted by Environmental Data Resources, Inc (EDR) on behalf of WorleyParsons on Mar 14, 2016.

TARGET PROPERTY

600 S. McCadden Place
Los Angeles, CA 90005

SEARCH METHODS

EDR searches available lists for both the Target Property and Surrounding Properties.

RESEARCH SUMMARY

Building permits identified: **YES**

The following research sources were consulted in the preparation of this report. An "X" indicates where information was identified in the source and provided in this report.

Los Angeles

Year	*Source*	*TP*	*Adjoining*
2015	City of Los Angeles, Department of Building and Safety		X
2014	City of Los Angeles, Department of Building and Safety		X
2013	City of Los Angeles, Department of Building and Safety		X
2012	City of Los Angeles, Department of Building and Safety		X
2011	City of Los Angeles, Department of Building and Safety		X
2010	City of Los Angeles, Department of Building and Safety		X
2009	City of Los Angeles, Department of Building and Safety		X
2008	City of Los Angeles, Department of Building and Safety		X
	City of Los Angeles, Department of Building and Safety	X	
2007	City of Los Angeles, Department of Building and Safety		X
2006	City of Los Angeles, Department of Building and Safety		X
2005	City of Los Angeles, Department of Building and Safety		X
2004	City of Los Angeles, Department of Building and Safety		X
2003	City of Los Angeles, Department of Building and Safety		X
2002	City of Los Angeles, Department of Building and Safety		X
2001	City of Los Angeles, Department of Building and Safety		X
2000	City of Los Angeles, Department of Building and Safety		X
1999	City of Los Angeles, Department of Building and Safety		X
1998	City of Los Angeles, Department of Building and Safety		X
1997	City of Los Angeles, Department of Building and Safety		X
1996	City of Los Angeles, Department of Building and Safety		X
1995	City of Los Angeles, Department of Building and Safety		
1994	City of Los Angeles, Department of Building and Safety		
1993	City of Los Angeles, Department of Building and Safety		
1992	City of Los Angeles, Department of Building and Safety		
1991	City of Los Angeles, Department of Building and Safety		
1990	City of Los Angeles, Department of Building and Safety		
1989	City of Los Angeles, Department of Building and Safety		

EXECUTIVE SUMMARY: SEARCH DOCUMENTATION

Year	Source	TP	Adjoining
1988	City of Los Angeles, Department of Building and Safety		

BUILDING DEPARTMENT RECORDS SEARCHED

Name: Los Angeles
Years: 1988-2015
Source: City of Los Angeles, Department of Building and Safety, LOS ANGELES, CA
Phone: (213) 482-6800

Name: Adelanto
Years: 2001-2010
Source: City of Adelanto, Building and Safety, ADELANTO, CA
Phone: (760) 246-2300 x 305

Name: Arcadia
Years: 1988-2011
Source: City of Arcadia, Building Services Division, ARCADIA, CA
Phone: (626) 574-5455

Name: Brentwood
Years: 1998-2012
Source: City of Brentwood, Building and Code Enforcement, BRENTWOOD, CA
Phone: (925) 516-5405

Name: Burbank
Years: 1970-2015
Source: City of Burbank, Building Division, BURBANK, CA
Phone: (818) 238-5220

Name: Gardena
Years: 1994-2012
Source: City of Gardena, Community Development, GARDENA, CA
Phone: (310) 217-9530

Name: Hemet
Years: 1989-2012
Source: City of Hemet, Building and Safety, HEMET, CA
Phone: (951) 765-2475

Name: Lakewood
Years: 1988-2014
Source: City of Lakewood, Community Development Department, LAKEWOOD, CA
Phone: (562) 866-9771 x 235

Name: Los Angeles County
Years: 1994-2015
Source: Los Angeles County, Building and Safety, HUNTINGTON PARK, CA
Phone: (626) 458-6368

Name: Lynwood
Years: 2009-2015
Source: City of Lynwood, Development Services, LYNWOOD, CA
Phone: (310) 603-0220

Name: Pasadena
Years: 1985-2016
Source: City of Pasadena, Permit Center, PASADENA, CA
Phone: (626) 744-6646

Name: Pittsburg
Years: 2000-2010
Source: City of Pittsburg, Building Division , PITTSBURG, CA
Phone: (925) 252-4850

Name: Redding
Years: 1987-2016
Source: City of Redding, Development Services, Building Division, FAIRFIELD, CA
Phone: 530-225-4014

Name: Rialto
Years: 2000-2012
Source: City of Rialto, Building and Safety, BLOOMINGTON, CA
Phone: (909) 820-2505

Name: San Bernardino County
Years: 2002-2016
Source: San Bernardino County, Land Use, Building & Safety, FONTANA, CA
Phone: (909) 387-8311

Name: Santa Monica
Years: 1979-2016
Source: City of Santa Monica, Building and Safety, Santa Monica, CA
Phone: (310) 458-8355

Name: Tulare County
Years: 2006-2015
Source: Tulare County, Community and Development Services Branch, PORTERVILLE, CA
Phone: (559) 733-6291

Name: Vacaville
Years: 2009-2016
Source: City of Vacaville, Building Permits, Vacaville, CA
Phone: (707) 449-5152

Name: Oakland
Years: 1968-2016
Source: City of Oakland,Building Services Division, EMERYVILLE, CA
Phone: (510) 238-3891

Name: San Rafael
Years: 1999-2016
Source: City of San Rafael, Code Enforcement, SAN RAFAEL, CA
Phone: (415) 485-3097

Name: Norwalk
Years: 2002-2015
Source: City of Norwalk, Community Development, Building and Safety Division, NORWALK, CA
Phone: (562) 929-5733

Name: Huntington Beach
Years: 1996-2016
Source: Huntington Beach, Dept. of Building and Safety, HUNTINGTON BEACH, CA
Phone: (714) 536-5241

Name: Huntington Park
Years: 2003-2011
Source: City of Huntington Park, Community Development, HUNTINGTON PARK, CA
Phone: (323) 584-6271

Name: Alhambra
Years: 2000-2015
Source: City of Alhambra, Building Services, ALHAMBRA, CA
Phone: 626-570-5034

Name: Inglewood
Years: 1991-2015
Source: City of Inglewood, Planning Division, INGLEWOOD, CA
Phone: (310) 412-5230

Name: Culver City
Years: 1990-2012
Source: Culver City, Community Development Department, CULVER CITY, CA
Phone: (310) 253-5800

TARGET PROPERTY FINDINGS

TARGET PROPERTY DETAIL

600 S. McCadden Place
Los Angeles, CA 90005

600 S MCCADDEN PL

Date:	**7/29/2008**
Permit Type:	
Description:	**No Plan Check RECONNECT TWO BOILERS; POWER IS EXISTING**
Permit Description:	**Electrical**
Work Class:	
Proposed Use:	Commercial
Permit Number:	080413000017099
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	SUPERIOR BOILER REPAIRS INC

Date:	**7/29/2008**
Permit Type:	
Description:	**No Plan Check INSTALL BOILER.**
Permit Description:	**Pressure Vessel**
Work Class:	
Proposed Use:	Commercial
Permit Number:	080453000000233
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	SUPERIOR BOILER REPAIRS INC

ADJOINING PROPERTY FINDINGS

ADJOINING PROPERTY DETAIL

The following Adjoining Property addresses were researched for this report. Detailed findings are provided for each address.

S HIGHLAND AVE

600 S HIGHLAND AVE

Date:	**9/11/2002**
Permit Type:	
Description:	**Plan Check Proposed two story addition (+2847 sf) c**
Permit Description:	**Bldg-Addition**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling Single Family Residence
Permit Number:	020147000003539
Status:	
Valuation:	$450,000.00
Contractor Company:	
Contractor Name:	OWNER-BUILDER

Date:	**4/19/2002**
Permit Type:	
Description:	**Plan Check REVISION TO PERMIT 02010-20000-00714; AD**
Permit Description:	**Bldg-New**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling Private Garage
Permit Number:	020102000000932
Status:	
Valuation:	$2,000.00
Contractor Company:	
Contractor Name:	OWNER-BUILDER

ADJOINING PROPERTY FINDINGS

Date: **3/14/2002**
Permit Type:
Description: **Plan Check NEW 20'X20' TWO CAR GARAGE. CONSTRUCTIO**

Permit Description: **Bldg-New**
Work Class:
Proposed Use: 1 or 2 Family Dwelling Private Garage
Permit Number: 020102000000714
Status:
Valuation: $2,200.00
Contractor Company:
Contractor Name: OWNER-BUILDER

Date: **3/14/2002**
Permit Type:
Description: **Plan Check DEMOLISH (E) 1 STORY GARAGE AND POOL HOU**

Permit Description: **Bldg-Demolition**
Work Class:
Proposed Use: 1 or 2 Family Dwelling Misc. Bldg or Structure
Permit Number: 020192000000336
Status:
Valuation: $2,200.00
Contractor Company:
Contractor Name: OWNER-BUILDER

Date: **3/8/2002**
Permit Type:
Description: **Plan Check new property fence wall per city's stand**

Permit Description: **Nonbldg-New**
Work Class:
Proposed Use: 1 or 2 Family Dwelling Misc. Bldg or Structure
Permit Number: 020202000000620
Status:
Valuation: $8,000.00
Contractor Company:
Contractor Name: OWNER-BUILDER

ADJOINING PROPERTY FINDINGS

603 S HIGHLAND AVE

Date:	**8/18/2015**
Permit Type:	
Description:	**No Plan Check**
Permit Description:	**Plumbing**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	150429000016722
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	METRO RETROFITTING INC

Date:	**8/3/2015**
Permit Type:	
Description:	**No Plan Check**
Permit Description:	**Plumbing**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	150429000015584
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	METRO RETROFITTING INC

Date:	**5/10/2007**
Permit Type:	
Description:	**Plan Check NEW 8FT HIGH CONCRETE BLOCK MASONRY WALL**
Permit Description:	**Nonbldg-New**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling Misc. Bldg or Structure
Permit Number:	070201000000182
Status:	
Valuation:	$10,464.00
Contractor Company:	
Contractor Name:	OWNER-BUILDER

ADJOINING PROPERTY FINDINGS

Date:	**3/14/2007**
Permit Type:	
Description:	**No Plan Check VOLUNTARY FOUNDATION BOLTING, CRIPPLE WA**
Permit Description:	**Bldg-Alter/Repair**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	070162000004630
Status:	
Valuation:	$5,000.00
Contractor Company:	
Contractor Name:	WEINSTEIN CONSTRUCTION CORPORATION

608 S HIGHLAND AVE

Date:	**3/15/2012**
Permit Type:	
Description:	**No Plan Check Re-roof with Class A or B material weigh ing less than 6 pound per sq. ft.**
Permit Description:	**Bldg-Alter/Repair**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling Single Family Residence
Permit Number:	120162000004884
Status:	
Valuation:	$23,000.00
Contractor Company:	
Contractor Name:	S B R INC

ADJOINING PROPERTY FINDINGS

609 S HIGHLAND AVE

Date:	**2/27/2009**
Permit Type:	
Description:	**No Plan Check WATER HEATER INSTALL**
Permit Description:	**Plumbing**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	090429000003210
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	RITZ PLUMBING & HEATING SERVICE INC

Date:	**2/5/2007**
Permit Type:	
Description:	**No Plan Check Install 5ton split system, heating & air**
Permit Description:	**HVAC**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	070449000001250
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	SPRING HEATING & AIR CONDITIONING SERVICE INCORPORATED

Date:	**10/3/1996**
Permit Type:	
Description:	**BOLT HOUSE TO FOUNDATION-PER ENGINEER**
Permit Description:	**Bldg-Alter/Repair**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	960162000001647
Status:	
Valuation:	$2,500.00
Contractor Company:	
Contractor Name:	WEST COAST CONSTRUCTION

ADJOINING PROPERTY FINDINGS

614 S HIGHLAND AVE

Date:	**7/13/1998**
Permit Type:	
Description:	**Plan Check INSTALL PAIR OF FRENCH DOORS-**
Permit Description:	**Bldg-Alter/Repair**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	980162000014025
Status:	
Valuation:	$5,000.00
Contractor Company:	
Contractor Name:	LA COCK MICHAEL DENNIS

Date:	**7/13/1998**
Permit Type:	
Description:	**No Plan Check OUTDOOR LITES**
Permit Description:	**Electrical**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	980412000014385
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	LA COCK MICHAEL DENNIS

ADJOINING PROPERTY FINDINGS

615 S HIGHLAND AVE

Date:	**11/6/2007**
Permit Type:	
Description:	**No Plan Check INSTALL A 50 GALLON WATER HEATER IN THE**
Permit Description:	**Plumbing**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	070429000023341
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	RITZ PLUMBING & HEATING SERVICE INC

620 S HIGHLAND AVE

Date:	**2/10/2015**
Permit Type:	
Description:	**No Plan Check BATHROOM REMODEL - REMOVE & REPLACE FIX URES/COUNTERS AT SAME LOCATION.**
Permit Description:	**Bldg-Alter/Repair**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling Single Family Residence
Permit Number:	150162000002250
Status:	
Valuation:	$6,000.00
Contractor Company:	
Contractor Name:	E D R DESIGN & CONSTRUCTION INC

ADJOINING PROPERTY FINDINGS

Date:	**10/15/2013**
Permit Type:	
Description:	**Plan Check BACKFILL OF 17' X 36' POOL WITH UNCERTIF IED FILL PER P/BC 2011 -111. POOL SHELL TO BE LEFT IN-PLACE**
Permit Description:	**Grading**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling Grading Non-Hill
Permit Number:	130477000001228
Status:	
Valuation:	$68.00
Contractor Company:	
Contractor Name:	FEHOKO & AFU CONCRETE

Date:	**2/1/2013**
Permit Type:	
Description:	**No Plan Check Replace old sub panel with new sub panel and run 40Amp power to new AC unit**
Permit Description:	**Electrical**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	130419000002683
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	UNITECH CONSTRUCTION GROUP

Date:	**12/28/2012**
Permit Type:	
Description:	**No Plan Check Installation of new A/C & Heating system .**
Permit Description:	**HVAC**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	120449000015359
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	J M S AIR CONDITIONING AND APPLIANCE SERVICE INC

ADJOINING PROPERTY FINDINGS

Date:	**7/15/2011**
Permit Type:	
Description:	**No Plan Check Remove and replace roof sheathing and sh ingles from existing sfd. (8 squares)**
Permit Description:	**Bldg-Alter/Repair**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	110167000013390
Status:	
Valuation:	$1,600.00
Contractor Company:	
Contractor Name:	TED'S CONSTRUCTION SERVICER'S

Date:	**6/1/2011**
Permit Type:	
Description:	**Plan Check PROPOSED FIRST AND SECOND STORY ADDITION TO (E) SFD (497 SQ FT TOTAL) CONSISTING OF LIVING ROOM ON 1ST FLOOR; BEDROOM, BATHROOM AND CLOSET ON 2ND FLOOR (RELATED ELEC, HVAC, AND PLUMBING) **SEE COMMENTS****
Permit Description:	**Bldg-Addition**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	110147000000588
Status:	
Valuation:	$50,500.00
Contractor Company:	
Contractor Name:	TED'S CONSTRUCTION SERVICER'S

ADJOINING PROPERTY FINDINGS

Date:	**6/10/2009**
Permit Type:	
Description:	**No Plan Check Add sill plate anchor bolts and cripple**
Permit Description:	**Bldg-Alter/Repair**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	090161000007416
Status:	
Valuation:	$2,000.00
Contractor Company:	
Contractor Name:	WHITECASTLE CONST

Date:	**11/6/2002**
Permit Type:	
Description:	**No Plan Check KITCHEN REMODEL AND RELATED ELECTRICAL &**
Permit Description:	**Bldg-Alter/Repair**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	020161000021548
Status:	
Valuation:	$20,000.00
Contractor Company:	
Contractor Name:	OWNER-BUILDER

Date:	**6/6/2002**
Permit Type:	
Description:	**No Plan Check Install E.Q. Gas Shut Off Valve.**
Permit Description:	**Plumbing**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	020429000015572
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	CITY MIDLAND DEVELOPMENT

ADJOINING PROPERTY FINDINGS

621 S HIGHLAND AVE

Date:	**3/4/2014**
Permit Type:	
Description:	**No Plan Check REPAIR SEWER LINE WITH PERMA LINER. ENG NEERING SEWER #518410-26.**
Permit Description:	**Plumbing**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	140421000003996
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	DRAIN BUSTER ROOTER AND PLUMBING

Date:	**3/16/2012**
Permit Type:	
Description:	**No Plan Check install electrical outlet for furnace**
Permit Description:	**Electrical**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	120419000006080
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	CARREON HEATING AND AIR CONDITIONING COMPANY

ADJOINING PROPERTY FINDINGS

Date: **3/9/2012**
Permit Type:
Description: **No Plan Check water heater (FIELD INSPECTOR SEE APPLI CATION COMMENTS)**

Permit Description: **Plumbing**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 120429000004381
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: OWNER-BUILDER

Date: **2/16/2012**
Permit Type:
Description: **No Plan Check new furnace coil condenser and ducting**

Permit Description: **HVAC**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 120449000001737
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: CARREON HEATING AND AIR CONDITIONING COMPANY

Date: **10/20/2008**
Permit Type:
Description: **No Plan Check Chimney repair for residential buildings**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 080164000017835
Status:
Valuation: $4,000.00
Contractor Company:
Contractor Name: OWNER-BUILDER

ADJOINING PROPERTY FINDINGS

Date: **3/12/2003**
Permit Type:
Description: **No Plan Check INSTALL EQ VALVE.**

Permit Description: **Plumbing**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 030422000007867
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: ON TIME PLUMBING

Date: **4/3/2001**
Permit Type:
Description: **No Plan Check seismic retrofit; foundation anchor bolt**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 010163000005753
Status:
Valuation: $2,000.00
Contractor Company:
Contractor Name: BOARD JEFF WAYNE

Date: **9/15/1997**
Permit Type:
Description: **No Plan Check**

Permit Description: **Electrical**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 970411000209364
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: FELIX ELECTRICAL SERVICE

ADJOINING PROPERTY FINDINGS

626 S HIGHLAND AVE

Date:	**9/8/1997**
Permit Type:	
Description:	**No Plan Check T/O exist roof apply 1/2" CDX ply.& clas**
Permit Description:	**Bldg-Alter/Repair**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	970162000020231
Status:	
Valuation:	$8,000.00
Contractor Company:	
Contractor Name:	A J ROOFING

627 S HIGHLAND AVE

Date:	**5/18/2004**
Permit Type:	
Description:	**No Plan Check rewire existing house**
Permit Description:	**Electrical**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	040419000012226
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	MARKOWITZ AHARON / AM ELECTRIC

ADJOINING PROPERTY FINDINGS

Date: **11/20/2003**
Permit Type:
Description: **No Plan Check hop mop shower.**

Permit Description: **Plumbing**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 030423000036391
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: OH - GEE PLUMBING

Date: **9/3/2003**
Permit Type:
Description: **Plan Check INTERIOR REMODEL TO CONVERT (E)14'-6" X**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 030162000016890
Status:
Valuation: $3,500.00
Contractor Company:
Contractor Name: OWNER-BUILDER

Date: **6/13/2003**
Permit Type:
Description: **No Plan Check INSTALL AN EQ GAS SHUT OFF VALVE.**

Permit Description: **Plumbing**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 030423000018929
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: R C PLUMBING

ADJOINING PROPERTY FINDINGS

632 S HIGHLAND AVE

Date:	**4/1/2013**
Permit Type:	
Description:	**No Plan Check cleanout install 4" front home**
Permit Description:	**Plumbing**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	130429000006270
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	A R S AMERICAN RESIDENTIAL SERVICES OF CALIFORNIA INC

Date:	**7/17/2001**
Permit Type:	
Description:	**Plan Check REPLACE (E) MASONRY CHIMNEY WITH NEW WOO**
Permit Description:	**Bldg-Alter/Repair**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	010162000013334
Status:	
Valuation:	$3,000.00
Contractor Company:	
Contractor Name:	ALPHA REMODELING INC

Date:	**5/2/1997**
Permit Type:	
Description:	**No Plan Check REPAIR PLASTER ON WALLS & CEILING; REPAI**
Permit Description:	**Bldg-Alter/Repair**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	970161000009884
Status:	
Valuation:	$35,000.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

Date: **5/2/1997**
Permit Type:
Description: **No Plan Check REROOF GARAGE W/ ASPHALT SHINGLE, 1/2" C**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 970161000009885
Status:
Valuation: $3,000.00
Contractor Company:
Contractor Name:

Date: **5/2/1997**
Permit Type:
Description: **No Plan Check INSTALLING TWO NEW CIRCUITS FOR POOL AND**

Permit Description: **Electrical**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 970411000005867
Status:
Valuation: $0.00
Contractor Company:
Contractor Name:

Date: **5/2/1997**
Permit Type:
Description: **No Plan Check POOL HEATER & TOILETS**

Permit Description: **Plumbing**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 970421000003285
Status:
Valuation: $0.00
Contractor Company:
Contractor Name:

ADJOINING PROPERTY FINDINGS

638 S HIGHLAND AVE

Date:	**8/18/2015**
Permit Type:	
Description:	**No Plan Check**
Permit Description:	**Electrical**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	150419000027049
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	GRC ELECTRIC INC

Date:	**3/23/1998**
Permit Type:	
Description:	**Plan Check VOLUNTARY FOUNDATION ANCHORAGE RETROFIT**
Permit Description:	**Bldg-Alter/Repair**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	980162000005368
Status:	
Valuation:	$3,000.00
Contractor Company:	
Contractor Name:	HIGHCASTLE INC

ADJOINING PROPERTY FINDINGS

639 S HIGHLAND AVE

Date:	**12/30/2004**
Permit Type:	
Description:	**No Plan Check CHANGE OUT FURNACE, ADD RETURN AIR**
Permit Description:	**HVAC**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	040442000013064
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	SUMMER AIR

Date:	**9/22/1999**
Permit Type:	
Description:	**Plan Check Kit remodel & cabinets/ window changeout**
Permit Description:	**Bldg-Alter/Repair**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	990162000017715
Status:	
Valuation:	$10,000.00
Contractor Company:	
Contractor Name:	LA COCK MICHAEL DENNIS

Date:	**5/10/1999**
Permit Type:	
Description:	**No Plan Check T/O (E) ROOF, APPLY 1/2" OSB & APPLY 30**
Permit Description:	**Bldg-Alter/Repair**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	990162000008324
Status:	
Valuation:	$6,000.00
Contractor Company:	
Contractor Name:	JAVIER ROOF SERVICES

ADJOINING PROPERTY FINDINGS

644 S HIGHLAND AVE

Date:	**10/15/2014**
Permit Type:	
Description:	**No Plan Check ADD 1 30 AMP GFCI BREAKER. PERMIT 2 OF WITH PERMIT #14042-10000-20024. CLASS B LICENSE.**
Permit Description:	**Electrical**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	140411000028587
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	LEISURE LIFE WALK IN TUBS AND SHOWERS

Date:	**10/15/2014**
Permit Type:	
Description:	**No Plan Check REPLACE EXISTING TUB WITH NEW WALK IN T B. NO NEW CONSTRUCTION. ALL EXISTING PLUMBING WILL BE USED. PERMIT 1 OF 2 WITH PERMIT #14041-10000-28587. CLASS B LICENSE.**
Permit Description:	**Plumbing**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	140421000020024
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	LEISURE LIFE WALK IN TUBS AND SHOWERS

ADJOINING PROPERTY FINDINGS

Date:	**7/25/2014**
Permit Type:	
Description:	**No Plan Check ADD SILL PLATE ANCHOR BOLTS AND CRIPPLE WALL PLYWOOD PER LA CITY STANDARD PLAN #1; NO FOUNDATION REPLACEMENT (EARTHQUAKE HAZARD REDUCTION PER CHAPTER 92 OF THE LOS ANGELES BUILDING CODE). (HOUSES, RESIDENTIAL BUILDINGS UP TO 3 STORIES AND UP TO 4 UNITS).**
Permit Description:	**Bldg-Alter/Repair**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling Single Family Residence
Permit Number:	140163000014510
Status:	
Valuation:	$2,000.00
Contractor Company:	
Contractor Name:	E G X INC

Date:	**9/8/1999**
Permit Type:	
Description:	**No Plan Check Remodel: combine two adjacent windows in**
Permit Description:	**Bldg-Alter/Repair**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	990167000016733
Status:	
Valuation:	$500.00
Contractor Company:	
Contractor Name:	OWNER-BUILDER

ADJOINING PROPERTY FINDINGS

Date: **9/8/1999**
Permit Type:
Description: **No Plan Check Install one LP gas system**

Permit Description: **Plumbing**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 990427000012270
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: ARIE PLUMBING

Date: **8/30/1999**
Permit Type:
Description: **No Plan Check rewire existing circuits: one misc. perm**

Permit Description: **Electrical**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 990417000017009
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: OWNER-BUILDER

Date: **8/30/1999**
Permit Type:
Description: **No Plan Check Copper repipe: 10 fixtures; & repipe one**

Permit Description: **Plumbing**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 990427000011891
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: ARIE PLUMBING

ADJOINING PROPERTY FINDINGS

Date: **8/30/1999**
Permit Type:
Description: **No Plan Check Replace two FAU's & 2 vents**

Permit Description: **HVAC**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 990447000007749
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: OWNER-BUILDER

Date: **8/5/1999**
Permit Type:
Description: **No Plan Check SERVICE UPGRADE**

Permit Description: **Electrical**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 990411000015254
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: MACHADO ELECTRIC

645 S HIGHLAND AVE

C.O. Issued Date: **1/20/2010**
Date: **7/13/2005**
Permit Type:
Description: **Plan Check 1ST FL KITCHEN & 2ND FL DEN ADD. (166 S**

Permit Description: **Bldg-Addition**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 050141000004621
Status:
Valuation: $30,000.00
Contractor Company:
Contractor Name: OWNER-BUILDER

ADJOINING PROPERTY FINDINGS

650 S HIGHLAND AVE

Date:	**9/13/2011**
Permit Type:	
Description:	**No Plan Check 400 amp service + under ground feed for sub panel**
Permit Description:	**Electrical**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	110419000019501
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	OSADON JACOB

Date:	**9/2/2011**
Permit Type:	
Description:	**Plan Check Remodel (E) swimming pool and spa per LA City Std Plan #267**
Permit Description:	**Swimming-Pool/Spa**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	110472000000877
Status:	
Valuation:	$7,500.00
Contractor Company:	
Contractor Name:	BASIX DESIGNS & REMODELING INC

ADJOINING PROPERTY FINDINGS

Date:	**8/11/2011**
Permit Type:	
Description:	**Plan Check 2ND FLOOR ADDITION:ENLARGE MASTER BATHRO OM/CLOSET(+ 167 SQ FT) OVER THE (E) 1st FLOOR PATIO COVER AT REAR.**
Permit Description:	**Bldg-Addition**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	110142000002596
Status:	
Valuation:	$20,000.00
Contractor Company:	
Contractor Name:	BASIX DESIGNS & REMODELING INC

Date:	**6/30/2011**
Permit Type:	
Description:	**Plan Check Interior remodel to (E) 2-story SFD: ki tchen, bathroom, and add powder room @ 1st floor, and 2 bathrooms @ 2nd floor.**
Permit Description:	**Bldg-Alter/Repair**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	110162000011926
Status:	
Valuation:	$10,000.00
Contractor Company:	
Contractor Name:	BASIX DESIGNS & REMODELING INC

Date:	**1/19/1999**
Permit Type:	
Description:	**No Plan Check Drain Line for Lav & Tub**
Permit Description:	**Plumbing**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	990427000000729
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	ADEE BOB PLBG & HTG

ADJOINING PROPERTY FINDINGS

Date: **3/31/1998**
Permit Type:
Description: **No Plan Check Gas line, 5 outlets**

Permit Description: **Plumbing**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 980427000003904
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: ADEE BOB PLBG & HTG

Date: **2/19/1997**
Permit Type:
Description: **Plan Check VOLUNTARY CRIPPLE WALL SEISMIC RETROFIT**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 970162000003852
Status:
Valuation: $1,100.00
Contractor Company:
Contractor Name: WEINSTEIN CONSTRUCTION CORPORATION

659 S HIGHLAND AVE

Date: **10/29/2013**
Permit Type:
Description: **Plan Check Replace garage door, garage header and s upporting posts.**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: 1 or 2 Family Dwelling Single Family Residence
Permit Number: 130163000022100
Status:
Valuation: $4,500.00
Contractor Company:
Contractor Name: OWNER-BUILDER

ADJOINING PROPERTY FINDINGS

664 S HIGHLAND AVE

Date:	**8/8/2014**
Permit Type:	
Description:	**Plan Check RE-ROOF, TEAR-OFF AND INSTALL NEW ROOFI G UNDERLAYMENT AND RE-INSTALL EXISTING ROOF TILE AT FRON OF HOUSE. TEAR-OFF AN RE-ROOF WITH LIGHTWEIGHT CLAY ROOF TILE AT REAR OF HOUSE.**
Permit Description:	**Bldg-Alter/Repair**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling Single Family Residence
Permit Number:	140161000011538
Status:	
Valuation:	$3,000.00
Contractor Company:	
Contractor Name:	DO ROOFING INC

Date:	**9/17/2013**
Permit Type:	
Description:	**No Plan Check 200AMP SERVICE UPGRADE. (UNDERGROUND)**
Permit Description:	**Electrical**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	130411000025548
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	SOLAR ELECTRIC CONSTRUCTION INC

ADJOINING PROPERTY FINDINGS

665 S HIGHLAND AVE

Date:	**10/27/2006**
Permit Type:	
Description:	**No Plan Check TWO NEW CIRCUITS FOR THE NEW HVAC SYSTEM**
Permit Description:	**Electrical**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	060419000026885
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	CUSTOM AIRE

Date:	**10/27/2006**
Permit Type:	
Description:	**No Plan Check TWO NEW CENTRAL AIR SYSTEMS. WITH 90% F**
Permit Description:	**HVAC**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	060449000011477
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	CUSTOM AIRE

Date:	**3/25/2004**
Permit Type:	
Description:	**No Plan Check SEISMIC RETROFIT; FOUNDATION ANCHOR BOLT**
Permit Description:	**Bldg-Alter/Repair**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	040163000005588
Status:	
Valuation:	$2,000.00
Contractor Company:	
Contractor Name:	WHITECASTLE CONSTRUCTION

ADJOINING PROPERTY FINDINGS

Date: **6/20/2003**
Permit Type:
Description: **No Plan Check REMOVE AND REPLACE CLAY TILES 13 SQ AN**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 030161000011925
Status:
Valuation: $8,100.00
Contractor Company:
Contractor Name: BILT-WELL ROOF AND MATERIAL

Date: **4/24/2002**
Permit Type:
Description: **No Plan Check installation of earthquake valve**

Permit Description: **Plumbing**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 020429000010534
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: OWNER-BUILDER

Date: **7/9/2001**
Permit Type:
Description: **No Plan Check REPAIR MAIN LINE & SEWER**

Permit Description: **Plumbing**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 010427000009975
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: STEPHAN JACK PLUMBING AND HEATING

ADJOINING PROPERTY FINDINGS

S LONGWOOD AVE

716 S LONGWOOD AVE

Date:	**10/9/2012**
Permit Type:	
Description:	**No Plan Check RE-ROUTE AND REPLACE SEWER LINE**
Permit Description:	**Plumbing**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	120423000018510
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	OWNER-BUILDER

Date:	**11/23/2004**
Permit Type:	
Description:	**No Plan Check RAISE EXISTING HEATERS ABOVE GRADE, STRA**
Permit Description:	**HVAC**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	040449000011955
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	WHITE AIR CONDITIONG & HEATING

ADJOINING PROPERTY FINDINGS

Date: **10/26/2004**
Permit Type:
Description: **No Plan Check GROUND EXISTING 200-AMP METER BOX INSTAL**

Permit Description: **Electrical**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 040419000026872
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: K C ELECTRIC

Date: **8/29/2002**
Permit Type:
Description: **No Plan Check INSTALL (2) NEW FAU'S AND ALL NEW DUCTWO**

Permit Description: **HVAC**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 020442000008462
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: FUTURE AIR

Date: **5/22/2002**
Permit Type:
Description: **No Plan Check residential kitchen and bathroom remodel**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 020163000009765
Status:
Valuation: $12,000.00
Contractor Company:
Contractor Name: OWNER-BUILDER

ADJOINING PROPERTY FINDINGS

722 S LONGWOOD AVE

Date:	**4/8/1998**
Permit Type:	
Description:	**Plan Check PROPOSED POOL/SPA PER STD PLAN # 267**
Permit Description:	**Swimming-Pool/Spa**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling Suimming Pools/Spa
Permit Number:	980472000000207
Status:	
Valuation:	$16,000.00
Contractor Company:	
Contractor Name:	DERIAN HAIG POOLS

Date:	**6/2/1997**
Permit Type:	
Description:	**Plan Check VOLUNTARY CRIPPLE WALL SEISMIC RETROFIT**
Permit Description:	**Bldg-Alter/Repair**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	970162000012204
Status:	
Valuation:	$2,400.00
Contractor Company:	
Contractor Name:	HIGHCASTLE INC

ADJOINING PROPERTY FINDINGS

725 S LONGWOOD AVE

Date:	**1/20/2000**
Permit Type:	
Description:	**Plan Check ADD 14.5' X 19.5' REC RM WITH WALKING DE**
Permit Description:	**Bldg-Addition**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling Single Family Residence
Permit Number:	990142000004909
Status:	
Valuation:	$21,000.00
Contractor Company:	
Contractor Name:	

Date:	**9/2/1999**
Permit Type:	
Description:	**No Plan Check WATER HEATER CHANGE OUT.**
Permit Description:	**Plumbing**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	990423000012087
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	DEGENDORFER PLUMBING

ADJOINING PROPERTY FINDINGS

S MCCADDEN PL

603 S MCCADDEN PL

Date:	**5/30/2002**
Permit Type:	
Description:	**Plan Check New 6 skylines (Bristolite), remodel kit**
Permit Description:	**Bldg-Alter/Repair**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	020164000010259
Status:	
Valuation:	$16,000.00
Contractor Company:	
Contractor Name:	M D S CONSTRUCTION CORPORATION

607 S MCCADDEN PL

Date:	**7/2/2012**
Permit Type:	
Description:	**No Plan Check add 100a sub panel**
Permit Description:	**Electrical**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	120419000015295
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	DANIELSEN DAVID

ADJOINING PROPERTY FINDINGS

Date: **5/20/2009**
Permit Type:
Description: **No Plan Check INSTALL CIRCUITS FOR HVAC SPLIT SYSTEMS.**

Permit Description: **Electrical**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 090412000009262
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: AIR CON MAINTENANCE CO

Date: **5/20/2009**
Permit Type:
Description: **No Plan Check INSTALL 2 HVAC SPLIT SYSTEMS.**

Permit Description: **HVAC**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 090442000004329
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: AIR CON MAINTENANCE CO

Date: **1/26/2009**
Permit Type:
Description: **No Plan Check 200 AMP SERVICE UPGRADE.**

Permit Description: **Electrical**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 090412000001417
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: DANIELSEN DAVID

ADJOINING PROPERTY FINDINGS

Date: **12/19/2007**
Permit Type:
Description: **No Plan Check Repipe building cold water with copper p**

Permit Description: **Plumbing**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 070429000026244
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: PAYNE PLUMBING

615 S MCCADDEN PL

Date: **4/22/2005**
Permit Type:
Description: **Plan Check KITCHEN REMODEL; REMOVE AND REPLACE CABI**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: 1 or 2 Family Dwelling Single Family Residence
Permit Number: 050163000007475
Status:
Valuation: $50,000.00
Contractor Company:
Contractor Name: OWNER-BUILDER

Date: **4/22/2005**
Permit Type:
Description: **No Plan Check INSTALL NEW COPPER PIPING AND VENTS TO N**

Permit Description: **Plumbing**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 050423000009938
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: OWNER-BUILDER

ADJOINING PROPERTY FINDINGS

Date: **2/7/2005**
Permit Type:
Description: **Plan Check INSTALL 2 FRENCH DOORS IN THE WESTERLY**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: 1 or 2 Family Dwelling Single Family Residence
Permit Number: 050163000001545
Status:
Valuation: $50,000.00
Contractor Company:
Contractor Name: OWNER-BUILDER

Date: **1/12/2005**
Permit Type:
Description: **No Plan Check REWIRE**

Permit Description: **Electrical**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 050419000000627
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: A L C CONSTRUCTION

Date: **12/14/2004**
Permit Type:
Description: **No Plan Check INSTALL (2) NEW HVAC SPLIT SYSTEMS AND D**

Permit Description: **HVAC**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 040442000012600
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: OWNER-BUILDER

ADJOINING PROPERTY FINDINGS

Date: **10/13/2004**
Permit Type:
Description: **No Plan Check CHIMNEY REBUILD PER LASD AND PREFAB INST**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 040161000020422
Status:
Valuation: $7,000.00
Contractor Company:
Contractor Name: TIME SPAN LEASING

Date: **10/12/2004**
Permit Type:
Description: **No Plan Check FOUNDATION ANCHOR BOLTING/CRIPPLE WALL B**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 040161000020254
Status:
Valuation: $2,000.00
Contractor Company:
Contractor Name: WHITECASTLE CONSTRUCTION

Date: **8/13/2004**
Permit Type:
Description: **No Plan Check Install EQ Valve**

Permit Description: **Plumbing**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 040429000023582
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: L G S RETROFITTERS

ADJOINING PROPERTY FINDINGS

Date: **12/9/1997**
Permit Type:
Description: **No Plan Check SEWER REPAIR**

Permit Description: **Plumbing**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 970423000013350
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: JUST RIGHT PLUMBING

621 S MCCADDEN PL

Date: **8/6/2004**
Permit Type:
Description: **Plan Check CLOSE (E) WINDOW @ MEDIA ROOM AND REPLA**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 040162000015337
Status:
Valuation: $950.00
Contractor Company:
Contractor Name: C A A GENERAL CONTRACTOR

Date: **8/6/2004**
Permit Type:
Description: **No Plan Check RELOCATE 100AMP. SUB-PANEL AND INSTALL 6**

Permit Description: **Electrical**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 040412000019683
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: C A A GENERAL CONTRACTOR

ADJOINING PROPERTY FINDINGS

Date:	**7/13/2004**
Permit Type:	
Description:	**Plan Check 6' HIGH, 80' LONG BLOCK FENCE WALL PER C**
Permit Description:	**Nonbldg-New**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling Misc. Bldg or Structure
Permit Number:	040202000002622
Status:	
Valuation:	$5,200.00
Contractor Company:	
Contractor Name:	C A A GENERAL CONTRACTOR

Date:	**7/2/2004**
Permit Type:	
Description:	**Plan Check INTERIOR REMODEL: RENOVATE BATHROOM, CHA**
Permit Description:	**Bldg-Alter/Repair**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	040162000012760
Status:	
Valuation:	$6,500.00
Contractor Company:	
Contractor Name:	C A A GENERAL CONTRACTOR

Date:	**7/2/2004**
Permit Type:	
Description:	**No Plan Check INSTALL SMOKE DETECTORS AND 6 GFI OUTLET**
Permit Description:	**Electrical**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	040412000016561
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	C A A GENERAL CONTRACTOR

ADJOINING PROPERTY FINDINGS

Date: **7/2/2004**
Permit Type:
Description: **No Plan Check INSTALL EARTHQUAKE SHUT OFF VALVE.**

Permit Description: **Plumbing**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 040422000019473
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: C A A GENERAL CONTRACTOR

Date: **5/25/2004**
Permit Type:
Description: **No Plan Check Install EQ Valve**

Permit Description: **Plumbing**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 040429000015308
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: L G S RETROFITTERS

627 S MCCADDEN PL

Date: **8/12/2015**
Permit Type:
Description: **No Plan Check**

Permit Description: **Plumbing**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 150423000016231
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: DIAMOND MIKE PLUMBING HEATING & AIR CONDITIONING

ADJOINING PROPERTY FINDINGS

Date:	**12/8/1997**
Permit Type:	
Description:	**No Plan Check WATER SERVICE AND HB W/VB**
Permit Description:	**Plumbing**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	970423000013300
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	JUST RIGHT PLUMBING

633 S MCCADDEN PL

Date:	**10/14/2011**
Permit Type:	
Description:	**No Plan Check Add sill plate anchor bolts and cripple wall plywood per LA City Standard Plan #1; no foundation replacement (Earthquake hazard reduction per Chapter 92 of the Los Angeles Building Code). (Houses, residential buildings up to 3 stories and up to 4 units).**
Permit Description:	**Bldg-Alter/Repair**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	110161000020370
Status:	
Valuation:	$2,100.00
Contractor Company:	
Contractor Name:	AVALIN DESIGN CONSTRUCTION CO INC

ADJOINING PROPERTY FINDINGS

639 S MCCADDEN PL

Date:	**8/3/2001**
Permit Type:	
Description:	**Plan Check Add 1 story new family room(15.83'x17',2**
Permit Description:	**Bldg-Addition**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling Single Family Residence
Permit Number:	010143000004057
Status:	
Valuation:	$19,000.00
Contractor Company:	
Contractor Name:	ARROW CONSTRUCTION & REMODELING

Date:	**7/3/2001**
Permit Type:	
Description:	**No Plan Check (2) BATHROOM REMODEL-REPAIR/REPLACE ONLY**
Permit Description:	**Bldg-Alter/Repair**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	010163000012342
Status:	
Valuation:	$8,000.00
Contractor Company:	
Contractor Name:	ARROW CONSTRUCTION & REMODELING

ADJOINING PROPERTY FINDINGS

645 S MCCADDEN PL

Date:	**6/25/1997**
Permit Type:	
Description:	**No Plan Check Remove existing tile roof and replace ba**
Permit Description:	**Bldg-Alter/Repair**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling Single Family Residence
Permit Number:	970165000014251
Status:	
Valuation:	$2,500.00
Contractor Company:	
Contractor Name:	YANG CHANG YEOL

651 S MCCADDEN PL

Date:	**11/5/2014**
Permit Type:	
Description:	**No Plan Check Dedicated electrical lines for the cond nser and the air handler.**
Permit Description:	**Electrical**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	140419000030754
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	PROS 360 - PERFORMANCE CONTRACTOR, INC.

ADJOINING PROPERTY FINDINGS

Date:	**11/5/2014**
Permit Type:	
Description:	**No Plan Check Install 17 SEER heat-pump.**
Permit Description:	**HVAC**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	140449000011180
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	PROS 360 - PERFORMANCE CONTRACTOR, INC.

Date:	**2/8/2005**
Permit Type:	
Description:	**Plan Check PROPOSED BLOCK WALL PER L.A. CITY STAND**
Permit Description:	**Nonbldg-New**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling Misc. Bldg or Structure
Permit Number:	050203000000387
Status:	
Valuation:	$3,500.00
Contractor Company:	
Contractor Name:	OWNER-BUILDER

Date:	**3/3/2004**
Permit Type:	
Description:	**Plan Check 36' X 19' IRREG. SHAPED X 7' DEEP MAX. P**
Permit Description:	**Swimming-Pool/Spa**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling Suimming Pools/Spa
Permit Number:	040472000000239
Status:	
Valuation:	$20,000.00
Contractor Company:	
Contractor Name:	AVANTI POOLS

ADJOINING PROPERTY FINDINGS

659 S MCCADDEN PL

Date:	**1/4/2002**
Permit Type:	
Description:	**No Plan Check Permit for existing earthquake shut-off**
Permit Description:	**Plumbing**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	020423000000213
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	ORTEGA PLUMBING

665 S MCCADDEN PL

Date:	**10/25/2011**
Permit Type:	
Description:	**No Plan Check Re-roof with Class A or B material weigh ing less than 6 pound per sq. ft.**
Permit Description:	**Bldg-Alter/Repair**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	110161000021120
Status:	
Valuation:	$10,000.00
Contractor Company:	
Contractor Name:	OWNER-BUILDER

ADJOINING PROPERTY FINDINGS

Date: **2/8/2010**
Permit Type:
Description: **No Plan Check Add sill plate anchor bolts and cripple**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 100161000002086
Status:
Valuation: $4,620.00
Contractor Company:
Contractor Name: AFTER BEFORE CREATIONS INC

677 S MCCADDEN PL

Date: **8/25/2005**
Permit Type:
Description: **No Plan Check EARTHQQUAKE HAZARD REDUCTION: FOUNDATION**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 050163000018062
Status:
Valuation: $12,000.00
Contractor Company:
Contractor Name: LUPU IANCU

Date: **6/12/2003**
Permit Type:
Description: **Plan Check REMOVE (E) INT. PARTITION TO CONVERT (E)**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 030162000011002
Status:
Valuation: $5,000.00
Contractor Company:
Contractor Name: PAUL PERRY S

ADJOINING PROPERTY FINDINGS

Date: **11/19/2002**
Permit Type:
Description: **No Plan Check GAS VAVLE**

Permit Description: **Plumbing**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 020429000035887
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: ASAP RETROFITTER

WILSHIRE BLVD

4848 WILSHIRE BLVD

Date: **7/7/2014**
Permit Type:
Description: **Plan Check REPLACE WATER- DAMAGED DRYWALL & INSUL TION ALONG THE ENTRY HALLWAY AND DINING ROOM OF UNIT # 201 OF (E) CONDOMINIUM .**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: Apartment
Permit Number: 140161000013245
Status:
Valuation: $3,000.00
Contractor Company:
Contractor Name: 4OURBATH

ADJOINING PROPERTY FINDINGS

Date: **10/1/2009**
Permit Type:
Description: **No Plan Check INSTALLATION OF EQ. VALVES AND GAS OUTLE**

Permit Description: **Plumbing**
Work Class:
Proposed Use: Apartment
Permit Number: 090421000017483
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: LUCKY J C PLUMBING CO INC

Date: **9/25/2009**
Permit Type:
Description: **Plan Check CONVERSION OF EXISTING 20 UNITS APARTMEN**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: Apartment
Permit Number: 070161000016934
Status:
Valuation: $10,000.00
Contractor Company:
Contractor Name: OWNER-BUILDER

Date: **2/23/2009**
Permit Type:
Description: **No Plan Check (2) HOT WATER BOILERS & A HOT WATER STOR**

Permit Description: **Pressure Vessel**
Work Class:
Proposed Use: Apartment
Permit Number: 090451000000042
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: PRIME PLUMBING CO

ADJOINING PROPERTY FINDINGS

Date: **1/9/2009**
Permit Type:
Description: **No Plan Check Express permit capping for methane vent**

Permit Description: **Plumbing**
Work Class:
Proposed Use: Commercial
Permit Number: 090421000000308
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: PRIME PLUMBING CO

Date: **1/8/2009**
Permit Type:
Description: **Plan Check Plan check (1) hydrauilic elevator for**

Permit Description: **Elevator**
Work Class:
Proposed Use: Apartment
Permit Number: 080461000001235
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: OTIS ELEVATOR COMPANY

Date: **1/8/2009**
Permit Type:
Description: **Plan Check Plan check (1) hydrauilic elevator for**

Permit Description: **Elevator**
Work Class:
Proposed Use: Apartment
Permit Number: 080461000001236
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: OTIS ELEVATOR COMPANY

ADJOINING PROPERTY FINDINGS

Date: **12/31/2008**
Permit Type:
Description: **No Plan Check Express permit for gas out lets and eart**

Permit Description: **Plumbing**
Work Class:
Proposed Use: Commercial
Permit Number: 080421000024494
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: PRIME PLUMBING CO

Date: **12/19/2008**
Permit Type:
Description: **Plan Check Plan check for two duplex sump pump syst**

Permit Description: **Plumbing**
Work Class:
Proposed Use: Apartment
Permit Number: 070421000105755
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: WESTCOAST PROFESSIONAL DEVELOPMENT INC

Date: **11/4/2008**
Permit Type:
Description: **No Plan Check Complete work done under previously expi**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: Apartment
Permit Number: 080161000018705
Status:
Valuation: $117,218.40
Contractor Company:
Contractor Name: OWNER-BUILDER

ADJOINING PROPERTY FINDINGS

Date: **10/14/2008**
Permit Type:
Description: **Plan Check Changes to 20 unit apt. Delta 2 changes**

Permit Description: **Electrical**
Work Class:
Proposed Use: Apartment
Permit Number: 050411000112984
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: EASTERN ELECTRIC CO

Date: **10/2/2008**
Permit Type:
Description: **Plan Check Change of contractor permit from Ritecon**

Permit Description: **Plumbing**
Work Class:
Proposed Use: Apartment
Permit Number: 080421000019332
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: PRIME PLUMBING CO

Date: **3/25/2008**
Permit Type:
Description: **Plan Check PLAN CHECK AND INSPECTION FOR CHANGES ON**

Permit Description: **Plumbing**
Work Class:
Proposed Use: Apartment
Permit Number: 080421000005546
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: Q DEVELOPMENT INC

ADJOINING PROPERTY FINDINGS

Date: **11/8/2007**
Permit Type:
Description: **No Plan Check Low Voltage Wiring**

Permit Description: **Electrical**
Work Class:
Proposed Use: Commercial
Permit Number: 070419000027176
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: HSM ELECTRONIC PROTECTION SERVICES INC

Date: **11/1/2007**
Permit Type:
Description: **Plan Check INSTALLATION OF A METHANE DETECTION SYST**

Permit Description: **Electrical**
Work Class:
Proposed Use: Public Safety Only
Permit Number: 060411000026964
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: EASTERN ELECTRIC CO

Date: **10/29/2007**
Permit Type:
Description: **No Plan Check VOICE & DATA CABLING ON THREE FLOORS.**

Permit Description: **Electrical**
Work Class:
Proposed Use: Apartment
Permit Number: 070411000026132
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: NEW WAVE COMMUNICATIONS

ADJOINING PROPERTY FINDINGS

Date: **10/25/2007**
Permit Type:
Description: **Plan Check PLAN CHECK FOR METHANE VENTILATION SYSTE**

Permit Description: **HVAC**
Work Class:
Proposed Use: Apartment
Permit Number: 060441000113550
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: MEGA AIR CO INC

Date: **10/12/2007**
Permit Type:
Description: **No Plan Check INSTALL 22 GAS FIREPLACES.**

Permit Description: **HVAC**
Work Class:
Proposed Use: Apartment
Permit Number: 070442000010408
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: FIDDLER ON THE ROOF DUCT & CHIMNEY SERVICE A

Date: **8/22/2007**
Permit Type:
Description: **Plan Check New fire alarm system for residential bu**

Permit Description: **Electrical**
Work Class:
Proposed Use: Apartment
Permit Number: 070411000015962
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: HSM ELECTRONIC PROTECTION SERVICES INC

ADJOINING PROPERTY FINDINGS

Date: **8/7/2007**
Permit Type:
Description: **Plan Check SUPPLEMENTAL TO PERMIT# 03010-10000-0050**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: Apartment
Permit Number: 030101000400506
Status:
Valuation: $301.00
Contractor Company:
Contractor Name: OWNER-BUILDER

Date: **7/31/2007**
Permit Type:
Description: **Plan Check NEW 20' X 40' SWIMMING POOL AND 8' X 11'**

Permit Description: **Swimming-Pool/Spa**
Work Class:
Proposed Use: Apartment Amusement
Permit Number: 070472000000603
Status:
Valuation: $42,000.00
Contractor Company:
Contractor Name: KWON YOUNG NAM

Date: **3/22/2007**
Permit Type:
Description: **No Plan Check Heat Pump and ductwork installation**

Permit Description: **HVAC**
Work Class:
Proposed Use: Commercial
Permit Number: 070449000002966
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: MEGA AIR CO INC

ADJOINING PROPERTY FINDINGS

Date: **3/21/2007**
Permit Type:
Description: **Plan Check PLAN CHECK FOR METHANE VENTILATION SYSTE**

Permit Description: **HVAC**
Work Class:
Proposed Use: Apartment
Permit Number: 060441000013550
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: MEGA AIR CO INC

Date: **11/1/2006**
Permit Type:
Description: **Plan Check NFPA 13 sprnkler system for 3 story apar**

Permit Description: **Fire Sprinkler**
Work Class:
Proposed Use: Apartment
Permit Number: 060432000003849
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: TRADE FIRE PROTECTION GROUP

Date: **8/16/2006**
Permit Type:
Description: **Plan Check 6'-0" BLOCK FENCE WALL [SURROUNDING POOL**

Permit Description: **Nonbldg-New**
Work Class:
Proposed Use: 1 or 2 Family Dwelling Misc. Bldg or Structure
Permit Number: 060201000003111
Status:
Valuation: $2,208.00
Contractor Company:
Contractor Name: OWNER-BUILDER

ADJOINING PROPERTY FINDINGS

Date: **6/23/2006**
Permit Type:
Description: **Plan Check 20 units apt. Three levels with one leve**

Permit Description: **Electrical**
Work Class:
Proposed Use: Apartment
Permit Number: 050411000012984
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: EASTERN ELECTRIC CO

Date: **6/23/2006**
Permit Type:
Description: **Plan Check NEW PLUMBING 3 STORY APT BLDG.**

Permit Description: **Plumbing**
Work Class:
Proposed Use: Apartment
Permit Number: 050421000003396
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: RITECON

Date: **5/30/2006**
Permit Type:
Description: **Plan Check REVISE DESIGN FOR BASEMENT PARKING GARAG**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: Apartment
Permit Number: 030101000300506
Status:
Valuation: $301.00
Contractor Company:
Contractor Name: WESTCOAST PROFESSIONAL DEVELOPMENT INC

ADJOINING PROPERTY FINDINGS

Date: **5/22/2006**
Permit Type:
Description: **No Plan Check INSTALL 200 AMP C.T.S. FOR NEW CONDOS**

Permit Description: **Electrical**
Work Class:
Proposed Use: Apartment
Permit Number: 060412000012311
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: NATIONAL CONSTRUCTION RENTALS INC

Date: **7/26/2005**
Permit Type:
Description: **Plan Check REVISE DESIGN FOR NEW 3-STORY TYPE V-1H**

Permit Description: **Bldg-Addition**
Work Class:
Proposed Use: Apartment
Permit Number: 030101000200506
Status:
Valuation: $480,000.00
Contractor Company:
Contractor Name: WESTCOAST PROFESSIONAL DEVELOPMENT

Date: **5/12/2004**
Permit Type:
Description: **No Plan Check SUPPLEMENTAL TO PERMIT # 03010-10000-005**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: Apartment
Permit Number: 030101000100506
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: SUN CAD SERVICE

ADJOINING PROPERTY FINDINGS

Date: **11/14/2003**
Permit Type:
Description: **Plan Check PLUMBING FOR A 3-STORY OVER SUBTER. PARK**

Permit Description: **Plumbing**
Work Class:
Proposed Use: Apartment
Permit Number: 030423000016323
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: RITECON

Date: **11/14/2003**
Permit Type:
Description: **Plan Check H.V.A.C. FOR A 3-STORY 19-UNIT APARTMENT**

Permit Description: **HVAC**
Work Class:
Proposed Use: Apartment
Permit Number: 030443000004783
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: ROYAL AIR CONDITIONING

Date: **10/20/2003**
Permit Type:
Description: **Plan Check 2-400 apartment service, 1-400 comm serv**

Permit Description: **Electrical**
Work Class:
Proposed Use: Apartment
Permit Number: 030413000011093
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: J K ELECTRICAL

ADJOINING PROPERTY FINDINGS

Date: **10/1/2003**
Permit Type:
Description: **Plan Check INSTALL 3 HYDRO-ELECTRIC ELEVATORS.**

Permit Description: **Elevator**
Work Class:
Proposed Use: Commercial
Permit Number: 030461000000995
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: OTIS ELEVATOR

Date: **8/19/2003**
Permit Type:
Description: **No Plan Check Misc. permit**

Permit Description: **Electrical**
Work Class:
Proposed Use: Apartment
Permit Number: 030413000018739
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: J K ELECTRICAL

Date: **6/6/2003**
Permit Type:
Description: **Plan Check 3-STORY TYPE V-1HR APARTMENT OVER SUBTE**

Permit Description: **Bldg-New**
Work Class:
Proposed Use: Apartment Apartment
Permit Number: 030101000000506
Status:
Valuation: $5,860,920.00
Contractor Company:
Contractor Name: OWNER-BUILDER

ADJOINING PROPERTY FINDINGS

Date: **5/15/2003**
Permit Type:
Description: **No Plan Check MISCELLANEOUS PRIOR TO PLAN CHECK PERMIT**

Permit Description: **Plumbing**
Work Class:
Proposed Use: Apartment
Permit Number: 030421000015469
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: RITECON

Date: **4/30/2003**
Permit Type:
Description: **Plan Check METHANE GAS CONTROL: LA APPROVED MEMBRAN**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: Apartment
Permit Number: 030201000000703
Status:
Valuation: $100,000.00
Contractor Company:
Contractor Name: TSAI DEVELOPMENT & CONSTRUCTION CORPORATION

Date: **4/30/2003**
Permit Type:
Description: **Plan Check Methane venting system - 3 story apartm**

Permit Description: **Plumbing**
Work Class:
Proposed Use: Apartment
Permit Number: 030421000007031
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: RITECON

ADJOINING PROPERTY FINDINGS

Date: **1/9/2003**
Permit Type:
Description: **Plan Check EXCAVATION OF A SUBTERRANEAN GARAGE FOR**

Permit Description: **Grading**
Work Class:
Proposed Use: Apartment Grading Non-Hill
Permit Number: 020301000002997
Status:
Valuation: $8,700.00
Contractor Company:
Contractor Name: TSAI DEVELOPMENT & CONSTRUCTION CORPORATION

Date: **12/23/2002**
Permit Type:
Description: **No Plan Check 200 AMP TEMP. POWER POLE.**

Permit Description: **Electrical**
Work Class:
Proposed Use: Commercial
Permit Number: 020411000028252
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: NATIONAL CONSTRUCTION RENTALS

Date: **11/18/1998**
Permit Type:
Description: **No Plan Check X-MAS LOT 400 TEMP LAMPHOLDERS ONLY**

Permit Description: **Electrical**
Work Class:
Proposed Use: Commercial
Permit Number: 980412000025715
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: R & N ELECTRIC

ADJOINING PROPERTY FINDINGS

Date: **11/9/1998**
Permit Type:
Description: **Plan Check USE OF LAND - CHRISTMAS TREE SALES, DEC.**

Permit Description: **Nonbldg-New**
Work Class:
Proposed Use: Commercial
Permit Number: 980203000002868
Status:
Valuation: $301.00
Contractor Company:
Contractor Name: OWNER-BUILDER

Date: **11/4/1997**
Permit Type:
Description: **Plan Check USE OF LAND - CHRISTMAS TREE SALES, DEC.**

Permit Description: **Nonbldg-New**
Work Class:
Proposed Use: Commercial
Permit Number: 970203000002935
Status:
Valuation: $301.00
Contractor Company:
Contractor Name: OWNER-BUILDER

Date: **10/3/1997**
Permit Type:
Description: **No Plan Check TEMPORARY POWER POLE.**

Permit Description: **Electrical**
Work Class:
Proposed Use: Commercial
Permit Number: 970413000016168
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: BERNSTEIN ELECTRIC

ADJOINING PROPERTY FINDINGS

4900 WILSHIRE BLVD

Date:	**3/9/2001**
Permit Type:	
Description:	**Plan Check 2 (TEMP.) BANNERS ON SCHOOL FENCE 33" X**
Permit Description:	**Sign**
Work Class:	
Proposed Use:	Onsite Signs
Permit Number:	010481000000351
Status:	
Valuation:	$301.00
Contractor Company:	
Contractor Name:	OWNER-BUILDER

Date:	**6/28/2000**
Permit Type:	
Description:	**Plan Check 2 BANNERS ON SCHOOL FENCE 33" X 120" ENR**
Permit Description:	**Sign**
Work Class:	
Proposed Use:	Onsite Signs
Permit Number:	000481000001179
Status:	
Valuation:	$301.00
Contractor Company:	
Contractor Name:	OWNER-BUILDER

ADJOINING PROPERTY FINDINGS

4929 WILSHIRE BLVD

Date: **10/2/2015**
Permit Type:
Description: **No Plan Check**

Permit Description: **Elevator**
Work Class:
Proposed Use: Commercial
Permit Number: 150462000001453
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: SCHINDLER ELEVATOR CORPORATION

Date: **3/18/2015**
Permit Type:
Description: **No Plan Check**

Permit Description: **Elevator**
Work Class:
Proposed Use: Commercial
Permit Number: 150469000000411
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: CITY LIFT BUILDING SERVICES INC

Date: **3/25/2014**
Permit Type:
Description: **No Plan Check Repace governor rope 5100215060**

Permit Description: **Elevator**
Work Class:
Proposed Use: Commercial
Permit Number: 140469000000447
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: SCHINDLER ELEVATOR CORPORATION

ADJOINING PROPERTY FINDINGS

Date: **3/19/2014**
Permit Type:
Description: **No Plan Check Replace Hoist Ropes**

Permit Description: **Elevator**
Work Class:
Proposed Use: Commercial
Permit Number: 140469000000404
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: SCHINDLER ELEVATOR CORPORATION

Date: **11/6/2013**
Permit Type:
Description: **No Plan Check INSTALL NEW TWIST LOCK OUTLET 120 VAC**

Permit Description: **Electrical**
Work Class:
Proposed Use: Commercial
Permit Number: 130412000031023
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: VCI CONSTRUCTION INC

Date: **11/5/2013**
Permit Type:
Description: **No Plan Check Install (1) Outlet**

Permit Description: **Electrical**
Work Class:
Proposed Use: Commercial
Permit Number: 130419000030924
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: VCI TELCOM INC

ADJOINING PROPERTY FINDINGS

Date: **11/28/2012**
Permit Type:
Description: **No Plan Check Replace gov rope**

Permit Description: **Elevator**
Work Class:
Proposed Use: Commercial
Permit Number: 120469000001429
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: SCHINDLER ELEVATOR CORPORATION

Date: **11/28/2012**
Permit Type:
Description: **No Plan Check Replace hoist ropes**

Permit Description: **Elevator**
Work Class:
Proposed Use: Commercial
Permit Number: 120469000001430
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: SCHINDLER ELEVATOR CORPORATION

Date: **9/25/2012**
Permit Type:
Description: **No Plan Check Replace governor rope**

Permit Description: **Elevator**
Work Class:
Proposed Use: Commercial
Permit Number: 120469000001152
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: SCHINDLER ELEVATOR CORPORATION

ADJOINING PROPERTY FINDINGS

Date: **7/20/2012**
Permit Type:
Description: **Plan Check NEW ONSITE WINDOW SIGN 7'-6" X 2' 0"**

Permit Description: **Sign**
Work Class:
Proposed Use: Onsite Signs
Permit Number: 120481000001551
Status:
Valuation: $3,895.00
Contractor Company:
Contractor Name: OWNER-BUILDER

Date: **3/23/2012**
Permit Type:
Description: **No Plan Check Retrofit HET Toilets**

Permit Description: **Plumbing**
Work Class:
Proposed Use: Commercial
Permit Number: 120429000005389
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: AMGREEN SOLUTIONS INC

Date: **4/15/2011**
Permit Type:
Description: **No Plan Check RUN 19 DROPS OF CAT 5 CABLE FOR DATA/TEL EPHONE.**

Permit Description: **Electrical**
Work Class:
Proposed Use: Commercial
Permit Number: 110413000007652
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: UNITED GROUP INC THE

ADJOINING PROPERTY FINDINGS

Date: **4/4/2011**
Permit Type:
Description: **Plan Check T.I Added and relocated sprinklers.**

Permit Description: **Fire Sprinkler**
Work Class:
Proposed Use: Commercial
Permit Number: 110431000000843
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: RADIX FIRE PROTECTION INC

Date: **3/12/2011**
Permit Type:
Description: **No Plan Check Install toilet and lavatory sink**

Permit Description: **Plumbing**
Work Class:
Proposed Use: Commercial
Permit Number: 110429000004231
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: ATLANTIC BUILDERS INC

Date: **2/28/2011**
Permit Type:
Description: **Plan Check TENANT IMPROVEMENT ON SUITE 650 (2,813 S Q FT). REMOVE AND REPLACE NON-BEARING PARTITION, NEW DEIMISING WALL, NEW ONE PRIVATE RESTROOM, MILLWORK AND FINISHES.**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: Commercial
Permit Number: 110161000002128
Status:
Valuation: $56,000.00
Contractor Company:
Contractor Name: OWNER-BUILDER

ADJOINING PROPERTY FINDINGS

Date: **2/28/2011**
Permit Type:
Description: **Plan Check T.I. ON EXISTING HIGH RISE OFFICE BUILDI NG. TITLE-24 ONLY, OVER THE COUNTER.**

Permit Description: **Electrical**
Work Class:
Proposed Use: Commercial
Permit Number: 110411000003724
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: PHILMONT MANAGEMENT INC

Date: **2/18/2011**
Permit Type:
Description: **No Plan Check T.I. FIRE ALARM IN STE. #650.**

Permit Description: **Electrical**
Work Class:
Proposed Use: Commercial
Permit Number: 110411000003270
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: HANSOL FIRE ALARM SYSTEMS

Date: **10/15/2008**
Permit Type:
Description: **Plan Check INTERIOR TI FOR (E) OFFICE SPACE; SEAL D**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: Commercial
Permit Number: 080161000017462
Status:
Valuation: $5,000.00
Contractor Company:
Contractor Name: PHILMONT MANAGEMENT INC

ADJOINING PROPERTY FINDINGS

Date: **10/8/2008**
Permit Type:
Description: **No Plan Check SUPPL. PERMIT TO PERMIT #08041-10000-224**

Permit Description: **Electrical**
Work Class:
Proposed Use: Commercial
Permit Number: 080411000122425
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: HAN SOL ELECTRIC INC

Date: **10/7/2008**
Permit Type:
Description: **No Plan Check T.I. IN #500.**

Permit Description: **Electrical**
Work Class:
Proposed Use: Commercial
Permit Number: 080411000022425
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: HAN SOL ELECTRIC INC

Date: **9/29/2008**
Permit Type:
Description: **No Plan Check ISNTALL 70 TEL/DATA DROPS**

Permit Description: **Electrical**
Work Class:
Proposed Use: Commercial
Permit Number: 080413000021804
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: C & A SPECIALTIES

ADJOINING PROPERTY FINDINGS

Date: **9/17/2008**
Permit Type:
Description: **No Plan Check INSTALL SINK, GARBAGE DISPOSAL, WATER HE**

Permit Description: **Plumbing**
Work Class:
Proposed Use: Commercial
Permit Number: 080421000018192
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: PHILMONT MANAGEMENT INC

Date: **9/17/2008**
Permit Type:
Description: **No Plan Check INSTALL AIR DIFFUSERS.**

Permit Description: **HVAC**
Work Class:
Proposed Use: Apartment
Permit Number: 080441000009328
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: PHILMONT MANAGEMENT INC

Date: **9/16/2008**
Permit Type:
Description: **Plan Check Plan check and permit for added sprinkle**

Permit Description: **Fire Sprinkler**
Work Class:
Proposed Use: Commercial
Permit Number: 080431000002880
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: PHILMONT MANAGEMENT INC

ADJOINING PROPERTY FINDINGS

Date: **9/11/2008**
Permit Type:
Description: **Plan Check T-24 Plan check for general and emergenc**

Permit Description: **Electrical**
Work Class:
Proposed Use: Commercial
Permit Number: 080411000020467
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: PHILMONT MANAGEMENT INC

Date: **8/19/2008**
Permit Type:
Description: **Plan Check TI NON-BEARING INTERIOR PARTITIONS**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: Commercial
Permit Number: 080161000013991
Status:
Valuation: $128,000.00
Contractor Company:
Contractor Name: OWNER-BUILDER

Date: **1/24/2008**
Permit Type:
Description: **No Plan Check replace existing fixtures**

Permit Description: **Plumbing**
Work Class:
Proposed Use: Commercial
Permit Number: 080429000001435
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: CALIFORNIA CONSERVATION SOLUTIONS

ADJOINING PROPERTY FINDINGS

Date: **12/18/2003**
Permit Type:
Description: **No Plan Check INSTALL (1) 37.5 KVA TRANSFORMER, (1) 10**

Permit Description: **Electrical**
Work Class:
Proposed Use: Commercial
Permit Number: 030412000029019
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: MACHINERY ELECTRIC SERVICE

Date: **3/6/2003**
Permit Type:
Description: **No Plan Check GENERATOR REPLACEMENT**

Permit Description: **Electrical**
Work Class:
Proposed Use: Commercial
Permit Number: 030411000004738
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: WESTERN POWER INDUSTRIAL ELECTRIC

Date: **2/6/2003**
Permit Type:
Description: **No Plan Check REPLACE HOT WATER BOILER**

Permit Description: **Pressure Vessel**
Work Class:
Proposed Use: Commercial
Permit Number: 030459100000056
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: GOLD COAST REFRACTORY SERVICE

ADJOINING PROPERTY FINDINGS

Date: **6/22/2001**
Permit Type:
Description: **No Plan Check FIRE LIFE SAFETY.**

Permit Description: **Electrical**
Work Class:
Proposed Use: Public Safety Only
Permit Number: 010411000012901
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: KASHMAL GROUP OF AMERICA

Date: **6/8/2001**
Permit Type:
Description: **No Plan Check FIRE LIFE SAFETY T.I. @ LEVEL B-2 ELEVAT**

Permit Description: **Electrical**
Work Class:
Proposed Use: Public Safety Only
Permit Number: 010411000011905
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: CALPROTECTION

Date: **4/24/2001**
Permit Type:
Description: **Plan Check T.I.: COMPLIANCE WITH HIGH RISE PARKING**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: Commercial
Permit Number: 010161000007124
Status:
Valuation: $13,500.00
Contractor Company:
Contractor Name: OWNER-BUILDER

ADJOINING PROPERTY FINDINGS

Date: **3/19/2001**
Permit Type:
Description: **No Plan Check INSTALL 4 DOOR MAGS & (1) RELEASING RELA**

Permit Description: **Electrical**
Work Class:
Proposed Use: Public Safety Only
Permit Number: 010411000005493
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: CALPROTECTION

Date: **2/9/2001**
Permit Type:
Description: **No Plan Check INSTALL 3 BR. CIR, SUB-PANEL & GFI OUTLE**

Permit Description: **Electrical**
Work Class:
Proposed Use: Commercial
Permit Number: 010412000002669
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: Q-SERVE

Date: **2/6/2001**
Permit Type:
Description: **No Plan Check TENANT IMPROVEMENT, C/O A/C 300 TONS CHI**

Permit Description: **HVAC**
Work Class:
Proposed Use: Commercial
Permit Number: 010441000001180
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: WESTERN ALLIED CORPORATION

ADJOINING PROPERTY FINDINGS

Date: **8/30/2000**
Permit Type:
Description: **No Plan Check NEW TELEPHONE JACKS (46) AND COMPUTER JA**

Permit Description: **Electrical**
Work Class:
Proposed Use: Commercial
Permit Number: 000411000017848
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: GRAND BUILDERS

Date: **8/8/2000**
Permit Type:
Description: **No Plan Check HVAC- DUCT WORK ONLY.**

Permit Description: **HVAC**
Work Class:
Proposed Use: Commercial
Permit Number: 000442000006664
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: PRECISE AIR SYSTEMS

Date: **8/2/2000**
Permit Type:
Description: **Plan Check SUPPLEMENTAL PERMIT TO CAPTURE ENGINEER**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: Commercial
Permit Number: 000161000109379
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: GRAND BUILDERS

ADJOINING PROPERTY FINDINGS

Date: **7/24/2000**
Permit Type:
Description: **No Plan Check FIRE LIFE SAFETY**

Permit Description: **Electrical**
Work Class:
Proposed Use: Public Safety Only
Permit Number: 000411000014843
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: CALPROTECTION

Date: **7/21/2000**
Permit Type:
Description: **No Plan Check T.I.**

Permit Description: **Plumbing**
Work Class:
Proposed Use: Commercial
Permit Number: 000422000011150
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: SKELTON C L PLUMBING CONTRACTORS

Date: **7/18/2000**
Permit Type:
Description: **No Plan Check RELOCATING 35 SPRINKLER HEADS.**

Permit Description: **Fire Sprinkler**
Work Class:
Proposed Use: Commercial
Permit Number: 000431000001841
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: DE ANGELO FIRE PROTECTION

ADJOINING PROPERTY FINDINGS

Date: **7/10/2000**
Permit Type:
Description: **Plan Check TENANT IMPROVEMENT NON-STRUCTURAL 4500 S**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: Commercial
Permit Number: 000161000009379
Status:
Valuation: $112,500.00
Contractor Company:
Contractor Name: GRAND BUILDERS

Date: **7/10/2000**
Permit Type:
Description: **No Plan Check T.I. OUTLETS AND SWITCHES.**

Permit Description: **Electrical**
Work Class:
Proposed Use: Commercial
Permit Number: 000411000013761
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: GRAND BUILDERS

Date: **12/10/1999**
Permit Type:
Description: **No Plan Check FIRE LIFE SAFETY**

Permit Description: **Electrical**
Work Class:
Proposed Use: Public Safety Only
Permit Number: 990411000024335
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: CALPROTECTION

ADJOINING PROPERTY FINDINGS

Date: **11/18/1999**
Permit Type:
Description: **Plan Check CHANGE TO PARKING LAYOUT (SURFACE) ON 99**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: Commercial
Permit Number: 990161000105995
Status:
Valuation: $301.00
Contractor Company:
Contractor Name: OWNER-BUILDER

Date: **11/15/1999**
Permit Type:
Description: **No Plan Check REWORK EXISTING DUCT/BRANCH LINES/FLEX**

Permit Description: **HVAC**
Work Class:
Proposed Use: Commercial
Permit Number: 990441000009943
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: STRLE RICHARD J

Date: **11/12/1999**
Permit Type:
Description: **Plan Check INSTALL 49 FIRE SPRINKLER HEADS, 1ST FLO**

Permit Description: **Fire Sprinkler**
Work Class:
Proposed Use: Commercial
Permit Number: 990431000002987
Status:
Valuation: $0.00
Contractor Company:
Contractor Name:

ADJOINING PROPERTY FINDINGS

Date: **11/1/1999**
Permit Type:
Description: **No Plan Check T. I.**

Permit Description: **Plumbing**
Work Class:
Proposed Use: Commercial
Permit Number: 990422000015119
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: NEPTUNE PLUMBING

Date: **10/20/1999**
Permit Type:
Description: **Plan Check NEW CARPET, PARTIAL REPLACE CEILING, UPG**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: Commercial Office
Permit Number: 990161000019298
Status:
Valuation: $45,750.00
Contractor Company:
Contractor Name: LAKEWOOD CONSTRUCTION SPECIALITIES SOUTH

Date: **10/20/1999**
Permit Type:
Description: **Plan Check TI ON THE 1ST FL-H&R BLOCK PLAN CHK IS F**

Permit Description: **Electrical**
Work Class:
Proposed Use: Commercial
Permit Number: 990411000020252
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: LAKEWOOD CONSTRUCTION SPECIALITIES SOUTH

ADJOINING PROPERTY FINDINGS

Date: **9/14/1999**
Permit Type:
Description: **Plan Check TI - INSTALL 54 NEW F/S HEADS, FIRST FLO**

Permit Description: **Fire Sprinkler**
Work Class:
Proposed Use: Commercial
Permit Number: 990431000002403
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: COSCO FIRE PROTECTION

Date: **8/20/1999**
Permit Type:
Description: **Plan Check BASEMENT LEVEL 1 & 2. ELEVATOR LOBBY REM**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: Commercial
Permit Number: 990161000015567
Status:
Valuation: $9,000.00
Contractor Company:
Contractor Name: OWNER-BUILDER

Date: **5/24/1999**
Permit Type:
Description: **Plan Check TENANT IMPROVEMENT (NON-STRUCTURAL)**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: Commercial
Permit Number: 990161000008762
Status:
Valuation: $70,000.00
Contractor Company:
Contractor Name: GRAND BUILDERS

ADJOINING PROPERTY FINDINGS

Date: **4/15/1999**
Permit Type:
Description: **Plan Check RESTRIPE (E) SURFACE PARKING LOT; PAINT**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: Commercial
Permit Number: 990161000005995
Status:
Valuation: $2,000.00
Contractor Company:
Contractor Name: OWNER-BUILDER

Date: **3/24/1999**
Permit Type:
Description: **Plan Check UPGRADE EXISTING RESTROOM ON 2ND, 6TH, &**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: Commercial
Permit Number: 990161000004825
Status:
Valuation: $48,000.00
Contractor Company:
Contractor Name: GRAND BUILDERS

Date: **2/19/1999**
Permit Type:
Description: **Plan Check INSTALL 203 FIRE SPRINKLER HEADS, FIRST**

Permit Description: **Fire Sprinkler**
Work Class:
Proposed Use: Commercial
Permit Number: 990431000000346
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: COSCO FIRE PROTECTION

ADJOINING PROPERTY FINDINGS

Date: **1/21/1999**
Permit Type:
Description: **Plan Check ADDING A FA PANEL AND FA DEVICES TO THE**

Permit Description: **Electrical**
Work Class:
Proposed Use: Public Safety Only
Permit Number: 990411000001223
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: CALPROTECTION

Date: **12/3/1998**
Permit Type:
Description: **No Plan Check TI, SUPPLEMENTAL PERMIT**

Permit Description: **HVAC**
Work Class:
Proposed Use: Commercial
Permit Number: 980441000103313
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: WESTERN ALLIED CORPORATION

Date: **11/13/1998**
Permit Type:
Description: **No Plan Check REROOF - REMOVE OLD B.U.R. ,REPLACE WITH**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: Commercial
Permit Number: 980163000024634
Status:
Valuation: $158,721.00
Contractor Company:
Contractor Name: SCHOLTEN ROOFING SERVICE

ADJOINING PROPERTY FINDINGS

Date: **11/6/1998**
Permit Type:
Description: **Plan Check 1-HR VENT PIPE ENCLOSURE AT PARKING LEVE**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: Commercial
Permit Number: 980161000023640
Status:
Valuation: $4,000.00
Contractor Company:
Contractor Name: GRAND BUILDERS

Date: **10/27/1998**
Permit Type:
Description: **Plan Check ALTERATION TO EXISTING ONE HOUR CORRIDOR**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: Commercial
Permit Number: 980161000023019
Status:
Valuation: $20,000.00
Contractor Company:
Contractor Name: GRAND BUILDERS

Date: **10/22/1998**
Permit Type:
Description: **Plan Check T.I.: EXISTING 1-HR RATED CORRIDOR WALLS**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: Commercial
Permit Number: 980161000022632
Status:
Valuation: $20,000.00
Contractor Company:
Contractor Name: GRAND BUILDERS

ADJOINING PROPERTY FINDINGS

Date: **9/29/1998**
Permit Type:
Description: **Plan Check REMODEL CORRIDOR**

Permit Description: **Electrical**
Work Class:
Proposed Use: Commercial
Permit Number: 980412000021701
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: ZELLER ELECTRIC

Date: **9/29/1998**
Permit Type:
Description: **Plan Check REMODEL ON CORRIDOR**

Permit Description: **Electrical**
Work Class:
Proposed Use: Commercial
Permit Number: 980412000021706
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: ZELLER ELECTRIC

Date: **9/2/1998**
Permit Type:
Description: **No Plan Check SUPPLEMENTAL, 2ND FLR CORRIDOR**

Permit Description: **Electrical**
Work Class:
Proposed Use: Public Safety Only
Permit Number: 980411000115182
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: CALIFORNIA SUPPRESSION SYSTEMS INC

ADJOINING PROPERTY FINDINGS

Date: **9/2/1998**
Permit Type:
Description: **No Plan Check 6TH FLOOR -SUPPLEMENTAL 98041-10000-1518**

Permit Description: **Electrical**
Work Class:
Proposed Use: Public Safety Only
Permit Number: 980411000115185
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: CALIFORNIA SUPPRESSION SYSTEMS INC

Date: **7/24/1998**
Permit Type:
Description: **Plan Check NEW 1 HOUR HARD LID CEILING IN CORRIDOR**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: Commercial
Permit Number: 980161000005960
Status:
Valuation: $20,000.00
Contractor Company:
Contractor Name: GRAND BUILDERS

Date: **7/21/1998**
Permit Type:
Description: **Plan Check INSTALLING 25 FA DEVICES ON 2nd FLOOR CO**

Permit Description: **Electrical**
Work Class:
Proposed Use: Public Safety Only
Permit Number: 980411000015182
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: CALIFORNIA SUPPRESSION SYSTEMS INC

ADJOINING PROPERTY FINDINGS

Date: **7/21/1998**
Permit Type:
Description: **Plan Check INSTALLING 17 FA DEVICES ON 6th FLOOR CO**

Permit Description: **Electrical**
Work Class:
Proposed Use: Public Safety Only
Permit Number: 980411000015185
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: CALIFORNIA SUPPRESSION SYSTEMS INC

Date: **7/20/1998**
Permit Type:
Description: **No Plan Check FIRE/LIFE SAFETY T.I. - ADD 4 SMOKE DETE**

Permit Description: **Electrical**
Work Class:
Proposed Use: Commercial
Permit Number: 980411000015105
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: CALPROTECTION

Date: **6/29/1998**
Permit Type:
Description: **Plan Check ENERGY ONLY P.C. 7TH FLOOR CORRIDOR INST**

Permit Description: **Electrical**
Work Class:
Proposed Use: Commercial
Permit Number: 980412000013110
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: ZELLER ELECTRIC

ADJOINING PROPERTY FINDINGS

Date: **6/10/1998**
Permit Type:
Description: **Plan Check fire alarm 21 devices and one witness te**

Permit Description: **Electrical**
Work Class:
Proposed Use: Public Safety Only
Permit Number: 980411000011288
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: CALPROTECTION

Date: **5/27/1998**
Permit Type:
Description: **Plan Check ADDING 1010 SPRINKLERS FOR 3RD, 4TH, 5TH**

Permit Description: **Fire Sprinkler**
Work Class:
Proposed Use: Commercial
Permit Number: 970431000003169
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: COSCO FIRE PROTECTION

Date: **5/26/1998**
Permit Type:
Description: **No Plan Check ADDING (187) FIRE SPRINKLER HEADS-NEW. P**

Permit Description: **Fire Sprinkler**
Work Class:
Proposed Use: Commercial
Permit Number: 980431000001222
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: COSCO FIRE PROTECTION

ADJOINING PROPERTY FINDINGS

Date: **5/26/1998**
Permit Type:
Description: **No Plan Check ADDING (61) FIRE SPRINKLER HEADS-NEW. PL**

Permit Description: **Fire Sprinkler**
Work Class:
Proposed Use: Commercial
Permit Number: 980431000001223
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: COSCO FIRE PROTECTION

Date: **5/12/1998**
Permit Type:
Description: **Plan Check GENERATOR ROOM VENTILATION;FUEL TANK ROO**

Permit Description: **HVAC**
Work Class:
Proposed Use: Commercial
Permit Number: 980441000003313
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: WESTERN ALLIED CORPORATION

Date: **5/4/1998**
Permit Type:
Description: **No Plan Check t.i. no smoke evac.**

Permit Description: **HVAC**
Work Class:
Proposed Use: Commercial
Permit Number: 980441000003552
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: WESTERN ALLIED CORPORATION

ADJOINING PROPERTY FINDINGS

Date: **5/4/1998**
Permit Type:
Description: **No Plan Check t.i. no smoke evac.**

Permit Description: **HVAC**
Work Class:
Proposed Use: Commercial
Permit Number: 980441000003555
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: WESTERN ALLIED CORPORATION

Date: **5/4/1998**
Permit Type:
Description: **No Plan Check t.i. no smoke evac.**

Permit Description: **HVAC**
Work Class:
Proposed Use: Commercial
Permit Number: 980441000003556
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: WESTERN ALLIED CORPORATION

Date: **3/12/1998**
Permit Type:
Description: **No Plan Check INSP MAGUIRE RENEW PERMIT**

Permit Description: **Electrical**
Work Class:
Proposed Use: Public Safety Only
Permit Number: 980411000004382
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: ZELLER ELECTRIC

ADJOINING PROPERTY FINDINGS

Date: **2/9/1998**
Permit Type:
Description: **No Plan Check WELDING PERMIT. OK'D LESLIE A.**

Permit Description: **Fire Sprinkler**
Work Class:
Proposed Use: Commercial
Permit Number: 980431000000305
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: COSCO FIRE PROTECTION

Date: **1/12/1998**
Permit Type:
Description: **No Plan Check Welding permit. Approved by DT.**

Permit Description: **Fire Sprinkler**
Work Class:
Proposed Use: Commercial
Permit Number: 980431000000068
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: COSCO FIRE PROTECTION

Date: **6/5/1997**
Permit Type:
Description: **No Plan Check INSTALL (2) SMOKE DETECTORS AND (1) DOOR**

Permit Description: **Electrical**
Work Class:
Proposed Use: Public Safety Only
Permit Number: 970411000008018
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: CALIFORNIA SUPPRESSION SYSTEMS INC

ADJOINING PROPERTY FINDINGS

Date: **5/20/1997**
Permit Type:
Description: **Plan Check TI, added a panel and asmoke detector to**

Permit Description: **Electrical**
Work Class:
Proposed Use: Public Safety Only
Permit Number: 970411000007041
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: ADT SECURITY SYSTEMS INC

Date: **4/2/1997**
Permit Type:
Description: **No Plan Check DETECTOR EDGES 4 CABLE CARS #56244 & 45**

Permit Description: **Elevator**
Work Class:
Proposed Use: Commercial
Permit Number: 970461000000178
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: AMTECH ELEVATOR SERVICES

ADJOINING PROPERTY FINDINGS

5000 WILSHIRE BLVD

Date:	**11/18/2011**
Permit Type:	
Description:	**Plan Check Existing 7-11. Replacing the existing l ight fixtures with LED fixtures. Plan check is for energy only.**
Permit Description:	**Electrical**
Work Class:	
Proposed Use:	Commercial
Permit Number:	110412000020231
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	SYLVANIA LIGHTING SERVICES CORP

Date:	**10/15/2009**
Permit Type:	
Description:	**No Plan Check Floor drain & Trap Primer**
Permit Description:	**Plumbing**
Work Class:	
Proposed Use:	Commercial
Permit Number:	090429000018480
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	PLUMBING CONNECTION THE

ADJOINING PROPERTY FINDINGS

Date: **8/11/2009**
Permit Type:
Description: **No Plan Check Corrections issued on 7/28/9**

Permit Description: **Plumbing**
Work Class:
Proposed Use: Commercial
Permit Number: 090429000013741
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: PLUMBING MASTER

Date: **7/22/2009**
Permit Type:
Description: **No Plan Check INSTALL HAND SINK**

Permit Description: **Plumbing**
Work Class:
Proposed Use: Commercial
Permit Number: 090422000012422
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: MAINTCO CORP

Date: **3/23/2009**
Permit Type:
Description: **No Plan Check ADD (4) DEDICATED CIRCUITS**

Permit Description: **Electrical**
Work Class:
Proposed Use: Commercial
Permit Number: 090417000005022
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: P R CONSTRUCTION INC

ADJOINING PROPERTY FINDINGS

Date: **3/23/2009**
Permit Type:
Description: **No Plan Check CHANGE OUT HAND WASH SINK**

Permit Description: **Plumbing**
Work Class:
Proposed Use: Commercial
Permit Number: 090427000004481
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: P R CONSTRUCTION INC

Date: **6/16/1998**
Permit Type:
Description: **No Plan Check INSTALL TWO LIGHT STANDARDS USING EXISTI**

Permit Description: **Electrical**
Work Class:
Proposed Use: Commercial
Permit Number: 980411000011782
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: YOUNG ELECTRIC SIGN CO

Date: **2/27/1998**
Permit Type:
Description: **No Plan Check ADD 20 AMP CIRCUIT FOR COLD COFFEE MACHI**

Permit Description: **Electrical**
Work Class:
Proposed Use: Commercial
Permit Number: 980412000003368
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: ALLIED INTERSTATE DEVELOPMENT CORPORATION

ADJOINING PROPERTY FINDINGS

Date:	**11/26/1997**
Permit Type:	
Description:	**Plan Check INSTALL 2'6" X 4'1" ATM WALL SIGN. SIGN**
Permit Description:	**Sign**
Work Class:	
Proposed Use:	Onsite Retail
Permit Number:	970481000001777
Status:	
Valuation:	$750.00
Contractor Company:	
Contractor Name:	W C C S

Date:	**11/17/1997**
Permit Type:	
Description:	**No Plan Check INSTALL 16 RECEPT. AT SALES COUNTER @ 7-**
Permit Description:	**Electrical**
Work Class:	
Proposed Use:	Commercial
Permit Number:	970411000019302
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	FRANKLIN BOB ELECTRIC

ADJOINING PROPERTY FINDINGS

WILSHIRE BLVD APT 303

4925 WILSHIRE BLVD APT 303

Date:	**9/20/2012**
Permit Type:	
Description:	**No Plan Check INSTALL DIRECT VENT FIREPLACE, REPLACE (E) VENT, EXTEND GAS LINE.**
Permit Description:	**HVAC**
Work Class:	
Proposed Use:	Apartment
Permit Number:	120442000010040
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	C H R IMPROVEMENTS

Date:	**9/18/2012**
Permit Type:	
Description:	**No Plan Check ONE ELECTRICAL OUTLET FOR FIREPLACE OFF EXISTING BRANCH CIRCUITS.**
Permit Description:	**Electrical**
Work Class:	
Proposed Use:	Apartment
Permit Number:	120412000022242
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	C H R IMPROVEMENTS

ADJOINING PROPERTY FINDINGS

Date: **9/18/2012**
Permit Type:
Description: **No Plan Check EXTEND GAS LINE FOR FIREPLACE GAS OUTLET**

Permit Description: **Plumbing**
Work Class:
Proposed Use: Apartment
Permit Number: 120422000017144
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: C H R IMPROVEMENTS

Date: **9/14/2012**
Permit Type:
Description: **Plan Check Build non-bearing partition wall and off set in front of existing fireplace. Relocate new fireplace with direct vent on new partition wall.**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: Apartment
Permit Number: 120162000017925
Status:
Valuation: $3,500.00
Contractor Company:
Contractor Name: C H R IMPROVEMENTS

Date: **3/16/2007**
Permit Type:
Description: **Plan Check INSPECTOR REQUIRED APPLICANT TO REMOVE I**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: Apartment
Permit Number: 070161000004878
Status:
Valuation: $50,000.00
Contractor Company:
Contractor Name: OWNER-BUILDER

ADJOINING PROPERTY FINDINGS

Date: **9/2/2003**
Permit Type:
Description: **Plan Check REVISE PERMIT TO CONVERT APT TO CONDO.**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: Apartment
Permit Number: 010102000101976
Status:
Valuation: $10,000.00
Contractor Company:
Contractor Name: OWNER-BUILDER

Date: **8/18/2003**
Permit Type:
Description: **No Plan Check install one two-amp circuit & eight meth**

Permit Description: **Electrical**
Work Class:
Proposed Use: Apartment
Permit Number: 030417000018611
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: ROBNETT ELECTRIC

Date: **8/12/2003**
Permit Type:
Description: **No Plan Check INSTALL (9) EQ. VALVES AND (45) GAS OUTL**

Permit Description: **Plumbing**
Work Class:
Proposed Use: Apartment
Permit Number: 020421000128559
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: 2 K PLUMBING & FIRE PROCTECTION

ADJOINING PROPERTY FINDINGS

Date: **4/15/2003**
Permit Type:
Description: **No Plan Check SUPPLEMENTAL PERMIT TO #03044-90000-0094**

Permit Description: **HVAC**
Work Class:
Proposed Use: Commercial
Permit Number: 030449100200940
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: J M S AIR CONDITIONING AND APPLIANCE SERVICE

Date: **4/7/2003**
Permit Type:
Description: **No Plan Check SUPPLEMENTAL PERMIT FOR 03044-90000-0094**

Permit Description: **HVAC**
Work Class:
Proposed Use: Commercial
Permit Number: 030449100100940
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: J M S AIR CONDITIONING AND APPLIANCE SERVICE

Date: **4/3/2003**
Permit Type:
Description: **No Plan Check LOW VOLTAGE T.V., TELEPHONE OUTLETS. (**

Permit Description: **Electrical**
Work Class:
Proposed Use: Apartment
Permit Number: 030412000007139
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: AMMCOMM

ADJOINING PROPERTY FINDINGS

Date: **4/2/2003**
Permit Type:
Description: **No Plan Check Supplemental permit for (3) laundry room**

Permit Description: **HVAC**
Work Class:
Proposed Use: Apartment
Permit Number: 030442000101402
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: GENERAL SHEET METAL

Date: **2/12/2003**
Permit Type:
Description: **No Plan Check INSTALL VENTS**

Permit Description: **HVAC**
Work Class:
Proposed Use: Apartment
Permit Number: 030442000001402
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: GENERAL SHEET METAL

Date: **1/29/2003**
Permit Type:
Description: **No Plan Check INSTALLATION OF 10 SPLIT SYSTEMS**

Permit Description: **HVAC**
Work Class:
Proposed Use: Commercial
Permit Number: 030449000000940
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: J M S AIR CONDITIONING AND APPLIANCE SERVICE

ADJOINING PROPERTY FINDINGS

Date: **1/24/2003**
Permit Type:
Description: **No Plan Check NEW FIRE ALARM**

Permit Description: **Electrical**
Work Class:
Proposed Use: Commercial
Permit Number: 030411000001725
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: RELIABLE FIRE PROTECTION

Date: **1/22/2003**
Permit Type:
Description: **Plan Check RETAINING WALL BACKFILL. TOTAL OF 70 C.Y**

Permit Description: **Grading**
Work Class:
Proposed Use: Apartment Grading Non-Hill
Permit Number: 030302000000166
Status:
Valuation: $70.00
Contractor Company:
Contractor Name: OWNER-BUILDER

Date: **12/13/2002**
Permit Type:
Description: **Plan Check 9 unit condo.**

Permit Description: **Electrical**
Work Class:
Proposed Use: Apartment
Permit Number: 020413000012779
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: ACCURATE ELECTRIC INC

ADJOINING PROPERTY FINDINGS

Date: **12/4/2002**
Permit Type:
Description: **Plan Check COMPLETE SPRINKLER SYSTEM FOR A 3 STORY**

Permit Description: **Fire Sprinkler**
Work Class:
Proposed Use: Apartment
Permit Number: 020432000003056
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: 2 K PLUMBING & FIRE PROCTECTION

Date: **9/27/2002**
Permit Type:
Description: **Plan Check METHANE ABATEMENT FOR APPARTMENT BUILDIN**

Permit Description: **Plumbing**
Work Class:
Proposed Use: Apartment
Permit Number: 020421000004422
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: K & K PLUMBING CO

Date: **9/20/2002**
Permit Type:
Description: **Plan Check plan check for the waste and vent and th**

Permit Description: **Plumbing**
Work Class:
Proposed Use: Apartment
Permit Number: 020421000028559
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: K & K PLUMBING CO

ADJOINING PROPERTY FINDINGS

Date: **9/13/2002**
Permit Type:
Description: **Plan Check INSTALL ONEHYDRO-ELECTRIC ELEVATOR, ELEV**

Permit Description: **Elevator**
Work Class:
Proposed Use: Apartment
Permit Number: 020461000000990
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: DELTA ELEVATOR COMPANY

Date: **9/13/2002**
Permit Type:
Description: **Plan Check INSTALL ONEHYDRO-ELECTRIC ELEVATOR, ELEV**

Permit Description: **Elevator**
Work Class:
Proposed Use: Apartment
Permit Number: 020461000000991
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: DELTA ELEVATOR COMPANY

Date: **9/12/2002**
Permit Type:
Description: **Plan Check INSTALLATION OF SUMP PUMPS FOR EMERGENCY**

Permit Description: **Plumbing**
Work Class:
Proposed Use: Commercial
Permit Number: 020422000027467
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: K & K PLUMBING CO

ADJOINING PROPERTY FINDINGS

Date:	**7/17/2002**
Permit Type:	
Description:	**Plan Check NEW 9 UNIT APPARTMENT (21,691 SQ FT) 3**
Permit Description:	**Bldg-New**
Work Class:	
Proposed Use:	Apartment Apartment
Permit Number:	010101000001976
Status:	
Valuation:	$2,460,000.00
Contractor Company:	
Contractor Name:	OWNER-BUILDER

Date:	**7/11/2002**
Permit Type:	
Description:	**No Plan Check 100 AMP CTS**
Permit Description:	**Electrical**
Work Class:	
Proposed Use:	Commercial
Permit Number:	020412000014942
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	POWER PLUS TEMPORARY UTILITY SERVICES

ADJOINING PROPERTY FINDINGS

WILSHIRE BLVD STE 113

5001 WILSHIRE BLVD STE 113

Date:	**9/25/2015**
Permit Type:	
Description:	**No Plan Check**
Permit Description:	**Electrical**
Work Class:	
Proposed Use:	Commercial
Permit Number:	150411000031818
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	UNISOLAR ELECTRIC CO

Date:	**9/9/2015**
Permit Type:	
Description:	**Plan Check INSTALL 1 ILLUMINATED CHANNEL LETTER WA L SIGN W/FOAM LETTERS**
Permit Description:	**Sign**
Work Class:	
Proposed Use:	Onsite Signs
Permit Number:	150481000002224
Status:	
Valuation:	$1,500.00
Contractor Company:	
Contractor Name:	COST SIGN INC

ADJOINING PROPERTY FINDINGS

C.O. Issued Date: **10/7/2015**
Date: **8/14/2015**
Permit Type:
Description: **Plan Check CHANGE OF USE FROM RETAIL TO OFFICE (10 SF)**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: Commercial Retail Office
Permit Number: 150161000015138
Status:
Valuation: $5,000.00
Contractor Company:
Contractor Name: UNITED CONSTRUCTION CO

Date: **3/14/2014**
Permit Type:
Description: **Plan Check REPLACE (6) DAMAGED METAL STUDS DUE TO AR ACCIDENT. NON-BEARING. STOREFRONT, LESS THAN 10% REPLACEMENT VALUE.**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: Commercial Restaurant
Permit Number: 140161000004334
Status:
Valuation: $4,500.00
Contractor Company:
Contractor Name: CALICO BUILDING SERVICES INC

Date: **8/5/2013**
Permit Type:
Description: **No Plan Check INSTALL LED EXIT SIGN WITH BATTERY BACKU P**

Permit Description: **Electrical**
Work Class:
Proposed Use: Commercial
Permit Number: 130414000020778
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: HERZOG M B ELECTRIC INC

ADJOINING PROPERTY FINDINGS

Date:	**10/15/2012**
Permit Type:	
Description:	**Plan Check RE-STRIPING PORTION OF EXISTING NON CO MPLIANT ADA PARKING SPACES AND WALKWAY TO CREATE ADA COMPLIANT ACCESSIBLE VAN PARKING & LOADING ARAEA,(NEW CURB & RAMPS & RE-STRIPPING OF AFFECTED PARKING AS NEEDED). RESTRIPE 5' WIDE A.D.A. PATH OF TRAVEL. NO REDUCTION OR OBSTRUCTION OF (E) PARKING AISLES AND SPACES.**
Permit Description:	**Nonbldg-Alter/Repair**
Work Class:	
Proposed Use:	Commercial
Permit Number:	120261000000063
Status:	
Valuation:	$10,000.00
Contractor Company:	
Contractor Name:	CALICO BUILDING SERVICES INC

Date:	**6/25/2012**
Permit Type:	
Description:	**No Plan Check Starter Installation**
Permit Description:	**Elevator**
Work Class:	
Proposed Use:	Commercial
Permit Number:	120469000000757
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	AMTECH ELEVATOR SERVICES

ADJOINING PROPERTY FINDINGS

Date:	**6/12/2012**
Permit Type:	
Description:	**Plan Check SUPPLEMENTAL PERMIT TO PERMIT NO. 12016- 10000-08117 TO CORRECT DIMENSION BETWEEN EXISTING TOILET AND EXISTING SINK TO BE 24" IN LIEU OF 28" PER EXISTING SITE CONDITION**
Permit Description:	**Bldg-Alter/Repair**
Work Class:	
Proposed Use:	Commercial Retail
Permit Number:	120161000108117
Status:	
Valuation:	$501.00
Contractor Company:	
Contractor Name:	MODERN DEVELOPMENT EXPERT INC

Date:	**6/4/2012**
Permit Type:	
Description:	**Plan Check SUPPLEMENTAL PERMIT TO PCIS 12048-70000- 1025. TO INCLUDE DESCRIPTION OF SIGN, IT READS "C2"/LOGO "EDUCATION".**
Permit Description:	**Sign**
Work Class:	
Proposed Use:	Onsite Signs
Permit Number:	120487000101025
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	SIGN HAUS CO

ADJOINING PROPERTY FINDINGS

Date: **5/15/2012**
Permit Type:
Description: **Plan Check ILLUMINATED CHANNEL LETTER WALL SIGN.**

Permit Description: **Sign**
Work Class:
Proposed Use: Onsite Signs
Permit Number: 120487000001025
Status:
Valuation: $4,256.00
Contractor Company:
Contractor Name: SIGN HAUS CO

Date: **5/7/2012**
Permit Type:
Description: **Plan Check NEW ONE (1) SET OF ILLUMINATED CHANNEL L ETTER WALL SIGN 1'-7" x 13'-6" read as "MI HAIR LOUNGE".**

Permit Description: **Sign**
Work Class:
Proposed Use: Onsite Signs
Permit Number: 120481000000953
Status:
Valuation: $2,600.00
Contractor Company:
Contractor Name: ACE SIGN AND DESIGN

Date: **5/2/2012**
Permit Type:
Description: **Plan Check CHANGE OF USE FROM TANNING SALON TO BEAU TY SALON FOR 21' X 43.5' TENANT SPACE. NO CHANGE IN PARKING. no interior working.**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: Commercial Retail Retail
Permit Number: 120161000008117
Status:
Valuation: $10,000.00
Contractor Company:
Contractor Name: MODERN DEVELOPMENT EXPERT INC

ADJOINING PROPERTY FINDINGS

Date:	**4/9/2012**
Permit Type:	
Description:	**No Plan Check (5) NEW ELECTRICAL CIRCUITS. 2 OF 2 W/ # 12044-10000-03626.**
Permit Description:	**Electrical**
Work Class:	
Proposed Use:	Commercial
Permit Number:	120411000008025
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	J P CONSTRUCTION CO

Date:	**4/9/2012**
Permit Type:	
Description:	**No Plan Check (18) HVAC REGISTERS. 1 OF 2 W/ #12041-10 -08025.**
Permit Description:	**HVAC**
Work Class:	
Proposed Use:	Commercial
Permit Number:	120441000003626
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	J P CONSTRUCTION CO

ADJOINING PROPERTY FINDINGS

C.O. Issued Date:	**4/12/2012**
Date:	**3/20/2012**
Permit Type:	
Description:	**Plan Check Change of use from office to massage par lor where any person who provides massage services at this premise shall be certified as a massage therapist or massage practitioner pursuant to California Business and Professions Section 4600 et seq. No physical work to be done. Area of work is 1300sf.**
Permit Description:	**Bldg-Alter/Repair**
Work Class:	
Proposed Use:	Commercial Retail Office
Permit Number:	120162000005312
Status:	
Valuation:	$15,000.00
Contractor Company:	
Contractor Name:	SAEANG NATSAK

Date:	**2/24/2012**
Permit Type:	
Description:	**Plan Check OFFICE TI; NEW WALLS AND COUNTER at su ite 213-214**
Permit Description:	**Bldg-Alter/Repair**
Work Class:	
Proposed Use:	Commercial Office
Permit Number:	120161000003025
Status:	
Valuation:	$20,000.00
Contractor Company:	
Contractor Name:	J P SERVICE INC

ADJOINING PROPERTY FINDINGS

Date:	**2/7/2012**
Permit Type:	
Description:	**Plan Check TWO (2) NEW INTERNALLY ILLUMINATED CHANN EL LETTER WALL SIGNS TO READ, "MARTIAL ARTS TAEKWONDO HAPKIDO" WITH LOGO - (1) 2'-6' X 13' AND (1) 2'-6" X 14'-5".**
Permit Description:	**Sign**
Work Class:	
Proposed Use:	Onsite Signs
Permit Number:	120481000000202
Status:	
Valuation:	$5,000.00
Contractor Company:	
Contractor Name:	SAMMY CHU

Date:	**11/29/2011**
Permit Type:	
Description:	**Plan Check OFFICE T.I. NEW INTERIOR WALLS FOR CONS ULTATION CENTER.**
Permit Description:	**Bldg-Alter/Repair**
Work Class:	
Proposed Use:	Commercial
Permit Number:	110161000023468
Status:	
Valuation:	$40,000.00
Contractor Company:	
Contractor Name:	J P CONSTRUCTION CO

ADJOINING PROPERTY FINDINGS

Date:	**6/22/2011**
Permit Type:	
Description:	**No Plan Check SUPPLEMENTAL TO PERMIT #11041-10000-1270 6 FOR LOW VOLTAGE FOR (4) TELEPHONE JACKS.**
Permit Description:	**Electrical**
Work Class:	
Proposed Use:	Commercial
Permit Number:	110411000112706
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	HI TOP CONSTRUCTION CO

Date:	**6/20/2011**
Permit Type:	
Description:	**No Plan Check ADD (3) CIRCUITS FOR (14) OUTLETS. (1 O F 2 W/ PERMIT #11044-10000-06759)**
Permit Description:	**Electrical**
Work Class:	
Proposed Use:	Commercial
Permit Number:	110411000012706
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	HI TOP CONSTRUCTION CO

Date:	**6/20/2011**
Permit Type:	
Description:	**No Plan Check ADD (3) A/C OUTLETS. (2 OF 2 W/ PERMIT # 11041-10000-12706)**
Permit Description:	**HVAC**
Work Class:	
Proposed Use:	Commercial
Permit Number:	110441000006759
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	HI TOP CONSTRUCTION CO

ADJOINING PROPERTY FINDINGS

Date:	**6/13/2011**
Permit Type:	
Description:	**Plan Check CHANGE OF USE FROM RETAIL TO OFFICE; NON -STRUCTURAL TENANT IMPROVEMENT (CONSTRUCT NON-BEARING PARTITION WALLS (945SF)**
Permit Description:	**Bldg-Alter/Repair**
Work Class:	
Proposed Use:	Commercial Office
Permit Number:	110162000010929
Status:	
Valuation:	$14,000.00
Contractor Company:	
Contractor Name:	HI TOP CONSTRUCTION CO

Date:	**3/3/2010**
Permit Type:	
Description:	**Plan Check INSTAL (1) 1'-4" X 6'-8" CHANNEL LETTERS**
Permit Description:	**Sign**
Work Class:	
Proposed Use:	Onsite Signs
Permit Number:	100481000000461
Status:	
Valuation:	$1,500.00
Contractor Company:	
Contractor Name:	NEW TECH ELECTRIC INC

Date:	**10/23/2009**
Permit Type:	
Description:	**No Plan Check Supplemental permit to collect fees for**
Permit Description:	**Bldg-Alter/Repair**
Work Class:	
Proposed Use:	Commercial
Permit Number:	090161000113706
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	S K D CONSTRUCTION

ADJOINING PROPERTY FINDINGS

Date: **10/23/2009**
Permit Type:
Description: **Plan Check INSTALL TWO ILLUMINATED CHANNEL LETTERS**

Permit Description: **Sign**
Work Class:
Proposed Use: Onsite Signs
Permit Number: 090481000001919
Status:
Valuation: $6,280.00
Contractor Company:
Contractor Name: TURBO SIGN INC

Date: **9/25/2009**
Permit Type:
Description: **No Plan Check T.I. DUCTWORK ONLY**

Permit Description: **HVAC**
Work Class:
Proposed Use: Commercial
Permit Number: 090449000008829
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: MEGA AIR CO INC

Date: **9/25/2009**
Permit Type:
Description: **No Plan Check T.I.DUCTWORK ONLY**

Permit Description: **HVAC**
Work Class:
Proposed Use: Commercial
Permit Number: 090449000008830
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: MEGA AIR CO INC

ADJOINING PROPERTY FINDINGS

Date: **9/24/2009**
Permit Type:
Description: **Plan Check TI for offices. T-24 and emergency ligh**

Permit Description: **Electrical**
Work Class:
Proposed Use: Commercial
Permit Number: 090411000016810
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: ROCKET ELECTRIC CO

Date: **9/24/2009**
Permit Type:
Description: **Plan Check PLAN CHECK T-24 ENERGY FOR A TI OF EXIST**

Permit Description: **Electrical**
Work Class:
Proposed Use: Commercial
Permit Number: 090411000017386
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: ROCKET ELECTRIC CO

Date: **9/1/2009**
Permit Type:
Description: **Plan Check CHANGE USE OF EXIST 945 SQ FT RETAIL SPA**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: Commercial Office
Permit Number: 090162000010685
Status:
Valuation: $33,000.00
Contractor Company:
Contractor Name: S K D CONSTRUCTION

ADJOINING PROPERTY FINDINGS

Date: **9/1/2009**
Permit Type:
Description: **Plan Check CHG OF USE O EXIST 945 SQ FT SPACE #205**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: Commercial Retail
Permit Number: 090162000010756
Status:
Valuation: $33,000.00
Contractor Company:
Contractor Name: S K D CONSTRUCTION

Date: **9/1/2009**
Permit Type:
Description: **Plan Check T.I. FOR OFFICE ON 2nd FLOOR # 208.(1,51**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: Commercial
Permit Number: 090162000013706
Status:
Valuation: $25,000.00
Contractor Company:
Contractor Name: S K D CONSTRUCTION

Date: **3/4/2009**
Permit Type:
Description: **No Plan Check REMOVE ILLEGAL WIRING CONDUIT FOR COPY M**

Permit Description: **Electrical**
Work Class:
Proposed Use: Public Safety Only
Permit Number: 090411000003771
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: J J ELECTRIC CO

ADJOINING PROPERTY FINDINGS

Date: **2/10/2009**
Permit Type:
Description: **No Plan Check SUPPLEMENTAL PERMIT FOR 24 BRANCH CIRCUI**

Permit Description: **Electrical**
Work Class:
Proposed Use: Commercial
Permit Number: 090412000201532
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: MANDOYAN CONSTZACTION

Date: **1/30/2009**
Permit Type:
Description: **No Plan Check SUPPLEMENTAL PERMIT FOR 200 AMP SERVICE**

Permit Description: **Electrical**
Work Class:
Proposed Use: Commercial
Permit Number: 090412000101532
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: MANDOYAN CONSTZACTION

Date: **1/27/2009**
Permit Type:
Description: **No Plan Check ADD AND RELOCATE OUTLETS.**

Permit Description: **Electrical**
Work Class:
Proposed Use: Commercial
Permit Number: 090412000001532
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: MANDOYAN CONSTZACTION

ADJOINING PROPERTY FINDINGS

Date: **1/21/2009**
Permit Type:
Description: **Plan Check CHANGE OF USE, FROM RETAIL TO RETAIL/TA**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: Commercial
Permit Number: 090161000000237
Status:
Valuation: $40,000.00
Contractor Company:
Contractor Name: MANDOYAN CONSTZACTION

Date: **11/24/2008**
Permit Type:
Description: **No Plan Check point of use water heaters on lav sinks**

Permit Description: **Plumbing**
Work Class:
Proposed Use: Commercial
Permit Number: 080429000022784
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: BOBS ROOTER & PLUMBING CO

Date: **4/24/2008**
Permit Type:
Description: **Plan Check 14" X 36" ILLUMINATED LOGO; REPLACE LCI**

Permit Description: **Sign**
Work Class:
Proposed Use: Onsite Signs
Permit Number: 080481000000748
Status:
Valuation: $1,750.00
Contractor Company:
Contractor Name: WESCO SIGNS INC

ADJOINING PROPERTY FINDINGS

Date: **11/1/2007**
Permit Type:
Description: **Plan Check PROPOSE TWO WALLS SIGNS. (B1) 2'-0" X 17**

Permit Description: **Sign**
Work Class:
Proposed Use: Onsite Signs
Permit Number: 070481000002005
Status:
Valuation: $6,105.40
Contractor Company:
Contractor Name: CALIFORNIA NEON PRODUCTS

Date: **1/16/2007**
Permit Type:
Description: **Plan Check (1) illum channel letter wall sign & non**

Permit Description: **Sign**
Work Class:
Proposed Use: Onsite Signs
Permit Number: 070484000000073
Status:
Valuation: $1,500.00
Contractor Company:
Contractor Name: SAN PEDRO SIGN CO

Date: **1/8/2007**
Permit Type:
Description: **Plan Check INSTALL 3' X 10' TEMPORARY BANNER SIGN <**

Permit Description: **Sign**
Work Class:
Proposed Use: Onsite Signs
Permit Number: 070482000000037
Status:
Valuation: $301.00
Contractor Company:
Contractor Name: OWNER-BUILDER

ADJOINING PROPERTY FINDINGS

Date: **8/9/2006**
Permit Type:
Description: **No Plan Check REPLACE EXISTING HVAC PACKAGE UNITS**

Permit Description: **HVAC**
Work Class:
Proposed Use: Commercial
Permit Number: 060449000008379
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: AZ AIR CONDITIONING AND HEATING INC

Date: **6/7/2006**
Permit Type:
Description: **Plan Check ILLUMINATED CHANNEL LETTER WALL SIGN FOR**

Permit Description: **Sign**
Work Class:
Proposed Use: Onsite Signs
Permit Number: 060481000000872
Status:
Valuation: $1,500.00
Contractor Company:
Contractor Name: SIGN ZONE

Date: **5/22/2006**
Permit Type:
Description: **No Plan Check ADD (2) NEW CIRCUITS @ UNIT #206.**

Permit Description: **Electrical**
Work Class:
Proposed Use: Commercial
Permit Number: 060411000012306
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: CHAE MIKE HEE - KANG

ADJOINING PROPERTY FINDINGS

Date: **5/19/2006**
Permit Type:
Description: **Plan Check TI AT (E) 15' X 54' RETAIL SPACE SUITE**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: Commercial
Permit Number: 060161000009520
Status:
Valuation: $2,000.00
Contractor Company:
Contractor Name: HI TOP CONSTRUCTION CORP

Date: **9/9/2005**
Permit Type:
Description: **Plan Check INSTALL (2) 2'-6" X 3'-1" ("LIGHT OF ART**

Permit Description: **Sign**
Work Class:
Proposed Use: Onsite Signs
Permit Number: 050481000001315
Status:
Valuation: $5,300.00
Contractor Company:
Contractor Name: WHOLESALE SIGN

Date: **7/13/2005**
Permit Type:
Description: **No Plan Check replace (1) 2 ton Air Conditioning unit**

Permit Description: **HVAC**
Work Class:
Proposed Use: Commercial
Permit Number: 050449000006849
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: MESA ENERGY SYSTEMS

ADJOINING PROPERTY FINDINGS

Date: **3/24/2005**
Permit Type:
Description: **Plan Check PROPOSED WALL (CHANNEL LETTERS) SIGN- "C**

Permit Description: **Sign**
Work Class:
Proposed Use: Onsite Signs
Permit Number: 050483000000415
Status:
Valuation: $1,800.00
Contractor Company:
Contractor Name: SIGN A RAME

Date: **6/21/2004**
Permit Type:
Description: **Plan Check CHANGE OF USE FROM (E) RETAIL (901 SF) T**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: Commercial Retail
Permit Number: 040161000011361
Status:
Valuation: $301.00
Contractor Company:
Contractor Name: OWNER-BUILDER

Date: **8/15/2003**
Permit Type:
Description: **Plan Check INSTALL 1 COMPLETE SET OF ILLUMINATED CH**

Permit Description: **Sign**
Work Class:
Proposed Use: Onsite Signs
Permit Number: 030481000001063
Status:
Valuation: $800.00
Contractor Company:
Contractor Name: GARCIA ALEX

ADJOINING PROPERTY FINDINGS

Date: **4/1/2002**
Permit Type:
Description: **No Plan Check replace two kitchen sinks**

Permit Description: **Plumbing**
Work Class:
Proposed Use: Commercial
Permit Number: 020427000007555
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: NEW STAR PLUMBING

Date: **4/4/2001**
Permit Type:
Description: **Plan Check proposed illum. channel letter + logo wa**

Permit Description: **Sign**
Work Class:
Proposed Use: Onsite Signs
Permit Number: 010482000000475
Status:
Valuation: $1,100.00
Contractor Company:
Contractor Name: CAL-NOVA SIGNS

Date: **12/27/2000**
Permit Type:
Description: **No Plan Check NEW BREAKER 20 AMPS, 8 NEW OUTETS & 8 RE**

Permit Description: **Electrical**
Work Class:
Proposed Use: Commercial
Permit Number: 000411000026124
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: SKYS CONSTRUCTION

ADJOINING PROPERTY FINDINGS

Date: **12/27/2000**
Permit Type:
Description: **No Plan Check (3) NEW SINKS & (1) ELECTRIC WATER HEATE**

Permit Description: **Plumbing**
Work Class:
Proposed Use: Commercial
Permit Number: 000421000019949
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: SKYS CONSTRUCTION

Date: **9/8/2000**
Permit Type:
Description: **No Plan Check COPY MACHINE HOOK-UP.**

Permit Description: **Electrical**
Work Class:
Proposed Use: Commercial
Permit Number: 000411000018444
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: HI-TEK ELECTRIC COMPANY

Date: **9/1/2000**
Permit Type:
Description: **Plan Check Proposed ill channel letter wall sign fo**

Permit Description: **Sign**
Work Class:
Proposed Use: Onsite Signs
Permit Number: 000487000001595
Status:
Valuation: $1,800.00
Contractor Company:
Contractor Name: SAN PEDRO SIGN

ADJOINING PROPERTY FINDINGS

Date: **8/29/2000**
Permit Type:
Description: **No Plan Check NEW BRANCH CIRCUITS.**

Permit Description: **Electrical**
Work Class:
Proposed Use: Commercial
Permit Number: 000413000017692
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: COTE GARY L

Date: **8/21/2000**
Permit Type:
Description: **No Plan Check installing new fixtures**

Permit Description: **Plumbing**
Work Class:
Proposed Use: Commercial
Permit Number: 000423000012819
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: RON'S A - 1 PLUMBING

Date: **8/21/2000**
Permit Type:
Description: **No Plan Check dryer vent**

Permit Description: **HVAC**
Work Class:
Proposed Use: Commercial
Permit Number: 000443000007078
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: RON'S A - 1 PLUMBING

ADJOINING PROPERTY FINDINGS

Date: **7/17/2000**
Permit Type:
Description: **No Plan Check SUPPLEMENTAL PERMIT TO 00042-30000-01073**

Permit Description: **Plumbing**
Work Class:
Proposed Use: Commercial
Permit Number: 000421000101073
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: HENDREX PLUMBING

Date: **7/12/2000**
Permit Type:
Description: **Plan Check 3 type 1 hoods.**

Permit Description: **HVAC**
Work Class:
Proposed Use: Commercial
Permit Number: 000441000001738
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: PICKARD CONSTRUCTION

Date: **6/30/2000**
Permit Type:
Description: **No Plan Check SUPPLEMENTAL PERMIT ADD 2 SMOKE DUCT TYP**

Permit Description: **HVAC**
Work Class:
Proposed Use: Commercial
Permit Number: 000442000104811
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: K & S AIR CONDITIONING

ADJOINING PROPERTY FINDINGS

Date: **6/28/2000**
Permit Type:
Description: **Plan Check (2)-3' x 20' 3" illum wall sign with/2'6**

Permit Description: **Sign**
Work Class:
Proposed Use: Onsite Signs
Permit Number: 000484000001169
Status:
Valuation: $3,600.00
Contractor Company:
Contractor Name: CALIFORNIA NEON PRODUCTS

Date: **6/9/2000**
Permit Type:
Description: **No Plan Check T. I. UNIT # 101**

Permit Description: **Electrical**
Work Class:
Proposed Use: Commercial
Permit Number: 000411000011572
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: MILLER ROBERT CARL

Date: **6/8/2000**
Permit Type:
Description: **No Plan Check T.I. EL POLLO LOCO RESTAURANT (NO PLAN C**

Permit Description: **HVAC**
Work Class:
Proposed Use: Commercial
Permit Number: 000442000004811
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: K & S AIR CONDITIONING

ADJOINING PROPERTY FINDINGS

Date: **5/19/2000**
Permit Type:
Description: **No Plan Check CONDUIT - UNDERGROUND (O.K BY SIANI).**

Permit Description: **Electrical**
Work Class:
Proposed Use: Commercial
Permit Number: 000411000010055
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: PICKARD CONSTRUCTION

Date: **5/18/2000**
Permit Type:
Description: **Plan Check INSTALL A NEW PLUMBING SYSTEM IN "EL POL**

Permit Description: **Plumbing**
Work Class:
Proposed Use: Commercial
Permit Number: 000423000001073
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: HENDREX PLUMBING

Date: **5/9/2000**
Permit Type:
Description: **Plan Check T.I. (2430 sf.) change of use and occupa**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: Commercial Restaurant
Permit Number: 990161000023977
Status:
Valuation: $63,648.00
Contractor Company:
Contractor Name: PICKARD CONSTRUCTION

ADJOINING PROPERTY FINDINGS

Date: **12/3/1999**
Permit Type:
Description: **Plan Check INSTALL A 2'X22' ILLUM CHANNEL LETTERS W**

Permit Description: **Sign**
Work Class:
Proposed Use: Onsite Signs
Permit Number: 990481000002090
Status:
Valuation: $1,800.00
Contractor Company:
Contractor Name: COST SIGN

Date: **11/29/1999**
Permit Type:
Description: **Plan Check Change of use & occupancy from retail to**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: Commercial
Permit Number: 990161000021041
Status:
Valuation: $50,000.00
Contractor Company:
Contractor Name:

Date: **10/21/1999**
Permit Type:
Description: **No Plan Check ADDING TOILET AND LAVATORY**

Permit Description: **Plumbing**
Work Class:
Proposed Use: Commercial
Permit Number: 990423000014577
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: LANE NEAL PLUMBING

ADJOINING PROPERTY FINDINGS

Date: **10/19/1999**
Permit Type:
Description: **Plan Check TENANT IMPROVEMENT**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: Commercial
Permit Number: 990161000019212
Status:
Valuation: $44,198.00
Contractor Company:
Contractor Name: MARTINEZ ROY A

Date: **10/19/1999**
Permit Type:
Description: **Plan Check T. I. - RETAIL SPACE. PLAN-CHECK T-24 LT**

Permit Description: **Electrical**
Work Class:
Proposed Use: Commercial
Permit Number: 990411000020610
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: MARTINEZ ROY A

Date: **10/7/1999**
Permit Type:
Description: **Plan Check INSTALL (3) S/F ILLUM. WALL SIGNS (32" X**

Permit Description: **Sign**
Work Class:
Proposed Use: Onsite Signs
Permit Number: 990481000001773
Status:
Valuation: $8,000.00
Contractor Company:
Contractor Name: FLUORESCO LIGHTING - SIGN MAINTENANCE

ADJOINING PROPERTY FINDINGS

Date: **6/23/1999**
Permit Type:
Description: **Plan Check FRAME & CLOSE STAIR OPENING IN FLOOR 20'**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: Commercial
Permit Number: 990161000011477
Status:
Valuation: $3,500.00
Contractor Company:
Contractor Name: SQUARE - ONE CONSTRUCTION

Date: **5/26/1999**
Permit Type:
Description: **No Plan Check METER RE-INSPECTION.**

Permit Description: **Electrical**
Work Class:
Proposed Use: Commercial
Permit Number: 990412000010027
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: WEST VALLEY BUILDERS INC

Date: **5/10/1999**
Permit Type:
Description: **No Plan Check T. I.**

Permit Description: **Plumbing**
Work Class:
Proposed Use: Commercial
Permit Number: 990422000006206
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: SOUTHERN CALIFORNIA PLUMBING SERVICE

ADJOINING PROPERTY FINDINGS

Date: **4/27/1999**
Permit Type:
Description: **No Plan Check TENANT IMPROVEMENT.**

Permit Description: **Electrical**
Work Class:
Proposed Use: Commercial
Permit Number: 990412000007671
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: QUICK ELECTRIC

Date: **3/15/1999**
Permit Type:
Description: **Plan Check CHANNEL LETTER WALL SIGN (ILLUM.) (2' X**

Permit Description: **Sign**
Work Class:
Proposed Use: Onsite Signs
Permit Number: 990481000000433
Status:
Valuation: $1,600.00
Contractor Company:
Contractor Name: PLASTI - LINE WEST

Date: **2/16/1999**
Permit Type:
Description: **No Plan Check INSTALL 1 TOILET & SINK**

Permit Description: **Plumbing**
Work Class:
Proposed Use: Commercial
Permit Number: 990422000001962
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: J & S PLUMBING

ADJOINING PROPERTY FINDINGS

Date: **2/12/1999**
Permit Type:
Description: **Plan Check T.I. 1400 sq ft , existg office space ,**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: Commercial
Permit Number: 990163000002641
Status:
Valuation: $6,800.00
Contractor Company:
Contractor Name: MORENO DAN ENTERPRISES INC

Date: **2/11/1999**
Permit Type:
Description: **No Plan Check installing new receptacles exit sign, of**

Permit Description: **Electrical**
Work Class:
Proposed Use: Commercial
Permit Number: 990413000002663
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: D M C CONSTRUCTION SERVICES

Date: **2/5/1999**
Permit Type:
Description: **Plan Check CHANGE OF USE RETAILTO RESTARAUNT (23.5**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: Commercial
Permit Number: 980163000026796
Status:
Valuation: $25,000.00
Contractor Company:
Contractor Name: OWNER-BUILDER

ADJOINING PROPERTY FINDINGS

Date: **12/10/1998**
Permit Type:
Description: **Plan Check CONSTRUCT DEMISING WALL TO DIVIDE EXISTI**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: Commercial Retail
Permit Number: 980161000026613
Status:
Valuation: $3,000.00
Contractor Company:
Contractor Name: OWNER-BUILDER

Date: **11/24/1998**
Permit Type:
Description: **Plan Check (1) set (13"x10' w/ 5" x 10') illum wal**

Permit Description: **Sign**
Work Class:
Proposed Use: Onsite Signs
Permit Number: 980484000002068
Status:
Valuation: $1,100.00
Contractor Company:
Contractor Name: SIMCO

Date: **11/6/1998**
Permit Type:
Description: **No Plan Check FEE FOR SEPARATE SUITE ONLY. SEE 98042-2**

Permit Description: **Plumbing**
Work Class:
Proposed Use: Commercial
Permit Number: 980422000014502
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: J & S PLUMBING

ADJOINING PROPERTY FINDINGS

Date: **11/5/1998**
Permit Type:
Description: **Plan Check COMMERCIAL TENANT IMPROVEMENT - SHELVING**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: Commercial
Permit Number: 980161000018083
Status:
Valuation: $18,000.00
Contractor Company:
Contractor Name: TESCO CONSTRUCTION

Date: **11/5/1998**
Permit Type:
Description: **No Plan Check T.I. FOR SPACE #110.**

Permit Description: **Plumbing**
Work Class:
Proposed Use: Commercial
Permit Number: 980421000014492
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: TESCO CONSTRUCTION

Date: **11/2/1998**
Permit Type:
Description: **No Plan Check NEW FIXTURES**

Permit Description: **Plumbing**
Work Class:
Proposed Use: Commercial
Permit Number: 980422000014179
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: J & S PLUMBING

ADJOINING PROPERTY FINDINGS

Date: **10/25/1998**
Permit Type:
Description: **Plan Check ENERGY AND EMERGENCY LIGHTING P.C. RETAI**

Permit Description: **Electrical**
Work Class:
Proposed Use: Commercial
Permit Number: 980412000009597
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: J M WEST VALLEY BUILDERS INC

Date: **6/22/1998**
Permit Type:
Description: **Plan Check ADD 2 TOIL. RMS, A DEMISING WALL, & REPL**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: Commercial
Permit Number: 980161000009801
Status:
Valuation: $114,000.00
Contractor Company:
Contractor Name: OWNER-BUILDER

Date: **4/20/1998**
Permit Type:
Description: **No Plan Check NEW INSTALLATION WALL OUTLET AND SWITCH**

Permit Description: **Electrical**
Work Class:
Proposed Use: Commercial
Permit Number: 980411000007047
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: WORLD ELECTRIC

ADJOINING PROPERTY FINDINGS

Date:	**4/10/1998**
Permit Type:	
Description:	**Plan Check TENANT IMPROVEMENT; INTERIOR PARTITION W**
Permit Description:	**Bldg-Alter/Repair**
Work Class:	
Proposed Use:	Commercial
Permit Number:	980161000006701
Status:	
Valuation:	$7,000.00
Contractor Company:	
Contractor Name:	OWNER-BUILDER

GLOSSARY

General Building Department concepts

- **ICC:** The International Code Council. The governing body for the building/development codes used by all jurisdictions who've adopted the ICC guidelines. MOST of the US has done this. Canada, Mexico, and other countries use ICC codes books and guides as well. There are a few states who have added guidelines to the ICC codes to better fit their needs. For example, California has added seismic retrofit requirements for most commercial structures.
- **Building Department (Permitting Authority, Building Codes, Inspections Department, Building and Inspections):** This is the department in a jurisdiction where an owner or contractor goes to obtain permits and inspections for building, tearing down, remodeling, adding to, re-roofing, moving or otherwise making changes to any structure, Residential or Commercial.
- **Jurisdiction:** This is the geographic area representing the properties over which a Permitting Authority has responsibility.
- **GC:** General Contractor. Usually the primary contractor hired for any Residential or Commercial construction work.
- **Sub:** Subordinate contracting companies or subcontractors. Usually a "trades" contractor working for the GC. These contractors generally have an area of expertise in which they are licensed like Plumbing, Electrical, Heating and Air systems, Gas Systems, Pools etc. (called "trades").
- **Journeymen:** Sub contractors who have their own personal licenses in one or more trades and work for different contracting companies, wherever they are needed or there is work.
- **HVAC (Mechanical, Heating & Air companies):** HVAC = Heating, Ventilation, and Air Conditioning.
- **ELEC (Electrical, TempPole, TPole, TPower, Temporary Power, Panel, AMP Change, Power Release):** Electrical permits can be pulled for many reasons. The most common reason is to increase the AMPs of power in an electrical power panel. This requires a permit in almost every jurisdiction. Other commons reason for Electrical permits is to insert a temporary power pole at a new construction site. Construction requires electricity, and in a new development, power has yet to be run to the lot. The temporary power pole is usually the very first permit pulled for new development. The power is released to the home owner when construction is complete and this sometimes takes the form of a Power Release permit or inspection.
- **"Pull" a permit:** To obtain and pay for a building permit.
- **CBO:** Chief Building Official
- **Planning Department:** The department in the development process where the building /structural plans are reviewed for their completeness and compliance with building codes
- **Zoning Department:** The department in the development process where the site plans are reviewed for their compliance with the regulations associated with the zoning district in which they are situated.
- **Zoning District:** A pre-determined geographic boundary within a jurisdiction where certain types of structures are permitted / prohibited. Examples are Residential structure, Commercial/Retail structures, Industrial/Manufacturing structures etc. Each zoning district has regulations associated with it like the sizes of the lots, the density of the structures on the lots, the number of parking spaces required for certain types of structures on the lots etc.
- **PIN (TMS, GIS ID, Parcel#):** Property Identification Number and Tax Map System number.
- **State Card (Business license):** A license card issued to a contractor to conduct business.
- **Building Inspector (Inspector):** The inspector is a building department employee that inspects building construction for compliance to codes.
- **C.O.:** Certificate of Occupancy. This is the end of the construction process and designates that the owners now have permission to occupy a structure after its building is complete. Sometimes also referred to as a Certificate of Compliance.

GLOSSARY

Permit Content Definitions

- Permit Number: The alphanumerical designation assigned to a permit for tracking within the building department system. Sometimes the permit number gives clues to its role, e.g. a "PL" prefix may designate a plumbing permit.
- Description: A field on the permit form that allows the building department to give a brief description of the work being done. More often than not, this is the most important field for EP's to find clues to the prior use(s) of the property.
- Permit Type: Generally a brief designation of the type of job being done. For example BLDG-RES, BLDG-COM, ELEC, MECH etc.

Sample Building Permit Data

Date: Nov 09, 2000
Permit Type: Bldg -
New Permit Number: 101000000405
Status: Valuation: $1,000,000.00
Contractor Company: OWNER-BUILDER
Contractor Name:

Description: New one store retail (SAV-ON) with drive-thru pharmacy. Certificate of Occupancy.

Burroughs Middle School
600 S. McCadden Place
Los Angeles, CA 90005

Inquiry Number: 4564097.7S
March 22, 2016

The EDR Environmental LienSearch™

6 Armstrong Road,
Fourth Floor
Shelton, CT 06484
800.352.0050
www.edrnet.com

EDR Environmental LienSearch™ Report

The EDR Environmental LienSearch Report provides results from a search of available current land title records for environmental cleanup liens and other activity and use limitations, such as engineering controls and institutional controls.

A network of professional, trained researchers, following established procedures, uses client supplied address information to:

- search for parcel information and/or legal description;
- search for ownership information;
- research official land title documents recorded at jurisdictional agencies such as recorders' offices, registries of deeds, county clerks' offices, etc.;
- access a copy of the deed;
- search for environmental encumbering instrument(s) associated with the deed;
- provide a copy of any environmental encumbrance(s) based upon a review of key words in the instrument(s) (title, parties involved, and description); and
- provide a copy of the deed or cite documents reviewed.

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

Disclaimer - Copyright and Trademark Notice

This report was prepared for the use of Environmental Data Resources, Inc., and Discovery Research Solutions, LLC, exclusively. This report is neither a guarantee of title, a commitment to insure, or a policy of title insurance. **NO WARRANTY, EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT**. Environmental Data Resources, Inc. (EDR) and Discovery Research Solutions, LLC specifically disclaim the making of any such warranties, including without limitation, merchantability or fitness for a particular use or purpose. The information contained in this report is retrieved as it is recorded from the various agencies that make it available. The total liability is limited to the fee paid for this report.

Copyright 2014 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

EDR Environmental LienSearch™ Report

TARGET PROPERTY INFORMATION

ADDRESS

BURROUGHS MIDDLE SCHOOL
600 S. MCCADDEN PLACE
LOS ANGELES, CA 90005

RESEARCH SOURCE

Source 1: Los Angeles Assessor
Los Angeles County, California

Source 2: Los Angeles Recorder
Los Angeles County, California

PROPERTY INFORMATION

Deed 1:

According to the Los Angeles County Assessor, the current owner of the subject property is Los Angeles Unified School District. Records were searched at the Los Angeles County Recorder's Office back to 1980. No conveyance was found of record for the subject property. Based on our research, it appears that Los Angeles Unified School District acquired title to the property prior to 1980.

Legal Description: All that certain piece or parcel of land being a portion of Lots 14 and 15 of Tract 215, filed in Map Book 14, at Pages 42-43, situate and lying in the County of Los Angeles, State of California.

Legal Current Owner: Los Angeles Unified School District

Property Identifiers: 5507-017-900

ENVIRONMENTAL LIEN

Environmental Lien: Found ☐ Not Found ☒

If found:

1st Party:

2nd Party:

Dated:

Recorded:

Book:

Page:

Docket:

Volume:

Instrument:

Comments:

Miscellaneous:

EDR Environmental LienSearch™ Report

OTHER ACTIVITY AND USE LIMITATIONS (AULs)

Other AUL's: Found ☐ Not Found ☒

If found:

1st Party:

2nd Party:

Dated:
Recorded:
Book:
Page:
Docket:
Volume:
Instrument:
Comments:
Miscellaneous:

Burroughs Middle School
600 S. McCadden Place
Los Angeles, CA 90005

Inquiry Number: 4564097.6
March 14, 2016

The EDR Property Tax Map Report

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

EDR Property Tax Map Report

Environmental Data Resources, Inc.'s EDR Property Tax Map Report is designed to assist environmental professionals in evaluating potential environmental conditions on a target property by understanding property boundaries and other characteristics. The report includes a search of available property tax maps, which include information on boundaries for the target property and neighboring properties, addresses, parcel identification numbers, as well as other data typically used in property location and identification.

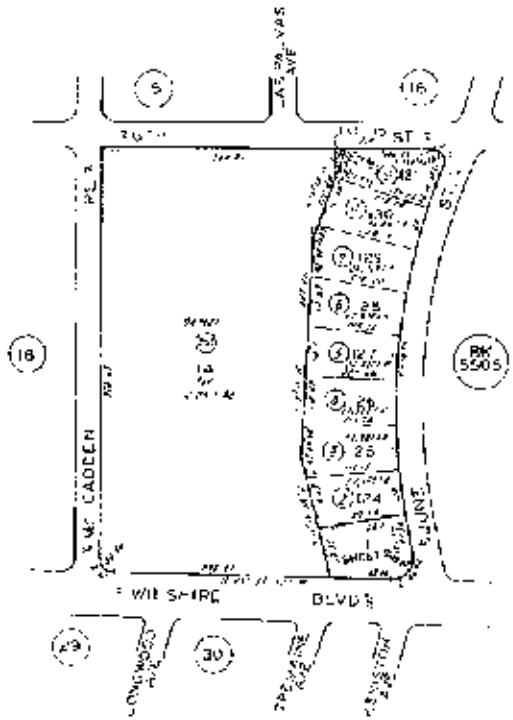
Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. **NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OR DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT.** Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction orforecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

Copyright 2016 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc. or its affiliates is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.



TRACT NO 215 M.B. 14 49 43

TRACT NO 6888 M.B. 83 53 54

CONDOMINIUM
TRACT NO. 36042 M.B. 1007-42-44

UPPER ST FLOOR
WILSHIRE
BLVD
LOWER 1ST FLOOR
2ND FLOOR
3RD FLOOR
SUBDIVISION OF AIRSPACE
CONDOMINIUM TRACT NO 38042

APPENDIX 4

REGULATORY AGENCY CORRESPONDENCE

Advisian
WorleyParsons Group

FACSIMILE

DATE	March 25, 2016	**PROJ. NAME**	LAUSD Burroughs Middle School Phase I ESA
PAGES	1	**PROJ. NO.**	308038-11191
TO	Los Angeles County Certified Unified Program Agency (CUPA) – Health Hazardous Materials Division	**CC TO**	
COMPANY	CUPA	**CC COMPANY**	
FAX NO.	323-728-0217	**CC FAX NO.**	
FROM	Michael Huma, 310-736-0964	**FILE LOC.**	Costa Mesa
SUBJECT	Records Request	**PRIORITY**	Regular

To whom it may concern:

I would like to review information regarding the following location:

a) 600 South McCadden Place, Los Angeles, 90005; APN 5507-017-900

This information will be used for an env ironmental site assessment of the above-listed property for the Los Angeles Unified School District for the Burroughs Middle School.

Please contact me by phone at 310-736-0964, if you have any questions regarding this request or to confirm receipt of this letter. Responses via email (Michael.Huma@Advisian.com) is preferred. However, if faxes are necessary, please fax to: 1-888-753-9007

Thank you for your assistance.

Sincerely,

Michael Huma

Hydrogeologist

Michael.Huma@Advisian.com

Advisian
WorleyParsons Group

FACSIMILE

DATE	March 25, 2016	**PROJ. NAME**	LAUSD Burroughs Middle School Phase I ESA
PAGES	1	**PROJ. NO.**	308038-11191
TO	Building Records Section	**CC TO**	
COMPANY	City of Los Angeles Department of Building and Safety	**CC COMPANY**	
FAX NO.	213-482-6862	**CC FAX NO.**	
FROM	Michael Huma, 310-736-0964	**FILE LOC.**	Costa Mesa
SUBJECT	Records Request	**PRIORITY**	Regular

To whom it may concern:

I would like to review information regarding Site occupants, dates of building construction, installation of underground storage tanks, above ground storage tanks, wastewater treatment systems, clarifiers and other potential hazardous materials or petroleum product-containing features for the following location:

a) 600 South McCadden Place, Los Angeles, 90005; APN 5507-017-900

This information will be used for an env ironmental site assessment of the above-listed property for the Los Angeles Unified School District for the Burroughs Middle School.

Please contact me by phone at 310-736-0964, if you have any questions regarding this request or to confirm receipt of this letter. Responses via email (Michael.Huma@Advisian.com) is preferred. However, if faxes are necessary, please fax to: 1-888-753-9007

Thank you for your assistance.

Sincerely,

Michael Huma

Hydrogeologist

Michael.Huma@Advisian.com

Advisian
WorleyParsons Group

FACSIMILE

DATE	March 25, 2016	**PROJ. NAME**	LAUSD Burroughs Middle School Phase I ESA
PAGES	1	**PROJ. NO.**	308038-11191
TO	County of Los Angeles Department of Public Works – Environmental Programs Division	**CC TO**	
COMPANY	LACDPW	**CC COMPANY**	
FAX NO.	626-458-3569	**CC FAX NO.**	
FROM	Michael Huma, 310-736-0964	**FILE LOC.**	Costa Mesa
SUBJECT	Records Request	**PRIORITY**	Regular

To whom it may concern:

I would like to review information regarding the following location:

a) 600 South McCadden Place, Los Angeles, CA 90005; APN 5507-017-900

This information will be used for an environmental site assessment of the above-listed property for the Los Angeles Unified School District for the Burroughs Middle School.

Please contact me by phone at 310-736-0964, if you have any questions regarding this request or to confirm receipt of this letter. Responses via email (Michael.Huma@Advisian.com) is preferred. However, if faxes are necessary, please fax to: 1-888-753-9007

Thank you for your assistance.

Sincerely,

Michael Huma

Hydrogeologist

Michael.Huma@Advisian.com

LOS ANGELES FIRE DEPARTMENT
UNDERGROUND TANKS REQUEST FOR FIRE PREVENTION RECORDS
ADDRESS: 200 NORTH MAIN ST., 17TH FLR.RM.1700

NEW OFFICE# - 213-978-3700 NEW EMAIL lafd.usttestnotify@lacity.org

PLEASE GIVE US 7 TO 10 BUSINESS DAYS TO HONOR YOUR REQUEST.

ONE ADDRESS ONLY - PER SHEET

COMPLETE THIS BOX. ONE FOR EACH PROPERTY CONCERNED

PHONE NO: (310) 736-0964_____ EMAIL: Michael.Huma@Advisian.com

NAME OF REQUESTER (PLEASE PRINT): Michael Huma_____

REPRESENTING (COMPANY NAME): Advisian (WorleyParsons Group)_____

SIGNATURE:

DATE: __3____/__25____/__16____

DRIVER LIC NO: ___E2618411_____ EXP:___July 3, 2016_____

ADDRESS FOR WHICH RECORDS ARE REQUESTED: ____600 South McCadden Place, Los Angeles, CA 90005 (APN 5507-017-900). Note that this property may have had different addresses historically which is why I referenced the APN. __
REASON FOR REQUEST: _Phase I Environmental Site Assessment being conducted for the Los Angeles Unified School District for the Burroughs Middle School.
_____

NO COPY SERVICES ALLOWED

FOR OFFICE USE ONLY:

☐ REVIEW ONLY (NO COPIES)

☐ REQUEST COPIES

NUMBER OF PAGES: _____

X .10 ¢

= _____

+ $11.00

TOTAL FEE AMOUNT: _____

BILLING & ACCOUNTS RECEIVABLE
16TH FL, Rm. 1620, 200 N. MAIN (REV CODE #3887)

Advisian
WorleyParsons Group

FACSIMILE

DATE	March 25, 2016	**PROJ. NAME**	LAUSD Burroughs Middle School Phase I ESA
PAGES	1	**PROJ. NO.**	308038-11191
TO	Fire Department – UST File Review	**CC TO**	
COMPANY	Los Angeles Fire Department	**CC COMPANY**	
FAX NO.	213-482-6511	**CC FAX NO.**	
FROM	Michael Huma, 310-736-0964	**FILE LOC.**	Costa Mesa
SUBJECT	Records Request	**PRIORITY**	Regular

To whom it may concern:

I would like to review information regarding Underground Storage Tanks (USTs) for the following location:

a) 600 South McCadden Place, Los Angeles, CA 90005; APN 5507-017-900

This information will be used for an environmental site assessment of the above-listed property for the Los Angeles Unified School District for the Burroughs Middle School.

Please contact me by phone at 310-736-0964, if you have any questions regarding this request or to confirm receipt of this letter. Responses via email (Michael.Huma@Advisian.com) is preferred. However, if faxes are necessary, please fax to: 1-888-753-9007

Thank you for your assistance.

Sincerely,

Michael Huma

Hydrogeologist

Michael.Huma@Advisian.com

Advisian
WorleyParsons Group

FACSIMILE

DATE	March 25, 2016	**PROJ. NAME**	LAUSD Burroughs Middle School Phase I ESA
PAGES	1	**PROJ. NO.**	308038-11191
TO	State Fire Marshal	**CC TO**	
COMPANY	Office of State Fire Marshal	**CC COMPANY**	
FAX NO.	916-445-8526	**CC FAX NO.**	
FROM	Michael Huma, 310-736-0964	**FILE LOC.**	Costa Mesa
SUBJECT	Pipeline Location Request	**PRIORITY**	Regular

Lisa:

I would like to review information regarding the presence of oil and gas pipelines on and in the vicinity of the following location:

a) 600 South McCadden Place, Los Angeles, CA 90005; APN 5507-017-900

This information will be used for an env ironmental site assessment of the above-listed property for the Los Angeles Unified School District for the Burroughs Middle School.

Please contact me by phone at 310-736-0964, if you have any questions regarding this request or to confirm receipt of this letter. Responses via email (Michael.Huma@Advisian.com) is preferred. However, if faxes are necessary, please fax to: 1-888-753-9007

Thank you for your assistance.

Sincerely,

Michael Huma

Hydrogeologist

Michael.Huma@Advisian.com

Huma, Michael (Orange County)

From: Huma, Michael (Orange County)
Sent: Tuesday, April 26, 2016 3:54 PM
To: Keisha.Kelley@waterboards.ca.gov
Subject: File Request - 600 S. McCadden Place, Los Angeles 90005; APN 5507-017-900

Hi Keisha,

I would like to review information your department may have regarding the following location:

a) 600 South McCadden Place, Los Angeles, 90005; APN 5507-017-900

This information will be used for a Phase I Environmental Site Assessment of the above-listed property for the Los Angeles Unified School District for the John Burroughs Middle School.

Please contact me by phone at 310-736-0964, if you have any questions regarding this request or to confirm receipt of this letter. Responses via email (Michael.Huma@Advisian.com) is preferred. However, if faxes are necessary, please fax to: 1-888-753-9007

Regards,

Michael Huma
Hydrogeologist

3176 Pullman Street, Suite 109 | Costa Mesa | CA 92626 | USA
M +310 736 0964
E michael.huma@advisian.com

www.advisian.com

Advisian
WorleyParsons Group

Huma, Michael (Orange County)

From: Huma, Michael (Orange County)
Sent: Friday, March 25, 2016 9:07 AM
To: Phicor@ph.lacounty.gov
Subject: File Request - 600 S. McCadden Place, Los Angeles 90005; APN 5507-017-900

Custodian of Records,

I would like to review information your department may have regarding the following location:

a) 600 South McCadden Place, Los Angeles, 90005; APN 5507-017-900

This information will be used for a Phase I Environmental Site Assessment of the above-listed property for the Los Angeles Unified School District for the Burroughs Middle School.

Please contact me by phone at 310-736-0964, if you have any questions regarding this request or to confirm receipt of this letter. Responses via email (Michael.Huma@Advisian.com) is preferred. However, if faxes are necessary, please fax to: 1-888-753-9007

Regards,

Michael Huma
Hydrogeologist

3176 Pullman Street, Suite 109 | Costa Mesa | CA 92626 | USA
M +310 736 0964
E michael.huma@advisian.com

www.advisian.com

Advisian
WorleyParsons Group

Huma, Michael (Orange County)

From: Huma, Michael (Orange County)
Sent: Friday, March 25, 2016 9:43 AM
To: lafd.usttestnotify@lacity.org
Subject: File Request - 600 S. McCadden Place, Los Angeles 90005; APN 5507-017-900
Attachments: File Request - LA Fire Department UST Division - 600 S. McCadden Place, Los Angeles 90005; APN 5507-017-900.pdf

Custodian of Records,

I would like to review information your department may have regarding the following location:

a) 600 South McCadden Place, Los Angeles, 90005; APN 5507-017-900

This information will be used for a Phase I Environmental Site Assessment of the above-listed property for the Los Angeles Unified School District for the Burroughs Middle School.

Please contact me by phone at 310-736-0964, if you have any questions regarding this request or to confirm receipt of this letter. Responses via email (Michael.Huma@Advisian.com) is preferred. However, if faxes are necessary, please fax to: 1-888-753-9007

Regards,

Michael Huma
Hydrogeologist

3176 Pullman Street, Suite 109 | Costa Mesa | CA 92626 | USA
M +310 736 0964
E michael.huma@advisian.com

www.advisian.com

Advisian
WorleyParsons Group

Huma, Michael (Orange County)

From: NoReply@MyFax.com
Sent: Friday, March 25, 2016 9:40 AM
To: Huma, Michael (Orange County)
Subject: Successful transmission to 12134826511. Re:

Dear Michael,

Re:

The 1 page fax you sent through MyFax to 12134826511 was successfully transmitted at 2016-03-25 16:40:17 (GMT).

The length of transmission was 48 seconds

The receiving machine's fax ID: 2134826508

If you need assistance, please visit our online help center at www.myfax.com/support. Thank you for using the MyFax service.

Best Regards,
The MyFax Team

Contact Customer Support

Hours: 24 hours per day, 7 days a week.
Email: support@myfax.com

North America
Toll-Free: (866) 563-9212

UK
Free Phone: 0808 804 0015
International: (613) 260-6325

Reference ID:

© 2016. All rights reserved. MyFax is a registered trademark of j2 Cloud Services, Inc. and its affiliates.
6922 Hollywood Blvd., Los Angeles, CA 90028

Your use of the MyFax service is subject to the terms of the MyFax Customer Agreement.

Huma, Michael (Orange County)

From: NoReply@MyFax.com
Sent: Friday, March 25, 2016 9:38 AM
To: Huma, Michael (Orange County)
Subject: Successful transmission to 12134826862. Re:

Dear Michael,

Re:

The 1 page fax you sent through MyFax to 12134826862 was successfully transmitted at 2016-03-25 16:38:14 (GMT).

The length of transmission was 49 seconds

The receiving machine's fax ID: 2134826862

If you need assistance, please visit our online help center at www.myfax.com/support. Thank you for using the MyFax service.

Best Regards,
The MyFax Team

Contact Customer Support

Hours: 24 hours per day, 7 days a week.
Email: support@myfax.com

North America
Toll-Free: (866) 563-9212

UK
Free Phone: 0808 804 0015
International: (613) 260-6325

Reference ID:

© 2016. All rights reserved. MyFax is a registered trademark of j2 Cloud Services, Inc. and its affiliates.
6922 Hollywood Blvd., Los Angeles, CA 90028

Your use of the MyFax service is subject to the terms of the MyFax Customer Agreement.

Huma, Michael (Orange County)

From: NoReply@MyFax.com
Sent: Friday, March 25, 2016 9:46 AM
To: Huma, Michael (Orange County)
Subject: Successful transmission to 16264583569. Re:

Dear Michael,

Re:

The 1 page fax you sent through MyFax to 16264583569 was successfully transmitted at 2016-03-25 16:45:46 (GMT).

The length of transmission was 41 seconds

The receiving machine's fax ID: 6264583569

If you need assistance, please visit our online help center at www.myfax.com/support. Thank you for using the MyFax service.

Best Regards,
The MyFax Team

Contact Customer Support

Hours: 24 hours per day, 7 days a week.
Email: support@myfax.com

North America
Toll-Free: (866) 563-9212

UK
Free Phone: 0808 804 0015
International: (613) 260-6325

Reference ID:

© 2016. All rights reserved. MyFax is a registered trademark of j2 Cloud Services, Inc. and its affiliates.
6922 Hollywood Blvd., Los Angeles, CA 90028

Your use of the MyFax service is subject to the terms of the MyFax Customer Agreement.

Huma, Michael (Orange County)

From: NoReply@MyFax.com
Sent: Friday, March 25, 2016 9:42 AM
To: Huma, Michael (Orange County)
Subject: Successful transmission to 19164458526. Re:

Dear Michael,

Re:

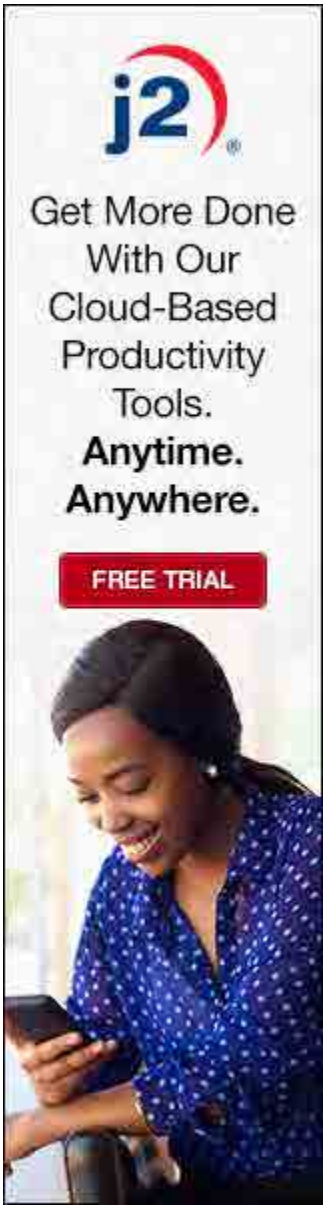
The 1 page fax you sent through MyFax to 19164458526 was successfully transmitted at 2016-03-25 16:42:09 (GMT).

The length of transmission was 53 seconds

The receiving machine's fax ID: 9164458526

If you need assistance, please visit our online help center at www.myfax.com/support. Thank you for using the MyFax service.

Best Regards,
The MyFax Team



Contact Customer Support

Hours: 24 hours per day, 7 days a week.
Email: support@myfax.com

North America
Toll-Free: (866) 563-9212

UK
Free Phone: 0808 804 0015
International: (613) 260-6325

Reference ID:

© 2016. All rights reserved. MyFax is a registered trademark of j2 Cloud Services, Inc. and its affiliates.
6922 Hollywood Blvd., Los Angeles, CA 90028

Your use of the MyFax service is subject to the terms of the MyFax Customer Agreement.

Advisian
WorleyParsons Group

FACSIMILE

DATE	March 25, 2016	**PROJ. NAME**	LAUSD Burroughs Middle School Phase I ESA
PAGES	1	**PROJ. NO.**	308038-11191
TO	State Fire Marshal	**CC TO**	
COMPANY	Office of State Fire Marshal	**CC COMPANY**	
FAX NO.	916-445-8526	**CC FAX NO.**	
FROM	Michael Huma, 310-736-0964	**FILE LOC.**	Costa Mesa
SUBJECT	Pipeline Location Request	**PRIORITY**	Regular

Lisa:

I would like to review information regarding the presence of oil and gas pipelines on and in the vicinity of the following location:

a) 600 South McCadden Place, Los Angeles, CA 90005; APN 5507-017-900

This information will be used for an env ironmental site assessment of the above-listed property for the Los Angeles Unified School District for the Burroughs Middle School.

Please contact me by phone at 310-736-0964, if you have any questions regarding this request or to confirm receipt of this letter. Responses via email (Michael.Huma@Advisian.com) is preferred. However, if faxes are necessary, please fax to: 1-888-753-9007

Thank you for your assistance.

Sincerely,

Michael Huma

Hydrogeologist

Michael.Huma@Advisian.com

Advisian
WorleyParsons Group

FACSIMILE

DATE	March 25, 2016	**PROJ. NAME**	LAUSD Burroughs Middle School Phase I ESA
PAGES	1	**PROJ. NO.**	308038-11191
TO	Fire Department – UST File Review	**CC TO**	
COMPANY	Los Angeles Fire Department	**CC COMPANY**	
FAX NO.	213-482-6511	**CC FAX NO.**	
FROM	Michael Huma, 310-736-0964	**FILE LOC.**	Costa Mesa
SUBJECT	Records Request	**PRIORITY**	Regular

To whom it may concern:

I would like to review information regarding Underground Storage Tanks (USTs) for the following location:

a) 600 South McCadden Place, Los Angeles, CA 90005; APN 5507-017-900

This information will be used for an environmental site assessment of the above-listed property for the Los Angeles Unified School District for the Burroughs Middle School.

Please contact me by phone at 310-736-0964, if you have any questions regarding this request or to confirm receipt of this letter. Responses via email (Michael.Huma@Advisian.com) is preferred. However, if faxes are necessary, please fax to: 1-888-753-9007

Thank you for your assistance.

Sincerely,

Michael Huma

Hydrogeologist

Michael.Huma@Advisian.com

LOS ANGELES FIRE DEPARTMENT
UNDERGROUND TANKS REQUEST FOR FIRE PREVENTION RECORDS
ADDRESS: 200 NORTH MAIN ST., 17TH FLR.RM.1700

NEW OFFICE# - 213-978-3700 NEW EMAIL lafd.usttestnotify@lacity.org

PLEASE GIVE US 7 TO 10 BUSINESS DAYS TO HONOR YOUR REQUEST.

ONE ADDRESS ONLY - PER SHEET

COMPLETE THIS BOX. ONE FOR EACH PROPERTY CONCERNED

PHONE NO: (310) 736-0964_____ EMAIL: Michael.Huma@Advisian.com

NAME OF REQUESTER (PLEASE PRINT): Michael Huma_____

REPRESENTING (COMPANY NAME): Advisian (WorleyParsons Group)_____

SIGNATURE:

DATE: __3____/__25____/__16____

DRIVER LIC NO: ___E2618411_____ EXP:___July 3, 2016_____

ADDRESS FOR WHICH RECORDS ARE REQUESTED: ____600 South McCadden Place, Los Angeles, CA 90005 (APN 5507-017-900). Note that this property may have had different addresses historically which is why I referenced the APN. __
REASON FOR REQUEST: _Phase I Environmental Site Assessment being conducted for the Los Angeles Unified School District for the Burroughs Middle School.
_____

NO COPY SERVICES ALLOWED

FOR OFFICE USE ONLY:

☐ REVIEW ONLY (NO COPIES)

☐ REQUEST COPIES

NUMBER OF PAGES: _____

X .10 ¢

= _____

+ $11.00

TOTAL FEE AMOUNT: _____

BILLING & ACCOUNTS RECEIVABLE
16TH FL, Rm. 1620, 200 N. MAIN (REV CODE #3887)

Advisian
WorleyParsons Group

FACSIMILE

DATE	March 25, 2016	**PROJ. NAME**	LAUSD Burroughs Middle School Phase I ESA
PAGES	1	**PROJ. NO.**	308038-11191
TO	County of Los Angeles Department of Public Works – Environmental Programs Division	**CC TO**	
COMPANY	LACDPW	**CC COMPANY**	
FAX NO.	626-458-3569	**CC FAX NO.**	
FROM	Michael Huma, 310-736-0964	**FILE LOC.**	Costa Mesa
SUBJECT	Records Request	**PRIORITY**	Regular

To whom it may concern:

I would like to review information regarding the following location:

a) 600 South McCadden Place, Los Angeles, CA 90005; APN 5507-017-900

This information will be used for an environmental site assessment of the above-listed property for the Los Angeles Unified School District for the Burroughs Middle School.

Please contact me by phone at 310-736-0964, if you have any questions regarding this request or to confirm receipt of this letter. Responses via email (Michael.Huma@Advisian.com) is preferred. However, if faxes are necessary, please fax to: 1-888-753-9007

Thank you for your assistance.

Sincerely,

Michael Huma

Hydrogeologist

Michael.Huma@Advisian.com

Advisian
WorleyParsons Group

FACSIMILE

DATE	March 25, 2016	**PROJ. NAME**	LAUSD Burroughs Middle School Phase I ESA
PAGES	1	**PROJ. NO.**	308038-11191
TO	Los Angeles County Certified Unified Program Agency (CUPA) – Health Hazardous Materials Division	**CC TO**	
COMPANY	CUPA	**CC COMPANY**	
FAX NO.	323-728-0217	**CC FAX NO.**	
FROM	Michael Huma, 310-736-0964	**FILE LOC.**	Costa Mesa
SUBJECT	Records Request	**PRIORITY**	Regular

To whom it may concern:

I would like to review information regarding the following location:

a) 600 South McCadden Place, Los Angeles, 90005; APN 5507-017-900

This information will be used for an env ironmental site assessment of the above-listed property for the Los Angeles Unified School District for the Burroughs Middle School.

Please contact me by phone at 310-736-0964, if you have any questions regarding this request or to confirm receipt of this letter. Responses via email (Michael.Huma@Advisian.com) is preferred. However, if faxes are necessary, please fax to: 1-888-753-9007

Thank you for your assistance.

Sincerely,

Michael Huma

Hydrogeologist

Michael.Huma@Advisian.com

Advisian
WorleyParsons Group

FACSIMILE

DATE	March 25, 2016	**PROJ. NAME**	LAUSD Burroughs Middle School Phase I ESA
PAGES	1	**PROJ. NO.**	308038-11191
TO	Building Records Section	**CC TO**	
COMPANY	City of Los Angeles Department of Building and Safety	**CC COMPANY**	
FAX NO.	213-482-6862	**CC FAX NO.**	
FROM	Michael Huma, 310-736-0964	**FILE LOC.**	Costa Mesa
SUBJECT	Records Request	**PRIORITY**	Regular

To whom it may concern:

I would like to review information regarding Site occupants, dates of building construction, installation of underground storage tanks, above ground storage tanks, wastewater treatment systems, clarifiers and other potential hazardous materials or petroleum product-containing features for the following location:

a) 600 South McCadden Place, Los Angeles, 90005; APN 5507-017-900

This information will be used for an env ironmental site assessment of the above-listed property for the Los Angeles Unified School District for the Burroughs Middle School.

Please contact me by phone at 310-736-0964, if you have any questions regarding this request or to confirm receipt of this letter. Responses via email (Michael.Huma@Advisian.com) is preferred. However, if faxes are necessary, please fax to: 1-888-753-9007

Thank you for your assistance.

Sincerely,

Michael Huma

Hydrogeologist

Michael.Huma@Advisian.com

Huma, Michael (Orange County)

From: Huma, Michael (Orange County)
Sent: Friday, March 25, 2016 9:00 AM
To: Daniel.Knight@dtsc.ca.gov
Cc: Tutaan, Vivien@DTSC (Vivien.Tutaan@dtsc.ca.gov)
Subject: File Request - 600 S. McCadden Place, Los Angeles 90005; APN 5507-017-900

Hi Daniel,

I would like to review information your department may have regarding the following location:

a) 600 South McCadden Place, Los Angeles, 90005; APN 5507-017-900

This information will be used for a Phase I Environmental Site Assessment of the above-listed property for the Los Angeles Unified School District for the Burroughs Middle School.

Please contact me by phone at 310-736-0964, if you have any questions regarding this request or to confirm receipt of this letter. Responses via email (Michael.Huma@Advisian.com) is preferred. However, if faxes are necessary, please fax to: 1-888-753-9007

Regards,

Michael Huma
Hydrogeologist

3176 Pullman Street, Suite 109 | Costa Mesa | CA 92626 | USA
M +310 736 0964
E michael.huma@advisian.com

www.advisian.com

Advisian
WorleyParsons Group

Huma, Michael (Orange County)

From: Huma, Michael (Orange County)
Sent: Friday, March 25, 2016 9:06 AM
To: kwarren@dpw.lacounty.gov
Subject: File Request - 600 S. McCadden Place, Los Angeles 90005; APN 5507-017-900

Hi Kim,

I would like to review information your department may have regarding the following location:

a) 600 South McCadden Place, Los Angeles, 90005; APN 5507-017-900

This information will be used for a Phase I Environmental Site Assessment of the above-listed property for the Los Angeles Unified School District for the Burroughs Middle School.

Please contact me by phone at 310-736-0964, if you have any questions regarding this request or to confirm receipt of this letter. Responses via email (Michael.Huma@Advisian.com) is preferred. However, if faxes are necessary, please fax to: 1-888-753-9007

Regards,

Michael Huma
Hydrogeologist

3176 Pullman Street, Suite 109 | Costa Mesa | CA 92626 | USA
M +310 736 0964
E michael.huma@advisian.com

www.advisian.com

Advisian
WorleyParsons Group

Huma, Michael (Orange County)

From: NoReply@MyFax.com
Sent: Friday, March 25, 2016 9:39 AM
To: Huma, Michael (Orange County)
Subject: Successful transmission to 13237280217. Re:

Dear Michael,

Re:

The 1 page fax you sent through MyFax to 13237280217 was successfully transmitted at 2016-03-25 16:39:25 (GMT).

The length of transmission was 53 seconds

The receiving machine's fax ID: 3237280217

If you need assistance, please visit our online help center at www.myfax.com/support. Thank you for using the MyFax service.

Best Regards,
The MyFax Team

Contact Customer Support

Hours: 24 hours per day, 7 days a week.
Email: support@myfax.com

North America
Toll-Free: (866) 563-9212

UK
Free Phone: 0808 804 0015
International: (613) 260-6325

Reference ID:

© 2016. All rights reserved. MyFax is a registered trademark of j2 Cloud Services, Inc. and its affiliates.
6922 Hollywood Blvd., Los Angeles, CA 90028

Your use of the MyFax service is subject to the terms of the MyFax Customer Agreement.

LOS ANGELES FIRE DEPARTMENT
UNDERGROUND TANKS REQUEST FOR FIRE PREVENTION RECORDS
ADDRESS: 200 NORTH MAIN ST., 17TH FLR.RM.1700

NEW OFFICE# - 213-978-3700 NEW EMAIL lafd.usttestnotify@lacity.org

PLEASE GIVE US 7 TO 10 BUSINESS DAYS TO HONOR YOUR REQUEST.

ONE ADDRESS ONLY - PER SHEET

↓ COMPLETE THIS BOX. ONE FOR EACH PROPERTY CONCERNED ↓

PHONE NO: (310) 736-0964_____ EMAIL: Michael.Huma@Advisian.com

NAME OF REQUESTER (PLEASE PRINT): Michael Huma_____

REPRESENTING (COMPANY NAME): Advisian (WorleyParsons Group)_____

SIGNATURE:

DATE: __3____/__25____/__16____

DRIVER LIC NO: ___E2618411_____ EXP:___July 3, 2016_____

ADDRESS FOR WHICH RECORDS ARE REQUESTED: ____600 South McCadden Place, Los Angeles, CA 90005 (APN 5507-017-900). Note that this property may have had different addresses historically which is why I referenced the APN. __
REASON FOR REQUEST: _Phase I Environmental Site Assessment being conducted for the Los Angeles Unified School District for the Burroughs Middle School.

NO COPY SERVICES ALLOWED

FOR OFFICE USE ONLY:

☐ REVIEW ONLY (NO COPIES)

☐ REQUEST COPIES

NUMBER OF PAGES: _____

X .10 ¢

= _____

+ $11.00

TOTAL FEE AMOUNT: _____

BILLING & ACCOUNTS RECEIVABLE
16TH FL, Rm. 1620, 200 N. MAIN (REV CODE #3887)

NO FILE FOUND

City of Los Angeles
Department of Building and Safety

RECORDS SECTION

YOUR FAX REQUEST HAS BEEN RECEIVED

Date: 2/25/16 Name: MICHAEL HUMA Fax #: (888) 753-9007

REGARDING RESEARCH REQUEST FOR: 1400 S. McCADDEN PL

WE ARE UNABLE TO PROCESS YOUR RESEARCH FOR THE FOLLOWING REASON (S):

_____ The address you submitted is not located in the City of Los Angeles.

(X) The request you have submitted does not fit the criteria of a Records Research Request.
Please limit your request to the selections on the LADBS Form. PLEASE COMPLETE THE ATTACHED REQUEST FORM + FAX BACK.

_____ Additional information is necessary to process your request.
Please contact our office at (213) 482-6899.

_____ Please provide a valid contact number to complete your request.

_____ After attempting to contact you, we have failed to receive a response.
If no communication is made within 7 days of this letter, your request will be discarded and subject to submission of a new request.

_____ Your request has resulted in a large volume of records.

* Please utilize our Online Building Records System available at ladbs.org *

OR Visit our office for training on conducting Self Service Research to maximize the results of your request. Please call (213) 482-6899 to schedule a training session.

OR Resubmit your request and provide additional parameters and specific details to narrow your research.

YOU MAY ALSO WANT TO TRY USING OUR ONLINE BUILDING RECORDS ON OUR WEBSITE AT NO COST TO YOU.

If LADBS does not receive a response to this notice is within 7 days, your request will be cancelled and subject to submission of a new request.

Correspondence should be **faxed** to **(213) 482-6862.**
If you have any questions, or need further assistance, please call (213) 482-6899.

KANOHA.

LA DBS
DEPARTMENT OF BUILDING AND SAFETY

Research Request Form

Q-MATIC TICKET # (office use only) _____

DATE: _____

NAME: _____ **COMPANY NAME:** _____

TELEPHONE #: _____ **FAX #:** _____

REFERRED BY: _____ **PHONE #:** _____

FAXING OPTIONS: Records Counter, LADBS Fax to one of the numbers below (check one):

☐ (213) 482-6862
Metro Office
201 N. Figueroa St., 1st. Flr,Rm 110
Los Angeles, CA 90012

☐ (818) 374-5013
Van Nuys Office
6262 Van Nuys Bl.
Van Nuys, CA 91401

PROPERTY ADDRESS(ES): Please research the following addresses **(IN PERSON: One Address submitted at a time) (FAXING: Up to 3 addresses per request)**

_____

_____

Use of Existing Building:

COMMENTS: Reason for Records Request:

Information Requested:

Copies of Documents range from **$0.10 to $1.50** per page (excluding blueprint copies)
Select from the following by checking the box next to it - for further clarification of request, use comments box

☐ BUILDING PERMITS ☐ PLOT PLAN	☐ CERTIFICATES OF OCCUPANCY	☐ GRADING DOCUMENTS	**For Office Use Only:** _____PCIS
☐ MECHANICAL PERMITS ☐ ELECTRICAL PERMITS 1985 - 1990 and 1997 - Present	☐ VIOLATIONS	☐ MODIFICATIONS/BOARD FILES	_____IDIS _____Microfilm
AFFIDAVITS/Z.I.NO._____			_____Manual Search

☐ BLUEPRINTS ($8.00 Service Fee, plus a SD Surcharge Fee (Section 98.0416 of the LAMC) and $1.00 per page.

No plans available for Single Family Dwellings and Commercial buildings 3 stories and under, prior to 1978.

To obtain copies of blueprints on file, all of the following requirements must be submitted:
1. A release letter from the current owner.
2. A copy of the current owner's Grant Deed.
3. A release letter from the architect and engineer whose stamp is on the plans.
   Letters must be on Letterhead and have engineer/architect's stamp and signature.

City of Los Angeles
Department of Building and Safety

3/25/16

RECORDS SECTION

YOUR FAX REQUEST HAS BEEN RECEIVED

Date: 2/25/16 Name: MICHAEL HUMA Fax #: (818) 758-9057

REGARDING RESEARCH REQUEST FOR: 1600 S. McCADDEN PL

WE ARE UNABLE TO PROCESS YOUR RESEARCH FOR THE FOLLOWING REASON (S):

_____ The address you submitted is not located in the City of Los Angeles.

(X) The request you have submitted does not fit the criteria of a Records Research Request. Please limit your request to the selections on the LADBS Form. PLEASE COMPLETE THE ATTACHED REQUEST FORM & FAX BACK..

_____ Additional information is necessary to process your request. Please contact our office at (213) 482-6899.

_____ Please provide a valid contact number to complete your request.

_____ After attempting to contact you, we have failed to receive a response. If no communication is made within 7 days of this letter, your request will be discarded and subject to submission of a new request.

_____ Your request has resulted in a large volume of records.

* Please utilize our Online Building Records System available at ladbs.org *

OR Visit our office for training on conducting Self Service Research to maximize the results of your request. Please call (213) 482 6899 to schedule a training session.

OR Resubmit your request and provide additional parameters and specific details to narrow your research.

YOU MAY ALSO WANT TO TRY USING OUR ONLINE BUILDING RECORDS ON OUR WEBSITE AT NO COST TO YOU.

If LADBS does not receive a response to this notice is within 7 days, your request will be cancelled and subject to submission of a new request.

Correspondence should be faxed to (213) 482-6862.
If you have any questions, or need further assistance, please call (213) 482-6899.

KAUSHIK.

Research Request Form

Q-MATIC TICKET # (office use only) _____

DATE: March 25, 2016

NAME: Michael Hirma COMPANY NAME:

TELEPHONE #: (310) 736-0964 FAX #: (888) 753-9007

REFERRED BY: _____ PHONE #: _____

FAXING OPTIONS: Records Counter, LADBS Fax to one of the numbers below (check one):

- ☒ (213) 482-6868, Metro Office, 201 N. Figueroa St., 1st Flr, Rm 110, Los Angeles, CA 90012
- ☐ (818) 374-5013, Van Nuys Office, 6262 Van Nuys Bl, Van Nuys, CA 91401

PROPERTY ADDRESS(ES): Please research the following addresses (IN PERSON: One Address submitted at a time) (FAXING: Up to 3 addresses per request)

600 South McCadden Place, Los Angeles, CA 90005

APN 5507-017-900

Use of Existing Building: Los Angeles Unified School District Burroughs Middle School

COMMENTS: Reason for Records Request:

Phase 1 Environmental Assessment.

Please indicate if documents are available that cannot be viewed online from a computer outside of the LA DBS office. If documents are available, they will be reviewed in person. Therefore, no copies will be necessary to print.

Information Requested:

Copies of Documents range from $0.10 to $1.50 per page (excluding blueprint copies)

Select from the following by checking the box next to it - for further clarification of request, use comments box

☒ BUILDING PERMITS ☒ PLOT PLAN	☒ CERTIFICATES OF OCCUPANCY	☒ GRADING DOCUMENTS	For Office Use Only: _____ POS
☒ MECHANICAL PERMITS ☒ ELECTRICAL PERMITS 1935 - 1980 and 1997 - Present	☒ VIOLATIONS	☒ MODIFICATIONS/BOARD FILES	_____ IOS
			___ Microfilm
AFFIDAVIT/LI NO. _____			_____ Manual Search

☐ BLUEPRINTS ($8.00 Service Fee, plus a SD Surcharge Fee (Section 98.0416 of the LAMC) and $1.00 per page.

No plans available for Single Family Dwellings and Commercial buildings 3 stories and under, prior to 1978.

To obtain copies of blueprints on file, all of the following requirements must be submitted:

1. A release letter from the current owner
2. A copy of the current owner's Grant Deed.
3. A release letter from the architect and engineer whose stamp is on the plans.
   Letters must be on Letterhead and have engineer/architect's stamp and signature.

Huma, Michael (Orange County)

From: Diana Maldonado <DMaldonado@dpw.lacounty.gov>
Sent: Monday, March 28, 2016 9:37 AM
To: Huma, Michael (Orange County)
Cc: Kim Warren
Subject: FW: File Request - 600 S. McCadden Place, Los Angeles 90005; APN 5507-017-900

Michael,

600 S McCadden Place is located in The **City** of Los Angeles and is outside of County jurisdiction. You may try the below contact information to obtain the records you are searching:

Building Permits

Contact city/community of Los Angeles
(213) 485-2121
www.lacity.org

Thank you and let me know if I can help you with anything else.

Diana Maldonado
Secretary II
County of Los Angeles Department of Public Works
Geotechnical and Materials Engineering Division
900 S. Fremont Ave, 4th Floor
Alhambra, CA 91803
(626) 458-4926

From: Huma, Michael (Orange County) [mailto:MICHAEL.HUMA@advisian.com]
Sent: Friday, March 25, 2016 9:06 AM
To: Kim Warren
Subject: File Request - 600 S. McCadden Place, Los Angeles 90005; APN 5507-017-900

Hi Kim,

I would like to review information your department may have regarding the following location:

a) 600 South McCadden Place, Los Angeles, 90005; APN 5507-017-900

This information will be used for a Phase I Environmental Site Assessment of the above-listed property for the Los Angeles Unified School District for the Burroughs Middle School.

Please contact me by phone at 310-736-0964, if you have any questions regarding this request or to confirm receipt of this letter. Responses via email (Michael.Huma@Advisian.com) is preferred. However, if faxes are necessary, please fax to: 1-888-753-9007

Regards,

Michael Huma
Hydrogeologist

3176 Pullman Street, Suite 109 | Costa Mesa | CA 92626 | USA
M +310 736 0964
E michael.huma@advisian.com

www.advisian.com

*** WORLEYPARSONS GROUP NOTICE *** "This email is confidential. If you are not the intended recipient, you must not disclose or use the information contained in it. If you have received this email in error, please notify us immediately by return email and delete the email and any attachments. Any personal views or opinions expressed by the writer may not necessarily reflect the views or opinions of any company in the WorleyParsons Group of Companies."

Department of Toxic Substances Control

Matthew Rodriquez
Secretary for
Environmental Protection

Barbara A. Lee, Director
9211 Oakdale Avenue
Chatsworth, California 91311

Edmund G. Brown Jr.
Governor

March 29, 2016

Mr. Michael Huma
Advisian WorleyParsons Group
3176 Pullman St, Suite 109
Costa Mesa, CA 92626

600 South McCadden Place, Los Angeles, CA 90005 APN 5507-017-900
PR3-032916-01

Dear Mr. Huma:

We have received your Public Records Act Request for records from the Department of Toxic Substances Control.

After a thorough review of our files we have found that no such records exist at this office pertaining to the site/facility referenced above.

We would also like to inform you about Envirostor, a database that provides information and documents on over 5,000 DTSC cleanup sites. Envirostor can be accessed at: http://www.envirostor.dtsc.ca.gov/public. Also, a computer is available in the Central Files of each DTSC Regional Office for use by community members to view Envirostor.

If you have any questions or would like further information regarding your request, please contact me at (818) 717-6521.

Sincerely,

Vivien Tutaan/aa
Regional Records Coordinator

Printed on Recycled Paper

Department of Public Works
dpw.lacounty.gov

Clean LA for Residents
Clean LA for Business
Clean LA for Government
Clean LA is for ALL
Los Angeles County

Reduce, Reuse, Recycle
Trash Collection / Illegal Dumping
Household Hazardous Waste / Electronic Waste
Used Motor Oil Recycling
Industrial Waste
Underground Storage Tanks
Solid Waste
Stormwater
Water Conservation
Youth Education

Online File Review

Industrial Waste / Underground Storage Tanks / Stormwater

Back

You searched the following address:

Street Number: 600 Street Name: south mccadden place

Our office does not have any records (related to industrial waste/underground storage tanks/stormwater) for the requested site address.

Please double check the spelling of the street name or search a different address. Both street number and street name must be exact and spelled correctly as they appear for the facility on file. Do not include street direction prefix (i.e. N, S, E, W, etc...) or suffix (i.e. ST, AVE, RD, BLVD, etc...) unless they appear in the street name (i.e. AVENUE K, AVENIDA CESAR CHAVEZ, 10TH ST EAST, CROSSROADS PKWY N, etc...). Do not include any extra spaces after the street number or after the street name.

Back

Department of Public Works
dpw.lacounty.gov

Clean LA for Residents
Clean LA for Business
Clean LA for Government
Clean LA is for ALL
Los Angeles County

Reduce, Reuse, Recycle
Trash Collection / Illegal Dumping
Household Hazardous Waste / Electronic Waste
Used Motor Oil Recycling
Industrial Waste
Underground Storage Tanks
Solid Waste
Stormwater
Water Conservation
Youth Education

Online File Review

Industrial Waste / Underground Storage Tanks / Stormwater

Back

You searched the following address:

Street Number: 600 Street Name: s mccadden pl

Our office does not have any records (related to industrial waste/underground storage tanks/stormwater) for the requested site address.

Please double check the spelling of the street name or search a different address. Both street number and street name must be exact and spelled correctly as they appear for the facility on file. Do not include street direction prefix (i.e. N, S, E, W, etc...) or suffix (i.e. ST, AVE, RD, BLVD, etc...) unless they appear in the street name (i.e. AVENUE K, AVENIDA CESAR CHAVEZ, 10TH ST EAST, CROSSROADS PKWY N, etc...). Do not include any extra spaces after the street number or after the street name.

Back

Office of the State Fire Marshal

Pipeline Safety Division

P.O. Box 944246
Sacramento, CA 94244-2460

Request ID: 03252016SFM001

TO: ADVISIAN
MICHAEL HUMA

,

Phone: 310 736 0964
Fax: 888 753 9007

FROM: Lisa Dowdy

Phone: (916) 445-8477
Fax: (916) 445-8526

PIPELINE LOCATION REQUEST FOR:

600 S. MC CADDEN PLACE
LOS ANGELES, CA 90005

THERE ARE NO PIPELINES JURISDICTIONAL TO THE STATE FIRE MARSHAL IN THE AREA FOR WHICH YOU HAVE INQUIRED.

- FOR NATURAL GAS PIPELINES PLEASE CONTACT YOUR LOCAL GAS COMPANY

- FOR OTHER TYPES OF PIPELINE PLEASE CONTACT THE DIVISION OF OIL AND GAS AT (714) 816-6847

- FOR PUBLIC UTILITIES PLEASE CONTACT THE PUBLIC UTILITIES COMMISSION AT (415) 703-2782

Disclaimer: The pipeline information and data represented in this correspondence varies in accuracy, scale, origin and completeness and may be changed at any time without notice. While the Office of the State Fire Marshal, Pipeline Safety Division (OSFM/PSD) makes every effort to provide accurate information, OSFM/PSD makes no warranties as to the suitability of this product for any particular purpose. Any use of this information is at the user's own risk.

For further information or suggestions regarding the data on this site, please contact the Office of the State Fire Marshal, Pipeline Safety Division at P.O. Box 944246, Sacramento, CA 94244 or call (916) 445-8477.

APPENDIX 5

INTERVIEW DOCUMENTATION

Phase I ESA Key Site Contact Questionnaire

1. Name and title of interview subject.

Mr. Martin Nevarez, Plant Manager, John Burroughs Middle School.

Mr. Andrew Fowler, LAUSD OEHS, Project Manager.

2. How long have they been associated (worked at) the Site?

7 years (i.e. since 2009).

3. What is the Site currently used for and for how long has it been in its current use?

The Site is currently used as middle school and to Mr. Nevarez's best knowledge; the Site has always been used as a school since 1924 (92 years).

4. Are any hazardous materials and/or petroleum products used at the Site? If so, what are they used for and where are they stored?

Common janitorial supplies are used to clean the various buildings on-Site. Mr. Nevarez indicated that gasoline-powered mowers and leaf blowers are used to maintain the landscaping at the Site; gasoline is stored in one 55-gallon steel drum in the flammable storage building located southeast of Building No. 9 (Shop Building). Evidence of spills and stains was observed at this location.

5. Are you aware of any releases of hazardous materials or petroleum products at the Site?

Neither Mr. Nevarez nor Mr. Fowler was aware of any releases at the Site. However, evidence of spills and stains was observed in the flammable storage building located southeast of Building No. 9 (Shop Building) where the 55-gallon steel drum containing gasoline is located.

6. Are hazardous wastes generated at the Site? If so, where are they stored? How often and by who are they disposed?

According to Mr. Nevarez, no hazardous waste is stored at the Site with the exception of gasoline stored in one 55-gallon steel drum in the flammable storage building located southeast of Building No. 9 (Shop Building).

7. Before its current use, do you know what the Site was used for?

Mr. Fowler indicated that the Site was vacant undeveloped land prior to it be used as a school.

8. Have you ever noticed pools of unidentified liquids or staining on the ground at the Site?

Evidence of spills and stains was observed in the flammable storage building located southeast of Building No. 9 (Shop Building) near the 55-gallon steel drum containing gasoline.

9. Are you aware of the presence of any wells at the Site?

Mr. Nevarez and Mr. Fowler reported no knowledge of any wells at the Site.

10. Are you aware of the existence of the following documents related to the Site?

a. Any previously conducted environmental site assessment or audit reports.

None per Mr. Nevarez and Mr. Fowler.

b. Any environmental permits (solid waste disposal, hazardous waste disposal, wastewater treatment/disposal, NPDES).

None per Mr. Nevarez and Mr. Fowler.

c. Any registrations or plans for USTs, ASTs, wastewater clarifiers/treatment systems or septic systems.

A Roof and Plot Plan, dated January 22, 1923, was obtained from Mr. Fowler which indicates that a heating oil tank was located on-Site, east of the center portion of Building No. 1 (the Main/Auditorium Building).

d. Any spill control and countermeasure plans.

Mr. Nevarez indicated that spill control and countermeasure plans are stored in the Plant Manager's office and comprise of absorbent pads and solidifiers/powders for small gasoline spills.

e. Any geologic, geotechnical or hydrogeologic reports.

None per Mr. Nevarez and Mr. Fowler.

f. Any notices or correspondence from any government agencies regarding past or current violations of environmental regulations.

None per Mr. Nevarez and Mr. Fowler.

g. Any environmental liens against the Site.

None per Mr. Nevarez and Mr. Fowler.

h. Any hazardous waste generator reports.

None per Mr. Nevarez and Mr. Fowler.

i. Any risk assessment reports.

None per Mr. Nevarez and Mr. Fowler.

j. Any deed or land use restrictions or limitations for the Site related to environmental conditions.

None per Mr. Nevarez and Mr. Fowler.

k. Any pending, current or past litigation or administrative action related to hazardous materials or petroleum products at the Site.

None per Mr. Nevarez and Mr. Fowler.

8. Are you aware of any current or previous environmental issues/problems on the neighboring properties?

None per Mr. Nevarez and Mr. Fowler.

APPENDIX 6

OEHS PRELIMINARY ENVIRONMENTAL SCREENING OF CANDIDATE SCHOOL SITES CHECKLIST

Preliminary Environmental Screening of Proposed Project at Existing School Site

Project: LAUSD John Burroughs Middle School Phase I ESA

Selection Criteria	Yes	No	Comments
Powerlines/Electromagnetic Fields [CCR, Title 5, 14010(c)]			
Will the project create any new significant safety hazards or exacerbate any existing safety hazards to students from 50-133 kV powerlines/electromagnetic fields within 100 feet of the site?		X	
Will the project create any new significant safety hazards or exacerbate any existing safety hazards to students from 220-230 kV powerlines/electromagnetic fields within 150 feet of the site?		X	
Will the project create any new significant safety hazards or exacerbate any existing safety hazards to students from 500-550 kV powerlines/electromagnetic fields within 350 feet of the site?		X	
Railroads [CCR, Title 5, 14010(d)]			
Will the project create any new significant safety hazards or exacerbate any existing safety hazards to students from railroads within 1,500 feet of the site?		X	
Traffic Noise [CCR, Title 5, 14010(e)]			
Will the project create any new significant safety hazards or exacerbate any existing safety hazards to students from adjacent roads or freeways that will adversely affect the educational program?		X	
Faults [CCR, Title 5, 14010(f)]			
Will the project create any new significant safety hazards or exacerbate any existing safety hazards to students from an active earthquake fault or fault trace which may be onsite?	X		
Flood or Inundation Area [CCR, Title 5, 14010(g)]			
Will the project create any new significant safety hazards or exacerbate any existing safety hazards to students from flooding or dam inundation?		X	
Pipelines and Above Ground Tanks [CCR, Title 5, 14010(h)]			
Will the project create any new significant safety hazards or exacerbate any existing safety hazards to students from nearby above-ground water or fuel storage tanks?		X	
Will the project create any new significant safety hazards or exacerbate any existing safety hazards to students from above-ground or underground pipelines located within 1,500 feet of the site?		X	
Liquefaction and Landslides [CCR, Title 5, 14010(i)]			
Will the project create any new significant safety hazards or exacerbate any existing safety hazards to students from liquefaction or landslides?		X	
Traffic and Pedestrian Safety [CCR, Title 5, 14010(l)]			
Will the project create any new significant safety hazards or exacerbate any existing safety hazards to students from an adjacent major arterial street?	X		

Preliminary Environmental Screening of Proposed Project at Existing School Site

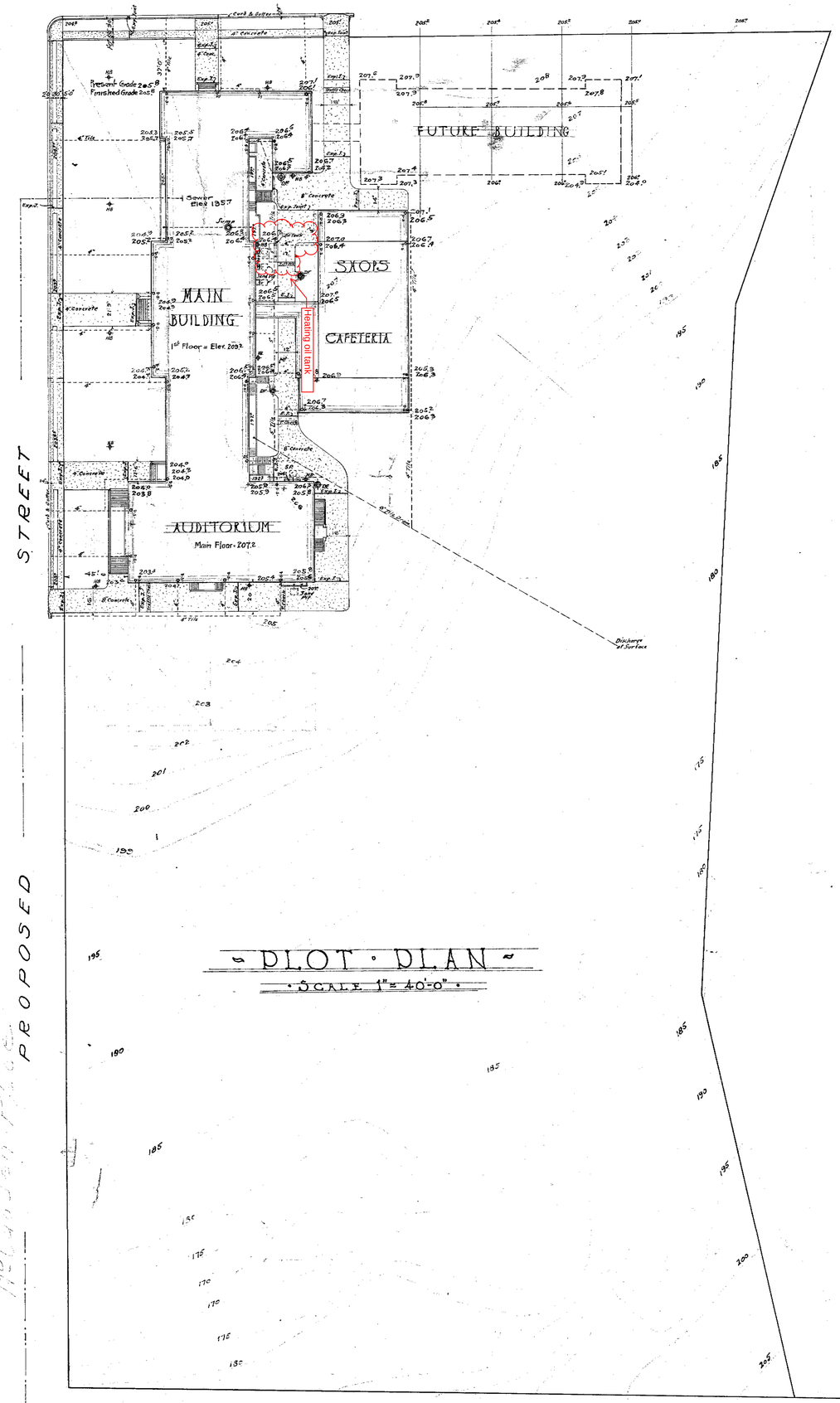
Project: LAUSD John Burroughs Middle School Phase I ESA

Selection Criteria	Yes	No	Comments
Compatible Zoning [CCR, Title 5, 14010(m)]			
Will the project create any new significant safety hazards or exacerbate any existing safety hazards to students from the zoning surrounding the site?		X	
Light, Wind, Air Pollution [CCR, Title 5, 14010(q)]			
Will the project create any new significant safety hazards or exacerbate any existing safety hazards to students from light, wind or air pollution?		X	
Easements [CCR, Title 5, 14010(r)]			
Will the project create any new significant safety hazards or exacerbate any existing safety hazards to students from easements on or adjacent to the site which may restrict access or building placement?		X	
Border Zone Property [CCR, Title 5, 14010(t)]			
Will the project create any new significant safety hazards or exacerbate any existing safety hazards to students from a significant disposal of hazardous waste within 2,000 ft. of the site?		X	
Cellular Phone Towers [LAUSD Board Resolution]			
Will the project create any new significant safety hazards or exacerbate any existing safety hazards to students from a cellular phone tower on or adjacent to the site?		X	
Air Pollution [LAUSD Board Resolution]			
Will the project create any new significant safety hazards or exacerbate any existing safety hazards to students from a major transportation corridor (freeway, major rail line) within 500 feet?		X	
Will the project create any new significant safety hazards or exacerbate any existing safety hazards to students from a major stationary source of emissions within 500 feet?		X	
Is the school on the Priority List of Schools Most at Risk from Air Pollution?		X	
Will the project create any new significant safety hazards or exacerbate any existing safety hazards to students from a high-risk facility previously identified by OEHS?		X	
Methane Zone			
Will the project create any new significant safety hazards or exacerbate any existing safety hazards to students from a known methane zone or oil field?	X		
Oil Wells			
Will the project create any new significant safety hazards or exacerbate any existing safety hazards to students from an onsite oil well?		X	
Airports			
Will the project create any new significant safety hazards or exacerbate any existing safety hazards to students from an airport within two nautical miles of the site?		X	

APPENDIX 7

ROOF AND PLOT PLAN SHOWING FORMER LOCATION OF ON-SITE HEATING OIL TANK

SIXTH STREET



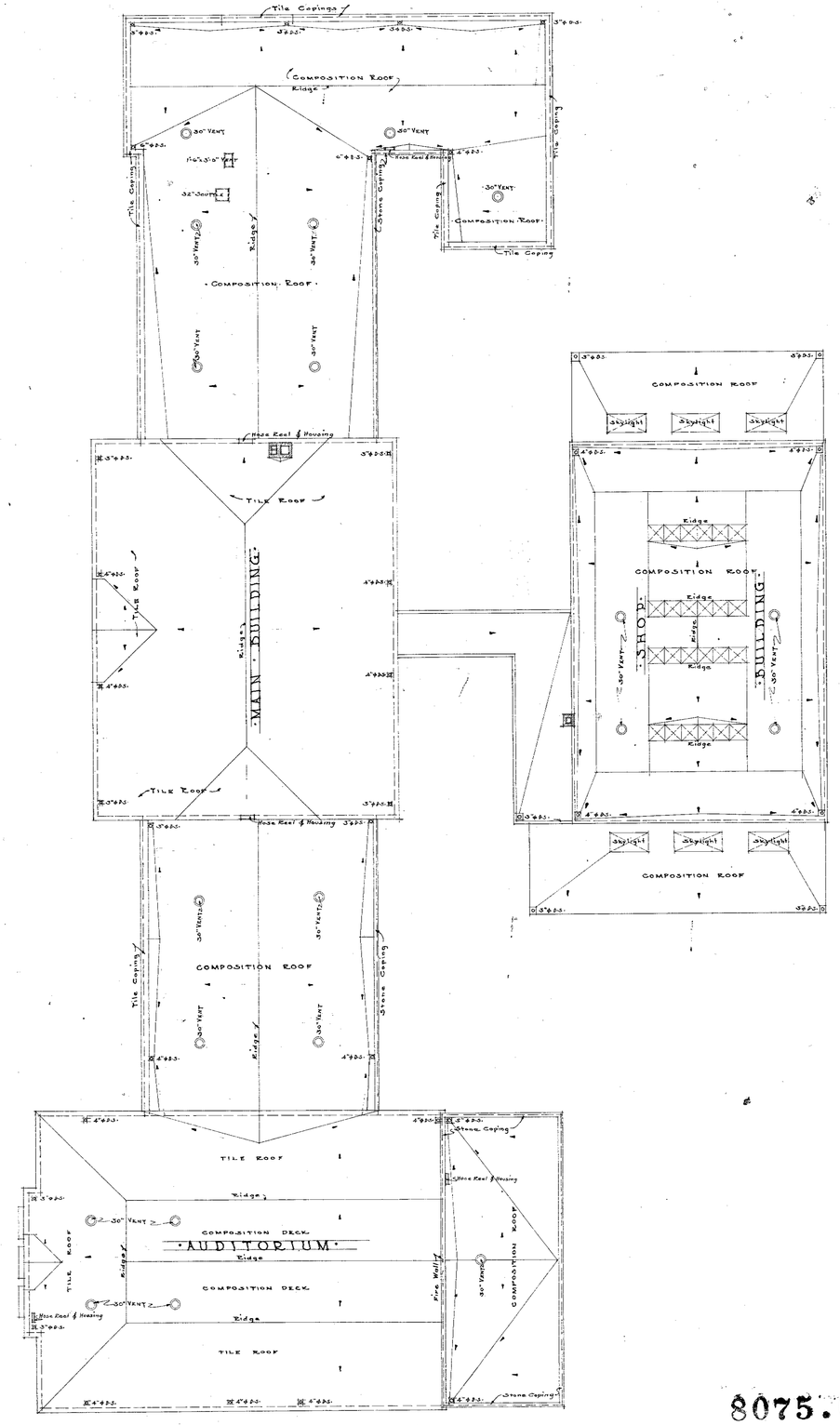
PLOT PLAN

SCALE 1" = 40'-0"

WILSHIRE BOULEVARD

Sewer Elev. 173.50
E Road Elev. 184.415

Sewer Elev. 170.150



ROOF PLAN

SCALE 1/16"-1'-0"

8075.03

[redacted]

APPROVED
Queen Ivy Downey
Supt.
L. S. Murra
Ch. Bldg. Comm.
H. E. Reed
Business Manager

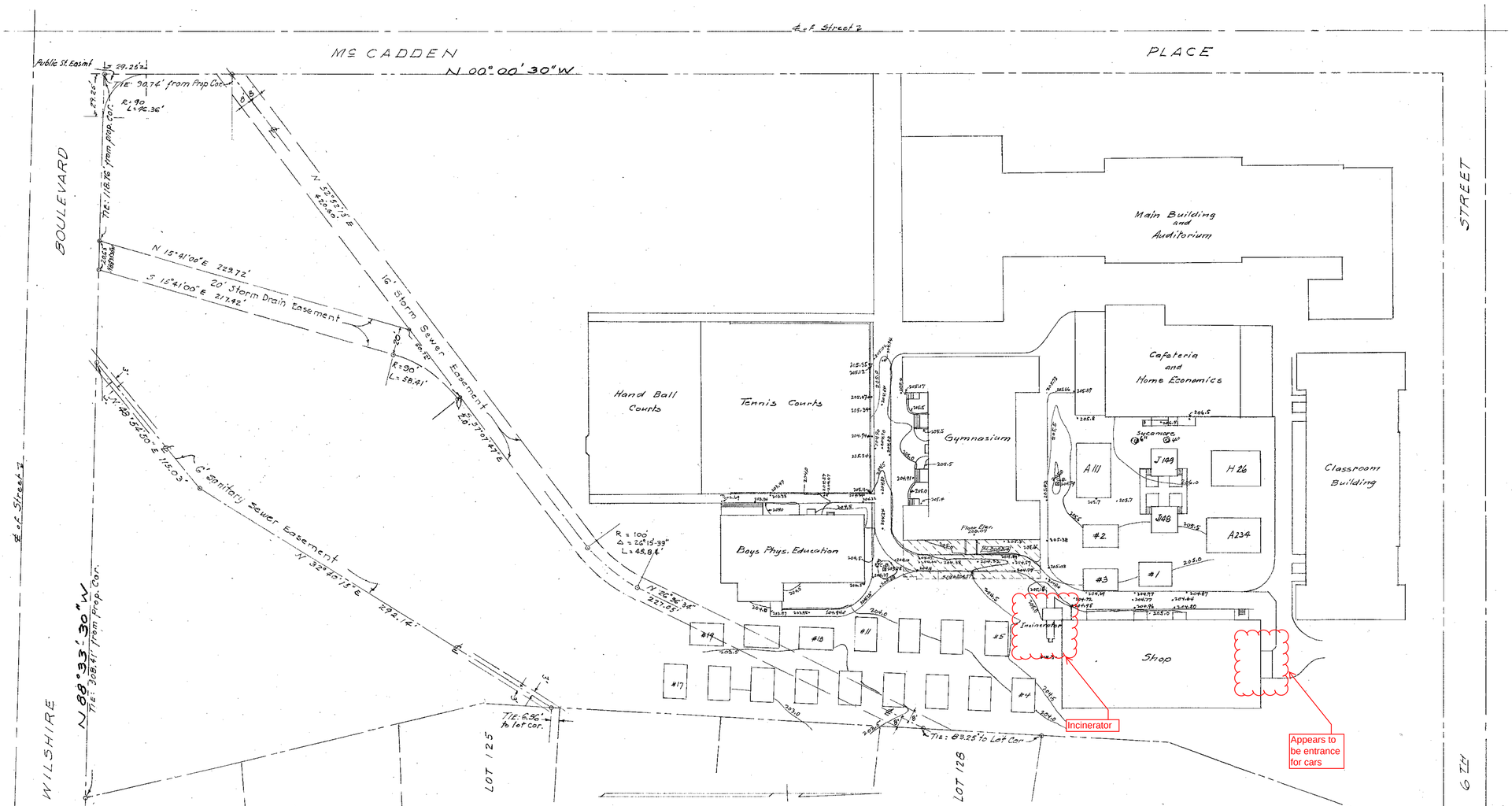
ROOF AND PLOT PLANS
WILSHIRE JUNIOR HIGH SCHOOL
LOS ANGELES CALIFORNIA
PLANS PREPARED BY
BUSINESS DEPARTMENT
BOARD OF EDUCATION
L.A. CITY HIGH SCHOOL DIST.
WM. RECORD BUSINESS MGR.
ARCHITECT
1645 So. SAN PEDRO ST. PHONE 021121
LOS ANGELES CALIFORNIA

DATE JAN. 22, 1923
DRN. BY T.J.G. & F.J.M.
TED BY E.R.S. & F.J.M.
CHKD BY H.A.
JOB No. 27026
SHEET No. A

AM 2

APPENDIX 8

PART PLOT PLAN SHOWING FORMER LOCATION OF ON-SITE INCINERATOR



BENCH MARK:
Spike, N. Curb 6th Str. 2.10'W. of W end
Curb Return NW Corner 6th & Las Palmas.
Elevation: 205.16
U.S.C. & G.S. DATUM

[redacted]

8075.00.00

Scale 1" = 40'

REVISED			
DATE	REVISIONS	REV'D	CK'D
5/29/35	up to date.	F.P.	

DRAWING NO.

PART PLOT PLAN — May 1935
BURROUGHS JUNIOR HIGH — F.P.
600 S. MS Cadden Place. — SCH.
DRAWING MADE BY BUSINESS DEPARTMENT — JOB NO.
BOARD OF EDUCATION — CHECKED
LOS ANGELES CITY SCHOOL DISTRICT
John D. Scouller BUSINESS MANAGER
S.F. Helman SURVEYOR
BOARD OF EDUCATION BUILDING, LOS ANGELES, CALIF.

8075.00.00-1 R-1

Appendix G

Final Preliminary Environmental Assessment Equivalent

ESA

Leighton Consulting, Inc.
A LEIGHTON GROUP COMPANY

TRANSMITTAL

To: Los Angeles Unified School District
Office of Environmental Health and Safety
333 South Beaudry Avenue, 21st Floor
Los Angeles, California 90017

Date: October 5, 2017

Leighton Project No. 603378.006

Attention: Mr. Dane Robinson

Transmitted:		The Following:		For:	
____	Mail/Overnight	____	Draft Report	_X_	Your Use
____	Courier	____	Final Report	____	As Requested
____	Pick Up	____	Extra Report		
_X_	Email	____	Proposal		
		_X_	Draft Final Report		

Subject: Draft Final Preliminary Environmental Assessment Equivalent (PEA-E) Document, Burroughs Middle School Comprehensive Modernization Project, 600 South McCadden Place, Los Angeles, California, 90005

LEIGHTON CONSULTING, INC.

By: Kris Lutton PG & Julie Harriman, PE

Distribution: Addressee

17781 Cowan ■ Irvine, CA 92614-6009
949.250.1421 ■ Fax 949.250.1114 ■ www.leightongroup.com

DRAFT FINAL
PRELIMINARY ENVIRONMENTAL ASSESSMENT EQUIVALENT DOCUMENT
BURROUGHS MIDDLE SCHOOL COMPREHENSIVE MODERNIZATION PROJECT
600 SOUTH MCCADDEN PLACE
LOS ANGELES, CALIFORNIA, 90005

DRAFT FINAL DOCUMENT

Prepared For:

LOS ANGELES UNIFIED SCHOOL DISTRICT

Office of Environmental Health and Safety
333 South Beaudry Avenue, 21st Floor
Los Angeles, California 90017

Project No. 603378.006

October 5, 2017

Leighton Consulting, Inc.
A LEIGHTON GROUP COMPANY

Leighton Consulting, Inc.
A LEIGHTON GROUP COMPANY

October 5, 2017

Project No. 603378.006

Los Angeles Unified School District
Office of Environmental Health and Safety
333 South Beaudry Avenue, 21st Floor
Los Angeles, California 90017

Attention: Mr. Patrick Schanen

Subject: Draft Final Preliminary Environmental Assessment Equivalent (PEA-E)
Burroughs Middle School Comprehensive Modernization Project
600 South McCadden Place, Los Angeles, California, 90005

Leighton Consulting, Inc. is pleased to present this Preliminary Environmental Assessment Equivalent (PEA-E) Document Submission for the subject site which documents historical site land use, outlines the approach and data collected as part of the recently concluded site assessment, and recommends preparation of a Removal Action Workplan (RAW).

If you have any questions regarding this report, please do not hesitate to contact the undersigned at your earliest convenience. We appreciate the opportunity to be of service to the District.

Respectfully submitted,

LEIGHTON CONSULTING, INC.

DRAFT

Julie Harriman, P.E.
Associate Engineer

DRAFT

Kris Lutton, P.G.
Senior Vice President

JCH/KRL/lr

Distribution: Addressee

DRAFT FINAL DOCUMENT

17781 Cowan ■ Irvine, CA 92614-6009
949.250.1421 ■ Fax 949.250.1114 ■ www.leightongroup.com

TABLE OF CONTENTS

Section **Page**

LIST OF ABBREVIATIONS/ACRONYMS III

EXECUTIVE SUMMARY E-1

1.0 INTRODUCTION 1

1.1 Site Description 1
1.2 Background 2
1.3 Regional Geology and Hydrogeology 2
1.4 Environmental Setting 3
1.4.1 School Property 4
1.4.2 Site 4
1.5 Discussion of Phase I ESA Items 4
1.6 Other Environmental Concerns 7

2.0 SAMPLING ACTIVITIES 8

2.1 Objectives 9
2.2 Utility Clearance 9
2.3 Health & Safety Plan 9
2.4 Field Procedures 10
2.4.1 Sample Collection and Analysis 10
2.4.2 Sample Handling and Storage 13
2.4.3 Sample Custody 13
2.4.4 Equipment Decontamination 13
2.5 Laboratory Quality Control 14
2.6 Abandonment of Soil Borings 14
2.7 Investigation Derived Waste Management 14
2.8 Methane Screening in Soil Gas 16

3.0 RESULTS 18

3.1 Soil Type and Groundwater 18
3.2 Soil Analytical Results 19
3.3 Methane Screening Results 26

4.0 HUMAN HEALTH SCREENING EVALUATION 29

5.0 COMMUNITY PROFILE 31

5.1 Community Demographics 31
5.2 Local Participation and Involvement 31

6.0 OPINION OF ENVIRONMENTAL PROFESSIONAL 33

7.0 CONCLUSIONS AND RECOMMENDATIONS 34

DRAFT FINAL DOCUMENT

Leighton

TABLE OF CONTENTS (Continued)

8.0 LIMITATIONS..... 35

List of Accompanying Figures, Tables and Appendices

Figure 1 – Site Location Map
Figure 2 – Current and Historical Building and Structure Locations
Figure 3 – Soil Boring Location Map
Figure 4 – Step-Out Soil Boring Location Map, Existing Building 5 and Existing Building 23 (EB5-3, EB5-4 and EB23-2)
Figure 5 – Step-Out Soil Boring Location Map, Existing Building 9 and Vicinity (EB9-1, EB9-6, EB9-7, EB10-2, EB11-1, EB11-2, EB12-1, EB13-1, EB13-2, EB15-1, FB9-1 and FB9-4)
Figure 6 – Step-Out Soil Boring Location Map, Former Building 14 (FB14-1)
Figure 7 – Step-Out Soil Boring Location Map, Existing Building 20 and Former Building 16 (EB-20-6 and FB16-1)

Table 1 – Summary of Laboratory Results in Soil for Organochlorine Pesticides (OCPs), Arsenic, Lead and Polychlorinated Biphenyls (PCBs)
Table 2 – Summary of Laboratory Results in Soil for Polycyclic Aromatic Hydrocarbons (PAHs), and Title 22 Metals at Boring EB9-7
Table 3 – Summary of Laboratory Results in Soil for Total Petroleum Hydrocarbons (TPH), and Volatile Organic Compounds (VOCs)

Appendix A – References
Appendix B – Boring Logs
Appendix C – Photographic Log
Appendix D – Laboratory Analytical Reports
Appendix E – Waste Disposal Documentation
Appendix F – Methane Survey Report
Appendix G – ProUCL Output Spreadsheets

DRAFT FINAL DOCUMENT

Leighton

LIST OF ABBREVIATIONS/ACRONYMS

ACM	asbestos containing material
AIN	Assessor's ID Number
amsl	above mean sea level
ATL	Advanced Technology Laboratories
Belshire	Belshire Environmental Services, Inc
bgs	below ground surface
Cal/EPA	California Environmental Protection Agency
COPC	Chemical of potential concern
District	Los Angeles Unified School District
DTSC	Department of Toxic Substances Control
Enthalpy	Enthalpy Analytical
EPA	Environmental Protection Agency
ESA	Environmental Site Assessment
HASP	Site-specific health and safety plan
HHRA	Human Health Risk Assessment
J&H	J&H Drilling Co. Inc.
LAUSD	Los Angeles Unified School District
LBP	lead-based paint
Leighton	Leighton Consulting Inc.
mg/kg	Milligrams per kilogram
mg/L	Milligrams per liter
Millennium	Millennium Environmental Inc.
OCPs	Organochlorine Pesticides
OEHS	Office of Environmental Health and Safety
PAHs	Polyaromatic hydrocarbons
PCBs	Polychlorinated Biphenyls
PEA-E	Preliminary Environmental Assessment Equivalent Document
PPE	Personal protective equipment
PQL	Laboratory practical quantitation limit
RCRA	Resource Conservation and Recovery Act
REC	Recognized environmental condition
School property	Burroughs Middle School Campus
Site	Burroughs Middle School Comprehensive Modernization Project
Spectrum	Spectrum Geophysics
STLC	Soluble Threshold Limit Concentration

DRAFT FINAL DOCUMENT

List of Abbreviations/Acronyms (Continued)

SWRCB	State Water Resources Control Board
TCLP	Toxicity Characteristic Leaching Procedure
TPH	Total petroleum hydrocarbons
TTLC	Total Threshold Limit Concentration
UCL	Upper confidence limit
µg/kg	Micrograms per kilogram

DRAFT FINAL DOCUMENT

EXECUTIVE SUMMARY

This *Preliminary Environmental Assessment Equivalent (PEA-E) Document* summarizes historical site land use, and outlines the approach utilized and data collected as part of the recently concluded assessment conducted for the Burroughs Middle School Comprehensive Modernization Project (the 'Site', Figures 1, 2 and 3). The Site is part of the Burroughs Middle School property (hereinafter also referred to as 'the School property'), located at 600 South McCadden Place, Los Angeles, California, 90005.

The School opened as "John Burroughs Junior High School" in 1924. Since 1924, various construction activities at the Site added and removed various structures, added parking lots and paved areas. From at least 1894 to 1921 the land was undeveloped with the exception of a small building located on the southern portion of the Site adjacent to Wilshire Boulevard (WorleyParsons, 2016).

The majority of the Site is paved and currently developed with three two-story administrative/classroom buildings, 23 single-story multi-purpose buildings that contain such things as classrooms, restrooms, gymnasiums, lounges and storage rooms (Figure 2). Two paved parking areas are located in the northeast corner and the southwest corner of the Site. Two tennis courts are located in the center of the Site. A paved and dirt playground area is located in the southern portion of the Site. The School property is bounded to the north by residential properties across West 6th Street, to the east by residential properties and a commercial building, to the south by residential properties, Wilshire Private School, and commercial buildings across Wilshire Boulevard, and to the west by residential properties across South McCadden Place.

The primary objectives of this PEA-E were to assess soil for potential environmental concerns identified in a Phase I Environmental Site Assessment (ESA) (WorleyParsons, 2016); and to evaluate overall Site health risk based on soil analytical screening results for chemicals of potential concern (COPCs), including lead, arsenic, organochlorine pesticides (OCPs), polychlorinated biphenyls (PCBs), total petroleum hydrocarbons (TPH), polyaromatic hydrocarbons (PAH's), and CA Title 22 Metals (CAM-17). Additionally, this PEA-E included a survey to screen for methane in soil gas.

Between December 28, 2016 and July 17, 2017, a total of one hundred and ninety (190) soil borings were advanced using hand auger or direct push drilling methods for the purpose of collecting soil samples in the vicinity of existing and former buildings, a former incinerator and a former aboveground storage tank (AST). A total of six hundred and thirty-two (632) soil samples were collected and select samples were analyzed for

DRAFT FINAL DOCUMENT

COPCs. The initial round of soil sampling conducted between December 28, 2016 and January 3, 2017, identified lead or arsenic impacts in soil in eighteen (18) borings. Subsequent sampling events conducted April 10-12, 2017 and July 17, 2017 helped to delineate the vertical and lateral extent of lead or arsenic contamination in these eighteen (18) areas with step-out borings (Figure 3). Borings installed in April and July 2017 are referred to as step-outs or step-out borings throughout this report.

In one hundred and eighty-one (181) of the one hundred and ninety (190) soil borings, the target maximum total depth was 2.5 feet below ground surface (bgs), with soil samples typically collected from 0.5, 1.5 and 2.5 feet bgs, to the extent practicable. Seven (7) of the 190 borings were advanced to a target maximum total depth of 4 feet to delineate the vertical extent of arsenic impacts in soil in select areas, with soil samples typically collected at 0.5, 1.5, 2.5, 3 and 4 feet bgs (EB9-6 step-out samples and EB15-1 step-out sample). For one boring installed in the vicinity of a former incinerator (EB9-7), soil samples were collected from target depths of 0.5, 1.5, and 2.5 feet bgs. One (1) boring installed in the vicinity of a former fuel oil AST (EB1-1) was advanced to a target maximum total depth of 10 feet bgs, with soil samples collected from 1, 5 and 10 feet bgs. Select soil samples were analyzed for COPCs. Boring locations are shown on Figures 3 through 7, and analytical soil results are summarized in Tables 1 through 3.

With the exception of arsenic and lead in select borings, the soil matrix analytical results (Tables 1 through 3) indicate that remaining COPCs at the Site were either below detection or below regulatory screening levels. Evaluation of the analytical results presented in this report show the data to be of acceptable quality.

Table 1 identifies boring locations where shallow soil sample results indicate concentrations of arsenic above the DTSC-adopted background concentration of 12 milligrams per kilogram (mg/kg) (DTSC, 2008) and/or lead above the DTSC-modified screening level of 80 mg/kg. No arsenic results exceeded state or federal hazardous waste criteria; therefore, for waste disposal considerations the levels of arsenic in shallow soil are representative of non-hazardous material under California waste disposal regulations, per the California Code of Regulations, Title 22, Chapter 11, Article 3. Lead results in select samples exceeded the state hazardous waste criteria of 1,000 mg/kg Total Threshold Limit Concentration (TTLC) lead or 5 mg/L Soluble Threshold Limit Concentration (STLC)-lead. Therefore, for waste disposal considerations select areas were identified with lead impacts in soil representative of hazardous material under California waste disposal regulations, per the California Code of Regulations, Title 22, Chapter 11, Article 3 (i.e., California-restricted non-Resource

DRAFT FINAL DOCUMENT

Conservation and Recovery Act (non-RCRA) hazardous waste was identified). No areas of Federal RCRA hazardous waste were identified based on the lead and arsenic results (Table 1). Based upon the findings of the PEA-E and in consultation with the OEHS, the estimated volume of arsenic and lead-impacted shallow soil along with the anticipated waste classification is summarized below:

- Approximately 54 cubic yards (CY) of arsenic and lead-impacted soil with non-hazardous waste classification (Areas A, E, and G shown on Figures 4 and 5)
- Approximately 106 CY of arsenic and lead-impacted soil with California-restricted non-RCRA hazardous waste classification due to elevated lead levels (Areas B, C, D, F, H, I, J, K, L and M shown on Figures 4 through 7)

To screen for methane in soil gas, thirty (30) additional soil borings were advanced between December 23 and 28, 2016 to a maximum total depth of 15.5 feet bgs. Dual methane probes were installed at approximately 5 and 15 feet bgs at each location. Methane sampling events were conducted on January 3 and 16, 2017. Soil samples were not typically collected from methane probe locations; however, in consultation with OEHS, two supplemental soil samples were collected from one location (M-3 at 10 and 12.5 feet bgs) where soil staining (potentially tar sand) was observed. The M-3 soil samples were analyzed for TPH and volatile organic compounds (VOCs), and results from the limited soil sampling at the M-3 location are presented in Table 3. TPH and VOCs in the M-3 samples were either below detection or below regulatory screening levels. Appendix F presents a methane screening report. It is Leighton's understanding that methane issues will be addressed by the District per Los Angeles Department of Building and Safety requirements and regulatory agency requirements, where applicable.

Based on the maximum methane concentrations measured above 12,500 ppm, the Site is a Level V design category per Los Angeles Department of Building and Safety (LADBS) methane regulations (>12,500 ppm at all pressures) (Appendix F).

Based upon the findings presented in this PEA-E study, elevated levels of COPCs were identified at the Site, including arsenic and lead in soil in select areas (Table 1). On behalf of the District, Leighton recommends preparation of a Removal Action Workplan (RAW) to address areas of elevated arsenic and lead in soil at the Site.

DRAFT FINAL DOCUMENT

1.0 INTRODUCTION

This *Preliminary Environmental Assessment Equivalent (PEA-E) Document (hereinafter also referred to as 'the report')* summarizes historical site land use, and outlines the approach utilized and data collected as part of the recently concluded assessment conducted at the Burroughs Middle School Comprehensive Modernization Project (the 'Site', Figures 1, 2 and 3).

This report was prepared by Leighton Consulting Inc. (Leighton) on behalf of the District in general conformance with various existing guidance documents related to site assessment, characterization and investigation published by the California Environmental Protection Agency (Cal/EPA) – Department of Toxic Substances Control (DTSC, 2015). Pertinent references related to the Site are listed in Appendix A.

1.1 Site Description

The School property is identified by the Los Angeles County Assessor's Office with Assessor's ID Number (AIN) 5507-017-900 and occupies approximately 10.23 acres. The property is owned and operated by the Los Angeles Unified School District (LAUSD) (hereinafter also referred to as 'the District' or LAUSD). The School property is bounded to the north by residential properties across West 6th Street, to the east by residential properties and a commercial building, to the south by residential properties, Wilshire Private School, and commercial buildings across Wilshire Boulevard, and to the west by residential properties across South McCadden Place.

The Site is part of the Burroughs Middle School property (hereinafter also referred to as 'the School property'), which is located at 600 South McCadden Place, Los Angeles, California, 90005. The majority of the Site is paved and currently developed with three two-story administrative/classroom buildings, 23 single-story multi-purpose buildings that contain such things as classrooms, restrooms, gymnasiums, lounges and storage rooms. Two paved parking areas are located in the northeast corner and the southwest corner of the Site. Two tennis courts are located in the center of the Site. A paved and dirt playground area is located in the southern portion of the Site.

DRAFT FINAL DOCUMENT

1.2 Background

The school opened as "John Burroughs Junior High School" in 1924. Since 1924, various construction activities at the Site added and removed various structures, added parking lots and paved areas. From at least 1894 to 1921 the land was undeveloped with the exception of a small building located on the southern portion of the Site adjacent to Wilshire Boulevard (WorleyParsons, 2016).

WorleyParsons completed a Phase I Environmental Site Assessment (ESA) for the School Property in May 2016. Findings from the Phase I ESA are discussed in Section 1.5, below.

The current Site contact related to the environmental matters is listed below:

Mr. Dane Robinson
Los Angeles Unified School District
Office of Environmental Health and Safety
333 South Beaudry Avenue, 21st Floor
Los Angeles, California 90017

1.3 Regional Geology and Hydrogeology

Geologic Setting: Locally, the Site is located in the Hollywood Basin within the central block of the Los Angeles Basin, a structural trough, characterized as a northwest-trending alluviated lowland plain approximately 50 miles long and 20 miles wide. The Santa Monica Mountains, Beverly Hills and Elysian Hills that generally expose Late Cretaceous to Late Pleistocene-age sedimentary and igneous rocks bound the Hollywood Basin along the north, northeast and east (Yerkes, 1965).

The sediments deposited in the Hollywood Basin have subsequently been faulted and folded during uplift of the Santa Monica Mountains and contraction of the basin (Tsutsumi et al., 2001; Catchings et al., 2001). Uplift of the Santa Monica Mountains is occurring along a zone of faults that comprise the Santa Monica Fault System, and include the Malibu Coast, Santa Monica and the Hollywood faults (Tsutsumi et al., 2001; Catchings et al., 2001; Dolan, et al., 2000). Deformation caused by the Hollywood Fault of the near-surface sediments has resulted in the formation of the Hollywood Basin. The Hollywood Basin is situated between the Hollywood fault and the Santa Monica Mountains on its north, and a subsurface fold to the south, known as the Wilshire Arch, located

DRAFT FINAL DOCUMENT

near Wilshire Boulevard (Dolan et al., 1997 and 2000; Hildenbrand et al., 2001; Hummon et al., 1994; California Department of Water Resources, 1988).

The Site, southeast of the Salt Lake Oilfield, is underlain by surficial sediments consisting generally of clay, sand and gravel including gravel of minor stream channels (Dibblee, 1991). Older surficial sediments underlying the site can be expected to consist generally of unconsolidated to weakly consolidated, dissected alluvial fan sediments consisting chiefly of clay, silt, sand and gravels overlying the Lakewood and San Pedro Formations. At depth, petroliferous sands (tar sand) present within the San Pedro Formation can be expected.

Groundwater: The Site lies within the northeastern part of the Coastal Plain at an approximate elevation of 209 feet above mean sea level (amsl) (USGS, 1972) and located within the Hollywood sub-basin. This groundwater basin is bound on the north by the Santa Monica Mountains and the Hollywood fault, on the east by the Elysian Hills and on the west by the Newport-Inglewood fault zone. Southerly, the basin is bound by anticlinal structure termed the La Brea High were the San Pedro formation was eroded prior to deposition of the Lakewood Formation. This anticlinal structure brings less permeable bedrock close to the surface forcing groundwater to shallow depths primarily within the Pleistocene sands and gravels. Based on the approximate site elevation (El. 209 feet) and depth to groundwater recorded at 5020 to 5044 Wilshire Boulevard (1,000 feet southwest of the site) groundwater is likely to occur at approximate elevations (El.) 189 feet to El. 186 feet (Western Environmental Engineers Company, 2006). These elevations suggest groundwater may be encountered beneath the Site at approximately 20 to 23 feet below grade.

1.4 Environmental Setting

A Phase I ESA was completed for the School property on May 18, 2016 by WorleyParsons (WorleyParson, 2016). The purpose of the Phase I ESA is to identify recognized environmental conditions (RECs) in order to assist in the evaluation of historical land use, assess potential environmental impacts on- and off-site, and determine if any potential environmental impacts may pose a threat to on-site occupants, off-site individuals and the environment. Information pertaining to the Site as determined by the Phase I ESA is summarized below.

DRAFT FINAL DOCUMENT

1.4.1 School Property

The Phase I ESA includes a review of historical aerial photographs, topographic maps and Sanborn® maps for the School property. According to the Phase I ESA, historical use of the School property from at least 1928 to 1940 included an arboretum with a single-family dwelling located in the center portion of the property. The property was purchased by LAUSD in 1949, and has operated as a school since approximately 1951. Currently, the majority of the School property is paved and is developed with various school buildings, intermodal containers used for storage, playground areas and an animal sanctuary. The findings of the Phase I ESA are discussed in Section 1.5, below.

1.4.2 Site

WorleyParsons identified RECs for the Site (WorleyParsons, 2016). Identified RECs include the potential presence of lead based paint (LBP) residue, organochlorine pesticide (OCP), and arsenic in soils at the Site; asbestos containing material (ACM) in the Site building materials, the historical presence of a heating oil aboveground storage tank (AST) on-Site, the historical presence of an incinerator on-Site, and the former presence of two nearby off-site gasoline service stations.

Based on the Phase I ESA's investigation of historical aerial images, topographic maps, site reconnaissance, and fire insurance maps, existing and former building footprints were identified within the proposed development area at the Site (WorleyParsons, 2016). Existing and former building footprints are shown on Figure 2.

The District plans to redevelop the Site as part of the Burroughs Middle School Comprehensive Modernization Project. Leighton was contracted by the District to complete a PEA-E study to address potential soil contamination identified in the Phase I ESA and screen for methane in soil gas.

1.5 Discussion of Phase I ESA Items

The Phase I ESA found no evidence of the storage or release of hazardous materials during the on-site inspection at the School property with the exception

DRAFT FINAL DOCUMENT

of the storage of small quantities of janitorial supplies and a 55-gallon steel drum containing gasoline, stored in a flammable materials storage building located southeast of Building No. 9 (Shop Building). Staining on the concrete floor adjacent to this drum was observed during the reconnaissance inspection. During review of regulatory databases, the John Burroughs Middle School is identified as a large quantity hazardous waste generator; as a result of past school renovation activities, which included the abatement of asbestos and polychlorinated biphenyls (PCB)-containing equipment. According to Mr. Martin Nevarez, the Site Plant Manager, these wastes are not and have not been disposed at the Site. Based on the site reconnaissance and records reviewed as part of the Phase I ESA, WorleyParsons identified the following RECs associated with the Site:

- Potential presence of LBP residue in shallow soils around the drip lines of the existing and former buildings at the Site.
- Potential presence of OCP in shallow soils around the foundations of the existing and former buildings at the Site.
- Potential presence of arsenic in shallow soils under pavement at the Site.
- Potential presence of ACM in Site building materials.
- Potential presence of hydrocarbons in groundwater due to the historical presence of two gasoline service stations approximately 60 and 250 feet west of the Site.
- Potential presence of petroleum products in soil and groundwater due to the historical presence of an heating oil AST located adjacent to Building No. 1 (Main/Auditorium Building).
- Potential presence of burn ash in soils due to the historical presence of an incinerator located adjacent to Building No. 9 (Shop Building).

Based on the age of the existing Site buildings, it is possible that LBP has been applied to the exterior finishes of the buildings. As such, it is possible that LBP residue is present in soils around the perimeters of the existing and former buildings (WorleyParsons, 2016). DTSC guidance indicates that LBP residue from paint or surface coatings may be present in soil around school structures

DRAFT FINAL DOCUMENT

that are adjacent or near unpaved areas where runoff could occur and were constructed prior to January 1993 (DTSC, 2006).

It is possible that OCPs in the form of termiticides have been applied around the foundations of these Site buildings or in the areas (WorleyParsons, 2016). OCPs were commonly used as insecticides for termite control, around structures between 1948 and 1989 (DTSC, 2006).

There is the potential presence of arsenic underneath pavement that may have been applied as an herbicide (WorleyParsons, 2016).

Based on the age of the existing Site buildings, it is possible that ACM are present in building materials (WorleyParsons, 2016).

Two “oil and gas” service stations were located west of the Site (approximately 60 feet west of the Site and cross/upgradient with respect the reported groundwater flow direction), at the northwest intersection of South McCadden Place and Wilshire Boulevard and at the northeast corner of South Highland Avenue and Wilshire Boulevard, from at least 1938 to at least 1964. Based on their location relative to the Site, it is possible that groundwater beneath the Site has been impacted by releases of petroleum hydrocarbons at these facilities (WorleyParsons, 2016).

A heating oil AST was located on the Site adjacent to the east of Building No. 1 (Main/Auditorium Building). Based on this, it is possible that leaks or spills from this tank have impacted soil and groundwater at the Site (WorleyParsons, 2016).

An incinerator, presumably for solid waste, was located on the Site near the southwest corner of Building No. 9 (Shop Building). Based on this, it is possible that adjacent soils have been impacted by burn ash containing combustion by-products such as polycyclic aromatic hydrocarbons (PAHs), furans, and heavy metals (WorleyParsons, 2016).

A hazardous material property condition survey was recommended in the Phase I ESA to identify and quantify hazardous construction-related materials (ACM, LBP, mold, PCBs, mercury, tritium, radium and universal wastes). The hazardous material survey is not part of Leighton’s scope for this PEA-E study.

Leighton was contracted by the District to complete a PEA-E study to address soil concerns identified in the Phase I ESA, specifically to collect soil samples

DRAFT FINAL DOCUMENT

near former and existing buildings at the Site and analyze select samples for lead, OCPs, arsenic, PCBs, petroleum hydrocarbons, PAH's, and CA Title 22 metals (CAM-17). Where elevated levels of chemicals of potential concern (COPCs) are identified, a human health risk screening assessment is included to determine if the levels may pose a risk to future Site occupants.

1.6 Other Environmental Concerns

PCBs were used widely in caulking and elastic sealant materials, particularly from 1950 through the 1970s until PCBs were banned in 1979. DTSC guidance indicates that PCBs may exist in soil near exterior caulking present in buildings meeting the age criteria and adjacent to unpaved areas (DTSC, 2006). PCBs in shallow soil are commonly evaluated at the Phase I ESA Addendum/PEA-E stage of assessment at school sites that meet the age criteria. Although not identified as a COPC in soil by WorleyParsons, screening for PCBs was included in the PEA-E for select samples, as defined in the PEA-E Scope of Services (OEHS, 2016).

Information provided by the City of Los Angeles NavigateLA Web site, the Los Angeles Department of Building and Safety (LADBS), and the City's Public Works Departments, indicates that the Site lies within a City of Los Angeles designated methane zone. The Salt Lake Oil Field lies approximately 1,500 feet north of the Site and 2,000 feet west of the Site. One plugged oil and gas production well is also located approximately 1,300 feet west/southwest of the Site (API 03720045). Based on this, the Project may create a new or exacerbate an existing significant safety hazard to students from a known methane zone. Screening of soil gas for methane was included in the PEA-E, per the PEA-E Scope of Services (OEHS, 2016).

DRAFT FINAL DOCUMENT

2.0 SAMPLING ACTIVITIES

The PEA-E field sampling activities presented herein were conducted between December 23, 2016 and July 17, 2017 and included soil sampling and a survey to screen for methane in soil gas. Soil sampling was designed to assess lead, arsenic, OCPs, PCBs, TPH, PAHs, and CA Title 22 Metals, which were the COPCs identified in soil at the Site. The soil sampling consisted of the collection of select soil samples at specific depths to screen soil for COPCs. Appendix B contains boring logs and boring locations are shown on Figures 3 through 7. Appendix C contains a photographic log showing representative soil boring locations from the sampling event. Section 2.8 includes discussion of the methane survey, including methane sampling events conducted on January 3 and 16, 2017.

Between December 28, 2016 and July 17, 2017, a total of one hundred and ninety (190) soil borings were advanced using hand auger or direct push drilling methods for the purpose of collecting soil samples in the vicinity of existing and former buildings, a former incinerator and a former AST. The initial round of soil sampling conducted between December 28, 2017 and January 3, 2017, identified lead or arsenic impacts in soil in eighteen (18) borings. Subsequent sampling events conducted April 10-12, 2017 and July 17, 2017 helped to further delineate the vertical and lateral extent of lead or arsenic contamination in these eighteen (18) areas (Figures 3 through 7). Borings installed in April and July 2017 are referred to as step-outs or step-out borings throughout this report.

In one hundred and eighty-one (181) of the one hundred and ninety (190) soil borings, the target maximum total depth was 2.5 feet below ground surface (bgs), with soil samples typically collected from 0.5, 1.5 and 2.5 feet bgs, as practicable. Seven (7) of the 190 borings were advanced to a target maximum total depth of 4 feet to delineate the vertical extent of arsenic impacts in soil in select areas, with soil samples typically collected at 0.5, 1.5, 2.5, 3 and 4 feet bgs (EB9-6 step-out samples and EB15-1 step-out sample). For one (1) boring installed in the vicinity of a former incinerator (EB9-7), soil samples were collected from target depths of 0.5, 1.5, and 2.5 feet bgs. One (1) boring installed in the vicinity of a former fuel oil AST (EB1-1) was advanced to a target maximum total depth of 10 feet bgs, with soil samples collected from 1, 5 and 10 feet bgs. Select soil samples were analyzed for COPCs. Boring locations are shown on Figures 3 through 7, and analytical soil results are summarized in Tables 1 through 3.

Sampling activities consisted of the following components discussed below.

DRAFT FINAL DOCUMENT

2.1 Objectives

The primary objectives of this PEA-E were:

- To assess soil for potential environmental concerns identified in the Phase I ESA for the Site; and
- To evaluate the overall Site health risk based on soil analytical screening results for COPCs, including lead, arsenic, OCPs, PCBs, TPH, PAHs, and CA Title 22 Metals.
- To screen soil gas beneath the Site for the presence of oil field gases and determine the design level of mitigation required.

2.2 Utility Clearance

Prior to collecting the soil samples, Underground Service Alert (USA) was notified more than 48-hours prior to initiation of field sampling activities for marking subsurface utilities in and around the Site. The Site boring locations were clearly marked with white water-base chalk paint on December 20, 2016, April 1, 2017 and June 26, 2017 prior to USA notification. Also on December 27, 2016, April 1, 2017, and June 26, 2017 Spectrum Geophysics completed a geophysical survey to identify potential underground utilities or obstructions in conflict with the soil boring locations. Leighton reviewed an ALTA survey map (Surveying and Drafting Services, Inc., 2016) provided by the District indicating the anticipated locations of known sub-surface utilities at the School property prior to field activities in an effort to avoid encountering potential subsurface utilities during advancement of borings sampling. Based on the geophysical survey and ALTA survey, select proposed boring locations were adjusted in the field where necessary to minimize risk to damaging underground utilities.

2.3 Health & Safety Plan

A Site-specific health and safety plan (HASP) was prepared for the field activities. The HASP addressed issues regarding chemical exposure, personal protective equipment (PPE), physical and biological hazards that might be expected at the Site, an emergency response plan, and route to the nearest hospital. Site personnel engaged in field activities were required to read and sign

DRAFT FINAL DOCUMENT

the HASP. Subcontractor(s) were required to prepare and follow their own HASP during field activities, considering the Site-specific conditions.

2.4 Field Procedures

Collection of environmental samples of high integrity is important to the quality of chemical data to be generated. To this end, strict field procedures have been developed. General descriptions of field methods that were employed at various locations during various phases of the field investigation are described below.

2.4.1 Sample Collection and Analysis

Soil borings were advanced by Millennium Environmental, Inc. (Millennium), a State of California licensed driller, using hand-auger tools or direct-push drilling methods (Appendix B). Additionally, J&H Drilling (J&H), a State of California licensed driller, advanced soil borings using hand-auger tools or direct-push drilling methods and installed methane probes on December 28, 2016. The addition of J&H to complete drilling on December 28, 2016 was necessary due to difficult drilling conditions encountered and to complete sampling within the winter break. Asphalt or concrete pavement was cored by the respective driller prior to advancing the soil borings. Each boring was advanced to the maximum target depth or refusal. When refusal was encountered up to three additional attempts were made to advance a soil boring to the target depth in the vicinity of the original attempted boring location. Lithologic information and soil descriptions from the soil borings were recorded by Leighton's on-Site staff and reviewed by a State Certified Professional Geologist. Boring Logs are provided in Appendix B.

Specific sampling approaches are outlined below and sample analyses with corresponding sample depths are shown in Tables 1 through 3:

- Between December 28, 2016 and July 17, 2017, a total of one hundred and ninety (190) soil borings were advanced using hand auger or direct push drilling methods for the purpose of collecting soil samples in the vicinity of existing and former buildings, a former incinerator and a former AST. The initial round of soil sampling conducted between December 28, 2017 and January 3, 2017, identified lead or arsenic impacts in soil in eighteen (18) borings. Subsequent sampling events

DRAFT FINAL DOCUMENT

conducted April 10-12, 2017 and July 17, 2017 helped to further delineate the vertical and lateral extent of lead or arsenic contamination in these areas.

- Discrete soil samples were obtained from target depths from each boring and analyzed for the relevant COPCs, as summarized in Tables 1 through 3. Depths were measured from the top of the asphaltic concrete, if present. Gravel base located below the AC was not included in the sample, if present. Soil samples were collected in laboratory supplied 8-ounce glass jars or driller-provided acetate sleeves.

- For one hundred and eighty-one (181) of the soil borings, soil samples were collected from target depths of 0.5, 1.5, and 2.5 feet bgs, to the extent practicable. The upper 0.5 feet and 1.5 feet bgs samples were analyzed for lead, OCPs, arsenic and/or PCBs. The 2.5 feet bgs samples near former buildings were also analyzed for lead, OCPs and arsenic. Approximately 10% of the samples collected (excluding step-outs) were analyzed for PCBs based on field observations and discussions with District personnel. The 2.5 feet bgs samples near existing buildings were placed on hold, which were intended to allow analysis in a tiered fashion for vertical delineation of soil contamination, such that the deeper 2.5 feet bgs samples would be analyzed if shallow sample results revealed significant concentrations of lead, arsenic or other OCPs. Select 2.5 feet bgs samples near existing buildings were analyzed based on the shallower results and step-out samples were analyzed for the COPC that was potentially elevated in the vicinity of the original nearby boring (lead or arsenic).

- Seven (7) step-out borings were advanced to a target maximum total depth of 4 feet to delineate the vertical extent of arsenic impacts in soil in select areas, with soil samples typically collected at 0.5, 1.5, 2.5, 3 and 4 feet bgs (EB9-6 step-out samples and EB15-1 step-out sample). These samples were analyzed for arsenic.

- For one (1) boring installed in the vicinity of a former incinerator (EB9-7), soil samples were collected from target depths of 0.5, 1.5, and 2.5 feet bgs. Boring EB9-7 samples were analyzed for PAHs, PCBs, and Title 22 metals.

DRAFT FINAL DOCUMENT

- One (1) boring installed in the vicinity of a former fuel oil AST (EB1-1) was advanced to a target maximum total depth of 10 feet bgs, with soil samples collected from 1, 5 and 10 feet bgs. The samples from EB1-1 were analyzed for TPH.

- Boring locations are shown on Figures 3 through 7, and analytical soil results are summarized in Tables 1 through 3.

- Field duplicate samples were collected during the PEA-E sampling activities at an approximate ratio of 1 duplicate sample for every 10 original samples. The duplicate sample was collected immediately after the original sample. Due to the heterogeneity of the soil matrix the results for duplicate samples may vary from the results of the original sample. The duplicate samples were analyzed for the same parameters as the original samples collected from the same boring and similar interval.

- An equipment rinsate blank was collected from the reusable sampling equipment (hand auger) each field day, typically. The equipment blank was collected by pouring distilled water over the cleaned and rinsed hand auger bucket and collecting the poured water in laboratory supplied sample container(s). The equipment blank sample was analyzed for the same parameters as the soil matrix sample(s) collected during the investigation.

Select samples were analyzed for the following compounds:

- Arsenic and/or Lead by EPA Method 6010B,
- OCPs by EPA Method 8081A,
- PCBs by EPA Method 8082,
- TPH-carbon chain (TPH-cc, C4-C40) by EPA 8015M,
- Title 22 Metals by EPA 6000/7000,
- PAHs by 8270SIM,
- Soluble Threshold Limit Concentration (STLC) and Toxicity Characteristic Leaching Procedure (TCLP) Lead by EPA Method 6010B (where the Total Threshold Limit Concentration (TTLC) Lead result was greater than 50 mg/kg), and/or

DRAFT FINAL DOCUMENT

- STLC and TCLP Arsenic by EPA Method 6010B (where the TTLC Arsenic result was greater than 50 mg/kg).

2.4.2 Sample Handling and Storage

In the field, each sample container was marked with their unique sampling location number, date and time of sample collection. Each of the sample containers were wiped with clean paper towels, sealed in a plastic bag, and securely packed in a cooler on ice, in preparation for delivery to the laboratory.

2.4.3 Sample Custody

An entry was made on a chain-of-custody form supplied by the laboratory for each sample that was submitted to the laboratory for analysis. The information recorded included the sampling date and time, sample identification number, matrix type, requested analyses and methods, preservatives, and the sampler's name. Sampling team members maintained custody of the samples until they were relinquished to laboratory personnel or professional courier service. The cooler was appropriately sealed before it was relinquished to laboratory personnel. The chain-of-custody form accompanied the samples from the time of collection until received by the laboratory. Each party in possession of the samples signed the chain-of-custody form signifying receipt.

Collected soil samples were transported using standard chain-of-custody protocol to Advanced Technology Laboratories (ATL) of Signal Hill, California, an analytical testing laboratory accredited by the California Department of Public Health (CDPH). Upon receipt, the laboratory inspected the condition of the sample containers and reported the information on chain-of-custody or similar form.

A copy of the original completed chain-of-custody form was provided by the laboratory along with the report of results. Appendix D contains copies of the laboratory analytical reports.

2.4.4 Equipment Decontamination

Any equipment that came into contact with potentially contaminated materials was decontaminated consistently to assure the quality of

DRAFT FINAL DOCUMENT

samples collected. Disposable equipment intended for one time use was not decontaminated, but was packaged for appropriate disposal. Decontamination occurred prior to and after each use of a reusable piece of equipment. The sampling devices used (e.g., hand auger, drilling equipment) were decontaminated using the following procedures:

- Non-phosphate detergent and tap water scrub, using a brush if necessary;
- Tap water rinse; and
- Final deionized/distilled water rinse.

2.5 Laboratory Quality Control

The laboratory data package provided includes quality control sample results for blanks, matrix spike/matrix spike duplicates, surrogate recoveries, and laboratory control samples/laboratory control sample duplicates, as specified by the method. The laboratory also provided narrative stating whether or not quality control guidelines were met and listed discrepancies and laboratory data qualifiers. The laboratory reports containing the quality control results are included in Appendix D.

2.6 Abandonment of Soil Borings

Upon completion of sampling, all soil borings were backfilled with native soil (soil cuttings) and tamped per the request of the District personnel. Boring locations were resurfaced with concrete dyed black to match existing asphalt hardscape, as applicable.

2.7 Investigation Derived Waste Management

In the process of collecting environmental samples during the PEA-E activities, different types of potentially contaminated Investigation Derived Waste (IDW) were generated that included used PPE, disposable sampling equipment, excess soil cuttings, and decontamination fluids.

Listed below are the procedures that were followed for handling the IDW:

DRAFT FINAL DOCUMENT

- Used PPE and disposable equipment were double bagged and placed in a municipal refuse dumpster. These wastes are not considered hazardous and could be sent to a municipal landfill.

- Remaining soil cuttings (not used as backfill) and decontamination wastewater were placed in US Department of Transportation (DOT)-approved 55-gallon drums. The drums were labeled and sealed, pending receipt of analytical results, waste profiling and off-Site disposal.

Four 55-gallon drums containing IDW were generated during the PEA-E. Grab samples were collected directly from the 55-gallon drums containing IDW on December 29, 2016 (Sample ID "DRUM1"), January 3, 2017 (Sample ID "DRUM-LIQUID"), April 13, 2017 (Sample ID "DRUM-1"), and July 17, 2017 (Sample IDs: "IDW-S" and "IDW-L"). IDW sampled on April 13, 2017 and July 17, 2017 were combined into one drum, and the July 17, 2017 samples were used for profiling purposes for that drum. Laboratory reports are provided in Appendix D. IDW samples were analyzed for the following compounds:

- California Code of Regulations (CCR) Title 22 Code of Administrative Manual (CAM) 17 metals (CAM 17 metals) by EPA Method 6010B/7471A,

- OCPs by EPA Method 8081A, and

- Gasoline Range Organics (GRO), Diesel Range Organics (DRO) and Oil Range Organics (ORO) by EPA Method 8015B.

Additionally, the July 17, 2017 "IDW-S" sample was also analyzed for lead using the Waste Extraction Test for STLC and TCLP by EPA Method 6010B, because the TTLC lead result in this sample was greater than 50 mg/kg. With the result below the STLC and TCLP regulatory limits of 5 mg/L, the material is considered non-hazardous under California waste disposal regulations, per the California Code of Regulations, Title 22, Chapter 11, Article 3.

The IDW sample results indicate that the IDW is classified as nonhazardous waste. Two drums containing soil cuttings and one drum containing sample equipment decontamination water were removed from the Site on January 6, 2017 by Belshire Environmental Services Inc. (Belshire). One drum containing soil cuttings and decontamination water was removed from the Site on September 8, 2017 by Belshire. The three drums containing soil cuttings were transported to US Ecology in Beatty, Nevada for disposal. The one drum

DRAFT FINAL DOCUMENT

containing water only was transported to Demenno Kerdoon in Compton, California for disposal. Appendix E provides waste disposal documentation.

2.8 Methane Screening in Soil Gas

To screen for methane in soil gas, thirty (30) soil borings were advanced between December 23 and 28, 2016 to a maximum total depth of 15.5 feet bgs. Dual methane probes were installed at approximately 5 and 15 feet bgs at each location. Appendix F summarizes results of methane in soil gas screening, including sampling events on January 3 and 16, 2017. It is Leighton's understanding that methane issues will be addressed by the District per Los Angeles Department of Building and Safety requirements and regulatory agency requirements, where applicable.

Soil samples were not typically collected from methane probe locations; however, in consultation with OEHS, two supplemental soil samples were collected from one location (M-3 at 10 and 12.5 feet bgs) where soil staining (potentially tar sand) was observed. The M-3 soil samples were analyzed for TPH and volatile organic compounds (VOCs), and results from the limited soil sampling at the M-3 location are presented in Table 3. TPH and VOCs in the M-3 samples were either below detection or below regulatory screening levels. TPH and VOCs were not identified at levels of concern at M-3 and VOCs were not identified as a COPC for the Site.

Upon reaching the total target depth, soil vapor probes were installed per the DTSC *Advisory Active Soil Gas Investigations* dated July 2015. Soil vapor probes were installed at approximately 5 and 15 feet bgs in each location for a total of 60 soil vapor probes. Details of soil vapor probe installation include:

- Dual-nested soil gas probes were installed at approximate target depths of 5 and 15 feet bgs in each boring.
- A small-diameter, inert Nylaflow tube with an attached sampling filter was inserted into each probe upon reaching desired depths. Displaced annular space was back-filled above and below each installed sampling probe for a total of approximately one vertical foot of sand filter-pack. Hydrated granular bentonite was placed from the top of the sand filter pack up to existing grade or 6-inches below the next probe depth. Sand filter-pack and bentonite placement were repeated as necessary until all probes were installed. The

DRAFT FINAL DOCUMENT

probes were sealed with bentonite for a minimum of 48 hours prior to sample collection.

- Two rounds of sampling for methane and hydrogen sulfide in soil gas were conducted at each probe in accordance with the *Advisory Active Soil Gas Investigations* (July 2015):
  - Sampling took place after the appropriate equilibration time
  - Prior to sampling, tubing or probe pressure was recorded in the field logs and each probe was purged a minimum of three tubing volumes prior to collecting soil gas samples.
  - Samples were then extracted at a rate of approximately 200 milliliters per minute using a Xitech 1-Liter bag sampler and transferred into Tedlar bags.
  - Field monitoring of samples collected in the Tedlar bags was conducted for oil field gases utilizing a pre-calibrated Landtec GEM-2000 Plus, Jerome 631-X H2S Analyzer, and a Photovac MicroFID.
- Approximately 10% of soil gas samples were placed in new 1-L Tedlar bags, protected from ultra-violet light in a black protective bag, and transported using chain-of-custody protocol to Enthalpy Analytical (Enthalpy) a California Department of Public Health, Environmental Laboratory Accreditation Program-certified laboratory for analysis for methane and hydrogen sulfide, as follows:
  - Methane by EPA 8015 analyzed within 24 hours of collection, and
  - Hydrogen Sulfide by ASTM D5504M analyzed within 24 hours of collection.
- Upon completion of soil gas sampling and with OEHS approval, soil gas sampling points will be decommissioned in accordance with the *Advisory Active Soil Gas Investigations* (July 2015).

DRAFT FINAL DOCUMENT

3.0 RESULTS

The following sections provide discussion of PEA-E results.

3.1 Soil Type and Groundwater

The limited subsurface investigation conducted at the Site included a total of one hundred and ninety (190) soil borings to facilitate soil sampling and thirty (30) soil borings to facilitate methane probe installation (Appendix B).

A majority of soil borings were completed in paved areas consisting of 3-4 inches of asphaltic concrete with the exception of borings completed on the athletic field and the locations adjacent to the southern margin of the Site. Soil logging within shallow boreholes, up to 2.5 feet bgs, generally consisted of fine-grained soils of predominantly silt and clay with varying amounts of fine to medium-grained sand as a secondary component. Deeper borings, or methane probe locations, completed to approximately 15.5 feet bgs encountered similar native fine-grained soils dominated by silt and clay. Artificial fill materials were identified in several deeper boring locations (M-3, M-8, M-9) primarily based on the coarse nature of the soil and presence of construction debris, brick or asphalt, observed between 0.5 and 11.5 feet in specific locations.

Varying levels of naturally occurring bitumen or tar were noted in soil from 10 methane probe locations including M-1, M-2, M-12, M-13, M-14, M-23, M-24, M-25, M-26, and M-30. These locations were generally located in the southern half of the Site and/or near the eastern Site boundary. Observations ranged from gray to black soil coloration with a distinct tar-like odor to soil saturated with black, viscous bitumen. Soils that exhibited these characteristics were noted as “bituminous” in the methane probe construction log. Natural deposits of bitumen are not uncommon for this area as seen in the nearby La Brea Tar Pits, which is located approximately one mile west of the Site. Soils exhibiting the presence of bitumen were generally encountered at depths greater than 5 feet below grade.

Groundwater was not encountered in the borings completed during this investigation with the exception of boring location M-30. The M-30 boring was advanced to 15.5 feet bgs and soil was noted as “moist” during drilling from 9 feet to total depth. Upon reaching total depth, the drill rod was removed from the borehole and water was observed pooling in the bottom of the borehole up to approximately 12 feet bgs. Methane probes were set at 5 feet bgs and 9.5 feet

DRAFT FINAL DOCUMENT

bgs at location M-30. This occurrence is likely an isolated zone of perched groundwater related to irrigation water infiltration taking place on the athletic field. Groundwater was not observed in any of the remaining borings installed between December 23, 2016 and July 17, 2017.

3.2 Soil Analytical Results

Between December 28, 2016 and July 17, 2017, a total of one hundred and ninety (190) soil borings were advanced using hand auger or direct push drilling methods for the purpose of collecting soil samples in the vicinity of existing and former buildings, a former incinerator and a former AST (Figures 3 through 7). Tables 1 through 3 summarize data collected during the PEA-E from these soil borings at various depths, as follows:

The soil matrix analytical results indicate the following for screening for Arsenic, Lead, OCPs and/or PCBs at one hundred and eighty-eight (188) total soil borings in the vicinity of existing and former buildings (Table 1):

- One hundred and eighty-one (181) soil borings, were advanced to a target maximum total depth of 2.5 feet below ground surface (bgs), with soil samples typically collected from 0.5, 1.5 and 2.5 feet bgs, to the extent practicable. Seven (7) step-out borings were advanced to a target maximum total depth of 4 feet to delineate the vertical extent of arsenic impacts in soil in select areas, with soil samples typically collected at 0.5, 1.5, 2.5, 3 and 4 feet bgs (EB9-6 step-out samples and EB15-1 step-out sample).

- An initial round of soil sampling conducted between December 28, 2017 and January 3, 2017, identified lead or arsenic impacts in soil in eighteen (18) borings. Subsequent sampling events conducted April 10-12, 2017 and July 17, 2017 helped to delineate the extent of lead or arsenic contamination in these areas (Figures 3 through 7). Borings installed in April and July 2017 are referred to as step-outs or step-out borings throughout this report.

- During the PEA-E, three hundred and fifty one (351) original and step-out samples were analyzed for arsenic in soil with the following results (Table 1).

  – Arsenic was reported above the practical quantitation limit (PQL) in three hundred and twenty-six (326) samples at concentrations ranging between 1.0 mg/kg (EB6-3 at 1.5 feet bgs and EB9-6-E10 at 2.5 feet bgs) and a maximum of 82 mg/kg (EB15-1-S5 step-out at 0.5 feet bgs).

DRAFT FINAL DOCUMENT

  - The DTSC-adopted background arsenic concentration is 12 mg/kg (DTSC, 2008), and thirty-four (34) of the soil samples analyzed showed concentrations above 12 mg/kg (Table 1).

  - Additionally, nine (9) samples were also analyzed for arsenic using the Waste Extraction Test (WET) for STLC and/or TCLP by EPA Method 6010B, because the TTLC arsenic result in these samples was greater than 50 mg/kg. Each resulting arsenic concentration was below the STLC and TCLP regulatory limits of 5 milligrams per liter (mg/L). Additionally, no arsenic results exceeded the state hazardous waste criteria of 500 mg/kg TTLC-arsenic. Based on these TTLC, STLC and TCLP results, the levels of arsenic in soil are representative of non-hazardous material under California waste disposal regulations, per the California Code of Regulations, Title 22, Chapter 11, Article 3.

  - See Section 4.0 for further discussion of arsenic concentrations.

- During the PEA-E, five hundred and twenty-one (521) original and step-out samples were analyzed for lead in soil with the following results (Table 1).

  - Lead was reported above the PQL in all five hundred and twenty-one (521) samples at concentrations ranging between 1.3 mg/kg (FB16-1-E5 step-out at 0.5 feet bgs) and a maximum of 2,700 mg/kg (EB9-1-S5 step-out at 1.5 feet bgs).

  - The EPA Region 9 Regional Screening Level (RSL) for lead is 400 mg/kg (RSL for soil considering residential land use) (EPA, 2017), and three (3) of the soil samples analyzed showed concentrations above 400 mg/kg (Table 1).

  - The DTSC-modified screening level is 80 mg/kg (screening level for use in human health risk assessments) (DTSC, 2017), and fifty-three (53) of the soil samples analyzed showed concentrations above 80 mg/kg (Table 1).

  - Additionally, ninety-nine (99) samples were analyzed for lead using the WET-STLC and/or TCLP by EPA Method 6010B, because the TTLC-lead result in these samples was greater than 50 mg/kg. Each resulting lead concentration is shown on Table 1. One (1) lead result (EB9-1-S5 step-out at 1.5 feet bgs) exceeded the state hazardous waste criteria of 1,000 mg/kg TTLC-lead, and thirty-eight (38) STLC-lead results exceeded the

DRAFT FINAL DOCUMENT

STLC-lead limit of 5 mg/L. STLC-lead results were between 0.24 mg/L (FB9-1-N5 at 1.5 feet bgs) and 51 mg/L (EB9-1-E5 step-out at 0.5 feet bgs). TCLP-lead ranged between <0.014 mg/L (multiple samples) and 3.8 mg/L (FB14-4 at 1.5 feet bgs), so all TCLP-lead concentrations were below the TCLP regulatory limit of 5 mg/L.

  - Because lead results in select samples exceeded the state hazardous waste criteria of 1,000 mg/kg TTLC-lead or 5 mg/L STLC-lead, areas were identified with soil representative of hazardous material under California waste disposal regulations, per the California Code of Regulations, Title 22, Chapter 11, Article 3 (California-restricted non-RCRA hazardous waste was identified).

  - Federal RCRA hazardous waste was not identified based on the TCLP-lead results, which were all below 5 mg/L.

  - See Section 4.0 for further discussion of lead concentrations.

- As presented on Table 1, low concentrations of OCPs were detected above the laboratory PQL in forty-seven (47) out of two hundred and eighty (280) samples analyzed for OCPs between December 28, 2016 and January 3, 2017. OCP compounds with detections above the PQL included 4,4-DDD, 4,4-DDE, 4,4-DDT, alpha-Chlordane, Chlordane, gamma-Chlordane, and Methoxychlor in the following ranges:

  - 4,4-DDD from 2.1 micrograms per kilogram (µg/kg) (FB9-3 at 0.5 feet bgs) to 21 µg/kg (FB14-4 at 0.5 feet bgs),

  - 4,4-DDE from 2.2 µg/kg (FB15-2 at 0.5 feet bgs, and FB15-4 at 0.5 feet bgs) to 600 µg/kg (EB5-3 at 0.5 feet bgs),

  - 4,4-DDT from 2.1 µg/kg (FB4-3 at 0.5 feet bgs) to 25 µg/kg (FB14-4 at 0.5 feet bgs),

  - alpha-Chlordane from 1.1 µg/kg (FB1-3 at 1.5 feet bgs [duplicate], and EB20-3 at 0.5 feet bgs) to 38 µg/kg (FB15-3 at 2.5 feet bgs),

  - Chlordane (total) from 8.9 µg/kg (FB1-3 at 1.5 feet bgs [duplicate]) to 280 µg/kg (EB15-3 at 2.5 feet bgs),

DRAFT FINAL DOCUMENT

  - gamma-Chlordane from 1.0 µg/kg (EB20-2 at 1.5 feet bgs) to 29 µg/kg (FB15-3 at 2.5 feet bgs), and

  - Methoxychlor from 48 µg/kg (EB5-4 at 0.5 feet bgs) to 180 µg/kg (EB5-3 at 1.5 feet bgs).

  - The above reported concentrations for OCP compounds were below published regulatory screening levels in all borings sampled for OCPs between December 28, 2016 and January 3, 2017 (Table 1). Based on these initial results, no step-out samples were analyzed for OCPs in subsequent soil sampling events in April and July 2017.

- PCB concentrations were below the laboratory PQL in the subset of soil samples chosen for PCB analysis (38 samples collected from a depth of 0.5 or 1.5 feet bgs) (Table 1).

The soil matrix analytical results indicate the following for screening for PCBs, PAHs, and Title 22 metals in soil in the vicinity of a former incinerator (Tables 1 and 2):

- For one (1) soil boring (EB9-7), and one (1) step-out soil boring located 6 feet to the west (EB9-7-W6), soil samples were collected from target depths of 0.5, 1.5, and 2.5 feet bgs. Borings EB9-7 and EB9-7-W6 lie in the vicinity of a former on-site incinerator. The EB9-7 samples were analyzed for PAHs, PCBs, and Title 22 metals at each depth. The EB9-7-W6 step-out samples were analyzed for copper and lead at each depth. Additional step-out borings were attempted in the compass directions around the EB-9-7 boring. An aboveground structure prevented step-outs to the north, and utilities prevented step-outs to the east, south and further west.

- PCB concentrations were below the laboratory PQL in each of the EB9-7 samples (0.5, 1.5 and 2.5 feet bgs samples) (Table 1).

- PAHs concentrations were below the laboratory PQL in each of the EB9-7 samples (0.5, 1.5 and 2.5 feet bgs samples) (Table 2).

- Metals with detections above the PQL included arsenic, barium, chromium, cobalt, copper, lead, mercury, nickel, vanadium and zinc in the following ranges:

DRAFT FINAL DOCUMENT

  - Arsenic from 1.5 mg/kg (EB9-7 at 2.5 feet bgs) to 2.3 mg/kg (EB9-7 at 0.5 feet bgs),
  - Barium from 88 mg/kg (EB9-7 at 2.5 feet bgs) to 180 mg/kg (EB9-7 at 1.5 feet bgs),
  - Chromium from 14 mg/kg (EB9-7 at 0.5 feet bgs) to 20 mg/kg (EB9-7 at 2.5 feet bgs),
  - Cobalt from 8.0 mg/kg (EB9-7 at 0.5 feet bgs) to 9.0 mg/kg (EB9-7 at 2.5 feet bgs),
  - Copper from 25 mg/kg (EB9-7 at 2.5 feet bgs) to 2,800 mg/kg (EB9-7 at 0.5 feet bgs),
  - Lead from 11 mg/kg (EB9-7 at 2.5 feet bgs) to 250 mg/kg (EB9-7 at 0.5 feet bgs),
  - Mercury at 0.12 mg/kg (EB9-7 at 1.5 feet bgs) and below the PQL in remaining samples analyzed at EB9-7,
  - Nickel from 13 mg/kg (EB9-7 at 0.5 feet bgs) to 18 mg/kg (EB9-7 at 2.5 feet bgs),
  - Vanadium from 26 mg/kg (EB9-7 at 0.5 feet bgs) to 31 mg/kg (EB9-7 at 1.5 feet bgs and 2.5 feet bgs), and
  - Zinc from 38 mg/kg (EB9-7 at 2.5 feet bgs) to 170 mg/kg (EB9-7 at 1.5 feet bgs).

- With the exception of copper, lead and arsenic, Title 22 metals results were below published regulatory screening levels in each sample in the vicinity of the former incinerator (Table 2).
- None of the EB9-7 sample results for arsenic exceeded the DTSC-adopted background arsenic concentration of 12 mg/kg (DTSC, 2008), and arsenic was not analyzed in the step out samples from EB9-7-W6 (Table 1 and Table 2). Arsenic was not elevated above 12 mg/kg in the vicinity of the former incinerator. Arsenic results from the EB9-7 and EB9-7-W6 borings were included in the data set for arsenic in soil surrounding existing and former buildings at the Site (Table 1), as discussed in Section 4.0.

DRAFT FINAL DOCUMENT

- For lead results, none of the EB9-7 or EB9-7-W6 step-out samples exceeded the EPA Region 9 RSL of 400 mg/kg lead. Two (2) of the soil samples analyzed showed concentrations above 80 mg/kg (250 mg/kg and 130 mg/kg lead were reported for EB9-7 soil samples at 0.5 and 1.5 feet bgs, respectively). Lead results from the EB9-7 and EB9-7-W6 borings were included in the data set for lead in soil surrounding existing and former buildings at the Site (Table 1), as discussed in Section 4.0.

- For potential waste characterization purposes, EB9-7 soil samples at 0.5 and 1.5 feet bgs were analyzed for lead using the WET-STLC and TCLP by EPA Method 6010B. Each resulting lead concentration is shown on Table 1. Both STLC-lead results exceeded the STLC-lead limit of 5 mg/L. All TTLC-lead results were below the state hazardous waste criteria of 1,000 mg/kg TTLC-lead. Because lead results in select samples exceeded the 5 mg/L STLC-lead limit, areas were identified with soil representative of hazardous material under California waste disposal regulations, per the California Code of Regulations, Title 22, Chapter 11, Article 3 (California-restricted non-RCRA hazardous waste was identified). Federal RCRA hazardous waste was not identified based on the TCLP-lead results, which were all below 5 mg/L.

- For copper results, none of the EB9-7 or EB9-7-W6 step-out samples exceeded the EPA Region 9 RSL of 3,100 mg/kg copper. For waste characterization purposes, one 2,800 mg/kg TTLC-copper result at EB9-7 at 0.5 feet bgs exceeded the state hazardous waste criteria of 2,500 mg/kg TTLC-copper. Because copper results in the 0.5 feet bgs sample exceeded the state TTLC limit, areas were identified California-restricted non-RCRA hazardous waste was identified. There is no federal TCLP limit for copper. Elevated copper was not identified in other deeper samples at EB9-7 or in step-out samples at EB9-7-W6. The elevated copper result in the one sample from EB9-7 at 0.5 feet bgs was co-located with elevated lead results that also indicated California-restricted non-RCRA hazardous waste identified based on lead results.

The soil matrix analytical results indicate the following for screening for TPH in Soil in the Vicinity of a Former AST (Table 3):

- One (1) boring installed in the vicinity of a former fuel oil AST (EB1-1) was advanced to a target maximum total depth of 10 feet bgs, with soil samples

DRAFT FINAL DOCUMENT

collected from 1, 5 and 10 feet bgs. The samples from EB1-1 were analyzed for TPH.

- As shown on Table 3, TPH results were below published regulatory screening levels in each sample in the vicinity of the former fuel AST.

The soil matrix analytical results indicate the following for Supplemental Soil Samples from methane probe location M-3 where stained soil was screened for TPH and VOCs (potentially naturally-occurring tar sand) (Table 3):

- To screen for methane in soil gas, thirty (30) additional soil borings were advanced between December 23 and 28, 2016 to a maximum total depth of 15.5 feet bgs. Soil samples were not typically collected from methane probe locations; however, in consultation with OEHS, two supplemental soil samples were collected from one location (M-3 at 10 and 12.5 feet bgs) where soil staining (potentially tar sand) was observed.

- The M-3 soil samples were analyzed for TPH and VOCs, and results from the limited soil sampling at the M-3 location are presented in Table 3. As shown on Table 3, TPH results were below published regulatory screening levels in the M-3 samples at 10 and 12.5 feet bgs. VOCs in the M-3 samples were below the laboratory PQL.

Duplicate samples collected during the PEA-E are included in Tables 1 to 2 in the row beneath the relevant original sample. Duplicate samples show similar results to the original samples considering the observed heterogeneity of the soil matrix. Equipment blank sample results indicated levels of COPCs below the laboratory PQLs. Field procedures (sampling and decontamination) were conducted in compliance with the above procedures. Laboratory procedures were in compliance with the method requirements, including acceptable reporting limits, laboratory selection, and laboratory reporting of quality control information. Samples from borings and quality control samples were analyzed as planned, therefore an acceptable level of completeness was achieved. Borings that could not be installed due to refusal, proximity to utilities, or surface obstructions/structures were not considered in the assessment of completeness. Acceptable sensitivity was achieved by selecting analytical methods with reporting limits suitable for comparison with action levels. Overall, the dataset is considered to be of acceptable quality. As such, the data set is considered acceptable for use in assessing human health risk at the Site.

DRAFT FINAL DOCUMENT

3.3 Methane Screening Results

Probes were installed between December 23 and 28, 2016 using hand augering and direct-push drilling methods. Probe locations are shown in Figure 1 in Appendix F. Monitoring for methane and hydrogen sulfide was conducted on January 3 and 16, 2017. The probes were monitored using a magnahelic gauge for initial subsurface pressure, and a GEM2000 Plus for methane, fixed gases, and hydrogen sulfide. A Jerome 631-X H2S Analyzer was also used to monitor for hydrogen sulfide, and a Photovac MicroFID was used to monitor for methane. Table 1 in Appendix F summarizes field readings collected at thirty (30) methane probe locations throughout the Site.

During the initial round of monitoring, the GEM2000 Plus measured methane between 0.0% and 48.8% (M-17 probe set at 5 feet bgs), and hydrogen sulfide between 0.0 ppm and 1.0 ppm (M-1 and M-20 at 15 feet bgs). Methane was measured between 0.0 ppm and 3,800 ppm (M-14 at 15 feet bgs) using the MicroFID, and hydrogen sulfide was measured between 0.00 ppm and 0.78 ppm (M-14 at 15 feet bgs) using the Jerome 631-X H2S Analyzer. At some locations, the MicroFID experienced flame out conditions and the Jerome 631-X H2S Analyzer did not display a reading ("MF") preventing collection of measurements with these instruments. No flow was observed in some probes, as summarized in Table 1 in Appendix F.

During the second round of monitoring on January 16, 2017, the GEM 2000 Plus measured methane between 0.0% and 57.8% (M-17 probe set at 5 feet bgs), and hydrogen sulfide between 0.0 ppm and 1.0 ppm (M-24 at 15 feet bgs). Methane was measured between 0.0 ppm and 2,427 ppm (M-13 at 5 feet bgs) using the MicroFID, and hydrogen sulfide was measured between 0.00 ppm and 0.02 ppm (multiple probe locations) using the Jerome 631-X H2S Analyzer. At some locations, the MicroFID did not display a reading ("MF") preventing collection of measurements with these instruments.

In addition, fixed gases in the field measurements included carbon dioxide and oxygen, using the GEM2000 Plus. On January 3, 2017, carbon dioxide was measured between 0.0% (multiple probes) and 19.2% (M-6 at 5 feet bgs), and oxygen was measured between 1.6% (M-6 at 5 feet bgs) and 21.1% (M-14 at 5 feet bgs). On January 16, 2017, carbon dioxide was measured between 0.0%

DRAFT FINAL DOCUMENT

(multiple probes) and 17.0% (M-15 at 15 feet bgs) and oxygen was measured between 0.6% (M-17 at 5 feet bgs) and 21.1% (M-4 at 15 feet bgs).

Background outdoor air concentrations of methane and hydrogen sulfide were:

Date Sampled	% Methane (GEM2000 Plus)	Methane (ppm) (MicroFID)	Hydrogen Sulfide (ppm) (Jerome 631-X)
January 3, 2017	0.0	0.0	0.00
January 16, 2017	0.0	0.0	0.00

A summary of the monitoring results for soil vapor samples is presented in Table 1 in Appendix F. During each event, seven (7) soil vapor samples were collected for laboratory analysis of methane by EPA method 8015 and hydrogen sulfide by ASTM method D5504M. The January 3, 2017 samples were collected from probes M-1 at 15 feet bgs, M-7 at 5 feet bgs, M-8 at 5 feet bgs, M-14 at 15 feet bgs, M-15 at 15 feet bgs, and M-17 at 5 feet bgs (original and duplicate sample). The January 16, 2017 samples were collected from probes M-7 at 5 feet bgs, M-13 at 5 feet bgs, M-14 at 15 feet bgs, M-15 at 15 feet bgs, M-17 at 5 feet bgs (original and duplicate sample) and M-24 at 15 feet bgs. Soil vapor samples were delivered under chain of custody documentation to Enthalpy Analytical, Inc. (Enthalpy) in Orange, California for analysis. Enthalpy is a California Department of Public Health, Environmental Laboratory Accreditation Program-certified laboratory. Laboratory results for methane and hydrogen sulfide in soil gas are presented in Table 2 in Appendix F. Copies of the laboratory reports are included in Appendix F.

During the initial round of sampling on January 3, 2017, the laboratory reported methane between 124 ppm (M-7 at 5 feet bgs) and 577,000 ppm (M-17 duplicate sample at 5 feet bgs), and hydrogen sulfide between 0.008 ppm (M-8 at 5 feet bgs) and 3.5 ppm (M-1 at 15 feet bgs). During the second round of sampling on January 16, 2017, the laboratory reported methane between 84,200 ppm (M-15 at 15 feet bgs) and 388,000 ppm (M-17 duplicate sample at 5 feet bgs), and hydrogen sulfide between 0.021 ppm (M-13 at 5 feet bgs) and 5.4 ppm (M-24 at 15 feet bgs).

Methane field readings were generally similar to laboratory results for methane and hydrogen sulfide. Where variability was observed between field and

DRAFT FINAL DOCUMENT

laboratory results, the field result was qualified in Table 1 in Appendix F with a J1 or J2 qualifier. The qualifier indicates that the result is an estimate based on variability between the field and laboratory results for methane, with the field result being lower (J1) or higher (J2) than the laboratory result. As qualified, the data is usable for its intended purpose of screening the Site for methane in soil gas beneath the Site.

The maximum positive pressure measured in the probes prior to monitoring was a maximum of 1.0 inches of water column (multiple probes, Table 1 in Appendix F). Based on the maximum methane concentrations measured above 12,500 ppm, the Site is a Level V design category per LADBS methane regulations (>12,500 ppm at all pressures). Hydrogen sulfide was detected at a maximum of 5.4 ppm.

DRAFT FINAL DOCUMENT

4.0 HUMAN HEALTH SCREENING EVALUATION

Areas surrounding existing and former buildings are typically paved at the Site. There is no direct pathway between the current Site occupants and shallow soil in paved areas. It is Leighton's understanding that one of the intentions of sampling was to assess shallow soil for COPCs identified in the Phase 1 ESA (WorleyParsons, 2016). Data from this PEA-E will help to evaluate reuse and disposal options for soil that may be disturbed during redevelopment activities.

Elevated levels of arsenic and lead were identified at the Site based upon the initial soil sampling activities conducted between December 28, 2017 and January 3, 3017, during which select samples were analyzed for arsenic, lead, OCPs, PCBs, TPH, PAHs, Title 22 metals, and/or VOCs (Tables 1 through 3), as described in Section 3, above. Results for remaining Title 22 Metals, OCPs, PCBs, TPH, PAHs, and VOCs were below their respective screening levels (Human Health Risk Assessment Note #3, and RSLs).

Arsenic in Soil: A 12 mg/kg concentration of arsenic in soil represents an upper-bound value for background ambient levels of arsenic found in southern California and is actually a 95% upper confidence limit (UCL)(DTSC, 2008). The 12 mg/kg concentration was used as the screening level for arsenic at the Site.

Arsenic was reported above the PQL in three hundred and twenty-six (326) samples at concentrations ranging between 1.0 mg/kg (EB6-3 at 1.5 feet bgs and EB9-6-E10 at 2.5 feet bgs) and a maximum of 82 mg/kg (EB15-1-S5 step-out at 0.5 feet bgs) (Table 1). Due to the presence of sample results above 12 mg/kg in thirty-four (34) of the samples, a 95% upper confidence limit (UCL) analysis was completed. The analysis used the three hundred and twenty-six (326) detections above the PQL to determine if arsenic in soil exceeded the screening level, and would potentially present a human health risk to current or future occupants of the Site. The 95% UCL Analysis Report is included as Appendix G. The result was 9.842 mg/kg for arsenic. The median arsenic result is 2.4 mg/kg. The arsenic data set is consistent with the southern California arsenic data set and the central tendencies are also similar.

Shallow soil where elevated arsenic results were reported will be targeted for removal, so that arsenic remaining at the Site is below background arsenic levels for southern California per DTSC guidelines (12 mg/kg arsenic) (DTSC, 2008).

DRAFT FINAL DOCUMENT

Lead in Soil: The 80 mg/kg concentration is the DTSC screening level for lead in soil (Human Health Risk Assessment Note #3, soil lead discussion, available at http://www.dtsc.ca.gov/ AssessingRisk/ LeadSpread8.cfm).

Due to the presence of sample results above 80 mg/kg in fifty-three (53) of the samples, a 95% UCL analysis was completed. The analysis used the five hundred and twenty-one (521) detections above the PQL to determine if lead in soil exceeded the screening level, and would potentially present a human health risk to current or future occupants of the Site. The 95% UCL Analysis Report is included as Appendix G. The result was 61.28 mg/kg for lead. The median lead result is 11 mg/kg. The lead data set indicates that the 95% UCL is below the screening level of 80 mg/kg.

Shallow soil where elevated lead results were reported will be targeted for removal, so that lead remaining at the Site is below the DTSC-modified screening level (80 mg/kg lead) (DTSC, 2017).

Other COPCs in Soil (remaining Title 22 Metals, OCPs, PCBs, TPH, PAHs, and VOCs):

With the exception of limited areas with elevated arsenic and lead in soil, the PEA-E sampling results presented in this report, demonstrate that soil analytical results for remaining Title 22 Metals, OCPs, PCBs, TPH, PAHs, and VOCs were either below the laboratory PQL or below regulatory screening levels.

Arsenic and lead have been identified as chemicals of concern in soil. Based on District preference to remove isolated areas with elevated arsenic and lead, further action appears warranted at the Site.

Methane in Soil Gas: Methane gas is a non-poisonous, non-toxic, non-carcinogenic, and simple asphyxiant. Methane is considered for its explosive concerns and not health concerns. Accumulation of methane gas is combustible and potentially explosive at concentrations above the lower explosive limit of 50,000 ppmv (equivalent to 5% v/v methane in air, and 100% of the LEL) in the presence of oxygen and an ignition source. Methane is discussed further in Appendix F.

DRAFT FINAL DOCUMENT

5.0 COMMUNITY PROFILE

5.1 Community Demographics

A brief summary of the community demographics for the zip code 90005 in Los Angeles County according to the 2010 US Census (factfinder.census.gov) is as follows:

- Total population: 37,681
- Male: 13,635 (51.2%)
- Female: 14,292 (48.8%)
- Median Age: 33.9
- Population 18 years and over: 79.7%
- Total Housing units: 16,345
- Average Household Size: 2.5
- Population by race: White: 10,953 (29.1%)
  Black or African American: 2,007 (5.3%)
  American Indian and Alaska Native: 317 (0.8%)
  Asian: 12,740 (33.8%)
  Native Hawaiian and Pacific Islander: 40 (0.1%)
  Other: 9,940 (26.4%)
  Two or More Races: 1,684 (4.5%)

5.2 Local Participation and Involvement

At the time of this investigation, Leighton is not aware of any current or past media coverage with relation to the School property or the Site. A fact sheet, in the form of a flyer, was produced in English, Spanish, and Korean (double-sided flyer) to provide members of the community with details regarding the PEA-E investigation including who would perform the work, project schedule, when and where the results of the investigation would be posted, and who to contact regarding additional information. This work notice flyer was handed out to School staff, mailed to parents of students, hand-delivered to line-of-site neighbors of the School, and posted along the boundary fence of the School property.

DRAFT FINAL DOCUMENT

No specific environmental concerns or issues have been brought to the District's attention regarding the onsite activities at this time. In terms of project visibility, the onsite work took place during School shut downs (i.e., winter break and summer break) to minimize any interference with school activities. Line-of-site neighbors, School staff, and parents were given copies of the work notice flyer. With the exception of offsite former gas station sites identified by WorleyParsons in the Phase 1 ESA (WorleyParsons, 2016), Leighton is unaware of environmental concerns or issues with relation to neighboring sites at this time.

DRAFT FINAL DOCUMENT

6.0 OPINION OF ENVIRONMENTAL PROFESSIONAL

Based on the PEA-E sampling results (Table 1), elevated levels of lead and arsenic were reported for soil in limited areas at the Site (Figures 4 through 7). The RAW should include hot spot removal such that the post-removal data sets for lead and arsenic provide 95% UCL analysis results that are below DTSC screening levels of 80 mg/kg lead and 12 mg/kg arsenic, respectively (DTSC, 2017 and 2008). The extent of excavations shown on Figures 4 through 7 are estimates. Based on the post-removal data sets and their 95% UCL analysis results, the final extent of soil removal may vary from that shown on Figures 4 through 7, in consultation with OEHS and DTSC, as appropriate.

One elevated result of 2,800 mg/kg for copper at boring EB9-7 at 0.5 feet bgs was co-located with elevated lead impacts in soil in the vicinity of a former incinerator. This copper result was below the RSL for residential soil considering health risk screening (3,100 mg/kg). Copper will not drive removal action based on health risk because the maximum level of 2,800 mg/kg is below the relevant RSL and no DTSC-modified screening level exists for copper. Copper in the vicinity of boring EB9-7 will be addressed with the removal of lead-impacted soil. Should soil generated from the vicinity of boring EB9-7 require disposal, copper and lead will both support classification of the soil as California-restricted non-RCRA hazardous waste.

Further action appears warranted to address lead and arsenic in soil at select areas of the Site. Limitations that apply to this PEA-E study are shown in Section 8.0.

It is our opinion that the objectives of the methane screening survey were met, and no additional assessment is necessary to assess the objectives of the methane survey. Soil vapor probes were installed per the DTSC Advisory Active Soil Gas Investigations dated July 2015, as required by the RFP (OEHS, 2016). Maximum methane concentrations observed in the soil vapor probes in January 2017 trigger Design Level V, which is the highest level of mitigation LADBS specifies. Additional sampling per LADBS testing depths (5, 10 and 20 feet) does not appear warranted because LADBS would be unlikely to accept a design level less stringent that Design Level V.

DRAFT FINAL DOCUMENT

7.0 CONCLUSIONS AND RECOMMENDATIONS

The Site is part of the Burroughs Middle School property, located at 600 South McCadden Place, Los Angeles, California, 90005 (Figure 1 and Figure 2). The primary objectives of this PEA-E were to assess soil for potential environmental concerns identified in a Phase I ESA (WorleyParsons, 2016); and to evaluate overall Site health risk based on soil analytical screening results for COPCs, including lead, arsenic, OCPs, PCBs, TPH, PAH's, and CAM-17. Additionally, this PEA-E included a survey to screen for methane in soil gas.

Based upon the findings presented in this PEA-E study, elevated levels of COPCs were identified at the Site in soil, including arsenic and lead in soil in select areas (Table 1). With the exception of arsenic and lead in select borings, the soil matrix analytical results (Tables 1 through 3) indicate that remaining COPCs at the Site were either below detection or below regulatory screening levels. On behalf of the District, Leighton recommends preparation of a Removal Action Workplan (RAW) to address areas of elevated arsenic and lead in soil at the Site per DTSC guidelines (DTSC, 2017 and 2008).

The purpose of conducting the methane screening survey was to evaluate the Site for the presence of oil field gases and determine the design level of mitigation required. The Site lies within the City of Los Angeles methane zone. The Salt Lake Oil Field lies approximately 1,500 feet north of the Site and 2,000 feet west of the Site. One plugged oil and gas production well is also located approximately 1,300 feet west/southwest of the Site. Maximum field measurements and the maximum laboratory reported concentrations from sampling events on January 3 and 16, 2017 exceeded 12,500 ppm methane. The maximum positive pressure measured in the probes prior to monitoring was a maximum of 1.0 inches of water column. Hydrogen sulfide was detected at a maximum of 5.4 ppm at the Site. Based on the field measurements and the laboratory results the Site is categorized as Design Level V at all pressures per the LADBS criteria. It is our opinion that the objectives of the methane screening survey were met, and no additional assessment is necessary to assess the objectives of the methane survey.

DRAFT FINAL DOCUMENT

8.0 LIMITATIONS

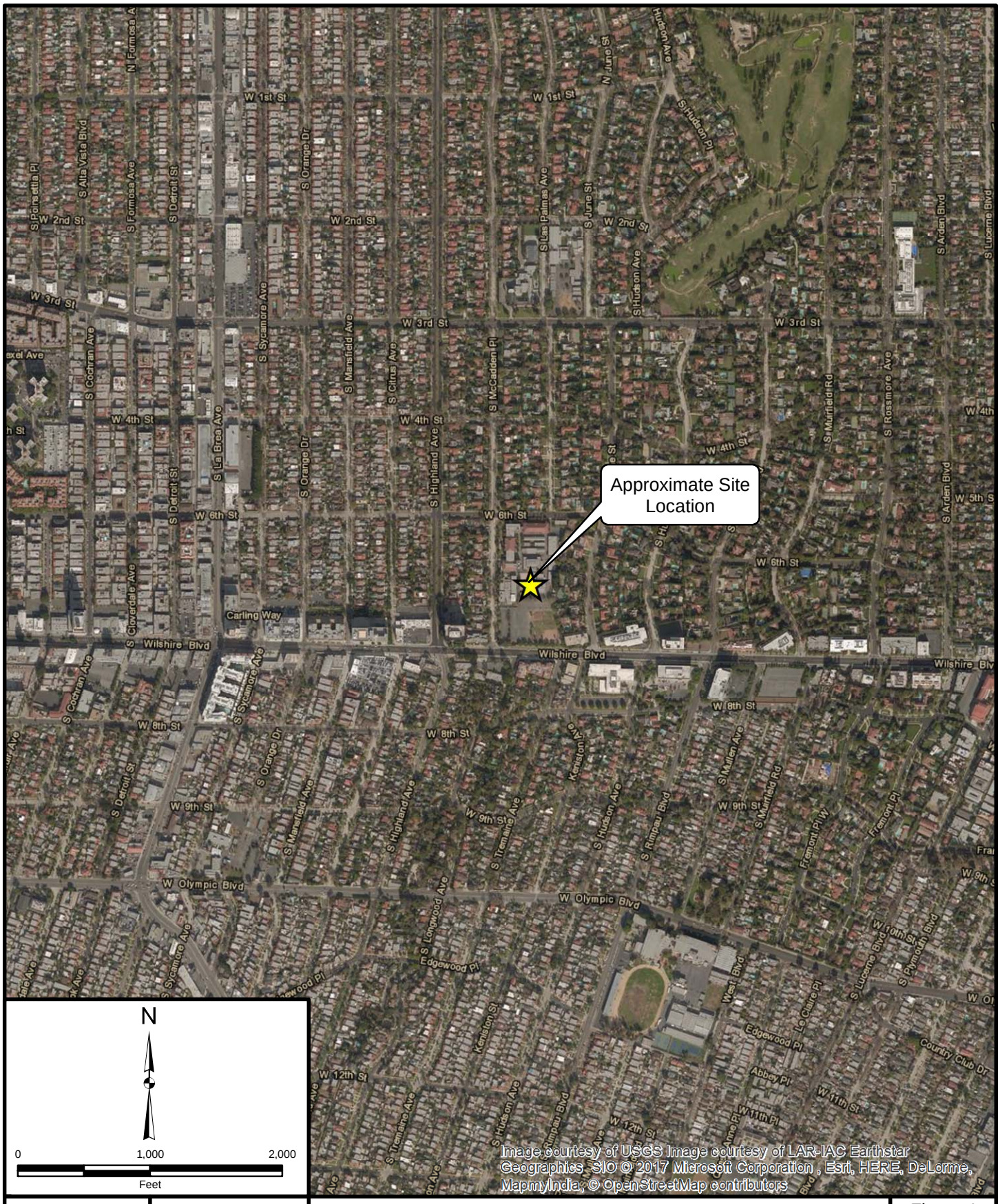
The services described in this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, express or implied, is made. Opinions, conclusions, and recommendations contained in this report apply to conditions existing when the services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. Where subsurface exploratory work, monitoring, and/or testing was performed, our professional opinions and conclusions are based in part on interpretation of data from discrete sampling or measurement locations that may not represent actual conditions at un-sampled or un-measured locations. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of the services. We assume no responsibility for conditions we were not authorized to evaluate, or conditions not generally recognized as predictable when the services were performed. We do not warranty the accuracy of information supplied by others, or the use of segregated portions of this report.

This document is intended to be used only in its entirety. No portion of the document, by itself, is designed to completely represent any aspect of the project described herein. Leighton should be contacted if the reader requires any additional information, or has questions regarding content, interpretations presented, or completeness of this document.

Leighton's professional opinions and recommendations regarding environmental conditions, as presented in this report, are based on limited subsurface assessment and chemical analyses data. Further assessment of potential adverse environmental impacts from past on-Site and/or nearby use of hazardous materials may be accomplished by a more comprehensive assessment. The samples collected and used for testing, and the observations made, are believed to be representative of the area(s) evaluated; however, conditions can vary significantly between and beyond the sampling locations. Variations in soil and soil gas conditions likely exist beyond the points explored in this assessment and related excavation.

DRAFT FINAL DOCUMENT

FIGURES



Project: 603378.006	Eng/Geol: JCH/RAL
Scale:1 " = 1,000 '	Date: March 2017

Base Map: ESRI ArcGIS Online 2017
Thematic Information: Leighton
Author: Leighton Geomatics (btran)

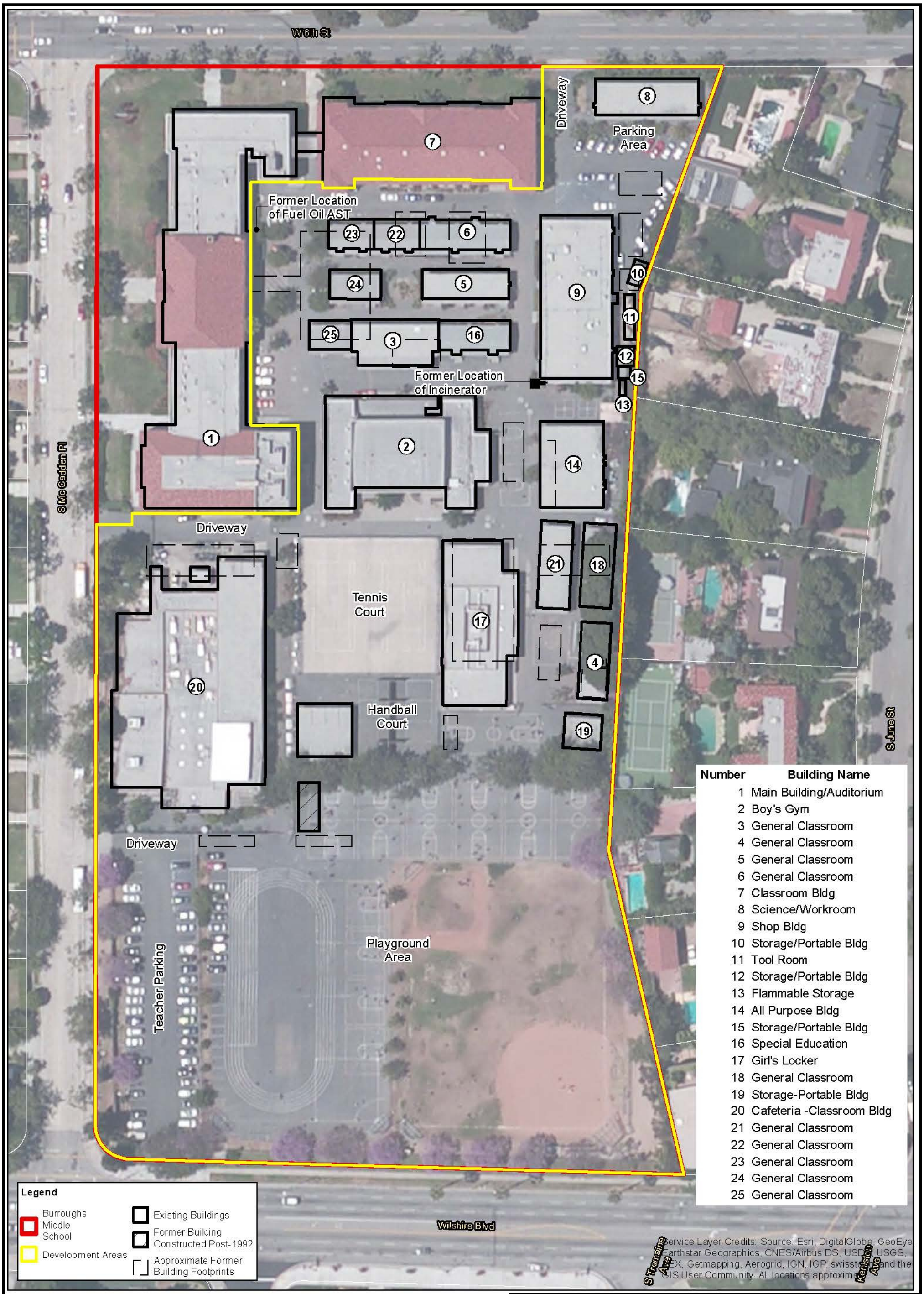
SITE LOCATION MAP

LAUSD Burroughs Middle School
600 South McCadden Place,
Los Angeles, California

Figure 1

Leighton

Map Saved as V:\Drafting\603378\006\Maps\603378-006_F01_SLM_2017-03-28.mxd on 3/28/2017 10:16:46 AM



Number	Building Name
1	Main Building/Auditorium
2	Boy's Gym
3	General Classroom
4	General Classroom
5	General Classroom
6	General Classroom
7	Classroom Bldg
8	Science/Workroom
9	Shop Bldg
10	Storage/Portable Bldg
11	Tool Room
12	Storage/Portable Bldg
13	Flammable Storage
14	All Purpose Bldg
15	Storage/Portable Bldg
16	Special Education
17	Girl's Locker
18	General Classroom
19	Storage-Portable Bldg
20	Cafeteria -Classroom Bldg
21	General Classroom
22	General Classroom
23	General Classroom
24	General Classroom
25	General Classroom

N
W E
S
0 150
Feet

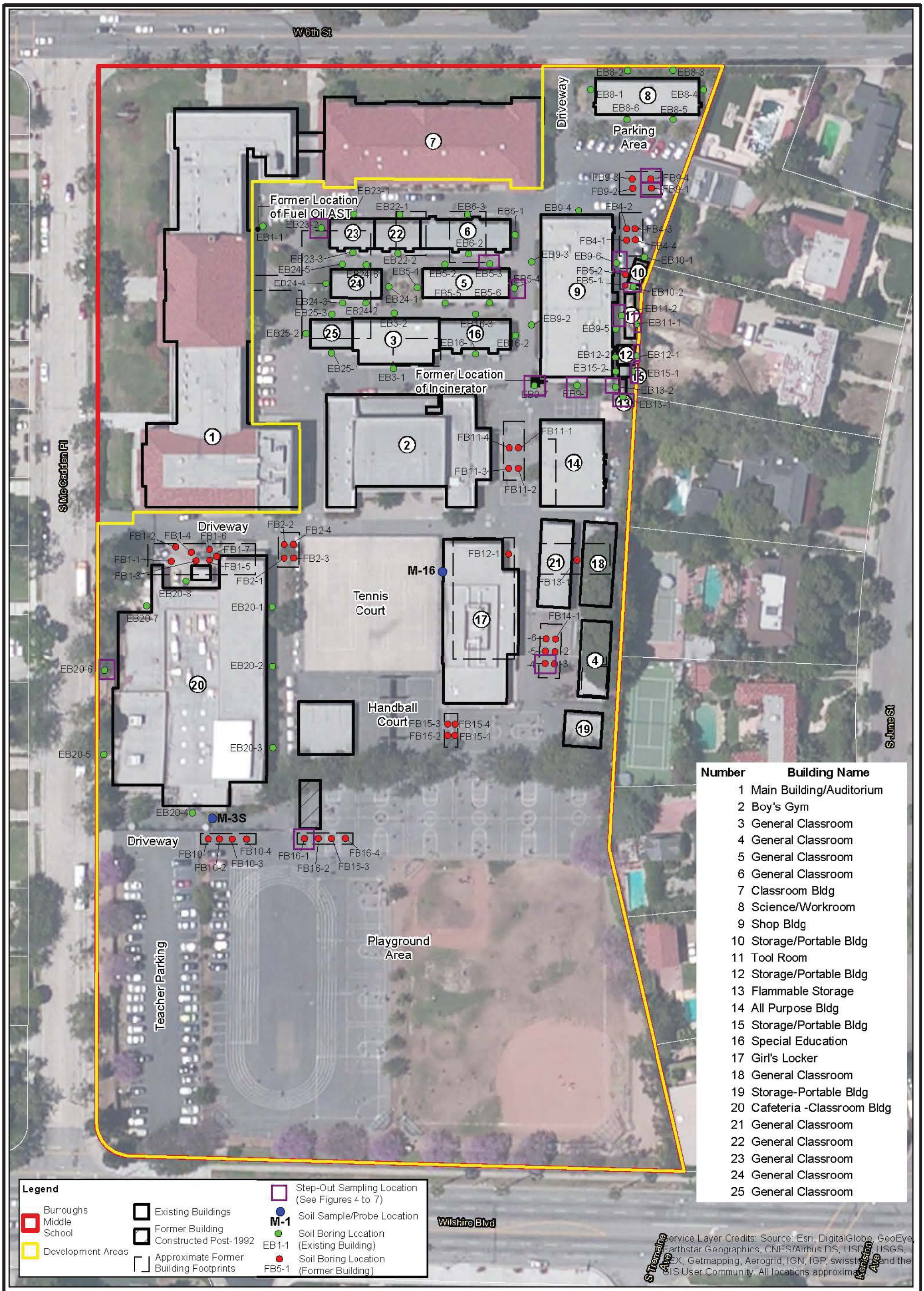
CURRENT AND HISTORICAL BUILDING AND STRUCTURE LOCATIONS

600 South McCadden Place,
Los Angeles, CA

FIGURE 2

Project: 603378.006	Eng/Geol: JCH/RL
Approx. Scale 1"=75'	Date:03/24/17
Drafted By: BES	Checked By: JCH

Leighton



Site Plan provided by Advisian,Worley Parsons Group. dated 10/16/2016.

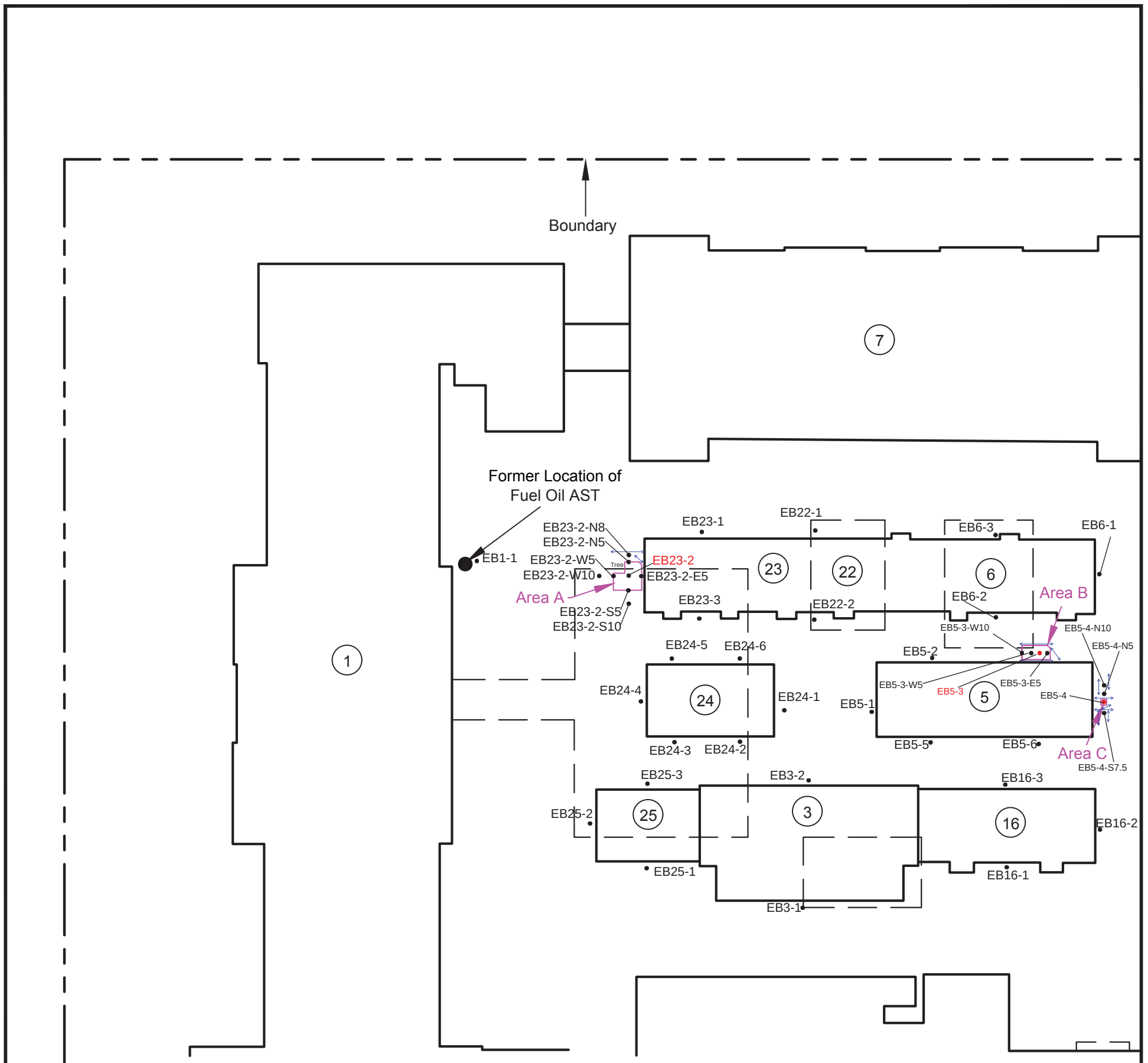
SOIL BORING LOCATION MAP

600 South McCadden Place,
Los Angeles, CA

FIGURE 3

Project: 603378.006	Eng/Geol: JCH/RL
Approx. Scale 1"=75'	Date:03/24/17
Drafted By: BES	Checked By: JCH

Leighton



Notes/Definitions:

bgs = below ground surface
mg/kg = Milligrams per kilogram
mg/L = Milligrams per liter
NA = not analyzed for arsenic and/or lead TTLC
STLC = Soluble threshold limit concentration
TCLP = Toxicity characteristic leaching procedure
TTLC = Total threshold limit concentration
RCRA = Resource Conservation and Recovery Act
* Replicate/duplicate soil sample

Approximate Volume of Soil Impacted with Arsenic or Lead for Removal**:
Area A (to 1.5 ft bgs) = ~5.0 CY (Non-Hazardous)
Area B (to 1 feet bgs) = ~1.8 CY (CA-Haz Non-RCRA)
Area C (to 1.5 feet bgs) = ~0.2 CY (CA-Haz Non-RCRA)
**Removal to within 1 foot of surface structures and to within 2 feet of identified utilities was assumed.

LEGEND

EB1-1 — Sample: Where Lead-TTLC (mg/kg) or Arsenic-TTLC (mg/kg) results are greater than >80 mg/kg lead or >12 mg/kg arsenic the ID is red

Non-Hazardous Waste - Soil Sample Location where no results exceeded hazardous waste criteria

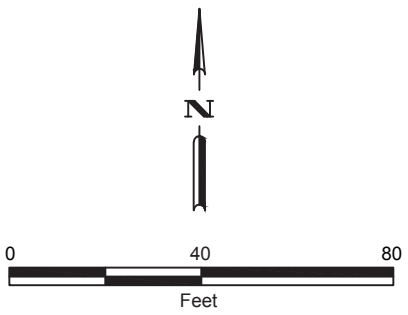
California-Restricted (Non-RCRA) Hazardous Waste - Soil Sample Location where Lead STLC exceeded 5.0 mg/L, arsenic STLC exceeded 5 mg/L and/or Lead TTLC exceeded 1,000 mg/kg [No sample results exceeded Federal RCRA Hazardous Waste criteria]

Approximate location of detected utilities near impacted soil areas

Existing Buildings

Approximate Former Building Footprints

Approximate extent of lead or arsenic impacted soil based on TTLC Lead >80 mg/kg, TTLC Arsenic >12 mg/kg, or CA Hazardous Levels

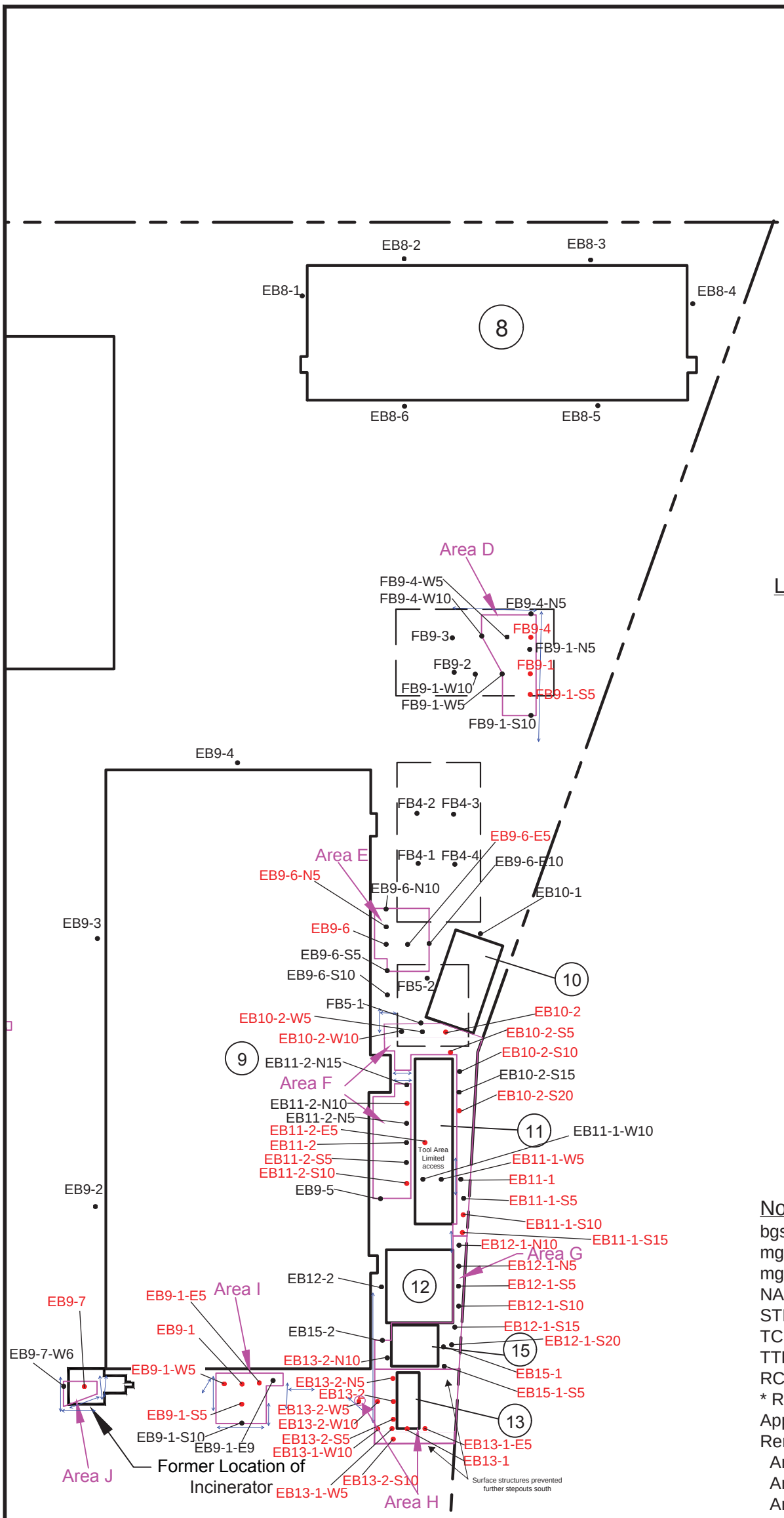


Project: 603378.006	Eng/Geol: JH
Scale: 1"=40'	Date: September 2017
Reference:	
Author: MAM	

STEP-OUT SOIL BORING LOCATION MAP
EXISTING BUILDING 5 AND EXISTING BUILDING 23
600 South McCadden Place
Los Angeles, California

Figure 4

Leighton



LEGEND

EB1-1 — Sample: Where Lead-TTLC (mg/kg) or Arsenic-TTLC (mg/kg) results are greater than >80 mg/kg lead and >12 mg/kg arsenic the ID is red

Non-Hazardous Waste - Soil Sample Location where no results exceeded hazardous waste criteria

California-Restricted (Non-RCRA) Hazardous Waste - Soil Sample Location where Lead STLC exceeded 5.0 mg/L, arsenic STLC exceeded 5 mg/L and/or Lead TTLC exceeded 1,000 mg/kg
[No sample results exceeded Federal RCRA Hazardous Waste criteria]

Approximate location of detected utilities near impacted soil areas

Approximate extent of lead or arsenic impacted soil based on TTLC Lead >80 mg/kg, TTLC Arsenic >12 mg/kg, or CA Hazardous Levels

Existing Buildings

Approximate Former Building Footprints

Notes/Definitions:

bgs = below ground surface
mg/kg = Milligrams per kilogram
mg/L = Milligrams per liter
NA = not analyzed for arsenic and/or lead TTLC
STLC = Soluble threshold limit concentration
TCLP = Toxicity characteristic leaching procedure
TTLC = Total threshold limit concentration
RCRA = Resource Conservation and Recovery Act
* Replicate/duplicate soil sample
Approximate Volume of Soil Impacted with Arsenic or Lead for Removal**:
Area D (to 2.5 feet bgs) = ~22 CY (CA-Haz Non-RCRA)
Area E (to 4.5 feet bgs) = ~31 CY (Non-Hazardous)
Area F (to 2.5 feet bgs) = ~20 CY (CA-Haz Non-RCRA)
Area G(to 3.5 feet bgs) = ~18 CY (Non-Hazardous)
Area H** (to 2.5 feet bgs) = ~18 CY (CA-Haz Non-RCRA)
Area I (to 2.5 feet bgs) = ~14 CY (CA-Haz Non-RCRA)
Area J (to 2.5 feet bgs) = ~3 CY (CA-Haz Non-RCRA)
**Survey monument to protect in Area H west of Building 13. Removal to within 1 foot of surface structures and to within 2 feet of identified utilities was assumed.

N

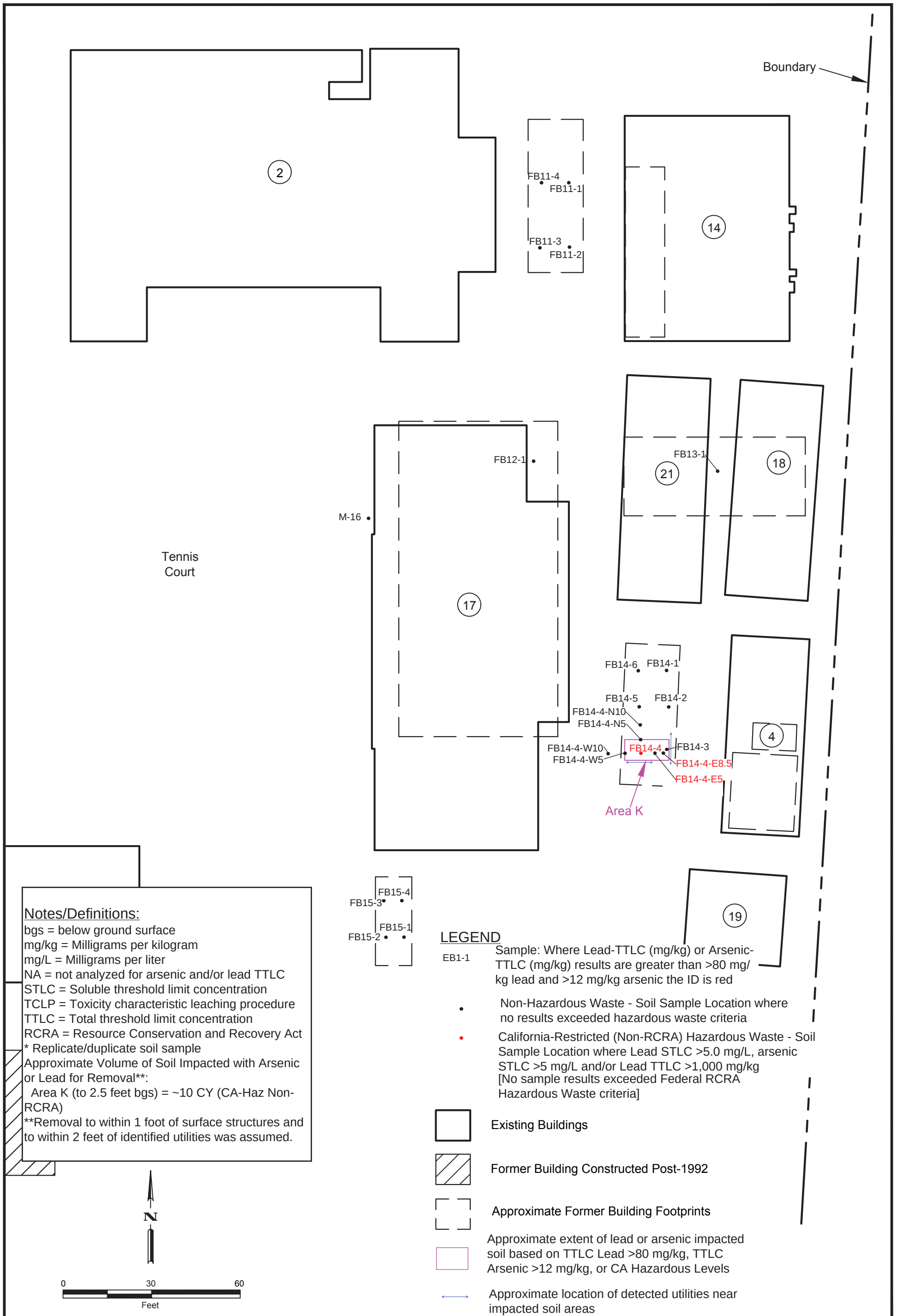
0 30 60
Feet

Project: 603378.006	Eng/Geol: JH
Scale: 1"=30'	Date: September 2017
Reference:	
Author: MAM	

STEP-OUT SOIL BORING LOCATION MAP
EXISTING BUILDING 9 AND VICINITY
600 South McCadden Place
Los Angeles, California

Figure 5

Leighton



Notes/Definitions:

bgs = below ground surface
mg/kg = Milligrams per kilogram
mg/L = Milligrams per liter
NA = not analyzed for arsenic and/or lead TTLC
STLC = Soluble threshold limit concentration
TCLP = Toxicity characteristic leaching procedure
TTLC = Total threshold limit concentration
RCRA = Resource Conservation and Recovery Act
* Replicate/duplicate soil sample
Approximate Volume of Soil Impacted with Arsenic or Lead for Removal**:
Area K (to 2.5 feet bgs) = ~10 CY (CA-Haz Non-RCRA)
**Removal to within 1 foot of surface structures and to within 2 feet of identified utilities was assumed.

Project: 603378.006	Eng/Geol: JH
Scale: 1"=30'	Date: September 2017
Reference:	
Author: MAM	

STEP-OUT SOIL BORING LOCATION MAP
FORMER BUILDING 14
600 South McCadden Place
Los Angeles, California

Figure 6

Leighton

Boundary

Driveway

FB1-2
FB1-4
FB1-6
FB1-7
FB1-1
FB1-3
FB1-5
EB20-8

FB2-4
FB2-2
FB2-3
FB2-1

EB20-7
EB20-1
EB20-2
EB20-3
EB20-5
EB20-4
M-3S

Surface Area L
EB20-6-N10
EB20-6-N5
EB20-6-W8
EB20-6
EB20-6-W5
EB20-6-S5
Tree
Wall

EB20

Driveway

FB10-1
FB10-3
FB10-2
FB10-4

FB16-1-N10
FB16-1-N5
FB16-1-W10
FB16-2
FB16-4
FB16-1-W5
FB16-3
FB16-1
FB16-1-E10
FB16-1-E5
FB16-1-S5
FB16-1-S10
Surface Area M

Notes/Definitions:
bgs = below ground surface
mg/kg = Milligrams per kilogram
mg/L = Milligrams per liter
NA = not analyzed for arsenic and/or lead TTLC
STLC = Soluble threshold limit concentration
TCLP = Toxicity characteristic leaching procedure
TTLC = Total threshold limit concentration
RCRA = Resource Conservation and Recovery Act
* Replicate/duplicate soil sample
Approximate Volume of Soil Impacted with Arsenic or Lead for Removal**:
Area L (to 1.5 feet bgs) = ~3 CY (CA-Haz Non-RCRA)
Area M (to 2.5 feet bgs) = ~14 CY (CA-Haz Non-RCRA)
**Removal to within 1 foot of surface structures and to within 2 feet of identified utilities was assumed.

LEGEND

EB1-1 — Sample: Where Lead-TTLC (mg/kg) or Arsenic-TTLC (mg/kg) results are greater than >80 mg/kg lead and >12 mg/kg arsenic the ID is red

Non-Hazardous Waste - Soil Sample Location where no results exceeded hazardous waste criteria

California-Restricted (Non-RCRA) Hazardous Waste - Soil Sample Location where Lead STLC exceeded 5.0 mg/L, arsenic STLC exceeded 5 mg/L and/or Lead TTLC exceeded 1,000 mg/kg
[No sample results exceeded Federal RCRA Hazardous Waste criteria]

Approximate extent of lead or arsenic impacted soil based on TTLC Lead >80 mg/kg, TTLC Arsenic >12 mg/kg, or CA Hazardous Levels

Existing Buildings

Former Building Constructed Post-1992

Approximate Former Building Footprints

Approximate location of detected utilities near impacted soil areas

N

0 30 60
Feet

Project: 603378.006	Eng/Geol: JH
Scale: 1"=30'	Date: September 2017
Reference:	
Author: MAM	

STEP-OUT SOIL BORING LOCATION MAP
EXISTING BUILDING 20 AND FORMER BUILDING 16
600 South McCadden Place
Los Angeles, California

Figure 7

Leighton

P:\DRAFTING\603378\006\CAD\WORKING.DWG (09.08.17 5:07:30PM) Plotted by: mmurphy

TABLES

TABLE 1
Summary of Laboratory Results in Soil for Organochlorine Pesticides (OCPs), Arsenic, Lead and Polychlorinated Biphenyls (PCBs)
Burroughs Middle School

Location	Borehole ID	Sample ID	Sample Depth (feet bgs)	Date Sampled	OCPs by EPA Method 8081 (ug/kg)											Arsenic & Lead by EPA Method 6010B (mg/kg)		STLC by WET/EPA Method 6010B (mg/L)		TCLP by EPA Method 6010B (mg/L)		PCBs by EPA Method 8082 (ug/kg)	
					4,4-DDD	4,4-DDE	4,4-DDT	alpha-Chlordane	Chlordane (Total)	Dieldrin	Endrin	gamma-Chlordane	Heptachlor epoxide	Methoxy-chlor	All Other OCPs	Arsenic	Lead	Arsenic	Lead	Arsenic	Lead	Aroclor 1260	All Other PCBs
Main Building/ Auditorium (EB1)	EB1-1**	EB1-1-1	1.0	12/28/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		EB1-1-5	5.0	12/28/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		EB1-1-10	10.0	12/28/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Classroom Building No. 3 (EB3)	EB3-1*	EB3-1-0.5	0.5	1/3/17	0.38 J	**150**	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**4.5**	**43**	--	--	--	--	12 J	ND
		EB3-1-1.5	1.5	1/3/17	<0.22	**10**	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**3.1**	**6.1**	--	--	--	--	--	--
		EB3-1-1.5-D	1.5	1/3/17	<0.22	**8.1**	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**5.0**	**12**	--	--	--	--	--	--
		EB3-1-2.5	2.5	1/3/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB3-2	EB3-2-0.5	0.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.5**	**24**	--	--	--	--	--	--
		EB3-2-1.5	1.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.7**	**4.4**	--	--	--	--	--	--
		EB3-2-2.5	2.5	12/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Classroom Building No. 5 (EB5)	EB5-1	EB5-1-0.5	0.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.7**	**25**	--	--	--	--	--	--
		EB5-1-1.5	1.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.7**	**3.7**	--	--	--	--	--	--
		EB5-1-2.5	2.5	12/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB5-2	EB5-2-0.5	0.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.1**	**7.9**	--	--	--	--	--	--
		EB5-2-1.5	1.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.0**	**3.7**	--	--	--	--	--	--
		EB5-2-2.5	2.5	12/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB5-3	EB5-3-0.5	0.5	12/29/16	**13**	**600**	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**7.9**	**170**	--	**7.3 D1**	--	0.038 D1, J	--	--
		EB5-3-1.0	1.0	12/29/16	0.30 J	**33**	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	**180**	ND	**3.2**	**25**	--	--	--	--	--	--
		Refusal at 1.0' bgs in boring.																		--			
	Step out boreholes near boring EB5-3:																						
	EB5-3-W5	EB5-3-W5-0.5	0.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**22**	--	--	--	--	--	--
		EB5-3-W5-1.5	1.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**4.7**	--	--	--	--	--	--
		EB5-3-W5-2.5	2.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**3.7**	--	--	--	--	--	--
	EB5-3-W10	EB5-3-W10-0.5	0.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**14**	--	--	--	--	--	--
		EB5-3-W10-1.5	1.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**2.9**	--	--	--	--	--	--
		EB5-3-W10-2.5	2.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**2.8**	--	--	--	--	--	--
	EB5-3-E5	EB5-3-E5-0.5	0.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**34**	--	--	--	--	--	--
		EB5-3-E5-1.5	1.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**3.3**	--	--	--	--	--	--
		EB5-3-E5-2.5	2.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**3.2**	--	--	--	--	--	--
	EB5-4	EB5-4-0.5	0.5	12/29/16	<1.1 D1	<0.98 D1	<0.67 D1	<1.1 D1	<4.5 D1	<1.2 D1	<1.1 D1	<1.1 D1	<1.0 D1	**48 D1**	ND	**2.2**	**56**	--	**7.7 D1**	--	--	--	--
		EB5-4-1.5	1.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.9**	**18**	--	--	--	--	--	--
		EB5-4-2.5	2.5	12/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Step out boreholes near boring EB5-4:																						
	EB5-4-N5	EB5-4-N5-0.5	0.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**15**	--	--	--	--	--	--
		EB5-4-N5-1.5	1.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**3.6**	--	--	--	--	--	--
		EB5-4-N5-2.5	2.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**3.1**	--	--	--	--	--	--
	EB5-4-N10	EB5-4-N10-0.5	0.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**17**	--	--	--	--	--	--
		EB5-4-N10-1.5	1.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**5.8**	--	--	--	--	--	--
		EB5-4-N10-2.5	2.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**2.8**	--	--	--	--	--	--
	EB5-4-S7.5	EB5-4-S7.5-0.5	0.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**21**	--	--	--	--	--	--
		EB5-4-S7.5-1.5	1.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**3.6**	--	--	--	--	--	--
		EB5-4-S7.5-2.5	2.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**2.3**	--	--	--	--	--	--
	EB5-5	EB5-5-0.5	0.5	12/29/16	<2.2 D1	<2.0 D1	<1.3 D1	<2.1 D1	<9.0 D1	<2.5 D1	<2.3 D1	<2.3 D1	<2.0 D1	<1.8 D1	ND	**3.6**	**22**	--	--	--	--	--	--
		EB5-5-1.5	1.5	12/29/16	<2.2 D1	<2.0 D1	<1.3 D1	<2.1 D1	<9.0 D1	<2.5 D1	<2.3 D1	<2.3 D1	<2.0 D1	<1.8 D1	ND	**2.5**	**8.5**	--	--	--	--	--	--
		EB5-5-2.5	2.5	12/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB5-6	EB5-6-0.5	0.5	12/29/16	<2.2 D1	<2.0 D1	<1.3 D1	<2.1 D1	<9.0 D1	<2.5 D1	<2.3 D1	<2.3 D1	<2.0 D1	<1.8 D1	ND	**3.8**	**24**	--	--	--	--	2.6 J	ND
		EB5-6-1.5	1.5	12/29/16	<2.2 D1	<2.0 D1	<1.3 D1	5.5 D1, J	67 D1, J	<2.5 D1	<2.3 D1	6.0 D1, J	<2.0 D1	<1.8 D1	ND	**1.5**	**67**	--	**1.9 D1**	--	--	--	--
		EB5-6-2.5	2.5	12/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Classroom Building No. 6 (EB6)	EB6-1	EB6-1-0.5	0.5	12/29/16	<1.1 D1	1.6 D1, J	<0.67 D1	<1.1 D1	<4.5 D1	<1.2 D1	<1.1 D1	<1.1 D1	<1.0 D1	<0.89 D1	ND	**3.4**	**15**	--	--	--	--	--	--
		EB6-1-1.5	1.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.1**	**8.7**	--	--	--	--	--	--
		EB6-1-2.5	2.5	12/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB6-2	EB6-2-0.5	0.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.4**	**3.5**	--	--	--	--	--	--
		EB6-2-1.5	1.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.5**	**3.1**	--	--	--	--	<1.5	ND
		EB6-2-2.5	2.5	12/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB6-3*	EB6-3-0.5	0.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.7**	**4.3**	--	--	--	--	--	--
		EB6-3-1.5	1.5	1/3/17	<2.2 D1	<2.0 D1	<1.3 D1	<2.1 D1	<9.0 D1	<2.5 D1	<2.3 D1	<2.3 D1	<2.0 D1	<1.8 D1	ND	**1.0**	**3.1**	--	--	--	--	--	--
		EB6-3-2.5	2.5	1/3/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

TABLE 1
Summary of Laboratory Results in Soil for Organochlorine Pesticides (OCPs), Arsenic, Lead and Polychlorinated Biphenyls (PCBs)
Burroughs Middle School

Location	Borehole ID	Sample ID	Sample Depth (feet bgs)	Date Sampled	OCPs by EPA Method 8081 (ug/kg)											Arsenic & Lead by EPA Method 6010B (mg/kg)		STLC by WET/EPA Method 6010B (mg/L)		TCLP by EPA Method 6010B (mg/L)		PCBs by EPA Method 8082 (ug/kg)	
					4,4-DDD	4,4-DDE	4,4-DDT	alpha-Chlordane	Chlordane (Total)	Dieldrin	Endrin	gamma-Chlordane	Heptachlor epoxide	Methoxy-chlor	All Other OCPs	Arsenic	Lead	Arsenic	Lead	Arsenic	Lead	Aroclor 1260	All Other PCBs
Classroom Building No. 8 (EB8)	EB8-1	EB8-1-0.5	0.5	12/29/16	<2.2 D1	<2.0 D1	<1.3 D1	<2.1 D1	<9.0 D1	<2.5 D1	<2.3 D1	<2.3 D1	<2.0 D1	<1.8 D1	ND	**3.2**	**39**	--	--	--	--	--	--
		EB8-1-1.5	1.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.8**	**3.5**	--	--	--	--	<1.5	ND
		EB8-1-2.5	2.5	12/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB8-2	EB8-2-0.5	0.5	12/29/16	<0.22	<0.20	0.22 J	<0.21	<0.90	<0.25	<0.23	0.23 J	<0.20	<0.18	ND	**10**	**9.4**	--	--	--	--	--	--
		EB8-2-1.5	1.5	12/29/16	<0.22	0.21 J	0.61 J	0.31 J	2.5 J	<0.25	<0.23	0.33 J	<0.20	<0.18	ND	**7.7**	**3.5**	--	--	--	--	--	--
		EB8-2-2.5	2.5	12/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB8-3	EB8-3-0.5	0.5	12/29/16	0.29 J	0.20 J	0.52 J	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.8**	**16**	--	--	--	--	2.7 J	ND
		EB8-3-1.5	1.5	12/29/16	0.23 J	<0.20	0.45 J	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.3**	**6.1**	--	--	--	--	--	--
		EB8-3-2.5	2.5	12/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB8-4	EB8-4-0.5	0.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.4**	**3.9**	--	--	--	--	--	--
		EB8-4-1.5	1.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.5**	**4.2**	--	--	--	--	--	--
		EB8-4-2.5	2.5	12/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB8-5	EB8-5-0.5	0.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.3**	**3.6**	--	--	--	--	--	--
		EB8-5-1.5	1.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.1**	**2.8**	--	--	--	--	--	--
		EB8-5-2.5	2.5	12/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB8-6	EB8-6-0.5	0.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.9**	**50**	--	0.72 D1, J	--	--	--	--
		EB8-6-1.5	1.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.8**	**3.7**	--	--	--	--	--	--
		EB8-6-2.5	2.5	12/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Classroom Building No. 9 (EB9)	EB9-1	EB9-1-0.5	0.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**3.8**	**150**	--	**16**	--	**0.38 D1**	--	--
		EB9-1-1.5	1.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.0**	**18**	--	--	--	--	<1.5	ND
		EB9-1-2.5	2.5	12/28/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Step out boreholes near boring EB9-1:																						
	EB9-1-W5	EB9-1-W5-0.5	0.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**260**	--	**6.6 D1**	--	0.35 D1	--	--
		EB9-1-W5-1.5	1.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**21**	--	--	--	--	--	--
		EB9-1-W5-2.5	2.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**5.5**	--	--	--	--	--	--
	EB9-1-S5	EB9-1-S5-0.5	0.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**99**	--	**9.3 D1**	--	0.10 D1,J	--	--
		EB9-1-S5-1.5	1.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**2700 D6**	--	**2.3 D1**	--	<0.014 D1	--	--
		EB9-1-S5-2.5	2.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**3.9**	--	--	--	--	--	--
	EB9-1-S10	EB9-1-S10-0.5	0.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**34**	--	--	--	--	--	--
		EB9-1-S10-1.5	1.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**36**	--	--	--	--	--	--
		EB9-1-S10-2.5	2.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**7.6**	--	--	--	--	--	--
	EB9-1-E5	EB9-1-E5-0.5	0.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**230**	--	**51 D1**	--	**0.74 D1**	--	--
		EB9-1-E5-1.5	1.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**20**	--	--	--	--	--	--
		EB9-1-E5-2.5	2.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**4.6**	--	--	--	--	--	--
	EB9-1-E9	EB9-1-E9-0.5	0.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**26**	--	--	--	--	--	--
		EB9-1-E9-1.5	1.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**110**	--	**2.5 D1**	--	0.019 D1,J	--	--
		EB9-1-E9-2.5	2.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**40**	--	--	--	--	--	--
	EB9-2	EB9-2-0.5	0.5	12/29/16	<0.22	0.39 J	<0.13	**1.5**	**13**	0.29 J	<0.23	**1.5**	<0.20	<0.18	ND	**5.2**	**13**	--	--	--	--	--	--
		EB9-2-1.5	1.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.9**	**4.5**	--	--	--	--	--	--
		EB9-2-2.5	2.5	12/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB9-3	EB9-3-0.5	0.5	12/29/16	<0.22	0.49 J	0.38 J	0.56 J	6.1 J	<0.25	<0.23	0.60 J	<0.20	<0.18	ND	**2.4**	**17**	--	--	--	--	--	--
		EB9-3-1.5	1.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	0.92 J	**3.4**	--	--	--	--	<1.5	ND
		EB9-3-2.5	2.5	12/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB9-4	EB9-4-0.5	0.5	12/29/16	<1.1 D1	<0.98 D1	<0.67 D1	4.9 D1, J	38 D1, J	<1.2 D1	<1.1 D1	**5.5 D1**	1.5 D1, J	<0.89 D1	ND	**1.9**	**28**	--	--	--	--	--	--
		EB9-4-1.5	1.5	12/29/16	<2.2 D1	<2.0 D1	<1.3 D1	<2.1 D1	<9.0 D1	<2.5 D1	<2.3 D1	<2.3 D1	<2.0 D1	<1.8 D1	ND	**1.5**	**12**	--	--	--	--	--	--
		EB9-4-2.5	2.5	12/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB9-5	EB9-5-0.5	0.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**4.2**	**69**	--	**2.3**	--	--	--	--
		EB9-5-1.5	1.5	12/28/16	<0.22	<0.20	<0.13	0.37 J	3.6 J	<0.25	<0.23	0.31 J	<0.20	<0.18	ND	**3.8**	**53**	--	**2.1**	--	--	--	--
		EB9-5-2.5	2.5	12/28/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB9-6	EB9-6-0.5	0.5	12/29/16	<2.2 D1	<2.0 D1	<1.3 D1	<2.1 D1	<9.0 D1	<2.5 D1	<2.3 D1	<2.3 D1	<2.0 D1	<1.8 D1	ND	**40**	**34**	--	--	--	--	3.7 J	ND
		EB9-6-1.5	1.5	12/29/16	<11 D1	<9.8 D1	<6.7 D1	<11 D1	<45 D1	<12 D1	<11 D1	<11 D1	<10 D1	<8.9 D1	ND	**18**	**54**	--	**2.9 D1**	--	--	--	--
		EB9-6-2.5	2.5	12/29/16	--	--	--	--	--	--	--	--	--	--	--	**22**	--	--	--	--	--	--	--
	Step out boreholes near boring EB9-6:																						
	EB9-6-N5	EB9-6-N5-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**78**	--	**2.1 D1**	--	0.12 D1, J	--	--	--
		EB9-6-N5-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**29**	--	--	--	--	--	--	--
		EB9-6-N5-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**39**	--	--	--	--	--	--	--
		EB9-6-N5-3	3.0	4/11/17	--	--	--	--	--	--	--	--	--	--	--	**48**	--	--	--	--	--	--	--
		EB9-6-N5-4	4.0	4/11/17	--	--	--	--	--	--	--	--	--	--	--	**24**	--	--	--	--	--	--	--

TABLE 1
Summary of Laboratory Results in Soil for Organochlorine Pesticides (OCPs), Arsenic, Lead and Polychlorinated Biphenyls (PCBs)
Burroughs Middle School

Location	Borehole ID	Sample ID	Sample Depth (feet bgs)	Date Sampled	OCPs by EPA Method 8081 (ug/kg)											Arsenic & Lead by EPA Method 6010B (mg/kg)		STLC by WET/EPA Method 6010B (mg/L)		TCLP by EPA Method 6010B (mg/L)		PCBs by EPA Method 8082 (ug/kg)	
					4,4-DDD	4,4-DDE	4,4-DDT	alpha-Chlordane	Chlordane (Total)	Dieldrin	Endrin	gamma-Chlordane	Heptachlor epoxide	Methoxy-chlor	All Other OCPs	Arsenic	Lead	Arsenic	Lead	Arsenic	Lead	Aroclor 1260	All Other PCBs
Classroom Building No. 9 (EB9)	EB9-6-N10	EB9-6-N10-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**2.3**	--	--	--	--	--	--	--
		EB9-6-N10-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**1.7**	--	--	--	--	--	--	--
		EB9-6-N10-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**3.7**	--	--	--	--	--	--	--
		EB9-6-N10-3	3.0	4/11/17	--	--	--	--	--	--	--	--	--	--	--	**4.8**	--	--	--	--	--	--	--
		Refusal below 3 ft depth.																					
	EB9-6-S5	EB9-6-S5-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**1.5**	--	--	--	--	--	--	--
		EB9-6-S5-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**2.8**	--	--	--	--	--	--	--
		EB9-6-S5-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**1.5**	--	--	--	--	--	--	--
		EB9-6-S5-3	3.0	4/11/17	--	--	--	--	--	--	--	--	--	--	--	**4.1**	--	--	--	--	--	--	--
		EB9-6-S5-4	4.0	4/11/17	--	--	--	--	--	--	--	--	--	--	--	**3.1**	--	--	--	--	--	--	--
	EB9-6-S10	EB9-6-S10-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**2.0**	--	--	--	--	--	--	--
		EB9-6-S10-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**2.8**	--	--	--	--	--	--	--
		EB9-6-S10-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**1.8**	--	--	--	--	--	--	--
		EB9-6-S10-3	3.0	4/11/17	--	--	--	--	--	--	--	--	--	--	--	**5.0**	--	--	--	--	--	--	--
		Refusal below 3 ft depth.																					
	EB9-6-E5	EB9-6-E5-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**8.6**	--	--	--	--	--	--	--
		EB9-6-E5-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**13**	--	--	--	--	--	--	--
		EB9-6-E5-1.5-D	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**8.5**	--	--	--	--	--	--	--
		EB9-6-E5-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**1.5**	--	--	--	--	--	--	--
		EB9-6-E5-3	3.0	4/11/17	--	--	--	--	--	--	--	--	--	--	--	**3.3**	--	--	--	--	--	--	--
		EB9-6-E5-3-D	3.0	4/11/17	--	--	--	--	--	--	--	--	--	--	--	**3.1**	--	--	--	--	--	--	--
		EB9-6-E5-4	4.0	4/11/17	--	--	--	--	--	--	--	--	--	--	--	**3.1**	--	--	--	--	--	--	--
	EB9-6-E10	EB9-6-E10-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**3.0**	--	--	--	--	--	--	--
		EB9-6-E10-0.5-D	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**1.8**	--	--	--	--	--	--	--
		EB9-6-E10-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	0.98 J	--	--	--	--	--	--	--
		EB9-6-E10-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**1.0**	--	--	--	--	--	--	--
		EB9-6-E10-3	3.0	4/11/17	--	--	--	--	--	--	--	--	--	--	--	**2.8**	--	--	--	--	--	--	--
		EB9-6-E10-4	4.0	4/11/17	--	--	--	--	--	--	--	--	--	--	--	**2.8**	--	--	--	--	--	--	--
	EB9-7**	EB9-7-0.5	0.5	12/28/16	--	--	--	--	--	--	--	--	--	--	--	**2.3**	**250**	--	**12 D1**	--	**0.34 D1**	<1.5	ND
		EB9-7-1.5	1.5	12/28/16	--	--	--	--	--	--	--	--	--	--	--	**2.1**	**130**	--	**9.3 D1**	--	0.036 D1, J	<1.5	ND
		EB9-7-2.5	2.5	12/28/16	--	--	--	--	--	--	--	--	--	--	--	**1.5**	**11**	--	--	--	--	<1.5	ND
	Step out boreholes near boring EB9-7:																						
	EB9-7-W6	EB9-7-W6-0.5	0.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**6.4**	--	--	--	--	--	--
		EB9-7-W6-1.5	1.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**9.6**	--	--	--	--	--	--
		EB9-7-W6-2.5	2.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**3.1**	--	--	--	--	--	--
Storage Building No. 10 (EB10)	EB10-1	EB10-1-0.5	0.5	12/29/16	<11 D1	<9.8 D1	<6.7 D1	<11 D1	<45 D1	<12 D1	<11 D1	<11 D1	<10 D1	<8.9 D1	ND	**3.0**	**25**	--	--	--	--	--	--
		EB10-1-1.5	1.5	12/29/16	<2.2 D1	<2.0 D1	<1.3 D1	<2.1 D1	<9.0 D1	<2.5 D1	<2.3 D1	<2.3 D1	<2.0 D1	<1.8 D1	ND	**3.8**	**58**	--	**4.9 D1**	--	--	--	--
		EB10-1-2.5	2.5	12/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB10-2*	EB10-2-0.5	0.5	12/28/16	0.28 J	**3.1**	1.1 J	0.95 J	**10**	0.33 J	<0.23	**1.4**	<0.20	<0.18	ND	**12**	**220**	--	**7.6 D1**	--	<0.014 D1	--	--
		Refusal ~0.5' bgs in boring.																		--			
	Step out boreholes near boring EB10-2:																						
	EB10-2-W5	EB10-2-W5-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**85**	--	**4.2 D1**	--	0.044 D1,J	--	--
		EB10-2-W5-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**110**	--	**1.6 D1**	--	<0.014 D1	--	--
		EB10-2-W5-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**6.5**	--	--	--	--	--	--
	EB10-2-W10	EB10-2-W10-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**24**	--	--	--	--	--	--
		EB10-2-W10-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**92**	--	**4.5 D1**	--	<0.014 D1	--	--
		EB10-2-W10-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**3.3**	--	--	--	--	--	--
		EB10-2-W10-2.5-	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**5.2**	--	--	--	--	--	--
	EB10-2-S5	EB10-2-S5-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**38**	--	--	--	--	--	--
		EB10-2-S5-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**100**	--	**9.7 D1**	--	0.070 D1,J	--	--
		EB10-2-S5-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**8.0**	--	--	--	--	--	--
	EB10-2-S10	EB10-2-S10-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**55**	--	**2.6 D1**	--	0.042 D1,J	--	--
		EB10-2-S10-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**110**	--	**2.8 D1**	**--**	0.042 D1,J	--	--
		EB10-2-S10-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**61**	--	**2.0 D1**	--	<0.014 D1	--	--
	EB10-2-S15	EB10-2-S15-0.5	0.5	7/17/17	--	--	--	--	--	--	--	--	--	--	--	--	**48.9**	--	--	--	--	--	--
		EB10-2-S15-1.5	1.5	7/17/17	--	--	--	--	--	--	--	--	--	--	--	--	**72.9**	--	**3.37**	**--**	<0.05	--	--
		EB10-2-S15-2.5	2.5	7/17/17	--	--	--	--	--	--	--	--	--	--	--	--	**8.60**	--	--	--	--	--	--

TABLE 1
Summary of Laboratory Results in Soil for Organochlorine Pesticides (OCPs), Arsenic, Lead and Polychlorinated Biphenyls (PCBs)
Burroughs Middle School

Location	Borehole ID	Sample ID	Sample Depth (feet bgs)	Date Sampled	OCPs by EPA Method 8081 (ug/kg)											Arsenic & Lead by EPA Method 6010B (mg/kg)		STLC by WET/EPA Method 6010B (mg/L)		TCLP by EPA Method 6010B (mg/L)		PCBs by EPA Method 8082 (ug/kg)	
					4,4-DDD	4,4-DDE	4,4-DDT	alpha-Chlordane	Chlordane (Total)	Dieldrin	Endrin	gamma-Chlordane	Heptachlor epoxide	Methoxy-chlor	All Other OCPs	Arsenic	Lead	Arsenic	Lead	Arsenic	Lead	Aroclor 1260	All Other PCBs
Storage Building No. 10 (EB10)	EB10-2-S20	EB10-2-S20-0.5	0.5	7/17/17	--	--	--	--	--	--	--	--	--	--	--	--	**74.3**	--	**3.67**	**--**	<0.05	--	--
		EB10-2-S20-1.5	1.5	7/17/17	--	--	--	--	--	--	--	--	--	--	--	--	**87.7**	--	**6.40**	**--**	<0.05	--	--
		EB10-2-S20-2.5	2.5	7/17/17	--	--	--	--	--	--	--	--	--	--	--	--	**42.8**	--	**--**	**--**	**--**	--	--
Tool Room Building No. 11 (EB11)	EB11-1	EB11-1-0.5	0.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**4.6**	**84**	--	**4.9 D1**	--	--	6.1 J	ND
		EB11-1-1.5	1.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**5.7**	**65**	--	**3.0 D1**	--	--	--	--
		EB11-1-2.5	2.5	12/28/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Step out boreholes near boring EB11-1:																						
	EB11-1-W5	EB11-1-W5-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**50**	--	--	--	--	--	--
		EB11-1-W5-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**110**	--	**2.5 D1**	--	<0.014 D1	--	--
		EB11-1-W5-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**3.3**	--	--	--	--	--	--
	EB11-1-W10	EB11-1-W10-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**54**	--	**3.6 D1**	--	<0.014 D1	--	--
		EB11-1-W10-0.5-	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**26**	--	--	--	--	--	--
		EB11-1-W10-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**18**	--	--	--	--	--	--
		EB11-1-W10-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**5.4**	--	--	--	--	--	--
	EB11-1-S5	EB11-1-S5-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**70**	--	**3.5 D1**	--	<0.014 D1	--	--
		EB11-1-S5-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**100**	--	**4.0 D1**	--	<0.014 D1	--	--
		EB11-1-S5-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**66**	--	**3.6 D1**	--	<0.014 D1	--	--
	EB11-1-S10	EB11-1-S10-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**110**	--	**10 D1**	--	0.043 D1,J	--	--
		EB11-1-S10-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**37**	--	--	--	--	--	--
		EB11-1-S10-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**3.5**	--	--	--	--	--	--
	EB11-1-S15	EB11-1-S15-0.5	0.5	7/17/17	--	--	--	--	--	--	--	--	--	--	--	--	**231**	--	**10.4**	--	**0.278**	--	--
		EB11-1-S15-1.5	1.5	7/17/17	--	--	--	--	--	--	--	--	--	--	--	--	**94.8**	--	**2.02**	--	<0.05	--	--
	EB11-2	EB11-2-0.5	0.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**6.8**	**90**	--	**3.9 D1**	--	--	--	--
		EB11-2-1.5	1.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**3.2**	**46**	--	--	--	--	--	--
		EB11-2-2.5	2.5	12/28/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Step out boreholes near boring EB11-2:																						
	EB11-2-N5	EB11-2-N5-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**44**	--	--	--	--	--	--
		EB11-2-N5-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**47**	--	--	--	--	--	--
		EB11-2-N5-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**5.7**	--	--	--	--	--	--
	EB11-2-N10	EB11-2-N10-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**36**	--	--	--	--	--	--
		EB11-2-N10-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**75**	--	**7.8 D1**	--	<0.014 D1	--	--
		EB11-2-N10-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**27**	--	--	--	--	--	--
	EB11-2-N15	EB11-2-N15-0.5	0.5	7/17/17	--	--	--	--	--	--	--	--	--	--	--	--	**68.8**	--	**3.16**	--	<0.05	--	--
		EB11-2-N15-0.5-D	0.5	7/17/17	--	--	--	--	--	--	--	--	--	--	--	--	**79.3**	--	**3.10**	--	<0.05	--	--
		EB11-2-N15-1.5	1.5	7/17/17	--	--	--	--	--	--	--	--	--	--	--	--	**72.0**	--	**4.15**	--	<0.05	--	--
		EB11-2-N15-2.5	2.5	7/17/17	--	--	--	--	--	--	--	--	--	--	--	--	**63.9**	--	**2.01**	--	<0.05	--	--
	EB11-2-S5	EB11-2-S5-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**56**	--	**2.7 D1**	--	0.017 D1,J	--	--
		EB11-2-S5-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**82**	--	**4.0 D1**	--	0.019 D1,J	--	--
		EB11-2-S5-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**83**	--	**3.6 D1**	--	<0.014 D1	--	--
	EB11-2-S10	EB11-2-S10-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**110**	--	**3.7 D1**	--	**0.019 D1,J**	--	--
		EB11-2-S10-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**72**	--	**5.5 D1**	--	<0.014 D1	--	--
		EB11-2-S10-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**4.7**	--	--	--	--	--	--
		EB11-2-S10-2.5-D	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**4.4**	--	--	--	--	--	--
	EB11-2-E5	EB11-2-E5-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**110**	--	**5.2 D1**	--	<0.014 D1	--	--
		EB11-2-E5-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**44**	--	--	--	--	--	--
		EB11-2-E5-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**42**	--	--	--	--	--	--
		EB11-2-E5-2.5-D	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**25**	--	--	--	--	--	--
Storage Building No. 12 (EB12)	EB12-1	EB12-1-0.5	0.5	12/28/16	<0.22	<0.20	<0.13	0.44 J	3.7 J	<0.25	<0.23	0.38 J	<0.20	<0.18	ND	**55**	**74**	**2.3 D1**	**3.2 D1**	--	--	--	--
		EB12-1-1.5	1.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**40**	**28**	--	--	--	--	--	--
		EB12-1-2.5	2.5	12/28/16	--	--	--	--	--	--	--	--	--	--	--	**11**	--	--	--	--	--	--	--
	Step out boreholes near boring EB12-1:																						
	EB12-1-N5	EB12-1-N5-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**48**	--	--	--	--	--	--	--
		EB12-1-N5-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**25**	--	--	--	--	--	--	--
		EB12-1-N5-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**4.2**	--	--	--	--	--	--	--
	EB12-1-N10	EB12-1-N10-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**51**	--	**2.0 D1**	--	0.12 D1,J	--	--	--
		Refusal below 0.5 ft depth.																					

TABLE 1
Summary of Laboratory Results in Soil for Organochlorine Pesticides (OCPs), Arsenic, Lead and Polychlorinated Biphenyls (PCBs)
Burroughs Middle School

Location	Borehole ID	Sample ID	Sample Depth (feet bgs)	Date Sampled	OCPs by EPA Method 8081 (ug/kg)											Arsenic & Lead by EPA Method 6010B (mg/kg)		STLC by WET/EPA Method 6010B (mg/L)		TCLP by EPA Method 6010B (mg/L)		PCBs by EPA Method 8082 (ug/kg)	
					4,4-DDD	4,4-DDE	4,4-DDT	alpha-Chlordane	Chlordane (Total)	Dieldrin	Endrin	gamma-Chlordane	Heptachlor epoxide	Methoxy-chlor	All Other OCPs	Arsenic	Lead	Arsenic	Lead	Arsenic	Lead	Aroclor 1260	All Other PCBs
Storage Building No. 12 (EB12)	EB12-1-S5	EB12-1-S5-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**30**	--	--	--	--	--	--	--
		EB12-1-S5-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**77**	--	**2.4 D1**	--	**0.39 D1**	--	--	--
		EB12-1-S5-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**11**	--	--	--	--	--	--	--
	EB12-1-S10	EB12-1-S10-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**45**	--	--	--	--	--	--	--
		EB12-1-S10-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**53**	--	**2.2 D1**	--	**0.32 D1**	--	--	--
		EB12-1-S10-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**3.0**	--	--	--	--	--	--	--
	EB12-1-S15	EB12-1-S15-0.5	0.5	7/17/17	--	--	--	--	--	--	--	--	--	--	--	**59.7**	--	**2.46**	--	**0.095**	--	--	--
		EB12-1-S15-1.5	1.5	7/17/17	--	--	--	--	--	--	--	--	--	--	--	**44.1**	--	--	--	--	--	--	--
		EB12-1-S15-2.5	2.5	7/17/17	--	--	--	--	--	--	--	--	--	--	--	**42.7**	--	--	--	--	--	--	--
	EB12-1-S20	EB12-1-S20-0.5	0.5	7/17/17	--	--	--	--	--	--	--	--	--	--	--	**38.2**	--	--	--	--	--	--	--
		EB12-1-S20-0.5-D	0.5	7/17/17	--	--	--	--	--	--	--	--	--	--	--	**78.6**	--	**2.31**	--	**0.169**	--	--	--
		EB12-1-S20-1.5	1.5	7/17/17	--	--	--	--	--	--	--	--	--	--	--	**48.4**	--	--	--	--	--	--	--
		EB12-1-S20-2.5	2.5	7/17/17	--	--	--	--	--	--	--	--	--	--	--	**17.4**	--	--	--	--	--	--	--
	EB12-2	EB12-2-0.5	0.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**3.2**	**33**	--	--	--	--	--	--
		EB12-2-1.5	1.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.4**	**5.9**	--	--	--	--	--	--
		EB12-2-2.5	2.5	12/28/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB13-1	EB13-1-0.5	0.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**3.6**	**600**	--	**6.6 D1**	--	0.016 D1,J	--	--
		EB13-1-1.5	1.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.7**	**6.5**	--	--	--	--	<1.5	ND
		EB13-1-2.5	2.5	12/28/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Step out boreholes near boring EB13-1:																						
	EB13-1-W5	EB13-1-W5-0.5	0.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**220**	--	**7.5 D1**	--	0.022 D1,J	--	--
		EB13-1-W5-1.5	1.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**7.1**	--	--	--	--	--	--
		EB13-1-W5-2.5	2.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**4.5**	--	--	--	--	--	--
	EB13-1-W10	EB13-1-W10-0.5	0.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**61**	--	**7.8 D1**	--	0.026 D1,J	--	--
		EB13-1-W10-0.5-	0.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**120**	--	**11 D1**	--	0.017 D1,J	--	--
		EB13-1-W10-1.5	1.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**4.5**	--	--	--	--	--	--
		EB13-1-W10-2.5	2.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**4.1**	--	--	--	--	--	--
	EB13-1-E5	EB13-1-E5-0.5	0.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**150**	--	**7.5 D1**	--	0.021 D1, J	--	--
		EB13-1-E5-1.5	1.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**11**	--	--	--	--	--	--
		EB13-1-E5-2.5	2.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**14**	--	--	--	--	--	--
	EB13-2	EB13-2-0.5	0.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**12**	**520**	--	**11 D1**	--	0.053 D1, J	<1.5	ND
		EB13-2-1.5	1.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.2**	**6.9**	--	--	--	--	--	--
		EB13-2-2.5	2.5	12/28/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Storage Building No. 13 (EB13)	*Step out boreholes near boring EB13-2:*																						
	EB13-2-N5	EB13-2-N5-0.5	0.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**210**	--	**15 D1**	--	0.028 D1, J	--	--
		EB13-2-N5-1.5	1.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**12**	--	--	--	--	--	--
		EB13-2-N5-2.5	2.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**9.8**	--	--	--	--	--	--
	EB13-2-N10	EB13-2-N10-0.5	0.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**82**	--	3.1 D1	--	<0.014 D1	--	--
		EB13-2-N10-1.5	1.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**22**	--	--	--	--	--	--
		EB13-2-N10-2.5	2.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**6.1**	--	--	--	--	--	--
	EB13-2-W5	EB13-2-W5-0.5	0.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**350**	--	**30 D1**	--	0.69 D1	--	--
		EB13-2-W5-1.5	1.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**190**	--	**15 D1**	--	0.19 D1, J	--	--
		EB13-2-W5-2.5	2.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**8.2**	--	--	--	--	--	--
	EB13-2-W10	EB13-2-W10-0.5	0.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**140**	--	**6.8 D1**	--	0.060 D1,J	--	--
		EB13-2-W10-1.5	1.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**140**	--	**5.8 D1**	--	<0.014 D1	--	--
		EB13-2-W10-2.5	2.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**3.8**	--	--	--	--	--	--
		EB13-2-W10-2.5-	2.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**3.8**	--	--	--	--	--	--
	EB13-2-S5	EB13-2-S5-0.5	0.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**110**	--	**9.0 D1**	--	0.047 D1,J	--	--
		EB13-2-S5-1.5	1.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**3.4**	--	--	--	--	--	--
		EB13-2-S5-1.5-D	1.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**12**	--	--	--	--	--	--
		EB13-2-S5-2.5	2.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**4.4**	--	--	--	--	--	--
	EB13-2-S10	EB13-2-S10-0.5	0.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**84**	--	**6.6 D1**	--	0.036 D1,J	--	--
		EB13-2-S10-1.5	1.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**9.9**	--	--	--	--	--	--
		EB13-2-S10-2.5	2.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**4.6**	--	--	--	--	--	--

TABLE 1
Summary of Laboratory Results in Soil for Organochlorine Pesticides (OCPs), Arsenic, Lead and Polychlorinated Biphenyls (PCBs)
Burroughs Middle School

Location	Borehole ID	Sample ID	Sample Depth (feet bgs)	Date Sampled	OCPs by EPA Method 8081 (ug/kg)											Arsenic & Lead by EPA Method 6010B (mg/kg)		STLC by WET/EPA Method 6010B (mg/L)		TCLP by EPA Method 6010B (mg/L)		PCBs by EPA Method 8082 (ug/kg)	
					4,4-DDD	4,4-DDE	4,4-DDT	alpha-Chlordane	Chlordane (Total)	Dieldrin	Endrin	gamma-Chlordane	Heptachlor epoxide	Methoxy-chlor	All Other OCPs	Arsenic	Lead	Arsenic	Lead	Arsenic	Lead	Aroclor 1260	All Other PCBs
Storage Building No. 15 (EB15)	EB15-1	EB15-1-0.5	0.5	12/28/16	<0.22	<0.20	0.20 J	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**51**	**46**	**2.2 D1**	--	--	--	--	--
		EB15-1-1.5	1.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**21**	**9.0**	--	--	--	--	--	--
		EB15-1-2.5	2.5	12/28/16	--	--	--	--	--	--	--	--	--	--	--	**14**	**--**	--	--	--	--	--	--
	Step out boreholes near boring EB15-1:																						
	EB15-1-S5	EB15-1-S5-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**82**	--	**4.8 D1**	--	**0.97 D1**	--	--	--
		EB15-1-S5-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**32**	--	--	--	--	--	--	--
		EB15-1-S5-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**32**	--	--	--	--	--	--	--
		EB15-1-S5-3	3.0	4/12/17	--	--	--	--	--	--	--	--	--	--	--	**25**	--	--	--	--	--	--	--
		EB15-1-S5-3-D	3.0	4/12/17	--	--	--	--	--	--	--	--	--	--	--	**16**	--	--	--	--	--	--	--
		EB15-1-S5-4	4.0	4/12/17	--	--	--	--	--	--	--	--	--	--	--	**3.0**	--	--	--	--	--	--	--
	EB15-2	EB15-2-0.5	0.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**4.0**	**24**	--	--	--	--	--	--
		EB15-2-1.5	1.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.5**	**12**	--	--	--	--	--	--
		EB15-2-2.5	2.5	12/28/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Classroom Building No. 16 (EB16)	EB16-1	EB16-1-0.5	0.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.7**	**20**	--	--	--	--	--	--
		EB16-1-1.5	1.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.2**	**78**	--	0.64 D1, J	--	--	--	--
		EB16-1-2.5	2.5	1/3/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB16-2	EB16-2-0.5	0.5	12/29/16	<2.2 D1	<2.0 D1	<1.3 D1	<2.1 D1	<9.0 D1	<2.5 D1	<2.3 D1	<2.3 D1	<2.0 D1	<1.8 D1	ND	**2.4**	**19**	--	--	--	--	--	--
		EB16-2-1.5	1.5	12/29/16	<2.2 D1	<2.0 D1	<1.3 D1	<2.1 D1	<9.0 D1	<2.5 D1	<2.3 D1	<2.3 D1	<2.0 D1	<1.8 D1	ND	**2.0**	**8.8**	--	--	--	--	--	--
		EB16-2-2.5	2.5	12/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB16-3	EB16-3-0.5	0.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.6**	**5.3**	--	--	--	--	--	--
		EB16-3-1.5	1.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	<0.70	**1.7**	--	--	--	--	--	--
		EB16-3-2.5	2.5	12/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cafeteria/ Classroom Building No. 20 (EB20)	EB20-1	EB20-1-0.5	0.5	1/3/17	<0.22	<0.20	<0.13	0.29 J	4.0 J	<0.25	<0.23	0.43 J	<0.20	<0.18	ND	**1.3**	**4.5**	--	--	--	--	2.6 J	ND
		EB20-1-0.5-D	0.5	1/3/17	<0.22	<0.20	0.30 J	0.94 J	**9.2**	<0.25	<0.23	**1.3**	<0.20	<0.18	ND	**1.8**	**5.0**	--	--	--	--	--	--
		EB20-1-1.5	1.5	1/3/17	<0.22	0.66 J	1.9 J	**7.7**	**58**	0.79 J	<0.23	**7.2**	0.41 J	<0.18	ND	**5.1**	**16**	--	--	--	--	--	--
		EB20-1-2.5	2.5	1/3/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB20-2	EB20-2-0.5'	0.5	1/3/17	<1.1 D1	<0.98 D1	1.2 D1, J	<1.1 D1	9.4 D1, J	<1.2 D1	<1.1 D1	<1.1 D1	<1.0 D1	<0.89 D1	ND	**1.8**	**9.0**	--	--	--	--	--	--
		EB20-2-0.5-D	0.5	1/3/17	<0.22	<0.20	0.22 J	0.26 J	2.6 J	<0.25	<0.23	0.37 J	<0.20	<0.18	ND	**1.4**	**6.1**	--	--	--	--	--	--
		EB20-2-1.5	1.5	1/3/17	<0.22	<0.20	<0.13	0.59 J	<0.90	<0.25	<0.23	**1.0**	<0.20	<0.18	ND	**2.9**	**56**	--	0.56 D1, J	--	--	--	--
		EB20-2-2.5	2.5	1/3/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB20-3	EB20-3-0.5	0.5	1/3/17	<0.22	<0.20	0.33 J	**1.1**	<0.90	<0.25	<0.23	**1.4**	<0.20	<0.18	ND	**2.4**	**13**	--	--	--	--	--	--
		EB20-3-0.5-D	0.5	1/3/17	<0.22	<0.20	0.29 J	0.92 J	<0.90	<0.25	<0.23	**1.8**	<0.20	<0.18	ND	**2.8**	**20**	--	--	--	--	--	--
		EB20-3-1.5	1.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	0.56 J	<0.20	<0.18	ND	**2.3**	**9.4**	--	--	--	--	<1.5	ND
		EB20-3-1.5-D	1.5	1/3/17	<0.22	0.29 J	<0.13	0.26 J	<0.90	<0.25	<0.23	**1.4**	<0.20	<0.18	ND	**2.5**	**17**	--	--	--	--	--	--
		EB20-3-2.5	2.5	1/3/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB20-4	EB20-4-0.5	0.5	1/3/17	<0.22	<0.20	0.89 J	0.54 J	<0.90	<0.25	<0.23	**2.5**	<0.20	<0.18	ND	**3.0**	**21**	--	--	--	--	--	--
		EB20-4-0.5-D	0.5	1/3/17	<0.22	<0.20	<0.13	0.41 J	<0.90	<0.25	<0.23	**1.7**	<0.20	<0.18	ND	**7.4**	**18**	--	--	--	--	--	--
		EB20-4-1.5	1.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	**1.7**	<0.20	<0.18	ND	**5.4**	**16**	--	--	--	--	--	--
		EB20-4-1.5-D	1.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	**1.2**	<0.20	<0.18	ND	**4.7**	**14**	--	--	--	--	--	--
		EB20-4-2.5	2.5	1/3/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB20-5	EB20-5-0.5	0.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.1**	**3.6**	--	--	--	--	--	--
		EB20-5-0.5-D	0.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	0.25 J	<0.20	<0.18	ND	**3.2**	**22**	--	--	--	--	--	--
		EB20-5-1.5	1.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.9**	**4.5**	--	--	--	--	--	--
		EB20-5-1.5-D	1.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.2**	**5.7**	--	--	--	--	--	--
		EB20-5-2.5	2.5	1/3/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB20-6	EB20-6-0.5	0.5	1/3/17	<0.22	0.38 J	0.86 J	<0.21	<0.90	<0.25	<0.23	**2.1**	<0.20	<0.18	ND	**3.3**	**74**	--	**7.3 D1**	--	--	--	--
		EB20-6-0.5-D	0.5	1/3/17	<0.22	0.42 J	1.2 J	<0.21	<0.90	<0.25	<0.23	**1.4**	<0.20	<0.18	ND	**3.0**	**120**	--	**10 D1**	--	0.041 D1, J	--	--
		EB20-6-1.5	1.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	0.68 J	<0.20	<0.18	ND	**2.3**	**16**	--	--	--	--	--	--
		EB20-6-1.5-D	1.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.9**	**7.7**	--	--	--	--	--	--
		EB20-6-2.5	2.5	1/3/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Step out boreholes near boring EB20-6:																						
	EB20-6-N5	EB20-6-N5-0.5	0.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**99**	--	**4.1 D1**	--	0.091 D1,J	--	--
		EB20-6-N5-1.5	1.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**13**	--	--	--	--	--	--
		EB20-6-N5-2.5	2.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**8.4**	--	--	--	--	--	--
	EB20-6-N10	EB20-6-N10-0.5	0.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**23**	--	--	--	--	--	--
		EB20-6-N10-1.5	1.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**13**	--	--	--	--	--	--
		EB20-6-N10-1.5-D	1.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**19**	--	--	--	--	--	--
		EB20-6-N10-2.5	2.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**8.1**	--	--	--	--	--	--

TABLE 1
Summary of Laboratory Results in Soil for Organochlorine Pesticides (OCPs), Arsenic, Lead and Polychlorinated Biphenyls (PCBs)
Burroughs Middle School

Location	Borehole ID	Sample ID	Sample Depth (feet bgs)	Date Sampled	OCPs by EPA Method 8081 (ug/kg)											Arsenic & Lead by EPA Method 6010B (mg/kg)		STLC by WET/EPA Method 6010B (mg/L)		TCLP by EPA Method 6010B (mg/L)		PCBs by EPA Method 8082 (ug/kg)	
					4,4-DDD	4,4-DDE	4,4-DDT	alpha-Chlordane	Chlordane (Total)	Dieldrin	Endrin	gamma-Chlordane	Heptachlor epoxide	Methoxy-chlor	All Other OCPs	Arsenic	Lead	Arsenic	Lead	Arsenic	Lead	Aroclor 1260	All Other PCBs
Cafeteria/ Classroom Building No. 20 (EB20)	EB20-6-W5	EB20-6-W5-0.5	0.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**33**	--	--	--	--	--	--
		EB20-6-W5-1.5	1.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**15**	--	--	--	--	--	--
		EB20-6-W5-2.5	2.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**3.4**	--	--	--	--	--	--
	EB20-6-W8	EB20-6-W8-0.5	0.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**27**	--	--	--	--	--	--
		EB20-6-W8-1.5	1.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**16**	--	--	--	--	--	--
		EB20-6-W8-2.5	2.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**3.6**	--	--	--	--	--	--
		EB20-6-W8-2.5-D	2.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**6.9**	--	--	--	--	--	--
	EB20-6-S5	EB20-6-S5-0.5	0.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**54**	--	**2.3 D1**	--	<0.014 D1	--	--
		EB20-6-S5-1.5	1.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**12**	--	--	--	--	--	--
		EB20-6-S5-2.5	2.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**3.1**	--	--	--	--	--	--
	EB20-7	EB20-7-0.5	0.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	0.76 J	**2.2**	--	--	--	--	--	--
		EB20-7-1.5	1.5	1/3/17	<0.22	<0.20	<0.13	**20**	<0.90	<0.25	<0.23	**16**	<0.20	<0.18	ND	**3.8**	**10**	--	--	--	--	--	--
		EB20-7-2.5	2.5	1/3/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB20-8	EB20-8-0.5	0.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	<0.70	**1.9**	--	--	--	--	--	--
		EB20-8-0.5-D	0.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.2**	**6.1**	--	--	--	--	--	--
		EB20-8-1.5	1.5	1/3/17	<0.22	<0.20	<0.13	0.26 J	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**3.8**	**7.7**	--	--	--	--	--	--
		EB20-8-1.5-D	1.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.3**	**4.5**	--	--	--	--	--	--
		EB20-8-2.5	2.5	1/3/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Classroom Building No. 22 (EB22)	EB22-1	EB22-1-0.5	0.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.3**	**3.0**	--	--	--	--	--	--
		EB22-1-0.5-D	0.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.3**	**3.0**	--	--	--	--	<1.5	ND
		EB22-1-1.5	1.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.5**	**3.0**	--	--	--	--	--	--
		EB22-1-1.5-D	1.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.7**	**3.1**	--	--	--	--	--	--
		EB22-1-2.5	2.5	1/3/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB22-2*	EB22-2-0.5	0.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.4**	**3.9**	--	--	--	--	--	--
		EB22-2-1.5	1.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.2**	**3.2**	--	--	--	--	<1.5	ND
		EB22-2-2.5	2.5	12/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Classroom Building No. 23 (EB23)	EB23-1	EB23-1-0.5	0.5	1/3/17	<0.22	<0.20	<0.13	0.25 J	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**13**	**52**	--	0.24 D1, J	--	--	--	--
		EB23-1-1.5	1.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.7**	**4.6**	--	--	--	--	--	--
		EB23-1-2.5	2.5	1/3/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB23-2	EB23-2-0.5	0.5	1/3/17	<0.22	1.9 J	**7.7**	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**5.8**	**8.0**	--	--	--	--	--	--
		EB23-2-0.5-D	0.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**5.1**	**150**	--	**2.0 D1**	--	<0.014 D1	--	--
		EB23-2-1.5	1.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.7**	**2.8**	--	--	--	--	--	--
		EB23-2-2.5	2.5	1/3/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Step out boreholes near boring EB23-2:																						
	EB23-2-N5	EB23-2-N5-0.5	0.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**9.7**	--	--	--	--	--	--
		EB23-2-N5-1.5	1.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**6.0**	--	--	--	--	--	--
		EB23-2-N5-2.5	2.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**4.5**	--	--	--	--	--	--
	EB23-2-N8	EB23-2-N8-0.5	0.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**8.4**	--	--	--	--	--	--
		EB23-2-N8-1.5	1.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**3.5**	--	--	--	--	--	--
		EB23-2-N8-2.5	2.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**2.8**	--	--	--	--	--	--
	EB23-2-W5	EB23-2-W5-0.5	0.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**27**	--	--	--	--	--	--
		EB23-2-W5-1.5	1.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**8.1**	--	--	--	--	--	--
		EB23-2-W5-2.5	2.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**4.8**	--	--	--	--	--	--
	EB23-2-W10	EB23-2-W10-0.5	0.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**7.5**	--	--	--	--	--	--
		EB23-2-W10-1.5	1.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**12**	--	--	--	--	--	--
		EB23-2-W10-2.5	2.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**3.3**	--	--	--	--	--	--
	EB23-2-S5	EB23-2-S5-0.5	0.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**6.5**	--	--	--	--	--	--
		EB23-2-S5-1.5	1.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**3.2**	--	--	--	--	--	--
		EB23-2-S5-2.5	2.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**3.1**	--	--	--	--	--	--
	EB23-2-S10	EB23-2-S10-0.5	0.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**12**	--	--	--	--	--	--
		EB23-2-S10-1.5	1.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**5.8**	--	--	--	--	--	--
		EB23-2-S10-2.5	2.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**2.7**	--	--	--	--	--	--
	EB23-2-E5	EB23-2-E5-0.5	0.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**2.8**	--	--	--	--	--	--
		EB23-2-E5-1.5	1.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**8.5**	--	--	--	--	--	--
		EB23-2-E5-2.5	2.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**2.2**	--	--	--	--	--	--
	EB23-3*	EB23-3-0.5	0.5	12/29/16	<0.22	<0.20	<0.13	<0.21	1.6 J	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.6**	**5.0**	--	--	--	--	<1.5	ND
		EB23-3-1.5	1.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	0.73 J	**5.2**	--	--	--	--	<1.5	ND
		EB23-3-2.5	2.5	12/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

TABLE 1
Summary of Laboratory Results in Soil for Organochlorine Pesticides (OCPs), Arsenic, Lead and Polychlorinated Biphenyls (PCBs)
Burroughs Middle School

Location	Borehole ID	Sample ID	Sample Depth (feet bgs)	Date Sampled	OCPs by EPA Method 8081 (ug/kg)											Arsenic & Lead by EPA Method 6010B (mg/kg)		STLC by WET/EPA Method 6010B (mg/L)		TCLP by EPA Method 6010B (mg/L)		PCBs by EPA Method 8082 (ug/kg)	
					4,4-DDD	4,4-DDE	4,4-DDT	alpha-Chlordane	Chlordane (Total)	Dieldrin	Endrin	gamma-Chlordane	Heptachlor epoxide	Methoxy-chlor	All Other OCPs	Arsenic	Lead	Arsenic	Lead	Arsenic	Lead	Aroclor 1260	All Other PCBs
Classroom Building No. 24 (EB24)	EB24-1	EB24-1-0.5	0.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**3.6**	**2.5**	--	--	--	--	<1.5	ND
		EB24-1-1.5	1.5	12/29/16	<0.22	0.73 J	0.62 J	0.65 J	7.6 J	<0.25	<0.23	0.76 J	<0.20	<0.18	ND	**3.7**	**7.5**	--	--	--	--	--	--
		EB24-1-2.5	2.5	12/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB24-2	EB24-2-0.5	0.5	12/29/16	<0.22	0.71 J	<0.13	0.30 J	2.7 J	<0.25	<0.23	0.23 J	<0.20	<0.18	ND	**2.8**	**8.5**	--	--	--	--	--	--
		EB24-2-1.5	1.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.5**	**17**	--	--	--	--	--	--
		EB24-2-2.5	2.5	12/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB24-3	EB24-3-0.5	0.5	12/29/16	<0.22	<0.20	<0.13	0.25 J	3.0 J	<0.25	<0.23	0.34 J	<0.20	<0.18	ND	**2.1**	**10**	--	--	--	--	--	--
		EB24-3-1.5	1.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	<0.70	**2.5**	--	--	--	--	--	--
		EB24-3-2.5	2.5	12/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB24-4	EB24-4-0.5	0.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.4**	**3.4**	--	--	--	--	<1.5	ND
		EB24-4-0.5-D	0.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	0.76 J	**2.7**	--	--	--	--	--	--
		EB24-4-1.5	1.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.5**	**4.3**	--	--	--	--	--	--
		EB24-4-1.5-D	1.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.9**	**5.7**	--	--	--	--	--	--
		EB24-4-2.5	2.5	1/3/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB24-5	EB24-5-0.5	0.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.7**	**4.5**	--	--	--	--	--	--
		EB24-5-0.5-D	0.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**6.0**	**9.0**	--	--	--	--	--	--
		EB24-5-1.0	1.0	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**5.7**	**7.3**	--	--	--	--	--	--
		EB24-5-1.0-D	1.0	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**6.8**	**7.9**	--	--	--	--	--	--
		Refusal at 1.25' bgs in boring (possible cobble).																					
	EB24-6*	EB24-6-0.5	0.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.6**	**10**	--	--	--	--	--	--
		EB24-6-1.5	1.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**3.3**	**4.5**	--	--	--	--	--	--
		EB24-6-2.5	2.5	12/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Classroom Building No. 25 (EB25)	EB25-1	EB25-1-0.5	0.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.6**	**3.4**	--	--	--	--	--	--
		EB25-1-0.5-D	0.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.8**	**4.4**	--	--	--	--	--	--
		EB25-1-1.5	1.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.0**	**3.6**	--	--	--	--	--	--
		EB25-1-2.5	2.5	1/3/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB25-2	EB25-2-0.5	0.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**5.7**	**16**	--	--	--	--	--	--
		Refusal at 1' bgs in boring (unknown obstruction).																					
	EB25-3*	EB25-3-0.5	0.5	12/29/16	<0.22	0.21 J	<0.13	0.46 J	4.0 J	<0.25	<0.23	0.41 J	<0.20	<0.18	ND	**3.4**	**10**	--	--	--	--	--	--
		EB25-3-1.5	1.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.1**	**4.9**	--	--	--	--	<1.5	ND
		EB25-3-2.5	2.5	12/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Former Building No. 1 (FB1)	FB1-1	FB1-1-0.5	0.5	1/3/17	<0.22	<0.20	<0.13	0.28 J	2.3 J	<0.25	<0.23	0.33 J	<0.20	<0.18	ND	<0.70	**2.2**	--	--	--	--	1.6 J	ND
		FB1-1-0.5-D	0.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	<0.70	**2.2**	--	--	--	--	--	--
		FB1-1-1.5	1.5	1/3/17	0.79 J	1.1 J	0.32 J	**1.5**	**11**	<0.25	<0.23	**1.3**	<0.20	<0.18	ND	**3.0**	**19**	--	--	--	--	--	--
		FB1-1-1.5-D	1.5	1/3/17	0.23 J	0.25 J	<0.13	**2.4**	**16**	<0.25	<0.23	**1.7**	<0.20	<0.18	ND	**2.8**	**21**	--	--	--	--	--	--
		FB1-1-2.5	2.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.7**	**3.5**	--	--	--	--	--	--
	FB1-2	FB1-2-0.5	0.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.9**	**4.2**	--	--	--	--	--	--
		FB1-2-0.5-D	0.5	1/3/17	0.32 J	0.23 J	<0.13	<0.21	1.5 J	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.2**	**12**	--	--	--	--	--	--
		FB1-2-1.5	1.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.6**	**3.6**	--	--	--	--	--	--
		FB1-2-1.5-D	1.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.7**	**3.6**	--	--	--	--	--	--
		FB1-2-2.5	2.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.9**	**3.8**	--	--	--	--	--	--
	FB1-3	FB1-3-0.5	0.5	1/3/17	<0.22	<0.20	<0.13	0.29 J	2.5 J	<0.25	<0.23	<0.23	<0.20	<0.18	ND	<0.70	**1.6**	--	--	--	--	<1.5	ND
		FB1-3-0.5-D	0.5	1/3/17	<0.22	<0.20	<0.13	0.23 J	2.7 J	<0.25	<0.23	0.54 J	<0.20	<0.18	ND	**1.3**	**2.3**	--	--	--	--	--	--
		FB1-3-1.5	1.5	1/3/17	<0.22	0.29 J	<0.13	0.34 J	3.2 J	<0.25	<0.23	0.33 J	<0.20	<0.18	ND	**2.6**	**9.3**	--	--	--	--	--	--
		FB1-3-1.5-D	1.5	1/3/17	<0.22	<0.20	<0.13	**1.1**	**8.9**	<0.25	<0.23	**1.3**	<0.20	<0.18	ND	**2.6**	**10**	--	--	--	--	--	--
		FB1-3-2.5	2.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	0.27 J	<0.20	<0.18	ND	**1.3**	**3.2**	--	--	--	--	--	--
	FB1-4	FB1-4-0.5	0.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.2**	**4.0**	--	--	--	--	--	--
		FB1-4-0.5-D	0.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.9**	**7.7**	--	--	--	--	--	--
		FB1-4-1.5	1.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.5**	**3.7**	--	--	--	--	--	--
		FB1-4-1.5-D	1.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.4**	**3.5**	--	--	--	--	--	--
		FB1-4-2.5	2.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.0**	**3.8**	--	--	--	--	--	--
	FB1-5	FB1-5-0.5	0.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	<0.70	**2.3**	--	--	--	--	--	--
		FB1-5-0.5-D	0.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.2**	**3.3**	--	--	--	--	--	--
		FB1-5-1.5	1.5	1/3/17	<0.22	<0.20	0.21 J	0.47 J	3.6 J	<0.25	<0.23	0.44 J	<0.20	<0.18	ND	**1.9**	**12**	--	--	--	--	--	--
		FB1-5-1.5-D	1.5	1/3/17	<0.22	0.35 J	0.22 J	**2.4**	**16**	<0.25	<0.23	**1.4**	0.29 J	<0.18	ND	**3.6**	**14**	--	--	--	--	--	--
		FB1-5-2.5	2.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.8**	**2.8**	--	--	--	--	--	--

TABLE 1
Summary of Laboratory Results in Soil for Organochlorine Pesticides (OCPs), Arsenic, Lead and Polychlorinated Biphenyls (PCBs)
Burroughs Middle School

Location	Borehole ID	Sample ID	Sample Depth (feet bgs)	Date Sampled	OCPs by EPA Method 8081 (ug/kg)											Arsenic & Lead by EPA Method 6010B (mg/kg)		STLC by WET/EPA Method 6010B (mg/L)		TCLP by EPA Method 6010B (mg/L)		PCBs by EPA Method 8082 (ug/kg)	
					4,4-DDD	4,4-DDE	4,4-DDT	alpha-Chlordane	Chlordane (Total)	Dieldrin	Endrin	gamma-Chlordane	Heptachlor epoxide	Methoxy-chlor	All Other OCPs	Arsenic	Lead	Arsenic	Lead	Arsenic	Lead	Aroclor 1260	All Other PCBs
Former Building No. 1 (FB1)	FB1-6	FB1-6-0.5	0.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.6**	**3.3**	--	--	--	--	--	--
		FB1-6-1.5	1.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.8**	**3.3**	--	--	--	--	--	--
		FB1-6-1.5-D	1.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.9**	**4.0**	--	--	--	--	--	--
		FB1-6-2.5	2.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.8**	**3.1**	--	--	--	--	--	--
	FB1-7	FB1-7-0.5	0.5	1/3/17	<2.2 D1	<2.0 D1	<1.3 D1	<2.1 D1	<9.0 D1	<2.5 D1	<2.3 D1	<2.3 D1	<2.0 D1	<1.8 D1	ND	**1.8**	**4.3**	--	--	--	--	--	--
		FB1-7-0.5-D	0.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.6**	**4.4**	--	--	--	--	<1.5	ND
	Refusal at 1.0' bgs in boring.																						
Former Building No. 2 (FB2)	FB2-1	FB2-1-0.5	0.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	0.77 J	**3.4**	--	--	--	--	--	--
		FB2-1-1.5	1.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.3**	**4.0**	--	--	--	--	--	--
		FB2-1-2.5	2.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.5**	**4.4**	--	--	--	--	--	--
	FB2-2	FB2-2-0.5	0.5	1/3/17	<0.22	<0.20	<0.13	0.27 J	3.5 J	<0.25	<0.23	0.28 J	<0.20	<0.18	ND	**2.0**	**13**	--	--	--	--	--	--
		FB2-2-1.5	1.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.9**	**3.4**	--	--	--	--	--	--
		FB2-2-2.5	2.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.8**	**3.0**	--	--	--	--	--	--
	FB2-3	FB2-3-0.5	0.5	1/3/17	<0.22	<0.20	0.23 J	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.2**	**6.8**	--	--	--	--	--	--
		FB2-3-1.5	1.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**3.2**	**5.0**	--	--	--	--	--	--
		FB2-3-2.5	2.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.8**	**3.3**	--	--	--	--	--	--
	FB2-4	FB2-4-0.5	0.5	1/3/17	<0.22	<0.20	<0.13	0.22 J	2.0 J	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.6**	**11**	--	--	--	--	--	--
		FB2-4-1.5	1.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.9**	**3.3**	--	--	--	--	--	--
		FB2-4-2.5	2.5	1/3/17	<2.2 D1	<2.0 D1	<1.3 D1	<2.1 D1	<9.0 D1	<2.5 D1	<2.3 D1	<2.3 D1	<2.0 D1	<1.8 D1	ND	**1.8**	**3.5**	--	--	--	--	--	--
Former Building No. 3 (FB3)	See Existing Building EB3.																						
Former Building No. 4 (FB4)	FB4-1	FB4-1-0.5	0.5	12/29/16	<1.1 D1	3.1 D1, J	1.5 D1, J	1.9 D1, J	18 D1, J	<1.2 D1	<1.1 D1	2.3 D1, J	<1.0 D1	<0.89 D1	ND	**4.2**	**20**	--	--	--	--	--	--
		FB4-1-1.5	1.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**7.2**	**54**	--	**2.8 D1**	--	--	--	--
		FB4-1-2.5	2.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**3.4**	**7.7**	--	--	--	--	--	--
	FB4-2	FB4-2-0.5	0.5	12/29/16	<0.22	<0.20	0.36 J	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.2**	**34**	--	--	--	--	--	--
		FB4-2-1.5	1.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**4.5**	**52**	--	**3.3 D1**	--	--	--	--
		FB4-2-2.5	2.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.6**	**21**	--	--	--	--	--	--
	FB4-3	FB4-3-0.5	0.5	12/29/16	1.8 J	**22**	**2.1**	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**3.0**	**66**	--	**4.0 D1**	--	--	--	--
		FB4-3-1.5	1.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**3.1**	**46**	--	--	--	--	--	--
		FB4-3-2.5	2.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.6**	**6.9**	--	--	--	--	--	--
	FB4-4	FB4-4-0.5	0.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.8**	**26**	--	--	--	--	3.3 J	ND
		FB4-4-1.5	1.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.9**	**44**	--	--	--	--	--	--
		FB4-4-2.5	2.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.2**	**4.6**	--	--	--	--	--	--
Former Building No. 5 (FB5)	FB5-1	FB5-1-0.5	0.5	12/28/16	0.28 J	<0.20	<0.13	0.37 J	4.1 J	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**4.0**	**53**	--	**2.9 D1**	--	--	--	--
		FB5-1-1.5	1.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.8**	**65**	--	**3.5 D1**	--	--	--	--
		FB5-1-2.5	2.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.2**	**8.4**	--	--	--	--	--	--
	FB5-2	FB5-2-0.5	0.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.6**	**47**	--	--	--	--	--	--
		FB5-2-1.5	1.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.5**	**63**	--	**3.0 D1**	--	--	--	--
		FB5-2-2.5	2.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.3**	**9.7**	--	--	--	--	--	--
Former Building No. 6 (FB6)	See Existing Building EB6.																						
Former Building No. 7 (FB7)	See Existing Building EB22.																						
Former Building No. 8 (FB8)	See Existing Buildings EB23, EB24 and EB25.																						
Former Building No. 9 (FB9)	FB9-1	FB9-1-0.5	0.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	0.28 J	<0.20	<0.18	ND	**3.2**	**82**	--	**6.2 D1**	--	--	--	--
		FB9-1-1.5	1.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.6**	**5.5**	--	--	--	--	<1.5	ND
		FB9-1-2.5	2.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.6**	**2.8**	--	--	--	--	--	--
	Step out boreholes near boring FB9-1:																						
	FB9-1-N5	FB9-1-N5-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**52**	--	**2.5 D1**	--	0.069 D1, J	--	--
		FB9-1-N5-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**63**	--	**0.24 D1**	--	<0.014 D1	--	--
		FB9-1-N5-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**2.2**	--	--	--	--	--	--
	FB9-1-W5	FB9-1-W5-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**9.0**	--	--	--	--	--	--
		FB9-1-W5-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**4.9**	--	--	--	--	--	--
		FB9-1-W5-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**2.2**	--	--	--	--	--	--

TABLE 1
Summary of Laboratory Results in Soil for Organochlorine Pesticides (OCPs), Arsenic, Lead and Polychlorinated Biphenyls (PCBs)
Burroughs Middle School

Location	Borehole ID	Sample ID	Sample Depth (feet bgs)	Date Sampled	OCPs by EPA Method 8081 (ug/kg)											Arsenic & Lead by EPA Method 6010B (mg/kg)		STLC by WET/EPA Method 6010B (mg/L)		TCLP by EPA Method 6010B (mg/L)		PCBs by EPA Method 8082 (ug/kg)	
					4,4-DDD	4,4-DDE	4,4-DDT	alpha-Chlordane	Chlordane (Total)	Dieldrin	Endrin	gamma-Chlordane	Heptachlor epoxide	Methoxy-chlor	All Other OCPs	Arsenic	Lead	Arsenic	Lead	Arsenic	Lead	Aroclor 1260	All Other PCBs
Former Building No. 9 (FB9)	FB9-1-W10	FB9-1-W10-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**27**	--	--	--	--	--	--
		FB9-1-W10-0.5-D	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**20**	--	--	--	--	--	--
		FB9-1-W10-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**26**	--	--	--	--	--	--
		FB9-1-W10-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**2.7**	--	--	--	--	--	--
	FB9-1-S5	FB9-1-S5-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**67**	--	**12 D1**	--	0.18 D1, J	--	--
		FB9-1-S5-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**340**	--	**30 D1**	--	0.71 D1, J	--	--
		FB9-1-S5-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**140**	--	**9.1 D1**	--	<0.014 D1	--	--
	FB9-1-S10	FB9-1-S10-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**47**	--	--	--	--	--	--
		FB9-1-S10-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**55**	--	**2.7 D1**	--	<0.014 D1	--	--
		FB9-1-S10-1.5-D	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**58**	--	**3.6 D1**	--	<0.014 D1	--	--
		FB9-1-S10-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**43**	--	--	--	--	--	--
	FB9-2	FB9-2-0.5	0.5	12/29/16	<0.22	<0.20	0.19 J	0.23 J	2.9 J	<0.25	<0.23	0.26 J	<0.20	<0.18	ND	**1.6**	**7.9**	--	--	--	--	--	--
		FB9-2-1.5	1.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.8**	**3.2**	--	--	--	--	--	--
		FB9-2-2.5	2.5	12/29/16	<0.22	<0.20	0.14 J	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.7**	**3.3**	--	--	--	--	--	--
	FB9-3	FB9-3-0.5	0.5	12/29/16	**2.1**	1.3 J	<0.13	**15**	**110**	<0.25	0.55 J	**13**	<0.20	<0.18	ND	**2.0**	**53**	--	**4.9 D1**	--	--	<1.5	ND
		FB9-3-1.5	1.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.8**	**3.8**	--	--	--	--	--	--
		FB9-3-2.5	2.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	3.9 D5, J	**10 D5**	--	--	--	--	--	--
	FB9-4	FB9-4-0.5	0.5	12/29/16	<0.22	1.1 J	0.97 J	**1.4**	**12**	<0.25	<0.23	**1.4**	<0.20	<0.18	ND	**9.3**	**65**	--	**4.2 D1**	--	--	--	--
		FB9-4-1.5	1.5	12/29/16	<0.22	<0.20	<0.13	0.42 J	3.5 J	<0.25	<0.23	0.40 J	<0.20	<0.18	ND	**1.8**	**160**	--	**6.7 D1**	--	0.14 D1, J	--	--
		FB9-4-2.5	2.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.1**	**33**	--	--	--	--	--	--
	Step out boreholes near boring FB9-4:																			--			
	FB9-4-N5	FB9-4-N5-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**4.9**	--	--	--	--	--	--
		FB9-4-N5-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**11**	--	--	--	--	--	--
		FB9-4-N5-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**33**	--	--	--	--	--	--
	FB9-4-W5	FB9-4-W5-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**34**	--	--	--	--	--	--
		FB9-4-W5-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**9.6**	--	--	--	--	--	--
		FB9-4-W5-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**200**	--	**4.0 D1**	--	**2.7 D1**	--	--
	FB9-4-W10	FB9-4-W10-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**12**	--	--	--	--	--	--
		FB9-4-W10-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**2.6**	--	--	--	--	--	--
		FB9-4-W10-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**17**	--	--	--	--	--	--
Former Building No. 10 (FB10)	FB10-1	FB10-1-0.5	0.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.7**	**17**	--	--	--	--	<1.5	ND
		FB10-1-1.5	1.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.6**	**8.8**	--	--	--	--	--	--
		FB10-1-2.5	2.5	12/28/16	<2.2 D1	<2.0 D1	<1.3 D1	<2.1 D1	<9.0 D1	<2.5 D1	<2.3 D1	<2.3 D1	<2.0 D1	<1.8 D1	ND	**1.7**	**8.0**	--	--	--	--	--	--
	FB10-2	FB10-2-0.5	0.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.8**	**6.8**	--	--	--	--	--	--
		FB10-2-1.5	1.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.7**	**3.8**	--	--	--	--	--	--
		FB10-2-2.5	2.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.6**	**4.3**	--	--	--	--	--	--
	FB10-3	FB10-3-0.5	0.5	12/28/16	<0.22	<0.20	<0.13	<0.21	2.3 J	<0.25	<0.23	0.24 J	<0.20	<0.18	ND	**1.6**	**9.1**	--	--	--	--	--	--
		FB10-3-1.5	1.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.3**	**4.3**	--	--	--	--	--	--
		FB10-3-2.5	2.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.7**	**15**	--	--	--	--	--	--
	FB10-4	FB10-4-0.5	0.5	12/28/16	<0.22	<0.20	0.23 J	0.24 J	2.7 J	<0.25	<0.23	0.27 J	<0.20	<0.18	ND	**1.7**	**28**	--	--	--	--	--	--
		FB10-4-1.5	1.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.1**	**3.8**	--	--	--	--	--	--
		FB10-4-2.5	2.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.4**	**3.0**	--	--	--	--	--	--
Former Building No. 11 (FB11)	FB11-1	FB11-1-0.5	0.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.6**	**23**	--	--	--	--	--	--
		FB11-1-1.5	1.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.7**	**11**	--	--	--	--	--	--
		FB11-1-2.5	2.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.6**	**4.8**	--	--	--	--	--	--
	FB11-2	FB11-2-0.5	0.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.0**	**28**	--	--	--	--	<1.5	ND
		FB11-2-1.5	1.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.4**	**6.2**	--	--	--	--	--	--
		FB11-2-2.5	2.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.4**	**3.5**	--	--	--	--	--	--
	FB11-3	FB11-3-0.5	0.5	12/28/16	<0.22	0.20 J	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.7**	**23**	--	--	--	--	--	--
		FB11-3-1.5	1.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.4**	**17**	--	--	--	--	--	--
		FB11-3-2.5	2.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.4**	**4.5**	--	--	--	--	--	--
	FB11-4	FB11-4-0.5	0.5	12/28/16	<0.22	0.97 J	0.98 J	0.46 J	5.3 J	0.67 J	<0.23	0.47 J	<0.20	<0.18	ND	**2.6**	**18**	--	--	--	--	--	--
		FB11-4-1.5	1.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.9**	**9.6**	--	--	--	--	--	--
		FB11-4-2.5	2.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.8**	**12**	--	--	--	--	--	--

TABLE 1
Summary of Laboratory Results in Soil for Organochlorine Pesticides (OCPs), Arsenic, Lead and Polychlorinated Biphenyls (PCBs)
Burroughs Middle School

Location	Borehole ID	Sample ID	Sample Depth (feet bgs)	Date Sampled	OCPs by EPA Method 8081 (ug/kg)											Arsenic & Lead by EPA Method 6010B (mg/kg)		STLC by WET/EPA Method 6010B (mg/L)		TCLP by EPA Method 6010B (mg/L)		PCBs by EPA Method 8082 (ug/kg)	
					4,4-DDD	4,4-DDE	4,4-DDT	alpha-Chlordane	Chlordane (Total)	Dieldrin	Endrin	gamma-Chlordane	Heptachlor epoxide	Methoxy-chlor	All Other OCPs	Arsenic	Lead	Arsenic	Lead	Arsenic	Lead	Aroclor 1260	All Other PCBs
Former Building No. 12 (FB12)	FB12-1	FB12-1-0.5	0.5	12/28/16	<0.22	0.40 J	<0.13	**9.8**	**77**	<0.25	<0.23	**6.7**	<0.20	<0.18	ND	**2.3**	**7.3**	--	--	--	--	<1.5	ND
		FB12-1-1.5	1.5	12/28/16	<0.22	1.5 J	0.24 J	**14**	**120**	<0.25	<0.23	**12**	<0.20	<0.18	ND	**3.5**	**14**	--	--	--	--	--	--
		FB12-1-2.5	2.5	12/28/16	<0.22	<0.20	<0.13	**18**	**150**	<0.25	<0.23	**17**	<0.20	<0.18	ND	**6.7**	**25**	--	--	--	--	--	--
Former Building No. 13 (FB13)	FB13-1	FB13-1-0.5	0.5	12/28/16	<0.22	<0.20	0.24 J	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.9**	**27**	--	--	--	--	--	--
		FB13-1-1.5	1.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.9**	**4.5**	--	--	--	--	<1.5	ND
		FB13-1-2.5	2.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.7**	**3.6**	--	--	--	--	--	--
Former Building No. 14 (FB14)	FB14-1	FB14-1-0.5	0.5	12/28/16	<0.22	0.67 J	1.7 J	0.40 J	4.2 J	<0.25	<0.23	0.47 J	<0.20	<0.18	ND	**4.4**	**29**	--	--	--	--	--	--
		FB14-1-1.5	1.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.9**	**9.6**	--	--	--	--	--	--
		FB14-1-2.5	2.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.0**	**9.0**	--	--	--	--	--	--
	FB14-2	FB14-2-0.5	0.5	12/28/16	<0.22	<0.20	<0.13	0.25 J	2.8 J	<0.25	<0.23	0.29 J	<0.20	<0.18	ND	**3.2**	**25**	--	--	--	--	--	--
		FB14-2-1.5	1.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.8**	**19**	--	--	--	--	--	--
		FB14-2-2.5	2.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.1**	**11**	--	--	--	--	--	--
	FB14-3	FB14-3-0.5	0.5	12/28/16	**4.6**	**10**	**9.3**	0.67 J	6.3 J	<0.25	<0.23	0.42 J	<0.20	<0.18	ND	**3.9**	**16**	--	--	--	--	--	--
		FB14-3-1.5	1.5	12/28/16	<1.1 D1	<0.98 D1	<0.67 D1	<1.1 D1	<4.5 D1	<1.2 D1	<1.1 D1	<1.1 D1	<1.0 D1	<0.89 D1	ND	**2.9**	**28**	--	--	--	--	--	--
		FB14-3-2.5	2.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.5**	**3.3**	--	--	--	--	--	--
	FB14-4	FB14-4-0.5	0.5	12/28/16	**21**	**50**	**25**	**3.6**	**38**	<0.25	<0.23	**4.8**	<0.20	<0.18	ND	**3.0**	**46**	--	--	--	--	--	--
		FB14-4-1.5	1.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.6**	**140**	--	**9.9 D1**	--	**3.8 D1**	--	--
		FB14-4-2.5	2.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.0**	**47**	--	--	--	--	--	--
	Step out boreholes near boring FB14-4:																						
	FB14-4-N5	FB14-4-N5-0.5	0.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**21**	--	--	--	--	--	--
		FB14-4-N5-1.5	1.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**18**	--	--	--	--	--	--
		FB14-4-N5-1.5-D	1.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**29**	--	--	--	--	--	--
		FB14-4-N5-2.5	2.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**8.4**	--	--	--	--	--	--
	FB14-4-N10	FB14-4-N10-0.5	0.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**17**	--	--	--	--	--	--
		FB14-4-N10-1.5	1.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**4.9**	--	--	--	--	--	--
		FB14-4-N10-2.5	2.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**7.6**	--	--	--	--	--	--
	FB14-4-W5	FB14-4-W5-0.5	0.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**35**	--	--	--	--	--	--
		FB14-4-W5-1.5	1.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**18**	--	--	--	--	--	--
		FB14-4-W5-1.5-D	1.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**13**	--	--	--	--	--	--
		FB14-4-W5-2.5	2.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**56**	--	**2.2 D1**	--	<0.014 D1	--	--
	FB14-4-W10	FB14-4-W10-0.5	0.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**17**	--	--	--	--	--	--
		FB14-4-W10-1.5	1.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**20**	--	--	--	--	--	--
		FB14-4-W10-2.5	2.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**24**	--	--	--	--	--	--
	FB14-4-E5	FB14-4-E5-0.5	0.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**8.2**	--	--	--	--	--	--
		FB14-4-E5-1.5	1.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**110**	--	**4.9 D1**	--	0.17 D1,J	--	--
		FB14-4-E5-2.5	2.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**53**	--	**1.9 D1**	--	<0.014 D1	--	--
		FB14-4-E5-2.5-D	2.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**40**	--	--	--	--	--	--
	FB14-4-E8.5	FB14-4-E8.5-0.5	0.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**20**	--	--	--	--	--	--
		FB14-4-E8.5-1.5	1.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**89**	--	**1.0 D1**	--	<0.014 D1	--	--
		FB14-4-E8.5-2.5	2.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**8.4**	--	--	--	--	--	--
		FB14-4-E8.5-2.5-	2.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**36**	--	--	--	--	--	--
	FB14-5	FB14-5-0.5	0.5	12/28/16	<0.22	0.88 J	<0.13	0.41 J	2.9 J	<0.25	<0.23	0.39 J	<0.20	<0.18	ND	**2.8**	**20**	--	--	--	--	--	--
		FB14-5-1.5	1.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.5**	**15**	--	--	--	--	--	--
		FB14-5-2.5	2.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.9**	**12**	--	--	--	--	--	--
	FB14-6	FB14-6-0.5	0.5	12/28/16	<0.22	0.63 J	<0.13	0.24 J	2.7 J	<0.25	<0.23	0.29 J	<0.20	<0.18	ND	**4.2**	**37**	--	--	--	--	6.8 J	ND
		FB14-6-1.5	1.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.9**	**6.8**	--	--	--	--	--	--
		FB14-6-2.5	2.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.7**	**6.3**	--	--	--	--	--	--

TABLE 1
Summary of Laboratory Results in Soil for Organochlorine Pesticides (OCPs), Arsenic, Lead and Polychlorinated Biphenyls (PCBs)
Burroughs Middle School

Location	Borehole ID	Sample ID	Sample Depth (feet bgs)	Date Sampled	OCPs by EPA Method 8081 (ug/kg)											Arsenic & Lead by EPA Method 6010B (mg/kg)		STLC by WET/EPA Method 6010B (mg/L)		TCLP by EPA Method 6010B (mg/L)		PCBs by EPA Method 8082 (ug/kg)	
					4,4-DDD	4,4-DDE	4,4-DDT	alpha-Chlordane	Chlordane (Total)	Dieldrin	Endrin	gamma-Chlordane	Heptachlor epoxide	Methoxy-chlor	All Other OCPs	Arsenic	Lead	Arsenic	Lead	Arsenic	Lead	Aroclor 1260	All Other PCBs
Former Building No. 15 (FB15)	FB15-1	FB15-1-0.5	0.5	1/3/17	<0.22	**4.7**	**5.6**	**12**	**87**	0.79 J	<0.23	**9.8**	<0.20	<0.18	ND	**5.3**	**18**	--	--	--	--	<1.5	ND
		FB15-1-1.5	1.5	1/3/17	<0.22	0.62 J	0.57 J	**2.4**	**19**	<0.25	<0.23	**1.9**	<0.20	<0.18	ND	**5.0**	**19**	--	--	--	--	--	--
		FB15-1-2.5	2.5	1/3/17	<0.22	0.61 J	0.55 J	**7.4**	**61**	<0.25	<0.23	**6.9**	<0.20	<0.18	ND	**4.4**	**24**	--	--	--	--	--	--
	FB15-2	FB15-2-0.5	0.5	1/3/17	<0.22	**2.2**	**2.5**	**5.7**	**46**	<0.25	<0.23	**4.4**	<0.20	<0.18	ND	**3.9**	**9.8**	--	--	--	--	--	--
		FB15-2-1.5	1.5	1/3/17	<0.22	**2.3**	**2.5**	**13**	**100**	<0.25	<0.23	**8.6**	<0.20	<0.18	ND	**6.7**	**15**	--	--	--	--	--	--
		FB15-2-2.5	2.5	1/3/17	<0.22	0.48 J	0.36 J	**6.6**	**70**	<0.25	<0.23	**5.4**	<0.20	<0.18	ND	**6.4**	**13**	--	--	--	--	--	--
	FB15-3	FB15-3-0.5	0.5	1/3/17	<0.22	1.2 J	1.3 J	**8.7**	**63**	0.73 J	<0.23	**6.1**	<0.20	<0.18	ND	**5.8**	**12**	--	--	--	--	<1.5	ND
		FB15-3-1.5	1.5	1/3/17	<0.22	0.92 J	0.35 J	**23**	**170**	<0.25	<0.23	**15**	<0.20	<0.18	ND	**7.1**	**20**	--	--	--	--	--	--
		FB15-3-2.5	2.5	1/3/17	<0.22	<0.20	<0.13	**38**	**280**	<0.25	<0.23	**29**	<0.20	<0.18	ND	**9.6**	**27**	--	--	--	--	--	--
	FB15-4	FB15-4-0.5	0.5	1/3/17	<0.22	**2.2**	1.2 J	0.75 J	8.2 J	0.85 J	<0.23	0.92 J	<0.20	<0.18	ND	**3.6**	**17**	--	--	--	--	--	--
		FB15-4-1.5	1.5	1/3/17	<0.22	**3.2**	0.93 J	**9.2**	**71**	<0.25	<0.23	**6.2**	<0.20	<0.18	ND	**3.0**	**23**	--	--	--	--	--	--
		FB15-4-2.5	2.5	1/3/17	0.37 J	<0.20	<0.13	**1.6**	**12**	<0.25	<0.23	0.99 J	<0.20	<0.18	ND	**3.9**	**6.0**	--	--	--	--	--	--
Former Building No. 16 (FB16)	FB16-1	FB16-1-0.5	0.5	12/28/16	<2.2 D1	<2.0 D1	<1.3 D1	<2.1 D1	<9.0 D1	<2.5 D1	<2.3 D1	<2.3 D1	<2.0 D1	<1.8 D1	ND	**2.0**	**10**	--	--	--	--	--	--
		FB16-1-1.5	1.5	12/28/16	<2.2 D1	<2.0 D1	<1.3 D1	<2.1 D1	<9.0 D1	<2.5 D1	<2.3 D1	<2.3 D1	<2.0 D1	<1.8 D1	ND	**2.6**	**170**	--	**1.3 D1**	--	<0.014 D1	--	--
		FB16-1-2.5	2.5	12/28/16	<2.2 D1	<2.0 D1	<1.3 D1	<2.1 D1	<9.0 D1	<2.5 D1	<2.3 D1	<2.3 D1	<2.0 D1	<1.8 D1	ND	**1.8**	**7.5**	--	--	--	--	--	--
	Step out boreholes near boring FB16-1:																						
	FB16-1-N5	FB16-1-N5-0.5	0.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**15**	--	--	--	--	--	--
		FB16-1-N5-1.5	1.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**4.9**	--	--	--	--	--	--
		FB16-1-N5-1.5-D	1.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**5.2**	--	--	--	--	--	--
		FB16-1-N5-2.5	2.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**6.4**	--	--	--	--	--	--
	FB16-1-N10	FB16-1-N10-0.5	0.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**22**	--	--	--	--	--	--
		FB16-1-N10-0.5-D	0.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**25**	--	--	--	--	--	--
		FB16-1-N10-1.5	1.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**5.1**	--	--	--	--	--	--
		FB16-1-N10-2.5	2.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**2.2**	--	--	--	--	--	--
	FB16-1-W5	FB16-1-W5-0.5	0.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**8.3**	--	--	--	--	--	--
		FB16-1-W5-0.5-D	0.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**56**	--	0.40 D1,J	--	<0.014 D1	--	--
		FB16-1-W5-1.5	1.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**8.0**	--	--	--	--	--	--
		FB16-1-W5-2.5	2.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**6.7**	--	--	--	--	--	--
	FB16-1-W10	FB16-1-W10-0.5	0.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**42**	--	--	--	--	--	--
		FB16-1-W10-0.5-	0.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**9.7**	--	--	--	--	--	--
		FB16-1-W10-1.5	1.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**9.3**	--	--	--	--	--	--
		FB16-1-W10-2.5	2.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**4.4**	--	--	--	--	--	--
	FB16-1-S5	FB16-1-S5-0.5	0.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**20**	--	--	--	--	--	--
		FB16-1-S5-1.5	1.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**82**	--	**5.1 D1**	--	**1.6 D1**	--	--
		FB16-1-S5-2.5	2.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**62**	--	**3.3 D1**	--	**0.65 D1**	--	--
		FB16-1-S5-2.5-D	2.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**3.3**	--	--	--	--	--	--
	FB16-1-S10	FB16-1-S10-0.5	0.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**21**	--	--	--	--	--	--
		FB16-1-S10-1.5	1.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**12**	--	--	--	--	--	--
		FB16-1-S10-2.5	2.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**9.5**	--	--	--	--	--	--
	FB16-1-E5	FB16-1-E5-0.5	0.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**1.3**	--	--	--	--	--	--
		FB16-1-E5-1.5	1.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**7.9**	--	--	--	--	--	--
		FB16-1-E5-2.5	2.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**2.9**	--	--	--	--	--	--
		FB16-1-E5-2.5-D	2.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**3.3**	--	--	--	--	--	--
	FB16-1-E10	FB16-1-E10-0.5	0.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**16**	--	--	--	--	--	--
		FB16-1-E10-1.5	1.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**4.0**	--	--	--	--	--	--
		FB16-1-E10-1.5-D	1.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**3.6**	--	--	--	--	--	--
		FB16-1-E10-2.5	2.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**2.9**	--	--	--	--	--	--
	FB16-2	FB16-2-0.5	0.5	12/28/16	<2.2 D1	<2.0 D1	<1.3 D1	<2.1 D1	<9.0 D1	<2.5 D1	<2.3 D1	<2.3 D1	<2.0 D1	<1.8 D1	ND	**2.4**	**5.3**	--	--	--	--	--	--
		FB16-2-1.5	1.5	12/28/16	<2.2	<2.0	<1.3	<2.1	<9.0	<2.5	<2.3	<2.3	<2.0	<1.8	ND	**2.9**	**6.8**	--	--	--	--	<1.5	ND
		FB16-2-2.5	2.5	12/28/16	<2.2 D1	<2.0 D1	<1.3 D1	<2.1 D1	<9.0 D1	<2.5 D1	<2.3 D1	<2.3 D1	<2.0 D1	<1.8 D1	ND	**1.7**	**3.2**	--	--	--	--	--	--

TABLE 1
Summary of Laboratory Results in Soil for Organochlorine Pesticides (OCPs), Arsenic, Lead and Polychlorinated Biphenyls (PCBs)
Burroughs Middle School

Location	Borehole ID	Sample ID	Sample Depth (feet bgs)	Date Sampled	OCPs by EPA Method 8081 (ug/kg)											Arsenic & Lead by EPA Method 6010B (mg/kg)		STLC by WET/EPA Method 6010B (mg/L)		TCLP by EPA Method 6010B (mg/L)		PCBs by EPA Method 8082 (ug/kg)	
					4,4-DDD	4,4-DDE	4,4-DDT	alpha-Chlordane	Chlordane (Total)	Dieldrin	Endrin	gamma-Chlordane	Heptachlor epoxide	Methoxy-chlor	All Other OCPs	Arsenic	Lead	Arsenic	Lead	Arsenic	Lead	Aroclor 1260	All Other PCBs
Former Building No. 16 (FB16)	FB16-3	FB16-3-0.5	0.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.8**	**12**	--	--	--	--	--	--
		FB16-3-1.5	1.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.8**	**6.7**	--	--	--	--	--	--
		FB16-3-2.5	2.5	12/28/16	<1.1 D1	<0.98 D1	<0.67 D1	<1.1 D1	<4.5 D1	<1.2 D1	<1.1 D1	<1.1 D1	<1.0 D1	<0.89 D1	ND	**2.1**	**4.3**	--	--	--	--	--	--
	FB16-4	FB16-4-0.5	0.5	12/28/16	<0.22	0.23 J	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.5**	**33**	--	--	--	--	--	--
		FB16-4-1.5	1.5	12/28/16	<2.2 D1	<2.0 D1	<1.3 D1	<2.1 D1	<9.0 D1	<2.5 D1	<2.3 D1	<2.3 D1	<2.0 D1	<1.8 D1	ND	**1.6**	**11**	--	--	--	--	--	--
		FB16-4-2.5	2.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.9**	**11**	--	--	--	--	--	--
Regulatory Screening Levels:																							
DTSC HERO HHRA Note 3 (August 2017)[1]					NA	NA	NA	NA	440	NA	NA	NA	NA	NA	Varies	0.11	80 [2]	NA	NA	NA	NA	NA	Varies
RSLs (June 2017)[3]					2,300	2,000	1,900	NA	1,700	34	19,000	NA	70	320,000	Varies	0.68	400	NA	NA	NA	NA	240	Varies
Southern California Regional Background Level (DTSC, 2008)[4]					NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12	NA	NA	NA	NA	NA	NA	NA
Federal and State Hazardous Waste Criteria					1,000	1,000	1,000	NA	2,500	8,000	200	NA	4,700	100,000	Varies	500	1,000	5 mg/L	5 mg/L	5 mg/L	5 mg/L	50,000	50,000

Notes:

Yellow high-lighted values exceeded one or more screening level.

Purple high-lighted values exceeded non-RCRA (CA-restricted) hazardous waste criteria.

1. DTSC, HERO HHRA Note Number 3 (August 2017). Criteria selected: Residential soil, cancer endpoint (carcinogens), non-cancer endpoint (all others)

2. DTSC recommends that a 95% upper confidence limit on the arithmetic mean calculated to be 80 mg/kg or less is protective of human health.

3. RSLs, Regional Screening Levels for Region 9, Updated June 2017, Criteria selected: Residential soil, Total Hazard Quotient = 1.0, Target risk of 1.0E-6

4. DTSC, Determination of a Southern California Regional Background Arsenic Concentration in Soil, March 2008. Background arsenic was selected as the screening level for arsenic.

5. Where TTLC lead and/or arsenic was greater than 50 mg/kg, the sample was analyzed using the Waste Extraction Test for STLC by EPA Method 6010B. Where the result is below the STLC regulatory limit of 5 mg/L arsenic or 5 mg/L lead, the material is non-hazardous under California waste disposal regulations, as per the California Code of Regulations, Title 22, Chapter 11, Article 3.

Acronyms/Abbreviations:

bgs	Below ground surface
D1	Laboratory data qualifier indicating that the sample required dilution due to possible matrix interference.
D5	Sample diluted due to failing internal standard in the original run.
D6	Sample required dilution due to high concentration of target analyte.
DTSC	California Department of Toxic Substances Control
EPA	United States Environmental Protection Agency
HERO	Office of Human and Ecological Risk
HHRA	Human Health Risk Assessment
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
NA	Not applicable or not available.
ND	Not detected above the laboratory reporting limit.
OCPs	Organochlorine Pesticides
PCBs	Polychlorinated biphenyls
RSLs	Regional Screening Levels (see Note 3, above)
STLC	Soluble Threshold Limit Concentration
TCLP	Total Threshold Limit Concentration
TTLC	Toxicity characteristic leaching procedure
ug/kg	micrograms per kilogram
4,4-DDD	Dichlorodiphenyldichloroethane
4,4-DDE	Dichlorodiphenyldichloroethylene
4,4-DDT	Dichlorodiphenyltrichloroethane
< 1.0	Analyte not detected above the referenced detection limit.
-	Not analyzed.
*	Includes testing for overlapping former buildings.
**	See additional soil analyses for these samples in Table 2 and/or Table 3.

TABLE 2
Summary of Laboratory Results in Soil for Polycyclic Aromatic Hydrocarbons (PAHs), and Title 22 Metals at Boring EB9-7
Burroughs Middle School

Location	Boring ID	Sample ID	Sample Depth (feet bgs)	Sample Date	Title 22 Metals by EPA Method 6010B/7471A (mg/kg)													Polycyclic Aromatic Hydrocarbons (PAHs) by EPA Method 8270C SIM (ug/kg)							
					Antimony	Arsenic	Barium	Beryllium	Chromium	Cobalt	Copper	Lead[5]	Mercury	Nickel	Silver	Vanadium	Zinc	Other Metals Analyzed	Benzo(a) pyrene	Benzo(b) fluoranthene	Benzo(g,h,i) perylene	Chrysene	Fluoranthene	Indeno (1,2,3-cd) pyrene	Pyrene	Other PAHs Analyzed
Classroom Building No. 9 (EB9)	EB9-7	EB9-7-0.5	0.5	12/28/16	1.5 J	**2.3**	**130**	0.30 J	**14**	**8.0**	2,800 [6]	**250**	0.04 J	**13**	0.08 J	**26**	**150**	ND	2.0 D1, J	2.2 D1, J	3.3 D1, J	2.0 D1, J	1.9 D1, J	1.6 D1, J	2.3 D1, J	ND
		EB9-7-1.5	1.5	12/28/16	<0.32	**2.1**	**180**	0.31 J	**19**	**8.3**	**260**	**130**	**0.12**	**17**	<0.04	**31**	**170**	ND	<13 D1	<13 D1	22 D1, J	15 D1, J	<11 D1	<9.4 D1	12 D1, J	ND
		EB9-7-2.5	2.5	12/28/16	<0.32	**1.5**	**88**	0.31 J	**20**	**9.0**	**25**	**11**	0.04 J	**18**	<0.04	**31**	**38**	ND	15 D1, J	14 D1, J	26 D1, J	25 D1, J	16 D1, J	9.8 D1, J	23 D1, J	ND
	Step out boreholes near boring EB9-7 (the below step-out lead results are also reported in Table 1):																									
	EB9-7-W6	EB9-7-W6-	0.5	4/11/17	--	--	--	--	--	--	**12**	**6.4**	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		EB9-7-W6-1.5	1.5	4/11/17	--	--	--	--	--	--	**18**	**9.6**	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		EB9-7-W6-2.5	2.5	4/11/17	--	--	--	--	--	--	**13**	**3.1**	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Regulatory Screening Levels:																										
DTSC HERO HHRA Note 3 (August 2017)[1]					NA	0.11	NA	1,600	NA	NA	NA	80 [2]	1.0	15,000	390	390	NA	Varies	NA	NA	NA	NA	NA	NA	NA	Varies
RSLs (June 2017)[3]					31	0.68	15,000	160	NA	23	3,100	400	11	1,500	390	390	23,000	Varies	110	1,100	NA	110,000	2,400,000	1,100	1,800,000	Varies
Southern California Regional Background Level (DTSC, 2008)[4]					NA	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Federal and State Hazardous Waste Criteria					500	500	10,000	75	2,500	8,000	2,500	1,000	20	2,000	500	2,400	5,000	Varies	NA	NA	NA	NA	NA	NA	NA	NA	Varies

Notes:
Yellow high-lighted values exceeded one or more screening level.
Purple high-lighted values exceeded non-RCRA (CA-restricted) hazardous waste criteria.
1. DTSC, HERO HHRA Note Number 3 (August 2017). Criteria selected: Residential soil, cancer endpoint (carcinogens), non-cancer endpoint (all others)
2. DTSC recommends that a 95% upper confidence limit on the arithmetic mean calculated to be 80 mg/kg or less is protective of human health
3. RSLs, Regional Screening Levels for Region 9, Updated June 2017, Criteria selected: Residential soil, Total Hazard Quotient = 1.0, Target risk of 1.0E-6
4. DTSC, Determination of a Southern California Regional Background Arsenic Concentration in Soil, March 2008. Background arsenic was selected as the screening level for arsenic.
5. See Table 1 for results using the Waste Extraction Test for STLC by EPA Method 6010B and TCLP results for lead.
6. Laboratory results for lead in sample EB9-7-0.5 exceed non-RCRA hazardous (CA-restricted) waste disposal regulations based on the lead results (See Table 1), as per the California Code of Regulations, Title 22, Chapter 11, Article 3. Further analysis of the sample for copper by the extraction test for STLC would not alter the classification and was not performed.

Acronyms/Abbreviations:

bgs	Below ground surface
D1	Laboratory data qualifier indicating that the sample required dilution due to possible matrix interference.
DTSC	California Department of Toxic Substances Control
EPA	United States Environmental Protection Agency
HERO	Office of Human and Ecological Risk
HHRA	Human Health Risk Assessment
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
NA	Not applicable or not available.
ND	Not detected above the laboratory reporting limit.
PAHs	Polycyclic Aromatic Hydrocarbons
RSLs	Regional Screening Levels (see Note 3, above)
STLC	Soluble Threshold Limit Concentration
TTLC	Total Threshold Limit Concentration
ug/kg	micrograms per kilogram
< 1.0	Analyte not detected above the referenced detection limit.
-	Not analyzed.

TABLE 3
Summary of Laboratory Results in Soil for Total Petroleum Hydrocarbons (TPH), and Volatile Organic Compounds (VOCs)
Burroughs Middle School

Location	Boring ID	Sample ID	Sample Depth (feet bgs)	Date Sampled	Total Petroleum Hydrocarbons (TPH) by EPA Method 8015M (mg/kg)						Volatile Organic Compounds (VOCs) by EPA Method 8260B (ug/kg)
					C8-C10	C10-C18	C18-C28	C28-C36	C36-C40	C8-C40 (Total)	
Main Building/ Auditorium (EB1)	EB1-1	EB1-1-1	1.0	12/28/16	<10	<10	**39**	**130**	**120**	**290**	--
		EB1-1-5	5.0	12/28/16	<1.0	**1.3**	**4.5**	**11**	**8.7**	**26**	--
		EB1-1-10	10.0	12/28/16	<1.0	**1.4**	**2.3**	**1.8**	**1.2**	**6.8**	--
Methane Probe M-3	M-3	M-3-10.0	10.0	12/23/16	<10	**32**	**230**	**410**	**250**	**930**	ND
		M-3-12.5	12.5	12/23/16	<1.0	**1.4**	**3.0**	**3.1**	**2.3**	**9.8**	ND
Regulatory Screening Levels:											
October 2011 LAUSD 01 4524 Environmental Import/Export Materials Testing Spec.					100 (gasoline)	1,000 mg/kg (oil/diesel and long-chain hydrocarbons)					>ND
DTSC HERO HHRA Note 3 (August 2017)[1]					NA	16,000 (Mineral Oil ~C15-C50)				NA	Varies
RSLs (June 2017)[2]					520 (aliphatic low-C6); 96 (aliphatic medium-C9)	230,000 (aliphatic high-Mineral Oil ~C15-C50)				NA	Varies
					82 (aromatic low-C6)	110 (aromatic medium-C10/C11); 2,500 (aromatic high-C16)	NA				

NOTES:

1. DTSC, HERO HHRA Note Number 3 (August 2017). Criteria selected: Residential soil, cancer endpoint (carcinogens), non-cancer endpoint (all others)
2. RSLs, Regional Screening Levels for Region 9, Updated June 2017, Criteria selected: Residential soil, Total Hazard Quotient = 1.0, Target risk of 1.0E-6

Acronyms/Abbreviations:

bgs	Below ground surface
DTSC	California Department of Toxic Substances Control
EPA	United States Environmental Protection Agency
HERO	Office of Human and Ecological Risk
HHRA	Human Health Risk Assessment
mg/kg	milligrams per kilogram
NA	Not applicable or not available.
ND	Not detected above the laboratory reporting limit.
RSLs	Regional Screening Levels (see Note 2, above)
TPH	Total Petroleum Hydrocarbons
VOCs	Volatile Organic Compounds
ug/kg	micrograms per kilogram
< 1.0	Analyte not detected above the referenced detection limit.
-	Not analyzed.

APPENDIX A

REFERENCES

APPENDIX A

References

California Department of Water Resources (DWR), Planned Utilization of the Ground Water Basins of the Coastal Plain of Los Angeles County, Appendix A, Ground Water Geology: California Department of Water Resources Bulletin 104, 181 p, 1988.

Catchings, R.D., Gandhok, G., Goldman, M.R., and Okaya, D., Seismic Images and Fault Relations of the Santa Monica Thrust Fault, West Los Angeles, California: U.S. Geological Survey Open-File Report 01-111, 15 p, 2001.

Dibblee, T. W., Jr., Geologic Map of the Hollywood and Burbank South ½ Quadrangles, Los Angeles County, California, DF-30, 1991.

Dolan, J.F., Sieh, K, Rockwell, T.K., Guptill, P., and Miller, G., Active Tectonics, Paleoseismology, and Seismic Hazards of the Hollywood Fault, Northern Los Angeles Basin, California: Geological Society of America Bulletin, Volume 109, No. 12, pp. 1595-1616, 1997.

Dolan, J.F., Sieh, K., and Rockwell, T.K., Late Quaternary Activity and Seismic Potential of the Santa Monica Fault System, Los Angeles, California: Geological Society of America Bulletin, Volume 112, No. 10, pp. 1559-1581, 2000.

Freeman, S.T., Heath, E.G., Guptill, P.D., and Waggoneer, J.T., Seismic Hazard Assessment, Newport-Inglewood Fault Zone, in Pipkin, B.W. and Proctor, R.J. (editors), Engineering Geologic Practice in Southern California: Association of Engineering Geologists Special Publication No. 4, pp. 211-231, 1992.

Hildenbrand, T.G., Davidson, J.G., Ponti, D.J., and Langenheim, V.E., Implications for the Hollywood Basin from Gravity Interpretations of the Northern Los Angeles Basin, California: U.S. Geological Survey Open-File Report 2001-394, 24 p, 2001.

Hummon, C., Schneider, C.L., Yeats, R.S., Dolan, J.F., Sieh, K.E., and Huftile, G.J., Wilshire fault: Earthquake in Hollywood: Geological Society of America Geology, Volume 22, No. 4, pp. 291-294, 1994.

Office of Environmental Health and Safety (OEHS), Scope of Services, prepared by OEHS, dated November 22, 2016.

_____, Response to Request for Clarifications, prepared by OEHS, dated November 29, 2016.

Surveying and Drafting Services, Inc. Title, Ground Topographic and Subsurface Utility Survey, John Burroughs M.S., 600 McCadden Place, Los Angeles, CA 90005, Drawing No. 1-7, May 18, 2016.

State of California Environmental Protection Agency - Department of Toxic Substances Control (DTSC), Interim Guidance, Evaluation of School Sites with Potential Soil Contamination as a Result of Lead from Lead-Based Paint, Organochlorine Pesticides from Termiticides, and Polychlorinated Biphenyls from Electrical Transformers, dated June 9, 2006, revised September 12, 2006.

_____, Determination of a Southern California Regional Background Arsenic Concentration in Soil, http://www.dtsc.ca.gov/ upload/Background-Arsenic.pdf, 2008.

_____, Interim Guidance for Sampling Agricultural Properties (Third Revision), dated April 30, 2008.

_____, Preliminary Endangerment Assessment Guidance Manual, January 1994, Revised October 2015.

_____, Human Health Risk Assessment (HHRA) Note Number: 3, DTSC-modified screening levels, https://www.dtsc.ca.gov/AssessingRisk/upload/HHRA-Note-3-2016-01.pdf, August 2017.

State Water Resources Control Board (SWRCB), Low-Threat Underground Storage Tank Case Closure Policy, State Water Board Resolution No. 2012-0016.

Tsutsumi, H., Yeats, R.S., and Huftile, G.J., Late Cenozoic Tectonics of the Northern Los Angeles Fault System, California: Geological Society of America Bulletin, Volume 113, No. 4, pp. 454-468, 2001.

United States Census Bureau, Profile of General Population and Housing Characteristics: 2010, Zip Code 90005, http://factfinder.census.gov/, 2010.

United States Environmental Protection Agency (EPA), Regional Screening Levels, Region 9: Pacific Southwest, Residential Soil Tables (TR-1E-06, THQ=1.0), http://www.epa.gov/region9/superfund/prg/, June 2017.

Western Environmental Engineers Co., Groundwater Sampling Report First Quarter, 2006 at Highland Express Cleaners Former tidewater Retail Service Station 5020-5044 Wilshire Boulevard, Los Angeles, California, dated April 11, 2006.

WorleyParsons, Phase I Environmental Site Assessment, John Burroughs Middle School, 600 South McCadden Place, Los Angeles, California 90005, May 18, 2016.

Wright, T.L., Structural Geology and Tectonic Evolution if the Los Angeles Basin, California, in Biddle, K.T. (editor), Active Margin Basins: American Association of Petroleum Geologists Memoir 52, pp. 35-134, 1991.

Yerkes, R.F.; McCollouch, T.H.; Schoellhamer, J.E.; Vedder, J.G, Geology of the Los Angeles Basin, California- An Introduction: U.S. Geological Survey Professional Paper 420-A pp. 57, 1965.

APPENDIX B

BORING LOGS

PROBE CONSTRUCTION LOG

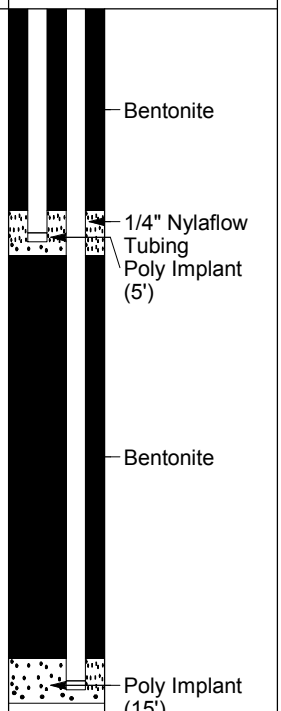
PROJECT NUMBER 603378.006
PROJECT NAME LAUSD Burroughs Middle School
LOCATION 600 South McCadden Place Los Angeles, CA
DRILLING METHOD Direct Push
SAMPLING METHOD Direct Push
GROUND ELEVATION ft.
TOP OF CASING ft.
LOGGED BY KCH
REMARKS

BORING/WELL NUMBER M-1
DATE DRILLED 12/28/2016
CASING TYPE/DIAMETER Nylaflow / 1/4-inch
SCREEN TYPE/SLOT Poly Implant
GRAVEL PACK TYPE #3 Sand
GROUT TYPE/QUANTITY Hydrated Bentonite
DEPTH TO WATER ft.
GROUND WATER ELEVATION ft.

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
								@Surface: Top soil	0.5
						ML		@1': SILT, dark brown, moist, firm, no odor or staining.	
									8.0
						CL		@8': Silty CLAY, brown, moist, stiff, slight odor, no staining.	
								@14': CLAY, dark brown, moist, stiff, odor, no staining.	
								@15': CLAY with Sand, mottled gray/dark brown, firm, odor, no staining, bituminous.	15.5
									20.0

Notes:
Total Depth of Boring: 15.5 feet
No groundwater encountered during drilling

WELL DIAGRAM

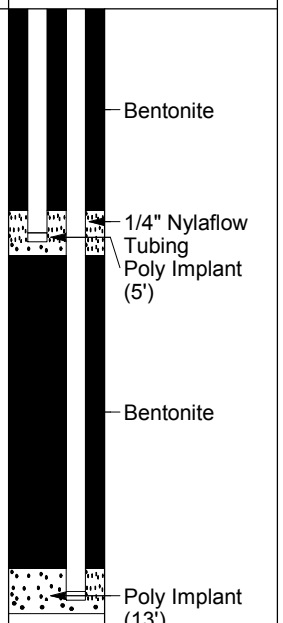


GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

PROBE CONSTRUCTION LOG

PROJECT NUMBER	603378.006	**BORING/WELL NUMBER**	M-10
PROJECT NAME	LAUSD Burroughs Middle School	**DATE DRILLED**	12/23/2016
LOCATION	600 South McCadden Place Los Angeles, CA	**CASING TYPE/DIAMETER**	Nylaflow / 1/4-inch
DRILLING METHOD	Direct Push	**SCREEN TYPE/SLOT**	Poly Implant
SAMPLING METHOD	Direct Push	**GRAVEL PACK TYPE**	#3 Sand
GROUND ELEVATION	ft.	**GROUT TYPE/QUANTITY**	Hydrated Bentonite
TOP OF CASING	ft.	**DEPTH TO WATER**	ft.
LOGGED BY	RAL	**GROUND WATER ELEVATION**	ft.
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
								@Surface: 2" Asphalt	0.2
								6" Concrete	0.7
						CL		@1': Sandy CLAY, brown, stiff, moist, no odor or staining.	
5						ML		@5': Sandy SILT, dark brown, stiff, slightly moist, fine to coarse grained sand, brick fragments, no odor or staining.	5.0
						CL		@8': CLAY, dark brown, hard, slightly moist, no odor or staining.	8.0
10						ML		@10': Sandy SILT, light brown, dry, no odor or staining.	10.0
						SM		@12': Silty SAND, tan, very dense, dry, fine to coarse grained sand, no odor or staining.	12.0
								@ 13.5': Refusal encountered.	13.0
15									
20									
25									
30									



Notes:
Total Depth of Boring: 13.5 feet
No groundwater encountered during drilling

GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

PROBE CONSTRUCTION LOG

PROJECT NUMBER	603378.006	**BORING/WELL NUMBER**	M-11
PROJECT NAME	LAUSD Burroughs Middle School	**DATE DRILLED**	12/28/2016
LOCATION	600 South McCadden Place Los Angeles, CA	**CASING TYPE/DIAMETER**	Nylaflow / 1/4-inch
DRILLING METHOD	Direct Push	**SCREEN TYPE/SLOT**	Poly Implant
SAMPLING METHOD	Direct Push	**GRAVEL PACK TYPE**	#3 Sand
GROUND ELEVATION	ft.	**GROUT TYPE/QUANTITY**	Hydrated Bentonite
TOP OF CASING	ft.	**DEPTH TO WATER**	ft.
LOGGED BY	KCH	**GROUND WATER ELEVATION**	ft.
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH	WELL DIAGRAM
								@Surface: 3" Asphalt	0.5	Bentonite
						ML		@2': Sandy SILT, brown, moist, soft, slight odor, no staining.		
5								@5': Black.		1/4" Nylaflow Tubing; Poly Implant (5')
									9.0	
10								@9': Silty CLAY, dark brown, moist, firm, odor, no staining.		Bentonite
						CL		@11': Sandy CLAY, mottled light brown-white, moist, white sand content, slight odor, no staining.		
15									15.5	Poly Implant (15')
									20.0	
20								**Notes:** Total Depth of Boring: 15.5 feet No groundwater encountered during drilling		
25										
30										

GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

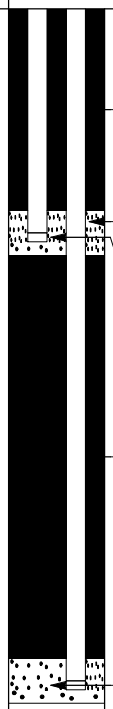
PROBE CONSTRUCTION LOG

PROJECT NUMBER 603378.006
PROJECT NAME LAUSD Burroughs Middle School
LOCATION 600 South McCadden Place Los Angeles, CA
DRILLING METHOD Direct Push
SAMPLING METHOD Direct Push
GROUND ELEVATION ft.
TOP OF CASING ft.
LOGGED BY KCH
REMARKS

BORING/WELL NUMBER M-12
DATE DRILLED 12/28/2016
CASING TYPE/DIAMETER Nylaflow / 1/4-inch
SCREEN TYPE/SLOT Poly Implant
GRAVEL PACK TYPE #3 Sand
GROUT TYPE/QUANTITY Hydrated Bentonite
DEPTH TO WATER ft.
GROUND WATER ELEVATION ft.

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
								@Surface: Topsoil	0.5
						ML		@2': SILT, dark brown, moist, firm, no odor or staining. @3': Sandy SILT, brown, slightly moist, stiff, no odor or staining.	
5						CL		@5': Silty CLAY, brown/orange, slightly moist, stiff, iron oxidized, no odor or staining.	5.0
10								@9': Silty CLAY, dark brown, slightly moist, very stiff, no odor or staining. @12': CLAY, black, moist, firm, low plasticity, odor, no staining, bituminous.	
15									15.5
20								**Notes:** Total Depth of Boring: 15.5 feet No groundwater encountered during drilling	20.0
25									
30									

WELL DIAGRAM



GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

PROBE CONSTRUCTION LOG

PROJECT NUMBER	603378.006	**BORING/WELL NUMBER**	M-13
PROJECT NAME	LAUSD Burroughs Middle School	**DATE DRILLED**	12/28/2016
LOCATION	600 South McCadden Place Los Angeles, CA	**CASING TYPE/DIAMETER**	Nylaflow / 1/4-inch
DRILLING METHOD	Direct Push	**SCREEN TYPE/SLOT**	Poly Implant
SAMPLING METHOD	Direct Push	**GRAVEL PACK TYPE**	#3 Sand
GROUND ELEVATION	ft.	**GROUT TYPE/QUANTITY**	Hydrated Bentonite
TOP OF CASING	ft.	**DEPTH TO WATER**	ft.
LOGGED BY	KCH	**GROUND WATER ELEVATION**	ft.
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH	WELL DIAGRAM
								@Surface: Topsoil	0.5	
						ML		@1': SILT with concrete debris. @2': SILT, black, moist, soft, no odor or staining.		Bentonite
5								@5': Sandy SILT, black, moist, soft, odor, no staining.		1/4" Nylaflow Tubing Poly Implant (5')
									8.0	
						CL		@8': Silty CLAY, black, moist, soft, odor and no staining. @10': CLAY, mottled black and brown, moist, firm, odor, no staining, bitumenous.		Bentonite
10										
15									15.0	Poly Implant (15')
20								**Notes:** Total Depth of Boring: 15.5 feet No groundwater encountered during drilling		
25										
30										

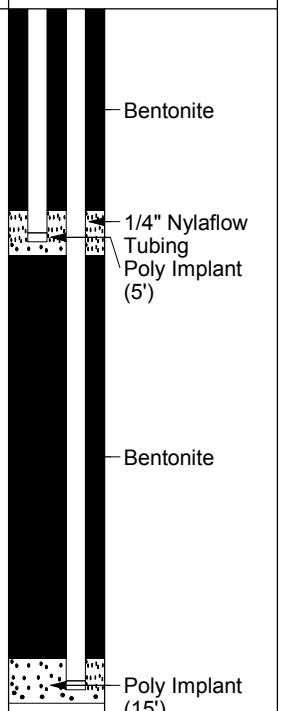
GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

PROBE CONSTRUCTION LOG

PROJECT NUMBER 603378.006
PROJECT NAME LAUSD Burroughs Middle School
LOCATION 600 South McCadden Place Los Angeles, CA
DRILLING METHOD Direct Push
SAMPLING METHOD Direct Push
GROUND ELEVATION ft.
TOP OF CASING ft.
LOGGED BY KCH
REMARKS

BORING/WELL NUMBER M-14
DATE DRILLED 12/28/2016
CASING TYPE/DIAMETER Nylaflow / 1/4-inch
SCREEN TYPE/SLOT Poly Implant
GRAVEL PACK TYPE #3 Sand
GROUT TYPE/QUANTITY Hydrated Bentonite
DEPTH TO WATER ft.
GROUND WATER ELEVATION ft.

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
								@Surface: 3" Asphalt with 3" Base-gravelly SAND.	0.5
						ML		@1': Clayey SILT, dark brown, slightly moist, very stiff, some sand, no odor or staining.	
5								@5': Black, moist, stiff, slight odor, no staining.	
								@7': Mottled gray-black, odor, no staining.	
10								@9': Black, soft, odor, no staining, bituminous.	
15									15.0
20								**Notes:** Total Depth of Boring: 15.5 feet No groundwater encountered during drilling	20.0
25									
30									



GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

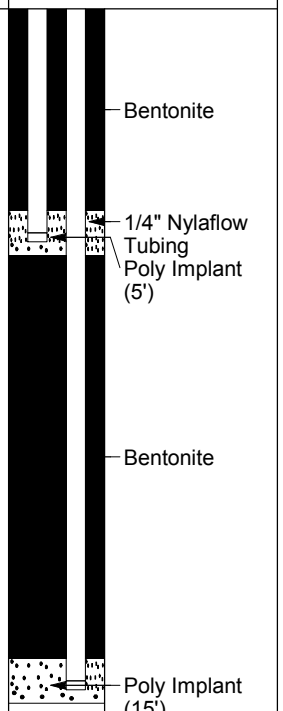
PROBE CONSTRUCTION LOG

PROJECT NUMBER 603378.006
PROJECT NAME LAUSD Burroughs Middle School
LOCATION 600 South McCadden Place Los Angeles, CA
DRILLING METHOD Direct Push
SAMPLING METHOD Direct Push
GROUND ELEVATION ft.
TOP OF CASING ft.
LOGGED BY RAL
REMARKS

BORING/WELL NUMBER M-15
DATE DRILLED 12/27/2016
CASING TYPE/DIAMETER Nylaflow / 1/4-inch
SCREEN TYPE/SLOT Poly Implant
GRAVEL PACK TYPE #3 Sand
GROUT TYPE/QUANTITY Hydrated Bentonite
DEPTH TO WATER ft.
GROUND WATER ELEVATION ft.

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
								@Surface: 3" Asphalt	0.5
						CL		@0.5': Sandy CLAY, light brown, stiff, moist, fine to medium grained, no odor or staining.	
5								@5': Dark brown.	
								@8': Brick fragments in sampler.	
10								@10': Rock blocked sample recovery. No recovery from 10-15.5 feet bgs.	10.0
15									
20								**Notes:** Total Depth of Boring: 15.5 feet No groundwater encountered during drilling	
25									
30									

WELL DIAGRAM



GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

PROBE CONSTRUCTION LOG

PROJECT NUMBER	603378.006	**BORING/WELL NUMBER**	M-16
PROJECT NAME	LAUSD Burroughs Middle School	**DATE DRILLED**	12/23/2016
LOCATION	600 South McCadden Place Los Angeles, CA	**CASING TYPE/DIAMETER**	Nylaflow / 1/4-inch
DRILLING METHOD	Direct Push	**SCREEN TYPE/SLOT**	Poly Implant
SAMPLING METHOD	Direct Push	**GRAVEL PACK TYPE**	#3 Sand
GROUND ELEVATION	ft.	**GROUT TYPE/QUANTITY**	Hydrated Bentonite
TOP OF CASING	ft.	**DEPTH TO WATER**	ft.
LOGGED BY	RAL	**GROUND WATER ELEVATION**	ft.
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH	WELL DIAGRAM
								@Surface: 3" Asphalt	0.5	Bentonite
						CL		@0.5': Silty CLAY, olive brown, moist, firm, trace sand, no odor or staining.		
5								@4.5': Dark gray, slight odor and staining. @5.5': Asphalt debris in sampler. @7': Silty CLAY, olive gray. @8': CLAY, brown, moist, stiff, no odor or staining.		1/4" Nylaflow Tubing Poly Implant (5')
10								@10': CLAY, dark gray, slight odor and staining.		Bentonite
15								@14': No odor, no staining. @15': Boring refusal at 15' bgs.	15.0	Poly Implant (14.5')
20								**Notes:** Total Depth of Boring: 15 feet No groundwater encountered during drilling		
25										
30										

GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

PROBE CONSTRUCTION LOG

PROJECT NUMBER 603378.006
PROJECT NAME LAUSD Burroughs Middle School
LOCATION 600 South McCadden Place Los Angeles, CA
DRILLING METHOD Direct Push
SAMPLING METHOD Direct Push
GROUND ELEVATION ft.
TOP OF CASING ft.
LOGGED BY KCH
REMARKS

BORING/WELL NUMBER M-17
DATE DRILLED 12/28/2016
CASING TYPE/DIAMETER Nylaflow / 1/4-inch
SCREEN TYPE/SLOT Poly Implant
GRAVEL PACK TYPE #3 Sand
GROUT TYPE/QUANTITY Hydrated Bentonite
DEPTH TO WATER ft.
GROUND WATER ELEVATION ft.

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH	WELL DIAGRAM
								@Surface: 3" Asphalt	0.5	Bentonite
						CL		@2': CLAY, black, moist, firm, low plasticity, no odor or staining.		
5								@6': Stiff.		1/4" Nylaflow Tubing; Poly Implant (5')
10								@10': Gray-blue.		Bentonite
15									15.5	Poly Implant (15')
20								**Notes:** Total Depth of Boring: 15.5 feet. No groundwater encountered during drilling		
25										
30										

GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

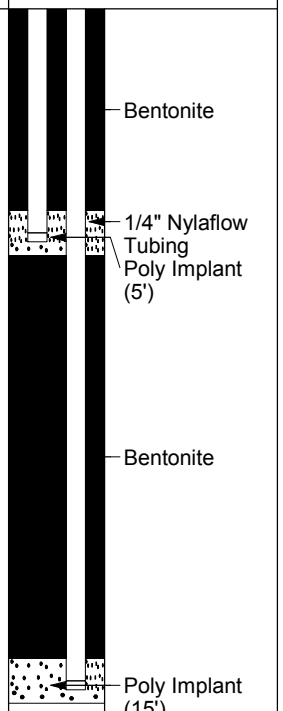
PROBE CONSTRUCTION LOG

PROJECT NUMBER	603378.006	**BORING/WELL NUMBER**	M-18
PROJECT NAME	LAUSD Burroughs Middle School	**DATE DRILLED**	12/27/2016
LOCATION	600 South McCadden Place Los Angeles, CA	**CASING TYPE/DIAMETER**	Nylaflow / 1/4-inch
DRILLING METHOD	Direct Push	**SCREEN TYPE/SLOT**	Poly Implant
SAMPLING METHOD	Direct Push	**GRAVEL PACK TYPE**	#3 Sand
GROUND ELEVATION	ft.	**GROUT TYPE/QUANTITY**	Hydrated Bentonite
TOP OF CASING	ft.	**DEPTH TO WATER**	ft.
LOGGED BY	RAL	**GROUND WATER ELEVATION**	ft.
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
								@Surface: Planter soil	0.5
						CL		@0.5': CLAY, dark brown, moist, stiff, no odor or staining.	
									4.0
5						ML		@4': SILT, light brown, slightly moist, stiff, some clay, no odor and staining.	
								@7': Clayey SILT, light brown, slightly moist, stiff, no odor or staining.	9.0
						SP		@9': SAND, light brown, moist, medium dense, fine to medium grained, no odor and staining.	9.5
10								@9.5': CLAY, dark brown, stiff, slightly moist, trace sand, no odor or staining.	
								@13': Trace gravel, light brown.	
						CL		@14': Dark olive brown.	
15									15.5
20									20.0
25									
30									

Notes:
Total Depth of Boring: 15.5 feet
No groundwater encountered during drilling

WELL DIAGRAM



GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

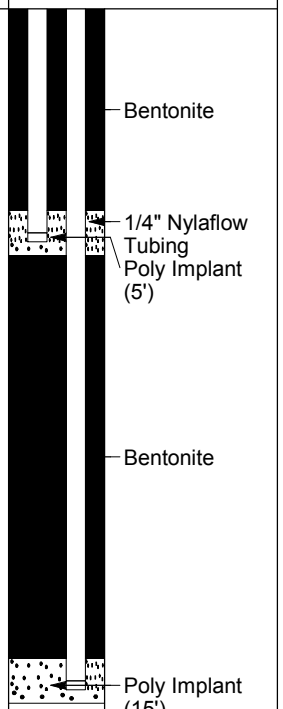
PROBE CONSTRUCTION LOG

PROJECT NUMBER 603378.006
PROJECT NAME LAUSD Burroughs Middle School
LOCATION 600 South McCadden Place Los Angeles, CA
DRILLING METHOD Direct Push
SAMPLING METHOD Direct Push
GROUND ELEVATION ft.
TOP OF CASING ft.
LOGGED BY RAL
REMARKS

BORING/WELL NUMBER M-19
DATE DRILLED 12/27/2016
CASING TYPE/DIAMETER Nylaflow / 1/4-inch
SCREEN TYPE/SLOT Poly Implant
GRAVEL PACK TYPE #3 Sand
GROUT TYPE/QUANTITY Hydrated Bentonite
DEPTH TO WATER ft.
GROUND WATER ELEVATION ft.

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
								@Surface: Planter soil	0.5
						ML		@0.5': Clayey SILT, brown, moist, stiff, no odor or staining.	
5									6.0
								@6': CLAY, brown, slightly moist, hard, no odor or staining.	
10									
						CL		@12': Some sand.	
15									15.5
								Notes: Total Depth of Boring: 15.5 feet No groundwater encountered during drilling	20.0
20									
25									
30									

WELL DIAGRAM



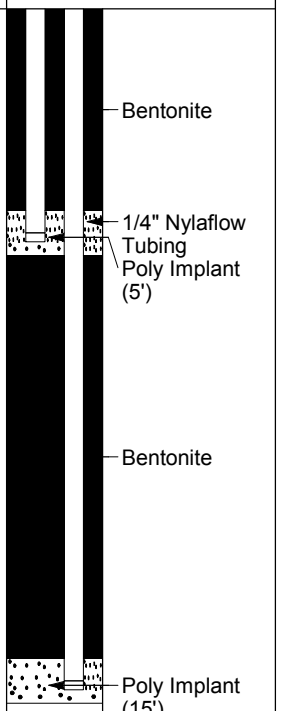
GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

PROBE CONSTRUCTION LOG

PROJECT NUMBER	603378.006	**BORING/WELL NUMBER**	M-2
PROJECT NAME	LAUSD Burroughs Middle School	**DATE DRILLED**	12/28/2016
LOCATION	600 South McCadden Place Los Angeles, CA	**CASING TYPE/DIAMETER**	Nylaflow / 1/4-inch
DRILLING METHOD	Direct Push	**SCREEN TYPE/SLOT**	Poly Implant
SAMPLING METHOD	Direct Push	**GRAVEL PACK TYPE**	#3 Sand
GROUND ELEVATION	ft.	**GROUT TYPE/QUANTITY**	Hydrated Bentonite
TOP OF CASING	ft.	**DEPTH TO WATER**	ft.
LOGGED BY	KCH	**GROUND WATER ELEVATION**	ft.
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
								@Surface: Top soil	0.5
						ML		@1': SILT, brown, moist, firm, some gravel, no odor or staining.	
5								@7': Sandy SILT, brown, moist, firm, low plasticity, some sand, no odor or staining.	8.0
						CL		@8': Sandy CLAY, orange brown, moist, soft, odor and no staining. @9': Black, strong odor, no staining, bituminous.	
10								@10': CLAY, black/gray-blue, moist, firm, odor, no staining, bituminous.	11.0
						SW		@11': SAND, black, soft, strong odor, no staining, bituminous.	12.0
						ML		@12': SAND with Clay.	
15								@15': Clayey SAND, mottled black/gray, firm, odor, no staining, bituminous.	15.5
20								**Notes:** Total Depth of Boring: 15.5 feet No groundwater encountered during drilling	20.0
25									
30									

WELL DIAGRAM



GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

PROBE CONSTRUCTION LOG

PROJECT NUMBER	603378.006	**BORING/WELL NUMBER**	M-20
PROJECT NAME	LAUSD Burroughs Middle School	**DATE DRILLED**	12/27/2016
LOCATION	600 South McCadden Place Los Angeles, CA	**CASING TYPE/DIAMETER**	Nylaflow / 1/4-inch
DRILLING METHOD	Direct Push	**SCREEN TYPE/SLOT**	Poly Implant
SAMPLING METHOD	Direct Push	**GRAVEL PACK TYPE**	#3 Sand
GROUND ELEVATION	ft.	**GROUT TYPE/QUANTITY**	Hydrated Bentonite
TOP OF CASING	ft.	**DEPTH TO WATER**	ft.
LOGGED BY	RAL	**GROUND WATER ELEVATION**	ft.
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH	WELL DIAGRAM
								@Surface: 3" Asphalt	0.5	
						ML		@0.5': Sandy SILT, brown.		
								@2': Concrete layer~2-3 inches	2.5	Bentonite
						CL		@2.5': CLAY, dark brown, moist, stiff, some silt, trace sand, no odor or staining.		
5										1/4" Nylaflow Tubing Poly Implant (5')
								@8': Olive brown, trace gravel, no odor or staining.		
10										Bentonite
								@12': Sandy CLAY, olive brown, slightly moist, very stiff, no odor or staining.		
15									15.5	Poly Implant (15')
									20.0	
20								**Notes:** Total Depth of Boring: 15.5 feet No groundwater encountered during drilling		
25										
30										

GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

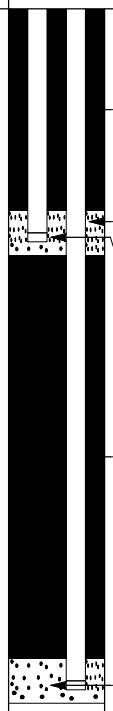
PROBE CONSTRUCTION LOG

PROJECT NUMBER 603378.006
PROJECT NAME LAUSD Burroughs Middle School
LOCATION 600 South McCadden Place Los Angeles, CA
DRILLING METHOD Direct Push
SAMPLING METHOD Direct Push
GROUND ELEVATION ft.
TOP OF CASING ft.
LOGGED BY RAL
REMARKS

BORING/WELL NUMBER M-21
DATE DRILLED 12/27/2016
CASING TYPE/DIAMETER Nylaflow / 1/4-inch
SCREEN TYPE/SLOT Poly Implant
GRAVEL PACK TYPE #3 Sand
GROUT TYPE/QUANTITY Hydrated Bentonite
DEPTH TO WATER ft.
GROUND WATER ELEVATION ft.

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
								@Surface: 3" Asphalt	0.5
						SC		@0.5': Clayey SAND, brown, loose, slightly moist, fine to medium grained, no odor or staining.	
						CL		@4': CLAY, dark brown, moist, firm, no odor or staining.	4.0
5									
10								@10': CLAY, stiff.	
15									15.5
20								**Notes:** Total Depth of Boring: 15.5 feet No groundwater encountered during drilling	20.0
25									
30									

WELL DIAGRAM



GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

PROBE CONSTRUCTION LOG

PROJECT NUMBER	603378.006	**BORING/WELL NUMBER**	M-22
PROJECT NAME	LAUSD Burroughs Middle School	**DATE DRILLED**	12/28/2016
LOCATION	600 South McCadden Place Los Angeles, CA	**CASING TYPE/DIAMETER**	Nylaflow / 1/4-inch
DRILLING METHOD	Direct Push	**SCREEN TYPE/SLOT**	Poly Implant
SAMPLING METHOD	Direct Push	**GRAVEL PACK TYPE**	#3 Sand
GROUND ELEVATION	ft.	**GROUT TYPE/QUANTITY**	Hydrated Bentonite
TOP OF CASING	ft.	**DEPTH TO WATER**	ft.
LOGGED BY	KCH	**GROUND WATER ELEVATION**	ft.
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH	WELL DIAGRAM
								@Surface: 3" Asphalt	0.5	
						ML		@1':SILT with Gravel, brown, moist, no odor or staining. @2':SILT, dark brown, moist, firm, low plasticity, no odor or staining.		Bentonite
5										1/4" Nylaflow Tubing Poly Implant (5')
									8.0	
						CL		@8': CLAY, mottled gray-brown, moist, stiff, low plasticity, no odor, no staining. @12': Gray.		Bentonite
10										
15									15.0	Poly Implant (15')
									20.0	
20								**Notes:** Total Depth of Boring: 15.5 feet No groundwater encountered during drilling		
25										
30										

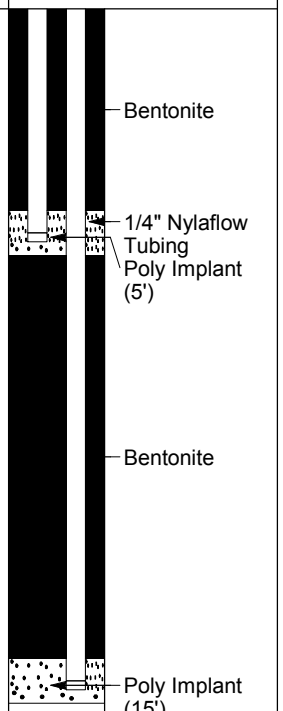
GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

PROBE CONSTRUCTION LOG

PROJECT NUMBER 603378.006
PROJECT NAME LAUSD Burroughs Middle School
LOCATION 600 South McCadden Place Los Angeles, CA
DRILLING METHOD Direct Push
SAMPLING METHOD Direct Push
GROUND ELEVATION ft.
TOP OF CASING ft.
LOGGED BY RAL
REMARKS

BORING/WELL NUMBER M-23
DATE DRILLED 12/27/2016
CASING TYPE/DIAMETER Nylaflow / 1/4-inch
SCREEN TYPE/SLOT Poly Implant
GRAVEL PACK TYPE #3 Sand
GROUT TYPE/QUANTITY Hydrated Bentonite
DEPTH TO WATER ft.
GROUND WATER ELEVATION ft.

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
								@Surface: 3" Asphalt	0.5
						CL		@0.5': Sandy CLAY, brown, stiff, moist, fine to medium grained sand, no odor or staining.	
5						ML		@5': Sandy SILT, light grayish brown, very dense, some gravel, no odor or staining.	5.0
10									12.0
						CL		@12': CLAY, dark grayish brown, slightly moist, stiff, trace sand, odor, no staining, bituminous.	
15									15.0
20								**Notes:** Total Depth of Boring: 15.5 feet No groundwater encountered during drilling	
25									
30									



GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

PROBE CONSTRUCTION LOG

PROJECT NUMBER 603378.006
PROJECT NAME LAUSD Burroughs Middle School
LOCATION 600 South McCadden Place Los Angeles, CA
DRILLING METHOD Direct Push
SAMPLING METHOD Direct Push
GROUND ELEVATION ft.
TOP OF CASING ft.
LOGGED BY RAL
REMARKS

BORING/WELL NUMBER M-24
DATE DRILLED 12/27/2016
CASING TYPE/DIAMETER Nylaflow / 1/4-inch
SCREEN TYPE/SLOT Poly Implant
GRAVEL PACK TYPE #3 Sand
GROUT TYPE/QUANTITY Hydrated Bentonite
DEPTH TO WATER ft.
GROUND WATER ELEVATION ft.

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH	WELL DIAGRAM
								@Surface: 3" Asphalt	0.5	Bentonite
						CL		@0.5': Sandy CLAY, brown, very stiff, slightly moist, fine to medium grained sand, no odor or staining.		1/4" Nylaflow Tubing
5										Poly Implant (5')
								@8': Wood fragments in sampler, trace gravel.		
10								@10': CLAY, dark grayish brown, odor, no staining, bituminous.		Bentonite
15									15.0	Poly Implant (15')
20								**Notes:** Total Depth of Boring: 15.5 feet No groundwater encountered during drilling		
25										
30										

GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

PROBE CONSTRUCTION LOG

PROJECT NUMBER	603378.006	**BORING/WELL NUMBER**	M-25
PROJECT NAME	LAUSD Burroughs Middle School	**DATE DRILLED**	12/27/2016
LOCATION	600 South McCadden Place Los Angeles, CA	**CASING TYPE/DIAMETER**	Nylaflow / 1/4-inch
DRILLING METHOD	Direct Push	**SCREEN TYPE/SLOT**	Poly Implant
SAMPLING METHOD	Direct Push	**GRAVEL PACK TYPE**	#3 Sand
GROUND ELEVATION	ft.	**GROUT TYPE/QUANTITY**	Hydrated Bentonite
TOP OF CASING	ft.	**DEPTH TO WATER**	ft.
LOGGED BY	RAL	**GROUND WATER ELEVATION**	ft.
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH	WELL DIAGRAM
								@Surface: 3" Asphalt	0.5	
						CL		@0.5': Sandy CLAY, brown, dry, stiff, fine to medium grained sand, no odor or staining.		Bentonite
									4.0	
5						SW		@4': SAND, tan, dry, medium dense, fine to coarse grained, no odor or staining.	4.5	1/4" Nylaflow Tubing
								@4.5': Sandy CLAY, brown, dry, hard, fine grained sand, no odor or staining.		Poly Implant (5')
10						CL		@9.5': Dark gray to black, odor, no staining, bituminous.		Bentonite
15									15.5	Poly Implant (15')
20								**Notes:** Total Depth of Boring: 15.5 feet No groundwater encountered during drilling	20.0	
25										
30										

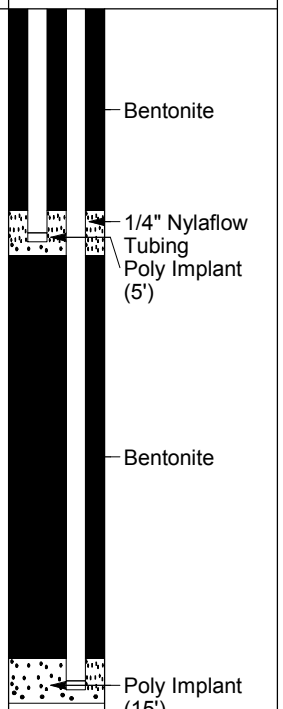
GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

PROBE CONSTRUCTION LOG

PROJECT NUMBER	603378.006	**BORING/WELL NUMBER**	M-26
PROJECT NAME	LAUSD Burroughs Middle School	**DATE DRILLED**	12/28/2016
LOCATION	600 South McCadden Place Los Angeles, CA	**CASING TYPE/DIAMETER**	Nylaflow / 1/4-inch
DRILLING METHOD	Direct Push	**SCREEN TYPE/SLOT**	Poly Implant
SAMPLING METHOD	Direct Push	**GRAVEL PACK TYPE**	#3 Sand
GROUND ELEVATION	ft.	**GROUT TYPE/QUANTITY**	Hydrated Bentonite
TOP OF CASING	ft.	**DEPTH TO WATER**	ft.
LOGGED BY	KCH	**GROUND WATER ELEVATION**	ft.
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
								@Surface: Topsoil	0.5
						ML		@2': Clayey SILT, dark brown, moist, firm, no odor or staining.	5.0
5						SW		@5': Gravelly SAND, black, moist, loose, fine to coarse grained, slight odor, no staining, bituminous.	6.0
						ML		@6': Silty CLAY, dark brown, moist, soft, slight odor and no staining. @8': With gravel.	10.0
10						CL		@10': CLAY, black, slightly moist, very stiff, odor, no staining, bituminous. @11': Sandy CLAY, dark brown, moist, very stiff, medium grained sand, slight odor, no staining.	14.0
15						ML		@14': Clayey SAND, black, moist, soft, slight odor, no staining, bituminous	15.5
20								**Notes:** Total Depth of Boring: 15.5 feet No groundwater encountered during drilling	
25									
30									

WELL DIAGRAM



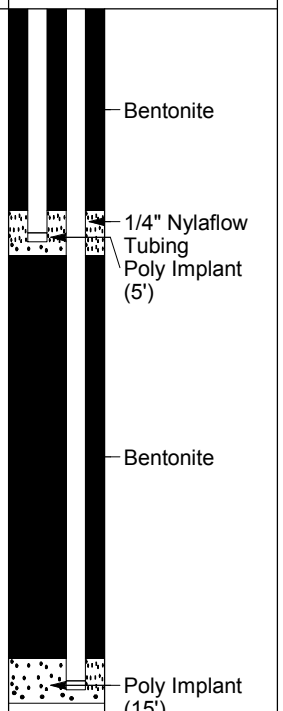
GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

PROBE CONSTRUCTION LOG

PROJECT NUMBER	603378.006	**BORING/WELL NUMBER**	M-27
PROJECT NAME	LAUSD Burroughs Middle School	**DATE DRILLED**	12/28/2016
LOCATION	600 South McCadden Place Los Angeles, CA	**CASING TYPE/DIAMETER**	Nylaflow / 1/4-inch
DRILLING METHOD	Direct Push	**SCREEN TYPE/SLOT**	Poly Implant
SAMPLING METHOD	Direct Push	**GRAVEL PACK TYPE**	#3 Sand
GROUND ELEVATION	ft.	**GROUT TYPE/QUANTITY**	Hydrated Bentonite
TOP OF CASING	ft.	**DEPTH TO WATER**	ft.
LOGGED BY	KCH	**GROUND WATER ELEVATION**	ft.
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
								@Surface: Topsoil	0.5
						CL		@3': Silty CLAY, brown, moist, stiff, low plasticity, no odor or staining.	
5						ML		@5': Sandy SILT, light brown, slightly moist, very stiff, no odor or staining.	5.0
						SW		@6': SAND, mottled gold and brown, slightly moist, loose, fine to coarse grained, no odor and staining.	6.0
						ML		@7.5': SILT, brown, stiff, slightly moist, low plasticity, some iron oxidation, no tar odor or staining.	7.5
10								@ 10'-15' bgs- Liner jammed due to very dense material at depth, no sample recovery	10.0
						SC		@ 15': Clayey SAND, light brown, dry, very dense, no odor or staining.	14.5 15.0
15									
20									
25									
30									

Notes:
Total Depth of Boring: 15.5 feet
No groundwater encountered during drilling



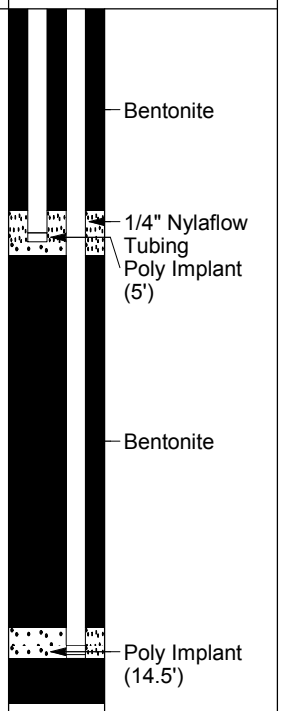
GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

PROBE CONSTRUCTION LOG

PROJECT NUMBER	603378.006	**BORING/WELL NUMBER**	M-28
PROJECT NAME	LAUSD Burroughs Middle School	**DATE DRILLED**	12/27/2016
LOCATION	600 South McCadden Place Los Angeles, CA	**CASING TYPE/DIAMETER**	Nylaflow / 1/4-inch
DRILLING METHOD	Direct Push	**SCREEN TYPE/SLOT**	Poly Implant
SAMPLING METHOD	Direct Push	**GRAVEL PACK TYPE**	#3 Sand
GROUND ELEVATION	ft.	**GROUT TYPE/QUANTITY**	Hydrated Bentonite
TOP OF CASING	ft.	**DEPTH TO WATER**	ft.
LOGGED BY	RAL	**GROUND WATER ELEVATION**	ft.
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
								@Surface: Grass	0.5
						CL		@0.5': CLAY, dark brown, stiff, moist, no odor or staining.	
									4.5
5						ML		@4.5': Sandy SILT, light brown, slightly moist, stiff, fine grained sand, no odor or staining.	5.5
						CL		@5.5': CLAY, light brown, moist, stiff, no odor or staining.	6.5
						SW		@6.5': SAND, light brown, dry, medium dense, fine to coarse grained sand, no odor or staining.	7.5
						CL		@7.5': Silty CLAY, light brown, slightly moist, stiff, no odor, no staining.	
10								@12': CLAY, olive brown, slightly moist, hard, no odor or staining.	
								@14': Light brown.	
15								@15': Boring refusal.	15.0
20								**Notes:** Total Depth of Boring: 15 feet No groundwater encountered during drilling	
25									
30									

WELL DIAGRAM



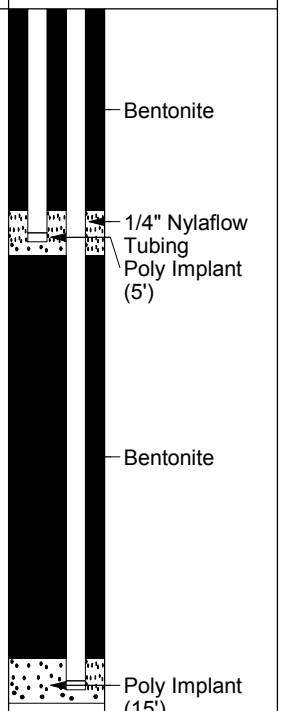
GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

PROBE CONSTRUCTION LOG

PROJECT NUMBER	603378.006	**BORING/WELL NUMBER**	M-29
PROJECT NAME	LAUSD Burroughs Middle School	**DATE DRILLED**	12/27/2016
LOCATION	600 South McCadden Place Los Angeles, CA	**CASING TYPE/DIAMETER**	Nylaflow / 1/4-inch
DRILLING METHOD	Direct Push	**SCREEN TYPE/SLOT**	Poly Implant
SAMPLING METHOD	Direct Push	**GRAVEL PACK TYPE**	#3 Sand
GROUND ELEVATION	ft.	**GROUT TYPE/QUANTITY**	Hydrated Bentonite
TOP OF CASING	ft.	**DEPTH TO WATER**	ft.
LOGGED BY	RAL	**GROUND WATER ELEVATION**	ft.
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
								@Surface: 3" Asphalt	0.5
						CL		@0.5': Sandy CLAY, brown, hard, dry, fine to medium grained sand, no odor or staining.	
5								@5': Dark brown.	
10						SP		@10': SAND, brown, medium dense, slightly moist, no odor or staining.	10.0
						CL		@13': Sandy CLAY, light brown, hard, dry, fine to medium grained sand, no odor or staining.	13.0
15									15.5
20								**Notes:** Total Depth of Boring: 15.5 feet No groundwater encountered during drilling	20.0
25									
30									

WELL DIAGRAM



GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

PROBE CONSTRUCTION LOG

PROJECT NUMBER	603378.006	**BORING/WELL NUMBER**	M-30
PROJECT NAME	LAUSD Burroughs Middle School	**DATE DRILLED**	12/28/2016
LOCATION	600 South McCadden Place Los Angeles, CA	**CASING TYPE/DIAMETER**	Nylaflow / 1/4-inch
DRILLING METHOD	Direct Push	**SCREEN TYPE/SLOT**	Poly Implant
SAMPLING METHOD	Direct Push	**GRAVEL PACK TYPE**	#3 Sand
GROUND ELEVATION	ft.	**GROUT TYPE/QUANTITY**	Hydrated Bentonite
TOP OF CASING	ft.	**DEPTH TO WATER**	12.0ft.
LOGGED BY	KCH	**GROUND WATER ELEVATION**	ft.
REMARKS			

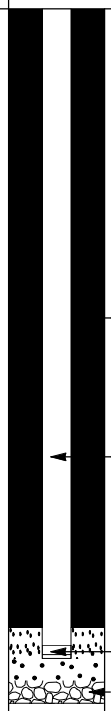
DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH	WELL DIAGRAM
								@Surface: Topsoil	0.5	Bentonite
						ML		@3': Sandy SILT, black, soft, slightly moist, no odor, no staining, oragnic rich. @4': SILT, dark brown, firm, slightly moist, low plasticity, some sand, no odor or staining.		1/4" Nylaflow Tubing Poly Implant (5')
5										Bentonite
								@8': Mottled brown and dark brown.	9.0	
						CL		@9': Sandy CLAY, black, moist, firm, low plasticity, no odor, no staining, bitunminous.		Poly Implant (9.5')
10								@12': Perched groundwater encountered post drilling. @12.5'- CLAY, black, moist, firm, no odor, no staining, bituminous.		Bentonite
15									15.5	
20								**Notes:** Total Depth of Boring: 15.5 feet Perched groundwater was encountered after tooling was removed from the boring. No evidence of broken utility in the area. Bentonite was added to dry up the boring from 15.5'bgs to 10' bgs. Probes were set at 5' bgs and 9.5' bgs.		
25										
30										

GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

PROBE CONSTRUCTION LOG

PROJECT NUMBER	603378.006	**BORING/WELL NUMBER**	M-3-Deep
PROJECT NAME	LAUSD Burroughs Middle School	**DATE DRILLED**	12/27/2016
LOCATION	600 South McCadden Place Los Angeles, CA	**CASING TYPE/DIAMETER**	Nylaflow / 1/4-inch
DRILLING METHOD	Direct Push	**SCREEN TYPE/SLOT**	Poly Implant
SAMPLING METHOD	Direct Push	**GRAVEL PACK TYPE**	#3 Sand
GROUND ELEVATION	ft.	**GROUT TYPE/QUANTITY**	Hydrated Bentonite
TOP OF CASING	ft.	**DEPTH TO WATER**	ft.
LOGGED BY	RAL	**GROUND WATER ELEVATION**	ft.
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
								@Surface: 3" Asphalt	0.5
						SW		@0.5': Gravelly SAND, brown, medium dense, dry, fine to coarse grained sand (artificial fill).	
5								@5.5': Brick fragements in sampler.	6.0
						CL		@6': CLAY, dark gray, hard, slightly moist, some sand, slight odor and staining, brick fragments in sampler.	
10								@11.5': CLAY, asphalt fragments present.	12.0
						ML		@12': Sandy SILT, brown, hard, slightly moist, fine grained sand, no staining or odor.	
15									15.5
20								**Notes:** Total Depth of Boring: 15.5 feet No groundwater encountered during drilling	
25									
30									



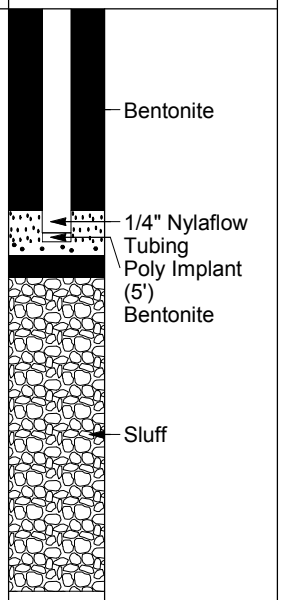
GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

PROBE CONSTRUCTION LOG

PROJECT NUMBER	603378.006	**BORING/WELL NUMBER**	M-3-Shallow
PROJECT NAME	LAUSD Burroughs Middle School	**DATE DRILLED**	12/23/2016
LOCATION	600 South McCadden Place Los Angeles, CA	**CASING TYPE/DIAMETER**	Nylaflow / 1/4-inch
DRILLING METHOD	Direct Push	**SCREEN TYPE/SLOT**	Poly Implant
SAMPLING METHOD	Direct Push	**GRAVEL PACK TYPE**	#3 Sand
GROUND ELEVATION	ft.	**GROUT TYPE/QUANTITY**	Hydrated Bentonite
TOP OF CASING	ft.	**DEPTH TO WATER**	ft.
LOGGED BY	RAL	**GROUND WATER ELEVATION**	ft.
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
							@Surface: 3" Asphalt	0.5
						SW	@0.5': Gravelly SAND, brown, medium dense, dry, fine to coarse grained sand (artificial fill).	
5							@5.5': Brick fragments in sampler.	6.0
		6	M-3-6.0			CL	@6': CLAY, dark gray, hard, slightly moist, some sand, slight odor and staining, brick fragments.	
10		6	M-3-10.0				@11.5': CLAY, asphalt fragments present.	12.0
		6	M-3-12.5			ML	@12': Sandy SILT, brown, hard, slightly moist, fine grained sand, no staining or odor.	13.0
							@13': Refusal at depth.	
15								
20								
25								
30								

WELL DIAGRAM



Notes:
Total Depth of Boring: 13 feet
No groundwater encountered during drilling

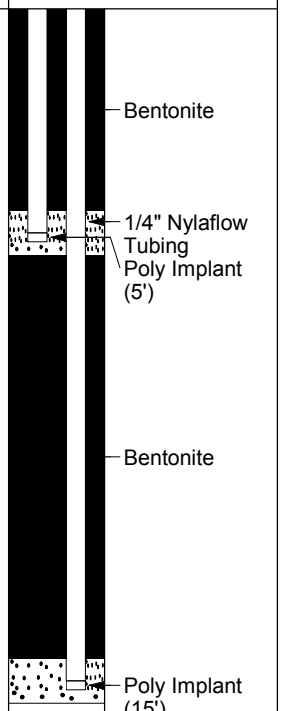
GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

PROBE CONSTRUCTION LOG

PROJECT NUMBER	603378.006	**BORING/WELL NUMBER**	M-4
PROJECT NAME	LAUSD Burroughs Middle School	**DATE DRILLED**	12/27/2016
LOCATION	600 South McCadden Place Los Angeles, CA	**CASING TYPE/DIAMETER**	Nylaflow / 1/4-inch
DRILLING METHOD	Direct Push	**SCREEN TYPE/SLOT**	Poly Implant
SAMPLING METHOD	Direct Push	**GRAVEL PACK TYPE**	#3 Sand
GROUND ELEVATION	ft.	**GROUT TYPE/QUANTITY**	Hydrated Bentonite
TOP OF CASING	ft.	**DEPTH TO WATER**	ft.
LOGGED BY	RAL	**GROUND WATER ELEVATION**	ft.
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
								@Surface: 3" Asphalt	0.5
						CL		@0.5': CLAY, dark olive brown, stiff, slightly moist, no odor or staining.	1.0
						SM		@1': Sandy SILT, brown, hard, slightly moist, fine grained sand, no staining or odor.	
									4.0
5						CL		@4': Silty CLAY, light olive brown, hard, moist, trace sand, no staining or odor.	
								@7': Some sand.	
10								@10': CLAY, brown, hard, moist, trace sand, no odor or staining.	
								@12': Some silt.	
15									15.5
20								**Notes:** Total Depth of Boring: 15.5 feet No groundwater encountered during drilling	
25									
30									

WELL DIAGRAM



GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

PROBE CONSTRUCTION LOG

PROJECT NUMBER 603378.006
PROJECT NAME LAUSD Burroughs Middle School
LOCATION 600 South McCadden Place Los Angeles, CA
DRILLING METHOD Direct Push
SAMPLING METHOD Direct Push
GROUND ELEVATION ft.
TOP OF CASING ft.
LOGGED BY RAL
REMARKS

BORING/WELL NUMBER M-5
DATE DRILLED 12/27/2016
CASING TYPE/DIAMETER Nylaflow / 1/4-inch
SCREEN TYPE/SLOT Poly Implant
GRAVEL PACK TYPE #3 Sand
GROUT TYPE/QUANTITY Hydrated Bentonite
DEPTH TO WATER ft.
GROUND WATER ELEVATION ft.

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH	WELL DIAGRAM
								@Surface: 6" Concrete	0.5	Bentonite
						CL		@0.5': CLAY, dark brown, stiff, moist, no odor or staining.	4.0	
5						SM		@4': Silty SAND, light brown, medium dense, fine to medium grained sand, some gravel, no staining or odor.	5.0	1/4" Nylaflow Tubing Poly Implant (5')
						ML		@5': SILT, light brown, hard, dry, some sand, no staining or odor.		
10										Bentonite
15									15.5	Poly Implant (15')
20								**Notes:** Total Depth of Boring: 15.5 feet No groundwater encountered during drilling		
25										
30										

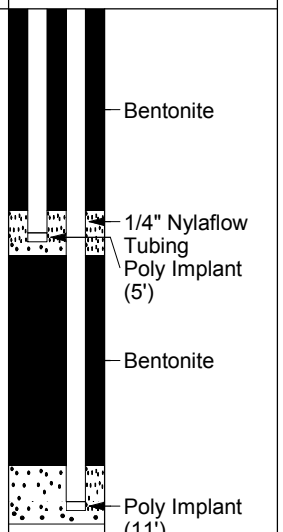
GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

PROBE CONSTRUCTION LOG

PROJECT NUMBER 603378.006
PROJECT NAME LAUSD Burroughs Middle School
LOCATION 600 South McCadden Place Los Angeles, CA
DRILLING METHOD Direct Push
SAMPLING METHOD Direct Push
GROUND ELEVATION ft.
TOP OF CASING ft.
LOGGED BY RAL
REMARKS

BORING/WELL NUMBER M-6
DATE DRILLED 12/27/2016
CASING TYPE/DIAMETER Nylaflow / 1/4-inch
SCREEN TYPE/SLOT Poly Implant
GRAVEL PACK TYPE #3 Sand
GROUT TYPE/QUANTITY Hydrated Bentonite
DEPTH TO WATER ft.
GROUND WATER ELEVATION ft.

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
								@Surface: 3" Asphalt	0.5
						SP		@0.5': SAND, light brown, loose, dry, fine to medium grained sand, some silt, no odor or staining.	
5									5.5
						CL		@5.5': CLAY, dark brown, very stiff, slightly moist, no odor or staining.	
									9.0
						SM		@9': Silty SAND, tan, very dense, dry, fine to medium grained sand, no odor or staining.	
10									11.5
								@ 11.5': Refusal encountered.	
15									
20								**Notes:** Total Depth of Boring: 11.5 feet No groundwater encountered during drilling	
25									
30									

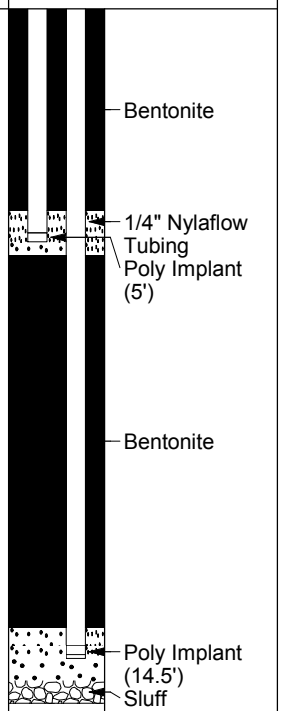


GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

PROBE CONSTRUCTION LOG

PROJECT NUMBER	603378.006	**BORING/WELL NUMBER**	M-7
PROJECT NAME	LAUSD Burroughs Middle School	**DATE DRILLED**	12/27/2016
LOCATION	600 South McCadden Place Los Angeles, CA	**CASING TYPE/DIAMETER**	Nylaflow / 1/4-inch
DRILLING METHOD	Direct Push	**SCREEN TYPE/SLOT**	Poly Implant
SAMPLING METHOD	Direct Push	**GRAVEL PACK TYPE**	#3 Sand
GROUND ELEVATION	ft.	**GROUT TYPE/QUANTITY**	Hydrated Bentonite
TOP OF CASING	ft.	**DEPTH TO WATER**	ft.
LOGGED BY	RAL	**GROUND WATER ELEVATION**	ft.
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
								@Surface: 2" Asphalt	0.5
						CL		@0.5': CLAY, olive-gray, firm, moist, no odor or staining.	
5									6.0
						ML		@6': Sandy SILT, olive gray, stiff, moist, fine to medium grained sand, no odor or staining. @7': Sandy SILT, trace sand.	9.0
10						CL		@9': CLAY, brown, hard, moist, no odor or staining.	
15								@14': Clayey SILT, olive gray, hard, slightly moist, trace sand, no odor or staining.	15.0
								@ 15': Refusal encountered.	
20								**Notes:** Total Depth of Boring: 15 feet No groundwater encountered during drilling	
25									
30									



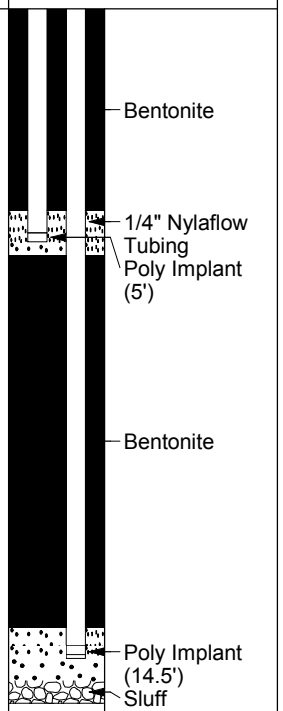
GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

PROBE CONSTRUCTION LOG

PROJECT NUMBER 603378.006
PROJECT NAME LAUSD Burroughs Middle School
LOCATION 600 South McCadden Place Los Angeles, CA
DRILLING METHOD Direct Push
SAMPLING METHOD Direct Push
GROUND ELEVATION ft.
TOP OF CASING ft.
LOGGED BY RAL
REMARKS

BORING/WELL NUMBER M-8
DATE DRILLED 12/27/2016
CASING TYPE/DIAMETER Nylaflow / 1/4-inch
SCREEN TYPE/SLOT Poly Implant
GRAVEL PACK TYPE #3 Sand
GROUT TYPE/QUANTITY Hydrated Bentonite
DEPTH TO WATER ft.
GROUND WATER ELEVATION ft.

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
								@Surface: 2" Asphalt	0.5
								@0.5': Brick and gravel (artificial fill).	
									2.5
						ML		@2.5': Clayey SILT, light brown, firm, moist, trace sand, no odor or staining.	
5									
								@9': sand.	
10									10.0
						CL		@10': CLAY, dark gray, hard, slightly moist, some sand, odor, no staining, brick fragments.	
									14.0
						ML		@14': Clayey SILT, light brown, hard, slightly moist, some sand, no odor or staining.	15.0
15								@ 15': Refusal encountered.	
20									
25									
30									



Notes:
Total Depth of Boring: 15 feet
No groundwater encountered during drilling

GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

PROBE CONSTRUCTION LOG

PROJECT NUMBER	603378.006	**BORING/WELL NUMBER**	M-9-Deep
PROJECT NAME	LAUSD Burroughs Middle School	**DATE DRILLED**	12/27/2016
LOCATION	600 South McCadden Place Los Angeles, CA	**CASING TYPE/DIAMETER**	Nylaflow / 1/4-inch
DRILLING METHOD	Direct Push	**SCREEN TYPE/SLOT**	Poly Implant
SAMPLING METHOD	Direct Push	**GRAVEL PACK TYPE**	#3 Sand
GROUND ELEVATION	ft.	**GROUT TYPE/QUANTITY**	Hydrated Bentonite
TOP OF CASING	ft.	**DEPTH TO WATER**	ft.
LOGGED BY	RAL	**GROUND WATER ELEVATION**	ft.
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH	WELL DIAGRAM
								@Surface: 3" Asphalt	0.5	
						SW		@0.5': Gravelly SAND, light brown, medium dense, fine to coarse grained sand with asphalt debris from 0.5-2ft bgs no odor, no staining.	4.0	
5						SM		@4': Silty SAND, light brown, medium dense, no odor or staining.	6.0	
						CL		@6': Silty CLAY, brown, hard, dry, no odor or staining.	9.5	Bentonite
10						ML		@9.5': Clayey SILT, light brown, hard, slightly moist, trace sand, no odor or staining.		1/4" Nylaflow Tubing
15									15.5	Poly Implant (15')
20								**Notes:** Total Depth of Boring: 15.5 feet No groundwater encountered during drilling		
25										
30										

GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

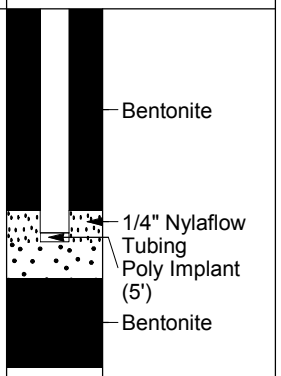
PROBE CONSTRUCTION LOG

PROJECT NUMBER 603378.006
PROJECT NAME LAUSD Burroughs Middle School
LOCATION 600 South McCadden Place Los Angeles, CA
DRILLING METHOD Direct Push
SAMPLING METHOD Direct Push
GROUND ELEVATION ft.
TOP OF CASING ft.
LOGGED BY RAL
REMARKS

BORING/WELL NUMBER M-9-Shallow
DATE DRILLED 12/23/2016
CASING TYPE/DIAMETER Nylaflow / 1/4-inch
SCREEN TYPE/SLOT Poly Implant
GRAVEL PACK TYPE #3 Sand
GROUT TYPE/QUANTITY Hydrated Bentonite
DEPTH TO WATER ft.
GROUND WATER ELEVATION ft.

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
								@Surface: 3" Asphalt	0.5
						SW		@0.5': Gravelly SAND, light brown, medium dense, fine to coarse grained sand with asphalt debris from 0.5-2ft bgs, no odor, no staining.	4.0
5						SM		@4': Silty SAND, light brown, medium dense, no odor or staining.	6.0
						CL		@6': Silty CLAY, brown, hard, dry, no odor or staining.	8.0
								@8': Refusal at depth.	
10									
15									
20									
25									
30									

Notes:
Total Depth of Boring: 8 feet
No groundwater encountered during drilling



GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

SOIL BORING LOG

A LEIGHTON GROUP COMPANY

Project Number	603378.006	Boring ID	EB1-1
Project Name	LAUSD - Burroughs Middle School	Date Drilled	12/28/16
Location	600 S McCadden Place, Los Angeles	Casing Type/Diameter	N/A
Drilling Method	HA/DP	Screen Type/Slot	N/A
Sampling Method	HA/DP	Gravel Pack Type	N/A
Ground Elevation	—	Grout Type/Quantity	Bentonite
Logged By	KCH	Depth to Water	—
Remarks			

DEPTH (ft. BGL)	RECOVERY (inches)	BLOW COUNTS	SAMPLE ID	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	WELL DIAGRAM
1							3" Asphalt	
2		3:30	-1.0				@1' - SANDY SILT, brown, moist, firm, sl. odor / No S. (Tar)	
3								
4		~~3~~ 4	-5.0				@2' - Silty Clay, d.k brown, moist, firm, No tar odor/St,	
5							@5' SAA	
6								
7								
8							@8' - SANDY SILT, lt. brown moist, V Stiff. No O/S	
9								
10							@10' - Silty lt. SAND : firm, moist, stone? cemented, No O/S.	
11								
12							TD-10'	
13							Backfilled w/ Bent	
14								
15								
16								
17								
18								
19								
20								

Description Order - NAME: color, density, moisture, grain size, minor constituents, observations, staining, odor

A Leighton Group Company

BORING LOG

PROJECT NUMBER	603378.006	BORING/WELL NUMBER	EB3-1
PROJECT NAME		DATE DRILLED	1-3-17
LOCATION		CASING TYPE/DIAMETER	-
DRILLING METHOD	HA	SCREEN TYPE/SLOT	-
SAMPLING METHOD	Jars	GRAVEL PACK TYPE	-
GROUND ELEVATION	-	GROUT TYPE/QUANTITY	-
TOP OF CASING	-	DEPTH TO WATER	-
LOGGED BY	W. Sloniers	GROUND WATER ELEVATION	-
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
								Surface - 3.5" AC.
								0.5' - 2.5' - Clay, dark grayish green, moist, s.p. fines, slight chemical odor (non-TPH).
5								TD = 2.5' bgs.
10								
15								
20								
25								
30								
35								

GE_SBL_FNC AB GWGN01.GPJ LAEWNN01.GDT 4/1/05

A Leighton Group Company

BORING LOG

PROJECT NUMBER	603378.006	BORING/WELL NUMBER	EB3-2
PROJECT NAME		DATE DRILLED	12-29-16
LOCATION		CASING TYPE/DIAMETER	—
DRILLING METHOD	HA	SCREEN TYPE/SLOT	—
SAMPLING METHOD	Jars	GRAVEL PACK TYPE	—
GROUND ELEVATION	—	GROUT TYPE/QUANTITY	—
TOP OF CASING	—	DEPTH TO WATER	—
LOGGED BY	W. Siemers	GROUND WATER ELEVATION	—
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
								Surface-3" AC.
								C0.5'- Silty Sand, brown, moist, f.-m.-g. sand w/ n.p. fines
								C1.5'- Clay, d. brown, s.p. fines
5								C2.5'- Becomes grayish brown.
								TD=2.5' bgs.
10								
15								
20								
25								
30								
35								

GE_SBL_FNC AB GWGN01.GPJ LAEWNN01.GDT 4/1/05

A Leighton Group Company

BORING LOG

PROJECT NUMBER	603378.006	BORING/WELL NUMBER	FBS-1
PROJECT NAME		DATE DRILLED	12-29-16
LOCATION		CASING TYPE/DIAMETER	—
DRILLING METHOD	HA	SCREEN TYPE/SLOT	—
SAMPLING METHOD	Jars	GRAVEL PACK TYPE	—
GROUND ELEVATION	—	GROUT TYPE/QUANTITY	—
TOP OF CASING	—	DEPTH TO WATER	—
LOGGED BY	W. Seamans	GROUND WATER ELEVATION	—
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
								Surface – 2.5" AC.
								@ 0.5' – 2.5' – Sandy Clay; d. grayish brown, moist, s.p. fines w/f-m.g. sand
5								TD = 2.5' bgs.
10								
15								
20								
25								
30								
35								

GE_SBL FNC AB GWGN01.GPJ LAEWNN01.GDT 4/1/05

A Leighton Group Company

BORING LOG

PROJECT NUMBER	603378.006	BORING/WELL NUMBER	FBS-2
PROJECT NAME		DATE DRILLED	12-29-16
LOCATION		CASING TYPE/DIAMETER	—
DRILLING METHOD	HA	SCREEN TYPE/SLOT	—
SAMPLING METHOD	Jars	GRAVEL PACK TYPE	—
GROUND ELEVATION	—	GROUT TYPE/QUANTITY	—
TOP OF CASING	—	DEPTH TO WATER	—
LOGGED BY	W. Siemers	GROUND WATER ELEVATION	—
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
								Surface – 2" AC
								0.5'–2.5'– Clay, dark grayish brown mottled d. yellowish brown, moist, S.P. fines
5								TD = 2.5' bgs.
10								
15								
20								
25								
30								
35								

GE_SBL_FNC AB GWGN01.GPJ LAEWNN01.GDT 4/1/05

A Leighton Group Company

BORING LOG

PROJECT NUMBER	603378.006	BORING/WELL NUMBER	EB5-3
PROJECT NAME		DATE DRILLED	12-29-16
LOCATION		CASING TYPE/DIAMETER	-
DRILLING METHOD	HA	SCREEN TYPE/SLOT	-
SAMPLING METHOD	Jar	GRAVEL PACK TYPE	-
GROUND ELEVATION	-	GROUT TYPE/QUANTITY	-
TOP OF CASING	-	DEPTH TO WATER	-
LOGGED BY	W Sumners	GROUND WATER ELEVATION	-
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
0								Surface - 2" AC.
								0.5'-1' - Silty Sand, grayish brown, moist.
								Refusal @ 1'.
5								
10								
15								
20								
25								
30								
35								

GE_SBL_FNC_AB GWGN01.GPJ LAEWNN01.GDT 4/1/05

A Leighton Group Company

BORING LOG

PROJECT NUMBER	603378.006	BORING/WELL NUMBER	EB5-4
PROJECT NAME		DATE DRILLED	12-29-16
LOCATION		CASING TYPE/DIAMETER	—
DRILLING METHOD	HA	SCREEN TYPE/SLOT	—
SAMPLING METHOD	Jars	GRAVEL PACK TYPE	—
GROUND ELEVATION	—	GROUT TYPE/QUANTITY	—
TOP OF CASING	—	DEPTH TO WATER	—
LOGGED BY	W. Sommers	GROUND WATER ELEVATION	—
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
								Surface - 5" AC.
								@0.5' - Silty Sand, grayish black, moist, f-m. gr sand w/ n.p. fines
5								@1.5-2.5' - Clay, grayish black, moist, s.p. fines.
								TD = 2.5' bgs.
10								
15								
20								
25								
30								
35								

GE_SBL FNC AB GWGN01.GPJ LAEWNN01.GDT 4/1/05

A Leighton Group Company

BORING LOG

PROJECT NUMBER	605518.006	BORING/WELL NUMBER	EB5-5
PROJECT NAME		DATE DRILLED	12-29-16
LOCATION		CASING TYPE/DIAMETER	-
DRILLING METHOD	HA	SCREEN TYPE/SLOT	-
SAMPLING METHOD	Jars	GRAVEL PACK TYPE	-
GROUND ELEVATION	-	GROUT TYPE/QUANTITY	-
TOP OF CASING	-	DEPTH TO WATER	-
LOGGED BY	W. Sowiers	GROUND WATER ELEVATION	-
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
								Surface - 3.5" AC.
								@0.5' - Clayey silt, grayish brown, moist, n.p. fines w/ s.p. fines
5								@1.5-2.5' - Clay, grayish brown, moist, s.p. fines
								TD = 2.5' bgs.
10								
15								
20								
25								
30								
35								

GE_SBL_FNC AB GWGN01.GPJ LAEWNN01.GDT 4/1/05

A Leighton Group Company

BORING LOG

PROJECT NUMBER	603378.006	BORING/WELL NUMBER	FB5-6
PROJECT NAME		DATE DRILLED	12-29-16
LOCATION		CASING TYPE/DIAMETER	—
DRILLING METHOD	HA	SCREEN TYPE/SLOT	—
SAMPLING METHOD	Jars	GRAVEL PACK TYPE	—
GROUND ELEVATION	—	GROUT TYPE/QUANTITY	—
TOP OF CASING	—	DEPTH TO WATER	—
LOGGED BY	W. Scowers	GROUND WATER ELEVATION	—
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
								Surface - 3" AC.
								@0.5' - Silty Sand, grayish brown, moist, f-g-sand/n.p.fines.
								@1.5' - Clay, brown w/ grayish brown mottling, moist, s.p.fines.
5								@2.5' - Same as at 0.5'.
								TD = 2.5' bgs.
10								
15								
20								
25								
30								
35								

GE_SBL_FNC AB GWGN01.GPJ LAEWNN01.GDT 4/1/05

SOIL BORING LOG

A LEIGHTON GROUP COMPANY

Project Number	603378.006	Boring ID	EB6-1
Project Name	LAUSD - Burroughs Middle School	Date Drilled	12-29-16
Location	600 S McCadden Place, Los Angeles	Casing Type/Diameter	—
Drilling Method	HA	Screen Type/Slot	—
Sampling Method	Jars	Gravel Pack Type	—
Ground Elevation	—	Grout Type/Quantity	—
Logged By	W Sconces	Depth to Water	—
Remarks			

DEPTH (ft. BGL)	RECOVERY (inches)	BLOW COUNTS	SAMPLE ID	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	WELL DIAGRAM
1							Surface - 4" AC.	
2							@0.5' - Silty Sand, d. brown, moist, fg. sand w/m.p. fines	
3							@1.5' - Clay, d. grayish brown, moist, s.p. fines	
4							@2.5' - P.G. Sand, grayish brown, moist, f-m.g. sand	
5							TD = 2.5' bgs.	
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

~~EB6-6 4'~~ - D.brown SM, no odor, moist ~~EB6-1~~ Same, ~~EB6-4~~ Same, ~~EB6-1~~ Same (SP @ 0.5, l brown)

Description Order - NAME: color, density, moisture, grain size, minor constituents, observations, staining, odor

A Leighton Group Company

BORING LOG

PROJECT NUMBER	603378.006	BORING/WELL NUMBER	EB6-2
PROJECT NAME		DATE DRILLED	12-29-16
LOCATION		CASING TYPE/DIAMETER	–
DRILLING METHOD	HA	SCREEN TYPE/SLOT	–
SAMPLING METHOD	Jars	GRAVEL PACK TYPE	–
GROUND ELEVATION	–	GROUT TYPE/QUANTITY	–
TOP OF CASING	–	DEPTH TO WATER	–
LOGGED BY	W Sconiers	GROUND WATER ELEVATION	–
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
								Surface – 3" AC.
								0.5'-2.5'- Sandy clay, d. brown to d. grayish brown, moist, s.p. brown w/ fine-m.g. sand
5								TD = 2.5' bgs.
10								
15								
20								
25								
30								
35								

GE_SBL FNC AB GWGN01.GPJ LAEWNN01.GDT 4/1/05

A Leighton Group Company

BORING LOG

PROJECT NUMBER	603378.006	BORING/WELL NUMBER	EB6-3
PROJECT NAME		DATE DRILLED	1-3-17
LOCATION		CASING TYPE/DIAMETER	-
DRILLING METHOD	HA	SCREEN TYPE/SLOT	-
SAMPLING METHOD	Jars	GRAVEL PACK TYPE	-
GROUND ELEVATION	-	GROUT TYPE/QUANTITY	-
TOP OF CASING	-	DEPTH TO WATER	-
LOGGED BY	W. Scoville	GROUND WATER ELEVATION	-
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
								Surface - 4" AC.
								@0.5'-2.5' - Clay, d. brown, moist, s.p. fines.
								TD = 2.5' bgs.
5								
10								
15								
20								
25								
30								
35								

GE_SBL FNC AB GWGN01.GPJ LAEWNN01.GDT 4/1/05

SOIL BORING LOG

A LEIGHTON GROUP COMPANY

Project Number	603378.006	Boring ID	EBS-1
Project Name	LAUSD - Burroughs Middle School	Date Drilled	12-29-16
Location	600 S McCadden Place, Los Angeles	Casing Type/Diameter	-
Drilling Method	HA	Screen Type/Slot	-
Sampling Method	Jar	Gravel Pack Type	-
Ground Elevation	-	Grout Type/Quantity	-
Logged By	W. Sconiers	Depth to Water	-
Remarks			

DEPTH (ft. BGL)	RECOVERY (inches)	BLOW COUNTS	SAMPLE ID	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	WELL DIAGRAM
1							@Surface - 3" AC.	
2							0.5' - 2.5' - Clay, d. brown, moist, s.p. fines, mottled d. gray ish brown.	
3								
4							TD = 2.5' bgs.	
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

Description Order - NAME: color, density, moisture, grain size, minor constituents, observations, staining, odor

SOIL BORING LOG

A LEIGHTON GROUP COMPANY

Project Number	603378.006	Boring ID	EBS-2
Project Name	LAUSD - Burroughs Middle School	Date Drilled	12-29-16
Location	600 S McCadden Place, Los Angeles	Casing Type/Diameter	–
Drilling Method	HA	Screen Type/Slot	–
Sampling Method	Dars	Gravel Pack Type	–
Ground Elevation	–	Grout Type/Quantity	–
Logged By	W. Somers	Depth to Water	–
Remarks	Moved to unpaved portion in "breezeway".		

DEPTH (ft. BGL)	RECOVERY (inches)	BLOW COUNTS	SAMPLE ID	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	WELL DIAGRAM
1							Surface - Topsoil.	
2							0.5'-2.5'. Sandy clay, dark grayish brown, moist.	
3								
4							TD = 2.5' bgs	
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

Description Order - NAME: color, density, moisture, grain size, minor constituents, observations, staining, odor

SOIL BORING LOG

A LEIGHTON GROUP COMPANY

Project Number	603378.006	Boring ID	EBS-3
Project Name	LAUSD - Burroughs Middle School	Date Drilled	12-29-16
Location	600 S McCadden Place, Los Angeles	Casing Type/Diameter	—
Drilling Method	HA	Screen Type/Slot	—
Sampling Method	Jars	Gravel Pack Type	—
Ground Elevation	—	Grout Type/Quantity	—
Logged By	W. Sconiers	Depth to Water	—
Remarks	Moved to unpaved portion in "breezeway".		

DEPTH (ft. BGL)	RECOVERY (inches)	BLOW COUNTS	SAMPLE ID	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	WELL DIAGRAM
1							Surface - Topsoil	
2							0.5'-2.5' - Sandy Clay, dark grayish brown, moist.	
3							TD = 2.5' bgs.	
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

Description Order - NAME: color, density, moisture, grain size, minor constituents, observations, staining, odor

SOIL BORING LOG

A LEIGHTON GROUP COMPANY

Project Number	603378.006	Boring ID	EB 8-1
Project Name	LAUSD - Burroughs Middle School	Date Drilled	12-29-16
Location	600 S McCadden Place, Los Angeles	Casing Type/Diameter	—
Drilling Method	H/A	Screen Type/Slot	—
Sampling Method	Jars	Gravel Pack Type	—
Ground Elevation	—	Grout Type/Quantity	—
Logged By	W. Scowies	Depth to Water	—
Remarks			

DEPTH (ft. BGL)	RECOVERY (inches)	BLOW COUNTS	SAMPLE ID	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	WELL DIAGRAM
1							Surface - 4.5" AC.	
2							@ 0.5' - 1.5' - Clay, d. grayish brown, moist	
3							@ 2.5' - becomes brown	
4							TD = 2.5' bgs.	
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

Description Order - NAME: color, density, moisture, grain size, minor constituents, observations, staining, odor

SOIL BORING LOG

A LEIGHTON GROUP COMPANY

Project Number	603378.006	Boring ID	EBS-5 and EBS-6
Project Name	LAUSD - Burroughs Middle School	Date Drilled	12-29-16
Location	600 S McCadden Place, Los Angeles	Casing Type/Diameter	—
Drilling Method	HA	Screen Type/Slot	—
Sampling Method	Jars	Gravel Pack Type	—
Ground Elevation	—	Grout Type/Quantity	—
Logged By	W. Seamers	Depth to Water	—
Remarks			

DEPTH (ft. BGL)	RECOVERY (inches)	BLOW COUNTS	SAMPLE ID	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	WELL DIAGRAM
1							Surface - 5" AC	
2							0.5'-2.5' - Sandy Clay, d. grayish brown, moist.	
3							TD = 2.5' bgs.	
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

Description Order - NAME: color, density, moisture, grain size, minor constituents, observations, staining, odor

SOIL BORING LOG

A LEIGHTON GROUP COMPANY

Project Number	603378.006	Boring ID	EB9-1, -5, -7 Area
Project Name	LAUSD - Burroughs Middle School	Date Drilled	12/28/16
Location	600 S McCadden Place, Los Angeles	Casing Type/Diameter	—
Drilling Method	HA	Screen Type/Slot	—
Sampling Method	~~HA~~ SPBS	Gravel Pack Type	—
Ground Elevation	—	Grout Type/Quantity	—
Logged By	Becky Streeter	Depth to Water	—
Remarks			

DEPTH (ft. BGL)	RECOVERY (inches)	BLOW COUNTS	SAMPLE ID	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	WELL DIAGRAM
1							@ Surface : asphalt @ 0.5 SANDY SILT : dark brown slightly moist, loose, F.g - C.g sand no o/o @ 1.5 same as 0.5 @ 2.5 SANDY SILT w/ CLAY same as 0.5	
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

Description Order - NAME: color, density, moisture, grain size, minor constituents, observations, staining, odor

A Leighton Group Company

BORING LOG

PROJECT NUMBER	603378.006	BORING/WELL NUMBER	EB9-2
PROJECT NAME		DATE DRILLED	12-29-16
LOCATION		CASING TYPE/DIAMETER	–
DRILLING METHOD	HA	SCREEN TYPE/SLOT	–
SAMPLING METHOD	Jar	GRAVEL PACK TYPE	–
GROUND ELEVATION	–	GROUT TYPE/QUANTITY	–
TOP OF CASING	–	DEPTH TO WATER	–
LOGGED BY	W. Stoniers	GROUND WATER ELEVATION	–
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
0								Surface - 3.5" AC.
								C0.5'-1' Silty Sand, grayish brown, moist, f.g sand w/n.p.fines,
								C1.5-2.5'- Sandy Clay, grayish brown, moist, s.p.fines w/ f-m.g.Sand, greenish gray mottling.
5								TD = 2.5' bgs.
10								
15								
20								
25								
30								
35								

GE_SBL_FNC.AB GWGN01.GPJ LAEWNN01.GDT 4/1/05

PROJECT NUMBER	603378.006	BORING/WELL NUMBER	EB9-3
PROJECT NAME		DATE DRILLED	12-29-16
LOCATION		CASING TYPE/DIAMETER	—
DRILLING METHOD	HA	SCREEN TYPE/SLOT	—
SAMPLING METHOD	Jars	GRAVEL PACK TYPE	—
GROUND ELEVATION	—	GROUT TYPE/QUANTITY	—
TOP OF CASING	—	DEPTH TO WATER	—
LOGGED BY	W. Sconniers	GROUND WATER ELEVATION	—
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
								Surface - 4" AC.
								0.5' - 2.5' - Sandy Clay, d. grayish brown, moist, s.p. fines w/ f.g. sand.
5								TD = 2.5' bgs.
10								
15								
20								
25								
30								
35								

GE_SBL FNC AB GWGN01.GPJ LAEWNN01.GDT 4/1/05

SOIL BORING LOG

A LEIGHTON GROUP COMPANY

Project Number	603378.006	Boring ID	EB9-4
Project Name	LAUSD - Burroughs Middle School	Date Drilled	12-29-16
Location	600 S McCadden Place, Los Angeles	Casing Type/Diameter	—
Drilling Method	HA	Screen Type/Slot	—
Sampling Method	Jam	Gravel Pack Type	—
Ground Elevation	—	Grout Type/Quantity	—
Logged By	W. Stonicks	Depth to Water	—
Remarks			

DEPTH (ft. BGL)	RECOVERY (inches)	BLOW COUNTS	SAMPLE ID	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	WELL DIAGRAM
1							Surface - 4.5" - AC.	
2							@0.5'-1.5'- Silty Sand, light pale brown, moist, F.g. sand w/m.p. fines	
3							@2.5'- grades into Sandy Clay, d. brown, moist	
4								
5							TD = 2.5' bgs.	
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

Description Order - NAME: color, density, moisture, grain size, minor constituents, observations, staining, odor

SOIL BORING LOG

A LEIGHTON GROUP COMPANY

Project Number	603378.006	Boring ID	EB9-6
Project Name	LAUSD - Burroughs Middle School	Date Drilled	12-29-16
Location	600 S McCadden Place, Los Angeles	Casing Type/Diameter	-
Drilling Method	Hand auger (HA)	Screen Type/Slot	-
Sampling Method	Jars	Gravel Pack Type	-
Ground Elevation	-	Grout Type/Quantity	-
Logged By	W. Scollick	Depth to Water	-
Remarks			

DEPTH (ft. BGL)	RECOVERY (inches)	BLOW COUNTS	SAMPLE ID	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	WELL DIAGRAM
1							Surface – 4" - AC.	
2							4" – 2.5' - Silty Sand, d. brown, moist, f.g. sand w/ n.p. fines,	
3							TD = 2.5' bgs	
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

Description Order - NAME: color, density, moisture, grain size, minor constituents, observations, staining, odor

SOIL BORING LOG

A LEIGHTON GROUP COMPANY

Project Number	603378.006	Boring ID	EB10-1
Project Name	LAUSD - Burroughs Middle School	Date Drilled	12-29-16
Location	600 S McCadden Place, Los Angeles	Casing Type/Diameter	—
Drilling Method	HA	Screen Type/Slot	—
Sampling Method	Jars	Gravel Pack Type	—
Ground Elevation	—	Grout Type/Quantity	—
Logged By	W. Sowlich	Depth to Water	—
Remarks			

DEPTH (ft. BGL)	RECOVERY (inches)	BLOW COUNTS	SAMPLE ID	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	WELL DIAGRAM
1							Surface - 3" - AC.	
2							3" - 2.5' - Silty Sand, d. brown, moist, f-g. sand w/ m.p. fines.	
3								
4							TD = 2.5' bgs	
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

Description Order - NAME: color, density, moisture, grain size, minor constituents, observations, staining, odor

SOIL BORING LOG

A LEIGHTON GROUP COMPANY

Project Number	603378.006	Boring ID	EB10-2
Project Name	LAUSD - Burroughs Middle School	Date Drilled	12/28/16
Location	600 S McCadden Place, Los Angeles	Casing Type/Diameter	—
Drilling Method	HA	Screen Type/Slot	—
Sampling Method	Jars	Gravel Pack Type	—
Ground Elevation	—	Grout Type/Quantity	—
Logged By	Becky Steiner	Depth to Water	—
Remarks			

DEPTH (ft. BGL)	RECOVERY	BLOW COUNTS	SAMPLE ID	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	WELL DIAGRAM
1							@ Surface asphalt @ 0.5 Sandy silt, dark brown slightly moist Refusal just below ~0.5' bgs TD = ~0.5' bgs	
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

Description Order - NAME: color, density, moisture, grain size, minor constituents, observations, staining, odor

SOIL BORING LOG

A LEIGHTON GROUP COMPANY

Project Number	603378.006	Boring ID	EB11 Area
Project Name	LAUSD - Burroughs Middle School	Date Drilled	12/28/16
Location	600 S McCadden Place, Los Angeles	Casing Type/Diameter	—
Drilling Method	HA	Screen Type/Slot	—
Sampling Method	Jars	Gravel Pack Type	—
Ground Elevation	—	Grout Type/Quantity	—
Logged By	Becky Steever	Depth to Water	—
Remarks			

DEPTH (ft. BGL)	RECOVERY	BLOW COUNTS	SAMPLE ID	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	WELL DIAGRAM
1							@ Surface asphalt @ 0.5 Sandy silt, d brown @ 1.5 Same as 0.5 @ 2.5 Sandy silt w/ clay TD = 2.5' bgs	
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

Description Order - NAME: color, density, moisture, grain size, minor constituents, observations, staining, odor

SOIL BORING LOG

A LEIGHTON GROUP COMPANY

Project Number	603378.006	Boring ID	EB12 Area
Project Name	LAUSD - Burroughs Middle School	Date Drilled	12/28/16
Location	600 S McCadden Place, Los Angeles	Casing Type/Diameter	—
Drilling Method	HA	Screen Type/Slot	—
Sampling Method	Jars	Gravel Pack Type	—
Ground Elevation	-	Grout Type/Quantity	—
Logged By	Becky Steever	Depth to Water	—
Remarks	Same soil type/depths as EB13-2		

DEPTH (ft. BGL)	RECOVERY	BLOW COUNTS	SAMPLE ID	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	WELL DIAGRAM
1							@ surface asphalt @ 0.5 silty sand, dark brown, moist @ 1.5 silt sand, light brown @ 2.5 silty sand same as 1.5 TD = 2.5' bgs	
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

Description Order - NAME: color, density, moisture, grain size, minor constituents, observations, staining, odor

SOIL BORING LOG

A LEIGHTON GROUP COMPANY

Project Number	603384.004	Boring Number	LBC Area
Project Name	Bunker Hill	Date Drilled	12/14/15
Location	600 S McCadden Place, Los Angeles	Casing Type/Diameter	-
Drilling Method	HSA	Screen Type/Slot	-
Sampling Method	NA	Gravel Pack Type	-
Ground Elevation	-	Grout Type/Quantity	-
Logged By	B&S	Depth to Water	-
Remarks			

DEPTH (ft. BGL)	RECOVERY (inches)	BLOW COUNTS	SAMPLE ID	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
1							@ surface, Asphalt
2							@ 1.5 Tan fine sand, dark brown [illegible]
3							[illegible]
4							[illegible]
5							@ 15 [illegible]
6							[illegible]
7							[illegible]
8							@ 25 [illegible]
9							[illegible]
10							[illegible]
11							[illegible]
12							[illegible]
13							[illegible]
14							[illegible]
15							[illegible]
16							[illegible]
17							[illegible]
18							[illegible]
19							[illegible]
20							[illegible]
21							[illegible]
22							[illegible]
23							[illegible]
24							[illegible]
25							[illegible]
26							[illegible]
27							[illegible]
28							[illegible]
29							[illegible]
30							[illegible]
31							[illegible]
32							[illegible]
33							[illegible]
34							[illegible]
35							[illegible]
36							[illegible]
37							[illegible]
38							[illegible]
39							[illegible]

SOIL BORING LOG

A LEIGHTON GROUP COMPANY

Project Number	603378.006	Boring ID	EB15 Area
Project Name	LAUSD - Burroughs Middle School	Date Drilled	12/28/16
Location	600 S McCadden Place, Los Angeles	Casing Type/Diameter	—
Drilling Method	HA	Screen Type/Slot	—
Sampling Method	Jars	Gravel Pack Type	—
Ground Elevation	—	Grout Type/Quantity	—
Logged By	Becky Steeves	Depth to Water	—
Remarks	Same soil type/depths as EB13-2		

DEPTH (ft. BGL)	RECOVERY	BLOW COUNTS	SAMPLE ID	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	WELL DIAGRAM
1							@ surface asphalt @ 0.5 silty sand, d. brown, moist @ 1.5 silty sand, light brown @ 2.5 silty sand same as 1.5 TD = 2.5' bgs	
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

Description Order - NAME: color, density, moisture, grain size, minor constituents, observations, staining, odor

A Leighton Group Company

BORING LOG

PROJECT NUMBER	103378.006	BORING/WELL NUMBER	EB16-1
PROJECT NAME		DATE DRILLED	1-3-17
LOCATION		CASING TYPE/DIAMETER	—
DRILLING METHOD	HA	SCREEN TYPE/SLOT	—
SAMPLING METHOD	Jars	GRAVEL PACK TYPE	—
GROUND ELEVATION	—	GROUT TYPE/QUANTITY	—
TOP OF CASING	—	DEPTH TO WATER	—
LOGGED BY	W. Scollick	GROUND WATER ELEVATION	—
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
								Surface - 2.5" AC.
								C 0.5'-2.5' - Same as EB3-1.
								TD = 2.5' bgs.
5								
10								
15								
20								
25								
30								
35								

GE_SBL FNC AB GWGN01.GPJ LAEWNN01.GDT 4/1/05

A Leighton Group Company

BORING LOG

PROJECT NUMBER	603378.006	BORING/WELL NUMBER	EB16-2
PROJECT NAME		DATE DRILLED	12-29-16
LOCATION		CASING TYPE/DIAMETER	-
DRILLING METHOD	HA	SCREEN TYPE/SLOT	-
SAMPLING METHOD	Jars	GRAVEL PACK TYPE	-
GROUND ELEVATION	-	GROUT TYPE/QUANTITY	-
TOP OF CASING	-	DEPTH TO WATER	-
LOGGED BY	W. Scowen	GROUND WATER ELEVATION	-
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
								Surface - 4.5" AC.
								@ 0.5' - Silty Sand, grayish black, moist, f-m. g-sandy / n.p. fines
5								@ 1.5-2.5' - Clay, grayish black, moist, s.p. fines.
								TD = 2.5' bgs.
10								
15								
20								
25								
30								
35								

GE_SBL_FNC AB GWGN01.GPJ LAEWNN01.GDT 4/1/05

PROJECT NUMBER	603378.006	BORING/WELL NUMBER	EB16-3
PROJECT NAME		DATE DRILLED	12-29-16
LOCATION		CASING TYPE/DIAMETER	—
DRILLING METHOD	HA	SCREEN TYPE/SLOT	—
SAMPLING METHOD	Jars	GRAVEL PACK TYPE	—
GROUND ELEVATION	—	GROUT TYPE/QUANTITY	—
TOP OF CASING	—	DEPTH TO WATER	—
LOGGED BY	W. Siemics	GROUND WATER ELEVATION	—
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
0								Surface - 1/11 AC.
								@0.5'- Sandy Clay, grayish black, moist, s.p. Fm. sand w/F.g. sand
5								@1.5'-2.5'- P.G. Sand, gray, moist, F.m.g. sand.
								TD = 2.5' bgs.
10								
15								
20								
25								
30								
35								

GE_SBL_FNC AB GWGN01.GPJ LAEWNN01.GDT 4/1/05

PROJECT NUMBER	603378.006	BORING/WELL NUMBER	EB20-1 and EB20-2
PROJECT NAME		DATE DRILLED	1-3-17
LOCATION		CASING TYPE/DIAMETER	-
DRILLING METHOD	HA	SCREEN TYPE/SLOT	-
SAMPLING METHOD	Jars	GRAVEL PACK TYPE	-
GROUND ELEVATION	-	GROUT TYPE/QUANTITY	-
TOP OF CASING	-	DEPTH TO WATER	-
LOGGED BY	W. Swonics	GROUND WATER ELEVATION	-
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
0								Surface – 3" AC.
								0.5'–2.5'– Gravelly Sand, brown, moist, F-m. g sand w/ s.a. gravel to 1.5"
5								TD = 2.5' bgs.
10								
15								
20								
25								
30								
35								

GE_SBL_FNC_AB GWGN01.GPJ LAEWNN01.GDT 4/1/05

PROJECT NUMBER	603378.006	BORING/WELL NUMBER	EB20-3
PROJECT NAME		DATE DRILLED	1-3-17
LOCATION		CASING TYPE/DIAMETER	-
DRILLING METHOD	HA	SCREEN TYPE/SLOT	-
SAMPLING METHOD	Jars	GRAVEL PACK TYPE	-
GROUND ELEVATION	-	GROUT TYPE/QUANTITY	-
TOP OF CASING	-	DEPTH TO WATER	-
LOGGED BY	W. Scoviers	GROUND WATER ELEVATION	-
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
0								Surface - 1.5" A.C.
								@0.5' - Silty Sand, d. brown, moist, f-m.g., sandy/n.p. fines
								@1.5'-2.5' - grades into Clay, d. brown, moist, s.p. fines
5								TD = 2.5' bgs
10								
15								
20								
25								
30								
35								

GE_SBL_FNC AB GWGN01.GPJ LAEWNN01.GDT 4/1/05

A Leighton Group Company

BORING LOG

PROJECT NUMBER	603378.006	BORING/WELL NUMBER	EB20-1
PROJECT NAME	—	DATE DRILLED	1-3-17
LOCATION		CASING TYPE/DIAMETER	—
DRILLING METHOD	HA	SCREEN TYPE/SLOT	—
SAMPLING METHOD	Jars	GRAVEL PACK TYPE	—
GROUND ELEVATION	—	GROUT TYPE/QUANTITY	—
TOP OF CASING	—	DEPTH TO WATER	—
LOGGED BY	W. Scowcroft	GROUND WATER ELEVATION	—
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
								Surface – 5" AC.
								0.5' – Silty Sand, d. brown, moist, f-m-g sand w/ n.p. fines.
								1.5'-2.5' – Clayey Sand, d. brown, moist, f-m-g sand w/ s.p. fines
5								TD = 2.5' bgs.
10								
15								
20								
25								
30								
35								

GE_SBL FNC AB GWGN01.GPJ LAEWNN01.GDT 4/1/05

A Leighton Group Company

BORING LOG

PROJECT NUMBER	403378.006	BORING/WELL NUMBER	EB20-5 and EB20-6
PROJECT NAME		DATE DRILLED	1-3-17
LOCATION		CASING TYPE/DIAMETER	-
DRILLING METHOD	HA	SCREEN TYPE/SLOT	-
SAMPLING METHOD	Jars	GRAVEL PACK TYPE	-
GROUND ELEVATION	-	GROUT TYPE/QUANTITY	-
TOP OF CASING	-	DEPTH TO WATER	-
LOGGED BY	W. Sconiers	GROUND WATER ELEVATION	-
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
								Surface - Topsoil.
								0.5'-2.5' - Clay to Clayey Sand; d. brown, moist, sp. fines and F.-m. gr. sand w/ sp. fines
5								TD = 2.5' bgs
10								
15								
20								
25								
30								
35								

GE_SBL FNC AB GWGN01.GPJ LAEWNN01.GDT 4/1/05

PROJECT NUMBER	603378.006	BORING/WELL NUMBER	EB20-7
PROJECT NAME		DATE DRILLED	1-3-17
LOCATION		CASING TYPE/DIAMETER	–
DRILLING METHOD	HA	SCREEN TYPE/SLOT	–
SAMPLING METHOD	Jars	GRAVEL PACK TYPE	–
GROUND ELEVATION	–	GROUT TYPE/QUANTITY	–
TOP OF CASING	–	DEPTH TO WATER	–
LOGGED BY	W. Suomies	GROUND WATER ELEVATION	–
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
								Surface – 4.5" Concrete
								@ 0.5'-2.5'- Silty, Sandy clay, brown, moist, s.p. fines w/ n.p. fines and f.-m.-g. sand.
5								TD = 2.5' bgs.
10								
15								
20								
25								
30								
35								

GE_SBL_FNC AB GWGN01.GPJ LAEWNN01.GDT 4/1/05

A Leighton Group Company

BORING LOG

PROJECT NUMBER	603378.006	BORING/WELL NUMBER	EB20-8
PROJECT NAME		DATE DRILLED	1-3-17
LOCATION		CASING TYPE/DIAMETER	–
DRILLING METHOD	HA	SCREEN TYPE/SLOT	–
SAMPLING METHOD	Jars	GRAVEL PACK TYPE	–
GROUND ELEVATION	–	GROUT TYPE/QUANTITY	–
TOP OF CASING	–	DEPTH TO WATER	–
LOGGED BY	W. Scoville	GROUND WATER ELEVATION	–
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
								Surface – 7.5" concrete
								@ 0.5'-1.5'- Silty Sand, brown, moist, F.m.g. sand w/m.p.fines,
								@ 2.5'- Clay, brown, moist, s.p.fines
5								TD = 2.5' bgs.
10								
15								
20								
25								
30								
35								

GE_SBL_FNC AB GWGN01.GPJ LAEWNN01.GDT 4/1/05

A Leighton Group Company

BORING LOG

PROJECT NUMBER	603378.006	BORING/WELL NUMBER	EB22-1
PROJECT NAME		DATE DRILLED	1-3-17
LOCATION		CASING TYPE/DIAMETER	–
DRILLING METHOD	HA	SCREEN TYPE/SLOT	–
SAMPLING METHOD	Jars	GRAVEL PACK TYPE	–
GROUND ELEVATION	–	GROUT TYPE/QUANTITY	–
TOP OF CASING	–	DEPTH TO WATER	–
LOGGED BY	W. Siemers	GROUND WATER ELEVATION	–
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
0								Surface – 2.5" AC
								CO.5'-2.5'- Clay, d. grayish brown, moist, s.p. fines
								TD = 2.5' bgs
5								
10								
15								
20								
25								
30								
35								

GE_SBL_FNC AB GWGN01.GPJ LAEWNN01.GDT 4/1/05

A Leighton Group Company

BORING LOG

PROJECT NUMBER	603378.006	BORING/WELL NUMBER	EB22-2
PROJECT NAME		DATE DRILLED	12-29-16
LOCATION		CASING TYPE/DIAMETER	-
DRILLING METHOD	HA	SCREEN TYPE/SLOT	-
SAMPLING METHOD	Jars	GRAVEL PACK TYPE	-
GROUND ELEVATION	-	GROUT TYPE/QUANTITY	-
TOP OF CASING	-	DEPTH TO WATER	-
LOGGED BY	W Swonger	GROUND WATER ELEVATION	-
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
								Surface - 2.5"-4" - AC.
								@0.5'-2.5' - Sandy Clay, d. grayish brown, moist, s.p. f-m.g. sand.
5								TD = 2.5' bgs.
10								
15								
20								
25								
30								
35								

GE_SBL_FNC AB GWGN01.GPJ LAEWNN01.GDT 4/1/05

PROJECT NUMBER	603378.006	BORING/WELL NUMBER	EB23-1
PROJECT NAME		DATE DRILLED	1-3-17
LOCATION		CASING TYPE/DIAMETER	-
DRILLING METHOD	HA	SCREEN TYPE/SLOT	-
SAMPLING METHOD	Jars	GRAVEL PACK TYPE	-
GROUND ELEVATION	-	GROUT TYPE/QUANTITY	-
TOP OF CASING		DEPTH TO WATER	-
LOGGED BY	W. Suomico	GROUND WATER ELEVATION	-
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
0								Surface - Topsoil
								@0.5'-2.5'- Clay, brown, moist, s.p. fines.
								TD = 2.5' bgs.
5								
10								
15								
20								
25								
30								
35								

GE_SBL_FNC.AB GWGN01.GPJ LAEWNN01.GDT 4/1/05

PROJECT NUMBER	603378.006	BORING/WELL NUMBER	EB23-2
PROJECT NAME		DATE DRILLED	1-3-17
LOCATION		CASING TYPE/DIAMETER	–
DRILLING METHOD	HA	SCREEN TYPE/SLOT	–
SAMPLING METHOD	Jars	GRAVEL PACK TYPE	–
GROUND ELEVATION	–	GROUT TYPE/QUANTITY	–
TOP OF CASING	–	DEPTH TO WATER	–
LOGGED BY	W. Scionicis	GROUND WATER ELEVATION	–
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
								Surface - 3" AC CO.5'-2.5'- P.G. Sand w/ Silt, brown, moist, f-m.g. sand w/ n.p. fines
5								TD = 2.5' bgs.
10								
15								
20								
25								
30								
35								

GE_SBL_FNC AB GWGN01.GPJ LAEWNN01.GDT 4/1/05

A Leighton Group Company

BORING LOG

PROJECT NUMBER	603778.006	BORING/WELL NUMBER	EB23-3
PROJECT NAME		DATE DRILLED	12-29-16
LOCATION		CASING TYPE/DIAMETER	-
DRILLING METHOD	HA	SCREEN TYPE/SLOT	-
SAMPLING METHOD	Jars	GRAVEL PACK TYPE	-
GROUND ELEVATION	-	GROUT TYPE/QUANTITY	-
TOP OF CASING	-	DEPTH TO WATER	-
LOGGED BY	W. Swanick	GROUND WATER ELEVATION	-
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
								Surface - 3" AC.
								0.5' - 2.5' - Silty Sand, d. grayish brown, moist, f-m.g. sand w/ n.p. fines.
5								TD = 2.5' bgs.
10								
15								
20								
25								
30								
35								

GE_SBL FNC AB GWGN01.GPJ LAEWNN01.GDT 4/1/05

A Leighton Group Company

BORING LOG

PROJECT NUMBER	603378.006	BORING/WELL NUMBER	ETB24-1
PROJECT NAME		DATE DRILLED	12-29-16
LOCATION		CASING TYPE/DIAMETER	-
DRILLING METHOD	HA	SCREEN TYPE/SLOT	-
SAMPLING METHOD	Sarv	GRAVEL PACK TYPE	-
GROUND ELEVATION	-	GROUT TYPE/QUANTITY	-
TOP OF CASING	-	DEPTH TO WATER	-
LOGGED BY	W. Services	GROUND WATER ELEVATION	-
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
								Surface - 2.5" AC
								0.5'-2.5' - P. Gr. Sand, gray, dry-moist, f-m.g. sand.
								TD = 2.5' bgs.
5								
10								
15								
20								
25								
30								
35								

GE_SBL FNC AB GWGN01.GPJ LAEWNN01.GDT 4/1/05

A Leighton Group Company

BORING LOG

PROJECT NUMBER	603318.006	BORING/WELL NUMBER	EB24-2 and EB24-6 and -3
PROJECT NAME		DATE DRILLED	12-29-16
LOCATION		CASING TYPE/DIAMETER	—
DRILLING METHOD	HA	SCREEN TYPE/SLOT	—
SAMPLING METHOD	Jars	GRAVEL PACK TYPE	—
GROUND ELEVATION	—	GROUT TYPE/QUANTITY	—
TOP OF CASING	—	DEPTH TO WATER	—
LOGGED BY	W. Scoville	GROUND WATER ELEVATION	—
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
								Surface – 3" AC.
								@ 0.5' – 2.5' – Sandy Clay, brown to dark brown, moist, s.p. fines w/ f. gr. sand
5								TD = 2.5' bgs.
10								
15								
20								
25								
30								
35								

GE_SBL_FNC AB GWGN01.GPJ LAEWNN01.GDT 4/1/05

A Leighton Group Company

BORING LOG

PROJECT NUMBER	403378.006	BORING/WELL NUMBER	EB24-4
PROJECT NAME		DATE DRILLED	1-3-17
LOCATION		CASING TYPE/DIAMETER	–
DRILLING METHOD	H/A	SCREEN TYPE/SLOT	–
SAMPLING METHOD	Jars	GRAVEL PACK TYPE	–
GROUND ELEVATION	–	GROUT TYPE/QUANTITY	–
TOP OF CASING	–	DEPTH TO WATER	–
LOGGED BY	W. Scanlon	GROUND WATER ELEVATION	–
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
								Surface – 3" AC.
								C 0.5' – P.G. Sand, brown, moist, F-m.g. sand
								C 1.5'-2.5' – Clayey Sand, brown, moist, m.g. sand w/ s.p. fines
5								TD = 2.5' bgs.
10								
15								
20								
25								
30								
35								

GE_SBL_FNC AB GWGN01.GPJ LAEWNN01.GDT 4/1/05

BORING LOG

PROJECT NUMBER	603378.006	BORING/WELL NUMBER	EB24-5
PROJECT NAME		DATE DRILLED	1-3-17
LOCATION		CASING TYPE/DIAMETER	-
DRILLING METHOD	HA	SCREEN TYPE/SLOT	-
SAMPLING METHOD	Jars	GRAVEL PACK TYPE	-
GROUND ELEVATION	-	GROUT TYPE/QUANTITY	-
TOP OF CASING	-	DEPTH TO WATER	-
LOGGED BY	W. Sconiers	GROUND WATER ELEVATION	-
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
								Surface - 2" AC
								@0.5'-1.25' - P.G. Sand, gray, dry-moist.
								Refusal @ 1.25' (cobble? base?)
5								
10								
15								
20								
25								
30								
35								

GE_SBL FNC AB GWGN01.GPJ LAEWNN01.GDT 4/1/05

PROJECT NUMBER	603378.001	BORING/WELL NUMBER	EB25-1
PROJECT NAME		DATE DRILLED	1-3-17
LOCATION		CASING TYPE/DIAMETER	-
DRILLING METHOD	HA	SCREEN TYPE/SLOT	-
SAMPLING METHOD	Jars	GRAVEL PACK TYPE	-
GROUND ELEVATION	-	GROUT TYPE/QUANTITY	-
TOP OF CASING	-	DEPTH TO WATER	-
LOGGED BY	W. Sloniker	GROUND WATER ELEVATION	-
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
								Surface - 3.5" AC.
								0.5'-2.5' - Clay, dark grayish green, moist, s.p. fines, slight chemical odor (non-TPH).
5								TD = 2.5' bgs.
10								
15								
20								
25								
30								
35								

GE_SBL_FNC AB GWGN01.GPJ LAEWNN01.GDT 4/1/05

A Leighton Group Company

BORING LOG

PROJECT NUMBER	403378.006	BORING/WELL NUMBER	EB25-2
PROJECT NAME		DATE DRILLED	1-3-17
LOCATION		CASING TYPE/DIAMETER	-
DRILLING METHOD	HA	SCREEN TYPE/SLOT	-
SAMPLING METHOD	Jars	GRAVEL PACK TYPE	-
GROUND ELEVATION	-	GROUT TYPE/QUANTITY	-
TOP OF CASING	-	DEPTH TO WATER	-
LOGGED BY	W. Stomich	GROUND WATER ELEVATION	-
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
								Surface - 3" AC.
								@ 0.5' P.Gr. Sand, gray, moist, f-g. sand
5								Refusal @ 1' (unknown obstruction)
10								
15								
20								
25								
30								
35								

GE_SBL FNC AB GWGN01.GPJ LAEWNN01.GDT 4/1/05

A Leighton Group Company

BORING LOG

PROJECT NUMBER	603578.006	BORING/WELL NUMBER	EB25-3
PROJECT NAME		DATE DRILLED	12-29-16
LOCATION		CASING TYPE/DIAMETER	-
DRILLING METHOD	HA	SCREEN TYPE/SLOT	-
SAMPLING METHOD	Jars	GRAVEL PACK TYPE	-
GROUND ELEVATION	-	GROUT TYPE/QUANTITY	-
TOP OF CASING	-	DEPTH TO WATER	-
LOGGED BY	W. Scanlon	GROUND WATER ELEVATION	-
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
								Surface - 2"
								@ 0.5' - 2.5' - Sandy Clay, d. gray/ish brown, moist, s.p. fines w/ f. m.g. sand.
5								TD = 2.5' bgs.
10								
15								
20								
25								
30								
35								

GE_SBL_FNC AB GWGN01.GPJ LAEWNN01.GDT 4/1/05

A Leighton Group Company

BORING LOG

50

PROJECT NUMBER	402778.006	BORING/WELL NUMBER	FB1-1
PROJECT NAME		DATE DRILLED	1-3-17
LOCATION		CASING TYPE/DIAMETER	-
DRILLING METHOD	HA	SCREEN TYPE/SLOT	-
SAMPLING METHOD	Jars	GRAVEL PACK TYPE	-
GROUND ELEVATION	-	GROUT TYPE/QUANTITY	-
TOP OF CASING	-	DEPTH TO WATER	-
LOGGED BY	W. Scorcis	GROUND WATER ELEVATION	-
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
								Surface - 8" concrete.
								@0.5' - P. G. sand, brown, moist, f-m. gr. sand
5								@1.5'-2.5' - Clay, d. brown w/mottling (grayish black), moist, s.p. fines, slight s/c odor, dark brown @2.5'
								TD = 2.5' bgs.
10								
15								
20								
25								
30								
35								

GE_SBL_FNC AB GWGN01.GPJ LAEWNN01.GOT 4/1/05

A Leighton Group Company

BORING LOG

PROJECT NUMBER	603378.006	BORING/WELL NUMBER	FB1-2 through FB1-6
PROJECT NAME		DATE DRILLED	1-3-17
LOCATION		CASING TYPE/DIAMETER	-
DRILLING METHOD	HA	SCREEN TYPE/SLOT	-
SAMPLING METHOD	Jars	GRAVEL PACK TYPE	-
GROUND ELEVATION	-	GROUT TYPE/QUANTITY	-
TOP OF CASING	-	DEPTH TO WATER	-
LOGGED BY	W. Stonicks	GROUND WATER ELEVATION	-
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
								Surface - 6.5"-8.5" Concrete
								0.5'-2.5'- Sandy Clay, d. grayish brown, moist, c.p. Fines w/F-m.g. Sand, slight HC odor?
5								TD = 2.5' bgs
10								
15								
20								
25								
30								
35								

GE_SBL FNC AB GWGN01.GPJ LAEWNN01.GDT 4/1/05

A Leighton Group Company

BORING LOG

PROJECT NUMBER	603378.006	BORING/WELL NUMBER	FB1-7
PROJECT NAME		DATE DRILLED	1-3-17
LOCATION		CASING TYPE/DIAMETER	–
DRILLING METHOD	HA	SCREEN TYPE/SLOT	–
SAMPLING METHOD	Jars	GRAVEL PACK TYPE	–
GROUND ELEVATION	–	GROUT TYPE/QUANTITY	–
TOP OF CASING	–	DEPTH TO WATER	–
LOGGED BY	W. Summers	GROUND WATER ELEVATION	–
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
0								Surface - 6.5" concrete.
								@ 0.5' - Sandy clay, gray/rich brown, moist, s.p. fines w/ f.-m.-g. sand
5								Refusal @ 1' bgs.
10								
15								
20								
25								
30								
35								

GE_SBL_FNC AB GWGN01.GPJ LAEWNN01.GDT 4/1/05

PROJECT NUMBER	603378.006	BORING/WELL NUMBER	FB2-1
PROJECT NAME		DATE DRILLED	1-3-17
LOCATION		CASING TYPE/DIAMETER	—
DRILLING METHOD	HA	SCREEN TYPE/SLOT	—
SAMPLING METHOD	Jars	GRAVEL PACK TYPE	—
GROUND ELEVATION	—	GROUT TYPE/QUANTITY	—
TOP OF CASING	—	DEPTH TO WATER	—
LOGGED BY	W. Sconiers	GROUND WATER ELEVATION	—
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
0								Surface - 2.5" AC
								@ 0.5'-1.5' - Clayey Sand, d. reddish brown, moist, f-m.g. sand w/ s.p. fines
5								@ 2.5' - Clay, light brown, brown, moist, s.p. fines
								TD = 2.5' bgs.
10								
15								
20								
25								
30								
35								

GE_SBL FNC AB GWGN01.GPJ LAEWNN01.GDT 4/1/05

A Leighton Group Company

BORING LOG

PROJECT NUMBER	603378.006	BORING/WELL NUMBER	FB2-2 through FB2-4
PROJECT NAME		DATE DRILLED	1-3-17
LOCATION		CASING TYPE/DIAMETER	-
DRILLING METHOD	HA	SCREEN TYPE/SLOT	-
SAMPLING METHOD	Jars	GRAVEL PACK TYPE	-
GROUND ELEVATION	-	GROUT TYPE/QUANTITY	-
TOP OF CASING	-	DEPTH TO WATER	-
LOGGED BY	W. Stevens	GROUND WATER ELEVATION	-
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
								Surface - 2.5"-3.5" AC.
								@ 0.5'-2.5' - Clayey Sand, dark reddish brown, moist, F-m.g. sand w/s.p. fines.
5								TD = 2.5' bgs.
10								
15								
20								
25								
30								
35								

GE_SBL_FNC AB GWGN01.GPJ LAEWNN01.GDT 4/1/05

SOIL BORING LOG

A LEIGHTON GROUP COMPANY

Project Number	603378.006	Boring ID	FB4-1 through FB4-4
Project Name	LAUSD - Burroughs Middle School	Date Drilled	12-29-16
Location	600 S McCadden Place, Los Angeles	Casing Type/Diameter	-
Drilling Method	HA	Screen Type/Slot	-
Sampling Method	Jars	Gravel Pack Type	-
Ground Elevation	-	Grout Type/Quantity	-
Logged By	W. Stonich	Depth to Water	-
Remarks			

DEPTH (ft. BGL)	RECOVERY (inches)	BLOW COUNTS	SAMPLE ID	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	WELL DIAGRAM
1							Surface - AC (2-3")	
2							@ 0.5' - Poorly graded Sand, l. brown, moist, f.g. sand.	
3							@ 1.5-2.5' - Silty Sand, d. brown, moist.	
4								
5							TD = 2.5' bgs.	
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

Description Order - NAME: color, density, moisture, grain size, minor constituents, observations, staining, odor

SOIL BORING LOG

A LEIGHTON GROUP COMPANY

Project Number	603378.006	Boring ID	FBS-1 + FBS-2
Project Name	LAUSD - Burroughs Middle School	Date Drilled	12/28/16
Location	600 S McCadden Place, Los Angeles	Casing Type/Diameter	—
Drilling Method	HA	Screen Type/Slot	—
Sampling Method	Jars	Gravel Pack Type	—
Ground Elevation	—	Grout Type/Quantity	—
Logged By	Becky Steuer	Depth to Water	—
Remarks			

DEPTH (ft. BGL)	RECOVERY	BLOW COUNTS	SAMPLE ID	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	WELL DIAGRAM
1							@ surface asphalt @ 0.5 Sandy silt, dk. brown, moist @ 1.5 Same as 0.5 @ 2.5 Same as 0.5 TD = 2.5' bgs	
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

Description Order - NAME: color, density, moisture, grain size, minor constituents, observations, staining, odor

SOIL BORING LOG

A LEIGHTON GROUP COMPANY

Project Number	603378.006	Boring ID	FB9-1 through FB9-4
Project Name	LAUSD - Burroughs Middle School	Date Drilled	12-29-96
Location	600 S McCadden Place, Los Angeles	Casing Type/Diameter	—
Drilling Method	HA	Screen Type/Slot	—
Sampling Method	Jars	Gravel Pack Type	—
Ground Elevation	—	Grout Type/Quantity	—
Logged By	W. Scowden	Depth to Water	—
Remarks			

DEPTH (ft. BGL)	RECOVERY (inches)	BLOW COUNTS	SAMPLE ID	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	WELL DIAGRAM
1							Surface - 2-3" AC.	
2							@ 0.5'-2.5' - Sandy Clay, dark brown, moist, some brick pieces.	
3							TD = 2.5' bgs	
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

Description Order - NAME: color, density, moisture, grain size, minor constituents, observations, staining, odor

SOIL BORING LOG

A LEIGHTON GROUP COMPANY

Project Number [illegible]
Project Name [illegible]
Location 6600 S McCadden Place, Los Angeles
Drilling Method HA
Sampling Method N/A
Ground Elevation –
Logged By [illegible]
Remarks FB10-3 Stopped out 3 ft bgs (Pipe) Stopped out 3 ft bgs (Fill)

Boring Number FB10 Area
Date Drilled 12/28/16
Casing Type/Diameter –
Screen Type/Slot –
Gravel Pack Type –
Grout Type/Quantity –
Depth to Water –

DEPTH (ft. BGL)	RECOVERY (inches)	BLOW COUNTS	SAMPLE ID	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
1							@ 0.5 [illegible] gray-brown, moist, loose, no odor, some stains
2							@ 1.5 SAND, light brown, moist, loose, [illegible] @ 2.5 same, no S/O
3							
4							
5							@ 2.5 same w/ trace of clay
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							FB10-3 – stopped out [illegible] Sand & Moist ppm
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							

1-0.5 [illegible] 1.5 0913 2.5 0925

2-0.5 [illegible] 1.5 [illegible] 2.5

3-0.5 0822 1.5 0824 2.5 0825

4-0.5 [illegible] 1.5 0813 2.5 0925

SOIL BORING LOG

A LEIGHTON GROUP COMPANY

Project Number	LA3378.006	Boring Number	FB11
Project Name	LAUSD - Burroughs M.S.	Date Drilled	12/28/16
Location	600 S. McCadden Place, Los Angeles	Casing Type/Diameter	-
Drilling Method	HA	Screen Type/Slot	-
Sampling Method	SPT	Gravel Pack Type	-
Ground Elevation	-	Grout Type/Quantity	-
Logged By	Brady Steake	Depth to Water	-
Remarks	FB11-4 moved 2.0 ft NW (pipe)		
	FB11-3 moved 2.0 ft SE (pipe)		

DEPTH (ft. BGL)	RECOVERY (inches)	BLOW COUNTS	SAMPLE ID	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
1							@ surface asphalt
2							@ 0.5 SANDY CLAY (CL), brown, moist, plastic, f-g sand with trace gravel no S/O
3							
4							
5							@ 1.5 Same as 0.5
6							
7							@ 2.5 CLAY (CH), dark brown, moist, plastic, trace f-g sand no S/O
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							

1-0.5	11:45	2-0.5	1116	3-0.5	1147	4-0.5	1117
1.5	11:50	1.5	1115	1.5	1152	1.5	1122
2.5	1155	2.5	1120	2.5	1157	2.5	1125

SOIL BORING LOG

A LEIGHTON GROUP COMPANY

Project Number	[illegible]	Boring Number	FBJ2-1
Project Name	[illegible]	Date Drilled	12/28/16
Location	600 S McCadden Place, Los Angeles	Casing Type/Diameter	—
Drilling Method	HSA	Screen Type/Slot	—
Sampling Method	Hand Sand	Gravel Pack Type	—
Ground Elevation	-	Grout Type/Quantity	—
Logged By	Becky Strosser	Depth to Water	—
Remarks			

DEPTH (ft BGL)	RECOVERY (inches)	BLOW COUNTS	SAMPLE ID	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
1							@ Surface asphalt
2							@ 0.5 SILTY SAND, light brown, dry, loose, no silt, trace gravel
3							
4							
5							@ 1.5 SILTY SAND same as 0.5
6							
7							@ 2.5 SILTY SAND, same as 0.5, trace clay
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							

FBJ2-1-0.5 : 1049
1.5 1053
2.5 1055

SOIL BORING LOG

A LEIGHTON GROUP COMPANY

Project Number	603378.006	Boring ID	FB13-1
Project Name	LAUSD - Burroughs Middle School	Date Drilled	12/28/16
Location	600 S McCadden Place, Los Angeles	Casing Type/Diameter	–
Drilling Method	HA	Screen Type/Slot	–
Sampling Method	JWS	Gravel Pack Type	–
Ground Elevation	–	Grout Type/Quantity	–
Logged By	Becky Stever	Depth to Water	–
Remarks			

DEPTH (ft. BGL)	RECOVERY	BLOW COUNTS	SAMPLE ID	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	WELL DIAGRAM
1							@ Surface AC @ 0.5 silty sand, light brown, dry, loose @ 1.5 silty sand, same as 0.5 @ 2.5 silty sand, some clay TD = 2.5' bgs	
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

Description Order - NAME: color, density, moisture, grain size, minor constituents, observations, staining, odor

SOIL BORING LOG

A LEIGHTON GROUP COMPANY

Project Number	60333300	Boring Number	FB14 Area (1)
Project Name	[illegible]	Date Drilled	12/13/14
Location	600 S McClellan Place, LA	Casing Type/Diameter	~~4~~
Drilling Method	HA	Screen Type/Slot	N/A
Sampling Method	~~HA~~ JDCS	Gravel Pack Type	N/A
Ground Elevation	-	Grout Type/Quantity	N/A
Logged By	Becky Stevens	Depth to Water	N/A
Remarks	Start @ 0946		

DEPTH (ft. BGL)	RECOVERY (inches)	BLOW COUNTS	SAMPLE ID	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
1			-0.5				@ Surface - Asphalt
2			-1.5				@ 0.5 SILTY SAND - light brown, slightly moist, little gravel & clay, no odor
3			-2.5				@ 1.5 SILTY SAND - dark brown, same @ 0.5
4							@ 2.5 SILTY SAND, same @ 1.5
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							

- Found pieces of GL :- FB14-4
- FB 14 - 3. Cobbles

1-0.5 1030
1.5 1036
2.5 1040

2-0.5 1000
1.5 1010
2.5 1020

3-0.5 0950
1.5 0958
2.5 0956

4-0.5 0952
1.5 0954
2.5 0954

5-0.5 1010
1.5 1015
2.5 1020

6-0.5 1032
1.5 1035
2.5 1038

A Leighton Group Company

BORING LOG

PROJECT NUMBER	603718.006	BORING/WELL NUMBER	FB15-1 through FB15-4
PROJECT NAME		DATE DRILLED	1-3-17
LOCATION		CASING TYPE/DIAMETER	-
DRILLING METHOD	HA	SCREEN TYPE/SLOT	-
SAMPLING METHOD	Jar	GRAVEL PACK TYPE	-
GROUND ELEVATION	-	GROUT TYPE/QUANTITY	-
TOP OF CASING	-	DEPTH TO WATER	-
LOGGED BY	W. Suomi	GROUND WATER ELEVATION	-
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
								Surface - 2.5" - 3" AC.
								0.5' - 2.5' - P.G. Sand w/ Silt and Clay, brown, moist, f-m-g. sand w/ n.p. and s.p. fines.
5								TD = 2.5' bgs.
10								
15								
20								
25								
30								
35								

GE_SBL_FNC AB GWGN01.GPJ LAEWNN01.GDT 4/1/05

SOIL BORING LOG

A LEIGHTON GROUP COMPANY

Project Number	LO 3378 006	Boring Number	FB16 Area
Project Name		Date Drilled	12/28/16
Location		Casing Type/Diameter	—
Drilling Method	HA	Screen Type/Slot	—
Sampling Method	~~HA~~ Sacs	Gravel Pack Type	—
Ground Elevation		Grout Type/Quantity	—
Logged By	Becky Steever	Depth to Water	—
Remarks			

DEPTH (ft. BGL)	RECOVERY (inches)	BLOW COUNTS	SAMPLE ID	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							

0802
0805
0808

0745
0750
0754

A Leighton Group Company

BORING LOG

PROJECT NUMBER		BORING/WELL NUMBER	EB13-2-N10
PROJECT NAME		DATE DRILLED	4-11-17
LOCATION		CASING TYPE/DIAMETER	
DRILLING METHOD		SCREEN TYPE/SLOT	
SAMPLING METHOD		GRAVEL PACK TYPE	
GROUND ELEVATION		GROUT TYPE/QUANTITY	
TOP OF CASING		DEPTH TO WATER	
LOGGED BY		GROUND WATER ELEVATION	
REMARKS	t-N5, -W5, -S10, EB13-1-B5, -W5		

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
								@Surface - 4" AC over Sandy Clay, d. grayish brown, moist, s.p. fines w/ f-m.g. sand to TD
								TD = 2.5'
5								
10								
15								
20								
25								
30								
35								

GE_SBL FNC AB GWGN01.GPJ LAEWNN01.GDT 4/1/05

A Leighton Group Company

BORING LOG

PROJECT NUMBER		BORING/WELL NUMBER	EB13-1-W10
PROJECT NAME		DATE DRILLED	4-11-17
LOCATION		CASING TYPE/DIAMETER	
DRILLING METHOD		SCREEN TYPE/SLOT	
SAMPLING METHOD		GRAVEL PACK TYPE	
GROUND ELEVATION		GROUT TYPE/QUANTITY	
TOP OF CASING		DEPTH TO WATER	
LOGGED BY		GROUND WATER ELEVATION	
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
								Surface - 4" AC over Sandy Clay, d.grayish brown, moist, sp.fines w/f-m.g. sand, brick in 0.5' sample
								TD = 2.5'
5								
10								
15								
20								
25								
30								
35								

GE_SBL_FNC AB GWGN01.GPJ LAEWNN01.GDT 4/1/05

A Leighton Group Company

BORING LOG

PROJECT NUMBER
PROJECT NAME
LOCATION
DRILLING METHOD
SAMPLING METHOD
GROUND ELEVATION
TOP OF CASING
LOGGED BY
REMARKS

BORING/WELL NUMBER EB15-1-S5, EB12-1-S10, -S5, -NS, -N
DATE DRILLED 4-10-17
CASING TYPE/DIAMETER
SCREEN TYPE/SLOT
GRAVEL PACK TYPE
GROUT TYPE/QUANTITY
DEPTH TO WATER
GROUND WATER ELEVATION

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
								@Surface – 5" AC over Sandy Clay, d. brown, moist, s.p. fines w/f.-m.g sand, contains asphalt (broken, 2")
								TD = 2.5' to 4'

GE_SBL_FNC AB GWGN01.GPJ LAEWNN01.GDT 4/1/05

SOIL BORING LOG

A LEIGHTON GROUP COMPANY

Project Number		Boring Number	FB14-1-W10
Project Name		Date Drilled	4-12-17
Location		Casing Type/Diameter	
Drilling Method		Screen Type/Slot	
Sampling Method		Gravel Pack Type	
Ground Elevation		Grout Type/Quantity	
Logged By		Depth to Water	
Remarks			

DEPTH (ft. BGL)	RECOVERY (inches)	BLOW COUNTS	SAMPLE ID	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
1							@Surface - 4" AC over Silty Sand, brown, moist, f-m-g. sand w/ n.p. fines to 2.5'
2							
3							
4							
5							
6							TD = 2.5'
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							

A Leighton Group Company

BORING LOG

PROJECT NUMBER		BORING/WELL NUMBER	FB14-1-N10-, N5
PROJECT NAME		DATE DRILLED	4-12-17
LOCATION		CASING TYPE/DIAMETER	
DRILLING METHOD		SCREEN TYPE/SLOT	
SAMPLING METHOD		GRAVEL PACK TYPE	
GROUND ELEVATION		GROUT TYPE/QUANTITY	
TOP OF CASING		DEPTH TO WATER	
LOGGED BY		GROUND WATER ELEVATION	
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
0								@Surface - 4" AC over Sandy Clay, moist, d. brown, s. p. fine w/ f-m-g. sand, brick fragments in 0-5' sample, CL to 2.5'
5								TD = 2.5'
10								
15								
20								
25								
30								
35								

GE_SBL_FNC_AB_GWGN01.GPJ_LAEWNN01.GDT 4/1/05

SOIL BORING LOG

A LEIGHTON GROUP COMPANY

Project Number		Boring Number	FB14-1-W5, -E5, -E8.5
Project Name		Date Drilled	4-12-17
Location		Casing Type/Diameter	
Drilling Method		Screen Type/Slot	
Sampling Method		Gravel Pack Type	
Ground Elevation		Grout Type/Quantity	
Logged By		Depth to Water	
Remarks			

DEPTH (ft. BGL)	RECOVERY (inches)	BLOW COUNTS	SAMPLE ID	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
1							@ Surface - 4" AC over Silty Sand, brown, moist, f-m.g. sand w/ n.p. fines to 1.5'
2							
3							
4							
5							@ 1.5' - Sandy Clay, d. brown, moist, s.p. fines w/ f-m.g. sand
6							
7							
8							
9							@ 2.5' - same as @ 0.5'
10							
11							TD = 2.5'
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							

SOIL BORING LOG

A LEIGHTON GROUP COMPANY

Project Number		Boring Number	FB16-1-E10f-ES
Project Name		Date Drilled	4-12-17
Location		Casing Type/Diameter	
Drilling Method		Screen Type/Slot	
Sampling Method		Gravel Pack Type	
Ground Elevation		Grout Type/Quantity	
Logged By		Depth to Water	
Remarks			

DEPTH (ft. BGL)	RECOVERY (inches)	BLOW COUNTS	SAMPLE ID	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
1							@Surface-4" AC over Sandy Clay, d.brown-black, moist, s.p. fines w/f-m.g. sand, contains tar sands in intervals/inclusions to 2.5', mod HC odor
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							

TD=2.5'

A Leighton Group Company

BORING LOG

PROJECT NUMBER
PROJECT NAME
LOCATION
DRILLING METHOD
SAMPLING METHOD
GROUND ELEVATION
TOP OF CASING
LOGGED BY
REMARKS

BORING/WELL NUMBER FB16-1-W10, -W5, -S5, -S10, -N10, -N5
DATE DRILLED 4-12-17
CASING TYPE/DIAMETER
SCREEN TYPE/SLOT
GRAVEL PACK TYPE
GROUT TYPE/QUANTITY
DEPTH TO WATER
GROUND WATER ELEVATION

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
								@ Surface - 4" AC over Sandy Silty brown/d. brown (mottling) moist, s.p. fines w/ fine sand to 2.5'
								TD = 2.5'
5								
10								
15								
20								
25								
30								
35								

GE_SBL_FNC AB GWGN01.GPJ LAEWNN01.GDT 4/1/05

A Leighton Group Company

BORING LOG

PROJECT NUMBER
PROJECT NAME
LOCATION
DRILLING METHOD
SAMPLING METHOD
GROUND ELEVATION
TOP OF CASING
LOGGED BY
REMARKS

BORING/WELL NUMBER EB13-2-W10, -S5
DATE DRILLED 4-11-17
CASING TYPE/DIAMETER
SCREEN TYPE/SLOT
GRAVEL PACK TYPE
GROUT TYPE/QUANTITY
DEPTH TO WATER
GROUND WATER ELEVATION

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
								@ Surface - 3" AC over Silty Sand, l. brown, moist, f-m.g. sand w/ n.p. fines
								@ 1.5' - Sandy Clay, d. brown, moist, s.p. fines w/ f-m.g. sand
5								TD = 2.5'
10								
15								
20								
25								
30								
35								

GE_SBL FNC AB GWGN01.GPJ LAEWNN01.GDT 4/1/05

A Leighton Group Company

BORING LOG

PROJECT NUMBER		BORING/WELL NUMBER	EBH-1-W10, EBH-2-S10
PROJECT NAME		DATE DRILLED	4-10-17
LOCATION		CASING TYPE/DIAMETER	
DRILLING METHOD		SCREEN TYPE/SLOT	
SAMPLING METHOD		GRAVEL PACK TYPE	
GROUND ELEVATION		GROUT TYPE/QUANTITY	
TOP OF CASING		DEPTH TO WATER	
LOGGED BY		GROUND WATER ELEVATION	
REMARKS	+ EBH-1-S10		

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
								@Surface-4" AC over Silty Sand, brown, moist, f-m.g. sand w/n.p. fines
								@1.5'- Sandy Clay, d. brown, moist, s.p fines w/f.g. sand
5								TD = 2.5'
10								
15								
20								
25								
30								
35								

GE_SBL_FNC_AB GWGN01.GPJ LAEWNN01.GDT 4/1/05

A Leighton Group Company

BORING LOG

PROJECT NUMBER
PROJECT NAME
LOCATION
DRILLING METHOD
SAMPLING METHOD
GROUND ELEVATION
TOP OF CASING
LOGGED BY
REMARKS

BORING/WELL NUMBER EB11-1-SS, -WS
DATE DRILLED 4-10-17
CASING TYPE/DIAMETER
SCREEN TYPE/SLOT
GRAVEL PACK TYPE
GROUT TYPE/QUANTITY
DEPTH TO WATER
GROUND WATER ELEVATION

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
								@ Surface - 4" AC over Sandy Clay, d. brown, moist, 5-m.p. fines w/ f-m.g. sand
								TD = 2.5'

GE_SBL_FNC AB GWGN01.GPJ LAEWNN01.GDT 4/1/05

A Leighton Group Company

BORING LOG

PROJECT NUMBER
PROJECT NAME
LOCATION
DRILLING METHOD
SAMPLING METHOD
GROUND ELEVATION
TOP OF CASING
LOGGED BY
REMARKS EB10-2-W5,

BORING/WELL NUMBER EB11-2-N10, -N5, -E5, -S5
DATE DRILLED 4-10-17
CASING TYPE/DIAMETER
SCREEN TYPE/SLOT
GRAVEL PACK TYPE
GROUT TYPE/QUANTITY
DEPTH TO WATER
GROUND WATER ELEVATION

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
								Surface - 5" AC over Sandy Clays, d. grayish brown, moist, s.p. fines w/f-m-g. sand, no odor - to 2.5'
								TD = 2.5'
5								
10								
15								
20								
25								
30								
35								

GE_SBL FNC AB GWGN01.GPJ LAEWNN01.GDT 4/1/05

A Leighton Group Company

BORING LOG

EB9-1-E9, S5, S10, W5

PROJECT NUMBER		BORING/WELL NUMBER	
PROJECT NAME		DATE DRILLED	4-11-17
LOCATION		CASING TYPE/DIAMETER	
DRILLING METHOD		SCREEN TYPE/SLOT	
SAMPLING METHOD		GRAVEL PACK TYPE	
GROUND ELEVATION		GROUT TYPE/QUANTITY	
TOP OF CASING		DEPTH TO WATER	
LOGGED BY		GROUND WATER ELEVATION	
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
0								@Surface - 4" AC over P.G. Sand, brown-l. brown, moist, f-m-g-sand to 1.5'
5								@1.5-TD = Sandy Clay, d. grayish brown, moist, s.p. fm c w/ f-m-g. sand.
								TD = 2.5'
10								
15								
20								
25								
30								
35								

GE_SBL_FNC_AB GWGN01.GPJ LAEWNN01.GDT 4/1/05

A Leighton Group Company

BORING LOG

PROJECT NUMBER
PROJECT NAME
LOCATION
DRILLING METHOD
SAMPLING METHOD
GROUND ELEVATION
TOP OF CASING
LOGGED BY
REMARKS

BORING/WELL NUMBER EB20-6-N5, -N10, -S5
DATE DRILLED 4-12-17
CASING TYPE/DIAMETER
SCREEN TYPE/SLOT
GRAVEL PACK TYPE
GROUT TYPE/QUANTITY
DEPTH TO WATER
GROUND WATER ELEVATION

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
								@Surface - Topsoil + geofabric over Silty Sand, d. brown, moist, f-m.g. sand w/ m.p. fines
								@1.5 - brown
5								TD = 2.5'
10								
15								
20								
25								
30								
35								

GE_SBL FNC AB GWGN01.GPJ LAEWNN01.GDT 4/1/05

A Leighton Group Company

BORING LOG

PROJECT NUMBER		BORING/WELL NUMBER	EB9-7-W6
PROJECT NAME		DATE DRILLED	4-1-17
LOCATION		CASING TYPE/DIAMETER	
DRILLING METHOD		SCREEN TYPE/SLOT	
SAMPLING METHOD		GRAVEL PACK TYPE	
GROUND ELEVATION		GROUT TYPE/QUANTITY	
TOP OF CASING		DEPTH TO WATER	
LOGGED BY		GROUND WATER ELEVATION	
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
								@Surface - 6" AC over Sandy Clay, gray-green, moist, sp. fines w/ f-m-g. sand, moderate fill-like odor, to TD
								TD = 2.5'
5								
10								
15								
20								
25								
30								
35								

GE_SBL FNC AB GWGN01.GPJ LAEWNN01.GDT 4/1/05

A Leighton Group Company

BORING LOG

PROJECT NUMBER		BORING/WELL NUMBER	(4-117 EBS-4-N5, -S7.5, -N10, EBS-3-E5, -W5, -N10
PROJECT NAME		DATE DRILLED	
LOCATION		CASING TYPE/DIAMETER	
DRILLING METHOD		SCREEN TYPE/SLOT	
SAMPLING METHOD		GRAVEL PACK TYPE	
GROUND ELEVATION		GROUT TYPE/QUANTITY	
TOP OF CASING		DEPTH TO WATER	
LOGGED BY		GROUND WATER ELEVATION	
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
								@Surface - 5" AC over Silty Sand, ~~& brown~~ grayish brown, moist, f-m.g. sand w/ n.p. fines to 1.5'
5								@1.5' - Sandy Clay, grayish brown, moist, s.p. fines w/ f-m.g. sand to 2.5' (TD)
								TD = 2.5'
10								
15								
20								
25								
30								
35								

GE_SBL_FNC AB GWGN01.GPJ LAEWNN01.GDT 4/1/05

A Leighton Group Company

BORING LOG

PROJECT NUMBER		BORING/WELL NUMBER	E139-1-E9, -E5
PROJECT NAME		DATE DRILLED	4-11-17
LOCATION		CASING TYPE/DIAMETER	
DRILLING METHOD		SCREEN TYPE/SLOT	
SAMPLING METHOD		GRAVEL PACK TYPE	
GROUND ELEVATION		GROUT TYPE/QUANTITY	
TOP OF CASING		DEPTH TO WATER	
LOGGED BY		GROUND WATER ELEVATION	
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
								@ Surface - 4" AC over P.G. Sand, l brown-tan, moist, f.g. sand to 2.5' (TD).
								TD=2.5'
5								
10								
15								
20								
25								
30								
35								

GE_SBL_FNC AB GWGN01.GPJ LAEWNN01.GDT 4/1/05

A Leighton Group Company

BORING LOG

PROJECT NUMBER
PROJECT NAME
LOCATION
DRILLING METHOD
SAMPLING METHOD
GROUND ELEVATION
TOP OF CASING
LOGGED BY
REMARKS

BORING/WELL NUMBER EB20-6-W5, W8
DATE DRILLED 4-12-16
CASING TYPE/DIAMETER
SCREEN TYPE/SLOT
GRAVEL PACK TYPE
GROUT TYPE/QUANTITY
DEPTH TO WATER
GROUND WATER ELEVATION

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
								@Surface - Topsoil + geofabric over Silty Sand, brown, moist, f-m-g sand w/ n.p. fines to 2.5'
								@2.5' - Sandy Clay, d. brown, moist, s.p fines w/ f-g sand, contains roots
								TD = 2.5'

GE_SBL_FNC AB GWGN01.GPJ LAEWNN01.GDT 4/1/05

A Leighton Group Company

BORING LOG

PROJECT NUMBER
PROJECT NAME
LOCATION
DRILLING METHOD
SAMPLING METHOD
GROUND ELEVATION
TOP OF CASING
LOGGED BY
REMARKS +-E5, -W5, -S5, -S10 (3-5"AC)

BORING/WELL NUMBER EB23-2-N5, -N8, -W10 (5"AC)
DATE DRILLED 4-11-17
CASING TYPE/DIAMETER
SCREEN TYPE/SLOT
GRAVEL PACK TYPE
GROUT TYPE/QUANTITY
DEPTH TO WATER
GROUND WATER ELEVATION

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
								@Surface- Topsoil (in planter) over Silty Sand, brown, moist, f-m.g. sand w/n.p. fines
								@1.5-TD = Sandy Clay, d. brown, moist, s.p. fines w/f-m.g. sand
5								TD = 2.5'
10								
15								
20								
25								
30								
35								

GE_SBL FNC AB GWGN01.GPJ LAEWNN01.GDT 4/1/05

A Leighton Group Company

BORING LOG

PROJECT NUMBER
PROJECT NAME
LOCATION
DRILLING METHOD
SAMPLING METHOD
GROUND ELEVATION
TOP OF CASING
LOGGED BY
REMARKS

BORING/WELL NUMBER EB10-2-WS, -SS, -S10
DATE DRILLED 4-10-17
CASING TYPE/DIAMETER
SCREEN TYPE/SLOT
GRAVEL PACK TYPE
GROUT TYPE/QUANTITY
DEPTH TO WATER
GROUND WATER ELEVATION

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
								@Surface - 3" AC over Silty Sand, d. brown, moist, f-m.g. sand and n.p. fines
								@2.5' - Sandy Clay, d. brown, moist, s.p. fines w/ f-m.g. sand
5								TD=2.5'
10								
15								
20								
25								
30								
35								

GE_SBL_FNC AB GWGN01.GPJ LAEWNN01.GDT 4/1/05

A Leighton Group Company

BORING LOG

PROJECT NUMBER
PROJECT NAME
LOCATION
DRILLING METHOD
SAMPLING METHOD
GROUND ELEVATION
TOP OF CASING
LOGGED BY
REMARKS +EB9-6-N10, -N5, -E5, -S5, -S10

BORING/WELL NUMBER EB9-1-S5, -S10
DATE DRILLED 4-10-17
CASING TYPE/DIAMETER
SCREEN TYPE/SLOT
GRAVEL PACK TYPE
GROUT TYPE/QUANTITY
DEPTH TO WATER
GROUND WATER ELEVATION

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
								@Surface - 4" AC over clayey Sand, d. brown, moist, f-m-g sand w/s.p. fines, no odor
								TD=2.5'
5								EB9-6s:
								: N10 - CL@3', Refused.
								: S5 - CL@3'+4'
								: E5 - CL@3'+4'
10								: N5 - CL@3', SM w/brick@4'
								: S10 - SM@3', Refused.
								: E10 - CL@3'+4'
15								
20								
25								
30								
35								

GE_SBL_FNC AB GWGN01.GPJ LAEWNN01.GDT 4/1/05

A Leighton Group Company

BORING LOG

PROJECT NUMBER
PROJECT NAME
LOCATION
DRILLING METHOD
SAMPLING METHOD
GROUND ELEVATION
TOP OF CASING
LOGGED BY
REMARKS + FB9-1-NS

BORING/WELL NUMBER FB9-4-NS, WS
DATE DRILLED 4-10-17
CASING TYPE/DIAMETER
SCREEN TYPE/SLOT
GRAVEL PACK TYPE
GROUT TYPE/QUANTITY
DEPTH TO WATER
GROUND WATER ELEVATION

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
								@Surface - 4" AC over Sandy Clay, moist, d. brown, s.p. fines w/ f-m.g. sand to 2.5' - no odor
								@2.5' - P.G. Sand, tan, dry-moist, f-m.g. sand, no odor
5								TD = 2.5'
10								
15								
20								
25								
30								
35								

GE_SBL_FNC AB GWGN01.GPJ LAEWNN01.GDT 4/1/05

A Leighton Group Company

BORING LOG

PROJECT NUMBER		BORING/WELL NUMBER	FB9-4-W10
PROJECT NAME		DATE DRILLED	4-10-17
LOCATION		CASING TYPE/DIAMETER	
DRILLING METHOD		SCREEN TYPE/SLOT	
SAMPLING METHOD		GRAVEL PACK TYPE	
GROUND ELEVATION		GROUT TYPE/QUANTITY	
TOP OF CASING		DEPTH TO WATER	
LOGGED BY		GROUND WATER ELEVATION	
REMARKS	FB9-1-W5		

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
								@Surface - 4" AC over Sandy Clay, d. brown, moist, s.p. fines w/ f-m-g. sand and trace gravel to 2.5'
								@2.5' - Clay w/ sand, d. brown, moist, s.p. fines w/ f-m-g sand in pockets/inclusions, heavy brick content
								TD=2.5'

GE_SBL_FNC AB GWGN01.GPJ LAEWNN01.GDT 4/1/05

A Leighton Group Company

BORING LOG

PROJECT NUMBER
PROJECT NAME
LOCATION
DRILLING METHOD
SAMPLING METHOD
GROUND ELEVATION
TOP OF CASING
LOGGED BY
REMARKS

BORING/WELL NUMBER FBQ-1-W10
DATE DRILLED 4-10-17
CASING TYPE/DIAMETER
SCREEN TYPE/SLOT
GRAVEL PACK TYPE
GROUT TYPE/QUANTITY
DEPTH TO WATER
GROUND WATER ELEVATION

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION
								@Surface - 4" AC over Sandy Clay, d. grayish brown, moist, s.p. fines w/ fine g. sand, high brick content, no odor
5								@1.5' - becomes brown
								TD = 2.5'
10								
15								
20								
25								
30								
35								

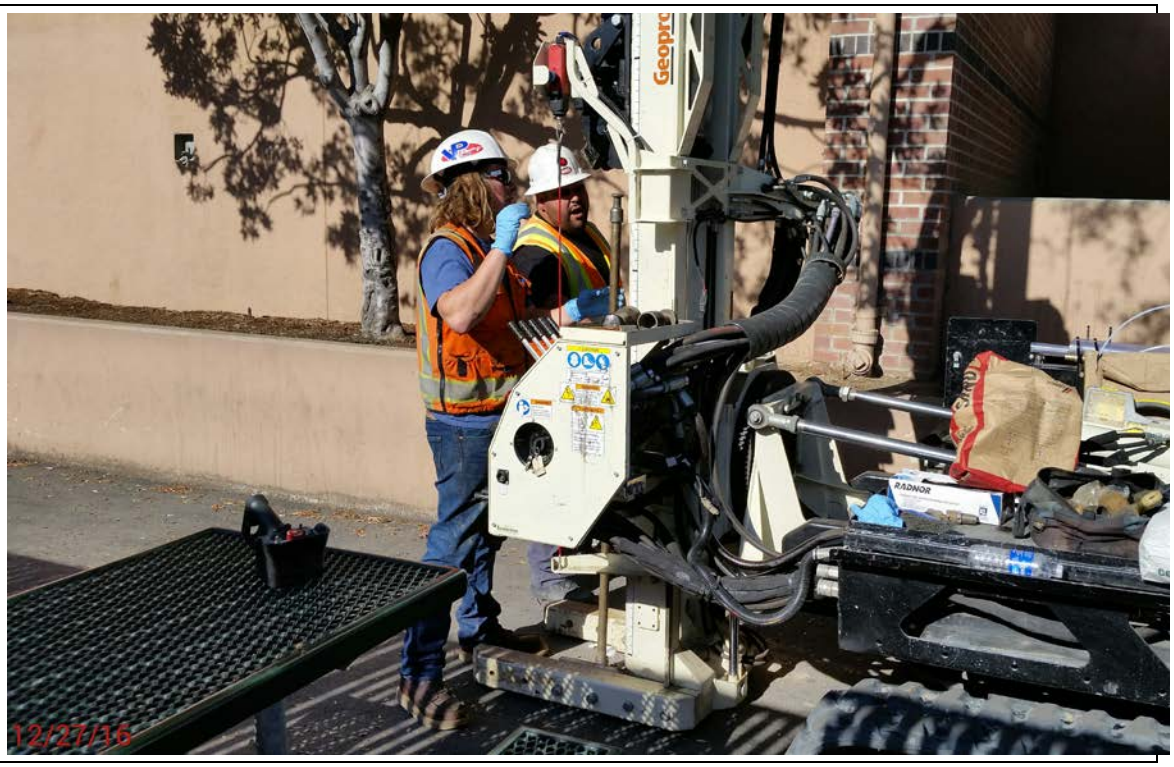
GE_SBL FNC AB GWGN01.GPJ LAEWNN01.GDT 4/1/05

APPENDIX C

PHOTOGRAPHIC LOG

Leighton Consulting, Inc.	**PHOTOGRAPHIC LOG** 12/23/2016-7/17/2017	
Client Name: **Los Angeles Unified School District**	**Site Location: Burroughs Middle School,** **600 South McCadden Place, Los Angeles, California**	**Project No.** **603378-006 & 11640.001**

Photo No. 1	
View Direction of Photo: Northeast **Date of Photo:** 12/27/2016	
Description: Geophysical survey in playground area near the borehole location for a methane probe (M-13).	

Photo No. 2	
View Direction of Photo: Northwest **Date of Photo:** 12/27/2016	
Description: Typical direct push drilling to advance boreholes and install methane probes (M-3D area)	

Leighton Consulting, Inc.	**PHOTOGRAPHIC LOG** 12/23/2016-7/17/2017	
Client Name: **Los Angeles Unified School District**	**Site Location: Burroughs Middle School,** **600 South McCadden Place, Los Angeles, California**	**Project No.** **603378-006 & 11640.001**

Photo No. 1	
View Direction of Photo: South **Date of Photo:** 4/11/2017	
Description: Typical core removal prior to hand-augering and sampling soil (EB23-2 area).	

Photo No. 2	
View Direction of Photo: Southwest **Date of Photo:** 7/17/2017	
Description: Former building 16 area.	

Leighton Consulting, Inc.	**PHOTOGRAPHIC LOG** 12/23/2016-7/17/2017	
Client Name: **Los Angeles Unified School District**	**Site Location: Burroughs Middle School, 600 South McCadden Place, Los Angeles, California**	**Project No.** **603378-006 & 11640.001**

Photo No. 1 **View Direction of Photo:** Southwest **Date of Photo:** 7/17/2017 **Description:** Former building 14 area.	

Photo No. 2 **View Direction of Photo:** Northeast **Date of Photo:** 7/17/2017 **Description:** Existing Building 13 area within fenced enclosure.	

Leighton Consulting, Inc.	**PHOTOGRAPHIC LOG** 12/23/2016-7/17/2017	
Client Name: **Los Angeles Unified School District**	**Site Location: Burroughs Middle School, 600 South McCadden Place, Los Angeles, California**	**Project No.** **603378-006 & 11640.001**

Photo No. 1	
View Direction of Photo: North **Date of Photo:** 7/17/2017	
Description: EB9-7 area near former incinerator.	

Photo No. 2	
View Direction of Photo: South **Date of Photo:** 7/17/2017	
Description: Drum containing IDW temporarily stored near EB10-2 boring.	

APPENDIX D

LABORATORY ANALYTICAL REPORTS

DECEMBER 2016 THROUGH JANUARY 2017
LABORATORY REPORTS

ADVANCED TECHNOLOGY LABORATORIES

January 05, 2017

Julie Harriman
Leighton Consulting, Inc.
17781 Cowan Street
Irvine, CA 92614
Tel: (949) 250-1421
Fax:(949) 757-7230

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1604882
Client Reference : Burroughs MS-LAUSD, 603378.006

Enclosed are the results for sample(s) received on December 23, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	01/05/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
M-3-10.0	1604882-02	Soil	12/23/16 13:25	12/23/16 16:50
M-3-12.5	1604882-03	Soil	12/23/16 13:30	12/23/16 16:50

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/05/2017

Client Sample ID M-3-10.0

Lab ID: 1604882-02

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
C8-C10	ND	10	10	10	B7A0006	12/31/2016	01/04/17 22:55	
C10-C18	**32**	10	10	10	B7A0006	12/31/2016	01/04/17 22:55	
C18-C28	**230**	10	10	10	B7A0006	12/31/2016	01/04/17 22:55	
C28-C36	**410**	10	10	10	B7A0006	12/31/2016	01/04/17 22:55	
C36-C40	**250**	10	10	10	B7A0006	12/31/2016	01/04/17 22:55	
C8-C40 Total	**930**	10	10	10	B7A0006	12/31/2016	01/04/17 22:55	
Surrogate: p-Terphenyl	*0%*		*18 - 130*		B7A0006	12/31/2016	*01/04/17 22:55*	S4

Volatile Organic Compounds by EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
1,1,1-Trichloroethane	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
1,1,2,2-Tetrachloroethane	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
1,1,2-Trichloroethane	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
1,1-Dichloroethane	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
1,1-Dichloroethene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
1,1-Dichloropropene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
1,2,3-Trichloropropane	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
1,2,3-Trichlorobenzene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
1,2,4-Trichlorobenzene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
1,2,4-Trimethylbenzene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
1,2-Dibromo-3-chloropropane	ND	10	1	B6L1067	12/29/2016	12/29/16 19:01	
1,2-Dibromoethane	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
1,2-Dichlorobenzene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
1,2-Dichloroethane	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
1,2-Dichloropropane	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
1,3,5-Trimethylbenzene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
1,3-Dichlorobenzene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
1,3-Dichloropropane	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
1,4-Dichlorobenzene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
2,2-Dichloropropane	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
2-Chlorotoluene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
4-Chlorotoluene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
4-Isopropyltoluene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
Benzene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/05/2017

Client Sample ID M-3-10.0

Lab ID: 1604882-02

Volatile Organic Compounds by EPA 8260B **Analyst: AG**

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Bromobenzene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
Bromochloromethane	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
Bromodichloromethane	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
Bromoform	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
Bromomethane	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
Carbon disulfide	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
Carbon tetrachloride	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
Chlorobenzene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
Chloroethane	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
Chloroform	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
Chloromethane	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
cis-1,2-Dichloroethene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
cis-1,3-Dichloropropene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
Di-isopropyl ether	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
Dibromochloromethane	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
Dibromomethane	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
Dichlorodifluoromethane	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
Ethyl Acetate	ND	50	1	B6L1067	12/29/2016	12/29/16 19:01	
Ethyl Ether	ND	50	1	B6L1067	12/29/2016	12/29/16 19:01	
Ethyl tert-butyl ether	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
Ethylbenzene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
Freon-113	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
Hexachlorobutadiene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
Isopropylbenzene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
m,p-Xylene	ND	10	1	B6L1067	12/29/2016	12/29/16 19:01	
Methylene chloride	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
MTBE	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
n-Butylbenzene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
n-Propylbenzene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
Naphthalene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
o-Xylene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
sec-Butylbenzene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
Styrene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
tert-Amyl methyl ether	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
tert-Butanol	ND	100	1	B6L1067	12/29/2016	12/29/16 19:01	
tert-Butylbenzene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
Tetrachloroethene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/05/2017

Client Sample ID M-3-10.0

Lab ID: 1604882-02

Volatile Organic Compounds by EPA 8260B **Analyst: AG**

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Toluene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
trans-1,2-Dichloroethene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
trans-1,3-Dichloropropene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
Trichloroethene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
Trichlorofluoromethane	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
Vinyl acetate	ND	50	1	B6L1067	12/29/2016	12/29/16 19:01	
Vinyl chloride	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:01	
Surrogate: 1,2-Dichloroethane-d4	*93.2 %*	*12 - 186*		B6L1067	12/29/2016	*12/29/16 19:01*	
Surrogate: 4-Bromofluorobenzene	*105 %*	*23 - 162*		B6L1067	12/29/2016	*12/29/16 19:01*	
Surrogate: Dibromofluoromethane	*94.8 %*	*23 - 179*		B6L1067	12/29/2016	*12/29/16 19:01*	
Surrogate: Toluene-d8	*104 %*	*26 - 164*		B6L1067	12/29/2016	*12/29/16 19:01*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/05/2017

Client Sample ID M-3-12.5

Lab ID: 1604882-03

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
C8-C10	ND	1.0	1.0	1	B7A0006	12/31/2016	01/04/17 21:48	
C10-C18	**1.4**	1.0	1.0	1	B7A0006	12/31/2016	01/04/17 21:48	
C18-C28	**3.0**	1.0	1.0	1	B7A0006	12/31/2016	01/04/17 21:48	
C28-C36	**3.1**	1.0	1.0	1	B7A0006	12/31/2016	01/04/17 21:48	
C36-C40	**2.3**	1.0	1.0	1	B7A0006	12/31/2016	01/04/17 21:48	
C8-C40 Total	**9.8**	1.0	1.0	1	B7A0006	12/31/2016	01/04/17 21:48	
Surrogate: p-Terphenyl	*54.1 %*		*18 - 130*		B7A0006	12/31/2016	*01/04/17 21:48*	

Volatile Organic Compounds by EPA 8260B

Analyst: AG

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
1,1,1-Trichloroethane	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
1,1,2,2-Tetrachloroethane	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
1,1,2-Trichloroethane	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
1,1-Dichloroethane	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
1,1-Dichloroethene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
1,1-Dichloropropene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
1,2,3-Trichloropropane	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
1,2,3-Trichlorobenzene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
1,2,4-Trichlorobenzene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
1,2,4-Trimethylbenzene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
1,2-Dibromo-3-chloropropane	ND	10	1	B6L1067	12/29/2016	12/29/16 19:39	
1,2-Dibromoethane	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
1,2-Dichlorobenzene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
1,2-Dichloroethane	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
1,2-Dichloropropane	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
1,3,5-Trimethylbenzene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
1,3-Dichlorobenzene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
1,3-Dichloropropane	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
1,4-Dichlorobenzene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
2,2-Dichloropropane	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
2-Chlorotoluene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
4-Chlorotoluene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
4-Isopropyltoluene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
Benzene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/05/2017

Client Sample ID M-3-12.5

Lab ID: 1604882-03

Volatile Organic Compounds by EPA 8260B **Analyst: AG**

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Bromobenzene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
Bromochloromethane	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
Bromodichloromethane	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
Bromoform	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
Bromomethane	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
Carbon disulfide	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
Carbon tetrachloride	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
Chlorobenzene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
Chloroethane	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
Chloroform	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
Chloromethane	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
cis-1,2-Dichloroethene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
cis-1,3-Dichloropropene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
Di-isopropyl ether	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
Dibromochloromethane	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
Dibromomethane	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
Dichlorodifluoromethane	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
Ethyl Acetate	ND	50	1	B6L1067	12/29/2016	12/29/16 19:39	
Ethyl Ether	ND	50	1	B6L1067	12/29/2016	12/29/16 19:39	
Ethyl tert-butyl ether	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
Ethylbenzene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
Freon-113	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
Hexachlorobutadiene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
Isopropylbenzene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
m,p-Xylene	ND	10	1	B6L1067	12/29/2016	12/29/16 19:39	
Methylene chloride	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
MTBE	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
n-Butylbenzene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
n-Propylbenzene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
Naphthalene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
o-Xylene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
sec-Butylbenzene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
Styrene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
tert-Amyl methyl ether	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
tert-Butanol	ND	100	1	B6L1067	12/29/2016	12/29/16 19:39	
tert-Butylbenzene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
Tetrachloroethene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/05/2017

Client Sample ID M-3-12.5

Lab ID: 1604882-03

Volatile Organic Compounds by EPA 8260B **Analyst: AG**

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Toluene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
trans-1,2-Dichloroethene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
trans-1,3-Dichloropropene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
Trichloroethene	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
Trichlorofluoromethane	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
Vinyl acetate	ND	50	1	B6L1067	12/29/2016	12/29/16 19:39	
Vinyl chloride	ND	5.0	1	B6L1067	12/29/2016	12/29/16 19:39	
Surrogate: 1,2-Dichloroethane-d4	*89.8 %*	*12 - 186*		B6L1067	12/29/2016	*12/29/16 19:39*	
Surrogate: 4-Bromofluorobenzene	*105 %*	*23 - 162*		B6L1067	12/29/2016	*12/29/16 19:39*	
Surrogate: Dibromofluoromethane	*92.4 %*	*23 - 179*		B6L1067	12/29/2016	*12/29/16 19:39*	
Surrogate: Toluene-d8	*105 %*	*26 - 164*		B6L1067	12/29/2016	*12/29/16 19:39*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/05/2017

QUALITY CONTROL SECTION

Hydrocarbon Chain Distribution by EPA 8015B (Modified) - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0006 - GCSEMI_DRO_LL_S									
Blank (B7A0006-BLK1)					Prepared: 12/31/2016 Analyzed: 1/4/2017				
C8-C10	ND	1.0			NR				
C10-C18	ND	1.0			NR				
C18-C28	ND	1.0			NR				
C28-C36	ND	1.0			NR				
C36-C40	ND	1.0			NR				
C8-C40 Total	ND	1.0			NR				
Surrogate: p-Terphenyl	*2.291*		*2.66667*		*85.9*	*18 - 130*			
LCS (B7A0006-BS1)					Prepared: 12/31/2016 Analyzed: 1/4/2017				
DRO	26.3717	1.0	33.3333		79.1	34 - 120			
Surrogate: p-Terphenyl	*2.483*		*2.66667*		*93.1*	*18 - 130*			
Duplicate (B7A0006-DUP1)		**Source: 1604898-AD**			Prepared: 12/31/2016 Analyzed: 1/4/2017				
DRO	3.91800	1.0		3.80700	NR		2.87	20	
Surrogate: p-Terphenyl	*1.828*		*2.66667*		*68.5*	*18 - 130*			
Duplicate (B7A0006-DUP2)		**Source: 1604882-03**			Prepared: 12/31/2016 Analyzed: 1/4/2017				
DRO	7.27000	1.0		4.59800	NR		45.0	20	R
Surrogate: p-Terphenyl	*2.242*		*2.66667*		*84.1*	*18 - 130*			
Matrix Spike (B7A0006-MS1)		**Source: 1604882-03**			Prepared: 12/31/2016 Analyzed: 1/4/2017				
DRO	24.7073	1.0	33.3333	4.59800	60.3	12 - 132			
Surrogate: p-Terphenyl	*1.787*		*2.66667*		*67.0*	*18 - 130*			
Matrix Spike Dup (B7A0006-MSD1)		**Source: 1604882-03**			Prepared: 12/31/2016 Analyzed: 1/4/2017				
DRO	24.5153	1.0	33.3333	4.59800	59.8	12 - 132	0.780	20	
Surrogate: p-Terphenyl	*2.113*		*2.66667*		*79.2*	*18 - 130*			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/05/2017

Volatile Organic Compounds by EPA 8260B - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B6L1067 - MSVOA_S									
Blank (B6L1067-BLK1)				Prepared: 12/29/2016 Analyzed: 12/29/2016					
1,1,1,2-Tetrachloroethane	ND	5.0			NR				
1,1,1-Trichloroethane	ND	5.0			NR				
1,1,2,2-Tetrachloroethane	ND	5.0			NR				
1,1,2-Trichloroethane	ND	5.0			NR				
1,1-Dichloroethane	ND	5.0			NR				
1,1-Dichloroethene	ND	5.0			NR				
1,1-Dichloropropene	ND	5.0			NR				
1,2,3-Trichloropropane	ND	5.0			NR				
1,2,3-Trichlorobenzene	ND	5.0			NR				
1,2,4-Trichlorobenzene	ND	5.0			NR				
1,2,4-Trimethylbenzene	ND	5.0			NR				
1,2-Dibromo-3-chloropropane	ND	10			NR				
1,2-Dibromoethane	ND	5.0			NR				
1,2-Dichlorobenzene	ND	5.0			NR				
1,2-Dichloroethane	ND	5.0			NR				
1,2-Dichloropropane	ND	5.0			NR				
1,3,5-Trimethylbenzene	ND	5.0			NR				
1,3-Dichlorobenzene	ND	5.0			NR				
1,3-Dichloropropane	ND	5.0			NR				
1,4-Dichlorobenzene	ND	5.0			NR				
2,2-Dichloropropane	ND	5.0			NR				
2-Chlorotoluene	ND	5.0			NR				
4-Chlorotoluene	ND	5.0			NR				
4-Isopropyltoluene	ND	5.0			NR				
Benzene	ND	5.0			NR				
Bromobenzene	ND	5.0			NR				
Bromochloromethane	ND	5.0			NR				
Bromodichloromethane	ND	5.0			NR				
Bromoform	ND	5.0			NR				
Bromomethane	ND	5.0			NR				
Carbon disulfide	ND	5.0			NR				
Carbon tetrachloride	ND	5.0			NR				
Chlorobenzene	ND	5.0			NR				
Chloroethane	ND	5.0			NR				
Chloroform	ND	5.0			NR				
Chloromethane	ND	5.0			NR				
cis-1,2-Dichloroethene	ND	5.0			NR				
cis-1,3-Dichloropropene	ND	5.0			NR				
Di-isopropyl ether	ND	5.0			NR				
Dibromochloromethane	ND	5.0			NR				
Dibromomethane	ND	5.0			NR				

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/05/2017

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B6L1067 - MSVOA_S (continued)									
Blank (B6L1067-BLK1) - Continued					Prepared: 12/29/2016 Analyzed: 12/29/2016				
Dichlorodifluoromethane	ND	5.0			NR				
Ethyl Acetate	ND	50			NR				
Ethyl Ether	ND	50			NR				
Ethyl tert-butyl ether	ND	5.0			NR				
Ethylbenzene	ND	5.0			NR				
Freon-113	ND	5.0			NR				
Hexachlorobutadiene	ND	5.0			NR				
Isopropylbenzene	ND	5.0			NR				
m,p-Xylene	ND	10			NR				
Methylene chloride	ND	5.0			NR				
MTBE	ND	5.0			NR				
n-Butylbenzene	ND	5.0			NR				
n-Propylbenzene	ND	5.0			NR				
Naphthalene	ND	5.0			NR				
o-Xylene	ND	5.0			NR				
sec-Butylbenzene	ND	5.0			NR				
Styrene	ND	5.0			NR				
tert-Amyl methyl ether	ND	5.0			NR				
tert-Butanol	ND	100			NR				
tert-Butylbenzene	ND	5.0			NR				
Tetrachloroethene	ND	5.0			NR				
Toluene	ND	5.0			NR				
trans-1,2-Dichloroethene	ND	5.0			NR				
trans-1,3-Dichloropropene	ND	5.0			NR				
Trichloroethene	ND	5.0			NR				
Trichlorofluoromethane	ND	5.0			NR				
Vinyl acetate	ND	50			NR				
Vinyl chloride	ND	5.0			NR				
Surrogate: 1,2-Dichloroethane-d4	*50.31*		*50.0000*		*101*	*12 - 186*			
Surrogate: 4-Bromofluorobenzene	*52.44*		*50.0000*		*105*	*23 - 162*			
Surrogate: Dibromofluoromethane	*47.89*		*50.0000*		*95.8*	*23 - 179*			
Surrogate: Toluene-d8	*52.20*		*50.0000*		*104*	*26 - 164*			
LCS (B6L1067-BS1)					Prepared: 12/29/2016 Analyzed: 12/29/2016				
1,1,1,2-Tetrachloroethane	51.3100	5.0	50.0000		103	78 - 119			
1,1,1-Trichloroethane	53.1100	5.0	50.0000		106	75 - 123			
1,1,2,2-Tetrachloroethane	46.0800	5.0	50.0000		92.2	65 - 117			
1,1,2-Trichloroethane	48.0400	5.0	50.0000		96.1	79 - 108			
1,1-Dichloroethane	52.4900	5.0	50.0000		105	69 - 120			
1,1-Dichloroethene	42.6900	5.0	50.0000		85.4	59 - 126			
1,1-Dichloropropene	50.5200	5.0	50.0000		101	76 - 121			

Leighton Consulting, Inc.
17781 Cowan Street
Irvine , CA 92614

Project Number : Burroughs MS-LAUSD, 603378.006
Report To : Julie Harriman
Reported : 01/05/2017

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B6L1067 - MSVOA_S (continued)									
LCS (B6L1067-BS1) - Continued				Prepared: 12/29/2016 Analyzed: 12/29/2016					
1,2,3-Trichloropropane	43.4300	5.0	50.0000		86.9	66 - 118			
1,2,3-Trichlorobenzene	55.1000	5.0	50.0000		110	75 - 116			
1,2,4-Trichlorobenzene	58.8300	5.0	50.0000		118	79 - 121			
1,2,4-Trimethylbenzene	56.9600	5.0	50.0000		114	80 - 118			
1,2-Dibromo-3-chloropropane	50.9300	10	50.0000		102	65 - 122			
1,2-Dibromoethane	49.6700	5.0	50.0000		99.3	77 - 115			
1,2-Dichlorobenzene	51.8600	5.0	50.0000		104	81 - 115			
1,2-Dichloroethane	49.9200	5.0	50.0000		99.8	70 - 122			
1,2-Dichloropropane	49.1000	5.0	50.0000		98.2	77 - 110			
1,3,5-Trimethylbenzene	53.8400	5.0	50.0000		108	79 - 119			
1,3-Dichlorobenzene	49.3200	5.0	50.0000		98.6	81 - 116			
1,3-Dichloropropane	48.6900	5.0	50.0000		97.4	79 - 113			
1,4-Dichlorobenzene	53.3900	5.0	50.0000		107	80 - 117			
2,2-Dichloropropane	54.5300	5.0	50.0000		109	70 - 129			
2-Chlorotoluene	50.0800	5.0	50.0000		100	76 - 119			
4-Chlorotoluene	51.9900	5.0	50.0000		104	79 - 119			
4-Isopropyltoluene	57.4400	5.0	50.0000		115	80 - 122			
Benzene	98.4600	5.0	100.000		98.5	79 - 111			
Bromobenzene	44.4200	5.0	50.0000		88.8	77 - 114			
Bromochloromethane	47.0100	5.0	50.0000		94.0	69 - 117			
Bromodichloromethane	51.2000	5.0	50.0000		102	79 - 114			
Bromoform	50.4100	5.0	50.0000		101	72 - 122			
Bromomethane	103.800	5.0	50.0000		208	47 - 176			L5
Carbon disulfide	50.9400	5.0	50.0000		102	50 - 133			
Carbon tetrachloride	57.0900	5.0	50.0000		114	68 - 143			
Chlorobenzene	48.8100	5.0	50.0000		97.6	81 - 113			
Chloroethane	63.5600	5.0	50.0000		127	47 - 148			
Chloroform	49.2600	5.0	50.0000		98.5	77 - 116			
Chloromethane	45.9100	5.0	50.0000		91.8	39 - 141			
cis-1,2-Dichloroethene	49.9000	5.0	50.0000		99.8	68 - 120			
cis-1,3-Dichloropropene	53.9000	5.0	50.0000		108	74 - 113			
Di-isopropyl ether	52.0800	5.0	50.0000		104	62 - 124			
Dibromochloromethane	49.0100	5.0	50.0000		98.0	78 - 114			
Dibromomethane	47.7500	5.0	50.0000		95.5	74 - 112			
Dichlorodifluoromethane	58.3900	5.0	50.0000		117	49 - 138			
Ethyl Acetate	558.200	50	500.000		112	63 - 131			
Ethyl Ether	663.550	50	500.000		133	56 - 123			L5
Ethyl tert-butyl ether	61.3800	5.0	50.0000		123	68 - 121			L5
Ethylbenzene	93.6900	5.0	100.000		93.7	82 - 112			
Freon-113	46.2300	5.0	50.0000		92.5	65 - 133			
Hexachlorobutadiene	49.4000	5.0	50.0000		98.8	76 - 131			
Isopropylbenzene	54.2700	5.0	50.0000		109	77 - 122			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/05/2017

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B6L1067 - MSVOA_S (continued)									
LCS (B6L1067-BS1) - Continued					Prepared: 12/29/2016 Analyzed: 12/29/2016				
m,p-Xylene	100.180	10	100.000		100	80 - 116			
Methylene chloride	43.0000	5.0	50.0000		86.0	67 - 144			
MTBE	52.2900	5.0	50.0000		105	62 - 120			
n-Butylbenzene	60.2200	5.0	50.0000		120	78 - 134			
n-Propylbenzene	50.7600	5.0	50.0000		102	77 - 125			
Naphthalene	60.3900	5.0	50.0000		121	66 - 125			
o-Xylene	96.2700	5.0	100.000		96.3	80 - 113			
sec-Butylbenzene	55.5100	5.0	50.0000		111	79 - 124			
Styrene	52.6300	5.0	50.0000		105	82 - 117			
tert-Amyl methyl ether	53.3100	5.0	50.0000		107	62 - 118			
tert-Butanol	245.230	100	250.000		98.1	35 - 127			
tert-Butylbenzene	53.3700	5.0	50.0000		107	78 - 121			
Tetrachloroethene	46.8100	5.0	50.0000		93.6	75 - 124			
Toluene	99.7900	5.0	100.000		99.8	79 - 115			
trans-1,2-Dichloroethene	48.0800	5.0	50.0000		96.2	65 - 127			
trans-1,3-Dichloropropene	49.8800	5.0	50.0000		99.8	73 - 115			
Trichloroethene	49.2200	5.0	50.0000		98.4	77 - 119			
Trichlorofluoromethane	53.8400	5.0	50.0000		108	57 - 134			
Vinyl acetate	578.370	50	500.000		116	62 - 147			
Vinyl chloride	51.1600	5.0	50.0000		102	53 - 133			
Surrogate: 1,2-Dichloroethane-d4	*54.24*		*50.0000*		*108*	*12 - 186*			
Surrogate: 4-Bromofluorobenzene	*52.24*		*50.0000*		*104*	*23 - 162*			
Surrogate: Dibromofluoromethane	*49.30*		*50.0000*		*98.6*	*23 - 179*			
Surrogate: Toluene-d8	*52.49*		*50.0000*		*105*	*26 - 164*			
Duplicate (B6L1067-DUP1)			**Source: 1604882-02**		Prepared: 12/29/2016 Analyzed: 12/29/2016				
1,1,1,2-Tetrachloroethane	ND	5.0		ND	NR			20	
1,1,1-Trichloroethane	ND	5.0		ND	NR			20	
1,1,2,2-Tetrachloroethane	ND	5.0		ND	NR			20	
1,1,2-Trichloroethane	ND	5.0		ND	NR			20	
1,1-Dichloroethane	ND	5.0		ND	NR			20	
1,1-Dichloroethene	ND	5.0		ND	NR			20	
1,1-Dichloropropene	ND	5.0		ND	NR			20	
1,2,3-Trichloropropane	ND	5.0		ND	NR			20	
1,2,3-Trichlorobenzene	ND	5.0		ND	NR			20	
1,2,4-Trichlorobenzene	ND	5.0		ND	NR			20	
1,2,4-Trimethylbenzene	ND	5.0		ND	NR			20	
1,2-Dibromo-3-chloropropane	ND	10		ND	NR			20	
1,2-Dibromoethane	ND	5.0		ND	NR			20	
1,2-Dichlorobenzene	ND	5.0		ND	NR			20	
1,2-Dichloroethane	ND	5.0		ND	NR			20	

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/05/2017

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B6L1067 - MSVOA_S (continued)									
Duplicate (B6L1067-DUP1) - Continued		**Source: 1604882-02**		Prepared: 12/29/2016 Analyzed: 12/29/2016					
1,2-Dichloropropane	ND	5.0		ND	NR			20	
1,3,5-Trimethylbenzene	ND	5.0		ND	NR			20	
1,3-Dichlorobenzene	ND	5.0		ND	NR			20	
1,3-Dichloropropane	ND	5.0		ND	NR			20	
1,4-Dichlorobenzene	ND	5.0		ND	NR			20	
2,2-Dichloropropane	ND	5.0		ND	NR			20	
2-Chlorotoluene	ND	5.0		ND	NR			20	
4-Chlorotoluene	ND	5.0		ND	NR			20	
4-Isopropyltoluene	ND	5.0		ND	NR			20	
Benzene	ND	5.0		ND	NR			20	
Bromobenzene	ND	5.0		ND	NR			20	
Bromochloromethane	ND	5.0		ND	NR			20	
Bromodichloromethane	ND	5.0		ND	NR			20	
Bromoform	ND	5.0		ND	NR			20	
Bromomethane	ND	5.0		ND	NR			20	
Carbon disulfide	ND	5.0		ND	NR			20	
Carbon tetrachloride	ND	5.0		ND	NR			20	
Chlorobenzene	ND	5.0		ND	NR			20	
Chloroethane	ND	5.0		ND	NR			20	
Chloroform	ND	5.0		ND	NR			20	
Chloromethane	ND	5.0		ND	NR			20	
cis-1,2-Dichloroethene	ND	5.0		ND	NR			20	
cis-1,3-Dichloropropene	ND	5.0		ND	NR			20	
Di-isopropyl ether	ND	5.0		ND	NR			20	
Dibromochloromethane	ND	5.0		ND	NR			20	
Dibromomethane	ND	5.0		ND	NR			20	
Dichlorodifluoromethane	ND	5.0		ND	NR			20	
Ethyl Acetate	ND	50		ND	NR			20	
Ethyl Ether	ND	50		ND	NR			20	
Ethyl tert-butyl ether	ND	5.0		ND	NR			20	
Ethylbenzene	ND	5.0		ND	NR			20	
Freon-113	ND	5.0		ND	NR			20	
Hexachlorobutadiene	ND	5.0		ND	NR			20	
Isopropylbenzene	ND	5.0		ND	NR			20	
m,p-Xylene	ND	10		ND	NR			20	
Methylene chloride	ND	5.0		ND	NR			20	
MTBE	ND	5.0		ND	NR			20	
n-Butylbenzene	ND	5.0		ND	NR			20	
n-Propylbenzene	ND	5.0		ND	NR			20	
Naphthalene	ND	5.0		ND	NR			20	
o-Xylene	ND	5.0		ND	NR			20	
sec-Butylbenzene	ND	5.0		ND	NR			20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/05/2017

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B6L1067 - MSVOA_S (continued)									
Duplicate (B6L1067-DUP1) - Continued		**Source: 1604882-02**		Prepared: 12/29/2016 Analyzed: 12/29/2016					
Styrene	ND	5.0		ND	NR			20	
tert-Amyl methyl ether	ND	5.0		ND	NR			20	
tert-Butanol	ND	100		ND	NR			20	
tert-Butylbenzene	ND	5.0		ND	NR			20	
Tetrachloroethene	ND	5.0		ND	NR			20	
Toluene	ND	5.0		ND	NR			20	
trans-1,2-Dichloroethene	ND	5.0		ND	NR			20	
trans-1,3-Dichloropropene	ND	5.0		ND	NR			20	
Trichloroethene	ND	5.0		ND	NR			20	
Trichlorofluoromethane	ND	5.0		ND	NR			20	
Vinyl acetate	ND	50		ND	NR			20	
Vinyl chloride	ND	5.0		ND	NR			20	
Surrogate: 1,2-Dichloroethane-d4	*46.47*		*50.0000*		*92.9*	*12 - 186*			
Surrogate: 4-Bromofluorobenzene	*54.31*		*50.0000*		*109*	*23 - 162*			
Surrogate: Dibromofluoromethane	*48.31*		*50.0000*		*96.6*	*23 - 179*			
Surrogate: Toluene-d8	*52.58*		*50.0000*		*105*	*26 - 164*			
Matrix Spike (B6L1067-MS1)		**Source: 1604882-02**		Prepared: 12/29/2016 Analyzed: 12/29/2016					
1,1,1,2-Tetrachloroethane	42.6400	5.0	50.0000	ND	85.3	45 - 124			
1,1,1-Trichloroethane	52.3100	5.0	50.0000	ND	105	53 - 125			
1,1,2,2-Tetrachloroethane	38.4100	5.0	50.0000	ND	76.8	42 - 117			
1,1,2-Trichloroethane	40.1800	5.0	50.0000	ND	80.4	48 - 120			
1,1-Dichloroethane	52.4800	5.0	50.0000	ND	105	54 - 116			
1,1-Dichloroethene	54.3400	5.0	50.0000	ND	109	47 - 123			
1,1-Dichloropropene	48.1000	5.0	50.0000	ND	96.2	48 - 126			
1,2,3-Trichloropropane	35.7000	5.0	50.0000	ND	71.4	46 - 118			
1,2,3-Trichlorobenzene	20.2500	5.0	50.0000	ND	40.5	1 - 132			
1,2,4-Trichlorobenzene	25.4100	5.0	50.0000	ND	50.8	2 - 138			
1,2,4-Trimethylbenzene	37.6600	5.0	50.0000	ND	75.3	32 - 129			
1,2-Dibromo-3-chloropropane	36.9700	10	50.0000	ND	73.9	34 - 130			
1,2-Dibromoethane	43.7300	5.0	50.0000	ND	87.5	45 - 125			
1,2-Dichlorobenzene	29.7500	5.0	50.0000	ND	59.5	25 - 130			
1,2-Dichloroethane	46.7900	5.0	50.0000	ND	93.6	51 - 119			
1,2-Dichloropropane	44.9100	5.0	50.0000	ND	89.8	54 - 113			
1,3,5-Trimethylbenzene	36.1200	5.0	50.0000	ND	72.2	34 - 128			
1,3-Dichlorobenzene	30.3900	5.0	50.0000	ND	60.8	26 - 130			
1,3-Dichloropropane	42.7000	5.0	50.0000	ND	85.4	53 - 117			
1,4-Dichlorobenzene	31.2400	5.0	50.0000	ND	62.5	26 - 130			
2,2-Dichloropropane	55.3400	5.0	50.0000	ND	111	52 - 128			
2-Chlorotoluene	34.1200	5.0	50.0000	ND	68.2	34 - 126			
4-Chlorotoluene	34.3800	5.0	50.0000	ND	68.8	32 - 128			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/05/2017

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B6L1067 - MSVOA_S (continued)									
Matrix Spike (B6L1067-MS1) - Continued		**Source: 1604882-02**		Prepared: 12/29/2016 Analyzed: 12/29/2016					
4-Isopropyltoluene	32.1100	5.0	50.0000	ND	64.2	28 - 133			
Benzene	93.4600	5.0	100.000	ND	93.5	55 - 113			
Bromobenzene	31.8000	5.0	50.0000	ND	63.6	36 - 122			
Bromochloromethane	42.3100	5.0	50.0000	ND	84.6	50 - 118			
Bromodichloromethane	45.1200	5.0	50.0000	ND	90.2	51 - 117			
Bromoform	40.5100	5.0	50.0000	ND	81.0	39 - 130			
Bromomethane	107.280	5.0	50.0000	ND	215	38 - 151			M1
Carbon disulfide	54.2000	5.0	50.0000	ND	108	38 - 126			
Carbon tetrachloride	54.1900	5.0	50.0000	ND	108	43 - 141			
Chlorobenzene	38.5500	5.0	50.0000	ND	77.1	42 - 122			
Chloroethane	70.8900	5.0	50.0000	ND	142	42 - 129			M1
Chloroform	46.5700	5.0	50.0000	ND	93.1	56 - 117			
Chloromethane	50.4200	5.0	50.0000	ND	101	35 - 127			
cis-1,2-Dichloroethene	47.3700	5.0	50.0000	ND	94.7	50 - 118			
cis-1,3-Dichloropropene	47.0500	5.0	50.0000	ND	94.1	45 - 118			
Di-isopropyl ether	48.4900	5.0	50.0000	ND	97.0	51 - 119			
Dibromochloromethane	41.7300	5.0	50.0000	ND	83.5	47 - 120			
Dibromomethane	41.8400	5.0	50.0000	ND	83.7	48 - 118			
Dichlorodifluoromethane	68.1200	5.0	50.0000	ND	136	43 - 126			M1
Ethyl Acetate	498.910	50	500.000	ND	99.8	22 - 145			
Ethyl Ether	606.800	50	500.000	ND	121	49 - 114			M1
Ethyl tert-butyl ether	56.2300	5.0	50.0000	ND	112	54 - 120			
Ethylbenzene	75.8900	5.0	100.000	ND	75.9	42 - 123			
Freon-113	51.3100	5.0	50.0000	ND	103	45 - 132			
Hexachlorobutadiene	19.2300	5.0	50.0000	ND	38.5	4 - 135			
Isopropylbenzene	39.5400	5.0	50.0000	ND	79.1	40 - 127			
m,p-Xylene	78.9100	10	100.000	ND	78.9	39 - 127			
Methylene chloride	41.7600	5.0	50.0000	ND	83.5	51 - 140			
MTBE	47.1400	5.0	50.0000	ND	94.3	52 - 120			
n-Butylbenzene	31.0900	5.0	50.0000	ND	62.2	19 - 141			
n-Propylbenzene	34.4700	5.0	50.0000	ND	68.9	34 - 131			
Naphthalene	30.9700	5.0	50.0000	ND	61.9	11 - 136			
o-Xylene	76.2500	5.0	100.000	ND	76.2	40 - 124			
sec-Butylbenzene	32.3000	5.0	50.0000	ND	64.6	29 - 132			
Styrene	40.6300	5.0	50.0000	ND	81.3	36 - 130			
tert-Amyl methyl ether	47.7800	5.0	50.0000	ND	95.6	49 - 119			
tert-Butanol	235.460	100	250.000	ND	94.2	29 - 138			
tert-Butylbenzene	34.2000	5.0	50.0000	ND	68.4	34 - 129			
Tetrachloroethene	36.6800	5.0	50.0000	ND	73.4	37 - 132			
Toluene	88.0300	5.0	100.000	ND	88.0	48 - 122			
trans-1,2-Dichloroethene	48.7500	5.0	50.0000	ND	97.5	51 - 123			
trans-1,3-Dichloropropene	42.0400	5.0	50.0000	ND	84.1	38 - 125			

Leighton Consulting, Inc.
17781 Cowan Street
Irvine , CA 92614

Project Number : Burroughs MS-LAUSD, 603378.006
Report To : Julie Harriman
Reported : 01/05/2017

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B6L1067 - MSVOA_S (continued)									
Matrix Spike (B6L1067-MS1) - Continued		**Source: 1604882-02**		Prepared: 12/29/2016 Analyzed: 12/29/2016					
Trichloroethene	45.0600	5.0	50.0000	ND	90.1	41 - 136			
Trichlorofluoromethane	58.0100	5.0	50.0000	ND	116	44 - 126			
Vinyl acetate	526.140	50	500.000	ND	105	0 - 154			
Vinyl chloride	58.7700	5.0	50.0000	ND	118	47 - 122			
Surrogate: 1,2-Dichloroethane-d4	*55.91*		*50.0000*		*112*	*12 - 186*			
Surrogate: 4-Bromofluorobenzene	*53.96*		*50.0000*		*108*	*23 - 162*			
Surrogate: Dibromofluoromethane	*51.57*		*50.0000*		*103*	*23 - 179*			
Surrogate: Toluene-d8	*53.36*		*50.0000*		*107*	*26 - 164*			
Matrix Spike Dup (B6L1067-MSD1)		**Source: 1604882-02**		Prepared: 12/29/2016 Analyzed: 12/29/2016					
1,1,1,2-Tetrachloroethane	30.2500	5.0	50.0000	ND	60.5	45 - 124	34.0	20	R
1,1,1-Trichloroethane	39.3900	5.0	50.0000	ND	78.8	53 - 125	28.2	20	R
1,1,2,2-Tetrachloroethane	31.5200	5.0	50.0000	ND	63.0	42 - 117	19.7	20	
1,1,2-Trichloroethane	36.0900	5.0	50.0000	ND	72.2	48 - 120	10.7	20	
1,1-Dichloroethane	44.6800	5.0	50.0000	ND	89.4	54 - 116	16.1	20	
1,1-Dichloroethene	35.6300	5.0	50.0000	ND	71.3	47 - 123	41.6	20	R
1,1-Dichloropropene	33.8900	5.0	50.0000	ND	67.8	48 - 126	34.7	20	R
1,2,3-Trichloropropane	29.5200	5.0	50.0000	ND	59.0	46 - 118	19.0	20	
1,2,3-Trichlorobenzene	5.14000	5.0	50.0000	ND	10.3	1 - 132	119	20	R
1,2,4-Trichlorobenzene	8.41000	5.0	50.0000	ND	16.8	2 - 138	101	20	R
1,2,4-Trimethylbenzene	18.4400	5.0	50.0000	ND	36.9	32 - 129	68.5	20	R
1,2-Dibromo-3-chloropropane	26.6500	10	50.0000	ND	53.3	34 - 130	32.4	20	R
1,2-Dibromoethane	36.2400	5.0	50.0000	ND	72.5	45 - 125	18.7	20	
1,2-Dichlorobenzene	12.2600	5.0	50.0000	ND	24.5	25 - 130	83.3	20	M1, R
1,2-Dichloroethane	42.8500	5.0	50.0000	ND	85.7	51 - 119	8.79	20	
1,2-Dichloropropane	38.0200	5.0	50.0000	ND	76.0	54 - 113	16.6	20	
1,3,5-Trimethylbenzene	17.6100	5.0	50.0000	ND	35.2	34 - 128	68.9	20	R
1,3-Dichlorobenzene	15.0700	5.0	50.0000	ND	30.1	26 - 130	67.4	20	R
1,3-Dichloropropane	35.9600	5.0	50.0000	ND	71.9	53 - 117	17.1	20	
1,4-Dichlorobenzene	14.1100	5.0	50.0000	ND	28.2	26 - 130	75.5	20	R
2,2-Dichloropropane	44.3500	5.0	50.0000	ND	88.7	52 - 128	22.0	20	R
2-Chlorotoluene	18.0900	5.0	50.0000	ND	36.2	34 - 126	61.4	20	R
4-Chlorotoluene	18.4800	5.0	50.0000	ND	37.0	32 - 128	60.2	20	R
4-Isopropyltoluene	9.30000	5.0	50.0000	ND	18.6	28 - 133	110	20	M1, R
Benzene	76.2300	5.0	100.000	ND	76.2	55 - 113	20.3	20	R
Bromobenzene	20.1800	5.0	50.0000	ND	40.4	36 - 122	44.7	20	R
Bromochloromethane	38.2400	5.0	50.0000	ND	76.5	50 - 118	10.1	20	
Bromodichloromethane	37.8700	5.0	50.0000	ND	75.7	51 - 117	17.5	20	
Bromoform	31.4300	5.0	50.0000	ND	62.9	39 - 130	25.2	20	R
Bromomethane	94.1300	5.0	50.0000	ND	188	38 - 151	13.1	20	M1
Carbon disulfide	38.7200	5.0	50.0000	ND	77.4	38 - 126	33.3	20	R

Leighton Consulting, Inc.
17781 Cowan Street
Irvine , CA 92614

Project Number : Burroughs MS-LAUSD, 603378.006
Report To : Julie Harriman
Reported : 01/05/2017

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B6L1067 - MSVOA_S (continued)									
Matrix Spike Dup (B6L1067-MSD1) - Continued		**Source: 1604882-02**		Prepared: 12/29/2016 Analyzed: 12/29/2016					
Carbon tetrachloride	37.9500	5.0	50.0000	ND	75.9	43 - 141	35.3	20	R
Chlorobenzene	25.7800	5.0	50.0000	ND	51.6	42 - 122	39.7	20	R
Chloroethane	62.8200	5.0	50.0000	ND	126	42 - 129	12.1	20	
Chloroform	39.2500	5.0	50.0000	ND	78.5	56 - 117	17.1	20	
Chloromethane	44.1100	5.0	50.0000	ND	88.2	35 - 127	13.4	20	
cis-1,2-Dichloroethene	39.9200	5.0	50.0000	ND	79.8	50 - 118	17.1	20	
cis-1,3-Dichloropropene	41.1400	5.0	50.0000	ND	82.3	45 - 118	13.4	20	
Di-isopropyl ether	44.5600	5.0	50.0000	ND	89.1	51 - 119	8.45	20	
Dibromochloromethane	33.0600	5.0	50.0000	ND	66.1	47 - 120	23.2	20	R
Dibromomethane	37.6900	5.0	50.0000	ND	75.4	48 - 118	10.4	20	
Dichlorodifluoromethane	55.7600	5.0	50.0000	ND	112	43 - 126	20.0	20	
Ethyl Acetate	487.330	50	500.000	ND	97.5	22 - 145	2.35	20	
Ethyl Ether	576.900	50	500.000	ND	115	49 - 114	5.05	20	M1
Ethyl tert-butyl ether	52.8200	5.0	50.0000	ND	106	54 - 120	6.25	20	
Ethylbenzene	46.1100	5.0	100.000	ND	46.1	42 - 123	48.8	20	R
Freon-113	27.9800	5.0	50.0000	ND	56.0	45 - 132	58.8	20	R
Hexachlorobutadiene	5.41000	5.0	50.0000	ND	10.8	4 - 135	112	20	R
Isopropylbenzene	20.3400	5.0	50.0000	ND	40.7	40 - 127	64.1	20	R
m,p-Xylene	46.7700	10	100.000	ND	46.8	39 - 127	51.1	20	R
Methylene chloride	36.6900	5.0	50.0000	ND	73.4	51 - 140	12.9	20	
MTBE	45.4500	5.0	50.0000	ND	90.9	52 - 120	3.65	20	
n-Butylbenzene	6.75000	5.0	50.0000	ND	13.5	19 - 141	129	20	M1, R
n-Propylbenzene	16.7600	5.0	50.0000	ND	33.5	34 - 131	69.1	20	M1, R
Naphthalene	14.0500	5.0	50.0000	ND	28.1	11 - 136	75.2	20	R
o-Xylene	47.0900	5.0	100.000	ND	47.1	40 - 124	47.3	20	R
sec-Butylbenzene	10.3800	5.0	50.0000	ND	20.8	29 - 132	103	20	M1, R
Styrene	25.3400	5.0	50.0000	ND	50.7	36 - 130	46.4	20	R
tert-Amyl methyl ether	44.2800	5.0	50.0000	ND	88.6	49 - 119	7.60	20	
tert-Butanol	242.420	100	250.000	ND	97.0	29 - 138	2.91	20	
tert-Butylbenzene	14.2000	5.0	50.0000	ND	28.4	34 - 129	82.6	20	M1, R
Tetrachloroethene	20.6100	5.0	50.0000	ND	41.2	37 - 132	56.1	20	R
Toluene	63.9300	5.0	100.000	ND	63.9	48 - 122	31.7	20	R
trans-1,2-Dichloroethene	40.9300	5.0	50.0000	ND	81.9	51 - 123	17.4	20	
trans-1,3-Dichloropropene	35.0800	5.0	50.0000	ND	70.2	38 - 125	18.0	20	
Trichloroethene	32.0300	5.0	50.0000	ND	64.1	41 - 136	33.8	20	R
Trichlorofluoromethane	45.0800	5.0	50.0000	ND	90.2	44 - 126	25.1	20	R
Vinyl acetate	446.510	50	500.000	ND	89.3	0 - 154	16.4	20	
Vinyl chloride	52.2500	5.0	50.0000	ND	104	47 - 122	11.7	20	
Surrogate: 1,2-Dichloroethane-d4	*55.40*		*50.0000*		*111*	*12 - 186*			
Surrogate: 4-Bromofluorobenzene	*51.78*		*50.0000*		*104*	*23 - 162*			
Surrogate: Dibromofluoromethane	*49.93*		*50.0000*		*99.9*	*23 - 179*			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/05/2017

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B6L1067 - MSVOA_S (continued)									
Matrix Spike Dup (B6L1067-MSD1) - Continued			**Source: 1604882-02**		Prepared: 12/29/2016 Analyzed: 12/29/2016				
Surrogate: Toluene-d8	*51.31*		*50.0000*		*103*	*26 - 164*			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/05/2017

Notes and Definitions

S4	Surrogate was diluted out.
R	RPD value outside acceptance criteria. Calculation is based on raw values.
M1	Matrix spike recovery outside of acceptance limit. The analytical batch was validated by the laboratory control sample.
L5	Laboratory Control Sample high biased. Sample result/s was non-detect (ND) for the target analyte; therefore reanalysis was not necessary.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:
(1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
(2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
(3) Results are wet unless otherwise specified.

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 1 of 1

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☐ ATL	1. CHILLED	☐	☑	5. # OF SAMPLES MATCH COC	☑	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (V0A)	☐	☐	6. PRESERVED	☐	☑
☐ GSO	3. CONTAINER INTACT	☑	☐	7. COOLER TEMP, deg C:	—	
☐ Other: _____	4. SEALED	☐	☑			

CUSTOMER

Company: Leighton Consulting, Inc (LCI)
Address: 17781 Cowan
City: Irvine State: CA Zip: 92868
Tel: (949) 253-9836 Fax: (949) 250-1114

SEND REPORT TO:
Attn: Julie Harriman Email: jharriman@leightongroup.com
Company: LCI
Address: Same as Above
City: State: Zip:

SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Accounting/Accounts Payable Email: accpayable@leightongroup.com
Company: LCI
Address: Same as Above.
City: State: Zip:

PROJECT SAMPLES

Project Name: Burroughs MS - LAUSD
Project No.: 603378.0006
Sampler: RAL
Quote No:
PO #: 603378.0006
Special Instructions/Comments:

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	TPH-CC							HOLD	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE / FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	Container #	Container Type	Container Material	QA/QC	REMARKS
1		M-3-6.0	12/23/16	1320																X	X					5	1	1	2		
2		M-3-10.0		1325									X																		
3		M-3-12.5		1330									X																		
4		M-16-5.0		1410																X											
5		M-16-12.0		1415																X											
6		M-16-14.5	↓	1420																X	↓					↓	↓	↓	↓		
7																															
8																															
9																															
10																															

Encircle or Write Requested Analysis

Encircle Sample Matrix

Container: # | Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7=Canister | Material: 1=Glass; 2=Plastic; 3=Metal

Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4=4C; 5=Zn (Ac)2; 6=NaOH; 7=NA2S2O3

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

TAT

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for fi ve (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-fi ve (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Robert Lovdahl — Submitter Print Name
Signature

CUSTODY

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Robert Lovdahl	12/23/16	1650	FedEx	12/23/16	1650
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:

From: Julie Harriman [jharriman@leightongroup.com]
Sent: Friday, December 23, 2016 5:25 PM
To: Carmen Aguila
Subject: Fwd: BMS COC
Attachments: BMS COC 12.23.16.pdf

For this COC. Add VOCS for the 2 samples.
Thanks,
Julie

Sent from my Verizon 4G LTE smartphone

-------- Original message --------
From: Robert Lovdahl <rLovdahl@leightongroup.com>
Date: 12/23/16 5:24 PM (GMT-08:00)
To: Julie Harriman <jharriman@leightongroup.com>
Subject: BMS COC

Robert Lovdahl, PG

Project Geologist - Leighton

Cell – (949) 307-0527

Office – (949) 681-4282

ADVANCED TECHNOLOGY LABORATORIES

January 09, 2017

Julie Harriman
Leighton Consulting, Inc.
17781 Cowan Street
Irvine, CA 92614
Tel: (949) 250-1421
Fax:(949) 757-7230

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1604898
Client Reference : LAUSD-Burroughs MS, 603378.006

Enclosed are the results for sample(s) received on December 28, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FB10-1-0.5	1604898-01	Soil	12/28/16 9:10	12/28/16 17:00
FB10-1-1.5	1604898-02	Soil	12/28/16 9:13	12/28/16 17:00
FB10-1-2.5	1604898-03	Soil	12/28/16 9:15	12/28/16 17:00
FB10-2-0.5	1604898-04	Soil	12/28/16 8:50	12/28/16 17:00
FB10-2-1.5	1604898-05	Soil	12/28/16 8:55	12/28/16 17:00
FB10-2-2.5	1604898-06	Soil	12/28/16 9:00	12/28/16 17:00
FB10-3-0.5	1604898-07	Soil	12/28/16 8:22	12/28/16 17:00
FB10-3-1.5	1604898-08	Soil	12/28/16 8:24	12/28/16 17:00
FB10-3-2.5	1604898-09	Soil	12/28/16 8:25	12/28/16 17:00
FB10-4-0.5	1604898-10	Soil	12/28/16 8:15	12/28/16 17:00
FB10-4-1.5	1604898-11	Soil	12/28/16 8:18	12/28/16 17:00
FB10-4-2.5	1604898-12	Soil	12/28/16 9:25	12/28/16 17:00
FB16-1-0.5	1604898-13	Soil	12/28/16 7:45	12/28/16 17:00
FB16-1-1.5	1604898-14	Soil	12/28/16 7:50	12/28/16 17:00
FB16-1-2.5	1604898-15	Soil	12/28/16 7:54	12/28/16 17:00
FB16-2-0.5	1604898-16	Soil	12/28/16 7:51	12/28/16 17:00
FB16-2-1.5	1604898-17	Soil	12/28/16 7:54	12/28/16 17:00
FB16-2-2.5	1604898-18	Soil	12/28/16 7:56	12/28/16 17:00
FB16-3-0.5	1604898-19	Soil	12/28/16 8:02	12/28/16 17:00
FB16-3-1.5	1604898-20	Soil	12/28/16 8:05	12/28/16 17:00
FB16-3-2.5	1604898-21	Soil	12/28/16 8:08	12/28/16 17:00
FB16-4-0.5	1604898-22	Soil	12/28/16 7:45	12/28/16 17:00
FB16-4-1.5	1604898-23	Soil	12/28/16 7:50	12/28/16 17:00
FB16-4-2.5	1604898-24	Soil	12/28/16 7:54	12/28/16 17:00
FB11-1-0.5	1604898-25	Soil	12/28/16 11:45	12/28/16 17:00
FB11-1-1.5	1604898-26	Soil	12/28/16 11:50	12/28/16 17:00
FB11-1-2.5	1604898-27	Soil	12/28/16 11:55	12/28/16 17:00
FB11-2-0.5	1604898-28	Soil	12/28/16 11:10	12/28/16 17:00
FB11-2-1.5	1604898-29	Soil	12/28/16 11:15	12/28/16 17:00
FB11-2-2.5	1604898-30	Soil	12/28/16 11:20	12/28/16 17:00
FB11-3-0.5	1604898-31	Soil	12/28/16 11:47	12/28/16 17:00
FB11-3-1.5	1604898-32	Soil	12/28/16 11:52	12/28/16 17:00
FB11-3-2.5	1604898-33	Soil	12/28/16 11:57	12/28/16 17:00
FB11-4-0.5	1604898-34	Soil	12/28/16 11:17	12/28/16 17:00
FB11-4-1.5	1604898-35	Soil	12/28/16 11:22	12/28/16 17:00
FB11-4-2.5	1604898-36	Soil	12/28/16 11:25	12/28/16 17:00
FB12-1-0.5	1604898-37	Soil	12/28/16 10:49	12/28/16 17:00

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

FB12-1-1.5	1604898-38	Soil	12/28/16 10:53	12/28/16 17:00
FB12-1-2.5	1604898-39	Soil	12/28/16 10:55	12/28/16 17:00
FB13-1-0.5	1604898-40	Soil	12/28/16 10:50	12/28/16 17:00
FB13-1-1.5	1604898-41	Soil	12/28/16 10:54	12/28/16 17:00
FB13-1-2.5	1604898-42	Soil	12/28/16 10:56	12/28/16 17:00
FB14-1-0.5	1604898-43	Soil	12/28/16 10:30	12/28/16 17:00
FB14-1-1.5	1604898-44	Soil	12/28/16 10:36	12/28/16 17:00
FB14-1-2.5	1604898-45	Soil	12/28/16 10:40	12/28/16 17:00
FB14-2-0.5	1604898-46	Soil	12/28/16 10:00	12/28/16 17:00
FB14-2-1.5	1604898-47	Soil	12/28/16 10:10	12/28/16 17:00
FB14-2-2.5	1604898-48	Soil	12/28/16 10:20	12/28/16 17:00
FB14-3-0.5	1604898-49	Soil	12/28/16 9:50	12/28/16 17:00
FB14-3-1.5	1604898-50	Soil	12/28/16 9:53	12/28/16 17:00
FB14-3-2.5	1604898-51	Soil	12/28/16 9:55	12/28/16 17:00
FB14-4-0.5	1604898-52	Soil	12/28/16 9:52	12/28/16 17:00
FB14-4-1.5	1604898-53	Soil	12/28/16 9:54	12/28/16 17:00
FB14-4-2.5	1604898-54	Soil	12/28/16 9:56	12/28/16 17:00
FB14-5-0.5	1604898-55	Soil	12/28/16 10:10	12/28/16 17:00
FB14-5-1.5	1604898-56	Soil	12/28/16 10:15	12/28/16 17:00
FB14-5-2.5	1604898-57	Soil	12/28/16 10:20	12/28/16 17:00
FB14-6-0.5	1604898-58	Soil	12/28/16 10:32	12/28/16 17:00
FB14-6-1.5	1604898-59	Soil	12/28/16 10:35	12/28/16 17:00
FB14-6-2.5	1604898-60	Soil	12/28/16 10:38	12/28/16 17:00
EB11-1-0.5	1604898-61	Soil	12/28/16 14:15	12/28/16 17:00
EB11-1-1.5	1604898-62	Soil	12/28/16 14:20	12/28/16 17:00
EB11-2-0.5	1604898-64	Soil	12/28/16 14:12	12/28/16 17:00
EB11-2-1.5	1604898-65	Soil	12/28/16 14:18	12/28/16 17:00
EB12-1-0.5	1604898-67	Soil	12/28/16 14:00	12/28/16 17:00
EB12-1-1.5	1604898-68	Soil	12/28/16 14:05	12/28/16 17:00
EB12-2-0.5	1604898-70	Soil	12/28/16 14:02	12/28/16 17:00
EB12-2-1.5	1604898-71	Soil	12/28/16 14:07	12/28/16 17:00
EB9-1-0.5	1604898-73	Soil	12/28/16 13:07	12/28/16 17:00
EB9-1-1.5	1604898-74	Soil	12/28/16 13:12	12/28/16 17:00
EB9-5-0.5	1604898-76	Soil	12/28/16 14:05	12/28/16 17:00
EB9-5-1.5	1604898-77	Soil	12/28/16 14:10	12/28/16 17:00
EB9-7-0.5	1604898-79	Soil	12/28/16 13:05	12/28/16 17:00
EB9-7-1.5	1604898-80	Soil	12/28/16 13:10	12/28/16 17:00
EB9-7-2.5	1604898-81	Soil	12/28/16 13:15	12/28/16 17:00
EB10-2-0.5	1604898-82	Soil	12/28/16 14:25	12/28/16 17:00
FB5-1-0.5	1604898-83	Soil	12/28/16 14:35	12/28/16 17:00
FB5-1-1.5	1604898-84	Soil	12/28/16 14:40	12/28/16 17:00

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

FB5-1-2.5	1604898-85	Soil	12/28/16 14:47	12/28/16 17:00
FB5-2-0.5	1604898-86	Soil	12/28/16 14:32	12/28/16 17:00
FB5-2-1.5	1604898-87	Soil	12/28/16 14:37	12/28/16 17:00
FB5-2-2.5	1604898-88	Soil	12/28/16 14:40	12/28/16 17:00
EB13-1-0.5	1604898-89	Soil	12/28/16 13:25	12/28/16 17:00
EB13-1-1.5	1604898-90	Soil	12/28/16 13:30	12/28/16 17:00
EB13-2-0.5	1604898-92	Soil	12/28/16 13:26	12/28/16 17:00
EB13-2-1.5	1604898-93	Soil	12/28/16 13:31	12/28/16 17:00
EB15-1-0.5	1604898-95	Soil	12/28/16 13:40	12/28/16 17:00
EB15-1-1.5	1604898-96	Soil	12/28/16 13:45	12/28/16 17:00
EB15-2-0.5	1604898-98	Soil	12/28/16 13:50	12/28/16 17:00
EB15-2-1.5	1604898-99	Soil	12/28/16 13:55	12/28/16 17:00
EB1-1-1.0'	1604898-AB	Soil	12/28/16 15:30	12/28/16 17:00
EB1-1-5.0'	1604898-AC	Soil	12/28/16 15:40	12/28/16 17:00
EB1-1-10.0'	1604898-AD	Soil	12/28/16 16:03	12/28/16 17:00
EQB122816	1604898-AE	Water	12/28/16 15:30	12/28/16 17:00

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB10-1-0.5
Lab ID: 1604898-01

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.7**	1.0	0.70	1	B7A0113	01/05/2017	01/06/17 09:38	
Lead	**17**	1.0	0.11	1	B7A0113	01/05/2017	01/06/17 09:38	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0091	01/04/2017	01/05/17 09:41	
4,4´-DDE	ND	2.0	0.20	1	B7A0091	01/04/2017	01/05/17 09:41	
4,4´-DDT	ND	2.0	0.13	1	B7A0091	01/04/2017	01/05/17 09:41	
Aldrin	ND	1.0	0.27	1	B7A0091	01/04/2017	01/05/17 09:41	
alpha-BHC	ND	1.0	0.20	1	B7A0091	01/04/2017	01/05/17 09:41	
alpha-Chlordane	ND	1.0	0.21	1	B7A0091	01/04/2017	01/05/17 09:41	
beta-BHC	ND	1.0	0.23	1	B7A0091	01/04/2017	01/05/17 09:41	
Chlordane	ND	8.5	0.90	1	B7A0091	01/04/2017	01/05/17 09:41	
delta-BHC	ND	1.0	0.21	1	B7A0091	01/04/2017	01/05/17 09:41	
Dieldrin	ND	2.0	0.25	1	B7A0091	01/04/2017	01/05/17 09:41	
Endosulfan I	ND	1.0	0.21	1	B7A0091	01/04/2017	01/05/17 09:41	
Endosulfan II	ND	2.0	0.22	1	B7A0091	01/04/2017	01/05/17 09:41	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0091	01/04/2017	01/05/17 09:41	
Endrin	ND	2.0	0.23	1	B7A0091	01/04/2017	01/05/17 09:41	
Endrin aldehyde	ND	2.0	0.28	1	B7A0091	01/04/2017	01/05/17 09:41	
Endrin ketone	ND	2.0	0.20	1	B7A0091	01/04/2017	01/05/17 09:41	
gamma-BHC	ND	1.0	0.20	1	B7A0091	01/04/2017	01/05/17 09:41	
gamma-Chlordane	ND	1.0	0.23	1	B7A0091	01/04/2017	01/05/17 09:41	
Heptachlor	ND	1.0	0.19	1	B7A0091	01/04/2017	01/05/17 09:41	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0091	01/04/2017	01/05/17 09:41	
Methoxychlor	ND	5.0	0.18	1	B7A0091	01/04/2017	01/05/17 09:41	
Toxaphene	ND	50	8.2	1	B7A0091	01/04/2017	01/05/17 09:41	
Surrogate: Decachlorobiphenyl	*45.0 %*		*27 - 123*		B7A0091	01/04/2017	*01/05/17 09:41*	
Surrogate: Tetrachloro-m-xylene	*45.7 %*		*26 - 108*		B7A0091	01/04/2017	*01/05/17 09:41*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB10-1-0.5

Lab ID: 1604898-01

Polychlorinated Biphenyls by EPA 8082 **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B7A0091	01/04/2017	01/05/17 09:37	
Aroclor 1221	ND	16	1.5	1	B7A0091	01/04/2017	01/05/17 09:37	
Aroclor 1232	ND	16	1.5	1	B7A0091	01/04/2017	01/05/17 09:37	
Aroclor 1242	ND	16	1.5	1	B7A0091	01/04/2017	01/05/17 09:37	
Aroclor 1248	ND	16	1.5	1	B7A0091	01/04/2017	01/05/17 09:37	
Aroclor 1254	ND	16	1.5	1	B7A0091	01/04/2017	01/05/17 09:37	
Aroclor 1260	ND	16	1.5	1	B7A0091	01/04/2017	01/05/17 09:37	
Aroclor 1262	ND	16	1.5	1	B7A0091	01/04/2017	01/05/17 09:37	
Aroclor 1268	ND	16	1.5	1	B7A0091	01/04/2017	01/05/17 09:37	
Surrogate: Decachlorobiphenyl	*67.6 %*		*26 - 137*		B7A0091	01/04/2017	*01/05/17 09:37*	
Surrogate: Tetrachloro-m-xylene	*93.7 %*		*28 - 102*		B7A0091	01/04/2017	*01/05/17 09:37*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB10-1-1.5

Lab ID: 1604898-02

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.6**	1.0	0.70	1	B7A0113	01/05/2017	01/06/17 09:43	
Lead	**8.8**	1.0	0.11	1	B7A0113	01/05/2017	01/06/17 09:43	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0091	01/04/2017	01/05/17 09:51	
4,4´-DDE	ND	2.0	0.20	1	B7A0091	01/04/2017	01/05/17 09:51	
4,4´-DDT	ND	2.0	0.13	1	B7A0091	01/04/2017	01/05/17 09:51	
Aldrin	ND	1.0	0.27	1	B7A0091	01/04/2017	01/05/17 09:51	
alpha-BHC	ND	1.0	0.20	1	B7A0091	01/04/2017	01/05/17 09:51	
alpha-Chlordane	ND	1.0	0.21	1	B7A0091	01/04/2017	01/05/17 09:51	
beta-BHC	ND	1.0	0.23	1	B7A0091	01/04/2017	01/05/17 09:51	
Chlordane	ND	8.5	0.90	1	B7A0091	01/04/2017	01/05/17 09:51	
delta-BHC	ND	1.0	0.21	1	B7A0091	01/04/2017	01/05/17 09:51	
Dieldrin	ND	2.0	0.25	1	B7A0091	01/04/2017	01/05/17 09:51	
Endosulfan I	ND	1.0	0.21	1	B7A0091	01/04/2017	01/05/17 09:51	
Endosulfan II	ND	2.0	0.22	1	B7A0091	01/04/2017	01/05/17 09:51	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0091	01/04/2017	01/05/17 09:51	
Endrin	ND	2.0	0.23	1	B7A0091	01/04/2017	01/05/17 09:51	
Endrin aldehyde	ND	2.0	0.28	1	B7A0091	01/04/2017	01/05/17 09:51	
Endrin ketone	ND	2.0	0.20	1	B7A0091	01/04/2017	01/05/17 09:51	
gamma-BHC	ND	1.0	0.20	1	B7A0091	01/04/2017	01/05/17 09:51	
gamma-Chlordane	ND	1.0	0.23	1	B7A0091	01/04/2017	01/05/17 09:51	
Heptachlor	ND	1.0	0.19	1	B7A0091	01/04/2017	01/05/17 09:51	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0091	01/04/2017	01/05/17 09:51	
Methoxychlor	ND	5.0	0.18	1	B7A0091	01/04/2017	01/05/17 09:51	
Toxaphene	ND	50	8.2	1	B7A0091	01/04/2017	01/05/17 09:51	
Surrogate: Decachlorobiphenyl	*34.0 %*		*27 - 123*		B7A0091	01/04/2017	*01/05/17 09:51*	
Surrogate: Tetrachloro-m-xylene	*33.8 %*		*26 - 108*		B7A0091	01/04/2017	*01/05/17 09:51*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB10-1-2.5
Lab ID: 1604898-03

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.7**	1.0	0.70	1	B7A0113	01/05/2017	01/06/17 09:44	
Lead	**8.0**	1.0	0.11	1	B7A0113	01/05/2017	01/06/17 09:44	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	20	2.2	10	B7A0091	01/04/2017	01/05/17 10:01	D1
4,4´-DDE	ND	20	2.0	10	B7A0091	01/04/2017	01/05/17 10:01	D1
4,4´-DDT	ND	20	1.3	10	B7A0091	01/04/2017	01/05/17 10:01	D1
Aldrin	ND	10	2.7	10	B7A0091	01/04/2017	01/05/17 10:01	D1
alpha-BHC	ND	10	2.0	10	B7A0091	01/04/2017	01/05/17 10:01	D1
alpha-Chlordane	ND	10	2.1	10	B7A0091	01/04/2017	01/05/17 10:01	D1
beta-BHC	ND	10	2.3	10	B7A0091	01/04/2017	01/05/17 10:01	D1
Chlordane	ND	85	9.0	10	B7A0091	01/04/2017	01/05/17 10:01	D1
delta-BHC	ND	10	2.1	10	B7A0091	01/04/2017	01/05/17 10:01	D1
Dieldrin	ND	20	2.5	10	B7A0091	01/04/2017	01/05/17 10:01	D1
Endosulfan I	ND	10	2.1	10	B7A0091	01/04/2017	01/05/17 10:01	D1
Endosulfan II	ND	20	2.2	10	B7A0091	01/04/2017	01/05/17 10:01	D1
Endosulfan sulfate	ND	20	2.1	10	B7A0091	01/04/2017	01/05/17 10:01	D1
Endrin	ND	20	2.3	10	B7A0091	01/04/2017	01/05/17 10:01	D1
Endrin aldehyde	ND	20	2.8	10	B7A0091	01/04/2017	01/05/17 10:01	D1
Endrin ketone	ND	20	2.0	10	B7A0091	01/04/2017	01/05/17 10:01	D1
gamma-BHC	ND	10	2.0	10	B7A0091	01/04/2017	01/05/17 10:01	D1
gamma-Chlordane	ND	10	2.3	10	B7A0091	01/04/2017	01/05/17 10:01	D1
Heptachlor	ND	10	1.9	10	B7A0091	01/04/2017	01/05/17 10:01	D1
Heptachlor epoxide	ND	10	2.0	10	B7A0091	01/04/2017	01/05/17 10:01	D1
Methoxychlor	ND	50	1.8	10	B7A0091	01/04/2017	01/05/17 10:01	D1
Toxaphene	ND	500	82	10	B7A0091	01/04/2017	01/05/17 10:01	D1
Surrogate: Decachlorobiphenyl	*46.7 %*		*27 - 123*		B7A0091	01/04/2017	*01/05/17 10:01*	
Surrogate: Tetrachloro-m-xylene	*29.9 %*		*26 - 108*		B7A0091	01/04/2017	*01/05/17 10:01*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB10-2-0.5

Lab ID: 1604898-04

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.8**	1.0	0.70	1	B7A0113	01/05/2017	01/06/17 09:45	
Lead	**6.8**	1.0	0.11	1	B7A0113	01/05/2017	01/06/17 09:45	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0091	01/04/2017	01/05/17 10:12	
4,4´-DDE	ND	2.0	0.20	1	B7A0091	01/04/2017	01/05/17 10:12	
4,4´-DDT	ND	2.0	0.13	1	B7A0091	01/04/2017	01/05/17 10:12	
Aldrin	ND	1.0	0.27	1	B7A0091	01/04/2017	01/05/17 10:12	
alpha-BHC	ND	1.0	0.20	1	B7A0091	01/04/2017	01/05/17 10:12	
alpha-Chlordane	ND	1.0	0.21	1	B7A0091	01/04/2017	01/05/17 10:12	
beta-BHC	ND	1.0	0.23	1	B7A0091	01/04/2017	01/05/17 10:12	
Chlordane	ND	8.5	0.90	1	B7A0091	01/04/2017	01/05/17 10:12	
delta-BHC	ND	1.0	0.21	1	B7A0091	01/04/2017	01/05/17 10:12	
Dieldrin	ND	2.0	0.25	1	B7A0091	01/04/2017	01/05/17 10:12	
Endosulfan I	ND	1.0	0.21	1	B7A0091	01/04/2017	01/05/17 10:12	
Endosulfan II	ND	2.0	0.22	1	B7A0091	01/04/2017	01/05/17 10:12	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0091	01/04/2017	01/05/17 10:12	
Endrin	ND	2.0	0.23	1	B7A0091	01/04/2017	01/05/17 10:12	
Endrin aldehyde	ND	2.0	0.28	1	B7A0091	01/04/2017	01/05/17 10:12	
Endrin ketone	ND	2.0	0.20	1	B7A0091	01/04/2017	01/05/17 10:12	
gamma-BHC	ND	1.0	0.20	1	B7A0091	01/04/2017	01/05/17 10:12	
gamma-Chlordane	ND	1.0	0.23	1	B7A0091	01/04/2017	01/05/17 10:12	
Heptachlor	ND	1.0	0.19	1	B7A0091	01/04/2017	01/05/17 10:12	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0091	01/04/2017	01/05/17 10:12	
Methoxychlor	ND	5.0	0.18	1	B7A0091	01/04/2017	01/05/17 10:12	
Toxaphene	ND	50	8.2	1	B7A0091	01/04/2017	01/05/17 10:12	
Surrogate: Decachlorobiphenyl	*38.0 %*		*27 - 123*		B7A0091	01/04/2017	*01/05/17 10:12*	
Surrogate: Tetrachloro-m-xylene	*43.1 %*		*26 - 108*		B7A0091	01/04/2017	*01/05/17 10:12*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB10-2-1.5
Lab ID: 1604898-05

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.7**	1.0	0.70	1	B7A0113	01/05/2017	01/06/17 09:46	
Lead	**3.8**	1.0	0.11	1	B7A0113	01/05/2017	01/06/17 09:46	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0091	01/04/2017	01/05/17 10:22	
4,4´-DDE	ND	2.0	0.20	1	B7A0091	01/04/2017	01/05/17 10:22	
4,4´-DDT	ND	2.0	0.13	1	B7A0091	01/04/2017	01/05/17 10:22	
Aldrin	ND	1.0	0.27	1	B7A0091	01/04/2017	01/05/17 10:22	
alpha-BHC	ND	1.0	0.20	1	B7A0091	01/04/2017	01/05/17 10:22	
alpha-Chlordane	ND	1.0	0.21	1	B7A0091	01/04/2017	01/05/17 10:22	
beta-BHC	ND	1.0	0.23	1	B7A0091	01/04/2017	01/05/17 10:22	
Chlordane	ND	8.5	0.90	1	B7A0091	01/04/2017	01/05/17 10:22	
delta-BHC	ND	1.0	0.21	1	B7A0091	01/04/2017	01/05/17 10:22	
Dieldrin	ND	2.0	0.25	1	B7A0091	01/04/2017	01/05/17 10:22	
Endosulfan I	ND	1.0	0.21	1	B7A0091	01/04/2017	01/05/17 10:22	
Endosulfan II	ND	2.0	0.22	1	B7A0091	01/04/2017	01/05/17 10:22	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0091	01/04/2017	01/05/17 10:22	
Endrin	ND	2.0	0.23	1	B7A0091	01/04/2017	01/05/17 10:22	
Endrin aldehyde	ND	2.0	0.28	1	B7A0091	01/04/2017	01/05/17 10:22	
Endrin ketone	ND	2.0	0.20	1	B7A0091	01/04/2017	01/05/17 10:22	
gamma-BHC	ND	1.0	0.20	1	B7A0091	01/04/2017	01/05/17 10:22	
gamma-Chlordane	ND	1.0	0.23	1	B7A0091	01/04/2017	01/05/17 10:22	
Heptachlor	ND	1.0	0.19	1	B7A0091	01/04/2017	01/05/17 10:22	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0091	01/04/2017	01/05/17 10:22	
Methoxychlor	ND	5.0	0.18	1	B7A0091	01/04/2017	01/05/17 10:22	
Toxaphene	ND	50	8.2	1	B7A0091	01/04/2017	01/05/17 10:22	
Surrogate: Decachlorobiphenyl	*36.4 %*		*27 - 123*		B7A0091	01/04/2017	*01/05/17 10:22*	
Surrogate: Tetrachloro-m-xylene	*42.1 %*		*26 - 108*		B7A0091	01/04/2017	*01/05/17 10:22*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB10-2-2.5
Lab ID: 1604898-06

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.6**	1.0	0.70	1	B7A0113	01/05/2017	01/06/17 09:50	
Lead	**4.3**	1.0	0.11	1	B7A0113	01/05/2017	01/06/17 09:50	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0091	01/04/2017	01/05/17 10:33	
4,4´-DDE	ND	2.0	0.20	1	B7A0091	01/04/2017	01/05/17 10:33	
4,4´-DDT	ND	2.0	0.13	1	B7A0091	01/04/2017	01/05/17 10:33	
Aldrin	ND	1.0	0.27	1	B7A0091	01/04/2017	01/05/17 10:33	
alpha-BHC	ND	1.0	0.20	1	B7A0091	01/04/2017	01/05/17 10:33	
alpha-Chlordane	ND	1.0	0.21	1	B7A0091	01/04/2017	01/05/17 10:33	
beta-BHC	ND	1.0	0.23	1	B7A0091	01/04/2017	01/05/17 10:33	
Chlordane	ND	8.5	0.90	1	B7A0091	01/04/2017	01/05/17 10:33	
delta-BHC	ND	1.0	0.21	1	B7A0091	01/04/2017	01/05/17 10:33	
Dieldrin	ND	2.0	0.25	1	B7A0091	01/04/2017	01/05/17 10:33	
Endosulfan I	ND	1.0	0.21	1	B7A0091	01/04/2017	01/05/17 10:33	
Endosulfan II	ND	2.0	0.22	1	B7A0091	01/04/2017	01/05/17 10:33	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0091	01/04/2017	01/05/17 10:33	
Endrin	ND	2.0	0.23	1	B7A0091	01/04/2017	01/05/17 10:33	
Endrin aldehyde	ND	2.0	0.28	1	B7A0091	01/04/2017	01/05/17 10:33	
Endrin ketone	ND	2.0	0.20	1	B7A0091	01/04/2017	01/05/17 10:33	
gamma-BHC	ND	1.0	0.20	1	B7A0091	01/04/2017	01/05/17 10:33	
gamma-Chlordane	ND	1.0	0.23	1	B7A0091	01/04/2017	01/05/17 10:33	
Heptachlor	ND	1.0	0.19	1	B7A0091	01/04/2017	01/05/17 10:33	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0091	01/04/2017	01/05/17 10:33	
Methoxychlor	ND	5.0	0.18	1	B7A0091	01/04/2017	01/05/17 10:33	
Toxaphene	ND	50	8.2	1	B7A0091	01/04/2017	01/05/17 10:33	
Surrogate: Decachlorobiphenyl	*41.9 %*		*27 - 123*		B7A0091	01/04/2017	*01/05/17 10:33*	
Surrogate: Tetrachloro-m-xylene	*45.9 %*		*26 - 108*		B7A0091	01/04/2017	*01/05/17 10:33*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB10-3-0.5

Lab ID: 1604898-07

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.6**	1.0	0.70	1	B7A0113	01/05/2017	01/06/17 09:51	
Lead	**9.1**	1.0	0.11	1	B7A0113	01/05/2017	01/06/17 09:51	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0091	01/04/2017	01/05/17 10:43	
4,4´-DDE	ND	2.0	0.20	1	B7A0091	01/04/2017	01/05/17 10:43	
4,4´-DDT	ND	2.0	0.13	1	B7A0091	01/04/2017	01/05/17 10:43	
Aldrin	ND	1.0	0.27	1	B7A0091	01/04/2017	01/05/17 10:43	
alpha-BHC	ND	1.0	0.20	1	B7A0091	01/04/2017	01/05/17 10:43	
alpha-Chlordane	ND	1.0	0.21	1	B7A0091	01/04/2017	01/05/17 10:43	
beta-BHC	ND	1.0	0.23	1	B7A0091	01/04/2017	01/05/17 10:43	
Chlordane	**2.3**	8.5	0.90	1	B7A0091	01/04/2017	01/05/17 10:43	J
delta-BHC	ND	1.0	0.21	1	B7A0091	01/04/2017	01/05/17 10:43	
Dieldrin	ND	2.0	0.25	1	B7A0091	01/04/2017	01/05/17 10:43	
Endosulfan I	ND	1.0	0.21	1	B7A0091	01/04/2017	01/05/17 10:43	
Endosulfan II	ND	2.0	0.22	1	B7A0091	01/04/2017	01/05/17 10:43	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0091	01/04/2017	01/05/17 10:43	
Endrin	ND	2.0	0.23	1	B7A0091	01/04/2017	01/05/17 10:43	
Endrin aldehyde	ND	2.0	0.28	1	B7A0091	01/04/2017	01/05/17 10:43	
Endrin ketone	ND	2.0	0.20	1	B7A0091	01/04/2017	01/05/17 10:43	
gamma-BHC	ND	1.0	0.20	1	B7A0091	01/04/2017	01/05/17 10:43	
gamma-Chlordane [2C]	**0.24**	1.0	0.23	1	B7A0091	01/04/2017	01/05/17 10:43	J
Heptachlor	ND	1.0	0.19	1	B7A0091	01/04/2017	01/05/17 10:43	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0091	01/04/2017	01/05/17 10:43	
Methoxychlor	ND	5.0	0.18	1	B7A0091	01/04/2017	01/05/17 10:43	
Toxaphene	ND	50	8.2	1	B7A0091	01/04/2017	01/05/17 10:43	
Surrogate: Decachlorobiphenyl	*23.0 %*		*27 - 123*		B7A0091	01/04/2017	*01/05/17 10:43*	S2
Surrogate: Tetrachloro-m-xylene	*27.8 %*		*26 - 108*		B7A0091	01/04/2017	*01/05/17 10:43*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB10-3-1.5

Lab ID: 1604898-08

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.3**	1.0	0.70	1	B7A0113	01/05/2017	01/06/17 09:52	
Lead	**4.3**	1.0	0.11	1	B7A0113	01/05/2017	01/06/17 09:52	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0091	01/04/2017	01/05/17 10:54	
4,4´-DDE	ND	2.0	0.20	1	B7A0091	01/04/2017	01/05/17 10:54	
4,4´-DDT	ND	2.0	0.13	1	B7A0091	01/04/2017	01/05/17 10:54	
Aldrin	ND	1.0	0.27	1	B7A0091	01/04/2017	01/05/17 10:54	
alpha-BHC	ND	1.0	0.20	1	B7A0091	01/04/2017	01/05/17 10:54	
alpha-Chlordane	ND	1.0	0.21	1	B7A0091	01/04/2017	01/05/17 10:54	
beta-BHC	ND	1.0	0.23	1	B7A0091	01/04/2017	01/05/17 10:54	
Chlordane	ND	8.5	0.90	1	B7A0091	01/04/2017	01/05/17 10:54	
delta-BHC	ND	1.0	0.21	1	B7A0091	01/04/2017	01/05/17 10:54	
Dieldrin	ND	2.0	0.25	1	B7A0091	01/04/2017	01/05/17 10:54	
Endosulfan I	ND	1.0	0.21	1	B7A0091	01/04/2017	01/05/17 10:54	
Endosulfan II	ND	2.0	0.22	1	B7A0091	01/04/2017	01/05/17 10:54	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0091	01/04/2017	01/05/17 10:54	
Endrin	ND	2.0	0.23	1	B7A0091	01/04/2017	01/05/17 10:54	
Endrin aldehyde	ND	2.0	0.28	1	B7A0091	01/04/2017	01/05/17 10:54	
Endrin ketone	ND	2.0	0.20	1	B7A0091	01/04/2017	01/05/17 10:54	
gamma-BHC	ND	1.0	0.20	1	B7A0091	01/04/2017	01/05/17 10:54	
gamma-Chlordane	ND	1.0	0.23	1	B7A0091	01/04/2017	01/05/17 10:54	
Heptachlor	ND	1.0	0.19	1	B7A0091	01/04/2017	01/05/17 10:54	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0091	01/04/2017	01/05/17 10:54	
Methoxychlor	ND	5.0	0.18	1	B7A0091	01/04/2017	01/05/17 10:54	
Toxaphene	ND	50	8.2	1	B7A0091	01/04/2017	01/05/17 10:54	
Surrogate: Decachlorobiphenyl	*43.8 %*		*27 - 123*		B7A0091	01/04/2017	*01/05/17 10:54*	
Surrogate: Tetrachloro-m-xylene	*46.7 %*		*26 - 108*		B7A0091	01/04/2017	*01/05/17 10:54*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB10-3-2.5
Lab ID: 1604898-09

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.7**	1.0	0.70	1	B7A0113	01/05/2017	01/06/17 09:53	
Lead	**15**	1.0	0.11	1	B7A0113	01/05/2017	01/06/17 09:53	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0091	01/04/2017	01/05/17 11:04	
4,4´-DDE	ND	2.0	0.20	1	B7A0091	01/04/2017	01/05/17 11:04	
4,4´-DDT	ND	2.0	0.13	1	B7A0091	01/04/2017	01/05/17 11:04	
Aldrin	ND	1.0	0.27	1	B7A0091	01/04/2017	01/05/17 11:04	
alpha-BHC	ND	1.0	0.20	1	B7A0091	01/04/2017	01/05/17 11:04	
alpha-Chlordane	ND	1.0	0.21	1	B7A0091	01/04/2017	01/05/17 11:04	
beta-BHC	ND	1.0	0.23	1	B7A0091	01/04/2017	01/05/17 11:04	
Chlordane	ND	8.5	0.90	1	B7A0091	01/04/2017	01/05/17 11:04	
delta-BHC	ND	1.0	0.21	1	B7A0091	01/04/2017	01/05/17 11:04	
Dieldrin	ND	2.0	0.25	1	B7A0091	01/04/2017	01/05/17 11:04	
Endosulfan I	ND	1.0	0.21	1	B7A0091	01/04/2017	01/05/17 11:04	
Endosulfan II	ND	2.0	0.22	1	B7A0091	01/04/2017	01/05/17 11:04	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0091	01/04/2017	01/05/17 11:04	
Endrin	ND	2.0	0.23	1	B7A0091	01/04/2017	01/05/17 11:04	
Endrin aldehyde	ND	2.0	0.28	1	B7A0091	01/04/2017	01/05/17 11:04	
Endrin ketone	ND	2.0	0.20	1	B7A0091	01/04/2017	01/05/17 11:04	
gamma-BHC	ND	1.0	0.20	1	B7A0091	01/04/2017	01/05/17 11:04	
gamma-Chlordane	ND	1.0	0.23	1	B7A0091	01/04/2017	01/05/17 11:04	
Heptachlor	ND	1.0	0.19	1	B7A0091	01/04/2017	01/05/17 11:04	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0091	01/04/2017	01/05/17 11:04	
Methoxychlor	ND	5.0	0.18	1	B7A0091	01/04/2017	01/05/17 11:04	
Toxaphene	ND	50	8.2	1	B7A0091	01/04/2017	01/05/17 11:04	
Surrogate: Decachlorobiphenyl	*36.9 %*		*27 - 123*		B7A0091	01/04/2017	*01/05/17 11:04*	
Surrogate: Tetrachloro-m-xylene	*44.7 %*		*26 - 108*		B7A0091	01/04/2017	*01/05/17 11:04*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB10-4-0.5
Lab ID: 1604898-10

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.7**	1.0	0.70	1	B7A0113	01/05/2017	01/06/17 09:54	
Lead	**28**	1.0	0.11	1	B7A0113	01/05/2017	01/06/17 09:54	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0091	01/04/2017	01/05/17 11:15	
4,4´-DDE	ND	2.0	0.20	1	B7A0091	01/04/2017	01/05/17 11:15	
4,4´-DDT	**0.23**	2.0	0.13	1	B7A0091	01/04/2017	01/05/17 11:15	J
Aldrin	ND	1.0	0.27	1	B7A0091	01/04/2017	01/05/17 11:15	
alpha-BHC	ND	1.0	0.20	1	B7A0091	01/04/2017	01/05/17 11:15	
alpha-Chlordane	**0.24**	1.0	0.21	1	B7A0091	01/04/2017	01/05/17 11:15	J
beta-BHC	ND	1.0	0.23	1	B7A0091	01/04/2017	01/05/17 11:15	
Chlordane	**2.7**	8.5	0.90	1	B7A0091	01/04/2017	01/05/17 11:15	J
delta-BHC	ND	1.0	0.21	1	B7A0091	01/04/2017	01/05/17 11:15	
Dieldrin	ND	2.0	0.25	1	B7A0091	01/04/2017	01/05/17 11:15	
Endosulfan I	ND	1.0	0.21	1	B7A0091	01/04/2017	01/05/17 11:15	
Endosulfan II	ND	2.0	0.22	1	B7A0091	01/04/2017	01/05/17 11:15	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0091	01/04/2017	01/05/17 11:15	
Endrin	ND	2.0	0.23	1	B7A0091	01/04/2017	01/05/17 11:15	
Endrin aldehyde	ND	2.0	0.28	1	B7A0091	01/04/2017	01/05/17 11:15	
Endrin ketone	ND	2.0	0.20	1	B7A0091	01/04/2017	01/05/17 11:15	
gamma-BHC	ND	1.0	0.20	1	B7A0091	01/04/2017	01/05/17 11:15	
gamma-Chlordane [2C]	**0.27**	1.0	0.23	1	B7A0091	01/04/2017	01/05/17 11:15	J
Heptachlor	ND	1.0	0.19	1	B7A0091	01/04/2017	01/05/17 11:15	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0091	01/04/2017	01/05/17 11:15	
Methoxychlor	ND	5.0	0.18	1	B7A0091	01/04/2017	01/05/17 11:15	
Toxaphene	ND	50	8.2	1	B7A0091	01/04/2017	01/05/17 11:15	
Surrogate: Decachlorobiphenyl	*15.8 %*	*27 - 123*			B7A0091	01/04/2017	*01/05/17 11:15*	S2
Surrogate: Tetrachloro-m-xylene	*19.2 %*	*26 - 108*			B7A0091	01/04/2017	*01/05/17 11:15*	S2

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB10-4-1.5

Lab ID: 1604898-11

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.1**	1.0	0.70	1	B7A0113	01/05/2017	01/06/17 09:56	
Lead	**3.8**	1.0	0.11	1	B7A0113	01/05/2017	01/06/17 09:56	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0091	01/04/2017	01/05/17 11:25	
4,4´-DDE	ND	2.0	0.20	1	B7A0091	01/04/2017	01/05/17 11:25	
4,4´-DDT	ND	2.0	0.13	1	B7A0091	01/04/2017	01/05/17 11:25	
Aldrin	ND	1.0	0.27	1	B7A0091	01/04/2017	01/05/17 11:25	
alpha-BHC	ND	1.0	0.20	1	B7A0091	01/04/2017	01/05/17 11:25	
alpha-Chlordane	ND	1.0	0.21	1	B7A0091	01/04/2017	01/05/17 11:25	
beta-BHC	ND	1.0	0.23	1	B7A0091	01/04/2017	01/05/17 11:25	
Chlordane	ND	8.5	0.90	1	B7A0091	01/04/2017	01/05/17 11:25	
delta-BHC	ND	1.0	0.21	1	B7A0091	01/04/2017	01/05/17 11:25	
Dieldrin	ND	2.0	0.25	1	B7A0091	01/04/2017	01/05/17 11:25	
Endosulfan I	ND	1.0	0.21	1	B7A0091	01/04/2017	01/05/17 11:25	
Endosulfan II	ND	2.0	0.22	1	B7A0091	01/04/2017	01/05/17 11:25	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0091	01/04/2017	01/05/17 11:25	
Endrin	ND	2.0	0.23	1	B7A0091	01/04/2017	01/05/17 11:25	
Endrin aldehyde	ND	2.0	0.28	1	B7A0091	01/04/2017	01/05/17 11:25	
Endrin ketone	ND	2.0	0.20	1	B7A0091	01/04/2017	01/05/17 11:25	
gamma-BHC	ND	1.0	0.20	1	B7A0091	01/04/2017	01/05/17 11:25	
gamma-Chlordane	ND	1.0	0.23	1	B7A0091	01/04/2017	01/05/17 11:25	
Heptachlor	ND	1.0	0.19	1	B7A0091	01/04/2017	01/05/17 11:25	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0091	01/04/2017	01/05/17 11:25	
Methoxychlor	ND	5.0	0.18	1	B7A0091	01/04/2017	01/05/17 11:25	
Toxaphene	ND	50	8.2	1	B7A0091	01/04/2017	01/05/17 11:25	
Surrogate: Decachlorobiphenyl	*40.8 %*		*27 - 123*		B7A0091	01/04/2017	*01/05/17 11:25*	
Surrogate: Tetrachloro-m-xylene	*35.0 %*		*26 - 108*		B7A0091	01/04/2017	*01/05/17 11:25*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB10-4-2.5

Lab ID: 1604898-12

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.4**	1.0	0.70	1	B7A0113	01/05/2017	01/06/17 09:57	
Lead	**3.0**	1.0	0.11	1	B7A0113	01/05/2017	01/06/17 09:57	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0091	01/04/2017	01/05/17 11:35	
4,4´-DDE	ND	2.0	0.20	1	B7A0091	01/04/2017	01/05/17 11:35	
4,4´-DDT	ND	2.0	0.13	1	B7A0091	01/04/2017	01/05/17 11:35	
Aldrin	ND	1.0	0.27	1	B7A0091	01/04/2017	01/05/17 11:35	
alpha-BHC	ND	1.0	0.20	1	B7A0091	01/04/2017	01/05/17 11:35	
alpha-Chlordane	ND	1.0	0.21	1	B7A0091	01/04/2017	01/05/17 11:35	
beta-BHC	ND	1.0	0.23	1	B7A0091	01/04/2017	01/05/17 11:35	
Chlordane	ND	8.5	0.90	1	B7A0091	01/04/2017	01/05/17 11:35	
delta-BHC	ND	1.0	0.21	1	B7A0091	01/04/2017	01/05/17 11:35	
Dieldrin	ND	2.0	0.25	1	B7A0091	01/04/2017	01/05/17 11:35	
Endosulfan I	ND	1.0	0.21	1	B7A0091	01/04/2017	01/05/17 11:35	
Endosulfan II	ND	2.0	0.22	1	B7A0091	01/04/2017	01/05/17 11:35	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0091	01/04/2017	01/05/17 11:35	
Endrin	ND	2.0	0.23	1	B7A0091	01/04/2017	01/05/17 11:35	
Endrin aldehyde	ND	2.0	0.28	1	B7A0091	01/04/2017	01/05/17 11:35	
Endrin ketone	ND	2.0	0.20	1	B7A0091	01/04/2017	01/05/17 11:35	
gamma-BHC	ND	1.0	0.20	1	B7A0091	01/04/2017	01/05/17 11:35	
gamma-Chlordane	ND	1.0	0.23	1	B7A0091	01/04/2017	01/05/17 11:35	
Heptachlor	ND	1.0	0.19	1	B7A0091	01/04/2017	01/05/17 11:35	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0091	01/04/2017	01/05/17 11:35	
Methoxychlor	ND	5.0	0.18	1	B7A0091	01/04/2017	01/05/17 11:35	
Toxaphene	ND	50	8.2	1	B7A0091	01/04/2017	01/05/17 11:35	
Surrogate: Decachlorobiphenyl	*54.9 %*		*27 - 123*		B7A0091	01/04/2017	*01/05/17 11:35*	
Surrogate: Tetrachloro-m-xylene	*66.6 %*		*26 - 108*		B7A0091	01/04/2017	*01/05/17 11:35*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB16-1-0.5
Lab ID: 1604898-13

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.0**	1.0	0.70	1	B7A0113	01/05/2017	01/06/17 09:58	
Lead	**10**	1.0	0.11	1	B7A0113	01/05/2017	01/06/17 09:58	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	20	2.2	10	B7A0091	01/04/2017	01/05/17 11:46	D1
4,4´-DDE	ND	20	2.0	10	B7A0091	01/04/2017	01/05/17 11:46	D1
4,4´-DDT	ND	20	1.3	10	B7A0091	01/04/2017	01/05/17 11:46	D1
Aldrin	ND	10	2.7	10	B7A0091	01/04/2017	01/05/17 11:46	D1
alpha-BHC	ND	10	2.0	10	B7A0091	01/04/2017	01/05/17 11:46	D1
alpha-Chlordane	ND	10	2.1	10	B7A0091	01/04/2017	01/05/17 11:46	D1
beta-BHC	ND	10	2.3	10	B7A0091	01/04/2017	01/05/17 11:46	D1
Chlordane	ND	85	9.0	10	B7A0091	01/04/2017	01/05/17 11:46	D1
delta-BHC	ND	10	2.1	10	B7A0091	01/04/2017	01/05/17 11:46	D1
Dieldrin	ND	20	2.5	10	B7A0091	01/04/2017	01/05/17 11:46	D1
Endosulfan I	ND	10	2.1	10	B7A0091	01/04/2017	01/05/17 11:46	D1
Endosulfan II	ND	20	2.2	10	B7A0091	01/04/2017	01/05/17 11:46	D1
Endosulfan sulfate	ND	20	2.1	10	B7A0091	01/04/2017	01/05/17 11:46	D1
Endrin	ND	20	2.3	10	B7A0091	01/04/2017	01/05/17 11:46	D1
Endrin aldehyde	ND	20	2.8	10	B7A0091	01/04/2017	01/05/17 11:46	D1
Endrin ketone	ND	20	2.0	10	B7A0091	01/04/2017	01/05/17 11:46	D1
gamma-BHC	ND	10	2.0	10	B7A0091	01/04/2017	01/05/17 11:46	D1
gamma-Chlordane	ND	10	2.3	10	B7A0091	01/04/2017	01/05/17 11:46	D1
Heptachlor	ND	10	1.9	10	B7A0091	01/04/2017	01/05/17 11:46	D1
Heptachlor epoxide	ND	10	2.0	10	B7A0091	01/04/2017	01/05/17 11:46	D1
Methoxychlor	ND	50	1.8	10	B7A0091	01/04/2017	01/05/17 11:46	D1
Toxaphene	ND	500	82	10	B7A0091	01/04/2017	01/05/17 11:46	D1
Surrogate: Decachlorobiphenyl	*46.5 %*		*27 - 123*		B7A0091	01/04/2017	*01/05/17 11:46*	
Surrogate: Tetrachloro-m-xylene	*38.5 %*		*26 - 108*		B7A0091	01/04/2017	*01/05/17 11:46*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB16-1-1.5
Lab ID: 1604898-14

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.6**	1.0	0.70	1	B7A0113	01/05/2017	01/06/17 09:59	
Lead	**170**	1.0	0.11	1	B7A0113	01/05/2017	01/06/17 09:59	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	20	2.2	10	B7A0091	01/04/2017	01/05/17 11:56	D1
4,4´-DDE	ND	20	2.0	10	B7A0091	01/04/2017	01/05/17 11:56	D1
4,4´-DDT	ND	20	1.3	10	B7A0091	01/04/2017	01/05/17 11:56	D1
Aldrin	ND	10	2.7	10	B7A0091	01/04/2017	01/05/17 11:56	D1
alpha-BHC	ND	10	2.0	10	B7A0091	01/04/2017	01/05/17 11:56	D1
alpha-Chlordane	ND	10	2.1	10	B7A0091	01/04/2017	01/05/17 11:56	D1
beta-BHC	ND	10	2.3	10	B7A0091	01/04/2017	01/05/17 11:56	D1
Chlordane	ND	85	9.0	10	B7A0091	01/04/2017	01/05/17 11:56	D1
delta-BHC	ND	10	2.1	10	B7A0091	01/04/2017	01/05/17 11:56	D1
Dieldrin	ND	20	2.5	10	B7A0091	01/04/2017	01/05/17 11:56	D1
Endosulfan I	ND	10	2.1	10	B7A0091	01/04/2017	01/05/17 11:56	D1
Endosulfan II	ND	20	2.2	10	B7A0091	01/04/2017	01/05/17 11:56	D1
Endosulfan sulfate	ND	20	2.1	10	B7A0091	01/04/2017	01/05/17 11:56	D1
Endrin	ND	20	2.3	10	B7A0091	01/04/2017	01/05/17 11:56	D1
Endrin aldehyde	ND	20	2.8	10	B7A0091	01/04/2017	01/05/17 11:56	D1
Endrin ketone	ND	20	2.0	10	B7A0091	01/04/2017	01/05/17 11:56	D1
gamma-BHC	ND	10	2.0	10	B7A0091	01/04/2017	01/05/17 11:56	D1
gamma-Chlordane	ND	10	2.3	10	B7A0091	01/04/2017	01/05/17 11:56	D1
Heptachlor	ND	10	1.9	10	B7A0091	01/04/2017	01/05/17 11:56	D1
Heptachlor epoxide	ND	10	2.0	10	B7A0091	01/04/2017	01/05/17 11:56	D1
Methoxychlor	ND	50	1.8	10	B7A0091	01/04/2017	01/05/17 11:56	D1
Toxaphene	ND	500	82	10	B7A0091	01/04/2017	01/05/17 11:56	D1
Surrogate: Decachlorobiphenyl	*41.7 %*		*27 - 123*		B7A0091	01/04/2017	*01/05/17 11:56*	
Surrogate: Tetrachloro-m-xylene	*39.5 %*		*26 - 108*		B7A0091	01/04/2017	*01/05/17 11:56*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB16-1-2.5

Lab ID: 1604898-15

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.8**	1.0	0.70	1	B7A0113	01/05/2017	01/06/17 10:00	
Lead	**7.5**	1.0	0.11	1	B7A0113	01/05/2017	01/06/17 10:00	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	20	2.2	10	B7A0091	01/04/2017	01/05/17 12:07	D1
4,4´-DDE	ND	20	2.0	10	B7A0091	01/04/2017	01/05/17 12:07	D1
4,4´-DDT	ND	20	1.3	10	B7A0091	01/04/2017	01/05/17 12:07	D1
Aldrin	ND	10	2.7	10	B7A0091	01/04/2017	01/05/17 12:07	D1
alpha-BHC	ND	10	2.0	10	B7A0091	01/04/2017	01/05/17 12:07	D1
alpha-Chlordane	ND	10	2.1	10	B7A0091	01/04/2017	01/05/17 12:07	D1
beta-BHC	ND	10	2.3	10	B7A0091	01/04/2017	01/05/17 12:07	D1
Chlordane	ND	85	9.0	10	B7A0091	01/04/2017	01/05/17 12:07	D1
delta-BHC	ND	10	2.1	10	B7A0091	01/04/2017	01/05/17 12:07	D1
Dieldrin	ND	20	2.5	10	B7A0091	01/04/2017	01/05/17 12:07	D1
Endosulfan I	ND	10	2.1	10	B7A0091	01/04/2017	01/05/17 12:07	D1
Endosulfan II	ND	20	2.2	10	B7A0091	01/04/2017	01/05/17 12:07	D1
Endosulfan sulfate	ND	20	2.1	10	B7A0091	01/04/2017	01/05/17 12:07	D1
Endrin	ND	20	2.3	10	B7A0091	01/04/2017	01/05/17 12:07	D1
Endrin aldehyde	ND	20	2.8	10	B7A0091	01/04/2017	01/05/17 12:07	D1
Endrin ketone	ND	20	2.0	10	B7A0091	01/04/2017	01/05/17 12:07	D1
gamma-BHC	ND	10	2.0	10	B7A0091	01/04/2017	01/05/17 12:07	D1
gamma-Chlordane	ND	10	2.3	10	B7A0091	01/04/2017	01/05/17 12:07	D1
Heptachlor	ND	10	1.9	10	B7A0091	01/04/2017	01/05/17 12:07	D1
Heptachlor epoxide	ND	10	2.0	10	B7A0091	01/04/2017	01/05/17 12:07	D1
Methoxychlor	ND	50	1.8	10	B7A0091	01/04/2017	01/05/17 12:07	D1
Toxaphene	ND	500	82	10	B7A0091	01/04/2017	01/05/17 12:07	D1
Surrogate: Decachlorobiphenyl	*44.5 %*		*27 - 123*		B7A0091	01/04/2017	*01/05/17 12:07*	
Surrogate: Tetrachloro-m-xylene	*50.3 %*		*26 - 108*		B7A0091	01/04/2017	*01/05/17 12:07*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB16-2-0.5

Lab ID: 1604898-16

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.4**	1.0	0.70	1	B7A0113	01/05/2017	01/06/17 10:04	
Lead	**5.3**	1.0	0.11	1	B7A0113	01/05/2017	01/06/17 10:04	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	20	2.2	10	B7A0091	01/04/2017	01/05/17 12:17	D1
4,4´-DDE	ND	20	2.0	10	B7A0091	01/04/2017	01/05/17 12:17	D1
4,4´-DDT	ND	20	1.3	10	B7A0091	01/04/2017	01/05/17 12:17	D1
Aldrin	ND	10	2.7	10	B7A0091	01/04/2017	01/05/17 12:17	D1
alpha-BHC	ND	10	2.0	10	B7A0091	01/04/2017	01/05/17 12:17	D1
alpha-Chlordane	ND	10	2.1	10	B7A0091	01/04/2017	01/05/17 12:17	D1
beta-BHC	ND	10	2.3	10	B7A0091	01/04/2017	01/05/17 12:17	D1
Chlordane	ND	85	9.0	10	B7A0091	01/04/2017	01/05/17 12:17	D1
delta-BHC	ND	10	2.1	10	B7A0091	01/04/2017	01/05/17 12:17	D1
Dieldrin	ND	20	2.5	10	B7A0091	01/04/2017	01/05/17 12:17	D1
Endosulfan I	ND	10	2.1	10	B7A0091	01/04/2017	01/05/17 12:17	D1
Endosulfan II	ND	20	2.2	10	B7A0091	01/04/2017	01/05/17 12:17	D1
Endosulfan sulfate	ND	20	2.1	10	B7A0091	01/04/2017	01/05/17 12:17	D1
Endrin	ND	20	2.3	10	B7A0091	01/04/2017	01/05/17 12:17	D1
Endrin aldehyde	ND	20	2.8	10	B7A0091	01/04/2017	01/05/17 12:17	D1
Endrin ketone	ND	20	2.0	10	B7A0091	01/04/2017	01/05/17 12:17	D1
gamma-BHC	ND	10	2.0	10	B7A0091	01/04/2017	01/05/17 12:17	D1
gamma-Chlordane	ND	10	2.3	10	B7A0091	01/04/2017	01/05/17 12:17	D1
Heptachlor	ND	10	1.9	10	B7A0091	01/04/2017	01/05/17 12:17	D1
Heptachlor epoxide	ND	10	2.0	10	B7A0091	01/04/2017	01/05/17 12:17	D1
Methoxychlor	ND	50	1.8	10	B7A0091	01/04/2017	01/05/17 12:17	D1
Toxaphene	ND	500	82	10	B7A0091	01/04/2017	01/05/17 12:17	D1
Surrogate: Decachlorobiphenyl	*37.4 %*		*27 - 123*		B7A0091	01/04/2017	*01/05/17 12:17*	
Surrogate: Tetrachloro-m-xylene	*45.8 %*		*26 - 108*		B7A0091	01/04/2017	*01/05/17 12:17*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB16-2-1.5

Lab ID: 1604898-17

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.9**	1.0	0.70	1	B7A0113	01/05/2017	01/06/17 10:05	
Lead	**6.8**	1.0	0.11	1	B7A0113	01/05/2017	01/06/17 10:05	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	20	2.2	10	B7A0091	01/04/2017	01/05/17 12:28	
4,4´-DDE	ND	20	2.0	10	B7A0091	01/04/2017	01/05/17 12:28	
4,4´-DDT	ND	20	1.3	10	B7A0091	01/04/2017	01/05/17 12:28	
Aldrin	ND	10	2.7	10	B7A0091	01/04/2017	01/05/17 12:28	
alpha-BHC	ND	10	2.0	10	B7A0091	01/04/2017	01/05/17 12:28	
alpha-Chlordane	ND	10	2.1	10	B7A0091	01/04/2017	01/05/17 12:28	
beta-BHC	ND	10	2.3	10	B7A0091	01/04/2017	01/05/17 12:28	
Chlordane	ND	85	9.0	10	B7A0091	01/04/2017	01/05/17 12:28	
delta-BHC	ND	10	2.1	10	B7A0091	01/04/2017	01/05/17 12:28	
Dieldrin	ND	20	2.5	10	B7A0091	01/04/2017	01/05/17 12:28	
Endosulfan I	ND	10	2.1	10	B7A0091	01/04/2017	01/05/17 12:28	
Endosulfan II	ND	20	2.2	10	B7A0091	01/04/2017	01/05/17 12:28	
Endosulfan sulfate	ND	20	2.1	10	B7A0091	01/04/2017	01/05/17 12:28	
Endrin	ND	20	2.3	10	B7A0091	01/04/2017	01/05/17 12:28	
Endrin aldehyde	ND	20	2.8	10	B7A0091	01/04/2017	01/05/17 12:28	
Endrin ketone	ND	20	2.0	10	B7A0091	01/04/2017	01/05/17 12:28	
gamma-BHC	ND	10	2.0	10	B7A0091	01/04/2017	01/05/17 12:28	
gamma-Chlordane	ND	10	2.3	10	B7A0091	01/04/2017	01/05/17 12:28	
Heptachlor	ND	10	1.9	10	B7A0091	01/04/2017	01/05/17 12:28	
Heptachlor epoxide	ND	10	2.0	10	B7A0091	01/04/2017	01/05/17 12:28	
Methoxychlor	ND	50	1.8	10	B7A0091	01/04/2017	01/05/17 12:28	
Toxaphene	ND	500	82	10	B7A0091	01/04/2017	01/05/17 12:28	
Surrogate: Decachlorobiphenyl	*35.1 %*		*27 - 123*		B7A0091	01/04/2017	*01/05/17 12:28*	
Surrogate: Tetrachloro-m-xylene	*47.2 %*		*26 - 108*		B7A0091	01/04/2017	*01/05/17 12:28*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB16-2-1.5

Lab ID: 1604898-17

Polychlorinated Biphenyls by EPA 8082 **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B7A0091	01/04/2017	01/05/17 09:56	
Aroclor 1221	ND	16	1.5	1	B7A0091	01/04/2017	01/05/17 09:56	
Aroclor 1232	ND	16	1.5	1	B7A0091	01/04/2017	01/05/17 09:56	
Aroclor 1242	ND	16	1.5	1	B7A0091	01/04/2017	01/05/17 09:56	
Aroclor 1248	ND	16	1.5	1	B7A0091	01/04/2017	01/05/17 09:56	
Aroclor 1254	ND	16	1.5	1	B7A0091	01/04/2017	01/05/17 09:56	
Aroclor 1260	ND	16	1.5	1	B7A0091	01/04/2017	01/05/17 09:56	
Aroclor 1262	ND	16	1.5	1	B7A0091	01/04/2017	01/05/17 09:56	
Aroclor 1268	ND	16	1.5	1	B7A0091	01/04/2017	01/05/17 09:56	
Surrogate: Decachlorobiphenyl	*40.5 %*	*26 - 137*			B7A0091	01/04/2017	*01/05/17 09:56*	
Surrogate: Tetrachloro-m-xylene	*73.1 %*	*28 - 102*			B7A0091	01/04/2017	*01/05/17 09:56*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB16-2-2.5
Lab ID: 1604898-18

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.7**	1.0	0.70	1	B7A0113	01/05/2017	01/06/17 10:06	
Lead	**3.2**	1.0	0.11	1	B7A0113	01/05/2017	01/06/17 10:06	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	20	2.2	10	B7A0091	01/04/2017	01/05/17 12:38	D1
4,4´-DDE	ND	20	2.0	10	B7A0091	01/04/2017	01/05/17 12:38	D1
4,4´-DDT	ND	20	1.3	10	B7A0091	01/04/2017	01/05/17 12:38	D1
Aldrin	ND	10	2.7	10	B7A0091	01/04/2017	01/05/17 12:38	D1
alpha-BHC	ND	10	2.0	10	B7A0091	01/04/2017	01/05/17 12:38	D1
alpha-Chlordane	ND	10	2.1	10	B7A0091	01/04/2017	01/05/17 12:38	D1
beta-BHC	ND	10	2.3	10	B7A0091	01/04/2017	01/05/17 12:38	D1
Chlordane	ND	85	9.0	10	B7A0091	01/04/2017	01/05/17 12:38	D1
delta-BHC	ND	10	2.1	10	B7A0091	01/04/2017	01/05/17 12:38	D1
Dieldrin	ND	20	2.5	10	B7A0091	01/04/2017	01/05/17 12:38	D1
Endosulfan I	ND	10	2.1	10	B7A0091	01/04/2017	01/05/17 12:38	D1
Endosulfan II	ND	20	2.2	10	B7A0091	01/04/2017	01/05/17 12:38	D1
Endosulfan sulfate	ND	20	2.1	10	B7A0091	01/04/2017	01/05/17 12:38	D1
Endrin	ND	20	2.3	10	B7A0091	01/04/2017	01/05/17 12:38	D1
Endrin aldehyde	ND	20	2.8	10	B7A0091	01/04/2017	01/05/17 12:38	D1
Endrin ketone	ND	20	2.0	10	B7A0091	01/04/2017	01/05/17 12:38	D1
gamma-BHC	ND	10	2.0	10	B7A0091	01/04/2017	01/05/17 12:38	D1
gamma-Chlordane	ND	10	2.3	10	B7A0091	01/04/2017	01/05/17 12:38	D1
Heptachlor	ND	10	1.9	10	B7A0091	01/04/2017	01/05/17 12:38	D1
Heptachlor epoxide	ND	10	2.0	10	B7A0091	01/04/2017	01/05/17 12:38	D1
Methoxychlor	ND	50	1.8	10	B7A0091	01/04/2017	01/05/17 12:38	D1
Toxaphene	ND	500	82	10	B7A0091	01/04/2017	01/05/17 12:38	D1
Surrogate: Decachlorobiphenyl	*37.2 %*		*27 - 123*		B7A0091	01/04/2017	*01/05/17 12:38*	
Surrogate: Tetrachloro-m-xylene	*50.5 %*		*26 - 108*		B7A0091	01/04/2017	*01/05/17 12:38*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB16-3-0.5

Lab ID: 1604898-19

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.8**	1.0	0.70	1	B7A0113	01/05/2017	01/06/17 11:16	
Lead	**12**	1.0	0.11	1	B7A0113	01/05/2017	01/06/17 11:16	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0091	01/04/2017	01/05/17 12:49	
4,4´-DDE	ND	2.0	0.20	1	B7A0091	01/04/2017	01/05/17 12:49	
4,4´-DDT	ND	2.0	0.13	1	B7A0091	01/04/2017	01/05/17 12:49	
Aldrin	ND	1.0	0.27	1	B7A0091	01/04/2017	01/05/17 12:49	
alpha-BHC	ND	1.0	0.20	1	B7A0091	01/04/2017	01/05/17 12:49	
alpha-Chlordane	ND	1.0	0.21	1	B7A0091	01/04/2017	01/05/17 12:49	
beta-BHC	ND	1.0	0.23	1	B7A0091	01/04/2017	01/05/17 12:49	
Chlordane	ND	8.5	0.90	1	B7A0091	01/04/2017	01/05/17 12:49	
delta-BHC	ND	1.0	0.21	1	B7A0091	01/04/2017	01/05/17 12:49	
Dieldrin	ND	2.0	0.25	1	B7A0091	01/04/2017	01/05/17 12:49	
Endosulfan I	ND	1.0	0.21	1	B7A0091	01/04/2017	01/05/17 12:49	
Endosulfan II	ND	2.0	0.22	1	B7A0091	01/04/2017	01/05/17 12:49	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0091	01/04/2017	01/05/17 12:49	
Endrin	ND	2.0	0.23	1	B7A0091	01/04/2017	01/05/17 12:49	
Endrin aldehyde	ND	2.0	0.28	1	B7A0091	01/04/2017	01/05/17 12:49	
Endrin ketone	ND	2.0	0.20	1	B7A0091	01/04/2017	01/05/17 12:49	
gamma-BHC	ND	1.0	0.20	1	B7A0091	01/04/2017	01/05/17 12:49	
gamma-Chlordane	ND	1.0	0.23	1	B7A0091	01/04/2017	01/05/17 12:49	
Heptachlor	ND	1.0	0.19	1	B7A0091	01/04/2017	01/05/17 12:49	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0091	01/04/2017	01/05/17 12:49	
Methoxychlor	ND	5.0	0.18	1	B7A0091	01/04/2017	01/05/17 12:49	
Toxaphene	ND	50	8.2	1	B7A0091	01/04/2017	01/05/17 12:49	
Surrogate: Decachlorobiphenyl	*23.1 %*	*27 - 123*			B7A0091	01/04/2017	*01/05/17 12:49*	S2
Surrogate: Tetrachloro-m-xylene	*29.5 %*	*26 - 108*			B7A0091	01/04/2017	*01/05/17 12:49*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB16-3-1.5

Lab ID: 1604898-20

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.8**	1.0	0.70	1	B7A0114	01/05/2017	01/06/17 10:11	
Lead	**6.7**	1.0	0.11	1	B7A0114	01/05/2017	01/06/17 10:11	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0091	01/04/2017	01/05/17 12:59	
4,4´-DDE	ND	2.0	0.20	1	B7A0091	01/04/2017	01/05/17 12:59	
4,4´-DDT	ND	2.0	0.13	1	B7A0091	01/04/2017	01/05/17 12:59	
Aldrin	ND	1.0	0.27	1	B7A0091	01/04/2017	01/05/17 12:59	
alpha-BHC	ND	1.0	0.20	1	B7A0091	01/04/2017	01/05/17 12:59	
alpha-Chlordane	ND	1.0	0.21	1	B7A0091	01/04/2017	01/05/17 12:59	
beta-BHC	ND	1.0	0.23	1	B7A0091	01/04/2017	01/05/17 12:59	
Chlordane	ND	8.5	0.90	1	B7A0091	01/04/2017	01/05/17 12:59	
delta-BHC	ND	1.0	0.21	1	B7A0091	01/04/2017	01/05/17 12:59	
Dieldrin	ND	2.0	0.25	1	B7A0091	01/04/2017	01/05/17 12:59	
Endosulfan I	ND	1.0	0.21	1	B7A0091	01/04/2017	01/05/17 12:59	
Endosulfan II	ND	2.0	0.22	1	B7A0091	01/04/2017	01/05/17 12:59	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0091	01/04/2017	01/05/17 12:59	
Endrin	ND	2.0	0.23	1	B7A0091	01/04/2017	01/05/17 12:59	
Endrin aldehyde	ND	2.0	0.28	1	B7A0091	01/04/2017	01/05/17 12:59	
Endrin ketone	ND	2.0	0.20	1	B7A0091	01/04/2017	01/05/17 12:59	
gamma-BHC	ND	1.0	0.20	1	B7A0091	01/04/2017	01/05/17 12:59	
gamma-Chlordane	ND	1.0	0.23	1	B7A0091	01/04/2017	01/05/17 12:59	
Heptachlor	ND	1.0	0.19	1	B7A0091	01/04/2017	01/05/17 12:59	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0091	01/04/2017	01/05/17 12:59	
Methoxychlor	ND	5.0	0.18	1	B7A0091	01/04/2017	01/05/17 12:59	
Toxaphene	ND	50	8.2	1	B7A0091	01/04/2017	01/05/17 12:59	
Surrogate: Decachlorobiphenyl	*30.1 %*		*27 - 123*		B7A0091	01/04/2017	*01/05/17 12:59*	
Surrogate: Tetrachloro-m-xylene	*31.6 %*		*26 - 108*		B7A0091	01/04/2017	*01/05/17 12:59*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB16-3-2.5
Lab ID: 1604898-21

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.1**	1.0	0.70	1	B7A0114	01/05/2017	01/06/17 10:18	
Lead	**4.3**	1.0	0.11	1	B7A0114	01/05/2017	01/06/17 10:18	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	10	1.1	5	B7A0120	01/05/2017	01/05/17 17:56	D1
4,4´-DDE	ND	10	0.98	5	B7A0120	01/05/2017	01/05/17 17:56	D1
4,4´-DDT	ND	10	0.67	5	B7A0120	01/05/2017	01/05/17 17:56	D1
Aldrin	ND	5.0	1.3	5	B7A0120	01/05/2017	01/05/17 17:56	D1
alpha-BHC	ND	5.0	0.99	5	B7A0120	01/05/2017	01/05/17 17:56	D1
alpha-Chlordane	ND	5.0	1.1	5	B7A0120	01/05/2017	01/05/17 17:56	D1
beta-BHC	ND	5.0	1.1	5	B7A0120	01/05/2017	01/05/17 17:56	D1
Chlordane	ND	42	4.5	5	B7A0120	01/05/2017	01/05/17 17:56	D1
delta-BHC	ND	5.0	1.0	5	B7A0120	01/05/2017	01/05/17 17:56	D1
Dieldrin	ND	10	1.2	5	B7A0120	01/05/2017	01/05/17 17:56	D1
Endosulfan I	ND	5.0	1.1	5	B7A0120	01/05/2017	01/05/17 17:56	D1
Endosulfan II	ND	10	1.1	5	B7A0120	01/05/2017	01/05/17 17:56	D1
Endosulfan sulfate	ND	10	1.1	5	B7A0120	01/05/2017	01/05/17 17:56	D1
Endrin	ND	10	1.1	5	B7A0120	01/05/2017	01/05/17 17:56	D1
Endrin aldehyde	ND	10	1.4	5	B7A0120	01/05/2017	01/05/17 17:56	D1
Endrin ketone	ND	10	1.0	5	B7A0120	01/05/2017	01/05/17 17:56	D1
gamma-BHC	ND	5.0	1.0	5	B7A0120	01/05/2017	01/05/17 17:56	D1
gamma-Chlordane	ND	5.0	1.1	5	B7A0120	01/05/2017	01/05/17 17:56	D1
Heptachlor	ND	5.0	0.95	5	B7A0120	01/05/2017	01/05/17 17:56	D1
Heptachlor epoxide	ND	5.0	1.0	5	B7A0120	01/05/2017	01/05/17 17:56	D1
Methoxychlor	ND	25	0.89	5	B7A0120	01/05/2017	01/05/17 17:56	D1
Toxaphene	ND	250	41	5	B7A0120	01/05/2017	01/05/17 17:56	D1
Surrogate: Decachlorobiphenyl	*29.1 %*		*27 - 123*		B7A0120	01/05/2017	*01/05/17 17:56*	
Surrogate: Tetrachloro-m-xylene	*12.4 %*		*26 - 108*		B7A0120	01/05/2017	*01/05/17 17:56*	S2

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB16-4-0.5
Lab ID: 1604898-22

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.5**	1.0	0.70	1	B7A0114	01/05/2017	01/06/17 10:19	
Lead	**33**	1.0	0.11	1	B7A0114	01/05/2017	01/06/17 10:19	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0120	01/05/2017	01/06/17 15:30	
4,4´-DDE [2C]	**0.23**	2.0	0.20	1	B7A0120	01/05/2017	01/06/17 15:30	J
4,4´-DDT	ND	2.0	0.13	1	B7A0120	01/05/2017	01/06/17 15:30	
Aldrin	ND	1.0	0.27	1	B7A0120	01/05/2017	01/06/17 15:30	
alpha-BHC	ND	1.0	0.20	1	B7A0120	01/05/2017	01/06/17 15:30	
alpha-Chlordane	ND	1.0	0.21	1	B7A0120	01/05/2017	01/06/17 15:30	
beta-BHC	ND	1.0	0.23	1	B7A0120	01/05/2017	01/06/17 15:30	
Chlordane	ND	8.5	0.90	1	B7A0120	01/05/2017	01/06/17 15:30	
delta-BHC	ND	1.0	0.21	1	B7A0120	01/05/2017	01/06/17 15:30	
Dieldrin	ND	2.0	0.25	1	B7A0120	01/05/2017	01/06/17 15:30	
Endosulfan I	ND	1.0	0.21	1	B7A0120	01/05/2017	01/06/17 15:30	
Endosulfan II	ND	2.0	0.22	1	B7A0120	01/05/2017	01/06/17 15:30	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0120	01/05/2017	01/06/17 15:30	
Endrin	ND	2.0	0.23	1	B7A0120	01/05/2017	01/06/17 15:30	
Endrin aldehyde	ND	2.0	0.28	1	B7A0120	01/05/2017	01/06/17 15:30	
Endrin ketone	ND	2.0	0.20	1	B7A0120	01/05/2017	01/06/17 15:30	
gamma-BHC	ND	1.0	0.20	1	B7A0120	01/05/2017	01/06/17 15:30	
gamma-Chlordane	ND	1.0	0.23	1	B7A0120	01/05/2017	01/06/17 15:30	
Heptachlor	ND	1.0	0.19	1	B7A0120	01/05/2017	01/06/17 15:30	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0120	01/05/2017	01/06/17 15:30	
Methoxychlor	ND	5.0	0.18	1	B7A0120	01/05/2017	01/06/17 15:30	
Toxaphene	ND	50	8.2	1	B7A0120	01/05/2017	01/06/17 15:30	
Surrogate: Decachlorobiphenyl	*12.3 %*		*27 - 123*		B7A0120	01/05/2017	*01/06/17 15:30*	S2
Surrogate: Tetrachloro-m-xylene	*11.0 %*		*26 - 108*		B7A0120	01/05/2017	*01/06/17 15:30*	S2

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB16-4-1.5
Lab ID: 1604898-23

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.6**	1.0	0.70	1	B7A0114	01/05/2017	01/06/17 10:20	
Lead	**11**	1.0	0.11	1	B7A0114	01/05/2017	01/06/17 10:20	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	20	2.2	10	B7A0120	01/05/2017	01/06/17 15:40	D1
4,4´-DDE	ND	20	2.0	10	B7A0120	01/05/2017	01/06/17 15:40	D1
4,4´-DDT	ND	20	1.3	10	B7A0120	01/05/2017	01/06/17 15:40	D1
Aldrin	ND	10	2.7	10	B7A0120	01/05/2017	01/06/17 15:40	D1
alpha-BHC	ND	10	2.0	10	B7A0120	01/05/2017	01/06/17 15:40	D1
alpha-Chlordane	ND	10	2.1	10	B7A0120	01/05/2017	01/06/17 15:40	D1
beta-BHC	ND	10	2.3	10	B7A0120	01/05/2017	01/06/17 15:40	D1
Chlordane	ND	85	9.0	10	B7A0120	01/05/2017	01/06/17 15:40	D1
delta-BHC	ND	10	2.1	10	B7A0120	01/05/2017	01/06/17 15:40	D1
Dieldrin	ND	20	2.5	10	B7A0120	01/05/2017	01/06/17 15:40	D1
Endosulfan I	ND	10	2.1	10	B7A0120	01/05/2017	01/06/17 15:40	D1
Endosulfan II	ND	20	2.2	10	B7A0120	01/05/2017	01/06/17 15:40	D1
Endosulfan sulfate	ND	20	2.1	10	B7A0120	01/05/2017	01/06/17 15:40	D1
Endrin	ND	20	2.3	10	B7A0120	01/05/2017	01/06/17 15:40	D1
Endrin aldehyde	ND	20	2.8	10	B7A0120	01/05/2017	01/06/17 15:40	D1
Endrin ketone	ND	20	2.0	10	B7A0120	01/05/2017	01/06/17 15:40	D1
gamma-BHC	ND	10	2.0	10	B7A0120	01/05/2017	01/06/17 15:40	D1
gamma-Chlordane	ND	10	2.3	10	B7A0120	01/05/2017	01/06/17 15:40	D1
Heptachlor	ND	10	1.9	10	B7A0120	01/05/2017	01/06/17 15:40	D1
Heptachlor epoxide	ND	10	2.0	10	B7A0120	01/05/2017	01/06/17 15:40	D1
Methoxychlor	ND	50	1.8	10	B7A0120	01/05/2017	01/06/17 15:40	D1
Toxaphene	ND	500	82	10	B7A0120	01/05/2017	01/06/17 15:40	D1
Surrogate: Decachlorobiphenyl	*43.9 %*		*27 - 123*		B7A0120	01/05/2017	*01/06/17 15:40*	
Surrogate: Tetrachloro-m-xylene	*23.2 %*		*26 - 108*		B7A0120	01/05/2017	*01/06/17 15:40*	S2

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB16-4-2.5
Lab ID: 1604898-24

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.9**	1.0	0.70	1	B7A0114	01/05/2017	01/06/17 10:21	
Lead	**11**	1.0	0.11	1	B7A0114	01/05/2017	01/06/17 10:21	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0120	01/05/2017	01/06/17 15:51	
4,4´-DDE	ND	2.0	0.20	1	B7A0120	01/05/2017	01/06/17 15:51	
4,4´-DDT	ND	2.0	0.13	1	B7A0120	01/05/2017	01/06/17 15:51	
Aldrin	ND	1.0	0.27	1	B7A0120	01/05/2017	01/06/17 15:51	
alpha-BHC	ND	1.0	0.20	1	B7A0120	01/05/2017	01/06/17 15:51	
alpha-Chlordane	ND	1.0	0.21	1	B7A0120	01/05/2017	01/06/17 15:51	
beta-BHC	ND	1.0	0.23	1	B7A0120	01/05/2017	01/06/17 15:51	
Chlordane	ND	8.5	0.90	1	B7A0120	01/05/2017	01/06/17 15:51	
delta-BHC	ND	1.0	0.21	1	B7A0120	01/05/2017	01/06/17 15:51	
Dieldrin	ND	2.0	0.25	1	B7A0120	01/05/2017	01/06/17 15:51	
Endosulfan I	ND	1.0	0.21	1	B7A0120	01/05/2017	01/06/17 15:51	
Endosulfan II	ND	2.0	0.22	1	B7A0120	01/05/2017	01/06/17 15:51	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0120	01/05/2017	01/06/17 15:51	
Endrin	ND	2.0	0.23	1	B7A0120	01/05/2017	01/06/17 15:51	
Endrin aldehyde	ND	2.0	0.28	1	B7A0120	01/05/2017	01/06/17 15:51	
Endrin ketone	ND	2.0	0.20	1	B7A0120	01/05/2017	01/06/17 15:51	
gamma-BHC	ND	1.0	0.20	1	B7A0120	01/05/2017	01/06/17 15:51	
gamma-Chlordane	ND	1.0	0.23	1	B7A0120	01/05/2017	01/06/17 15:51	
Heptachlor	ND	1.0	0.19	1	B7A0120	01/05/2017	01/06/17 15:51	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0120	01/05/2017	01/06/17 15:51	
Methoxychlor	ND	5.0	0.18	1	B7A0120	01/05/2017	01/06/17 15:51	
Toxaphene	ND	50	8.2	1	B7A0120	01/05/2017	01/06/17 15:51	
Surrogate: Decachlorobiphenyl	*0%*		*27 - 123*		B7A0120	01/05/2017	*01/06/17 15:51*	S2
Surrogate: Tetrachloro-m-xylene	*2.71 %*		*26 - 108*		B7A0120	01/05/2017	*01/06/17 15:51*	S2

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB11-1-0.5

Lab ID: 1604898-25

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.6**	1.0	0.70	1	B7A0114	01/05/2017	01/06/17 10:22	
Lead	**23**	1.0	0.11	1	B7A0114	01/05/2017	01/06/17 10:22	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0120	01/05/2017	01/06/17 16:01	
4,4´-DDE	ND	2.0	0.20	1	B7A0120	01/05/2017	01/06/17 16:01	
4,4´-DDT	ND	2.0	0.13	1	B7A0120	01/05/2017	01/06/17 16:01	
Aldrin	ND	1.0	0.27	1	B7A0120	01/05/2017	01/06/17 16:01	
alpha-BHC	ND	1.0	0.20	1	B7A0120	01/05/2017	01/06/17 16:01	
alpha-Chlordane	ND	1.0	0.21	1	B7A0120	01/05/2017	01/06/17 16:01	
beta-BHC	ND	1.0	0.23	1	B7A0120	01/05/2017	01/06/17 16:01	
Chlordane	ND	8.5	0.90	1	B7A0120	01/05/2017	01/06/17 16:01	
delta-BHC	ND	1.0	0.21	1	B7A0120	01/05/2017	01/06/17 16:01	
Dieldrin	ND	2.0	0.25	1	B7A0120	01/05/2017	01/06/17 16:01	
Endosulfan I	ND	1.0	0.21	1	B7A0120	01/05/2017	01/06/17 16:01	
Endosulfan II	ND	2.0	0.22	1	B7A0120	01/05/2017	01/06/17 16:01	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0120	01/05/2017	01/06/17 16:01	
Endrin	ND	2.0	0.23	1	B7A0120	01/05/2017	01/06/17 16:01	
Endrin aldehyde	ND	2.0	0.28	1	B7A0120	01/05/2017	01/06/17 16:01	
Endrin ketone	ND	2.0	0.20	1	B7A0120	01/05/2017	01/06/17 16:01	
gamma-BHC	ND	1.0	0.20	1	B7A0120	01/05/2017	01/06/17 16:01	
gamma-Chlordane	ND	1.0	0.23	1	B7A0120	01/05/2017	01/06/17 16:01	
Heptachlor	ND	1.0	0.19	1	B7A0120	01/05/2017	01/06/17 16:01	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0120	01/05/2017	01/06/17 16:01	
Methoxychlor	ND	5.0	0.18	1	B7A0120	01/05/2017	01/06/17 16:01	
Toxaphene	ND	50	8.2	1	B7A0120	01/05/2017	01/06/17 16:01	
Surrogate: Decachlorobiphenyl	*30.6 %*		*27 - 123*		B7A0120	01/05/2017	*01/06/17 16:01*	
Surrogate: Tetrachloro-m-xylene	*38.3 %*		*26 - 108*		B7A0120	01/05/2017	*01/06/17 16:01*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB11-1-1.5

Lab ID: 1604898-26

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.7**	1.0	0.70	1	B7A0114	01/05/2017	01/06/17 10:23	
Lead	**11**	1.0	0.11	1	B7A0114	01/05/2017	01/06/17 10:23	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0120	01/05/2017	01/05/17 18:48	
4,4´-DDE	ND	2.0	0.20	1	B7A0120	01/05/2017	01/05/17 18:48	
4,4´-DDT	ND	2.0	0.13	1	B7A0120	01/05/2017	01/05/17 18:48	
Aldrin	ND	1.0	0.27	1	B7A0120	01/05/2017	01/05/17 18:48	
alpha-BHC	ND	1.0	0.20	1	B7A0120	01/05/2017	01/05/17 18:48	
alpha-Chlordane	ND	1.0	0.21	1	B7A0120	01/05/2017	01/05/17 18:48	
beta-BHC	ND	1.0	0.23	1	B7A0120	01/05/2017	01/05/17 18:48	
Chlordane	ND	8.5	0.90	1	B7A0120	01/05/2017	01/05/17 18:48	
delta-BHC	ND	1.0	0.21	1	B7A0120	01/05/2017	01/05/17 18:48	
Dieldrin	ND	2.0	0.25	1	B7A0120	01/05/2017	01/05/17 18:48	
Endosulfan I	ND	1.0	0.21	1	B7A0120	01/05/2017	01/05/17 18:48	
Endosulfan II	ND	2.0	0.22	1	B7A0120	01/05/2017	01/05/17 18:48	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0120	01/05/2017	01/05/17 18:48	
Endrin	ND	2.0	0.23	1	B7A0120	01/05/2017	01/05/17 18:48	
Endrin aldehyde	ND	2.0	0.28	1	B7A0120	01/05/2017	01/05/17 18:48	
Endrin ketone	ND	2.0	0.20	1	B7A0120	01/05/2017	01/05/17 18:48	
gamma-BHC	ND	1.0	0.20	1	B7A0120	01/05/2017	01/05/17 18:48	
gamma-Chlordane	ND	1.0	0.23	1	B7A0120	01/05/2017	01/05/17 18:48	
Heptachlor	ND	1.0	0.19	1	B7A0120	01/05/2017	01/05/17 18:48	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0120	01/05/2017	01/05/17 18:48	
Methoxychlor	ND	5.0	0.18	1	B7A0120	01/05/2017	01/05/17 18:48	
Toxaphene	ND	50	8.2	1	B7A0120	01/05/2017	01/05/17 18:48	
Surrogate: Decachlorobiphenyl	*37.1 %*		*27 - 123*		B7A0120	01/05/2017	*01/05/17 18:48*	
Surrogate: Tetrachloro-m-xylene	*45.4 %*		*26 - 108*		B7A0120	01/05/2017	*01/05/17 18:48*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB11-1-2.5

Lab ID: 1604898-27

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.6**	1.0	0.70	1	B7A0114	01/05/2017	01/06/17 10:25	
Lead	**4.8**	1.0	0.11	1	B7A0114	01/05/2017	01/06/17 10:25	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0120	01/05/2017	01/06/17 16:11	
4,4´-DDE	ND	2.0	0.20	1	B7A0120	01/05/2017	01/06/17 16:11	
4,4´-DDT	ND	2.0	0.13	1	B7A0120	01/05/2017	01/06/17 16:11	
Aldrin	ND	1.0	0.27	1	B7A0120	01/05/2017	01/06/17 16:11	
alpha-BHC	ND	1.0	0.20	1	B7A0120	01/05/2017	01/06/17 16:11	
alpha-Chlordane	ND	1.0	0.21	1	B7A0120	01/05/2017	01/06/17 16:11	
beta-BHC	ND	1.0	0.23	1	B7A0120	01/05/2017	01/06/17 16:11	
Chlordane	ND	8.5	0.90	1	B7A0120	01/05/2017	01/06/17 16:11	
delta-BHC	ND	1.0	0.21	1	B7A0120	01/05/2017	01/06/17 16:11	
Dieldrin	ND	2.0	0.25	1	B7A0120	01/05/2017	01/06/17 16:11	
Endosulfan I	ND	1.0	0.21	1	B7A0120	01/05/2017	01/06/17 16:11	
Endosulfan II	ND	2.0	0.22	1	B7A0120	01/05/2017	01/06/17 16:11	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0120	01/05/2017	01/06/17 16:11	
Endrin	ND	2.0	0.23	1	B7A0120	01/05/2017	01/06/17 16:11	
Endrin aldehyde	ND	2.0	0.28	1	B7A0120	01/05/2017	01/06/17 16:11	
Endrin ketone	ND	2.0	0.20	1	B7A0120	01/05/2017	01/06/17 16:11	
gamma-BHC	ND	1.0	0.20	1	B7A0120	01/05/2017	01/06/17 16:11	
gamma-Chlordane	ND	1.0	0.23	1	B7A0120	01/05/2017	01/06/17 16:11	
Heptachlor	ND	1.0	0.19	1	B7A0120	01/05/2017	01/06/17 16:11	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0120	01/05/2017	01/06/17 16:11	
Methoxychlor	ND	5.0	0.18	1	B7A0120	01/05/2017	01/06/17 16:11	
Toxaphene	ND	50	8.2	1	B7A0120	01/05/2017	01/06/17 16:11	
Surrogate: Decachlorobiphenyl	*35.9 %*		*27 - 123*		B7A0120	01/05/2017	*01/06/17 16:11*	
Surrogate: Tetrachloro-m-xylene	*45.3 %*		*26 - 108*		B7A0120	01/05/2017	*01/06/17 16:11*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB11-2-0.5

Lab ID: 1604898-28

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.0**	1.0	0.70	1	B7A0114	01/05/2017	01/06/17 10:26	
Lead	**28**	1.0	0.11	1	B7A0114	01/05/2017	01/06/17 10:26	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0120	01/05/2017	01/06/17 16:22	
4,4´-DDE	ND	2.0	0.20	1	B7A0120	01/05/2017	01/06/17 16:22	
4,4´-DDT	ND	2.0	0.13	1	B7A0120	01/05/2017	01/06/17 16:22	
Aldrin	ND	1.0	0.27	1	B7A0120	01/05/2017	01/06/17 16:22	
alpha-BHC	ND	1.0	0.20	1	B7A0120	01/05/2017	01/06/17 16:22	
alpha-Chlordane	ND	1.0	0.21	1	B7A0120	01/05/2017	01/06/17 16:22	
beta-BHC	ND	1.0	0.23	1	B7A0120	01/05/2017	01/06/17 16:22	
Chlordane	ND	8.5	0.90	1	B7A0120	01/05/2017	01/06/17 16:22	
delta-BHC	ND	1.0	0.21	1	B7A0120	01/05/2017	01/06/17 16:22	
Dieldrin	ND	2.0	0.25	1	B7A0120	01/05/2017	01/06/17 16:22	
Endosulfan I	ND	1.0	0.21	1	B7A0120	01/05/2017	01/06/17 16:22	
Endosulfan II	ND	2.0	0.22	1	B7A0120	01/05/2017	01/06/17 16:22	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0120	01/05/2017	01/06/17 16:22	
Endrin	ND	2.0	0.23	1	B7A0120	01/05/2017	01/06/17 16:22	
Endrin aldehyde	ND	2.0	0.28	1	B7A0120	01/05/2017	01/06/17 16:22	
Endrin ketone	ND	2.0	0.20	1	B7A0120	01/05/2017	01/06/17 16:22	
gamma-BHC	ND	1.0	0.20	1	B7A0120	01/05/2017	01/06/17 16:22	
gamma-Chlordane	ND	1.0	0.23	1	B7A0120	01/05/2017	01/06/17 16:22	
Heptachlor	ND	1.0	0.19	1	B7A0120	01/05/2017	01/06/17 16:22	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0120	01/05/2017	01/06/17 16:22	
Methoxychlor	ND	5.0	0.18	1	B7A0120	01/05/2017	01/06/17 16:22	
Toxaphene	ND	50	8.2	1	B7A0120	01/05/2017	01/06/17 16:22	
Surrogate: Decachlorobiphenyl	*30.9 %*		*27 - 123*		B7A0120	01/05/2017	*01/06/17 16:22*	
Surrogate: Tetrachloro-m-xylene	*43.0 %*		*26 - 108*		B7A0120	01/05/2017	*01/06/17 16:22*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB11-2-0.5

Lab ID: 1604898-28

Polychlorinated Biphenyls by EPA 8082 **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B7A0122	01/05/2017	01/05/17 14:04	
Aroclor 1221	ND	16	1.5	1	B7A0122	01/05/2017	01/05/17 14:04	
Aroclor 1232	ND	16	1.5	1	B7A0122	01/05/2017	01/05/17 14:04	
Aroclor 1242	ND	16	1.5	1	B7A0122	01/05/2017	01/05/17 14:04	
Aroclor 1248	ND	16	1.5	1	B7A0122	01/05/2017	01/05/17 14:04	
Aroclor 1254	ND	16	1.5	1	B7A0122	01/05/2017	01/05/17 14:04	
Aroclor 1260	ND	16	1.5	1	B7A0122	01/05/2017	01/05/17 14:04	
Aroclor 1262	ND	16	1.5	1	B7A0122	01/05/2017	01/05/17 14:04	
Aroclor 1268	ND	16	1.5	1	B7A0122	01/05/2017	01/05/17 14:04	
Surrogate: Decachlorobiphenyl	*68.7 %*		*26 - 137*		B7A0122	01/05/2017	*01/05/17 14:04*	
Surrogate: Tetrachloro-m-xylene	*92.5 %*		*28 - 102*		B7A0122	01/05/2017	*01/05/17 14:04*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB11-2-1.5

Lab ID: 1604898-29

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.4**	1.0	0.70	1	B7A0114	01/05/2017	01/06/17 10:27	
Lead	**6.2**	1.0	0.11	1	B7A0114	01/05/2017	01/06/17 10:27	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0120	01/05/2017	01/05/17 19:20	
4,4´-DDE	ND	2.0	0.20	1	B7A0120	01/05/2017	01/05/17 19:20	
4,4´-DDT	ND	2.0	0.13	1	B7A0120	01/05/2017	01/05/17 19:20	
Aldrin	ND	1.0	0.27	1	B7A0120	01/05/2017	01/05/17 19:20	
alpha-BHC	ND	1.0	0.20	1	B7A0120	01/05/2017	01/05/17 19:20	
alpha-Chlordane	ND	1.0	0.21	1	B7A0120	01/05/2017	01/05/17 19:20	
beta-BHC	ND	1.0	0.23	1	B7A0120	01/05/2017	01/05/17 19:20	
Chlordane	ND	8.5	0.90	1	B7A0120	01/05/2017	01/05/17 19:20	
delta-BHC	ND	1.0	0.21	1	B7A0120	01/05/2017	01/05/17 19:20	
Dieldrin	ND	2.0	0.25	1	B7A0120	01/05/2017	01/05/17 19:20	
Endosulfan I	ND	1.0	0.21	1	B7A0120	01/05/2017	01/05/17 19:20	
Endosulfan II	ND	2.0	0.22	1	B7A0120	01/05/2017	01/05/17 19:20	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0120	01/05/2017	01/05/17 19:20	
Endrin	ND	2.0	0.23	1	B7A0120	01/05/2017	01/05/17 19:20	
Endrin aldehyde	ND	2.0	0.28	1	B7A0120	01/05/2017	01/05/17 19:20	
Endrin ketone	ND	2.0	0.20	1	B7A0120	01/05/2017	01/05/17 19:20	
gamma-BHC	ND	1.0	0.20	1	B7A0120	01/05/2017	01/05/17 19:20	
gamma-Chlordane	ND	1.0	0.23	1	B7A0120	01/05/2017	01/05/17 19:20	
Heptachlor	ND	1.0	0.19	1	B7A0120	01/05/2017	01/05/17 19:20	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0120	01/05/2017	01/05/17 19:20	
Methoxychlor	ND	5.0	0.18	1	B7A0120	01/05/2017	01/05/17 19:20	
Toxaphene	ND	50	8.2	1	B7A0120	01/05/2017	01/05/17 19:20	
Surrogate: Decachlorobiphenyl	*37.1 %*		*27 - 123*		B7A0120	01/05/2017	*01/05/17 19:20*	
Surrogate: Tetrachloro-m-xylene	*47.3 %*		*26 - 108*		B7A0120	01/05/2017	*01/05/17 19:20*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB11-2-2.5

Lab ID: 1604898-30

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.4**	1.0	0.70	1	B7A0114	01/05/2017	01/06/17 10:28	
Lead	**3.5**	1.0	0.11	1	B7A0114	01/05/2017	01/06/17 10:28	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0120	01/05/2017	01/05/17 19:30	
4,4´-DDE	ND	2.0	0.20	1	B7A0120	01/05/2017	01/05/17 19:30	
4,4´-DDT	ND	2.0	0.13	1	B7A0120	01/05/2017	01/05/17 19:30	
Aldrin	ND	1.0	0.27	1	B7A0120	01/05/2017	01/05/17 19:30	
alpha-BHC	ND	1.0	0.20	1	B7A0120	01/05/2017	01/05/17 19:30	
alpha-Chlordane	ND	1.0	0.21	1	B7A0120	01/05/2017	01/05/17 19:30	
beta-BHC	ND	1.0	0.23	1	B7A0120	01/05/2017	01/05/17 19:30	
Chlordane	ND	8.5	0.90	1	B7A0120	01/05/2017	01/05/17 19:30	
delta-BHC	ND	1.0	0.21	1	B7A0120	01/05/2017	01/05/17 19:30	
Dieldrin	ND	2.0	0.25	1	B7A0120	01/05/2017	01/05/17 19:30	
Endosulfan I	ND	1.0	0.21	1	B7A0120	01/05/2017	01/05/17 19:30	
Endosulfan II	ND	2.0	0.22	1	B7A0120	01/05/2017	01/05/17 19:30	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0120	01/05/2017	01/05/17 19:30	
Endrin	ND	2.0	0.23	1	B7A0120	01/05/2017	01/05/17 19:30	
Endrin aldehyde	ND	2.0	0.28	1	B7A0120	01/05/2017	01/05/17 19:30	
Endrin ketone	ND	2.0	0.20	1	B7A0120	01/05/2017	01/05/17 19:30	
gamma-BHC	ND	1.0	0.20	1	B7A0120	01/05/2017	01/05/17 19:30	
gamma-Chlordane	ND	1.0	0.23	1	B7A0120	01/05/2017	01/05/17 19:30	
Heptachlor	ND	1.0	0.19	1	B7A0120	01/05/2017	01/05/17 19:30	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0120	01/05/2017	01/05/17 19:30	
Methoxychlor	ND	5.0	0.18	1	B7A0120	01/05/2017	01/05/17 19:30	
Toxaphene	ND	50	8.2	1	B7A0120	01/05/2017	01/05/17 19:30	
Surrogate: Decachlorobiphenyl	*36.2 %*		*27 - 123*		B7A0120	01/05/2017	*01/05/17 19:30*	
Surrogate: Tetrachloro-m-xylene	*45.0 %*		*26 - 108*		B7A0120	01/05/2017	*01/05/17 19:30*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB11-3-0.5

Lab ID: 1604898-31

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.7**	1.0	0.70	1	B7A0114	01/05/2017	01/06/17 10:32	
Lead	**23**	1.0	0.11	1	B7A0114	01/05/2017	01/06/17 10:32	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0120	01/05/2017	01/05/17 19:41	
4,4´-DDE [2C]	**0.20**	2.0	0.20	1	B7A0120	01/05/2017	01/05/17 19:41	J
4,4´-DDT	ND	2.0	0.13	1	B7A0120	01/05/2017	01/05/17 19:41	
Aldrin	ND	1.0	0.27	1	B7A0120	01/05/2017	01/05/17 19:41	
alpha-BHC	ND	1.0	0.20	1	B7A0120	01/05/2017	01/05/17 19:41	
alpha-Chlordane	ND	1.0	0.21	1	B7A0120	01/05/2017	01/05/17 19:41	
beta-BHC	ND	1.0	0.23	1	B7A0120	01/05/2017	01/05/17 19:41	
Chlordane	ND	8.5	0.90	1	B7A0120	01/05/2017	01/05/17 19:41	
delta-BHC	ND	1.0	0.21	1	B7A0120	01/05/2017	01/05/17 19:41	
Dieldrin	ND	2.0	0.25	1	B7A0120	01/05/2017	01/05/17 19:41	
Endosulfan I	ND	1.0	0.21	1	B7A0120	01/05/2017	01/05/17 19:41	
Endosulfan II	ND	2.0	0.22	1	B7A0120	01/05/2017	01/05/17 19:41	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0120	01/05/2017	01/05/17 19:41	
Endrin	ND	2.0	0.23	1	B7A0120	01/05/2017	01/05/17 19:41	
Endrin aldehyde	ND	2.0	0.28	1	B7A0120	01/05/2017	01/05/17 19:41	
Endrin ketone	ND	2.0	0.20	1	B7A0120	01/05/2017	01/05/17 19:41	
gamma-BHC	ND	1.0	0.20	1	B7A0120	01/05/2017	01/05/17 19:41	
gamma-Chlordane	ND	1.0	0.23	1	B7A0120	01/05/2017	01/05/17 19:41	
Heptachlor	ND	1.0	0.19	1	B7A0120	01/05/2017	01/05/17 19:41	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0120	01/05/2017	01/05/17 19:41	
Methoxychlor	ND	5.0	0.18	1	B7A0120	01/05/2017	01/05/17 19:41	
Toxaphene	ND	50	8.2	1	B7A0120	01/05/2017	01/05/17 19:41	
Surrogate: Decachlorobiphenyl	*35.9 %*		*27 - 123*		B7A0120	01/05/2017	*01/05/17 19:41*	
Surrogate: Tetrachloro-m-xylene	*44.6 %*		*26 - 108*		B7A0120	01/05/2017	*01/05/17 19:41*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB11-3-1.5

Lab ID: 1604898-32

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.4**	1.0	0.70	1	B7A0114	01/05/2017	01/06/17 10:33	
Lead	**17**	1.0	0.11	1	B7A0114	01/05/2017	01/06/17 10:33	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0120	01/05/2017	01/05/17 19:51	
4,4´-DDE	ND	2.0	0.20	1	B7A0120	01/05/2017	01/05/17 19:51	
4,4´-DDT	ND	2.0	0.13	1	B7A0120	01/05/2017	01/05/17 19:51	
Aldrin	ND	1.0	0.27	1	B7A0120	01/05/2017	01/05/17 19:51	
alpha-BHC	ND	1.0	0.20	1	B7A0120	01/05/2017	01/05/17 19:51	
alpha-Chlordane	ND	1.0	0.21	1	B7A0120	01/05/2017	01/05/17 19:51	
beta-BHC	ND	1.0	0.23	1	B7A0120	01/05/2017	01/05/17 19:51	
Chlordane	ND	8.5	0.90	1	B7A0120	01/05/2017	01/05/17 19:51	
delta-BHC	ND	1.0	0.21	1	B7A0120	01/05/2017	01/05/17 19:51	
Dieldrin	ND	2.0	0.25	1	B7A0120	01/05/2017	01/05/17 19:51	
Endosulfan I	ND	1.0	0.21	1	B7A0120	01/05/2017	01/05/17 19:51	
Endosulfan II	ND	2.0	0.22	1	B7A0120	01/05/2017	01/05/17 19:51	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0120	01/05/2017	01/05/17 19:51	
Endrin	ND	2.0	0.23	1	B7A0120	01/05/2017	01/05/17 19:51	
Endrin aldehyde	ND	2.0	0.28	1	B7A0120	01/05/2017	01/05/17 19:51	
Endrin ketone	ND	2.0	0.20	1	B7A0120	01/05/2017	01/05/17 19:51	
gamma-BHC	ND	1.0	0.20	1	B7A0120	01/05/2017	01/05/17 19:51	
gamma-Chlordane	ND	1.0	0.23	1	B7A0120	01/05/2017	01/05/17 19:51	
Heptachlor	ND	1.0	0.19	1	B7A0120	01/05/2017	01/05/17 19:51	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0120	01/05/2017	01/05/17 19:51	
Methoxychlor	ND	5.0	0.18	1	B7A0120	01/05/2017	01/05/17 19:51	
Toxaphene	ND	50	8.2	1	B7A0120	01/05/2017	01/05/17 19:51	
Surrogate: Decachlorobiphenyl	*37.2 %*		*27 - 123*		B7A0120	01/05/2017	*01/05/17 19:51*	
Surrogate: Tetrachloro-m-xylene	*46.7 %*		*26 - 108*		B7A0120	01/05/2017	*01/05/17 19:51*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB11-3-2.5

Lab ID: 1604898-33

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.4**	1.0	0.70	1	B7A0114	01/05/2017	01/06/17 10:34	
Lead	**4.5**	1.0	0.11	1	B7A0114	01/05/2017	01/06/17 10:34	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0120	01/05/2017	01/05/17 20:01	
4,4´-DDE	ND	2.0	0.20	1	B7A0120	01/05/2017	01/05/17 20:01	
4,4´-DDT	ND	2.0	0.13	1	B7A0120	01/05/2017	01/05/17 20:01	
Aldrin	ND	1.0	0.27	1	B7A0120	01/05/2017	01/05/17 20:01	
alpha-BHC	ND	1.0	0.20	1	B7A0120	01/05/2017	01/05/17 20:01	
alpha-Chlordane	ND	1.0	0.21	1	B7A0120	01/05/2017	01/05/17 20:01	
beta-BHC	ND	1.0	0.23	1	B7A0120	01/05/2017	01/05/17 20:01	
Chlordane	ND	8.5	0.90	1	B7A0120	01/05/2017	01/05/17 20:01	
delta-BHC	ND	1.0	0.21	1	B7A0120	01/05/2017	01/05/17 20:01	
Dieldrin	ND	2.0	0.25	1	B7A0120	01/05/2017	01/05/17 20:01	
Endosulfan I	ND	1.0	0.21	1	B7A0120	01/05/2017	01/05/17 20:01	
Endosulfan II	ND	2.0	0.22	1	B7A0120	01/05/2017	01/05/17 20:01	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0120	01/05/2017	01/05/17 20:01	
Endrin	ND	2.0	0.23	1	B7A0120	01/05/2017	01/05/17 20:01	
Endrin aldehyde	ND	2.0	0.28	1	B7A0120	01/05/2017	01/05/17 20:01	
Endrin ketone	ND	2.0	0.20	1	B7A0120	01/05/2017	01/05/17 20:01	
gamma-BHC	ND	1.0	0.20	1	B7A0120	01/05/2017	01/05/17 20:01	
gamma-Chlordane	ND	1.0	0.23	1	B7A0120	01/05/2017	01/05/17 20:01	
Heptachlor	ND	1.0	0.19	1	B7A0120	01/05/2017	01/05/17 20:01	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0120	01/05/2017	01/05/17 20:01	
Methoxychlor	ND	5.0	0.18	1	B7A0120	01/05/2017	01/05/17 20:01	
Toxaphene	ND	50	8.2	1	B7A0120	01/05/2017	01/05/17 20:01	
Surrogate: Decachlorobiphenyl	*51.3 %*		*27 - 123*		B7A0120	01/05/2017	*01/05/17 20:01*	
Surrogate: Tetrachloro-m-xylene	*72.0 %*		*26 - 108*		B7A0120	01/05/2017	*01/05/17 20:01*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB11-4-0.5
Lab ID: 1604898-34

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.6**	1.0	0.70	1	B7A0114	01/05/2017	01/06/17 10:35	
Lead	**18**	1.0	0.11	1	B7A0114	01/05/2017	01/06/17 10:35	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0120	01/05/2017	01/05/17 20:12	
4,4´-DDE	**0.97**	2.0	0.20	1	B7A0120	01/05/2017	01/05/17 20:12	J
4,4´-DDT [2C]	**0.98**	2.0	0.13	1	B7A0120	01/05/2017	01/05/17 20:12	J
Aldrin	ND	1.0	0.27	1	B7A0120	01/05/2017	01/05/17 20:12	
alpha-BHC	ND	1.0	0.20	1	B7A0120	01/05/2017	01/05/17 20:12	
alpha-Chlordane	**0.46**	1.0	0.21	1	B7A0120	01/05/2017	01/05/17 20:12	J
beta-BHC	ND	1.0	0.23	1	B7A0120	01/05/2017	01/05/17 20:12	
Chlordane	**5.3**	8.5	0.90	1	B7A0120	01/05/2017	01/05/17 20:12	J
delta-BHC	ND	1.0	0.21	1	B7A0120	01/05/2017	01/05/17 20:12	
Dieldrin	**0.67**	2.0	0.25	1	B7A0120	01/05/2017	01/05/17 20:12	J
Endosulfan I	ND	1.0	0.21	1	B7A0120	01/05/2017	01/05/17 20:12	
Endosulfan II	ND	2.0	0.22	1	B7A0120	01/05/2017	01/05/17 20:12	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0120	01/05/2017	01/05/17 20:12	
Endrin	ND	2.0	0.23	1	B7A0120	01/05/2017	01/05/17 20:12	
Endrin aldehyde	ND	2.0	0.28	1	B7A0120	01/05/2017	01/05/17 20:12	
Endrin ketone	ND	2.0	0.20	1	B7A0120	01/05/2017	01/05/17 20:12	
gamma-BHC	ND	1.0	0.20	1	B7A0120	01/05/2017	01/05/17 20:12	
gamma-Chlordane [2C]	**0.47**	1.0	0.23	1	B7A0120	01/05/2017	01/05/17 20:12	J
Heptachlor	ND	1.0	0.19	1	B7A0120	01/05/2017	01/05/17 20:12	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0120	01/05/2017	01/05/17 20:12	
Methoxychlor	ND	5.0	0.18	1	B7A0120	01/05/2017	01/05/17 20:12	
Toxaphene	ND	50	8.2	1	B7A0120	01/05/2017	01/05/17 20:12	
Surrogate: Decachlorobiphenyl	*17.4 %*	*27 - 123*			B7A0120	01/05/2017	*01/05/17 20:12*	S2
Surrogate: Tetrachloro-m-xylene	*20.3 %*	*26 - 108*			B7A0120	01/05/2017	*01/05/17 20:12*	S2

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB11-4-1.5

Lab ID: 1604898-35

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.9**	1.0	0.70	1	B7A0114	01/05/2017	01/06/17 10:36	
Lead	**9.6**	1.0	0.11	1	B7A0114	01/05/2017	01/06/17 10:36	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0120	01/05/2017	01/06/17 16:32	
4,4´-DDE	ND	2.0	0.20	1	B7A0120	01/05/2017	01/06/17 16:32	
4,4´-DDT	ND	2.0	0.13	1	B7A0120	01/05/2017	01/06/17 16:32	
Aldrin	ND	1.0	0.27	1	B7A0120	01/05/2017	01/06/17 16:32	
alpha-BHC	ND	1.0	0.20	1	B7A0120	01/05/2017	01/06/17 16:32	
alpha-Chlordane	ND	1.0	0.21	1	B7A0120	01/05/2017	01/06/17 16:32	
beta-BHC	ND	1.0	0.23	1	B7A0120	01/05/2017	01/06/17 16:32	
Chlordane	ND	8.5	0.90	1	B7A0120	01/05/2017	01/06/17 16:32	
delta-BHC	ND	1.0	0.21	1	B7A0120	01/05/2017	01/06/17 16:32	
Dieldrin	ND	2.0	0.25	1	B7A0120	01/05/2017	01/06/17 16:32	
Endosulfan I	ND	1.0	0.21	1	B7A0120	01/05/2017	01/06/17 16:32	
Endosulfan II	ND	2.0	0.22	1	B7A0120	01/05/2017	01/06/17 16:32	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0120	01/05/2017	01/06/17 16:32	
Endrin	ND	2.0	0.23	1	B7A0120	01/05/2017	01/06/17 16:32	
Endrin aldehyde	ND	2.0	0.28	1	B7A0120	01/05/2017	01/06/17 16:32	
Endrin ketone	ND	2.0	0.20	1	B7A0120	01/05/2017	01/06/17 16:32	
gamma-BHC	ND	1.0	0.20	1	B7A0120	01/05/2017	01/06/17 16:32	
gamma-Chlordane	ND	1.0	0.23	1	B7A0120	01/05/2017	01/06/17 16:32	
Heptachlor	ND	1.0	0.19	1	B7A0120	01/05/2017	01/06/17 16:32	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0120	01/05/2017	01/06/17 16:32	
Methoxychlor	ND	5.0	0.18	1	B7A0120	01/05/2017	01/06/17 16:32	
Toxaphene	ND	50	8.2	1	B7A0120	01/05/2017	01/06/17 16:32	
Surrogate: Decachlorobiphenyl	*34.8 %*		*27 - 123*		B7A0120	01/05/2017	*01/06/17 16:32*	
Surrogate: Tetrachloro-m-xylene	*45.5 %*		*26 - 108*		B7A0120	01/05/2017	*01/06/17 16:32*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB11-4-2.5

Lab ID: 1604898-36

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.8**	1.0	0.70	1	B7A0114	01/05/2017	01/06/17 10:37	
Lead	**12**	1.0	0.11	1	B7A0114	01/05/2017	01/06/17 10:37	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0120	01/05/2017	01/06/17 16:43	
4,4´-DDE	ND	2.0	0.20	1	B7A0120	01/05/2017	01/06/17 16:43	
4,4´-DDT	ND	2.0	0.13	1	B7A0120	01/05/2017	01/06/17 16:43	
Aldrin	ND	1.0	0.27	1	B7A0120	01/05/2017	01/06/17 16:43	
alpha-BHC	ND	1.0	0.20	1	B7A0120	01/05/2017	01/06/17 16:43	
alpha-Chlordane	ND	1.0	0.21	1	B7A0120	01/05/2017	01/06/17 16:43	
beta-BHC	ND	1.0	0.23	1	B7A0120	01/05/2017	01/06/17 16:43	
Chlordane	ND	8.5	0.90	1	B7A0120	01/05/2017	01/06/17 16:43	
delta-BHC	ND	1.0	0.21	1	B7A0120	01/05/2017	01/06/17 16:43	
Dieldrin	ND	2.0	0.25	1	B7A0120	01/05/2017	01/06/17 16:43	
Endosulfan I	ND	1.0	0.21	1	B7A0120	01/05/2017	01/06/17 16:43	
Endosulfan II	ND	2.0	0.22	1	B7A0120	01/05/2017	01/06/17 16:43	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0120	01/05/2017	01/06/17 16:43	
Endrin	ND	2.0	0.23	1	B7A0120	01/05/2017	01/06/17 16:43	
Endrin aldehyde	ND	2.0	0.28	1	B7A0120	01/05/2017	01/06/17 16:43	
Endrin ketone	ND	2.0	0.20	1	B7A0120	01/05/2017	01/06/17 16:43	
gamma-BHC	ND	1.0	0.20	1	B7A0120	01/05/2017	01/06/17 16:43	
gamma-Chlordane	ND	1.0	0.23	1	B7A0120	01/05/2017	01/06/17 16:43	
Heptachlor	ND	1.0	0.19	1	B7A0120	01/05/2017	01/06/17 16:43	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0120	01/05/2017	01/06/17 16:43	
Methoxychlor	ND	5.0	0.18	1	B7A0120	01/05/2017	01/06/17 16:43	
Toxaphene	ND	50	8.2	1	B7A0120	01/05/2017	01/06/17 16:43	
Surrogate: Decachlorobiphenyl	*34.1 %*		*27 - 123*		B7A0120	01/05/2017	*01/06/17 16:43*	
Surrogate: Tetrachloro-m-xylene	*45.9 %*		*26 - 108*		B7A0120	01/05/2017	*01/06/17 16:43*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB12-1-0.5
Lab ID: 1604898-37

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.3**	1.0	0.70	1	B7A0114	01/05/2017	01/06/17 10:38	
Lead	**7.3**	1.0	0.11	1	B7A0114	01/05/2017	01/06/17 10:38	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0120	01/05/2017	01/05/17 20:43	
4,4´-DDE	**0.40**	2.0	0.20	1	B7A0120	01/05/2017	01/05/17 20:43	J
4,4´-DDT	ND	2.0	0.13	1	B7A0120	01/05/2017	01/05/17 20:43	
Aldrin	ND	1.0	0.27	1	B7A0120	01/05/2017	01/05/17 20:43	
alpha-BHC	ND	1.0	0.20	1	B7A0120	01/05/2017	01/05/17 20:43	
alpha-Chlordane	**9.8**	1.0	0.21	1	B7A0120	01/05/2017	01/05/17 20:43	
beta-BHC	ND	1.0	0.23	1	B7A0120	01/05/2017	01/05/17 20:43	
Chlordane	**77**	8.5	0.90	1	B7A0120	01/05/2017	01/05/17 20:43	
delta-BHC	ND	1.0	0.21	1	B7A0120	01/05/2017	01/05/17 20:43	
Dieldrin	ND	2.0	0.25	1	B7A0120	01/05/2017	01/05/17 20:43	
Endosulfan I	ND	1.0	0.21	1	B7A0120	01/05/2017	01/05/17 20:43	
Endosulfan II	ND	2.0	0.22	1	B7A0120	01/05/2017	01/05/17 20:43	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0120	01/05/2017	01/05/17 20:43	
Endrin	ND	2.0	0.23	1	B7A0120	01/05/2017	01/05/17 20:43	
Endrin aldehyde	ND	2.0	0.28	1	B7A0120	01/05/2017	01/05/17 20:43	
Endrin ketone	ND	2.0	0.20	1	B7A0120	01/05/2017	01/05/17 20:43	
gamma-BHC	ND	1.0	0.20	1	B7A0120	01/05/2017	01/05/17 20:43	
gamma-Chlordane	**6.7**	1.0	0.23	1	B7A0120	01/05/2017	01/05/17 20:43	
Heptachlor	ND	1.0	0.19	1	B7A0120	01/05/2017	01/05/17 20:43	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0120	01/05/2017	01/05/17 20:43	
Methoxychlor	ND	5.0	0.18	1	B7A0120	01/05/2017	01/05/17 20:43	
Toxaphene	ND	50	8.2	1	B7A0120	01/05/2017	01/05/17 20:43	
Surrogate: Decachlorobiphenyl	*34.6 %*		*27 - 123*		B7A0120	01/05/2017	*01/05/17 20:43*	
Surrogate: Tetrachloro-m-xylene	*41.8 %*		*26 - 108*		B7A0120	01/05/2017	*01/05/17 20:43*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB12-1-0.5

Lab ID: 1604898-37

Polychlorinated Biphenyls by EPA 8082 **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B7A0122	01/05/2017	01/05/17 14:23	
Aroclor 1221	ND	16	1.5	1	B7A0122	01/05/2017	01/05/17 14:23	
Aroclor 1232	ND	16	1.5	1	B7A0122	01/05/2017	01/05/17 14:23	
Aroclor 1242	ND	16	1.5	1	B7A0122	01/05/2017	01/05/17 14:23	
Aroclor 1248	ND	16	1.5	1	B7A0122	01/05/2017	01/05/17 14:23	
Aroclor 1254	ND	16	1.5	1	B7A0122	01/05/2017	01/05/17 14:23	
Aroclor 1260	ND	16	1.5	1	B7A0122	01/05/2017	01/05/17 14:23	
Aroclor 1262	ND	16	1.5	1	B7A0122	01/05/2017	01/05/17 14:23	
Aroclor 1268	ND	16	1.5	1	B7A0122	01/05/2017	01/05/17 14:23	
Surrogate: Decachlorobiphenyl	*74.3 %*	*26 - 137*			B7A0122	01/05/2017	*01/05/17 14:23*	
Surrogate: Tetrachloro-m-xylene	*94.2 %*	*28 - 102*			B7A0122	01/05/2017	*01/05/17 14:23*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB12-1-1.5
Lab ID: 1604898-38

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**3.5**	1.0	0.70	1	B7A0114	01/05/2017	01/06/17 10:39	
Lead	**14**	1.0	0.11	1	B7A0114	01/05/2017	01/06/17 10:39	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0120	01/05/2017	01/05/17 20:54	
4,4´-DDE [2C]	**1.5**	2.0	0.20	1	B7A0120	01/05/2017	01/05/17 20:54	J
4,4´-DDT	**0.24**	2.0	0.13	1	B7A0120	01/05/2017	01/05/17 20:54	J
Aldrin	ND	1.0	0.27	1	B7A0120	01/05/2017	01/05/17 20:54	
alpha-BHC	ND	1.0	0.20	1	B7A0120	01/05/2017	01/05/17 20:54	
alpha-Chlordane	**14**	1.0	0.21	1	B7A0120	01/05/2017	01/05/17 20:54	
beta-BHC	ND	1.0	0.23	1	B7A0120	01/05/2017	01/05/17 20:54	
Chlordane	**120**	8.5	0.90	1	B7A0120	01/05/2017	01/05/17 20:54	
delta-BHC	ND	1.0	0.21	1	B7A0120	01/05/2017	01/05/17 20:54	
Dieldrin	ND	2.0	0.25	1	B7A0120	01/05/2017	01/05/17 20:54	
Endosulfan I	ND	1.0	0.21	1	B7A0120	01/05/2017	01/05/17 20:54	
Endosulfan II	ND	2.0	0.22	1	B7A0120	01/05/2017	01/05/17 20:54	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0120	01/05/2017	01/05/17 20:54	
Endrin	ND	2.0	0.23	1	B7A0120	01/05/2017	01/05/17 20:54	
Endrin aldehyde	ND	2.0	0.28	1	B7A0120	01/05/2017	01/05/17 20:54	
Endrin ketone	ND	2.0	0.20	1	B7A0120	01/05/2017	01/05/17 20:54	
gamma-BHC	ND	1.0	0.20	1	B7A0120	01/05/2017	01/05/17 20:54	
gamma-Chlordane	**12**	1.0	0.23	1	B7A0120	01/05/2017	01/05/17 20:54	
Heptachlor	ND	1.0	0.19	1	B7A0120	01/05/2017	01/05/17 20:54	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0120	01/05/2017	01/05/17 20:54	
Methoxychlor	ND	5.0	0.18	1	B7A0120	01/05/2017	01/05/17 20:54	
Toxaphene	ND	50	8.2	1	B7A0120	01/05/2017	01/05/17 20:54	
Surrogate: Decachlorobiphenyl	*35.6 %*		*27 - 123*		B7A0120	01/05/2017	*01/05/17 20:54*	
Surrogate: Tetrachloro-m-xylene	*43.0 %*		*26 - 108*		B7A0120	01/05/2017	*01/05/17 20:54*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB12-1-2.5
Lab ID: 1604898-39

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**6.7**	1.0	0.70	1	B7A0115	01/05/2017	01/06/17 11:22	
Lead	**25**	1.0	0.11	1	B7A0115	01/05/2017	01/06/17 11:22	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0120	01/05/2017	01/05/17 21:04	
4,4´-DDE	ND	2.0	0.20	1	B7A0120	01/05/2017	01/05/17 21:04	
4,4´-DDT	ND	2.0	0.13	1	B7A0120	01/05/2017	01/05/17 21:04	
Aldrin	ND	1.0	0.27	1	B7A0120	01/05/2017	01/05/17 21:04	
alpha-BHC	ND	1.0	0.20	1	B7A0120	01/05/2017	01/05/17 21:04	
alpha-Chlordane	**18**	1.0	0.21	1	B7A0120	01/05/2017	01/05/17 21:04	
beta-BHC	ND	1.0	0.23	1	B7A0120	01/05/2017	01/05/17 21:04	
Chlordane	**150**	8.5	0.90	1	B7A0120	01/05/2017	01/05/17 21:04	
delta-BHC	ND	1.0	0.21	1	B7A0120	01/05/2017	01/05/17 21:04	
Dieldrin	ND	2.0	0.25	1	B7A0120	01/05/2017	01/05/17 21:04	
Endosulfan I	ND	1.0	0.21	1	B7A0120	01/05/2017	01/05/17 21:04	
Endosulfan II	ND	2.0	0.22	1	B7A0120	01/05/2017	01/05/17 21:04	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0120	01/05/2017	01/05/17 21:04	
Endrin	ND	2.0	0.23	1	B7A0120	01/05/2017	01/05/17 21:04	
Endrin aldehyde	ND	2.0	0.28	1	B7A0120	01/05/2017	01/05/17 21:04	
Endrin ketone	ND	2.0	0.20	1	B7A0120	01/05/2017	01/05/17 21:04	
gamma-BHC	ND	1.0	0.20	1	B7A0120	01/05/2017	01/05/17 21:04	
gamma-Chlordane	**17**	1.0	0.23	1	B7A0120	01/05/2017	01/05/17 21:04	
Heptachlor	ND	1.0	0.19	1	B7A0120	01/05/2017	01/05/17 21:04	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0120	01/05/2017	01/05/17 21:04	
Methoxychlor	ND	5.0	0.18	1	B7A0120	01/05/2017	01/05/17 21:04	
Toxaphene	ND	50	8.2	1	B7A0120	01/05/2017	01/05/17 21:04	
Surrogate: Decachlorobiphenyl	*37.5 %*		*27 - 123*		B7A0120	01/05/2017	*01/05/17 21:04*	
Surrogate: Tetrachloro-m-xylene	*42.0 %*		*26 - 108*		B7A0120	01/05/2017	*01/05/17 21:04*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB13-1-0.5
Lab ID: 1604898-40

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.9**	1.0	0.70	1	B7A0115	01/05/2017	01/06/17 11:26	
Lead	**27**	1.0	0.11	1	B7A0115	01/05/2017	01/06/17 11:26	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0120	01/05/2017	01/05/17 21:14	
4,4´-DDE	ND	2.0	0.20	1	B7A0120	01/05/2017	01/05/17 21:14	
4,4´-DDT	**0.24**	2.0	0.13	1	B7A0120	01/05/2017	01/05/17 21:14	J
Aldrin	ND	1.0	0.27	1	B7A0120	01/05/2017	01/05/17 21:14	
alpha-BHC	ND	1.0	0.20	1	B7A0120	01/05/2017	01/05/17 21:14	
alpha-Chlordane	ND	1.0	0.21	1	B7A0120	01/05/2017	01/05/17 21:14	
beta-BHC	ND	1.0	0.23	1	B7A0120	01/05/2017	01/05/17 21:14	
Chlordane	ND	8.5	0.90	1	B7A0120	01/05/2017	01/05/17 21:14	
delta-BHC	ND	1.0	0.21	1	B7A0120	01/05/2017	01/05/17 21:14	
Dieldrin	ND	2.0	0.25	1	B7A0120	01/05/2017	01/05/17 21:14	
Endosulfan I	ND	1.0	0.21	1	B7A0120	01/05/2017	01/05/17 21:14	
Endosulfan II	ND	2.0	0.22	1	B7A0120	01/05/2017	01/05/17 21:14	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0120	01/05/2017	01/05/17 21:14	
Endrin	ND	2.0	0.23	1	B7A0120	01/05/2017	01/05/17 21:14	
Endrin aldehyde	ND	2.0	0.28	1	B7A0120	01/05/2017	01/05/17 21:14	
Endrin ketone	ND	2.0	0.20	1	B7A0120	01/05/2017	01/05/17 21:14	
gamma-BHC	ND	1.0	0.20	1	B7A0120	01/05/2017	01/05/17 21:14	
gamma-Chlordane	ND	1.0	0.23	1	B7A0120	01/05/2017	01/05/17 21:14	
Heptachlor	ND	1.0	0.19	1	B7A0120	01/05/2017	01/05/17 21:14	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0120	01/05/2017	01/05/17 21:14	
Methoxychlor	ND	5.0	0.18	1	B7A0120	01/05/2017	01/05/17 21:14	
Toxaphene	ND	50	8.2	1	B7A0120	01/05/2017	01/05/17 21:14	
Surrogate: Decachlorobiphenyl	*37.4 %*		*27 - 123*		B7A0120	01/05/2017	*01/05/17 21:14*	
Surrogate: Tetrachloro-m-xylene	*44.8 %*		*26 - 108*		B7A0120	01/05/2017	*01/05/17 21:14*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB13-1-1.5
Lab ID: 1604898-41

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.9**	1.0	0.70	1	B7A0115	01/05/2017	01/06/17 11:28	
Lead	**4.5**	1.0	0.11	1	B7A0115	01/05/2017	01/06/17 11:28	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0128	01/05/2017	01/06/17 09:42	
4,4´-DDE	ND	2.0	0.20	1	B7A0128	01/05/2017	01/06/17 09:42	
4,4´-DDT	ND	2.0	0.13	1	B7A0128	01/05/2017	01/06/17 09:42	
Aldrin	ND	1.0	0.27	1	B7A0128	01/05/2017	01/06/17 09:42	
alpha-BHC	ND	1.0	0.20	1	B7A0128	01/05/2017	01/06/17 09:42	
alpha-Chlordane	ND	1.0	0.21	1	B7A0128	01/05/2017	01/06/17 09:42	
beta-BHC	ND	1.0	0.23	1	B7A0128	01/05/2017	01/06/17 09:42	
Chlordane	ND	8.5	0.90	1	B7A0128	01/05/2017	01/06/17 09:42	
delta-BHC	ND	1.0	0.21	1	B7A0128	01/05/2017	01/06/17 09:42	
Dieldrin	ND	2.0	0.25	1	B7A0128	01/05/2017	01/06/17 09:42	
Endosulfan I	ND	1.0	0.21	1	B7A0128	01/05/2017	01/06/17 09:42	
Endosulfan II	ND	2.0	0.22	1	B7A0128	01/05/2017	01/06/17 09:42	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0128	01/05/2017	01/06/17 09:42	
Endrin	ND	2.0	0.23	1	B7A0128	01/05/2017	01/06/17 09:42	
Endrin aldehyde	ND	2.0	0.28	1	B7A0128	01/05/2017	01/06/17 09:42	
Endrin ketone	ND	2.0	0.20	1	B7A0128	01/05/2017	01/06/17 09:42	
gamma-BHC	ND	1.0	0.20	1	B7A0128	01/05/2017	01/06/17 09:42	
gamma-Chlordane	ND	1.0	0.23	1	B7A0128	01/05/2017	01/06/17 09:42	
Heptachlor	ND	1.0	0.19	1	B7A0128	01/05/2017	01/06/17 09:42	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0128	01/05/2017	01/06/17 09:42	
Methoxychlor	ND	5.0	0.18	1	B7A0128	01/05/2017	01/06/17 09:42	
Toxaphene	ND	50	8.2	1	B7A0128	01/05/2017	01/06/17 09:42	
Surrogate: Decachlorobiphenyl	*71.6 %*		*27 - 123*		B7A0128	01/05/2017	*01/06/17 09:42*	
Surrogate: Tetrachloro-m-xylene	*68.1 %*		*26 - 108*		B7A0128	01/05/2017	*01/06/17 09:42*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB13-1-1.5

Lab ID: 1604898-41

Polychlorinated Biphenyls by EPA 8082 **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B7A0122	01/05/2017	01/05/17 14:42	
Aroclor 1221	ND	16	1.5	1	B7A0122	01/05/2017	01/05/17 14:42	
Aroclor 1232	ND	16	1.5	1	B7A0122	01/05/2017	01/05/17 14:42	
Aroclor 1242	ND	16	1.5	1	B7A0122	01/05/2017	01/05/17 14:42	
Aroclor 1248	ND	16	1.5	1	B7A0122	01/05/2017	01/05/17 14:42	
Aroclor 1254	ND	16	1.5	1	B7A0122	01/05/2017	01/05/17 14:42	
Aroclor 1260	ND	16	1.5	1	B7A0122	01/05/2017	01/05/17 14:42	
Aroclor 1262	ND	16	1.5	1	B7A0122	01/05/2017	01/05/17 14:42	
Aroclor 1268	ND	16	1.5	1	B7A0122	01/05/2017	01/05/17 14:42	
Surrogate: Decachlorobiphenyl	*80.3 %*	*26 - 137*			B7A0122	01/05/2017	*01/05/17 14:42*	
Surrogate: Tetrachloro-m-xylene	*108 %*	*28 - 102*			B7A0122	01/05/2017	*01/05/17 14:42*	S1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB13-1-2.5
Lab ID: 1604898-42

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.7**	1.0	0.70	1	B7A0115	01/05/2017	01/06/17 11:29	
Lead	**3.6**	1.0	0.11	1	B7A0115	01/05/2017	01/06/17 11:29	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0128	01/05/2017	01/06/17 09:53	
4,4´-DDE	ND	2.0	0.20	1	B7A0128	01/05/2017	01/06/17 09:53	
4,4´-DDT	ND	2.0	0.13	1	B7A0128	01/05/2017	01/06/17 09:53	
Aldrin	ND	1.0	0.27	1	B7A0128	01/05/2017	01/06/17 09:53	
alpha-BHC	ND	1.0	0.20	1	B7A0128	01/05/2017	01/06/17 09:53	
alpha-Chlordane	ND	1.0	0.21	1	B7A0128	01/05/2017	01/06/17 09:53	
beta-BHC	ND	1.0	0.23	1	B7A0128	01/05/2017	01/06/17 09:53	
Chlordane	ND	8.5	0.90	1	B7A0128	01/05/2017	01/06/17 09:53	
delta-BHC	ND	1.0	0.21	1	B7A0128	01/05/2017	01/06/17 09:53	
Dieldrin	ND	2.0	0.25	1	B7A0128	01/05/2017	01/06/17 09:53	
Endosulfan I	ND	1.0	0.21	1	B7A0128	01/05/2017	01/06/17 09:53	
Endosulfan II	ND	2.0	0.22	1	B7A0128	01/05/2017	01/06/17 09:53	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0128	01/05/2017	01/06/17 09:53	
Endrin	ND	2.0	0.23	1	B7A0128	01/05/2017	01/06/17 09:53	
Endrin aldehyde	ND	2.0	0.28	1	B7A0128	01/05/2017	01/06/17 09:53	
Endrin ketone	ND	2.0	0.20	1	B7A0128	01/05/2017	01/06/17 09:53	
gamma-BHC	ND	1.0	0.20	1	B7A0128	01/05/2017	01/06/17 09:53	
gamma-Chlordane	ND	1.0	0.23	1	B7A0128	01/05/2017	01/06/17 09:53	
Heptachlor	ND	1.0	0.19	1	B7A0128	01/05/2017	01/06/17 09:53	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0128	01/05/2017	01/06/17 09:53	
Methoxychlor	ND	5.0	0.18	1	B7A0128	01/05/2017	01/06/17 09:53	
Toxaphene	ND	50	8.2	1	B7A0128	01/05/2017	01/06/17 09:53	
Surrogate: Decachlorobiphenyl	*93.5 %*		*27 - 123*		B7A0128	01/05/2017	*01/06/17 09:53*	
Surrogate: Tetrachloro-m-xylene	*97.6 %*		*26 - 108*		B7A0128	01/05/2017	*01/06/17 09:53*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB14-1-0.5
Lab ID: 1604898-43

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**4.4**	1.0	0.70	1	B7A0115	01/05/2017	01/06/17 11:30	
Lead	**29**	1.0	0.11	1	B7A0115	01/05/2017	01/06/17 11:30	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0128	01/05/2017	01/06/17 10:03	
4,4´-DDE [2C]	**0.67**	2.0	0.20	1	B7A0128	01/05/2017	01/06/17 10:03	J
4,4´-DDT	**1.7**	2.0	0.13	1	B7A0128	01/05/2017	01/06/17 10:03	J
Aldrin	ND	1.0	0.27	1	B7A0128	01/05/2017	01/06/17 10:03	
alpha-BHC	ND	1.0	0.20	1	B7A0128	01/05/2017	01/06/17 10:03	
alpha-Chlordane [2C]	**0.40**	1.0	0.21	1	B7A0128	01/05/2017	01/06/17 10:03	J
beta-BHC	ND	1.0	0.23	1	B7A0128	01/05/2017	01/06/17 10:03	
Chlordane [2C]	**4.2**	8.5	0.90	1	B7A0128	01/05/2017	01/06/17 10:03	J
delta-BHC	ND	1.0	0.21	1	B7A0128	01/05/2017	01/06/17 10:03	
Dieldrin	ND	2.0	0.25	1	B7A0128	01/05/2017	01/06/17 10:03	
Endosulfan I	ND	1.0	0.21	1	B7A0128	01/05/2017	01/06/17 10:03	
Endosulfan II	ND	2.0	0.22	1	B7A0128	01/05/2017	01/06/17 10:03	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0128	01/05/2017	01/06/17 10:03	
Endrin	ND	2.0	0.23	1	B7A0128	01/05/2017	01/06/17 10:03	
Endrin aldehyde	ND	2.0	0.28	1	B7A0128	01/05/2017	01/06/17 10:03	
Endrin ketone	ND	2.0	0.20	1	B7A0128	01/05/2017	01/06/17 10:03	
gamma-BHC	ND	1.0	0.20	1	B7A0128	01/05/2017	01/06/17 10:03	
gamma-Chlordane [2C]	**0.47**	1.0	0.23	1	B7A0128	01/05/2017	01/06/17 10:03	J
Heptachlor	ND	1.0	0.19	1	B7A0128	01/05/2017	01/06/17 10:03	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0128	01/05/2017	01/06/17 10:03	
Methoxychlor	ND	5.0	0.18	1	B7A0128	01/05/2017	01/06/17 10:03	
Toxaphene	ND	50	8.2	1	B7A0128	01/05/2017	01/06/17 10:03	
Surrogate: Decachlorobiphenyl	*56.1 %*	*27 - 123*			B7A0128	01/05/2017	*01/06/17 10:03*	
Surrogate: Tetrachloro-m-xylene	*49.6 %*	*26 - 108*			B7A0128	01/05/2017	*01/06/17 10:03*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB14-1-1.5
Lab ID: 1604898-44

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.9**	1.0	0.70	1	B7A0115	01/05/2017	01/06/17 11:33	
Lead	**9.6**	1.0	0.11	1	B7A0115	01/05/2017	01/06/17 11:33	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0128	01/05/2017	01/06/17 10:14	
4,4´-DDE	ND	2.0	0.20	1	B7A0128	01/05/2017	01/06/17 10:14	
4,4´-DDT	ND	2.0	0.13	1	B7A0128	01/05/2017	01/06/17 10:14	
Aldrin	ND	1.0	0.27	1	B7A0128	01/05/2017	01/06/17 10:14	
alpha-BHC	ND	1.0	0.20	1	B7A0128	01/05/2017	01/06/17 10:14	
alpha-Chlordane	ND	1.0	0.21	1	B7A0128	01/05/2017	01/06/17 10:14	
beta-BHC	ND	1.0	0.23	1	B7A0128	01/05/2017	01/06/17 10:14	
Chlordane	ND	8.5	0.90	1	B7A0128	01/05/2017	01/06/17 10:14	
delta-BHC	ND	1.0	0.21	1	B7A0128	01/05/2017	01/06/17 10:14	
Dieldrin	ND	2.0	0.25	1	B7A0128	01/05/2017	01/06/17 10:14	
Endosulfan I	ND	1.0	0.21	1	B7A0128	01/05/2017	01/06/17 10:14	
Endosulfan II	ND	2.0	0.22	1	B7A0128	01/05/2017	01/06/17 10:14	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0128	01/05/2017	01/06/17 10:14	
Endrin	ND	2.0	0.23	1	B7A0128	01/05/2017	01/06/17 10:14	
Endrin aldehyde	ND	2.0	0.28	1	B7A0128	01/05/2017	01/06/17 10:14	
Endrin ketone	ND	2.0	0.20	1	B7A0128	01/05/2017	01/06/17 10:14	
gamma-BHC	ND	1.0	0.20	1	B7A0128	01/05/2017	01/06/17 10:14	
gamma-Chlordane	ND	1.0	0.23	1	B7A0128	01/05/2017	01/06/17 10:14	
Heptachlor	ND	1.0	0.19	1	B7A0128	01/05/2017	01/06/17 10:14	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0128	01/05/2017	01/06/17 10:14	
Methoxychlor	ND	5.0	0.18	1	B7A0128	01/05/2017	01/06/17 10:14	
Toxaphene	ND	50	8.2	1	B7A0128	01/05/2017	01/06/17 10:14	
Surrogate: Decachlorobiphenyl	*63.6 %*		*27 - 123*		B7A0128	01/05/2017	*01/06/17 10:14*	
Surrogate: Tetrachloro-m-xylene	*57.6 %*		*26 - 108*		B7A0128	01/05/2017	*01/06/17 10:14*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB14-1-2.5
Lab ID: 1604898-45

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.0**	1.0	0.70	1	B7A0115	01/05/2017	01/06/17 11:35	
Lead	**9.0**	1.0	0.11	1	B7A0115	01/05/2017	01/06/17 11:35	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0128	01/05/2017	01/06/17 10:25	
4,4´-DDE	ND	2.0	0.20	1	B7A0128	01/05/2017	01/06/17 10:25	
4,4´-DDT	ND	2.0	0.13	1	B7A0128	01/05/2017	01/06/17 10:25	
Aldrin	ND	1.0	0.27	1	B7A0128	01/05/2017	01/06/17 10:25	
alpha-BHC	ND	1.0	0.20	1	B7A0128	01/05/2017	01/06/17 10:25	
alpha-Chlordane	ND	1.0	0.21	1	B7A0128	01/05/2017	01/06/17 10:25	
beta-BHC	ND	1.0	0.23	1	B7A0128	01/05/2017	01/06/17 10:25	
Chlordane	ND	8.5	0.90	1	B7A0128	01/05/2017	01/06/17 10:25	
delta-BHC	ND	1.0	0.21	1	B7A0128	01/05/2017	01/06/17 10:25	
Dieldrin	ND	2.0	0.25	1	B7A0128	01/05/2017	01/06/17 10:25	
Endosulfan I	ND	1.0	0.21	1	B7A0128	01/05/2017	01/06/17 10:25	
Endosulfan II	ND	2.0	0.22	1	B7A0128	01/05/2017	01/06/17 10:25	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0128	01/05/2017	01/06/17 10:25	
Endrin	ND	2.0	0.23	1	B7A0128	01/05/2017	01/06/17 10:25	
Endrin aldehyde	ND	2.0	0.28	1	B7A0128	01/05/2017	01/06/17 10:25	
Endrin ketone	ND	2.0	0.20	1	B7A0128	01/05/2017	01/06/17 10:25	
gamma-BHC	ND	1.0	0.20	1	B7A0128	01/05/2017	01/06/17 10:25	
gamma-Chlordane	ND	1.0	0.23	1	B7A0128	01/05/2017	01/06/17 10:25	
Heptachlor	ND	1.0	0.19	1	B7A0128	01/05/2017	01/06/17 10:25	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0128	01/05/2017	01/06/17 10:25	
Methoxychlor	ND	5.0	0.18	1	B7A0128	01/05/2017	01/06/17 10:25	
Toxaphene	ND	50	8.2	1	B7A0128	01/05/2017	01/06/17 10:25	
Surrogate: Decachlorobiphenyl	*72.0 %*		*27 - 123*		B7A0128	01/05/2017	*01/06/17 10:25*	
Surrogate: Tetrachloro-m-xylene	*63.6 %*		*26 - 108*		B7A0128	01/05/2017	*01/06/17 10:25*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB14-2-0.5
Lab ID: 1604898-46

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**3.2**	1.0	0.70	1	B7A0115	01/05/2017	01/06/17 11:36	
Lead	**25**	1.0	0.11	1	B7A0115	01/05/2017	01/06/17 11:36	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0128	01/05/2017	01/06/17 10:35	
4,4´-DDE	ND	2.0	0.20	1	B7A0128	01/05/2017	01/06/17 10:35	
4,4´-DDT	ND	2.0	0.13	1	B7A0128	01/05/2017	01/06/17 10:35	
Aldrin	ND	1.0	0.27	1	B7A0128	01/05/2017	01/06/17 10:35	
alpha-BHC	ND	1.0	0.20	1	B7A0128	01/05/2017	01/06/17 10:35	
alpha-Chlordane [2C]	**0.25**	1.0	0.21	1	B7A0128	01/05/2017	01/06/17 10:35	J
beta-BHC	ND	1.0	0.23	1	B7A0128	01/05/2017	01/06/17 10:35	
Chlordane [2C]	**2.8**	8.5	0.90	1	B7A0128	01/05/2017	01/06/17 10:35	J
delta-BHC	ND	1.0	0.21	1	B7A0128	01/05/2017	01/06/17 10:35	
Dieldrin	ND	2.0	0.25	1	B7A0128	01/05/2017	01/06/17 10:35	
Endosulfan I	ND	1.0	0.21	1	B7A0128	01/05/2017	01/06/17 10:35	
Endosulfan II	ND	2.0	0.22	1	B7A0128	01/05/2017	01/06/17 10:35	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0128	01/05/2017	01/06/17 10:35	
Endrin	ND	2.0	0.23	1	B7A0128	01/05/2017	01/06/17 10:35	
Endrin aldehyde	ND	2.0	0.28	1	B7A0128	01/05/2017	01/06/17 10:35	
Endrin ketone	ND	2.0	0.20	1	B7A0128	01/05/2017	01/06/17 10:35	
gamma-BHC	ND	1.0	0.20	1	B7A0128	01/05/2017	01/06/17 10:35	
gamma-Chlordane [2C]	**0.29**	1.0	0.23	1	B7A0128	01/05/2017	01/06/17 10:35	J
Heptachlor	ND	1.0	0.19	1	B7A0128	01/05/2017	01/06/17 10:35	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0128	01/05/2017	01/06/17 10:35	
Methoxychlor	ND	5.0	0.18	1	B7A0128	01/05/2017	01/06/17 10:35	
Toxaphene	ND	50	8.2	1	B7A0128	01/05/2017	01/06/17 10:35	
Surrogate: Decachlorobiphenyl	*56.0 %*	*27 - 123*			B7A0128	01/05/2017	*01/06/17 10:35*	
Surrogate: Tetrachloro-m-xylene	*42.1 %*	*26 - 108*			B7A0128	01/05/2017	*01/06/17 10:35*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB14-2-1.5

Lab ID: 1604898-47

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.8**	1.0	0.70	1	B7A0115	01/05/2017	01/06/17 11:37	
Lead	**19**	1.0	0.11	1	B7A0115	01/05/2017	01/06/17 11:37	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0128	01/05/2017	01/06/17 10:46	
4,4´-DDE	ND	2.0	0.20	1	B7A0128	01/05/2017	01/06/17 10:46	
4,4´-DDT	ND	2.0	0.13	1	B7A0128	01/05/2017	01/06/17 10:46	
Aldrin	ND	1.0	0.27	1	B7A0128	01/05/2017	01/06/17 10:46	
alpha-BHC	ND	1.0	0.20	1	B7A0128	01/05/2017	01/06/17 10:46	
alpha-Chlordane	ND	1.0	0.21	1	B7A0128	01/05/2017	01/06/17 10:46	
beta-BHC	ND	1.0	0.23	1	B7A0128	01/05/2017	01/06/17 10:46	
Chlordane	ND	8.5	0.90	1	B7A0128	01/05/2017	01/06/17 10:46	
delta-BHC	ND	1.0	0.21	1	B7A0128	01/05/2017	01/06/17 10:46	
Dieldrin	ND	2.0	0.25	1	B7A0128	01/05/2017	01/06/17 10:46	
Endosulfan I	ND	1.0	0.21	1	B7A0128	01/05/2017	01/06/17 10:46	
Endosulfan II	ND	2.0	0.22	1	B7A0128	01/05/2017	01/06/17 10:46	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0128	01/05/2017	01/06/17 10:46	
Endrin	ND	2.0	0.23	1	B7A0128	01/05/2017	01/06/17 10:46	
Endrin aldehyde	ND	2.0	0.28	1	B7A0128	01/05/2017	01/06/17 10:46	
Endrin ketone	ND	2.0	0.20	1	B7A0128	01/05/2017	01/06/17 10:46	
gamma-BHC	ND	1.0	0.20	1	B7A0128	01/05/2017	01/06/17 10:46	
gamma-Chlordane	ND	1.0	0.23	1	B7A0128	01/05/2017	01/06/17 10:46	
Heptachlor	ND	1.0	0.19	1	B7A0128	01/05/2017	01/06/17 10:46	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0128	01/05/2017	01/06/17 10:46	
Methoxychlor	ND	5.0	0.18	1	B7A0128	01/05/2017	01/06/17 10:46	
Toxaphene	ND	50	8.2	1	B7A0128	01/05/2017	01/06/17 10:46	
Surrogate: Decachlorobiphenyl	*50.8 %*		*27 - 123*		B7A0128	01/05/2017	*01/06/17 10:46*	
Surrogate: Tetrachloro-m-xylene	*42.6 %*		*26 - 108*		B7A0128	01/05/2017	*01/06/17 10:46*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB14-2-2.5
Lab ID: 1604898-48

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.1**	1.0	0.70	1	B7A0115	01/05/2017	01/06/17 11:38	
Lead	**11**	1.0	0.11	1	B7A0115	01/05/2017	01/06/17 11:38	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0128	01/05/2017	01/06/17 10:57	
4,4´-DDE	ND	2.0	0.20	1	B7A0128	01/05/2017	01/06/17 10:57	
4,4´-DDT	ND	2.0	0.13	1	B7A0128	01/05/2017	01/06/17 10:57	
Aldrin	ND	1.0	0.27	1	B7A0128	01/05/2017	01/06/17 10:57	
alpha-BHC	ND	1.0	0.20	1	B7A0128	01/05/2017	01/06/17 10:57	
alpha-Chlordane	ND	1.0	0.21	1	B7A0128	01/05/2017	01/06/17 10:57	
beta-BHC	ND	1.0	0.23	1	B7A0128	01/05/2017	01/06/17 10:57	
Chlordane	ND	8.5	0.90	1	B7A0128	01/05/2017	01/06/17 10:57	
delta-BHC	ND	1.0	0.21	1	B7A0128	01/05/2017	01/06/17 10:57	
Dieldrin	ND	2.0	0.25	1	B7A0128	01/05/2017	01/06/17 10:57	
Endosulfan I	ND	1.0	0.21	1	B7A0128	01/05/2017	01/06/17 10:57	
Endosulfan II	ND	2.0	0.22	1	B7A0128	01/05/2017	01/06/17 10:57	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0128	01/05/2017	01/06/17 10:57	
Endrin	ND	2.0	0.23	1	B7A0128	01/05/2017	01/06/17 10:57	
Endrin aldehyde	ND	2.0	0.28	1	B7A0128	01/05/2017	01/06/17 10:57	
Endrin ketone	ND	2.0	0.20	1	B7A0128	01/05/2017	01/06/17 10:57	
gamma-BHC	ND	1.0	0.20	1	B7A0128	01/05/2017	01/06/17 10:57	
gamma-Chlordane	ND	1.0	0.23	1	B7A0128	01/05/2017	01/06/17 10:57	
Heptachlor	ND	1.0	0.19	1	B7A0128	01/05/2017	01/06/17 10:57	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0128	01/05/2017	01/06/17 10:57	
Methoxychlor	ND	5.0	0.18	1	B7A0128	01/05/2017	01/06/17 10:57	
Toxaphene	ND	50	8.2	1	B7A0128	01/05/2017	01/06/17 10:57	
Surrogate: Decachlorobiphenyl	*59.0 %*	*27 - 123*			B7A0128	01/05/2017	*01/06/17 10:57*	
Surrogate: Tetrachloro-m-xylene	*47.7 %*	*26 - 108*			B7A0128	01/05/2017	*01/06/17 10:57*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB14-3-0.5

Lab ID: 1604898-49

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**3.9**	1.0	0.70	1	B7A0115	01/05/2017	01/06/17 11:39	
Lead	**16**	1.0	0.11	1	B7A0115	01/05/2017	01/06/17 11:39	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD [2C]	**4.6**	2.0	0.22	1	B7A0128	01/05/2017	01/06/17 11:07	
4,4´-DDE [2C]	**10**	2.0	0.20	1	B7A0128	01/05/2017	01/06/17 11:07	
4,4´-DDT [2C]	**9.3**	2.0	0.13	1	B7A0128	01/05/2017	01/06/17 11:07	
Aldrin	ND	1.0	0.27	1	B7A0128	01/05/2017	01/06/17 11:07	
alpha-BHC	ND	1.0	0.20	1	B7A0128	01/05/2017	01/06/17 11:07	
alpha-Chlordane [2C]	**0.67**	1.0	0.21	1	B7A0128	01/05/2017	01/06/17 11:07	J
beta-BHC	ND	1.0	0.23	1	B7A0128	01/05/2017	01/06/17 11:07	
Chlordane [2C]	**6.3**	8.5	0.90	1	B7A0128	01/05/2017	01/06/17 11:07	J
delta-BHC	ND	1.0	0.21	1	B7A0128	01/05/2017	01/06/17 11:07	
Dieldrin	ND	2.0	0.25	1	B7A0128	01/05/2017	01/06/17 11:07	
Endosulfan I	ND	1.0	0.21	1	B7A0128	01/05/2017	01/06/17 11:07	
Endosulfan II	ND	2.0	0.22	1	B7A0128	01/05/2017	01/06/17 11:07	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0128	01/05/2017	01/06/17 11:07	
Endrin	ND	2.0	0.23	1	B7A0128	01/05/2017	01/06/17 11:07	
Endrin aldehyde	ND	2.0	0.28	1	B7A0128	01/05/2017	01/06/17 11:07	
Endrin ketone	ND	2.0	0.20	1	B7A0128	01/05/2017	01/06/17 11:07	
gamma-BHC	ND	1.0	0.20	1	B7A0128	01/05/2017	01/06/17 11:07	
gamma-Chlordane	**0.42**	1.0	0.23	1	B7A0128	01/05/2017	01/06/17 11:07	J
Heptachlor	ND	1.0	0.19	1	B7A0128	01/05/2017	01/06/17 11:07	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0128	01/05/2017	01/06/17 11:07	
Methoxychlor	ND	5.0	0.18	1	B7A0128	01/05/2017	01/06/17 11:07	
Toxaphene	ND	50	8.2	1	B7A0128	01/05/2017	01/06/17 11:07	
Surrogate: Decachlorobiphenyl	*39.2 %*	*27 - 123*			B7A0128	01/05/2017	*01/06/17 11:07*	
Surrogate: Tetrachloro-m-xylene	*26.4 %*	*26 - 108*			B7A0128	01/05/2017	*01/06/17 11:07*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB14-3-1.5
Lab ID: 1604898-50

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.9**	1.0	0.70	1	B7A0115	01/05/2017	01/06/17 11:40	
Lead	**28**	1.0	0.11	1	B7A0115	01/05/2017	01/06/17 11:40	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	10	1.1	5	B7A0128	01/05/2017	01/06/17 11:18	D1
4,4´-DDE	ND	10	0.98	5	B7A0128	01/05/2017	01/06/17 11:18	D1
4,4´-DDT	ND	10	0.67	5	B7A0128	01/05/2017	01/06/17 11:18	D1
Aldrin	ND	5.0	1.3	5	B7A0128	01/05/2017	01/06/17 11:18	D1
alpha-BHC	ND	5.0	0.99	5	B7A0128	01/05/2017	01/06/17 11:18	D1
alpha-Chlordane	ND	5.0	1.1	5	B7A0128	01/05/2017	01/06/17 11:18	D1
beta-BHC	ND	5.0	1.1	5	B7A0128	01/05/2017	01/06/17 11:18	D1
Chlordane	ND	42	4.5	5	B7A0128	01/05/2017	01/06/17 11:18	D1
delta-BHC	ND	5.0	1.0	5	B7A0128	01/05/2017	01/06/17 11:18	D1
Dieldrin	ND	10	1.2	5	B7A0128	01/05/2017	01/06/17 11:18	D1
Endosulfan I	ND	5.0	1.1	5	B7A0128	01/05/2017	01/06/17 11:18	D1
Endosulfan II	ND	10	1.1	5	B7A0128	01/05/2017	01/06/17 11:18	D1
Endosulfan sulfate	ND	10	1.1	5	B7A0128	01/05/2017	01/06/17 11:18	D1
Endrin	ND	10	1.1	5	B7A0128	01/05/2017	01/06/17 11:18	D1
Endrin aldehyde	ND	10	1.4	5	B7A0128	01/05/2017	01/06/17 11:18	D1
Endrin ketone	ND	10	1.0	5	B7A0128	01/05/2017	01/06/17 11:18	D1
gamma-BHC	ND	5.0	1.0	5	B7A0128	01/05/2017	01/06/17 11:18	D1
gamma-Chlordane	ND	5.0	1.1	5	B7A0128	01/05/2017	01/06/17 11:18	D1
Heptachlor	ND	5.0	0.95	5	B7A0128	01/05/2017	01/06/17 11:18	D1
Heptachlor epoxide	ND	5.0	1.0	5	B7A0128	01/05/2017	01/06/17 11:18	D1
Methoxychlor	ND	25	0.89	5	B7A0128	01/05/2017	01/06/17 11:18	D1
Toxaphene	ND	250	41	5	B7A0128	01/05/2017	01/06/17 11:18	D1
Surrogate: Decachlorobiphenyl	*76.6 %*		*27 - 123*		B7A0128	01/05/2017	*01/06/17 11:18*	
Surrogate: Tetrachloro-m-xylene	*31.2 %*		*26 - 108*		B7A0128	01/05/2017	*01/06/17 11:18*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB14-3-2.5
Lab ID: 1604898-51

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.5**	1.0	0.70	1	B7A0115	01/05/2017	01/06/17 11:41	
Lead	**3.3**	1.0	0.11	1	B7A0115	01/05/2017	01/06/17 11:41	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0128	01/05/2017	01/06/17 11:29	
4,4´-DDE	ND	2.0	0.20	1	B7A0128	01/05/2017	01/06/17 11:29	
4,4´-DDT	ND	2.0	0.13	1	B7A0128	01/05/2017	01/06/17 11:29	
Aldrin	ND	1.0	0.27	1	B7A0128	01/05/2017	01/06/17 11:29	
alpha-BHC	ND	1.0	0.20	1	B7A0128	01/05/2017	01/06/17 11:29	
alpha-Chlordane	ND	1.0	0.21	1	B7A0128	01/05/2017	01/06/17 11:29	
beta-BHC	ND	1.0	0.23	1	B7A0128	01/05/2017	01/06/17 11:29	
Chlordane	ND	8.5	0.90	1	B7A0128	01/05/2017	01/06/17 11:29	
delta-BHC	ND	1.0	0.21	1	B7A0128	01/05/2017	01/06/17 11:29	
Dieldrin	ND	2.0	0.25	1	B7A0128	01/05/2017	01/06/17 11:29	
Endosulfan I	ND	1.0	0.21	1	B7A0128	01/05/2017	01/06/17 11:29	
Endosulfan II	ND	2.0	0.22	1	B7A0128	01/05/2017	01/06/17 11:29	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0128	01/05/2017	01/06/17 11:29	
Endrin	ND	2.0	0.23	1	B7A0128	01/05/2017	01/06/17 11:29	
Endrin aldehyde	ND	2.0	0.28	1	B7A0128	01/05/2017	01/06/17 11:29	
Endrin ketone	ND	2.0	0.20	1	B7A0128	01/05/2017	01/06/17 11:29	
gamma-BHC	ND	1.0	0.20	1	B7A0128	01/05/2017	01/06/17 11:29	
gamma-Chlordane	ND	1.0	0.23	1	B7A0128	01/05/2017	01/06/17 11:29	
Heptachlor	ND	1.0	0.19	1	B7A0128	01/05/2017	01/06/17 11:29	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0128	01/05/2017	01/06/17 11:29	
Methoxychlor	ND	5.0	0.18	1	B7A0128	01/05/2017	01/06/17 11:29	
Toxaphene	ND	50	8.2	1	B7A0128	01/05/2017	01/06/17 11:29	
Surrogate: Decachlorobiphenyl	*60.8 %*		*27 - 123*		B7A0128	01/05/2017	*01/06/17 11:29*	
Surrogate: Tetrachloro-m-xylene	*52.3 %*		*26 - 108*		B7A0128	01/05/2017	*01/06/17 11:29*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB14-4-0.5
Lab ID: 1604898-52

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**3.0**	1.0	0.70	1	B7A0115	01/05/2017	01/06/17 11:42	
Lead	**46**	1.0	0.11	1	B7A0115	01/05/2017	01/06/17 11:42	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	**21**	2.0	0.22	1	B7A0128	01/05/2017	01/06/17 11:39	
4,4´-DDE [2C]	**50**	2.0	0.20	1	B7A0128	01/05/2017	01/06/17 11:39	
4,4´-DDT	**25**	2.0	0.13	1	B7A0128	01/05/2017	01/06/17 11:39	
Aldrin	ND	1.0	0.27	1	B7A0128	01/05/2017	01/06/17 11:39	
alpha-BHC	ND	1.0	0.20	1	B7A0128	01/05/2017	01/06/17 11:39	
alpha-Chlordane [2C]	**3.6**	1.0	0.21	1	B7A0128	01/05/2017	01/06/17 11:39	
beta-BHC	ND	1.0	0.23	1	B7A0128	01/05/2017	01/06/17 11:39	
Chlordane [2C]	**38**	8.5	0.90	1	B7A0128	01/05/2017	01/06/17 11:39	
delta-BHC	ND	1.0	0.21	1	B7A0128	01/05/2017	01/06/17 11:39	
Dieldrin	ND	2.0	0.25	1	B7A0128	01/05/2017	01/06/17 11:39	
Endosulfan I	ND	1.0	0.21	1	B7A0128	01/05/2017	01/06/17 11:39	
Endosulfan II	ND	2.0	0.22	1	B7A0128	01/05/2017	01/06/17 11:39	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0128	01/05/2017	01/06/17 11:39	
Endrin	ND	2.0	0.23	1	B7A0128	01/05/2017	01/06/17 11:39	
Endrin aldehyde	ND	2.0	0.28	1	B7A0128	01/05/2017	01/06/17 11:39	
Endrin ketone	ND	2.0	0.20	1	B7A0128	01/05/2017	01/06/17 11:39	
gamma-BHC	ND	1.0	0.20	1	B7A0128	01/05/2017	01/06/17 11:39	
gamma-Chlordane [2C]	**4.8**	1.0	0.23	1	B7A0128	01/05/2017	01/06/17 11:39	
Heptachlor	ND	1.0	0.19	1	B7A0128	01/05/2017	01/06/17 11:39	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0128	01/05/2017	01/06/17 11:39	
Methoxychlor	ND	5.0	0.18	1	B7A0128	01/05/2017	01/06/17 11:39	
Toxaphene	ND	50	8.2	1	B7A0128	01/05/2017	01/06/17 11:39	
Surrogate: Decachlorobiphenyl	*46.5 %*		*27 - 123*		B7A0128	01/05/2017	*01/06/17 11:39*	
Surrogate: Tetrachloro-m-xylene	*31.5 %*		*26 - 108*		B7A0128	01/05/2017	*01/06/17 11:39*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB14-4-1.5
Lab ID: 1604898-53

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.6**	1.0	0.70	1	B7A0115	01/05/2017	01/06/17 11:44	
Lead	**140**	1.0	0.11	1	B7A0115	01/05/2017	01/06/17 11:44	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0128	01/05/2017	01/06/17 11:50	
4,4´-DDE	ND	2.0	0.20	1	B7A0128	01/05/2017	01/06/17 11:50	
4,4´-DDT	ND	2.0	0.13	1	B7A0128	01/05/2017	01/06/17 11:50	
Aldrin	ND	1.0	0.27	1	B7A0128	01/05/2017	01/06/17 11:50	
alpha-BHC	ND	1.0	0.20	1	B7A0128	01/05/2017	01/06/17 11:50	
alpha-Chlordane	ND	1.0	0.21	1	B7A0128	01/05/2017	01/06/17 11:50	
beta-BHC	ND	1.0	0.23	1	B7A0128	01/05/2017	01/06/17 11:50	
Chlordane	ND	8.5	0.90	1	B7A0128	01/05/2017	01/06/17 11:50	
delta-BHC	ND	1.0	0.21	1	B7A0128	01/05/2017	01/06/17 11:50	
Dieldrin	ND	2.0	0.25	1	B7A0128	01/05/2017	01/06/17 11:50	
Endosulfan I	ND	1.0	0.21	1	B7A0128	01/05/2017	01/06/17 11:50	
Endosulfan II	ND	2.0	0.22	1	B7A0128	01/05/2017	01/06/17 11:50	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0128	01/05/2017	01/06/17 11:50	
Endrin	ND	2.0	0.23	1	B7A0128	01/05/2017	01/06/17 11:50	
Endrin aldehyde	ND	2.0	0.28	1	B7A0128	01/05/2017	01/06/17 11:50	
Endrin ketone	ND	2.0	0.20	1	B7A0128	01/05/2017	01/06/17 11:50	
gamma-BHC	ND	1.0	0.20	1	B7A0128	01/05/2017	01/06/17 11:50	
gamma-Chlordane	ND	1.0	0.23	1	B7A0128	01/05/2017	01/06/17 11:50	
Heptachlor	ND	1.0	0.19	1	B7A0128	01/05/2017	01/06/17 11:50	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0128	01/05/2017	01/06/17 11:50	
Methoxychlor	ND	5.0	0.18	1	B7A0128	01/05/2017	01/06/17 11:50	
Toxaphene	ND	50	8.2	1	B7A0128	01/05/2017	01/06/17 11:50	
Surrogate: Decachlorobiphenyl	*43.0 %*		*27 - 123*		B7A0128	01/05/2017	*01/06/17 11:50*	
Surrogate: Tetrachloro-m-xylene	*31.8 %*		*26 - 108*		B7A0128	01/05/2017	*01/06/17 11:50*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB14-4-2.5
Lab ID: 1604898-54

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.0**	1.0	0.70	1	B7A0115	01/05/2017	01/06/17 11:47	
Lead	**47**	1.0	0.11	1	B7A0115	01/05/2017	01/06/17 11:47	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0128	01/05/2017	01/06/17 12:01	
4,4´-DDE	ND	2.0	0.20	1	B7A0128	01/05/2017	01/06/17 12:01	
4,4´-DDT	ND	2.0	0.13	1	B7A0128	01/05/2017	01/06/17 12:01	
Aldrin	ND	1.0	0.27	1	B7A0128	01/05/2017	01/06/17 12:01	
alpha-BHC	ND	1.0	0.20	1	B7A0128	01/05/2017	01/06/17 12:01	
alpha-Chlordane	ND	1.0	0.21	1	B7A0128	01/05/2017	01/06/17 12:01	
beta-BHC	ND	1.0	0.23	1	B7A0128	01/05/2017	01/06/17 12:01	
Chlordane	ND	8.5	0.90	1	B7A0128	01/05/2017	01/06/17 12:01	
delta-BHC	ND	1.0	0.21	1	B7A0128	01/05/2017	01/06/17 12:01	
Dieldrin	ND	2.0	0.25	1	B7A0128	01/05/2017	01/06/17 12:01	
Endosulfan I	ND	1.0	0.21	1	B7A0128	01/05/2017	01/06/17 12:01	
Endosulfan II	ND	2.0	0.22	1	B7A0128	01/05/2017	01/06/17 12:01	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0128	01/05/2017	01/06/17 12:01	
Endrin	ND	2.0	0.23	1	B7A0128	01/05/2017	01/06/17 12:01	
Endrin aldehyde	ND	2.0	0.28	1	B7A0128	01/05/2017	01/06/17 12:01	
Endrin ketone	ND	2.0	0.20	1	B7A0128	01/05/2017	01/06/17 12:01	
gamma-BHC	ND	1.0	0.20	1	B7A0128	01/05/2017	01/06/17 12:01	
gamma-Chlordane	ND	1.0	0.23	1	B7A0128	01/05/2017	01/06/17 12:01	
Heptachlor	ND	1.0	0.19	1	B7A0128	01/05/2017	01/06/17 12:01	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0128	01/05/2017	01/06/17 12:01	
Methoxychlor	ND	5.0	0.18	1	B7A0128	01/05/2017	01/06/17 12:01	
Toxaphene	ND	50	8.2	1	B7A0128	01/05/2017	01/06/17 12:01	
Surrogate: Decachlorobiphenyl	*50.7 %*		*27 - 123*		B7A0128	01/05/2017	*01/06/17 12:01*	
Surrogate: Tetrachloro-m-xylene	*30.6 %*		*26 - 108*		B7A0128	01/05/2017	*01/06/17 12:01*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB14-5-0.5
Lab ID: 1604898-55

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.8**	1.0	0.70	1	B7A0115	01/05/2017	01/06/17 11:48	
Lead	**20**	1.0	0.11	1	B7A0115	01/05/2017	01/06/17 11:48	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0128	01/05/2017	01/06/17 12:11	
4,4´-DDE	**0.88**	2.0	0.20	1	B7A0128	01/05/2017	01/06/17 12:11	J
4,4´-DDT	ND	2.0	0.13	1	B7A0128	01/05/2017	01/06/17 12:11	
Aldrin	ND	1.0	0.27	1	B7A0128	01/05/2017	01/06/17 12:11	
alpha-BHC	ND	1.0	0.20	1	B7A0128	01/05/2017	01/06/17 12:11	
alpha-Chlordane	**0.41**	1.0	0.21	1	B7A0128	01/05/2017	01/06/17 12:11	J
beta-BHC	ND	1.0	0.23	1	B7A0128	01/05/2017	01/06/17 12:11	
Chlordane [2C]	**2.9**	8.5	0.90	1	B7A0128	01/05/2017	01/06/17 12:11	J
delta-BHC	ND	1.0	0.21	1	B7A0128	01/05/2017	01/06/17 12:11	
Dieldrin	ND	2.0	0.25	1	B7A0128	01/05/2017	01/06/17 12:11	
Endosulfan I	ND	1.0	0.21	1	B7A0128	01/05/2017	01/06/17 12:11	
Endosulfan II	ND	2.0	0.22	1	B7A0128	01/05/2017	01/06/17 12:11	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0128	01/05/2017	01/06/17 12:11	
Endrin	ND	2.0	0.23	1	B7A0128	01/05/2017	01/06/17 12:11	
Endrin aldehyde	ND	2.0	0.28	1	B7A0128	01/05/2017	01/06/17 12:11	
Endrin ketone	ND	2.0	0.20	1	B7A0128	01/05/2017	01/06/17 12:11	
gamma-BHC	ND	1.0	0.20	1	B7A0128	01/05/2017	01/06/17 12:11	
gamma-Chlordane [2C]	**0.39**	1.0	0.23	1	B7A0128	01/05/2017	01/06/17 12:11	J
Heptachlor	ND	1.0	0.19	1	B7A0128	01/05/2017	01/06/17 12:11	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0128	01/05/2017	01/06/17 12:11	
Methoxychlor	ND	5.0	0.18	1	B7A0128	01/05/2017	01/06/17 12:11	
Toxaphene	ND	50	8.2	1	B7A0128	01/05/2017	01/06/17 12:11	
Surrogate: Decachlorobiphenyl	*39.2 %*	*27 - 123*			B7A0128	01/05/2017	*01/06/17 12:11*	
Surrogate: Tetrachloro-m-xylene	*23.0 %*	*26 - 108*			B7A0128	01/05/2017	*01/06/17 12:11*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB14-5-1.5

Lab ID: 1604898-56

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.5**	1.0	0.70	1	B7A0115	01/05/2017	01/06/17 11:50	
Lead	**15**	1.0	0.11	1	B7A0115	01/05/2017	01/06/17 11:50	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0128	01/05/2017	01/06/17 12:22	
4,4´-DDE	ND	2.0	0.20	1	B7A0128	01/05/2017	01/06/17 12:22	
4,4´-DDT	ND	2.0	0.13	1	B7A0128	01/05/2017	01/06/17 12:22	
Aldrin	ND	1.0	0.27	1	B7A0128	01/05/2017	01/06/17 12:22	
alpha-BHC	ND	1.0	0.20	1	B7A0128	01/05/2017	01/06/17 12:22	
alpha-Chlordane	ND	1.0	0.21	1	B7A0128	01/05/2017	01/06/17 12:22	
beta-BHC	ND	1.0	0.23	1	B7A0128	01/05/2017	01/06/17 12:22	
Chlordane	ND	8.5	0.90	1	B7A0128	01/05/2017	01/06/17 12:22	
delta-BHC	ND	1.0	0.21	1	B7A0128	01/05/2017	01/06/17 12:22	
Dieldrin	ND	2.0	0.25	1	B7A0128	01/05/2017	01/06/17 12:22	
Endosulfan I	ND	1.0	0.21	1	B7A0128	01/05/2017	01/06/17 12:22	
Endosulfan II	ND	2.0	0.22	1	B7A0128	01/05/2017	01/06/17 12:22	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0128	01/05/2017	01/06/17 12:22	
Endrin	ND	2.0	0.23	1	B7A0128	01/05/2017	01/06/17 12:22	
Endrin aldehyde	ND	2.0	0.28	1	B7A0128	01/05/2017	01/06/17 12:22	
Endrin ketone	ND	2.0	0.20	1	B7A0128	01/05/2017	01/06/17 12:22	
gamma-BHC	ND	1.0	0.20	1	B7A0128	01/05/2017	01/06/17 12:22	
gamma-Chlordane	ND	1.0	0.23	1	B7A0128	01/05/2017	01/06/17 12:22	
Heptachlor	ND	1.0	0.19	1	B7A0128	01/05/2017	01/06/17 12:22	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0128	01/05/2017	01/06/17 12:22	
Methoxychlor	ND	5.0	0.18	1	B7A0128	01/05/2017	01/06/17 12:22	
Toxaphene	ND	50	8.2	1	B7A0128	01/05/2017	01/06/17 12:22	
Surrogate: Decachlorobiphenyl	*71.0 %*		*27 - 123*		B7A0128	01/05/2017	*01/06/17 12:22*	
Surrogate: Tetrachloro-m-xylene	*53.1 %*		*26 - 108*		B7A0128	01/05/2017	*01/06/17 12:22*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB14-5-2.5

Lab ID: 1604898-57

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.9**	1.0	0.70	1	B7A0115	01/05/2017	01/06/17 11:51	
Lead	**12**	1.0	0.11	1	B7A0115	01/05/2017	01/06/17 11:51	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0128	01/05/2017	01/06/17 12:33	
4,4´-DDE	ND	2.0	0.20	1	B7A0128	01/05/2017	01/06/17 12:33	
4,4´-DDT	ND	2.0	0.13	1	B7A0128	01/05/2017	01/06/17 12:33	
Aldrin	ND	1.0	0.27	1	B7A0128	01/05/2017	01/06/17 12:33	
alpha-BHC	ND	1.0	0.20	1	B7A0128	01/05/2017	01/06/17 12:33	
alpha-Chlordane	ND	1.0	0.21	1	B7A0128	01/05/2017	01/06/17 12:33	
beta-BHC	ND	1.0	0.23	1	B7A0128	01/05/2017	01/06/17 12:33	
Chlordane	ND	8.5	0.90	1	B7A0128	01/05/2017	01/06/17 12:33	
delta-BHC	ND	1.0	0.21	1	B7A0128	01/05/2017	01/06/17 12:33	
Dieldrin	ND	2.0	0.25	1	B7A0128	01/05/2017	01/06/17 12:33	
Endosulfan I	ND	1.0	0.21	1	B7A0128	01/05/2017	01/06/17 12:33	
Endosulfan II	ND	2.0	0.22	1	B7A0128	01/05/2017	01/06/17 12:33	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0128	01/05/2017	01/06/17 12:33	
Endrin	ND	2.0	0.23	1	B7A0128	01/05/2017	01/06/17 12:33	
Endrin aldehyde	ND	2.0	0.28	1	B7A0128	01/05/2017	01/06/17 12:33	
Endrin ketone	ND	2.0	0.20	1	B7A0128	01/05/2017	01/06/17 12:33	
gamma-BHC	ND	1.0	0.20	1	B7A0128	01/05/2017	01/06/17 12:33	
gamma-Chlordane	ND	1.0	0.23	1	B7A0128	01/05/2017	01/06/17 12:33	
Heptachlor	ND	1.0	0.19	1	B7A0128	01/05/2017	01/06/17 12:33	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0128	01/05/2017	01/06/17 12:33	
Methoxychlor	ND	5.0	0.18	1	B7A0128	01/05/2017	01/06/17 12:33	
Toxaphene	ND	50	8.2	1	B7A0128	01/05/2017	01/06/17 12:33	
Surrogate: Decachlorobiphenyl	*45.2 %*		*27 - 123*		B7A0128	01/05/2017	*01/06/17 12:33*	
Surrogate: Tetrachloro-m-xylene	*38.7 %*		*26 - 108*		B7A0128	01/05/2017	*01/06/17 12:33*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB14-6-0.5
Lab ID: 1604898-58

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**4.2**	1.0	0.70	1	B7A0116	01/05/2017	01/06/17 11:54	
Lead	**37**	1.0	0.11	1	B7A0116	01/05/2017	01/06/17 11:54	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0128	01/05/2017	01/06/17 12:43	
4,4´-DDE	**0.63**	2.0	0.20	1	B7A0128	01/05/2017	01/06/17 12:43	J
4,4´-DDT	ND	2.0	0.13	1	B7A0128	01/05/2017	01/06/17 12:43	
Aldrin	ND	1.0	0.27	1	B7A0128	01/05/2017	01/06/17 12:43	
alpha-BHC	ND	1.0	0.20	1	B7A0128	01/05/2017	01/06/17 12:43	
alpha-Chlordane [2C]	**0.24**	1.0	0.21	1	B7A0128	01/05/2017	01/06/17 12:43	J
beta-BHC	ND	1.0	0.23	1	B7A0128	01/05/2017	01/06/17 12:43	
Chlordane [2C]	**2.7**	8.5	0.90	1	B7A0128	01/05/2017	01/06/17 12:43	J
delta-BHC	ND	1.0	0.21	1	B7A0128	01/05/2017	01/06/17 12:43	
Dieldrin	ND	2.0	0.25	1	B7A0128	01/05/2017	01/06/17 12:43	
Endosulfan I	ND	1.0	0.21	1	B7A0128	01/05/2017	01/06/17 12:43	
Endosulfan II	ND	2.0	0.22	1	B7A0128	01/05/2017	01/06/17 12:43	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0128	01/05/2017	01/06/17 12:43	
Endrin	ND	2.0	0.23	1	B7A0128	01/05/2017	01/06/17 12:43	
Endrin aldehyde	ND	2.0	0.28	1	B7A0128	01/05/2017	01/06/17 12:43	
Endrin ketone	ND	2.0	0.20	1	B7A0128	01/05/2017	01/06/17 12:43	
gamma-BHC	ND	1.0	0.20	1	B7A0128	01/05/2017	01/06/17 12:43	
gamma-Chlordane [2C]	**0.29**	1.0	0.23	1	B7A0128	01/05/2017	01/06/17 12:43	J
Heptachlor	ND	1.0	0.19	1	B7A0128	01/05/2017	01/06/17 12:43	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0128	01/05/2017	01/06/17 12:43	
Methoxychlor	ND	5.0	0.18	1	B7A0128	01/05/2017	01/06/17 12:43	
Toxaphene	ND	50	8.2	1	B7A0128	01/05/2017	01/06/17 12:43	
Surrogate: Decachlorobiphenyl	*50.0 %*	*27 - 123*			B7A0128	01/05/2017	*01/06/17 12:43*	
Surrogate: Tetrachloro-m-xylene	*38.9 %*	*26 - 108*			B7A0128	01/05/2017	*01/06/17 12:43*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB14-6-0.5

Lab ID: 1604898-58

Polychlorinated Biphenyls by EPA 8082 **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B7A0122	01/05/2017	01/05/17 15:01	
Aroclor 1221	ND	16	1.5	1	B7A0122	01/05/2017	01/05/17 15:01	
Aroclor 1232	ND	16	1.5	1	B7A0122	01/05/2017	01/05/17 15:01	
Aroclor 1242	ND	16	1.5	1	B7A0122	01/05/2017	01/05/17 15:01	
Aroclor 1248	ND	16	1.5	1	B7A0122	01/05/2017	01/05/17 15:01	
Aroclor 1254	ND	16	1.5	1	B7A0122	01/05/2017	01/05/17 15:01	
Aroclor 1260	**6.8**	16	1.5	1	B7A0122	01/05/2017	01/05/17 15:01	J
Aroclor 1262	ND	16	1.5	1	B7A0122	01/05/2017	01/05/17 15:01	
Aroclor 1268	ND	16	1.5	1	B7A0122	01/05/2017	01/05/17 15:01	
Surrogate: Decachlorobiphenyl	*48.7 %*	*26 - 137*			B7A0122	01/05/2017	*01/05/17 15:01*	
Surrogate: Tetrachloro-m-xylene	*69.9 %*	*28 - 102*			B7A0122	01/05/2017	*01/05/17 15:01*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB14-6-1.5

Lab ID: 1604898-59

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.9**	1.0	0.70	1	B7A0116	01/05/2017	01/06/17 12:01	
Lead	**6.8**	1.0	0.11	1	B7A0116	01/05/2017	01/06/17 12:01	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0128	01/05/2017	01/06/17 12:54	
4,4´-DDE	ND	2.0	0.20	1	B7A0128	01/05/2017	01/06/17 12:54	
4,4´-DDT	ND	2.0	0.13	1	B7A0128	01/05/2017	01/06/17 12:54	
Aldrin	ND	1.0	0.27	1	B7A0128	01/05/2017	01/06/17 12:54	
alpha-BHC	ND	1.0	0.20	1	B7A0128	01/05/2017	01/06/17 12:54	
alpha-Chlordane	ND	1.0	0.21	1	B7A0128	01/05/2017	01/06/17 12:54	
beta-BHC	ND	1.0	0.23	1	B7A0128	01/05/2017	01/06/17 12:54	
Chlordane	ND	8.5	0.90	1	B7A0128	01/05/2017	01/06/17 12:54	
delta-BHC	ND	1.0	0.21	1	B7A0128	01/05/2017	01/06/17 12:54	
Dieldrin	ND	2.0	0.25	1	B7A0128	01/05/2017	01/06/17 12:54	
Endosulfan I	ND	1.0	0.21	1	B7A0128	01/05/2017	01/06/17 12:54	
Endosulfan II	ND	2.0	0.22	1	B7A0128	01/05/2017	01/06/17 12:54	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0128	01/05/2017	01/06/17 12:54	
Endrin	ND	2.0	0.23	1	B7A0128	01/05/2017	01/06/17 12:54	
Endrin aldehyde	ND	2.0	0.28	1	B7A0128	01/05/2017	01/06/17 12:54	
Endrin ketone	ND	2.0	0.20	1	B7A0128	01/05/2017	01/06/17 12:54	
gamma-BHC	ND	1.0	0.20	1	B7A0128	01/05/2017	01/06/17 12:54	
gamma-Chlordane	ND	1.0	0.23	1	B7A0128	01/05/2017	01/06/17 12:54	
Heptachlor	ND	1.0	0.19	1	B7A0128	01/05/2017	01/06/17 12:54	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0128	01/05/2017	01/06/17 12:54	
Methoxychlor	ND	5.0	0.18	1	B7A0128	01/05/2017	01/06/17 12:54	
Toxaphene	ND	50	8.2	1	B7A0128	01/05/2017	01/06/17 12:54	
Surrogate: Decachlorobiphenyl	*66.4 %*		*27 - 123*		B7A0128	01/05/2017	*01/06/17 12:54*	
Surrogate: Tetrachloro-m-xylene	*60.2 %*		*26 - 108*		B7A0128	01/05/2017	*01/06/17 12:54*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB14-6-2.5

Lab ID: 1604898-60

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.7**	1.0	0.70	1	B7A0116	01/05/2017	01/06/17 12:02	
Lead	**6.3**	1.0	0.11	1	B7A0116	01/05/2017	01/06/17 12:02	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0128	01/05/2017	01/06/17 13:05	
4,4´-DDE	ND	2.0	0.20	1	B7A0128	01/05/2017	01/06/17 13:05	
4,4´-DDT	ND	2.0	0.13	1	B7A0128	01/05/2017	01/06/17 13:05	
Aldrin	ND	1.0	0.27	1	B7A0128	01/05/2017	01/06/17 13:05	
alpha-BHC	ND	1.0	0.20	1	B7A0128	01/05/2017	01/06/17 13:05	
alpha-Chlordane	ND	1.0	0.21	1	B7A0128	01/05/2017	01/06/17 13:05	
beta-BHC	ND	1.0	0.23	1	B7A0128	01/05/2017	01/06/17 13:05	
Chlordane	ND	8.5	0.90	1	B7A0128	01/05/2017	01/06/17 13:05	
delta-BHC	ND	1.0	0.21	1	B7A0128	01/05/2017	01/06/17 13:05	
Dieldrin	ND	2.0	0.25	1	B7A0128	01/05/2017	01/06/17 13:05	
Endosulfan I	ND	1.0	0.21	1	B7A0128	01/05/2017	01/06/17 13:05	
Endosulfan II	ND	2.0	0.22	1	B7A0128	01/05/2017	01/06/17 13:05	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0128	01/05/2017	01/06/17 13:05	
Endrin	ND	2.0	0.23	1	B7A0128	01/05/2017	01/06/17 13:05	
Endrin aldehyde	ND	2.0	0.28	1	B7A0128	01/05/2017	01/06/17 13:05	
Endrin ketone	ND	2.0	0.20	1	B7A0128	01/05/2017	01/06/17 13:05	
gamma-BHC	ND	1.0	0.20	1	B7A0128	01/05/2017	01/06/17 13:05	
gamma-Chlordane	ND	1.0	0.23	1	B7A0128	01/05/2017	01/06/17 13:05	
Heptachlor	ND	1.0	0.19	1	B7A0128	01/05/2017	01/06/17 13:05	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0128	01/05/2017	01/06/17 13:05	
Methoxychlor	ND	5.0	0.18	1	B7A0128	01/05/2017	01/06/17 13:05	
Toxaphene	ND	50	8.2	1	B7A0128	01/05/2017	01/06/17 13:05	
Surrogate: Decachlorobiphenyl	*57.3 %*		*27 - 123*		B7A0128	01/05/2017	*01/06/17 13:05*	
Surrogate: Tetrachloro-m-xylene	*56.2 %*		*26 - 108*		B7A0128	01/05/2017	*01/06/17 13:05*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID EB11-1-0.5

Lab ID: 1604898-61

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**4.6**	1.0	0.70	1	B7A0116	01/05/2017	01/06/17 12:03	
Lead	**84**	1.0	0.11	1	B7A0116	01/05/2017	01/06/17 12:03	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0142	01/05/2017	01/06/17 16:47	
4,4´-DDE	ND	2.0	0.20	1	B7A0142	01/05/2017	01/06/17 16:47	
4,4´-DDT	ND	2.0	0.13	1	B7A0142	01/05/2017	01/06/17 16:47	
Aldrin	ND	1.0	0.27	1	B7A0142	01/05/2017	01/06/17 16:47	
alpha-BHC	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 16:47	
alpha-Chlordane	ND	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 16:47	
beta-BHC	ND	1.0	0.23	1	B7A0142	01/05/2017	01/06/17 16:47	
Chlordane	ND	8.5	0.90	1	B7A0142	01/05/2017	01/06/17 16:47	
delta-BHC	ND	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 16:47	
Dieldrin	ND	2.0	0.25	1	B7A0142	01/05/2017	01/06/17 16:47	
Endosulfan I	ND	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 16:47	
Endosulfan II	ND	2.0	0.22	1	B7A0142	01/05/2017	01/06/17 16:47	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0142	01/05/2017	01/06/17 16:47	
Endrin	ND	2.0	0.23	1	B7A0142	01/05/2017	01/06/17 16:47	
Endrin aldehyde	ND	2.0	0.28	1	B7A0142	01/05/2017	01/06/17 16:47	
Endrin ketone	ND	2.0	0.20	1	B7A0142	01/05/2017	01/06/17 16:47	
gamma-BHC	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 16:47	
gamma-Chlordane	ND	1.0	0.23	1	B7A0142	01/05/2017	01/06/17 16:47	
Heptachlor	ND	1.0	0.19	1	B7A0142	01/05/2017	01/06/17 16:47	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 16:47	
Methoxychlor	ND	5.0	0.18	1	B7A0142	01/05/2017	01/06/17 16:47	
Toxaphene	ND	50	8.2	1	B7A0142	01/05/2017	01/06/17 16:47	
Surrogate: Decachlorobiphenyl	*51.3 %*		*27 - 123*		B7A0142	01/05/2017	*01/06/17 16:47*	
Surrogate: Tetrachloro-m-xylene	*47.3 %*		*26 - 108*		B7A0142	01/05/2017	*01/06/17 16:47*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID EB11-1-0.5

Lab ID: 1604898-61

Polychlorinated Biphenyls by EPA 8082 **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 12:06	
Aroclor 1221	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 12:06	
Aroclor 1232	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 12:06	
Aroclor 1242	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 12:06	
Aroclor 1248	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 12:06	
Aroclor 1254	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 12:06	
Aroclor 1260	**6.1**	16	1.5	1	B7A0122	01/05/2017	01/06/17 12:06	J
Aroclor 1262	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 12:06	
Aroclor 1268	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 12:06	
Surrogate: Decachlorobiphenyl	*76.9 %*	*26 - 137*			B7A0122	01/05/2017	*01/06/17 12:06*	
Surrogate: Tetrachloro-m-xylene	*74.9 %*	*28 - 102*			B7A0122	01/05/2017	*01/06/17 12:06*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID EB11-1-1.5

Lab ID: 1604898-62

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**5.7**	1.0	0.70	1	B7A0116	01/05/2017	01/06/17 12:04	
Lead	**65**	1.0	0.11	1	B7A0116	01/05/2017	01/06/17 12:04	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0142	01/05/2017	01/06/17 16:58	
4,4´-DDE	ND	2.0	0.20	1	B7A0142	01/05/2017	01/06/17 16:58	
4,4´-DDT	ND	2.0	0.13	1	B7A0142	01/05/2017	01/06/17 16:58	
Aldrin	ND	1.0	0.27	1	B7A0142	01/05/2017	01/06/17 16:58	
alpha-BHC	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 16:58	
alpha-Chlordane	ND	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 16:58	
beta-BHC	ND	1.0	0.23	1	B7A0142	01/05/2017	01/06/17 16:58	
Chlordane	ND	8.5	0.90	1	B7A0142	01/05/2017	01/06/17 16:58	
delta-BHC	ND	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 16:58	
Dieldrin	ND	2.0	0.25	1	B7A0142	01/05/2017	01/06/17 16:58	
Endosulfan I	ND	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 16:58	
Endosulfan II	ND	2.0	0.22	1	B7A0142	01/05/2017	01/06/17 16:58	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0142	01/05/2017	01/06/17 16:58	
Endrin	ND	2.0	0.23	1	B7A0142	01/05/2017	01/06/17 16:58	
Endrin aldehyde	ND	2.0	0.28	1	B7A0142	01/05/2017	01/06/17 16:58	
Endrin ketone	ND	2.0	0.20	1	B7A0142	01/05/2017	01/06/17 16:58	
gamma-BHC	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 16:58	
gamma-Chlordane	ND	1.0	0.23	1	B7A0142	01/05/2017	01/06/17 16:58	
Heptachlor	ND	1.0	0.19	1	B7A0142	01/05/2017	01/06/17 16:58	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 16:58	
Methoxychlor	ND	5.0	0.18	1	B7A0142	01/05/2017	01/06/17 16:58	
Toxaphene	ND	50	8.2	1	B7A0142	01/05/2017	01/06/17 16:58	
Surrogate: Decachlorobiphenyl	*52.0 %*		*27 - 123*		B7A0142	01/05/2017	*01/06/17 16:58*	
Surrogate: Tetrachloro-m-xylene	*49.3 %*		*26 - 108*		B7A0142	01/05/2017	*01/06/17 16:58*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID EB11-2-0.5
Lab ID: 1604898-64

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**6.8**	1.0	0.70	1	B7A0116	01/05/2017	01/06/17 12:05	
Lead	**90**	1.0	0.11	1	B7A0116	01/05/2017	01/06/17 12:05	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0142	01/05/2017	01/06/17 17:08	
4,4´-DDE	ND	2.0	0.20	1	B7A0142	01/05/2017	01/06/17 17:08	
4,4´-DDT	ND	2.0	0.13	1	B7A0142	01/05/2017	01/06/17 17:08	
Aldrin	ND	1.0	0.27	1	B7A0142	01/05/2017	01/06/17 17:08	
alpha-BHC	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 17:08	
alpha-Chlordane	ND	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 17:08	
beta-BHC	ND	1.0	0.23	1	B7A0142	01/05/2017	01/06/17 17:08	
Chlordane	ND	8.5	0.90	1	B7A0142	01/05/2017	01/06/17 17:08	
delta-BHC	ND	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 17:08	
Dieldrin	ND	2.0	0.25	1	B7A0142	01/05/2017	01/06/17 17:08	
Endosulfan I	ND	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 17:08	
Endosulfan II	ND	2.0	0.22	1	B7A0142	01/05/2017	01/06/17 17:08	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0142	01/05/2017	01/06/17 17:08	
Endrin	ND	2.0	0.23	1	B7A0142	01/05/2017	01/06/17 17:08	
Endrin aldehyde	ND	2.0	0.28	1	B7A0142	01/05/2017	01/06/17 17:08	
Endrin ketone	ND	2.0	0.20	1	B7A0142	01/05/2017	01/06/17 17:08	
gamma-BHC	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 17:08	
gamma-Chlordane	ND	1.0	0.23	1	B7A0142	01/05/2017	01/06/17 17:08	
Heptachlor	ND	1.0	0.19	1	B7A0142	01/05/2017	01/06/17 17:08	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 17:08	
Methoxychlor	ND	5.0	0.18	1	B7A0142	01/05/2017	01/06/17 17:08	
Toxaphene	ND	50	8.2	1	B7A0142	01/05/2017	01/06/17 17:08	
Surrogate: Decachlorobiphenyl	*50.3 %*		*27 - 123*		B7A0142	01/05/2017	*01/06/17 17:08*	
Surrogate: Tetrachloro-m-xylene	*49.2 %*		*26 - 108*		B7A0142	01/05/2017	*01/06/17 17:08*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID EB11-2-1.5

Lab ID: 1604898-65

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**3.2**	1.0	0.70	1	B7A0116	01/05/2017	01/06/17 12:06	
Lead	**46**	1.0	0.11	1	B7A0116	01/05/2017	01/06/17 12:06	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0142	01/05/2017	01/06/17 17:19	
4,4´-DDE	ND	2.0	0.20	1	B7A0142	01/05/2017	01/06/17 17:19	
4,4´-DDT	ND	2.0	0.13	1	B7A0142	01/05/2017	01/06/17 17:19	
Aldrin	ND	1.0	0.27	1	B7A0142	01/05/2017	01/06/17 17:19	
alpha-BHC	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 17:19	
alpha-Chlordane	ND	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 17:19	
beta-BHC	ND	1.0	0.23	1	B7A0142	01/05/2017	01/06/17 17:19	
Chlordane	ND	8.5	0.90	1	B7A0142	01/05/2017	01/06/17 17:19	
delta-BHC	ND	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 17:19	
Dieldrin	ND	2.0	0.25	1	B7A0142	01/05/2017	01/06/17 17:19	
Endosulfan I	ND	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 17:19	
Endosulfan II	ND	2.0	0.22	1	B7A0142	01/05/2017	01/06/17 17:19	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0142	01/05/2017	01/06/17 17:19	
Endrin	ND	2.0	0.23	1	B7A0142	01/05/2017	01/06/17 17:19	
Endrin aldehyde	ND	2.0	0.28	1	B7A0142	01/05/2017	01/06/17 17:19	
Endrin ketone	ND	2.0	0.20	1	B7A0142	01/05/2017	01/06/17 17:19	
gamma-BHC	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 17:19	
gamma-Chlordane	ND	1.0	0.23	1	B7A0142	01/05/2017	01/06/17 17:19	
Heptachlor	ND	1.0	0.19	1	B7A0142	01/05/2017	01/06/17 17:19	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 17:19	
Methoxychlor	ND	5.0	0.18	1	B7A0142	01/05/2017	01/06/17 17:19	
Toxaphene	ND	50	8.2	1	B7A0142	01/05/2017	01/06/17 17:19	
Surrogate: Decachlorobiphenyl	*54.1 %*		*27 - 123*		B7A0142	01/05/2017	*01/06/17 17:19*	
Surrogate: Tetrachloro-m-xylene	*52.9 %*		*26 - 108*		B7A0142	01/05/2017	*01/06/17 17:19*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID EB12-1-0.5
Lab ID: 1604898-67

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**55**	1.0	0.70	1	B7A0116	01/05/2017	01/06/17 12:08	
Lead	**74**	1.0	0.11	1	B7A0116	01/05/2017	01/06/17 12:08	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0142	01/05/2017	01/06/17 17:30	
4,4´-DDE	ND	2.0	0.20	1	B7A0142	01/05/2017	01/06/17 17:30	
4,4´-DDT	ND	2.0	0.13	1	B7A0142	01/05/2017	01/06/17 17:30	
Aldrin	ND	1.0	0.27	1	B7A0142	01/05/2017	01/06/17 17:30	
alpha-BHC	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 17:30	
alpha-Chlordane [2C]	**0.44**	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 17:30	J
beta-BHC	ND	1.0	0.23	1	B7A0142	01/05/2017	01/06/17 17:30	
Chlordane [2C]	**3.7**	8.5	0.90	1	B7A0142	01/05/2017	01/06/17 17:30	J
delta-BHC	ND	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 17:30	
Dieldrin	ND	2.0	0.25	1	B7A0142	01/05/2017	01/06/17 17:30	
Endosulfan I	ND	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 17:30	
Endosulfan II	ND	2.0	0.22	1	B7A0142	01/05/2017	01/06/17 17:30	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0142	01/05/2017	01/06/17 17:30	
Endrin	ND	2.0	0.23	1	B7A0142	01/05/2017	01/06/17 17:30	
Endrin aldehyde	ND	2.0	0.28	1	B7A0142	01/05/2017	01/06/17 17:30	
Endrin ketone	ND	2.0	0.20	1	B7A0142	01/05/2017	01/06/17 17:30	
gamma-BHC	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 17:30	
gamma-Chlordane [2C]	**0.38**	1.0	0.23	1	B7A0142	01/05/2017	01/06/17 17:30	J
Heptachlor	ND	1.0	0.19	1	B7A0142	01/05/2017	01/06/17 17:30	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 17:30	
Methoxychlor	ND	5.0	0.18	1	B7A0142	01/05/2017	01/06/17 17:30	
Toxaphene	ND	50	8.2	1	B7A0142	01/05/2017	01/06/17 17:30	
Surrogate: Decachlorobiphenyl	*45.1 %*		*27 - 123*		B7A0142	01/05/2017	*01/06/17 17:30*	
Surrogate: Tetrachloro-m-xylene	*35.6 %*		*26 - 108*		B7A0142	01/05/2017	*01/06/17 17:30*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID EB12-1-1.5
Lab ID: 1604898-68

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**40**	1.0	0.70	1	B7A0116	01/05/2017	01/06/17 12:09	
Lead	**28**	1.0	0.11	1	B7A0116	01/05/2017	01/06/17 12:09	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0142	01/05/2017	01/06/17 17:40	
4,4´-DDE	ND	2.0	0.20	1	B7A0142	01/05/2017	01/06/17 17:40	
4,4´-DDT	ND	2.0	0.13	1	B7A0142	01/05/2017	01/06/17 17:40	
Aldrin	ND	1.0	0.27	1	B7A0142	01/05/2017	01/06/17 17:40	
alpha-BHC	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 17:40	
alpha-Chlordane	ND	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 17:40	
beta-BHC	ND	1.0	0.23	1	B7A0142	01/05/2017	01/06/17 17:40	
Chlordane	ND	8.5	0.90	1	B7A0142	01/05/2017	01/06/17 17:40	
delta-BHC	ND	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 17:40	
Dieldrin	ND	2.0	0.25	1	B7A0142	01/05/2017	01/06/17 17:40	
Endosulfan I	ND	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 17:40	
Endosulfan II	ND	2.0	0.22	1	B7A0142	01/05/2017	01/06/17 17:40	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0142	01/05/2017	01/06/17 17:40	
Endrin	ND	2.0	0.23	1	B7A0142	01/05/2017	01/06/17 17:40	
Endrin aldehyde	ND	2.0	0.28	1	B7A0142	01/05/2017	01/06/17 17:40	
Endrin ketone	ND	2.0	0.20	1	B7A0142	01/05/2017	01/06/17 17:40	
gamma-BHC	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 17:40	
gamma-Chlordane	ND	1.0	0.23	1	B7A0142	01/05/2017	01/06/17 17:40	
Heptachlor	ND	1.0	0.19	1	B7A0142	01/05/2017	01/06/17 17:40	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 17:40	
Methoxychlor	ND	5.0	0.18	1	B7A0142	01/05/2017	01/06/17 17:40	
Toxaphene	ND	50	8.2	1	B7A0142	01/05/2017	01/06/17 17:40	
Surrogate: Decachlorobiphenyl	*59.9 %*		*27 - 123*		B7A0142	01/05/2017	*01/06/17 17:40*	
Surrogate: Tetrachloro-m-xylene	*42.9 %*		*26 - 108*		B7A0142	01/05/2017	*01/06/17 17:40*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID EB12-2-0.5
Lab ID: 1604898-70

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**3.2**	1.0	0.70	1	B7A0116	01/05/2017	01/06/17 12:10	
Lead	**33**	1.0	0.11	1	B7A0116	01/05/2017	01/06/17 12:10	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0142	01/05/2017	01/06/17 17:51	
4,4´-DDE	ND	2.0	0.20	1	B7A0142	01/05/2017	01/06/17 17:51	
4,4´-DDT	ND	2.0	0.13	1	B7A0142	01/05/2017	01/06/17 17:51	
Aldrin	ND	1.0	0.27	1	B7A0142	01/05/2017	01/06/17 17:51	
alpha-BHC	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 17:51	
alpha-Chlordane	ND	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 17:51	
beta-BHC	ND	1.0	0.23	1	B7A0142	01/05/2017	01/06/17 17:51	
Chlordane	ND	8.5	0.90	1	B7A0142	01/05/2017	01/06/17 17:51	
delta-BHC	ND	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 17:51	
Dieldrin	ND	2.0	0.25	1	B7A0142	01/05/2017	01/06/17 17:51	
Endosulfan I	ND	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 17:51	
Endosulfan II	ND	2.0	0.22	1	B7A0142	01/05/2017	01/06/17 17:51	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0142	01/05/2017	01/06/17 17:51	
Endrin	ND	2.0	0.23	1	B7A0142	01/05/2017	01/06/17 17:51	
Endrin aldehyde	ND	2.0	0.28	1	B7A0142	01/05/2017	01/06/17 17:51	
Endrin ketone	ND	2.0	0.20	1	B7A0142	01/05/2017	01/06/17 17:51	
gamma-BHC	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 17:51	
gamma-Chlordane	ND	1.0	0.23	1	B7A0142	01/05/2017	01/06/17 17:51	
Heptachlor	ND	1.0	0.19	1	B7A0142	01/05/2017	01/06/17 17:51	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 17:51	
Methoxychlor	ND	5.0	0.18	1	B7A0142	01/05/2017	01/06/17 17:51	
Toxaphene	ND	50	8.2	1	B7A0142	01/05/2017	01/06/17 17:51	
Surrogate: Decachlorobiphenyl	*68.4 %*		*27 - 123*		B7A0142	01/05/2017	*01/06/17 17:51*	
Surrogate: Tetrachloro-m-xylene	*54.3 %*		*26 - 108*		B7A0142	01/05/2017	*01/06/17 17:51*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID EB12-2-1.5
Lab ID: 1604898-71

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.4**	1.0	0.70	1	B7A0116	01/05/2017	01/06/17 12:11	
Lead	**5.9**	1.0	0.11	1	B7A0116	01/05/2017	01/06/17 12:11	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0142	01/05/2017	01/06/17 18:02	
4,4´-DDE	ND	2.0	0.20	1	B7A0142	01/05/2017	01/06/17 18:02	
4,4´-DDT	ND	2.0	0.13	1	B7A0142	01/05/2017	01/06/17 18:02	
Aldrin	ND	1.0	0.27	1	B7A0142	01/05/2017	01/06/17 18:02	
alpha-BHC	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 18:02	
alpha-Chlordane	ND	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 18:02	
beta-BHC	ND	1.0	0.23	1	B7A0142	01/05/2017	01/06/17 18:02	
Chlordane	ND	8.5	0.90	1	B7A0142	01/05/2017	01/06/17 18:02	
delta-BHC	ND	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 18:02	
Dieldrin	ND	2.0	0.25	1	B7A0142	01/05/2017	01/06/17 18:02	
Endosulfan I	ND	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 18:02	
Endosulfan II	ND	2.0	0.22	1	B7A0142	01/05/2017	01/06/17 18:02	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0142	01/05/2017	01/06/17 18:02	
Endrin	ND	2.0	0.23	1	B7A0142	01/05/2017	01/06/17 18:02	
Endrin aldehyde	ND	2.0	0.28	1	B7A0142	01/05/2017	01/06/17 18:02	
Endrin ketone	ND	2.0	0.20	1	B7A0142	01/05/2017	01/06/17 18:02	
gamma-BHC	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 18:02	
gamma-Chlordane	ND	1.0	0.23	1	B7A0142	01/05/2017	01/06/17 18:02	
Heptachlor	ND	1.0	0.19	1	B7A0142	01/05/2017	01/06/17 18:02	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 18:02	
Methoxychlor	ND	5.0	0.18	1	B7A0142	01/05/2017	01/06/17 18:02	
Toxaphene	ND	50	8.2	1	B7A0142	01/05/2017	01/06/17 18:02	
Surrogate: Decachlorobiphenyl	*43.9 %*		*27 - 123*		B7A0142	01/05/2017	*01/06/17 18:02*	
Surrogate: Tetrachloro-m-xylene	*30.2 %*		*26 - 108*		B7A0142	01/05/2017	*01/06/17 18:02*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID EB9-1-0.5
Lab ID: 1604898-73

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**3.8**	1.0	0.70	1	B7A0116	01/05/2017	01/06/17 12:15	
Lead	**150**	1.0	0.11	1	B7A0116	01/05/2017	01/06/17 12:15	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0142	01/05/2017	01/06/17 18:12	
4,4´-DDE	ND	2.0	0.20	1	B7A0142	01/05/2017	01/06/17 18:12	
4,4´-DDT	ND	2.0	0.13	1	B7A0142	01/05/2017	01/06/17 18:12	
Aldrin	ND	1.0	0.27	1	B7A0142	01/05/2017	01/06/17 18:12	
alpha-BHC	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 18:12	
alpha-Chlordane	ND	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 18:12	
beta-BHC	ND	1.0	0.23	1	B7A0142	01/05/2017	01/06/17 18:12	
Chlordane	ND	8.5	0.90	1	B7A0142	01/05/2017	01/06/17 18:12	
delta-BHC	ND	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 18:12	
Dieldrin	ND	2.0	0.25	1	B7A0142	01/05/2017	01/06/17 18:12	
Endosulfan I	ND	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 18:12	
Endosulfan II	ND	2.0	0.22	1	B7A0142	01/05/2017	01/06/17 18:12	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0142	01/05/2017	01/06/17 18:12	
Endrin	ND	2.0	0.23	1	B7A0142	01/05/2017	01/06/17 18:12	
Endrin aldehyde	ND	2.0	0.28	1	B7A0142	01/05/2017	01/06/17 18:12	
Endrin ketone	ND	2.0	0.20	1	B7A0142	01/05/2017	01/06/17 18:12	
gamma-BHC	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 18:12	
gamma-Chlordane	ND	1.0	0.23	1	B7A0142	01/05/2017	01/06/17 18:12	
Heptachlor	ND	1.0	0.19	1	B7A0142	01/05/2017	01/06/17 18:12	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 18:12	
Methoxychlor	ND	5.0	0.18	1	B7A0142	01/05/2017	01/06/17 18:12	
Toxaphene	ND	50	8.2	1	B7A0142	01/05/2017	01/06/17 18:12	
Surrogate: Decachlorobiphenyl	*42.7 %*		*27 - 123*		B7A0142	01/05/2017	*01/06/17 18:12*	
Surrogate: Tetrachloro-m-xylene	*30.6 %*		*26 - 108*		B7A0142	01/05/2017	*01/06/17 18:12*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID EB9-1-1.5
Lab ID: 1604898-74

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.0**	1.0	0.70	1	B7A0116	01/05/2017	01/06/17 12:16	
Lead	**18**	1.0	0.11	1	B7A0116	01/05/2017	01/06/17 12:16	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0142	01/05/2017	01/06/17 18:23	
4,4´-DDE	ND	2.0	0.20	1	B7A0142	01/05/2017	01/06/17 18:23	
4,4´-DDT	ND	2.0	0.13	1	B7A0142	01/05/2017	01/06/17 18:23	
Aldrin	ND	1.0	0.27	1	B7A0142	01/05/2017	01/06/17 18:23	
alpha-BHC	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 18:23	
alpha-Chlordane	ND	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 18:23	
beta-BHC	ND	1.0	0.23	1	B7A0142	01/05/2017	01/06/17 18:23	
Chlordane	ND	8.5	0.90	1	B7A0142	01/05/2017	01/06/17 18:23	
delta-BHC	ND	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 18:23	
Dieldrin	ND	2.0	0.25	1	B7A0142	01/05/2017	01/06/17 18:23	
Endosulfan I	ND	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 18:23	
Endosulfan II	ND	2.0	0.22	1	B7A0142	01/05/2017	01/06/17 18:23	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0142	01/05/2017	01/06/17 18:23	
Endrin	ND	2.0	0.23	1	B7A0142	01/05/2017	01/06/17 18:23	
Endrin aldehyde	ND	2.0	0.28	1	B7A0142	01/05/2017	01/06/17 18:23	
Endrin ketone	ND	2.0	0.20	1	B7A0142	01/05/2017	01/06/17 18:23	
gamma-BHC	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 18:23	
gamma-Chlordane	ND	1.0	0.23	1	B7A0142	01/05/2017	01/06/17 18:23	
Heptachlor	ND	1.0	0.19	1	B7A0142	01/05/2017	01/06/17 18:23	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 18:23	
Methoxychlor	ND	5.0	0.18	1	B7A0142	01/05/2017	01/06/17 18:23	
Toxaphene	ND	50	8.2	1	B7A0142	01/05/2017	01/06/17 18:23	
Surrogate: Decachlorobiphenyl	*56.6 %*		*27 - 123*		B7A0142	01/05/2017	*01/06/17 18:23*	
Surrogate: Tetrachloro-m-xylene	*44.5 %*		*26 - 108*		B7A0142	01/05/2017	*01/06/17 18:23*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID EB9-1-1.5

Lab ID: 1604898-74

Polychlorinated Biphenyls by EPA 8082 **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 12:25	
Aroclor 1221	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 12:25	
Aroclor 1232	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 12:25	
Aroclor 1242	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 12:25	
Aroclor 1248	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 12:25	
Aroclor 1254	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 12:25	
Aroclor 1260	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 12:25	
Aroclor 1262	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 12:25	
Aroclor 1268	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 12:25	
Surrogate: Decachlorobiphenyl	*69.4 %*	*26 - 137*			B7A0122	01/05/2017	*01/06/17 12:25*	
Surrogate: Tetrachloro-m-xylene	*78.9 %*	*28 - 102*			B7A0122	01/05/2017	*01/06/17 12:25*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID EB9-5-0.5
Lab ID: 1604898-76

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**4.2**	1.0	0.70	1	B7A0116	01/05/2017	01/06/17 12:17	
Lead	**69**	1.0	0.11	1	B7A0116	01/05/2017	01/06/17 12:17	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0142	01/05/2017	01/06/17 18:34	
4,4´-DDE	ND	2.0	0.20	1	B7A0142	01/05/2017	01/06/17 18:34	
4,4´-DDT	ND	2.0	0.13	1	B7A0142	01/05/2017	01/06/17 18:34	
Aldrin	ND	1.0	0.27	1	B7A0142	01/05/2017	01/06/17 18:34	
alpha-BHC	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 18:34	
alpha-Chlordane	ND	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 18:34	
beta-BHC	ND	1.0	0.23	1	B7A0142	01/05/2017	01/06/17 18:34	
Chlordane	ND	8.5	0.90	1	B7A0142	01/05/2017	01/06/17 18:34	
delta-BHC	ND	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 18:34	
Dieldrin	ND	2.0	0.25	1	B7A0142	01/05/2017	01/06/17 18:34	
Endosulfan I	ND	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 18:34	
Endosulfan II	ND	2.0	0.22	1	B7A0142	01/05/2017	01/06/17 18:34	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0142	01/05/2017	01/06/17 18:34	
Endrin	ND	2.0	0.23	1	B7A0142	01/05/2017	01/06/17 18:34	
Endrin aldehyde	ND	2.0	0.28	1	B7A0142	01/05/2017	01/06/17 18:34	
Endrin ketone	ND	2.0	0.20	1	B7A0142	01/05/2017	01/06/17 18:34	
gamma-BHC	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 18:34	
gamma-Chlordane	ND	1.0	0.23	1	B7A0142	01/05/2017	01/06/17 18:34	
Heptachlor	ND	1.0	0.19	1	B7A0142	01/05/2017	01/06/17 18:34	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 18:34	
Methoxychlor	ND	5.0	0.18	1	B7A0142	01/05/2017	01/06/17 18:34	
Toxaphene	ND	50	8.2	1	B7A0142	01/05/2017	01/06/17 18:34	
Surrogate: Decachlorobiphenyl	*51.4 %*		*27 - 123*		B7A0142	01/05/2017	*01/06/17 18:34*	
Surrogate: Tetrachloro-m-xylene	*40.6 %*		*26 - 108*		B7A0142	01/05/2017	*01/06/17 18:34*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID EB9-5-1.5
Lab ID: 1604898-77

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**3.8**	1.0	0.70	1	B7A0116	01/05/2017	01/06/17 12:18	
Lead	**53**	1.0	0.11	1	B7A0116	01/05/2017	01/06/17 12:18	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0142	01/05/2017	01/06/17 18:44	
4,4´-DDE	ND	2.0	0.20	1	B7A0142	01/05/2017	01/06/17 18:44	
4,4´-DDT	ND	2.0	0.13	1	B7A0142	01/05/2017	01/06/17 18:44	
Aldrin	ND	1.0	0.27	1	B7A0142	01/05/2017	01/06/17 18:44	
alpha-BHC	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 18:44	
alpha-Chlordane [2C]	**0.37**	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 18:44	J
beta-BHC	ND	1.0	0.23	1	B7A0142	01/05/2017	01/06/17 18:44	
Chlordane [2C]	**3.6**	8.5	0.90	1	B7A0142	01/05/2017	01/06/17 18:44	J
delta-BHC	ND	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 18:44	
Dieldrin	ND	2.0	0.25	1	B7A0142	01/05/2017	01/06/17 18:44	
Endosulfan I	ND	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 18:44	
Endosulfan II	ND	2.0	0.22	1	B7A0142	01/05/2017	01/06/17 18:44	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0142	01/05/2017	01/06/17 18:44	
Endrin	ND	2.0	0.23	1	B7A0142	01/05/2017	01/06/17 18:44	
Endrin aldehyde	ND	2.0	0.28	1	B7A0142	01/05/2017	01/06/17 18:44	
Endrin ketone	ND	2.0	0.20	1	B7A0142	01/05/2017	01/06/17 18:44	
gamma-BHC	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 18:44	
gamma-Chlordane	**0.31**	1.0	0.23	1	B7A0142	01/05/2017	01/06/17 18:44	J
Heptachlor	ND	1.0	0.19	1	B7A0142	01/05/2017	01/06/17 18:44	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 18:44	
Methoxychlor	ND	5.0	0.18	1	B7A0142	01/05/2017	01/06/17 18:44	
Toxaphene	ND	50	8.2	1	B7A0142	01/05/2017	01/06/17 18:44	
Surrogate: Decachlorobiphenyl	*56.0 %*		*27 - 123*		B7A0142	01/05/2017	*01/06/17 18:44*	
Surrogate: Tetrachloro-m-xylene	*44.3 %*		*26 - 108*		B7A0142	01/05/2017	*01/06/17 18:44*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID EB9-7-0.5

Lab ID: 1604898-79

Title 22 Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	**1.5**	2.0	0.32	1	B7A0123	01/05/2017	01/06/17 13:21	J
Arsenic	**2.3**	1.0	0.70	1	B7A0123	01/05/2017	01/06/17 13:21	
Barium	**130**	1.0	0.10	1	B7A0123	01/05/2017	01/06/17 13:21	
Beryllium	**0.30**	1.0	0.04	1	B7A0123	01/05/2017	01/06/17 13:21	J
Cadmium	ND	1.0	0.09	1	B7A0123	01/05/2017	01/06/17 13:21	
Chromium	**14**	1.0	0.12	1	B7A0123	01/05/2017	01/06/17 13:21	
Cobalt	**8.0**	1.0	0.10	1	B7A0123	01/05/2017	01/06/17 13:21	
Copper	**2800**	20	1.1	10	B7A0123	01/05/2017	01/06/17 15:13	
Lead	**250**	1.0	0.11	1	B7A0123	01/05/2017	01/06/17 13:21	
Molybdenum	ND	1.0	0.13	1	B7A0123	01/05/2017	01/06/17 13:21	
Nickel	**13**	1.0	0.10	1	B7A0123	01/05/2017	01/06/17 13:21	
Selenium	ND	1.0	0.88	1	B7A0123	01/05/2017	01/06/17 13:21	
Silver	**0.08**	1.0	0.04	1	B7A0123	01/05/2017	01/06/17 13:21	J
Thallium	ND	1.0	0.42	1	B7A0123	01/05/2017	01/06/17 13:21	
Vanadium	**26**	1.0	0.19	1	B7A0123	01/05/2017	01/06/17 13:21	
Zinc	**150**	1.0	0.18	1	B7A0123	01/05/2017	01/06/17 13:21	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	**0.04**	0.10	0.02	1	B7A0119	01/05/2017	01/06/17 07:58	J

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 13:22	
Aroclor 1221	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 13:22	
Aroclor 1232	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 13:22	
Aroclor 1242	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 13:22	
Aroclor 1248	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 13:22	
Aroclor 1254	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 13:22	
Aroclor 1260	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 13:22	
Aroclor 1262	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 13:22	
Aroclor 1268	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 13:22	
Surrogate: Decachlorobiphenyl	*78.6 %*	*26 - 137*			B7A0122	01/05/2017	*01/06/17 13:22*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID EB9-7-0.5
Lab ID: 1604898-79

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: Tetrachloro-m-xylene	*88.4 %*	*28 - 102*		B7A0122	01/05/2017	*01/06/17 13:22*	

Semivolatile Organic Compounds by EPA 8270/SIM

Analyst: LT

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Methylnaphthalene	ND	12	3.0	2.5	B7A0160	01/06/2017	01/06/17 15:15	D1
Acenaphthene	ND	12	1.1	2.5	B7A0160	01/06/2017	01/06/17 15:15	D1
Acenaphthylene	ND	12	1.9	2.5	B7A0160	01/06/2017	01/06/17 15:15	D1
Anthracene	ND	12	1.4	2.5	B7A0160	01/06/2017	01/06/17 15:15	D1
Benzo(a)anthracene	ND	12	1.6	2.5	B7A0160	01/06/2017	01/06/17 15:15	D1
Benzo(a)pyrene	**2.0**	12	1.6	2.5	B7A0160	01/06/2017	01/06/17 15:15	D1, J
Benzo(b)fluoranthene	**2.2**	12	1.6	2.5	B7A0160	01/06/2017	01/06/17 15:15	D1, J
Benzo(g,h,i)perylene	**3.3**	12	1.3	2.5	B7A0160	01/06/2017	01/06/17 15:15	D1, J
Benzo(k)fluoranthene	ND	12	1.1	2.5	B7A0160	01/06/2017	01/06/17 15:15	D1
Chrysene	**2.0**	12	1.5	2.5	B7A0160	01/06/2017	01/06/17 15:15	D1, J
Dibenz(a,h)anthracene	ND	12	0.96	2.5	B7A0160	01/06/2017	01/06/17 15:15	D1
Fluoranthene	**1.9**	12	1.4	2.5	B7A0160	01/06/2017	01/06/17 15:15	D1, J
Fluorene	ND	12	1.3	2.5	B7A0160	01/06/2017	01/06/17 15:15	D1
Indeno(1,2,3-cd)pyrene	**1.6**	12	1.2	2.5	B7A0160	01/06/2017	01/06/17 15:15	D1, J
Naphthalene	ND	12	1.5	2.5	B7A0160	01/06/2017	01/06/17 15:15	D1
Phenanthrene	ND	12	1.1	2.5	B7A0160	01/06/2017	01/06/17 15:15	D1
Pyrene	**2.3**	12	1.4	2.5	B7A0160	01/06/2017	01/06/17 15:15	D1, J
Surrogate: 1,2-Dichlorobenzene-d4	*74.2 %*	*23 - 104*		B7A0160	01/06/2017	*01/06/17 15:15*	
Surrogate: 2-Fluorobiphenyl	*85.1 %*	*29 - 116*		B7A0160	01/06/2017	*01/06/17 15:15*	
Surrogate: Nitrobenzene-d5	*78.1 %*	*14 - 120*		B7A0160	01/06/2017	*01/06/17 15:15*	
Surrogate: 4-Terphenyl-d14	*94.2 %*	*16 - 142*		B7A0160	01/06/2017	*01/06/17 15:15*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID EB9-7-1.5

Lab ID: 1604898-80

Title 22 Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.32	1	B7A0123	01/05/2017	01/06/17 13:25	
Arsenic	**2.1**	1.0	0.70	1	B7A0123	01/05/2017	01/06/17 13:25	
Barium	**180**	1.0	0.10	1	B7A0123	01/05/2017	01/06/17 13:25	
Beryllium	**0.31**	1.0	0.04	1	B7A0123	01/05/2017	01/06/17 13:25	J
Cadmium	ND	1.0	0.09	1	B7A0123	01/05/2017	01/06/17 13:25	
Chromium	**19**	1.0	0.12	1	B7A0123	01/05/2017	01/06/17 13:25	
Cobalt	**8.3**	1.0	0.10	1	B7A0123	01/05/2017	01/06/17 13:25	
Copper	**260**	2.0	0.11	1	B7A0123	01/05/2017	01/06/17 13:25	
Lead	**130**	1.0	0.11	1	B7A0123	01/05/2017	01/06/17 13:25	
Molybdenum	ND	1.0	0.13	1	B7A0123	01/05/2017	01/06/17 13:25	
Nickel	**17**	1.0	0.10	1	B7A0123	01/05/2017	01/06/17 13:25	
Selenium	ND	1.0	0.88	1	B7A0123	01/05/2017	01/06/17 13:25	
Silver	ND	1.0	0.04	1	B7A0123	01/05/2017	01/06/17 13:25	
Thallium	ND	1.0	0.42	1	B7A0123	01/05/2017	01/06/17 13:25	
Vanadium	**31**	1.0	0.19	1	B7A0123	01/05/2017	01/06/17 13:25	
Zinc	**170**	1.0	0.18	1	B7A0123	01/05/2017	01/06/17 13:25	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	**0.12**	0.10	0.02	1	B7A0119	01/05/2017	01/06/17 08:08	

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 12:44	
Aroclor 1221	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 12:44	
Aroclor 1232	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 12:44	
Aroclor 1242	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 12:44	
Aroclor 1248	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 12:44	
Aroclor 1254	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 12:44	
Aroclor 1260	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 12:44	
Aroclor 1262	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 12:44	
Aroclor 1268	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 12:44	
Surrogate: Decachlorobiphenyl	*66.4 %*	*26 - 137*			B7A0122	01/05/2017	*01/06/17 12:44*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID EB9-7-1.5
Lab ID: 1604898-80

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: Tetrachloro-m-xylene	*73.6 %*	*28 - 102*		B7A0122	01/05/2017	*01/06/17 12:44*	

Semivolatile Organic Compounds by EPA 8270/SIM

Analyst: LT

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Methylnaphthalene	ND	100	24	20	B7A0160	01/06/2017	01/06/17 15:42	D1
Acenaphthene	ND	100	8.6	20	B7A0160	01/06/2017	01/06/17 15:42	D1
Acenaphthylene	ND	100	15	20	B7A0160	01/06/2017	01/06/17 15:42	D1
Anthracene	ND	100	11	20	B7A0160	01/06/2017	01/06/17 15:42	D1
Benzo(a)anthracene	ND	100	13	20	B7A0160	01/06/2017	01/06/17 15:42	D1
Benzo(a)pyrene	ND	100	13	20	B7A0160	01/06/2017	01/06/17 15:42	D1
Benzo(b)fluoranthene	ND	100	13	20	B7A0160	01/06/2017	01/06/17 15:42	D1
Benzo(g,h,i)perylene	**22**	100	10	20	B7A0160	01/06/2017	01/06/17 15:42	D1, J
Benzo(k)fluoranthene	ND	100	9.0	20	B7A0160	01/06/2017	01/06/17 15:42	D1
Chrysene	**15**	100	12	20	B7A0160	01/06/2017	01/06/17 15:42	D1, J
Dibenz(a,h)anthracene	ND	100	7.7	20	B7A0160	01/06/2017	01/06/17 15:42	D1
Fluoranthene	ND	100	11	20	B7A0160	01/06/2017	01/06/17 15:42	D1
Fluorene	ND	100	10	20	B7A0160	01/06/2017	01/06/17 15:42	D1
Indeno(1,2,3-cd)pyrene	ND	100	9.4	20	B7A0160	01/06/2017	01/06/17 15:42	D1
Naphthalene	ND	100	12	20	B7A0160	01/06/2017	01/06/17 15:42	D1
Phenanthrene	ND	100	9.1	20	B7A0160	01/06/2017	01/06/17 15:42	D1
Pyrene	**12**	100	11	20	B7A0160	01/06/2017	01/06/17 15:42	D1, J
Surrogate: 1,2-Dichlorobenzene-d4	*77.6 %*	*23 - 104*			B7A0160	01/06/2017	*01/06/17 15:42*	
Surrogate: 2-Fluorobiphenyl	*84.7 %*	*29 - 116*			B7A0160	01/06/2017	*01/06/17 15:42*	
Surrogate: Nitrobenzene-d5	*84.2 %*	*14 - 120*			B7A0160	01/06/2017	*01/06/17 15:42*	
Surrogate: 4-Terphenyl-d14	*98.8 %*	*16 - 142*			B7A0160	01/06/2017	*01/06/17 15:42*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID EB9-7-2.5

Lab ID: 1604898-81

Title 22 Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.32	1	B7A0123	01/05/2017	01/06/17 13:27	
Arsenic	**1.5**	1.0	0.70	1	B7A0123	01/05/2017	01/06/17 13:27	
Barium	**88**	1.0	0.10	1	B7A0123	01/05/2017	01/06/17 13:27	
Beryllium	**0.31**	1.0	0.04	1	B7A0123	01/05/2017	01/06/17 13:27	J
Cadmium	ND	1.0	0.09	1	B7A0123	01/05/2017	01/06/17 13:27	
Chromium	**20**	1.0	0.12	1	B7A0123	01/05/2017	01/06/17 13:27	
Cobalt	**9.0**	1.0	0.10	1	B7A0123	01/05/2017	01/06/17 13:27	
Copper	**25**	2.0	0.11	1	B7A0123	01/05/2017	01/06/17 13:27	
Lead	**11**	1.0	0.11	1	B7A0123	01/05/2017	01/06/17 13:27	
Molybdenum	ND	1.0	0.13	1	B7A0123	01/05/2017	01/06/17 13:27	
Nickel	**18**	1.0	0.10	1	B7A0123	01/05/2017	01/06/17 13:27	
Selenium	ND	1.0	0.88	1	B7A0123	01/05/2017	01/06/17 13:27	
Silver	ND	1.0	0.04	1	B7A0123	01/05/2017	01/06/17 13:27	
Thallium	ND	1.0	0.42	1	B7A0123	01/05/2017	01/06/17 13:27	
Vanadium	**31**	1.0	0.19	1	B7A0123	01/05/2017	01/06/17 13:27	
Zinc	**38**	1.0	0.18	1	B7A0123	01/05/2017	01/06/17 13:27	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	**0.04**	0.10	0.02	1	B7A0119	01/05/2017	01/06/17 08:10	J

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 13:40	
Aroclor 1221	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 13:40	
Aroclor 1232	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 13:40	
Aroclor 1242	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 13:40	
Aroclor 1248	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 13:40	
Aroclor 1254	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 13:40	
Aroclor 1260	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 13:40	
Aroclor 1262	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 13:40	
Aroclor 1268	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 13:40	
Surrogate: Decachlorobiphenyl	*70.0 %*	*26 - 137*			B7A0122	01/05/2017	*01/06/17 13:40*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID EB9-7-2.5
Lab ID: 1604898-81

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: Tetrachloro-m-xylene	*82.4 %*	*28 - 102*		B7A0122	01/05/2017	*01/06/17 13:40*	

Semivolatile Organic Compounds by EPA 8270/SIM

Analyst: LT

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Methylnaphthalene	ND	100	24	20	B7A0160	01/06/2017	01/06/17 16:09	D1
Acenaphthene	ND	100	8.6	20	B7A0160	01/06/2017	01/06/17 16:09	D1
Acenaphthylene	ND	100	15	20	B7A0160	01/06/2017	01/06/17 16:09	D1
Anthracene	ND	100	11	20	B7A0160	01/06/2017	01/06/17 16:09	D1
Benzo(a)anthracene	ND	100	13	20	B7A0160	01/06/2017	01/06/17 16:09	D1
Benzo(a)pyrene	**15**	100	13	20	B7A0160	01/06/2017	01/06/17 16:09	D1, J
Benzo(b)fluoranthene	**14**	100	13	20	B7A0160	01/06/2017	01/06/17 16:09	D1, J
Benzo(g,h,i)perylene	**26**	100	10	20	B7A0160	01/06/2017	01/06/17 16:09	D1, J
Benzo(k)fluoranthene	ND	100	9.0	20	B7A0160	01/06/2017	01/06/17 16:09	D1
Chrysene	**25**	100	12	20	B7A0160	01/06/2017	01/06/17 16:09	D1, J
Dibenz(a,h)anthracene	ND	100	7.7	20	B7A0160	01/06/2017	01/06/17 16:09	D1
Fluoranthene	**16**	100	11	20	B7A0160	01/06/2017	01/06/17 16:09	D1, J
Fluorene	ND	100	10	20	B7A0160	01/06/2017	01/06/17 16:09	D1
Indeno(1,2,3-cd)pyrene	**9.8**	100	9.4	20	B7A0160	01/06/2017	01/06/17 16:09	D1, J
Naphthalene	ND	100	12	20	B7A0160	01/06/2017	01/06/17 16:09	D1
Phenanthrene	ND	100	9.1	20	B7A0160	01/06/2017	01/06/17 16:09	D1
Pyrene	**23**	100	11	20	B7A0160	01/06/2017	01/06/17 16:09	D1, J
Surrogate: 1,2-Dichlorobenzene-d4	*71.7 %*	*23 - 104*			B7A0160	01/06/2017	*01/06/17 16:09*	
Surrogate: 2-Fluorobiphenyl	*80.6 %*	*29 - 116*			B7A0160	01/06/2017	*01/06/17 16:09*	
Surrogate: Nitrobenzene-d5	*94.4 %*	*14 - 120*			B7A0160	01/06/2017	*01/06/17 16:09*	
Surrogate: 4-Terphenyl-d14	*92.9 %*	*16 - 142*			B7A0160	01/06/2017	*01/06/17 16:09*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID EB10-2-0.5
Lab ID: 1604898-82

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**12**	1.0	0.70	1	B7A0116	01/05/2017	01/06/17 12:19	
Lead	**220**	1.0	0.11	1	B7A0116	01/05/2017	01/06/17 12:19	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD [2C]	**0.28**	2.0	0.22	1	B7A0143	01/05/2017	01/06/17 14:06	J
4,4´-DDE	**3.1**	2.0	0.20	1	B7A0143	01/05/2017	01/06/17 14:06	
4,4´-DDT	**1.1**	2.0	0.13	1	B7A0143	01/05/2017	01/06/17 14:06	J
Aldrin	ND	1.0	0.27	1	B7A0143	01/05/2017	01/06/17 14:06	
alpha-BHC	ND	1.0	0.20	1	B7A0143	01/05/2017	01/06/17 14:06	
alpha-Chlordane	**0.95**	1.0	0.21	1	B7A0143	01/05/2017	01/06/17 14:06	J
beta-BHC	ND	1.0	0.23	1	B7A0143	01/05/2017	01/06/17 14:06	
Chlordane	**10**	8.5	0.90	1	B7A0143	01/05/2017	01/06/17 14:06	
delta-BHC	ND	1.0	0.21	1	B7A0143	01/05/2017	01/06/17 14:06	
Dieldrin	**0.33**	2.0	0.25	1	B7A0143	01/05/2017	01/06/17 14:06	J
Endosulfan I	ND	1.0	0.21	1	B7A0143	01/05/2017	01/06/17 14:06	
Endosulfan II	ND	2.0	0.22	1	B7A0143	01/05/2017	01/06/17 14:06	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0143	01/05/2017	01/06/17 14:06	
Endrin	ND	2.0	0.23	1	B7A0143	01/05/2017	01/06/17 14:06	
Endrin aldehyde	ND	2.0	0.28	1	B7A0143	01/05/2017	01/06/17 14:06	
Endrin ketone	ND	2.0	0.20	1	B7A0143	01/05/2017	01/06/17 14:06	
gamma-BHC	ND	1.0	0.20	1	B7A0143	01/05/2017	01/06/17 14:06	
gamma-Chlordane	**1.4**	1.0	0.23	1	B7A0143	01/05/2017	01/06/17 14:06	
Heptachlor	ND	1.0	0.19	1	B7A0143	01/05/2017	01/06/17 14:06	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0143	01/05/2017	01/06/17 14:06	
Methoxychlor	ND	5.0	0.18	1	B7A0143	01/05/2017	01/06/17 14:06	
Toxaphene	ND	50	8.2	1	B7A0143	01/05/2017	01/06/17 14:06	
Surrogate: Decachlorobiphenyl	*40.1 %*	*27 - 123*			B7A0143	01/05/2017	*01/06/17 14:06*	
Surrogate: Tetrachloro-m-xylene	*42.3 %*	*26 - 108*			B7A0143	01/05/2017	*01/06/17 14:06*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB5-1-0.5
Lab ID: 1604898-83

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**4.0**	1.0	0.70	1	B7A0116	01/05/2017	01/06/17 12:20	
Lead	**53**	1.0	0.11	1	B7A0116	01/05/2017	01/06/17 12:20	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	**0.28**	2.0	0.22	1	B7A0142	01/05/2017	01/06/17 18:55	J
4,4´-DDE	ND	2.0	0.20	1	B7A0142	01/05/2017	01/06/17 18:55	
4,4´-DDT	ND	2.0	0.13	1	B7A0142	01/05/2017	01/06/17 18:55	
Aldrin	ND	1.0	0.27	1	B7A0142	01/05/2017	01/06/17 18:55	
alpha-BHC	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 18:55	
alpha-Chlordane	**0.37**	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 18:55	J
beta-BHC	ND	1.0	0.23	1	B7A0142	01/05/2017	01/06/17 18:55	
Chlordane [2C]	**4.1**	8.5	0.90	1	B7A0142	01/05/2017	01/06/17 18:55	J
delta-BHC	ND	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 18:55	
Dieldrin	ND	2.0	0.25	1	B7A0142	01/05/2017	01/06/17 18:55	
Endosulfan I	ND	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 18:55	
Endosulfan II	ND	2.0	0.22	1	B7A0142	01/05/2017	01/06/17 18:55	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0142	01/05/2017	01/06/17 18:55	
Endrin	ND	2.0	0.23	1	B7A0142	01/05/2017	01/06/17 18:55	
Endrin aldehyde	ND	2.0	0.28	1	B7A0142	01/05/2017	01/06/17 18:55	
Endrin ketone	ND	2.0	0.20	1	B7A0142	01/05/2017	01/06/17 18:55	
gamma-BHC	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 18:55	
gamma-Chlordane	ND	1.0	0.23	1	B7A0142	01/05/2017	01/06/17 18:55	
Heptachlor	ND	1.0	0.19	1	B7A0142	01/05/2017	01/06/17 18:55	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 18:55	
Methoxychlor	ND	5.0	0.18	1	B7A0142	01/05/2017	01/06/17 18:55	
Toxaphene	ND	50	8.2	1	B7A0142	01/05/2017	01/06/17 18:55	
Surrogate: Decachlorobiphenyl	*107 %*		*27 - 123*		B7A0142	01/05/2017	*01/06/17 18:55*	
Surrogate: Tetrachloro-m-xylene	*90.2 %*		*26 - 108*		B7A0142	01/05/2017	*01/06/17 18:55*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB5-1-1.5
Lab ID: 1604898-84

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.8**	1.0	0.70	1	B7A0116	01/05/2017	01/06/17 12:21	
Lead	**65**	1.0	0.11	1	B7A0116	01/05/2017	01/06/17 12:21	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0142	01/05/2017	01/06/17 19:05	
4,4´-DDE	ND	2.0	0.20	1	B7A0142	01/05/2017	01/06/17 19:05	
4,4´-DDT	ND	2.0	0.13	1	B7A0142	01/05/2017	01/06/17 19:05	
Aldrin	ND	1.0	0.27	1	B7A0142	01/05/2017	01/06/17 19:05	
alpha-BHC	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 19:05	
alpha-Chlordane	ND	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 19:05	
beta-BHC	ND	1.0	0.23	1	B7A0142	01/05/2017	01/06/17 19:05	
Chlordane	ND	8.5	0.90	1	B7A0142	01/05/2017	01/06/17 19:05	
delta-BHC	ND	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 19:05	
Dieldrin	ND	2.0	0.25	1	B7A0142	01/05/2017	01/06/17 19:05	
Endosulfan I	ND	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 19:05	
Endosulfan II	ND	2.0	0.22	1	B7A0142	01/05/2017	01/06/17 19:05	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0142	01/05/2017	01/06/17 19:05	
Endrin	ND	2.0	0.23	1	B7A0142	01/05/2017	01/06/17 19:05	
Endrin aldehyde	ND	2.0	0.28	1	B7A0142	01/05/2017	01/06/17 19:05	
Endrin ketone	ND	2.0	0.20	1	B7A0142	01/05/2017	01/06/17 19:05	
gamma-BHC	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 19:05	
gamma-Chlordane	ND	1.0	0.23	1	B7A0142	01/05/2017	01/06/17 19:05	
Heptachlor	ND	1.0	0.19	1	B7A0142	01/05/2017	01/06/17 19:05	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 19:05	
Methoxychlor	ND	5.0	0.18	1	B7A0142	01/05/2017	01/06/17 19:05	
Toxaphene	ND	50	8.2	1	B7A0142	01/05/2017	01/06/17 19:05	
Surrogate: Decachlorobiphenyl	*63.9 %*		*27 - 123*		B7A0142	01/05/2017	*01/06/17 19:05*	
Surrogate: Tetrachloro-m-xylene	*53.8 %*		*26 - 108*		B7A0142	01/05/2017	*01/06/17 19:05*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB5-1-2.5

Lab ID: 1604898-85

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.2**	1.0	0.70	1	B7A0116	01/05/2017	01/06/17 12:22	
Lead	**8.4**	1.0	0.11	1	B7A0116	01/05/2017	01/06/17 12:22	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0142	01/05/2017	01/06/17 19:16	
4,4´-DDE	ND	2.0	0.20	1	B7A0142	01/05/2017	01/06/17 19:16	
4,4´-DDT	ND	2.0	0.13	1	B7A0142	01/05/2017	01/06/17 19:16	
Aldrin	ND	1.0	0.27	1	B7A0142	01/05/2017	01/06/17 19:16	
alpha-BHC	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 19:16	
alpha-Chlordane	ND	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 19:16	
beta-BHC	ND	1.0	0.23	1	B7A0142	01/05/2017	01/06/17 19:16	
Chlordane	ND	8.5	0.90	1	B7A0142	01/05/2017	01/06/17 19:16	
delta-BHC	ND	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 19:16	
Dieldrin	ND	2.0	0.25	1	B7A0142	01/05/2017	01/06/17 19:16	
Endosulfan I	ND	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 19:16	
Endosulfan II	ND	2.0	0.22	1	B7A0142	01/05/2017	01/06/17 19:16	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0142	01/05/2017	01/06/17 19:16	
Endrin	ND	2.0	0.23	1	B7A0142	01/05/2017	01/06/17 19:16	
Endrin aldehyde	ND	2.0	0.28	1	B7A0142	01/05/2017	01/06/17 19:16	
Endrin ketone	ND	2.0	0.20	1	B7A0142	01/05/2017	01/06/17 19:16	
gamma-BHC	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 19:16	
gamma-Chlordane	ND	1.0	0.23	1	B7A0142	01/05/2017	01/06/17 19:16	
Heptachlor	ND	1.0	0.19	1	B7A0142	01/05/2017	01/06/17 19:16	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 19:16	
Methoxychlor	ND	5.0	0.18	1	B7A0142	01/05/2017	01/06/17 19:16	
Toxaphene	ND	50	8.2	1	B7A0142	01/05/2017	01/06/17 19:16	
Surrogate: Decachlorobiphenyl	*51.6 %*		*27 - 123*		B7A0142	01/05/2017	*01/06/17 19:16*	
Surrogate: Tetrachloro-m-xylene	*46.9 %*		*26 - 108*		B7A0142	01/05/2017	*01/06/17 19:16*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB5-2-0.5
Lab ID: 1604898-86

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.6**	1.0	0.70	1	B7A0117	01/05/2017	01/06/17 12:29	
Lead	**47**	1.0	0.11	1	B7A0117	01/05/2017	01/06/17 12:29	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0142	01/05/2017	01/06/17 19:27	
4,4´-DDE	ND	2.0	0.20	1	B7A0142	01/05/2017	01/06/17 19:27	
4,4´-DDT	ND	2.0	0.13	1	B7A0142	01/05/2017	01/06/17 19:27	
Aldrin	ND	1.0	0.27	1	B7A0142	01/05/2017	01/06/17 19:27	
alpha-BHC	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 19:27	
alpha-Chlordane	ND	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 19:27	
beta-BHC	ND	1.0	0.23	1	B7A0142	01/05/2017	01/06/17 19:27	
Chlordane	ND	8.5	0.90	1	B7A0142	01/05/2017	01/06/17 19:27	
delta-BHC	ND	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 19:27	
Dieldrin	ND	2.0	0.25	1	B7A0142	01/05/2017	01/06/17 19:27	
Endosulfan I	ND	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 19:27	
Endosulfan II	ND	2.0	0.22	1	B7A0142	01/05/2017	01/06/17 19:27	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0142	01/05/2017	01/06/17 19:27	
Endrin	ND	2.0	0.23	1	B7A0142	01/05/2017	01/06/17 19:27	
Endrin aldehyde	ND	2.0	0.28	1	B7A0142	01/05/2017	01/06/17 19:27	
Endrin ketone	ND	2.0	0.20	1	B7A0142	01/05/2017	01/06/17 19:27	
gamma-BHC	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 19:27	
gamma-Chlordane	ND	1.0	0.23	1	B7A0142	01/05/2017	01/06/17 19:27	
Heptachlor	ND	1.0	0.19	1	B7A0142	01/05/2017	01/06/17 19:27	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 19:27	
Methoxychlor	ND	5.0	0.18	1	B7A0142	01/05/2017	01/06/17 19:27	
Toxaphene	ND	50	8.2	1	B7A0142	01/05/2017	01/06/17 19:27	
Surrogate: Decachlorobiphenyl	*66.7 %*		*27 - 123*		B7A0142	01/05/2017	*01/06/17 19:27*	
Surrogate: Tetrachloro-m-xylene	*51.0 %*		*26 - 108*		B7A0142	01/05/2017	*01/06/17 19:27*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB5-2-1.5

Lab ID: 1604898-87

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.5**	1.0	0.70	1	B7A0117	01/05/2017	01/06/17 12:32	
Lead	**63**	1.0	0.11	1	B7A0117	01/05/2017	01/06/17 12:32	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0142	01/05/2017	01/06/17 19:37	
4,4´-DDE	ND	2.0	0.20	1	B7A0142	01/05/2017	01/06/17 19:37	
4,4´-DDT	ND	2.0	0.13	1	B7A0142	01/05/2017	01/06/17 19:37	
Aldrin	ND	1.0	0.27	1	B7A0142	01/05/2017	01/06/17 19:37	
alpha-BHC	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 19:37	
alpha-Chlordane	ND	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 19:37	
beta-BHC	ND	1.0	0.23	1	B7A0142	01/05/2017	01/06/17 19:37	
Chlordane	ND	8.5	0.90	1	B7A0142	01/05/2017	01/06/17 19:37	
delta-BHC	ND	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 19:37	
Dieldrin	ND	2.0	0.25	1	B7A0142	01/05/2017	01/06/17 19:37	
Endosulfan I	ND	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 19:37	
Endosulfan II	ND	2.0	0.22	1	B7A0142	01/05/2017	01/06/17 19:37	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0142	01/05/2017	01/06/17 19:37	
Endrin	ND	2.0	0.23	1	B7A0142	01/05/2017	01/06/17 19:37	
Endrin aldehyde	ND	2.0	0.28	1	B7A0142	01/05/2017	01/06/17 19:37	
Endrin ketone	ND	2.0	0.20	1	B7A0142	01/05/2017	01/06/17 19:37	
gamma-BHC	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 19:37	
gamma-Chlordane	ND	1.0	0.23	1	B7A0142	01/05/2017	01/06/17 19:37	
Heptachlor	ND	1.0	0.19	1	B7A0142	01/05/2017	01/06/17 19:37	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 19:37	
Methoxychlor	ND	5.0	0.18	1	B7A0142	01/05/2017	01/06/17 19:37	
Toxaphene	ND	50	8.2	1	B7A0142	01/05/2017	01/06/17 19:37	
Surrogate: Decachlorobiphenyl	*53.5 %*		*27 - 123*		B7A0142	01/05/2017	*01/06/17 19:37*	
Surrogate: Tetrachloro-m-xylene	*49.7 %*		*26 - 108*		B7A0142	01/05/2017	*01/06/17 19:37*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID FB5-2-2.5

Lab ID: 1604898-88

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.3**	1.0	0.70	1	B7A0117	01/05/2017	01/06/17 12:34	
Lead	**9.7**	1.0	0.11	1	B7A0117	01/05/2017	01/06/17 12:34	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0142	01/05/2017	01/06/17 19:48	
4,4´-DDE	ND	2.0	0.20	1	B7A0142	01/05/2017	01/06/17 19:48	
4,4´-DDT	ND	2.0	0.13	1	B7A0142	01/05/2017	01/06/17 19:48	
Aldrin	ND	1.0	0.27	1	B7A0142	01/05/2017	01/06/17 19:48	
alpha-BHC	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 19:48	
alpha-Chlordane	ND	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 19:48	
beta-BHC	ND	1.0	0.23	1	B7A0142	01/05/2017	01/06/17 19:48	
Chlordane	ND	8.5	0.90	1	B7A0142	01/05/2017	01/06/17 19:48	
delta-BHC	ND	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 19:48	
Dieldrin	ND	2.0	0.25	1	B7A0142	01/05/2017	01/06/17 19:48	
Endosulfan I	ND	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 19:48	
Endosulfan II	ND	2.0	0.22	1	B7A0142	01/05/2017	01/06/17 19:48	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0142	01/05/2017	01/06/17 19:48	
Endrin	ND	2.0	0.23	1	B7A0142	01/05/2017	01/06/17 19:48	
Endrin aldehyde	ND	2.0	0.28	1	B7A0142	01/05/2017	01/06/17 19:48	
Endrin ketone	ND	2.0	0.20	1	B7A0142	01/05/2017	01/06/17 19:48	
gamma-BHC	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 19:48	
gamma-Chlordane	ND	1.0	0.23	1	B7A0142	01/05/2017	01/06/17 19:48	
Heptachlor	ND	1.0	0.19	1	B7A0142	01/05/2017	01/06/17 19:48	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 19:48	
Methoxychlor	ND	5.0	0.18	1	B7A0142	01/05/2017	01/06/17 19:48	
Toxaphene	ND	50	8.2	1	B7A0142	01/05/2017	01/06/17 19:48	
Surrogate: Decachlorobiphenyl	*62.7 %*		*27 - 123*		B7A0142	01/05/2017	*01/06/17 19:48*	
Surrogate: Tetrachloro-m-xylene	*55.1 %*		*26 - 108*		B7A0142	01/05/2017	*01/06/17 19:48*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID EB13-1-0.5

Lab ID: 1604898-89

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**3.6**	1.0	0.70	1	B7A0117	01/05/2017	01/06/17 12:35	
Lead	**600**	1.0	0.11	1	B7A0117	01/05/2017	01/06/17 12:35	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0142	01/05/2017	01/06/17 19:59	
4,4´-DDE	ND	2.0	0.20	1	B7A0142	01/05/2017	01/06/17 19:59	
4,4´-DDT	ND	2.0	0.13	1	B7A0142	01/05/2017	01/06/17 19:59	
Aldrin	ND	1.0	0.27	1	B7A0142	01/05/2017	01/06/17 19:59	
alpha-BHC	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 19:59	
alpha-Chlordane	ND	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 19:59	
beta-BHC	ND	1.0	0.23	1	B7A0142	01/05/2017	01/06/17 19:59	
Chlordane	ND	8.5	0.90	1	B7A0142	01/05/2017	01/06/17 19:59	
delta-BHC	ND	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 19:59	
Dieldrin	ND	2.0	0.25	1	B7A0142	01/05/2017	01/06/17 19:59	
Endosulfan I	ND	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 19:59	
Endosulfan II	ND	2.0	0.22	1	B7A0142	01/05/2017	01/06/17 19:59	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0142	01/05/2017	01/06/17 19:59	
Endrin	ND	2.0	0.23	1	B7A0142	01/05/2017	01/06/17 19:59	
Endrin aldehyde	ND	2.0	0.28	1	B7A0142	01/05/2017	01/06/17 19:59	
Endrin ketone	ND	2.0	0.20	1	B7A0142	01/05/2017	01/06/17 19:59	
gamma-BHC	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 19:59	
gamma-Chlordane	ND	1.0	0.23	1	B7A0142	01/05/2017	01/06/17 19:59	
Heptachlor	ND	1.0	0.19	1	B7A0142	01/05/2017	01/06/17 19:59	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 19:59	
Methoxychlor	ND	5.0	0.18	1	B7A0142	01/05/2017	01/06/17 19:59	
Toxaphene	ND	50	8.2	1	B7A0142	01/05/2017	01/06/17 19:59	
Surrogate: Decachlorobiphenyl	*64.0 %*		*27 - 123*		B7A0142	01/05/2017	*01/06/17 19:59*	
Surrogate: Tetrachloro-m-xylene	*58.5 %*		*26 - 108*		B7A0142	01/05/2017	*01/06/17 19:59*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID EB13-1-1.5
Lab ID: 1604898-90

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.7**	1.0	0.70	1	B7A0117	01/05/2017	01/06/17 12:36	
Lead	**6.5**	1.0	0.11	1	B7A0117	01/05/2017	01/06/17 12:36	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0142	01/05/2017	01/06/17 20:09	
4,4´-DDE	ND	2.0	0.20	1	B7A0142	01/05/2017	01/06/17 20:09	
4,4´-DDT	ND	2.0	0.13	1	B7A0142	01/05/2017	01/06/17 20:09	
Aldrin	ND	1.0	0.27	1	B7A0142	01/05/2017	01/06/17 20:09	
alpha-BHC	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 20:09	
alpha-Chlordane	ND	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 20:09	
beta-BHC	ND	1.0	0.23	1	B7A0142	01/05/2017	01/06/17 20:09	
Chlordane	ND	8.5	0.90	1	B7A0142	01/05/2017	01/06/17 20:09	
delta-BHC	ND	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 20:09	
Dieldrin	ND	2.0	0.25	1	B7A0142	01/05/2017	01/06/17 20:09	
Endosulfan I	ND	1.0	0.21	1	B7A0142	01/05/2017	01/06/17 20:09	
Endosulfan II	ND	2.0	0.22	1	B7A0142	01/05/2017	01/06/17 20:09	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0142	01/05/2017	01/06/17 20:09	
Endrin	ND	2.0	0.23	1	B7A0142	01/05/2017	01/06/17 20:09	
Endrin aldehyde	ND	2.0	0.28	1	B7A0142	01/05/2017	01/06/17 20:09	
Endrin ketone	ND	2.0	0.20	1	B7A0142	01/05/2017	01/06/17 20:09	
gamma-BHC	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 20:09	
gamma-Chlordane	ND	1.0	0.23	1	B7A0142	01/05/2017	01/06/17 20:09	
Heptachlor	ND	1.0	0.19	1	B7A0142	01/05/2017	01/06/17 20:09	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0142	01/05/2017	01/06/17 20:09	
Methoxychlor	ND	5.0	0.18	1	B7A0142	01/05/2017	01/06/17 20:09	
Toxaphene	ND	50	8.2	1	B7A0142	01/05/2017	01/06/17 20:09	
Surrogate: Decachlorobiphenyl	*65.3 %*		*27 - 123*		B7A0142	01/05/2017	*01/06/17 20:09*	
Surrogate: Tetrachloro-m-xylene	*58.5 %*		*26 - 108*		B7A0142	01/05/2017	*01/06/17 20:09*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID EB13-1-1.5

Lab ID: 1604898-90

Polychlorinated Biphenyls by EPA 8082 **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 13:59	
Aroclor 1221	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 13:59	
Aroclor 1232	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 13:59	
Aroclor 1242	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 13:59	
Aroclor 1248	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 13:59	
Aroclor 1254	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 13:59	
Aroclor 1260	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 13:59	
Aroclor 1262	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 13:59	
Aroclor 1268	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 13:59	
Surrogate: Decachlorobiphenyl	*94.3 %*	*26 - 137*			B7A0122	01/05/2017	*01/06/17 13:59*	
Surrogate: Tetrachloro-m-xylene	*98.3 %*	*28 - 102*			B7A0122	01/05/2017	*01/06/17 13:59*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID EB13-2-0.5
Lab ID: 1604898-92

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**12**	1.0	0.70	1	B7A0117	01/05/2017	01/06/17 12:40	
Lead	**520**	1.0	0.11	1	B7A0117	01/05/2017	01/06/17 12:40	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0143	01/05/2017	01/06/17 14:16	
4,4´-DDE	ND	2.0	0.20	1	B7A0143	01/05/2017	01/06/17 14:16	
4,4´-DDT	ND	2.0	0.13	1	B7A0143	01/05/2017	01/06/17 14:16	
Aldrin	ND	1.0	0.27	1	B7A0143	01/05/2017	01/06/17 14:16	
alpha-BHC	ND	1.0	0.20	1	B7A0143	01/05/2017	01/06/17 14:16	
alpha-Chlordane	ND	1.0	0.21	1	B7A0143	01/05/2017	01/06/17 14:16	
beta-BHC	ND	1.0	0.23	1	B7A0143	01/05/2017	01/06/17 14:16	
Chlordane	ND	8.5	0.90	1	B7A0143	01/05/2017	01/06/17 14:16	
delta-BHC	ND	1.0	0.21	1	B7A0143	01/05/2017	01/06/17 14:16	
Dieldrin	ND	2.0	0.25	1	B7A0143	01/05/2017	01/06/17 14:16	
Endosulfan I	ND	1.0	0.21	1	B7A0143	01/05/2017	01/06/17 14:16	
Endosulfan II	ND	2.0	0.22	1	B7A0143	01/05/2017	01/06/17 14:16	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0143	01/05/2017	01/06/17 14:16	
Endrin	ND	2.0	0.23	1	B7A0143	01/05/2017	01/06/17 14:16	
Endrin aldehyde	ND	2.0	0.28	1	B7A0143	01/05/2017	01/06/17 14:16	
Endrin ketone	ND	2.0	0.20	1	B7A0143	01/05/2017	01/06/17 14:16	
gamma-BHC	ND	1.0	0.20	1	B7A0143	01/05/2017	01/06/17 14:16	
gamma-Chlordane	ND	1.0	0.23	1	B7A0143	01/05/2017	01/06/17 14:16	
Heptachlor	ND	1.0	0.19	1	B7A0143	01/05/2017	01/06/17 14:16	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0143	01/05/2017	01/06/17 14:16	
Methoxychlor	ND	5.0	0.18	1	B7A0143	01/05/2017	01/06/17 14:16	
Toxaphene	ND	50	8.2	1	B7A0143	01/05/2017	01/06/17 14:16	
Surrogate: Decachlorobiphenyl	*44.5 %*		*27 - 123*		B7A0143	01/05/2017	*01/06/17 14:16*	
Surrogate: Tetrachloro-m-xylene	*51.7 %*		*26 - 108*		B7A0143	01/05/2017	*01/06/17 14:16*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID EB13-2-0.5

Lab ID: 1604898-92

Polychlorinated Biphenyls by EPA 8082 **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 13:03	
Aroclor 1221	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 13:03	
Aroclor 1232	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 13:03	
Aroclor 1242	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 13:03	
Aroclor 1248	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 13:03	
Aroclor 1254	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 13:03	
Aroclor 1260	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 13:03	
Aroclor 1262	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 13:03	
Aroclor 1268	ND	16	1.5	1	B7A0122	01/05/2017	01/06/17 13:03	
Surrogate: Decachlorobiphenyl	*65.6 %*	*26 - 137*			B7A0122	01/05/2017	*01/06/17 13:03*	
Surrogate: Tetrachloro-m-xylene	*73.0 %*	*28 - 102*			B7A0122	01/05/2017	*01/06/17 13:03*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID EB13-2-1.5
Lab ID: 1604898-93

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.2**	1.0	0.70	1	B7A0117	01/05/2017	01/06/17 12:41	
Lead	**6.9**	1.0	0.11	1	B7A0117	01/05/2017	01/06/17 12:41	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0143	01/05/2017	01/06/17 14:27	
4,4´-DDE	ND	2.0	0.20	1	B7A0143	01/05/2017	01/06/17 14:27	
4,4´-DDT	ND	2.0	0.13	1	B7A0143	01/05/2017	01/06/17 14:27	
Aldrin	ND	1.0	0.27	1	B7A0143	01/05/2017	01/06/17 14:27	
alpha-BHC	ND	1.0	0.20	1	B7A0143	01/05/2017	01/06/17 14:27	
alpha-Chlordane	ND	1.0	0.21	1	B7A0143	01/05/2017	01/06/17 14:27	
beta-BHC	ND	1.0	0.23	1	B7A0143	01/05/2017	01/06/17 14:27	
Chlordane	ND	8.5	0.90	1	B7A0143	01/05/2017	01/06/17 14:27	
delta-BHC	ND	1.0	0.21	1	B7A0143	01/05/2017	01/06/17 14:27	
Dieldrin	ND	2.0	0.25	1	B7A0143	01/05/2017	01/06/17 14:27	
Endosulfan I	ND	1.0	0.21	1	B7A0143	01/05/2017	01/06/17 14:27	
Endosulfan II	ND	2.0	0.22	1	B7A0143	01/05/2017	01/06/17 14:27	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0143	01/05/2017	01/06/17 14:27	
Endrin	ND	2.0	0.23	1	B7A0143	01/05/2017	01/06/17 14:27	
Endrin aldehyde	ND	2.0	0.28	1	B7A0143	01/05/2017	01/06/17 14:27	
Endrin ketone	ND	2.0	0.20	1	B7A0143	01/05/2017	01/06/17 14:27	
gamma-BHC	ND	1.0	0.20	1	B7A0143	01/05/2017	01/06/17 14:27	
gamma-Chlordane	ND	1.0	0.23	1	B7A0143	01/05/2017	01/06/17 14:27	
Heptachlor	ND	1.0	0.19	1	B7A0143	01/05/2017	01/06/17 14:27	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0143	01/05/2017	01/06/17 14:27	
Methoxychlor	ND	5.0	0.18	1	B7A0143	01/05/2017	01/06/17 14:27	
Toxaphene	ND	50	8.2	1	B7A0143	01/05/2017	01/06/17 14:27	
Surrogate: Decachlorobiphenyl	*36.5 %*		*27 - 123*		B7A0143	01/05/2017	*01/06/17 14:27*	
Surrogate: Tetrachloro-m-xylene	*31.7 %*		*26 - 108*		B7A0143	01/05/2017	*01/06/17 14:27*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID EB15-1-0.5
Lab ID: 1604898-95

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**51**	1.0	0.70	1	B7A0117	01/05/2017	01/06/17 12:42	
Lead	**46**	1.0	0.11	1	B7A0117	01/05/2017	01/06/17 12:42	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0143	01/05/2017	01/06/17 14:37	
4,4´-DDE	ND	2.0	0.20	1	B7A0143	01/05/2017	01/06/17 14:37	
4,4´-DDT [2C]	**0.20**	2.0	0.13	1	B7A0143	01/05/2017	01/06/17 14:37	J
Aldrin	ND	1.0	0.27	1	B7A0143	01/05/2017	01/06/17 14:37	
alpha-BHC	ND	1.0	0.20	1	B7A0143	01/05/2017	01/06/17 14:37	
alpha-Chlordane	ND	1.0	0.21	1	B7A0143	01/05/2017	01/06/17 14:37	
beta-BHC	ND	1.0	0.23	1	B7A0143	01/05/2017	01/06/17 14:37	
Chlordane	ND	8.5	0.90	1	B7A0143	01/05/2017	01/06/17 14:37	
delta-BHC	ND	1.0	0.21	1	B7A0143	01/05/2017	01/06/17 14:37	
Dieldrin	ND	2.0	0.25	1	B7A0143	01/05/2017	01/06/17 14:37	
Endosulfan I	ND	1.0	0.21	1	B7A0143	01/05/2017	01/06/17 14:37	
Endosulfan II	ND	2.0	0.22	1	B7A0143	01/05/2017	01/06/17 14:37	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0143	01/05/2017	01/06/17 14:37	
Endrin	ND	2.0	0.23	1	B7A0143	01/05/2017	01/06/17 14:37	
Endrin aldehyde	ND	2.0	0.28	1	B7A0143	01/05/2017	01/06/17 14:37	
Endrin ketone	ND	2.0	0.20	1	B7A0143	01/05/2017	01/06/17 14:37	
gamma-BHC	ND	1.0	0.20	1	B7A0143	01/05/2017	01/06/17 14:37	
gamma-Chlordane	ND	1.0	0.23	1	B7A0143	01/05/2017	01/06/17 14:37	
Heptachlor	ND	1.0	0.19	1	B7A0143	01/05/2017	01/06/17 14:37	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0143	01/05/2017	01/06/17 14:37	
Methoxychlor	ND	5.0	0.18	1	B7A0143	01/05/2017	01/06/17 14:37	
Toxaphene	ND	50	8.2	1	B7A0143	01/05/2017	01/06/17 14:37	
Surrogate: Decachlorobiphenyl	*42.2 %*		*27 - 123*		B7A0143	01/05/2017	*01/06/17 14:37*	
Surrogate: Tetrachloro-m-xylene	*52.4 %*		*26 - 108*		B7A0143	01/05/2017	*01/06/17 14:37*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID EB15-1-1.5
Lab ID: 1604898-96

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**21**	1.0	0.70	1	B7A0117	01/05/2017	01/06/17 12:43	
Lead	**9.0**	1.0	0.11	1	B7A0117	01/05/2017	01/06/17 12:43	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0143	01/05/2017	01/06/17 14:48	
4,4´-DDE	ND	2.0	0.20	1	B7A0143	01/05/2017	01/06/17 14:48	
4,4´-DDT	ND	2.0	0.13	1	B7A0143	01/05/2017	01/06/17 14:48	
Aldrin	ND	1.0	0.27	1	B7A0143	01/05/2017	01/06/17 14:48	
alpha-BHC	ND	1.0	0.20	1	B7A0143	01/05/2017	01/06/17 14:48	
alpha-Chlordane	ND	1.0	0.21	1	B7A0143	01/05/2017	01/06/17 14:48	
beta-BHC	ND	1.0	0.23	1	B7A0143	01/05/2017	01/06/17 14:48	
Chlordane	ND	8.5	0.90	1	B7A0143	01/05/2017	01/06/17 14:48	
delta-BHC	ND	1.0	0.21	1	B7A0143	01/05/2017	01/06/17 14:48	
Dieldrin	ND	2.0	0.25	1	B7A0143	01/05/2017	01/06/17 14:48	
Endosulfan I	ND	1.0	0.21	1	B7A0143	01/05/2017	01/06/17 14:48	
Endosulfan II	ND	2.0	0.22	1	B7A0143	01/05/2017	01/06/17 14:48	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0143	01/05/2017	01/06/17 14:48	
Endrin	ND	2.0	0.23	1	B7A0143	01/05/2017	01/06/17 14:48	
Endrin aldehyde	ND	2.0	0.28	1	B7A0143	01/05/2017	01/06/17 14:48	
Endrin ketone	ND	2.0	0.20	1	B7A0143	01/05/2017	01/06/17 14:48	
gamma-BHC	ND	1.0	0.20	1	B7A0143	01/05/2017	01/06/17 14:48	
gamma-Chlordane	ND	1.0	0.23	1	B7A0143	01/05/2017	01/06/17 14:48	
Heptachlor	ND	1.0	0.19	1	B7A0143	01/05/2017	01/06/17 14:48	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0143	01/05/2017	01/06/17 14:48	
Methoxychlor	ND	5.0	0.18	1	B7A0143	01/05/2017	01/06/17 14:48	
Toxaphene	ND	50	8.2	1	B7A0143	01/05/2017	01/06/17 14:48	
Surrogate: Decachlorobiphenyl	*39.4 %*		*27 - 123*		B7A0143	01/05/2017	*01/06/17 14:48*	
Surrogate: Tetrachloro-m-xylene	*51.5 %*		*26 - 108*		B7A0143	01/05/2017	*01/06/17 14:48*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID EB15-2-0.5
Lab ID: 1604898-98

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**4.0**	1.0	0.70	1	B7A0117	01/05/2017	01/06/17 12:44	
Lead	**24**	1.0	0.11	1	B7A0117	01/05/2017	01/06/17 12:44	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0143	01/05/2017	01/06/17 14:58	
4,4´-DDE	ND	2.0	0.20	1	B7A0143	01/05/2017	01/06/17 14:58	
4,4´-DDT	ND	2.0	0.13	1	B7A0143	01/05/2017	01/06/17 14:58	
Aldrin	ND	1.0	0.27	1	B7A0143	01/05/2017	01/06/17 14:58	
alpha-BHC	ND	1.0	0.20	1	B7A0143	01/05/2017	01/06/17 14:58	
alpha-Chlordane	ND	1.0	0.21	1	B7A0143	01/05/2017	01/06/17 14:58	
beta-BHC	ND	1.0	0.23	1	B7A0143	01/05/2017	01/06/17 14:58	
Chlordane	ND	8.5	0.90	1	B7A0143	01/05/2017	01/06/17 14:58	
delta-BHC	ND	1.0	0.21	1	B7A0143	01/05/2017	01/06/17 14:58	
Dieldrin	ND	2.0	0.25	1	B7A0143	01/05/2017	01/06/17 14:58	
Endosulfan I	ND	1.0	0.21	1	B7A0143	01/05/2017	01/06/17 14:58	
Endosulfan II	ND	2.0	0.22	1	B7A0143	01/05/2017	01/06/17 14:58	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0143	01/05/2017	01/06/17 14:58	
Endrin	ND	2.0	0.23	1	B7A0143	01/05/2017	01/06/17 14:58	
Endrin aldehyde	ND	2.0	0.28	1	B7A0143	01/05/2017	01/06/17 14:58	
Endrin ketone	ND	2.0	0.20	1	B7A0143	01/05/2017	01/06/17 14:58	
gamma-BHC	ND	1.0	0.20	1	B7A0143	01/05/2017	01/06/17 14:58	
gamma-Chlordane	ND	1.0	0.23	1	B7A0143	01/05/2017	01/06/17 14:58	
Heptachlor	ND	1.0	0.19	1	B7A0143	01/05/2017	01/06/17 14:58	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0143	01/05/2017	01/06/17 14:58	
Methoxychlor	ND	5.0	0.18	1	B7A0143	01/05/2017	01/06/17 14:58	
Toxaphene	ND	50	8.2	1	B7A0143	01/05/2017	01/06/17 14:58	
Surrogate: Decachlorobiphenyl	*35.7 %*		*27 - 123*		B7A0143	01/05/2017	*01/06/17 14:58*	
Surrogate: Tetrachloro-m-xylene	*49.0 %*		*26 - 108*		B7A0143	01/05/2017	*01/06/17 14:58*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID EB15-2-1.5

Lab ID: 1604898-99

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.5**	1.0	0.70	1	B7A0117	01/05/2017	01/06/17 12:45	
Lead	**12**	1.0	0.11	1	B7A0117	01/05/2017	01/06/17 12:45	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0143	01/05/2017	01/06/17 15:09	
4,4´-DDE	ND	2.0	0.20	1	B7A0143	01/05/2017	01/06/17 15:09	
4,4´-DDT	ND	2.0	0.13	1	B7A0143	01/05/2017	01/06/17 15:09	
Aldrin	ND	1.0	0.27	1	B7A0143	01/05/2017	01/06/17 15:09	
alpha-BHC	ND	1.0	0.20	1	B7A0143	01/05/2017	01/06/17 15:09	
alpha-Chlordane	ND	1.0	0.21	1	B7A0143	01/05/2017	01/06/17 15:09	
beta-BHC	ND	1.0	0.23	1	B7A0143	01/05/2017	01/06/17 15:09	
Chlordane	ND	8.5	0.90	1	B7A0143	01/05/2017	01/06/17 15:09	
delta-BHC	ND	1.0	0.21	1	B7A0143	01/05/2017	01/06/17 15:09	
Dieldrin	ND	2.0	0.25	1	B7A0143	01/05/2017	01/06/17 15:09	
Endosulfan I	ND	1.0	0.21	1	B7A0143	01/05/2017	01/06/17 15:09	
Endosulfan II	ND	2.0	0.22	1	B7A0143	01/05/2017	01/06/17 15:09	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0143	01/05/2017	01/06/17 15:09	
Endrin	ND	2.0	0.23	1	B7A0143	01/05/2017	01/06/17 15:09	
Endrin aldehyde	ND	2.0	0.28	1	B7A0143	01/05/2017	01/06/17 15:09	
Endrin ketone	ND	2.0	0.20	1	B7A0143	01/05/2017	01/06/17 15:09	
gamma-BHC	ND	1.0	0.20	1	B7A0143	01/05/2017	01/06/17 15:09	
gamma-Chlordane	ND	1.0	0.23	1	B7A0143	01/05/2017	01/06/17 15:09	
Heptachlor	ND	1.0	0.19	1	B7A0143	01/05/2017	01/06/17 15:09	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0143	01/05/2017	01/06/17 15:09	
Methoxychlor	ND	5.0	0.18	1	B7A0143	01/05/2017	01/06/17 15:09	
Toxaphene	ND	50	8.2	1	B7A0143	01/05/2017	01/06/17 15:09	
Surrogate: Decachlorobiphenyl	*20.3 %*		*27 - 123*		B7A0143	01/05/2017	*01/06/17 15:09*	S2
Surrogate: Tetrachloro-m-xylene	*32.8 %*		*26 - 108*		B7A0143	01/05/2017	*01/06/17 15:09*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID EB1-1-1.0'

Lab ID: 1604898-AB

Hydrocarbon Chain Distribution by EPA 8015B (Modified) **Analyst: CR**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
C8-C10	ND	10	10	10	B7A0006	12/31/2016	01/04/17 22:38	
C10-C18	ND	10	10	10	B7A0006	12/31/2016	01/04/17 22:38	
C18-C28	**39**	10	10	10	B7A0006	12/31/2016	01/04/17 22:38	
C28-C36	**130**	10	10	10	B7A0006	12/31/2016	01/04/17 22:38	
C36-C40	**120**	10	10	10	B7A0006	12/31/2016	01/04/17 22:38	
C8-C40 Total	**290**	10	10	10	B7A0006	12/31/2016	01/04/17 22:38	
Surrogate: p-Terphenyl	*0%*	*18 - 130*			B7A0006	12/31/2016	*01/04/17 22:38*	S4

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID EB1-1-5.0'

Lab ID: 1604898-AC

Hydrocarbon Chain Distribution by EPA 8015B (Modified) **Analyst: CR**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
C8-C10	ND	1.0	1.0	1	B7A0006	12/31/2016	01/04/17 22:21	
C10-C18	**1.3**	1.0	1.0	1	B7A0006	12/31/2016	01/04/17 22:21	
C18-C28	**4.5**	1.0	1.0	1	B7A0006	12/31/2016	01/04/17 22:21	
C28-C36	**11**	1.0	1.0	1	B7A0006	12/31/2016	01/04/17 22:21	
C36-C40	**8.7**	1.0	1.0	1	B7A0006	12/31/2016	01/04/17 22:21	
C8-C40 Total	**26**	1.0	1.0	1	B7A0006	12/31/2016	01/04/17 22:21	
Surrogate: p-Terphenyl	*68.1 %*		*18 - 130*		B7A0006	12/31/2016	*01/04/17 22:21*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID EB1-1-10.0'

Lab ID: 1604898-AD

Hydrocarbon Chain Distribution by EPA 8015B (Modified) **Analyst: CR**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
C8-C10	ND	1.0	1.0	1	B7A0006	12/31/2016	01/04/17 22:05	
C10-C18	**1.4**	1.0	1.0	1	B7A0006	12/31/2016	01/04/17 22:05	
C18-C28	**2.3**	1.0	1.0	1	B7A0006	12/31/2016	01/04/17 22:05	
C28-C36	**1.8**	1.0	1.0	1	B7A0006	12/31/2016	01/04/17 22:05	
C36-C40	**1.2**	1.0	1.0	1	B7A0006	12/31/2016	01/04/17 22:05	
C8-C40 Total	**6.8**	1.0	1.0	1	B7A0006	12/31/2016	01/04/17 22:05	
Surrogate: p-Terphenyl	*64.8 %*		*18 - 130*		B7A0006	12/31/2016	*01/04/17 22:05*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID EQB122816

Lab ID: 1604898-AE

Title 22 Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	0.010	0.0021	1	B7A0163	01/06/2017	01/09/17 09:26	
Arsenic	ND	0.010	0.0067	1	B7A0163	01/06/2017	01/09/17 09:26	
Barium	**0.0026**	0.0030	0.0008	1	B7A0163	01/06/2017	01/09/17 09:26	J
Beryllium	**0.0012**	0.0030	0.0004	1	B7A0163	01/06/2017	01/09/17 09:26	J
Cadmium	**0.0012**	0.0030	0.0002	1	B7A0163	01/06/2017	01/09/17 09:26	J
Chromium	**0.0019**	0.0030	0.0016	1	B7A0163	01/06/2017	01/09/17 09:26	J
Cobalt	**0.0014**	0.0030	0.0007	1	B7A0163	01/06/2017	01/09/17 09:26	J
Copper	**0.0034**	0.0090	0.0023	1	B7A0163	01/06/2017	01/09/17 09:26	J
Lead	**0.0034**	0.0050	0.0028	1	B7A0163	01/06/2017	01/09/17 09:26	J
Molybdenum	**0.0010**	0.0050	0.0007	1	B7A0163	01/06/2017	01/09/17 09:26	J
Nickel	ND	0.0050	0.0024	1	B7A0163	01/06/2017	01/09/17 09:26	
Selenium	ND	0.010	0.0034	1	B7A0163	01/06/2017	01/09/17 09:26	
Silver	**0.0008**	0.0030	0.0006	1	B7A0163	01/06/2017	01/09/17 09:26	J
Thallium	**0.0040**	0.015	0.0026	1	B7A0163	01/06/2017	01/09/17 09:26	J
Vanadium	**0.0019**	0.0030	0.0011	1	B7A0163	01/06/2017	01/09/17 09:26	J
Zinc	**0.0060**	0.025	0.0021	1	B7A0163	01/06/2017	01/09/17 09:26	J

Mercury by AA (Cold Vapor) EPA 7470A

Analyst: SB

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.20	0.13	1	B7A0170	01/06/2017	01/06/17 16:07	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	0.05	0.005	1	B7A0037	01/03/2017	01/03/17 16:40	
4,4´-DDE	ND	0.05	0.005	1	B7A0037	01/03/2017	01/03/17 16:40	
4,4´-DDT	ND	0.05	0.004	1	B7A0037	01/03/2017	01/03/17 16:40	
Aldrin	ND	0.02	0.004	1	B7A0037	01/03/2017	01/03/17 16:40	
alpha-BHC	ND	0.02	0.004	1	B7A0037	01/03/2017	01/03/17 16:40	
alpha-Chlordane	ND	0.02	0.005	1	B7A0037	01/03/2017	01/03/17 16:40	
beta-BHC	ND	0.02	0.005	1	B7A0037	01/03/2017	01/03/17 16:40	
Chlordane	ND	0.25	0.03	1	B7A0037	01/03/2017	01/03/17 16:40	
delta-BHC	ND	0.02	0.004	1	B7A0037	01/03/2017	01/03/17 16:40	
Dieldrin	ND	0.05	0.005	1	B7A0037	01/03/2017	01/03/17 16:40	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Client Sample ID EQB122816
Lab ID: 1604898-AE

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Endosulfan I	ND	0.02	0.005	1	B7A0037	01/03/2017	01/03/17 16:40	
Endosulfan II	ND	0.05	0.005	1	B7A0037	01/03/2017	01/03/17 16:40	
Endosulfan sulfate	ND	0.05	0.005	1	B7A0037	01/03/2017	01/03/17 16:40	
Endrin	ND	0.05	0.005	1	B7A0037	01/03/2017	01/03/17 16:40	
Endrin aldehyde	ND	0.05	0.006	1	B7A0037	01/03/2017	01/03/17 16:40	
Endrin ketone	ND	0.05	0.005	1	B7A0037	01/03/2017	01/03/17 16:40	
gamma-BHC	ND	0.02	0.004	1	B7A0037	01/03/2017	01/03/17 16:40	
gamma-Chlordane	ND	0.02	0.005	1	B7A0037	01/03/2017	01/03/17 16:40	
Heptachlor	ND	0.02	0.005	1	B7A0037	01/03/2017	01/03/17 16:40	
Heptachlor epoxide	ND	0.02	0.005	1	B7A0037	01/03/2017	01/03/17 16:40	
Methoxychlor	ND	0.25	0.004	1	B7A0037	01/03/2017	01/03/17 16:40	
Toxaphene	ND	2.5	0.23	1	B7A0037	01/03/2017	01/03/17 16:40	
Surrogate: Decachlorobiphenyl	*21.0 %*		*7 - 127*		B7A0037	01/03/2017	*01/03/17 16:40*	
Surrogate: Tetrachloro-m-xylene	*21.3 %*		*14 - 122*		B7A0037	01/03/2017	*01/03/17 16:40*	

Polychlorinated Biphenyls by EPA 8082

Analyst: RL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	0.50	0.06	1	B7A0037	01/03/2017	01/03/17 23:45	
Aroclor 1221	ND	1.0	0.06	1	B7A0037	01/03/2017	01/03/17 23:45	
Aroclor 1232	ND	0.50	0.06	1	B7A0037	01/03/2017	01/03/17 23:45	
Aroclor 1242	ND	0.50	0.06	1	B7A0037	01/03/2017	01/03/17 23:45	
Aroclor 1248	ND	0.50	0.06	1	B7A0037	01/03/2017	01/03/17 23:45	
Aroclor 1254	ND	0.50	0.06	1	B7A0037	01/03/2017	01/03/17 23:45	
Aroclor 1260	ND	0.50	0.06	1	B7A0037	01/03/2017	01/03/17 23:45	
Aroclor 1262	ND	0.50	0.06	1	B7A0037	01/03/2017	01/03/17 23:45	
Aroclor 1268	ND	0.50	0.06	1	B7A0037	01/03/2017	01/03/17 23:45	
Surrogate: Decachlorobiphenyl	*32.1 %*		*7 - 127*		B7A0037	01/03/2017	*01/03/17 23:45*	
Surrogate: Tetrachloro-m-xylene	*30.3 %*		*14 - 122*		B7A0037	01/03/2017	*01/03/17 23:45*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0113 - EPA 3050B_S									
Blank (B7A0113-BLK1)				Prepared: 1/5/2017 Analyzed: 1/6/2017					
Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				
LCS (B7A0113-BS1)				Prepared: 1/5/2017 Analyzed: 1/6/2017					
Arsenic	46.0135	1.0	50.0000		92.0	80 - 120			
Lead	47.5791	1.0	50.0000		95.2	80 - 120			
Duplicate (B7A0113-DUP1)		**Source: 1604898-01**		Prepared: 1/5/2017 Analyzed: 1/6/2017					
Arsenic	2.00522	1.0		1.69899	NR		16.5	20	
Lead	6.56596	1.0		16.6474	NR		86.9	20	R
Matrix Spike (B7A0113-MS1)		**Source: 1604898-01**		Prepared: 1/5/2017 Analyzed: 1/6/2017					
Arsenic	105.374	1.0	125.000	1.69899	82.9	59 - 103			
Lead	123.036	1.0	125.000	16.6474	85.1	34 - 129			
Matrix Spike Dup (B7A0113-MSD1)		**Source: 1604898-01**		Prepared: 1/5/2017 Analyzed: 1/6/2017					
Arsenic	90.6519	1.0	125.000	1.69899	71.2	59 - 103	15.0	20	
Lead	102.365	1.0	125.000	16.6474	68.6	34 - 129	18.3	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0114 - EPA 3050B_S									
Blank (B7A0114-BLK1)				Prepared: 1/5/2017 Analyzed: 1/6/2017					
Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				
LCS (B7A0114-BS1)				Prepared: 1/5/2017 Analyzed: 1/6/2017					
Arsenic	44.6483	1.0	50.0000		89.3	80 - 120			
Lead	46.2692	1.0	50.0000		92.5	80 - 120			
Duplicate (B7A0114-DUP1)		**Source: 1604898-20**		Prepared: 1/5/2017 Analyzed: 1/6/2017					
Arsenic	1.85557	1.0		1.79616	NR		3.25	20	
Lead	10.8657	1.0		6.72316	NR		47.1	20	R
Matrix Spike (B7A0114-MS1)		**Source: 1604898-20**		Prepared: 1/5/2017 Analyzed: 1/6/2017					
Arsenic	99.1494	1.0	125.000	1.79616	77.9	59 - 103			
Lead	106.388	1.0	125.000	6.72316	79.7	34 - 129			
Matrix Spike Dup (B7A0114-MSD1)		**Source: 1604898-20**		Prepared: 1/5/2017 Analyzed: 1/6/2017					
Arsenic	100.096	1.0	125.000	1.79616	78.6	59 - 103	0.950	20	
Lead	116.880	1.0	125.000	6.72316	88.1	34 - 129	9.40	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0115 - EPA 3050B_S									
Blank (B7A0115-BLK1)				Prepared: 1/5/2017 Analyzed: 1/6/2017					
Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				
LCS (B7A0115-BS1)				Prepared: 1/5/2017 Analyzed: 1/6/2017					
Arsenic	44.6327	1.0	50.0000		89.3	80 - 120			
Lead	45.7246	1.0	50.0000		91.4	80 - 120			
Duplicate (B7A0115-DUP1)		**Source: 1604898-39**		Prepared: 1/5/2017 Analyzed: 1/6/2017					
Arsenic	7.29574	1.0		6.71409	NR		8.30	20	
Lead	36.1407	1.0		24.5774	NR		38.1	20	R
Matrix Spike (B7A0115-MS1)		**Source: 1604898-39**		Prepared: 1/5/2017 Analyzed: 1/6/2017					
Arsenic	93.2590	1.0	125.000	6.71409	69.2	59 - 103			
Lead	106.197	1.0	125.000	24.5774	65.3	34 - 129			
Matrix Spike Dup (B7A0115-MSD1)		**Source: 1604898-39**		Prepared: 1/5/2017 Analyzed: 1/6/2017					
Arsenic	91.6198	1.0	125.000	6.71409	67.9	59 - 103	1.77	20	
Lead	103.246	1.0	125.000	24.5774	62.9	34 - 129	2.82	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0116 - EPA 3050B_S									
Blank (B7A0116-BLK1)				Prepared: 1/5/2017 Analyzed: 1/6/2017					
Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				
LCS (B7A0116-BS1)				Prepared: 1/5/2017 Analyzed: 1/6/2017					
Arsenic	45.4814	1.0	50.0000		91.0	80 - 120			
Lead	46.5640	1.0	50.0000		93.1	80 - 120			
Duplicate (B7A0116-DUP1)		**Source: 1604898-58**		Prepared: 1/5/2017 Analyzed: 1/6/2017					
Arsenic	3.67371	1.0		4.19857	NR		13.3	20	
Lead	23.7618	1.0		37.4035	NR		44.6	20	R
Matrix Spike (B7A0116-MS1)		**Source: 1604898-58**		Prepared: 1/5/2017 Analyzed: 1/6/2017					
Arsenic	104.822	1.0	125.000	4.19857	80.5	59 - 103			
Lead	121.747	1.0	125.000	37.4035	67.5	34 - 129			
Matrix Spike Dup (B7A0116-MSD1)		**Source: 1604898-58**		Prepared: 1/5/2017 Analyzed: 1/6/2017					
Arsenic	100.382	1.0	125.000	4.19857	76.9	59 - 103	4.33	20	
Lead	119.915	1.0	125.000	37.4035	66.0	34 - 129	1.52	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0117 - EPA 3050B_S									
Blank (B7A0117-BLK1)				Prepared: 1/5/2017 Analyzed: 1/6/2017					
Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				
LCS (B7A0117-BS1)				Prepared: 1/5/2017 Analyzed: 1/6/2017					
Arsenic	47.4365	1.0	50.0000		94.9	80 - 120			
Lead	48.6346	1.0	50.0000		97.3	80 - 120			
Duplicate (B7A0117-DUP1)		**Source: 1604898-86**		Prepared: 1/5/2017 Analyzed: 1/6/2017					
Arsenic	2.96987	1.0		2.63180	NR		12.1	20	
Lead	56.1066	1.0		46.9436	NR		17.8	20	
Matrix Spike (B7A0117-MS1)		**Source: 1604898-86**		Prepared: 1/5/2017 Analyzed: 1/6/2017					
Arsenic	94.8628	1.0	125.000	2.63180	73.8	59 - 103			
Lead	136.445	1.0	125.000	46.9436	71.6	34 - 129			
Matrix Spike Dup (B7A0117-MSD1)		**Source: 1604898-86**		Prepared: 1/5/2017 Analyzed: 1/6/2017					
Arsenic	101.893	1.0	125.000	2.63180	79.4	59 - 103	7.15	20	
Lead	153.653	1.0	125.000	46.9436	85.4	34 - 129	11.9	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Title 22 Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0123 - EPA 3050B_S									
Blank (B7A0123-BLK1)				Prepared: 1/5/2017 Analyzed: 1/6/2017					
Antimony	ND	2.0			NR				
Arsenic	ND	1.0			NR				
Barium	ND	1.0			NR				
Beryllium	ND	1.0			NR				
Cadmium	ND	1.0			NR				
Chromium	ND	1.0			NR				
Cobalt	ND	1.0			NR				
Copper	ND	2.0			NR				
Lead	ND	1.0			NR				
Molybdenum	ND	1.0			NR				
Nickel	ND	1.0			NR				
Selenium	ND	1.0			NR				
Silver	ND	1.0			NR				
Thallium	ND	1.0			NR				
Vanadium	ND	1.0			NR				
Zinc	ND	1.0			NR				
LCS (B7A0123-BS1)				Prepared: 1/5/2017 Analyzed: 1/6/2017					
Antimony	47.5600	2.0	50.0000		95.1	80 - 120			
Arsenic	46.4033	1.0	50.0000		92.8	80 - 120			
Barium	49.8898	1.0	50.0000		99.8	80 - 120			
Beryllium	47.7046	1.0	50.0000		95.4	80 - 120			
Cadmium	47.3256	1.0	50.0000		94.7	80 - 120			
Chromium	50.1876	1.0	50.0000		100	80 - 120			
Cobalt	50.1285	1.0	50.0000		100	80 - 120			
Copper	50.2058	2.0	50.0000		100	80 - 120			
Lead	47.6765	1.0	50.0000		95.4	80 - 120			
Molybdenum	48.7765	1.0	50.0000		97.6	80 - 120			
Nickel	48.4584	1.0	50.0000		96.9	80 - 120			
Selenium	43.9646	1.0	50.0000		87.9	80 - 120			
Silver	47.3540	1.0	50.0000		94.7	80 - 120			
Thallium	46.7178	1.0	50.0000		93.4	80 - 120			
Vanadium	51.7352	1.0	50.0000		103	80 - 120			
Zinc	46.3722	1.0	50.0000		92.7	80 - 120			
Duplicate (B7A0123-DUP1)			**Source: 1604898-79**	Prepared: 1/5/2017 Analyzed: 1/6/2017					
Antimony	ND	2.0		1.45209	NR			20	
Arsenic	2.17197	1.0		2.33295	NR		7.15	20	
Barium	129.673	1.0		128.526	NR		0.888	20	
Beryllium	0.309333	1.0		0.297248	NR		3.98	20	J
Cadmium	ND	1.0		ND	NR			20	
Chromium	13.7955	1.0		13.8404	NR		0.325	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0123 - EPA 3050B_S (continued)									
Duplicate (B7A0123-DUP1) - Continued		**Source: 1604898-79**		Prepared: 1/5/2017 Analyzed: 1/6/2017					
Cobalt	8.26077	1.0		7.97670	NR		3.50	20	
Lead	122.162	1.0		245.100	NR		66.9	20	R
Molybdenum	ND	1.0		ND	NR			20	
Nickel	13.6912	1.0		13.4252	NR		1.96	20	
Selenium	ND	1.0		ND	NR			20	
Silver	ND	1.0		0.078191	NR			20	
Thallium	ND	1.0		ND	NR			20	
Vanadium	26.1188	1.0		25.9975	NR		0.466	20	
Zinc	165.354	1.0		151.158	NR		8.97	20	
Duplicate (B7A0123-DUP2)		**Source: 1604898-79**		Prepared: 1/5/2017 Analyzed: 1/6/2017					
Antimony	ND	10		ND	NR			20	
Copper	4686.75	10		4987.02	NR		6.21	20	
Matrix Spike (B7A0123-MS1)		**Source: 1604898-79**		Prepared: 1/5/2017 Analyzed: 1/6/2017					
Antimony	90.2532	2.0	125.000	1.45209	71.0	34 - 103			
Arsenic	97.4804	1.0	125.000	2.33295	76.1	59 - 103			
Barium	231.454	1.0	125.000	128.526	82.3	30 - 134			
Beryllium	97.0308	1.0	125.000	0.297248	77.4	62 - 105			
Cadmium	93.6666	1.0	125.000	ND	74.9	53 - 102			
Chromium	120.564	1.0	125.000	13.8404	85.4	51 - 111			
Cobalt	99.5542	1.0	125.000	7.97670	73.3	55 - 105			
Lead	157.632	1.0	125.000	245.100	-70.0	34 - 129			M1
Molybdenum	93.9434	1.0	125.000	ND	75.2	57 - 105			
Nickel	111.456	1.0	125.000	13.4252	78.4	49 - 109			
Selenium	89.1810	1.0	125.000	ND	71.3	57 - 99			
Silver	106.148	1.0	125.000	0.078191	84.9	64 - 105			
Thallium	89.5473	1.0	125.000	ND	71.6	46 - 105			
Vanadium	136.897	1.0	125.000	25.9975	88.7	60 - 109			
Zinc	230.714	1.0	250.000	151.158	31.8	29 - 122			
Matrix Spike (B7A0123-MS2)		**Source: 1604898-79**		Prepared: 1/5/2017 Analyzed: 1/6/2017					
Copper	2306.11	10	125.000	4987.02	-2140	53 - 126			M1
Matrix Spike Dup (B7A0123-MSD1)		**Source: 1604898-79**		Prepared: 1/5/2017 Analyzed: 1/6/2017					
Antimony	83.8592	2.0	125.000	1.45209	65.9	34 - 103	7.34	20	
Arsenic	92.1766	1.0	125.000	2.33295	71.9	59 - 103	5.59	20	
Barium	216.978	1.0	125.000	128.526	70.8	30 - 134	6.46	20	
Beryllium	93.6104	1.0	125.000	0.297248	74.7	62 - 105	3.59	20	
Cadmium	85.5222	1.0	125.000	ND	68.4	53 - 102	9.09	20	
Chromium	110.086	1.0	125.000	13.8404	77.0	51 - 111	9.09	20	
Cobalt	98.3516	1.0	125.000	7.97670	72.3	55 - 105	1.22	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0123 - EPA 3050B_S (continued)									
Matrix Spike Dup (B7A0123-MSD1) - Continued		**Source: 1604898-79**		Prepared: 1/5/2017 Analyzed: 1/6/2017					
Lead	135.644	1.0	125.000	245.100	-87.6	34 - 129	15.0	20	M1
Molybdenum	92.9165	1.0	125.000	ND	74.3	57 - 105	1.10	20	
Nickel	103.048	1.0	125.000	13.4252	71.7	49 - 109	7.84	20	
Selenium	84.3855	1.0	125.000	ND	67.5	57 - 99	5.53	20	
Silver	96.3492	1.0	125.000	0.078191	77.0	64 - 105	9.68	20	
Thallium	82.6868	1.0	125.000	ND	66.1	46 - 105	7.97	20	
Vanadium	125.998	1.0	125.000	25.9975	80.0	60 - 109	8.29	20	
Zinc	194.449	1.0	250.000	151.158	17.3	29 - 122	17.1	20	M1
Matrix Spike Dup (B7A0123-MSD2)		**Source: 1604898-79**		Prepared: 1/5/2017 Analyzed: 1/6/2017					
Copper	1436.78	10	125.000	4987.02	-2840	53 - 126	46.5	20	M1, R

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Title 22 Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0163 - EPA 3010A_W									
Blank (B7A0163-BLK1)				Prepared: 1/6/2017 Analyzed: 1/6/2017					
Antimony	0.003663	0.010			NR				J
Arsenic	ND	0.010			NR				
Barium	ND	0.0030			NR				
Beryllium	ND	0.0030			NR				
Cadmium	ND	0.0030			NR				
Chromium	ND	0.0030			NR				
Cobalt	ND	0.0030			NR				
Copper	ND	0.0090			NR				
Lead	ND	0.0050			NR				
Molybdenum	ND	0.0050			NR				
Nickel	ND	0.0050			NR				
Selenium	ND	0.010			NR				
Silver	ND	0.0030			NR				
Thallium	ND	0.015			NR				
Vanadium	ND	0.0030			NR				
Zinc	0.005045	0.025			NR				J
LCS (B7A0163-BS1)				Prepared: 1/6/2017 Analyzed: 1/6/2017					
Antimony	0.956715	0.010	1.00000		95.7	80 - 120			
Arsenic	0.928320	0.010	1.00000		92.8	80 - 120			
Barium	1.00144	0.0030	1.00000		100	80 - 120			
Beryllium	0.984959	0.0030	1.00000		98.5	80 - 120			
Cadmium	0.957475	0.0030	1.00000		95.7	80 - 120			
Chromium	0.998930	0.0030	1.00000		99.9	80 - 120			
Cobalt	0.978897	0.0030	1.00000		97.9	80 - 120			
Copper	1.00978	0.0090	1.00000		101	80 - 120			
Lead	0.985200	0.0050	1.00000		98.5	80 - 120			
Molybdenum	0.978032	0.0050	1.00000		97.8	80 - 120			
Nickel	0.957771	0.0050	1.00000		95.8	80 - 120			
Selenium	0.901388	0.010	1.00000		90.1	80 - 120			
Silver	0.999111	0.0030	1.00000		99.9	80 - 120			
Thallium	0.964404	0.015	1.00000		96.4	80 - 120			
Vanadium	1.01355	0.0030	1.00000		101	80 - 120			
Zinc	0.922090	0.025	1.00000		92.2	80 - 120			
LCS Dup (B7A0163-BSD1)				Prepared: 1/6/2017 Analyzed: 1/6/2017					
Antimony	0.987423	0.010	1.00000		98.7	80 - 120	3.16	20	
Arsenic	0.962332	0.010	1.00000		96.2	80 - 120	3.60	20	
Barium	1.04844	0.0030	1.00000		105	80 - 120	4.59	20	
Beryllium	1.01800	0.0030	1.00000		102	80 - 120	3.30	20	
Cadmium	0.990213	0.0030	1.00000		99.0	80 - 120	3.36	20	
Chromium	1.03660	0.0030	1.00000		104	80 - 120	3.70	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0163 - EPA 3010A_W (continued)									
LCS Dup (B7A0163-BSD1) - Continued				Prepared: 1/6/2017 Analyzed: 1/6/2017					
Cobalt	1.01629	0.0030	1.00000		102	80 - 120	3.75	20	
Copper	1.04962	0.0090	1.00000		105	80 - 120	3.87	20	
Lead	1.00868	0.0050	1.00000		101	80 - 120	2.36	20	
Molybdenum	1.01000	0.0050	1.00000		101	80 - 120	3.22	20	
Nickel	0.994488	0.0050	1.00000		99.4	80 - 120	3.76	20	
Selenium	0.921235	0.010	1.00000		92.1	80 - 120	2.18	20	
Silver	1.02659	0.0030	1.00000		103	80 - 120	2.71	20	
Thallium	0.987300	0.015	1.00000		98.7	80 - 120	2.35	20	
Vanadium	1.04759	0.0030	1.00000		105	80 - 120	3.30	20	
Zinc	0.964719	0.025	1.00000		96.5	80 - 120	4.52	20	
Duplicate (B7A0163-DUP1)		**Source: 1604898-AE**		Prepared: 1/6/2017 Analyzed: 1/6/2017					
Antimony	0.002741	0.010		ND	NR			20	J
Arsenic	ND	0.010		ND	NR			20	
Barium	0.003108	0.0030		0.002557	NR		19.4	20	
Beryllium	0.001771	0.0030		0.001183	NR		39.8	20	R, J
Cadmium	1.5234E-3	0.0030		0.001168	NR		26.4	20	R, J
Chromium	0.002510	0.0030		0.001914	NR		26.9	20	R, J
Cobalt	0.001489	0.0030		0.001434	NR		3.76	20	J
Copper	ND	0.0090		0.003371	NR			20	
Lead	ND	0.0050		0.003396	NR			20	
Molybdenum	0.001755	0.0050		0.001039	NR		51.2	20	R, J
Nickel	0.002922	0.0050		ND	NR			20	J
Selenium	0.004711	0.010		ND	NR			20	J
Silver	0.001476	0.0030		0.000768	NR		63.2	20	R, J
Thallium	ND	0.015		0.004027	NR			20	
Vanadium	ND	0.0030		0.001892	NR			20	
Zinc	0.008156	0.025		0.005993	NR		30.6	20	R, J

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Mercury by AA (Cold Vapor) EPA 7470A - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0170 - EPA 245.1/7470_W									
Blank (B7A0170-BLK1)				Prepared: 1/6/2017 Analyzed: 1/6/2017					
Mercury	ND	0.20			NR				
LCS (B7A0170-BS1)				Prepared: 1/6/2017 Analyzed: 1/6/2017					
Mercury	10.7788	0.20	10.0000		108	80 - 120			
LCS Dup (B7A0170-BSD1)				Prepared: 1/6/2017 Analyzed: 1/6/2017					
Mercury	10.7966	0.20	10.0000		108	80 - 120	0.165	20	
Duplicate (B7A0170-DUP1)		**Source: 1604898-AE**		Prepared: 1/6/2017 Analyzed: 1/6/2017					
Mercury	ND	0.20		ND	NR			20	
Post Spike (B7A0170-PS1)		**Source: 1604898-AE**		Prepared: 1/6/2017 Analyzed: 1/6/2017					
Mercury	10.6127		10.0000	-0.003611	106	85 - 115			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Mercury by AA (Cold Vapor) EPA 7471A - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0119 - EPA 7471_S									
Blank (B7A0119-BLK1)				Prepared: 1/5/2017 Analyzed: 1/6/2017					
Mercury	ND	0.10			NR				
LCS (B7A0119-BS1)				Prepared: 1/5/2017 Analyzed: 1/6/2017					
Mercury	0.816633	0.10	0.833333		98.0	80 - 120			
Duplicate (B7A0119-DUP1)		**Source: 1604898-79**		Prepared: 1/5/2017 Analyzed: 1/6/2017					
Mercury	0.033886	0.10		0.039532	NR		15.4	20	J
Matrix Spike (B7A0119-MS1)		**Source: 1604898-79**		Prepared: 1/5/2017 Analyzed: 1/6/2017					
Mercury	0.880354	0.10	0.833333	0.039532	101	70 - 130			
Matrix Spike Dup (B7A0119-MSD1)		**Source: 1604898-79**		Prepared: 1/5/2017 Analyzed: 1/6/2017					
Mercury	0.883707	0.10	0.833333	0.039532	101	70 - 130	0.380	20	
Post Spike (B7A0119-PS1)		**Source: 1604898-79**		Prepared: 1/5/2017 Analyzed: 1/6/2017					
Mercury	0.006029		5.00000E-3	0.000474	111	85 - 115			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Hydrocarbon Chain Distribution by EPA 8015B (Modified) - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0006 - GCSEMI_DRO_LL_S									
Blank (B7A0006-BLK1)					Prepared: 12/31/2016 Analyzed: 1/4/2017				
C8-C10	ND	1.0			NR				
C10-C18	ND	1.0			NR				
C18-C28	ND	1.0			NR				
C28-C36	ND	1.0			NR				
C36-C40	ND	1.0			NR				
C8-C40 Total	ND	1.0			NR				
Surrogate: p-Terphenyl	*2.291*		*2.66667*		*85.9*	*18 - 130*			
LCS (B7A0006-BS1)					Prepared: 12/31/2016 Analyzed: 1/4/2017				
DRO	26.3717	1.0	33.3333		79.1	34 - 120			
Surrogate: p-Terphenyl	*2.483*		*2.66667*		*93.1*	*18 - 130*			
Duplicate (B7A0006-DUP1)		**Source: 1604898-AD**			Prepared: 12/31/2016 Analyzed: 1/4/2017				
DRO	3.91800	1.0		3.80700	NR		2.87	20	
Surrogate: p-Terphenyl	*1.828*		*2.66667*		*68.5*	*18 - 130*			
Duplicate (B7A0006-DUP2)		**Source: 1604882-03**			Prepared: 12/31/2016 Analyzed: 1/4/2017				
DRO	7.27000	1.0		4.59800	NR		45.0	20	R
Surrogate: p-Terphenyl	*2.242*		*2.66667*		*84.1*	*18 - 130*			
Matrix Spike (B7A0006-MS1)		**Source: 1604882-03**			Prepared: 12/31/2016 Analyzed: 1/4/2017				
DRO	24.7073	1.0	33.3333	4.59800	60.3	12 - 132			
Surrogate: p-Terphenyl	*1.787*		*2.66667*		*67.0*	*18 - 130*			
Matrix Spike Dup (B7A0006-MSD1)		**Source: 1604882-03**			Prepared: 12/31/2016 Analyzed: 1/4/2017				
DRO	24.5153	1.0	33.3333	4.59800	59.8	12 - 132	0.780	20	
Surrogate: p-Terphenyl	*2.113*		*2.66667*		*79.2*	*18 - 130*			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0037 - GCSEMI_PCB/PEST_W									
Blank (B7A0037-BLK1)				Prepared: 1/3/2017 Analyzed: 1/3/2017					
4,4´-DDD	ND	0.05			NR				
4,4´-DDD [2C]	ND	0.05			NR				
4,4´-DDE	ND	0.05			NR				
4,4´-DDE [2C]	ND	0.05			NR				
4,4´-DDT	ND	0.05			NR				
4,4´-DDT [2C]	ND	0.05			NR				
Aldrin	ND	0.02			NR				
Aldrin [2C]	ND	0.02			NR				
alpha-BHC	ND	0.02			NR				
alpha-BHC [2C]	ND	0.02			NR				
alpha-Chlordane	ND	0.02			NR				
alpha-Chlordane [2C]	ND	0.02			NR				
beta-BHC	ND	0.02			NR				
beta-BHC [2C]	ND	0.02			NR				
Chlordane	ND	0.25			NR				
Chlordane [2C]	ND	0.25			NR				
delta-BHC	ND	0.02			NR				
delta-BHC [2C]	ND	0.02			NR				
Dieldrin	ND	0.05			NR				
Dieldrin [2C]	ND	0.05			NR				
Endosulfan I	ND	0.02			NR				
Endosulfan I [2C]	ND	0.02			NR				
Endosulfan II	ND	0.05			NR				
Endosulfan II [2C]	ND	0.05			NR				
Endosulfan sulfate	ND	0.05			NR				
Endosulfan Sulfate [2C]	ND	0.05			NR				
Endrin	ND	0.05			NR				
Endrin [2C]	ND	0.05			NR				
Endrin aldehyde	ND	0.05			NR				
Endrin aldehyde [2C]	ND	0.05			NR				
Endrin ketone	ND	0.05			NR				
Endrin ketone [2C]	ND	0.05			NR				
gamma-BHC	ND	0.02			NR				
gamma-BHC [2C]	ND	0.02			NR				
gamma-Chlordane	ND	0.02			NR				
gamma-Chlordane [2C]	ND	0.02			NR				
Heptachlor	ND	0.02			NR				
Heptachlor [2C]	ND	0.02			NR				
Heptachlor epoxide	ND	0.02			NR				
Heptachlor epoxide [2C]	ND	0.02			NR				
Methoxychlor	ND	0.25			NR				

Leighton Consulting, Inc.
17781 Cowan Street
Irvine , CA 92614

Project Number : LAUSD-Burroughs MS, 603378.006
Report To : Julie Harriman
Reported : 01/09/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0037 - GCSEMI_PCB/PEST_W (continued)									
Blank (B7A0037-BLK1) - Continued				Prepared: 1/3/2017 Analyzed: 1/3/2017					
Methoxychlor [2C]	ND	0.25			NR				
Toxaphene	ND	2.5			NR				
Toxaphene [2C]	ND	2.5			NR				
Surrogate: Decachlorobiphenyl	*0.2658*		*0.500000*		*53.2*	*7 - 127*			
Surrogate: Decachlorobiphenyl [2C]	*0.2876*		*0.500000*		*57.5*	*7 - 127*			
Surrogate: Tetrachloro-m-xylene	*0.2945*		*0.500000*		*58.9*	*14 - 122*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.2956*		*0.500000*		*59.1*	*14 - 122*			
LCS (B7A0037-BS1)				Prepared: 1/3/2017 Analyzed: 1/3/2017					
4,4´-DDD	0.363180	0.05	0.500000		72.6	59 - 109			
4,4´-DDD [2C]	0.360310	0.05	0.500000		72.1	59 - 109			
4,4´-DDE	0.279925	0.05	0.500000		56.0	63 - 101			L2
4,4´-DDE [2C]	0.279715	0.05	0.500000		55.9	63 - 101			L2
4,4´-DDT	0.254690	0.05	0.500000		50.9	36 - 96			
4,4´-DDT [2C]	0.259245	0.05	0.500000		51.8	36 - 96			
Aldrin	0.287915	0.02	0.500000		57.6	64 - 96			L2
Aldrin [2C]	0.285170	0.02	0.500000		57.0	64 - 96			L2
alpha-BHC	0.347050	0.02	0.500000		69.4	63 - 92			
alpha-BHC [2C]	0.351840	0.02	0.500000		70.4	63 - 92			
alpha-Chlordane	0.313465	0.02	0.500000		62.7	63 - 101			L2
alpha-Chlordane [2C]	0.305240	0.02	0.500000		61.0	63 - 101			L2
beta-BHC	0.354215	0.02	0.500000		70.8	58 - 95			
beta-BHC [2C]	0.355230	0.02	0.500000		71.0	58 - 95			
delta-BHC	0.299150	0.02	0.500000		59.8	37 - 107			
delta-BHC [2C]	0.305860	0.02	0.500000		61.2	37 - 107			
Dieldrin	0.349840	0.05	0.500000		70.0	62 - 102			
Dieldrin [2C]	0.337915	0.05	0.500000		67.6	62 - 102			
Endosulfan I	0.336470	0.02	0.500000		67.3	61 - 97			
Endosulfan I [2C]	0.319660	0.02	0.500000		63.9	61 - 97			
Endosulfan II	0.352055	0.05	0.500000		70.4	61 - 103			
Endosulfan II [2C]	0.339880	0.05	0.500000		68.0	61 - 103			
Endosulfan sulfate	0.339570	0.05	0.500000		67.9	60 - 112			
Endosulfan Sulfate [2C]	0.339125	0.05	0.500000		67.8	60 - 112			
Endrin	0.366235	0.05	0.500000		73.2	62 - 103			
Endrin [2C]	0.354760	0.05	0.500000		71.0	62 - 103			
Endrin aldehyde	0.350885	0.05	0.500000		70.2	64 - 116			
Endrin aldehyde [2C]	0.322485	0.05	0.500000		64.5	64 - 116			
Endrin ketone	0.354465	0.05	0.500000		70.9	56 - 113			
Endrin ketone [2C]	0.373545	0.05	0.500000		74.7	56 - 113			
gamma-BHC	0.367685	0.02	0.500000		73.5	64 - 95			
gamma-BHC [2C]	0.365640	0.02	0.500000		73.1	64 - 95			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0037 - GCSEMI_PCB/PEST_W (continued)									
LCS (B7A0037-BS1) - Continued				Prepared: 1/3/2017 Analyzed: 1/3/2017					
gamma-Chlordane	0.303435	0.02	0.500000		60.7	64 - 99			L2
gamma-Chlordane [2C]	0.299285	0.02	0.500000		59.9	64 - 99			L2
Heptachlor	0.306535	0.02	0.500000		61.3	64 - 93			L2
Heptachlor [2C]	0.300800	0.02	0.500000		60.2	64 - 93			L2
Heptachlor epoxide	0.331790	0.02	0.500000		66.4	65 - 98			
Heptachlor epoxide [2C]	0.324435	0.02	0.500000		64.9	65 - 98			L2
Methoxychlor	0.288520	0.25	0.500000		57.7	0 - 141			
Methoxychlor [2C]	0.302515	0.25	0.500000		60.5	0 - 141			
Surrogate: Decachlorobiphenyl	*0.2465*		*0.500000*		*49.3*	*7 - 127*			
Surrogate: Decachlorobiphenyl [2C]	*0.2668*		*0.500000*		*53.4*	*7 - 127*			
Surrogate: Tetrachloro-m-xylene	*0.3115*		*0.500000*		*62.3*	*14 - 122*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.3277*		*0.500000*		*65.5*	*14 - 122*			
LCS Dup (B7A0037-BSD1)				Prepared: 1/3/2017 Analyzed: 1/3/2017					
4,4´-DDD	0.399375	0.05	0.500000		79.9	59 - 109	9.49	20	
4,4´-DDD [2C]	0.403410	0.05	0.500000		80.7	59 - 109	11.3	20	
4,4´-DDE	0.317680	0.05	0.500000		63.5	63 - 101	12.6	20	
4,4´-DDE [2C]	0.315940	0.05	0.500000		63.2	63 - 101	12.2	20	
4,4´-DDT	0.268815	0.05	0.500000		53.8	36 - 96	5.40	20	
4,4´-DDT [2C]	0.267385	0.05	0.500000		53.5	36 - 96	3.09	20	
Aldrin	0.321890	0.02	0.500000		64.4	64 - 96	11.1	20	
Aldrin [2C]	0.320935	0.02	0.500000		64.2	64 - 96	11.8	20	
alpha-BHC	0.363535	0.02	0.500000		72.7	63 - 92	4.64	20	
alpha-BHC [2C]	0.368980	0.02	0.500000		73.8	63 - 92	4.76	20	
alpha-Chlordane	0.341235	0.02	0.500000		68.2	63 - 101	8.48	20	
alpha-Chlordane [2C]	0.335460	0.02	0.500000		67.1	63 - 101	9.43	20	
beta-BHC	0.370150	0.02	0.500000		74.0	58 - 95	4.40	20	
beta-BHC [2C]	0.372655	0.02	0.500000		74.5	58 - 95	4.79	20	
delta-BHC	0.313370	0.02	0.500000		62.7	37 - 107	4.64	20	
delta-BHC [2C]	0.320555	0.02	0.500000		64.1	37 - 107	4.69	20	
Dieldrin	0.371515	0.05	0.500000		74.3	62 - 102	6.01	20	
Dieldrin [2C]	0.361385	0.05	0.500000		72.3	62 - 102	6.71	20	
Endosulfan I	0.355665	0.02	0.500000		71.1	61 - 97	5.55	20	
Endosulfan I [2C]	0.344145	0.02	0.500000		68.8	61 - 97	7.38	20	
Endosulfan II	0.365630	0.05	0.500000		73.1	61 - 103	3.78	20	
Endosulfan II [2C]	0.356080	0.05	0.500000		71.2	61 - 103	4.66	20	
Endosulfan sulfate	0.357610	0.05	0.500000		71.5	60 - 112	5.18	20	
Endosulfan Sulfate [2C]	0.353790	0.05	0.500000		70.8	60 - 112	4.23	20	
Endrin	0.379125	0.05	0.500000		75.8	62 - 103	3.46	20	
Endrin [2C]	0.375285	0.05	0.500000		75.1	62 - 103	5.62	20	
Endrin aldehyde	0.374390	0.05	0.500000		74.9	64 - 116	6.48	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0037 - GCSEMI_PCB/PEST_W (continued)									
LCS Dup (B7A0037-BSD1) - Continued				Prepared: 1/3/2017 Analyzed: 1/3/2017					
Endrin aldehyde [2C]	0.355655	0.05	0.500000		71.1	64 - 116	9.78	20	
Endrin ketone	0.378335	0.05	0.500000		75.7	56 - 113	6.51	20	
Endrin ketone [2C]	0.382420	0.05	0.500000		76.5	56 - 113	2.35	20	
gamma-BHC	0.386310	0.02	0.500000		77.3	64 - 95	4.94	20	
gamma-BHC [2C]	0.384415	0.02	0.500000		76.9	64 - 95	5.01	20	
gamma-Chlordane	0.331655	0.02	0.500000		66.3	64 - 99	8.89	20	
gamma-Chlordane [2C]	0.330240	0.02	0.500000		66.0	64 - 99	9.83	20	
Heptachlor	0.330190	0.02	0.500000		66.0	64 - 93	7.43	20	
Heptachlor [2C]	0.325510	0.02	0.500000		65.1	64 - 93	7.89	20	
Heptachlor epoxide	0.352610	0.02	0.500000		70.5	65 - 98	6.08	20	
Heptachlor epoxide [2C]	0.345600	0.02	0.500000		69.1	65 - 98	6.32	20	
Methoxychlor	0.292580	0.25	0.500000		58.5	0 - 141	1.40	20	
Methoxychlor [2C]	0.304260	0.25	0.500000		60.9	0 - 141	0.575	20	
Surrogate: Decachlorobiphenyl	*0.2805*		*0.500000*		*56.1*	*7 - 127*			
Surrogate: Decachlorobiphenyl [2C]	*0.3145*		*0.500000*		*62.9*	*7 - 127*			
Surrogate: Tetrachloro-m-xylene	*0.3161*		*0.500000*		*63.2*	*14 - 122*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.3376*		*0.500000*		*67.5*	*14 - 122*			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0091 - GCSEMI_PCB/PEST_S									
Blank (B7A0091-BLK1)				Prepared: 1/4/2017 Analyzed: 1/5/2017					
4,4´-DDD	ND	2.0			NR				
4,4´-DDD [2C]	ND	2.0			NR				
4,4´-DDE	ND	2.0			NR				
4,4´-DDE [2C]	ND	2.0			NR				
4,4´-DDT	ND	2.0			NR				
4,4´-DDT [2C]	ND	2.0			NR				
Aldrin	ND	1.0			NR				
Aldrin [2C]	ND	1.0			NR				
alpha-BHC	ND	1.0			NR				
alpha-BHC [2C]	ND	1.0			NR				
alpha-Chlordane	ND	1.0			NR				
alpha-Chlordane [2C]	ND	1.0			NR				
beta-BHC	ND	1.0			NR				
beta-BHC [2C]	ND	1.0			NR				
Chlordane	ND	8.5			NR				
Chlordane [2C]	ND	8.5			NR				
delta-BHC	ND	1.0			NR				
delta-BHC [2C]	ND	1.0			NR				
Dieldrin	ND	2.0			NR				
Dieldrin [2C]	ND	2.0			NR				
Endosulfan I	ND	1.0			NR				
Endosulfan I [2C]	ND	1.0			NR				
Endosulfan II	ND	2.0			NR				
Endosulfan II [2C]	ND	2.0			NR				
Endosulfan sulfate	ND	2.0			NR				
Endosulfan Sulfate [2C]	ND	2.0			NR				
Endrin	ND	2.0			NR				
Endrin [2C]	ND	2.0			NR				
Endrin aldehyde	ND	2.0			NR				
Endrin aldehyde [2C]	ND	2.0			NR				
Endrin ketone	ND	2.0			NR				
Endrin ketone [2C]	ND	2.0			NR				
gamma-BHC	ND	1.0			NR				
gamma-BHC [2C]	ND	1.0			NR				
gamma-Chlordane	ND	1.0			NR				
gamma-Chlordane [2C]	ND	1.0			NR				
Heptachlor	ND	1.0			NR				
Heptachlor [2C]	ND	1.0			NR				
Heptachlor epoxide	ND	1.0			NR				
Heptachlor epoxide [2C]	ND	1.0			NR				
Methoxychlor	ND	5.0			NR				

Leighton Consulting, Inc.
17781 Cowan Street
Irvine , CA 92614

Project Number : LAUSD-Burroughs MS, 603378.006
Report To : Julie Harriman
Reported : 01/09/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0091 - GCSEMI_PCB/PEST_S (continued)									
Blank (B7A0091-BLK1) - Continued					Prepared: 1/4/2017 Analyzed: 1/5/2017				
Methoxychlor [2C]	ND	5.0			NR				
Toxaphene	ND	50			NR				
Toxaphene [2C]	ND	50			NR				
Surrogate: Decachlorobiphenyl	*10.83*		*16.6667*		*65.0*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*11.00*		*16.6667*		*66.0*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*11.36*		*16.6667*		*68.1*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*11.58*		*16.6667*		*69.5*	*26 - 108*			
LCS (B7A0091-BS1)					Prepared: 1/4/2017 Analyzed: 1/5/2017				
4,4´-DDD	13.4210	2.0	16.6667		80.5	53 - 125			
4,4´-DDD [2C]	13.4800	2.0	16.6667		80.9	53 - 125			
4,4´-DDE	12.9390	2.0	16.6667		77.6	54 - 113			
4,4´-DDE [2C]	12.8242	2.0	16.6667		76.9	54 - 113			
4,4´-DDT	14.6257	2.0	16.6667		87.8	25 - 127			
4,4´-DDT [2C]	13.6898	2.0	16.6667		82.1	25 - 127			
Aldrin	12.6750	1.0	16.6667		76.0	59 - 107			
Aldrin [2C]	12.4140	1.0	16.6667		74.5	59 - 107			
alpha-BHC	12.2088	1.0	16.6667		73.3	59 - 104			
alpha-BHC [2C]	12.1145	1.0	16.6667		72.7	59 - 104			
alpha-Chlordane	12.9707	1.0	16.6667		77.8	54 - 110			
alpha-Chlordane [2C]	12.5200	1.0	16.6667		75.1	54 - 110			
beta-BHC	12.2423	1.0	16.6667		73.5	57 - 103			
beta-BHC [2C]	12.0647	1.0	16.6667		72.4	57 - 103			
delta-BHC	9.64583	1.0	16.6667		57.9	16 - 120			
delta-BHC [2C]	9.62217	1.0	16.6667		57.7	16 - 120			
Dieldrin	13.5920	2.0	16.6667		81.6	61 - 109			
Dieldrin [2C]	12.9787	2.0	16.6667		77.9	61 - 109			
Endosulfan I	12.9032	1.0	16.6667		77.4	60 - 106			
Endosulfan I [2C]	12.2547	1.0	16.6667		73.5	60 - 106			
Endosulfan II	12.8397	2.0	16.6667		77.0	59 - 108			
Endosulfan II [2C]	12.4313	2.0	16.6667		74.6	59 - 108			
Endosulfan sulfate	11.9318	2.0	16.6667		71.6	54 - 110			
Endosulfan Sulfate [2C]	11.4298	2.0	16.6667		68.6	54 - 110			
Endrin	14.3170	2.0	16.6667		85.9	63 - 112			
Endrin [2C]	13.8930	2.0	16.6667		83.4	63 - 112			
Endrin aldehyde	13.0938	2.0	16.6667		78.6	64 - 119			
Endrin aldehyde [2C]	12.5973	2.0	16.6667		75.6	64 - 119			
Endrin ketone	12.0700	2.0	16.6667		72.4	54 - 115			
Endrin ketone [2C]	11.4790	2.0	16.6667		68.9	54 - 115			
gamma-BHC	12.8507	1.0	16.6667		77.1	60 - 107			
gamma-BHC [2C]	12.6325	1.0	16.6667		75.8	60 - 107			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0091 - GCSEMI_PCB/PEST_S (continued)									
LCS (B7A0091-BS1) - Continued				Prepared: 1/4/2017 Analyzed: 1/5/2017					
gamma-Chlordane	12.6602	1.0	16.6667		76.0	57 - 106			
gamma-Chlordane [2C]	12.3807	1.0	16.6667		74.3	57 - 106			
Heptachlor	12.7678	1.0	16.6667		76.6	54 - 114			
Heptachlor [2C]	12.8133	1.0	16.6667		76.9	54 - 114			
Heptachlor epoxide	12.6465	1.0	16.6667		75.9	61 - 106			
Heptachlor epoxide [2C]	12.2762	1.0	16.6667		73.7	61 - 106			
Methoxychlor	14.2070	5.0	16.6667		85.2	18 - 138			
Methoxychlor [2C]	13.7158	5.0	16.6667		82.3	18 - 138			
Surrogate: Decachlorobiphenyl	*11.70*		*16.6667*		*70.2*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*11.78*		*16.6667*		*70.7*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*12.17*		*16.6667*		*73.0*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*12.98*		*16.6667*		*77.9*	*26 - 108*			
Duplicate (B7A0091-DUP1)			**Source: 1604898-12**	Prepared: 1/4/2017 Analyzed: 1/5/2017					
4,4´-DDD	ND	2.0		ND	NR			20	
4,4´-DDD [2C]	ND	2.0		ND	NR			20	
4,4´-DDE	ND	2.0		ND	NR			20	
4,4´-DDE [2C]	ND	2.0		ND	NR			20	
4,4´-DDT	ND	2.0		ND	NR			20	
4,4´-DDT [2C]	ND	2.0		ND	NR			20	
Aldrin	ND	1.0		ND	NR			20	
Aldrin [2C]	ND	1.0		ND	NR			20	
alpha-BHC	ND	1.0		ND	NR			20	
alpha-BHC [2C]	ND	1.0		ND	NR			20	
alpha-Chlordane	ND	1.0		ND	NR			20	
alpha-Chlordane [2C]	ND	1.0		ND	NR			20	
beta-BHC	ND	1.0		ND	NR			20	
beta-BHC [2C]	ND	1.0		ND	NR			20	
delta-BHC	ND	1.0		ND	NR			20	
delta-BHC [2C]	ND	1.0		ND	NR			20	
Dieldrin	ND	2.0		ND	NR			20	
Dieldrin [2C]	ND	2.0		ND	NR			20	
Endosulfan I	ND	1.0		ND	NR			20	
Endosulfan I [2C]	ND	1.0		ND	NR			20	
Endosulfan II	ND	2.0		ND	NR			20	
Endosulfan II [2C]	ND	2.0		ND	NR			20	
Endosulfan sulfate	ND	2.0		ND	NR			20	
Endosulfan Sulfate [2C]	ND	2.0		ND	NR			20	
Endrin	ND	2.0		ND	NR			20	
Endrin [2C]	ND	2.0		ND	NR			20	
Endrin aldehyde	ND	2.0		ND	NR			20	

Leighton Consulting, Inc.
17781 Cowan Street
Irvine , CA 92614

Project Number : LAUSD-Burroughs MS, 603378.006
Report To : Julie Harriman
Reported : 01/09/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0091 - GCSEMI_PCB/PEST_S (continued)									
Duplicate (B7A0091-DUP1) - Continued		**Source: 1604898-12**		Prepared: 1/4/2017 Analyzed: 1/5/2017					
Endrin aldehyde [2C]	ND	2.0		ND	NR			20	
Endrin ketone	ND	2.0		ND	NR			20	
Endrin ketone [2C]	ND	2.0		ND	NR			20	
gamma-BHC	ND	1.0		ND	NR			20	
gamma-BHC [2C]	ND	1.0		ND	NR			20	
gamma-Chlordane	ND	1.0		ND	NR			20	
gamma-Chlordane [2C]	ND	1.0		ND	NR			20	
Heptachlor	ND	1.0		ND	NR			20	
Heptachlor [2C]	ND	1.0		ND	NR			20	
Heptachlor epoxide	ND	1.0		ND	NR			20	
Heptachlor epoxide [2C]	ND	1.0		ND	NR			20	
Methoxychlor	ND	5.0		ND	NR			20	
Methoxychlor [2C]	ND	5.0		ND	NR			20	
Surrogate: Decachlorobiphenyl	*11.91*		*16.6667*		*71.5*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*12.49*		*16.6667*		*74.9*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*11.30*		*16.6667*		*67.8*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*11.89*		*16.6667*		*71.3*	*26 - 108*			
Matrix Spike (B7A0091-MS1)		**Source: 1604898-12**		Prepared: 1/4/2017 Analyzed: 1/5/2017					
4,4´-DDD	7.27833	2.0	16.6667	ND	43.7	25 - 141			
4,4´-DDD [2C]	7.60950	2.0	16.6667	ND	45.7	25 - 141			
4,4´-DDE	9.58250	2.0	16.6667	ND	57.5	22 - 141			
4,4´-DDE [2C]	9.84250	2.0	16.6667	ND	59.1	22 - 141			
4,4´-DDT	9.94267	2.0	16.6667	ND	59.7	15 - 136			
4,4´-DDT [2C]	10.0100	2.0	16.6667	ND	60.1	15 - 136			
Aldrin	9.35800	1.0	16.6667	ND	56.1	33 - 118			
Aldrin [2C]	9.62017	1.0	16.6667	ND	57.7	33 - 118			
alpha-BHC	7.46100	1.0	16.6667	ND	44.8	30 - 116			
alpha-BHC [2C]	7.76700	1.0	16.6667	ND	46.6	30 - 116			
alpha-Chlordane	8.18817	1.0	16.6667	ND	49.1	30 - 123			
alpha-Chlordane [2C]	8.30267	1.0	16.6667	ND	49.8	30 - 123			
beta-BHC	4.05717	1.0	16.6667	ND	24.3	24 - 121			
beta-BHC [2C]	4.18267	1.0	16.6667	ND	25.1	24 - 121			
delta-BHC	1.05733	1.0	16.6667	ND	6.34	7 - 120			M2
delta-BHC [2C]	1.06150	1.0	16.6667	ND	6.37	7 - 120			M2
Dieldrin	3.10600	2.0	16.6667	ND	18.6	25 - 136			M2
Dieldrin [2C]	3.13233	2.0	16.6667	ND	18.8	25 - 136			M2
Endosulfan I	4.49667	1.0	16.6667	ND	27.0	18 - 134			
Endosulfan I [2C]	4.45633	1.0	16.6667	ND	26.7	18 - 134			
Endosulfan II	0.375333	2.0	16.6667	ND	2.25	28 - 128			M2, J
Endosulfan II [2C]	0.332167	2.0	16.6667	ND	1.99	28 - 128			M2, J

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0091 - GCSEMI_PCB/PEST_S (continued)									
Matrix Spike (B7A0091-MS1) - Continued		**Source: 1604898-12**		Prepared: 1/4/2017 Analyzed: 1/5/2017					
Endosulfan sulfate	ND	2.0	16.6667	ND	NR	5 - 145			M2
Endosulfan Sulfate [2C]	ND	2.0	16.6667	ND	NR	5 - 145			M2
Endrin	3.62883	2.0	16.6667	ND	21.8	26 - 142			M2
Endrin [2C]	3.70867	2.0	16.6667	ND	22.3	26 - 142			M2
Endrin aldehyde	0.299333	2.0	16.6667	ND	1.80	8 - 146			M2, J
Endrin aldehyde [2C]	ND	2.0	16.6667	ND	NR	8 - 146			M2
Endrin ketone	0.377833	2.0	16.6667	ND	2.27	16 - 139			M2, J
Endrin ketone [2C]	0.356167	2.0	16.6667	ND	2.14	16 - 139			M2, J
gamma-BHC	6.83517	1.0	16.6667	ND	41.0	30 - 122			
gamma-BHC [2C]	7.00167	1.0	16.6667	ND	42.0	30 - 122			
gamma-Chlordane	8.85483	1.0	16.6667	ND	53.1	18 - 132			
gamma-Chlordane [2C]	7.35283	1.0	16.6667	ND	44.1	18 - 132			
Heptachlor	9.62450	1.0	16.6667	ND	57.7	34 - 122			
Heptachlor [2C]	9.86600	1.0	16.6667	ND	59.2	34 - 122			
Heptachlor epoxide	4.80383	1.0	16.6667	ND	28.8	21 - 135			
Heptachlor epoxide [2C]	4.84617	1.0	16.6667	ND	29.1	21 - 135			
Methoxychlor	1.17000	5.0	16.6667	ND	7.02	8 - 162			M2, J
Methoxychlor [2C]	1.20933	5.0	16.6667	ND	7.26	8 - 162			M2, J
Surrogate: Decachlorobiphenyl	*9.333*		*16.6667*		*56.0*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*9.948*		*16.6667*		*59.7*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*8.960*		*16.6667*		*53.8*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*10.52*		*16.6667*		*63.1*	*26 - 108*			
Matrix Spike Dup (B7A0091-MSD1)		**Source: 1604898-12**		Prepared: 1/4/2017 Analyzed: 1/5/2017					
4,4´-DDD	6.91000	2.0	16.6667	ND	41.5	25 - 141	5.19	20	
4,4´-DDD [2C]	7.21083	2.0	16.6667	ND	43.3	25 - 141	5.38	20	
4,4´-DDE	8.86500	2.0	16.6667	ND	53.2	22 - 141	7.78	20	
4,4´-DDE [2C]	9.13783	2.0	16.6667	ND	54.8	22 - 141	7.43	20	
4,4´-DDT	9.18800	2.0	16.6667	ND	55.1	15 - 136	7.89	20	
4,4´-DDT [2C]	9.36850	2.0	16.6667	ND	56.2	15 - 136	6.62	20	
Aldrin	8.66217	1.0	16.6667	ND	52.0	33 - 118	7.72	20	
Aldrin [2C]	8.97267	1.0	16.6667	ND	53.8	33 - 118	6.97	20	
alpha-BHC	6.65767	1.0	16.6667	ND	39.9	30 - 116	11.4	20	
alpha-BHC [2C]	7.01650	1.0	16.6667	ND	42.1	30 - 116	10.2	20	
alpha-Chlordane	7.56950	1.0	16.6667	ND	45.4	30 - 123	7.85	20	
alpha-Chlordane [2C]	7.70683	1.0	16.6667	ND	46.2	30 - 123	7.44	20	
beta-BHC	4.06650	1.0	16.6667	ND	24.4	24 - 121	0.230	20	
beta-BHC [2C]	4.31417	1.0	16.6667	ND	25.9	24 - 121	3.10	20	
delta-BHC	1.46667	1.0	16.6667	ND	8.80	7 - 120	32.4	20	R3
delta-BHC [2C]	1.54350	1.0	16.6667	ND	9.26	7 - 120	37.0	20	R3
Dieldrin	3.71017	2.0	16.6667	ND	22.3	25 - 136	17.7	20	M2

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0091 - GCSEMI_PCB/PEST_S (continued)									
Matrix Spike Dup (B7A0091-MSD1) - Continued		**Source: 1604898-12**		Prepared: 1/4/2017 Analyzed: 1/5/2017					
Dieldrin [2C]	3.77733	2.0	16.6667	ND	22.7	25 - 136	18.7	20	M2
Endosulfan I	4.73717	1.0	16.6667	ND	28.4	18 - 134	5.21	20	
Endosulfan I [2C]	4.72400	1.0	16.6667	ND	28.3	18 - 134	5.83	20	
Endosulfan II	0.839500	2.0	16.6667	ND	5.04	28 - 128	76.4	20	M2, R3, J
Endosulfan II [2C]	0.793833	2.0	16.6667	ND	4.76	28 - 128	82.0	20	M2, R3, J
Endosulfan sulfate	0.536167	2.0	16.6667	ND	3.22	5 - 145		20	M2, J
Endosulfan Sulfate [2C]	0.541333	2.0	16.6667	ND	3.25	5 - 145		20	M2, J
Endrin	4.26950	2.0	16.6667	ND	25.6	26 - 142	16.2	20	M2
Endrin [2C]	4.32867	2.0	16.6667	ND	26.0	26 - 142	15.4	20	M2
Endrin aldehyde	0.675333	2.0	16.6667	ND	4.05	8 - 146	77.2	20	M2, R3, J
Endrin aldehyde [2C]	0.693500	2.0	16.6667	ND	4.16	8 - 146		20	M2, J
Endrin ketone	0.795333	2.0	16.6667	ND	4.77	16 - 139	71.2	20	M2, R3, J
Endrin ketone [2C]	0.818667	2.0	16.6667	ND	4.91	16 - 139	78.7	20	M2, R3, J
gamma-BHC	6.22083	1.0	16.6667	ND	37.3	30 - 122	9.41	20	
gamma-BHC [2C]	6.47183	1.0	16.6667	ND	38.8	30 - 122	7.86	20	
gamma-Chlordane	8.27067	1.0	16.6667	ND	49.6	18 - 132	6.82	20	
gamma-Chlordane [2C]	6.96667	1.0	16.6667	ND	41.8	18 - 132	5.39	20	
Heptachlor	8.89967	1.0	16.6667	ND	53.4	34 - 122	7.83	20	
Heptachlor [2C]	9.17067	1.0	16.6667	ND	55.0	34 - 122	7.31	20	
Heptachlor epoxide	4.89833	1.0	16.6667	ND	29.4	21 - 135	1.95	20	
Heptachlor epoxide [2C]	4.95933	1.0	16.6667	ND	29.8	21 - 135	2.31	20	
Methoxychlor	2.03117	5.0	16.6667	ND	12.2	8 - 162	53.8	20	R3, J
Methoxychlor [2C]	2.22333	5.0	16.6667	ND	13.3	8 - 162	59.1	20	R3, J
Surrogate: Decachlorobiphenyl	*8.944*		*16.6667*		*53.7*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*9.718*		*16.6667*		*58.3*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*8.290*		*16.6667*		*49.7*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*9.786*		*16.6667*		*58.7*	*26 - 108*			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0120 - GCSEMI_PCB/PEST_S									
Blank (B7A0120-BLK1)				Prepared: 1/5/2017 Analyzed: 1/5/2017					
4,4´-DDD	ND	2.0			NR				
4,4´-DDD [2C]	ND	2.0			NR				
4,4´-DDE	ND	2.0			NR				
4,4´-DDE [2C]	ND	2.0			NR				
4,4´-DDT	ND	2.0			NR				
4,4´-DDT [2C]	ND	2.0			NR				
Aldrin	ND	1.0			NR				
Aldrin [2C]	ND	1.0			NR				
alpha-BHC	ND	1.0			NR				
alpha-BHC [2C]	ND	1.0			NR				
alpha-Chlordane	ND	1.0			NR				
alpha-Chlordane [2C]	ND	1.0			NR				
beta-BHC	ND	1.0			NR				
beta-BHC [2C]	ND	1.0			NR				
Chlordane	ND	8.5			NR				
Chlordane [2C]	ND	8.5			NR				
delta-BHC	ND	1.0			NR				
delta-BHC [2C]	ND	1.0			NR				
Dieldrin	ND	2.0			NR				
Dieldrin [2C]	ND	2.0			NR				
Endosulfan I	ND	1.0			NR				
Endosulfan I [2C]	ND	1.0			NR				
Endosulfan II	ND	2.0			NR				
Endosulfan II [2C]	ND	2.0			NR				
Endosulfan sulfate	ND	2.0			NR				
Endosulfan Sulfate [2C]	ND	2.0			NR				
Endrin	ND	2.0			NR				
Endrin [2C]	ND	2.0			NR				
Endrin aldehyde	ND	2.0			NR				
Endrin aldehyde [2C]	ND	2.0			NR				
Endrin ketone	ND	2.0			NR				
Endrin ketone [2C]	ND	2.0			NR				
gamma-BHC	ND	1.0			NR				
gamma-BHC [2C]	ND	1.0			NR				
gamma-Chlordane	ND	1.0			NR				
gamma-Chlordane [2C]	ND	1.0			NR				
Heptachlor	ND	1.0			NR				
Heptachlor [2C]	ND	1.0			NR				
Heptachlor epoxide	ND	1.0			NR				
Heptachlor epoxide [2C]	ND	1.0			NR				
Methoxychlor	ND	5.0			NR				

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0120 - GCSEMI_PCB/PEST_S (continued)									
Blank (B7A0120-BLK1) - Continued					Prepared: 1/5/2017 Analyzed: 1/5/2017				
Methoxychlor [2C]	ND	5.0			NR				
Toxaphene	ND	50			NR				
Toxaphene [2C]	ND	50			NR				
Surrogate: Decachlorobiphenyl	*12.38*		*16.6667*		*74.3*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*13.19*		*16.6667*		*79.2*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*13.12*		*16.6667*		*78.7*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*13.86*		*16.6667*		*83.1*	*26 - 108*			
LCS (B7A0120-BS1)					Prepared: 1/5/2017 Analyzed: 1/5/2017				
4,4´-DDD	13.5865	2.0	16.6667		81.5	53 - 125			
4,4´-DDD [2C]	13.1988	2.0	16.6667		79.2	53 - 125			
4,4´-DDE	13.0840	2.0	16.6667		78.5	54 - 113			
4,4´-DDE [2C]	12.7903	2.0	16.6667		76.7	54 - 113			
4,4´-DDT	15.2358	2.0	16.6667		91.4	25 - 127			
4,4´-DDT [2C]	12.4132	2.0	16.6667		74.5	25 - 127			
Aldrin	12.7150	1.0	16.6667		76.3	59 - 107			
Aldrin [2C]	12.6110	1.0	16.6667		75.7	59 - 107			
alpha-BHC	12.4080	1.0	16.6667		74.4	59 - 104			
alpha-BHC [2C]	12.3898	1.0	16.6667		74.3	59 - 104			
alpha-Chlordane	12.9743	1.0	16.6667		77.8	54 - 110			
alpha-Chlordane [2C]	12.6183	1.0	16.6667		75.7	54 - 110			
beta-BHC	12.3782	1.0	16.6667		74.3	57 - 103			
beta-BHC [2C]	12.3595	1.0	16.6667		74.2	57 - 103			
delta-BHC	10.1740	1.0	16.6667		61.0	16 - 120			
delta-BHC [2C]	10.1647	1.0	16.6667		61.0	16 - 120			
Dieldrin	13.6605	2.0	16.6667		82.0	61 - 109			
Dieldrin [2C]	13.1567	2.0	16.6667		78.9	61 - 109			
Endosulfan I	13.0685	1.0	16.6667		78.4	60 - 106			
Endosulfan I [2C]	12.5105	1.0	16.6667		75.1	60 - 106			
Endosulfan II	13.1345	2.0	16.6667		78.8	59 - 108			
Endosulfan II [2C]	12.6057	2.0	16.6667		75.6	59 - 108			
Endosulfan sulfate	12.9473	2.0	16.6667		77.7	54 - 110			
Endosulfan Sulfate [2C]	12.6928	2.0	16.6667		76.2	54 - 110			
Endrin	14.5017	2.0	16.6667		87.0	63 - 112			
Endrin [2C]	14.1297	2.0	16.6667		84.8	63 - 112			
Endrin aldehyde	13.5113	2.0	16.6667		81.1	64 - 119			
Endrin aldehyde [2C]	13.0348	2.0	16.6667		78.2	64 - 119			
Endrin ketone	13.6490	2.0	16.6667		81.9	54 - 115			
Endrin ketone [2C]	12.7333	2.0	16.6667		76.4	54 - 115			
gamma-BHC	13.0608	1.0	16.6667		78.4	60 - 107			
gamma-BHC [2C]	12.7682	1.0	16.6667		76.6	60 - 107			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0120 - GCSEMI_PCB/PEST_S (continued)									
LCS (B7A0120-BS1) - Continued				Prepared: 1/5/2017 Analyzed: 1/5/2017					
gamma-Chlordane	12.6917	1.0	16.6667		76.2	57 - 106			
gamma-Chlordane [2C]	12.4738	1.0	16.6667		74.8	57 - 106			
Heptachlor	13.4537	1.0	16.6667		80.7	54 - 114			
Heptachlor [2C]	12.7785	1.0	16.6667		76.7	54 - 114			
Heptachlor epoxide	12.7845	1.0	16.6667		76.7	61 - 106			
Heptachlor epoxide [2C]	12.4838	1.0	16.6667		74.9	61 - 106			
Methoxychlor	14.3917	5.0	16.6667		86.4	18 - 138			
Methoxychlor [2C]	12.1485	5.0	16.6667		72.9	18 - 138			
Surrogate: Decachlorobiphenyl	*11.77*		*16.6667*		*70.6*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*12.24*		*16.6667*		*73.4*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*12.22*		*16.6667*		*73.3*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*13.05*		*16.6667*		*78.3*	*26 - 108*			
Duplicate (B7A0120-DUP1)			**Source: 1604898-33**	Prepared: 1/5/2017 Analyzed: 1/5/2017					
4,4´-DDD	ND	2.0		ND	NR			20	
4,4´-DDD [2C]	ND	2.0		ND	NR			20	
4,4´-DDE	ND	2.0		ND	NR			20	
4,4´-DDE [2C]	ND	2.0		ND	NR			20	
4,4´-DDT	ND	2.0		ND	NR			20	
4,4´-DDT [2C]	ND	2.0		ND	NR			20	
Aldrin	ND	1.0		ND	NR			20	
Aldrin [2C]	ND	1.0		ND	NR			20	
alpha-BHC	ND	1.0		ND	NR			20	
alpha-BHC [2C]	ND	1.0		ND	NR			20	
alpha-Chlordane	ND	1.0		ND	NR			20	
alpha-Chlordane [2C]	ND	1.0		ND	NR			20	
beta-BHC	ND	1.0		ND	NR			20	
beta-BHC [2C]	ND	1.0		ND	NR			20	
delta-BHC	ND	1.0		ND	NR			20	
delta-BHC [2C]	ND	1.0		ND	NR			20	
Dieldrin	ND	2.0		ND	NR			20	
Dieldrin [2C]	ND	2.0		ND	NR			20	
Endosulfan I	ND	1.0		ND	NR			20	
Endosulfan I [2C]	ND	1.0		ND	NR			20	
Endosulfan II	ND	2.0		ND	NR			20	
Endosulfan II [2C]	ND	2.0		ND	NR			20	
Endosulfan sulfate	ND	2.0		ND	NR			20	
Endosulfan Sulfate [2C]	ND	2.0		ND	NR			20	
Endrin	ND	2.0		ND	NR			20	
Endrin [2C]	ND	2.0		ND	NR			20	
Endrin aldehyde	ND	2.0		ND	NR			20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0120 - GCSEMI_PCB/PEST_S (continued)									
Duplicate (B7A0120-DUP1) - Continued		**Source: 1604898-33**		Prepared: 1/5/2017 Analyzed: 1/5/2017					
Endrin aldehyde [2C]	ND	2.0		ND	NR			20	
Endrin ketone	ND	2.0		ND	NR			20	
Endrin ketone [2C]	ND	2.0		ND	NR			20	
gamma-BHC	ND	1.0		ND	NR			20	
gamma-BHC [2C]	ND	1.0		ND	NR			20	
gamma-Chlordane	ND	1.0		ND	NR			20	
gamma-Chlordane [2C]	ND	1.0		ND	NR			20	
Heptachlor	ND	1.0		ND	NR			20	
Heptachlor [2C]	ND	1.0		ND	NR			20	
Heptachlor epoxide	ND	1.0		ND	NR			20	
Heptachlor epoxide [2C]	ND	1.0		ND	NR			20	
Methoxychlor	ND	5.0		ND	NR			20	
Methoxychlor [2C]	ND	5.0		ND	NR			20	
Surrogate: Decachlorobiphenyl	*10.30*		*16.6667*		*61.8*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*11.01*		*16.6667*		*66.0*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*11.39*		*16.6667*		*68.4*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*11.56*		*16.6667*		*69.4*	*26 - 108*			
Matrix Spike (B7A0120-MS1)		**Source: 1604898-40**		Prepared: 1/5/2017 Analyzed: 1/5/2017					
4,4´-DDD	4.29900	2.0	16.6667	ND	25.8	25 - 141			
4,4´-DDD [2C]	4.34200	2.0	16.6667	ND	26.1	25 - 141			
4,4´-DDE	5.35417	2.0	16.6667	ND	32.1	22 - 141			
4,4´-DDE [2C]	5.21450	2.0	16.6667	ND	31.3	22 - 141			
4,4´-DDT	6.42817	2.0	16.6667	0.240000	37.1	15 - 136			
4,4´-DDT [2C]	5.64767	2.0	16.6667	0.175000	32.8	15 - 136			
Aldrin	5.44850	1.0	16.6667	ND	32.7	33 - 118			M2
Aldrin [2C]	5.38550	1.0	16.6667	ND	32.3	33 - 118			M2
alpha-BHC	4.59700	1.0	16.6667	ND	27.6	30 - 116			M2
alpha-BHC [2C]	4.97467	1.0	16.6667	ND	29.8	30 - 116			M2
alpha-Chlordane	4.80417	1.0	16.6667	ND	28.8	30 - 123			M2
alpha-Chlordane [2C]	4.80800	1.0	16.6667	ND	28.8	30 - 123			M2
beta-BHC	3.18933	1.0	16.6667	ND	19.1	24 - 121			M2
beta-BHC [2C]	3.19100	1.0	16.6667	ND	19.1	24 - 121			M2
delta-BHC	1.85933	1.0	16.6667	ND	11.2	7 - 120			
delta-BHC [2C]	1.92167	1.0	16.6667	ND	11.5	7 - 120			
Dieldrin	3.41400	2.0	16.6667	ND	20.5	25 - 136			M2
Dieldrin [2C]	3.26700	2.0	16.6667	ND	19.6	25 - 136			M2
Endosulfan I	3.79867	1.0	16.6667	ND	22.8	18 - 134			
Endosulfan I [2C]	3.60567	1.0	16.6667	ND	21.6	18 - 134			
Endosulfan II	1.55167	2.0	16.6667	ND	9.31	28 - 128			M2, J
Endosulfan II [2C]	1.51350	2.0	16.6667	ND	9.08	28 - 128			M2, J

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0120 - GCSEMI_PCB/PEST_S (continued)									
Matrix Spike (B7A0120-MS1) - Continued		**Source: 1604898-40**		Prepared: 1/5/2017 Analyzed: 1/5/2017					
Endosulfan sulfate	1.35567	2.0	16.6667	ND	8.13	5 - 145			J
Endosulfan Sulfate [2C]	1.22667	2.0	16.6667	ND	7.36	5 - 145			J
Endrin	3.68283	2.0	16.6667	ND	22.1	26 - 142			M2
Endrin [2C]	3.66183	2.0	16.6667	ND	22.0	26 - 142			M2
Endrin aldehyde	1.26500	2.0	16.6667	ND	7.59	8 - 146			M2, J
Endrin aldehyde [2C]	1.35383	2.0	16.6667	ND	8.12	8 - 146			J
Endrin ketone	1.42050	2.0	16.6667	ND	8.52	16 - 139			M2, J
Endrin ketone [2C]	1.45433	2.0	16.6667	ND	8.73	16 - 139			M2, J
gamma-BHC	4.45817	1.0	16.6667	ND	26.7	30 - 122			M2
gamma-BHC [2C]	4.39983	1.0	16.6667	ND	26.4	30 - 122			M2
gamma-Chlordane	4.51283	1.0	16.6667	ND	27.1	18 - 132			
gamma-Chlordane [2C]	4.42633	1.0	16.6667	ND	26.6	18 - 132			
Heptachlor	5.79450	1.0	16.6667	ND	34.8	34 - 122			
Heptachlor [2C]	5.67217	1.0	16.6667	ND	34.0	34 - 122			
Heptachlor epoxide	3.86383	1.0	16.6667	ND	23.2	21 - 135			
Heptachlor epoxide [2C]	3.79367	1.0	16.6667	ND	22.8	21 - 135			
Methoxychlor	2.98867	5.0	16.6667	ND	17.9	8 - 162			J
Methoxychlor [2C]	2.69200	5.0	16.6667	ND	16.2	8 - 162			J
Surrogate: Decachlorobiphenyl	*4.940*		*16.6667*		*29.6*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*5.470*		*16.6667*		*32.8*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*5.358*		*16.6667*		*32.1*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*6.653*		*16.6667*		*39.9*	*26 - 108*			
Matrix Spike Dup (B7A0120-MSD1)		**Source: 1604898-40**		Prepared: 1/5/2017 Analyzed: 1/5/2017					
4,4´-DDD	4.76867	2.0	16.6667	ND	28.6	25 - 141	10.4	20	
4,4´-DDD [2C]	4.56183	2.0	16.6667	ND	27.4	25 - 141	4.94	20	
4,4´-DDE	5.60767	2.0	16.6667	ND	33.6	22 - 141	4.63	20	
4,4´-DDE [2C]	5.19483	2.0	16.6667	ND	31.2	22 - 141	0.378	20	
4,4´-DDT	6.56767	2.0	16.6667	0.240000	38.0	15 - 136	2.15	20	
4,4´-DDT [2C]	5.61167	2.0	16.6667	0.175000	32.6	15 - 136	0.639	20	
Aldrin	5.84267	1.0	16.6667	ND	35.1	33 - 118	6.98	20	
Aldrin [2C]	5.52950	1.0	16.6667	ND	33.2	33 - 118	2.64	20	
alpha-BHC	5.45700	1.0	16.6667	ND	32.7	30 - 116	17.1	20	
alpha-BHC [2C]	5.63617	1.0	16.6667	ND	33.8	30 - 116	12.5	20	
alpha-Chlordane	5.20567	1.0	16.6667	ND	31.2	30 - 123	8.02	20	
alpha-Chlordane [2C]	4.86883	1.0	16.6667	ND	29.2	30 - 123	1.26	20	M2
beta-BHC	3.79883	1.0	16.6667	ND	22.8	24 - 121	17.4	20	M2
beta-BHC [2C]	3.65150	1.0	16.6667	ND	21.9	24 - 121	13.5	20	M2
delta-BHC	2.15233	1.0	16.6667	ND	12.9	7 - 120	14.6	20	
delta-BHC [2C]	2.15567	1.0	16.6667	ND	12.9	7 - 120	11.5	20	
Dieldrin	3.84667	2.0	16.6667	ND	23.1	25 - 136	11.9	20	M2

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0120 - GCSEMI_PCB/PEST_S (continued)									
Matrix Spike Dup (B7A0120-MSD1) - Continued		**Source: 1604898-40**		Prepared: 1/5/2017 Analyzed: 1/5/2017					
Dieldrin [2C]	3.58733	2.0	16.6667	ND	21.5	25 - 136	9.35	20	M2
Endosulfan I	4.37050	1.0	16.6667	ND	26.2	18 - 134	14.0	20	
Endosulfan I [2C]	3.90883	1.0	16.6667	ND	23.5	18 - 134	8.07	20	
Endosulfan II	1.60917	2.0	16.6667	ND	9.66	28 - 128	3.64	20	M2, J
Endosulfan II [2C]	1.42300	2.0	16.6667	ND	8.54	28 - 128	6.16	20	M2, J
Endosulfan sulfate	1.38417	2.0	16.6667	ND	8.30	5 - 145	2.08	20	J
Endosulfan Sulfate [2C]	1.20150	2.0	16.6667	ND	7.21	5 - 145	2.07	20	J
Endrin	4.19617	2.0	16.6667	ND	25.2	26 - 142	13.0	20	M2
Endrin [2C]	3.99800	2.0	16.6667	ND	24.0	26 - 142	8.78	20	M2
Endrin aldehyde	1.16950	2.0	16.6667	ND	7.02	8 - 146	7.85	20	M2, J
Endrin aldehyde [2C]	1.28600	2.0	16.6667	ND	7.72	8 - 146	5.14	20	M2, J
Endrin ketone	1.47233	2.0	16.6667	ND	8.83	16 - 139	3.58	20	M2, J
Endrin ketone [2C]	1.50650	2.0	16.6667	ND	9.04	16 - 139	3.52	20	M2, J
gamma-BHC	5.31400	1.0	16.6667	ND	31.9	30 - 122	17.5	20	
gamma-BHC [2C]	5.06567	1.0	16.6667	ND	30.4	30 - 122	14.1	20	
gamma-Chlordane	4.97583	1.0	16.6667	ND	29.9	18 - 132	9.76	20	
gamma-Chlordane [2C]	4.64817	1.0	16.6667	ND	27.9	18 - 132	4.89	20	
Heptachlor	6.30117	1.0	16.6667	ND	37.8	34 - 122	8.38	20	
Heptachlor [2C]	6.00767	1.0	16.6667	ND	36.0	34 - 122	5.74	20	
Heptachlor epoxide	4.53433	1.0	16.6667	ND	27.2	21 - 135	16.0	20	
Heptachlor epoxide [2C]	4.18717	1.0	16.6667	ND	25.1	21 - 135	9.86	20	
Methoxychlor	3.28633	5.0	16.6667	ND	19.7	8 - 162	9.49	20	J
Methoxychlor [2C]	2.90950	5.0	16.6667	ND	17.5	8 - 162	7.77	20	J
Surrogate: Decachlorobiphenyl	*5.367*		*16.6667*		*32.2*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*5.741*		*16.6667*		*34.4*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*5.884*		*16.6667*		*35.3*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*7.033*		*16.6667*		*42.2*	*26 - 108*			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0128 - GCSEMI_PCB/PEST_S									
Blank (B7A0128-BLK1)				Prepared: 1/5/2017 Analyzed: 1/6/2017					
4,4´-DDD	ND	2.0			NR				
4,4´-DDD [2C]	ND	2.0			NR				
4,4´-DDE	ND	2.0			NR				
4,4´-DDE [2C]	ND	2.0			NR				
4,4´-DDT	ND	2.0			NR				
4,4´-DDT [2C]	ND	2.0			NR				
Aldrin	ND	1.0			NR				
Aldrin [2C]	ND	1.0			NR				
alpha-BHC	ND	1.0			NR				
alpha-BHC [2C]	ND	1.0			NR				
alpha-Chlordane	ND	1.0			NR				
alpha-Chlordane [2C]	ND	1.0			NR				
beta-BHC	ND	1.0			NR				
beta-BHC [2C]	ND	1.0			NR				
Chlordane	ND	8.5			NR				
Chlordane [2C]	ND	8.5			NR				
delta-BHC	ND	1.0			NR				
delta-BHC [2C]	ND	1.0			NR				
Dieldrin	ND	2.0			NR				
Dieldrin [2C]	ND	2.0			NR				
Endosulfan I	ND	1.0			NR				
Endosulfan I [2C]	ND	1.0			NR				
Endosulfan II	ND	2.0			NR				
Endosulfan II [2C]	ND	2.0			NR				
Endosulfan sulfate	ND	2.0			NR				
Endosulfan Sulfate [2C]	ND	2.0			NR				
Endrin	ND	2.0			NR				
Endrin [2C]	ND	2.0			NR				
Endrin aldehyde	ND	2.0			NR				
Endrin aldehyde [2C]	ND	2.0			NR				
Endrin ketone	ND	2.0			NR				
Endrin ketone [2C]	ND	2.0			NR				
gamma-BHC	ND	1.0			NR				
gamma-BHC [2C]	ND	1.0			NR				
gamma-Chlordane	ND	1.0			NR				
gamma-Chlordane [2C]	ND	1.0			NR				
Heptachlor	ND	1.0			NR				
Heptachlor [2C]	ND	1.0			NR				
Heptachlor epoxide	ND	1.0			NR				
Heptachlor epoxide [2C]	ND	1.0			NR				
Methoxychlor	ND	5.0			NR				

Leighton Consulting, Inc.
17781 Cowan Street
Irvine , CA 92614

Project Number : LAUSD-Burroughs MS, 603378.006
Report To : Julie Harriman
Reported : 01/09/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0128 - GCSEMI_PCB/PEST_S (continued)									
Blank (B7A0128-BLK1) - Continued				Prepared: 1/5/2017 Analyzed: 1/6/2017					
Methoxychlor [2C]	ND	5.0			NR				
Toxaphene	ND	50			NR				
Toxaphene [2C]	ND	50			NR				
Surrogate: Decachlorobiphenyl	*16.56*		*16.6667*		*99.4*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*24.20*		*16.6667*		*145*	*27 - 123*			S1
Surrogate: Tetrachloro-m-xylene	*17.25*		*16.6667*		*103*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*19.77*		*16.6667*		*119*	*26 - 108*			S1
LCS (B7A0128-BS1)				Prepared: 1/5/2017 Analyzed: 1/6/2017					
4,4´-DDD	15.5142	2.0	16.6667		93.1	53 - 125			
4,4´-DDD [2C]	15.7168	2.0	16.6667		94.3	53 - 125			
4,4´-DDE	15.5083	2.0	16.6667		93.0	54 - 113			
4,4´-DDE [2C]	16.0010	2.0	16.6667		96.0	54 - 113			
4,4´-DDT	15.0345	2.0	16.6667		90.2	25 - 127			
4,4´-DDT [2C]	15.1172	2.0	16.6667		90.7	25 - 127			
Aldrin	15.5327	1.0	16.6667		93.2	59 - 107			
Aldrin [2C]	14.8977	1.0	16.6667		89.4	59 - 107			
alpha-BHC	15.4072	1.0	16.6667		92.4	59 - 104			
alpha-BHC [2C]	15.8973	1.0	16.6667		95.4	59 - 104			
alpha-Chlordane	15.3682	1.0	16.6667		92.2	54 - 110			
alpha-Chlordane [2C]	16.1270	1.0	16.6667		96.8	54 - 110			
beta-BHC	15.5383	1.0	16.6667		93.2	57 - 103			
beta-BHC [2C]	15.4085	1.0	16.6667		92.5	57 - 103			
delta-BHC	12.4327	1.0	16.6667		74.6	16 - 120			
delta-BHC [2C]	12.3190	1.0	16.6667		73.9	16 - 120			
Dieldrin	15.5627	2.0	16.6667		93.4	61 - 109			
Dieldrin [2C]	16.2987	2.0	16.6667		97.8	61 - 109			
Endosulfan I	15.1412	1.0	16.6667		90.8	60 - 106			
Endosulfan I [2C]	15.8323	1.0	16.6667		95.0	60 - 106			
Endosulfan II	14.6868	2.0	16.6667		88.1	59 - 108			
Endosulfan II [2C]	14.9575	2.0	16.6667		89.7	59 - 108			
Endosulfan sulfate	14.1693	2.0	16.6667		85.0	54 - 110			
Endosulfan Sulfate [2C]	14.1410	2.0	16.6667		84.8	54 - 110			
Endrin	15.5423	2.0	16.6667		93.3	63 - 112			
Endrin [2C]	16.2285	2.0	16.6667		97.4	63 - 112			
Endrin aldehyde	15.8445	2.0	16.6667		95.1	64 - 119			
Endrin aldehyde [2C]	14.7718	2.0	16.6667		88.6	64 - 119			
Endrin ketone	15.6060	2.0	16.6667		93.6	54 - 115			
Endrin ketone [2C]	16.5720	2.0	16.6667		99.4	54 - 115			
gamma-BHC	15.9753	1.0	16.6667		95.9	60 - 107			
gamma-BHC [2C]	16.0053	1.0	16.6667		96.0	60 - 107			

Leighton Consulting, Inc.
17781 Cowan Street
Irvine , CA 92614

Project Number : LAUSD-Burroughs MS, 603378.006
Report To : Julie Harriman
Reported : 01/09/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0128 - GCSEMI_PCB/PEST_S (continued)									
LCS (B7A0128-BS1) - Continued				Prepared: 1/5/2017 Analyzed: 1/6/2017					
gamma-Chlordane	15.1727	1.0	16.6667		91.0	57 - 106			
gamma-Chlordane [2C]	15.1527	1.0	16.6667		90.9	57 - 106			
Heptachlor	15.9263	1.0	16.6667		95.6	54 - 114			
Heptachlor [2C]	16.1642	1.0	16.6667		97.0	54 - 114			
Heptachlor epoxide	15.4173	1.0	16.6667		92.5	61 - 106			
Heptachlor epoxide [2C]	15.5943	1.0	16.6667		93.6	61 - 106			
Methoxychlor	15.0878	5.0	16.6667		90.5	18 - 138			
Methoxychlor [2C]	14.3118	5.0	16.6667		85.9	18 - 138			
Surrogate: Decachlorobiphenyl	*15.80*		*16.6667*		*94.8*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*16.67*		*16.6667*		*100*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*17.39*		*16.6667*		*104*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*16.44*		*16.6667*		*98.6*	*26 - 108*			
Duplicate (B7A0128-DUP1)			**Source: 1604898-42**	Prepared: 1/5/2017 Analyzed: 1/6/2017					
4,4´-DDD	ND	2.0		ND	NR			20	
4,4´-DDD [2C]	ND	2.0		ND	NR			20	
4,4´-DDE	ND	2.0		ND	NR			20	
4,4´-DDE [2C]	ND	2.0		ND	NR			20	
4,4´-DDT	ND	2.0		ND	NR			20	
4,4´-DDT [2C]	ND	2.0		ND	NR			20	
Aldrin	ND	1.0		ND	NR			20	
Aldrin [2C]	ND	1.0		ND	NR			20	
alpha-BHC	ND	1.0		ND	NR			20	
alpha-BHC [2C]	ND	1.0		ND	NR			20	
alpha-Chlordane	ND	1.0		ND	NR			20	
alpha-Chlordane [2C]	ND	1.0		ND	NR			20	
beta-BHC	ND	1.0		ND	NR			20	
beta-BHC [2C]	ND	1.0		ND	NR			20	
delta-BHC	ND	1.0		ND	NR			20	
delta-BHC [2C]	ND	1.0		ND	NR			20	
Dieldrin	ND	2.0		ND	NR			20	
Dieldrin [2C]	ND	2.0		ND	NR			20	
Endosulfan I	ND	1.0		ND	NR			20	
Endosulfan I [2C]	ND	1.0		ND	NR			20	
Endosulfan II	ND	2.0		ND	NR			20	
Endosulfan II [2C]	ND	2.0		ND	NR			20	
Endosulfan sulfate	ND	2.0		ND	NR			20	
Endosulfan Sulfate [2C]	ND	2.0		ND	NR			20	
Endrin	ND	2.0		ND	NR			20	
Endrin [2C]	ND	2.0		ND	NR			20	
Endrin aldehyde	ND	2.0		ND	NR			20	

Leighton Consulting, Inc.
17781 Cowan Street
Irvine , CA 92614

Project Number : LAUSD-Burroughs MS, 603378.006
Report To : Julie Harriman
Reported : 01/09/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0128 - GCSEMI_PCB/PEST_S (continued)									
Duplicate (B7A0128-DUP1) - Continued		**Source: 1604898-42**		Prepared: 1/5/2017 Analyzed: 1/6/2017					
Endrin aldehyde [2C]	ND	2.0		ND	NR			20	
Endrin ketone	ND	2.0		ND	NR			20	
Endrin ketone [2C]	ND	2.0		ND	NR			20	
gamma-BHC	ND	1.0		ND	NR			20	
gamma-BHC [2C]	ND	1.0		ND	NR			20	
gamma-Chlordane	ND	1.0		ND	NR			20	
gamma-Chlordane [2C]	ND	1.0		ND	NR			20	
Heptachlor	ND	1.0		ND	NR			20	
Heptachlor [2C]	ND	1.0		ND	NR			20	
Heptachlor epoxide	ND	1.0		ND	NR			20	
Heptachlor epoxide [2C]	ND	1.0		ND	NR			20	
Methoxychlor	ND	5.0		ND	NR			20	
Methoxychlor [2C]	ND	5.0		ND	NR			20	
Surrogate: Decachlorobiphenyl	*16.04*		*16.6667*		*96.2*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*17.38*		*16.6667*		*104*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*16.65*		*16.6667*		*99.9*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*16.30*		*16.6667*		*97.8*	*26 - 108*			
Matrix Spike (B7A0128-MS1)		**Source: 1604898-59**		Prepared: 1/5/2017 Analyzed: 1/6/2017					
4,4´-DDD	8.11883	2.0	16.6667	ND	48.7	25 - 141			
4,4´-DDD [2C]	7.58017	2.0	16.6667	ND	45.5	25 - 141			
4,4´-DDE	10.1420	2.0	16.6667	ND	60.9	22 - 141			
4,4´-DDE [2C]	10.1937	2.0	16.6667	ND	61.2	22 - 141			
4,4´-DDT	9.42150	2.0	16.6667	ND	56.5	15 - 136			
4,4´-DDT [2C]	8.97283	2.0	16.6667	ND	53.8	15 - 136			
Aldrin	10.4053	1.0	16.6667	ND	62.4	33 - 118			
Aldrin [2C]	9.83967	1.0	16.6667	ND	59.0	33 - 118			
alpha-BHC	8.89417	1.0	16.6667	ND	53.4	30 - 116			
alpha-BHC [2C]	9.47383	1.0	16.6667	ND	56.8	30 - 116			
alpha-Chlordane	8.99800	1.0	16.6667	ND	54.0	30 - 123			
alpha-Chlordane [2C]	9.18633	1.0	16.6667	ND	55.1	30 - 123			
beta-BHC	4.59317	1.0	16.6667	ND	27.6	24 - 121			
beta-BHC [2C]	5.07317	1.0	16.6667	ND	30.4	24 - 121			
delta-BHC	1.64550	1.0	16.6667	ND	9.87	7 - 120			
delta-BHC [2C]	1.48450	1.0	16.6667	ND	8.91	7 - 120			
Dieldrin	3.96067	2.0	16.6667	ND	23.8	25 - 136			M2
Dieldrin [2C]	3.70283	2.0	16.6667	ND	22.2	25 - 136			M2
Endosulfan I	5.39767	1.0	16.6667	ND	32.4	18 - 134			
Endosulfan I [2C]	5.36283	1.0	16.6667	ND	32.2	18 - 134			
Endosulfan II	0.759667	2.0	16.6667	ND	4.56	28 - 128			M2, J
Endosulfan II [2C]	0.721833	2.0	16.6667	ND	4.33	28 - 128			M2, J

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0128 - GCSEMI_PCB/PEST_S (continued)									
Matrix Spike (B7A0128-MS1) - Continued		**Source: 1604898-59**		Prepared: 1/5/2017 Analyzed: 1/6/2017					
Endosulfan sulfate	0.520167	2.0	16.6667	ND	3.12	5 - 145			M2, J
Endosulfan Sulfate [2C]	0.397333	2.0	16.6667	ND	2.38	5 - 145			M2, J
Endrin	4.32800	2.0	16.6667	ND	26.0	26 - 142			M2
Endrin [2C]	4.07200	2.0	16.6667	ND	24.4	26 - 142			M2
Endrin aldehyde	0.503833	2.0	16.6667	ND	3.02	8 - 146			M2, J
Endrin aldehyde [2C]	1.59750	2.0	16.6667	ND	9.58	8 - 146			J
Endrin ketone	0.818167	2.0	16.6667	ND	4.91	16 - 139			M2, J
Endrin ketone [2C]	0.634833	2.0	16.6667	ND	3.81	16 - 139			M2, J
gamma-BHC	7.96650	1.0	16.6667	ND	47.8	30 - 122			
gamma-BHC [2C]	8.19717	1.0	16.6667	ND	49.2	30 - 122			
gamma-Chlordane	8.11800	1.0	16.6667	ND	48.7	18 - 132			
gamma-Chlordane [2C]	7.97167	1.0	16.6667	ND	47.8	18 - 132			
Heptachlor	10.6585	1.0	16.6667	ND	64.0	34 - 122			
Heptachlor [2C]	10.4287	1.0	16.6667	ND	62.6	34 - 122			
Heptachlor epoxide	5.89517	1.0	16.6667	ND	35.4	21 - 135			
Heptachlor epoxide [2C]	5.63833	1.0	16.6667	ND	33.8	21 - 135			
Methoxychlor	2.09283	5.0	16.6667	ND	12.6	8 - 162			J
Methoxychlor [2C]	1.46917	5.0	16.6667	ND	8.82	8 - 162			J
Surrogate: Decachlorobiphenyl	*10.55*		*16.6667*		*63.3*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*11.16*		*16.6667*		*66.9*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*11.27*		*16.6667*		*67.6*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*10.54*		*16.6667*		*63.2*	*26 - 108*			
Matrix Spike Dup (B7A0128-MSD1)		**Source: 1604898-59**		Prepared: 1/5/2017 Analyzed: 1/6/2017					
4,4´-DDD	6.71567	2.0	16.6667	ND	40.3	25 - 141	18.9	20	
4,4´-DDD [2C]	6.81533	2.0	16.6667	ND	40.9	25 - 141	10.6	20	
4,4´-DDE	8.85300	2.0	16.6667	ND	53.1	22 - 141	13.6	20	
4,4´-DDE [2C]	9.68250	2.0	16.6667	ND	58.1	22 - 141	5.14	20	
4,4´-DDT	7.86617	2.0	16.6667	ND	47.2	15 - 136	18.0	20	
4,4´-DDT [2C]	8.16733	2.0	16.6667	ND	49.0	15 - 136	9.40	20	
Aldrin	9.19133	1.0	16.6667	ND	55.1	33 - 118	12.4	20	
Aldrin [2C]	9.48200	1.0	16.6667	ND	56.9	33 - 118	3.70	20	
alpha-BHC	7.18483	1.0	16.6667	ND	43.1	30 - 116	21.3	20	R3
alpha-BHC [2C]	7.78933	1.0	16.6667	ND	46.7	30 - 116	19.5	20	
alpha-Chlordane	7.53450	1.0	16.6667	ND	45.2	30 - 123	17.7	20	
alpha-Chlordane [2C]	8.38383	1.0	16.6667	ND	50.3	30 - 123	9.13	20	
beta-BHC	3.53450	1.0	16.6667	ND	21.2	24 - 121	26.1	20	M2, R3
beta-BHC [2C]	3.73083	1.0	16.6667	ND	22.4	24 - 121	30.5	20	R3, M2
delta-BHC	1.27750	1.0	16.6667	ND	7.66	7 - 120	25.2	20	R3
delta-BHC [2C]	1.20117	1.0	16.6667	ND	7.21	7 - 120	21.1	20	R3
Dieldrin	3.13233	2.0	16.6667	ND	18.8	25 - 136	23.4	20	M2, R3

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0128 - GCSEMI_PCB/PEST_S (continued)									
Matrix Spike Dup (B7A0128-MSD1) - Continued		**Source: 1604898-59**		Prepared: 1/5/2017 Analyzed: 1/6/2017					
Dieldrin [2C]	3.17867	2.0	16.6667	ND	19.1	25 - 136	15.2	20	M2
Endosulfan I	4.21033	1.0	16.6667	ND	25.3	18 - 134	24.7	20	R3
Endosulfan I [2C]	4.53833	1.0	16.6667	ND	27.2	18 - 134	16.7	20	
Endosulfan II	0.623167	2.0	16.6667	ND	3.74	28 - 128	19.7	20	M2, J
Endosulfan II [2C]	0.718500	2.0	16.6667	ND	4.31	28 - 128	0.463	20	M2, J
Endosulfan sulfate	0.432833	2.0	16.6667	ND	2.60	5 - 145	18.3	20	M2, J
Endosulfan Sulfate [2C]	0.345333	2.0	16.6667	ND	2.07	5 - 145	14.0	20	M2, J
Endrin	3.38400	2.0	16.6667	ND	20.3	26 - 142	24.5	20	M2, R3
Endrin [2C]	3.46117	2.0	16.6667	ND	20.8	26 - 142	16.2	20	M2
Endrin aldehyde	ND	2.0	16.6667	ND	NR	8 - 146		20	M2
Endrin aldehyde [2C]	1.65933	2.0	16.6667	ND	9.96	8 - 146	3.80	20	J
Endrin ketone	0.669167	2.0	16.6667	ND	4.01	16 - 139	20.0	20	M2, R3, J
Endrin ketone [2C]	0.585000	2.0	16.6667	ND	3.51	16 - 139	8.17	20	M2, J
gamma-BHC	6.30733	1.0	16.6667	ND	37.8	30 - 122	23.2	20	R3
gamma-BHC [2C]	6.70767	1.0	16.6667	ND	40.2	30 - 122	20.0	20	
gamma-Chlordane	6.70250	1.0	16.6667	ND	40.2	18 - 132	19.1	20	
gamma-Chlordane [2C]	7.13250	1.0	16.6667	ND	42.8	18 - 132	11.1	20	
Heptachlor	9.35267	1.0	16.6667	ND	56.1	34 - 122	13.1	20	
Heptachlor [2C]	9.90017	1.0	16.6667	ND	59.4	34 - 122	5.20	20	
Heptachlor epoxide	4.57150	1.0	16.6667	ND	27.4	21 - 135	25.3	20	R3
Heptachlor epoxide [2C]	4.71500	1.0	16.6667	ND	28.3	21 - 135	17.8	20	
Methoxychlor	1.71450	5.0	16.6667	ND	10.3	8 - 162	19.9	20	J
Methoxychlor [2C]	1.25467	5.0	16.6667	ND	7.53	8 - 162	15.7	20	M2, J
Surrogate: Decachlorobiphenyl	*10.19*		*16.6667*		*61.2*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*11.63*		*16.6667*		*69.8*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*10.09*		*16.6667*		*60.6*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*10.67*		*16.6667*		*64.0*	*26 - 108*			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0142 - GCSEMI_PCB/PEST_S									
Blank (B7A0142-BLK1)				Prepared: 1/5/2017 Analyzed: 1/6/2017					
4,4´-DDD	ND	2.0			NR				
4,4´-DDD [2C]	ND	2.0			NR				
4,4´-DDE	ND	2.0			NR				
4,4´-DDE [2C]	ND	2.0			NR				
4,4´-DDT	ND	2.0			NR				
4,4´-DDT [2C]	ND	2.0			NR				
Aldrin	ND	1.0			NR				
Aldrin [2C]	ND	1.0			NR				
alpha-BHC	ND	1.0			NR				
alpha-BHC [2C]	ND	1.0			NR				
alpha-Chlordane	ND	1.0			NR				
alpha-Chlordane [2C]	ND	1.0			NR				
beta-BHC	ND	1.0			NR				
beta-BHC [2C]	ND	1.0			NR				
Chlordane	ND	8.5			NR				
Chlordane [2C]	ND	8.5			NR				
delta-BHC	ND	1.0			NR				
delta-BHC [2C]	ND	1.0			NR				
Dieldrin	ND	2.0			NR				
Dieldrin [2C]	ND	2.0			NR				
Endosulfan I	ND	1.0			NR				
Endosulfan I [2C]	ND	1.0			NR				
Endosulfan II	ND	2.0			NR				
Endosulfan II [2C]	ND	2.0			NR				
Endosulfan sulfate	ND	2.0			NR				
Endosulfan Sulfate [2C]	ND	2.0			NR				
Endrin	ND	2.0			NR				
Endrin [2C]	ND	2.0			NR				
Endrin aldehyde	ND	2.0			NR				
Endrin aldehyde [2C]	ND	2.0			NR				
Endrin ketone	ND	2.0			NR				
Endrin ketone [2C]	ND	2.0			NR				
gamma-BHC	ND	1.0			NR				
gamma-BHC [2C]	ND	1.0			NR				
gamma-Chlordane	ND	1.0			NR				
gamma-Chlordane [2C]	ND	1.0			NR				
Heptachlor	ND	1.0			NR				
Heptachlor [2C]	ND	1.0			NR				
Heptachlor epoxide	ND	1.0			NR				
Heptachlor epoxide [2C]	ND	1.0			NR				
Methoxychlor	ND	5.0			NR				

Leighton Consulting, Inc.
17781 Cowan Street
Irvine , CA 92614

Project Number : LAUSD-Burroughs MS, 603378.006
Report To : Julie Harriman
Reported : 01/09/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0142 - GCSEMI_PCB/PEST_S (continued)									
Blank (B7A0142-BLK1) - Continued				Prepared: 1/5/2017 Analyzed: 1/6/2017					
Methoxychlor [2C]	ND	5.0			NR				
Toxaphene	ND	50			NR				
Toxaphene [2C]	ND	50			NR				
Surrogate: Decachlorobiphenyl	*15.19*		*16.6667*		*91.1*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*15.81*		*16.6667*		*94.8*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*16.54*		*16.6667*		*99.2*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*16.57*		*16.6667*		*99.4*	*26 - 108*			
LCS (B7A0142-BS1)				Prepared: 1/5/2017 Analyzed: 1/6/2017					
4,4´-DDD	16.2652	2.0	16.6667		97.6	53 - 125			
4,4´-DDD [2C]	17.2095	2.0	16.6667		103	53 - 125			
4,4´-DDE	15.2712	2.0	16.6667		91.6	54 - 113			
4,4´-DDE [2C]	16.6753	2.0	16.6667		100	54 - 113			
4,4´-DDT	11.7675	2.0	16.6667		70.6	25 - 127			
4,4´-DDT [2C]	12.0845	2.0	16.6667		72.5	25 - 127			
Aldrin	15.2670	1.0	16.6667		91.6	59 - 107			
Aldrin [2C]	16.0862	1.0	16.6667		96.5	59 - 107			
alpha-BHC	15.2360	1.0	16.6667		91.4	59 - 104			
alpha-BHC [2C]	16.4003	1.0	16.6667		98.4	59 - 104			
alpha-Chlordane	15.1122	1.0	16.6667		90.7	54 - 110			
alpha-Chlordane [2C]	16.7948	1.0	16.6667		101	54 - 110			
beta-BHC	15.3562	1.0	16.6667		92.1	57 - 103			
beta-BHC [2C]	16.2468	1.0	16.6667		97.5	57 - 103			
delta-BHC	12.2470	1.0	16.6667		73.5	16 - 120			
delta-BHC [2C]	12.6552	1.0	16.6667		75.9	16 - 120			
Dieldrin	15.4692	2.0	16.6667		92.8	61 - 109			
Dieldrin [2C]	16.9347	2.0	16.6667		102	61 - 109			
Endosulfan I	14.9702	1.0	16.6667		89.8	60 - 106			
Endosulfan I [2C]	16.6318	1.0	16.6667		99.8	60 - 106			
Endosulfan II	14.7397	2.0	16.6667		88.4	59 - 108			
Endosulfan II [2C]	15.7970	2.0	16.6667		94.8	59 - 108			
Endosulfan sulfate	13.4197	2.0	16.6667		80.5	54 - 110			
Endosulfan Sulfate [2C]	14.3567	2.0	16.6667		86.1	54 - 110			
Endrin	15.7200	2.0	16.6667		94.3	63 - 112			
Endrin [2C]	17.4700	2.0	16.6667		105	63 - 112			
Endrin aldehyde	15.2340	2.0	16.6667		91.4	64 - 119			
Endrin aldehyde [2C]	14.6938	2.0	16.6667		88.2	64 - 119			
Endrin ketone	14.0395	2.0	16.6667		84.2	54 - 115			
Endrin ketone [2C]	14.6630	2.0	16.6667		88.0	54 - 115			
gamma-BHC	15.7408	1.0	16.6667		94.4	60 - 107			
gamma-BHC [2C]	16.7505	1.0	16.6667		101	60 - 107			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0142 - GCSEMI_PCB/PEST_S (continued)									
LCS (B7A0142-BS1) - Continued				Prepared: 1/5/2017 Analyzed: 1/6/2017					
gamma-Chlordane	14.8832	1.0	16.6667		89.3	57 - 106			
gamma-Chlordane [2C]	15.8227	1.0	16.6667		94.9	57 - 106			
Heptachlor	15.2265	1.0	16.6667		91.4	54 - 114			
Heptachlor [2C]	16.8828	1.0	16.6667		101	54 - 114			
Heptachlor epoxide	15.1910	1.0	16.6667		91.1	61 - 106			
Heptachlor epoxide [2C]	16.2467	1.0	16.6667		97.5	61 - 106			
Methoxychlor	12.4257	5.0	16.6667		74.6	18 - 138			
Methoxychlor [2C]	13.5830	5.0	16.6667		81.5	18 - 138			
Surrogate: Decachlorobiphenyl	*15.10*		*16.6667*		*90.6*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*16.07*		*16.6667*		*96.4*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*16.50*		*16.6667*		*99.0*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*15.97*		*16.6667*		*95.8*	*26 - 108*			
Duplicate (B7A0142-DUP1)			**Source: 1604898-90**	Prepared: 1/5/2017 Analyzed: 1/6/2017					
4,4´-DDD	ND	2.0		ND	NR			20	
4,4´-DDD [2C]	ND	2.0		ND	NR			20	
4,4´-DDE	ND	2.0		ND	NR			20	
4,4´-DDE [2C]	ND	2.0		ND	NR			20	
4,4´-DDT	ND	2.0		ND	NR			20	
4,4´-DDT [2C]	ND	2.0		ND	NR			20	
Aldrin	ND	1.0		ND	NR			20	
Aldrin [2C]	ND	1.0		ND	NR			20	
alpha-BHC	ND	1.0		ND	NR			20	
alpha-BHC [2C]	ND	1.0		ND	NR			20	
alpha-Chlordane	ND	1.0		ND	NR			20	
alpha-Chlordane [2C]	ND	1.0		ND	NR			20	
beta-BHC	ND	1.0		ND	NR			20	
beta-BHC [2C]	ND	1.0		ND	NR			20	
delta-BHC	ND	1.0		ND	NR			20	
delta-BHC [2C]	ND	1.0		ND	NR			20	
Dieldrin	ND	2.0		ND	NR			20	
Dieldrin [2C]	ND	2.0		ND	NR			20	
Endosulfan I	ND	1.0		ND	NR			20	
Endosulfan I [2C]	ND	1.0		ND	NR			20	
Endosulfan II	ND	2.0		ND	NR			20	
Endosulfan II [2C]	ND	2.0		ND	NR			20	
Endosulfan sulfate	ND	2.0		ND	NR			20	
Endosulfan Sulfate [2C]	ND	2.0		ND	NR			20	
Endrin	ND	2.0		ND	NR			20	
Endrin [2C]	ND	2.0		ND	NR			20	
Endrin aldehyde	ND	2.0		ND	NR			20	

Leighton Consulting, Inc.
17781 Cowan Street
Irvine , CA 92614

Project Number : LAUSD-Burroughs MS, 603378.006
Report To : Julie Harriman
Reported : 01/09/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0142 - GCSEMI_PCB/PEST_S (continued)									
Duplicate (B7A0142-DUP1) - Continued		**Source: 1604898-90**		Prepared: 1/5/2017 Analyzed: 1/6/2017					
Endrin aldehyde [2C]	ND	2.0		ND	NR			20	
Endrin ketone	ND	2.0		ND	NR			20	
Endrin ketone [2C]	ND	2.0		ND	NR			20	
gamma-BHC	ND	1.0		ND	NR			20	
gamma-BHC [2C]	ND	1.0		ND	NR			20	
gamma-Chlordane	ND	1.0		ND	NR			20	
gamma-Chlordane [2C]	ND	1.0		ND	NR			20	
Heptachlor	ND	1.0		ND	NR			20	
Heptachlor [2C]	ND	1.0		ND	NR			20	
Heptachlor epoxide	ND	1.0		ND	NR			20	
Heptachlor epoxide [2C]	ND	1.0		ND	NR			20	
Methoxychlor	ND	5.0		ND	NR			20	
Methoxychlor [2C]	ND	5.0		ND	NR			20	
Surrogate: Decachlorobiphenyl	*14.86*		*16.6667*		*89.2*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*16.09*		*16.6667*		*96.5*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*14.93*		*16.6667*		*89.6*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*14.69*		*16.6667*		*88.1*	*26 - 108*			
Matrix Spike (B7A0142-MS1)		**Source: 1604898-61**		Prepared: 1/5/2017 Analyzed: 1/6/2017					
4,4´-DDD	5.34800	2.0	16.6667	ND	32.1	25 - 141			
4,4´-DDD [2C]	4.91883	2.0	16.6667	ND	29.5	25 - 141			
4,4´-DDE	7.54800	2.0	16.6667	ND	45.3	22 - 141			
4,4´-DDE [2C]	7.44717	2.0	16.6667	ND	44.7	22 - 141			
4,4´-DDT	5.06117	2.0	16.6667	ND	30.4	15 - 136			
4,4´-DDT [2C]	4.91850	2.0	16.6667	ND	29.5	15 - 136			
Aldrin	7.59817	1.0	16.6667	ND	45.6	33 - 118			
Aldrin [2C]	7.16017	1.0	16.6667	ND	43.0	33 - 118			
alpha-BHC	5.24583	1.0	16.6667	ND	31.5	30 - 116			
alpha-BHC [2C]	5.23867	1.0	16.6667	ND	31.4	30 - 116			
alpha-Chlordane	5.76800	1.0	16.6667	ND	34.6	30 - 123			
alpha-Chlordane [2C]	5.65933	1.0	16.6667	ND	34.0	30 - 123			
beta-BHC	2.38050	1.0	16.6667	ND	14.3	24 - 121			M2
beta-BHC [2C]	2.44117	1.0	16.6667	ND	14.6	24 - 121			M2
delta-BHC	0.560333	1.0	16.6667	ND	3.36	7 - 120			M2, J
delta-BHC [2C]	0.374833	1.0	16.6667	ND	2.25	7 - 120			M2, J
Dieldrin	1.82083	2.0	16.6667	ND	10.9	25 - 136			M2, J
Dieldrin [2C]	1.49717	2.0	16.6667	ND	8.98	25 - 136			M2, J
Endosulfan I	2.69017	1.0	16.6667	ND	16.1	18 - 134			M2
Endosulfan I [2C]	2.38083	1.0	16.6667	ND	14.3	18 - 134			M2
Endosulfan II	0.256333	2.0	16.6667	ND	1.54	28 - 128			M2, J
Endosulfan II [2C]	0.370333	2.0	16.6667	ND	2.22	28 - 128			M2, J

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0142 - GCSEMI_PCB/PEST_S (continued)									
Matrix Spike (B7A0142-MS1) - Continued		**Source: 1604898-61**		Prepared: 1/5/2017 Analyzed: 1/6/2017					
Endosulfan sulfate	ND	2.0	16.6667	ND	NR	5 - 145			M2
Endosulfan Sulfate [2C]	ND	2.0	16.6667	ND	NR	5 - 145			M2
Endrin	1.96617	2.0	16.6667	ND	11.8	26 - 142			M2, J
Endrin [2C]	1.56200	2.0	16.6667	ND	9.37	26 - 142			M2, J
Endrin aldehyde	0.298833	2.0	16.6667	ND	1.79	8 - 146			M2, J
Endrin aldehyde [2C]	1.79500	2.0	16.6667	ND	10.8	8 - 146			J
Endrin ketone	0.234333	2.0	16.6667	ND	1.41	16 - 139			M2, J
Endrin ketone [2C]	ND	2.0	16.6667	ND	NR	16 - 139			M2
gamma-BHC	4.34533	1.0	16.6667	ND	26.1	30 - 122			M2
gamma-BHC [2C]	4.19033	1.0	16.6667	ND	25.1	30 - 122			M2
gamma-Chlordane	4.92183	1.0	16.6667	ND	29.5	18 - 132			
gamma-Chlordane [2C]	9.68600	1.0	16.6667	ND	58.1	18 - 132			
Heptachlor	7.34067	1.0	16.6667	ND	44.0	34 - 122			
Heptachlor [2C]	7.17833	1.0	16.6667	ND	43.1	34 - 122			
Heptachlor epoxide	2.93033	1.0	16.6667	ND	17.6	21 - 135			M2
Heptachlor epoxide [2C]	2.65950	1.0	16.6667	ND	16.0	21 - 135			M2
Methoxychlor	0.611333	5.0	16.6667	ND	3.67	8 - 162			M2, J
Methoxychlor [2C]	8.92250	5.0	16.6667	ND	53.5	8 - 162			
Surrogate: Decachlorobiphenyl	*8.474*		*16.6667*		*50.8*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*8.244*		*16.6667*		*49.5*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*7.754*		*16.6667*		*46.5*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*7.234*		*16.6667*		*43.4*	*26 - 108*			
Matrix Spike Dup (B7A0142-MSD1)		**Source: 1604898-61**		Prepared: 1/5/2017 Analyzed: 1/6/2017					
4,4´-DDD	8.45700	2.0	16.6667	ND	50.7	25 - 141	45.0	20	R3
4,4´-DDD [2C]	7.96700	2.0	16.6667	ND	47.8	25 - 141	47.3	20	R3
4,4´-DDE	9.17383	2.0	16.6667	ND	55.0	22 - 141	19.4	20	
4,4´-DDE [2C]	9.13517	2.0	16.6667	ND	54.8	22 - 141	20.4	20	R3
4,4´-DDT	7.19000	2.0	16.6667	ND	43.1	15 - 136	34.8	20	R3
4,4´-DDT [2C]	7.11767	2.0	16.6667	ND	42.7	15 - 136	36.5	20	R3
Aldrin	9.01917	1.0	16.6667	ND	54.1	33 - 118	17.1	20	
Aldrin [2C]	8.97700	1.0	16.6667	ND	53.9	33 - 118	22.5	20	R3
alpha-BHC	8.02583	1.0	16.6667	ND	48.2	30 - 116	41.9	20	R3
alpha-BHC [2C]	8.37767	1.0	16.6667	ND	50.3	30 - 116	46.1	20	R3
alpha-Chlordane	8.31267	1.0	16.6667	ND	49.9	30 - 123	36.1	20	R3
alpha-Chlordane [2C]	8.26467	1.0	16.6667	ND	49.6	30 - 123	37.4	20	R3
beta-BHC	5.17183	1.0	16.6667	ND	31.0	24 - 121	73.9	20	R3
beta-BHC [2C]	5.92100	1.0	16.6667	ND	35.5	24 - 121	83.2	20	R3
delta-BHC	1.68050	1.0	16.6667	ND	10.1	7 - 120	100	20	R3
delta-BHC [2C]	1.62083	1.0	16.6667	ND	9.72	7 - 120	125	20	R3
Dieldrin	4.19117	2.0	16.6667	ND	25.1	25 - 136	78.9	20	R3

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0142 - GCSEMI_PCB/PEST_S (continued)									
Matrix Spike Dup (B7A0142-MSD1) - Continued		**Source: 1604898-61**		Prepared: 1/5/2017 Analyzed: 1/6/2017					
Dieldrin [2C]	3.72800	2.0	16.6667	ND	22.4	25 - 136	85.4	20	M2, R3
Endosulfan I	5.49250	1.0	16.6667	ND	33.0	18 - 134	68.5	20	R3
Endosulfan I [2C]	5.14850	1.0	16.6667	ND	30.9	18 - 134	73.5	20	R3
Endosulfan II	0.794000	2.0	16.6667	ND	4.76	28 - 128	102	20	M2, R3, J
Endosulfan II [2C]	0.925167	2.0	16.6667	ND	5.55	28 - 128	85.7	20	M2, R3, J
Endosulfan sulfate	0.488333	2.0	16.6667	ND	2.93	5 - 145		20	M2, J
Endosulfan Sulfate [2C]	0.461833	2.0	16.6667	ND	2.77	5 - 145		20	M2, J
Endrin	4.53750	2.0	16.6667	ND	27.2	26 - 142	79.1	20	R3
Endrin [2C]	4.23233	2.0	16.6667	ND	25.4	26 - 142	92.2	20	M2, R3
Endrin aldehyde	0.863667	2.0	16.6667	ND	5.18	8 - 146	97.2	20	M2, R3, J
Endrin aldehyde [2C]	2.21767	2.0	16.6667	ND	13.3	8 - 146	21.1	20	R3
Endrin ketone	0.757000	2.0	16.6667	ND	4.54	16 - 139	105	20	M2, R3, J
Endrin ketone [2C]	0.449833	2.0	16.6667	ND	2.70	16 - 139		20	M2, J
gamma-BHC	7.53650	1.0	16.6667	ND	45.2	30 - 122	53.7	20	R3
gamma-BHC [2C]	7.58800	1.0	16.6667	ND	45.5	30 - 122	57.7	20	R3
gamma-Chlordane	7.68017	1.0	16.6667	ND	46.1	18 - 132	43.8	20	R3
gamma-Chlordane [2C]	13.8263	1.0	16.6667	ND	83.0	18 - 132	35.2	20	R3
Heptachlor	8.99650	1.0	16.6667	ND	54.0	34 - 122	20.3	20	R3
Heptachlor [2C]	9.27683	1.0	16.6667	ND	55.7	34 - 122	25.5	20	R3
Heptachlor epoxide	5.86050	1.0	16.6667	ND	35.2	21 - 135	66.7	20	R3
Heptachlor epoxide [2C]	5.48083	1.0	16.6667	ND	32.9	21 - 135	69.3	20	R3
Methoxychlor	1.61450	5.0	16.6667	ND	9.69	8 - 162	90.1	20	R3, J
Methoxychlor [2C]	0.648667	5.0	16.6667	ND	3.89	8 - 162	173	20	M2, R3, J
Surrogate: Decachlorobiphenyl	*9.346*		*16.6667*		*56.1*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*9.686*		*16.6667*		*58.1*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*8.963*		*16.6667*		*53.8*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*8.344*		*16.6667*		*50.1*	*26 - 108*			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0143 - GCSEMI_PCB/PEST_S									
Blank (B7A0143-BLK1)				Prepared: 1/5/2017 Analyzed: 1/6/2017					
4,4´-DDD	ND	2.0			NR				
4,4´-DDD [2C]	ND	2.0			NR				
4,4´-DDE	ND	2.0			NR				
4,4´-DDE [2C]	ND	2.0			NR				
4,4´-DDT	ND	2.0			NR				
4,4´-DDT [2C]	ND	2.0			NR				
Aldrin	ND	1.0			NR				
Aldrin [2C]	ND	1.0			NR				
alpha-BHC	ND	1.0			NR				
alpha-BHC [2C]	ND	1.0			NR				
alpha-Chlordane	ND	1.0			NR				
alpha-Chlordane [2C]	ND	1.0			NR				
beta-BHC	ND	1.0			NR				
beta-BHC [2C]	ND	1.0			NR				
Chlordane	ND	8.5			NR				
Chlordane [2C]	ND	8.5			NR				
delta-BHC	ND	1.0			NR				
delta-BHC [2C]	ND	1.0			NR				
Dieldrin	ND	2.0			NR				
Dieldrin [2C]	ND	2.0			NR				
Endosulfan I	ND	1.0			NR				
Endosulfan I [2C]	ND	1.0			NR				
Endosulfan II	ND	2.0			NR				
Endosulfan II [2C]	ND	2.0			NR				
Endosulfan sulfate	ND	2.0			NR				
Endosulfan Sulfate [2C]	ND	2.0			NR				
Endrin	ND	2.0			NR				
Endrin [2C]	ND	2.0			NR				
Endrin aldehyde	ND	2.0			NR				
Endrin aldehyde [2C]	ND	2.0			NR				
Endrin ketone	ND	2.0			NR				
Endrin ketone [2C]	ND	2.0			NR				
gamma-BHC	ND	1.0			NR				
gamma-BHC [2C]	ND	1.0			NR				
gamma-Chlordane	ND	1.0			NR				
gamma-Chlordane [2C]	ND	1.0			NR				
Heptachlor	ND	1.0			NR				
Heptachlor [2C]	ND	1.0			NR				
Heptachlor epoxide	ND	1.0			NR				
Heptachlor epoxide [2C]	ND	1.0			NR				
Methoxychlor	ND	5.0			NR				

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0143 - GCSEMI_PCB/PEST_S (continued)									
Blank (B7A0143-BLK1) - Continued				Prepared: 1/5/2017 Analyzed: 1/6/2017					
Methoxychlor [2C]	ND	5.0			NR				
Toxaphene	ND	50			NR				
Toxaphene [2C]	ND	50			NR				
Surrogate: Decachlorobiphenyl	*14.86*		*16.6667*		*89.2*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*18.66*		*16.6667*		*112*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*16.03*		*16.6667*		*96.2*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*16.05*		*16.6667*		*96.3*	*26 - 108*			
LCS (B7A0143-BS1)				Prepared: 1/5/2017 Analyzed: 1/6/2017					
4,4´-DDD	16.9495	2.0	16.6667		102	53 - 125			
4,4´-DDD [2C]	16.8382	2.0	16.6667		101	53 - 125			
4,4´-DDE	15.9095	2.0	16.6667		95.5	54 - 113			
4,4´-DDE [2C]	15.7870	2.0	16.6667		94.7	54 - 113			
4,4´-DDT	18.8085	2.0	16.6667		113	25 - 127			
4,4´-DDT [2C]	17.1180	2.0	16.6667		103	25 - 127			
Aldrin	15.6827	1.0	16.6667		94.1	59 - 107			
Aldrin [2C]	15.4943	1.0	16.6667		93.0	59 - 107			
alpha-BHC	15.3708	1.0	16.6667		92.2	59 - 104			
alpha-BHC [2C]	15.4617	1.0	16.6667		92.8	59 - 104			
alpha-Chlordane	16.0257	1.0	16.6667		96.2	54 - 110			
alpha-Chlordane [2C]	15.6720	1.0	16.6667		94.0	54 - 110			
beta-BHC	15.2690	1.0	16.6667		91.6	57 - 103			
beta-BHC [2C]	15.1742	1.0	16.6667		91.0	57 - 103			
delta-BHC	12.5173	1.0	16.6667		75.1	16 - 120			
delta-BHC [2C]	12.5330	1.0	16.6667		75.2	16 - 120			
Dieldrin	16.8242	2.0	16.6667		101	61 - 109			
Dieldrin [2C]	16.1595	2.0	16.6667		97.0	61 - 109			
Endosulfan I	16.0195	1.0	16.6667		96.1	60 - 106			
Endosulfan I [2C]	15.2707	1.0	16.6667		91.6	60 - 106			
Endosulfan II	16.0440	2.0	16.6667		96.3	59 - 108			
Endosulfan II [2C]	15.4802	2.0	16.6667		92.9	59 - 108			
Endosulfan sulfate	15.7337	2.0	16.6667		94.4	54 - 110			
Endosulfan Sulfate [2C]	15.2665	2.0	16.6667		91.6	54 - 110			
Endrin	17.5340	2.0	16.6667		105	63 - 112			
Endrin [2C]	17.0565	2.0	16.6667		102	63 - 112			
Endrin aldehyde	16.6717	2.0	16.6667		100	64 - 119			
Endrin aldehyde [2C]	15.9758	2.0	16.6667		95.9	64 - 119			
Endrin ketone	16.9303	2.0	16.6667		102	54 - 115			
Endrin ketone [2C]	16.1698	2.0	16.6667		97.0	54 - 115			
gamma-BHC	16.1540	1.0	16.6667		96.9	60 - 107			
gamma-BHC [2C]	15.9575	1.0	16.6667		95.7	60 - 107			

Leighton Consulting, Inc.
17781 Cowan Street
Irvine , CA 92614

Project Number : LAUSD-Burroughs MS, 603378.006
Report To : Julie Harriman
Reported : 01/09/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0143 - GCSEMI_PCB/PEST_S (continued)									
LCS (B7A0143-BS1) - Continued				Prepared: 1/5/2017 Analyzed: 1/6/2017					
gamma-Chlordane	15.7305	1.0	16.6667		94.4	57 - 106			
gamma-Chlordane [2C]	15.5207	1.0	16.6667		93.1	57 - 106			
Heptachlor	15.8178	1.0	16.6667		94.9	54 - 114			
Heptachlor [2C]	15.9947	1.0	16.6667		96.0	54 - 114			
Heptachlor epoxide	15.6405	1.0	16.6667		93.8	61 - 106			
Heptachlor epoxide [2C]	15.2772	1.0	16.6667		91.7	61 - 106			
Methoxychlor	18.0632	5.0	16.6667		108	18 - 138			
Methoxychlor [2C]	17.0420	5.0	16.6667		102	18 - 138			
Surrogate: Decachlorobiphenyl	*13.08*		*16.6667*		*78.5*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*14.13*		*16.6667*		*84.8*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*15.10*		*16.6667*		*90.6*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*16.04*		*16.6667*		*96.2*	*26 - 108*			
Duplicate (B7A0143-DUP1)			**Source: 1604898-82**	Prepared: 1/5/2017 Analyzed: 1/6/2017					
4,4´-DDD	ND	2.0		ND	NR			20	
4,4´-DDD [2C]	0.236000	2.0		0.282167	NR		17.8	20	J
4,4´-DDE	3.54050	2.0		3.10817	NR		13.0	20	
4,4´-DDE [2C]	3.22400	2.0		2.77733	NR		14.9	20	
4,4´-DDT	1.15400	2.0		1.05550	NR		8.92	20	J
4,4´-DDT [2C]	1.26200	2.0		0.797000	NR		45.2	20	R3, J
Aldrin	ND	1.0		ND	NR			20	
Aldrin [2C]	ND	1.0		ND	NR			20	
alpha-BHC	ND	1.0		ND	NR			20	
alpha-BHC [2C]	ND	1.0		ND	NR			20	
alpha-Chlordane	1.11183	1.0		0.947667	NR		15.9	20	
alpha-Chlordane [2C]	1.93900	1.0		1.60483	NR		18.9	20	
beta-BHC	ND	1.0		ND	NR			20	
beta-BHC [2C]	ND	1.0		ND	NR			20	
delta-BHC	ND	1.0		ND	NR			20	
delta-BHC [2C]	ND	1.0		ND	NR			20	
Dieldrin	0.394667	2.0		0.326167	NR		19.0	20	J
Dieldrin [2C]	0.326000	2.0		0.262833	NR		21.5	20	R3, J
Endosulfan I	ND	1.0		ND	NR			20	
Endosulfan I [2C]	ND	1.0		ND	NR			20	
Endosulfan II	ND	2.0		ND	NR			20	
Endosulfan II [2C]	ND	2.0		ND	NR			20	
Endosulfan sulfate	ND	2.0		ND	NR			20	
Endosulfan Sulfate [2C]	ND	2.0		ND	NR			20	
Endrin	ND	2.0		ND	NR			20	
Endrin [2C]	ND	2.0		ND	NR			20	
Endrin aldehyde	ND	2.0		ND	NR			20	

Leighton Consulting, Inc.
17781 Cowan Street
Irvine , CA 92614

Project Number : LAUSD-Burroughs MS, 603378.006
Report To : Julie Harriman
Reported : 01/09/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0143 - GCSEMI_PCB/PEST_S (continued)									
Duplicate (B7A0143-DUP1) - Continued		**Source: 1604898-82**		Prepared: 1/5/2017 Analyzed: 1/6/2017					
Endrin aldehyde [2C]	ND	2.0		ND	NR			20	
Endrin ketone	ND	2.0		ND	NR			20	
Endrin ketone [2C]	ND	2.0		ND	NR			20	
gamma-BHC	ND	1.0		ND	NR			20	
gamma-BHC [2C]	ND	1.0		ND	NR			20	
gamma-Chlordane	1.64350	1.0		1.37867	NR		17.5	20	
gamma-Chlordane [2C]	1.42017	1.0		1.02883	NR		32.0	20	R3
Heptachlor	ND	1.0		ND	NR			20	
Heptachlor [2C]	ND	1.0		ND	NR			20	
Heptachlor epoxide	ND	1.0		ND	NR			20	
Heptachlor epoxide [2C]	ND	1.0		ND	NR			20	
Methoxychlor	ND	5.0		ND	NR			20	
Methoxychlor [2C]	ND	5.0		ND	NR			20	
Surrogate: Decachlorobiphenyl	*7.442*		*16.6667*		*44.7*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*7.306*		*16.6667*		*43.8*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*7.172*		*16.6667*		*43.0*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*6.806*		*16.6667*		*40.8*	*26 - 108*			
Matrix Spike (B7A0143-MS1)		**Source: 1604898-82**		Prepared: 1/5/2017 Analyzed: 1/6/2017					
4,4´-DDD	5.32633	2.0	16.6667	ND	32.0	25 - 141			
4,4´-DDD [2C]	5.40617	2.0	16.6667	0.282167	30.7	25 - 141			
4,4´-DDE	10.0758	2.0	16.6667	3.10817	41.8	22 - 141			
4,4´-DDE [2C]	9.40417	2.0	16.6667	2.77733	39.8	22 - 141			
4,4´-DDT	8.61850	2.0	16.6667	1.05550	45.4	15 - 136			
4,4´-DDT [2C]	7.48100	2.0	16.6667	0.797000	40.1	15 - 136			
Aldrin	7.06317	1.0	16.6667	ND	42.4	33 - 118			
Aldrin [2C]	6.75983	1.0	16.6667	ND	40.6	33 - 118			
alpha-BHC	5.77267	1.0	16.6667	ND	34.6	30 - 116			
alpha-BHC [2C]	5.94283	1.0	16.6667	ND	35.7	30 - 116			
alpha-Chlordane	6.99750	1.0	16.6667	0.947667	36.3	30 - 123			
alpha-Chlordane [2C]	7.53983	1.0	16.6667	1.60483	35.6	30 - 123			
beta-BHC	4.04200	1.0	16.6667	ND	24.3	24 - 121			
beta-BHC [2C]	3.96333	1.0	16.6667	ND	23.8	24 - 121			M2
delta-BHC	2.88417	1.0	16.6667	ND	17.3	7 - 120			
delta-BHC [2C]	2.86717	1.0	16.6667	ND	17.2	7 - 120			
Dieldrin	4.74633	2.0	16.6667	0.326167	26.5	25 - 136			
Dieldrin [2C]	4.31250	2.0	16.6667	0.262833	24.3	25 - 136			M2
Endosulfan I	4.78017	1.0	16.6667	ND	28.7	18 - 134			
Endosulfan I [2C]	4.23000	1.0	16.6667	ND	25.4	18 - 134			
Endosulfan II	2.56583	2.0	16.6667	ND	15.4	28 - 128			M2
Endosulfan II [2C]	2.39767	2.0	16.6667	ND	14.4	28 - 128			M2

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0143 - GCSEMI_PCB/PEST_S (continued)									
Matrix Spike (B7A0143-MS1) - Continued		**Source: 1604898-82**		Prepared: 1/5/2017 Analyzed: 1/6/2017					
Endosulfan sulfate	2.37250	2.0	16.6667	ND	14.2	5 - 145			
Endosulfan Sulfate [2C]	2.07367	2.0	16.6667	ND	12.4	5 - 145			
Endrin	4.72333	2.0	16.6667	ND	28.3	26 - 142			
Endrin [2C]	4.60200	2.0	16.6667	ND	27.6	26 - 142			
Endrin aldehyde	2.32100	2.0	16.6667	ND	13.9	8 - 146			
Endrin aldehyde [2C]	2.07600	2.0	16.6667	ND	12.5	8 - 146			
Endrin ketone	2.31050	2.0	16.6667	ND	13.9	16 - 139			M2
Endrin ketone [2C]	2.17900	2.0	16.6667	ND	13.1	16 - 139			M2
gamma-BHC	5.35900	1.0	16.6667	ND	32.2	30 - 122			
gamma-BHC [2C]	5.12783	1.0	16.6667	ND	30.8	30 - 122			
gamma-Chlordane	7.57800	1.0	16.6667	1.37867	37.2	18 - 132			
gamma-Chlordane [2C]	6.48433	1.0	16.6667	1.02883	32.7	18 - 132			
Heptachlor	7.45167	1.0	16.6667	ND	44.7	34 - 122			
Heptachlor [2C]	7.26117	1.0	16.6667	ND	43.6	34 - 122			
Heptachlor epoxide	5.08717	1.0	16.6667	ND	30.5	21 - 135			
Heptachlor epoxide [2C]	5.33317	1.0	16.6667	ND	32.0	21 - 135			
Methoxychlor	4.23117	5.0	16.6667	ND	25.4	8 - 162			J
Methoxychlor [2C]	4.09217	5.0	16.6667	ND	24.6	8 - 162			J
Surrogate: Decachlorobiphenyl	*7.245*		*16.6667*		*43.5*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*7.170*		*16.6667*		*43.0*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*7.950*		*16.6667*		*47.7*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*8.126*		*16.6667*		*48.8*	*26 - 108*			
Matrix Spike Dup (B7A0143-MSD1)		**Source: 1604898-82**		Prepared: 1/5/2017 Analyzed: 1/6/2017					
4,4´-DDD	7.63117	2.0	16.6667	ND	45.8	25 - 141	35.6	20	R3
4,4´-DDD [2C]	7.55533	2.0	16.6667	0.282167	43.6	25 - 141	33.2	20	R3
4,4´-DDE	13.2862	2.0	16.6667	3.10817	61.1	22 - 141	27.5	20	R3
4,4´-DDE [2C]	12.0502	2.0	16.6667	2.77733	55.6	22 - 141	24.7	20	R3
4,4´-DDT	10.5582	2.0	16.6667	1.05550	57.0	15 - 136	20.2	20	R3
4,4´-DDT [2C]	9.66233	2.0	16.6667	0.797000	53.2	15 - 136	25.4	20	R3
Aldrin	9.44100	1.0	16.6667	ND	56.6	33 - 118	28.8	20	R3
Aldrin [2C]	8.82533	1.0	16.6667	ND	53.0	33 - 118	26.5	20	R3
alpha-BHC	8.74433	1.0	16.6667	ND	52.5	30 - 116	40.9	20	R3
alpha-BHC [2C]	8.57967	1.0	16.6667	ND	51.5	30 - 116	36.3	20	R3
alpha-Chlordane	9.37917	1.0	16.6667	0.947667	50.6	30 - 123	29.1	20	R3
alpha-Chlordane [2C]	9.69200	1.0	16.6667	1.60483	48.5	30 - 123	25.0	20	R3
beta-BHC	5.43017	1.0	16.6667	ND	32.6	24 - 121	29.3	20	R3
beta-BHC [2C]	5.17683	1.0	16.6667	ND	31.1	24 - 121	26.6	20	R3
delta-BHC	3.48750	1.0	16.6667	ND	20.9	7 - 120	18.9	20	
delta-BHC [2C]	3.38917	1.0	16.6667	ND	20.3	7 - 120	16.7	20	
Dieldrin	5.82817	2.0	16.6667	0.326167	33.0	25 - 136	20.5	20	R3

Leighton Consulting, Inc.
17781 Cowan Street
Irvine , CA 92614

Project Number : LAUSD-Burroughs MS, 603378.006
Report To : Julie Harriman
Reported : 01/09/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0143 - GCSEMI_PCB/PEST_S (continued)									
Matrix Spike Dup (B7A0143-MSD1) - Continued		**Source: 1604898-82**		Prepared: 1/5/2017 Analyzed: 1/6/2017					
Dieldrin [2C]	5.24150	2.0	16.6667	0.262833	29.9	25 - 136	19.4	20	
Endosulfan I	6.08150	1.0	16.6667	ND	36.5	18 - 134	24.0	20	R3
Endosulfan I [2C]	5.25583	1.0	16.6667	ND	31.5	18 - 134	21.6	20	R3
Endosulfan II	2.59483	2.0	16.6667	ND	15.6	28 - 128	1.12	20	M2
Endosulfan II [2C]	2.47200	2.0	16.6667	ND	14.8	28 - 128	3.05	20	M2
Endosulfan sulfate	2.72533	2.0	16.6667	ND	16.4	5 - 145	13.8	20	
Endosulfan Sulfate [2C]	2.17983	2.0	16.6667	ND	13.1	5 - 145	4.99	20	
Endrin	5.84850	2.0	16.6667	ND	35.1	26 - 142	21.3	20	R3
Endrin [2C]	5.77917	2.0	16.6667	ND	34.7	26 - 142	22.7	20	R3
Endrin aldehyde	2.49217	2.0	16.6667	ND	15.0	8 - 146	7.11	20	
Endrin aldehyde [2C]	1.88183	2.0	16.6667	ND	11.3	8 - 146	9.81	20	J
Endrin ketone	2.49950	2.0	16.6667	ND	15.0	16 - 139	7.86	20	M2
Endrin ketone [2C]	2.15750	2.0	16.6667	ND	12.9	16 - 139	0.992	20	M2
gamma-BHC	8.07017	1.0	16.6667	ND	48.4	30 - 122	40.4	20	R3
gamma-BHC [2C]	7.52767	1.0	16.6667	ND	45.2	30 - 122	37.9	20	R3
gamma-Chlordane	10.0135	1.0	16.6667	1.37867	51.8	18 - 132	27.7	20	R3
gamma-Chlordane [2C]	8.52633	1.0	16.6667	1.02883	45.0	18 - 132	27.2	20	R3
Heptachlor	10.0892	1.0	16.6667	ND	60.5	34 - 122	30.1	20	R3
Heptachlor [2C]	9.59700	1.0	16.6667	ND	57.6	34 - 122	27.7	20	R3
Heptachlor epoxide	6.78517	1.0	16.6667	ND	40.7	21 - 135	28.6	20	R3
Heptachlor epoxide [2C]	6.83800	1.0	16.6667	ND	41.0	21 - 135	24.7	20	R3
Methoxychlor	4.21750	5.0	16.6667	ND	25.3	8 - 162	0.324	20	J
Methoxychlor [2C]	4.31283	5.0	16.6667	ND	25.9	8 - 162	5.25	20	J
Surrogate: Decachlorobiphenyl	*10.07*		*16.6667*		*60.4*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*11.01*		*16.6667*		*66.1*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*10.20*		*16.6667*		*61.2*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*9.856*		*16.6667*		*59.1*	*26 - 108*			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Polychlorinated Biphenyls by EPA 8082 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0037 - GCSEMI_PCB/PEST_W									
Blank (B7A0037-BLK2)				Prepared: 1/3/2017 Analyzed: 1/3/2017					
Aroclor 1016	ND	0.50			NR				
Aroclor 1221	ND	1.0			NR				
Aroclor 1232	ND	0.50			NR				
Aroclor 1242	ND	0.50			NR				
Aroclor 1248	ND	0.50			NR				
Aroclor 1254	ND	0.50			NR				
Aroclor 1260	ND	0.50			NR				
Aroclor 1262	ND	0.50			NR				
Aroclor 1268	ND	0.50			NR				
Surrogate: Decachlorobiphenyl	*0.4055*		*0.500000*		*81.1*	*7 - 127*			
Surrogate: Tetrachloro-m-xylene	*0.4350*		*0.500000*		*87.0*	*14 - 122*			
LCS (B7A0037-BS2)				Prepared: 1/3/2017 Analyzed: 1/3/2017					
Aroclor 1016	2.59988	0.50	5.00000		52.0	68 - 96			L2
Aroclor 1260	2.23614	0.50	5.00000		44.7	64 - 106			L2
Surrogate: Decachlorobiphenyl	*0.2967*		*0.500000*		*59.3*	*7 - 127*			
Surrogate: Tetrachloro-m-xylene	*0.2939*		*0.500000*		*58.8*	*14 - 122*			
LCS Dup (B7A0037-BSD2)				Prepared: 1/3/2017 Analyzed: 1/3/2017					
Aroclor 1016	2.15640	0.50	5.00000		43.1	68 - 96	18.6	20	L2
Aroclor 1260	1.58421	0.50	5.00000		31.7	64 - 106	34.1	20	L2
Surrogate: Decachlorobiphenyl	*0.1683*		*0.500000*		*33.7*	*7 - 127*			
Surrogate: Tetrachloro-m-xylene	*0.2670*		*0.500000*		*53.4*	*14 - 122*			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Polychlorinated Biphenyls by EPA 8082 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0091 - GCSEMI_PCB/PEST_S									
Blank (B7A0091-BLK2)				Prepared: 1/4/2017 Analyzed: 1/5/2017					
Aroclor 1016	ND	16			NR				
Aroclor 1221	ND	16			NR				
Aroclor 1232	ND	16			NR				
Aroclor 1242	ND	16			NR				
Aroclor 1248	ND	16			NR				
Aroclor 1254	ND	16			NR				
Aroclor 1260	ND	16			NR				
Aroclor 1262	ND	16			NR				
Aroclor 1268	ND	16			NR				
Surrogate: Decachlorobiphenyl	*17.12*		*16.6667*		*103*	*26 - 137*			
Surrogate: Tetrachloro-m-xylene	*18.93*		*16.6667*		*114*	*28 - 102*			S1
LCS (B7A0091-BS2)				Prepared: 1/4/2017 Analyzed: 1/5/2017					
Aroclor 1016	163.565	16	166.667		98.1	70 - 107			
Aroclor 1260	184.905	16	166.667		111	69 - 120			
Surrogate: Decachlorobiphenyl	*16.95*		*16.6667*		*102*	*26 - 137*			
Surrogate: Tetrachloro-m-xylene	*18.18*		*16.6667*		*109*	*28 - 102*			S12
Duplicate (B7A0091-DUP2)		**Source: 1604898-01**		Prepared: 1/4/2017 Analyzed: 1/5/2017					
Aroclor 1016	ND	16		ND	NR			20	
Aroclor 1260	ND	16		ND	NR			20	
Surrogate: Decachlorobiphenyl	*10.64*		*16.6667*		*63.8*	*26 - 137*			
Surrogate: Tetrachloro-m-xylene	*13.18*		*16.6667*		*79.1*	*28 - 102*			
Matrix Spike (B7A0091-MS2)		**Source: 1604898-17**		Prepared: 1/4/2017 Analyzed: 1/5/2017					
Aroclor 1016	115.887	16	166.667	ND	69.5	34 - 120			
Aroclor 1260	106.705	16	166.667	ND	64.0	39 - 128			
Surrogate: Decachlorobiphenyl	*7.888*		*16.6667*		*47.3*	*26 - 137*			
Surrogate: Tetrachloro-m-xylene	*12.67*		*16.6667*		*76.0*	*28 - 102*			
Matrix Spike Dup (B7A0091-MSD2)		**Source: 1604898-17**		Prepared: 1/4/2017 Analyzed: 1/5/2017					
Aroclor 1016	108.314	16	166.667	ND	65.0	34 - 120	6.76	20	
Aroclor 1260	99.1127	16	166.667	ND	59.5	39 - 128	7.38	20	
Surrogate: Decachlorobiphenyl	*6.750*		*16.6667*		*40.5*	*26 - 137*			
Surrogate: Tetrachloro-m-xylene	*12.36*		*16.6667*		*74.2*	*28 - 102*			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Polychlorinated Biphenyls by EPA 8082 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0122 - GCSEMI_PCB/PEST_S									
Blank (B7A0122-BLK1)				Prepared: 1/5/2017 Analyzed: 1/5/2017					
Aroclor 1016	ND	16			NR				
Aroclor 1221	ND	16			NR				
Aroclor 1232	ND	16			NR				
Aroclor 1242	ND	16			NR				
Aroclor 1248	ND	16			NR				
Aroclor 1254	ND	16			NR				
Aroclor 1260	ND	16			NR				
Aroclor 1262	ND	16			NR				
Aroclor 1268	ND	16			NR				
Surrogate: Decachlorobiphenyl	*12.84*		*16.6667*		*77.0*	*26 - 137*			
Surrogate: Tetrachloro-m-xylene	*18.70*		*16.6667*		*112*	*28 - 102*			S1
LCS (B7A0122-BS1)				Prepared: 1/5/2017 Analyzed: 1/5/2017					
Aroclor 1016	166.604	16	166.667		100	70 - 107			
Aroclor 1260	173.603	16	166.667		104	69 - 120			
Surrogate: Decachlorobiphenyl	*13.46*		*16.6667*		*80.8*	*26 - 137*			
Surrogate: Tetrachloro-m-xylene	*18.47*		*16.6667*		*111*	*28 - 102*			S12
Duplicate (B7A0122-DUP1)		**Source: 1604898-37**		Prepared: 1/5/2017 Analyzed: 1/5/2017					
Aroclor 1016	ND	16		ND	NR			20	
Aroclor 1260	ND	16		ND	NR			20	
Surrogate: Decachlorobiphenyl	*12.26*		*16.6667*		*73.6*	*26 - 137*			
Surrogate: Tetrachloro-m-xylene	*15.82*		*16.6667*		*94.9*	*28 - 102*			
Matrix Spike (B7A0122-MS1)		**Source: 1604898-37**		Prepared: 1/5/2017 Analyzed: 1/5/2017					
Aroclor 1016	169.413	16	166.667	ND	102	34 - 120			
Aroclor 1260	183.839	16	166.667	ND	110	39 - 128			
Surrogate: Decachlorobiphenyl	*12.34*		*16.6667*		*74.0*	*26 - 137*			
Surrogate: Tetrachloro-m-xylene	*15.88*		*16.6667*		*95.3*	*28 - 102*			
Matrix Spike Dup (B7A0122-MSD1)		**Source: 1604898-37**		Prepared: 1/5/2017 Analyzed: 1/5/2017					
Aroclor 1016	165.315	16	166.667	ND	99.2	34 - 120	2.45	20	
Aroclor 1260	180.302	16	166.667	ND	108	39 - 128	1.94	20	
Surrogate: Decachlorobiphenyl	*12.41*		*16.6667*		*74.5*	*26 - 137*			
Surrogate: Tetrachloro-m-xylene	*15.49*		*16.6667*		*92.9*	*28 - 102*			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Semivolatile Organic Compounds by EPA 8270/SIM - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0160 - MSSEMI_S									
Blank (B7A0160-BLK1)				Prepared: 1/6/2017 Analyzed: 1/6/2017					
2-Methylnaphthalene	ND	5.0			NR				
Acenaphthene	ND	5.0			NR				
Acenaphthylene	ND	5.0			NR				
Anthracene	ND	5.0			NR				
Benzo(a)anthracene	ND	5.0			NR				
Benzo(a)pyrene	ND	5.0			NR				
Benzo(b)fluoranthene	ND	5.0			NR				
Benzo(g,h,i)perylene	ND	5.0			NR				
Benzo(k)fluoranthene	ND	5.0			NR				
Chrysene	ND	5.0			NR				
Dibenz(a,h)anthracene	ND	5.0			NR				
Fluoranthene	ND	5.0			NR				
Fluorene	ND	5.0			NR				
Indeno(1,2,3-cd)pyrene	ND	5.0			NR				
Naphthalene	ND	5.0			NR				
Phenanthrene	ND	5.0			NR				
Pyrene	ND	5.0			NR				
Surrogate: 1,2-Dichlorobenzene-d4	*22.69*		*33.3333*		*68.1*	*23 - 104*			
Surrogate: 2-Fluorobiphenyl	*23.79*		*33.3333*		*71.4*	*29 - 116*			
Surrogate: Nitrobenzene-d5	*23.21*		*33.3333*		*69.6*	*14 - 120*			
Surrogate: 4-Terphenyl-d14	*34.44*		*33.3333*		*103*	*16 - 142*			
LCS (B7A0160-BS1)				Prepared: 1/6/2017 Analyzed: 1/6/2017					
2-Methylnaphthalene	27.6300	5.0	33.3333		82.9	40 - 118			
Acenaphthene	21.9367	5.0	33.3333		65.8	43 - 99			
Acenaphthylene	21.3953	5.0	33.3333		64.2	32 - 113			
Anthracene	25.6643	5.0	33.3333		77.0	52 - 94			
Benzo(a)anthracene	26.3467	5.0	33.3333		79.0	42 - 115			
Benzo(a)pyrene	38.0057	5.0	33.3333		114	34 - 109			L4
Benzo(b)fluoranthene	31.0597	5.0	33.3333		93.2	42 - 116			
Benzo(g,h,i)perylene	34.1457	5.0	33.3333		102	32 - 118			
Benzo(k)fluoranthene	32.4990	5.0	33.3333		97.5	41 - 111			
Chrysene	31.1110	5.0	33.3333		93.3	50 - 108			
Dibenz(a,h)anthracene	33.3817	5.0	33.3333		100	34 - 119			
Fluoranthene	26.7190	5.0	33.3333		80.2	52 - 109			
Fluorene	21.4023	5.0	33.3333		64.2	41 - 104			
Indeno(1,2,3-cd)pyrene	33.8383	5.0	33.3333		102	36 - 126			
Naphthalene	22.6497	5.0	33.3333		67.9	37 - 101			
Phenanthrene	27.5060	5.0	33.3333		82.5	50 - 106			
Pyrene	27.1673	5.0	33.3333		81.5	49 - 110			
Surrogate: 1,2-Dichlorobenzene-d4	*21.08*		*33.3333*		*63.2*	*23 - 104*			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Semivolatile Organic Compounds by EPA 8270/SIM - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0160 - MSSEMI_S (continued)									
LCS (B7A0160-BS1) - Continued				Prepared: 1/6/2017 Analyzed: 1/6/2017					
Surrogate: 2-Fluorobiphenyl	*22.54*		*33.3333*		*67.6*	*29 - 116*			
Surrogate: Nitrobenzene-d5	*21.81*		*33.3333*		*65.4*	*14 - 120*			
Surrogate: 4-Terphenyl-d14	*29.82*		*33.3333*		*89.5*	*16 - 142*			
Duplicate (B7A0160-DUP1)		**Source: 1604898-79**		Prepared: 1/6/2017 Analyzed: 1/6/2017					
2-Methylnaphthalene	ND	100		ND	NR			20	
Acenaphthene	ND	100		ND	NR			20	
Acenaphthylene	ND	100		ND	NR			20	
Anthracene	ND	100		ND	NR			20	
Benzo(a)anthracene	ND	100		ND	NR			20	
Benzo(a)pyrene	ND	100		ND	NR			20	
Benzo(b)fluoranthene	ND	100		ND	NR			20	
Benzo(g,h,i)perylene	12.3933	100		ND	NR		115	20	R, J
Benzo(k)fluoranthene	ND	100		ND	NR			20	
Chrysene	17.4133	100		ND	NR		159	20	R, J
Dibenz(a,h)anthracene	ND	100		ND	NR			20	
Fluoranthene	ND	100		ND	NR			20	
Fluorene	ND	100		ND	NR			20	
Indeno(1,2,3-cd)pyrene	ND	100		ND	NR			20	
Naphthalene	ND	100		ND	NR			20	
Phenanthrene	ND	100		ND	NR			20	
Pyrene	ND	100		ND	NR			20	
Surrogate: 1,2-Dichlorobenzene-d4	*26.01*		*33.3333*		*78.0*	*23 - 104*			
Surrogate: 2-Fluorobiphenyl	*26.68*		*33.3333*		*80.0*	*29 - 116*			
Surrogate: Nitrobenzene-d5	*24.55*		*33.3333*		*73.7*	*14 - 120*			
Surrogate: 4-Terphenyl-d14	*34.39*		*33.3333*		*103*	*16 - 142*			
Matrix Spike (B7A0160-MS1)		**Source: 1604898-81**		Prepared: 1/6/2017 Analyzed: 1/6/2017					
2-Methylnaphthalene	32.9933	100	33.3333	ND	99.0	27 - 140			J
Acenaphthene	26.8533	100	33.3333	ND	80.6	42 - 107			J
Acenaphthylene	27.0733	100	33.3333	ND	81.2	35 - 116			J
Anthracene	25.3533	100	33.3333	ND	76.1	24 - 140			J
Benzo(a)anthracene	32.8333	100	33.3333	ND	98.5	22 - 139			J
Benzo(a)pyrene	33.6533	100	33.3333	14.5333	57.4	0 - 152			J
Benzo(b)fluoranthene	35.4600	100	33.3333	13.7067	65.3	13 - 135			J
Benzo(g,h,i)perylene	47.4733	100	33.3333	25.7200	65.3	0 - 157			J
Benzo(k)fluoranthene	31.8200	100	33.3333	ND	95.5	17 - 127			J
Chrysene	42.3333	100	33.3333	25.3067	51.1	25 - 128			J
Dibenz(a,h)anthracene	32.5267	100	33.3333	ND	97.6	2 - 143			J
Fluoranthene	39.6333	100	33.3333	15.7400	71.7	46 - 116			J
Fluorene	24.9667	100	33.3333	ND	74.9	40 - 116			J
Indeno(1,2,3-cd)pyrene	35.8467	100	33.3333	9.82000	78.1	0 - 159			J

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Semivolatile Organic Compounds by EPA 8270/SIM - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0160 - MSSEMI_S (continued)									
Matrix Spike (B7A0160-MS1) - Continued		**Source: 1604898-81**		Prepared: 1/6/2017 Analyzed: 1/6/2017					
Naphthalene	28.5800	100	33.3333	ND	85.7	0 - 153			J
Phenanthrene	32.0400	100	33.3333	ND	96.1	21 - 144			J
Pyrene	42.6067	100	33.3333	22.5267	60.2	34 - 122			J
Surrogate: 1,2-Dichlorobenzene-d4	*24.96*		*33.3333*		*74.9*	*23 - 104*			
Surrogate: 2-Fluorobiphenyl	*27.33*		*33.3333*		*82.0*	*29 - 116*			
Surrogate: Nitrobenzene-d5	*26.07*		*33.3333*		*78.2*	*14 - 120*			
Surrogate: 4-Terphenyl-d14	*30.86*		*33.3333*		*92.6*	*16 - 142*			
Matrix Spike Dup (B7A0160-MSD1)		**Source: 1604898-81**		Prepared: 1/6/2017 Analyzed: 1/6/2017					
2-Methylnaphthalene	34.2933	100	33.3333	ND	103	27 - 140	3.86	20	J
Acenaphthene	26.6400	100	33.3333	ND	79.9	42 - 107	0.798	20	J
Acenaphthylene	26.4867	100	33.3333	ND	79.5	35 - 116	2.19	20	J
Anthracene	26.4733	100	33.3333	ND	79.4	24 - 140	4.32	20	J
Benzo(a)anthracene	35.0733	100	33.3333	ND	105	22 - 139	6.60	20	J
Benzo(a)pyrene	37.1533	100	33.3333	14.5333	67.9	0 - 152	9.89	20	J
Benzo(b)fluoranthene	37.7533	100	33.3333	13.7067	72.1	13 - 135	6.26	20	J
Benzo(g,h,i)perylene	44.0400	100	33.3333	25.7200	55.0	0 - 157	7.50	20	J
Benzo(k)fluoranthene	31.8733	100	33.3333	ND	95.6	17 - 127	0.167	20	J
Chrysene	56.1800	100	33.3333	25.3067	92.6	25 - 128	28.1	20	R, J
Dibenz(a,h)anthracene	31.8000	100	33.3333	ND	95.4	2 - 143	2.26	20	J
Fluoranthene	36.2533	100	33.3333	15.7400	61.5	46 - 116	8.91	20	J
Fluorene	24.3133	100	33.3333	ND	72.9	40 - 116	2.65	20	J
Indeno(1,2,3-cd)pyrene	34.5000	100	33.3333	9.82000	74.0	0 - 159	3.83	20	J
Naphthalene	28.3867	100	33.3333	ND	85.2	0 - 153	0.679	20	J
Phenanthrene	31.8200	100	33.3333	ND	95.5	21 - 144	0.689	20	J
Pyrene	46.6533	100	33.3333	22.5267	72.4	34 - 122	9.07	20	J
Surrogate: 1,2-Dichlorobenzene-d4	*24.95*		*33.3333*		*74.8*	*23 - 104*			
Surrogate: 2-Fluorobiphenyl	*26.95*		*33.3333*		*80.8*	*29 - 116*			
Surrogate: Nitrobenzene-d5	*23.26*		*33.3333*		*69.8*	*14 - 120*			
Surrogate: 4-Terphenyl-d14	*31.23*		*33.3333*		*93.7*	*16 - 142*			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/09/2017

Notes and Definitions

S4	Surrogate was diluted out.
S2	Surrogate recovery was below laboratory acceptance limit. Reextraction and/or reanalysisconfirms low recovery caused by matrix effects.
S12	Surrogate recovery outside in-house established limit but within method default criteria.
S1	Surrogate recovery was above laboratory acceptance limit. No target analyte was detected in the sample.
R3	RPD value outside acceptance criteria. Calculation is based on raw values. The analytical batch was validated by the Laboratory Control Sample (LCS).
R	RPD value outside acceptance criteria. Calculation is based on raw values.
M2	Matrix spike recovery outside of acceptance limit due to possible matrix interference. The analytical batch was validated by the laboratory control sample.
M1	Matrix spike recovery outside of acceptance limit. The analytical batch was validated by the laboratory control sample.
L4	Laboratory Control Sample outside of control limit but within Marginal Exceedance (ME) limit.
L2	Laboratory control sample outside of acceptance limits. Reextraction and/or reanalysis is not possible due to limited amount of sample.
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:
(1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
(2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
(3) Results are wet unless otherwise specified.

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 1 of 11

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☑ ATL	1. CHILLED	☑	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☑
☐ GSO	3. CONTAINER INTACT	☑	☐	7. COOLER TEMP, deg C:		
☐ Other:	4. SEALED	☐	☑			

CUSTOMER

Company: Leighton Consulting Inc
Address: 17781 Cowan
City: Irvine State: CA Zip: 92614
Tel: 949-572-8129 Fax:

SEND REPORT TO:
Attn: Julie Harriman Email: JHarriman@leightongroup.com
Company: Leighton Consulting Inc
Address: 17781 Cowan
City: Irvine State: CA Zip: 92614

SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Accounts Payable Email: AcctPayable@leightongroup.com
Company: Same as above
Address:
City: State: Zip:

PROJECT SAMPLES

Project Name: LAUSD - Burroughs MS
Project No.: 603378.006
Sampler: BES
Quote No:
PO #: 603378.006
Special Instructions/Comments: J Flag Needed

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time
1	1604898 -1	FB10-1-0.5	12/28/16	0910
2	-2	FB10-1-1.5		0913
3	-3	FB10-1-2.5		0915
4	-4	FB10-2-0.5		0850
5	-5	FB10-2-1.5		0855
6	-6	FB10-2-2.5		0900
7	-7	FB10-3-0.5		0822
8	-8	FB10-3-1.5		0824
9	-9	FB10-3-2.5		0825
10	-10	FB10-4-0.5		0815

Encircle or Write Requested Analysis: 8260 / 624 (Volatiles); 8015(GRO); 8015(DRO); 8270(Semi-volatiles); 8081(Organochlorine Pesticides); 8082(PCBs); 6010 / 7000(Title 22 Metals); TO-15; Arsenic; VOA

Encircle Sample Matrix: SOIL / SEDIMENT / SLUDGE; SOLIDS / WIPE / FILTER; WATER - DRINKING / GROUND; WATER - STORM / WASTE; AQUEOUS / LAYERED - OIL

TAT: 5

Container: # 1 5 1; Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7=Canister; Material: 1=Glass; 2=Plastic; 3=Metal

Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4=4C; 5=Zn (Ac)2; 6=NaOH; 7=NaAsO2O3

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

REMARKS

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for fi ve (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-fi ve (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Becky Steiner — Submitter Print Name
Signature

CUSTODY

	Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
1	Becky Steiner	12/28/16	1440			
2		12/28/16	1800		12/28/16	1700
3					12/28/16	1830

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 2 of 11

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☐ ATL	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☐
☐ GSO	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other: _____	4. SEALED	☐	☐			

CUSTOMER

Company: Leighton Consulting Inc
Address: 17781 Cowan
City: Irvine State: CA Zip: 92614
Tel:
Fax:

SEND REPORT TO:
Attn: Leighton Consulting - Julie Harriman Email: JHarriman@leightongroup.com
Company: same as above
Address:
City: State: Zip:

SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Accounts Payable Email: Accountsable@leightongroup.com
Company: Same as above
Address:
City: State: Zip:

PROJECT SAMPLES

Project Name: LAUSD - Burroughs MS
Project No.: 603378.002
Sampler: BKS
Quote No:
PO #: 603378.002
Special Instructions/Comments: J FLAG NEEDED

Encircle or Write Requested Analysis: 8260 / 624 (Volatiles); 8015(GRO); 8015(DRO); 8270(Semi-volatiles); 8081(Organochlorine Pesticides); 8082(PCBs); 6010 / 7000(Title 22 Metals); TO-15; Arsenic; Lead

Encircle Sample Matrix: (SOIL) SEDIMENT / SLUDGE; SOLIDS / WIPE / FILTER; WATER - DRINKING / GROUND; WATER - STORM / WASTE; AQUEOUS / LAYERED - OIL

Container: TAT; # ; Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7=Canister; Material: 1=Glass; 2=Plastic; 3=Metal

Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4=4C; 5=Zn (Ac)2; 6=NaOH; 7=NA2S2O3

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

ITEM	Lab No.	Sample ID / Location	Date	Time	REMARKS
1	1604997 - 11	FB 10 - 4 - 1.5	12/28/16	0818	
2	-12	FB 10 - 4 - 2.5		0925	
3	-13	FB 6 - 1 - 0.5		0745	
4	-14	FB 6 - 1 - 1.5		0750	
5	-15	FB 6 - 1 - 2.5		0754	
6	-16	FB 6 - 2 - 0.5		0751	
7	-17	FB 6 - 2 - 1.5		0754	
8	-18	FB 6 - 2 - 2.5		0752	
9	-19	FB 6 - 3 - 0.5		0802	
10	-20	FB 6 - 3 - 1.5		0805	

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for five (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Becky Stear — Submitter Print Name — Signature

Relinquished by: (Signature and Printed Name) Becky Stear	Date: 12/28/16	Time: 1700	Received by: (Signature and Printed Name)	Date: 12/29/16	Time: 0900
Relinquished by: (Signature and Printed Name)	Date: 12/28/16	Time:	Received by: (Signature and Printed Name)	Date: 12/28/16	Time: 1835
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 3 of 11

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☐ ATL	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☐
☐ GSO	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other: _____	4. SEALED	☐	☐			

CUSTOMER

Company: Leighton Consulting Inc — Address: 17781 Cowan — Tel: 949-572-8125
City: Irvine — State: CA — Zip: 92614 — Fax:

SEND REPORT TO:
Attn: Julie Harriman — Email: JHarriman@leightongroup.com
Company: same as above
Address:
City: — State: — Zip:

SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Accounts Payable — Email: AcctPayable@leightongroup.com
Company: same as above
Address:
City: — State: — Zip:

PROJECT SAMPLES

Project Name: LAUSD - Burroughs MS
Project No.: 603378.006
Sampler: BGS
Quote No:
PO #: 603378.006
Special Instructions/Comments: 5 FLAG NAPER

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time
1	1C04895-21	FB16-3-2.5		0808
2	-22	FB16-4-0.5		0745
3	-23	FB16-4-1.5		0750
4	-24	FB16-4-2.5		0754
5	-25	FB11-1-0.5		1145
6	-26	FB11-1-1.5		1150
7	-27	FB11-1-2.5		1155
8	-28	FB11-2-0.5		1110
9	-29	FB11-2-1.5		1115
10	-30	FB11-2-2.5		1120

Encircle or Write Requested Analysis: 8260 / 624 (Volatiles); 8015(GRO); 8015(DRO); 8270(Semi-volatiles); 8081(Organochlorine Pesticides); 8082(PCBs); 6010 / 7000(Title 22 Metals); TO-15; Arsenic; VOA

Encircle Sample Matrix: (SOIL) SEDIMENT / SLUDGE; SOLIDS / WIPE / FILTER; WATER - DRINKING / GROUND; WATER - STORM / WASTE; AQUEOUS / LAYERED - OIL

TAT: 5 | Container: # 1 | Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7=Canister: 5 | Material: 1=Glass; 2=Plastic; 3=Metal: 1

Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4=4C; 5=Zn (Ac)2; 6=NaOH; 7=NA2S2O3

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

REMARKS

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for fi ve (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-fi ve (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Becky Steeves — Submitter Print Name — Signature

CUSTODY

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Becky Steeves	12/28/16	1645/1700		12/28/16	1700
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
	12/28/16	1830		12/28/16	1830
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 4 of 11

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☐ ATL	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☐
☐ GSO	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other: _____	4. SEALED	☐	☐			

CUSTOMER

Company: Leighton Consulting Inc
Address: 17781 Cowan
City: Irvine State: CA Zip: 92614
Tel: 949-572-8129 Fax:

SEND REPORT TO:
Attn: Jubie Harriman Email: JHarriman@leightongroup.com
Company: Same as above
Address:
City: State: Zip:

SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Accounts Payable Email: AcctPayable@leightongroup.com
Company: Same as above
Address:
City: State: Zip:

PROJECT SAMPLES

Project Name: LAUSD Burroughs MS
Project No.: 603378.006
Sampler: BS
Quote No:
PO #: 603378.006
Special Instructions/Comments: 5 FLAG Arsenic

Encircle or Write Requested Analysis: 8260 / 624 (Volatiles); 8015(GRO); 8015(DRO); 8270(Semi-volatiles); 8081(Organochlorine Pesticides); 8082(PCBs); 6010 / 7000(Title 22 Metals); TO-15; Arsenic; Lead

Encircle Sample Matrix: SOIL / SEDIMENT / SLUDGE; SOLIDS / WIPE / FILTER; WATER - DRINKING / GROUND; WATER - STORM / WASTE; AQUEOUS / LAYERED - OIL

TAT

Container: # ; Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7= Canister; Material: 1=Glass; 2=Plastic; 3=Metal

Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4 = 4C; 5=Zn ((Ac)2; 6=NaOH; 7=NA2S2O3

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

ITEM	Lab No.	Sample ID / Location	Date	Time	8081	8082	Arsenic	Lead	SOIL	TAT	#	Type	Material	REMARKS
1	1604898-31	FB11-3-0.5	12/28/16	1147	X		X	X	X	5	1	G	J	
2	-32	FB11-3-1.5		1152										
3	-33	FB11-3-2.5		1157										
4	-34	FB11-4-0.5		1117										
5	-35	FB11-4-1.5		1122										
6	-36	FB11-4-2.5		1125										
7	-37	FB12-1-0.5		1049		X								
8	-38	FB12-1-1.5		1053										
9	-39	FB12-1-2.5		1055										
10	-40	FB13-1-0.5		1050										

TERMS & CONDITIONS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for fi ve (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-fi ve (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Becky Shaw — Submitter Print Name — Signature

CUSTODY

	Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
1	Becky Shaw	12/28/16	1445/1700		12/28/16	1700
2		12/28/16	1830		12/28/16	1830
3		Date:	Time:		Date:	Time:

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 5 of 11

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☐ ATL	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☐
☐ GSO	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other: _____	4. SEALED	☐	☐			

CUSTOMER

Company: Leighton Consulting Inc
Address: 17781 Cowan #
City: Irvine State: CA Zip: 92614
Tel: 949-572-8125 Fax:

SEND REPORT TO:
Attn: Jude Harriman Email: JHarriman@leightongroup.com
Company: Same as above
Address:
City: State: Zip:

SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Accounts Payable Email: AcctPayable@leightongroup.com
Company: Same as above
Address:
City: State: Zip:

PROJECT SAMPLES

Project Name: Lasso - Burroughs MS
Project No.: 603378.004
Sampler: BES
Quote No:
PO #: 603378.004
Special Instructions/Comments: J Flag needed

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time
1	1004898-41	FB13-1-1.5	12/28/16	1054
2	-42	FB13-1-2.5		1056
3	-43	FB14-1-0.5		1030
4	-44	FB14-1-1.5		1026
5	-45	FB14-1-2.5		1040
6	-46	FB14-2-0.5		1000
7	-47	FB14-2-1.5		1010
8	-48	FB14-2-2.5		1020
9	-49	FB14-3-0.5		0950
10	-50	FB14-3-1.5		0953

Encircle or Write Requested Analysis: 8260 / 624 (Volatiles); 8015(GRO); 8015(DRO); 8270(Semi-volatiles); 8081(Organochlorine Pesticides) X; 8082(PCBs) X; 6010 / 7000(Title 22 Metals); TO-15; Arsenic X; Lead X

Encircle Sample Matrix: SOLV SEDIMENT / SLUDGE; SOLIDS / WIPE / FILTER; WATER - DRINKING / GROUND; WATER - STORM / WASTE; AQUEOUS / LAYERED - OIL

TAT: 5

Container: # 1; Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7=Canister: S; Material: 1=Glass; 2=Plastic; 3=Metal: S

Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4=4C; 5=Zn (Ac)2; 6=NaOH; 7=NA2S2O3: 1

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

REMARKS

SAMPLE RECEIPT

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for fi ve (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-fi ve (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Becky Skaar — Submitter Print Name
Signature

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Becky Skaar	12/28/16	1645/1700		12/28/16	1700
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
	12/28/16	1830		12/28/16	1830
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 6 of 11

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☐ ATL	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (V0A)	☐	☐	6. PRESERVED	☐	☐
☐ GSO	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other: _____	4. SEALED	☐	☐			

CUSTOMER

Company: Leighton Consulting Inc	Address: 17781 Cowan		Tel: 949-572-8129
SEND REPORT TO:	City: Irvine	State: CA Zip: 92614	Fax:
Attn: Justin Harriman	Email: JHarriman@leightongroup.com		
Company: Same as above			
Address:			
City:	State:	Zip:	

SEND INVOICE TO:	☐ same as SEND REPORT TO
Attn: Accounts Payable	Email: AcctPayable@leightongroup.com
Company:	
Address:	
City:	State: Zip:

PROJECT SAMPLES

Project Name: LAUSD - Burroughs MS	Quote No:	Special Instructions/Comments: J Flag Needed
Project No.: 603378.004	PO #: 603378.004	
Sampler: BS		

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	Pb Lead	TAT	#	Type	Material	REMARKS
1	1604898-51	FB14-3-2.5	12/28/16	0955					X				X	5	1	5	1	
2	-52	FB14-4-0.5		0952														
3	-53	FB14-4-1.5 BS		0954														
4	-54	FB14-4-2.5 BS		0956														
5	-55	FB14-5-0.5		1010														
6	-56	FB14-5-1.5		1015														
7	-57	FB14-5-2.5		1020														
8	-58	FB14-6-0.5		1032						X								
9	-59	FB14-6-1.5		1035														
10	-60	FB14-6-2.5		1038														

Encircle or Write Requested Analysis

Encircle Sample Matrix: SOIL / SEDIMENT / SLUDGE; SOLIDS / WIPE / FILTER; WATER - DRINKING / GROUND; WATER - STORM / WASTE; AQUEOUS / LAYERED - OIL

Container: # | Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7=Canister | Material: 1=Glass; 2=Plastic; 3=Metal

Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4=4C; 5=Zn (Ac)2; 6=NaOH; 7=NAASO3

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for fi ve (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-fi ve (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Becky Skeen — Submitter Print Name

Signature

Relinquished by: (Signature and Printed Name) Becky Skeen	Date: 12/28/16	Time: 1700	Received by: (Signature and Printed Name) FedEx	Date: 12/28/16	Time: 1900
Relinquished by: (Signature and Printed Name) FedEx	Date: 12/28/16	Time: 1830	Received by: (Signature and Printed Name) Fedex	Date: 12/29/16	Time: 1830
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 7 of 11

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☐ ATL	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (V0A)	☐	☐	6. PRESERVED	☐	☐
☐ GSO	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other: _____	4. SEALED	☐	☐			

CUSTOMER

Company: Leighton Consulting Inc
Address: 17781 Cowan
Tel: 949-572-8121
City: Irvine State: CA Zip: 92614 Fax:

SEND REPORT TO:
Attn: BS LAOSD Julie Harriman
Email: JHarriman@leightongroup.com
Company: Same as above
Address:
City: State: Zip:

SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Accounts Payable
Email: AcctPayable@leightongroup.com
Company: Same as above
Address:
City: State: Zip:

PROJECT SAMPLES

Project Name: LAOSD - Burroughs MS
Project No.: 603378.002
Sampler: DES
Quote No:
PO #: 603378.006
Special Instructions/Comments: No lead analysis for EB11-1-2.5, EB11-2-2.5, EB12-1-2.5 JPlay Notified

Encircle or Write Requested Analysis: 8260 / 624 (Volatiles); 8015(GRO); 8015(DRO); 8270(Semi-volatiles); 8081(Organochlorine Pesticides); 8082(PCBs); 6010 / 7000(Title 22 Metals); TO-15; Arsenic 1000

Encircle Sample Matrix: SOIL / SEDIMENT / SLUDGE; SOLIDS / WIPE / FILTER; WATER - DRINKING / GROUND; WATER - STORM / WASTE; AQUEOUS / LAYERED - OIL

Container: TAT; # ; Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7=Canister; Material: 1=Glass; 2=Plastic; 3=Metal; Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4=4C; 5=Zn (Ac)2; 6=NaOH; 7=NA2S2O3

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

ITEM	Lab No.	Sample ID / Location	Date	Time	Soil	TAT	#	Type	Material	REMARKS
1	1604959-01	EB11-1-0.5	12/28/16	1415	X	5	1	5	1	
2	-02	EB11-1-1.5		1420						
3	-03	EB11-1-2.5		1426						BAS
4	-04	EB11-2-0.5		1412						
5	-05	EB11-2-1.5		1418						
6	-06	EB11-2-2.5		1423						BAS
7	-07	EB12-1-0.5		1400						
8	-08	EB12-1-1.5		1405						
9	-09	EB12-1-2.5		1410						BAS
10	-10	EB12-2-0.5	↓	1402	↓	↓	↓	↓	↓	

SAMPLE RECEIPT

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for fi ve (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-fi ve (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Becky Stevens — Submitter Print Name
Signature

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Becky Stevens	12/28/16	1700		12/28/16	1700
	12/28/16	1880		12/28/16	1830

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 8 of 11

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☐ ATL	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☐
☐ GSO	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other: _____	4. SEALED	☐	☐			

CUSTOMER

Company: Leighton Consulting Inc
Address: 17781 Cowan
Tel: 949-572-8129
City: Irvine State: CA Zip: 92614 Fax:

SEND REPORT TO:
Attn: Leighton Cons Julie Harriman Email:
Company:
Address:
City: State: Zip:

SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Accounts PAYABLE Email:
Company:
Address:
City: State: Zip:

PROJECT SAMPLES

Project Name: LA550 - Burroughs MS
Project No.: 603378.002
Sampler: BES
Quote No:
PO #:
Special Instructions/Comments: JFlag Needed

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time
1	1604898-71	EB12-2-1.5	12/28/14	1407
2	-72	EB12-2-2.5		1412
3	-73	EB9-1-0.5		1307
4	-74	EB9-1-1.5		1312
5	-75	EB9-1-2.5		1317
6	-76	EB9-5-0.5		1405
7	-77	EB9-5-1.5		1410
8	-78	EB9-5-2.5		1415
9	-79	EB9-7-0.5		1305
10	-80	EB9-7-1.5		1310

Encircle or Write Requested Analysis: 8260 / 624 (Volatiles); 8015(GRO); 8015(DRO); 8270(Semi-volatiles); 8081(Organochlorine Pesticides); 8082(PCBs); 6010 / 7000(Title 22 Metals); TO-15; LC&A; Airsize

Encircle Sample Matrix: SOIL / SEDIMENT / SLUDGE; SOLIDS / WIPE / FILTER; WATER - DRINKING / GROUND; WATER - STORM / WASTE; AQUEOUS / LAYERED - OIL

TAT	Container #	Container Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7=Canister	Container Material: 1=Glass; 2=Plastic; 3=Metal	Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4=4C; 5=Zn ((Ac)2; 6=NaOH; 7=NA2S2O3	REMARKS
5	1	5	1		
↓	↓	↓	↓		

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for fi ve (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-fi ve (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Becky Shaw — Submitter Print Name — Signature

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Becky Shaw	12/28/14	1700	Matt McCoe/ATL	12/29/14	1700
Matt McCoe/ATL	12/28/14	1830	[illegible]	12/29/14	1830

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 9 of 11

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☐ ATL	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (V0A)	☐	☐	6. PRESERVED	☐	☐
☐ GSO	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other: _____	4. SEALED	☐	☐			

CUSTOMER

Company: Leighton Consulting Inc	Address: 17781 Cowan		Tel: 949-572-8129
	City: Irvine	State: CA Zip: 92614	Fax:

SEND REPORT TO:	SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: John Harriman Email: JHarriman@leightongroup.com	Attn: Email:
Company:	Company:
Address:	Address:
City: State: Zip:	City: State: Zip:

PROJECT SAMPLES

Project Name:	Quote No:	Special Instructions/Comments:
LA650 - Burroughs MS		J Flag needed
Project No.: 603778.006	PO #: 603778.006	
Sampler: BES		

| ITEM | Lab No. | Sample Description: Sample ID / Location | Date | Time | 8260 / 624 (Volatiles) | 8015(GRO) | 8015(DRO) | 8270(Semi-volatiles) | 8081(Organochlorine Pesticides) | 8082(PCBs) | 6010 / 7000(Title 22 Metals) | TO-15 | Lead | Arsenic | | | | |

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 10 of 11

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☐ ATL	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (V0A)	☐	☐	6. PRESERVED	☐	☐
☐ GSO	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other: _____	4. SEALED	☐	☐			

CUSTOMER

Company: Leighton Consulting Inc
Address: 17781 Cowan
City: Irvine State: CA Zip: 92614
Tel:
Fax:

SEND REPORT TO:
Attn: Jute Harriman Email: JHarriman@leightongroup.com
Company:
Address:
City: State: Zip:

SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Email:
Company:
Address:
City: State: Zip:

PROJECT SAMPLES

Project Name: LAWD - Burroughs MS
Project No.: 603373.006
Sampler: BES
Quote No:
PO #: 603373.006
Special Instructions/Comments: 5 FLAG NCGOU

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	1600	Arsenic
1	1612498 -91	EB13-1-2.5	12/28/16	1336					X					X
2	-92	EB13-2-0.5		1326					XX					XX
3	-93	EB13-2-1.5		1331					X					X
4	-94	EB13-2-2.5		1335					X					X
5	-95	EB15-1-0.5		1340					X					X
6	-96	EB15-1-1.5		1345					X					X
7	-97	EB15-1-2.5		1350					X					X
8	-98	EB15-2-0.5		1353										X
9	-99	EB15-2-1.5		1355					X					X
10	-AA	EB15-2-2.5		1400					X					X

Encircle Sample Matrix: SOIL / SEDIMENT / SLUDGE; SOLIDS / WIPE / FILTER; WATER - DRINKING / GROUND; WATER - STORM / WASTE; AQUEOUS / LAYERED - OIL

TAT: 5

Container: # | Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7=Canister | Material: 1=Glass; 2=Plastic; 3=Metal

Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4 = 4C; 5=Zn (Ac)2; 6=NaOH; 7=NA2S2O3

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

REMARKS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for five (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Becky Shaver — Signature

Submitter Print Name

Relinquished by: (Signature and Printed Name) Becky Shaver	Date: 12/28/16	Time: 1700	Received by: (Signature and Printed Name)	Date: 12/28/16	Time: 1700
Relinquished by: (Signature and Printed Name)	Date: 12/28/16	Time: 1830	Received by: (Signature and Printed Name)	Date: 12/28/16	Time: 1830
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 1 of 1

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☐ ATL	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (V0A)	☐	☐	6. PRESERVED	☐	☐
☐ GSO	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other:	4. SEALED	☐	☐			

CUSTOMER

Company: Leighton Consulting Inc. Address: 17781 Cowan Tel: 949-753-9836
City: Irvine State: CA Zip: 92614 Fax: 949-250-1114

SEND REPORT TO:
Attn: Julie Harriman Email: Jharriman@leightongroup.com
Company:
Address: SAme AS Above
City: State: Zip:

SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Acct. Payable Email:
Company:
Address: SAme AS Above
City: State: Zip:

PROJECT SAMPLES

Project Name: LAUSD - Burroughs MS
Project No.: 603378.006
Sampler: KCH/BS
Quote No:
PO #:
Special Instructions/Comments: J Flag Needed

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8083(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	TPH - C6 - C44	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE / FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	Container #	Container Type	Container Material	QA/QC	REMARKS
1	1604494-AB	EB1-1-1.0'	12-28-16	1530									X	X						1	5			
2	-AC	EB1-1-5.0'	↓	1546									X	X						1	5			
3	-AD	EB1-1-10.0'	↓	1603									X	X						1	1			
4																								
5	-AE	EQB122816	12-28-16	1530	X	X	X				X					X			1	8				
6																								
7																								
8																								
9																								
10																								

Encircle or Write Requested Analysis

Encircle Sample Matrix

Container: # | Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7=Canister | Material: 1=Glass; 2=Plastic; 3=Metal

Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4=4C; 5=Zn (Ac)2; 6=NaOH; 7=NA2S2O3

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for fi ve (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-fi ve (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Becky Stewart — Submitter Print Name
Signature

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Becky Stewart	12/28/16	1700	[illegible]	12/28/16	1710
[illegible]	12/28/16	1830	[illegible]	12/28/16	1830
[illegible]	Date:	Time:	[illegible]	Date:	Time:

Page 177 of 184

Carmen Aguila

From: Julie Harriman [jharriman@leightongroup.com]
Sent: Friday, December 30, 2016 3:25 PM
To: Carmen Aguila
Cc: customer.relations@atlglobal.com; Rachelle Arada; Becky Steever
Subject: RE: Burroughs MS-LAUSD, 603378.006
Attachments: correct COC p10 of 11.pdf

Importance: High

Carmen,

We compared the information to our boring logs and have the following solution:

- The jar labeled "EB15-1-0.5 @1353" corresponds to the sample on the COC labeled as "EB15-1-2.5" and the time on the jar is correct. See attached corrected sheet.
- The jar labeled "EB15-2-0.5@1350" is correct. See attached corrected time on the COC.

Thank you,
Julie

From: Carmen Aguila [mailto:Carmen@atlglobal.com]
Sent: Friday, December 30, 2016 1:42 PM
To: Julie Harriman
Cc: customer.relations@atlglobal.com; Rachelle Arada
Subject: RE: Burroughs MS-LAUSD, 603378.006

Okay. Thanks.

I don't know if this will help. Attached is a photo of the samples in question.

Thank you,
Carmen

From: Julie Harriman [mailto:jharriman@leightongroup.com]
Sent: Friday, December 30, 2016 1:37 PM
To: Carmen Aguila
Cc: customer.relations@atlglobal.com; Rachelle Arada
Subject: RE: Burroughs MS-LAUSD, 603378.006

I'm looking into it, but may not have an explanation until end of day.

Thank you,
Julie

From: Carmen Aguila [mailto:Carmen@atlglobal.com]
Sent: Friday, December 30, 2016 10:24 AM
To: Julie Harriman
Cc: customer.relations@atlglobal.com; Rachelle Arada
Subject: Burroughs MS-LAUSD, 603378.006

Hi Julie,

For the samples received 12/28, we do not have a sample labeled EB15-1-2.5 @1350, but we have an extra sample labeled EB15-1-0.5 @1353.

Also, for sample EB15-2-0.5 @1353, the time indicated on the jar is 1350.

Please advise. Attached is a copy of the CoC received.

Thank you,

Carmen Aguila
Sample Control

Advanced Technology Laboratories
www.atlglobal.com
Tel: (562) 989-4045 ext. 245
Fax: (562) 989-4040

Advanced Technology Laboratories is a full-service environmental lab providing organic and inorganic analyses of soil, water, wastewater, storm water and hazardous waste samples. ATL is accredited by the State of California, NELAP and State of Oregon (Air) and holds various SBE, DBE and MBE certificates and a USDA soil permit. ATL takes pride in providing our customers with quick turnaround time, excellent customer service and defensible data while offering very competitive rates. *Advanced Technology Labs - Your Partner for Quality Environmental Testing*

This message is intended for the use of the individual or entity to which it is addressed. This may contain information that is privileged, confidential, and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient, or the employee or agent responsible for delivering the message to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by telephone and delete the original message. Thank you.

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 10 of 11

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATL LOG No. 20170715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☐ ATL	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☐
☐ USPS	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP. deg C		
☐ Other	4. SEALED	☐	☐			

CUSTOMER

Company: Leighton Consulting Inc — Address: 17781 Cowan — Tel:
City: Irvine — State: CA — Zip: 92614 — Fax:

SEND REPORT TO:
Attn: Jutt Harriman — Email: JHarriman@leightongroup.com
Company:
Address:
City: — State: — Zip:

SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: — Email:
Company:
Address:
City: — State: — Zip:

PROJECT SAMPLES

Project Name: LAWP - Burroughs MS
Project No.: 603378.002
Sampler: BES
Quote No:
PO #: 603378.002
Special Instructions/Comments: 5 Flag 1400 Arsenic

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time
1	1612798-91	EB13-1-2.5	12/28/16	1336
2	-92	EB13-2-0.5		1326
3	-93	EB13-2-1.5		1331
4	-94	EB13-2-2.5		1335
5	-95	EB15-1-0.5		1340
6	-96	EB15-1-1.5		1345
7	-97	EB15-1-2.5	JH 1353 ~~1250~~	
8	-98	EB15-2-0.5	JH 1350 ~~1355~~	
9	-99	EB15-2-1.5		1355
10	-100	EB15-2-2.5		1400

Encircle or Write Requested Analysis: 8260 / 624 (Volatiles); 8015(GRO); 8015(DRO); 8270(Semi-volatiles); 8081(Organochlorine Pesticides); 8082(PCBs); 6010 / 7000(Title 22 Metals); TO-15; 1400 Arsenic

Encircle Sample Matrix: SOIL / SEDIMENT / SLUDGE; SOLIDS / WIPE / FILTER; WATER - DRINKING / GROUND; WATER - STORM / WASTE; AQUEOUS / LAYERED - OIL

TAT: 5

Container: # 1; Type: 1=Tube, 2=VOA, 3=Liter, 4=Pint, 5=Jar, 6=Todar, 7=Canister: 1; Material: 1=Glass, 2=Plastic, 3=Metal: 1

Preservative: 1=HCl, 2=HNO3, 3=H2SO4, 4=4C, 5=2n(Ac)2, 6=NaOH, 7=NA2S2O3

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

REMARKS

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday, Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 500% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 300% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 150% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 50% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)

   Weekend, holiday, after-hours work - ask for quote.
   Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab — ask for quote.
   Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
4. Electronic records maintained for five (5) years from report date.
5. Hard copy reports will be disposed of after 45 calendar days from report date.
6. Storage and Report fees:
   Liquid & solid samples: Complimentary storage for forty five (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reformatted report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Becky Steuer — Submitter Print Name — Signature

CUSTODY

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Becky Steuer	12/28/16	1640		12/28/16	1700
	12/28/16	1850		12/28/16	1830

Rachelle Arada

From: Carmen Aguila
Sent: Friday, December 30, 2016 5:55 PM
To: Rachelle Arada
Cc: customer.relations@atlglobal.com; Eddie Rodriguez
Subject: FW: Burroughs MS-LAUSD, 603378.006

Importance: High

Rache,

Please see changes on the CoC received 12/28. Thanks.

Thanks,
Carmen

From: Julie Harriman [mailto:jharriman@leightongroup.com]
Sent: Friday, December 30, 2016 4:17 PM
To: Carmen Aguila
Cc: Becky Steever; Wallace Sconiers
Subject: RE: Burroughs MS-LAUSD, 603378.006
Importance: High

Carmen,

The following samples submitted on 12/28/2016 should be placed on hold:

- EB11-1-2.5
- EB11-2-2.5
- EB12-1-2.5
- EB12-2-2.5
- EB9-1-2.5
- EB9-5-2.5
- EB13-1-2.5
- EB13-2-2.5
- EB15-1-2.5
- EB15-2-2.5

The following samples submitted on 12/28/2016 should be analyzed for Title 22 metals, PAHs by 8270SIM and PCBs and not for what is shown on the COC:

- EB9-7-0.5
- EB9-7-1.5
- EB9-7-2.5

The following sample submitted on 12/28/2016 should be analyzed for lead in addition to what is shown on the COC:

- FB5-1-2.5
- FB5-2-2.5

The following sample submitted on 12/28/2016 should be analyzed for arsenic and OCPs in addition to what is shown on the COC:

- EB15-2-0.5

The following samples **submitted on 12/29/2016** were incorrectly identified as EB15 samples in the field and we would like the samples corrected to be logged and reported as EB5 samples as follows:

- EB15-1-0.5 should be EB5-1-0.5
- EB15-1-1.5 should be EB5-1-1.5
- EB15-1-2.5 should be EB5-1-2.5
- EB15-2-0.5 should be EB5-2-0.5
- EB15-2-1.5 should be EB5-2-1.5
- EB15-2-2.5 should be EB5-2-2.5
- EB15-3-0.5 should be EB5-3-0.5
- EB15-3-1.5 should be EB5-3-1.5
- EB15-3-2.5 should be EB5-3-2.5
- EB15-4-0.5 should be EB5-4-0.5
- EB15-4-1.5 should be EB5-4-1.5
- EB15-4-2.5 should be EB5-4-2.5
- EB15-5-0.5 should be EB5-5-0.5
- EB15-5-1.5 should be EB5-5-1.5
- EB15-5-2.5 should be EB5-5-2.5
- EB15-6-0.5 should be EB5-6-0.5
- EB15-6-1.5 should be EB5-6-1.5
- EB15-6-2.5 should be EB5-6-2.5

Thank you,

Julie C. Harriman, P.E.
Associate Engineer
Leighton
17781 Cowan, Irvine, CA 92614
(949) 681-4264 – Direct
(949) 572-8129 – Cell

Geotechnical | Geoenvironmental | Materials Testing

SOLUTIONS YOU CAN BUILD ON

Please consider the environment before printing this e-mail.

Rachelle Arada

From: Carmen Aguila
Sent: Friday, December 30, 2016 7:30 PM
To: Julie Harriman
Cc: customer.relations@atlglobal.com; Rachelle Arada
Subject: RE: Burroughs MS-LAUSD, 603378.006

Okay.

From: Julie Harriman [mailto:jharriman@leightongroup.com]
Sent: Friday, December 30, 2016 7:25 PM
To: Carmen Aguila
Subject: RE: Burroughs MS-LAUSD, 603378.006

I think we could do OCPs, arsenic and lead at a minimum. If there is enough, TPHcc would be good to get too.
-Julie

Sent from my Verizon 4G LTE smartphone

-------- Original message --------
From: Carmen Aguila <Carmen@atlglobal.com>
Date: 12/30/16 6:19 PM (GMT-08:00)
To: Julie Harriman <jharriman@leightongroup.com>
Cc: Wallace Sconiers <wsconiers@leightongroup.com>, Becky Steever <BSteever@leightongroup.com>, Rachelle Arada <Rachelle@atlglobal.com>, customer.relations@atlglobal.com
Subject: RE: Burroughs MS-LAUSD, 603378.006

Hi Julie,

For the EQB122816 sample, we only received 1-1 L amber container, this can be use for only one of the following test: TPHcc or OCPs/PCBs or PAHs by 8270SIM. Each test need 1-1 L container. Please let us know which one we need to run.

Thank you,
Carmen

From: Julie Harriman [mailto:jharriman@leightongroup.com]
Sent: Friday, December 30, 2016 4:37 PM
To: Carmen Aguila
Cc: Wallace Sconiers; Becky Steever
Subject: RE: Burroughs MS-LAUSD, 603378.006
Importance: High

Carmen,

The following sample submitted on 12/28/2016 should be analyzed for TPHcc, Title 22 metals, OCPs, PAHs by 8270SIM and PCBs and not for what is shown on the COC:

- EQB122816

The following sample submitted on 12/29/2016 should be analyzed for lead, arsenic, OCPs, and PCBs and not for what is shown on the COC:

- EQB-12-29-16

The following sample submitted on 12/29/2016 does not need to be analyzed for PCBs, but is otherwise correct on the COC:

- DRUM1

Thank you,

Julie C. Harriman, P.E.
Associate Engineer
Leighton
17781 Cowan, Irvine, CA 92614
(949) 681-4264 – Direct
(949) 572-8129 – Cell
Geotechnical | Geoenvironmental | Materials Testing
SOLUTIONS YOU CAN BUILD ON

Please consider the environment before printing this e-mail.

ADVANCED TECHNOLOGY LABORATORIES

January 23, 2017

Julie Harriman
Leighton Consulting, Inc.
17781 Cowan Street
Irvine, CA 92614
Tel: (949) 250-1421
Fax:(949) 757-7230

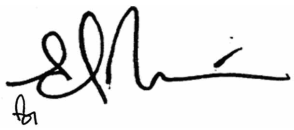
ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1604898
Client Reference : LAUSD-Burroughs MS, 603378.006

Enclosed are the results for sample(s) received on December 28, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,



Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/23/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FB10-1-0.5	1604898-01	Soil	12/28/16 9:10	12/28/16 17:00
FB10-1-1.5	1604898-02	Soil	12/28/16 9:13	12/28/16 17:00
FB10-1-2.5	1604898-03	Soil	12/28/16 9:15	12/28/16 17:00
FB10-2-0.5	1604898-04	Soil	12/28/16 8:50	12/28/16 17:00
FB10-2-1.5	1604898-05	Soil	12/28/16 8:55	12/28/16 17:00
FB10-2-2.5	1604898-06	Soil	12/28/16 9:00	12/28/16 17:00
FB10-3-0.5	1604898-07	Soil	12/28/16 8:22	12/28/16 17:00
FB10-3-1.5	1604898-08	Soil	12/28/16 8:24	12/28/16 17:00
FB16-1-1.5	1604898-14	Soil	12/28/16 7:50	12/28/16 17:00
FB14-4-1.5	1604898-53	Soil	12/28/16 9:54	12/28/16 17:00
EB11-1-0.5	1604898-61	Soil	12/28/16 14:15	12/28/16 17:00
EB11-1-1.5	1604898-62	Soil	12/28/16 14:20	12/28/16 17:00
EB11-2-0.5	1604898-64	Soil	12/28/16 14:12	12/28/16 17:00
EB12-1-0.5	1604898-67	Soil	12/28/16 14:00	12/28/16 17:00
EB12-1-2.5	1604898-69	Soil	12/28/16 14:10	12/28/16 17:00
EB9-1-0.5	1604898-73	Soil	12/28/16 13:07	12/28/16 17:00
EB9-5-0.5	1604898-76	Soil	12/28/16 14:05	12/28/16 17:00
EB9-5-1.5	1604898-77	Soil	12/28/16 14:10	12/28/16 17:00
EB9-7-0.5	1604898-79	Soil	12/28/16 13:05	12/28/16 17:00
EB9-7-1.5	1604898-80	Soil	12/28/16 13:10	12/28/16 17:00
EB10-2-0.5	1604898-82	Soil	12/28/16 14:25	12/28/16 17:00
FB5-1-0.5	1604898-83	Soil	12/28/16 14:35	12/28/16 17:00
FB5-1-1.5	1604898-84	Soil	12/28/16 14:40	12/28/16 17:00
FB5-2-1.5	1604898-87	Soil	12/28/16 14:37	12/28/16 17:00
EB13-1-0.5	1604898-89	Soil	12/28/16 13:25	12/28/16 17:00
EB13-2-0.5	1604898-92	Soil	12/28/16 13:26	12/28/16 17:00
EB15-1-0.5	1604898-95	Soil	12/28/16 13:40	12/28/16 17:00
EB15-1-2.5	1604898-97	Soil	12/28/16 13:53	12/28/16 17:00

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/23/2017

Client Sample ID FB10-1-0.5

Lab ID: 1604898-01

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.7**	1.0	0.70	1	B7A0113	01/05/2017	01/06/17 09:38	
Lead	**17**	1.0	0.11	1	B7A0113	01/05/2017	01/06/17 09:38	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/23/2017

Client Sample ID FB10-1-1.5

Lab ID: 1604898-02

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.6**	1.0	0.70	1	B7A0113	01/05/2017	01/06/17 09:43	
Lead	**8.8**	1.0	0.11	1	B7A0113	01/05/2017	01/06/17 09:43	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/23/2017

Client Sample ID FB10-1-2.5

Lab ID: 1604898-03

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.7**	1.0	0.70	1	B7A0113	01/05/2017	01/06/17 09:44	
Lead	**8.0**	1.0	0.11	1	B7A0113	01/05/2017	01/06/17 09:44	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/23/2017

Client Sample ID FB10-2-0.5

Lab ID: 1604898-04

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.8**	1.0	0.70	1	B7A0113	01/05/2017	01/06/17 09:45	
Lead	**6.8**	1.0	0.11	1	B7A0113	01/05/2017	01/06/17 09:45	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/23/2017

Client Sample ID FB10-2-1.5

Lab ID: 1604898-05

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.7**	1.0	0.70	1	B7A0113	01/05/2017	01/06/17 09:46	
Lead	**3.8**	1.0	0.11	1	B7A0113	01/05/2017	01/06/17 09:46	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/23/2017

Client Sample ID FB10-2-2.5

Lab ID: 1604898-06

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.6**	1.0	0.70	1	B7A0113	01/05/2017	01/06/17 09:50	
Lead	**4.3**	1.0	0.11	1	B7A0113	01/05/2017	01/06/17 09:50	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/23/2017

Client Sample ID FB10-3-0.5

Lab ID: 1604898-07

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.6**	1.0	0.70	1	B7A0113	01/05/2017	01/06/17 09:51	
Lead	**9.1**	1.0	0.11	1	B7A0113	01/05/2017	01/06/17 09:51	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/23/2017

Client Sample ID FB10-3-1.5

Lab ID: 1604898-08

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.3**	1.0	0.70	1	B7A0113	01/05/2017	01/06/17 09:52	
Lead	**4.3**	1.0	0.11	1	B7A0113	01/05/2017	01/06/17 09:52	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/23/2017

Client Sample ID FB16-1-1.5

Lab ID: 1604898-14

TCLP Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	0.25	0.014	5	B7A0565	01/19/2017	01/19/17 16:00	D1

STLC Metals by ICP-AES by EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**1.3**	1.0	0.057	20	B7A0561	01/19/2017	01/19/17 15:08	D1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/23/2017

Client Sample ID FB14-4-1.5

Lab ID: 1604898-53

TCLP Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**3.8**	0.25	0.014	5	B7A0565	01/19/2017	01/19/17 16:02	D1

STLC Metals by ICP-AES by EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**9.9**	1.0	0.057	20	B7A0561	01/19/2017	01/19/17 15:12	D1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/23/2017

Client Sample ID EB11-1-0.5

Lab ID: 1604898-61

STLC Metals by ICP-AES by EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**4.9**	1.0	0.057	20	B7A0561	01/19/2017	01/19/17 15:16	D1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/23/2017

Client Sample ID EB11-1-1.5

Lab ID: 1604898-62

STLC Metals by ICP-AES by EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**3.0**	1.0	0.057	20	B7A0561	01/19/2017	01/19/17 15:20	D1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/23/2017

Client Sample ID EB11-2-0.5

Lab ID: 1604898-64

STLC Metals by ICP-AES by EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**3.9**	1.0	0.057	20	B7A0561	01/19/2017	01/19/17 15:24	D1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/23/2017

Client Sample ID EB12-1-0.5

Lab ID: 1604898-67

STLC Metals by ICP-AES by EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.3**	1.0	0.13	20	B7A0561	01/19/2017	01/19/17 15:28	D1
Lead	**3.2**	1.0	0.057	20	B7A0561	01/19/2017	01/19/17 15:28	D1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/23/2017

Client Sample ID EB12-1-2.5

Lab ID: 1604898-69

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**11**	1.0	0.70	1	B7A0545	01/19/2017	01/19/17 11:44	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/23/2017

Client Sample ID EB9-1-0.5

Lab ID: 1604898-73

TCLP Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**0.38**	0.25	0.014	5	B7A0629	01/21/2017	01/23/17 13:10	D1

STLC Metals by ICP-AES by EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**16**	1.0	0.057	20	B7A0637	01/23/2017	01/23/17 12:39	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/23/2017

Client Sample ID EB9-5-0.5

Lab ID: 1604898-76

STLC Metals by ICP-AES by EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**2.3**	1.0	0.057	20	B7A0637	01/23/2017	01/23/17 12:55	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/23/2017

Client Sample ID EB9-5-1.5

Lab ID: 1604898-77

STLC Metals by ICP-AES by EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**2.1**	1.0	0.057	20	B7A0637	01/23/2017	01/23/17 12:59	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/23/2017

Client Sample ID EB9-7-0.5

Lab ID: 1604898-79

TCLP Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**0.34**	0.25	0.014	5	B7A0565	01/19/2017	01/19/17 16:04	D1

STLC Metals by ICP-AES by EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**12**	1.0	0.057	20	B7A0561	01/19/2017	01/19/17 15:32	D1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/23/2017

Client Sample ID EB9-7-1.5

Lab ID: 1604898-80

TCLP Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**0.036**	0.25	0.014	5	B7A0565	01/19/2017	01/19/17 16:07	D1, J

STLC Metals by ICP-AES by EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**9.3**	1.0	0.057	20	B7A0561	01/19/2017	01/19/17 15:55	D1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/23/2017

Client Sample ID EB10-2-0.5

Lab ID: 1604898-82

TCLP Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	0.25	0.014	5	B7A0565	01/19/2017	01/19/17 16:09	D1

STLC Metals by ICP-AES by EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**7.6**	1.0	0.057	20	B7A0561	01/19/2017	01/19/17 15:59	D1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/23/2017

Client Sample ID FB5-1-0.5

Lab ID: 1604898-83

STLC Metals by ICP-AES by EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**2.9**	1.0	0.057	20	B7A0561	01/19/2017	01/19/17 16:02	D1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/23/2017

Client Sample ID FB5-1-1.5

Lab ID: 1604898-84

STLC Metals by ICP-AES by EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**3.5**	1.0	0.057	20	B7A0561	01/19/2017	01/19/17 16:06	D1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/23/2017

Client Sample ID FB5-2-1.5

Lab ID: 1604898-87

STLC Metals by ICP-AES by EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**3.0**	1.0	0.057	20	B7A0561	01/19/2017	01/19/17 16:10	D1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/23/2017

Client Sample ID EB13-1-0.5

Lab ID: 1604898-89

TCLP Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**0.016**	0.25	0.014	5	B7A0565	01/19/2017	01/19/17 16:11	D1, J

STLC Metals by ICP-AES by EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**6.6**	1.0	0.057	20	B7A0561	01/19/2017	01/19/17 16:14	D1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/23/2017

Client Sample ID EB13-2-0.5

Lab ID: 1604898-92

TCLP Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**0.053**	0.25	0.014	5	B7A0565	01/19/2017	01/19/17 16:14	D1, J

STLC Metals by ICP-AES by EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**11**	1.0	0.057	20	B7A0561	01/19/2017	01/19/17 16:18	D1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/23/2017

Client Sample ID EB15-1-0.5

Lab ID: 1604898-95

STLC Metals by ICP-AES by EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.2**	1.0	0.13	20	B7A0561	01/19/2017	01/19/17 16:30	D1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/23/2017

Client Sample ID EB15-1-2.5

Lab ID: 1604898-97

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**14**	1.0	0.70	1	B7A0545	01/19/2017	01/19/17 11:57	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/23/2017

QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0113 - EPA 3050B_S									
Blank (B7A0113-BLK1)				Prepared: 1/5/2017 Analyzed: 1/6/2017					
Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				
LCS (B7A0113-BS1)				Prepared: 1/5/2017 Analyzed: 1/6/2017					
Arsenic	46.0135	1.0	50.0000		92.0	80 - 120			
Lead	47.5791	1.0	50.0000		95.2	80 - 120			
Duplicate (B7A0113-DUP1)		**Source: 1604898-01**		Prepared: 1/5/2017 Analyzed: 1/6/2017					
Arsenic	2.00522	1.0		1.69899	NR		16.5	20	
Lead	6.56596	1.0		16.6474	NR		86.9	20	R
Matrix Spike (B7A0113-MS1)		**Source: 1604898-01**		Prepared: 1/5/2017 Analyzed: 1/6/2017					
Arsenic	105.374	1.0	125.000	1.69899	82.9	59 - 103			
Lead	123.036	1.0	125.000	16.6474	85.1	34 - 129			
Matrix Spike Dup (B7A0113-MSD1)		**Source: 1604898-01**		Prepared: 1/5/2017 Analyzed: 1/6/2017					
Arsenic	90.6519	1.0	125.000	1.69899	71.2	59 - 103	15.0	20	
Lead	102.365	1.0	125.000	16.6474	68.6	34 - 129	18.3	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/23/2017

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0545 - EPA 3050B_S									
Blank (B7A0545-BLK1)				Prepared: 1/19/2017 Analyzed: 1/19/2017					
Arsenic	ND	1.0			NR				
Lead	0.148873	1.0			NR				J
LCS (B7A0545-BS1)				Prepared: 1/19/2017 Analyzed: 1/19/2017					
Arsenic	43.9499	1.0	50.0000		87.9	80 - 120			
Lead	45.6186	1.0	50.0000		91.2	80 - 120			
Duplicate (B7A0545-DUP1)		**Source: 1604898-69**		Prepared: 1/19/2017 Analyzed: 1/19/2017					
Arsenic	11.6112	1.0		11.2846	NR		2.85	20	
Lead	6.66799	1.0		5.60073	NR		17.4	20	
Matrix Spike (B7A0545-MS1)		**Source: 1604898-69**		Prepared: 1/19/2017 Analyzed: 1/19/2017					
Arsenic	103.128	1.0	125.000	11.2846	73.5	59 - 103			
Lead	99.5272	1.0	125.000	5.60073	75.1	34 - 129			
Matrix Spike Dup (B7A0545-MSD1)		**Source: 1604898-69**		Prepared: 1/19/2017 Analyzed: 1/19/2017					
Arsenic	101.466	1.0	125.000	11.2846	72.1	59 - 103	1.62	20	
Lead	97.8044	1.0	125.000	5.60073	73.8	34 - 129	1.75	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/23/2017

TCLP Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0565 - EPA 3010A_S									
Blank (B7A0565-BLK1)				Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	ND	0.050			NR				
Blank (B7A0565-BLK2)				Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	ND	0.050			NR				
LCS (B7A0565-BS1)				Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	1.00048	0.050	1.00000		100	80 - 120			
Duplicate (B7A0565-DUP1)		**Source: 1700068-97**		Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	0.033328	0.25		0.042393	NR		23.9	20	R, J
Duplicate (B7A0565-DUP2)		**Source: 1604923-17**		Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	0.111112	0.25		0.136256	NR		20.3	20	R, J
Matrix Spike (B7A0565-MS1)		**Source: 1700068-97**		Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	2.36348	0.25	2.50000	0.042393	92.8	78 - 109			
Matrix Spike (B7A0565-MS2)		**Source: 1604923-17**		Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	2.47318	0.25	2.50000	0.136256	93.5	78 - 109			
Matrix Spike Dup (B7A0565-MSD1)		**Source: 1700068-97**		Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	2.29686	0.25	2.50000	0.042393	90.2	78 - 109	2.86	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/23/2017

TCLP Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0629 - EPA 3010A_S									
Blank (B7A0629-BLK1)				Prepared: 1/21/2017 Analyzed: 1/23/2017					
Lead	ND	0.050			NR				
LCS (B7A0629-BS1)				Prepared: 1/21/2017 Analyzed: 1/23/2017					
Lead	0.907456	0.050	1.00000		90.7	80 - 120			
Duplicate (B7A0629-DUP1)		**Source: 1604246-63**		Prepared: 1/21/2017 Analyzed: 1/23/2017					
Lead	0.105580	0.25		0.115129	NR		8.65	20	J
Matrix Spike (B7A0629-MS1)		**Source: 1604246-63**		Prepared: 1/21/2017 Analyzed: 1/23/2017					
Lead	2.32413	0.25	2.50000	0.115129	88.4	78 - 109			
Matrix Spike Dup (B7A0629-MSD1)		**Source: 1604246-63**		Prepared: 1/21/2017 Analyzed: 1/23/2017					
Lead	2.33160	0.25	2.50000	0.115129	88.7	78 - 109	0.321	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/23/2017

STLC Metals by ICP-AES by EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0561 - STLC_S Extraction									
Blank (B7A0561-BLK1)				Prepared: 1/19/2017 Analyzed: 1/19/2017					
Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				
Blank (B7A0561-BLK2)				Prepared: 1/19/2017 Analyzed: 1/19/2017					
Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				
LCS (B7A0561-BS1)				Prepared: 1/19/2017 Analyzed: 1/19/2017					
Arsenic	2.24137		2.00000		112	80 - 120			
Lead	2.14963		2.00000		107	80 - 120			
Duplicate (B7A0561-DUP1)		**Source: 1604898-79**		Prepared: 1/19/2017 Analyzed: 1/19/2017					
Arsenic	0.136005	1.0		ND	NR			20	J
Lead	12.4000	1.0		12.1417	NR		2.11	20	
Duplicate (B7A0561-DUP2)		**Source: 1604921-05**		Prepared: 1/19/2017 Analyzed: 1/19/2017					
Arsenic	0.183837	1.0		0.250542	NR		30.7	20	J
Lead	4.75475	1.0		4.87903	NR		2.58	20	
Matrix Spike (B7A0561-MS1)		**Source: 1604898-79**		Prepared: 1/19/2017 Analyzed: 1/19/2017					
Arsenic	2.68201		2.50000	0.075363	104	90 - 110			
Lead	14.5087		2.50000	12.1417	94.7	44 - 130			
Matrix Spike (B7A0561-MS2)		**Source: 1604921-05**		Prepared: 1/19/2017 Analyzed: 1/19/2017					
Arsenic	2.58076		2.50000	0.250542	93.2	90 - 110			
Lead	6.84500		2.50000	4.87903	78.6	44 - 130			
Matrix Spike Dup (B7A0561-MSD1)		**Source: 1604898-79**		Prepared: 1/19/2017 Analyzed: 1/19/2017					
Arsenic	2.67807		2.50000	0.075363	104	90 - 110	0.147	20	
Lead	14.4485		2.50000	12.1417	92.3	44 - 130	0.416	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/23/2017

STLC Metals by ICP-AES by EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0637 - STLC_S Extraction									
Blank (B7A0637-BLK1)				Prepared: 1/23/2017 Analyzed: 1/23/2017					
Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				
LCS (B7A0637-BS1)				Prepared: 1/23/2017 Analyzed: 1/23/2017					
Arsenic	2.01043		2.00000		101	80 - 120			
Lead	2.02385		2.00000		101	80 - 120			
Duplicate (B7A0637-DUP1)		**Source: 1604898-73**		Prepared: 1/23/2017 Analyzed: 1/23/2017					
Arsenic	ND	1.0		ND	NR			20	
Lead	15.7754	1.0		15.5070	NR		1.72	20	
Matrix Spike (B7A0637-MS1)		**Source: 1604898-73**		Prepared: 1/23/2017 Analyzed: 1/23/2017					
Arsenic	2.51939	1.0	2.50000	ND	101	90 - 110			
Lead	17.1101	1.0	2.50000	15.5070	64.1	44 - 130			
Matrix Spike Dup (B7A0637-MSD1)		**Source: 1604898-73**		Prepared: 1/23/2017 Analyzed: 1/23/2017					
Arsenic	2.50863	1.0	2.50000	ND	100	90 - 110	0.428	20	
Lead	17.3164	1.0	2.50000	15.5070	72.4	44 - 130	1.20	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : LAUSD-Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/23/2017

Notes and Definitions

R	RPD value outside acceptance criteria. Calculation is based on raw values.
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:
(1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
(2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
(3) Results are wet unless otherwise specified.

Rachelle Arada

From: Julie Harriman [jharriman@leightongroup.com]
Sent: Friday, January 13, 2017 10:56 AM
To: Rachelle Arada
Cc: Robert Lovdahl
Subject: Burroughs MS

Rachelle:

Please run the following samples for arsenic by EPA 6010 on standard TAT:

- EB9-6-2.5
- EB12-1-2.5
- EB15-1-2.5

Thank you,
Julie

Julie C. Harriman, P.E.
Associate Engineer
Leighton
17781 Cowan, Irvine, CA 92614
(949) 681-4264 – Direct
(949) 572-8129 – Cell

Geotechnical | Geoenvironmental | Materials Testing

SOLUTIONS YOU CAN BUILD ON

Rachelle Arada

From: Julie Harriman [jharriman@leightongroup.com]
Sent: Friday, January 13, 2017 11:49 AM
To: Rachelle Arada
Cc: Robert Lovdahl
Subject: Burroughs MS Samples

Rachelle:

Please run soil samples that exceeded 50 mg/kg TTLC-lead for STLC-lead.
Please run soil samples that exceeded 100 mg/kg TTLC-lead for TCLP-lead.

There are approximately 34 samples affected. Do you need me to list all the samples?

Thank you,

Julie C. Harriman, P.E.
Associate Engineer
Leighton
17781 Cowan, Irvine, CA 92614
(949) 681-4264 – Direct
(949) 572-8129 – Cell

Geotechnical | Geoenvironmental | Materials Testing

SOLUTIONS YOU CAN BUILD ON

Rachelle Arada

From: Julie Harriman [jharriman@leightongroup.com]
Sent: Monday, January 16, 2017 7:24 AM
To: Rachelle Arada
Subject: RE: Burroughs MS Samples

Hi Rachelle:

I also see the following samples to analyze for the below STLC and TCLP analyses

STLC Pb:

1604921-13 EB8-6-0.5
1604898-14 FB16-1-1.5
1604898-53 FB14-4-1.5
1604898-61 EB11-1-0.5
1604898-62 EB11-1-1.5
1604898-64 EB11-2-0.5
1604898-67 EB12-1-0.5
1604898-73 EB9-1-0.5
1604898-76 EB9-5-0.5
1604898-77 EB9-5-1.5
1604898-79 EB9-7-0.5
1604898-80 EB9-7-1.5
1604898-82 EB10-2-0.5
1604898-83 FB5-1-0.5
1604898-84 FB5-1-1.5
1604898-87 FB5-2-1.5
1604898-89 EB13-1-0.5
1604898-92 EB13-2-0.5

TCLP Pb:

1604898-14 FB16-1-1.5
1604898-53 FB14-4-1.5
1604898-73 EB9-1-0.5
1604898-79 EB9-7-0.5
1604898-80 EB9-7-1.5
1604898-82 EB10-2-0.5
1604898-89 EB13-1-0.5
1604898-92 EB13-2-0.5

STLC Arsenic:

1604898-67 EB12-1-0.5
1604898-95 EB15-1-0.5

Thank you,
Julie

Julie C. Harriman, P.E.
Associate Engineer

ADVANCED TECHNOLOGY LABORATORIES

January 20, 2017

Julie Harriman
Leighton Consulting, Inc.
17781 Cowan Street
Irvine, CA 92614
Tel: (949) 250-1421
Fax:(949) 757-7230

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1604921
Client Reference : Burroughs MS, 603378.006

Enclosed are the results for sample(s) received on December 29, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	01/20/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
EB9-6-1.5	1604921-02	Soil	12/29/16 7:56	12/29/16 16:20
EB9-6-2.5	1604921-03	Soil	12/29/16 7:57	12/29/16 16:20
EB10-1-1.5	1604921-05	Soil	12/29/16 8:01	12/29/16 16:20
EB8-6-0.5	1604921-13	Soil	12/29/16 9:42	12/29/16 16:20
EB5-3-0.5	1604921-37	Soil	12/29/16 12:05	12/29/16 16:20
EB5-4-0.5	1604921-39	Soil	12/29/16 12:00	12/29/16 16:20
EB5-6-1.5	1604921-43	Soil	12/29/16 12:04	12/29/16 16:20

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/20/2017

Client Sample ID EB9-6-1.5

Lab ID: 1604921-02

STLC Metals by ICP-AES by EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**2.9**	1.0	0.057	20	B7A0561	01/19/2017	01/19/17 16:34	D1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/20/2017

Client Sample ID EB9-6-2.5

Lab ID: 1604921-03

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**22**	1.0	0.70	1	B7A0545	01/19/2017	01/19/17 12:00	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/20/2017

Client Sample ID EB10-1-1.5

Lab ID: 1604921-05

STLC Metals by ICP-AES by EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**4.9**	1.0	0.057	20	B7A0561	01/19/2017	01/19/17 16:38	D1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/20/2017

Client Sample ID EB8-6-0.5

Lab ID: 1604921-13

STLC Metals by ICP-AES by EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**0.72**	1.0	0.057	20	B7A0562	01/19/2017	01/19/17 15:31	D1, J

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/20/2017

Client Sample ID EB5-3-0.5

Lab ID: 1604921-37

TCLP Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**0.038**	0.25	0.014	5	B7A0565	01/19/2017	01/19/17 16:20	D1, J

STLC Metals by ICP-AES by EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**7.3**	1.0	0.057	20	B7A0562	01/19/2017	01/19/17 15:32	D1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/20/2017

Client Sample ID EB5-4-0.5

Lab ID: 1604921-39

STLC Metals by ICP-AES by EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**7.7**	1.0	0.057	20	B7A0562	01/19/2017	01/19/17 15:33	D1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/20/2017

Client Sample ID EB5-6-1.5

Lab ID: 1604921-43

STLC Metals by ICP-AES by EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**1.9**	1.0	0.057	20	B7A0562	01/19/2017	01/19/17 15:34	D1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/20/2017

QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0545 - EPA 3050B_S									
Blank (B7A0545-BLK1)				Prepared: 1/19/2017 Analyzed: 1/19/2017					
Arsenic	ND	1.0			NR				
Lead	0.148873	1.0			NR				J
LCS (B7A0545-BS1)				Prepared: 1/19/2017 Analyzed: 1/19/2017					
Arsenic	43.9499	1.0	50.0000		87.9	80 - 120			
Lead	45.6186	1.0	50.0000		91.2	80 - 120			
Duplicate (B7A0545-DUP1)		**Source: 1604898-69**		Prepared: 1/19/2017 Analyzed: 1/19/2017					
Arsenic	11.6112	1.0		11.2846	NR		2.85	20	
Lead	6.66799	1.0		5.60073	NR		17.4	20	
Matrix Spike (B7A0545-MS1)		**Source: 1604898-69**		Prepared: 1/19/2017 Analyzed: 1/19/2017					
Arsenic	103.128	1.0	125.000	11.2846	73.5	59 - 103			
Lead	99.5272	1.0	125.000	5.60073	75.1	34 - 129			
Matrix Spike Dup (B7A0545-MSD1)		**Source: 1604898-69**		Prepared: 1/19/2017 Analyzed: 1/19/2017					
Arsenic	101.466	1.0	125.000	11.2846	72.1	59 - 103	1.62	20	
Lead	97.8044	1.0	125.000	5.60073	73.8	34 - 129	1.75	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/20/2017

TCLP Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0565 - EPA 3010A_S									
Blank (B7A0565-BLK1)				Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	ND	0.050			NR				
Blank (B7A0565-BLK2)				Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	ND	0.050			NR				
LCS (B7A0565-BS1)				Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	1.00048	0.050	1.00000		100	80 - 120			
Duplicate (B7A0565-DUP1)		**Source: 1700068-97**		Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	0.033328	0.25		0.042393	NR		23.9	20	R, J
Duplicate (B7A0565-DUP2)		**Source: 1604923-17**		Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	0.111112	0.25		0.136256	NR		20.3	20	R, J
Matrix Spike (B7A0565-MS1)		**Source: 1700068-97**		Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	2.36348	0.25	2.50000	0.042393	92.8	78 - 109			
Matrix Spike (B7A0565-MS2)		**Source: 1604923-17**		Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	2.47318	0.25	2.50000	0.136256	93.5	78 - 109			
Matrix Spike Dup (B7A0565-MSD1)		**Source: 1700068-97**		Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	2.29686	0.25	2.50000	0.042393	90.2	78 - 109	2.86	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/20/2017

STLC Metals by ICP-AES by EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0561 - STLC_S Extraction									
Blank (B7A0561-BLK1)				Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	ND	1.0			NR				
Blank (B7A0561-BLK2)				Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	ND	1.0			NR				
LCS (B7A0561-BS1)				Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	2.14963		2.00000		107	80 - 120			
Duplicate (B7A0561-DUP1)		**Source: 1604898-79**		Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	12.4000	1.0		12.1417	NR		2.11	20	
Duplicate (B7A0561-DUP2)		**Source: 1604921-05**		Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	4.75475	1.0		4.87903	NR		2.58	20	
Matrix Spike (B7A0561-MS1)		**Source: 1604898-79**		Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	14.5087		2.50000	12.1417	94.7	44 - 130			
Matrix Spike (B7A0561-MS2)		**Source: 1604921-05**		Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	6.84500		2.50000	4.87903	78.6	44 - 130			
Matrix Spike Dup (B7A0561-MSD1)		**Source: 1604898-79**		Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	14.4485		2.50000	12.1417	92.3	44 - 130	0.416	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/20/2017

STLC Metals by ICP-AES by EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0562 - STLC_S Extraction									
Blank (B7A0562-BLK1)				Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	ND	1.0			NR				
Blank (B7A0562-BLK2)				Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	ND	1.0			NR				
LCS (B7A0562-BS1)				Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	1.95830		2.00000		97.9	80 - 120			
Duplicate (B7A0562-DUP1)		**Source: 1604923-17**		Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	7.36136	1.0		6.66843	NR		9.88	20	
Duplicate (B7A0562-DUP2)		**Source: 1700068-16**		Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	1.54080	1.0		1.54702	NR		0.403	20	
Matrix Spike (B7A0562-MS1)		**Source: 1604923-17**		Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	8.64934		2.50000	6.66843	79.2	44 - 130			
Matrix Spike (B7A0562-MS2)		**Source: 1700068-16**		Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	3.83305		2.50000	1.54702	91.4	44 - 130			
Matrix Spike Dup (B7A0562-MSD1)		**Source: 1604923-17**		Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	8.89759		2.50000	6.66843	89.2	44 - 130	2.83	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/20/2017

Notes and Definitions

R	RPD value outside acceptance criteria. Calculation is based on raw values.
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:
(1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
(2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
(3) Results are wet unless otherwise specified.

Rachelle Arada

From: Julie Harriman [jharriman@leightongroup.com]
Sent: Friday, January 13, 2017 10:56 AM
To: Rachelle Arada
Cc: Robert Lovdahl
Subject: Burroughs MS

Rachelle:

Please run the following samples for arsenic by EPA 6010 on standard TAT:

- EB9-6-2.5
- EB12-1-2.5
- EB15-1-2.5

Thank you,
Julie

Julie C. Harriman, P.E.
Associate Engineer
Leighton
17781 Cowan, Irvine, CA 92614
(949) 681-4264 – Direct
(949) 572-8129 – Cell

Geotechnical | Geoenvironmental | Materials Testing

SOLUTIONS YOU CAN BUILD ON

Rachelle Arada

From: Julie Harriman [jharriman@leightongroup.com]
Sent: Friday, January 13, 2017 11:49 AM
To: Rachelle Arada
Cc: Robert Lovdahl
Subject: Burroughs MS Samples

Rachelle:

Please run soil samples that exceeded 50 mg/kg TTLC-lead for STLC-lead.
Please run soil samples that exceeded 100 mg/kg TTLC-lead for TCLP-lead.

There are approximately 34 samples affected. Do you need me to list all the samples?

Thank you,

Julie C. Harriman, P.E.
Associate Engineer
Leighton
17781 Cowan, Irvine, CA 92614
(949) 681-4264 – Direct
(949) 572-8129 – Cell

Geotechnical | Geoenvironmental | Materials Testing

SOLUTIONS YOU CAN BUILD ON

Rachelle Arada

From: Julie Harriman [jharriman@leightongroup.com]
Sent: Monday, January 16, 2017 7:24 AM
To: Rachelle Arada
Subject: RE: Burroughs MS Samples

Hi Rachelle:

I also see the following samples to analyze for the below STLC and TCLP analyses

STLC Pb:

1604921-13 EB8-6-0.5
1604898-14 FB16-1-1.5
1604898-53 FB14-4-1.5
1604898-61 EB11-1-0.5
1604898-62 EB11-1-1.5
1604898-64 EB11-2-0.5
1604898-67 EB12-1-0.5
1604898-73 EB9-1-0.5
1604898-76 EB9-5-0.5
1604898-77 EB9-5-1.5
1604898-79 EB9-7-0.5
1604898-80 EB9-7-1.5
1604898-82 EB10-2-0.5
1604898-83 FB5-1-0.5
1604898-84 FB5-1-1.5
1604898-87 FB5-2-1.5
1604898-89 EB13-1-0.5
1604898-92 EB13-2-0.5

TCLP Pb:

1604898-14 FB16-1-1.5
1604898-53 FB14-4-1.5
1604898-73 EB9-1-0.5
1604898-79 EB9-7-0.5
1604898-80 EB9-7-1.5
1604898-82 EB10-2-0.5
1604898-89 EB13-1-0.5
1604898-92 EB13-2-0.5

STLC Arsenic:

1604898-67 EB12-1-0.5
1604898-95 EB15-1-0.5

Thank you,
Julie

Julie C. Harriman, P.E.
Associate Engineer

ADVANCED TECHNOLOGY LABORATORIES

January 16, 2017

Julie Harriman
Leighton Consulting, Inc.
17781 Cowan Street
Irvine, CA 92614
Tel: (949) 250-1421
Fax:(949) 757-7230

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

RE: ATL Work Order Number : 1604921
Client Reference : Burroughs MS, 603378.006

Enclosed are the results for sample(s) received on December, 29 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
EB9-6-0.5	1604921-01	Soil	12/29/16 7:55	12/29/16 16:20
EB9-6-1.5	1604921-02	Soil	12/29/16 7:56	12/29/16 16:20
EB9-6-2.5	1604921-03	Soil	12/29/16 7:57	12/29/16 16:20
EB10-1-0.5	1604921-04	Soil	12/29/16 8:00	12/29/16 16:20
EB10-1-1.5	1604921-05	Soil	12/29/16 8:01	12/29/16 16:20
EB9-4-0.5	1604921-07	Soil	12/29/16 9:12	12/29/16 16:20
EB9-4-1.5	1604921-08	Soil	12/29/16 9:14	12/29/16 16:20
EB8-1-0.5	1604921-10	Soil	12/29/16 9:39	12/29/16 16:20
EB8-1-1.5	1604921-11	Soil	12/29/16 9:40	12/29/16 16:20
EB8-6-0.5	1604921-13	Soil	12/29/16 9:42	12/29/16 16:20
EB8-6-1.5	1604921-14	Soil	12/29/16 9:43	12/29/16 16:20
EB8-5-0.5	1604921-16	Soil	12/29/16 9:45	12/29/16 16:20
EB8-5-1.5	1604921-17	Soil	12/29/16 9:46	12/29/16 16:20
EB8-4-0.5	1604921-19	Soil	12/29/16 9:53	12/29/16 16:20
EB8-4-1.5	1604921-20	Soil	12/29/16 9:54	12/29/16 16:20
EB8-3-0.5	1604921-22	Soil	12/29/16 10:20	12/29/16 16:20
EB8-3-1.5	1604921-23	Soil	12/29/16 10:21	12/29/16 16:20
EB8-2-0.5	1604921-25	Soil	12/29/16 10:30	12/29/16 16:20
EB8-2-1.5	1604921-26	Soil	12/29/16 10:31	12/29/16 16:20
EB6-1-0.5	1604921-28	Soil	12/29/16 11:10	12/29/16 16:20
EB6-1-1.5	1604921-29	Soil	12/29/16 11:15	12/29/16 16:20
EB9-3-0.5	1604921-31	Soil	12/29/16 11:20	12/29/16 16:20
EB9-3-1.5	1604921-32	Soil	12/29/16 11:21	12/29/16 16:20
EB9-2-0.5	1604921-34	Soil	12/29/16 11:29	12/29/16 16:20
EB9-2-1.5	1604921-35	Soil	12/29/16 11:30	12/29/16 16:20
EB5-3-0.5	1604921-37	Soil	12/29/16 12:05	12/29/16 16:20
EB5-3-1.0	1604921-38	Soil	12/29/16 12:06	12/29/16 16:20
EB5-4-0.5	1604921-39	Soil	12/29/16 12:00	12/29/16 16:20
EB5-4-1.5	1604921-40	Soil	12/29/16 12:01	12/29/16 16:20
EB5-6-0.5	1604921-42	Soil	12/29/16 12:03	12/29/16 16:20
EB5-6-1.5	1604921-43	Soil	12/29/16 12:04	12/29/16 16:20
EB16-2-0.5	1604921-45	Soil	12/29/16 12:10	12/29/16 16:20
EB16-2-1.5	1604921-46	Soil	12/29/16 12:11	12/29/16 16:20
EB5-5-0.5	1604921-48	Soil	12/29/16 13:19	12/29/16 16:20
EB5-5-1.5	1604921-49	Soil	12/29/16 13:20	12/29/16 16:20
EB6-2-0.5	1604921-51	Soil	12/29/16 13:11	12/29/16 16:20
EB6-2-1.5	1604921-52	Soil	12/29/16 13:12	12/29/16 16:20

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

EB5-2-0.5	1604921-54	Soil	12/29/16 13:14	12/29/16 16:20
EB5-2-1.5	1604921-55	Soil	12/29/16 13:15	12/29/16 16:20
EB16-3-0.5	1604921-57	Soil	12/29/16 13:17	12/29/16 16:20
EB16-3-1.5	1604921-58	Soil	12/29/16 13:18	12/29/16 16:20
EB22-2-0.5	1604921-60	Soil	12/29/16 13:55	12/29/16 16:20
EB22-2-1.5	1604921-61	Soil	12/29/16 13:56	12/29/16 16:20
EB24-6-0.5	1604921-63	Soil	12/29/16 13:58	12/29/16 16:20
EB24-6-1.5	1604921-64	Soil	12/29/16 13:59	12/29/16 16:20
EB3-2-0.5	1604921-66	Soil	12/29/16 14:02	12/29/16 16:20
EB3-2-1.5	1604921-67	Soil	12/29/16 14:03	12/29/16 16:20
EB5-1-0.5	1604921-69	Soil	12/29/16 14:47	12/29/16 16:20
EB5-1-1.5	1604921-70	Soil	12/29/16 14:48	12/29/16 16:20
EB24-1-0.5	1604921-72	Soil	12/29/16 15:07	12/29/16 16:20
EB24-1-1.5	1604921-73	Soil	12/29/16 15:08	12/29/16 16:20
EB24-2-0.5	1604921-75	Soil	12/29/16 14:28	12/29/16 16:20
EB24-2-1.5	1604921-76	Soil	12/29/16 14:29	12/29/16 16:20
EB24-3-0.5	1604921-78	Soil	12/29/16 14:31	12/29/16 16:20
EB24-3-1.5	1604921-79	Soil	12/29/16 14:32	12/29/16 16:20
EB25-3-0.5	1604921-81	Soil	12/29/16 14:35	12/29/16 16:20
EB25-3-1.5	1604921-82	Soil	12/29/16 14:36	12/29/16 16:20
EB23-3-0.5	1604921-84	Soil	12/29/16 14:43	12/29/16 16:20
EB23-3-1.5	1604921-85	Soil	12/29/16 14:45	12/29/16 16:20
DRUM1	1604921-87	Soil	12/29/16 15:20	12/29/16 16:20
EQB-12-29-16	1604921-88	Water	12/29/16 15:45	12/29/16 16:20

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB9-6-0.5
Lab ID: 1604921-01

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**40**	1.0	0.70	1	B7A0229	01/09/2017	01/10/17 10:11	
Lead	**34**	1.0	0.11	1	B7A0229	01/09/2017	01/10/17 10:11	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	20	2.2	10	B7A0197	01/06/2017	01/11/17 11:04	D1
4,4´-DDE	ND	20	2.0	10	B7A0197	01/06/2017	01/11/17 11:04	D1
4,4´-DDT	ND	20	1.3	10	B7A0197	01/06/2017	01/11/17 11:04	D1
Aldrin	ND	10	2.7	10	B7A0197	01/06/2017	01/11/17 11:04	D1
alpha-BHC	ND	10	2.0	10	B7A0197	01/06/2017	01/11/17 11:04	D1
alpha-Chlordane	ND	10	2.1	10	B7A0197	01/06/2017	01/11/17 11:04	D1
beta-BHC	ND	10	2.3	10	B7A0197	01/06/2017	01/11/17 11:04	D1
Chlordane	ND	85	9.0	10	B7A0197	01/06/2017	01/11/17 11:04	D1
delta-BHC	ND	10	2.1	10	B7A0197	01/06/2017	01/11/17 11:04	D1
Dieldrin	ND	20	2.5	10	B7A0197	01/06/2017	01/11/17 11:04	D1
Endosulfan I	ND	10	2.1	10	B7A0197	01/06/2017	01/11/17 11:04	D1
Endosulfan II	ND	20	2.2	10	B7A0197	01/06/2017	01/11/17 11:04	D1
Endosulfan sulfate	ND	20	2.1	10	B7A0197	01/06/2017	01/11/17 11:04	D1
Endrin	ND	20	2.3	10	B7A0197	01/06/2017	01/11/17 11:04	D1
Endrin aldehyde	ND	20	2.8	10	B7A0197	01/06/2017	01/11/17 11:04	D1
Endrin ketone	ND	20	2.0	10	B7A0197	01/06/2017	01/11/17 11:04	D1
gamma-BHC	ND	10	2.0	10	B7A0197	01/06/2017	01/11/17 11:04	D1
gamma-Chlordane	ND	10	2.3	10	B7A0197	01/06/2017	01/11/17 11:04	D1
Heptachlor	ND	10	1.9	10	B7A0197	01/06/2017	01/11/17 11:04	D1
Heptachlor epoxide	ND	10	2.0	10	B7A0197	01/06/2017	01/11/17 11:04	D1
Methoxychlor	ND	50	1.8	10	B7A0197	01/06/2017	01/11/17 11:04	D1
Toxaphene	ND	500	82	10	B7A0197	01/06/2017	01/11/17 11:04	D1
Surrogate: Decachlorobiphenyl	*41.9 %*		*27 - 123*		B7A0197	01/06/2017	*01/11/17 11:04*	
Surrogate: Tetrachloro-m-xylene	*43.5 %*		*26 - 108*		B7A0197	01/06/2017	*01/11/17 11:04*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB9-6-0.5

Lab ID: 1604921-01

Polychlorinated Biphenyls by EPA 8082 **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B7A0176	01/06/2017	01/07/17 09:41	
Aroclor 1221	ND	16	1.5	1	B7A0176	01/06/2017	01/07/17 09:41	
Aroclor 1232	ND	16	1.5	1	B7A0176	01/06/2017	01/07/17 09:41	
Aroclor 1242	ND	16	1.5	1	B7A0176	01/06/2017	01/07/17 09:41	
Aroclor 1248	ND	16	1.5	1	B7A0176	01/06/2017	01/07/17 09:41	
Aroclor 1254	ND	16	1.5	1	B7A0176	01/06/2017	01/07/17 09:41	
Aroclor 1260	**3.7**	16	1.5	1	B7A0176	01/06/2017	01/07/17 09:41	J
Aroclor 1262	ND	16	1.5	1	B7A0176	01/06/2017	01/07/17 09:41	
Aroclor 1268	ND	16	1.5	1	B7A0176	01/06/2017	01/07/17 09:41	
Surrogate: Decachlorobiphenyl	*83.6 %*	*26 - 137*			B7A0176	01/06/2017	*01/07/17 09:41*	
Surrogate: Tetrachloro-m-xylene	*103 %*	*28 - 102*			B7A0176	01/06/2017	*01/07/17 09:41*	S12

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB9-6-1.5
Lab ID: 1604921-02

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**18**	1.0	0.70	1	B7A0229	01/09/2017	01/10/17 10:12	
Lead	**54**	1.0	0.11	1	B7A0229	01/09/2017	01/10/17 10:12	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	100	11	50	B7A0197	01/06/2017	01/11/17 12:40	D1
4,4´-DDE	ND	100	9.8	50	B7A0197	01/06/2017	01/11/17 12:40	D1
4,4´-DDT	ND	100	6.7	50	B7A0197	01/06/2017	01/11/17 12:40	D1
Aldrin	ND	50	13	50	B7A0197	01/06/2017	01/11/17 12:40	D1
alpha-BHC	ND	50	9.9	50	B7A0197	01/06/2017	01/11/17 12:40	D1
alpha-Chlordane	ND	50	11	50	B7A0197	01/06/2017	01/11/17 12:40	D1
beta-BHC	ND	50	11	50	B7A0197	01/06/2017	01/11/17 12:40	D1
Chlordane	ND	420	45	50	B7A0197	01/06/2017	01/11/17 12:40	D1
delta-BHC	ND	50	10	50	B7A0197	01/06/2017	01/11/17 12:40	D1
Dieldrin	ND	100	12	50	B7A0197	01/06/2017	01/11/17 12:40	D1
Endosulfan I	ND	50	11	50	B7A0197	01/06/2017	01/11/17 12:40	D1
Endosulfan II	ND	100	11	50	B7A0197	01/06/2017	01/11/17 12:40	D1
Endosulfan sulfate	ND	100	11	50	B7A0197	01/06/2017	01/11/17 12:40	D1
Endrin	ND	100	11	50	B7A0197	01/06/2017	01/11/17 12:40	D1
Endrin aldehyde	ND	100	14	50	B7A0197	01/06/2017	01/11/17 12:40	D1
Endrin ketone	ND	100	10	50	B7A0197	01/06/2017	01/11/17 12:40	D1
gamma-BHC	ND	50	10	50	B7A0197	01/06/2017	01/11/17 12:40	D1
gamma-Chlordane	ND	50	11	50	B7A0197	01/06/2017	01/11/17 12:40	D1
Heptachlor	ND	50	9.5	50	B7A0197	01/06/2017	01/11/17 12:40	D1
Heptachlor epoxide	ND	50	10	50	B7A0197	01/06/2017	01/11/17 12:40	D1
Methoxychlor	ND	250	8.9	50	B7A0197	01/06/2017	01/11/17 12:40	D1
Toxaphene	ND	2500	410	50	B7A0197	01/06/2017	01/11/17 12:40	D1
Surrogate: Decachlorobiphenyl	*0%*		*27 - 123*		B7A0197	01/06/2017	*01/11/17 12:40*	S4
Surrogate: Tetrachloro-m-xylene	*0%*		*26 - 108*		B7A0197	01/06/2017	*01/11/17 12:40*	S4

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB10-1-0.5
Lab ID: 1604921-04

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**3.0**	1.0	0.70	1	B7A0229	01/09/2017	01/10/17 10:13	
Lead	**25**	1.0	0.11	1	B7A0229	01/09/2017	01/10/17 10:13	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	100	11	50	B7A0197	01/06/2017	01/11/17 12:50	D1
4,4´-DDE	ND	100	9.8	50	B7A0197	01/06/2017	01/11/17 12:50	D1
4,4´-DDT	ND	100	6.7	50	B7A0197	01/06/2017	01/11/17 12:50	D1
Aldrin	ND	50	13	50	B7A0197	01/06/2017	01/11/17 12:50	D1
alpha-BHC	ND	50	9.9	50	B7A0197	01/06/2017	01/11/17 12:50	D1
alpha-Chlordane	ND	50	11	50	B7A0197	01/06/2017	01/11/17 12:50	D1
beta-BHC	ND	50	11	50	B7A0197	01/06/2017	01/11/17 12:50	D1
Chlordane	ND	420	45	50	B7A0197	01/06/2017	01/11/17 12:50	D1
delta-BHC	ND	50	10	50	B7A0197	01/06/2017	01/11/17 12:50	D1
Dieldrin	ND	100	12	50	B7A0197	01/06/2017	01/11/17 12:50	D1
Endosulfan I	ND	50	11	50	B7A0197	01/06/2017	01/11/17 12:50	D1
Endosulfan II	ND	100	11	50	B7A0197	01/06/2017	01/11/17 12:50	D1
Endosulfan sulfate	ND	100	11	50	B7A0197	01/06/2017	01/11/17 12:50	D1
Endrin	ND	100	11	50	B7A0197	01/06/2017	01/11/17 12:50	D1
Endrin aldehyde	ND	100	14	50	B7A0197	01/06/2017	01/11/17 12:50	D1
Endrin ketone	ND	100	10	50	B7A0197	01/06/2017	01/11/17 12:50	D1
gamma-BHC	ND	50	10	50	B7A0197	01/06/2017	01/11/17 12:50	D1
gamma-Chlordane	ND	50	11	50	B7A0197	01/06/2017	01/11/17 12:50	D1
Heptachlor	ND	50	9.5	50	B7A0197	01/06/2017	01/11/17 12:50	D1
Heptachlor epoxide	ND	50	10	50	B7A0197	01/06/2017	01/11/17 12:50	D1
Methoxychlor	ND	250	8.9	50	B7A0197	01/06/2017	01/11/17 12:50	D1
Toxaphene	ND	2500	410	50	B7A0197	01/06/2017	01/11/17 12:50	D1
Surrogate: Decachlorobiphenyl	*0%*		*27 - 123*		B7A0197	01/06/2017	*01/11/17 12:50*	S4
Surrogate: Tetrachloro-m-xylene	*0%*		*26 - 108*		B7A0197	01/06/2017	*01/11/17 12:50*	S4

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB10-1-1.5
Lab ID: 1604921-05

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**3.8**	1.0	0.70	1	B7A0229	01/09/2017	01/10/17 10:14	
Lead	**58**	1.0	0.11	1	B7A0229	01/09/2017	01/10/17 10:14	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	20	2.2	10	B7A0197	01/06/2017	01/11/17 11:36	D1
4,4´-DDE	ND	20	2.0	10	B7A0197	01/06/2017	01/11/17 11:36	D1
4,4´-DDT	ND	20	1.3	10	B7A0197	01/06/2017	01/11/17 11:36	D1
Aldrin	ND	10	2.7	10	B7A0197	01/06/2017	01/11/17 11:36	D1
alpha-BHC	ND	10	2.0	10	B7A0197	01/06/2017	01/11/17 11:36	D1
alpha-Chlordane	ND	10	2.1	10	B7A0197	01/06/2017	01/11/17 11:36	D1
beta-BHC	ND	10	2.3	10	B7A0197	01/06/2017	01/11/17 11:36	D1
Chlordane	ND	85	9.0	10	B7A0197	01/06/2017	01/11/17 11:36	D1
delta-BHC	ND	10	2.1	10	B7A0197	01/06/2017	01/11/17 11:36	D1
Dieldrin	ND	20	2.5	10	B7A0197	01/06/2017	01/11/17 11:36	D1
Endosulfan I	ND	10	2.1	10	B7A0197	01/06/2017	01/11/17 11:36	D1
Endosulfan II	ND	20	2.2	10	B7A0197	01/06/2017	01/11/17 11:36	D1
Endosulfan sulfate	ND	20	2.1	10	B7A0197	01/06/2017	01/11/17 11:36	D1
Endrin	ND	20	2.3	10	B7A0197	01/06/2017	01/11/17 11:36	D1
Endrin aldehyde	ND	20	2.8	10	B7A0197	01/06/2017	01/11/17 11:36	D1
Endrin ketone	ND	20	2.0	10	B7A0197	01/06/2017	01/11/17 11:36	D1
gamma-BHC	ND	10	2.0	10	B7A0197	01/06/2017	01/11/17 11:36	D1
gamma-Chlordane	ND	10	2.3	10	B7A0197	01/06/2017	01/11/17 11:36	D1
Heptachlor	ND	10	1.9	10	B7A0197	01/06/2017	01/11/17 11:36	D1
Heptachlor epoxide	ND	10	2.0	10	B7A0197	01/06/2017	01/11/17 11:36	D1
Methoxychlor	ND	50	1.8	10	B7A0197	01/06/2017	01/11/17 11:36	D1
Toxaphene	ND	500	82	10	B7A0197	01/06/2017	01/11/17 11:36	D1
Surrogate: Decachlorobiphenyl	*71.9 %*		*27 - 123*		B7A0197	01/06/2017	*01/11/17 11:36*	
Surrogate: Tetrachloro-m-xylene	*76.4 %*		*26 - 108*		B7A0197	01/06/2017	*01/11/17 11:36*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB9-4-0.5
Lab ID: 1604921-07

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.9**	1.0	0.70	1	B7A0229	01/09/2017	01/10/17 10:15	
Lead	**28**	1.0	0.11	1	B7A0229	01/09/2017	01/10/17 10:15	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	10	1.1	5	B7A0197	01/06/2017	01/09/17 12:31	D1
4,4´-DDE	ND	10	0.98	5	B7A0197	01/06/2017	01/09/17 12:31	D1
4,4´-DDT	ND	10	0.67	5	B7A0197	01/06/2017	01/09/17 12:31	D1
Aldrin	ND	5.0	1.3	5	B7A0197	01/06/2017	01/09/17 12:31	D1
alpha-BHC	ND	5.0	0.99	5	B7A0197	01/06/2017	01/09/17 12:31	D1
alpha-Chlordane [2C]	**4.9**	5.0	1.1	5	B7A0197	01/06/2017	01/09/17 12:31	D1, J
beta-BHC	ND	5.0	1.1	5	B7A0197	01/06/2017	01/09/17 12:31	D1
Chlordane [2C]	**38**	42	4.5	5	B7A0197	01/06/2017	01/09/17 12:31	D1, J
delta-BHC	ND	5.0	1.0	5	B7A0197	01/06/2017	01/09/17 12:31	D1
Dieldrin	ND	10	1.2	5	B7A0197	01/06/2017	01/09/17 12:31	D1
Endosulfan I	ND	5.0	1.1	5	B7A0197	01/06/2017	01/09/17 12:31	D1
Endosulfan II	ND	10	1.1	5	B7A0197	01/06/2017	01/09/17 12:31	D1
Endosulfan sulfate	ND	10	1.1	5	B7A0197	01/06/2017	01/09/17 12:31	D1
Endrin	ND	10	1.1	5	B7A0197	01/06/2017	01/09/17 12:31	D1
Endrin aldehyde	ND	10	1.4	5	B7A0197	01/06/2017	01/09/17 12:31	D1
Endrin ketone	ND	10	1.0	5	B7A0197	01/06/2017	01/09/17 12:31	D1
gamma-BHC	ND	5.0	1.0	5	B7A0197	01/06/2017	01/09/17 12:31	D1
gamma-Chlordane	**5.5**	5.0	1.1	5	B7A0197	01/06/2017	01/09/17 12:31	D1
Heptachlor	ND	5.0	0.95	5	B7A0197	01/06/2017	01/09/17 12:31	D1
Heptachlor epoxide	**1.5**	5.0	1.0	5	B7A0197	01/06/2017	01/09/17 12:31	D1, J
Methoxychlor	ND	25	0.89	5	B7A0197	01/06/2017	01/09/17 12:31	D1
Toxaphene	ND	250	41	5	B7A0197	01/06/2017	01/09/17 12:31	D1
Surrogate: Decachlorobiphenyl	*64.2 %*	*27 - 123*			B7A0197	01/06/2017	*01/09/17 12:31*	
Surrogate: Tetrachloro-m-xylene	*44.3 %*	*26 - 108*			B7A0197	01/06/2017	*01/09/17 12:31*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB9-4-1.5
Lab ID: 1604921-08

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.5**	1.0	0.70	1	B7A0229	01/09/2017	01/10/17 10:16	
Lead	**12**	1.0	0.11	1	B7A0229	01/09/2017	01/10/17 10:16	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	20	2.2	10	B7A0197	01/06/2017	01/11/17 11:46	D1
4,4´-DDE	ND	20	2.0	10	B7A0197	01/06/2017	01/11/17 11:46	D1
4,4´-DDT	ND	20	1.3	10	B7A0197	01/06/2017	01/11/17 11:46	D1
Aldrin	ND	10	2.7	10	B7A0197	01/06/2017	01/11/17 11:46	D1
alpha-BHC	ND	10	2.0	10	B7A0197	01/06/2017	01/11/17 11:46	D1
alpha-Chlordane	ND	10	2.1	10	B7A0197	01/06/2017	01/11/17 11:46	D1
beta-BHC	ND	10	2.3	10	B7A0197	01/06/2017	01/11/17 11:46	D1
Chlordane	ND	85	9.0	10	B7A0197	01/06/2017	01/11/17 11:46	D1
delta-BHC	ND	10	2.1	10	B7A0197	01/06/2017	01/11/17 11:46	D1
Dieldrin	ND	20	2.5	10	B7A0197	01/06/2017	01/11/17 11:46	D1
Endosulfan I	ND	10	2.1	10	B7A0197	01/06/2017	01/11/17 11:46	D1
Endosulfan II	ND	20	2.2	10	B7A0197	01/06/2017	01/11/17 11:46	D1
Endosulfan sulfate	ND	20	2.1	10	B7A0197	01/06/2017	01/11/17 11:46	D1
Endrin	ND	20	2.3	10	B7A0197	01/06/2017	01/11/17 11:46	D1
Endrin aldehyde	ND	20	2.8	10	B7A0197	01/06/2017	01/11/17 11:46	D1
Endrin ketone	ND	20	2.0	10	B7A0197	01/06/2017	01/11/17 11:46	D1
gamma-BHC	ND	10	2.0	10	B7A0197	01/06/2017	01/11/17 11:46	D1
gamma-Chlordane	ND	10	2.3	10	B7A0197	01/06/2017	01/11/17 11:46	D1
Heptachlor	ND	10	1.9	10	B7A0197	01/06/2017	01/11/17 11:46	D1
Heptachlor epoxide	ND	10	2.0	10	B7A0197	01/06/2017	01/11/17 11:46	D1
Methoxychlor	ND	50	1.8	10	B7A0197	01/06/2017	01/11/17 11:46	D1
Toxaphene	ND	500	82	10	B7A0197	01/06/2017	01/11/17 11:46	D1
Surrogate: Decachlorobiphenyl	*71.3 %*		*27 - 123*		B7A0197	01/06/2017	*01/11/17 11:46*	
Surrogate: Tetrachloro-m-xylene	*75.4 %*		*26 - 108*		B7A0197	01/06/2017	*01/11/17 11:46*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB8-1-0.5

Lab ID: 1604921-10

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**3.2**	1.0	0.70	1	B7A0229	01/09/2017	01/10/17 10:17	
Lead	**39**	1.0	0.11	1	B7A0229	01/09/2017	01/10/17 10:17	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	20	2.2	10	B7A0197	01/06/2017	01/11/17 11:57	D1
4,4´-DDE	ND	20	2.0	10	B7A0197	01/06/2017	01/11/17 11:57	D1
4,4´-DDT	ND	20	1.3	10	B7A0197	01/06/2017	01/11/17 11:57	D1
Aldrin	ND	10	2.7	10	B7A0197	01/06/2017	01/11/17 11:57	D1
alpha-BHC	ND	10	2.0	10	B7A0197	01/06/2017	01/11/17 11:57	D1
alpha-Chlordane	ND	10	2.1	10	B7A0197	01/06/2017	01/11/17 11:57	D1
beta-BHC	ND	10	2.3	10	B7A0197	01/06/2017	01/11/17 11:57	D1
Chlordane	ND	85	9.0	10	B7A0197	01/06/2017	01/11/17 11:57	D1
delta-BHC	ND	10	2.1	10	B7A0197	01/06/2017	01/11/17 11:57	D1
Dieldrin	ND	20	2.5	10	B7A0197	01/06/2017	01/11/17 11:57	D1
Endosulfan I	ND	10	2.1	10	B7A0197	01/06/2017	01/11/17 11:57	D1
Endosulfan II	ND	20	2.2	10	B7A0197	01/06/2017	01/11/17 11:57	D1
Endosulfan sulfate	ND	20	2.1	10	B7A0197	01/06/2017	01/11/17 11:57	D1
Endrin	ND	20	2.3	10	B7A0197	01/06/2017	01/11/17 11:57	D1
Endrin aldehyde	ND	20	2.8	10	B7A0197	01/06/2017	01/11/17 11:57	D1
Endrin ketone	ND	20	2.0	10	B7A0197	01/06/2017	01/11/17 11:57	D1
gamma-BHC	ND	10	2.0	10	B7A0197	01/06/2017	01/11/17 11:57	D1
gamma-Chlordane	ND	10	2.3	10	B7A0197	01/06/2017	01/11/17 11:57	D1
Heptachlor	ND	10	1.9	10	B7A0197	01/06/2017	01/11/17 11:57	D1
Heptachlor epoxide	ND	10	2.0	10	B7A0197	01/06/2017	01/11/17 11:57	D1
Methoxychlor	ND	50	1.8	10	B7A0197	01/06/2017	01/11/17 11:57	D1
Toxaphene	ND	500	82	10	B7A0197	01/06/2017	01/11/17 11:57	D1
Surrogate: Decachlorobiphenyl	*75.9 %*		*27 - 123*		B7A0197	01/06/2017	*01/11/17 11:57*	
Surrogate: Tetrachloro-m-xylene	*84.3 %*		*26 - 108*		B7A0197	01/06/2017	*01/11/17 11:57*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB8-1-1.5
Lab ID: 1604921-11

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.8**	1.0	0.70	1	B7A0229	01/09/2017	01/10/17 10:18	
Lead	**3.5**	1.0	0.11	1	B7A0229	01/09/2017	01/10/17 10:18	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0197	01/06/2017	01/09/17 13:03	
4,4´-DDE	ND	2.0	0.20	1	B7A0197	01/06/2017	01/09/17 13:03	
4,4´-DDT	ND	2.0	0.13	1	B7A0197	01/06/2017	01/09/17 13:03	
Aldrin	ND	1.0	0.27	1	B7A0197	01/06/2017	01/09/17 13:03	
alpha-BHC	ND	1.0	0.20	1	B7A0197	01/06/2017	01/09/17 13:03	
alpha-Chlordane	ND	1.0	0.21	1	B7A0197	01/06/2017	01/09/17 13:03	
beta-BHC	ND	1.0	0.23	1	B7A0197	01/06/2017	01/09/17 13:03	
Chlordane	ND	8.5	0.90	1	B7A0197	01/06/2017	01/09/17 13:03	
delta-BHC	ND	1.0	0.21	1	B7A0197	01/06/2017	01/09/17 13:03	
Dieldrin	ND	2.0	0.25	1	B7A0197	01/06/2017	01/09/17 13:03	
Endosulfan I	ND	1.0	0.21	1	B7A0197	01/06/2017	01/09/17 13:03	
Endosulfan II	ND	2.0	0.22	1	B7A0197	01/06/2017	01/09/17 13:03	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0197	01/06/2017	01/09/17 13:03	
Endrin	ND	2.0	0.23	1	B7A0197	01/06/2017	01/09/17 13:03	
Endrin aldehyde	ND	2.0	0.28	1	B7A0197	01/06/2017	01/09/17 13:03	
Endrin ketone	ND	2.0	0.20	1	B7A0197	01/06/2017	01/09/17 13:03	
gamma-BHC	ND	1.0	0.20	1	B7A0197	01/06/2017	01/09/17 13:03	
gamma-Chlordane	ND	1.0	0.23	1	B7A0197	01/06/2017	01/09/17 13:03	
Heptachlor	ND	1.0	0.19	1	B7A0197	01/06/2017	01/09/17 13:03	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0197	01/06/2017	01/09/17 13:03	
Methoxychlor	ND	5.0	0.18	1	B7A0197	01/06/2017	01/09/17 13:03	
Toxaphene	ND	50	8.2	1	B7A0197	01/06/2017	01/09/17 13:03	
Surrogate: Decachlorobiphenyl	*54.4 %*		*27 - 123*		B7A0197	01/06/2017	*01/09/17 13:03*	
Surrogate: Tetrachloro-m-xylene	*55.5 %*		*26 - 108*		B7A0197	01/06/2017	*01/09/17 13:03*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB8-1-1.5

Lab ID: 1604921-11

Polychlorinated Biphenyls by EPA 8082 **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B7A0176	01/06/2017	01/07/17 09:59	
Aroclor 1221	ND	16	1.5	1	B7A0176	01/06/2017	01/07/17 09:59	
Aroclor 1232	ND	16	1.5	1	B7A0176	01/06/2017	01/07/17 09:59	
Aroclor 1242	ND	16	1.5	1	B7A0176	01/06/2017	01/07/17 09:59	
Aroclor 1248	ND	16	1.5	1	B7A0176	01/06/2017	01/07/17 09:59	
Aroclor 1254	ND	16	1.5	1	B7A0176	01/06/2017	01/07/17 09:59	
Aroclor 1260	ND	16	1.5	1	B7A0176	01/06/2017	01/07/17 09:59	
Aroclor 1262	ND	16	1.5	1	B7A0176	01/06/2017	01/07/17 09:59	
Aroclor 1268	ND	16	1.5	1	B7A0176	01/06/2017	01/07/17 09:59	
Surrogate: Decachlorobiphenyl	*90.0 %*	*26 - 137*			B7A0176	01/06/2017	*01/07/17 09:59*	
Surrogate: Tetrachloro-m-xylene	*93.1 %*	*28 - 102*			B7A0176	01/06/2017	*01/07/17 09:59*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB8-6-0.5

Lab ID: 1604921-13

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.9**	1.0	0.70	1	B7A0229	01/09/2017	01/10/17 10:22	
Lead	**50**	1.0	0.11	1	B7A0229	01/09/2017	01/10/17 10:22	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0197	01/06/2017	01/09/17 13:14	
4,4´-DDE	ND	2.0	0.20	1	B7A0197	01/06/2017	01/09/17 13:14	
4,4´-DDT	ND	2.0	0.13	1	B7A0197	01/06/2017	01/09/17 13:14	
Aldrin	ND	1.0	0.27	1	B7A0197	01/06/2017	01/09/17 13:14	
alpha-BHC	ND	1.0	0.20	1	B7A0197	01/06/2017	01/09/17 13:14	
alpha-Chlordane	ND	1.0	0.21	1	B7A0197	01/06/2017	01/09/17 13:14	
beta-BHC	ND	1.0	0.23	1	B7A0197	01/06/2017	01/09/17 13:14	
Chlordane	ND	8.5	0.90	1	B7A0197	01/06/2017	01/09/17 13:14	
delta-BHC	ND	1.0	0.21	1	B7A0197	01/06/2017	01/09/17 13:14	
Dieldrin	ND	2.0	0.25	1	B7A0197	01/06/2017	01/09/17 13:14	
Endosulfan I	ND	1.0	0.21	1	B7A0197	01/06/2017	01/09/17 13:14	
Endosulfan II	ND	2.0	0.22	1	B7A0197	01/06/2017	01/09/17 13:14	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0197	01/06/2017	01/09/17 13:14	
Endrin	ND	2.0	0.23	1	B7A0197	01/06/2017	01/09/17 13:14	
Endrin aldehyde	ND	2.0	0.28	1	B7A0197	01/06/2017	01/09/17 13:14	
Endrin ketone	ND	2.0	0.20	1	B7A0197	01/06/2017	01/09/17 13:14	
gamma-BHC	ND	1.0	0.20	1	B7A0197	01/06/2017	01/09/17 13:14	
gamma-Chlordane	ND	1.0	0.23	1	B7A0197	01/06/2017	01/09/17 13:14	
Heptachlor	ND	1.0	0.19	1	B7A0197	01/06/2017	01/09/17 13:14	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0197	01/06/2017	01/09/17 13:14	
Methoxychlor	ND	5.0	0.18	1	B7A0197	01/06/2017	01/09/17 13:14	
Toxaphene	ND	50	8.2	1	B7A0197	01/06/2017	01/09/17 13:14	
Surrogate: Decachlorobiphenyl	*56.9 %*		*27 - 123*		B7A0197	01/06/2017	*01/09/17 13:14*	
Surrogate: Tetrachloro-m-xylene	*59.0 %*		*26 - 108*		B7A0197	01/06/2017	*01/09/17 13:14*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB8-6-1.5
Lab ID: 1604921-14

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.8**	1.0	0.70	1	B7A0229	01/09/2017	01/10/17 10:23	
Lead	**3.7**	1.0	0.11	1	B7A0229	01/09/2017	01/10/17 10:23	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0197	01/06/2017	01/09/17 13:24	
4,4´-DDE	ND	2.0	0.20	1	B7A0197	01/06/2017	01/09/17 13:24	
4,4´-DDT	ND	2.0	0.13	1	B7A0197	01/06/2017	01/09/17 13:24	
Aldrin	ND	1.0	0.27	1	B7A0197	01/06/2017	01/09/17 13:24	
alpha-BHC	ND	1.0	0.20	1	B7A0197	01/06/2017	01/09/17 13:24	
alpha-Chlordane	ND	1.0	0.21	1	B7A0197	01/06/2017	01/09/17 13:24	
beta-BHC	ND	1.0	0.23	1	B7A0197	01/06/2017	01/09/17 13:24	
Chlordane	ND	8.5	0.90	1	B7A0197	01/06/2017	01/09/17 13:24	
delta-BHC	ND	1.0	0.21	1	B7A0197	01/06/2017	01/09/17 13:24	
Dieldrin	ND	2.0	0.25	1	B7A0197	01/06/2017	01/09/17 13:24	
Endosulfan I	ND	1.0	0.21	1	B7A0197	01/06/2017	01/09/17 13:24	
Endosulfan II	ND	2.0	0.22	1	B7A0197	01/06/2017	01/09/17 13:24	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0197	01/06/2017	01/09/17 13:24	
Endrin	ND	2.0	0.23	1	B7A0197	01/06/2017	01/09/17 13:24	
Endrin aldehyde	ND	2.0	0.28	1	B7A0197	01/06/2017	01/09/17 13:24	
Endrin ketone	ND	2.0	0.20	1	B7A0197	01/06/2017	01/09/17 13:24	
gamma-BHC	ND	1.0	0.20	1	B7A0197	01/06/2017	01/09/17 13:24	
gamma-Chlordane	ND	1.0	0.23	1	B7A0197	01/06/2017	01/09/17 13:24	
Heptachlor	ND	1.0	0.19	1	B7A0197	01/06/2017	01/09/17 13:24	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0197	01/06/2017	01/09/17 13:24	
Methoxychlor	ND	5.0	0.18	1	B7A0197	01/06/2017	01/09/17 13:24	
Toxaphene	ND	50	8.2	1	B7A0197	01/06/2017	01/09/17 13:24	
Surrogate: Decachlorobiphenyl	*82.3 %*		*27 - 123*		B7A0197	01/06/2017	*01/09/17 13:24*	
Surrogate: Tetrachloro-m-xylene	*90.0 %*		*26 - 108*		B7A0197	01/06/2017	*01/09/17 13:24*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB8-5-0.5

Lab ID: 1604921-16

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.3**	1.0	0.70	1	B7A0229	01/09/2017	01/10/17 10:24	
Lead	**3.6**	1.0	0.11	1	B7A0229	01/09/2017	01/10/17 10:24	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0197	01/06/2017	01/09/17 13:35	
4,4´-DDE	ND	2.0	0.20	1	B7A0197	01/06/2017	01/09/17 13:35	
4,4´-DDT	ND	2.0	0.13	1	B7A0197	01/06/2017	01/09/17 13:35	
Aldrin	ND	1.0	0.27	1	B7A0197	01/06/2017	01/09/17 13:35	
alpha-BHC	ND	1.0	0.20	1	B7A0197	01/06/2017	01/09/17 13:35	
alpha-Chlordane	ND	1.0	0.21	1	B7A0197	01/06/2017	01/09/17 13:35	
beta-BHC	ND	1.0	0.23	1	B7A0197	01/06/2017	01/09/17 13:35	
Chlordane	ND	8.5	0.90	1	B7A0197	01/06/2017	01/09/17 13:35	
delta-BHC	ND	1.0	0.21	1	B7A0197	01/06/2017	01/09/17 13:35	
Dieldrin	ND	2.0	0.25	1	B7A0197	01/06/2017	01/09/17 13:35	
Endosulfan I	ND	1.0	0.21	1	B7A0197	01/06/2017	01/09/17 13:35	
Endosulfan II	ND	2.0	0.22	1	B7A0197	01/06/2017	01/09/17 13:35	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0197	01/06/2017	01/09/17 13:35	
Endrin	ND	2.0	0.23	1	B7A0197	01/06/2017	01/09/17 13:35	
Endrin aldehyde	ND	2.0	0.28	1	B7A0197	01/06/2017	01/09/17 13:35	
Endrin ketone	ND	2.0	0.20	1	B7A0197	01/06/2017	01/09/17 13:35	
gamma-BHC	ND	1.0	0.20	1	B7A0197	01/06/2017	01/09/17 13:35	
gamma-Chlordane	ND	1.0	0.23	1	B7A0197	01/06/2017	01/09/17 13:35	
Heptachlor	ND	1.0	0.19	1	B7A0197	01/06/2017	01/09/17 13:35	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0197	01/06/2017	01/09/17 13:35	
Methoxychlor	ND	5.0	0.18	1	B7A0197	01/06/2017	01/09/17 13:35	
Toxaphene	ND	50	8.2	1	B7A0197	01/06/2017	01/09/17 13:35	
Surrogate: Decachlorobiphenyl	*54.9 %*		*27 - 123*		B7A0197	01/06/2017	*01/09/17 13:35*	
Surrogate: Tetrachloro-m-xylene	*57.2 %*		*26 - 108*		B7A0197	01/06/2017	*01/09/17 13:35*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB8-5-1.5
Lab ID: 1604921-17

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.1**	1.0	0.70	1	B7A0229	01/09/2017	01/10/17 10:26	
Lead	**2.8**	1.0	0.11	1	B7A0229	01/09/2017	01/10/17 10:26	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0197	01/06/2017	01/09/17 13:46	
4,4´-DDE	ND	2.0	0.20	1	B7A0197	01/06/2017	01/09/17 13:46	
4,4´-DDT	ND	2.0	0.13	1	B7A0197	01/06/2017	01/09/17 13:46	
Aldrin	ND	1.0	0.27	1	B7A0197	01/06/2017	01/09/17 13:46	
alpha-BHC	ND	1.0	0.20	1	B7A0197	01/06/2017	01/09/17 13:46	
alpha-Chlordane	ND	1.0	0.21	1	B7A0197	01/06/2017	01/09/17 13:46	
beta-BHC	ND	1.0	0.23	1	B7A0197	01/06/2017	01/09/17 13:46	
Chlordane	ND	8.5	0.90	1	B7A0197	01/06/2017	01/09/17 13:46	
delta-BHC	ND	1.0	0.21	1	B7A0197	01/06/2017	01/09/17 13:46	
Dieldrin	ND	2.0	0.25	1	B7A0197	01/06/2017	01/09/17 13:46	
Endosulfan I	ND	1.0	0.21	1	B7A0197	01/06/2017	01/09/17 13:46	
Endosulfan II	ND	2.0	0.22	1	B7A0197	01/06/2017	01/09/17 13:46	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0197	01/06/2017	01/09/17 13:46	
Endrin	ND	2.0	0.23	1	B7A0197	01/06/2017	01/09/17 13:46	
Endrin aldehyde	ND	2.0	0.28	1	B7A0197	01/06/2017	01/09/17 13:46	
Endrin ketone	ND	2.0	0.20	1	B7A0197	01/06/2017	01/09/17 13:46	
gamma-BHC	ND	1.0	0.20	1	B7A0197	01/06/2017	01/09/17 13:46	
gamma-Chlordane	ND	1.0	0.23	1	B7A0197	01/06/2017	01/09/17 13:46	
Heptachlor	ND	1.0	0.19	1	B7A0197	01/06/2017	01/09/17 13:46	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0197	01/06/2017	01/09/17 13:46	
Methoxychlor	ND	5.0	0.18	1	B7A0197	01/06/2017	01/09/17 13:46	
Toxaphene	ND	50	8.2	1	B7A0197	01/06/2017	01/09/17 13:46	
Surrogate: Decachlorobiphenyl	*87.9 %*		*27 - 123*		B7A0197	01/06/2017	*01/09/17 13:46*	
Surrogate: Tetrachloro-m-xylene	*88.7 %*		*26 - 108*		B7A0197	01/06/2017	*01/09/17 13:46*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB8-4-0.5
Lab ID: 1604921-19

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.4**	1.0	0.70	1	B7A0229	01/09/2017	01/10/17 10:27	
Lead	**3.9**	1.0	0.11	1	B7A0229	01/09/2017	01/10/17 10:27	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0197	01/06/2017	01/09/17 13:56	
4,4´-DDE	ND	2.0	0.20	1	B7A0197	01/06/2017	01/09/17 13:56	
4,4´-DDT	ND	2.0	0.13	1	B7A0197	01/06/2017	01/09/17 13:56	
Aldrin	ND	1.0	0.27	1	B7A0197	01/06/2017	01/09/17 13:56	
alpha-BHC	ND	1.0	0.20	1	B7A0197	01/06/2017	01/09/17 13:56	
alpha-Chlordane	ND	1.0	0.21	1	B7A0197	01/06/2017	01/09/17 13:56	
beta-BHC	ND	1.0	0.23	1	B7A0197	01/06/2017	01/09/17 13:56	
Chlordane	ND	8.5	0.90	1	B7A0197	01/06/2017	01/09/17 13:56	
delta-BHC	ND	1.0	0.21	1	B7A0197	01/06/2017	01/09/17 13:56	
Dieldrin	ND	2.0	0.25	1	B7A0197	01/06/2017	01/09/17 13:56	
Endosulfan I	ND	1.0	0.21	1	B7A0197	01/06/2017	01/09/17 13:56	
Endosulfan II	ND	2.0	0.22	1	B7A0197	01/06/2017	01/09/17 13:56	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0197	01/06/2017	01/09/17 13:56	
Endrin	ND	2.0	0.23	1	B7A0197	01/06/2017	01/09/17 13:56	
Endrin aldehyde	ND	2.0	0.28	1	B7A0197	01/06/2017	01/09/17 13:56	
Endrin ketone	ND	2.0	0.20	1	B7A0197	01/06/2017	01/09/17 13:56	
gamma-BHC	ND	1.0	0.20	1	B7A0197	01/06/2017	01/09/17 13:56	
gamma-Chlordane	ND	1.0	0.23	1	B7A0197	01/06/2017	01/09/17 13:56	
Heptachlor	ND	1.0	0.19	1	B7A0197	01/06/2017	01/09/17 13:56	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0197	01/06/2017	01/09/17 13:56	
Methoxychlor	ND	5.0	0.18	1	B7A0197	01/06/2017	01/09/17 13:56	
Toxaphene	ND	50	8.2	1	B7A0197	01/06/2017	01/09/17 13:56	
Surrogate: Decachlorobiphenyl	*86.9 %*		*27 - 123*		B7A0197	01/06/2017	*01/09/17 13:56*	
Surrogate: Tetrachloro-m-xylene	*90.3 %*		*26 - 108*		B7A0197	01/06/2017	*01/09/17 13:56*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB8-4-1.5
Lab ID: 1604921-20

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.5**	1.0	0.70	1	B7A0229	01/09/2017	01/10/17 10:28	
Lead	**4.2**	1.0	0.11	1	B7A0229	01/09/2017	01/10/17 10:28	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0197	01/06/2017	01/09/17 14:07	
4,4´-DDE	ND	2.0	0.20	1	B7A0197	01/06/2017	01/09/17 14:07	
4,4´-DDT	ND	2.0	0.13	1	B7A0197	01/06/2017	01/09/17 14:07	
Aldrin	ND	1.0	0.27	1	B7A0197	01/06/2017	01/09/17 14:07	
alpha-BHC	ND	1.0	0.20	1	B7A0197	01/06/2017	01/09/17 14:07	
alpha-Chlordane	ND	1.0	0.21	1	B7A0197	01/06/2017	01/09/17 14:07	
beta-BHC	ND	1.0	0.23	1	B7A0197	01/06/2017	01/09/17 14:07	
Chlordane	ND	8.5	0.90	1	B7A0197	01/06/2017	01/09/17 14:07	
delta-BHC	ND	1.0	0.21	1	B7A0197	01/06/2017	01/09/17 14:07	
Dieldrin	ND	2.0	0.25	1	B7A0197	01/06/2017	01/09/17 14:07	
Endosulfan I	ND	1.0	0.21	1	B7A0197	01/06/2017	01/09/17 14:07	
Endosulfan II	ND	2.0	0.22	1	B7A0197	01/06/2017	01/09/17 14:07	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0197	01/06/2017	01/09/17 14:07	
Endrin	ND	2.0	0.23	1	B7A0197	01/06/2017	01/09/17 14:07	
Endrin aldehyde	ND	2.0	0.28	1	B7A0197	01/06/2017	01/09/17 14:07	
Endrin ketone	ND	2.0	0.20	1	B7A0197	01/06/2017	01/09/17 14:07	
gamma-BHC	ND	1.0	0.20	1	B7A0197	01/06/2017	01/09/17 14:07	
gamma-Chlordane	ND	1.0	0.23	1	B7A0197	01/06/2017	01/09/17 14:07	
Heptachlor	ND	1.0	0.19	1	B7A0197	01/06/2017	01/09/17 14:07	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0197	01/06/2017	01/09/17 14:07	
Methoxychlor	ND	5.0	0.18	1	B7A0197	01/06/2017	01/09/17 14:07	
Toxaphene	ND	50	8.2	1	B7A0197	01/06/2017	01/09/17 14:07	
Surrogate: Decachlorobiphenyl	*62.4 %*		*27 - 123*		B7A0197	01/06/2017	*01/09/17 14:07*	
Surrogate: Tetrachloro-m-xylene	*61.7 %*		*26 - 108*		B7A0197	01/06/2017	*01/09/17 14:07*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB8-3-0.5
Lab ID: 1604921-22

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.8**	1.0	0.70	1	B7A0229	01/09/2017	01/10/17 10:29	
Lead	**16**	1.0	0.11	1	B7A0229	01/09/2017	01/10/17 10:29	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	**0.29**	2.0	0.22	1	B7A0197	01/06/2017	01/09/17 14:17	J
4,4´-DDE	**0.20**	2.0	0.20	1	B7A0197	01/06/2017	01/09/17 14:17	J
4,4´-DDT [2C]	**0.52**	2.0	0.13	1	B7A0197	01/06/2017	01/09/17 14:17	J
Aldrin	ND	1.0	0.27	1	B7A0197	01/06/2017	01/09/17 14:17	
alpha-BHC	ND	1.0	0.20	1	B7A0197	01/06/2017	01/09/17 14:17	
alpha-Chlordane	ND	1.0	0.21	1	B7A0197	01/06/2017	01/09/17 14:17	
beta-BHC	ND	1.0	0.23	1	B7A0197	01/06/2017	01/09/17 14:17	
Chlordane	ND	8.5	0.90	1	B7A0197	01/06/2017	01/09/17 14:17	
delta-BHC	ND	1.0	0.21	1	B7A0197	01/06/2017	01/09/17 14:17	
Dieldrin	ND	2.0	0.25	1	B7A0197	01/06/2017	01/09/17 14:17	
Endosulfan I	ND	1.0	0.21	1	B7A0197	01/06/2017	01/09/17 14:17	
Endosulfan II	ND	2.0	0.22	1	B7A0197	01/06/2017	01/09/17 14:17	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0197	01/06/2017	01/09/17 14:17	
Endrin	ND	2.0	0.23	1	B7A0197	01/06/2017	01/09/17 14:17	
Endrin aldehyde	ND	2.0	0.28	1	B7A0197	01/06/2017	01/09/17 14:17	
Endrin ketone	ND	2.0	0.20	1	B7A0197	01/06/2017	01/09/17 14:17	
gamma-BHC	ND	1.0	0.20	1	B7A0197	01/06/2017	01/09/17 14:17	
gamma-Chlordane	ND	1.0	0.23	1	B7A0197	01/06/2017	01/09/17 14:17	
Heptachlor	ND	1.0	0.19	1	B7A0197	01/06/2017	01/09/17 14:17	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0197	01/06/2017	01/09/17 14:17	
Methoxychlor	ND	5.0	0.18	1	B7A0197	01/06/2017	01/09/17 14:17	
Toxaphene	ND	50	8.2	1	B7A0197	01/06/2017	01/09/17 14:17	
Surrogate: Decachlorobiphenyl	*54.3 %*		*27 - 123*		B7A0197	01/06/2017	*01/09/17 14:17*	
Surrogate: Tetrachloro-m-xylene	*54.8 %*		*26 - 108*		B7A0197	01/06/2017	*01/09/17 14:17*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB8-3-0.5

Lab ID: 1604921-22

Polychlorinated Biphenyls by EPA 8082 **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B7A0176	01/06/2017	01/07/17 10:18	
Aroclor 1221	ND	16	1.5	1	B7A0176	01/06/2017	01/07/17 10:18	
Aroclor 1232	ND	16	1.5	1	B7A0176	01/06/2017	01/07/17 10:18	
Aroclor 1242	ND	16	1.5	1	B7A0176	01/06/2017	01/07/17 10:18	
Aroclor 1248	ND	16	1.5	1	B7A0176	01/06/2017	01/07/17 10:18	
Aroclor 1254	ND	16	1.5	1	B7A0176	01/06/2017	01/07/17 10:18	
Aroclor 1260	**2.7**	16	1.5	1	B7A0176	01/06/2017	01/07/17 10:18	J
Aroclor 1262	ND	16	1.5	1	B7A0176	01/06/2017	01/07/17 10:18	
Aroclor 1268	ND	16	1.5	1	B7A0176	01/06/2017	01/07/17 10:18	
Surrogate: Decachlorobiphenyl	*96.9 %*	*26 - 137*			B7A0176	01/06/2017	*01/07/17 10:18*	
Surrogate: Tetrachloro-m-xylene	*105 %*	*28 - 102*			B7A0176	01/06/2017	*01/07/17 10:18*	S12

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB8-3-1.5
Lab ID: 1604921-23

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.3**	1.0	0.70	1	B7A0229	01/09/2017	01/10/17 10:30	
Lead	**6.1**	1.0	0.11	1	B7A0229	01/09/2017	01/10/17 10:30	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	**0.23**	2.0	0.22	1	B7A0197	01/06/2017	01/09/17 14:28	J
4,4´-DDE	ND	2.0	0.20	1	B7A0197	01/06/2017	01/09/17 14:28	
4,4´-DDT [2C]	**0.45**	2.0	0.13	1	B7A0197	01/06/2017	01/09/17 14:28	J
Aldrin	ND	1.0	0.27	1	B7A0197	01/06/2017	01/09/17 14:28	
alpha-BHC	ND	1.0	0.20	1	B7A0197	01/06/2017	01/09/17 14:28	
alpha-Chlordane	ND	1.0	0.21	1	B7A0197	01/06/2017	01/09/17 14:28	
beta-BHC	ND	1.0	0.23	1	B7A0197	01/06/2017	01/09/17 14:28	
Chlordane	ND	8.5	0.90	1	B7A0197	01/06/2017	01/09/17 14:28	
delta-BHC	ND	1.0	0.21	1	B7A0197	01/06/2017	01/09/17 14:28	
Dieldrin	ND	2.0	0.25	1	B7A0197	01/06/2017	01/09/17 14:28	
Endosulfan I	ND	1.0	0.21	1	B7A0197	01/06/2017	01/09/17 14:28	
Endosulfan II	ND	2.0	0.22	1	B7A0197	01/06/2017	01/09/17 14:28	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0197	01/06/2017	01/09/17 14:28	
Endrin	ND	2.0	0.23	1	B7A0197	01/06/2017	01/09/17 14:28	
Endrin aldehyde	ND	2.0	0.28	1	B7A0197	01/06/2017	01/09/17 14:28	
Endrin ketone	ND	2.0	0.20	1	B7A0197	01/06/2017	01/09/17 14:28	
gamma-BHC	ND	1.0	0.20	1	B7A0197	01/06/2017	01/09/17 14:28	
gamma-Chlordane	ND	1.0	0.23	1	B7A0197	01/06/2017	01/09/17 14:28	
Heptachlor	ND	1.0	0.19	1	B7A0197	01/06/2017	01/09/17 14:28	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0197	01/06/2017	01/09/17 14:28	
Methoxychlor	ND	5.0	0.18	1	B7A0197	01/06/2017	01/09/17 14:28	
Toxaphene	ND	50	8.2	1	B7A0197	01/06/2017	01/09/17 14:28	
Surrogate: Decachlorobiphenyl	*56.9 %*		*27 - 123*		B7A0197	01/06/2017	*01/09/17 14:28*	
Surrogate: Tetrachloro-m-xylene	*56.6 %*		*26 - 108*		B7A0197	01/06/2017	*01/09/17 14:28*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB8-2-0.5
Lab ID: 1604921-25

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**10**	1.0	0.70	1	B7A0229	01/09/2017	01/10/17 10:31	
Lead	**9.4**	1.0	0.11	1	B7A0229	01/09/2017	01/10/17 10:31	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0197	01/06/2017	01/09/17 14:39	
4,4´-DDE	ND	2.0	0.20	1	B7A0197	01/06/2017	01/09/17 14:39	
4,4´-DDT	**0.22**	2.0	0.13	1	B7A0197	01/06/2017	01/09/17 14:39	J
Aldrin	ND	1.0	0.27	1	B7A0197	01/06/2017	01/09/17 14:39	
alpha-BHC	ND	1.0	0.20	1	B7A0197	01/06/2017	01/09/17 14:39	
alpha-Chlordane	ND	1.0	0.21	1	B7A0197	01/06/2017	01/09/17 14:39	
beta-BHC	ND	1.0	0.23	1	B7A0197	01/06/2017	01/09/17 14:39	
Chlordane	ND	8.5	0.90	1	B7A0197	01/06/2017	01/09/17 14:39	
delta-BHC	ND	1.0	0.21	1	B7A0197	01/06/2017	01/09/17 14:39	
Dieldrin	ND	2.0	0.25	1	B7A0197	01/06/2017	01/09/17 14:39	
Endosulfan I	ND	1.0	0.21	1	B7A0197	01/06/2017	01/09/17 14:39	
Endosulfan II	ND	2.0	0.22	1	B7A0197	01/06/2017	01/09/17 14:39	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0197	01/06/2017	01/09/17 14:39	
Endrin	ND	2.0	0.23	1	B7A0197	01/06/2017	01/09/17 14:39	
Endrin aldehyde	ND	2.0	0.28	1	B7A0197	01/06/2017	01/09/17 14:39	
Endrin ketone	ND	2.0	0.20	1	B7A0197	01/06/2017	01/09/17 14:39	
gamma-BHC	ND	1.0	0.20	1	B7A0197	01/06/2017	01/09/17 14:39	
gamma-Chlordane	**0.23**	1.0	0.23	1	B7A0197	01/06/2017	01/09/17 14:39	J
Heptachlor	ND	1.0	0.19	1	B7A0197	01/06/2017	01/09/17 14:39	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0197	01/06/2017	01/09/17 14:39	
Methoxychlor	ND	5.0	0.18	1	B7A0197	01/06/2017	01/09/17 14:39	
Toxaphene	ND	50	8.2	1	B7A0197	01/06/2017	01/09/17 14:39	
Surrogate: Decachlorobiphenyl	*85.4 %*	*27 - 123*			B7A0197	01/06/2017	*01/09/17 14:39*	
Surrogate: Tetrachloro-m-xylene	*91.2 %*	*26 - 108*			B7A0197	01/06/2017	*01/09/17 14:39*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB8-2-1.5
Lab ID: 1604921-26

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**7.7**	1.0	0.70	1	B7A0229	01/09/2017	01/10/17 10:32	
Lead	**3.5**	1.0	0.11	1	B7A0229	01/09/2017	01/10/17 10:32	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0197	01/06/2017	01/09/17 14:50	
4,4´-DDE [2C]	**0.21**	2.0	0.20	1	B7A0197	01/06/2017	01/09/17 14:50	J
4,4´-DDT [2C]	**0.61**	2.0	0.13	1	B7A0197	01/06/2017	01/09/17 14:50	J
Aldrin	ND	1.0	0.27	1	B7A0197	01/06/2017	01/09/17 14:50	
alpha-BHC	ND	1.0	0.20	1	B7A0197	01/06/2017	01/09/17 14:50	
alpha-Chlordane	**0.31**	1.0	0.21	1	B7A0197	01/06/2017	01/09/17 14:50	J
beta-BHC	ND	1.0	0.23	1	B7A0197	01/06/2017	01/09/17 14:50	
Chlordane [2C]	**2.5**	8.5	0.90	1	B7A0197	01/06/2017	01/09/17 14:50	J
delta-BHC	ND	1.0	0.21	1	B7A0197	01/06/2017	01/09/17 14:50	
Dieldrin	ND	2.0	0.25	1	B7A0197	01/06/2017	01/09/17 14:50	
Endosulfan I	ND	1.0	0.21	1	B7A0197	01/06/2017	01/09/17 14:50	
Endosulfan II	ND	2.0	0.22	1	B7A0197	01/06/2017	01/09/17 14:50	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0197	01/06/2017	01/09/17 14:50	
Endrin	ND	2.0	0.23	1	B7A0197	01/06/2017	01/09/17 14:50	
Endrin aldehyde	ND	2.0	0.28	1	B7A0197	01/06/2017	01/09/17 14:50	
Endrin ketone	ND	2.0	0.20	1	B7A0197	01/06/2017	01/09/17 14:50	
gamma-BHC	ND	1.0	0.20	1	B7A0197	01/06/2017	01/09/17 14:50	
gamma-Chlordane [2C]	**0.33**	1.0	0.23	1	B7A0197	01/06/2017	01/09/17 14:50	J
Heptachlor	ND	1.0	0.19	1	B7A0197	01/06/2017	01/09/17 14:50	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0197	01/06/2017	01/09/17 14:50	
Methoxychlor	ND	5.0	0.18	1	B7A0197	01/06/2017	01/09/17 14:50	
Toxaphene	ND	50	8.2	1	B7A0197	01/06/2017	01/09/17 14:50	
Surrogate: Decachlorobiphenyl	*88.6 %*	*27 - 123*			B7A0197	01/06/2017	*01/09/17 14:50*	
Surrogate: Tetrachloro-m-xylene	*95.1 %*	*26 - 108*			B7A0197	01/06/2017	*01/09/17 14:50*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB6-1-0.5
Lab ID: 1604921-28

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**3.4**	1.0	0.70	1	B7A0229	01/09/2017	01/10/17 10:36	
Lead	**15**	1.0	0.11	1	B7A0229	01/09/2017	01/10/17 10:36	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	10	1.1	5	B7A0197	01/06/2017	01/11/17 12:08	D1
4,4´-DDE [2C]	**1.6**	10	0.98	5	B7A0197	01/06/2017	01/11/17 12:08	D1, J
4,4´-DDT	ND	10	0.67	5	B7A0197	01/06/2017	01/11/17 12:08	D1
Aldrin	ND	5.0	1.3	5	B7A0197	01/06/2017	01/11/17 12:08	D1
alpha-BHC	ND	5.0	0.99	5	B7A0197	01/06/2017	01/11/17 12:08	D1
alpha-Chlordane	ND	5.0	1.1	5	B7A0197	01/06/2017	01/11/17 12:08	D1
beta-BHC	ND	5.0	1.1	5	B7A0197	01/06/2017	01/11/17 12:08	D1
Chlordane	ND	42	4.5	5	B7A0197	01/06/2017	01/11/17 12:08	D1
delta-BHC	ND	5.0	1.0	5	B7A0197	01/06/2017	01/11/17 12:08	D1
Dieldrin	ND	10	1.2	5	B7A0197	01/06/2017	01/11/17 12:08	D1
Endosulfan I	ND	5.0	1.1	5	B7A0197	01/06/2017	01/11/17 12:08	D1
Endosulfan II	ND	10	1.1	5	B7A0197	01/06/2017	01/11/17 12:08	D1
Endosulfan sulfate	ND	10	1.1	5	B7A0197	01/06/2017	01/11/17 12:08	D1
Endrin	ND	10	1.1	5	B7A0197	01/06/2017	01/11/17 12:08	D1
Endrin aldehyde	ND	10	1.4	5	B7A0197	01/06/2017	01/11/17 12:08	D1
Endrin ketone	ND	10	1.0	5	B7A0197	01/06/2017	01/11/17 12:08	D1
gamma-BHC	ND	5.0	1.0	5	B7A0197	01/06/2017	01/11/17 12:08	D1
gamma-Chlordane	ND	5.0	1.1	5	B7A0197	01/06/2017	01/11/17 12:08	D1
Heptachlor	ND	5.0	0.95	5	B7A0197	01/06/2017	01/11/17 12:08	D1
Heptachlor epoxide	ND	5.0	1.0	5	B7A0197	01/06/2017	01/11/17 12:08	D1
Methoxychlor	ND	25	0.89	5	B7A0197	01/06/2017	01/11/17 12:08	D1
Toxaphene	ND	250	41	5	B7A0197	01/06/2017	01/11/17 12:08	D1
Surrogate: Decachlorobiphenyl	*50.9 %*		*27 - 123*		B7A0197	01/06/2017	*01/11/17 12:08*	
Surrogate: Tetrachloro-m-xylene	*31.4 %*		*26 - 108*		B7A0197	01/06/2017	*01/11/17 12:08*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB6-1-1.5
Lab ID: 1604921-29

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.1**	1.0	0.70	1	B7A0230	01/09/2017	01/10/17 10:43	
Lead	**8.7**	1.0	0.11	1	B7A0230	01/09/2017	01/10/17 10:43	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0197	01/06/2017	01/09/17 15:11	
4,4´-DDE	ND	2.0	0.20	1	B7A0197	01/06/2017	01/09/17 15:11	
4,4´-DDT	ND	2.0	0.13	1	B7A0197	01/06/2017	01/09/17 15:11	
Aldrin	ND	1.0	0.27	1	B7A0197	01/06/2017	01/09/17 15:11	
alpha-BHC	ND	1.0	0.20	1	B7A0197	01/06/2017	01/09/17 15:11	
alpha-Chlordane	ND	1.0	0.21	1	B7A0197	01/06/2017	01/09/17 15:11	
beta-BHC	ND	1.0	0.23	1	B7A0197	01/06/2017	01/09/17 15:11	
Chlordane	ND	8.5	0.90	1	B7A0197	01/06/2017	01/09/17 15:11	
delta-BHC	ND	1.0	0.21	1	B7A0197	01/06/2017	01/09/17 15:11	
Dieldrin	ND	2.0	0.25	1	B7A0197	01/06/2017	01/09/17 15:11	
Endosulfan I	ND	1.0	0.21	1	B7A0197	01/06/2017	01/09/17 15:11	
Endosulfan II	ND	2.0	0.22	1	B7A0197	01/06/2017	01/09/17 15:11	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0197	01/06/2017	01/09/17 15:11	
Endrin	ND	2.0	0.23	1	B7A0197	01/06/2017	01/09/17 15:11	
Endrin aldehyde	ND	2.0	0.28	1	B7A0197	01/06/2017	01/09/17 15:11	
Endrin ketone	ND	2.0	0.20	1	B7A0197	01/06/2017	01/09/17 15:11	
gamma-BHC	ND	1.0	0.20	1	B7A0197	01/06/2017	01/09/17 15:11	
gamma-Chlordane	ND	1.0	0.23	1	B7A0197	01/06/2017	01/09/17 15:11	
Heptachlor	ND	1.0	0.19	1	B7A0197	01/06/2017	01/09/17 15:11	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0197	01/06/2017	01/09/17 15:11	
Methoxychlor	ND	5.0	0.18	1	B7A0197	01/06/2017	01/09/17 15:11	
Toxaphene	ND	50	8.2	1	B7A0197	01/06/2017	01/09/17 15:11	
Surrogate: Decachlorobiphenyl	*65.0 %*		*27 - 123*		B7A0197	01/06/2017	*01/09/17 15:11*	
Surrogate: Tetrachloro-m-xylene	*57.3 %*		*26 - 108*		B7A0197	01/06/2017	*01/09/17 15:11*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB9-3-0.5
Lab ID: 1604921-31

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.4**	1.0	0.70	1	B7A0230	01/09/2017	01/10/17 10:44	
Lead	**17**	1.0	0.11	1	B7A0230	01/09/2017	01/10/17 10:44	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0235	01/09/2017	01/10/17 17:47	
4,4´-DDE [2C]	**0.49**	2.0	0.20	1	B7A0235	01/09/2017	01/10/17 17:47	J
4,4´-DDT	**0.38**	2.0	0.13	1	B7A0235	01/09/2017	01/10/17 17:47	J
Aldrin	ND	1.0	0.27	1	B7A0235	01/09/2017	01/10/17 17:47	
alpha-BHC	ND	1.0	0.20	1	B7A0235	01/09/2017	01/10/17 17:47	
alpha-Chlordane	**0.56**	1.0	0.21	1	B7A0235	01/09/2017	01/10/17 17:47	J
beta-BHC	ND	1.0	0.23	1	B7A0235	01/09/2017	01/10/17 17:47	
Chlordane [2C]	**6.1**	8.5	0.90	1	B7A0235	01/09/2017	01/10/17 17:47	J
delta-BHC	ND	1.0	0.21	1	B7A0235	01/09/2017	01/10/17 17:47	
Dieldrin	ND	2.0	0.25	1	B7A0235	01/09/2017	01/10/17 17:47	
Endosulfan I	ND	1.0	0.21	1	B7A0235	01/09/2017	01/10/17 17:47	
Endosulfan II	ND	2.0	0.22	1	B7A0235	01/09/2017	01/10/17 17:47	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0235	01/09/2017	01/10/17 17:47	
Endrin	ND	2.0	0.23	1	B7A0235	01/09/2017	01/10/17 17:47	
Endrin aldehyde	ND	2.0	0.28	1	B7A0235	01/09/2017	01/10/17 17:47	
Endrin ketone	ND	2.0	0.20	1	B7A0235	01/09/2017	01/10/17 17:47	
gamma-BHC	ND	1.0	0.20	1	B7A0235	01/09/2017	01/10/17 17:47	
gamma-Chlordane	**0.60**	1.0	0.23	1	B7A0235	01/09/2017	01/10/17 17:47	J
Heptachlor	ND	1.0	0.19	1	B7A0235	01/09/2017	01/10/17 17:47	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0235	01/09/2017	01/10/17 17:47	
Methoxychlor	ND	5.0	0.18	1	B7A0235	01/09/2017	01/10/17 17:47	
Toxaphene	ND	50	8.2	1	B7A0235	01/09/2017	01/10/17 17:47	
Surrogate: Decachlorobiphenyl	*95.9 %*	*27 - 123*			B7A0235	01/09/2017	*01/10/17 17:47*	
Surrogate: Tetrachloro-m-xylene	*65.6 %*	*26 - 108*			B7A0235	01/09/2017	*01/10/17 17:47*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB9-3-1.5
Lab ID: 1604921-32

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**0.92**	1.0	0.70	1	B7A0230	01/09/2017	01/10/17 10:45	J
Lead	**3.4**	1.0	0.11	1	B7A0230	01/09/2017	01/10/17 10:45	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0235	01/09/2017	01/10/17 17:58	
4,4´-DDE	ND	2.0	0.20	1	B7A0235	01/09/2017	01/10/17 17:58	
4,4´-DDT	ND	2.0	0.13	1	B7A0235	01/09/2017	01/10/17 17:58	
Aldrin	ND	1.0	0.27	1	B7A0235	01/09/2017	01/10/17 17:58	
alpha-BHC	ND	1.0	0.20	1	B7A0235	01/09/2017	01/10/17 17:58	
alpha-Chlordane	ND	1.0	0.21	1	B7A0235	01/09/2017	01/10/17 17:58	
beta-BHC	ND	1.0	0.23	1	B7A0235	01/09/2017	01/10/17 17:58	
Chlordane	ND	8.5	0.90	1	B7A0235	01/09/2017	01/10/17 17:58	
delta-BHC	ND	1.0	0.21	1	B7A0235	01/09/2017	01/10/17 17:58	
Dieldrin	ND	2.0	0.25	1	B7A0235	01/09/2017	01/10/17 17:58	
Endosulfan I	ND	1.0	0.21	1	B7A0235	01/09/2017	01/10/17 17:58	
Endosulfan II	ND	2.0	0.22	1	B7A0235	01/09/2017	01/10/17 17:58	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0235	01/09/2017	01/10/17 17:58	
Endrin	ND	2.0	0.23	1	B7A0235	01/09/2017	01/10/17 17:58	
Endrin aldehyde	ND	2.0	0.28	1	B7A0235	01/09/2017	01/10/17 17:58	
Endrin ketone	ND	2.0	0.20	1	B7A0235	01/09/2017	01/10/17 17:58	
gamma-BHC	ND	1.0	0.20	1	B7A0235	01/09/2017	01/10/17 17:58	
gamma-Chlordane	ND	1.0	0.23	1	B7A0235	01/09/2017	01/10/17 17:58	
Heptachlor	ND	1.0	0.19	1	B7A0235	01/09/2017	01/10/17 17:58	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0235	01/09/2017	01/10/17 17:58	
Methoxychlor	ND	5.0	0.18	1	B7A0235	01/09/2017	01/10/17 17:58	
Toxaphene	ND	50	8.2	1	B7A0235	01/09/2017	01/10/17 17:58	
Surrogate: Decachlorobiphenyl	*83.3 %*		*27 - 123*		B7A0235	01/09/2017	*01/10/17 17:58*	
Surrogate: Tetrachloro-m-xylene	*78.0 %*		*26 - 108*		B7A0235	01/09/2017	*01/10/17 17:58*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB9-3-1.5

Lab ID: 1604921-32

Polychlorinated Biphenyls by EPA 8082 **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B7A0217	01/09/2017	01/09/17 15:01	
Aroclor 1221	ND	16	1.5	1	B7A0217	01/09/2017	01/09/17 15:01	
Aroclor 1232	ND	16	1.5	1	B7A0217	01/09/2017	01/09/17 15:01	
Aroclor 1242	ND	16	1.5	1	B7A0217	01/09/2017	01/09/17 15:01	
Aroclor 1248	ND	16	1.5	1	B7A0217	01/09/2017	01/09/17 15:01	
Aroclor 1254	ND	16	1.5	1	B7A0217	01/09/2017	01/09/17 15:01	
Aroclor 1260	ND	16	1.5	1	B7A0217	01/09/2017	01/09/17 15:01	
Aroclor 1262	ND	16	1.5	1	B7A0217	01/09/2017	01/09/17 15:01	
Aroclor 1268	ND	16	1.5	1	B7A0217	01/09/2017	01/09/17 15:01	
Surrogate: Decachlorobiphenyl	*96.8 %*	*26 - 137*			B7A0217	01/09/2017	*01/09/17 15:01*	
Surrogate: Tetrachloro-m-xylene	*106 %*	*28 - 102*			B7A0217	01/09/2017	*01/09/17 15:01*	S1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB9-2-0.5
Lab ID: 1604921-34

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**5.2**	1.0	0.70	1	B7A0230	01/09/2017	01/10/17 10:46	
Lead	**13**	1.0	0.11	1	B7A0230	01/09/2017	01/10/17 10:46	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0235	01/09/2017	01/10/17 18:08	
4,4´-DDE	**0.39**	2.0	0.20	1	B7A0235	01/09/2017	01/10/17 18:08	J
4,4´-DDT	ND	2.0	0.13	1	B7A0235	01/09/2017	01/10/17 18:08	
Aldrin	ND	1.0	0.27	1	B7A0235	01/09/2017	01/10/17 18:08	
alpha-BHC	ND	1.0	0.20	1	B7A0235	01/09/2017	01/10/17 18:08	
alpha-Chlordane	**1.5**	1.0	0.21	1	B7A0235	01/09/2017	01/10/17 18:08	
beta-BHC	ND	1.0	0.23	1	B7A0235	01/09/2017	01/10/17 18:08	
Chlordane	**13**	8.5	0.90	1	B7A0235	01/09/2017	01/10/17 18:08	
delta-BHC	ND	1.0	0.21	1	B7A0235	01/09/2017	01/10/17 18:08	
Dieldrin	**0.29**	2.0	0.25	1	B7A0235	01/09/2017	01/10/17 18:08	J
Endosulfan I	ND	1.0	0.21	1	B7A0235	01/09/2017	01/10/17 18:08	
Endosulfan II	ND	2.0	0.22	1	B7A0235	01/09/2017	01/10/17 18:08	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0235	01/09/2017	01/10/17 18:08	
Endrin	ND	2.0	0.23	1	B7A0235	01/09/2017	01/10/17 18:08	
Endrin aldehyde	ND	2.0	0.28	1	B7A0235	01/09/2017	01/10/17 18:08	
Endrin ketone	ND	2.0	0.20	1	B7A0235	01/09/2017	01/10/17 18:08	
gamma-BHC	ND	1.0	0.20	1	B7A0235	01/09/2017	01/10/17 18:08	
gamma-Chlordane	**1.5**	1.0	0.23	1	B7A0235	01/09/2017	01/10/17 18:08	
Heptachlor	ND	1.0	0.19	1	B7A0235	01/09/2017	01/10/17 18:08	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0235	01/09/2017	01/10/17 18:08	
Methoxychlor	ND	5.0	0.18	1	B7A0235	01/09/2017	01/10/17 18:08	
Toxaphene	ND	50	8.2	1	B7A0235	01/09/2017	01/10/17 18:08	
Surrogate: Decachlorobiphenyl	*81.5 %*		*27 - 123*		B7A0235	01/09/2017	*01/10/17 18:08*	
Surrogate: Tetrachloro-m-xylene	*64.5 %*		*26 - 108*		B7A0235	01/09/2017	*01/10/17 18:08*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB9-2-1.5

Lab ID: 1604921-35

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.9**	1.0	0.70	1	B7A0230	01/09/2017	01/10/17 10:50	
Lead	**4.5**	1.0	0.11	1	B7A0230	01/09/2017	01/10/17 10:50	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0235	01/09/2017	01/10/17 18:19	
4,4´-DDE	ND	2.0	0.20	1	B7A0235	01/09/2017	01/10/17 18:19	
4,4´-DDT	ND	2.0	0.13	1	B7A0235	01/09/2017	01/10/17 18:19	
Aldrin	ND	1.0	0.27	1	B7A0235	01/09/2017	01/10/17 18:19	
alpha-BHC	ND	1.0	0.20	1	B7A0235	01/09/2017	01/10/17 18:19	
alpha-Chlordane	ND	1.0	0.21	1	B7A0235	01/09/2017	01/10/17 18:19	
beta-BHC	ND	1.0	0.23	1	B7A0235	01/09/2017	01/10/17 18:19	
Chlordane	ND	8.5	0.90	1	B7A0235	01/09/2017	01/10/17 18:19	
delta-BHC	ND	1.0	0.21	1	B7A0235	01/09/2017	01/10/17 18:19	
Dieldrin	ND	2.0	0.25	1	B7A0235	01/09/2017	01/10/17 18:19	
Endosulfan I	ND	1.0	0.21	1	B7A0235	01/09/2017	01/10/17 18:19	
Endosulfan II	ND	2.0	0.22	1	B7A0235	01/09/2017	01/10/17 18:19	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0235	01/09/2017	01/10/17 18:19	
Endrin	ND	2.0	0.23	1	B7A0235	01/09/2017	01/10/17 18:19	
Endrin aldehyde	ND	2.0	0.28	1	B7A0235	01/09/2017	01/10/17 18:19	
Endrin ketone	ND	2.0	0.20	1	B7A0235	01/09/2017	01/10/17 18:19	
gamma-BHC	ND	1.0	0.20	1	B7A0235	01/09/2017	01/10/17 18:19	
gamma-Chlordane	ND	1.0	0.23	1	B7A0235	01/09/2017	01/10/17 18:19	
Heptachlor	ND	1.0	0.19	1	B7A0235	01/09/2017	01/10/17 18:19	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0235	01/09/2017	01/10/17 18:19	
Methoxychlor	ND	5.0	0.18	1	B7A0235	01/09/2017	01/10/17 18:19	
Toxaphene	ND	50	8.2	1	B7A0235	01/09/2017	01/10/17 18:19	
Surrogate: Decachlorobiphenyl	*98.0 %*		*27 - 123*		B7A0235	01/09/2017	*01/10/17 18:19*	
Surrogate: Tetrachloro-m-xylene	*72.6 %*		*26 - 108*		B7A0235	01/09/2017	*01/10/17 18:19*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB5-3-0.5
Lab ID: 1604921-37

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**7.9**	1.0	0.70	1	B7A0230	01/09/2017	01/10/17 10:51	
Lead	**170**	1.0	0.11	1	B7A0230	01/09/2017	01/10/17 10:51	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD [2C]	**13**	2.0	0.22	1	B7A0235	01/09/2017	01/10/17 18:29	
4,4´-DDE	**600**	20	2.0	10	B7A0235	01/09/2017	01/11/17 12:18	
4,4´-DDT	ND	2.0	0.13	1	B7A0235	01/09/2017	01/10/17 18:29	
Aldrin	ND	1.0	0.27	1	B7A0235	01/09/2017	01/10/17 18:29	
alpha-BHC	ND	1.0	0.20	1	B7A0235	01/09/2017	01/10/17 18:29	
alpha-Chlordane	ND	1.0	0.21	1	B7A0235	01/09/2017	01/10/17 18:29	
beta-BHC	ND	1.0	0.23	1	B7A0235	01/09/2017	01/10/17 18:29	
Chlordane	ND	8.5	0.90	1	B7A0235	01/09/2017	01/10/17 18:29	
delta-BHC	ND	1.0	0.21	1	B7A0235	01/09/2017	01/10/17 18:29	
Dieldrin	ND	2.0	0.25	1	B7A0235	01/09/2017	01/10/17 18:29	
Endosulfan I	ND	1.0	0.21	1	B7A0235	01/09/2017	01/10/17 18:29	
Endosulfan II	ND	2.0	0.22	1	B7A0235	01/09/2017	01/10/17 18:29	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0235	01/09/2017	01/10/17 18:29	
Endrin	ND	2.0	0.23	1	B7A0235	01/09/2017	01/10/17 18:29	
Endrin aldehyde	ND	2.0	0.28	1	B7A0235	01/09/2017	01/10/17 18:29	
Endrin ketone	ND	2.0	0.20	1	B7A0235	01/09/2017	01/10/17 18:29	
gamma-BHC	ND	1.0	0.20	1	B7A0235	01/09/2017	01/10/17 18:29	
gamma-Chlordane	ND	1.0	0.23	1	B7A0235	01/09/2017	01/10/17 18:29	
Heptachlor	ND	1.0	0.19	1	B7A0235	01/09/2017	01/10/17 18:29	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0235	01/09/2017	01/10/17 18:29	
Methoxychlor	ND	5.0	0.18	1	B7A0235	01/09/2017	01/10/17 18:29	
Toxaphene	ND	50	8.2	1	B7A0235	01/09/2017	01/10/17 18:29	
Surrogate: Decachlorobiphenyl	*89.5 %*	*27 - 123*			B7A0235	01/09/2017	*01/10/17 18:29*	
Surrogate: Decachlorobiphenyl	*91.0 %*	*27 - 123*			B7A0235	01/09/2017	*01/11/17 12:18*	
Surrogate: Tetrachloro-m-xylene	*80.9 %*	*26 - 108*			B7A0235	01/09/2017	*01/10/17 18:29*	
Surrogate: Tetrachloro-m-xylene	*87.5 %*	*26 - 108*			B7A0235	01/09/2017	*01/11/17 12:18*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB5-3-1.0
Lab ID: 1604921-38

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**3.2**	1.0	0.70	1	B7A0230	01/09/2017	01/10/17 10:52	
Lead	**25**	1.0	0.11	1	B7A0230	01/09/2017	01/10/17 10:52	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	**0.30**	2.0	0.22	1	B7A0235	01/09/2017	01/10/17 18:40	J
4,4´-DDE [2C]	**33**	2.0	0.20	1	B7A0235	01/09/2017	01/10/17 18:40	
4,4´-DDT	ND	2.0	0.13	1	B7A0235	01/09/2017	01/10/17 18:40	
Aldrin	ND	1.0	0.27	1	B7A0235	01/09/2017	01/10/17 18:40	
alpha-BHC	ND	1.0	0.20	1	B7A0235	01/09/2017	01/10/17 18:40	
alpha-Chlordane	ND	1.0	0.21	1	B7A0235	01/09/2017	01/10/17 18:40	
beta-BHC	ND	1.0	0.23	1	B7A0235	01/09/2017	01/10/17 18:40	
Chlordane	ND	8.5	0.90	1	B7A0235	01/09/2017	01/10/17 18:40	
delta-BHC	ND	1.0	0.21	1	B7A0235	01/09/2017	01/10/17 18:40	
Dieldrin	ND	2.0	0.25	1	B7A0235	01/09/2017	01/10/17 18:40	
Endosulfan I	ND	1.0	0.21	1	B7A0235	01/09/2017	01/10/17 18:40	
Endosulfan II	ND	2.0	0.22	1	B7A0235	01/09/2017	01/10/17 18:40	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0235	01/09/2017	01/10/17 18:40	
Endrin	ND	2.0	0.23	1	B7A0235	01/09/2017	01/10/17 18:40	
Endrin aldehyde	ND	2.0	0.28	1	B7A0235	01/09/2017	01/10/17 18:40	
Endrin ketone	ND	2.0	0.20	1	B7A0235	01/09/2017	01/10/17 18:40	
gamma-BHC	ND	1.0	0.20	1	B7A0235	01/09/2017	01/10/17 18:40	
gamma-Chlordane	ND	1.0	0.23	1	B7A0235	01/09/2017	01/10/17 18:40	
Heptachlor	ND	1.0	0.19	1	B7A0235	01/09/2017	01/10/17 18:40	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0235	01/09/2017	01/10/17 18:40	
Methoxychlor	**180**	5.0	0.18	1	B7A0235	01/09/2017	01/10/17 18:40	
Toxaphene	ND	50	8.2	1	B7A0235	01/09/2017	01/10/17 18:40	
Surrogate: Decachlorobiphenyl	*78.6 %*		*27 - 123*		B7A0235	01/09/2017	*01/10/17 18:40*	
Surrogate: Tetrachloro-m-xylene	*72.9 %*		*26 - 108*		B7A0235	01/09/2017	*01/10/17 18:40*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB5-4-0.5
Lab ID: 1604921-39

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.2**	1.0	0.70	1	B7A0230	01/09/2017	01/10/17 10:53	
Lead	**56**	1.0	0.11	1	B7A0230	01/09/2017	01/10/17 10:53	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	10	1.1	5	B7A0235	01/09/2017	01/10/17 18:51	D1
4,4´-DDE	ND	10	0.98	5	B7A0235	01/09/2017	01/10/17 18:51	D1
4,4´-DDT	ND	10	0.67	5	B7A0235	01/09/2017	01/10/17 18:51	D1
Aldrin	ND	5.0	1.3	5	B7A0235	01/09/2017	01/10/17 18:51	D1
alpha-BHC	ND	5.0	0.99	5	B7A0235	01/09/2017	01/10/17 18:51	D1
alpha-Chlordane	ND	5.0	1.1	5	B7A0235	01/09/2017	01/10/17 18:51	D1
beta-BHC	ND	5.0	1.1	5	B7A0235	01/09/2017	01/10/17 18:51	D1
Chlordane	ND	42	4.5	5	B7A0235	01/09/2017	01/10/17 18:51	D1
delta-BHC	ND	5.0	1.0	5	B7A0235	01/09/2017	01/10/17 18:51	D1
Dieldrin	ND	10	1.2	5	B7A0235	01/09/2017	01/10/17 18:51	D1
Endosulfan I	ND	5.0	1.1	5	B7A0235	01/09/2017	01/10/17 18:51	D1
Endosulfan II	ND	10	1.1	5	B7A0235	01/09/2017	01/10/17 18:51	D1
Endosulfan sulfate	ND	10	1.1	5	B7A0235	01/09/2017	01/10/17 18:51	D1
Endrin	ND	10	1.1	5	B7A0235	01/09/2017	01/10/17 18:51	D1
Endrin aldehyde	ND	10	1.4	5	B7A0235	01/09/2017	01/10/17 18:51	D1
Endrin ketone	ND	10	1.0	5	B7A0235	01/09/2017	01/10/17 18:51	D1
gamma-BHC	ND	5.0	1.0	5	B7A0235	01/09/2017	01/10/17 18:51	D1
gamma-Chlordane	ND	5.0	1.1	5	B7A0235	01/09/2017	01/10/17 18:51	D1
Heptachlor	ND	5.0	0.95	5	B7A0235	01/09/2017	01/10/17 18:51	D1
Heptachlor epoxide	ND	5.0	1.0	5	B7A0235	01/09/2017	01/10/17 18:51	D1
Methoxychlor	**48**	25	0.89	5	B7A0235	01/09/2017	01/10/17 18:51	D1
Toxaphene	ND	250	41	5	B7A0235	01/09/2017	01/10/17 18:51	D1
Surrogate: Decachlorobiphenyl	*69.5 %*		*27 - 123*		B7A0235	01/09/2017	*01/10/17 18:51*	
Surrogate: Tetrachloro-m-xylene	*43.4 %*		*26 - 108*		B7A0235	01/09/2017	*01/10/17 18:51*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB5-4-1.5
Lab ID: 1604921-40

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.9**	1.0	0.70	1	B7A0230	01/09/2017	01/10/17 10:54	
Lead	**18**	1.0	0.11	1	B7A0230	01/09/2017	01/10/17 10:54	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0235	01/09/2017	01/10/17 19:01	
4,4´-DDE	ND	2.0	0.20	1	B7A0235	01/09/2017	01/10/17 19:01	
4,4´-DDT	ND	2.0	0.13	1	B7A0235	01/09/2017	01/10/17 19:01	
Aldrin	ND	1.0	0.27	1	B7A0235	01/09/2017	01/10/17 19:01	
alpha-BHC	ND	1.0	0.20	1	B7A0235	01/09/2017	01/10/17 19:01	
alpha-Chlordane	ND	1.0	0.21	1	B7A0235	01/09/2017	01/10/17 19:01	
beta-BHC	ND	1.0	0.23	1	B7A0235	01/09/2017	01/10/17 19:01	
Chlordane	ND	8.5	0.90	1	B7A0235	01/09/2017	01/10/17 19:01	
delta-BHC	ND	1.0	0.21	1	B7A0235	01/09/2017	01/10/17 19:01	
Dieldrin	ND	2.0	0.25	1	B7A0235	01/09/2017	01/10/17 19:01	
Endosulfan I	ND	1.0	0.21	1	B7A0235	01/09/2017	01/10/17 19:01	
Endosulfan II	ND	2.0	0.22	1	B7A0235	01/09/2017	01/10/17 19:01	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0235	01/09/2017	01/10/17 19:01	
Endrin	ND	2.0	0.23	1	B7A0235	01/09/2017	01/10/17 19:01	
Endrin aldehyde	ND	2.0	0.28	1	B7A0235	01/09/2017	01/10/17 19:01	
Endrin ketone	ND	2.0	0.20	1	B7A0235	01/09/2017	01/10/17 19:01	
gamma-BHC	ND	1.0	0.20	1	B7A0235	01/09/2017	01/10/17 19:01	
gamma-Chlordane	ND	1.0	0.23	1	B7A0235	01/09/2017	01/10/17 19:01	
Heptachlor	ND	1.0	0.19	1	B7A0235	01/09/2017	01/10/17 19:01	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0235	01/09/2017	01/10/17 19:01	
Methoxychlor	ND	5.0	0.18	1	B7A0235	01/09/2017	01/10/17 19:01	
Toxaphene	ND	50	8.2	1	B7A0235	01/09/2017	01/10/17 19:01	
Surrogate: Decachlorobiphenyl	*89.8 %*		*27 - 123*		B7A0235	01/09/2017	*01/10/17 19:01*	
Surrogate: Tetrachloro-m-xylene	*77.9 %*		*26 - 108*		B7A0235	01/09/2017	*01/10/17 19:01*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB5-6-0.5
Lab ID: 1604921-42

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**3.8**	1.0	0.70	1	B7A0230	01/09/2017	01/10/17 10:55	
Lead	**24**	1.0	0.11	1	B7A0230	01/09/2017	01/10/17 10:55	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	20	2.2	10	B7A0176	01/06/2017	01/10/17 12:55	D1
4,4´-DDE	ND	20	2.0	10	B7A0176	01/06/2017	01/10/17 12:55	D1
4,4´-DDT	ND	20	1.3	10	B7A0176	01/06/2017	01/10/17 12:55	D1
Aldrin	ND	10	2.7	10	B7A0176	01/06/2017	01/10/17 12:55	D1
alpha-BHC	ND	10	2.0	10	B7A0176	01/06/2017	01/10/17 12:55	D1
alpha-Chlordane	ND	10	2.1	10	B7A0176	01/06/2017	01/10/17 12:55	D1
beta-BHC	ND	10	2.3	10	B7A0176	01/06/2017	01/10/17 12:55	D1
Chlordane	ND	85	9.0	10	B7A0176	01/06/2017	01/10/17 12:55	D1
delta-BHC	ND	10	2.1	10	B7A0176	01/06/2017	01/10/17 12:55	D1
Dieldrin	ND	20	2.5	10	B7A0176	01/06/2017	01/10/17 12:55	D1
Endosulfan I	ND	10	2.1	10	B7A0176	01/06/2017	01/10/17 12:55	D1
Endosulfan II	ND	20	2.2	10	B7A0176	01/06/2017	01/10/17 12:55	D1
Endosulfan sulfate	ND	20	2.1	10	B7A0176	01/06/2017	01/10/17 12:55	D1
Endrin	ND	20	2.3	10	B7A0176	01/06/2017	01/10/17 12:55	D1
Endrin aldehyde	ND	20	2.8	10	B7A0176	01/06/2017	01/10/17 12:55	D1
Endrin ketone	ND	20	2.0	10	B7A0176	01/06/2017	01/10/17 12:55	D1
gamma-BHC	ND	10	2.0	10	B7A0176	01/06/2017	01/10/17 12:55	D1
gamma-Chlordane	ND	10	2.3	10	B7A0176	01/06/2017	01/10/17 12:55	D1
Heptachlor	ND	10	1.9	10	B7A0176	01/06/2017	01/10/17 12:55	D1
Heptachlor epoxide	ND	10	2.0	10	B7A0176	01/06/2017	01/10/17 12:55	D1
Methoxychlor	ND	50	1.8	10	B7A0176	01/06/2017	01/10/17 12:55	D1
Toxaphene	ND	500	82	10	B7A0176	01/06/2017	01/10/17 12:55	D1
Surrogate: Decachlorobiphenyl	*163 %*	*27 - 123*			B7A0176	01/06/2017	*01/10/17 12:55*	S1
Surrogate: Tetrachloro-m-xylene	*170 %*	*26 - 108*			B7A0176	01/06/2017	*01/10/17 12:55*	S1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB5-6-0.5

Lab ID: 1604921-42

Polychlorinated Biphenyls by EPA 8082 **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 18:47	
Aroclor 1221	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 18:47	
Aroclor 1232	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 18:47	
Aroclor 1242	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 18:47	
Aroclor 1248	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 18:47	
Aroclor 1254	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 18:47	
Aroclor 1260	**2.6**	16	1.5	1	B7A0176	01/06/2017	01/06/17 18:47	J
Aroclor 1262	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 18:47	
Aroclor 1268	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 18:47	
Surrogate: Decachlorobiphenyl	*98.0 %*	*26 - 137*			B7A0176	01/06/2017	*01/06/17 18:47*	
Surrogate: Tetrachloro-m-xylene	*102 %*	*28 - 102*			B7A0176	01/06/2017	*01/06/17 18:47*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB5-6-1.5
Lab ID: 1604921-43

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.5**	1.0	0.70	1	B7A0230	01/09/2017	01/10/17 10:57	
Lead	**67**	1.0	0.11	1	B7A0230	01/09/2017	01/10/17 10:57	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	20	2.2	10	B7A0176	01/06/2017	01/10/17 13:05	D1
4,4´-DDE	ND	20	2.0	10	B7A0176	01/06/2017	01/10/17 13:05	D1
4,4´-DDT	ND	20	1.3	10	B7A0176	01/06/2017	01/10/17 13:05	D1
Aldrin	ND	10	2.7	10	B7A0176	01/06/2017	01/10/17 13:05	D1
alpha-BHC	ND	10	2.0	10	B7A0176	01/06/2017	01/10/17 13:05	D1
alpha-Chlordane [2C]	**5.5**	10	2.1	10	B7A0176	01/06/2017	01/10/17 13:05	D1, J
beta-BHC	ND	10	2.3	10	B7A0176	01/06/2017	01/10/17 13:05	D1
Chlordane [2C]	**67**	85	9.0	10	B7A0176	01/06/2017	01/10/17 13:05	D1, J
delta-BHC	ND	10	2.1	10	B7A0176	01/06/2017	01/10/17 13:05	D1
Dieldrin	ND	20	2.5	10	B7A0176	01/06/2017	01/10/17 13:05	D1
Endosulfan I	ND	10	2.1	10	B7A0176	01/06/2017	01/10/17 13:05	D1
Endosulfan II	ND	20	2.2	10	B7A0176	01/06/2017	01/10/17 13:05	D1
Endosulfan sulfate	ND	20	2.1	10	B7A0176	01/06/2017	01/10/17 13:05	D1
Endrin	ND	20	2.3	10	B7A0176	01/06/2017	01/10/17 13:05	D1
Endrin aldehyde	ND	20	2.8	10	B7A0176	01/06/2017	01/10/17 13:05	D1
Endrin ketone	ND	20	2.0	10	B7A0176	01/06/2017	01/10/17 13:05	D1
gamma-BHC	ND	10	2.0	10	B7A0176	01/06/2017	01/10/17 13:05	D1
gamma-Chlordane [2C]	**6.0**	10	2.3	10	B7A0176	01/06/2017	01/10/17 13:05	D1, J
Heptachlor	ND	10	1.9	10	B7A0176	01/06/2017	01/10/17 13:05	D1
Heptachlor epoxide	ND	10	2.0	10	B7A0176	01/06/2017	01/10/17 13:05	D1
Methoxychlor	ND	50	1.8	10	B7A0176	01/06/2017	01/10/17 13:05	D1
Toxaphene	ND	500	82	10	B7A0176	01/06/2017	01/10/17 13:05	D1
Surrogate: Decachlorobiphenyl	*98.4 %*	*27 - 123*			B7A0176	01/06/2017	*01/10/17 13:05*	
Surrogate: Tetrachloro-m-xylene	*75.9 %*	*26 - 108*			B7A0176	01/06/2017	*01/10/17 13:05*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB16-2-0.5
Lab ID: 1604921-45

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.4**	1.0	0.70	1	B7A0230	01/09/2017	01/10/17 10:58	
Lead	**19**	1.0	0.11	1	B7A0230	01/09/2017	01/10/17 10:58	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	20	2.2	10	B7A0176	01/06/2017	01/10/17 13:16	D1
4,4´-DDE	ND	20	2.0	10	B7A0176	01/06/2017	01/10/17 13:16	D1
4,4´-DDT	ND	20	1.3	10	B7A0176	01/06/2017	01/10/17 13:16	D1
Aldrin	ND	10	2.7	10	B7A0176	01/06/2017	01/10/17 13:16	D1
alpha-BHC	ND	10	2.0	10	B7A0176	01/06/2017	01/10/17 13:16	D1
alpha-Chlordane	ND	10	2.1	10	B7A0176	01/06/2017	01/10/17 13:16	D1
beta-BHC	ND	10	2.3	10	B7A0176	01/06/2017	01/10/17 13:16	D1
Chlordane	ND	85	9.0	10	B7A0176	01/06/2017	01/10/17 13:16	D1
delta-BHC	ND	10	2.1	10	B7A0176	01/06/2017	01/10/17 13:16	D1
Dieldrin	ND	20	2.5	10	B7A0176	01/06/2017	01/10/17 13:16	D1
Endosulfan I	ND	10	2.1	10	B7A0176	01/06/2017	01/10/17 13:16	D1
Endosulfan II	ND	20	2.2	10	B7A0176	01/06/2017	01/10/17 13:16	D1
Endosulfan sulfate	ND	20	2.1	10	B7A0176	01/06/2017	01/10/17 13:16	D1
Endrin	ND	20	2.3	10	B7A0176	01/06/2017	01/10/17 13:16	D1
Endrin aldehyde	ND	20	2.8	10	B7A0176	01/06/2017	01/10/17 13:16	D1
Endrin ketone	ND	20	2.0	10	B7A0176	01/06/2017	01/10/17 13:16	D1
gamma-BHC	ND	10	2.0	10	B7A0176	01/06/2017	01/10/17 13:16	D1
gamma-Chlordane	ND	10	2.3	10	B7A0176	01/06/2017	01/10/17 13:16	D1
Heptachlor	ND	10	1.9	10	B7A0176	01/06/2017	01/10/17 13:16	D1
Heptachlor epoxide	ND	10	2.0	10	B7A0176	01/06/2017	01/10/17 13:16	D1
Methoxychlor	ND	50	1.8	10	B7A0176	01/06/2017	01/10/17 13:16	D1
Toxaphene	ND	500	82	10	B7A0176	01/06/2017	01/10/17 13:16	D1
Surrogate: Decachlorobiphenyl	*84.8 %*	*27 - 123*			B7A0176	01/06/2017	*01/10/17 13:16*	
Surrogate: Tetrachloro-m-xylene	*83.9 %*	*26 - 108*			B7A0176	01/06/2017	*01/10/17 13:16*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB16-2-1.5
Lab ID: 1604921-46

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.0**	1.0	0.70	1	B7A0230	01/09/2017	01/10/17 10:59	
Lead	**8.8**	1.0	0.11	1	B7A0230	01/09/2017	01/10/17 10:59	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	20	2.2	10	B7A0176	01/06/2017	01/10/17 13:27	D1
4,4´-DDE	ND	20	2.0	10	B7A0176	01/06/2017	01/10/17 13:27	D1
4,4´-DDT	ND	20	1.3	10	B7A0176	01/06/2017	01/10/17 13:27	D1
Aldrin	ND	10	2.7	10	B7A0176	01/06/2017	01/10/17 13:27	D1
alpha-BHC	ND	10	2.0	10	B7A0176	01/06/2017	01/10/17 13:27	D1
alpha-Chlordane	ND	10	2.1	10	B7A0176	01/06/2017	01/10/17 13:27	D1
beta-BHC	ND	10	2.3	10	B7A0176	01/06/2017	01/10/17 13:27	D1
Chlordane	ND	85	9.0	10	B7A0176	01/06/2017	01/10/17 13:27	D1
delta-BHC	ND	10	2.1	10	B7A0176	01/06/2017	01/10/17 13:27	D1
Dieldrin	ND	20	2.5	10	B7A0176	01/06/2017	01/10/17 13:27	D1
Endosulfan I	ND	10	2.1	10	B7A0176	01/06/2017	01/10/17 13:27	D1
Endosulfan II	ND	20	2.2	10	B7A0176	01/06/2017	01/10/17 13:27	D1
Endosulfan sulfate	ND	20	2.1	10	B7A0176	01/06/2017	01/10/17 13:27	D1
Endrin	ND	20	2.3	10	B7A0176	01/06/2017	01/10/17 13:27	D1
Endrin aldehyde	ND	20	2.8	10	B7A0176	01/06/2017	01/10/17 13:27	D1
Endrin ketone	ND	20	2.0	10	B7A0176	01/06/2017	01/10/17 13:27	D1
gamma-BHC	ND	10	2.0	10	B7A0176	01/06/2017	01/10/17 13:27	D1
gamma-Chlordane	ND	10	2.3	10	B7A0176	01/06/2017	01/10/17 13:27	D1
Heptachlor	ND	10	1.9	10	B7A0176	01/06/2017	01/10/17 13:27	D1
Heptachlor epoxide	ND	10	2.0	10	B7A0176	01/06/2017	01/10/17 13:27	D1
Methoxychlor	ND	50	1.8	10	B7A0176	01/06/2017	01/10/17 13:27	D1
Toxaphene	ND	500	82	10	B7A0176	01/06/2017	01/10/17 13:27	D1
Surrogate: Decachlorobiphenyl	*42.8 %*	*27 - 123*			B7A0176	01/06/2017	*01/10/17 13:27*	
Surrogate: Tetrachloro-m-xylene	*35.2 %*	*26 - 108*			B7A0176	01/06/2017	*01/10/17 13:27*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB5-5-0.5
Lab ID: 1604921-48

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**3.6**	1.0	0.70	1	B7A0230	01/09/2017	01/10/17 11:00	
Lead	**22**	1.0	0.11	1	B7A0230	01/09/2017	01/10/17 11:00	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	20	2.2	10	B7A0176	01/06/2017	01/10/17 13:37	D1
4,4´-DDE	ND	20	2.0	10	B7A0176	01/06/2017	01/10/17 13:37	D1
4,4´-DDT	ND	20	1.3	10	B7A0176	01/06/2017	01/10/17 13:37	D1
Aldrin	ND	10	2.7	10	B7A0176	01/06/2017	01/10/17 13:37	D1
alpha-BHC	ND	10	2.0	10	B7A0176	01/06/2017	01/10/17 13:37	D1
alpha-Chlordane	ND	10	2.1	10	B7A0176	01/06/2017	01/10/17 13:37	D1
beta-BHC	ND	10	2.3	10	B7A0176	01/06/2017	01/10/17 13:37	D1
Chlordane	ND	85	9.0	10	B7A0176	01/06/2017	01/10/17 13:37	D1
delta-BHC	ND	10	2.1	10	B7A0176	01/06/2017	01/10/17 13:37	D1
Dieldrin	ND	20	2.5	10	B7A0176	01/06/2017	01/10/17 13:37	D1
Endosulfan I	ND	10	2.1	10	B7A0176	01/06/2017	01/10/17 13:37	D1
Endosulfan II	ND	20	2.2	10	B7A0176	01/06/2017	01/10/17 13:37	D1
Endosulfan sulfate	ND	20	2.1	10	B7A0176	01/06/2017	01/10/17 13:37	D1
Endrin	ND	20	2.3	10	B7A0176	01/06/2017	01/10/17 13:37	D1
Endrin aldehyde	ND	20	2.8	10	B7A0176	01/06/2017	01/10/17 13:37	D1
Endrin ketone	ND	20	2.0	10	B7A0176	01/06/2017	01/10/17 13:37	D1
gamma-BHC	ND	10	2.0	10	B7A0176	01/06/2017	01/10/17 13:37	D1
gamma-Chlordane	ND	10	2.3	10	B7A0176	01/06/2017	01/10/17 13:37	D1
Heptachlor	ND	10	1.9	10	B7A0176	01/06/2017	01/10/17 13:37	D1
Heptachlor epoxide	ND	10	2.0	10	B7A0176	01/06/2017	01/10/17 13:37	D1
Methoxychlor	ND	50	1.8	10	B7A0176	01/06/2017	01/10/17 13:37	D1
Toxaphene	ND	500	82	10	B7A0176	01/06/2017	01/10/17 13:37	D1
Surrogate: Decachlorobiphenyl	*99.9 %*	*27 - 123*			B7A0176	01/06/2017	*01/10/17 13:37*	
Surrogate: Tetrachloro-m-xylene	*82.5 %*	*26 - 108*			B7A0176	01/06/2017	*01/10/17 13:37*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB5-5-1.5
Lab ID: 1604921-49

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.5**	1.0	0.70	1	B7A0230	01/09/2017	01/10/17 11:04	
Lead	**8.5**	1.0	0.11	1	B7A0230	01/09/2017	01/10/17 11:04	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	20	2.2	10	B7A0176	01/06/2017	01/10/17 13:48	D1
4,4´-DDE	ND	20	2.0	10	B7A0176	01/06/2017	01/10/17 13:48	D1
4,4´-DDT	ND	20	1.3	10	B7A0176	01/06/2017	01/10/17 13:48	D1
Aldrin	ND	10	2.7	10	B7A0176	01/06/2017	01/10/17 13:48	D1
alpha-BHC	ND	10	2.0	10	B7A0176	01/06/2017	01/10/17 13:48	D1
alpha-Chlordane	ND	10	2.1	10	B7A0176	01/06/2017	01/10/17 13:48	D1
beta-BHC	ND	10	2.3	10	B7A0176	01/06/2017	01/10/17 13:48	D1
Chlordane	ND	85	9.0	10	B7A0176	01/06/2017	01/10/17 13:48	D1
delta-BHC	ND	10	2.1	10	B7A0176	01/06/2017	01/10/17 13:48	D1
Dieldrin	ND	20	2.5	10	B7A0176	01/06/2017	01/10/17 13:48	D1
Endosulfan I	ND	10	2.1	10	B7A0176	01/06/2017	01/10/17 13:48	D1
Endosulfan II	ND	20	2.2	10	B7A0176	01/06/2017	01/10/17 13:48	D1
Endosulfan sulfate	ND	20	2.1	10	B7A0176	01/06/2017	01/10/17 13:48	D1
Endrin	ND	20	2.3	10	B7A0176	01/06/2017	01/10/17 13:48	D1
Endrin aldehyde	ND	20	2.8	10	B7A0176	01/06/2017	01/10/17 13:48	D1
Endrin ketone	ND	20	2.0	10	B7A0176	01/06/2017	01/10/17 13:48	D1
gamma-BHC	ND	10	2.0	10	B7A0176	01/06/2017	01/10/17 13:48	D1
gamma-Chlordane	ND	10	2.3	10	B7A0176	01/06/2017	01/10/17 13:48	D1
Heptachlor	ND	10	1.9	10	B7A0176	01/06/2017	01/10/17 13:48	D1
Heptachlor epoxide	ND	10	2.0	10	B7A0176	01/06/2017	01/10/17 13:48	D1
Methoxychlor	ND	50	1.8	10	B7A0176	01/06/2017	01/10/17 13:48	D1
Toxaphene	ND	500	82	10	B7A0176	01/06/2017	01/10/17 13:48	D1
Surrogate: Decachlorobiphenyl	*102 %*	*27 - 123*			B7A0176	01/06/2017	*01/10/17 13:48*	
Surrogate: Tetrachloro-m-xylene	*79.6 %*	*26 - 108*			B7A0176	01/06/2017	*01/10/17 13:48*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB6-2-0.5
Lab ID: 1604921-51

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.4**	1.0	0.70	1	B7A0230	01/09/2017	01/10/17 11:05	
Lead	**3.5**	1.0	0.11	1	B7A0230	01/09/2017	01/10/17 11:05	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0176	01/06/2017	01/07/17 13:46	
4,4´-DDE	ND	2.0	0.20	1	B7A0176	01/06/2017	01/07/17 13:46	
4,4´-DDT	ND	2.0	0.13	1	B7A0176	01/06/2017	01/07/17 13:46	
Aldrin	ND	1.0	0.27	1	B7A0176	01/06/2017	01/07/17 13:46	
alpha-BHC	ND	1.0	0.20	1	B7A0176	01/06/2017	01/07/17 13:46	
alpha-Chlordane	ND	1.0	0.21	1	B7A0176	01/06/2017	01/07/17 13:46	
beta-BHC	ND	1.0	0.23	1	B7A0176	01/06/2017	01/07/17 13:46	
Chlordane	ND	8.5	0.90	1	B7A0176	01/06/2017	01/07/17 13:46	
delta-BHC	ND	1.0	0.21	1	B7A0176	01/06/2017	01/07/17 13:46	
Dieldrin	ND	2.0	0.25	1	B7A0176	01/06/2017	01/07/17 13:46	
Endosulfan I	ND	1.0	0.21	1	B7A0176	01/06/2017	01/07/17 13:46	
Endosulfan II	ND	2.0	0.22	1	B7A0176	01/06/2017	01/07/17 13:46	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0176	01/06/2017	01/07/17 13:46	
Endrin	ND	2.0	0.23	1	B7A0176	01/06/2017	01/07/17 13:46	
Endrin aldehyde	ND	2.0	0.28	1	B7A0176	01/06/2017	01/07/17 13:46	
Endrin ketone	ND	2.0	0.20	1	B7A0176	01/06/2017	01/07/17 13:46	
gamma-BHC	ND	1.0	0.20	1	B7A0176	01/06/2017	01/07/17 13:46	
gamma-Chlordane	ND	1.0	0.23	1	B7A0176	01/06/2017	01/07/17 13:46	
Heptachlor	ND	1.0	0.19	1	B7A0176	01/06/2017	01/07/17 13:46	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0176	01/06/2017	01/07/17 13:46	
Methoxychlor	ND	5.0	0.18	1	B7A0176	01/06/2017	01/07/17 13:46	
Toxaphene	ND	50	8.2	1	B7A0176	01/06/2017	01/07/17 13:46	
Surrogate: Decachlorobiphenyl	*66.6 %*		*27 - 123*		B7A0176	01/06/2017	*01/07/17 13:46*	
Surrogate: Tetrachloro-m-xylene	*61.8 %*		*26 - 108*		B7A0176	01/06/2017	*01/07/17 13:46*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB6-2-1.5
Lab ID: 1604921-52

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.5**	1.0	0.70	1	B7A0230	01/09/2017	01/10/17 11:06	
Lead	**3.1**	1.0	0.11	1	B7A0230	01/09/2017	01/10/17 11:06	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0176	01/06/2017	01/07/17 13:57	
4,4´-DDE	ND	2.0	0.20	1	B7A0176	01/06/2017	01/07/17 13:57	
4,4´-DDT	ND	2.0	0.13	1	B7A0176	01/06/2017	01/07/17 13:57	
Aldrin	ND	1.0	0.27	1	B7A0176	01/06/2017	01/07/17 13:57	
alpha-BHC	ND	1.0	0.20	1	B7A0176	01/06/2017	01/07/17 13:57	
alpha-Chlordane	ND	1.0	0.21	1	B7A0176	01/06/2017	01/07/17 13:57	
beta-BHC	ND	1.0	0.23	1	B7A0176	01/06/2017	01/07/17 13:57	
Chlordane	ND	8.5	0.90	1	B7A0176	01/06/2017	01/07/17 13:57	
delta-BHC	ND	1.0	0.21	1	B7A0176	01/06/2017	01/07/17 13:57	
Dieldrin	ND	2.0	0.25	1	B7A0176	01/06/2017	01/07/17 13:57	
Endosulfan I	ND	1.0	0.21	1	B7A0176	01/06/2017	01/07/17 13:57	
Endosulfan II	ND	2.0	0.22	1	B7A0176	01/06/2017	01/07/17 13:57	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0176	01/06/2017	01/07/17 13:57	
Endrin	ND	2.0	0.23	1	B7A0176	01/06/2017	01/07/17 13:57	
Endrin aldehyde	ND	2.0	0.28	1	B7A0176	01/06/2017	01/07/17 13:57	
Endrin ketone	ND	2.0	0.20	1	B7A0176	01/06/2017	01/07/17 13:57	
gamma-BHC	ND	1.0	0.20	1	B7A0176	01/06/2017	01/07/17 13:57	
gamma-Chlordane	ND	1.0	0.23	1	B7A0176	01/06/2017	01/07/17 13:57	
Heptachlor	ND	1.0	0.19	1	B7A0176	01/06/2017	01/07/17 13:57	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0176	01/06/2017	01/07/17 13:57	
Methoxychlor	ND	5.0	0.18	1	B7A0176	01/06/2017	01/07/17 13:57	
Toxaphene	ND	50	8.2	1	B7A0176	01/06/2017	01/07/17 13:57	
Surrogate: Decachlorobiphenyl	*90.6 %*		*27 - 123*		B7A0176	01/06/2017	*01/07/17 13:57*	
Surrogate: Tetrachloro-m-xylene	*87.9 %*		*26 - 108*		B7A0176	01/06/2017	*01/07/17 13:57*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB6-2-1.5

Lab ID: 1604921-52

Polychlorinated Biphenyls by EPA 8082 **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 19:06	
Aroclor 1221	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 19:06	
Aroclor 1232	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 19:06	
Aroclor 1242	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 19:06	
Aroclor 1248	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 19:06	
Aroclor 1254	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 19:06	
Aroclor 1260	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 19:06	
Aroclor 1262	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 19:06	
Aroclor 1268	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 19:06	
Surrogate: Decachlorobiphenyl	*102 %*	*26 - 137*			B7A0176	01/06/2017	*01/06/17 19:06*	
Surrogate: Tetrachloro-m-xylene	*102 %*	*28 - 102*			B7A0176	01/06/2017	*01/06/17 19:06*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB5-2-0.5
Lab ID: 1604921-54

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.1**	1.0	0.70	1	B7A0230	01/09/2017	01/10/17 11:07	
Lead	**7.9**	1.0	0.11	1	B7A0230	01/09/2017	01/10/17 11:07	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0176	01/06/2017	01/07/17 14:08	
4,4´-DDE	ND	2.0	0.20	1	B7A0176	01/06/2017	01/07/17 14:08	
4,4´-DDT	ND	2.0	0.13	1	B7A0176	01/06/2017	01/07/17 14:08	
Aldrin	ND	1.0	0.27	1	B7A0176	01/06/2017	01/07/17 14:08	
alpha-BHC	ND	1.0	0.20	1	B7A0176	01/06/2017	01/07/17 14:08	
alpha-Chlordane	ND	1.0	0.21	1	B7A0176	01/06/2017	01/07/17 14:08	
beta-BHC	ND	1.0	0.23	1	B7A0176	01/06/2017	01/07/17 14:08	
Chlordane	ND	8.5	0.90	1	B7A0176	01/06/2017	01/07/17 14:08	
delta-BHC	ND	1.0	0.21	1	B7A0176	01/06/2017	01/07/17 14:08	
Dieldrin	ND	2.0	0.25	1	B7A0176	01/06/2017	01/07/17 14:08	
Endosulfan I	ND	1.0	0.21	1	B7A0176	01/06/2017	01/07/17 14:08	
Endosulfan II	ND	2.0	0.22	1	B7A0176	01/06/2017	01/07/17 14:08	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0176	01/06/2017	01/07/17 14:08	
Endrin	ND	2.0	0.23	1	B7A0176	01/06/2017	01/07/17 14:08	
Endrin aldehyde	ND	2.0	0.28	1	B7A0176	01/06/2017	01/07/17 14:08	
Endrin ketone	ND	2.0	0.20	1	B7A0176	01/06/2017	01/07/17 14:08	
gamma-BHC	ND	1.0	0.20	1	B7A0176	01/06/2017	01/07/17 14:08	
gamma-Chlordane	ND	1.0	0.23	1	B7A0176	01/06/2017	01/07/17 14:08	
Heptachlor	ND	1.0	0.19	1	B7A0176	01/06/2017	01/07/17 14:08	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0176	01/06/2017	01/07/17 14:08	
Methoxychlor	ND	5.0	0.18	1	B7A0176	01/06/2017	01/07/17 14:08	
Toxaphene	ND	50	8.2	1	B7A0176	01/06/2017	01/07/17 14:08	
Surrogate: Decachlorobiphenyl	*59.0 %*		*27 - 123*		B7A0176	01/06/2017	*01/07/17 14:08*	
Surrogate: Tetrachloro-m-xylene	*59.5 %*		*26 - 108*		B7A0176	01/06/2017	*01/07/17 14:08*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB5-2-1.5
Lab ID: 1604921-55

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.0**	1.0	0.70	1	B7A0230	01/09/2017	01/10/17 11:08	
Lead	**3.7**	1.0	0.11	1	B7A0230	01/09/2017	01/10/17 11:08	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0176	01/06/2017	01/07/17 14:18	
4,4´-DDE	ND	2.0	0.20	1	B7A0176	01/06/2017	01/07/17 14:18	
4,4´-DDT	ND	2.0	0.13	1	B7A0176	01/06/2017	01/07/17 14:18	
Aldrin	ND	1.0	0.27	1	B7A0176	01/06/2017	01/07/17 14:18	
alpha-BHC	ND	1.0	0.20	1	B7A0176	01/06/2017	01/07/17 14:18	
alpha-Chlordane	ND	1.0	0.21	1	B7A0176	01/06/2017	01/07/17 14:18	
beta-BHC	ND	1.0	0.23	1	B7A0176	01/06/2017	01/07/17 14:18	
Chlordane	ND	8.5	0.90	1	B7A0176	01/06/2017	01/07/17 14:18	
delta-BHC	ND	1.0	0.21	1	B7A0176	01/06/2017	01/07/17 14:18	
Dieldrin	ND	2.0	0.25	1	B7A0176	01/06/2017	01/07/17 14:18	
Endosulfan I	ND	1.0	0.21	1	B7A0176	01/06/2017	01/07/17 14:18	
Endosulfan II	ND	2.0	0.22	1	B7A0176	01/06/2017	01/07/17 14:18	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0176	01/06/2017	01/07/17 14:18	
Endrin	ND	2.0	0.23	1	B7A0176	01/06/2017	01/07/17 14:18	
Endrin aldehyde	ND	2.0	0.28	1	B7A0176	01/06/2017	01/07/17 14:18	
Endrin ketone	ND	2.0	0.20	1	B7A0176	01/06/2017	01/07/17 14:18	
gamma-BHC	ND	1.0	0.20	1	B7A0176	01/06/2017	01/07/17 14:18	
gamma-Chlordane	ND	1.0	0.23	1	B7A0176	01/06/2017	01/07/17 14:18	
Heptachlor	ND	1.0	0.19	1	B7A0176	01/06/2017	01/07/17 14:18	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0176	01/06/2017	01/07/17 14:18	
Methoxychlor	ND	5.0	0.18	1	B7A0176	01/06/2017	01/07/17 14:18	
Toxaphene	ND	50	8.2	1	B7A0176	01/06/2017	01/07/17 14:18	
Surrogate: Decachlorobiphenyl	*58.8 %*		*27 - 123*		B7A0176	01/06/2017	*01/07/17 14:18*	
Surrogate: Tetrachloro-m-xylene	*60.5 %*		*26 - 108*		B7A0176	01/06/2017	*01/07/17 14:18*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB16-3-0.5
Lab ID: 1604921-57

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.6**	1.0	0.70	1	B7A0231	01/09/2017	01/10/17 11:18	
Lead	**5.3**	1.0	0.11	1	B7A0231	01/09/2017	01/10/17 11:18	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0176	01/06/2017	01/07/17 14:29	
4,4´-DDE	ND	2.0	0.20	1	B7A0176	01/06/2017	01/07/17 14:29	
4,4´-DDT	ND	2.0	0.13	1	B7A0176	01/06/2017	01/07/17 14:29	
Aldrin	ND	1.0	0.27	1	B7A0176	01/06/2017	01/07/17 14:29	
alpha-BHC	ND	1.0	0.20	1	B7A0176	01/06/2017	01/07/17 14:29	
alpha-Chlordane	ND	1.0	0.21	1	B7A0176	01/06/2017	01/07/17 14:29	
beta-BHC	ND	1.0	0.23	1	B7A0176	01/06/2017	01/07/17 14:29	
Chlordane	ND	8.5	0.90	1	B7A0176	01/06/2017	01/07/17 14:29	
delta-BHC	ND	1.0	0.21	1	B7A0176	01/06/2017	01/07/17 14:29	
Dieldrin	ND	2.0	0.25	1	B7A0176	01/06/2017	01/07/17 14:29	
Endosulfan I	ND	1.0	0.21	1	B7A0176	01/06/2017	01/07/17 14:29	
Endosulfan II	ND	2.0	0.22	1	B7A0176	01/06/2017	01/07/17 14:29	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0176	01/06/2017	01/07/17 14:29	
Endrin	ND	2.0	0.23	1	B7A0176	01/06/2017	01/07/17 14:29	
Endrin aldehyde	ND	2.0	0.28	1	B7A0176	01/06/2017	01/07/17 14:29	
Endrin ketone	ND	2.0	0.20	1	B7A0176	01/06/2017	01/07/17 14:29	
gamma-BHC	ND	1.0	0.20	1	B7A0176	01/06/2017	01/07/17 14:29	
gamma-Chlordane	ND	1.0	0.23	1	B7A0176	01/06/2017	01/07/17 14:29	
Heptachlor	ND	1.0	0.19	1	B7A0176	01/06/2017	01/07/17 14:29	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0176	01/06/2017	01/07/17 14:29	
Methoxychlor	ND	5.0	0.18	1	B7A0176	01/06/2017	01/07/17 14:29	
Toxaphene	ND	50	8.2	1	B7A0176	01/06/2017	01/07/17 14:29	
Surrogate: Decachlorobiphenyl	*60.1 %*		*27 - 123*		B7A0176	01/06/2017	*01/07/17 14:29*	
Surrogate: Tetrachloro-m-xylene	*57.2 %*		*26 - 108*		B7A0176	01/06/2017	*01/07/17 14:29*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB16-3-1.5
Lab ID: 1604921-58

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	1.0	0.70	1	B7A0231	01/09/2017	01/10/17 11:19	
Lead	**1.7**	1.0	0.11	1	B7A0231	01/09/2017	01/10/17 11:19	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0176	01/06/2017	01/07/17 14:40	
4,4´-DDE	ND	2.0	0.20	1	B7A0176	01/06/2017	01/07/17 14:40	
4,4´-DDT	ND	2.0	0.13	1	B7A0176	01/06/2017	01/07/17 14:40	
Aldrin	ND	1.0	0.27	1	B7A0176	01/06/2017	01/07/17 14:40	
alpha-BHC	ND	1.0	0.20	1	B7A0176	01/06/2017	01/07/17 14:40	
alpha-Chlordane	ND	1.0	0.21	1	B7A0176	01/06/2017	01/07/17 14:40	
beta-BHC	ND	1.0	0.23	1	B7A0176	01/06/2017	01/07/17 14:40	
Chlordane	ND	8.5	0.90	1	B7A0176	01/06/2017	01/07/17 14:40	
delta-BHC	ND	1.0	0.21	1	B7A0176	01/06/2017	01/07/17 14:40	
Dieldrin	ND	2.0	0.25	1	B7A0176	01/06/2017	01/07/17 14:40	
Endosulfan I	ND	1.0	0.21	1	B7A0176	01/06/2017	01/07/17 14:40	
Endosulfan II	ND	2.0	0.22	1	B7A0176	01/06/2017	01/07/17 14:40	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0176	01/06/2017	01/07/17 14:40	
Endrin	ND	2.0	0.23	1	B7A0176	01/06/2017	01/07/17 14:40	
Endrin aldehyde	ND	2.0	0.28	1	B7A0176	01/06/2017	01/07/17 14:40	
Endrin ketone	ND	2.0	0.20	1	B7A0176	01/06/2017	01/07/17 14:40	
gamma-BHC	ND	1.0	0.20	1	B7A0176	01/06/2017	01/07/17 14:40	
gamma-Chlordane	ND	1.0	0.23	1	B7A0176	01/06/2017	01/07/17 14:40	
Heptachlor	ND	1.0	0.19	1	B7A0176	01/06/2017	01/07/17 14:40	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0176	01/06/2017	01/07/17 14:40	
Methoxychlor	ND	5.0	0.18	1	B7A0176	01/06/2017	01/07/17 14:40	
Toxaphene	ND	50	8.2	1	B7A0176	01/06/2017	01/07/17 14:40	
Surrogate: Decachlorobiphenyl	*56.9 %*	*27 - 123*			B7A0176	01/06/2017	*01/07/17 14:40*	
Surrogate: Tetrachloro-m-xylene	*54.1 %*	*26 - 108*			B7A0176	01/06/2017	*01/07/17 14:40*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB22-2-0.5
Lab ID: 1604921-60

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.4**	1.0	0.70	1	B7A0231	01/09/2017	01/10/17 11:20	
Lead	**3.9**	1.0	0.11	1	B7A0231	01/09/2017	01/10/17 11:20	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0176	01/06/2017	01/07/17 14:50	
4,4´-DDE	ND	2.0	0.20	1	B7A0176	01/06/2017	01/07/17 14:50	
4,4´-DDT	ND	2.0	0.13	1	B7A0176	01/06/2017	01/07/17 14:50	
Aldrin	ND	1.0	0.27	1	B7A0176	01/06/2017	01/07/17 14:50	
alpha-BHC	ND	1.0	0.20	1	B7A0176	01/06/2017	01/07/17 14:50	
alpha-Chlordane	ND	1.0	0.21	1	B7A0176	01/06/2017	01/07/17 14:50	
beta-BHC	ND	1.0	0.23	1	B7A0176	01/06/2017	01/07/17 14:50	
Chlordane	ND	8.5	0.90	1	B7A0176	01/06/2017	01/07/17 14:50	
delta-BHC	ND	1.0	0.21	1	B7A0176	01/06/2017	01/07/17 14:50	
Dieldrin	ND	2.0	0.25	1	B7A0176	01/06/2017	01/07/17 14:50	
Endosulfan I	ND	1.0	0.21	1	B7A0176	01/06/2017	01/07/17 14:50	
Endosulfan II	ND	2.0	0.22	1	B7A0176	01/06/2017	01/07/17 14:50	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0176	01/06/2017	01/07/17 14:50	
Endrin	ND	2.0	0.23	1	B7A0176	01/06/2017	01/07/17 14:50	
Endrin aldehyde	ND	2.0	0.28	1	B7A0176	01/06/2017	01/07/17 14:50	
Endrin ketone	ND	2.0	0.20	1	B7A0176	01/06/2017	01/07/17 14:50	
gamma-BHC	ND	1.0	0.20	1	B7A0176	01/06/2017	01/07/17 14:50	
gamma-Chlordane	ND	1.0	0.23	1	B7A0176	01/06/2017	01/07/17 14:50	
Heptachlor	ND	1.0	0.19	1	B7A0176	01/06/2017	01/07/17 14:50	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0176	01/06/2017	01/07/17 14:50	
Methoxychlor	ND	5.0	0.18	1	B7A0176	01/06/2017	01/07/17 14:50	
Toxaphene	ND	50	8.2	1	B7A0176	01/06/2017	01/07/17 14:50	
Surrogate: Decachlorobiphenyl	*61.5 %*		*27 - 123*		B7A0176	01/06/2017	*01/07/17 14:50*	
Surrogate: Tetrachloro-m-xylene	*59.9 %*		*26 - 108*		B7A0176	01/06/2017	*01/07/17 14:50*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB22-2-1.5
Lab ID: 1604921-61

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.2**	1.0	0.70	1	B7A0231	01/09/2017	01/10/17 11:21	
Lead	**3.2**	1.0	0.11	1	B7A0231	01/09/2017	01/10/17 11:21	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0176	01/06/2017	01/07/17 15:01	
4,4´-DDE	ND	2.0	0.20	1	B7A0176	01/06/2017	01/07/17 15:01	
4,4´-DDT	ND	2.0	0.13	1	B7A0176	01/06/2017	01/07/17 15:01	
Aldrin	ND	1.0	0.27	1	B7A0176	01/06/2017	01/07/17 15:01	
alpha-BHC	ND	1.0	0.20	1	B7A0176	01/06/2017	01/07/17 15:01	
alpha-Chlordane	ND	1.0	0.21	1	B7A0176	01/06/2017	01/07/17 15:01	
beta-BHC	ND	1.0	0.23	1	B7A0176	01/06/2017	01/07/17 15:01	
Chlordane	ND	8.5	0.90	1	B7A0176	01/06/2017	01/07/17 15:01	
delta-BHC	ND	1.0	0.21	1	B7A0176	01/06/2017	01/07/17 15:01	
Dieldrin	ND	2.0	0.25	1	B7A0176	01/06/2017	01/07/17 15:01	
Endosulfan I	ND	1.0	0.21	1	B7A0176	01/06/2017	01/07/17 15:01	
Endosulfan II	ND	2.0	0.22	1	B7A0176	01/06/2017	01/07/17 15:01	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0176	01/06/2017	01/07/17 15:01	
Endrin	ND	2.0	0.23	1	B7A0176	01/06/2017	01/07/17 15:01	
Endrin aldehyde	ND	2.0	0.28	1	B7A0176	01/06/2017	01/07/17 15:01	
Endrin ketone	ND	2.0	0.20	1	B7A0176	01/06/2017	01/07/17 15:01	
gamma-BHC	ND	1.0	0.20	1	B7A0176	01/06/2017	01/07/17 15:01	
gamma-Chlordane	ND	1.0	0.23	1	B7A0176	01/06/2017	01/07/17 15:01	
Heptachlor	ND	1.0	0.19	1	B7A0176	01/06/2017	01/07/17 15:01	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0176	01/06/2017	01/07/17 15:01	
Methoxychlor	ND	5.0	0.18	1	B7A0176	01/06/2017	01/07/17 15:01	
Toxaphene	ND	50	8.2	1	B7A0176	01/06/2017	01/07/17 15:01	
Surrogate: Decachlorobiphenyl	*58.3 %*		*27 - 123*		B7A0176	01/06/2017	*01/07/17 15:01*	
Surrogate: Tetrachloro-m-xylene	*54.9 %*		*26 - 108*		B7A0176	01/06/2017	*01/07/17 15:01*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB22-2-1.5

Lab ID: 1604921-61

Polychlorinated Biphenyls by EPA 8082 **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 19:25	
Aroclor 1221	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 19:25	
Aroclor 1232	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 19:25	
Aroclor 1242	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 19:25	
Aroclor 1248	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 19:25	
Aroclor 1254	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 19:25	
Aroclor 1260	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 19:25	
Aroclor 1262	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 19:25	
Aroclor 1268	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 19:25	
Surrogate: Decachlorobiphenyl	*102 %*	*26 - 137*			B7A0176	01/06/2017	*01/06/17 19:25*	
Surrogate: Tetrachloro-m-xylene	*107 %*	*28 - 102*			B7A0176	01/06/2017	*01/06/17 19:25*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB24-6-0.5
Lab ID: 1604921-63

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.6**	1.0	0.70	1	B7A0231	01/09/2017	01/10/17 11:22	
Lead	**10**	1.0	0.11	1	B7A0231	01/09/2017	01/10/17 11:22	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0176	01/06/2017	01/07/17 15:11	
4,4´-DDE	ND	2.0	0.20	1	B7A0176	01/06/2017	01/07/17 15:11	
4,4´-DDT	ND	2.0	0.13	1	B7A0176	01/06/2017	01/07/17 15:11	
Aldrin	ND	1.0	0.27	1	B7A0176	01/06/2017	01/07/17 15:11	
alpha-BHC	ND	1.0	0.20	1	B7A0176	01/06/2017	01/07/17 15:11	
alpha-Chlordane	ND	1.0	0.21	1	B7A0176	01/06/2017	01/07/17 15:11	
beta-BHC	ND	1.0	0.23	1	B7A0176	01/06/2017	01/07/17 15:11	
Chlordane	ND	8.5	0.90	1	B7A0176	01/06/2017	01/07/17 15:11	
delta-BHC	ND	1.0	0.21	1	B7A0176	01/06/2017	01/07/17 15:11	
Dieldrin	ND	2.0	0.25	1	B7A0176	01/06/2017	01/07/17 15:11	
Endosulfan I	ND	1.0	0.21	1	B7A0176	01/06/2017	01/07/17 15:11	
Endosulfan II	ND	2.0	0.22	1	B7A0176	01/06/2017	01/07/17 15:11	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0176	01/06/2017	01/07/17 15:11	
Endrin	ND	2.0	0.23	1	B7A0176	01/06/2017	01/07/17 15:11	
Endrin aldehyde	ND	2.0	0.28	1	B7A0176	01/06/2017	01/07/17 15:11	
Endrin ketone	ND	2.0	0.20	1	B7A0176	01/06/2017	01/07/17 15:11	
gamma-BHC	ND	1.0	0.20	1	B7A0176	01/06/2017	01/07/17 15:11	
gamma-Chlordane	ND	1.0	0.23	1	B7A0176	01/06/2017	01/07/17 15:11	
Heptachlor	ND	1.0	0.19	1	B7A0176	01/06/2017	01/07/17 15:11	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0176	01/06/2017	01/07/17 15:11	
Methoxychlor	ND	5.0	0.18	1	B7A0176	01/06/2017	01/07/17 15:11	
Toxaphene	ND	50	8.2	1	B7A0176	01/06/2017	01/07/17 15:11	
Surrogate: Decachlorobiphenyl	*53.2 %*		*27 - 123*		B7A0176	01/06/2017	*01/07/17 15:11*	
Surrogate: Tetrachloro-m-xylene	*53.0 %*		*26 - 108*		B7A0176	01/06/2017	*01/07/17 15:11*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB24-6-1.5
Lab ID: 1604921-64

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**3.3**	1.0	0.70	1	B7A0231	01/09/2017	01/10/17 11:23	
Lead	**4.5**	1.0	0.11	1	B7A0231	01/09/2017	01/10/17 11:23	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0176	01/06/2017	01/07/17 15:22	
4,4´-DDE	ND	2.0	0.20	1	B7A0176	01/06/2017	01/07/17 15:22	
4,4´-DDT	ND	2.0	0.13	1	B7A0176	01/06/2017	01/07/17 15:22	
Aldrin	ND	1.0	0.27	1	B7A0176	01/06/2017	01/07/17 15:22	
alpha-BHC	ND	1.0	0.20	1	B7A0176	01/06/2017	01/07/17 15:22	
alpha-Chlordane	ND	1.0	0.21	1	B7A0176	01/06/2017	01/07/17 15:22	
beta-BHC	ND	1.0	0.23	1	B7A0176	01/06/2017	01/07/17 15:22	
Chlordane	ND	8.5	0.90	1	B7A0176	01/06/2017	01/07/17 15:22	
delta-BHC	ND	1.0	0.21	1	B7A0176	01/06/2017	01/07/17 15:22	
Dieldrin	ND	2.0	0.25	1	B7A0176	01/06/2017	01/07/17 15:22	
Endosulfan I	ND	1.0	0.21	1	B7A0176	01/06/2017	01/07/17 15:22	
Endosulfan II	ND	2.0	0.22	1	B7A0176	01/06/2017	01/07/17 15:22	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0176	01/06/2017	01/07/17 15:22	
Endrin	ND	2.0	0.23	1	B7A0176	01/06/2017	01/07/17 15:22	
Endrin aldehyde	ND	2.0	0.28	1	B7A0176	01/06/2017	01/07/17 15:22	
Endrin ketone	ND	2.0	0.20	1	B7A0176	01/06/2017	01/07/17 15:22	
gamma-BHC	ND	1.0	0.20	1	B7A0176	01/06/2017	01/07/17 15:22	
gamma-Chlordane	ND	1.0	0.23	1	B7A0176	01/06/2017	01/07/17 15:22	
Heptachlor	ND	1.0	0.19	1	B7A0176	01/06/2017	01/07/17 15:22	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0176	01/06/2017	01/07/17 15:22	
Methoxychlor	ND	5.0	0.18	1	B7A0176	01/06/2017	01/07/17 15:22	
Toxaphene	ND	50	8.2	1	B7A0176	01/06/2017	01/07/17 15:22	
Surrogate: Decachlorobiphenyl	*62.2 %*		*27 - 123*		B7A0176	01/06/2017	*01/07/17 15:22*	
Surrogate: Tetrachloro-m-xylene	*60.8 %*		*26 - 108*		B7A0176	01/06/2017	*01/07/17 15:22*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB3-2-0.5
Lab ID: 1604921-66

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.5**	1.0	0.70	1	B7A0231	01/09/2017	01/10/17 11:24	
Lead	**24**	1.0	0.11	1	B7A0231	01/09/2017	01/10/17 11:24	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0176	01/06/2017	01/07/17 15:33	
4,4´-DDE	ND	2.0	0.20	1	B7A0176	01/06/2017	01/07/17 15:33	
4,4´-DDT	ND	2.0	0.13	1	B7A0176	01/06/2017	01/07/17 15:33	
Aldrin	ND	1.0	0.27	1	B7A0176	01/06/2017	01/07/17 15:33	
alpha-BHC	ND	1.0	0.20	1	B7A0176	01/06/2017	01/07/17 15:33	
alpha-Chlordane	ND	1.0	0.21	1	B7A0176	01/06/2017	01/07/17 15:33	
beta-BHC	ND	1.0	0.23	1	B7A0176	01/06/2017	01/07/17 15:33	
Chlordane	ND	8.5	0.90	1	B7A0176	01/06/2017	01/07/17 15:33	
delta-BHC	ND	1.0	0.21	1	B7A0176	01/06/2017	01/07/17 15:33	
Dieldrin	ND	2.0	0.25	1	B7A0176	01/06/2017	01/07/17 15:33	
Endosulfan I	ND	1.0	0.21	1	B7A0176	01/06/2017	01/07/17 15:33	
Endosulfan II	ND	2.0	0.22	1	B7A0176	01/06/2017	01/07/17 15:33	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0176	01/06/2017	01/07/17 15:33	
Endrin	ND	2.0	0.23	1	B7A0176	01/06/2017	01/07/17 15:33	
Endrin aldehyde	ND	2.0	0.28	1	B7A0176	01/06/2017	01/07/17 15:33	
Endrin ketone	ND	2.0	0.20	1	B7A0176	01/06/2017	01/07/17 15:33	
gamma-BHC	ND	1.0	0.20	1	B7A0176	01/06/2017	01/07/17 15:33	
gamma-Chlordane	ND	1.0	0.23	1	B7A0176	01/06/2017	01/07/17 15:33	
Heptachlor	ND	1.0	0.19	1	B7A0176	01/06/2017	01/07/17 15:33	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0176	01/06/2017	01/07/17 15:33	
Methoxychlor	ND	5.0	0.18	1	B7A0176	01/06/2017	01/07/17 15:33	
Toxaphene	ND	50	8.2	1	B7A0176	01/06/2017	01/07/17 15:33	
Surrogate: Decachlorobiphenyl	*42.0 %*		*27 - 123*		B7A0176	01/06/2017	*01/07/17 15:33*	
Surrogate: Tetrachloro-m-xylene	*40.1 %*		*26 - 108*		B7A0176	01/06/2017	*01/07/17 15:33*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB3-2-1.5
Lab ID: 1604921-67

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.7**	1.0	0.70	1	B7A0231	01/09/2017	01/10/17 11:25	
Lead	**4.4**	1.0	0.11	1	B7A0231	01/09/2017	01/10/17 11:25	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0176	01/06/2017	01/07/17 15:43	
4,4´-DDE	ND	2.0	0.20	1	B7A0176	01/06/2017	01/07/17 15:43	
4,4´-DDT	ND	2.0	0.13	1	B7A0176	01/06/2017	01/07/17 15:43	
Aldrin	ND	1.0	0.27	1	B7A0176	01/06/2017	01/07/17 15:43	
alpha-BHC	ND	1.0	0.20	1	B7A0176	01/06/2017	01/07/17 15:43	
alpha-Chlordane	ND	1.0	0.21	1	B7A0176	01/06/2017	01/07/17 15:43	
beta-BHC	ND	1.0	0.23	1	B7A0176	01/06/2017	01/07/17 15:43	
Chlordane	ND	8.5	0.90	1	B7A0176	01/06/2017	01/07/17 15:43	
delta-BHC	ND	1.0	0.21	1	B7A0176	01/06/2017	01/07/17 15:43	
Dieldrin	ND	2.0	0.25	1	B7A0176	01/06/2017	01/07/17 15:43	
Endosulfan I	ND	1.0	0.21	1	B7A0176	01/06/2017	01/07/17 15:43	
Endosulfan II	ND	2.0	0.22	1	B7A0176	01/06/2017	01/07/17 15:43	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0176	01/06/2017	01/07/17 15:43	
Endrin	ND	2.0	0.23	1	B7A0176	01/06/2017	01/07/17 15:43	
Endrin aldehyde	ND	2.0	0.28	1	B7A0176	01/06/2017	01/07/17 15:43	
Endrin ketone	ND	2.0	0.20	1	B7A0176	01/06/2017	01/07/17 15:43	
gamma-BHC	ND	1.0	0.20	1	B7A0176	01/06/2017	01/07/17 15:43	
gamma-Chlordane	ND	1.0	0.23	1	B7A0176	01/06/2017	01/07/17 15:43	
Heptachlor	ND	1.0	0.19	1	B7A0176	01/06/2017	01/07/17 15:43	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0176	01/06/2017	01/07/17 15:43	
Methoxychlor	ND	5.0	0.18	1	B7A0176	01/06/2017	01/07/17 15:43	
Toxaphene	ND	50	8.2	1	B7A0176	01/06/2017	01/07/17 15:43	
Surrogate: Decachlorobiphenyl	*40.1 %*		*27 - 123*		B7A0176	01/06/2017	*01/07/17 15:43*	
Surrogate: Tetrachloro-m-xylene	*35.1 %*		*26 - 108*		B7A0176	01/06/2017	*01/07/17 15:43*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB5-1-0.5
Lab ID: 1604921-69

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.7**	1.0	0.70	1	B7A0231	01/09/2017	01/10/17 11:26	
Lead	**25**	1.0	0.11	1	B7A0231	01/09/2017	01/10/17 11:26	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0176	01/06/2017	01/07/17 15:54	
4,4´-DDE	ND	2.0	0.20	1	B7A0176	01/06/2017	01/07/17 15:54	
4,4´-DDT	ND	2.0	0.13	1	B7A0176	01/06/2017	01/07/17 15:54	
Aldrin	ND	1.0	0.27	1	B7A0176	01/06/2017	01/07/17 15:54	
alpha-BHC	ND	1.0	0.20	1	B7A0176	01/06/2017	01/07/17 15:54	
alpha-Chlordane	ND	1.0	0.21	1	B7A0176	01/06/2017	01/07/17 15:54	
beta-BHC	ND	1.0	0.23	1	B7A0176	01/06/2017	01/07/17 15:54	
Chlordane	ND	8.5	0.90	1	B7A0176	01/06/2017	01/07/17 15:54	
delta-BHC	ND	1.0	0.21	1	B7A0176	01/06/2017	01/07/17 15:54	
Dieldrin	ND	2.0	0.25	1	B7A0176	01/06/2017	01/07/17 15:54	
Endosulfan I	ND	1.0	0.21	1	B7A0176	01/06/2017	01/07/17 15:54	
Endosulfan II	ND	2.0	0.22	1	B7A0176	01/06/2017	01/07/17 15:54	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0176	01/06/2017	01/07/17 15:54	
Endrin	ND	2.0	0.23	1	B7A0176	01/06/2017	01/07/17 15:54	
Endrin aldehyde	ND	2.0	0.28	1	B7A0176	01/06/2017	01/07/17 15:54	
Endrin ketone	ND	2.0	0.20	1	B7A0176	01/06/2017	01/07/17 15:54	
gamma-BHC	ND	1.0	0.20	1	B7A0176	01/06/2017	01/07/17 15:54	
gamma-Chlordane	ND	1.0	0.23	1	B7A0176	01/06/2017	01/07/17 15:54	
Heptachlor	ND	1.0	0.19	1	B7A0176	01/06/2017	01/07/17 15:54	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0176	01/06/2017	01/07/17 15:54	
Methoxychlor	ND	5.0	0.18	1	B7A0176	01/06/2017	01/07/17 15:54	
Toxaphene	ND	50	8.2	1	B7A0176	01/06/2017	01/07/17 15:54	
Surrogate: Decachlorobiphenyl	*62.3 %*		*27 - 123*		B7A0176	01/06/2017	*01/07/17 15:54*	
Surrogate: Tetrachloro-m-xylene	*57.6 %*		*26 - 108*		B7A0176	01/06/2017	*01/07/17 15:54*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB5-1-1.5
Lab ID: 1604921-70

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.7**	1.0	0.70	1	B7A0231	01/09/2017	01/10/17 11:28	
Lead	**3.7**	1.0	0.11	1	B7A0231	01/09/2017	01/10/17 11:28	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0176	01/06/2017	01/07/17 16:04	
4,4´-DDE	ND	2.0	0.20	1	B7A0176	01/06/2017	01/07/17 16:04	
4,4´-DDT	ND	2.0	0.13	1	B7A0176	01/06/2017	01/07/17 16:04	
Aldrin	ND	1.0	0.27	1	B7A0176	01/06/2017	01/07/17 16:04	
alpha-BHC	ND	1.0	0.20	1	B7A0176	01/06/2017	01/07/17 16:04	
alpha-Chlordane	ND	1.0	0.21	1	B7A0176	01/06/2017	01/07/17 16:04	
beta-BHC	ND	1.0	0.23	1	B7A0176	01/06/2017	01/07/17 16:04	
Chlordane	ND	8.5	0.90	1	B7A0176	01/06/2017	01/07/17 16:04	
delta-BHC	ND	1.0	0.21	1	B7A0176	01/06/2017	01/07/17 16:04	
Dieldrin	ND	2.0	0.25	1	B7A0176	01/06/2017	01/07/17 16:04	
Endosulfan I	ND	1.0	0.21	1	B7A0176	01/06/2017	01/07/17 16:04	
Endosulfan II	ND	2.0	0.22	1	B7A0176	01/06/2017	01/07/17 16:04	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0176	01/06/2017	01/07/17 16:04	
Endrin	ND	2.0	0.23	1	B7A0176	01/06/2017	01/07/17 16:04	
Endrin aldehyde	ND	2.0	0.28	1	B7A0176	01/06/2017	01/07/17 16:04	
Endrin ketone	ND	2.0	0.20	1	B7A0176	01/06/2017	01/07/17 16:04	
gamma-BHC	ND	1.0	0.20	1	B7A0176	01/06/2017	01/07/17 16:04	
gamma-Chlordane	ND	1.0	0.23	1	B7A0176	01/06/2017	01/07/17 16:04	
Heptachlor	ND	1.0	0.19	1	B7A0176	01/06/2017	01/07/17 16:04	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0176	01/06/2017	01/07/17 16:04	
Methoxychlor	ND	5.0	0.18	1	B7A0176	01/06/2017	01/07/17 16:04	
Toxaphene	ND	50	8.2	1	B7A0176	01/06/2017	01/07/17 16:04	
Surrogate: Decachlorobiphenyl	*57.1 %*		*27 - 123*		B7A0176	01/06/2017	*01/07/17 16:04*	
Surrogate: Tetrachloro-m-xylene	*54.8 %*		*26 - 108*		B7A0176	01/06/2017	*01/07/17 16:04*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB24-1-0.5
Lab ID: 1604921-72

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**3.6**	1.0	0.70	1	B7A0231	01/09/2017	01/10/17 11:31	
Lead	**2.5**	1.0	0.11	1	B7A0231	01/09/2017	01/10/17 11:31	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0194	01/06/2017	01/07/17 14:04	
4,4´-DDE	ND	2.0	0.20	1	B7A0194	01/06/2017	01/07/17 14:04	
4,4´-DDT	ND	2.0	0.13	1	B7A0194	01/06/2017	01/07/17 14:04	
Aldrin	ND	1.0	0.27	1	B7A0194	01/06/2017	01/07/17 14:04	
alpha-BHC	ND	1.0	0.20	1	B7A0194	01/06/2017	01/07/17 14:04	
alpha-Chlordane	ND	1.0	0.21	1	B7A0194	01/06/2017	01/07/17 14:04	
beta-BHC	ND	1.0	0.23	1	B7A0194	01/06/2017	01/07/17 14:04	
Chlordane	ND	8.5	0.90	1	B7A0194	01/06/2017	01/07/17 14:04	
delta-BHC	ND	1.0	0.21	1	B7A0194	01/06/2017	01/07/17 14:04	
Dieldrin	ND	2.0	0.25	1	B7A0194	01/06/2017	01/07/17 14:04	
Endosulfan I	ND	1.0	0.21	1	B7A0194	01/06/2017	01/07/17 14:04	
Endosulfan II	ND	2.0	0.22	1	B7A0194	01/06/2017	01/07/17 14:04	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0194	01/06/2017	01/07/17 14:04	
Endrin	ND	2.0	0.23	1	B7A0194	01/06/2017	01/07/17 14:04	
Endrin aldehyde	ND	2.0	0.28	1	B7A0194	01/06/2017	01/07/17 14:04	
Endrin ketone	ND	2.0	0.20	1	B7A0194	01/06/2017	01/07/17 14:04	
gamma-BHC	ND	1.0	0.20	1	B7A0194	01/06/2017	01/07/17 14:04	
gamma-Chlordane	ND	1.0	0.23	1	B7A0194	01/06/2017	01/07/17 14:04	
Heptachlor	ND	1.0	0.19	1	B7A0194	01/06/2017	01/07/17 14:04	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0194	01/06/2017	01/07/17 14:04	
Methoxychlor	ND	5.0	0.18	1	B7A0194	01/06/2017	01/07/17 14:04	
Toxaphene	ND	50	8.2	1	B7A0194	01/06/2017	01/07/17 14:04	
Surrogate: Decachlorobiphenyl	*89.5 %*	*27 - 123*			B7A0194	01/06/2017	*01/07/17 14:04*	
Surrogate: Tetrachloro-m-xylene	*85.4 %*	*26 - 108*			B7A0194	01/06/2017	*01/07/17 14:04*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB24-1-0.5

Lab ID: 1604921-72

Polychlorinated Biphenyls by EPA 8082 **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 19:44	
Aroclor 1221	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 19:44	
Aroclor 1232	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 19:44	
Aroclor 1242	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 19:44	
Aroclor 1248	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 19:44	
Aroclor 1254	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 19:44	
Aroclor 1260	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 19:44	
Aroclor 1262	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 19:44	
Aroclor 1268	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 19:44	
Surrogate: Decachlorobiphenyl	*101 %*	*26 - 137*			B7A0176	01/06/2017	*01/06/17 19:44*	
Surrogate: Tetrachloro-m-xylene	*101 %*	*28 - 102*			B7A0176	01/06/2017	*01/06/17 19:44*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB24-1-1.5
Lab ID: 1604921-73

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**3.7**	1.0	0.70	1	B7A0231	01/09/2017	01/10/17 11:32	
Lead	**7.5**	1.0	0.11	1	B7A0231	01/09/2017	01/10/17 11:32	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0194	01/06/2017	01/07/17 14:15	
4,4´-DDE [2C]	**0.73**	2.0	0.20	1	B7A0194	01/06/2017	01/07/17 14:15	J
4,4´-DDT	**0.62**	2.0	0.13	1	B7A0194	01/06/2017	01/07/17 14:15	J
Aldrin	ND	1.0	0.27	1	B7A0194	01/06/2017	01/07/17 14:15	
alpha-BHC	ND	1.0	0.20	1	B7A0194	01/06/2017	01/07/17 14:15	
alpha-Chlordane	**0.65**	1.0	0.21	1	B7A0194	01/06/2017	01/07/17 14:15	J
beta-BHC	ND	1.0	0.23	1	B7A0194	01/06/2017	01/07/17 14:15	
Chlordane	**7.6**	8.5	0.90	1	B7A0194	01/06/2017	01/07/17 14:15	J
delta-BHC	ND	1.0	0.21	1	B7A0194	01/06/2017	01/07/17 14:15	
Dieldrin	ND	2.0	0.25	1	B7A0194	01/06/2017	01/07/17 14:15	
Endosulfan I	ND	1.0	0.21	1	B7A0194	01/06/2017	01/07/17 14:15	
Endosulfan II	ND	2.0	0.22	1	B7A0194	01/06/2017	01/07/17 14:15	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0194	01/06/2017	01/07/17 14:15	
Endrin	ND	2.0	0.23	1	B7A0194	01/06/2017	01/07/17 14:15	
Endrin aldehyde	ND	2.0	0.28	1	B7A0194	01/06/2017	01/07/17 14:15	
Endrin ketone	ND	2.0	0.20	1	B7A0194	01/06/2017	01/07/17 14:15	
gamma-BHC	ND	1.0	0.20	1	B7A0194	01/06/2017	01/07/17 14:15	
gamma-Chlordane [2C]	**0.76**	1.0	0.23	1	B7A0194	01/06/2017	01/07/17 14:15	J
Heptachlor	ND	1.0	0.19	1	B7A0194	01/06/2017	01/07/17 14:15	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0194	01/06/2017	01/07/17 14:15	
Methoxychlor	ND	5.0	0.18	1	B7A0194	01/06/2017	01/07/17 14:15	
Toxaphene	ND	50	8.2	1	B7A0194	01/06/2017	01/07/17 14:15	
Surrogate: Decachlorobiphenyl	*49.4 %*	*27 - 123*			B7A0194	01/06/2017	*01/07/17 14:15*	
Surrogate: Tetrachloro-m-xylene	*51.4 %*	*26 - 108*			B7A0194	01/06/2017	*01/07/17 14:15*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB24-2-0.5
Lab ID: 1604921-75

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.8**	1.0	0.70	1	B7A0231	01/09/2017	01/10/17 11:33	
Lead	**8.5**	1.0	0.11	1	B7A0231	01/09/2017	01/10/17 11:33	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0194	01/06/2017	01/07/17 14:25	
4,4´-DDE	**0.71**	2.0	0.20	1	B7A0194	01/06/2017	01/07/17 14:25	J
4,4´-DDT	ND	2.0	0.13	1	B7A0194	01/06/2017	01/07/17 14:25	
Aldrin	ND	1.0	0.27	1	B7A0194	01/06/2017	01/07/17 14:25	
alpha-BHC	ND	1.0	0.20	1	B7A0194	01/06/2017	01/07/17 14:25	
alpha-Chlordane [2C]	**0.30**	1.0	0.21	1	B7A0194	01/06/2017	01/07/17 14:25	J
beta-BHC	ND	1.0	0.23	1	B7A0194	01/06/2017	01/07/17 14:25	
Chlordane [2C]	**2.7**	8.5	0.90	1	B7A0194	01/06/2017	01/07/17 14:25	J
delta-BHC	ND	1.0	0.21	1	B7A0194	01/06/2017	01/07/17 14:25	
Dieldrin	ND	2.0	0.25	1	B7A0194	01/06/2017	01/07/17 14:25	
Endosulfan I	ND	1.0	0.21	1	B7A0194	01/06/2017	01/07/17 14:25	
Endosulfan II	ND	2.0	0.22	1	B7A0194	01/06/2017	01/07/17 14:25	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0194	01/06/2017	01/07/17 14:25	
Endrin	ND	2.0	0.23	1	B7A0194	01/06/2017	01/07/17 14:25	
Endrin aldehyde	ND	2.0	0.28	1	B7A0194	01/06/2017	01/07/17 14:25	
Endrin ketone	ND	2.0	0.20	1	B7A0194	01/06/2017	01/07/17 14:25	
gamma-BHC	ND	1.0	0.20	1	B7A0194	01/06/2017	01/07/17 14:25	
gamma-Chlordane [2C]	**0.23**	1.0	0.23	1	B7A0194	01/06/2017	01/07/17 14:25	J
Heptachlor	ND	1.0	0.19	1	B7A0194	01/06/2017	01/07/17 14:25	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0194	01/06/2017	01/07/17 14:25	
Methoxychlor	ND	5.0	0.18	1	B7A0194	01/06/2017	01/07/17 14:25	
Toxaphene	ND	50	8.2	1	B7A0194	01/06/2017	01/07/17 14:25	
Surrogate: Decachlorobiphenyl	*71.2 %*		*27 - 123*		B7A0194	01/06/2017	*01/07/17 14:25*	
Surrogate: Tetrachloro-m-xylene	*73.4 %*		*26 - 108*		B7A0194	01/06/2017	*01/07/17 14:25*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB24-2-1.5
Lab ID: 1604921-76

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.5**	1.0	0.70	1	B7A0231	01/09/2017	01/10/17 11:35	
Lead	**17**	1.0	0.11	1	B7A0231	01/09/2017	01/10/17 11:35	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0194	01/06/2017	01/07/17 14:36	
4,4´-DDE	ND	2.0	0.20	1	B7A0194	01/06/2017	01/07/17 14:36	
4,4´-DDT	ND	2.0	0.13	1	B7A0194	01/06/2017	01/07/17 14:36	
Aldrin	ND	1.0	0.27	1	B7A0194	01/06/2017	01/07/17 14:36	
alpha-BHC	ND	1.0	0.20	1	B7A0194	01/06/2017	01/07/17 14:36	
alpha-Chlordane	ND	1.0	0.21	1	B7A0194	01/06/2017	01/07/17 14:36	
beta-BHC	ND	1.0	0.23	1	B7A0194	01/06/2017	01/07/17 14:36	
Chlordane	ND	8.5	0.90	1	B7A0194	01/06/2017	01/07/17 14:36	
delta-BHC	ND	1.0	0.21	1	B7A0194	01/06/2017	01/07/17 14:36	
Dieldrin	ND	2.0	0.25	1	B7A0194	01/06/2017	01/07/17 14:36	
Endosulfan I	ND	1.0	0.21	1	B7A0194	01/06/2017	01/07/17 14:36	
Endosulfan II	ND	2.0	0.22	1	B7A0194	01/06/2017	01/07/17 14:36	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0194	01/06/2017	01/07/17 14:36	
Endrin	ND	2.0	0.23	1	B7A0194	01/06/2017	01/07/17 14:36	
Endrin aldehyde	ND	2.0	0.28	1	B7A0194	01/06/2017	01/07/17 14:36	
Endrin ketone	ND	2.0	0.20	1	B7A0194	01/06/2017	01/07/17 14:36	
gamma-BHC	ND	1.0	0.20	1	B7A0194	01/06/2017	01/07/17 14:36	
gamma-Chlordane	ND	1.0	0.23	1	B7A0194	01/06/2017	01/07/17 14:36	
Heptachlor	ND	1.0	0.19	1	B7A0194	01/06/2017	01/07/17 14:36	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0194	01/06/2017	01/07/17 14:36	
Methoxychlor	ND	5.0	0.18	1	B7A0194	01/06/2017	01/07/17 14:36	
Toxaphene	ND	50	8.2	1	B7A0194	01/06/2017	01/07/17 14:36	
Surrogate: Decachlorobiphenyl	*55.0 %*		*27 - 123*		B7A0194	01/06/2017	*01/07/17 14:36*	
Surrogate: Tetrachloro-m-xylene	*60.0 %*		*26 - 108*		B7A0194	01/06/2017	*01/07/17 14:36*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB24-3-0.5

Lab ID: 1604921-78

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.1**	1.0	0.70	1	B7A0231	01/09/2017	01/10/17 11:36	
Lead	**10**	1.0	0.11	1	B7A0231	01/09/2017	01/10/17 11:36	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0194	01/06/2017	01/07/17 14:46	
4,4´-DDE	ND	2.0	0.20	1	B7A0194	01/06/2017	01/07/17 14:46	
4,4´-DDT	ND	2.0	0.13	1	B7A0194	01/06/2017	01/07/17 14:46	
Aldrin	ND	1.0	0.27	1	B7A0194	01/06/2017	01/07/17 14:46	
alpha-BHC	ND	1.0	0.20	1	B7A0194	01/06/2017	01/07/17 14:46	
alpha-Chlordane	**0.25**	1.0	0.21	1	B7A0194	01/06/2017	01/07/17 14:46	J
beta-BHC	ND	1.0	0.23	1	B7A0194	01/06/2017	01/07/17 14:46	
Chlordane	**3.0**	8.5	0.90	1	B7A0194	01/06/2017	01/07/17 14:46	J
delta-BHC	ND	1.0	0.21	1	B7A0194	01/06/2017	01/07/17 14:46	
Dieldrin	ND	2.0	0.25	1	B7A0194	01/06/2017	01/07/17 14:46	
Endosulfan I	ND	1.0	0.21	1	B7A0194	01/06/2017	01/07/17 14:46	
Endosulfan II	ND	2.0	0.22	1	B7A0194	01/06/2017	01/07/17 14:46	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0194	01/06/2017	01/07/17 14:46	
Endrin	ND	2.0	0.23	1	B7A0194	01/06/2017	01/07/17 14:46	
Endrin aldehyde	ND	2.0	0.28	1	B7A0194	01/06/2017	01/07/17 14:46	
Endrin ketone	ND	2.0	0.20	1	B7A0194	01/06/2017	01/07/17 14:46	
gamma-BHC	ND	1.0	0.20	1	B7A0194	01/06/2017	01/07/17 14:46	
gamma-Chlordane	**0.34**	1.0	0.23	1	B7A0194	01/06/2017	01/07/17 14:46	J
Heptachlor	ND	1.0	0.19	1	B7A0194	01/06/2017	01/07/17 14:46	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0194	01/06/2017	01/07/17 14:46	
Methoxychlor	ND	5.0	0.18	1	B7A0194	01/06/2017	01/07/17 14:46	
Toxaphene	ND	50	8.2	1	B7A0194	01/06/2017	01/07/17 14:46	
Surrogate: Decachlorobiphenyl	*54.4 %*	*27 - 123*			B7A0194	01/06/2017	*01/07/17 14:46*	
Surrogate: Tetrachloro-m-xylene	*57.8 %*	*26 - 108*			B7A0194	01/06/2017	*01/07/17 14:46*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB24-3-1.5
Lab ID: 1604921-79

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	1.0	0.70	1	B7A0231	01/09/2017	01/10/17 11:37	
Lead	**2.5**	1.0	0.11	1	B7A0231	01/09/2017	01/10/17 11:37	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0194	01/06/2017	01/07/17 14:57	
4,4´-DDE	ND	2.0	0.20	1	B7A0194	01/06/2017	01/07/17 14:57	
4,4´-DDT	ND	2.0	0.13	1	B7A0194	01/06/2017	01/07/17 14:57	
Aldrin	ND	1.0	0.27	1	B7A0194	01/06/2017	01/07/17 14:57	
alpha-BHC	ND	1.0	0.20	1	B7A0194	01/06/2017	01/07/17 14:57	
alpha-Chlordane	ND	1.0	0.21	1	B7A0194	01/06/2017	01/07/17 14:57	
beta-BHC	ND	1.0	0.23	1	B7A0194	01/06/2017	01/07/17 14:57	
Chlordane	ND	8.5	0.90	1	B7A0194	01/06/2017	01/07/17 14:57	
delta-BHC	ND	1.0	0.21	1	B7A0194	01/06/2017	01/07/17 14:57	
Dieldrin	ND	2.0	0.25	1	B7A0194	01/06/2017	01/07/17 14:57	
Endosulfan I	ND	1.0	0.21	1	B7A0194	01/06/2017	01/07/17 14:57	
Endosulfan II	ND	2.0	0.22	1	B7A0194	01/06/2017	01/07/17 14:57	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0194	01/06/2017	01/07/17 14:57	
Endrin	ND	2.0	0.23	1	B7A0194	01/06/2017	01/07/17 14:57	
Endrin aldehyde	ND	2.0	0.28	1	B7A0194	01/06/2017	01/07/17 14:57	
Endrin ketone	ND	2.0	0.20	1	B7A0194	01/06/2017	01/07/17 14:57	
gamma-BHC	ND	1.0	0.20	1	B7A0194	01/06/2017	01/07/17 14:57	
gamma-Chlordane	ND	1.0	0.23	1	B7A0194	01/06/2017	01/07/17 14:57	
Heptachlor	ND	1.0	0.19	1	B7A0194	01/06/2017	01/07/17 14:57	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0194	01/06/2017	01/07/17 14:57	
Methoxychlor	ND	5.0	0.18	1	B7A0194	01/06/2017	01/07/17 14:57	
Toxaphene	ND	50	8.2	1	B7A0194	01/06/2017	01/07/17 14:57	
Surrogate: Decachlorobiphenyl	*72.2 %*		*27 - 123*		B7A0194	01/06/2017	*01/07/17 14:57*	
Surrogate: Tetrachloro-m-xylene	*79.9 %*		*26 - 108*		B7A0194	01/06/2017	*01/07/17 14:57*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB25-3-0.5
Lab ID: 1604921-81

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**3.4**	1.0	0.70	1	B7A0231	01/09/2017	01/10/17 11:38	
Lead	**10**	1.0	0.11	1	B7A0231	01/09/2017	01/10/17 11:38	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0194	01/06/2017	01/07/17 15:07	
4,4´-DDE	**0.21**	2.0	0.20	1	B7A0194	01/06/2017	01/07/17 15:07	J
4,4´-DDT	ND	2.0	0.13	1	B7A0194	01/06/2017	01/07/17 15:07	
Aldrin	ND	1.0	0.27	1	B7A0194	01/06/2017	01/07/17 15:07	
alpha-BHC	ND	1.0	0.20	1	B7A0194	01/06/2017	01/07/17 15:07	
alpha-Chlordane	**0.46**	1.0	0.21	1	B7A0194	01/06/2017	01/07/17 15:07	J
beta-BHC	ND	1.0	0.23	1	B7A0194	01/06/2017	01/07/17 15:07	
Chlordane	**4.0**	8.5	0.90	1	B7A0194	01/06/2017	01/07/17 15:07	J
delta-BHC	ND	1.0	0.21	1	B7A0194	01/06/2017	01/07/17 15:07	
Dieldrin	ND	2.0	0.25	1	B7A0194	01/06/2017	01/07/17 15:07	
Endosulfan I	ND	1.0	0.21	1	B7A0194	01/06/2017	01/07/17 15:07	
Endosulfan II	ND	2.0	0.22	1	B7A0194	01/06/2017	01/07/17 15:07	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0194	01/06/2017	01/07/17 15:07	
Endrin	ND	2.0	0.23	1	B7A0194	01/06/2017	01/07/17 15:07	
Endrin aldehyde	ND	2.0	0.28	1	B7A0194	01/06/2017	01/07/17 15:07	
Endrin ketone	ND	2.0	0.20	1	B7A0194	01/06/2017	01/07/17 15:07	
gamma-BHC	ND	1.0	0.20	1	B7A0194	01/06/2017	01/07/17 15:07	
gamma-Chlordane	**0.41**	1.0	0.23	1	B7A0194	01/06/2017	01/07/17 15:07	J
Heptachlor	ND	1.0	0.19	1	B7A0194	01/06/2017	01/07/17 15:07	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0194	01/06/2017	01/07/17 15:07	
Methoxychlor	ND	5.0	0.18	1	B7A0194	01/06/2017	01/07/17 15:07	
Toxaphene	ND	50	8.2	1	B7A0194	01/06/2017	01/07/17 15:07	
Surrogate: Decachlorobiphenyl	*63.4 %*	*27 - 123*			B7A0194	01/06/2017	*01/07/17 15:07*	
Surrogate: Tetrachloro-m-xylene	*61.4 %*	*26 - 108*			B7A0194	01/06/2017	*01/07/17 15:07*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB25-3-1.5
Lab ID: 1604921-82

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.1**	1.0	0.70	1	B7A0231	01/09/2017	01/10/17 11:39	
Lead	**4.9**	1.0	0.11	1	B7A0231	01/09/2017	01/10/17 11:39	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0194	01/06/2017	01/07/17 15:17	
4,4´-DDE	ND	2.0	0.20	1	B7A0194	01/06/2017	01/07/17 15:17	
4,4´-DDT	ND	2.0	0.13	1	B7A0194	01/06/2017	01/07/17 15:17	
Aldrin	ND	1.0	0.27	1	B7A0194	01/06/2017	01/07/17 15:17	
alpha-BHC	ND	1.0	0.20	1	B7A0194	01/06/2017	01/07/17 15:17	
alpha-Chlordane	ND	1.0	0.21	1	B7A0194	01/06/2017	01/07/17 15:17	
beta-BHC	ND	1.0	0.23	1	B7A0194	01/06/2017	01/07/17 15:17	
Chlordane	ND	8.5	0.90	1	B7A0194	01/06/2017	01/07/17 15:17	
delta-BHC	ND	1.0	0.21	1	B7A0194	01/06/2017	01/07/17 15:17	
Dieldrin	ND	2.0	0.25	1	B7A0194	01/06/2017	01/07/17 15:17	
Endosulfan I	ND	1.0	0.21	1	B7A0194	01/06/2017	01/07/17 15:17	
Endosulfan II	ND	2.0	0.22	1	B7A0194	01/06/2017	01/07/17 15:17	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0194	01/06/2017	01/07/17 15:17	
Endrin	ND	2.0	0.23	1	B7A0194	01/06/2017	01/07/17 15:17	
Endrin aldehyde	ND	2.0	0.28	1	B7A0194	01/06/2017	01/07/17 15:17	
Endrin ketone	ND	2.0	0.20	1	B7A0194	01/06/2017	01/07/17 15:17	
gamma-BHC	ND	1.0	0.20	1	B7A0194	01/06/2017	01/07/17 15:17	
gamma-Chlordane	ND	1.0	0.23	1	B7A0194	01/06/2017	01/07/17 15:17	
Heptachlor	ND	1.0	0.19	1	B7A0194	01/06/2017	01/07/17 15:17	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0194	01/06/2017	01/07/17 15:17	
Methoxychlor	ND	5.0	0.18	1	B7A0194	01/06/2017	01/07/17 15:17	
Toxaphene	ND	50	8.2	1	B7A0194	01/06/2017	01/07/17 15:17	
Surrogate: Decachlorobiphenyl	*62.6 %*		*27 - 123*		B7A0194	01/06/2017	*01/07/17 15:17*	
Surrogate: Tetrachloro-m-xylene	*70.7 %*		*26 - 108*		B7A0194	01/06/2017	*01/07/17 15:17*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB25-3-1.5

Lab ID: 1604921-82

Polychlorinated Biphenyls by EPA 8082 **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 20:03	
Aroclor 1221	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 20:03	
Aroclor 1232	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 20:03	
Aroclor 1242	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 20:03	
Aroclor 1248	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 20:03	
Aroclor 1254	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 20:03	
Aroclor 1260	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 20:03	
Aroclor 1262	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 20:03	
Aroclor 1268	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 20:03	
Surrogate: Decachlorobiphenyl	*99.7 %*	*26 - 137*			B7A0176	01/06/2017	*01/06/17 20:03*	
Surrogate: Tetrachloro-m-xylene	*105 %*	*28 - 102*			B7A0176	01/06/2017	*01/06/17 20:03*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB23-3-0.5
Lab ID: 1604921-84

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.6**	1.0	0.70	1	B7A0231	01/09/2017	01/10/17 11:40	
Lead	**5.0**	1.0	0.11	1	B7A0231	01/09/2017	01/10/17 11:40	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0194	01/06/2017	01/07/17 15:28	
4,4´-DDE	ND	2.0	0.20	1	B7A0194	01/06/2017	01/07/17 15:28	
4,4´-DDT	ND	2.0	0.13	1	B7A0194	01/06/2017	01/07/17 15:28	
Aldrin	ND	1.0	0.27	1	B7A0194	01/06/2017	01/07/17 15:28	
alpha-BHC	ND	1.0	0.20	1	B7A0194	01/06/2017	01/07/17 15:28	
alpha-Chlordane	ND	1.0	0.21	1	B7A0194	01/06/2017	01/07/17 15:28	
beta-BHC	ND	1.0	0.23	1	B7A0194	01/06/2017	01/07/17 15:28	
Chlordane	**1.6**	8.5	0.90	1	B7A0194	01/06/2017	01/07/17 15:28	J
delta-BHC	ND	1.0	0.21	1	B7A0194	01/06/2017	01/07/17 15:28	
Dieldrin	ND	2.0	0.25	1	B7A0194	01/06/2017	01/07/17 15:28	
Endosulfan I	ND	1.0	0.21	1	B7A0194	01/06/2017	01/07/17 15:28	
Endosulfan II	ND	2.0	0.22	1	B7A0194	01/06/2017	01/07/17 15:28	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0194	01/06/2017	01/07/17 15:28	
Endrin	ND	2.0	0.23	1	B7A0194	01/06/2017	01/07/17 15:28	
Endrin aldehyde	ND	2.0	0.28	1	B7A0194	01/06/2017	01/07/17 15:28	
Endrin ketone	ND	2.0	0.20	1	B7A0194	01/06/2017	01/07/17 15:28	
gamma-BHC	ND	1.0	0.20	1	B7A0194	01/06/2017	01/07/17 15:28	
gamma-Chlordane	ND	1.0	0.23	1	B7A0194	01/06/2017	01/07/17 15:28	
Heptachlor	ND	1.0	0.19	1	B7A0194	01/06/2017	01/07/17 15:28	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0194	01/06/2017	01/07/17 15:28	
Methoxychlor	ND	5.0	0.18	1	B7A0194	01/06/2017	01/07/17 15:28	
Toxaphene	ND	50	8.2	1	B7A0194	01/06/2017	01/07/17 15:28	
Surrogate: Decachlorobiphenyl	*54.4 %*		*27 - 123*		B7A0194	01/06/2017	*01/07/17 15:28*	
Surrogate: Tetrachloro-m-xylene	*65.4 %*		*26 - 108*		B7A0194	01/06/2017	*01/07/17 15:28*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB23-3-0.5

Lab ID: 1604921-84

Polychlorinated Biphenyls by EPA 8082 **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 20:22	
Aroclor 1221	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 20:22	
Aroclor 1232	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 20:22	
Aroclor 1242	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 20:22	
Aroclor 1248	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 20:22	
Aroclor 1254	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 20:22	
Aroclor 1260	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 20:22	
Aroclor 1262	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 20:22	
Aroclor 1268	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 20:22	
Surrogate: Decachlorobiphenyl	*97.1 %*	*26 - 137*			B7A0176	01/06/2017	*01/06/17 20:22*	
Surrogate: Tetrachloro-m-xylene	*101 %*	*28 - 102*			B7A0176	01/06/2017	*01/06/17 20:22*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB23-3-1.5
Lab ID: 1604921-85

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**0.73**	1.0	0.70	1	B7A0232	01/09/2017	01/10/17 11:49	J
Lead	**5.2**	1.0	0.11	1	B7A0232	01/09/2017	01/10/17 11:49	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0194	01/06/2017	01/07/17 15:38	
4,4´-DDE	ND	2.0	0.20	1	B7A0194	01/06/2017	01/07/17 15:38	
4,4´-DDT	ND	2.0	0.13	1	B7A0194	01/06/2017	01/07/17 15:38	
Aldrin	ND	1.0	0.27	1	B7A0194	01/06/2017	01/07/17 15:38	
alpha-BHC	ND	1.0	0.20	1	B7A0194	01/06/2017	01/07/17 15:38	
alpha-Chlordane	ND	1.0	0.21	1	B7A0194	01/06/2017	01/07/17 15:38	
beta-BHC	ND	1.0	0.23	1	B7A0194	01/06/2017	01/07/17 15:38	
Chlordane	ND	8.5	0.90	1	B7A0194	01/06/2017	01/07/17 15:38	
delta-BHC	ND	1.0	0.21	1	B7A0194	01/06/2017	01/07/17 15:38	
Dieldrin	ND	2.0	0.25	1	B7A0194	01/06/2017	01/07/17 15:38	
Endosulfan I	ND	1.0	0.21	1	B7A0194	01/06/2017	01/07/17 15:38	
Endosulfan II	ND	2.0	0.22	1	B7A0194	01/06/2017	01/07/17 15:38	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0194	01/06/2017	01/07/17 15:38	
Endrin	ND	2.0	0.23	1	B7A0194	01/06/2017	01/07/17 15:38	
Endrin aldehyde	ND	2.0	0.28	1	B7A0194	01/06/2017	01/07/17 15:38	
Endrin ketone	ND	2.0	0.20	1	B7A0194	01/06/2017	01/07/17 15:38	
gamma-BHC	ND	1.0	0.20	1	B7A0194	01/06/2017	01/07/17 15:38	
gamma-Chlordane	ND	1.0	0.23	1	B7A0194	01/06/2017	01/07/17 15:38	
Heptachlor	ND	1.0	0.19	1	B7A0194	01/06/2017	01/07/17 15:38	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0194	01/06/2017	01/07/17 15:38	
Methoxychlor	ND	5.0	0.18	1	B7A0194	01/06/2017	01/07/17 15:38	
Toxaphene	ND	50	8.2	1	B7A0194	01/06/2017	01/07/17 15:38	
Surrogate: Decachlorobiphenyl	*73.4 %*		*27 - 123*		B7A0194	01/06/2017	*01/07/17 15:38*	
Surrogate: Tetrachloro-m-xylene	*72.9 %*		*26 - 108*		B7A0194	01/06/2017	*01/07/17 15:38*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EB23-3-1.5

Lab ID: 1604921-85

Polychlorinated Biphenyls by EPA 8082 **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 20:41	
Aroclor 1221	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 20:41	
Aroclor 1232	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 20:41	
Aroclor 1242	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 20:41	
Aroclor 1248	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 20:41	
Aroclor 1254	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 20:41	
Aroclor 1260	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 20:41	
Aroclor 1262	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 20:41	
Aroclor 1268	ND	16	1.5	1	B7A0176	01/06/2017	01/06/17 20:41	
Surrogate: Decachlorobiphenyl	*103 %*	*26 - 137*			B7A0176	01/06/2017	*01/06/17 20:41*	
Surrogate: Tetrachloro-m-xylene	*109 %*	*28 - 102*			B7A0176	01/06/2017	*01/06/17 20:41*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID DRUM1

Lab ID: 1604921-87

Title 22 Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.32	1	B7A0069	01/04/2017	01/04/17 11:21	
Arsenic	**2.7**	1.0	0.70	1	B7A0069	01/04/2017	01/04/17 11:21	
Barium	**90**	1.0	0.10	1	B7A0069	01/04/2017	01/04/17 11:21	
Beryllium	**0.25**	1.0	0.04	1	B7A0069	01/04/2017	01/04/17 11:21	J
Cadmium	ND	1.0	0.09	1	B7A0069	01/04/2017	01/04/17 11:21	
Chromium	**12**	1.0	0.12	1	B7A0069	01/04/2017	01/04/17 11:21	
Cobalt	**6.2**	1.0	0.10	1	B7A0069	01/04/2017	01/04/17 11:21	
Copper	**15**	2.0	0.11	1	B7A0069	01/04/2017	01/04/17 11:21	
Lead	**21**	1.0	0.11	1	B7A0069	01/04/2017	01/04/17 11:21	
Molybdenum	ND	1.0	0.13	1	B7A0069	01/04/2017	01/04/17 11:21	
Nickel	**10**	1.0	0.10	1	B7A0069	01/04/2017	01/04/17 11:21	
Selenium	ND	1.0	0.88	1	B7A0069	01/04/2017	01/04/17 11:21	
Silver	ND	1.0	0.04	1	B7A0069	01/04/2017	01/04/17 11:21	
Thallium	ND	1.0	0.42	1	B7A0069	01/04/2017	01/04/17 11:21	
Vanadium	**21**	1.0	0.19	1	B7A0069	01/04/2017	01/04/17 11:21	
Zinc	**58**	1.0	0.18	1	B7A0069	01/04/2017	01/04/17 11:21	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	**0.03**	0.10	0.02	1	B7A0064	01/04/2017	01/04/17 12:51	J

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: VW

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	0.20	1	B7A0022	01/03/2017	01/03/17 17:59	
Surrogate: 4-Bromofluorobenzene	*88.5 %*		*36 - 125*		B7A0022	01/03/2017	*01/03/17 17:59*	

Diesel Range Organics by EPA 8015B

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	**94**	10	10	10	B7A0043	01/03/2017	01/04/17 11:00	
ORO	**370**	10	10	10	B7A0043	01/03/2017	01/04/17 11:00	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID DRUM1
Lab ID: 1604921-87

Diesel Range Organics by EPA 8015B

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: p-Terphenyl	*0%*	*18 - 130*		B7A0043	01/03/2017	*01/04/17 11:00*	S4

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0038	01/03/2017	01/04/17 11:55	
4,4´-DDE	**5.0**	2.0	0.20	1	B7A0038	01/03/2017	01/04/17 11:55	
4,4´-DDT	ND	2.0	0.13	1	B7A0038	01/03/2017	01/04/17 11:55	
Aldrin	ND	1.0	0.27	1	B7A0038	01/03/2017	01/04/17 11:55	
alpha-BHC	ND	1.0	0.20	1	B7A0038	01/03/2017	01/04/17 11:55	
alpha-Chlordane	**0.60**	1.0	0.21	1	B7A0038	01/03/2017	01/04/17 11:55	J
beta-BHC	ND	1.0	0.23	1	B7A0038	01/03/2017	01/04/17 11:55	
Chlordane	**5.0**	8.5	0.90	1	B7A0038	01/03/2017	01/04/17 11:55	J
delta-BHC	ND	1.0	0.21	1	B7A0038	01/03/2017	01/04/17 11:55	
Dieldrin	ND	2.0	0.25	1	B7A0038	01/03/2017	01/04/17 11:55	
Endosulfan I	ND	1.0	0.21	1	B7A0038	01/03/2017	01/04/17 11:55	
Endosulfan II	ND	2.0	0.22	1	B7A0038	01/03/2017	01/04/17 11:55	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0038	01/03/2017	01/04/17 11:55	
Endrin	ND	2.0	0.23	1	B7A0038	01/03/2017	01/04/17 11:55	
Endrin aldehyde	ND	2.0	0.28	1	B7A0038	01/03/2017	01/04/17 11:55	
Endrin ketone	ND	2.0	0.20	1	B7A0038	01/03/2017	01/04/17 11:55	
gamma-BHC	ND	1.0	0.20	1	B7A0038	01/03/2017	01/04/17 11:55	
gamma-Chlordane	**0.56**	1.0	0.23	1	B7A0038	01/03/2017	01/04/17 11:55	J
Heptachlor	ND	1.0	0.19	1	B7A0038	01/03/2017	01/04/17 11:55	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0038	01/03/2017	01/04/17 11:55	
Methoxychlor	ND	5.0	0.18	1	B7A0038	01/03/2017	01/04/17 11:55	
Toxaphene	ND	50	8.2	1	B7A0038	01/03/2017	01/04/17 11:55	
Surrogate: Decachlorobiphenyl	*39.9 %*	*27 - 123*		B7A0038	01/03/2017	*01/04/17 11:55*	
Surrogate: Tetrachloro-m-xylene	*26.4 %*	*26 - 108*		B7A0038	01/03/2017	*01/04/17 11:55*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EQB-12-29-16
Lab ID: 1604921-88

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	0.010	0.0067	1	B7A0165	01/06/2017	01/09/17 12:35	
Lead	ND	0.0050	0.0028	1	B7A0165	01/06/2017	01/09/17 12:35	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	0.05	0.005	1	B7A0037	01/03/2017	01/03/17 17:43	
4,4´-DDE	ND	0.05	0.005	1	B7A0037	01/03/2017	01/03/17 17:43	
4,4´-DDT	ND	0.05	0.004	1	B7A0037	01/03/2017	01/03/17 17:43	
Aldrin	ND	0.02	0.004	1	B7A0037	01/03/2017	01/03/17 17:43	
alpha-BHC	ND	0.02	0.004	1	B7A0037	01/03/2017	01/03/17 17:43	
alpha-Chlordane	ND	0.02	0.005	1	B7A0037	01/03/2017	01/03/17 17:43	
beta-BHC	ND	0.02	0.005	1	B7A0037	01/03/2017	01/03/17 17:43	
Chlordane	ND	0.25	0.03	1	B7A0037	01/03/2017	01/03/17 17:43	
delta-BHC	ND	0.02	0.004	1	B7A0037	01/03/2017	01/03/17 17:43	
Dieldrin	ND	0.05	0.005	1	B7A0037	01/03/2017	01/03/17 17:43	
Endosulfan I	ND	0.02	0.005	1	B7A0037	01/03/2017	01/03/17 17:43	
Endosulfan II	ND	0.05	0.005	1	B7A0037	01/03/2017	01/03/17 17:43	
Endosulfan sulfate	ND	0.05	0.005	1	B7A0037	01/03/2017	01/03/17 17:43	
Endrin	ND	0.05	0.005	1	B7A0037	01/03/2017	01/03/17 17:43	
Endrin aldehyde	ND	0.05	0.006	1	B7A0037	01/03/2017	01/03/17 17:43	
Endrin ketone	ND	0.05	0.005	1	B7A0037	01/03/2017	01/03/17 17:43	
gamma-BHC	ND	0.02	0.004	1	B7A0037	01/03/2017	01/03/17 17:43	
gamma-Chlordane	ND	0.02	0.005	1	B7A0037	01/03/2017	01/03/17 17:43	
Heptachlor	ND	0.02	0.005	1	B7A0037	01/03/2017	01/03/17 17:43	
Heptachlor epoxide	ND	0.02	0.005	1	B7A0037	01/03/2017	01/03/17 17:43	
Methoxychlor	ND	0.25	0.004	1	B7A0037	01/03/2017	01/03/17 17:43	
Toxaphene	ND	2.5	0.23	1	B7A0037	01/03/2017	01/03/17 17:43	
Surrogate: Decachlorobiphenyl	*20.7 %*		*7 - 127*		B7A0037	01/03/2017	*01/03/17 17:43*	
Surrogate: Tetrachloro-m-xylene	*30.3 %*		*14 - 122*		B7A0037	01/03/2017	*01/03/17 17:43*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Client Sample ID EQB-12-29-16

Lab ID: 1604921-88

Polychlorinated Biphenyls by EPA 8082 **Analyst: RL**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	0.50	0.06	1	B7A0037	01/03/2017	01/04/17 01:38	
Aroclor 1221	ND	1.0	0.06	1	B7A0037	01/03/2017	01/04/17 01:38	
Aroclor 1232	ND	0.50	0.06	1	B7A0037	01/03/2017	01/04/17 01:38	
Aroclor 1242	ND	0.50	0.06	1	B7A0037	01/03/2017	01/04/17 01:38	
Aroclor 1248	ND	0.50	0.06	1	B7A0037	01/03/2017	01/04/17 01:38	
Aroclor 1254	ND	0.50	0.06	1	B7A0037	01/03/2017	01/04/17 01:38	
Aroclor 1260	ND	0.50	0.06	1	B7A0037	01/03/2017	01/04/17 01:38	
Aroclor 1262	ND	0.50	0.06	1	B7A0037	01/03/2017	01/04/17 01:38	
Aroclor 1268	ND	0.50	0.06	1	B7A0037	01/03/2017	01/04/17 01:38	
Surrogate: Decachlorobiphenyl	*33.0 %*	*7 - 127*			B7A0037	01/03/2017	*01/04/17 01:38*	
Surrogate: Tetrachloro-m-xylene	*43.7 %*	*14 - 122*			B7A0037	01/03/2017	*01/04/17 01:38*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0165 - EPA 3010A_W									
Blank (B7A0165-BLK1)				Prepared: 1/6/2017 Analyzed: 1/9/2017					
Arsenic	ND	0.010			NR				
Lead	ND	0.0050			NR				
LCS (B7A0165-BS1)				Prepared: 1/6/2017 Analyzed: 1/9/2017					
Arsenic	0.931121	0.010	1.00000		93.1	80 - 120			
Lead	0.988818	0.0050	1.00000		98.9	80 - 120			
Duplicate (B7A0165-DUP1)		**Source: 1604921-88**		Prepared: 1/6/2017 Analyzed: 1/9/2017					
Arsenic	ND	0.010		ND	NR			20	
Lead	ND	0.0050		ND	NR			20	
Matrix Spike (B7A0165-MS1)		**Source: 1604921-88**		Prepared: 1/6/2017 Analyzed: 1/9/2017					
Arsenic	2.33699	0.010	2.50000	ND	93.5	74 - 123			
Lead	2.44334	0.0050	2.50000	ND	97.7	78 - 109			
Matrix Spike Dup (B7A0165-MSD1)		**Source: 1604921-88**		Prepared: 1/6/2017 Analyzed: 1/9/2017					
Arsenic	2.29142	0.010	2.50000	ND	91.7	74 - 123	1.97	20	
Lead	2.39762	0.0050	2.50000	ND	95.9	78 - 109	1.89	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0229 - EPA 3050B_S									
Blank (B7A0229-BLK1)				Prepared: 1/9/2017 Analyzed: 1/10/2017					
Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				
LCS (B7A0229-BS1)				Prepared: 1/9/2017 Analyzed: 1/10/2017					
Arsenic	46.1388	1.0	50.0000		92.3	80 - 120			
Lead	46.7878	1.0	50.0000		93.6	80 - 120			
Duplicate (B7A0229-DUP1)		**Source: 1604921-28**		Prepared: 1/9/2017 Analyzed: 1/10/2017					
Arsenic	6.36432	1.0		3.39229	NR		60.9	20	R
Lead	14.1042	1.0		14.7382	NR		4.40	20	
Matrix Spike (B7A0229-MS1)		**Source: 1604921-28**		Prepared: 1/9/2017 Analyzed: 1/10/2017					
Arsenic	72.5771	1.0	125.000	3.39229	55.3	59 - 103			M1
Lead	76.9976	1.0	125.000	14.7382	49.8	34 - 129			
Matrix Spike Dup (B7A0229-MSD1)		**Source: 1604921-28**		Prepared: 1/9/2017 Analyzed: 1/10/2017					
Arsenic	78.9280	1.0	125.000	3.39229	60.4	59 - 103	8.38	20	
Lead	83.6582	1.0	125.000	14.7382	55.1	34 - 129	8.29	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0230 - EPA 3050B_S									
Blank (B7A0230-BLK1)				Prepared: 1/9/2017 Analyzed: 1/10/2017					
Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				
LCS (B7A0230-BS1)				Prepared: 1/9/2017 Analyzed: 1/10/2017					
Arsenic	53.7953	1.0	50.0000		108	80 - 120			
Lead	54.7385	1.0	50.0000		109	80 - 120			
Duplicate (B7A0230-DUP1)		**Source: 1604921-55**		Prepared: 1/9/2017 Analyzed: 1/10/2017					
Arsenic	2.10560	1.0		2.02187	NR		4.06	20	
Lead	4.02665	1.0		3.74414	NR		7.27	20	
Matrix Spike (B7A0230-MS1)		**Source: 1604921-55**		Prepared: 1/9/2017 Analyzed: 1/10/2017					
Arsenic	93.9709	1.0	125.000	2.02187	73.6	59 - 103			
Lead	96.9106	1.0	125.000	3.74414	74.5	34 - 129			
Matrix Spike Dup (B7A0230-MSD1)		**Source: 1604921-55**		Prepared: 1/9/2017 Analyzed: 1/10/2017					
Arsenic	92.8694	1.0	125.000	2.02187	72.7	59 - 103	1.18	20	
Lead	96.0210	1.0	125.000	3.74414	73.8	34 - 129	0.922	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0231 - EPA 3050B_S									
Blank (B7A0231-BLK1)				Prepared: 1/9/2017 Analyzed: 1/10/2017					
Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				
LCS (B7A0231-BS1)				Prepared: 1/9/2017 Analyzed: 1/10/2017					
Arsenic	46.5803	1.0	50.0000		93.2	80 - 120			
Lead	47.3048	1.0	50.0000		94.6	80 - 120			
Duplicate (B7A0231-DUP1)		**Source: 1604921-84**		Prepared: 1/9/2017 Analyzed: 1/10/2017					
Arsenic	1.39462	1.0		1.58849	NR		13.0	20	
Lead	4.75717	1.0		5.04206	NR		5.81	20	
Matrix Spike (B7A0231-MS1)		**Source: 1604921-84**		Prepared: 1/9/2017 Analyzed: 1/10/2017					
Arsenic	100.487	1.0	125.000	1.58849	79.1	59 - 103			
Lead	104.425	1.0	125.000	5.04206	79.5	34 - 129			
Matrix Spike Dup (B7A0231-MSD1)		**Source: 1604921-84**		Prepared: 1/9/2017 Analyzed: 1/10/2017					
Arsenic	102.325	1.0	125.000	1.58849	80.6	59 - 103	1.81	20	
Lead	103.198	1.0	125.000	5.04206	78.5	34 - 129	1.18	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0232 - EPA 3050B_S									
Blank (B7A0232-BLK1)				Prepared: 1/9/2017 Analyzed: 1/10/2017					
Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				
LCS (B7A0232-BS1)				Prepared: 1/9/2017 Analyzed: 1/10/2017					
Arsenic	48.4276	1.0	50.0000		96.9	80 - 120			
Lead	48.5893	1.0	50.0000		97.2	80 - 120			
Duplicate (B7A0232-DUP1)		**Source: 1604923-18**		Prepared: 1/9/2017 Analyzed: 1/10/2017					
Arsenic	1.18059	1.0		1.05192	NR		11.5	20	
Lead	70.7304	1.0		33.0863	NR		72.5	20	R
Matrix Spike (B7A0232-MS1)		**Source: 1604923-18**		Prepared: 1/9/2017 Analyzed: 1/10/2017					
Arsenic	91.6988	1.0	125.000	1.05192	72.5	59 - 103			
Lead	133.597	1.0	125.000	33.0863	80.4	34 - 129			
Matrix Spike Dup (B7A0232-MSD1)		**Source: 1604923-18**		Prepared: 1/9/2017 Analyzed: 1/10/2017					
Arsenic	95.3188	1.0	125.000	1.05192	75.4	59 - 103	3.87	20	
Lead	123.921	1.0	125.000	33.0863	72.7	34 - 129	7.51	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Title 22 Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0069 - EPA 3050B_S									
Blank (B7A0069-BLK1)				Prepared: 1/4/2017 Analyzed: 1/4/2017					
Antimony	ND	2.0			NR				
Arsenic	ND	1.0			NR				
Barium	ND	1.0			NR				
Beryllium	ND	1.0			NR				
Cadmium	ND	1.0			NR				
Chromium	ND	1.0			NR				
Cobalt	ND	1.0			NR				
Copper	ND	2.0			NR				
Lead	ND	1.0			NR				
Molybdenum	ND	1.0			NR				
Nickel	ND	1.0			NR				
Selenium	ND	1.0			NR				
Silver	ND	1.0			NR				
Thallium	ND	1.0			NR				
Vanadium	ND	1.0			NR				
Zinc	ND	1.0			NR				
LCS (B7A0069-BS1)				Prepared: 1/4/2017 Analyzed: 1/4/2017					
Antimony	48.0351	2.0	50.0000		96.1	80 - 120			
Arsenic	47.6822	1.0	50.0000		95.4	80 - 120			
Barium	49.7360	1.0	50.0000		99.5	80 - 120			
Beryllium	47.8372	1.0	50.0000		95.7	80 - 120			
Cadmium	47.5910	1.0	50.0000		95.2	80 - 120			
Chromium	50.4138	1.0	50.0000		101	80 - 120			
Cobalt	50.4520	1.0	50.0000		101	80 - 120			
Copper	50.0855	2.0	50.0000		100	80 - 120			
Lead	48.1772	1.0	50.0000		96.4	80 - 120			
Molybdenum	49.7387	1.0	50.0000		99.5	80 - 120			
Nickel	48.4395	1.0	50.0000		96.9	80 - 120			
Selenium	46.2836	1.0	50.0000		92.6	80 - 120			
Silver	48.4172	1.0	50.0000		96.8	80 - 120			
Thallium	47.9807	1.0	50.0000		96.0	80 - 120			
Vanadium	51.9218	1.0	50.0000		104	80 - 120			
Zinc	47.4841	1.0	50.0000		95.0	80 - 120			
Matrix Spike (B7A0069-MS1)		**Source: 1604921-87**		Prepared: 1/4/2017 Analyzed: 1/4/2017					
Antimony	79.4180	2.0	125.000	ND	63.5	34 - 103			
Arsenic	98.0034	1.0	125.000	2.67160	76.3	59 - 103			
Barium	179.963	1.0	125.000	90.4090	71.6	30 - 134			
Beryllium	92.2591	1.0	125.000	0.254842	73.6	62 - 105			
Cadmium	85.6254	1.0	125.000	ND	68.5	53 - 102			
Chromium	106.317	1.0	125.000	12.2786	75.2	51 - 111			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0069 - EPA 3050B_S (continued)									
Matrix Spike (B7A0069-MS1) - Continued		**Source: 1604921-87**		Prepared: 1/4/2017 Analyzed: 1/4/2017					
Cobalt	98.3584	1.0	125.000	6.19966	73.7	55 - 105			
Copper	116.318	2.0	125.000	14.6222	81.4	53 - 126			
Lead	107.672	1.0	125.000	20.7595	69.5	34 - 129			
Molybdenum	89.0398	1.0	125.000	ND	71.2	57 - 105			
Nickel	97.5936	1.0	125.000	10.0751	70.0	49 - 109			
Selenium	91.1659	1.0	125.000	ND	72.9	57 - 99			
Silver	96.0096	1.0	125.000	ND	76.8	64 - 105			
Thallium	87.7044	1.0	125.000	ND	70.2	46 - 105			
Vanadium	118.714	1.0	125.000	20.6171	78.5	60 - 109			
Zinc	147.841	1.0	250.000	57.5544	36.1	29 - 122			
Matrix Spike Dup (B7A0069-MSD1)		**Source: 1604921-87**		Prepared: 1/4/2017 Analyzed: 1/4/2017					
Antimony	78.6876	2.0	125.000	ND	63.0	34 - 103	0.924	20	
Arsenic	93.6996	1.0	125.000	2.67160	72.8	59 - 103	4.49	20	
Barium	222.307	1.0	125.000	90.4090	106	30 - 134	21.1	20	R
Beryllium	90.6712	1.0	125.000	0.254842	72.3	62 - 105	1.74	20	
Cadmium	82.3629	1.0	125.000	ND	65.9	53 - 102	3.88	20	
Chromium	103.051	1.0	125.000	12.2786	72.6	51 - 111	3.12	20	
Cobalt	91.2428	1.0	125.000	6.19966	68.0	55 - 105	7.51	20	
Copper	110.406	2.0	125.000	14.6222	76.6	53 - 126	5.21	20	
Lead	115.176	1.0	125.000	20.7595	75.5	34 - 129	6.73	20	
Molybdenum	82.7664	1.0	125.000	ND	66.2	57 - 105	7.30	20	
Nickel	94.7125	1.0	125.000	10.0751	67.7	49 - 109	3.00	20	
Selenium	88.5007	1.0	125.000	ND	70.8	57 - 99	2.97	20	
Silver	89.9450	1.0	125.000	ND	72.0	64 - 105	6.52	20	
Thallium	86.2145	1.0	125.000	ND	69.0	46 - 105	1.71	20	
Vanadium	114.692	1.0	125.000	20.6171	75.3	60 - 109	3.45	20	
Zinc	156.058	1.0	250.000	57.5544	39.4	29 - 122	5.41	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Mercury by AA (Cold Vapor) EPA 7471A - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0064 - EPA 7471_S									
Blank (B7A0064-BLK1)				Prepared: 1/4/2017 Analyzed: 1/4/2017					
Mercury	ND	0.10			NR				
LCS (B7A0064-BS1)				Prepared: 1/4/2017 Analyzed: 1/4/2017					
Mercury	0.762695	0.10	0.833333		91.5	80 - 120			
Matrix Spike (B7A0064-MS1)		**Source: 1604921-87**		Prepared: 1/4/2017 Analyzed: 1/4/2017					
Mercury	0.848440	0.10	0.833333	0.027602	98.5	70 - 130			
Matrix Spike Dup (B7A0064-MSD1)		**Source: 1604921-87**		Prepared: 1/4/2017 Analyzed: 1/4/2017					
Mercury	0.872380	0.10	0.833333	0.027602	101	70 - 130	2.78	20	
Post Spike (B7A0064-PS1)		**Source: 1604921-87**		Prepared: 1/4/2017 Analyzed: 1/4/2017					
Mercury	0.006269		5.00000E-3	0.000331	119	85 - 115			M1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Gasoline Range Organics by EPA 8015B (Modified) - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0022 - GCVOA_S									
Blank (B7A0022-BLK1)				Prepared: 1/3/2017 Analyzed: 1/3/2017					
Gasoline Range Organics	ND	1.0			NR				
Surrogate: 4-Bromofluorobenzene	*0.1864*		*0.200000*		*93.2*	*36 - 125*			
LCS (B7A0022-BS1)				Prepared: 1/3/2017 Analyzed: 1/3/2017					
Gasoline Range Organics	4.75300	1.0	5.00000		95.1	70 - 130			
Surrogate: 4-Bromofluorobenzene	*0.1896*		*0.200000*		*94.8*	*36 - 125*			
Duplicate (B7A0022-DUP1)		**Source: 1604921-87**		Prepared: 1/3/2017 Analyzed: 1/3/2017					
Gasoline Range Organics	ND	1.0		ND	NR			20	
Surrogate: 4-Bromofluorobenzene	*0.1767*		*0.200000*		*88.3*	*36 - 125*			
Matrix Spike (B7A0022-MS1)		**Source: 1604921-87**		Prepared: 1/3/2017 Analyzed: 1/3/2017					
Gasoline Range Organics	3.48800	1.0	5.00000	ND	69.8	32 - 161			
Surrogate: 4-Bromofluorobenzene	*0.1728*		*0.200000*		*86.4*	*36 - 125*			
Matrix Spike Dup (B7A0022-MSD1)		**Source: 1604921-87**		Prepared: 1/3/2017 Analyzed: 1/3/2017					
Gasoline Range Organics	3.64800	1.0	5.00000	ND	73.0	32 - 161	4.48	20	
Surrogate: 4-Bromofluorobenzene	*0.1861*		*0.200000*		*93.0*	*36 - 125*			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Diesel Range Organics by EPA 8015B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0043 - GCSEMI_DRO_LL_S									
Blank (B7A0043-BLK1)					Prepared: 1/3/2017 Analyzed: 1/4/2017				
DRO	ND	1.0			NR				
ORO	ND	1.0			NR				
Surrogate: p-Terphenyl	*2.282*		*2.66667*		*85.6*	*18 - 130*			
LCS (B7A0043-BS1)					Prepared: 1/3/2017 Analyzed: 1/4/2017				
DRO	27.6447	1.0	33.3333		82.9	34 - 120			
Surrogate: p-Terphenyl	*2.348*		*2.66667*		*88.0*	*18 - 130*			
Duplicate (B7A0043-DUP1)		**Source: 1604921-87**			Prepared: 1/3/2017 Analyzed: 1/4/2017				
DRO	110.843	10		94.2467	NR		16.2	20	
Surrogate: p-Terphenyl	*0.000*		*2.66667*		*NR*	*18 - 130*			S4
Matrix Spike (B7A0043-MS1)		**Source: 1604921-87**			Prepared: 1/3/2017 Analyzed: 1/4/2017				
DRO	148.800	10	33.3333	94.2467	164	12 - 132			M2
Surrogate: p-Terphenyl	*0.000*		*2.66667*		*NR*	*18 - 130*			S4
Matrix Spike Dup (B7A0043-MSD1)		**Source: 1604921-87**			Prepared: 1/3/2017 Analyzed: 1/4/2017				
DRO	87.6200	10	33.3333	94.2467	-19.9	12 - 132	51.8	20	M2, R2
Surrogate: p-Terphenyl	*0.000*		*2.66667*		*NR*	*18 - 130*			S4

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0037 - GCSEMI_PCB/PEST_W									
Blank (B7A0037-BLK1)				Prepared: 1/3/2017 Analyzed: 1/3/2017					
4,4´-DDD	ND	0.05			NR				
4,4´-DDD [2C]	ND	0.05			NR				
4,4´-DDE	ND	0.05			NR				
4,4´-DDE [2C]	ND	0.05			NR				
4,4´-DDT	ND	0.05			NR				
4,4´-DDT [2C]	ND	0.05			NR				
Aldrin	ND	0.02			NR				
Aldrin [2C]	ND	0.02			NR				
alpha-BHC	ND	0.02			NR				
alpha-BHC [2C]	ND	0.02			NR				
alpha-Chlordane	ND	0.02			NR				
alpha-Chlordane [2C]	ND	0.02			NR				
beta-BHC	ND	0.02			NR				
beta-BHC [2C]	ND	0.02			NR				
Chlordane	ND	0.25			NR				
Chlordane [2C]	ND	0.25			NR				
delta-BHC	ND	0.02			NR				
delta-BHC [2C]	ND	0.02			NR				
Dieldrin	ND	0.05			NR				
Dieldrin [2C]	ND	0.05			NR				
Endosulfan I	ND	0.02			NR				
Endosulfan I [2C]	ND	0.02			NR				
Endosulfan II	ND	0.05			NR				
Endosulfan II [2C]	ND	0.05			NR				
Endosulfan sulfate	ND	0.05			NR				
Endosulfan Sulfate [2C]	ND	0.05			NR				
Endrin	ND	0.05			NR				
Endrin [2C]	ND	0.05			NR				
Endrin aldehyde	ND	0.05			NR				
Endrin aldehyde [2C]	ND	0.05			NR				
Endrin ketone	ND	0.05			NR				
Endrin ketone [2C]	ND	0.05			NR				
gamma-BHC	ND	0.02			NR				
gamma-BHC [2C]	ND	0.02			NR				
gamma-Chlordane	ND	0.02			NR				
gamma-Chlordane [2C]	ND	0.02			NR				
Heptachlor	ND	0.02			NR				
Heptachlor [2C]	ND	0.02			NR				
Heptachlor epoxide	ND	0.02			NR				
Heptachlor epoxide [2C]	ND	0.02			NR				
Methoxychlor	ND	0.25			NR				

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0037 - GCSEMI_PCB/PEST_W (continued)									
Blank (B7A0037-BLK1) - Continued				Prepared: 1/3/2017 Analyzed: 1/3/2017					
Methoxychlor [2C]	ND	0.25			NR				
Toxaphene	ND	2.5			NR				
Toxaphene [2C]	ND	2.5			NR				
Surrogate: Decachlorobiphenyl	*0.2658*		*0.500000*		*53.2*	*7 - 127*			
Surrogate: Decachlorobiphenyl [2C]	*0.2876*		*0.500000*		*57.5*	*7 - 127*			
Surrogate: Tetrachloro-m-xylene	*0.2945*		*0.500000*		*58.9*	*14 - 122*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.2956*		*0.500000*		*59.1*	*14 - 122*			
LCS (B7A0037-BS1)				Prepared: 1/3/2017 Analyzed: 1/3/2017					
4,4´-DDD	0.363180	0.05	0.500000		72.6	59 - 109			
4,4´-DDD [2C]	0.360310	0.05	0.500000		72.1	59 - 109			
4,4´-DDE	0.279925	0.05	0.500000		56.0	63 - 101			L2
4,4´-DDE [2C]	0.279715	0.05	0.500000		55.9	63 - 101			L2
4,4´-DDT	0.254690	0.05	0.500000		50.9	36 - 96			
4,4´-DDT [2C]	0.259245	0.05	0.500000		51.8	36 - 96			
Aldrin	0.287915	0.02	0.500000		57.6	64 - 96			L2
Aldrin [2C]	0.285170	0.02	0.500000		57.0	64 - 96			L2
alpha-BHC	0.347050	0.02	0.500000		69.4	63 - 92			
alpha-BHC [2C]	0.351840	0.02	0.500000		70.4	63 - 92			
alpha-Chlordane	0.313465	0.02	0.500000		62.7	63 - 101			L2
alpha-Chlordane [2C]	0.305240	0.02	0.500000		61.0	63 - 101			L2
beta-BHC	0.354215	0.02	0.500000		70.8	58 - 95			
beta-BHC [2C]	0.355230	0.02	0.500000		71.0	58 - 95			
delta-BHC	0.299150	0.02	0.500000		59.8	37 - 107			
delta-BHC [2C]	0.305860	0.02	0.500000		61.2	37 - 107			
Dieldrin	0.349840	0.05	0.500000		70.0	62 - 102			
Dieldrin [2C]	0.337915	0.05	0.500000		67.6	62 - 102			
Endosulfan I	0.336470	0.02	0.500000		67.3	61 - 97			
Endosulfan I [2C]	0.319660	0.02	0.500000		63.9	61 - 97			
Endosulfan II	0.352055	0.05	0.500000		70.4	61 - 103			
Endosulfan II [2C]	0.339880	0.05	0.500000		68.0	61 - 103			
Endosulfan sulfate	0.339570	0.05	0.500000		67.9	60 - 112			
Endosulfan Sulfate [2C]	0.339125	0.05	0.500000		67.8	60 - 112			
Endrin	0.366235	0.05	0.500000		73.2	62 - 103			
Endrin [2C]	0.354760	0.05	0.500000		71.0	62 - 103			
Endrin aldehyde	0.350885	0.05	0.500000		70.2	64 - 116			
Endrin aldehyde [2C]	0.322485	0.05	0.500000		64.5	64 - 116			
Endrin ketone	0.354465	0.05	0.500000		70.9	56 - 113			
Endrin ketone [2C]	0.373545	0.05	0.500000		74.7	56 - 113			
gamma-BHC	0.367685	0.02	0.500000		73.5	64 - 95			
gamma-BHC [2C]	0.365640	0.02	0.500000		73.1	64 - 95			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0037 - GCSEMI_PCB/PEST_W (continued)									
LCS (B7A0037-BS1) - Continued				Prepared: 1/3/2017 Analyzed: 1/3/2017					
gamma-Chlordane	0.303435	0.02	0.500000		60.7	64 - 99			L2
gamma-Chlordane [2C]	0.299285	0.02	0.500000		59.9	64 - 99			L2
Heptachlor	0.306535	0.02	0.500000		61.3	64 - 93			L2
Heptachlor [2C]	0.300800	0.02	0.500000		60.2	64 - 93			L2
Heptachlor epoxide	0.331790	0.02	0.500000		66.4	65 - 98			
Heptachlor epoxide [2C]	0.324435	0.02	0.500000		64.9	65 - 98			L2
Methoxychlor	0.288520	0.25	0.500000		57.7	0 - 141			
Methoxychlor [2C]	0.302515	0.25	0.500000		60.5	0 - 141			
Surrogate: Decachlorobiphenyl	*0.2465*		*0.500000*		*49.3*	*7 - 127*			
Surrogate: Decachlorobiphenyl [2C]	*0.2668*		*0.500000*		*53.4*	*7 - 127*			
Surrogate: Tetrachloro-m-xylene	*0.3115*		*0.500000*		*62.3*	*14 - 122*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.3277*		*0.500000*		*65.5*	*14 - 122*			
LCS Dup (B7A0037-BSD1)				Prepared: 1/3/2017 Analyzed: 1/3/2017					
4,4´-DDD	0.399375	0.05	0.500000		79.9	59 - 109	9.49	20	
4,4´-DDD [2C]	0.403410	0.05	0.500000		80.7	59 - 109	11.3	20	
4,4´-DDE	0.317680	0.05	0.500000		63.5	63 - 101	12.6	20	
4,4´-DDE [2C]	0.315940	0.05	0.500000		63.2	63 - 101	12.2	20	
4,4´-DDT	0.268815	0.05	0.500000		53.8	36 - 96	5.40	20	
4,4´-DDT [2C]	0.267385	0.05	0.500000		53.5	36 - 96	3.09	20	
Aldrin	0.321890	0.02	0.500000		64.4	64 - 96	11.1	20	
Aldrin [2C]	0.320935	0.02	0.500000		64.2	64 - 96	11.8	20	
alpha-BHC	0.363535	0.02	0.500000		72.7	63 - 92	4.64	20	
alpha-BHC [2C]	0.368980	0.02	0.500000		73.8	63 - 92	4.76	20	
alpha-Chlordane	0.341235	0.02	0.500000		68.2	63 - 101	8.48	20	
alpha-Chlordane [2C]	0.335460	0.02	0.500000		67.1	63 - 101	9.43	20	
beta-BHC	0.370150	0.02	0.500000		74.0	58 - 95	4.40	20	
beta-BHC [2C]	0.372655	0.02	0.500000		74.5	58 - 95	4.79	20	
delta-BHC	0.313370	0.02	0.500000		62.7	37 - 107	4.64	20	
delta-BHC [2C]	0.320555	0.02	0.500000		64.1	37 - 107	4.69	20	
Dieldrin	0.371515	0.05	0.500000		74.3	62 - 102	6.01	20	
Dieldrin [2C]	0.361385	0.05	0.500000		72.3	62 - 102	6.71	20	
Endosulfan I	0.355665	0.02	0.500000		71.1	61 - 97	5.55	20	
Endosulfan I [2C]	0.344145	0.02	0.500000		68.8	61 - 97	7.38	20	
Endosulfan II	0.365630	0.05	0.500000		73.1	61 - 103	3.78	20	
Endosulfan II [2C]	0.356080	0.05	0.500000		71.2	61 - 103	4.66	20	
Endosulfan sulfate	0.357610	0.05	0.500000		71.5	60 - 112	5.18	20	
Endosulfan Sulfate [2C]	0.353790	0.05	0.500000		70.8	60 - 112	4.23	20	
Endrin	0.379125	0.05	0.500000		75.8	62 - 103	3.46	20	
Endrin [2C]	0.375285	0.05	0.500000		75.1	62 - 103	5.62	20	
Endrin aldehyde	0.374390	0.05	0.500000		74.9	64 - 116	6.48	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0037 - GCSEMI_PCB/PEST_W (continued)									
LCS Dup (B7A0037-BSD1) - Continued				Prepared: 1/3/2017 Analyzed: 1/3/2017					
Endrin aldehyde [2C]	0.355655	0.05	0.500000		71.1	64 - 116	9.78	20	
Endrin ketone	0.378335	0.05	0.500000		75.7	56 - 113	6.51	20	
Endrin ketone [2C]	0.382420	0.05	0.500000		76.5	56 - 113	2.35	20	
gamma-BHC	0.386310	0.02	0.500000		77.3	64 - 95	4.94	20	
gamma-BHC [2C]	0.384415	0.02	0.500000		76.9	64 - 95	5.01	20	
gamma-Chlordane	0.331655	0.02	0.500000		66.3	64 - 99	8.89	20	
gamma-Chlordane [2C]	0.330240	0.02	0.500000		66.0	64 - 99	9.83	20	
Heptachlor	0.330190	0.02	0.500000		66.0	64 - 93	7.43	20	
Heptachlor [2C]	0.325510	0.02	0.500000		65.1	64 - 93	7.89	20	
Heptachlor epoxide	0.352610	0.02	0.500000		70.5	65 - 98	6.08	20	
Heptachlor epoxide [2C]	0.345600	0.02	0.500000		69.1	65 - 98	6.32	20	
Methoxychlor	0.292580	0.25	0.500000		58.5	0 - 141	1.40	20	
Methoxychlor [2C]	0.304260	0.25	0.500000		60.9	0 - 141	0.575	20	
Surrogate: Decachlorobiphenyl	*0.2805*		*0.500000*		*56.1*	*7 - 127*			
Surrogate: Decachlorobiphenyl [2C]	*0.3145*		*0.500000*		*62.9*	*7 - 127*			
Surrogate: Tetrachloro-m-xylene	*0.3161*		*0.500000*		*63.2*	*14 - 122*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.3376*		*0.500000*		*67.5*	*14 - 122*			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0038 - GCSEMI_PCB/PEST_S									
Blank (B7A0038-BLK1)				Prepared: 1/3/2017 Analyzed: 1/4/2017					
4,4´-DDD	ND	2.0			NR				
4,4´-DDD [2C]	ND	2.0			NR				
4,4´-DDE	ND	2.0			NR				
4,4´-DDE [2C]	ND	2.0			NR				
4,4´-DDT	ND	2.0			NR				
4,4´-DDT [2C]	ND	2.0			NR				
Aldrin	ND	1.0			NR				
Aldrin [2C]	ND	1.0			NR				
alpha-BHC	ND	1.0			NR				
alpha-BHC [2C]	ND	1.0			NR				
alpha-Chlordane	ND	1.0			NR				
alpha-Chlordane [2C]	ND	1.0			NR				
beta-BHC	ND	1.0			NR				
beta-BHC [2C]	ND	1.0			NR				
Chlordane	ND	8.5			NR				
Chlordane [2C]	ND	8.5			NR				
delta-BHC	ND	1.0			NR				
delta-BHC [2C]	ND	1.0			NR				
Dieldrin	ND	2.0			NR				
Dieldrin [2C]	ND	2.0			NR				
Endosulfan I	ND	1.0			NR				
Endosulfan I [2C]	ND	1.0			NR				
Endosulfan II	ND	2.0			NR				
Endosulfan II [2C]	ND	2.0			NR				
Endosulfan sulfate	ND	2.0			NR				
Endosulfan Sulfate [2C]	ND	2.0			NR				
Endrin	ND	2.0			NR				
Endrin [2C]	ND	2.0			NR				
Endrin aldehyde	ND	2.0			NR				
Endrin aldehyde [2C]	ND	2.0			NR				
Endrin ketone	ND	2.0			NR				
Endrin ketone [2C]	ND	2.0			NR				
gamma-BHC	ND	1.0			NR				
gamma-BHC [2C]	ND	1.0			NR				
gamma-Chlordane	ND	1.0			NR				
gamma-Chlordane [2C]	ND	1.0			NR				
Heptachlor	ND	1.0			NR				
Heptachlor [2C]	ND	1.0			NR				
Heptachlor epoxide	ND	1.0			NR				
Heptachlor epoxide [2C]	ND	1.0			NR				
Methoxychlor	ND	5.0			NR				

Leighton Consulting, Inc.
17781 Cowan Street
Irvine , CA 92614

Project Number : Burroughs MS, 603378.006
Report To : Julie Harriman
Reported : 01/16/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0038 - GCSEMI_PCB/PEST_S (continued)									
Blank (B7A0038-BLK1) - Continued					Prepared: 1/3/2017 Analyzed: 1/4/2017				
Methoxychlor [2C]	ND	5.0			NR				
Toxaphene	ND	50			NR				
Toxaphene [2C]	ND	50			NR				
Surrogate: Decachlorobiphenyl	*9.061*		*16.6667*		*54.4*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*8.048*		*16.6667*		*48.3*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*10.93*		*16.6667*		*65.6*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*9.958*		*16.6667*		*59.7*	*26 - 108*			
LCS (B7A0038-BS1)					Prepared: 1/3/2017 Analyzed: 1/4/2017				
4,4´-DDD	11.7478	2.0			NR	53 - 125			
4,4´-DDD [2C]	13.2322	2.0			NR	53 - 125			
4,4´-DDE	11.5050	2.0			NR	54 - 113			
4,4´-DDE [2C]	11.4128	2.0			NR	54 - 113			
4,4´-DDT	13.2008	2.0			NR	25 - 127			
4,4´-DDT [2C]	14.6020	2.0			NR	25 - 127			
Aldrin	11.1037	1.0			NR	59 - 107			
Aldrin [2C]	11.7578	1.0			NR	59 - 107			
alpha-BHC	11.2790	1.0			NR	59 - 104			
alpha-BHC [2C]	11.8890	1.0			NR	59 - 104			
alpha-Chlordane	11.2047	1.0			NR	54 - 110			
alpha-Chlordane [2C]	11.6850	1.0			NR	54 - 110			
beta-BHC	10.9218	1.0			NR	57 - 103			
beta-BHC [2C]	11.7082	1.0			NR	57 - 103			
delta-BHC	8.87717	1.0			NR	16 - 120			
delta-BHC [2C]	9.25617	1.0			NR	16 - 120			
Dieldrin	11.4847	2.0			NR	61 - 109			
Dieldrin [2C]	12.3578	2.0			NR	61 - 109			
Endosulfan I	10.9262	1.0			NR	60 - 106			
Endosulfan I [2C]	12.1573	1.0			NR	60 - 106			
Endosulfan II	10.9895	2.0			NR	59 - 108			
Endosulfan II [2C]	12.1000	2.0			NR	59 - 108			
Endosulfan sulfate	9.97033	2.0			NR	54 - 110			
Endosulfan Sulfate [2C]	11.2717	2.0			NR	54 - 110			
Endrin	12.0040	2.0			NR	63 - 112			
Endrin [2C]	13.1178	2.0			NR	63 - 112			
Endrin aldehyde	11.5845	2.0			NR	64 - 119			
Endrin aldehyde [2C]	11.7693	2.0			NR	64 - 119			
Endrin ketone	11.4052	2.0			NR	54 - 115			
Endrin ketone [2C]	12.3573	2.0			NR	54 - 115			
gamma-BHC	11.6237	1.0			NR	60 - 107			
gamma-BHC [2C]	12.4938	1.0			NR	60 - 107			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0038 - GCSEMI_PCB/PEST_S (continued)									
LCS (B7A0038-BS1) - Continued				Prepared: 1/3/2017 Analyzed: 1/4/2017					
gamma-Chlordane	11.1087	1.0			NR	57 - 106			
gamma-Chlordane [2C]	11.5975	1.0			NR	57 - 106			
Heptachlor	11.8833	1.0			NR	54 - 114			
Heptachlor [2C]	14.4505	1.0			NR	54 - 114			
Heptachlor epoxide	10.9952	1.0			NR	61 - 106			
Heptachlor epoxide [2C]	12.0765	1.0			NR	61 - 106			
Methoxychlor	13.6702	5.0			NR	18 - 138			
Methoxychlor [2C]	16.0010	5.0			NR	18 - 138			
Surrogate: Decachlorobiphenyl	*9.497*		*16.6667*		*57.0*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*9.021*		*16.6667*		*54.1*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*11.68*		*16.6667*		*70.1*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*10.47*		*16.6667*		*62.8*	*26 - 108*			
Duplicate (B7A0038-DUP1)			**Source: 1604921-87**	Prepared: 1/3/2017 Analyzed: 1/4/2017					
4,4´-DDD	ND	2.0		ND	NR			20	
4,4´-DDD [2C]	ND	2.0		ND	NR			20	
4,4´-DDE	5.53517	2.0		5.03400	NR		9.48	20	
4,4´-DDE [2C]	6.72267	2.0		5.88333	NR		13.3	20	
4,4´-DDT	ND	2.0		ND	NR			20	
4,4´-DDT [2C]	ND	2.0		ND	NR			20	
Aldrin	ND	1.0		ND	NR			20	
Aldrin [2C]	ND	1.0		ND	NR			20	
alpha-BHC	ND	1.0		ND	NR			20	
alpha-BHC [2C]	ND	1.0		ND	NR			20	
alpha-Chlordane	0.799833	1.0		0.598667	NR		28.8	20	R3, J
alpha-Chlordane [2C]	0.808500	1.0		0.583833	NR		32.3	20	R3, J
beta-BHC	ND	1.0		ND	NR			20	
beta-BHC [2C]	ND	1.0		ND	NR			20	
delta-BHC	ND	1.0		ND	NR			20	
delta-BHC [2C]	ND	1.0		ND	NR			20	
Dieldrin	ND	2.0		ND	NR			20	
Dieldrin [2C]	ND	2.0		ND	NR			20	
Endosulfan I	ND	1.0		ND	NR			20	
Endosulfan I [2C]	ND	1.0		ND	NR			20	
Endosulfan II	ND	2.0		ND	NR			20	
Endosulfan II [2C]	ND	2.0		ND	NR			20	
Endosulfan sulfate	ND	2.0		ND	NR			20	
Endosulfan Sulfate [2C]	ND	2.0		ND	NR			20	
Endrin	ND	2.0		ND	NR			20	
Endrin [2C]	ND	2.0		ND	NR			20	
Endrin aldehyde	ND	2.0		ND	NR			20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0038 - GCSEMI_PCB/PEST_S (continued)									
Duplicate (B7A0038-DUP1) - Continued		**Source: 1604921-87**		Prepared: 1/3/2017 Analyzed: 1/4/2017					
Endrin aldehyde [2C]	ND	2.0		ND	NR			20	
Endrin ketone	ND	2.0		ND	NR			20	
Endrin ketone [2C]	ND	2.0		ND	NR			20	
gamma-BHC	ND	1.0		ND	NR			20	
gamma-BHC [2C]	ND	1.0		ND	NR			20	
gamma-Chlordane	0.747333	1.0		0.558833	NR		28.9	20	R3, J
gamma-Chlordane [2C]	ND	1.0		ND	NR			20	
Heptachlor	ND	1.0		ND	NR			20	
Heptachlor [2C]	ND	1.0		ND	NR			20	
Heptachlor epoxide	ND	1.0		ND	NR			20	
Heptachlor epoxide [2C]	ND	1.0		ND	NR			20	
Methoxychlor	ND	5.0		ND	NR			20	
Methoxychlor [2C]	ND	5.0		ND	NR			20	
Surrogate: Decachlorobiphenyl	*6.932*		*16.6667*		*41.6*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*9.261*		*16.6667*		*55.6*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*4.816*		*16.6667*		*28.9*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*4.939*		*16.6667*		*29.6*	*26 - 108*			
Matrix Spike (B7A0038-MS1)		**Source: 1604921-87**		Prepared: 1/3/2017 Analyzed: 1/4/2017					
4,4´-DDD	5.08717	2.0		ND	NR	25 - 141			
4,4´-DDD [2C]	5.81167	2.0		ND	NR	25 - 141			
4,4´-DDE	9.87467	2.0		5.03400	NR	22 - 141			
4,4´-DDE [2C]	10.5073	2.0		5.88333	NR	22 - 141			
4,4´-DDT	7.26500	2.0		ND	NR	15 - 136			
4,4´-DDT [2C]	9.15267	2.0		ND	NR	15 - 136			
Aldrin	6.24000	1.0		ND	NR	33 - 118			
Aldrin [2C]	6.71150	1.0		ND	NR	33 - 118			
alpha-BHC	6.52750	1.0		ND	NR	30 - 116			
alpha-BHC [2C]	5.68733	1.0		ND	NR	30 - 116			
alpha-Chlordane	6.06150	1.0		0.598667	NR	30 - 123			
alpha-Chlordane [2C]	6.14217	1.0		0.583833	NR	30 - 123			
beta-BHC	2.62317	1.0		ND	NR	24 - 121			
beta-BHC [2C]	2.93050	1.0		ND	NR	24 - 121			
delta-BHC	2.31117	1.0		ND	NR	7 - 120			
delta-BHC [2C]	1.90950	1.0		ND	NR	7 - 120			
Dieldrin	3.80700	2.0		ND	NR	25 - 136			
Dieldrin [2C]	4.10333	2.0		ND	NR	25 - 136			
Endosulfan I	4.13300	1.0		ND	NR	18 - 134			
Endosulfan I [2C]	4.34383	1.0		ND	NR	18 - 134			
Endosulfan II	1.90050	2.0		ND	NR	28 - 128			J
Endosulfan II [2C]	2.40367	2.0		ND	NR	28 - 128			

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0038 - GCSEMI_PCB/PEST_S (continued)									
Matrix Spike (B7A0038-MS1) - Continued		**Source: 1604921-87**		Prepared: 1/3/2017 Analyzed: 1/4/2017					
Endosulfan sulfate	1.44550	2.0		ND	NR	5 - 145			J
Endosulfan Sulfate [2C]	1.94733	2.0		ND	NR	5 - 145			J
Endrin	4.06667	2.0		ND	NR	26 - 142			
Endrin [2C]	4.59200	2.0		ND	NR	26 - 142			
Endrin aldehyde	1.71950	2.0		ND	NR	8 - 146			J
Endrin aldehyde [2C]	1.94217	2.0		ND	NR	8 - 146			J
Endrin ketone	2.00800	2.0		ND	NR	16 - 139			
Endrin ketone [2C]	2.29233	2.0		ND	NR	16 - 139			
gamma-BHC	4.99133	1.0		ND	NR	30 - 122			
gamma-BHC [2C]	5.43000	1.0		ND	NR	30 - 122			
gamma-Chlordane	5.30500	1.0		0.558833	NR	18 - 132			
gamma-Chlordane [2C]	49.9903	1.0		ND	NR	18 - 132			
Heptachlor	8.56550	1.0		ND	NR	34 - 122			
Heptachlor [2C]	8.18367	1.0		ND	NR	34 - 122			
Heptachlor epoxide	4.33250	1.0		ND	NR	21 - 135			
Heptachlor epoxide [2C]	4.76717	1.0		ND	NR	21 - 135			
Methoxychlor	3.75367	5.0		ND	NR	8 - 162			J
Methoxychlor [2C]	6.22667	5.0		ND	NR	8 - 162			
Surrogate: Decachlorobiphenyl	*7.084*		*16.6667*		*42.5*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*8.252*		*16.6667*		*49.5*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*6.681*		*16.6667*		*40.1*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*6.313*		*16.6667*		*37.9*	*26 - 108*			
Matrix Spike Dup (B7A0038-MSD1)		**Source: 1604921-87**		Prepared: 1/3/2017 Analyzed: 1/4/2017					
4,4´-DDD	6.02483	2.0		ND	NR	25 - 141	16.9	20	
4,4´-DDD [2C]	7.37350	2.0		ND	NR	25 - 141	23.7	20	R3
4,4´-DDE	9.85150	2.0		5.03400	NR	22 - 141	0.235	20	
4,4´-DDE [2C]	11.0208	2.0		5.88333	NR	22 - 141	4.77	20	
4,4´-DDT	7.41183	2.0		ND	NR	15 - 136	2.00	20	
4,4´-DDT [2C]	9.48317	2.0		ND	NR	15 - 136	3.55	20	
Aldrin	6.11133	1.0		ND	NR	33 - 118	2.08	20	
Aldrin [2C]	6.60183	1.0		ND	NR	33 - 118	1.65	20	
alpha-BHC	7.49650	1.0		ND	NR	30 - 116	13.8	20	
alpha-BHC [2C]	6.51217	1.0		ND	NR	30 - 116	13.5	20	
alpha-Chlordane	6.49917	1.0		0.598667	NR	30 - 123	6.97	20	
alpha-Chlordane [2C]	6.86150	1.0		0.583833	NR	30 - 123	11.1	20	
beta-BHC	3.39117	1.0		ND	NR	24 - 121	25.5	20	R3
beta-BHC [2C]	3.84000	1.0		ND	NR	24 - 121	26.9	20	R3
delta-BHC	2.72750	1.0		ND	NR	7 - 120	16.5	20	
delta-BHC [2C]	2.69950	1.0		ND	NR	7 - 120	34.3	20	R3
Dieldrin	4.99000	2.0		ND	NR	25 - 136	26.9	20	R3

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0038 - GCSEMI_PCB/PEST_S (continued)									
Matrix Spike Dup (B7A0038-MSD1) - Continued		**Source: 1604921-87**		Prepared: 1/3/2017 Analyzed: 1/4/2017					
Dieldrin [2C]	5.63817	2.0		ND	NR	25 - 136	31.5	20	R3
Endosulfan I	5.13167	1.0		ND	NR	18 - 134	21.6	20	R3
Endosulfan I [2C]	5.70450	1.0		ND	NR	18 - 134	27.1	20	R3
Endosulfan II	2.88483	2.0		ND	NR	28 - 128	41.1	20	R3
Endosulfan II [2C]	3.99733	2.0		ND	NR	28 - 128	49.8	20	R3
Endosulfan sulfate	2.52617	2.0		ND	NR	5 - 145	54.4	20	R3
Endosulfan Sulfate [2C]	3.29433	2.0		ND	NR	5 - 145	51.4	20	R3
Endrin	5.31367	2.0		ND	NR	26 - 142	26.6	20	R3
Endrin [2C]	6.32900	2.0		ND	NR	26 - 142	31.8	20	R3
Endrin aldehyde	4.15450	2.0		ND	NR	8 - 146	82.9	20	R3
Endrin aldehyde [2C]	2.91783	2.0		ND	NR	8 - 146	40.2	20	R3
Endrin ketone	3.23033	2.0		ND	NR	16 - 139	46.7	20	R3
Endrin ketone [2C]	3.60433	2.0		ND	NR	16 - 139	44.5	20	R3
gamma-BHC	5.96000	1.0		ND	NR	30 - 122	17.7	20	
gamma-BHC [2C]	6.55500	1.0		ND	NR	30 - 122	18.8	20	
gamma-Chlordane	5.87783	1.0		0.558833	NR	18 - 132	10.2	20	
gamma-Chlordane [2C]	56.0647	1.0		ND	NR	18 - 132	11.5	20	
Heptachlor	8.17550	1.0		ND	NR	34 - 122	4.66	20	
Heptachlor [2C]	8.27033	1.0		ND	NR	34 - 122	1.05	20	
Heptachlor epoxide	5.32550	1.0		ND	NR	21 - 135	20.6	20	R3
Heptachlor epoxide [2C]	7.69250	1.0		ND	NR	21 - 135	47.0	20	R3
Methoxychlor	5.67917	5.0		ND	NR	8 - 162	40.8	20	R3
Methoxychlor [2C]	38.6080	5.0		ND	NR	8 - 162	144	20	R3
Surrogate: Decachlorobiphenyl	*8.407*		*16.6667*		*50.4*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*11.79*		*16.6667*		*70.7*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*6.631*		*16.6667*		*39.8*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*6.236*		*16.6667*		*37.4*	*26 - 108*			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0176 - GCSEMI_PCB/PEST_S									
Blank (B7A0176-BLK1)				Prepared: 1/6/2017 Analyzed: 1/7/2017					
4,4´-DDD	ND	2.0			NR				
4,4´-DDD [2C]	ND	2.0			NR				
4,4´-DDE	ND	2.0			NR				
4,4´-DDE [2C]	ND	2.0			NR				
4,4´-DDT	ND	2.0			NR				
4,4´-DDT [2C]	ND	2.0			NR				
Aldrin	ND	1.0			NR				
Aldrin [2C]	ND	1.0			NR				
alpha-BHC	ND	1.0			NR				
alpha-BHC [2C]	ND	1.0			NR				
alpha-Chlordane	ND	1.0			NR				
alpha-Chlordane [2C]	ND	1.0			NR				
beta-BHC	ND	1.0			NR				
beta-BHC [2C]	ND	1.0			NR				
Chlordane	ND	8.5			NR				
Chlordane [2C]	ND	8.5			NR				
delta-BHC	ND	1.0			NR				
delta-BHC [2C]	ND	1.0			NR				
Dieldrin	ND	2.0			NR				
Dieldrin [2C]	ND	2.0			NR				
Endosulfan I	ND	1.0			NR				
Endosulfan I [2C]	ND	1.0			NR				
Endosulfan II	ND	2.0			NR				
Endosulfan II [2C]	ND	2.0			NR				
Endosulfan sulfate	ND	2.0			NR				
Endosulfan Sulfate [2C]	ND	2.0			NR				
Endrin	ND	2.0			NR				
Endrin [2C]	ND	2.0			NR				
Endrin aldehyde	ND	2.0			NR				
Endrin aldehyde [2C]	ND	2.0			NR				
Endrin ketone	ND	2.0			NR				
Endrin ketone [2C]	ND	2.0			NR				
gamma-BHC	ND	1.0			NR				
gamma-BHC [2C]	ND	1.0			NR				
gamma-Chlordane	ND	1.0			NR				
gamma-Chlordane [2C]	ND	1.0			NR				
Heptachlor	ND	1.0			NR				
Heptachlor [2C]	ND	1.0			NR				
Heptachlor epoxide	ND	1.0			NR				
Heptachlor epoxide [2C]	ND	1.0			NR				
Methoxychlor	ND	5.0			NR				

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0176 - GCSEMI_PCB/PEST_S (continued)									
Blank (B7A0176-BLK1) - Continued				Prepared: 1/6/2017 Analyzed: 1/7/2017					
Methoxychlor [2C]	ND	5.0			NR				
Toxaphene	ND	50			NR				
Toxaphene [2C]	ND	50			NR				
Surrogate: Decachlorobiphenyl	*16.02*		*16.6667*		*96.1*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*26.61*		*16.6667*		*160*	*27 - 123*			S1
Surrogate: Tetrachloro-m-xylene	*18.02*		*16.6667*		*108*	*26 - 108*			S1
Surrogate: Tetrachloro-m-xylene [2C]	*20.23*		*16.6667*		*121*	*26 - 108*			S1
LCS (B7A0176-BS1)				Prepared: 1/6/2017 Analyzed: 1/7/2017					
4,4´-DDD	16.7187	2.0	16.6667		100	53 - 125			
4,4´-DDD [2C]	17.5748	2.0	16.6667		105	53 - 125			
4,4´-DDE	16.5030	2.0	16.6667		99.0	54 - 113			
4,4´-DDE [2C]	17.8713	2.0	16.6667		107	54 - 113			
4,4´-DDT	16.3812	2.0	16.6667		98.3	25 - 127			
4,4´-DDT [2C]	17.6023	2.0	16.6667		106	25 - 127			
Aldrin	16.5537	1.0	16.6667		99.3	59 - 107			
Aldrin [2C]	17.0868	1.0	16.6667		103	59 - 107			
alpha-BHC	16.6072	1.0	16.6667		99.6	59 - 104			
alpha-BHC [2C]	17.7083	1.0	16.6667		106	59 - 104			L3
alpha-Chlordane	16.3915	1.0	16.6667		98.3	54 - 110			
alpha-Chlordane [2C]	17.9148	1.0	16.6667		107	54 - 110			
beta-BHC	16.2097	1.0	16.6667		97.3	57 - 103			
beta-BHC [2C]	17.3417	1.0	16.6667		104	57 - 103			L3
delta-BHC	13.5580	1.0	16.6667		81.3	16 - 120			
delta-BHC [2C]	13.7705	1.0	16.6667		82.6	16 - 120			
Dieldrin	16.6143	2.0	16.6667		99.7	61 - 109			
Dieldrin [2C]	18.1557	2.0	16.6667		109	61 - 109			
Endosulfan I	16.1970	1.0	16.6667		97.2	60 - 106			
Endosulfan I [2C]	17.7925	1.0	16.6667		107	60 - 106			L3
Endosulfan II	15.6072	2.0	16.6667		93.6	59 - 108			
Endosulfan II [2C]	16.5618	2.0	16.6667		99.4	59 - 108			
Endosulfan sulfate	14.7738	2.0	16.6667		88.6	54 - 110			
Endosulfan Sulfate [2C]	15.5685	2.0	16.6667		93.4	54 - 110			
Endrin	17.3777	2.0	16.6667		104	63 - 112			
Endrin [2C]	19.0072	2.0	16.6667		114	63 - 112			L3
Endrin aldehyde	16.0945	2.0	16.6667		96.6	64 - 119			
Endrin aldehyde [2C]	14.9813	2.0	16.6667		89.9	64 - 119			
Endrin ketone	15.9228	2.0	16.6667		95.5	54 - 115			
Endrin ketone [2C]	16.5527	2.0	16.6667		99.3	54 - 115			
gamma-BHC	17.2130	1.0	16.6667		103	60 - 107			
gamma-BHC [2C]	18.2128	1.0	16.6667		109	60 - 107			L3

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0176 - GCSEMI_PCB/PEST_S (continued)									
LCS (B7A0176-BS1) - Continued				Prepared: 1/6/2017 Analyzed: 1/7/2017					
gamma-Chlordane	16.2133	1.0	16.6667		97.3	57 - 106			
gamma-Chlordane [2C]	16.9865	1.0	16.6667		102	57 - 106			
Heptachlor	17.2613	1.0	16.6667		104	54 - 114			
Heptachlor [2C]	19.2092	1.0	16.6667		115	54 - 114			L3
Heptachlor epoxide	16.4370	1.0	16.6667		98.6	61 - 106			
Heptachlor epoxide [2C]	17.3950	1.0	16.6667		104	61 - 106			
Methoxychlor	16.4192	5.0	16.6667		98.5	18 - 138			
Methoxychlor [2C]	16.6122	5.0	16.6667		99.7	18 - 138			
Surrogate: Decachlorobiphenyl	*15.07*		*16.6667*		*90.4*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*16.95*		*16.6667*		*102*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*18.15*		*16.6667*		*109*	*26 - 108*			S12
Surrogate: Tetrachloro-m-xylene [2C]	*17.24*		*16.6667*		*103*	*26 - 108*			
Duplicate (B7A0176-DUP1)		**Source: 1604921-52**		Prepared: 1/6/2017 Analyzed: 1/7/2017					
4,4´-DDD	ND	2.0		ND	NR			20	
4,4´-DDD [2C]	ND	2.0		ND	NR			20	
4,4´-DDE	ND	2.0		ND	NR			20	
4,4´-DDE [2C]	ND	2.0		ND	NR			20	
4,4´-DDT	ND	2.0		ND	NR			20	
4,4´-DDT [2C]	ND	2.0		ND	NR			20	
Aldrin	ND	1.0		ND	NR			20	
Aldrin [2C]	ND	1.0		ND	NR			20	
alpha-BHC	ND	1.0		ND	NR			20	
alpha-BHC [2C]	ND	1.0		ND	NR			20	
alpha-Chlordane	ND	1.0		ND	NR			20	
alpha-Chlordane [2C]	ND	1.0		ND	NR			20	
beta-BHC	ND	1.0		ND	NR			20	
beta-BHC [2C]	ND	1.0		ND	NR			20	
delta-BHC	ND	1.0		ND	NR			20	
delta-BHC [2C]	ND	1.0		ND	NR			20	
Dieldrin	ND	2.0		ND	NR			20	
Dieldrin [2C]	ND	2.0		ND	NR			20	
Endosulfan I	ND	1.0		ND	NR			20	
Endosulfan I [2C]	ND	1.0		ND	NR			20	
Endosulfan II	ND	2.0		ND	NR			20	
Endosulfan II [2C]	ND	2.0		ND	NR			20	
Endosulfan sulfate	ND	2.0		ND	NR			20	
Endosulfan Sulfate [2C]	ND	2.0		ND	NR			20	
Endrin	ND	2.0		ND	NR			20	
Endrin [2C]	ND	2.0		ND	NR			20	
Endrin aldehyde	ND	2.0		ND	NR			20	

Leighton Consulting, Inc.
17781 Cowan Street
Irvine , CA 92614

Project Number : Burroughs MS, 603378.006
Report To : Julie Harriman
Reported : 01/16/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0176 - GCSEMI_PCB/PEST_S (continued)									
Duplicate (B7A0176-DUP1) - Continued		**Source: 1604921-52**		Prepared: 1/6/2017 Analyzed: 1/7/2017					
Endrin aldehyde [2C]	ND	2.0		ND	NR			20	
Endrin ketone	ND	2.0		ND	NR			20	
Endrin ketone [2C]	ND	2.0		ND	NR			20	
gamma-BHC	ND	1.0		ND	NR			20	
gamma-BHC [2C]	ND	1.0		ND	NR			20	
gamma-Chlordane	ND	1.0		ND	NR			20	
gamma-Chlordane [2C]	ND	1.0		ND	NR			20	
Heptachlor	ND	1.0		ND	NR			20	
Heptachlor [2C]	ND	1.0		ND	NR			20	
Heptachlor epoxide	ND	1.0		ND	NR			20	
Heptachlor epoxide [2C]	ND	1.0		ND	NR			20	
Methoxychlor	ND	5.0		ND	NR			20	
Methoxychlor [2C]	ND	5.0		ND	NR			20	
Surrogate: Decachlorobiphenyl	*13.49*		*16.6667*		*80.9*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*14.20*		*16.6667*		*85.2*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*15.51*		*16.6667*		*93.1*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*14.55*		*16.6667*		*87.3*	*26 - 108*			
Matrix Spike (B7A0176-MS1)		**Source: 1604921-60**		Prepared: 1/6/2017 Analyzed: 1/7/2017					
4,4´-DDD	7.45683	2.0	16.6667	ND	44.7	25 - 141			
4,4´-DDD [2C]	7.05133	2.0	16.6667	ND	42.3	25 - 141			
4,4´-DDE	9.91350	2.0	16.6667	ND	59.5	22 - 141			
4,4´-DDE [2C]	10.0402	2.0	16.6667	ND	60.2	22 - 141			
4,4´-DDT	9.05933	2.0	16.6667	ND	54.4	15 - 136			
4,4´-DDT [2C]	8.85083	2.0	16.6667	ND	53.1	15 - 136			
Aldrin	10.0817	1.0	16.6667	ND	60.5	33 - 118			
Aldrin [2C]	10.0330	1.0	16.6667	ND	60.2	33 - 118			
alpha-BHC	7.89500	1.0	16.6667	ND	47.4	30 - 116			
alpha-BHC [2C]	7.93183	1.0	16.6667	ND	47.6	30 - 116			
alpha-Chlordane	8.36333	1.0	16.6667	ND	50.2	30 - 123			
alpha-Chlordane [2C]	8.47967	1.0	16.6667	ND	50.9	30 - 123			
beta-BHC	4.59817	1.0	16.6667	ND	27.6	24 - 121			
beta-BHC [2C]	4.61833	1.0	16.6667	ND	27.7	24 - 121			
delta-BHC	1.79967	1.0	16.6667	ND	10.8	7 - 120			
delta-BHC [2C]	1.50000	1.0	16.6667	ND	9.00	7 - 120			
Dieldrin	3.50683	2.0	16.6667	ND	21.0	25 - 136			M2
Dieldrin [2C]	3.33800	2.0	16.6667	ND	20.0	25 - 136			M2
Endosulfan I	4.53517	1.0	16.6667	ND	27.2	18 - 134			
Endosulfan I [2C]	4.57600	1.0	16.6667	ND	27.5	18 - 134			
Endosulfan II	0.905667	2.0	16.6667	ND	5.43	28 - 128			M2, J
Endosulfan II [2C]	0.861167	2.0	16.6667	ND	5.17	28 - 128			M2, J

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0176 - GCSEMI_PCB/PEST_S (continued)									
Matrix Spike (B7A0176-MS1) - Continued		**Source: 1604921-60**		Prepared: 1/6/2017 Analyzed: 1/7/2017					
Endosulfan sulfate	0.670167	2.0	16.6667	ND	4.02	5 - 145			M2, J
Endosulfan Sulfate [2C]	0.543500	2.0	16.6667	ND	3.26	5 - 145			M2, J
Endrin	3.82167	2.0	16.6667	ND	22.9	26 - 142			M2
Endrin [2C]	3.62917	2.0	16.6667	ND	21.8	26 - 142			M2
Endrin aldehyde	0.710167	2.0	16.6667	ND	4.26	8 - 146			M2, J
Endrin aldehyde [2C]	1.17233	2.0	16.6667	ND	7.03	8 - 146			M2, J
Endrin ketone	0.853833	2.0	16.6667	ND	5.12	16 - 139			M2, J
Endrin ketone [2C]	0.783000	2.0	16.6667	ND	4.70	16 - 139			M2, J
gamma-BHC	7.00183	1.0	16.6667	ND	42.0	30 - 122			
gamma-BHC [2C]	7.02517	1.0	16.6667	ND	42.2	30 - 122			
gamma-Chlordane	7.57350	1.0	16.6667	ND	45.4	18 - 132			
gamma-Chlordane [2C]	7.52233	1.0	16.6667	ND	45.1	18 - 132			
Heptachlor	10.2600	1.0	16.6667	ND	61.6	34 - 122			
Heptachlor [2C]	10.5777	1.0	16.6667	ND	63.5	34 - 122			
Heptachlor epoxide	5.11017	1.0	16.6667	ND	30.7	21 - 135			
Heptachlor epoxide [2C]	4.93883	1.0	16.6667	ND	29.6	21 - 135			
Methoxychlor	1.97383	5.0	16.6667	ND	11.8	8 - 162			J
Methoxychlor [2C]	1.52733	5.0	16.6667	ND	9.16	8 - 162			J
Surrogate: Decachlorobiphenyl	*9.765*		*16.6667*		*58.6*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*10.31*		*16.6667*		*61.9*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*10.84*		*16.6667*		*65.0*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*10.32*		*16.6667*		*61.9*	*26 - 108*			
Matrix Spike Dup (B7A0176-MSD1)		**Source: 1604921-60**		Prepared: 1/6/2017 Analyzed: 1/7/2017					
4,4´-DDD	11.0300	2.0	16.6667	ND	66.2	25 - 141	38.7	20	R3
4,4´-DDD [2C]	10.9278	2.0	16.6667	ND	65.6	25 - 141	43.1	20	R3
4,4´-DDE	10.9858	2.0	16.6667	ND	65.9	22 - 141	10.3	20	
4,4´-DDE [2C]	11.4525	2.0	16.6667	ND	68.7	22 - 141	13.1	20	
4,4´-DDT	11.5258	2.0	16.6667	ND	69.2	15 - 136	24.0	20	R3
4,4´-DDT [2C]	11.5335	2.0	16.6667	ND	69.2	15 - 136	26.3	20	R3
Aldrin	11.2088	1.0	16.6667	ND	67.3	33 - 118	10.6	20	
Aldrin [2C]	11.2038	1.0	16.6667	ND	67.2	33 - 118	11.0	20	
alpha-BHC	11.1888	1.0	16.6667	ND	67.1	30 - 116	34.5	20	R3
alpha-BHC [2C]	11.3643	1.0	16.6667	ND	68.2	30 - 116	35.6	20	R3
alpha-Chlordane	11.1103	1.0	16.6667	ND	66.7	30 - 123	28.2	20	R3
alpha-Chlordane [2C]	11.6127	1.0	16.6667	ND	69.7	30 - 123	31.2	20	R3
beta-BHC	10.5642	1.0	16.6667	ND	63.4	24 - 121	78.7	20	R3
beta-BHC [2C]	10.8983	1.0	16.6667	ND	65.4	24 - 121	80.9	20	R3
delta-BHC	7.74333	1.0	16.6667	ND	46.5	7 - 120	125	20	R3
delta-BHC [2C]	7.45033	1.0	16.6667	ND	44.7	7 - 120	133	20	R3
Dieldrin	11.9288	2.0	16.6667	ND	71.6	25 - 136	109	20	R3

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0176 - GCSEMI_PCB/PEST_S (continued)									
Matrix Spike Dup (B7A0176-MSD1) - Continued		**Source: 1604921-60**		Prepared: 1/6/2017 Analyzed: 1/7/2017					
Dieldrin [2C]	12.4640	2.0	16.6667	ND	74.8	25 - 136	116	20	R3
Endosulfan I	11.9190	1.0	16.6667	ND	71.5	18 - 134	89.8	20	R3
Endosulfan I [2C]	12.5035	1.0	16.6667	ND	75.0	18 - 134	92.8	20	R3
Endosulfan II	8.80850	2.0	16.6667	ND	52.9	28 - 128	163	20	R3
Endosulfan II [2C]	8.65033	2.0	16.6667	ND	51.9	28 - 128	164	20	R3
Endosulfan sulfate	5.96117	2.0	16.6667	ND	35.8	5 - 145	160	20	R3
Endosulfan Sulfate [2C]	5.75567	2.0	16.6667	ND	34.5	5 - 145	165	20	R3
Endrin	12.7287	2.0	16.6667	ND	76.4	26 - 142	108	20	R3
Endrin [2C]	13.2065	2.0	16.6667	ND	79.2	26 - 142	114	20	R3
Endrin aldehyde	6.76400	2.0	16.6667	ND	40.6	8 - 146	162	20	R3
Endrin aldehyde [2C]	6.25517	2.0	16.6667	ND	37.5	8 - 146	137	20	R3
Endrin ketone	7.47983	2.0	16.6667	ND	44.9	16 - 139	159	20	R3
Endrin ketone [2C]	7.41017	2.0	16.6667	ND	44.5	16 - 139	162	20	R3
gamma-BHC	11.4000	1.0	16.6667	ND	68.4	30 - 122	47.8	20	R3
gamma-BHC [2C]	11.7010	1.0	16.6667	ND	70.2	30 - 122	49.9	20	R3
gamma-Chlordane	11.0473	1.0	16.6667	ND	66.3	18 - 132	37.3	20	R3
gamma-Chlordane [2C]	11.2267	1.0	16.6667	ND	67.4	18 - 132	39.5	20	R3
Heptachlor	11.7598	1.0	16.6667	ND	70.6	34 - 122	13.6	20	
Heptachlor [2C]	12.4005	1.0	16.6667	ND	74.4	34 - 122	15.9	20	
Heptachlor epoxide	11.9438	1.0	16.6667	ND	71.7	21 - 135	80.1	20	R3
Heptachlor epoxide [2C]	12.2313	1.0	16.6667	ND	73.4	21 - 135	84.9	20	R3
Methoxychlor	11.6192	5.0	16.6667	ND	69.7	8 - 162	142	20	R3
Methoxychlor [2C]	12.7857	5.0	16.6667	ND	76.7	8 - 162	157	20	R3
Surrogate: Decachlorobiphenyl	*10.08*		*16.6667*		*60.5*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*10.93*		*16.6667*		*65.6*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*12.20*		*16.6667*		*73.2*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*11.27*		*16.6667*		*67.6*	*26 - 108*			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0194 - GCSEMI_PCB/PEST_S									
Blank (B7A0194-BLK1)				Prepared: 1/6/2017 Analyzed: 1/7/2017					
4,4´-DDD	ND	2.0			NR				
4,4´-DDD [2C]	ND	2.0			NR				
4,4´-DDE	ND	2.0			NR				
4,4´-DDE [2C]	ND	2.0			NR				
4,4´-DDT	ND	2.0			NR				
4,4´-DDT [2C]	ND	2.0			NR				
Aldrin	ND	1.0			NR				
Aldrin [2C]	ND	1.0			NR				
alpha-BHC	ND	1.0			NR				
alpha-BHC [2C]	ND	1.0			NR				
alpha-Chlordane	ND	1.0			NR				
alpha-Chlordane [2C]	ND	1.0			NR				
beta-BHC	ND	1.0			NR				
beta-BHC [2C]	ND	1.0			NR				
Chlordane	ND	8.5			NR				
Chlordane [2C]	ND	8.5			NR				
delta-BHC	ND	1.0			NR				
delta-BHC [2C]	ND	1.0			NR				
Dieldrin	ND	2.0			NR				
Dieldrin [2C]	ND	2.0			NR				
Endosulfan I	ND	1.0			NR				
Endosulfan I [2C]	ND	1.0			NR				
Endosulfan II	ND	2.0			NR				
Endosulfan II [2C]	ND	2.0			NR				
Endosulfan sulfate	ND	2.0			NR				
Endosulfan Sulfate [2C]	ND	2.0			NR				
Endrin	ND	2.0			NR				
Endrin [2C]	ND	2.0			NR				
Endrin aldehyde	ND	2.0			NR				
Endrin aldehyde [2C]	ND	2.0			NR				
Endrin ketone	ND	2.0			NR				
Endrin ketone [2C]	ND	2.0			NR				
gamma-BHC	ND	1.0			NR				
gamma-BHC [2C]	ND	1.0			NR				
gamma-Chlordane	ND	1.0			NR				
gamma-Chlordane [2C]	ND	1.0			NR				
Heptachlor	ND	1.0			NR				
Heptachlor [2C]	ND	1.0			NR				
Heptachlor epoxide	ND	1.0			NR				
Heptachlor epoxide [2C]	ND	1.0			NR				
Methoxychlor	ND	5.0			NR				

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0194 - GCSEMI_PCB/PEST_S (continued)									
Blank (B7A0194-BLK1) - Continued				Prepared: 1/6/2017 Analyzed: 1/7/2017					
Methoxychlor [2C]	ND	5.0			NR				
Toxaphene	ND	50			NR				
Toxaphene [2C]	ND	50			NR				
Surrogate: Decachlorobiphenyl	*13.66*		*16.6667*		*81.9*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*14.39*		*16.6667*		*86.4*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*13.91*		*16.6667*		*83.5*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*14.51*		*16.6667*		*87.1*	*26 - 108*			
LCS (B7A0194-BS1)				Prepared: 1/6/2017 Analyzed: 1/7/2017					
4,4´-DDD	16.7827	2.0	16.6667		101	53 - 125			
4,4´-DDD [2C]	16.9137	2.0	16.6667		101	53 - 125			
4,4´-DDE	15.5743	2.0	16.6667		93.4	54 - 113			
4,4´-DDE [2C]	15.3778	2.0	16.6667		92.3	54 - 113			
4,4´-DDT	15.8797	2.0	16.6667		95.3	25 - 127			
4,4´-DDT [2C]	14.6092	2.0	16.6667		87.7	25 - 127			
Aldrin	15.2137	1.0	16.6667		91.3	59 - 107			
Aldrin [2C]	15.3467	1.0	16.6667		92.1	59 - 107			
alpha-BHC	15.0105	1.0	16.6667		90.1	59 - 104			
alpha-BHC [2C]	15.2320	1.0	16.6667		91.4	59 - 104			
alpha-Chlordane	15.5382	1.0	16.6667		93.2	54 - 110			
alpha-Chlordane [2C]	15.2835	1.0	16.6667		91.7	54 - 110			
beta-BHC	14.8740	1.0	16.6667		89.2	57 - 103			
beta-BHC [2C]	15.0740	1.0	16.6667		90.4	57 - 103			
delta-BHC	12.0595	1.0	16.6667		72.4	16 - 120			
delta-BHC [2C]	12.3185	1.0	16.6667		73.9	16 - 120			
Dieldrin	16.2058	2.0	16.6667		97.2	61 - 109			
Dieldrin [2C]	15.8018	2.0	16.6667		94.8	61 - 109			
Endosulfan I	15.4158	1.0	16.6667		92.5	60 - 106			
Endosulfan I [2C]	14.9983	1.0	16.6667		90.0	60 - 106			
Endosulfan II	15.6882	2.0	16.6667		94.1	59 - 108			
Endosulfan II [2C]	15.2148	2.0	16.6667		91.3	59 - 108			
Endosulfan sulfate	15.2815	2.0	16.6667		91.7	54 - 110			
Endosulfan Sulfate [2C]	14.8545	2.0	16.6667		89.1	54 - 110			
Endrin	17.1410	2.0	16.6667		103	63 - 112			
Endrin [2C]	16.8543	2.0	16.6667		101	63 - 112			
Endrin aldehyde	16.1047	2.0	16.6667		96.6	64 - 119			
Endrin aldehyde [2C]	15.5223	2.0	16.6667		93.1	64 - 119			
Endrin ketone	16.4307	2.0	16.6667		98.6	54 - 115			
Endrin ketone [2C]	15.6625	2.0	16.6667		94.0	54 - 115			
gamma-BHC	15.6748	1.0	16.6667		94.0	60 - 107			
gamma-BHC [2C]	15.6797	1.0	16.6667		94.1	60 - 107			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0194 - GCSEMI_PCB/PEST_S (continued)									
LCS (B7A0194-BS1) - Continued				Prepared: 1/6/2017 Analyzed: 1/7/2017					
gamma-Chlordane	15.1730	1.0	16.6667		91.0	57 - 106			
gamma-Chlordane [2C]	15.1772	1.0	16.6667		91.1	57 - 106			
Heptachlor	15.6687	1.0	16.6667		94.0	54 - 114			
Heptachlor [2C]	15.4480	1.0	16.6667		92.7	54 - 114			
Heptachlor epoxide	15.1318	1.0	16.6667		90.8	61 - 106			
Heptachlor epoxide [2C]	15.0322	1.0	16.6667		90.2	61 - 106			
Methoxychlor	15.7493	5.0	16.6667		94.5	18 - 138			
Methoxychlor [2C]	15.0332	5.0	16.6667		90.2	18 - 138			
Surrogate: Decachlorobiphenyl	*14.69*		*16.6667*		*88.2*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*15.65*		*16.6667*		*93.9*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*14.78*		*16.6667*		*88.7*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*16.33*		*16.6667*		*98.0*	*26 - 108*			
Duplicate (B7A0194-DUP1)		**Source: 1604921-72**		Prepared: 1/6/2017 Analyzed: 1/7/2017					
4,4´-DDD	ND	2.0		ND	NR			20	
4,4´-DDD [2C]	ND	2.0		ND	NR			20	
4,4´-DDE	ND	2.0		ND	NR			20	
4,4´-DDE [2C]	ND	2.0		ND	NR			20	
4,4´-DDT	ND	2.0		ND	NR			20	
4,4´-DDT [2C]	ND	2.0		ND	NR			20	
Aldrin	ND	1.0		ND	NR			20	
Aldrin [2C]	ND	1.0		ND	NR			20	
alpha-BHC	ND	1.0		ND	NR			20	
alpha-BHC [2C]	ND	1.0		ND	NR			20	
alpha-Chlordane	ND	1.0		ND	NR			20	
alpha-Chlordane [2C]	ND	1.0		ND	NR			20	
beta-BHC	ND	1.0		ND	NR			20	
beta-BHC [2C]	ND	1.0		ND	NR			20	
delta-BHC	ND	1.0		ND	NR			20	
delta-BHC [2C]	ND	1.0		ND	NR			20	
Dieldrin	ND	2.0		ND	NR			20	
Dieldrin [2C]	ND	2.0		ND	NR			20	
Endosulfan I	ND	1.0		ND	NR			20	
Endosulfan I [2C]	ND	1.0		ND	NR			20	
Endosulfan II	ND	2.0		ND	NR			20	
Endosulfan II [2C]	ND	2.0		ND	NR			20	
Endosulfan sulfate	ND	2.0		ND	NR			20	
Endosulfan Sulfate [2C]	ND	2.0		ND	NR			20	
Endrin	ND	2.0		ND	NR			20	
Endrin [2C]	ND	2.0		ND	NR			20	
Endrin aldehyde	ND	2.0		ND	NR			20	

Leighton Consulting, Inc.
17781 Cowan Street
Irvine , CA 92614

Project Number : Burroughs MS, 603378.006
Report To : Julie Harriman
Reported : 01/16/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0194 - GCSEMI_PCB/PEST_S (continued)									
Duplicate (B7A0194-DUP1) - Continued		**Source: 1604921-72**		Prepared: 1/6/2017 Analyzed: 1/7/2017					
Endrin aldehyde [2C]	ND	2.0		ND	NR			20	
Endrin ketone	ND	2.0		ND	NR			20	
Endrin ketone [2C]	ND	2.0		ND	NR			20	
gamma-BHC	ND	1.0		ND	NR			20	
gamma-BHC [2C]	ND	1.0		ND	NR			20	
gamma-Chlordane	ND	1.0		ND	NR			20	
gamma-Chlordane [2C]	ND	1.0		ND	NR			20	
Heptachlor	ND	1.0		ND	NR			20	
Heptachlor [2C]	ND	1.0		ND	NR			20	
Heptachlor epoxide	ND	1.0		ND	NR			20	
Heptachlor epoxide [2C]	ND	1.0		ND	NR			20	
Methoxychlor	ND	5.0		ND	NR			20	
Methoxychlor [2C]	ND	5.0		ND	NR			20	
Surrogate: Decachlorobiphenyl	*14.56*		*16.6667*		*87.4*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*16.56*		*16.6667*		*99.3*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*13.83*		*16.6667*		*83.0*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*17.21*		*16.6667*		*103*	*26 - 108*			
Matrix Spike (B7A0194-MS1)		**Source: 1604921-72**		Prepared: 1/6/2017 Analyzed: 1/7/2017					
4,4´-DDD	16.8125	2.0	16.6667	ND	101	25 - 141			
4,4´-DDD [2C]	16.9245	2.0	16.6667	ND	102	25 - 141			
4,4´-DDE	15.7302	2.0	16.6667	ND	94.4	22 - 141			
4,4´-DDE [2C]	15.6588	2.0	16.6667	ND	94.0	22 - 141			
4,4´-DDT	17.9372	2.0	16.6667	ND	108	15 - 136			
4,4´-DDT [2C]	16.8255	2.0	16.6667	ND	101	15 - 136			
Aldrin	15.3272	1.0	16.6667	ND	92.0	33 - 118			
Aldrin [2C]	15.4445	1.0	16.6667	ND	92.7	33 - 118			
alpha-BHC	15.1727	1.0	16.6667	ND	91.0	30 - 116			
alpha-BHC [2C]	15.5207	1.0	16.6667	ND	93.1	30 - 116			
alpha-Chlordane	15.8608	1.0	16.6667	ND	95.2	30 - 123			
alpha-Chlordane [2C]	15.5652	1.0	16.6667	ND	93.4	30 - 123			
beta-BHC	16.5705	1.0	16.6667	ND	99.4	24 - 121			
beta-BHC [2C]	16.5648	1.0	16.6667	ND	99.4	24 - 121			
delta-BHC	12.4927	1.0	16.6667	ND	75.0	7 - 120			
delta-BHC [2C]	12.9540	1.0	16.6667	ND	77.7	7 - 120			
Dieldrin	16.5083	2.0	16.6667	ND	99.0	25 - 136			
Dieldrin [2C]	16.1008	2.0	16.6667	ND	96.6	25 - 136			
Endosulfan I	15.6855	1.0	16.6667	ND	94.1	18 - 134			
Endosulfan I [2C]	15.2083	1.0	16.6667	ND	91.2	18 - 134			
Endosulfan II	15.9700	2.0	16.6667	ND	95.8	28 - 128			
Endosulfan II [2C]	15.5297	2.0	16.6667	ND	93.2	28 - 128			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0194 - GCSEMI_PCB/PEST_S (continued)									
Matrix Spike (B7A0194-MS1) - Continued		**Source: 1604921-72**		Prepared: 1/6/2017 Analyzed: 1/7/2017					
Endosulfan sulfate	15.5748	2.0	16.6667	ND	93.4	5 - 145			
Endosulfan Sulfate [2C]	15.4345	2.0	16.6667	ND	92.6	5 - 145			
Endrin	17.7493	2.0	16.6667	ND	106	26 - 142			
Endrin [2C]	17.5482	2.0	16.6667	ND	105	26 - 142			
Endrin aldehyde	16.0890	2.0	16.6667	ND	96.5	8 - 146			
Endrin aldehyde [2C]	15.2845	2.0	16.6667	ND	91.7	8 - 146			
Endrin ketone	16.7875	2.0	16.6667	ND	101	16 - 139			
Endrin ketone [2C]	16.3862	2.0	16.6667	ND	98.3	16 - 139			
gamma-BHC	16.4987	1.0	16.6667	ND	99.0	30 - 122			
gamma-BHC [2C]	16.5077	1.0	16.6667	ND	99.0	30 - 122			
gamma-Chlordane	15.5160	1.0	16.6667	ND	93.1	18 - 132			
gamma-Chlordane [2C]	15.4388	1.0	16.6667	ND	92.6	18 - 132			
Heptachlor	16.2620	1.0	16.6667	ND	97.6	34 - 122			
Heptachlor [2C]	15.8905	1.0	16.6667	ND	95.3	34 - 122			
Heptachlor epoxide	15.4490	1.0	16.6667	ND	92.7	21 - 135			
Heptachlor epoxide [2C]	15.2533	1.0	16.6667	ND	91.5	21 - 135			
Methoxychlor	17.7017	5.0	16.6667	ND	106	8 - 162			
Methoxychlor [2C]	16.8498	5.0	16.6667	ND	101	8 - 162			
Surrogate: Decachlorobiphenyl	*14.44*		*16.6667*		*86.6*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*16.46*		*16.6667*		*98.8*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*13.94*		*16.6667*		*83.6*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*15.58*		*16.6667*		*93.5*	*26 - 108*			
Matrix Spike Dup (B7A0194-MSD1)		**Source: 1604921-72**		Prepared: 1/6/2017 Analyzed: 1/7/2017					
4,4´-DDD	16.5492	2.0	16.6667	ND	99.3	25 - 141	1.58	20	
4,4´-DDD [2C]	14.2012	2.0	16.6667	ND	85.2	25 - 141	17.5	20	
4,4´-DDE	15.5183	2.0	16.6667	ND	93.1	22 - 141	1.36	20	
4,4´-DDE [2C]	13.1300	2.0	16.6667	ND	78.8	22 - 141	17.6	20	
4,4´-DDT	17.6788	2.0	16.6667	ND	106	15 - 136	1.45	20	
4,4´-DDT [2C]	14.1963	2.0	16.6667	ND	85.2	15 - 136	17.0	20	
Aldrin	15.1790	1.0	16.6667	ND	91.1	33 - 118	0.971	20	
Aldrin [2C]	13.0230	1.0	16.6667	ND	78.1	33 - 118	17.0	20	
alpha-BHC	15.1878	1.0	16.6667	ND	91.1	30 - 116	0.0999	20	
alpha-BHC [2C]	14.1960	1.0	16.6667	ND	85.2	30 - 116	8.92	20	
alpha-Chlordane	15.7070	1.0	16.6667	ND	94.2	30 - 123	0.975	20	
alpha-Chlordane [2C]	13.0357	1.0	16.6667	ND	78.2	30 - 123	17.7	20	
beta-BHC	15.2375	1.0	16.6667	ND	91.4	24 - 121	8.38	20	
beta-BHC [2C]	14.0842	1.0	16.6667	ND	84.5	24 - 121	16.2	20	
delta-BHC	12.3482	1.0	16.6667	ND	74.1	7 - 120	1.16	20	
delta-BHC [2C]	10.9702	1.0	16.6667	ND	65.8	7 - 120	16.6	20	
Dieldrin	16.3312	2.0	16.6667	ND	98.0	25 - 136	1.08	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0194 - GCSEMI_PCB/PEST_S (continued)									
Matrix Spike Dup (B7A0194-MSD1) - Continued		**Source: 1604921-72**		Prepared: 1/6/2017 Analyzed: 1/7/2017					
Dieldrin [2C]	13.4683	2.0	16.6667	ND	80.8	25 - 136	17.8	20	
Endosulfan I	15.5212	1.0	16.6667	ND	93.1	18 - 134	1.05	20	
Endosulfan I [2C]	12.7167	1.0	16.6667	ND	76.3	18 - 134	17.8	20	
Endosulfan II	15.5803	2.0	16.6667	ND	93.5	28 - 128	2.47	20	
Endosulfan II [2C]	12.9878	2.0	16.6667	ND	77.9	28 - 128	17.8	20	
Endosulfan sulfate	15.4458	2.0	16.6667	ND	92.7	5 - 145	0.832	20	
Endosulfan Sulfate [2C]	13.0310	2.0	16.6667	ND	78.2	5 - 145	16.9	20	
Endrin	17.5080	2.0	16.6667	ND	105	26 - 142	1.37	20	
Endrin [2C]	14.6058	2.0	16.6667	ND	87.6	26 - 142	18.3	20	
Endrin aldehyde	15.7050	2.0	16.6667	ND	94.2	8 - 146	2.42	20	
Endrin aldehyde [2C]	12.7452	2.0	16.6667	ND	76.5	8 - 146	18.1	20	
Endrin ketone	16.4958	2.0	16.6667	ND	99.0	16 - 139	1.75	20	
Endrin ketone [2C]	13.8530	2.0	16.6667	ND	83.1	16 - 139	16.8	20	
gamma-BHC	15.9550	1.0	16.6667	ND	95.7	30 - 122	3.35	20	
gamma-BHC [2C]	13.9582	1.0	16.6667	ND	83.7	30 - 122	16.7	20	
gamma-Chlordane	15.3728	1.0	16.6667	ND	92.2	18 - 132	0.927	20	
gamma-Chlordane [2C]	12.8910	1.0	16.6667	ND	77.3	18 - 132	18.0	20	
Heptachlor	16.0797	1.0	16.6667	ND	96.5	34 - 122	1.13	20	
Heptachlor [2C]	13.3845	1.0	16.6667	ND	80.3	34 - 122	17.1	20	
Heptachlor epoxide	15.2792	1.0	16.6667	ND	91.7	21 - 135	1.11	20	
Heptachlor epoxide [2C]	12.7628	1.0	16.6667	ND	76.6	21 - 135	17.8	20	
Methoxychlor	17.6520	5.0	16.6667	ND	106	8 - 162	0.281	20	
Methoxychlor [2C]	14.2422	5.0	16.6667	ND	85.5	8 - 162	16.8	20	
Surrogate: Decachlorobiphenyl	*14.32*		*16.6667*		*85.9*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*14.01*		*16.6667*		*84.1*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*13.90*		*16.6667*		*83.4*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*16.34*		*16.6667*		*98.1*	*26 - 108*			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0197 - GCSEMI_PCB/PEST_S									
Blank (B7A0197-BLK1)				Prepared: 1/6/2017 Analyzed: 1/9/2017					
4,4´-DDD	ND	2.0			NR				
4,4´-DDD [2C]	ND	2.0			NR				
4,4´-DDE	ND	2.0			NR				
4,4´-DDE [2C]	ND	2.0			NR				
4,4´-DDT	ND	2.0			NR				
4,4´-DDT [2C]	ND	2.0			NR				
Aldrin	ND	1.0			NR				
Aldrin [2C]	ND	1.0			NR				
alpha-BHC	ND	1.0			NR				
alpha-BHC [2C]	ND	1.0			NR				
alpha-Chlordane	ND	1.0			NR				
alpha-Chlordane [2C]	ND	1.0			NR				
beta-BHC	ND	1.0			NR				
beta-BHC [2C]	ND	1.0			NR				
Chlordane	ND	8.5			NR				
Chlordane [2C]	ND	8.5			NR				
delta-BHC	ND	1.0			NR				
delta-BHC [2C]	ND	1.0			NR				
Dieldrin	ND	2.0			NR				
Dieldrin [2C]	ND	2.0			NR				
Endosulfan I	ND	1.0			NR				
Endosulfan I [2C]	ND	1.0			NR				
Endosulfan II	ND	2.0			NR				
Endosulfan II [2C]	ND	2.0			NR				
Endosulfan sulfate	ND	2.0			NR				
Endosulfan Sulfate [2C]	ND	2.0			NR				
Endrin	ND	2.0			NR				
Endrin [2C]	ND	2.0			NR				
Endrin aldehyde	ND	2.0			NR				
Endrin aldehyde [2C]	ND	2.0			NR				
Endrin ketone	ND	2.0			NR				
Endrin ketone [2C]	ND	2.0			NR				
gamma-BHC	ND	1.0			NR				
gamma-BHC [2C]	ND	1.0			NR				
gamma-Chlordane	ND	1.0			NR				
gamma-Chlordane [2C]	ND	1.0			NR				
Heptachlor	ND	1.0			NR				
Heptachlor [2C]	ND	1.0			NR				
Heptachlor epoxide	ND	1.0			NR				
Heptachlor epoxide [2C]	ND	1.0			NR				
Methoxychlor	ND	5.0			NR				

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0197 - GCSEMI_PCB/PEST_S (continued)									
Blank (B7A0197-BLK1) - Continued					Prepared: 1/6/2017 Analyzed: 1/9/2017				
Methoxychlor [2C]	ND	5.0			NR				
Toxaphene	ND	50			NR				
Toxaphene [2C]	ND	50			NR				
Surrogate: Decachlorobiphenyl	*14.41*		*16.6667*		*86.5*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*18.54*		*16.6667*		*111*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*15.40*		*16.6667*		*92.4*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*17.83*		*16.6667*		*107*	*26 - 108*			
LCS (B7A0197-BS1)					Prepared: 1/6/2017 Analyzed: 1/9/2017				
4,4´-DDD	15.6612	2.0	16.6667		94.0	53 - 125			
4,4´-DDD [2C]	16.4835	2.0	16.6667		98.9	53 - 125			
4,4´-DDE	15.1522	2.0	16.6667		90.9	54 - 113			
4,4´-DDE [2C]	16.5282	2.0	16.6667		99.2	54 - 113			
4,4´-DDT	14.7895	2.0	16.6667		88.7	25 - 127			
4,4´-DDT [2C]	15.5692	2.0	16.6667		93.4	25 - 127			
Aldrin	15.1063	1.0	16.6667		90.6	59 - 107			
Aldrin [2C]	15.7033	1.0	16.6667		94.2	59 - 107			
alpha-BHC	15.1953	1.0	16.6667		91.2	59 - 104			
alpha-BHC [2C]	16.4827	1.0	16.6667		98.9	59 - 104			
alpha-Chlordane	15.0073	1.0	16.6667		90.0	54 - 110			
alpha-Chlordane [2C]	16.5808	1.0	16.6667		99.5	54 - 110			
beta-BHC	15.3003	1.0	16.6667		91.8	57 - 103			
beta-BHC [2C]	16.3708	1.0	16.6667		98.2	57 - 103			
delta-BHC	12.4608	1.0	16.6667		74.8	16 - 120			
delta-BHC [2C]	13.0343	1.0	16.6667		78.2	16 - 120			
Dieldrin	15.2035	2.0	16.6667		91.2	61 - 109			
Dieldrin [2C]	16.7448	2.0	16.6667		100	61 - 109			
Endosulfan I	14.7528	1.0	16.6667		88.5	60 - 106			
Endosulfan I [2C]	16.4403	1.0	16.6667		98.6	60 - 106			
Endosulfan II	14.6852	2.0	16.6667		88.1	59 - 108			
Endosulfan II [2C]	15.4732	2.0	16.6667		92.8	59 - 108			
Endosulfan sulfate	14.1515	2.0	16.6667		84.9	54 - 110			
Endosulfan Sulfate [2C]	14.3873	2.0	16.6667		86.3	54 - 110			
Endrin	15.9388	2.0	16.6667		95.6	63 - 112			
Endrin [2C]	17.5895	2.0	16.6667		106	63 - 112			
Endrin aldehyde	15.4215	2.0	16.6667		92.5	64 - 119			
Endrin aldehyde [2C]	14.0963	2.0	16.6667		84.6	64 - 119			
Endrin ketone	15.1813	2.0	16.6667		91.1	54 - 115			
Endrin ketone [2C]	16.1268	2.0	16.6667		96.8	54 - 115			
gamma-BHC	15.7458	1.0	16.6667		94.5	60 - 107			
gamma-BHC [2C]	16.9902	1.0	16.6667		102	60 - 107			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0197 - GCSEMI_PCB/PEST_S (continued)									
LCS (B7A0197-BS1) - Continued				Prepared: 1/6/2017 Analyzed: 1/9/2017					
gamma-Chlordane	14.8370	1.0	16.6667		89.0	57 - 106			
gamma-Chlordane [2C]	15.6577	1.0	16.6667		93.9	57 - 106			
Heptachlor	15.6480	1.0	16.6667		93.9	54 - 114			
Heptachlor [2C]	17.5198	1.0	16.6667		105	54 - 114			
Heptachlor epoxide	15.0728	1.0	16.6667		90.4	61 - 106			
Heptachlor epoxide [2C]	16.0698	1.0	16.6667		96.4	61 - 106			
Methoxychlor	15.2195	5.0	16.6667		91.3	18 - 138			
Methoxychlor [2C]	16.1373	5.0	16.6667		96.8	18 - 138			
Surrogate: Decachlorobiphenyl	*14.85*		*16.6667*		*89.1*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*16.76*		*16.6667*		*101*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*16.87*		*16.6667*		*101*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*16.29*		*16.6667*		*97.8*	*26 - 108*			
Matrix Spike (B7A0197-MS1)		**Source: 1604921-29**		Prepared: 1/6/2017 Analyzed: 1/9/2017					
4,4´-DDD	6.82667	2.0	16.6667	ND	41.0	25 - 141			
4,4´-DDD [2C]	6.48500	2.0	16.6667	ND	38.9	25 - 141			
4,4´-DDE	8.81383	2.0	16.6667	ND	52.9	22 - 141			
4,4´-DDE [2C]	9.01367	2.0	16.6667	ND	54.1	22 - 141			
4,4´-DDT	7.94750	2.0	16.6667	ND	47.7	15 - 136			
4,4´-DDT [2C]	7.90400	2.0	16.6667	ND	47.4	15 - 136			
Aldrin	9.21067	1.0	16.6667	ND	55.3	33 - 118			
Aldrin [2C]	8.92683	1.0	16.6667	ND	53.6	33 - 118			
alpha-BHC	7.44333	1.0	16.6667	ND	44.7	30 - 116			
alpha-BHC [2C]	7.64200	1.0	16.6667	ND	45.9	30 - 116			
alpha-Chlordane	7.54233	1.0	16.6667	ND	45.3	30 - 123			
alpha-Chlordane [2C]	7.83533	1.0	16.6667	ND	47.0	30 - 123			
beta-BHC	4.01133	1.0	16.6667	ND	24.1	24 - 121			
beta-BHC [2C]	4.05700	1.0	16.6667	ND	24.3	24 - 121			
delta-BHC	1.96950	1.0	16.6667	ND	11.8	7 - 120			
delta-BHC [2C]	1.75100	1.0	16.6667	ND	10.5	7 - 120			
Dieldrin	3.54800	2.0	16.6667	ND	21.3	25 - 136			M2
Dieldrin [2C]	3.46300	2.0	16.6667	ND	20.8	25 - 136			M2
Endosulfan I	4.39933	1.0	16.6667	ND	26.4	18 - 134			
Endosulfan I [2C]	4.43967	1.0	16.6667	ND	26.6	18 - 134			
Endosulfan II	1.26517	2.0	16.6667	ND	7.59	28 - 128			M2, J
Endosulfan II [2C]	1.20517	2.0	16.6667	ND	7.23	28 - 128			M2, J
Endosulfan sulfate	1.04033	2.0	16.6667	ND	6.24	5 - 145			J
Endosulfan Sulfate [2C]	0.927500	2.0	16.6667	ND	5.56	5 - 145			J
Endrin	3.85467	2.0	16.6667	ND	23.1	26 - 142			M2
Endrin [2C]	3.75467	2.0	16.6667	ND	22.5	26 - 142			M2
Endrin aldehyde	1.02800	2.0	16.6667	ND	6.17	8 - 146			M2, J

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0197 - GCSEMI_PCB/PEST_S (continued)									
Matrix Spike (B7A0197-MS1) - Continued		**Source: 1604921-29**		Prepared: 1/6/2017 Analyzed: 1/9/2017					
Endrin aldehyde [2C]	1.35233	2.0	16.6667	ND	8.11	8 - 146			J
Endrin ketone	1.20167	2.0	16.6667	ND	7.21	16 - 139			M2, J
Endrin ketone [2C]	1.05117	2.0	16.6667	ND	6.31	16 - 139			M2, J
gamma-BHC	6.59417	1.0	16.6667	ND	39.6	30 - 122			
gamma-BHC [2C]	6.72517	1.0	16.6667	ND	40.4	30 - 122			
gamma-Chlordane	6.81383	1.0	16.6667	ND	40.9	18 - 132			
gamma-Chlordane [2C]	22.9985	1.0	16.6667	ND	138	18 - 132			M2
Heptachlor	9.58450	1.0	16.6667	ND	57.5	34 - 122			
Heptachlor [2C]	9.75483	1.0	16.6667	ND	58.5	34 - 122			
Heptachlor epoxide	4.95233	1.0	16.6667	ND	29.7	21 - 135			
Heptachlor epoxide [2C]	4.79917	1.0	16.6667	ND	28.8	21 - 135			
Methoxychlor	2.43400	5.0	16.6667	ND	14.6	8 - 162			J
Methoxychlor [2C]	2.18800	5.0	16.6667	ND	13.1	8 - 162			J
Surrogate: Decachlorobiphenyl	*9.851*		*16.6667*		*59.1*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*11.09*		*16.6667*		*66.5*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*10.48*		*16.6667*		*62.9*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*10.43*		*16.6667*		*62.6*	*26 - 108*			
Matrix Spike Dup (B7A0197-MSD1)		**Source: 1604921-29**		Prepared: 1/6/2017 Analyzed: 1/9/2017					
4,4´-DDD	7.93333	2.0	16.6667	ND	47.6	25 - 141	15.0	20	
4,4´-DDD [2C]	8.12950	2.0	16.6667	ND	48.8	25 - 141	22.5	20	R3
4,4´-DDE	9.34217	2.0	16.6667	ND	56.1	22 - 141	5.82	20	
4,4´-DDE [2C]	10.0433	2.0	16.6667	ND	60.3	22 - 141	10.8	20	
4,4´-DDT	8.66000	2.0	16.6667	ND	52.0	15 - 136	8.58	20	
4,4´-DDT [2C]	8.99983	2.0	16.6667	ND	54.0	15 - 136	13.0	20	
Aldrin	9.90100	1.0	16.6667	ND	59.4	33 - 118	7.22	20	
Aldrin [2C]	9.89283	1.0	16.6667	ND	59.4	33 - 118	10.3	20	
alpha-BHC	8.93767	1.0	16.6667	ND	53.6	30 - 116	18.2	20	
alpha-BHC [2C]	9.43083	1.0	16.6667	ND	56.6	30 - 116	21.0	20	R3
alpha-Chlordane	8.35633	1.0	16.6667	ND	50.1	30 - 123	10.2	20	
alpha-Chlordane [2C]	9.19650	1.0	16.6667	ND	55.2	30 - 123	16.0	20	
beta-BHC	4.95383	1.0	16.6667	ND	29.7	24 - 121	21.0	20	R3
beta-BHC [2C]	5.11883	1.0	16.6667	ND	30.7	24 - 121	23.1	20	R3
delta-BHC	2.49817	1.0	16.6667	ND	15.0	7 - 120	23.7	20	R3
delta-BHC [2C]	2.36567	1.0	16.6667	ND	14.2	7 - 120	29.9	20	R3
Dieldrin	4.27633	2.0	16.6667	ND	25.7	25 - 136	18.6	20	
Dieldrin [2C]	4.42150	2.0	16.6667	ND	26.5	25 - 136	24.3	20	R3
Endosulfan I	5.23983	1.0	16.6667	ND	31.4	18 - 134	17.4	20	
Endosulfan I [2C]	5.60617	1.0	16.6667	ND	33.6	18 - 134	23.2	20	R3
Endosulfan II	1.61033	2.0	16.6667	ND	9.66	28 - 128	24.0	20	M2, R3, J
Endosulfan II [2C]	1.72850	2.0	16.6667	ND	10.4	28 - 128	35.7	20	M2, R3, J

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0197 - GCSEMI_PCB/PEST_S (continued)									
Matrix Spike Dup (B7A0197-MSD1) - Continued		**Source: 1604921-29**		Prepared: 1/6/2017 Analyzed: 1/9/2017					
Endosulfan sulfate	1.35300	2.0	16.6667	ND	8.12	5 - 145	26.1	20	R3, J
Endosulfan Sulfate [2C]	1.27417	2.0	16.6667	ND	7.64	5 - 145	31.5	20	R3, J
Endrin	4.70950	2.0	16.6667	ND	28.3	26 - 142	20.0	20	
Endrin [2C]	4.91033	2.0	16.6667	ND	29.5	26 - 142	26.7	20	R3
Endrin aldehyde	1.38833	2.0	16.6667	ND	8.33	8 - 146	29.8	20	R3, J
Endrin aldehyde [2C]	1.57950	2.0	16.6667	ND	9.48	8 - 146	15.5	20	J
Endrin ketone	1.62550	2.0	16.6667	ND	9.75	16 - 139	30.0	20	M2, R3, J
Endrin ketone [2C]	1.79767	2.0	16.6667	ND	10.8	16 - 139	52.4	20	M2, R3, J
gamma-BHC	8.05283	1.0	16.6667	ND	48.3	30 - 122	19.9	20	
gamma-BHC [2C]	8.31300	1.0	16.6667	ND	49.9	30 - 122	21.1	20	R3
gamma-Chlordane	7.65833	1.0	16.6667	ND	45.9	18 - 132	11.7	20	
gamma-Chlordane [2C]	25.7522	1.0	16.6667	ND	155	18 - 132	11.3	20	M2
Heptachlor	10.5077	1.0	16.6667	ND	63.0	34 - 122	9.19	20	
Heptachlor [2C]	10.9865	1.0	16.6667	ND	65.9	34 - 122	11.9	20	
Heptachlor epoxide	5.86367	1.0	16.6667	ND	35.2	21 - 135	16.9	20	
Heptachlor epoxide [2C]	6.02833	1.0	16.6667	ND	36.2	21 - 135	22.7	20	M2
Methoxychlor	3.09100	5.0	16.6667	ND	18.5	8 - 162	23.8	20	M2, J
Methoxychlor [2C]	3.26767	5.0	16.6667	ND	19.6	8 - 162	39.6	20	M2, J
Surrogate: Decachlorobiphenyl	*11.20*		*16.6667*		*67.2*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*12.94*		*16.6667*		*77.6*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*11.80*		*16.6667*		*70.8*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*11.40*		*16.6667*		*68.4*	*26 - 108*			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0235 - GCSEMI_PCB/PEST_S									
Blank (B7A0235-BLK1)				Prepared: 1/9/2017 Analyzed: 1/10/2017					
4,4´-DDD	ND	2.0			NR				
4,4´-DDD [2C]	ND	2.0			NR				
4,4´-DDE	ND	2.0			NR				
4,4´-DDE [2C]	ND	2.0			NR				
4,4´-DDT	ND	2.0			NR				
4,4´-DDT [2C]	ND	2.0			NR				
Aldrin	ND	1.0			NR				
Aldrin [2C]	ND	1.0			NR				
alpha-BHC	ND	1.0			NR				
alpha-BHC [2C]	ND	1.0			NR				
alpha-Chlordane	ND	1.0			NR				
alpha-Chlordane [2C]	ND	1.0			NR				
beta-BHC	ND	1.0			NR				
beta-BHC [2C]	ND	1.0			NR				
Chlordane	ND	8.5			NR				
Chlordane [2C]	ND	8.5			NR				
delta-BHC	ND	1.0			NR				
delta-BHC [2C]	ND	1.0			NR				
Dieldrin	ND	2.0			NR				
Dieldrin [2C]	ND	2.0			NR				
Endosulfan I	ND	1.0			NR				
Endosulfan I [2C]	ND	1.0			NR				
Endosulfan II	ND	2.0			NR				
Endosulfan II [2C]	ND	2.0			NR				
Endosulfan sulfate	ND	2.0			NR				
Endosulfan Sulfate [2C]	ND	2.0			NR				
Endrin	ND	2.0			NR				
Endrin [2C]	ND	2.0			NR				
Endrin aldehyde	ND	2.0			NR				
Endrin aldehyde [2C]	ND	2.0			NR				
Endrin ketone	ND	2.0			NR				
Endrin ketone [2C]	ND	2.0			NR				
gamma-BHC	ND	1.0			NR				
gamma-BHC [2C]	ND	1.0			NR				
gamma-Chlordane	ND	1.0			NR				
gamma-Chlordane [2C]	ND	1.0			NR				
Heptachlor	ND	1.0			NR				
Heptachlor [2C]	ND	1.0			NR				
Heptachlor epoxide	ND	1.0			NR				
Heptachlor epoxide [2C]	ND	1.0			NR				
Methoxychlor	ND	5.0			NR				

Leighton Consulting, Inc.
17781 Cowan Street
Irvine , CA 92614

Project Number : Burroughs MS, 603378.006
Report To : Julie Harriman
Reported : 01/16/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0235 - GCSEMI_PCB/PEST_S (continued)									
Blank (B7A0235-BLK1) - Continued				Prepared: 1/9/2017 Analyzed: 1/10/2017					
Methoxychlor [2C]	ND	5.0			NR				
Toxaphene	ND	50			NR				
Toxaphene [2C]	ND	50			NR				
Surrogate: Decachlorobiphenyl	*14.37*		*16.6667*		*86.2*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*16.77*		*16.6667*		*101*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*15.96*		*16.6667*		*95.7*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*18.37*		*16.6667*		*110*	*26 - 108*			S1
LCS (B7A0235-BS1)				Prepared: 1/9/2017 Analyzed: 1/10/2017					
4,4´-DDD	15.3787	2.0	16.6667		92.3	53 - 125			
4,4´-DDD [2C]	16.3440	2.0	16.6667		98.1	53 - 125			
4,4´-DDE	14.7990	2.0	16.6667		88.8	54 - 113			
4,4´-DDE [2C]	16.4295	2.0	16.6667		98.6	54 - 113			
4,4´-DDT	15.4752	2.0	16.6667		92.9	25 - 127			
4,4´-DDT [2C]	16.7495	2.0	16.6667		100	25 - 127			
Aldrin	14.7187	1.0	16.6667		88.3	59 - 107			
Aldrin [2C]	15.7300	1.0	16.6667		94.4	59 - 107			
alpha-BHC	14.7045	1.0	16.6667		88.2	59 - 104			
alpha-BHC [2C]	16.2372	1.0	16.6667		97.4	59 - 104			
alpha-Chlordane	14.7417	1.0	16.6667		88.4	54 - 110			
alpha-Chlordane [2C]	16.3408	1.0	16.6667		98.0	54 - 110			
beta-BHC	14.8127	1.0	16.6667		88.9	57 - 103			
beta-BHC [2C]	16.2688	1.0	16.6667		97.6	57 - 103			
delta-BHC	12.1710	1.0	16.6667		73.0	16 - 120			
delta-BHC [2C]	12.7650	1.0	16.6667		76.6	16 - 120			
Dieldrin	14.9372	2.0	16.6667		89.6	61 - 109			
Dieldrin [2C]	16.5335	2.0	16.6667		99.2	61 - 109			
Endosulfan I	14.5767	1.0	16.6667		87.5	60 - 106			
Endosulfan I [2C]	16.4243	1.0	16.6667		98.5	60 - 106			
Endosulfan II	14.4307	2.0	16.6667		86.6	59 - 108			
Endosulfan II [2C]	15.2682	2.0	16.6667		91.6	59 - 108			
Endosulfan sulfate	13.8185	2.0	16.6667		82.9	54 - 110			
Endosulfan Sulfate [2C]	13.9925	2.0	16.6667		84.0	54 - 110			
Endrin	15.7108	2.0	16.6667		94.3	63 - 112			
Endrin [2C]	17.5192	2.0	16.6667		105	63 - 112			
Endrin aldehyde	14.9340	2.0	16.6667		89.6	64 - 119			
Endrin aldehyde [2C]	13.7263	2.0	16.6667		82.4	64 - 119			
Endrin ketone	15.1345	2.0	16.6667		90.8	54 - 115			
Endrin ketone [2C]	15.3532	2.0	16.6667		92.1	54 - 115			
gamma-BHC	15.3095	1.0	16.6667		91.9	60 - 107			
gamma-BHC [2C]	16.7648	1.0	16.6667		101	60 - 107			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0235 - GCSEMI_PCB/PEST_S (continued)									
LCS (B7A0235-BS1) - Continued				Prepared: 1/9/2017 Analyzed: 1/10/2017					
gamma-Chlordane	14.6223	1.0	16.6667		87.7	57 - 106			
gamma-Chlordane [2C]	15.5615	1.0	16.6667		93.4	57 - 106			
Heptachlor	15.4770	1.0	16.6667		92.9	54 - 114			
Heptachlor [2C]	17.7532	1.0	16.6667		107	54 - 114			
Heptachlor epoxide	14.7627	1.0	16.6667		88.6	61 - 106			
Heptachlor epoxide [2C]	15.9248	1.0	16.6667		95.5	61 - 106			
Methoxychlor	15.5083	5.0	16.6667		93.0	18 - 138			
Methoxychlor [2C]	17.3583	5.0	16.6667		104	18 - 138			
Surrogate: Decachlorobiphenyl	*13.35*		*16.6667*		*80.1*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*15.31*		*16.6667*		*91.9*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*15.90*		*16.6667*		*95.4*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*15.73*		*16.6667*		*94.4*	*26 - 108*			
Duplicate (B7A0235-DUP1)		**Source: 1604923-24**		Prepared: 1/9/2017 Analyzed: 1/10/2017					
4,4´-DDD	ND	2.0		ND	NR			20	
4,4´-DDD [2C]	ND	2.0		ND	NR			20	
4,4´-DDE	ND	2.0		ND	NR			20	
4,4´-DDE [2C]	ND	2.0		ND	NR			20	
4,4´-DDT	ND	2.0		ND	NR			20	
4,4´-DDT [2C]	ND	2.0		ND	NR			20	
Aldrin	ND	1.0		ND	NR			20	
Aldrin [2C]	ND	1.0		ND	NR			20	
alpha-BHC	ND	1.0		ND	NR			20	
alpha-BHC [2C]	ND	1.0		ND	NR			20	
alpha-Chlordane	ND	1.0		ND	NR			20	
alpha-Chlordane [2C]	ND	1.0		ND	NR			20	
beta-BHC	ND	1.0		ND	NR			20	
beta-BHC [2C]	ND	1.0		ND	NR			20	
delta-BHC	ND	1.0		ND	NR			20	
delta-BHC [2C]	ND	1.0		ND	NR			20	
Dieldrin	ND	2.0		ND	NR			20	
Dieldrin [2C]	ND	2.0		ND	NR			20	
Endosulfan I	ND	1.0		ND	NR			20	
Endosulfan I [2C]	ND	1.0		ND	NR			20	
Endosulfan II	ND	2.0		ND	NR			20	
Endosulfan II [2C]	ND	2.0		ND	NR			20	
Endosulfan sulfate	ND	2.0		ND	NR			20	
Endosulfan Sulfate [2C]	ND	2.0		ND	NR			20	
Endrin	ND	2.0		ND	NR			20	
Endrin [2C]	ND	2.0		ND	NR			20	
Endrin aldehyde	ND	2.0		ND	NR			20	

Leighton Consulting, Inc.
17781 Cowan Street
Irvine , CA 92614

Project Number : Burroughs MS, 603378.006
Report To : Julie Harriman
Reported : 01/16/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0235 - GCSEMI_PCB/PEST_S (continued)									
Duplicate (B7A0235-DUP1) - Continued		**Source: 1604923-24**		Prepared: 1/9/2017 Analyzed: 1/10/2017					
Endrin aldehyde [2C]	ND	2.0		ND	NR			20	
Endrin ketone	ND	2.0		ND	NR			20	
Endrin ketone [2C]	ND	2.0		ND	NR			20	
gamma-BHC	ND	1.0		ND	NR			20	
gamma-BHC [2C]	ND	1.0		ND	NR			20	
gamma-Chlordane	ND	1.0		ND	NR			20	
gamma-Chlordane [2C]	ND	1.0		ND	NR			20	
Heptachlor	ND	1.0		ND	NR			20	
Heptachlor [2C]	ND	1.0		ND	NR			20	
Heptachlor epoxide	ND	1.0		ND	NR			20	
Heptachlor epoxide [2C]	ND	1.0		ND	NR			20	
Methoxychlor	ND	5.0		ND	NR			20	
Methoxychlor [2C]	ND	5.0		ND	NR			20	
Surrogate: Decachlorobiphenyl	*13.94*		*16.6667*		*83.6*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*14.40*		*16.6667*		*86.4*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*14.51*		*16.6667*		*87.0*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*14.26*		*16.6667*		*85.6*	*26 - 108*			
Matrix Spike (B7A0235-MS1)		**Source: 1604923-21**		Prepared: 1/9/2017 Analyzed: 1/10/2017					
4,4´-DDD	14.0528	2.0	16.6667	ND	84.3	25 - 141			
4,4´-DDD [2C]	13.9307	2.0	16.6667	ND	83.6	25 - 141			
4,4´-DDE	14.0202	2.0	16.6667	ND	84.1	22 - 141			
4,4´-DDE [2C]	14.2968	2.0	16.6667	ND	85.8	22 - 141			
4,4´-DDT	15.4505	2.0	16.6667	0.138167	91.9	15 - 136			
4,4´-DDT [2C]	15.0303	2.0	16.6667	ND	90.2	15 - 136			
Aldrin	13.4937	1.0	16.6667	ND	81.0	33 - 118			
Aldrin [2C]	13.2385	1.0	16.6667	ND	79.4	33 - 118			
alpha-BHC	12.9687	1.0	16.6667	ND	77.8	30 - 116			
alpha-BHC [2C]	12.9653	1.0	16.6667	ND	77.8	30 - 116			
alpha-Chlordane	13.8957	1.0	16.6667	ND	83.4	30 - 123			
alpha-Chlordane [2C]	14.1163	1.0	16.6667	ND	84.7	30 - 123			
beta-BHC	13.3943	1.0	16.6667	ND	80.4	24 - 121			
beta-BHC [2C]	14.9828	1.0	16.6667	ND	89.9	24 - 121			
delta-BHC	10.8780	1.0	16.6667	ND	65.3	7 - 120			
delta-BHC [2C]	10.6992	1.0	16.6667	ND	64.2	7 - 120			
Dieldrin	14.0132	2.0	16.6667	ND	84.1	25 - 136			
Dieldrin [2C]	14.3260	2.0	16.6667	ND	86.0	25 - 136			
Endosulfan I	13.5922	1.0	16.6667	ND	81.6	18 - 134			
Endosulfan I [2C]	13.7422	1.0	16.6667	ND	82.5	18 - 134			
Endosulfan II	13.5267	2.0	16.6667	ND	81.2	28 - 128			
Endosulfan II [2C]	12.9825	2.0	16.6667	ND	77.9	28 - 128			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0235 - GCSEMI_PCB/PEST_S (continued)									
Matrix Spike (B7A0235-MS1) - Continued		**Source: 1604923-21**		Prepared: 1/9/2017 Analyzed: 1/10/2017					
Endosulfan sulfate	12.2015	2.0	16.6667	ND	73.2	5 - 145			
Endosulfan Sulfate [2C]	11.3387	2.0	16.6667	ND	68.0	5 - 145			
Endrin	15.0877	2.0	16.6667	ND	90.5	26 - 142			
Endrin [2C]	15.2943	2.0	16.6667	ND	91.8	26 - 142			
Endrin aldehyde	12.0353	2.0	16.6667	ND	72.2	8 - 146			
Endrin aldehyde [2C]	10.3398	2.0	16.6667	0.972333	56.2	8 - 146			
Endrin ketone	13.7492	2.0	16.6667	ND	82.5	16 - 139			
Endrin ketone [2C]	12.5023	2.0	16.6667	ND	75.0	16 - 139			
gamma-BHC	13.5023	1.0	16.6667	ND	81.0	30 - 122			
gamma-BHC [2C]	14.0945	1.0	16.6667	ND	84.6	30 - 122			
gamma-Chlordane	13.8968	1.0	16.6667	ND	83.4	18 - 132			
gamma-Chlordane [2C]	13.5228	1.0	16.6667	ND	81.1	18 - 132			
Heptachlor	14.1422	1.0	16.6667	ND	84.9	34 - 122			
Heptachlor [2C]	15.0770	1.0	16.6667	ND	90.5	34 - 122			
Heptachlor epoxide	13.7803	1.0	16.6667	ND	82.7	21 - 135			
Heptachlor epoxide [2C]	13.5130	1.0	16.6667	ND	81.1	21 - 135			
Methoxychlor	14.4827	5.0	16.6667	ND	86.9	8 - 162			
Methoxychlor [2C]	15.4858	5.0	16.6667	ND	92.9	8 - 162			
Surrogate: Decachlorobiphenyl	*12.71*		*16.6667*		*76.3*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*13.43*		*16.6667*		*80.6*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*13.44*		*16.6667*		*80.7*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*12.35*		*16.6667*		*74.1*	*26 - 108*			
Matrix Spike Dup (B7A0235-MSD1)		**Source: 1604923-21**		Prepared: 1/9/2017 Analyzed: 1/10/2017					
4,4´-DDD	14.8720	2.0	16.6667	ND	89.2	25 - 141	5.66	20	
4,4´-DDD [2C]	14.9143	2.0	16.6667	ND	89.5	25 - 141	6.82	20	
4,4´-DDE	14.8193	2.0	16.6667	ND	88.9	22 - 141	5.54	20	
4,4´-DDE [2C]	15.1058	2.0	16.6667	ND	90.6	22 - 141	5.50	20	
4,4´-DDT	16.4155	2.0	16.6667	0.138167	97.7	15 - 136	6.06	20	
4,4´-DDT [2C]	16.1050	2.0	16.6667	ND	96.6	15 - 136	6.90	20	
Aldrin	14.3140	1.0	16.6667	ND	85.9	33 - 118	5.90	20	
Aldrin [2C]	13.8848	1.0	16.6667	ND	83.3	33 - 118	4.77	20	
alpha-BHC	13.6773	1.0	16.6667	ND	82.1	30 - 116	5.32	20	
alpha-BHC [2C]	12.0700	1.0	16.6667	ND	72.4	30 - 116	7.15	20	
alpha-Chlordane	14.7240	1.0	16.6667	ND	88.3	30 - 123	5.79	20	
alpha-Chlordane [2C]	15.0107	1.0	16.6667	ND	90.1	30 - 123	6.14	20	
beta-BHC	14.3872	1.0	16.6667	ND	86.3	24 - 121	7.15	20	
beta-BHC [2C]	15.7337	1.0	16.6667	ND	94.4	24 - 121	4.89	20	
delta-BHC	11.7675	1.0	16.6667	ND	70.6	7 - 120	7.86	20	
delta-BHC [2C]	11.3860	1.0	16.6667	ND	68.3	7 - 120	6.22	20	
Dieldrin	14.9005	2.0	16.6667	ND	89.4	25 - 136	6.14	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0235 - GCSEMI_PCB/PEST_S (continued)									
Matrix Spike Dup (B7A0235-MSD1) - Continued		**Source: 1604923-21**		Prepared: 1/9/2017 Analyzed: 1/10/2017					
Dieldrin [2C]	15.4423	2.0	16.6667	ND	92.7	25 - 136	7.50	20	
Endosulfan I	14.3933	1.0	16.6667	ND	86.4	18 - 134	5.73	20	
Endosulfan I [2C]	14.5747	1.0	16.6667	ND	87.4	18 - 134	5.88	20	
Endosulfan II	14.4977	2.0	16.6667	ND	87.0	28 - 128	6.93	20	
Endosulfan II [2C]	14.0500	2.0	16.6667	ND	84.3	28 - 128	7.90	20	
Endosulfan sulfate	13.3382	2.0	16.6667	ND	80.0	5 - 145	8.90	20	
Endosulfan Sulfate [2C]	12.5287	2.0	16.6667	ND	75.2	5 - 145	9.97	20	
Endrin	16.0502	2.0	16.6667	ND	96.3	26 - 142	6.18	20	
Endrin [2C]	16.4527	2.0	16.6667	ND	98.7	26 - 142	7.30	20	
Endrin aldehyde	13.0098	2.0	16.6667	ND	78.1	8 - 146	7.78	20	
Endrin aldehyde [2C]	11.2865	2.0	16.6667	0.972333	61.9	8 - 146	8.75	20	
Endrin ketone	14.9242	2.0	16.6667	ND	89.5	16 - 139	8.20	20	
Endrin ketone [2C]	14.4995	2.0	16.6667	ND	87.0	16 - 139	14.8	20	
gamma-BHC	14.4122	1.0	16.6667	ND	86.5	30 - 122	6.52	20	
gamma-BHC [2C]	14.8083	1.0	16.6667	ND	88.8	30 - 122	4.94	20	
gamma-Chlordane	14.5275	1.0	16.6667	ND	87.2	18 - 132	4.44	20	
gamma-Chlordane [2C]	14.2185	1.0	16.6667	ND	85.3	18 - 132	5.02	20	
Heptachlor	15.0220	1.0	16.6667	ND	90.1	34 - 122	6.03	20	
Heptachlor [2C]	15.6960	1.0	16.6667	ND	94.2	34 - 122	4.02	20	
Heptachlor epoxide	14.5797	1.0	16.6667	ND	87.5	21 - 135	5.64	20	
Heptachlor epoxide [2C]	14.2523	1.0	16.6667	ND	85.5	21 - 135	5.33	20	
Methoxychlor	15.6263	5.0	16.6667	ND	93.8	8 - 162	7.60	20	
Methoxychlor [2C]	16.7373	5.0	16.6667	ND	100	8 - 162	7.77	20	
Surrogate: Decachlorobiphenyl	*14.24*		*16.6667*		*85.5*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*14.05*		*16.6667*		*84.3*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*14.19*		*16.6667*		*85.2*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*12.97*		*16.6667*		*77.8*	*26 - 108*			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Polychlorinated Biphenyls by EPA 8082 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0037 - GCSEMI_PCB/PEST_W									
Blank (B7A0037-BLK2)				Prepared: 1/3/2017 Analyzed: 1/3/2017					
Aroclor 1016	ND	0.50			NR				
Aroclor 1221	ND	1.0			NR				
Aroclor 1232	ND	0.50			NR				
Aroclor 1242	ND	0.50			NR				
Aroclor 1248	ND	0.50			NR				
Aroclor 1254	ND	0.50			NR				
Aroclor 1260	ND	0.50			NR				
Aroclor 1262	ND	0.50			NR				
Aroclor 1268	ND	0.50			NR				
Surrogate: Decachlorobiphenyl	*0.4055*		*0.500000*		*81.1*	*7 - 127*			
Surrogate: Tetrachloro-m-xylene	*0.4350*		*0.500000*		*87.0*	*14 - 122*			
LCS (B7A0037-BS2)				Prepared: 1/3/2017 Analyzed: 1/3/2017					
Aroclor 1016	2.59988	0.50	5.00000		52.0	68 - 96			L2
Aroclor 1260	2.23614	0.50	5.00000		44.7	64 - 106			L2
Surrogate: Decachlorobiphenyl	*0.2967*		*0.500000*		*59.3*	*7 - 127*			
Surrogate: Tetrachloro-m-xylene	*0.2939*		*0.500000*		*58.8*	*14 - 122*			
LCS Dup (B7A0037-BSD2)				Prepared: 1/3/2017 Analyzed: 1/3/2017					
Aroclor 1016	2.15640	0.50	5.00000		43.1	68 - 96	18.6	20	L2
Aroclor 1260	1.58421	0.50	5.00000		31.7	64 - 106	34.1	20	L2
Surrogate: Decachlorobiphenyl	*0.1683*		*0.500000*		*33.7*	*7 - 127*			
Surrogate: Tetrachloro-m-xylene	*0.2670*		*0.500000*		*53.4*	*14 - 122*			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Polychlorinated Biphenyls by EPA 8082 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0176 - GCSEMI_PCB/PEST_S									
Blank (B7A0176-BLK2)				Prepared: 1/6/2017 Analyzed: 1/6/2017					
Aroclor 1016	ND	16			NR				
Aroclor 1221	ND	16			NR				
Aroclor 1232	ND	16			NR				
Aroclor 1242	ND	16			NR				
Aroclor 1248	ND	16			NR				
Aroclor 1254	ND	16			NR				
Aroclor 1260	ND	16			NR				
Aroclor 1262	ND	16			NR				
Aroclor 1268	ND	16			NR				
Surrogate: Decachlorobiphenyl	*15.44*		*16.6667*		*92.7*	*26 - 137*			
Surrogate: Tetrachloro-m-xylene	*17.08*		*16.6667*		*102*	*28 - 102*			
LCS (B7A0176-BS2)				Prepared: 1/6/2017 Analyzed: 1/6/2017					
Aroclor 1016	171.236	16	166.667		103	70 - 107			
Aroclor 1260	191.424	16	166.667		115	69 - 120			
Surrogate: Decachlorobiphenyl	*17.78*		*16.6667*		*107*	*26 - 137*			
Surrogate: Tetrachloro-m-xylene	*18.51*		*16.6667*		*111*	*28 - 102*			
Duplicate (B7A0176-DUP2)		**Source: 1604921-52**		Prepared: 1/6/2017 Analyzed: 1/6/2017					
Aroclor 1016	ND	16		ND	NR			20	
Aroclor 1260	ND	16		ND	NR			20	
Surrogate: Decachlorobiphenyl	*17.19*		*16.6667*		*103*	*26 - 137*			
Surrogate: Tetrachloro-m-xylene	*17.32*		*16.6667*		*104*	*28 - 102*			
Matrix Spike (B7A0176-MS2)		**Source: 1604921-52**		Prepared: 1/6/2017 Analyzed: 1/6/2017					
Aroclor 1016	173.786	16	166.667	ND	104	34 - 120			
Aroclor 1260	185.318	16	166.667	ND	111	39 - 128			
Surrogate: Decachlorobiphenyl	*17.11*		*16.6667*		*103*	*26 - 137*			
Surrogate: Tetrachloro-m-xylene	*17.07*		*16.6667*		*102*	*28 - 102*			
Matrix Spike Dup (B7A0176-MSD2)		**Source: 1604921-52**		Prepared: 1/6/2017 Analyzed: 1/6/2017					
Aroclor 1016	173.807	16	166.667	ND	104	34 - 120	0.0122	20	
Aroclor 1260	186.764	16	166.667	ND	112	39 - 128	0.777	20	
Surrogate: Decachlorobiphenyl	*16.98*		*16.6667*		*102*	*26 - 137*			
Surrogate: Tetrachloro-m-xylene	*17.03*		*16.6667*		*102*	*28 - 102*			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Polychlorinated Biphenyls by EPA 8082 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0217 - GCSEMI_PCB/PEST_S									
Blank (B7A0217-BLK1)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Aroclor 1016	ND	16			NR				
Aroclor 1221	ND	16			NR				
Aroclor 1232	ND	16			NR				
Aroclor 1242	ND	16			NR				
Aroclor 1248	ND	16			NR				
Aroclor 1254	ND	16			NR				
Aroclor 1260	ND	16			NR				
Aroclor 1262	ND	16			NR				
Aroclor 1268	ND	16			NR				
Surrogate: Decachlorobiphenyl	*15.94*		*16.6667*		*95.7*	*26 - 137*			
Surrogate: Tetrachloro-m-xylene	*17.85*		*16.6667*		*107*	*28 - 102*			S1
LCS (B7A0217-BS1)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Aroclor 1016	160.662	16	166.667		96.4	70 - 107			
Aroclor 1260	176.765	16	166.667		106	69 - 120			
Surrogate: Decachlorobiphenyl	*15.69*		*16.6667*		*94.2*	*26 - 137*			
Surrogate: Tetrachloro-m-xylene	*17.13*		*16.6667*		*103*	*28 - 102*			S12
Duplicate (B7A0217-DUP1)		**Source: 1604921-32**		Prepared: 1/9/2017 Analyzed: 1/9/2017					
Aroclor 1016	ND	16		ND	NR			20	
Aroclor 1260	ND	16		ND	NR			20	
Surrogate: Decachlorobiphenyl	*15.69*		*16.6667*		*94.1*	*26 - 137*			
Surrogate: Tetrachloro-m-xylene	*16.86*		*16.6667*		*101*	*28 - 102*			
Matrix Spike (B7A0217-MS1)		**Source: 1604923-11**		Prepared: 1/9/2017 Analyzed: 1/9/2017					
Aroclor 1016	177.864	16	166.667	ND	107	34 - 120			
Aroclor 1260	196.301	16	166.667	ND	118	39 - 128			
Surrogate: Decachlorobiphenyl	*16.90*		*16.6667*		*101*	*26 - 137*			
Surrogate: Tetrachloro-m-xylene	*18.34*		*16.6667*		*110*	*28 - 102*			S12
Matrix Spike Dup (B7A0217-MSD1)		**Source: 1604923-11**		Prepared: 1/9/2017 Analyzed: 1/9/2017					
Aroclor 1016	170.224	16	166.667	ND	102	34 - 120	4.39	20	
Aroclor 1260	188.448	16	166.667	ND	113	39 - 128	4.08	20	
Surrogate: Decachlorobiphenyl	*16.27*		*16.6667*		*97.6*	*26 - 137*			
Surrogate: Tetrachloro-m-xylene	*17.68*		*16.6667*		*106*	*28 - 102*			S12

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/16/2017

Notes and Definitions

S4	Surrogate was diluted out.
S12	Surrogate recovery outside in-house established limit but within method default criteria.
S1	Surrogate recovery was above laboratory acceptance limit. No target analyte was detected in the sample.
R3	RPD value outside acceptance criteria. Calculation is based on raw values. The analytical batch was validated by the Laboratory Control Sample (LCS).
R2	RPD value outside acceptance criteria due to possible matrix interference.
R	RPD value outside acceptance criteria. Calculation is based on raw values.
M2	Matrix spike recovery outside of acceptance limit due to possible matrix interference. The analytical batch was validated by the laboratory control sample.
M1	Matrix spike recovery outside of acceptance limit. The analytical batch was validated by the laboratory control sample.
L3	Laboratory control sample outside in-house established limits but within method criteria.
L2	Laboratory control sample outside of acceptance limits. Reextraction and/or reanalysis is not possible due to limited amount of sample.
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:
(1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
(2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
(3) Results are wet unless otherwise specified.

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 1 of 9

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☑ ATL	1. CHILLED	☑	☐	5. # OF SAMPLES MATCH COC	☑	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☑	☐
☐ GSO	3. CONTAINER INTACT	☑	☐	7. COOLER TEMP, deg C:		
☐ Other:	4. SEALED	☐	☐			

CUSTOMER

Company: Leighton Consulting, Inc. (LCI)
Address: 17781 Cowan
City: Irvine State: CA Zip: 92614
Tel: 949-250-1421 Fax: 949-250-1114

SEND REPORT TO:
Attn: Julie Hamman Email: jhamman@leightongroup.com
Company: LCI
Address: 17781 Cowan
City: Irvine State: CA Zip: 92614

SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Accounts Payable Email: acctpayable@leightongroup.com
Company: Leighton
Address: 17781 Cowan
City: Irvine State: CA Zip: 92614

PROJECT SAMPLES

Project Name: Burroughs MS
Project No.: 603378.006
Sampler: W. Scorcia
Quote No: —
PO #: —
Special Instructions/Comments: Standard TAT

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	6010/7000 Arsenic	6010/7000 Lead	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE / FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	Container #	Container Type	Container Material	Preservative	QA/QC / REMARKS
1	1604921 -1	EB9-6-0.5	12-29-16	0755					X	X			X	X	X					5	1	5	1	—	
2	-2	EB9-6-1.5		0756					X				X	X											
3	-3	EB9-6-2.5		0757																					HOLD
4	-4	EB10-1-0.5		0800					X				X	X											
5	-5	EB10-1-1.5		0801					X				X	X											
6	-6	EB10-1-2.5		0802																					HOLD
7	-7	EB9-4-0.5		0912					X				X	X											
8	-8	EB9-4-1.5		0914					X				X	X											
9	-9	EB9-4-2.5		0920																					HOLD
10	-10	EB8-1-0.5		0939					X				X	X											

Encircle or Write Requested Analysis
Encircle Sample Matrix
Container
QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4 = 4C; 5=Zn ((Ac)2; 6=NaOH; 7=NA2S2O3
Container Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7 = Canister
Container Material: 1=Glass; 2=Plastic; 3=Metal

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for fi ve (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-fi ve (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Submitter Print Name: Wallace Scorcia
Signature

CUSTODY

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Wallace Scorcia	12/29/16	1620			
	12/29/16	1815	Paddy	12/29/16	1815

ADVANCED TECHNOLOGY LABORATORIES
3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☐ ATL	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☐
☐ GSO	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other: _____	4. SEALED	☐	☐			

CUSTOMER

Company:
Address:
City: State: Zip:
Tel:
Fax:

SEND REPORT TO:
Attn: Email:
Company:
Address: See Page #1
City: State: Zip:

SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Email:
Company:
Address:
City: State: Zip:

PROJECT SAMPLES

Project Name:
Project No.:
Sampler:
Quote No:
PO #:
Special Instructions/Comments:

Encircle or Write Requested Analysis: 8260 / 624 (Volatiles); 8015(GRO); 8015(DRO); 8270(Semi-volatiles); 8081(Organochlorine Pesticides); 8082(PCBs); 6010 / 7000(Title 22 Metals); TO-15; Cond/Tocc Arsenic; Cond/Tocc Lead

Encircle Sample Matrix: SOIL / SEDIMENT / SLUDGE; SOLIDS / WIPE / FILTER; WATER - DRINKING / GROUND; WATER - STORM / WASTE; AQUEOUS / LAYERED - OIL

TAT

Container: # ; Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7 = Canister; Material: 1=Glass; 2=Plastic; 3=Metal

Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4 = 4C; 5=Zn (Ac)2 6=NaOH; 7=NA2S2O3

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

ITEM	Lab No.	Sample ID / Location	Date	Time	8260	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	Cond/Tocc Arsenic	Cond/Tocc Lead	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE / FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	#	Type	Material	Preservative	REMARKS
1	1604921 -11	EB8-1-1.5	12-29-16	0940					X	X			X	X	X					5	1	5	1	-	
2	-12	EB8-1-2.5		0941																					HOLD
3	-13	EB8-6-0.5		0942					X				X	X											
4	-14	EB8-6-1.5		0943					X				X	X											
5	-15	EB8-6-2.5		0944																					HOLD
6	-16	EB8-5-0.5		0945					X				X	X											
7	-17	EB8-5-1.5		0946					X				X	X											
8	-18	EB8-5-2.5		0947																					HOLD
9	-19	EB8-4-0.5		0953					X				X	X											
10	-20	EB8-4-1.5		0954					X				X	X											

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for five (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Somers — Submitter Print Name

Signature

CUSTODY

Relinquished by: (Signature and Printed Name) Wallace Somers	Date: 12/29/16	Time: 1620	Received by: (Signature and Printed Name)	Date: 12/29/16	Time: 1620
Relinquished by: (Signature and Printed Name)	Date: 12/29/16	Time: 1815	Received by: (Signature and Printed Name) FEDEX	Date: 12/29/16	Time: 1815
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 3 of 9

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☐ ATL	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (V0A)	☐	☐	6. PRESERVED	☐	☐
☐ GSO	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other: _____	4. SEALED	☐	☐			

CUSTOMER

Company:	Address:		Tel:
	City:	State: Zip:	Fax:

SEND REPORT TO:	SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Email:	Attn: Email:
Company: See Page 11	Company:
Address:	Address:
City: State: Zip:	City: State: Zip:

PROJECT SAMPLES

Project Name:
Project No.:
Sampler:
Quote No:
PO #:
Special Instructions/Comments:

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	Lead/Free Arsenic	Lead/Free Lead	Encircle Sample Matrix: SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE / FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	Container: #	Type	Material	Preservative	QA/QC	REMARKS
1	1604921 -1	EBS-4-2.5	12-29-16	0955									X		X					5	1	5	1	—		HOLD
2	-22	EBS-3-0.5		1020					X	X			X	X												
3	-23	EBS-3-1.5		1021					X				X	X												
4	-24	EBS-3-2.5		1022																						HOLD
5	-25	EBS-2-0.5		1030					X				X	X												
6	-26	EBS-2-1.5		1031					X				X	X												
7	-27	EBS-2-2.5		1032																						HOLD
8	-28	EB6-1-0.5		1110					X				X	X												
9	-29	EB6-1-1.5		1115					X				X	X												
10	-30	EB6-1-2.5	↓	1117											↓					↓	↓	↓	↓	↓		HOLD

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

Container — Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7= Canister. Material: 1=Glass; 2=Plastic; 3=Metal. Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4 = 4C; 5=Zn ((Ac)2, 6=NaOH; 7=NA2S2O3

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for fi ve (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-fi ve (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Sconiers — Submitter Print Name

Signature

CUSTODY

	Date	Time		Date	Time
Relinquished by: (Signature and Printed Name) Wallace Sconiers	12/29/16	1620	Received by: (Signature and Printed Name)	12/29/16	1620
Relinquished by: (Signature and Printed Name)	12/29/16	1815	Received by: (Signature and Printed Name) ADams	12/29/16	1815
Relinquished by: (Signature and Printed Name)			Received by: (Signature and Printed Name)		

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 4 of 9

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☐ ATL	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☐
☐ GSO	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other: _____	4. SEALED	☐	☐			

CUSTOMER

Company:	Address:		Tel:
	City:	State: Zip:	Fax:

SEND REPORT TO:	SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Email:	Attn: Email:
Company: See Pg 1	Company:
Address:	Address:
City: State: Zip:	City: State: Zip:

PROJECT SAMPLES

Project Name:	Quote No:	Special Instructions/Comments:
Project No.:	PO #:	
Sampler:		

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	CAM/Total Arsenic	CAM/Total Lead	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE / FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	#	Type	Material	Preservative	REMARKS
1	1604921 -31	FB9-3-C.5	12-29-16	1120					X				X	X	X					5	1	5	1	-	
2	-32	FB9-3-1.5		1121					X	X			X	X											
3	-33	FB9-3-2.5		1122																					HOLD
4	-34	EB9-2-0.5		1129					X				X	X											
5	-35	EB9-2-1.5		1130					X				X	X											
6	-36	EB9-2-2.5		1131																					HOLD
7	-37	FB15-3-0.5		1205					X				X	X											
8	-38	FB15-3-1.0		1206					X				X	X											
9	-39	EB15-4-0.5		1200					X				X	X											
10	-40	EB15-4-1.5	↓	1201					X				X	X	↓					↓	↓	↓	↓	↓	

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4 = 4C; 5=Zn (Ac)2 6=NaOH; 7=NAZSZO3

Container: # / Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7 = Canister / Material: 1=Glass; 2=Plastic; 3=Metal

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for fi ve (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-fi ve (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Sommers — Submitter Print Name

Signature

CUSTODY

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Wallace Sommers	12/29/16	1610		12/29/16	1620
	12/29/16	1815	Fabian P	12/29/16	1815

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 5 of 9

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☐ ATL	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☐
☐ GSO	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other: _____	4. SEALED	☐	☐			

CUSTOMER

Company:	Address:			Tel:
	City:	State:	Zip:	Fax:

SEND REPORT TO:	SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Email:	Attn: Email:
Company:	Company:
Address: See Page #1	Address:
City: State: Zip:	City: State: Zip:

PROJECT SAMPLES

Project Name: | Quote No: | Special Instructions/Comments:

Project No.: | PO #:

Sampler:

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	Gold/Total Arsenic	Gold/Total Lead	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE/ FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	Container #	Container Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7 = Canister	Container Material: 1=Glass; 2=Plastic; 3=Metal	Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4 = 4C; 5=Zn ((Ac)2; 6=NaOH; 7=NA2S2O3	QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV — REMARKS
1	1604921 -41	EB15-4-2.5	12-29-16	1202											X					5	1	5	1	—	HOLD
2	-42	EB15-6-0.5		1203					X	X			X	X											
3	-43	EB15-6-1.5		1204					X				X	X											
4	-44	EB15-6-2.5		1205																					HOLD
5	-45	EB16-2-0.5		1210					X				X	X											
6	-46	EB16-2-1.5		1211					X				X	X											
7	-47	EB16-2-2.5		1212																					HOLD
8	-48	EB15-5-0.5		1319					X				X	X											
9	-49	EB15-5-1.5		1320					X				X	X											
10	-50	EB15-5-2.5		1321																					HOLD

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for fi ve (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-fi ve (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Scovica — Submitter Print Name

Signature

CUSTODY

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Wallace Scovica	12/29/16	1620		12/29/16	1620
	12/29/16	1815	FEDEX	12/29/16	1815

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 6 of 9

Instruction: Complete all shaded areas.

For Laboratory Use Only				ATLCOC Ver: 20130715
Method of Transport	**Sample Conditions Upon Receipt**			
	Condition	Y	N	Condition	Y	N
☐ Client ☐ ATL	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☐
☐ GSO	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other: _____	4. SEALED	☐	☐			

CUSTOMER

Company:	Address:			Tel:
	City:	State:	Zip:	Fax:

SEND REPORT TO:	SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Email:	Attn: Email:
Company: See Page 2	Company: N/A
Address:	Address:
City: State: Zip:	City: State: Zip:

PROJECT SAMPLES

Project Name:	Quote No:	Special Instructions/Comments:
Project No.:	PO #:	
Sampler:		

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	Lead/Total Arsenic	Lead/TCLP Lead	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE / FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	Container #	Container Type	Container Material	Preservative	QA/QC / REMARKS
1	1604921 -51	EB6-2-0.5	12-29-16	1311					X				X	X	X					5	1	5	1		
2	-52	EB6-2-1.5		1312					X	X			X	X											
3	-53	EB6-2-2.5		1313																					HOLD
4	-54	EB15-2-0.5		1314					X				X	X											
5	-55	EB15-2-1.5		1315					X				X	X											
6	-56	EB15-2-2.5		1316																					HOLD
7	-57	EB16-3-0.5		1317					X				X	X											
8	-58	EB16-3-1.5		1318					X				X	X											
9	-59	EB16-3-2.5		1319																					HOLD
10	-60	EB22-2-0.5		1355					X				X	X											

CUSTODY TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for fi ve (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-fi ve (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Seamers — Submitter Print Name

Signature

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Wallace Seamers	12/29/16	1620	FEDEX	12/29/16	1620
	12/29/16	1815	FEDEX	12/29/16	1815

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 7 of 9

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☐ ATL	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☐
☐ GSO	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other: _____	4. SEALED	☐	☐			

CUSTOMER

Company:	Address:	Tel:
	City: State: Zip:	Fax:

SEND REPORT TO:	SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Email:	Attn: Email:
Company:	Company:
Address:	Address:
City: State: See Page Zip:	City: State: Zip:

PROJECT SAMPLES

Project Name: | Quote No: | Special Instructions/Comments:

Project No.: | PO #:

Sampler:

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	Cad/Tred Arsenic	Cad/Tred Lead	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE/ FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	Container #	Container Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Redjar; 7 = Canister	Container Material: 1=Glass; 2=Plastic; 3=Metal	Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4 = 4C; 5=Zn ((Ac)2; 6=NaOH; 7=NA2S2O3	REMARKS
1	1604921 -01	EB22-2-1.5	12-29-16	1356					X	X			X	X	X					5	1	5	1	1	
2	-02	EB22-2-2.5		1357																				HOLD
3	-03	EB24-6-0.5		1358					X				X	X										
4	-04	EB24-6-1.5		1359					X				X	X										
5	-05	EB24-6-2.5		1400																				HOLD
6	-06	EB3-2-0.5		1402					X				X	X										
7	-07	EB3-2-1.5		1403					X				X	X										
8	-08	EB3-2-2.5		1404																				HOLD
9	-09	EB15-1-0.5		1447					X				X	X										
10	-10	EB15-1-1.5	↓	1448					X				X	X	↓					↓	↓	↓	↓	↓	

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for fi ve (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-fi ve (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Scowers — Submitter Print Name

Signature

CUSTODY

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Wallace Scowers	12/29/16	1620		12/29/16	1620
	12/29/16	1815	Frances	12/29/16	1815

ADVANCED TECHNOLOGY LABORATORIES
3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☐ ATL	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☐
☐ GSO	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other: _____	4. SEALED	☐	☐			

CUSTOMER

Company:	Address:	Tel:
	City: State: Zip:	Fax:

SEND REPORT TO:	SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Email:	Attn: Email:
Company:	Company:
Address: See Page #1	Address:
City: State: Zip:	City: State: Zip:

PROJECT SAMPLES

Project Name: | Quote No: | Special Instructions/Comments:
Project No.: | PO #:
Sampler:

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	cat/reactivesic	lab/reactivecd	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE/ FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	Container #:	Container Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7 = Canister	Container Material: 1=Glass; 2=Plastic; 3=Metal	Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4 = 4C; 5=Zn ((Ac)2; 6=NaOH; 7=NA2S2O3	QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV	REMARKS
1	1604921 - 71	EB15-1-2.5	12-29-16	1449											X					5	1	5	1	-	HOLD
2	- 72	EB21-1-0.5		1507					X	X			X	X											
3	- 73	EB24-1-1.5		1508					X				X	X											
4	- 74	EB24-1-2.5		1509																					HOLD
5	- 75	EB24-2-0.5		1428					X				X	X											
6	- 76	EB24-2-1.5		1429					X				X	X											
7	- 77	EB24-2-2.5		1430																					HOLD
8	- 78	EB24-3-0.5		1431					X				X	X											
9	- 79	EB24-3-1.5		1432					X				X	X											
10	- 80	EB24-3-2.5	↓	1433											↓					↓	↓	↓	↓	↓	HOLD

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for fi ve (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-fi ve (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Scowers — Submitter Print Name

Signature

CUSTODY

Relinquished by: (Signature and Printed Name) Wallace Scowers	Date: 12/29/16	Time: 1820	Received by: (Signature and Printed Name)	Date: 12/29/16	Time: 1820
Relinquished by: (Signature and Printed Name)	Date: 12/29/16	Time: 1815	Received by: (Signature and Printed Name)	Date: 12/29/16	Time: 1815
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 9 of 9

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130/15

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☐ ATL	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☐
☐ GSO	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other: _____	4. SEALED	☐	☐			

CUSTOMER

Company: | Address: | Tel:
City: | State: | Zip: | Fax:

SEND REPORT TO:
Attn: | Email:
Company: See Page #1
Address:
City: | State: | Zip:

SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: | Email:
Company:
Address:
City: | State: | Zip:

PROJECT SAMPLES

Project Name: | Quote No: | Special Instructions/Comments:
Project No.: | PO #:
Sampler:

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	Cam/Tecc Arsenic	Cam/Tecc Lead	8015 Cro	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE / FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	Container: #	Container: Type	Container: Material	Preservative	REMARKS
1	1604921 -81	EB25-3-0.5	12-29-16	1435					X				X	X		X					5	1	5	1	-	
2	-82	EB25-3-1.5		1436					X	X			X	X												
3	-83	EB25-3-2.5		1437																						HOLD
4	-84	EB23-3-0.5		1443					X				X	X												
5	-85	EB23-3-1.5		1445					X				X	X												
6	-86	EB23-3-2.5		1446																						HOLD
7	-87	DRUM1	12-29-16	1520		X	X		X	X	X				X	X					5	1	5	1	-	
8	-88	EQB-12-29-16	"	1545		X	X		X	X	X				X			X			5	6	3/3	1/2		
9																										
10																										

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4 = 4C; 5=Zn (Ac)2; 6=NaOH; 7=NA2S2O3

Container: Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7 = Canister. Material: 1=Glass; 2=Plastic; 3=Metal

TERMS & CONDITIONS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for fi ve (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-fi ve (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Seamers — Submitter Print Name | Signature

CUSTODY

Relinquished by: (Signature and Printed Name) Wallace Seamers	Date: 12/29/16	Time: 1620	Received by: (Signature and Printed Name)	Date: 12/29/16	Time: 1620
Relinquished by: (Signature and Printed Name)	Date: 12/29/16	Time: 1815	Received by: (Signature and Printed Name)	Date: 12/29/16	Time: 1815
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:

Carmen Aguila

From: Julie Harriman [jharriman@leightongroup.com]
Sent: Friday, December 30, 2016 4:17 PM
To: Carmen Aguila
Cc: Becky Steever; Wallace Sconiers
Subject: RE: Burroughs MS-LAUSD, 603378.006

Importance: High

Carmen,

The following samples submitted on 12/28/2016 should be placed on hold:

- EB11-1-2.5
- EB11-2-2.5
- EB12-1-2.5
- EB12-2-2.5
- EB9-1-2.5
- EB9-5-2.5
- EB13-1-2.5
- EB13-2-2.5
- EB15-1-2.5
- EB15-2-2.5

The following samples submitted on 12/28/2016 should be analyzed for Title 22 metals, PAHs by 8270SIM and PCBs and not for what is shown on the COC:

- EB9-7-0.5
- EB9-7-1.5
- EB9-7-2.5

The following sample submitted on 12/28/2016 should be analyzed for lead in addition to what is shown on the COC:

- FB5-1-2.5
- FB5-2-2.5

The following sample submitted on 12/28/2016 should be analyzed for arsenic and OCPs in addition to what is shown on the COC:

- EB15-2-0.5

The following samples **submitted on 12/29/2016** were incorrectly identified as EB15 samples in the field and we would like the samples corrected to be logged and reported as EB5 samples as follows:

- EB15-1-0.5 should be EB5-1-0.5
- EB15-1-1.5 should be EB5-1-1.5
- EB15-1-2.5 should be EB5-1-2.5
- EB15-2-0.5 should be EB5-2-0.5
- EB15-2-1.5 should be EB5-2-1.5
- EB15-2-2.5 should be EB5-2-2.5
- EB15-3-0.5 should be EB5-3-0.5
- EB15-3-1.5 should be EB5-3-1.5
- EB15-3-2.5 should be EB5-3-2.5
- EB15-4-0.5 should be EB5-4-0.5
- EB15-4-1.5 should be EB5-4-1.5
- EB15-4-2.5 should be EB5-4-2.5

- EB15-5-0.5 should be EB5-5-0.5
- EB15-5-1.5 should be EB5-5-1.5
- EB15-5-2.5 should be EB5-5-2.5
- EB15-6-0.5 should be EB5-6-0.5
- EB15-6-1.5 should be EB5-6-1.5
- EB15-6-2.5 should be EB5-6-2.5

Thank you,

Julie C. Harriman, P.E.
Associate Engineer
Leighton
17781 Cowan, Irvine, CA 92614
(949) 681-4264 – Direct
(949) 572-8129 – Cell

Geotechnical | Geoenvironmental | Materials Testing

SOLUTIONS YOU CAN BUILD ON

Please consider the environment before printing this e-mail.

Carmen Aguila

From: Julie Harriman [jharriman@leightongroup.com]
Sent: Friday, December 30, 2016 4:37 PM
To: Carmen Aguila
Cc: Wallace Sconiers; Becky Steever
Subject: RE: Burroughs MS-LAUSD, 603378.006

Importance: High

Carmen,

The following sample submitted on 12/28/2016 should be analyzed for TPHcc, Title 22 metals, OCPs, PAHs by 8270SIM and PCBs and not for what is shown on the COC:

- EQB122816

The following sample submitted on 12/29/2016 should be analyzed for lead, arsenic, OCPs, and PCBs and not for what is shown on the COC:

- EQB-12-29-16

The following sample submitted on 12/29/2016 does not need to be analyzed for PCBs, but is otherwise correct on the COC:

- DRUM1

Thank you,

Julie C. Harriman, P.E.
Associate Engineer
Leighton
17781 Cowan, Irvine, CA 92614
(949) 681-4264 – Direct
(949) 572-8129 – Cell

Geotechnical | Geoenvironmental | Materials Testing

SOLUTIONS YOU CAN BUILD ON

Please consider the environment before printing this e-mail.

Rachelle Arada

From: Julie Harriman [jharriman@leightongroup.com]
Sent: Tuesday, January 03, 2017 11:42 AM
To: Rachelle Arada
Cc: Carmen Aguila; customer.relations@atlglobal.com; Becky Steever
Subject: RE: Burroughs MS-LAUSD, 603378.006

Importance: High

Rachelle,

I need to rush the below "DRUM1" sample submitted on 12/29/2016 and get the results tomorrow. Is that possible? We do not need PCBs for this sample, but it is otherwise correct on the COC.

Thank you,
Julie

Julie C. Harriman, P.E.
Associate Engineer
Leighton
17781 Cowan, Irvine, CA 92614
(949) 681-4264 – Direct
(949) 572-8129 – Cell

Geotechnical | Geoenvironmental | Materials Testing

SOLUTIONS YOU CAN BUILD ON

Please consider the environment before printing this e-mail.

From: Rachelle Arada [mailto:Rachelle@atlglobal.com]
Sent: Tuesday, January 03, 2017 9:12 AM
To: Julie Harriman
Cc: Carmen Aguila; customer.relations@atlglobal.com
Subject: RE: Burroughs MS-LAUSD, 603378.006

Hi Julie,

Just following up if you have the carbon chain you need for this project. Thanks.

Rachelle

From: Julie Harriman [mailto:jharriman@leightongroup.com]
Sent: Wednesday, December 28, 2016 5:27 PM
To: Rachelle Arada
Subject: RE: Burroughs MS-LAUSD, 603378.006

Actually, let me check with the client.

Thanks,

January 05, 2017

Julie Harriman
Leighton Consulting, Inc.
17781 Cowan Street
Irvine, CA 92614
Tel: (949) 250-1421
Fax:(949) 757-7230

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

RE: ATL Work Order Number : 1604921
Client Reference : Burroughs MS, 603378.006

Enclosed are the results for sample(s) received on December, 29 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	01/05/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
DRUM1	1604921-87	Soil	12/29/16 15:20	12/29/16 16:20

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/05/2017

Client Sample ID DRUM1

Lab ID: 1604921-87

Title 22 Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.32	1	B7A0069	01/04/2017	01/04/17 11:21	
Arsenic	**2.7**	1.0	0.70	1	B7A0069	01/04/2017	01/04/17 11:21	
Barium	**90**	1.0	0.10	1	B7A0069	01/04/2017	01/04/17 11:21	
Beryllium	**0.25**	1.0	0.04	1	B7A0069	01/04/2017	01/04/17 11:21	J
Cadmium	ND	1.0	0.09	1	B7A0069	01/04/2017	01/04/17 11:21	
Chromium	**12**	1.0	0.12	1	B7A0069	01/04/2017	01/04/17 11:21	
Cobalt	**6.2**	1.0	0.10	1	B7A0069	01/04/2017	01/04/17 11:21	
Copper	**15**	2.0	0.11	1	B7A0069	01/04/2017	01/04/17 11:21	
Lead	**21**	1.0	0.11	1	B7A0069	01/04/2017	01/04/17 11:21	
Molybdenum	ND	1.0	0.13	1	B7A0069	01/04/2017	01/04/17 11:21	
Nickel	**10**	1.0	0.10	1	B7A0069	01/04/2017	01/04/17 11:21	
Selenium	ND	1.0	0.88	1	B7A0069	01/04/2017	01/04/17 11:21	
Silver	ND	1.0	0.04	1	B7A0069	01/04/2017	01/04/17 11:21	
Thallium	ND	1.0	0.42	1	B7A0069	01/04/2017	01/04/17 11:21	
Vanadium	**21**	1.0	0.19	1	B7A0069	01/04/2017	01/04/17 11:21	
Zinc	**58**	1.0	0.18	1	B7A0069	01/04/2017	01/04/17 11:21	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	**0.03**	0.10	0.02	1	B7A0064	01/04/2017	01/04/17 12:51	J

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: VW

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	0.20	1	B7A0022	01/03/2017	01/03/17 17:59	
Surrogate: 4-Bromofluorobenzene	*88.5 %*		*36 - 125*		B7A0022	01/03/2017	*01/03/17 17:59*	

Diesel Range Organics by EPA 8015B

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	**94**	10	10	10	B7A0043	01/03/2017	01/04/17 11:00	
ORO	**370**	10	10	10	B7A0043	01/03/2017	01/04/17 11:00	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/05/2017

Client Sample ID DRUM1

Lab ID: 1604921-87

Diesel Range Organics by EPA 8015B

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: p-Terphenyl	*0%*	*18 - 130*		B7A0043	01/03/2017	*01/04/17 11:00*	S4

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0038	01/03/2017	01/04/17 11:55	
4,4´-DDE	**5.0**	2.0	0.20	1	B7A0038	01/03/2017	01/04/17 11:55	
4,4´-DDT	ND	2.0	0.13	1	B7A0038	01/03/2017	01/04/17 11:55	
Aldrin	ND	1.0	0.27	1	B7A0038	01/03/2017	01/04/17 11:55	
alpha-BHC	ND	1.0	0.20	1	B7A0038	01/03/2017	01/04/17 11:55	
alpha-Chlordane	**0.60**	1.0	0.21	1	B7A0038	01/03/2017	01/04/17 11:55	J
beta-BHC	ND	1.0	0.23	1	B7A0038	01/03/2017	01/04/17 11:55	
Chlordane	**5.0**	8.5	0.90	1	B7A0038	01/03/2017	01/04/17 11:55	J
delta-BHC	ND	1.0	0.21	1	B7A0038	01/03/2017	01/04/17 11:55	
Dieldrin	ND	2.0	0.25	1	B7A0038	01/03/2017	01/04/17 11:55	
Endosulfan I	ND	1.0	0.21	1	B7A0038	01/03/2017	01/04/17 11:55	
Endosulfan II	ND	2.0	0.22	1	B7A0038	01/03/2017	01/04/17 11:55	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0038	01/03/2017	01/04/17 11:55	
Endrin	ND	2.0	0.23	1	B7A0038	01/03/2017	01/04/17 11:55	
Endrin aldehyde	ND	2.0	0.28	1	B7A0038	01/03/2017	01/04/17 11:55	
Endrin ketone	ND	2.0	0.20	1	B7A0038	01/03/2017	01/04/17 11:55	
gamma-BHC	ND	1.0	0.20	1	B7A0038	01/03/2017	01/04/17 11:55	
gamma-Chlordane	**0.56**	1.0	0.23	1	B7A0038	01/03/2017	01/04/17 11:55	J
Heptachlor	ND	1.0	0.19	1	B7A0038	01/03/2017	01/04/17 11:55	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0038	01/03/2017	01/04/17 11:55	
Methoxychlor	ND	5.0	0.18	1	B7A0038	01/03/2017	01/04/17 11:55	
Toxaphene	ND	50	8.2	1	B7A0038	01/03/2017	01/04/17 11:55	
Surrogate: Decachlorobiphenyl	*39.9 %*	*27 - 123*		B7A0038	01/03/2017	*01/04/17 11:55*	
Surrogate: Tetrachloro-m-xylene	*26.4 %*	*26 - 108*		B7A0038	01/03/2017	*01/04/17 11:55*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/05/2017

QUALITY CONTROL SECTION

Title 22 Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0069 - EPA 3050B_S									
Blank (B7A0069-BLK1)					Prepared: 1/4/2017 Analyzed: 1/4/2017				
Antimony	ND	2.0			NR				
Arsenic	ND	1.0			NR				
Barium	ND	1.0			NR				
Beryllium	ND	1.0			NR				
Cadmium	ND	1.0			NR				
Chromium	ND	1.0			NR				
Cobalt	ND	1.0			NR				
Copper	ND	2.0			NR				
Lead	ND	1.0			NR				
Molybdenum	ND	1.0			NR				
Nickel	ND	1.0			NR				
Selenium	ND	1.0			NR				
Silver	ND	1.0			NR				
Thallium	ND	1.0			NR				
Vanadium	ND	1.0			NR				
Zinc	ND	1.0			NR				
LCS (B7A0069-BS1)					Prepared: 1/4/2017 Analyzed: 1/4/2017				
Antimony	48.0351	2.0	50.0000		96.1	80 - 120			
Arsenic	47.6822	1.0	50.0000		95.4	80 - 120			
Barium	49.7360	1.0	50.0000		99.5	80 - 120			
Beryllium	47.8372	1.0	50.0000		95.7	80 - 120			
Cadmium	47.5910	1.0	50.0000		95.2	80 - 120			
Chromium	50.4138	1.0	50.0000		101	80 - 120			
Cobalt	50.4520	1.0	50.0000		101	80 - 120			
Copper	50.0855	2.0	50.0000		100	80 - 120			
Lead	48.1772	1.0	50.0000		96.4	80 - 120			
Molybdenum	49.7387	1.0	50.0000		99.5	80 - 120			
Nickel	48.4395	1.0	50.0000		96.9	80 - 120			
Selenium	46.2836	1.0	50.0000		92.6	80 - 120			
Silver	48.4172	1.0	50.0000		96.8	80 - 120			
Thallium	47.9807	1.0	50.0000		96.0	80 - 120			
Vanadium	51.9218	1.0	50.0000		104	80 - 120			
Zinc	47.4841	1.0	50.0000		95.0	80 - 120			
Matrix Spike (B7A0069-MS1)		**Source: 1604921-87**			Prepared: 1/4/2017 Analyzed: 1/4/2017				
Antimony	79.4180	2.0	125.000	ND	63.5	34 - 103			
Arsenic	98.0034	1.0	125.000	2.67160	76.3	59 - 103			
Barium	179.963	1.0	125.000	90.4090	71.6	30 - 134			
Beryllium	92.2591	1.0	125.000	0.254842	73.6	62 - 105			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/05/2017

Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0069 - EPA 3050B_S (continued)									
Matrix Spike (B7A0069-MS1) - Continued		**Source: 1604921-87**		Prepared: 1/4/2017 Analyzed: 1/4/2017					
Cadmium	85.6254	1.0	125.000	ND	68.5	53 - 102			
Chromium	106.317	1.0	125.000	12.2786	75.2	51 - 111			
Cobalt	98.3584	1.0	125.000	6.19966	73.7	55 - 105			
Copper	116.318	2.0	125.000	14.6222	81.4	53 - 126			
Lead	107.672	1.0	125.000	20.7595	69.5	34 - 129			
Molybdenum	89.0398	1.0	125.000	ND	71.2	57 - 105			
Nickel	97.5936	1.0	125.000	10.0751	70.0	49 - 109			
Selenium	91.1659	1.0	125.000	ND	72.9	57 - 99			
Silver	96.0096	1.0	125.000	ND	76.8	64 - 105			
Thallium	87.7044	1.0	125.000	ND	70.2	46 - 105			
Vanadium	118.714	1.0	125.000	20.6171	78.5	60 - 109			
Zinc	147.841	1.0	250.000	57.5544	36.1	29 - 122			
Matrix Spike Dup (B7A0069-MSD1)		**Source: 1604921-87**		Prepared: 1/4/2017 Analyzed: 1/4/2017					
Antimony	78.6876	2.0	125.000	ND	63.0	34 - 103	0.924	20	
Arsenic	93.6996	1.0	125.000	2.67160	72.8	59 - 103	4.49	20	
Barium	222.307	1.0	125.000	90.4090	106	30 - 134	21.1	20	R
Beryllium	90.6712	1.0	125.000	0.254842	72.3	62 - 105	1.74	20	
Cadmium	82.3629	1.0	125.000	ND	65.9	53 - 102	3.88	20	
Chromium	103.051	1.0	125.000	12.2786	72.6	51 - 111	3.12	20	
Cobalt	91.2428	1.0	125.000	6.19966	68.0	55 - 105	7.51	20	
Copper	110.406	2.0	125.000	14.6222	76.6	53 - 126	5.21	20	
Lead	115.176	1.0	125.000	20.7595	75.5	34 - 129	6.73	20	
Molybdenum	82.7664	1.0	125.000	ND	66.2	57 - 105	7.30	20	
Nickel	94.7125	1.0	125.000	10.0751	67.7	49 - 109	3.00	20	
Selenium	88.5007	1.0	125.000	ND	70.8	57 - 99	2.97	20	
Silver	89.9450	1.0	125.000	ND	72.0	64 - 105	6.52	20	
Thallium	86.2145	1.0	125.000	ND	69.0	46 - 105	1.71	20	
Vanadium	114.692	1.0	125.000	20.6171	75.3	60 - 109	3.45	20	
Zinc	156.058	1.0	250.000	57.5544	39.4	29 - 122	5.41	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/05/2017

Mercury by AA (Cold Vapor) EPA 7471A - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0064 - EPA 7471_S									
Blank (B7A0064-BLK1)				Prepared: 1/4/2017 Analyzed: 1/4/2017					
Mercury	ND	0.10			NR				
LCS (B7A0064-BS1)				Prepared: 1/4/2017 Analyzed: 1/4/2017					
Mercury	0.762695	0.10	0.833333		91.5	80 - 120			
Matrix Spike (B7A0064-MS1)		**Source: 1604921-87**		Prepared: 1/4/2017 Analyzed: 1/4/2017					
Mercury	0.848440	0.10	0.833333	0.027602	98.5	70 - 130			
Matrix Spike Dup (B7A0064-MSD1)		**Source: 1604921-87**		Prepared: 1/4/2017 Analyzed: 1/4/2017					
Mercury	0.872380	0.10	0.833333	0.027602	101	70 - 130	2.78	20	
Post Spike (B7A0064-PS1)		**Source: 1604921-87**		Prepared: 1/4/2017 Analyzed: 1/4/2017					
Mercury	0.006269		5.00000E-3	0.000331	119	85 - 115			M1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/05/2017

Gasoline Range Organics by EPA 8015B (Modified) - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0022 - GCVOA_S									
Blank (B7A0022-BLK1)				Prepared: 1/3/2017 Analyzed: 1/3/2017					
Gasoline Range Organics	ND	1.0			NR				
Surrogate: 4-Bromofluorobenzene	*0.1864*		*0.200000*		*93.2*	*36 - 125*			
LCS (B7A0022-BS1)				Prepared: 1/3/2017 Analyzed: 1/3/2017					
Gasoline Range Organics	4.75300	1.0	5.00000		95.1	70 - 130			
Surrogate: 4-Bromofluorobenzene	*0.1896*		*0.200000*		*94.8*	*36 - 125*			
Duplicate (B7A0022-DUP1)		**Source: 1604921-87**		Prepared: 1/3/2017 Analyzed: 1/3/2017					
Gasoline Range Organics	ND	1.0		ND	NR			20	
Surrogate: 4-Bromofluorobenzene	*0.1767*		*0.200000*		*88.3*	*36 - 125*			
Matrix Spike (B7A0022-MS1)		**Source: 1604921-87**		Prepared: 1/3/2017 Analyzed: 1/3/2017					
Gasoline Range Organics	3.48800	1.0	5.00000	ND	69.8	32 - 161			
Surrogate: 4-Bromofluorobenzene	*0.1728*		*0.200000*		*86.4*	*36 - 125*			
Matrix Spike Dup (B7A0022-MSD1)		**Source: 1604921-87**		Prepared: 1/3/2017 Analyzed: 1/3/2017					
Gasoline Range Organics	3.64800	1.0	5.00000	ND	73.0	32 - 161	4.48	20	
Surrogate: 4-Bromofluorobenzene	*0.1861*		*0.200000*		*93.0*	*36 - 125*			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/05/2017

Diesel Range Organics by EPA 8015B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0043 - GCSEMI_DRO_LL_S									
Blank (B7A0043-BLK1)					Prepared: 1/3/2017 Analyzed: 1/4/2017				
DRO	ND	1.0			NR				
ORO	ND	1.0			NR				
Surrogate: p-Terphenyl	*2.282*		*2.66667*		*85.6*	*18 - 130*			
LCS (B7A0043-BS1)					Prepared: 1/3/2017 Analyzed: 1/4/2017				
DRO	27.6447	1.0	33.3333		82.9	34 - 120			
Surrogate: p-Terphenyl	*2.348*		*2.66667*		*88.0*	*18 - 130*			
Duplicate (B7A0043-DUP1)		**Source: 1604921-87**			Prepared: 1/3/2017 Analyzed: 1/4/2017				
DRO	110.843	10		94.2467	NR		16.2	20	
Surrogate: p-Terphenyl	*0.000*		*2.66667*		*NR*	*18 - 130*			S4
Matrix Spike (B7A0043-MS1)		**Source: 1604921-87**			Prepared: 1/3/2017 Analyzed: 1/4/2017				
DRO	148.800	10	33.3333	94.2467	164	12 - 132			M2
Surrogate: p-Terphenyl	*0.000*		*2.66667*		*NR*	*18 - 130*			S4
Matrix Spike Dup (B7A0043-MSD1)		**Source: 1604921-87**			Prepared: 1/3/2017 Analyzed: 1/4/2017				
DRO	87.6200	10	33.3333	94.2467	-19.9	12 - 132	51.8	20	M2, R2
Surrogate: p-Terphenyl	*0.000*		*2.66667*		*NR*	*18 - 130*			S4

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/05/2017

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0038 - GCSEMI_PCB/PEST_S									
Blank (B7A0038-BLK1)				Prepared: 1/3/2017 Analyzed: 1/4/2017					
4,4´-DDD	ND	2.0			NR				
4,4´-DDD [2C]	ND	2.0			NR				
4,4´-DDE	ND	2.0			NR				
4,4´-DDE [2C]	ND	2.0			NR				
4,4´-DDT	ND	2.0			NR				
4,4´-DDT [2C]	ND	2.0			NR				
Aldrin	ND	1.0			NR				
Aldrin [2C]	ND	1.0			NR				
alpha-BHC	ND	1.0			NR				
alpha-BHC [2C]	ND	1.0			NR				
alpha-Chlordane	ND	1.0			NR				
alpha-Chlordane [2C]	ND	1.0			NR				
beta-BHC	ND	1.0			NR				
beta-BHC [2C]	ND	1.0			NR				
Chlordane	ND	8.5			NR				
Chlordane [2C]	ND	8.5			NR				
delta-BHC	ND	1.0			NR				
delta-BHC [2C]	ND	1.0			NR				
Dieldrin	ND	2.0			NR				
Dieldrin [2C]	ND	2.0			NR				
Endosulfan I	ND	1.0			NR				
Endosulfan I [2C]	ND	1.0			NR				
Endosulfan II	ND	2.0			NR				
Endosulfan II [2C]	ND	2.0			NR				
Endosulfan sulfate	ND	2.0			NR				
Endosulfan Sulfate [2C]	ND	2.0			NR				
Endrin	ND	2.0			NR				
Endrin [2C]	ND	2.0			NR				
Endrin aldehyde	ND	2.0			NR				
Endrin aldehyde [2C]	ND	2.0			NR				
Endrin ketone	ND	2.0			NR				
Endrin ketone [2C]	ND	2.0			NR				
gamma-BHC	ND	1.0			NR				
gamma-BHC [2C]	ND	1.0			NR				
gamma-Chlordane	ND	1.0			NR				
gamma-Chlordane [2C]	ND	1.0			NR				
Heptachlor	ND	1.0			NR				
Heptachlor [2C]	ND	1.0			NR				
Heptachlor epoxide	ND	1.0			NR				
Heptachlor epoxide [2C]	ND	1.0			NR				
Methoxychlor	ND	5.0			NR				

Leighton Consulting, Inc.
17781 Cowan Street
Irvine , CA 92614

Project Number : Burroughs MS, 603378.006
Report To : Julie Harriman
Reported : 01/05/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0038 - GCSEMI_PCB/PEST_S (continued)									
Blank (B7A0038-BLK1) - Continued				Prepared: 1/3/2017 Analyzed: 1/4/2017					
Methoxychlor [2C]	ND	5.0			NR				
Toxaphene	ND	50			NR				
Toxaphene [2C]	ND	50			NR				
Surrogate: Decachlorobiphenyl	*9.061*		*16.6667*		*54.4*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*8.048*		*16.6667*		*48.3*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*10.93*		*16.6667*		*65.6*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*9.958*		*16.6667*		*59.7*	*26 - 108*			
LCS (B7A0038-BS1)				Prepared: 1/3/2017 Analyzed: 1/4/2017					
4,4´-DDD	11.7478	2.0			NR	53 - 125			
4,4´-DDD [2C]	13.2322	2.0			NR	53 - 125			
4,4´-DDE	11.5050	2.0			NR	54 - 113			
4,4´-DDE [2C]	11.4128	2.0			NR	54 - 113			
4,4´-DDT	13.2008	2.0			NR	25 - 127			
4,4´-DDT [2C]	14.6020	2.0			NR	25 - 127			
Aldrin	11.1037	1.0			NR	59 - 107			
Aldrin [2C]	11.7578	1.0			NR	59 - 107			
alpha-BHC	11.2790	1.0			NR	59 - 104			
alpha-BHC [2C]	11.8890	1.0			NR	59 - 104			
alpha-Chlordane	11.2047	1.0			NR	54 - 110			
alpha-Chlordane [2C]	11.6850	1.0			NR	54 - 110			
beta-BHC	10.9218	1.0			NR	57 - 103			
beta-BHC [2C]	11.7082	1.0			NR	57 - 103			
delta-BHC	8.87717	1.0			NR	16 - 120			
delta-BHC [2C]	9.25617	1.0			NR	16 - 120			
Dieldrin	11.4847	2.0			NR	61 - 109			
Dieldrin [2C]	12.3578	2.0			NR	61 - 109			
Endosulfan I	10.9262	1.0			NR	60 - 106			
Endosulfan I [2C]	12.1573	1.0			NR	60 - 106			
Endosulfan II	10.9895	2.0			NR	59 - 108			
Endosulfan II [2C]	12.1000	2.0			NR	59 - 108			
Endosulfan sulfate	9.97033	2.0			NR	54 - 110			
Endosulfan Sulfate [2C]	11.2717	2.0			NR	54 - 110			
Endrin	12.0040	2.0			NR	63 - 112			
Endrin [2C]	13.1178	2.0			NR	63 - 112			
Endrin aldehyde	11.5845	2.0			NR	64 - 119			
Endrin aldehyde [2C]	11.7693	2.0			NR	64 - 119			
Endrin ketone	11.4052	2.0			NR	54 - 115			
Endrin ketone [2C]	12.3573	2.0			NR	54 - 115			
gamma-BHC	11.6237	1.0			NR	60 - 107			
gamma-BHC [2C]	12.4938	1.0			NR	60 - 107			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/05/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0038 - GCSEMI_PCB/PEST_S (continued)									
LCS (B7A0038-BS1) - Continued				Prepared: 1/3/2017 Analyzed: 1/4/2017					
gamma-Chlordane	11.1087	1.0			NR	57 - 106			
gamma-Chlordane [2C]	11.5975	1.0			NR	57 - 106			
Heptachlor	11.8833	1.0			NR	54 - 114			
Heptachlor [2C]	14.4505	1.0			NR	54 - 114			
Heptachlor epoxide	10.9952	1.0			NR	61 - 106			
Heptachlor epoxide [2C]	12.0765	1.0			NR	61 - 106			
Methoxychlor	13.6702	5.0			NR	18 - 138			
Methoxychlor [2C]	16.0010	5.0			NR	18 - 138			
Surrogate: Decachlorobiphenyl	*9.497*		*16.6667*		*57.0*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*9.021*		*16.6667*		*54.1*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*11.68*		*16.6667*		*70.1*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*10.47*		*16.6667*		*62.8*	*26 - 108*			
Duplicate (B7A0038-DUP1)			**Source: 1604921-87**	Prepared: 1/3/2017 Analyzed: 1/4/2017					
4,4´-DDD	ND	2.0		ND	NR			20	
4,4´-DDD [2C]	ND	2.0		ND	NR			20	
4,4´-DDE	5.53517	2.0		5.03400	NR		9.48	20	
4,4´-DDE [2C]	6.72267	2.0		5.88333	NR		13.3	20	
4,4´-DDT	ND	2.0		ND	NR			20	
4,4´-DDT [2C]	ND	2.0		ND	NR			20	
Aldrin	ND	1.0		ND	NR			20	
Aldrin [2C]	ND	1.0		ND	NR			20	
alpha-BHC	ND	1.0		ND	NR			20	
alpha-BHC [2C]	ND	1.0		ND	NR			20	
alpha-Chlordane	0.799833	1.0		0.598667	NR		28.8	20	R3, J
alpha-Chlordane [2C]	0.808500	1.0		0.583833	NR		32.3	20	R3, J
beta-BHC	ND	1.0		ND	NR			20	
beta-BHC [2C]	ND	1.0		ND	NR			20	
delta-BHC	ND	1.0		ND	NR			20	
delta-BHC [2C]	ND	1.0		ND	NR			20	
Dieldrin	ND	2.0		ND	NR			20	
Dieldrin [2C]	ND	2.0		ND	NR			20	
Endosulfan I	ND	1.0		ND	NR			20	
Endosulfan I [2C]	ND	1.0		ND	NR			20	
Endosulfan II	ND	2.0		ND	NR			20	
Endosulfan II [2C]	ND	2.0		ND	NR			20	
Endosulfan sulfate	ND	2.0		ND	NR			20	
Endosulfan Sulfate [2C]	ND	2.0		ND	NR			20	
Endrin	ND	2.0		ND	NR			20	
Endrin [2C]	ND	2.0		ND	NR			20	
Endrin aldehyde	ND	2.0		ND	NR			20	

Leighton Consulting, Inc.
17781 Cowan Street
Irvine , CA 92614

Project Number : Burroughs MS, 603378.006
Report To : Julie Harriman
Reported : 01/05/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0038 - GCSEMI_PCB/PEST_S (continued)									
Duplicate (B7A0038-DUP1) - Continued		**Source: 1604921-87**		Prepared: 1/3/2017 Analyzed: 1/4/2017					
Endrin aldehyde [2C]	ND	2.0		ND	NR			20	
Endrin ketone	ND	2.0		ND	NR			20	
Endrin ketone [2C]	ND	2.0		ND	NR			20	
gamma-BHC	ND	1.0		ND	NR			20	
gamma-BHC [2C]	ND	1.0		ND	NR			20	
gamma-Chlordane	0.747333	1.0		0.558833	NR		28.9	20	R3, J
gamma-Chlordane [2C]	ND	1.0		ND	NR			20	
Heptachlor	ND	1.0		ND	NR			20	
Heptachlor [2C]	ND	1.0		ND	NR			20	
Heptachlor epoxide	ND	1.0		ND	NR			20	
Heptachlor epoxide [2C]	ND	1.0		ND	NR			20	
Methoxychlor	ND	5.0		ND	NR			20	
Methoxychlor [2C]	ND	5.0		ND	NR			20	
Surrogate: Decachlorobiphenyl	*6.932*		*16.6667*		*41.6*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*9.261*		*16.6667*		*55.6*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*4.816*		*16.6667*		*28.9*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*4.939*		*16.6667*		*29.6*	*26 - 108*			
Matrix Spike (B7A0038-MS1)		**Source: 1604921-87**		Prepared: 1/3/2017 Analyzed: 1/4/2017					
4,4´-DDD	5.08717	2.0		ND	NR	25 - 141			
4,4´-DDD [2C]	5.81167	2.0		ND	NR	25 - 141			
4,4´-DDE	9.87467	2.0		5.03400	NR	22 - 141			
4,4´-DDE [2C]	10.5073	2.0		5.88333	NR	22 - 141			
4,4´-DDT	7.26500	2.0		ND	NR	15 - 136			
4,4´-DDT [2C]	9.15267	2.0		ND	NR	15 - 136			
Aldrin	6.24000	1.0		ND	NR	33 - 118			
Aldrin [2C]	6.71150	1.0		ND	NR	33 - 118			
alpha-BHC	6.52750	1.0		ND	NR	30 - 116			
alpha-BHC [2C]	5.68733	1.0		ND	NR	30 - 116			
alpha-Chlordane	6.06150	1.0		0.598667	NR	30 - 123			
alpha-Chlordane [2C]	6.14217	1.0		0.583833	NR	30 - 123			
beta-BHC	2.62317	1.0		ND	NR	24 - 121			
beta-BHC [2C]	2.93050	1.0		ND	NR	24 - 121			
delta-BHC	2.31117	1.0		ND	NR	7 - 120			
delta-BHC [2C]	1.90950	1.0		ND	NR	7 - 120			
Dieldrin	3.80700	2.0		ND	NR	25 - 136			
Dieldrin [2C]	4.10333	2.0		ND	NR	25 - 136			
Endosulfan I	4.13300	1.0		ND	NR	18 - 134			
Endosulfan I [2C]	4.34383	1.0		ND	NR	18 - 134			
Endosulfan II	1.90050	2.0		ND	NR	28 - 128			J
Endosulfan II [2C]	2.40367	2.0		ND	NR	28 - 128			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/05/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0038 - GCSEMI_PCB/PEST_S (continued)									
Matrix Spike (B7A0038-MS1) - Continued		**Source: 1604921-87**		Prepared: 1/3/2017 Analyzed: 1/4/2017					
Endosulfan sulfate	1.44550	2.0		ND	NR	5 - 145			J
Endosulfan Sulfate [2C]	1.94733	2.0		ND	NR	5 - 145			J
Endrin	4.06667	2.0		ND	NR	26 - 142			
Endrin [2C]	4.59200	2.0		ND	NR	26 - 142			
Endrin aldehyde	1.71950	2.0		ND	NR	8 - 146			J
Endrin aldehyde [2C]	1.94217	2.0		ND	NR	8 - 146			J
Endrin ketone	2.00800	2.0		ND	NR	16 - 139			
Endrin ketone [2C]	2.29233	2.0		ND	NR	16 - 139			
gamma-BHC	4.99133	1.0		ND	NR	30 - 122			
gamma-BHC [2C]	5.43000	1.0		ND	NR	30 - 122			
gamma-Chlordane	5.30500	1.0		0.558833	NR	18 - 132			
gamma-Chlordane [2C]	49.9903	1.0		ND	NR	18 - 132			
Heptachlor	8.56550	1.0		ND	NR	34 - 122			
Heptachlor [2C]	8.18367	1.0		ND	NR	34 - 122			
Heptachlor epoxide	4.33250	1.0		ND	NR	21 - 135			
Heptachlor epoxide [2C]	4.76717	1.0		ND	NR	21 - 135			
Methoxychlor	3.75367	5.0		ND	NR	8 - 162			J
Methoxychlor [2C]	6.22667	5.0		ND	NR	8 - 162			
Surrogate: Decachlorobiphenyl	*7.084*		*16.6667*		*42.5*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*8.252*		*16.6667*		*49.5*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*6.681*		*16.6667*		*40.1*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*6.313*		*16.6667*		*37.9*	*26 - 108*			
Matrix Spike Dup (B7A0038-MSD1)		**Source: 1604921-87**		Prepared: 1/3/2017 Analyzed: 1/4/2017					
4,4´-DDD	6.02483	2.0		ND	NR	25 - 141	16.9	20	
4,4´-DDD [2C]	7.37350	2.0		ND	NR	25 - 141	23.7	20	R3
4,4´-DDE	9.85150	2.0		5.03400	NR	22 - 141	0.235	20	
4,4´-DDE [2C]	11.0208	2.0		5.88333	NR	22 - 141	4.77	20	
4,4´-DDT	7.41183	2.0		ND	NR	15 - 136	2.00	20	
4,4´-DDT [2C]	9.48317	2.0		ND	NR	15 - 136	3.55	20	
Aldrin	6.11133	1.0		ND	NR	33 - 118	2.08	20	
Aldrin [2C]	6.60183	1.0		ND	NR	33 - 118	1.65	20	
alpha-BHC	7.49650	1.0		ND	NR	30 - 116	13.8	20	
alpha-BHC [2C]	6.51217	1.0		ND	NR	30 - 116	13.5	20	
alpha-Chlordane	6.49917	1.0		0.598667	NR	30 - 123	6.97	20	
alpha-Chlordane [2C]	6.86150	1.0		0.583833	NR	30 - 123	11.1	20	
beta-BHC	3.39117	1.0		ND	NR	24 - 121	25.5	20	R3
beta-BHC [2C]	3.84000	1.0		ND	NR	24 - 121	26.9	20	R3
delta-BHC	2.72750	1.0		ND	NR	7 - 120	16.5	20	
delta-BHC [2C]	2.69950	1.0		ND	NR	7 - 120	34.3	20	R3
Dieldrin	4.99000	2.0		ND	NR	25 - 136	26.9	20	R3

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/05/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0038 - GCSEMI_PCB/PEST_S (continued)									
Matrix Spike Dup (B7A0038-MSD1) - Continued		**Source: 1604921-87**		Prepared: 1/3/2017 Analyzed: 1/4/2017					
Dieldrin [2C]	5.63817	2.0		ND	NR	25 - 136	31.5	20	R3
Endosulfan I	5.13167	1.0		ND	NR	18 - 134	21.6	20	R3
Endosulfan I [2C]	5.70450	1.0		ND	NR	18 - 134	27.1	20	R3
Endosulfan II	2.88483	2.0		ND	NR	28 - 128	41.1	20	R3
Endosulfan II [2C]	3.99733	2.0		ND	NR	28 - 128	49.8	20	R3
Endosulfan sulfate	2.52617	2.0		ND	NR	5 - 145	54.4	20	R3
Endosulfan Sulfate [2C]	3.29433	2.0		ND	NR	5 - 145	51.4	20	R3
Endrin	5.31367	2.0		ND	NR	26 - 142	26.6	20	R3
Endrin [2C]	6.32900	2.0		ND	NR	26 - 142	31.8	20	R3
Endrin aldehyde	4.15450	2.0		ND	NR	8 - 146	82.9	20	R3
Endrin aldehyde [2C]	2.91783	2.0		ND	NR	8 - 146	40.2	20	R3
Endrin ketone	3.23033	2.0		ND	NR	16 - 139	46.7	20	R3
Endrin ketone [2C]	3.60433	2.0		ND	NR	16 - 139	44.5	20	R3
gamma-BHC	5.96000	1.0		ND	NR	30 - 122	17.7	20	
gamma-BHC [2C]	6.55500	1.0		ND	NR	30 - 122	18.8	20	
gamma-Chlordane	5.87783	1.0		0.558833	NR	18 - 132	10.2	20	
gamma-Chlordane [2C]	56.0647	1.0		ND	NR	18 - 132	11.5	20	
Heptachlor	8.17550	1.0		ND	NR	34 - 122	4.66	20	
Heptachlor [2C]	8.27033	1.0		ND	NR	34 - 122	1.05	20	
Heptachlor epoxide	5.32550	1.0		ND	NR	21 - 135	20.6	20	R3
Heptachlor epoxide [2C]	7.69250	1.0		ND	NR	21 - 135	47.0	20	R3
Methoxychlor	5.67917	5.0		ND	NR	8 - 162	40.8	20	R3
Methoxychlor [2C]	38.6080	5.0		ND	NR	8 - 162	144	20	R3
Surrogate: Decachlorobiphenyl	*8.407*		*16.6667*		*50.4*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*11.79*		*16.6667*		*70.7*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*6.631*		*16.6667*		*39.8*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*6.236*		*16.6667*		*37.4*	*26 - 108*			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/05/2017

Notes and Definitions

S4	Surrogate was diluted out.
R3	RPD value outside acceptance criteria. Calculation is based on raw values. The analytical batch was validated by the Laboratory Control Sample (LCS).
R2	RPD value outside acceptance criteria due to possible matrix interference.
R	RPD value outside acceptance criteria. Calculation is based on raw values.
M2	Matrix spike recovery outside of acceptance limit due to possible matrix interference. The analytical batch was validated by the laboratory control sample.
M1	Matrix spike recovery outside of acceptance limit. The analytical batch was validated by the laboratory control sample.
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:
(1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
(2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
(3) Results are wet unless otherwise specified.

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 1 of 9

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☑ ATL	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☑	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☑	☐
☐ GSO	3. CONTAINER INTACT	☑	☐	7. COOLER TEMP, deg C:		
☐ Other:	4. SEALED	☐	☐			

CUSTOMER

Company: Leighton Consulting, Inc. (LCI)
Address: 17781 Cowan
City: Irvine State: CA Zip: 92614
Tel: 949-250-1421 Fax: 949-250-1114

SEND REPORT TO:
Attn: Julie Hamman Email: jhamman@leightongroup.com
Company: LCI
Address: 17781 Cowan
City: Irvine State: CA Zip: 92614

SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Accounts Payable Email: acctpayable@leightongroup.com
Company: Leighton
Address: 17781 Cowan
City: Irvine State: CA Zip: 92614

PROJECT SAMPLES

Project Name: Burroughs MS
Project No.: 603378.006
Sampler: W. Scorcia
Quote No: —
PO #: —
Special Instructions/Comments: Standard TAT

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	6010/7000 Arsenic	6010/7000 Lead	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE / FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	Container #	Container Type	Container Material	Preservative	QA/QC / REMARKS
1	1604921-1	EB9-6-0.5	12-29-16	0755					X	X			X	X	X					5	1	5	1	—	
2	-2	EB9-6-1.5		0756					X				X	X											
3	-3	EB9-6-2.5		0757																					HOLD
4	-4	EB10-1-0.5		0800					X				X	X											
5	-5	EB10-1-1.5		0801					X				X	X											
6	-6	EB10-1-2.5		0802																					HOLD
7	-7	EB9-4-0.5		0912					X				X	X											
8	-8	EB9-4-1.5		0914					X				X	X											
9	-9	EB9-4-2.5		0920																					HOLD
10	-10	EB8-1-0.5		0939					X				X	X											

Encircle or Write Requested Analysis
Encircle Sample Matrix
Container: # / Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7 = Canister / Material: 1=Glass; 2=Plastic; 3=Metal
Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4 = 4C; 5=Zn ((Ac)2; 6=NaOH; 7=NA2S2O3

QA/QC
☐ Routine
☐ Caltrans
☐ Legal
☐ RWQCB
☐ Level IV

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for fi ve (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-fi ve (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Submitter Print Name: Wallace Scorcia
Signature

CUSTODY

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Wallace Scorcia	12/29/16	1620			
	12/29/16	1815	Pradeep	12/29/16	1815

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 2 of 9

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☐ ATL	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☐
☐ GSO	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other:	4. SEALED	☐	☐			

CUSTOMER

Company:	Address:			Tel:
	City:	State:	Zip:	Fax:

SEND REPORT TO:	SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Email:	Attn: Email:
Company:	Company:
Address: See Page #1	Address:
City: State: Zip:	City: State: Zip:

PROJECT SAMPLES

Project Name:	Quote No:	Special Instructions/Comments:
Project No.:	PO #:	
Sampler:		

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	6010/7000 Arsenic	6010/7000 Lead	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE / FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	Container #	Container Type	Container Material	Preservative	REMARKS
1	1604921 -11	EB8-1-1.5	12-29-16	0940					X	X			X	X	X					5	1	5	1	-	
2	-12	EB8-1-2.5		0941																					HOLD
3	-13	EB8-6-0.5		0942					X				X	X											
4	-14	EB8-6-1.5		0943					X				X	X											
5	-15	EB8-6-2.5		0944																					HOLD
6	-16	EB8-5-0.5		0945					X				X	X											
7	-17	EB8-5-1.5		0946					X				X	X											
8	-18	EB8-5-2.5		0947																					HOLD
9	-19	EB8-4-0.5		0953					X				X	X											
10	-20	EB8-4-1.5		0954					X				X	X											

Encircle or Write Requested Analysis

Encircle Sample Matrix

Container: # | Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7=Canister | Material: 1=Glass; 2=Plastic; 3=Metal

Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4 = 4C; 5=Zn (IAc)2 6=NaOH; 7=NA2S2O3

QA/QC
- ☐ Routine
- ☐ Caltrans
- ☐ Legal
- ☐ RWQCB
- ☐ Level IV

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for five (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Somers — Submitter Print Name

Signature

CUSTODY

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Wallace Somers	12/29/16	1620		12/29/16	1620
	12/29/16	1815	FEDEX	12/29/16	1815

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 3 of 9

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☐ ATL	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (V0A)	☐	☐	6. PRESERVED	☐	☐
☐ GSO	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other: _____	4. SEALED	☐	☐			

CUSTOMER

Company: | Address: | Tel:

City: | State: | Zip: | Fax:

SEND REPORT TO:
Attn: | Email:
Company:
Address: See Page 1
City: | State: | Zip:

SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: | Email:
Company:
Address:
City: | State: | Zip:

PROJECT SAMPLES

Project Name: | Quote No: | Special Instructions/Comments:
Project No.: | PO #:
Sampler:

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	6010/7000 Arsenic	6010/7000 Lead Free Lead	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE / FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	Container #	Container Type	Container Material	Preservative	REMARKS
1	1604921 -1	EBS-4-2.5	12-29-16	0955											X					5	1	5	1	-	HOLD
2	-22	EBS-3-0.5		1020					X	X			X	X											
3	-23	EBS-3-1.5		1021					X				X	X											
4	-24	EBS-3-2.5		1022																					HOLD
5	-25	EBS-2-0.5		1030					X				X	X											
6	-26	EBS-2-1.5		1031					X				X	X											
7	-27	EBS-2-2.5		1032																					HOLD
8	-28	EBG-1-0.5		1110					X				X	X											
9	-29	EBG-1-1.5		1115					X				X	X											
10	-30	EBG-1-2.5	↓	1117											↓					↓	↓	↓	↓	↓	HOLD

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

Container Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7= Canister
Container Material: 1=Glass; 2=Plastic; 3=Metal
Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4 = 4C; 5=Zn ((Ac)2, 6=NaOH; 7=NA2S2O3

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for fi ve (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-fi ve (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Sconiers — Submitter Print Name | Signature

CUSTODY

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Wallace Sconiers	12/29/16	1620			
	12/29/16	1815	PDavis	12/29/16	1815

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 4 of 9

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☐ ATL	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☐
☐ GSO	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other: _____	4. SEALED	☐	☐			

CUSTOMER

Company:
Address:
Tel:
City: State: Zip: Fax:

SEND REPORT TO:
Attn: Email:
Company: See Pg 1
Address:
City: State: Zip:

SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Email:
Company:
Address: ~~1~~ 1
City: State: Zip:

PROJECT SAMPLES

Project Name:
Project No.:
Sampler:
Quote No:
PO #:
Special Instructions/Comments:

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	CAM/Total Arsenic	CAM/Total Lead	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE / FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	Container #	Container Type	Container Material	Preservative	REMARKS
1	1604921 -31	EB9-3-0.5	12-29-16	1120					X				X	X	X					5	1	5	1	-	
2	-32	EB9-3-1.5		1121					X	X			X	X											
3	-33	EB9-3-2.5		1122																					HOLD
4	-34	EB9-2-0.5		1129					X				X	X											
5	-35	EB9-2-1.5		1130					X				X	X											
6	-36	EB9-2-2.5		1131																					HOLD
7	-37	EB15-3-0.5		1205					X				X	X											
8	-38	EB15-3-1.0		1206					X				X	X											
9	-39	EB15-4-0.5		1200					X				X	X											
10	-40	EB15-4-1.5		1201					X				X	X											

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

Encircle or Write Requested Analysis | Encircle Sample Matrix | Container: # / Type / Material | Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4 = 4C; 5=Zn (Ac)2 6=NaOH; 7=NAZS203

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for fi ve (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-fi ve (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Sommers — Submitter Print Name

Signature

CUSTODY

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Wallace Sommers	12/29/16	1610		12/29/16	1620
	12/29/16	1815	Fabian P	12/29/16	1815

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 5 of 9

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☐ ATL	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☐
☐ GSO	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other: _____	4. SEALED	☐	☐			

CUSTOMER

Company:	Address:			Tel:
	City:	State:	Zip:	Fax:

SEND REPORT TO:	SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Email:	Attn: Email:
Company:	Company:
Address: See Page #1	Address:
City: State: Zip:	City: State: Zip:

PROJECT SAMPLES

Project Name: | Quote No: | Special Instructions/Comments:

Project No.: | PO #:

Sampler:

Encircle or Write Requested Analysis: 8260 / 624 (Volatiles); 8015(GRO); 8015(DRO); 8270(Semi-volatiles); 8081(Organochlorine Pesticides); 8082(PCBs); 6010 / 7000(Title 22 Metals); TO-15; Total Arsenic; Total Lead

Encircle Sample Matrix: SOIL / SEDIMENT / SLUDGE; SOLIDS / WIPE / FILTER; WATER - DRINKING / GROUND; WATER - STORM / WASTE; AQUEOUS / LAYERED - OIL

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	TAT	Container: #	Container: Type (1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7=Canister)	Container: Material (1=Glass; 2=Plastic; 3=Metal)	Preservative (1=HCl; 2=HNO3; 3=H2SO4; 4=4C; 5=Zn ((Ac)2; 6=NaOH; 7=NA2S2O3	QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV	REMARKS
1	1604921 -41	EB15-4-2.5	12-29-16	1202	5	1	5	1	—		HOLD
2	-42	EB15-6-0.5		1207							
3	-43	EB15-6-1.5		1204							
4	-44	EB15-6-2.5		1205							HOLD
5	-45	EB16-2-0.5		1210							
6	-46	EB16-2-1.5		1211							
7	-47	EB16-2-2.5		1212							HOLD
8	-48	EB15-5-0.5		1319							
9	-49	EB15-5-1.5		1320							
10	-50	EB15-5-2.5		1321							HOLD

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for fi ve (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-fi ve (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Scovica — Submitter Print Name

Signature

CUSTODY

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Wallace Scovica	12/29/16	1620	FEDEX	12/29/16	1620
	12/29/16	1815		12/29/16	1815

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 6 of 9

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☐ ATL	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☐
☐ GSO	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other: _____	4. SEALED	☐	☐			

CUSTOMER

Company:	Address:			Tel:
	City:	State:	Zip:	Fax:

SEND REPORT TO:	SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Email:	Attn: Email:
Company: See Page 2	Company: NA
Address:	Address:
City: State: Zip:	City: State: Zip:

PROJECT SAMPLES

Project Name:	Quote No:	Special Instructions/Comments:
Project No.:	PO #:	
Sampler:		

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	Lead/Total Arsenic	Lead/TCLP Lead	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE/ FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	Container #	Container Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7 = Canister	Container Material: 1=Glass; 2=Plastic; 3=Metal	Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4 = 4C; 5=Zn ((Ac)2; 6=NaOH; 7=NA2S2O3	REMARKS
1	1604921 -51	EB6-2-0.5	12-29-16	1311					X				X	X	X					5	1	5	1		
2	-52	EB6-2-1.5		1312					X	X			X	X											
3	-53	EB6-2-2.5		1313																					HOLD
4	-54	EB15-2-0.5		1314					X				X	X											
5	-55	EB15-2-1.5		1315					X				X	X											
6	-56	EB15-2-2.5		1316																					HOLD
7	-57	EB16-3-0.5		1317					X				X	X											
8	-58	EB16-3-1.5		1318					X				X	X											
9	-59	EB16-3-2.5		1319																					HOLD
10	-60	EB22-2-0.5		1355					X				X	X											

CUSTODY TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for fi ve (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-fi ve (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Seamers — Submitter Print Name

Signature

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Wallace Seamers	12/29/16	1620	FEDEX	12/29/16	1620
	12/29/16	1815		12/29/16	1815

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 7 of 9

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☐ ATL	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☐
☐ GSO	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other: _____	4. SEALED	☐	☐			

CUSTOMER

Company:	Address:		Tel:
	City:	State:	Zip: Fax:

SEND REPORT TO:	SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Email:	Attn: Email:
Company:	Company:
Address:	Address:
City: State: See Page Zip:	City: State: Zip:

PROJECT SAMPLES

Project Name:	Quote No:	Special Instructions/Comments:
Project No.:	PO #:	
Sampler:		

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	Cad/Ted Arsenic	Lead/Trace Lead	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE/ FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	Container #	Container Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Redjar; 7 = Canister	Container Material: 1=Glass; 2=Plastic; 3=Metal	Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4 = 4C; 5=Zn ((Ac)2; 6=NaOH; 7=NA2S2O3	REMARKS
1	1604921 -01	EB22-2-1.5	12-29-16	1356					X	X			X	X	X					5	1	5	1	1	
2	-02	EB22-2-2.5		1357																				HOLD
3	-03	EB24-6-0.5		1358					X				X	X										
4	-04	EB24-6-1.5		1359					X				X	X										
5	-05	EB24-6-2.5		1400																				HOLD
6	-06	EB3-2-0.5		1402					X				X	X										
7	-07	EB3-2-1.5		1403					X				X	X										
8	-08	EB3-2-2.5		1404																				HOLD
9	-09	EB15-1-0.5		1447					X				X	X										
10	-10	EB15-1-1.5	↓	1448					X				X	X	↓					↓	↓	↓	↓	↓	

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

CUSTODY TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for fi ve (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-fi ve (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Scowers — Submitter Print Name

Signature

CUSTODY

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Wallace Scowers	12/29/16	1620		12/29/16	1620
	12/29/16	1815	Frances	12/29/16	1815

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 8 of 9

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☐ ATL	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☐
☐ GSO	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other: _____	4. SEALED	☐	☐			

CUSTOMER

Company: | Address: | Tel:

City: | State: | Zip: | Fax:

SEND REPORT TO:

Attn: | Email:

Company:

Address:

City: | State: | Zip:

SEND INVOICE TO: ☐ same as SEND REPORT TO

Attn: | Email:

Company:

Address: See Page #1

City: | State: | Zip:

PROJECT SAMPLES

Project Name: | Quote No: | Special Instructions/Comments:

Project No.: | PO #:

Sampler:

| ITEM | Lab No. | Sample Description: Sample ID / Location | Date | Time | 8260 / 624 (Volatiles) | 8015(GRO) | 8015(DRO) | 8270(Semi-volatiles) | 8081(Organochlorine Pesticides) | 8082(PCBs) | 6010 / 7000(Title 22 Metals) | TO-15 | cat/reorganic lab/received | | | | |

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 9 of 9

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130/15

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☐ ATL	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☐
☐ GSO	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other: _____	4. SEALED	☐	☐			

CUSTOMER

Company:
Address:
City: State: Zip:
Tel:
Fax:

SEND REPORT TO:
Attn: Email:
Company:
Address:
City: State: Zip:

SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Email:
Company: See Page #1
Address:
City: State: Zip:

PROJECT SAMPLES

Project Name:
Project No.:
Sampler:
Quote No:
PO #:
Special Instructions/Comments:

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	Cam/Tecc Arsenic	Cam/Tecc Lead	8015 Ext	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE / FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	Container: #	Container: Type	Container: Material	Preservative	REMARKS
1	1604921 -81	EB25-3-0.5	12-29-16	1435					X				X	X		X					5	1	5	1	-	
2	-82	EB25-3-1.5		1436					X	X			X	X												
3	-83	EB25-3-2.5		1437																						HOLD
4	-84	EB23-3-0.5		1443					X				X	X												
5	-85	EB23-3-1.5		1445					X				X	X												
6	-86	EB23-3-2.5		1446																						HOLD
7	-87	DRUM1	12-29-16	1520		X	X		X	X	X				X	X					5	1	5	1	-	
8	-88	EQB-12-29-16	"	1545		X	X		X	X	X				X			X			5	6	3/3	1/2		
9																										
10																										

Encircle or Write Requested Analysis

Encircle Sample Matrix

Container: # / Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7=Canister / Material: 1=Glass; 2=Plastic; 3=Metal

Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4=4C; 5=Zn (Ac)2; 6=NaOH; 7=NA2S2O3

QA/QC
☐ Routine
☐ Caltrans
☐ Legal
☐ RWQCB
☐ Level IV

TERMS & CONDITIONS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for fi ve (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-fi ve (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Seamers — Submitter Print Name

Signature

CUSTODY

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Wallace Seamers	12/29/16	1620		12/29/16	1620
	12/29/16	1815	Fedex	12/29/16	1815

Carmen Aguila

From: Julie Harriman [jharriman@leightongroup.com]
Sent: Friday, December 30, 2016 4:17 PM
To: Carmen Aguila
Cc: Becky Steever; Wallace Sconiers
Subject: RE: Burroughs MS-LAUSD, 603378.006

Importance: High

Carmen,

The following samples submitted on 12/28/2016 should be placed on hold:

- EB11-1-2.5
- EB11-2-2.5
- EB12-1-2.5
- EB12-2-2.5
- EB9-1-2.5
- EB9-5-2.5
- EB13-1-2.5
- EB13-2-2.5
- EB15-1-2.5
- EB15-2-2.5

The following samples submitted on 12/28/2016 should be analyzed for Title 22 metals, PAHs by 8270SIM and PCBs and not for what is shown on the COC:

- EB9-7-0.5
- EB9-7-1.5
- EB9-7-2.5

The following sample submitted on 12/28/2016 should be analyzed for lead in addition to what is shown on the COC:

- FB5-1-2.5
- FB5-2-2.5

The following sample submitted on 12/28/2016 should be analyzed for arsenic and OCPs in addition to what is shown on the COC:

- EB15-2-0.5

The following samples **submitted on 12/29/2016** were incorrectly identified as EB15 samples in the field and we would like the samples corrected to be logged and reported as EB5 samples as follows:

- EB15-1-0.5 should be EB5-1-0.5
- EB15-1-1.5 should be EB5-1-1.5
- EB15-1-2.5 should be EB5-1-2.5
- EB15-2-0.5 should be EB5-2-0.5
- EB15-2-1.5 should be EB5-2-1.5
- EB15-2-2.5 should be EB5-2-2.5
- EB15-3-0.5 should be EB5-3-0.5
- EB15-3-1.5 should be EB5-3-1.5
- EB15-3-2.5 should be EB5-3-2.5
- EB15-4-0.5 should be EB5-4-0.5
- EB15-4-1.5 should be EB5-4-1.5
- EB15-4-2.5 should be EB5-4-2.5

- EB15-5-0.5 should be EB5-5-0.5
- EB15-5-1.5 should be EB5-5-1.5
- EB15-5-2.5 should be EB5-5-2.5
- EB15-6-0.5 should be EB5-6-0.5
- EB15-6-1.5 should be EB5-6-1.5
- EB15-6-2.5 should be EB5-6-2.5

Thank you,

Julie C. Harriman, P.E.
Associate Engineer
Leighton
17781 Cowan, Irvine, CA 92614
(949) 681-4264 – Direct
(949) 572-8129 – Cell

Geotechnical | Geoenvironmental | Materials Testing

SOLUTIONS YOU CAN BUILD ON

Please consider the environment before printing this e-mail.

Carmen Aguila

From: Julie Harriman [jharriman@leightongroup.com]
Sent: Friday, December 30, 2016 4:37 PM
To: Carmen Aguila
Cc: Wallace Sconiers; Becky Steever
Subject: RE: Burroughs MS-LAUSD, 603378.006

Importance: High

Carmen,

The following sample submitted on 12/28/2016 should be analyzed for TPHcc, Title 22 metals, OCPs, PAHs by 8270SIM and PCBs and not for what is shown on the COC:

- EQB122816

The following sample submitted on 12/29/2016 should be analyzed for lead, arsenic, OCPs, and PCBs and not for what is shown on the COC:

- EQB-12-29-16

The following sample submitted on 12/29/2016 does not need to be analyzed for PCBs, but is otherwise correct on the COC:

- DRUM1

Thank you,

Julie C. Harriman, P.E.
Associate Engineer
Leighton
17781 Cowan, Irvine, CA 92614
(949) 681-4264 – Direct
(949) 572-8129 – Cell

Geotechnical | Geoenvironmental | Materials Testing

SOLUTIONS YOU CAN BUILD ON

Please consider the environment before printing this e-mail.

Rachelle Arada

From: Julie Harriman [jharriman@leightongroup.com]
Sent: Tuesday, January 03, 2017 11:42 AM
To: Rachelle Arada
Cc: Carmen Aguila; customer.relations@atlglobal.com; Becky Steever
Subject: RE: Burroughs MS-LAUSD, 603378.006

Importance: High

Rachelle,

I need to rush the below "DRUM1" sample submitted on 12/29/2016 and get the results tomorrow. Is that possible? We do not need PCBs for this sample, but it is otherwise correct on the COC.

Thank you,
Julie

Julie C. Harriman, P.E.
Associate Engineer
Leighton
17781 Cowan, Irvine, CA 92614
(949) 681-4264 – Direct
(949) 572-8129 – Cell

Geotechnical | Geoenvironmental | Materials Testing

SOLUTIONS YOU CAN BUILD ON

Please consider the environment before printing this e-mail.

From: Rachelle Arada [mailto:Rachelle@atlglobal.com]
Sent: Tuesday, January 03, 2017 9:12 AM
To: Julie Harriman
Cc: Carmen Aguila; customer.relations@atlglobal.com
Subject: RE: Burroughs MS-LAUSD, 603378.006

Hi Julie,

Just following up if you have the carbon chain you need for this project. Thanks.

Rachelle

From: Julie Harriman [mailto:jharriman@leightongroup.com]
Sent: Wednesday, December 28, 2016 5:27 PM
To: Rachelle Arada
Subject: RE: Burroughs MS-LAUSD, 603378.006

Actually, let me check with the client.

Thanks,

ADVANCED TECHNOLOGY LABORATORIES

January 11, 2017

Julie Harriman
Leighton Consulting, Inc.
17781 Cowan Street
Irvine, CA 92614
Tel: (949) 250-1421
Fax:(949) 757-7230

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1604923
Client Reference : Burroughs MS, 603378.006

Enclosed are the results for sample(s) received on December 29, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/11/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FB4-4-0.5	1604923-01	Soil	12/29/16 8:00	12/29/16 16:20
FB4-4-1.5	1604923-02	Soil	12/29/16 8:01	12/29/16 16:20
FB4-4-2.5	1604923-03	Soil	12/29/16 8:02	12/29/16 16:20
FB4-1-0.5	1604923-04	Soil	12/29/16 8:10	12/29/16 16:20
FB4-1-1.5	1604923-05	Soil	12/29/16 8:11	12/29/16 16:20
FB4-1-2.5	1604923-06	Soil	12/29/16 8:12	12/29/16 16:20
FB4-3-0.5	1604923-07	Soil	12/29/16 8:13	12/29/16 16:20
FB4-3-1.5	1604923-08	Soil	12/29/16 8:14	12/29/16 16:20
FB4-3-2.5	1604923-09	Soil	12/29/16 8:15	12/29/16 16:20
FB9-1-0.5	1604923-10	Soil	12/29/16 8:25	12/29/16 16:20
FB9-1-1.5	1604923-11	Soil	12/29/16 8:26	12/29/16 16:20
FB9-1-2.5	1604923-12	Soil	12/29/16 8:27	12/29/16 16:20
FB4-2-0.5	1604923-13	Soil	12/29/16 8:35	12/29/16 16:20
FB4-2-1.5	1604923-14	Soil	12/29/16 8:36	12/29/16 16:20
FB4-2-2.5	1604923-15	Soil	12/29/16 8:37	12/29/16 16:20
FB9-4-0.5	1604923-16	Soil	12/29/16 8:45	12/29/16 16:20
FB9-4-1.5	1604923-17	Soil	12/29/16 8:46	12/29/16 16:20
FB9-4-2.5	1604923-18	Soil	12/29/16 8:47	12/29/16 16:20
FB9-2-0.5	1604923-19	Soil	12/29/16 8:58	12/29/16 16:20
FB9-2-1.5	1604923-20	Soil	12/29/16 8:59	12/29/16 16:20
FB9-2-2.5	1604923-21	Soil	12/29/16 9:00	12/29/16 16:20
FB9-3-0.5	1604923-22	Soil	12/29/16 9:05	12/29/16 16:20
FB9-3-1.5	1604923-23	Soil	12/29/16 9:04	12/29/16 16:20
FB9-3-2.5	1604923-24	Soil	12/29/16 9:05	12/29/16 16:20

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/11/2017

Client Sample ID FB4-4-0.5

Lab ID: 1604923-01

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.8**	1.0	0.70	1	B7A0232	01/09/2017	01/10/17 11:50	
Lead	**26**	1.0	0.11	1	B7A0232	01/09/2017	01/10/17 11:50	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0216	01/09/2017	01/09/17 15:40	
4,4´-DDE	ND	2.0	0.20	1	B7A0216	01/09/2017	01/09/17 15:40	
4,4´-DDT	ND	2.0	0.13	1	B7A0216	01/09/2017	01/09/17 15:40	
Aldrin	ND	1.0	0.27	1	B7A0216	01/09/2017	01/09/17 15:40	
alpha-BHC	ND	1.0	0.20	1	B7A0216	01/09/2017	01/09/17 15:40	
alpha-Chlordane	ND	1.0	0.21	1	B7A0216	01/09/2017	01/09/17 15:40	
beta-BHC	ND	1.0	0.23	1	B7A0216	01/09/2017	01/09/17 15:40	
Chlordane	ND	8.5	0.90	1	B7A0216	01/09/2017	01/09/17 15:40	
delta-BHC	ND	1.0	0.21	1	B7A0216	01/09/2017	01/09/17 15:40	
Dieldrin	ND	2.0	0.25	1	B7A0216	01/09/2017	01/09/17 15:40	
Endosulfan I	ND	1.0	0.21	1	B7A0216	01/09/2017	01/09/17 15:40	
Endosulfan II	ND	2.0	0.22	1	B7A0216	01/09/2017	01/09/17 15:40	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0216	01/09/2017	01/09/17 15:40	
Endrin	ND	2.0	0.23	1	B7A0216	01/09/2017	01/09/17 15:40	
Endrin aldehyde	ND	2.0	0.28	1	B7A0216	01/09/2017	01/09/17 15:40	
Endrin ketone	ND	2.0	0.20	1	B7A0216	01/09/2017	01/09/17 15:40	
gamma-BHC	ND	1.0	0.20	1	B7A0216	01/09/2017	01/09/17 15:40	
gamma-Chlordane	ND	1.0	0.23	1	B7A0216	01/09/2017	01/09/17 15:40	
Heptachlor	ND	1.0	0.19	1	B7A0216	01/09/2017	01/09/17 15:40	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0216	01/09/2017	01/09/17 15:40	
Methoxychlor	ND	5.0	0.18	1	B7A0216	01/09/2017	01/09/17 15:40	
Toxaphene	ND	50	8.2	1	B7A0216	01/09/2017	01/09/17 15:40	
Surrogate: Decachlorobiphenyl	*80.1 %*		*27 - 123*		B7A0216	01/09/2017	*01/09/17 15:40*	
Surrogate: Tetrachloro-m-xylene	*74.0 %*		*26 - 108*		B7A0216	01/09/2017	*01/09/17 15:40*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/11/2017

Client Sample ID FB4-4-0.5

Lab ID: 1604923-01

Polychlorinated Biphenyls by EPA 8082 **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B7A0217	01/09/2017	01/09/17 15:19	
Aroclor 1221	ND	16	1.5	1	B7A0217	01/09/2017	01/09/17 15:19	
Aroclor 1232	ND	16	1.5	1	B7A0217	01/09/2017	01/09/17 15:19	
Aroclor 1242	ND	16	1.5	1	B7A0217	01/09/2017	01/09/17 15:19	
Aroclor 1248	ND	16	1.5	1	B7A0217	01/09/2017	01/09/17 15:19	
Aroclor 1254	ND	16	1.5	1	B7A0217	01/09/2017	01/09/17 15:19	
Aroclor 1260	**3.3**	16	1.5	1	B7A0217	01/09/2017	01/09/17 15:19	J
Aroclor 1262	ND	16	1.5	1	B7A0217	01/09/2017	01/09/17 15:19	
Aroclor 1268	ND	16	1.5	1	B7A0217	01/09/2017	01/09/17 15:19	
Surrogate: Decachlorobiphenyl	*105 %*	*26 - 137*			B7A0217	01/09/2017	*01/09/17 15:19*	
Surrogate: Tetrachloro-m-xylene	*108 %*	*28 - 102*			B7A0217	01/09/2017	*01/09/17 15:19*	S12

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/11/2017

Client Sample ID FB4-4-1.5
Lab ID: 1604923-02

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.9**	1.0	0.70	1	B7A0232	01/09/2017	01/10/17 11:51	
Lead	**44**	1.0	0.11	1	B7A0232	01/09/2017	01/10/17 11:51	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0216	01/09/2017	01/09/17 15:50	
4,4´-DDE	ND	2.0	0.20	1	B7A0216	01/09/2017	01/09/17 15:50	
4,4´-DDT	ND	2.0	0.13	1	B7A0216	01/09/2017	01/09/17 15:50	
Aldrin	ND	1.0	0.27	1	B7A0216	01/09/2017	01/09/17 15:50	
alpha-BHC	ND	1.0	0.20	1	B7A0216	01/09/2017	01/09/17 15:50	
alpha-Chlordane	ND	1.0	0.21	1	B7A0216	01/09/2017	01/09/17 15:50	
beta-BHC	ND	1.0	0.23	1	B7A0216	01/09/2017	01/09/17 15:50	
Chlordane	ND	8.5	0.90	1	B7A0216	01/09/2017	01/09/17 15:50	
delta-BHC	ND	1.0	0.21	1	B7A0216	01/09/2017	01/09/17 15:50	
Dieldrin	ND	2.0	0.25	1	B7A0216	01/09/2017	01/09/17 15:50	
Endosulfan I	ND	1.0	0.21	1	B7A0216	01/09/2017	01/09/17 15:50	
Endosulfan II	ND	2.0	0.22	1	B7A0216	01/09/2017	01/09/17 15:50	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0216	01/09/2017	01/09/17 15:50	
Endrin	ND	2.0	0.23	1	B7A0216	01/09/2017	01/09/17 15:50	
Endrin aldehyde	ND	2.0	0.28	1	B7A0216	01/09/2017	01/09/17 15:50	
Endrin ketone	ND	2.0	0.20	1	B7A0216	01/09/2017	01/09/17 15:50	
gamma-BHC	ND	1.0	0.20	1	B7A0216	01/09/2017	01/09/17 15:50	
gamma-Chlordane	ND	1.0	0.23	1	B7A0216	01/09/2017	01/09/17 15:50	
Heptachlor	ND	1.0	0.19	1	B7A0216	01/09/2017	01/09/17 15:50	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0216	01/09/2017	01/09/17 15:50	
Methoxychlor	ND	5.0	0.18	1	B7A0216	01/09/2017	01/09/17 15:50	
Toxaphene	ND	50	8.2	1	B7A0216	01/09/2017	01/09/17 15:50	
Surrogate: Decachlorobiphenyl	*76.9 %*		*27 - 123*		B7A0216	01/09/2017	*01/09/17 15:50*	
Surrogate: Tetrachloro-m-xylene	*75.9 %*		*26 - 108*		B7A0216	01/09/2017	*01/09/17 15:50*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/11/2017

Client Sample ID FB4-4-2.5

Lab ID: 1604923-03

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.2**	1.0	0.70	1	B7A0232	01/09/2017	01/10/17 11:53	
Lead	**4.6**	1.0	0.11	1	B7A0232	01/09/2017	01/10/17 11:53	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0216	01/09/2017	01/09/17 16:01	
4,4´-DDE	ND	2.0	0.20	1	B7A0216	01/09/2017	01/09/17 16:01	
4,4´-DDT	ND	2.0	0.13	1	B7A0216	01/09/2017	01/09/17 16:01	
Aldrin	ND	1.0	0.27	1	B7A0216	01/09/2017	01/09/17 16:01	
alpha-BHC	ND	1.0	0.20	1	B7A0216	01/09/2017	01/09/17 16:01	
alpha-Chlordane	ND	1.0	0.21	1	B7A0216	01/09/2017	01/09/17 16:01	
beta-BHC	ND	1.0	0.23	1	B7A0216	01/09/2017	01/09/17 16:01	
Chlordane	ND	8.5	0.90	1	B7A0216	01/09/2017	01/09/17 16:01	
delta-BHC	ND	1.0	0.21	1	B7A0216	01/09/2017	01/09/17 16:01	
Dieldrin	ND	2.0	0.25	1	B7A0216	01/09/2017	01/09/17 16:01	
Endosulfan I	ND	1.0	0.21	1	B7A0216	01/09/2017	01/09/17 16:01	
Endosulfan II	ND	2.0	0.22	1	B7A0216	01/09/2017	01/09/17 16:01	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0216	01/09/2017	01/09/17 16:01	
Endrin	ND	2.0	0.23	1	B7A0216	01/09/2017	01/09/17 16:01	
Endrin aldehyde	ND	2.0	0.28	1	B7A0216	01/09/2017	01/09/17 16:01	
Endrin ketone	ND	2.0	0.20	1	B7A0216	01/09/2017	01/09/17 16:01	
gamma-BHC	ND	1.0	0.20	1	B7A0216	01/09/2017	01/09/17 16:01	
gamma-Chlordane	ND	1.0	0.23	1	B7A0216	01/09/2017	01/09/17 16:01	
Heptachlor	ND	1.0	0.19	1	B7A0216	01/09/2017	01/09/17 16:01	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0216	01/09/2017	01/09/17 16:01	
Methoxychlor	ND	5.0	0.18	1	B7A0216	01/09/2017	01/09/17 16:01	
Toxaphene	ND	50	8.2	1	B7A0216	01/09/2017	01/09/17 16:01	
Surrogate: Decachlorobiphenyl	*74.3 %*		*27 - 123*		B7A0216	01/09/2017	*01/09/17 16:01*	
Surrogate: Tetrachloro-m-xylene	*72.7 %*		*26 - 108*		B7A0216	01/09/2017	*01/09/17 16:01*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/11/2017

Client Sample ID FB4-1-0.5
Lab ID: 1604923-04

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**4.2**	1.0	0.70	1	B7A0232	01/09/2017	01/10/17 11:54	
Lead	**20**	1.0	0.11	1	B7A0232	01/09/2017	01/10/17 11:54	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	10	1.1	5	B7A0216	01/09/2017	01/09/17 16:11	D1
4,4´-DDE [2C]	**3.1**	10	0.98	5	B7A0216	01/09/2017	01/09/17 16:11	D1, J
4,4´-DDT [2C]	**1.5**	10	0.67	5	B7A0216	01/09/2017	01/09/17 16:11	D1, J
Aldrin	ND	5.0	1.3	5	B7A0216	01/09/2017	01/09/17 16:11	D1
alpha-BHC	ND	5.0	0.99	5	B7A0216	01/09/2017	01/09/17 16:11	D1
alpha-Chlordane	**1.9**	5.0	1.1	5	B7A0216	01/09/2017	01/09/17 16:11	D1, J
beta-BHC	ND	5.0	1.1	5	B7A0216	01/09/2017	01/09/17 16:11	D1
Chlordane	**18**	42	4.5	5	B7A0216	01/09/2017	01/09/17 16:11	D1, J
delta-BHC	ND	5.0	1.0	5	B7A0216	01/09/2017	01/09/17 16:11	D1
Dieldrin	ND	10	1.2	5	B7A0216	01/09/2017	01/09/17 16:11	D1
Endosulfan I	ND	5.0	1.1	5	B7A0216	01/09/2017	01/09/17 16:11	D1
Endosulfan II	ND	10	1.1	5	B7A0216	01/09/2017	01/09/17 16:11	D1
Endosulfan sulfate	ND	10	1.1	5	B7A0216	01/09/2017	01/09/17 16:11	D1
Endrin	ND	10	1.1	5	B7A0216	01/09/2017	01/09/17 16:11	D1
Endrin aldehyde	ND	10	1.4	5	B7A0216	01/09/2017	01/09/17 16:11	D1
Endrin ketone	ND	10	1.0	5	B7A0216	01/09/2017	01/09/17 16:11	D1
gamma-BHC	ND	5.0	1.0	5	B7A0216	01/09/2017	01/09/17 16:11	D1
gamma-Chlordane [2C]	**2.3**	5.0	1.1	5	B7A0216	01/09/2017	01/09/17 16:11	D1, J
Heptachlor	ND	5.0	0.95	5	B7A0216	01/09/2017	01/09/17 16:11	D1
Heptachlor epoxide	ND	5.0	1.0	5	B7A0216	01/09/2017	01/09/17 16:11	D1
Methoxychlor	ND	25	0.89	5	B7A0216	01/09/2017	01/09/17 16:11	D1
Toxaphene	ND	250	41	5	B7A0216	01/09/2017	01/09/17 16:11	D1
Surrogate: Decachlorobiphenyl	*74.6 %*		*27 - 123*		B7A0216	01/09/2017	*01/09/17 16:11*	
Surrogate: Tetrachloro-m-xylene	*99.4 %*		*26 - 108*		B7A0216	01/09/2017	*01/09/17 16:11*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/11/2017

Client Sample ID FB4-1-1.5
Lab ID: 1604923-05

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**7.2**	1.0	0.70	1	B7A0232	01/09/2017	01/10/17 11:55	
Lead	**54**	1.0	0.11	1	B7A0232	01/09/2017	01/10/17 11:55	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0216	01/09/2017	01/09/17 16:22	
4,4´-DDE	ND	2.0	0.20	1	B7A0216	01/09/2017	01/09/17 16:22	
4,4´-DDT	ND	2.0	0.13	1	B7A0216	01/09/2017	01/09/17 16:22	
Aldrin	ND	1.0	0.27	1	B7A0216	01/09/2017	01/09/17 16:22	
alpha-BHC	ND	1.0	0.20	1	B7A0216	01/09/2017	01/09/17 16:22	
alpha-Chlordane	ND	1.0	0.21	1	B7A0216	01/09/2017	01/09/17 16:22	
beta-BHC	ND	1.0	0.23	1	B7A0216	01/09/2017	01/09/17 16:22	
Chlordane	ND	8.5	0.90	1	B7A0216	01/09/2017	01/09/17 16:22	
delta-BHC	ND	1.0	0.21	1	B7A0216	01/09/2017	01/09/17 16:22	
Dieldrin	ND	2.0	0.25	1	B7A0216	01/09/2017	01/09/17 16:22	
Endosulfan I	ND	1.0	0.21	1	B7A0216	01/09/2017	01/09/17 16:22	
Endosulfan II	ND	2.0	0.22	1	B7A0216	01/09/2017	01/09/17 16:22	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0216	01/09/2017	01/09/17 16:22	
Endrin	ND	2.0	0.23	1	B7A0216	01/09/2017	01/09/17 16:22	
Endrin aldehyde	ND	2.0	0.28	1	B7A0216	01/09/2017	01/09/17 16:22	
Endrin ketone	ND	2.0	0.20	1	B7A0216	01/09/2017	01/09/17 16:22	
gamma-BHC	ND	1.0	0.20	1	B7A0216	01/09/2017	01/09/17 16:22	
gamma-Chlordane	ND	1.0	0.23	1	B7A0216	01/09/2017	01/09/17 16:22	
Heptachlor	ND	1.0	0.19	1	B7A0216	01/09/2017	01/09/17 16:22	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0216	01/09/2017	01/09/17 16:22	
Methoxychlor	ND	5.0	0.18	1	B7A0216	01/09/2017	01/09/17 16:22	
Toxaphene	ND	50	8.2	1	B7A0216	01/09/2017	01/09/17 16:22	
Surrogate: Decachlorobiphenyl	*85.2 %*		*27 - 123*		B7A0216	01/09/2017	*01/09/17 16:22*	
Surrogate: Tetrachloro-m-xylene	*82.9 %*		*26 - 108*		B7A0216	01/09/2017	*01/09/17 16:22*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/11/2017

Client Sample ID FB4-1-2.5
Lab ID: 1604923-06

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**3.4**	1.0	0.70	1	B7A0232	01/09/2017	01/10/17 11:58	
Lead	**7.7**	1.0	0.11	1	B7A0232	01/09/2017	01/10/17 11:58	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0216	01/09/2017	01/09/17 16:32	
4,4´-DDE	ND	2.0	0.20	1	B7A0216	01/09/2017	01/09/17 16:32	
4,4´-DDT	ND	2.0	0.13	1	B7A0216	01/09/2017	01/09/17 16:32	
Aldrin	ND	1.0	0.27	1	B7A0216	01/09/2017	01/09/17 16:32	
alpha-BHC	ND	1.0	0.20	1	B7A0216	01/09/2017	01/09/17 16:32	
alpha-Chlordane	ND	1.0	0.21	1	B7A0216	01/09/2017	01/09/17 16:32	
beta-BHC	ND	1.0	0.23	1	B7A0216	01/09/2017	01/09/17 16:32	
Chlordane	ND	8.5	0.90	1	B7A0216	01/09/2017	01/09/17 16:32	
delta-BHC	ND	1.0	0.21	1	B7A0216	01/09/2017	01/09/17 16:32	
Dieldrin	ND	2.0	0.25	1	B7A0216	01/09/2017	01/09/17 16:32	
Endosulfan I	ND	1.0	0.21	1	B7A0216	01/09/2017	01/09/17 16:32	
Endosulfan II	ND	2.0	0.22	1	B7A0216	01/09/2017	01/09/17 16:32	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0216	01/09/2017	01/09/17 16:32	
Endrin	ND	2.0	0.23	1	B7A0216	01/09/2017	01/09/17 16:32	
Endrin aldehyde	ND	2.0	0.28	1	B7A0216	01/09/2017	01/09/17 16:32	
Endrin ketone	ND	2.0	0.20	1	B7A0216	01/09/2017	01/09/17 16:32	
gamma-BHC	ND	1.0	0.20	1	B7A0216	01/09/2017	01/09/17 16:32	
gamma-Chlordane	ND	1.0	0.23	1	B7A0216	01/09/2017	01/09/17 16:32	
Heptachlor	ND	1.0	0.19	1	B7A0216	01/09/2017	01/09/17 16:32	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0216	01/09/2017	01/09/17 16:32	
Methoxychlor	ND	5.0	0.18	1	B7A0216	01/09/2017	01/09/17 16:32	
Toxaphene	ND	50	8.2	1	B7A0216	01/09/2017	01/09/17 16:32	
Surrogate: Decachlorobiphenyl	*53.3 %*		*27 - 123*		B7A0216	01/09/2017	*01/09/17 16:32*	
Surrogate: Tetrachloro-m-xylene	*58.8 %*		*26 - 108*		B7A0216	01/09/2017	*01/09/17 16:32*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/11/2017

Client Sample ID FB4-3-0.5
Lab ID: 1604923-07

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**3.0**	1.0	0.70	1	B7A0232	01/09/2017	01/10/17 12:00	
Lead	**66**	1.0	0.11	1	B7A0232	01/09/2017	01/10/17 12:00	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD [2C]	**1.8**	2.0	0.22	1	B7A0216	01/09/2017	01/09/17 16:42	J
4,4´-DDE	**22**	2.0	0.20	1	B7A0216	01/09/2017	01/09/17 16:42	
4,4´-DDT	**2.1**	2.0	0.13	1	B7A0216	01/09/2017	01/09/17 16:42	
Aldrin	ND	1.0	0.27	1	B7A0216	01/09/2017	01/09/17 16:42	
alpha-BHC	ND	1.0	0.20	1	B7A0216	01/09/2017	01/09/17 16:42	
alpha-Chlordane	ND	1.0	0.21	1	B7A0216	01/09/2017	01/09/17 16:42	
beta-BHC	ND	1.0	0.23	1	B7A0216	01/09/2017	01/09/17 16:42	
Chlordane	ND	8.5	0.90	1	B7A0216	01/09/2017	01/09/17 16:42	
delta-BHC	ND	1.0	0.21	1	B7A0216	01/09/2017	01/09/17 16:42	
Dieldrin	ND	2.0	0.25	1	B7A0216	01/09/2017	01/09/17 16:42	
Endosulfan I	ND	1.0	0.21	1	B7A0216	01/09/2017	01/09/17 16:42	
Endosulfan II	ND	2.0	0.22	1	B7A0216	01/09/2017	01/09/17 16:42	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0216	01/09/2017	01/09/17 16:42	
Endrin	ND	2.0	0.23	1	B7A0216	01/09/2017	01/09/17 16:42	
Endrin aldehyde	ND	2.0	0.28	1	B7A0216	01/09/2017	01/09/17 16:42	
Endrin ketone	ND	2.0	0.20	1	B7A0216	01/09/2017	01/09/17 16:42	
gamma-BHC	ND	1.0	0.20	1	B7A0216	01/09/2017	01/09/17 16:42	
gamma-Chlordane	ND	1.0	0.23	1	B7A0216	01/09/2017	01/09/17 16:42	
Heptachlor	ND	1.0	0.19	1	B7A0216	01/09/2017	01/09/17 16:42	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0216	01/09/2017	01/09/17 16:42	
Methoxychlor	ND	5.0	0.18	1	B7A0216	01/09/2017	01/09/17 16:42	
Toxaphene	ND	50	8.2	1	B7A0216	01/09/2017	01/09/17 16:42	
Surrogate: Decachlorobiphenyl	*81.8 %*	*27 - 123*			B7A0216	01/09/2017	*01/09/17 16:42*	
Surrogate: Tetrachloro-m-xylene	*76.1 %*	*26 - 108*			B7A0216	01/09/2017	*01/09/17 16:42*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/11/2017

Client Sample ID FB4-3-1.5
Lab ID: 1604923-08

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**3.1**	1.0	0.70	1	B7A0232	01/09/2017	01/10/17 12:01	
Lead	**46**	1.0	0.11	1	B7A0232	01/09/2017	01/10/17 12:01	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0216	01/09/2017	01/09/17 16:53	
4,4´-DDE	ND	2.0	0.20	1	B7A0216	01/09/2017	01/09/17 16:53	
4,4´-DDT	ND	2.0	0.13	1	B7A0216	01/09/2017	01/09/17 16:53	
Aldrin	ND	1.0	0.27	1	B7A0216	01/09/2017	01/09/17 16:53	
alpha-BHC	ND	1.0	0.20	1	B7A0216	01/09/2017	01/09/17 16:53	
alpha-Chlordane	ND	1.0	0.21	1	B7A0216	01/09/2017	01/09/17 16:53	
beta-BHC	ND	1.0	0.23	1	B7A0216	01/09/2017	01/09/17 16:53	
Chlordane	ND	8.5	0.90	1	B7A0216	01/09/2017	01/09/17 16:53	
delta-BHC	ND	1.0	0.21	1	B7A0216	01/09/2017	01/09/17 16:53	
Dieldrin	ND	2.0	0.25	1	B7A0216	01/09/2017	01/09/17 16:53	
Endosulfan I	ND	1.0	0.21	1	B7A0216	01/09/2017	01/09/17 16:53	
Endosulfan II	ND	2.0	0.22	1	B7A0216	01/09/2017	01/09/17 16:53	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0216	01/09/2017	01/09/17 16:53	
Endrin	ND	2.0	0.23	1	B7A0216	01/09/2017	01/09/17 16:53	
Endrin aldehyde	ND	2.0	0.28	1	B7A0216	01/09/2017	01/09/17 16:53	
Endrin ketone	ND	2.0	0.20	1	B7A0216	01/09/2017	01/09/17 16:53	
gamma-BHC	ND	1.0	0.20	1	B7A0216	01/09/2017	01/09/17 16:53	
gamma-Chlordane	ND	1.0	0.23	1	B7A0216	01/09/2017	01/09/17 16:53	
Heptachlor	ND	1.0	0.19	1	B7A0216	01/09/2017	01/09/17 16:53	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0216	01/09/2017	01/09/17 16:53	
Methoxychlor	ND	5.0	0.18	1	B7A0216	01/09/2017	01/09/17 16:53	
Toxaphene	ND	50	8.2	1	B7A0216	01/09/2017	01/09/17 16:53	
Surrogate: Decachlorobiphenyl	*70.5 %*		*27 - 123*		B7A0216	01/09/2017	*01/09/17 16:53*	
Surrogate: Tetrachloro-m-xylene	*71.9 %*		*26 - 108*		B7A0216	01/09/2017	*01/09/17 16:53*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/11/2017

Client Sample ID FB4-3-2.5

Lab ID: 1604923-09

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.6**	1.0	0.70	1	B7A0232	01/09/2017	01/10/17 12:02	
Lead	**6.9**	1.0	0.11	1	B7A0232	01/09/2017	01/10/17 12:02	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0216	01/09/2017	01/09/17 17:03	
4,4´-DDE	ND	2.0	0.20	1	B7A0216	01/09/2017	01/09/17 17:03	
4,4´-DDT	ND	2.0	0.13	1	B7A0216	01/09/2017	01/09/17 17:03	
Aldrin	ND	1.0	0.27	1	B7A0216	01/09/2017	01/09/17 17:03	
alpha-BHC	ND	1.0	0.20	1	B7A0216	01/09/2017	01/09/17 17:03	
alpha-Chlordane	ND	1.0	0.21	1	B7A0216	01/09/2017	01/09/17 17:03	
beta-BHC	ND	1.0	0.23	1	B7A0216	01/09/2017	01/09/17 17:03	
Chlordane	ND	8.5	0.90	1	B7A0216	01/09/2017	01/09/17 17:03	
delta-BHC	ND	1.0	0.21	1	B7A0216	01/09/2017	01/09/17 17:03	
Dieldrin	ND	2.0	0.25	1	B7A0216	01/09/2017	01/09/17 17:03	
Endosulfan I	ND	1.0	0.21	1	B7A0216	01/09/2017	01/09/17 17:03	
Endosulfan II	ND	2.0	0.22	1	B7A0216	01/09/2017	01/09/17 17:03	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0216	01/09/2017	01/09/17 17:03	
Endrin	ND	2.0	0.23	1	B7A0216	01/09/2017	01/09/17 17:03	
Endrin aldehyde	ND	2.0	0.28	1	B7A0216	01/09/2017	01/09/17 17:03	
Endrin ketone	ND	2.0	0.20	1	B7A0216	01/09/2017	01/09/17 17:03	
gamma-BHC	ND	1.0	0.20	1	B7A0216	01/09/2017	01/09/17 17:03	
gamma-Chlordane	ND	1.0	0.23	1	B7A0216	01/09/2017	01/09/17 17:03	
Heptachlor	ND	1.0	0.19	1	B7A0216	01/09/2017	01/09/17 17:03	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0216	01/09/2017	01/09/17 17:03	
Methoxychlor	ND	5.0	0.18	1	B7A0216	01/09/2017	01/09/17 17:03	
Toxaphene	ND	50	8.2	1	B7A0216	01/09/2017	01/09/17 17:03	
Surrogate: Decachlorobiphenyl	*92.7 %*		*27 - 123*		B7A0216	01/09/2017	*01/09/17 17:03*	
Surrogate: Tetrachloro-m-xylene	*81.2 %*		*26 - 108*		B7A0216	01/09/2017	*01/09/17 17:03*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/11/2017

Client Sample ID FB9-1-0.5

Lab ID: 1604923-10

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**3.2**	1.0	0.70	1	B7A0232	01/09/2017	01/10/17 12:03	
Lead	**82**	1.0	0.11	1	B7A0232	01/09/2017	01/10/17 12:03	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0216	01/09/2017	01/09/17 17:14	
4,4´-DDE	ND	2.0	0.20	1	B7A0216	01/09/2017	01/09/17 17:14	
4,4´-DDT	ND	2.0	0.13	1	B7A0216	01/09/2017	01/09/17 17:14	
Aldrin	ND	1.0	0.27	1	B7A0216	01/09/2017	01/09/17 17:14	
alpha-BHC	ND	1.0	0.20	1	B7A0216	01/09/2017	01/09/17 17:14	
alpha-Chlordane	ND	1.0	0.21	1	B7A0216	01/09/2017	01/09/17 17:14	
beta-BHC	ND	1.0	0.23	1	B7A0216	01/09/2017	01/09/17 17:14	
Chlordane	ND	8.5	0.90	1	B7A0216	01/09/2017	01/09/17 17:14	
delta-BHC	ND	1.0	0.21	1	B7A0216	01/09/2017	01/09/17 17:14	
Dieldrin	ND	2.0	0.25	1	B7A0216	01/09/2017	01/09/17 17:14	
Endosulfan I	ND	1.0	0.21	1	B7A0216	01/09/2017	01/09/17 17:14	
Endosulfan II	ND	2.0	0.22	1	B7A0216	01/09/2017	01/09/17 17:14	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0216	01/09/2017	01/09/17 17:14	
Endrin	ND	2.0	0.23	1	B7A0216	01/09/2017	01/09/17 17:14	
Endrin aldehyde	ND	2.0	0.28	1	B7A0216	01/09/2017	01/09/17 17:14	
Endrin ketone	ND	2.0	0.20	1	B7A0216	01/09/2017	01/09/17 17:14	
gamma-BHC	ND	1.0	0.20	1	B7A0216	01/09/2017	01/09/17 17:14	
gamma-Chlordane	**0.28**	1.0	0.23	1	B7A0216	01/09/2017	01/09/17 17:14	J
Heptachlor	ND	1.0	0.19	1	B7A0216	01/09/2017	01/09/17 17:14	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0216	01/09/2017	01/09/17 17:14	
Methoxychlor	ND	5.0	0.18	1	B7A0216	01/09/2017	01/09/17 17:14	
Toxaphene	ND	50	8.2	1	B7A0216	01/09/2017	01/09/17 17:14	
Surrogate: Decachlorobiphenyl	*58.6 %*		*27 - 123*		B7A0216	01/09/2017	*01/09/17 17:14*	
Surrogate: Tetrachloro-m-xylene	*67.6 %*		*26 - 108*		B7A0216	01/09/2017	*01/09/17 17:14*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/11/2017

Client Sample ID FB9-1-1.5

Lab ID: 1604923-11

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.6**	1.0	0.70	1	B7A0232	01/09/2017	01/10/17 12:04	
Lead	**5.5**	1.0	0.11	1	B7A0232	01/09/2017	01/10/17 12:04	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0216	01/09/2017	01/09/17 17:24	
4,4´-DDE	ND	2.0	0.20	1	B7A0216	01/09/2017	01/09/17 17:24	
4,4´-DDT	ND	2.0	0.13	1	B7A0216	01/09/2017	01/09/17 17:24	
Aldrin	ND	1.0	0.27	1	B7A0216	01/09/2017	01/09/17 17:24	
alpha-BHC	ND	1.0	0.20	1	B7A0216	01/09/2017	01/09/17 17:24	
alpha-Chlordane	ND	1.0	0.21	1	B7A0216	01/09/2017	01/09/17 17:24	
beta-BHC	ND	1.0	0.23	1	B7A0216	01/09/2017	01/09/17 17:24	
Chlordane	ND	8.5	0.90	1	B7A0216	01/09/2017	01/09/17 17:24	
delta-BHC	ND	1.0	0.21	1	B7A0216	01/09/2017	01/09/17 17:24	
Dieldrin	ND	2.0	0.25	1	B7A0216	01/09/2017	01/09/17 17:24	
Endosulfan I	ND	1.0	0.21	1	B7A0216	01/09/2017	01/09/17 17:24	
Endosulfan II	ND	2.0	0.22	1	B7A0216	01/09/2017	01/09/17 17:24	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0216	01/09/2017	01/09/17 17:24	
Endrin	ND	2.0	0.23	1	B7A0216	01/09/2017	01/09/17 17:24	
Endrin aldehyde	ND	2.0	0.28	1	B7A0216	01/09/2017	01/09/17 17:24	
Endrin ketone	ND	2.0	0.20	1	B7A0216	01/09/2017	01/09/17 17:24	
gamma-BHC	ND	1.0	0.20	1	B7A0216	01/09/2017	01/09/17 17:24	
gamma-Chlordane	ND	1.0	0.23	1	B7A0216	01/09/2017	01/09/17 17:24	
Heptachlor	ND	1.0	0.19	1	B7A0216	01/09/2017	01/09/17 17:24	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0216	01/09/2017	01/09/17 17:24	
Methoxychlor	ND	5.0	0.18	1	B7A0216	01/09/2017	01/09/17 17:24	
Toxaphene	ND	50	8.2	1	B7A0216	01/09/2017	01/09/17 17:24	
Surrogate: Decachlorobiphenyl	*68.9 %*		*27 - 123*		B7A0216	01/09/2017	*01/09/17 17:24*	
Surrogate: Tetrachloro-m-xylene	*81.2 %*		*26 - 108*		B7A0216	01/09/2017	*01/09/17 17:24*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/11/2017

Client Sample ID FB9-1-1.5

Lab ID: 1604923-11

Polychlorinated Biphenyls by EPA 8082 **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B7A0217	01/09/2017	01/09/17 15:38	
Aroclor 1221	ND	16	1.5	1	B7A0217	01/09/2017	01/09/17 15:38	
Aroclor 1232	ND	16	1.5	1	B7A0217	01/09/2017	01/09/17 15:38	
Aroclor 1242	ND	16	1.5	1	B7A0217	01/09/2017	01/09/17 15:38	
Aroclor 1248	ND	16	1.5	1	B7A0217	01/09/2017	01/09/17 15:38	
Aroclor 1254	ND	16	1.5	1	B7A0217	01/09/2017	01/09/17 15:38	
Aroclor 1260	ND	16	1.5	1	B7A0217	01/09/2017	01/09/17 15:38	
Aroclor 1262	ND	16	1.5	1	B7A0217	01/09/2017	01/09/17 15:38	
Aroclor 1268	ND	16	1.5	1	B7A0217	01/09/2017	01/09/17 15:38	
Surrogate: Decachlorobiphenyl	*102 %*	*26 - 137*			B7A0217	01/09/2017	*01/09/17 15:38*	
Surrogate: Tetrachloro-m-xylene	*111 %*	*28 - 102*			B7A0217	01/09/2017	*01/09/17 15:38*	S1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/11/2017

Client Sample ID FB9-1-2.5

Lab ID: 1604923-12

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.6**	1.0	0.70	1	B7A0232	01/09/2017	01/10/17 12:05	
Lead	**2.8**	1.0	0.11	1	B7A0232	01/09/2017	01/10/17 12:05	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0216	01/09/2017	01/09/17 17:35	
4,4´-DDE	ND	2.0	0.20	1	B7A0216	01/09/2017	01/09/17 17:35	
4,4´-DDT	ND	2.0	0.13	1	B7A0216	01/09/2017	01/09/17 17:35	
Aldrin	ND	1.0	0.27	1	B7A0216	01/09/2017	01/09/17 17:35	
alpha-BHC	ND	1.0	0.20	1	B7A0216	01/09/2017	01/09/17 17:35	
alpha-Chlordane	ND	1.0	0.21	1	B7A0216	01/09/2017	01/09/17 17:35	
beta-BHC	ND	1.0	0.23	1	B7A0216	01/09/2017	01/09/17 17:35	
Chlordane	ND	8.5	0.90	1	B7A0216	01/09/2017	01/09/17 17:35	
delta-BHC	ND	1.0	0.21	1	B7A0216	01/09/2017	01/09/17 17:35	
Dieldrin	ND	2.0	0.25	1	B7A0216	01/09/2017	01/09/17 17:35	
Endosulfan I	ND	1.0	0.21	1	B7A0216	01/09/2017	01/09/17 17:35	
Endosulfan II	ND	2.0	0.22	1	B7A0216	01/09/2017	01/09/17 17:35	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0216	01/09/2017	01/09/17 17:35	
Endrin	ND	2.0	0.23	1	B7A0216	01/09/2017	01/09/17 17:35	
Endrin aldehyde	ND	2.0	0.28	1	B7A0216	01/09/2017	01/09/17 17:35	
Endrin ketone	ND	2.0	0.20	1	B7A0216	01/09/2017	01/09/17 17:35	
gamma-BHC	ND	1.0	0.20	1	B7A0216	01/09/2017	01/09/17 17:35	
gamma-Chlordane	ND	1.0	0.23	1	B7A0216	01/09/2017	01/09/17 17:35	
Heptachlor	ND	1.0	0.19	1	B7A0216	01/09/2017	01/09/17 17:35	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0216	01/09/2017	01/09/17 17:35	
Methoxychlor	ND	5.0	0.18	1	B7A0216	01/09/2017	01/09/17 17:35	
Toxaphene	ND	50	8.2	1	B7A0216	01/09/2017	01/09/17 17:35	
Surrogate: Decachlorobiphenyl	*74.1 %*		*27 - 123*		B7A0216	01/09/2017	*01/09/17 17:35*	
Surrogate: Tetrachloro-m-xylene	*84.9 %*		*26 - 108*		B7A0216	01/09/2017	*01/09/17 17:35*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/11/2017

Client Sample ID FB4-2-0.5

Lab ID: 1604923-13

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.2**	1.0	0.70	1	B7A0232	01/09/2017	01/10/17 12:06	
Lead	**34**	1.0	0.11	1	B7A0232	01/09/2017	01/10/17 12:06	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0216	01/09/2017	01/09/17 17:45	
4,4´-DDE	ND	2.0	0.20	1	B7A0216	01/09/2017	01/09/17 17:45	
4,4´-DDT	**0.36**	2.0	0.13	1	B7A0216	01/09/2017	01/09/17 17:45	J
Aldrin	ND	1.0	0.27	1	B7A0216	01/09/2017	01/09/17 17:45	
alpha-BHC	ND	1.0	0.20	1	B7A0216	01/09/2017	01/09/17 17:45	
alpha-Chlordane	ND	1.0	0.21	1	B7A0216	01/09/2017	01/09/17 17:45	
beta-BHC	ND	1.0	0.23	1	B7A0216	01/09/2017	01/09/17 17:45	
Chlordane	ND	8.5	0.90	1	B7A0216	01/09/2017	01/09/17 17:45	
delta-BHC	ND	1.0	0.21	1	B7A0216	01/09/2017	01/09/17 17:45	
Dieldrin	ND	2.0	0.25	1	B7A0216	01/09/2017	01/09/17 17:45	
Endosulfan I	ND	1.0	0.21	1	B7A0216	01/09/2017	01/09/17 17:45	
Endosulfan II	ND	2.0	0.22	1	B7A0216	01/09/2017	01/09/17 17:45	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0216	01/09/2017	01/09/17 17:45	
Endrin	ND	2.0	0.23	1	B7A0216	01/09/2017	01/09/17 17:45	
Endrin aldehyde	ND	2.0	0.28	1	B7A0216	01/09/2017	01/09/17 17:45	
Endrin ketone	ND	2.0	0.20	1	B7A0216	01/09/2017	01/09/17 17:45	
gamma-BHC	ND	1.0	0.20	1	B7A0216	01/09/2017	01/09/17 17:45	
gamma-Chlordane	ND	1.0	0.23	1	B7A0216	01/09/2017	01/09/17 17:45	
Heptachlor	ND	1.0	0.19	1	B7A0216	01/09/2017	01/09/17 17:45	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0216	01/09/2017	01/09/17 17:45	
Methoxychlor	ND	5.0	0.18	1	B7A0216	01/09/2017	01/09/17 17:45	
Toxaphene	ND	50	8.2	1	B7A0216	01/09/2017	01/09/17 17:45	
Surrogate: Decachlorobiphenyl	*66.6 %*		*27 - 123*		B7A0216	01/09/2017	*01/09/17 17:45*	
Surrogate: Tetrachloro-m-xylene	*72.5 %*		*26 - 108*		B7A0216	01/09/2017	*01/09/17 17:45*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/11/2017

Client Sample ID FB4-2-1.5

Lab ID: 1604923-14

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**4.5**	1.0	0.70	1	B7A0232	01/09/2017	01/10/17 12:07	
Lead	**52**	1.0	0.11	1	B7A0232	01/09/2017	01/10/17 12:07	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0216	01/09/2017	01/09/17 17:55	
4,4´-DDE	ND	2.0	0.20	1	B7A0216	01/09/2017	01/09/17 17:55	
4,4´-DDT	ND	2.0	0.13	1	B7A0216	01/09/2017	01/09/17 17:55	
Aldrin	ND	1.0	0.27	1	B7A0216	01/09/2017	01/09/17 17:55	
alpha-BHC	ND	1.0	0.20	1	B7A0216	01/09/2017	01/09/17 17:55	
alpha-Chlordane	ND	1.0	0.21	1	B7A0216	01/09/2017	01/09/17 17:55	
beta-BHC	ND	1.0	0.23	1	B7A0216	01/09/2017	01/09/17 17:55	
Chlordane	ND	8.5	0.90	1	B7A0216	01/09/2017	01/09/17 17:55	
delta-BHC	ND	1.0	0.21	1	B7A0216	01/09/2017	01/09/17 17:55	
Dieldrin	ND	2.0	0.25	1	B7A0216	01/09/2017	01/09/17 17:55	
Endosulfan I	ND	1.0	0.21	1	B7A0216	01/09/2017	01/09/17 17:55	
Endosulfan II	ND	2.0	0.22	1	B7A0216	01/09/2017	01/09/17 17:55	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0216	01/09/2017	01/09/17 17:55	
Endrin	ND	2.0	0.23	1	B7A0216	01/09/2017	01/09/17 17:55	
Endrin aldehyde	ND	2.0	0.28	1	B7A0216	01/09/2017	01/09/17 17:55	
Endrin ketone	ND	2.0	0.20	1	B7A0216	01/09/2017	01/09/17 17:55	
gamma-BHC	ND	1.0	0.20	1	B7A0216	01/09/2017	01/09/17 17:55	
gamma-Chlordane	ND	1.0	0.23	1	B7A0216	01/09/2017	01/09/17 17:55	
Heptachlor	ND	1.0	0.19	1	B7A0216	01/09/2017	01/09/17 17:55	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0216	01/09/2017	01/09/17 17:55	
Methoxychlor	ND	5.0	0.18	1	B7A0216	01/09/2017	01/09/17 17:55	
Toxaphene	ND	50	8.2	1	B7A0216	01/09/2017	01/09/17 17:55	
Surrogate: Decachlorobiphenyl	*72.0 %*	*27 - 123*			B7A0216	01/09/2017	*01/09/17 17:55*	
Surrogate: Tetrachloro-m-xylene	*82.8 %*	*26 - 108*			B7A0216	01/09/2017	*01/09/17 17:55*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/11/2017

Client Sample ID FB4-2-2.5

Lab ID: 1604923-15

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.6**	1.0	0.70	1	B7A0232	01/09/2017	01/10/17 12:08	
Lead	**21**	1.0	0.11	1	B7A0232	01/09/2017	01/10/17 12:08	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0216	01/09/2017	01/09/17 18:06	
4,4´-DDE	ND	2.0	0.20	1	B7A0216	01/09/2017	01/09/17 18:06	
4,4´-DDT	ND	2.0	0.13	1	B7A0216	01/09/2017	01/09/17 18:06	
Aldrin	ND	1.0	0.27	1	B7A0216	01/09/2017	01/09/17 18:06	
alpha-BHC	ND	1.0	0.20	1	B7A0216	01/09/2017	01/09/17 18:06	
alpha-Chlordane	ND	1.0	0.21	1	B7A0216	01/09/2017	01/09/17 18:06	
beta-BHC	ND	1.0	0.23	1	B7A0216	01/09/2017	01/09/17 18:06	
Chlordane	ND	8.5	0.90	1	B7A0216	01/09/2017	01/09/17 18:06	
delta-BHC	ND	1.0	0.21	1	B7A0216	01/09/2017	01/09/17 18:06	
Dieldrin	ND	2.0	0.25	1	B7A0216	01/09/2017	01/09/17 18:06	
Endosulfan I	ND	1.0	0.21	1	B7A0216	01/09/2017	01/09/17 18:06	
Endosulfan II	ND	2.0	0.22	1	B7A0216	01/09/2017	01/09/17 18:06	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0216	01/09/2017	01/09/17 18:06	
Endrin	ND	2.0	0.23	1	B7A0216	01/09/2017	01/09/17 18:06	
Endrin aldehyde	ND	2.0	0.28	1	B7A0216	01/09/2017	01/09/17 18:06	
Endrin ketone	ND	2.0	0.20	1	B7A0216	01/09/2017	01/09/17 18:06	
gamma-BHC	ND	1.0	0.20	1	B7A0216	01/09/2017	01/09/17 18:06	
gamma-Chlordane	ND	1.0	0.23	1	B7A0216	01/09/2017	01/09/17 18:06	
Heptachlor	ND	1.0	0.19	1	B7A0216	01/09/2017	01/09/17 18:06	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0216	01/09/2017	01/09/17 18:06	
Methoxychlor	ND	5.0	0.18	1	B7A0216	01/09/2017	01/09/17 18:06	
Toxaphene	ND	50	8.2	1	B7A0216	01/09/2017	01/09/17 18:06	
Surrogate: Decachlorobiphenyl	*81.8 %*	*27 - 123*			B7A0216	01/09/2017	*01/09/17 18:06*	
Surrogate: Tetrachloro-m-xylene	*77.3 %*	*26 - 108*			B7A0216	01/09/2017	*01/09/17 18:06*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/11/2017

Client Sample ID FB9-4-0.5

Lab ID: 1604923-16

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**9.3**	1.0	0.70	1	B7A0232	01/09/2017	01/10/17 12:12	
Lead	**65**	1.0	0.11	1	B7A0232	01/09/2017	01/10/17 12:12	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0216	01/09/2017	01/09/17 18:16	
4,4´-DDE	**1.1**	2.0	0.20	1	B7A0216	01/09/2017	01/09/17 18:16	J
4,4´-DDT	**0.97**	2.0	0.13	1	B7A0216	01/09/2017	01/09/17 18:16	J
Aldrin	ND	1.0	0.27	1	B7A0216	01/09/2017	01/09/17 18:16	
alpha-BHC	ND	1.0	0.20	1	B7A0216	01/09/2017	01/09/17 18:16	
alpha-Chlordane	**1.4**	1.0	0.21	1	B7A0216	01/09/2017	01/09/17 18:16	
beta-BHC	ND	1.0	0.23	1	B7A0216	01/09/2017	01/09/17 18:16	
Chlordane	**12**	8.5	0.90	1	B7A0216	01/09/2017	01/09/17 18:16	
delta-BHC	ND	1.0	0.21	1	B7A0216	01/09/2017	01/09/17 18:16	
Dieldrin	ND	2.0	0.25	1	B7A0216	01/09/2017	01/09/17 18:16	
Endosulfan I	ND	1.0	0.21	1	B7A0216	01/09/2017	01/09/17 18:16	
Endosulfan II	ND	2.0	0.22	1	B7A0216	01/09/2017	01/09/17 18:16	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0216	01/09/2017	01/09/17 18:16	
Endrin	ND	2.0	0.23	1	B7A0216	01/09/2017	01/09/17 18:16	
Endrin aldehyde	ND	2.0	0.28	1	B7A0216	01/09/2017	01/09/17 18:16	
Endrin ketone	ND	2.0	0.20	1	B7A0216	01/09/2017	01/09/17 18:16	
gamma-BHC	ND	1.0	0.20	1	B7A0216	01/09/2017	01/09/17 18:16	
gamma-Chlordane [2C]	**1.4**	1.0	0.23	1	B7A0216	01/09/2017	01/09/17 18:16	
Heptachlor	ND	1.0	0.19	1	B7A0216	01/09/2017	01/09/17 18:16	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0216	01/09/2017	01/09/17 18:16	
Methoxychlor	ND	5.0	0.18	1	B7A0216	01/09/2017	01/09/17 18:16	
Toxaphene	ND	50	8.2	1	B7A0216	01/09/2017	01/09/17 18:16	
Surrogate: Decachlorobiphenyl	*57.3 %*	*27 - 123*			B7A0216	01/09/2017	*01/09/17 18:16*	
Surrogate: Tetrachloro-m-xylene	*68.4 %*	*26 - 108*			B7A0216	01/09/2017	*01/09/17 18:16*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/11/2017

Client Sample ID FB9-4-1.5
Lab ID: 1604923-17

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.8**	1.0	0.70	1	B7A0232	01/09/2017	01/10/17 12:13	
Lead	**160**	1.0	0.11	1	B7A0232	01/09/2017	01/10/17 12:13	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0216	01/09/2017	01/09/17 18:27	
4,4´-DDE	ND	2.0	0.20	1	B7A0216	01/09/2017	01/09/17 18:27	
4,4´-DDT	ND	2.0	0.13	1	B7A0216	01/09/2017	01/09/17 18:27	
Aldrin	ND	1.0	0.27	1	B7A0216	01/09/2017	01/09/17 18:27	
alpha-BHC	ND	1.0	0.20	1	B7A0216	01/09/2017	01/09/17 18:27	
alpha-Chlordane	**0.42**	1.0	0.21	1	B7A0216	01/09/2017	01/09/17 18:27	J
beta-BHC	ND	1.0	0.23	1	B7A0216	01/09/2017	01/09/17 18:27	
Chlordane	**3.5**	8.5	0.90	1	B7A0216	01/09/2017	01/09/17 18:27	J
delta-BHC	ND	1.0	0.21	1	B7A0216	01/09/2017	01/09/17 18:27	
Dieldrin	ND	2.0	0.25	1	B7A0216	01/09/2017	01/09/17 18:27	
Endosulfan I	ND	1.0	0.21	1	B7A0216	01/09/2017	01/09/17 18:27	
Endosulfan II	ND	2.0	0.22	1	B7A0216	01/09/2017	01/09/17 18:27	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0216	01/09/2017	01/09/17 18:27	
Endrin	ND	2.0	0.23	1	B7A0216	01/09/2017	01/09/17 18:27	
Endrin aldehyde	ND	2.0	0.28	1	B7A0216	01/09/2017	01/09/17 18:27	
Endrin ketone	ND	2.0	0.20	1	B7A0216	01/09/2017	01/09/17 18:27	
gamma-BHC	ND	1.0	0.20	1	B7A0216	01/09/2017	01/09/17 18:27	
gamma-Chlordane	**0.40**	1.0	0.23	1	B7A0216	01/09/2017	01/09/17 18:27	J
Heptachlor	ND	1.0	0.19	1	B7A0216	01/09/2017	01/09/17 18:27	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0216	01/09/2017	01/09/17 18:27	
Methoxychlor	ND	5.0	0.18	1	B7A0216	01/09/2017	01/09/17 18:27	
Toxaphene	ND	50	8.2	1	B7A0216	01/09/2017	01/09/17 18:27	
Surrogate: Decachlorobiphenyl	*78.5 %*		*27 - 123*		B7A0216	01/09/2017	*01/09/17 18:27*	
Surrogate: Tetrachloro-m-xylene	*82.2 %*		*26 - 108*		B7A0216	01/09/2017	*01/09/17 18:27*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/11/2017

Client Sample ID FB9-4-2.5
Lab ID: 1604923-18

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.1**	1.0	0.70	1	B7A0232	01/09/2017	01/10/17 12:14	
Lead	**33**	1.0	0.11	1	B7A0232	01/09/2017	01/10/17 12:14	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0216	01/09/2017	01/09/17 18:37	
4,4´-DDE	ND	2.0	0.20	1	B7A0216	01/09/2017	01/09/17 18:37	
4,4´-DDT	ND	2.0	0.13	1	B7A0216	01/09/2017	01/09/17 18:37	
Aldrin	ND	1.0	0.27	1	B7A0216	01/09/2017	01/09/17 18:37	
alpha-BHC	ND	1.0	0.20	1	B7A0216	01/09/2017	01/09/17 18:37	
alpha-Chlordane	ND	1.0	0.21	1	B7A0216	01/09/2017	01/09/17 18:37	
beta-BHC	ND	1.0	0.23	1	B7A0216	01/09/2017	01/09/17 18:37	
Chlordane	ND	8.5	0.90	1	B7A0216	01/09/2017	01/09/17 18:37	
delta-BHC	ND	1.0	0.21	1	B7A0216	01/09/2017	01/09/17 18:37	
Dieldrin	ND	2.0	0.25	1	B7A0216	01/09/2017	01/09/17 18:37	
Endosulfan I	ND	1.0	0.21	1	B7A0216	01/09/2017	01/09/17 18:37	
Endosulfan II	ND	2.0	0.22	1	B7A0216	01/09/2017	01/09/17 18:37	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0216	01/09/2017	01/09/17 18:37	
Endrin	ND	2.0	0.23	1	B7A0216	01/09/2017	01/09/17 18:37	
Endrin aldehyde	ND	2.0	0.28	1	B7A0216	01/09/2017	01/09/17 18:37	
Endrin ketone	ND	2.0	0.20	1	B7A0216	01/09/2017	01/09/17 18:37	
gamma-BHC	ND	1.0	0.20	1	B7A0216	01/09/2017	01/09/17 18:37	
gamma-Chlordane	ND	1.0	0.23	1	B7A0216	01/09/2017	01/09/17 18:37	
Heptachlor	ND	1.0	0.19	1	B7A0216	01/09/2017	01/09/17 18:37	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0216	01/09/2017	01/09/17 18:37	
Methoxychlor	ND	5.0	0.18	1	B7A0216	01/09/2017	01/09/17 18:37	
Toxaphene	ND	50	8.2	1	B7A0216	01/09/2017	01/09/17 18:37	
Surrogate: Decachlorobiphenyl	*61.8 %*		*27 - 123*		B7A0216	01/09/2017	*01/09/17 18:37*	
Surrogate: Tetrachloro-m-xylene	*71.2 %*		*26 - 108*		B7A0216	01/09/2017	*01/09/17 18:37*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/11/2017

Client Sample ID FB9-2-0.5

Lab ID: 1604923-19

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.6**	1.0	0.70	1	B7A0233	01/09/2017	01/10/17 12:35	
Lead	**7.9**	1.0	0.11	1	B7A0233	01/09/2017	01/10/17 12:35	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0216	01/09/2017	01/09/17 18:48	
4,4´-DDE	ND	2.0	0.20	1	B7A0216	01/09/2017	01/09/17 18:48	
4,4´-DDT [2C]	**0.19**	2.0	0.13	1	B7A0216	01/09/2017	01/09/17 18:48	J
Aldrin	ND	1.0	0.27	1	B7A0216	01/09/2017	01/09/17 18:48	
alpha-BHC	ND	1.0	0.20	1	B7A0216	01/09/2017	01/09/17 18:48	
alpha-Chlordane	**0.23**	1.0	0.21	1	B7A0216	01/09/2017	01/09/17 18:48	J
beta-BHC	ND	1.0	0.23	1	B7A0216	01/09/2017	01/09/17 18:48	
Chlordane	**2.9**	8.5	0.90	1	B7A0216	01/09/2017	01/09/17 18:48	J
delta-BHC	ND	1.0	0.21	1	B7A0216	01/09/2017	01/09/17 18:48	
Dieldrin	ND	2.0	0.25	1	B7A0216	01/09/2017	01/09/17 18:48	
Endosulfan I	ND	1.0	0.21	1	B7A0216	01/09/2017	01/09/17 18:48	
Endosulfan II	ND	2.0	0.22	1	B7A0216	01/09/2017	01/09/17 18:48	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0216	01/09/2017	01/09/17 18:48	
Endrin	ND	2.0	0.23	1	B7A0216	01/09/2017	01/09/17 18:48	
Endrin aldehyde	ND	2.0	0.28	1	B7A0216	01/09/2017	01/09/17 18:48	
Endrin ketone	ND	2.0	0.20	1	B7A0216	01/09/2017	01/09/17 18:48	
gamma-BHC	ND	1.0	0.20	1	B7A0216	01/09/2017	01/09/17 18:48	
gamma-Chlordane [2C]	**0.26**	1.0	0.23	1	B7A0216	01/09/2017	01/09/17 18:48	J
Heptachlor	ND	1.0	0.19	1	B7A0216	01/09/2017	01/09/17 18:48	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0216	01/09/2017	01/09/17 18:48	
Methoxychlor	ND	5.0	0.18	1	B7A0216	01/09/2017	01/09/17 18:48	
Toxaphene	ND	50	8.2	1	B7A0216	01/09/2017	01/09/17 18:48	
Surrogate: Decachlorobiphenyl	*66.3 %*	*27 - 123*			B7A0216	01/09/2017	*01/09/17 18:48*	
Surrogate: Tetrachloro-m-xylene	*77.6 %*	*26 - 108*			B7A0216	01/09/2017	*01/09/17 18:48*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/11/2017

Client Sample ID FB9-2-1.5
Lab ID: 1604923-20

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.8**	1.0	0.70	1	B7A0233	01/09/2017	01/10/17 12:39	
Lead	**3.2**	1.0	0.11	1	B7A0233	01/09/2017	01/10/17 12:39	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0216	01/09/2017	01/09/17 18:58	
4,4´-DDE	ND	2.0	0.20	1	B7A0216	01/09/2017	01/09/17 18:58	
4,4´-DDT	ND	2.0	0.13	1	B7A0216	01/09/2017	01/09/17 18:58	
Aldrin	ND	1.0	0.27	1	B7A0216	01/09/2017	01/09/17 18:58	
alpha-BHC	ND	1.0	0.20	1	B7A0216	01/09/2017	01/09/17 18:58	
alpha-Chlordane	ND	1.0	0.21	1	B7A0216	01/09/2017	01/09/17 18:58	
beta-BHC	ND	1.0	0.23	1	B7A0216	01/09/2017	01/09/17 18:58	
Chlordane	ND	8.5	0.90	1	B7A0216	01/09/2017	01/09/17 18:58	
delta-BHC	ND	1.0	0.21	1	B7A0216	01/09/2017	01/09/17 18:58	
Dieldrin	ND	2.0	0.25	1	B7A0216	01/09/2017	01/09/17 18:58	
Endosulfan I	ND	1.0	0.21	1	B7A0216	01/09/2017	01/09/17 18:58	
Endosulfan II	ND	2.0	0.22	1	B7A0216	01/09/2017	01/09/17 18:58	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0216	01/09/2017	01/09/17 18:58	
Endrin	ND	2.0	0.23	1	B7A0216	01/09/2017	01/09/17 18:58	
Endrin aldehyde	ND	2.0	0.28	1	B7A0216	01/09/2017	01/09/17 18:58	
Endrin ketone	ND	2.0	0.20	1	B7A0216	01/09/2017	01/09/17 18:58	
gamma-BHC	ND	1.0	0.20	1	B7A0216	01/09/2017	01/09/17 18:58	
gamma-Chlordane	ND	1.0	0.23	1	B7A0216	01/09/2017	01/09/17 18:58	
Heptachlor	ND	1.0	0.19	1	B7A0216	01/09/2017	01/09/17 18:58	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0216	01/09/2017	01/09/17 18:58	
Methoxychlor	ND	5.0	0.18	1	B7A0216	01/09/2017	01/09/17 18:58	
Toxaphene	ND	50	8.2	1	B7A0216	01/09/2017	01/09/17 18:58	
Surrogate: Decachlorobiphenyl	*70.9 %*		*27 - 123*		B7A0216	01/09/2017	*01/09/17 18:58*	
Surrogate: Tetrachloro-m-xylene	*81.3 %*		*26 - 108*		B7A0216	01/09/2017	*01/09/17 18:58*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/11/2017

Client Sample ID FB9-2-2.5
Lab ID: 1604923-21

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.7**	1.0	0.70	1	B7A0233	01/09/2017	01/10/17 12:40	
Lead	**3.3**	1.0	0.11	1	B7A0233	01/09/2017	01/10/17 12:40	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0235	01/09/2017	01/10/17 17:04	
4,4´-DDE	ND	2.0	0.20	1	B7A0235	01/09/2017	01/10/17 17:04	
4,4´-DDT	**0.14**	2.0	0.13	1	B7A0235	01/09/2017	01/10/17 17:04	J
Aldrin	ND	1.0	0.27	1	B7A0235	01/09/2017	01/10/17 17:04	
alpha-BHC	ND	1.0	0.20	1	B7A0235	01/09/2017	01/10/17 17:04	
alpha-Chlordane	ND	1.0	0.21	1	B7A0235	01/09/2017	01/10/17 17:04	
beta-BHC	ND	1.0	0.23	1	B7A0235	01/09/2017	01/10/17 17:04	
Chlordane	ND	8.5	0.90	1	B7A0235	01/09/2017	01/10/17 17:04	
delta-BHC	ND	1.0	0.21	1	B7A0235	01/09/2017	01/10/17 17:04	
Dieldrin	ND	2.0	0.25	1	B7A0235	01/09/2017	01/10/17 17:04	
Endosulfan I	ND	1.0	0.21	1	B7A0235	01/09/2017	01/10/17 17:04	
Endosulfan II	ND	2.0	0.22	1	B7A0235	01/09/2017	01/10/17 17:04	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0235	01/09/2017	01/10/17 17:04	
Endrin	ND	2.0	0.23	1	B7A0235	01/09/2017	01/10/17 17:04	
Endrin aldehyde	ND	2.0	0.28	1	B7A0235	01/09/2017	01/10/17 17:04	
Endrin ketone	ND	2.0	0.20	1	B7A0235	01/09/2017	01/10/17 17:04	
gamma-BHC	ND	1.0	0.20	1	B7A0235	01/09/2017	01/10/17 17:04	
gamma-Chlordane	ND	1.0	0.23	1	B7A0235	01/09/2017	01/10/17 17:04	
Heptachlor	ND	1.0	0.19	1	B7A0235	01/09/2017	01/10/17 17:04	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0235	01/09/2017	01/10/17 17:04	
Methoxychlor	ND	5.0	0.18	1	B7A0235	01/09/2017	01/10/17 17:04	
Toxaphene	ND	50	8.2	1	B7A0235	01/09/2017	01/10/17 17:04	
Surrogate: Decachlorobiphenyl	*82.4 %*		*27 - 123*		B7A0235	01/09/2017	*01/10/17 17:04*	
Surrogate: Tetrachloro-m-xylene	*82.0 %*		*26 - 108*		B7A0235	01/09/2017	*01/10/17 17:04*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/11/2017

Client Sample ID FB9-3-0.5

Lab ID: 1604923-22

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.0**	1.0	0.70	1	B7A0233	01/09/2017	01/10/17 12:41	
Lead	**53**	1.0	0.11	1	B7A0233	01/09/2017	01/10/17 12:41	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	**2.1**	2.0	0.22	1	B7A0235	01/09/2017	01/10/17 17:15	
4,4´-DDE [2C]	**1.3**	2.0	0.20	1	B7A0235	01/09/2017	01/10/17 17:15	J
4,4´-DDT	ND	2.0	0.13	1	B7A0235	01/09/2017	01/10/17 17:15	
Aldrin	ND	1.0	0.27	1	B7A0235	01/09/2017	01/10/17 17:15	
alpha-BHC	ND	1.0	0.20	1	B7A0235	01/09/2017	01/10/17 17:15	
alpha-Chlordane [2C]	**15**	1.0	0.21	1	B7A0235	01/09/2017	01/10/17 17:15	
beta-BHC	ND	1.0	0.23	1	B7A0235	01/09/2017	01/10/17 17:15	
Chlordane [2C]	**110**	8.5	0.90	1	B7A0235	01/09/2017	01/10/17 17:15	
delta-BHC	ND	1.0	0.21	1	B7A0235	01/09/2017	01/10/17 17:15	
Dieldrin	ND	2.0	0.25	1	B7A0235	01/09/2017	01/10/17 17:15	
Endosulfan I	ND	1.0	0.21	1	B7A0235	01/09/2017	01/10/17 17:15	
Endosulfan II	ND	2.0	0.22	1	B7A0235	01/09/2017	01/10/17 17:15	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0235	01/09/2017	01/10/17 17:15	
Endrin	**0.55**	2.0	0.23	1	B7A0235	01/09/2017	01/10/17 17:15	J
Endrin aldehyde	ND	2.0	0.28	1	B7A0235	01/09/2017	01/10/17 17:15	
Endrin ketone	ND	2.0	0.20	1	B7A0235	01/09/2017	01/10/17 17:15	
gamma-BHC	ND	1.0	0.20	1	B7A0235	01/09/2017	01/10/17 17:15	
gamma-Chlordane	**13**	1.0	0.23	1	B7A0235	01/09/2017	01/10/17 17:15	
Heptachlor	ND	1.0	0.19	1	B7A0235	01/09/2017	01/10/17 17:15	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0235	01/09/2017	01/10/17 17:15	
Methoxychlor	ND	5.0	0.18	1	B7A0235	01/09/2017	01/10/17 17:15	
Toxaphene	ND	50	8.2	1	B7A0235	01/09/2017	01/10/17 17:15	
Surrogate: Decachlorobiphenyl	*81.9 %*	*27 - 123*			B7A0235	01/09/2017	*01/10/17 17:15*	
Surrogate: Tetrachloro-m-xylene	*83.9 %*	*26 - 108*			B7A0235	01/09/2017	*01/10/17 17:15*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/11/2017

Client Sample ID FB9-3-0.5

Lab ID: 1604923-22

Polychlorinated Biphenyls by EPA 8082 **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B7A0217	01/09/2017	01/09/17 15:57	
Aroclor 1221	ND	16	1.5	1	B7A0217	01/09/2017	01/09/17 15:57	
Aroclor 1232	ND	16	1.5	1	B7A0217	01/09/2017	01/09/17 15:57	
Aroclor 1242	ND	16	1.5	1	B7A0217	01/09/2017	01/09/17 15:57	
Aroclor 1248	ND	16	1.5	1	B7A0217	01/09/2017	01/09/17 15:57	
Aroclor 1254	ND	16	1.5	1	B7A0217	01/09/2017	01/09/17 15:57	
Aroclor 1260	ND	16	1.5	1	B7A0217	01/09/2017	01/09/17 15:57	
Aroclor 1262	ND	16	1.5	1	B7A0217	01/09/2017	01/09/17 15:57	
Aroclor 1268	ND	16	1.5	1	B7A0217	01/09/2017	01/09/17 15:57	
Surrogate: Decachlorobiphenyl	*103 %*	*26 - 137*			B7A0217	01/09/2017	*01/09/17 15:57*	
Surrogate: Tetrachloro-m-xylene	*110 %*	*28 - 102*			B7A0217	01/09/2017	*01/09/17 15:57*	S1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/11/2017

Client Sample ID FB9-3-1.5
Lab ID: 1604923-23

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.8**	1.0	0.70	1	B7A0233	01/09/2017	01/10/17 12:42	
Lead	**3.8**	1.0	0.11	1	B7A0233	01/09/2017	01/10/17 12:42	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0235	01/09/2017	01/10/17 17:26	
4,4´-DDE	ND	2.0	0.20	1	B7A0235	01/09/2017	01/10/17 17:26	
4,4´-DDT	ND	2.0	0.13	1	B7A0235	01/09/2017	01/10/17 17:26	
Aldrin	ND	1.0	0.27	1	B7A0235	01/09/2017	01/10/17 17:26	
alpha-BHC	ND	1.0	0.20	1	B7A0235	01/09/2017	01/10/17 17:26	
alpha-Chlordane	ND	1.0	0.21	1	B7A0235	01/09/2017	01/10/17 17:26	
beta-BHC	ND	1.0	0.23	1	B7A0235	01/09/2017	01/10/17 17:26	
Chlordane	ND	8.5	0.90	1	B7A0235	01/09/2017	01/10/17 17:26	
delta-BHC	ND	1.0	0.21	1	B7A0235	01/09/2017	01/10/17 17:26	
Dieldrin	ND	2.0	0.25	1	B7A0235	01/09/2017	01/10/17 17:26	
Endosulfan I	ND	1.0	0.21	1	B7A0235	01/09/2017	01/10/17 17:26	
Endosulfan II	ND	2.0	0.22	1	B7A0235	01/09/2017	01/10/17 17:26	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0235	01/09/2017	01/10/17 17:26	
Endrin	ND	2.0	0.23	1	B7A0235	01/09/2017	01/10/17 17:26	
Endrin aldehyde	ND	2.0	0.28	1	B7A0235	01/09/2017	01/10/17 17:26	
Endrin ketone	ND	2.0	0.20	1	B7A0235	01/09/2017	01/10/17 17:26	
gamma-BHC	ND	1.0	0.20	1	B7A0235	01/09/2017	01/10/17 17:26	
gamma-Chlordane	ND	1.0	0.23	1	B7A0235	01/09/2017	01/10/17 17:26	
Heptachlor	ND	1.0	0.19	1	B7A0235	01/09/2017	01/10/17 17:26	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0235	01/09/2017	01/10/17 17:26	
Methoxychlor	ND	5.0	0.18	1	B7A0235	01/09/2017	01/10/17 17:26	
Toxaphene	ND	50	8.2	1	B7A0235	01/09/2017	01/10/17 17:26	
Surrogate: Decachlorobiphenyl	*81.8 %*		*27 - 123*		B7A0235	01/09/2017	*01/10/17 17:26*	
Surrogate: Tetrachloro-m-xylene	*82.9 %*		*26 - 108*		B7A0235	01/09/2017	*01/10/17 17:26*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/11/2017

Client Sample ID FB9-3-2.5
Lab ID: 1604923-24

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**3.9**	5.0	3.5	5	B7A0233	01/09/2017	01/10/17 14:10	D5, J
Lead	**10**	5.0	0.56	5	B7A0233	01/09/2017	01/10/17 14:10	D5

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0235	01/09/2017	01/10/17 17:36	
4,4´-DDE	ND	2.0	0.20	1	B7A0235	01/09/2017	01/10/17 17:36	
4,4´-DDT	ND	2.0	0.13	1	B7A0235	01/09/2017	01/10/17 17:36	
Aldrin	ND	1.0	0.27	1	B7A0235	01/09/2017	01/10/17 17:36	
alpha-BHC	ND	1.0	0.20	1	B7A0235	01/09/2017	01/10/17 17:36	
alpha-Chlordane	ND	1.0	0.21	1	B7A0235	01/09/2017	01/10/17 17:36	
beta-BHC	ND	1.0	0.23	1	B7A0235	01/09/2017	01/10/17 17:36	
Chlordane	ND	8.5	0.90	1	B7A0235	01/09/2017	01/10/17 17:36	
delta-BHC	ND	1.0	0.21	1	B7A0235	01/09/2017	01/10/17 17:36	
Dieldrin	ND	2.0	0.25	1	B7A0235	01/09/2017	01/10/17 17:36	
Endosulfan I	ND	1.0	0.21	1	B7A0235	01/09/2017	01/10/17 17:36	
Endosulfan II	ND	2.0	0.22	1	B7A0235	01/09/2017	01/10/17 17:36	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0235	01/09/2017	01/10/17 17:36	
Endrin	ND	2.0	0.23	1	B7A0235	01/09/2017	01/10/17 17:36	
Endrin aldehyde	ND	2.0	0.28	1	B7A0235	01/09/2017	01/10/17 17:36	
Endrin ketone	ND	2.0	0.20	1	B7A0235	01/09/2017	01/10/17 17:36	
gamma-BHC	ND	1.0	0.20	1	B7A0235	01/09/2017	01/10/17 17:36	
gamma-Chlordane	ND	1.0	0.23	1	B7A0235	01/09/2017	01/10/17 17:36	
Heptachlor	ND	1.0	0.19	1	B7A0235	01/09/2017	01/10/17 17:36	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0235	01/09/2017	01/10/17 17:36	
Methoxychlor	ND	5.0	0.18	1	B7A0235	01/09/2017	01/10/17 17:36	
Toxaphene	ND	50	8.2	1	B7A0235	01/09/2017	01/10/17 17:36	
Surrogate: Decachlorobiphenyl	*87.8 %*		*27 - 123*		B7A0235	01/09/2017	*01/10/17 17:36*	
Surrogate: Tetrachloro-m-xylene	*90.7 %*		*26 - 108*		B7A0235	01/09/2017	*01/10/17 17:36*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/11/2017

QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0232 - EPA 3050B_S									
Blank (B7A0232-BLK1)				Prepared: 1/9/2017 Analyzed: 1/10/2017					
Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				
LCS (B7A0232-BS1)				Prepared: 1/9/2017 Analyzed: 1/10/2017					
Arsenic	48.4276	1.0	50.0000		96.9	80 - 120			
Lead	48.5893	1.0	50.0000		97.2	80 - 120			
Duplicate (B7A0232-DUP1)		**Source: 1604923-18**		Prepared: 1/9/2017 Analyzed: 1/10/2017					
Arsenic	1.18059	1.0		1.05192	NR		11.5	20	
Lead	70.7304	1.0		33.0863	NR		72.5	20	R
Matrix Spike (B7A0232-MS1)		**Source: 1604923-18**		Prepared: 1/9/2017 Analyzed: 1/10/2017					
Arsenic	91.6988	1.0	125.000	1.05192	72.5	59 - 103			
Lead	133.597	1.0	125.000	33.0863	80.4	34 - 129			
Matrix Spike Dup (B7A0232-MSD1)		**Source: 1604923-18**		Prepared: 1/9/2017 Analyzed: 1/10/2017					
Arsenic	95.3188	1.0	125.000	1.05192	75.4	59 - 103	3.87	20	
Lead	123.921	1.0	125.000	33.0863	72.7	34 - 129	7.51	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/11/2017

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0233 - EPA 3050B_S									
Blank (B7A0233-BLK1)				Prepared: 1/9/2017 Analyzed: 1/10/2017					
Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				
LCS (B7A0233-BS1)				Prepared: 1/9/2017 Analyzed: 1/10/2017					
Arsenic	47.4995	1.0	50.0000		95.0	80 - 120			
Lead	47.7688	1.0	50.0000		95.5	80 - 120			
Duplicate (B7A0233-DUP1)		**Source: 1604344-09**		Prepared: 1/9/2017 Analyzed: 1/10/2017					
Arsenic	6.65870	5.0		5.32078	NR		22.3	20	R
Lead	10.9249	5.0		9.66891	NR		12.2	20	
Matrix Spike (B7A0233-MS1)		**Source: 1604344-09**		Prepared: 1/9/2017 Analyzed: 1/10/2017					
Arsenic	78.8730	5.0	125.000	5.32078	58.8	59 - 103			M1
Lead	85.3420	5.0	125.000	9.66891	60.5	34 - 129			
Matrix Spike Dup (B7A0233-MSD1)		**Source: 1604344-09**		Prepared: 1/9/2017 Analyzed: 1/10/2017					
Arsenic	130.188	5.0	125.000	5.32078	99.9	59 - 103	49.1	20	R
Lead	136.177	5.0	125.000	9.66891	101	34 - 129	45.9	20	R

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/11/2017

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0216 - GCSEMI_PCB/PEST_S									
Blank (B7A0216-BLK1)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
4,4´-DDD	ND	2.0			NR				
4,4´-DDD [2C]	ND	2.0			NR				
4,4´-DDE	ND	2.0			NR				
4,4´-DDE [2C]	ND	2.0			NR				
4,4´-DDT	ND	2.0			NR				
4,4´-DDT [2C]	ND	2.0			NR				
Aldrin	ND	1.0			NR				
Aldrin [2C]	ND	1.0			NR				
alpha-BHC	ND	1.0			NR				
alpha-BHC [2C]	ND	1.0			NR				
alpha-Chlordane	ND	1.0			NR				
alpha-Chlordane [2C]	ND	1.0			NR				
beta-BHC	ND	1.0			NR				
beta-BHC [2C]	ND	1.0			NR				
Chlordane	ND	8.5			NR				
Chlordane [2C]	ND	8.5			NR				
delta-BHC	ND	1.0			NR				
delta-BHC [2C]	ND	1.0			NR				
Dieldrin	ND	2.0			NR				
Dieldrin [2C]	ND	2.0			NR				
Endosulfan I	ND	1.0			NR				
Endosulfan I [2C]	ND	1.0			NR				
Endosulfan II	ND	2.0			NR				
Endosulfan II [2C]	ND	2.0			NR				
Endosulfan sulfate	ND	2.0			NR				
Endosulfan Sulfate [2C]	ND	2.0			NR				
Endrin	ND	2.0			NR				
Endrin [2C]	ND	2.0			NR				
Endrin aldehyde	ND	2.0			NR				
Endrin aldehyde [2C]	ND	2.0			NR				
Endrin ketone	ND	2.0			NR				
Endrin ketone [2C]	ND	2.0			NR				
gamma-BHC	ND	1.0			NR				
gamma-BHC [2C]	ND	1.0			NR				
gamma-Chlordane	ND	1.0			NR				
gamma-Chlordane [2C]	ND	1.0			NR				
Heptachlor	ND	1.0			NR				
Heptachlor [2C]	ND	1.0			NR				
Heptachlor epoxide	ND	1.0			NR				
Heptachlor epoxide [2C]	ND	1.0			NR				
Methoxychlor	ND	5.0			NR				

Leighton Consulting, Inc.
17781 Cowan Street
Irvine , CA 92614

Project Number : Burroughs MS, 603378.006
Report To : Julie Harriman
Reported : 01/11/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0216 - GCSEMI_PCB/PEST_S (continued)									
Blank (B7A0216-BLK1) - Continued				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Methoxychlor [2C]	ND	5.0			NR				
Toxaphene	ND	50			NR				
Toxaphene [2C]	ND	50			NR				
Surrogate: Decachlorobiphenyl	*13.27*		*16.6667*		*79.6*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*15.58*		*16.6667*		*93.5*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*15.05*		*16.6667*		*90.3*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*15.41*		*16.6667*		*92.4*	*26 - 108*			
LCS (B7A0216-BS1)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
4,4´-DDD	15.7008	2.0	16.6667		94.2	53 - 125			
4,4´-DDD [2C]	15.5853	2.0	16.6667		93.5	53 - 125			
4,4´-DDE	14.8807	2.0	16.6667		89.3	54 - 113			
4,4´-DDE [2C]	14.5045	2.0	16.6667		87.0	54 - 113			
4,4´-DDT	17.6730	2.0	16.6667		106	25 - 127			
4,4´-DDT [2C]	16.1818	2.0	16.6667		97.1	25 - 127			
Aldrin	14.6107	1.0	16.6667		87.7	59 - 107			
Aldrin [2C]	14.3965	1.0	16.6667		86.4	59 - 107			
alpha-BHC	14.5080	1.0	16.6667		87.0	59 - 104			
alpha-BHC [2C]	14.4942	1.0	16.6667		87.0	59 - 104			
alpha-Chlordane	14.9202	1.0	16.6667		89.5	54 - 110			
alpha-Chlordane [2C]	14.4223	1.0	16.6667		86.5	54 - 110			
beta-BHC	14.3193	1.0	16.6667		85.9	57 - 103			
beta-BHC [2C]	14.0663	1.0	16.6667		84.4	57 - 103			
delta-BHC	11.7820	1.0	16.6667		70.7	16 - 120			
delta-BHC [2C]	11.8205	1.0	16.6667		70.9	16 - 120			
Dieldrin	15.6965	2.0	16.6667		94.2	61 - 109			
Dieldrin [2C]	14.9122	2.0	16.6667		89.5	61 - 109			
Endosulfan I	14.8927	1.0	16.6667		89.4	60 - 106			
Endosulfan I [2C]	14.1373	1.0	16.6667		84.8	60 - 106			
Endosulfan II	14.9400	2.0	16.6667		89.6	59 - 108			
Endosulfan II [2C]	14.3385	2.0	16.6667		86.0	59 - 108			
Endosulfan sulfate	14.6095	2.0	16.6667		87.7	54 - 110			
Endosulfan Sulfate [2C]	13.9020	2.0	16.6667		83.4	54 - 110			
Endrin	16.5572	2.0	16.6667		99.3	63 - 112			
Endrin [2C]	16.0617	2.0	16.6667		96.4	63 - 112			
Endrin aldehyde	15.3948	2.0	16.6667		92.4	64 - 119			
Endrin aldehyde [2C]	14.5113	2.0	16.6667		87.1	64 - 119			
Endrin ketone	15.4395	2.0	16.6667		92.6	54 - 115			
Endrin ketone [2C]	14.6567	2.0	16.6667		87.9	54 - 115			
gamma-BHC	15.2153	1.0	16.6667		91.3	60 - 107			
gamma-BHC [2C]	14.9495	1.0	16.6667		89.7	60 - 107			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/11/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0216 - GCSEMI_PCB/PEST_S (continued)									
LCS (B7A0216-BS1) - Continued				Prepared: 1/9/2017 Analyzed: 1/9/2017					
gamma-Chlordane	14.5525	1.0	16.6667		87.3	57 - 106			
gamma-Chlordane [2C]	14.2837	1.0	16.6667		85.7	57 - 106			
Heptachlor	15.5548	1.0	16.6667		93.3	54 - 114			
Heptachlor [2C]	14.9757	1.0	16.6667		89.9	54 - 114			
Heptachlor epoxide	14.6278	1.0	16.6667		87.8	61 - 106			
Heptachlor epoxide [2C]	14.1890	1.0	16.6667		85.1	61 - 106			
Methoxychlor	16.6133	5.0	16.6667		99.7	18 - 138			
Methoxychlor [2C]	16.0315	5.0	16.6667		96.2	18 - 138			
Surrogate: Decachlorobiphenyl	*12.69*		*16.6667*		*76.1*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*12.21*		*16.6667*		*73.3*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*13.97*		*16.6667*		*83.8*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*15.16*		*16.6667*		*91.0*	*26 - 108*			
Duplicate (B7A0216-DUP1)			**Source: 1604923-12**	Prepared: 1/9/2017 Analyzed: 1/9/2017					
4,4´-DDD	ND	2.0		ND	NR			20	
4,4´-DDD [2C]	ND	2.0		ND	NR			20	
4,4´-DDE	ND	2.0		ND	NR			20	
4,4´-DDE [2C]	ND	2.0		ND	NR			20	
4,4´-DDT	ND	2.0		ND	NR			20	
4,4´-DDT [2C]	ND	2.0		ND	NR			20	
Aldrin	ND	1.0		ND	NR			20	
Aldrin [2C]	ND	1.0		ND	NR			20	
alpha-BHC	ND	1.0		ND	NR			20	
alpha-BHC [2C]	ND	1.0		ND	NR			20	
alpha-Chlordane	ND	1.0		ND	NR			20	
alpha-Chlordane [2C]	ND	1.0		ND	NR			20	
beta-BHC	ND	1.0		ND	NR			20	
beta-BHC [2C]	ND	1.0		ND	NR			20	
delta-BHC	ND	1.0		ND	NR			20	
delta-BHC [2C]	ND	1.0		ND	NR			20	
Dieldrin	ND	2.0		ND	NR			20	
Dieldrin [2C]	ND	2.0		ND	NR			20	
Endosulfan I	ND	1.0		ND	NR			20	
Endosulfan I [2C]	ND	1.0		ND	NR			20	
Endosulfan II	ND	2.0		ND	NR			20	
Endosulfan II [2C]	ND	2.0		ND	NR			20	
Endosulfan sulfate	ND	2.0		ND	NR			20	
Endosulfan Sulfate [2C]	ND	2.0		ND	NR			20	
Endrin	ND	2.0		ND	NR			20	
Endrin [2C]	ND	2.0		ND	NR			20	
Endrin aldehyde	ND	2.0		ND	NR			20	

Leighton Consulting, Inc.
17781 Cowan Street
Irvine , CA 92614

Project Number : Burroughs MS, 603378.006
Report To : Julie Harriman
Reported : 01/11/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0216 - GCSEMI_PCB/PEST_S (continued)									
Duplicate (B7A0216-DUP1) - Continued		**Source: 1604923-12**		Prepared: 1/9/2017 Analyzed: 1/9/2017					
Endrin aldehyde [2C]	ND	2.0		ND	NR			20	
Endrin ketone	ND	2.0		ND	NR			20	
Endrin ketone [2C]	ND	2.0		ND	NR			20	
gamma-BHC	ND	1.0		ND	NR			20	
gamma-BHC [2C]	ND	1.0		ND	NR			20	
gamma-Chlordane	ND	1.0		ND	NR			20	
gamma-Chlordane [2C]	ND	1.0		ND	NR			20	
Heptachlor	ND	1.0		ND	NR			20	
Heptachlor [2C]	ND	1.0		ND	NR			20	
Heptachlor epoxide	ND	1.0		ND	NR			20	
Heptachlor epoxide [2C]	ND	1.0		ND	NR			20	
Methoxychlor	ND	5.0		ND	NR			20	
Methoxychlor [2C]	ND	5.0		ND	NR			20	
Surrogate: Decachlorobiphenyl	*13.27*		*16.6667*		*79.6*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*14.35*		*16.6667*		*86.1*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*14.18*		*16.6667*		*85.1*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*15.10*		*16.6667*		*90.6*	*26 - 108*			
Matrix Spike (B7A0216-MS1)		**Source: 1604923-11**		Prepared: 1/9/2017 Analyzed: 1/9/2017					
4,4´-DDD	15.4253	2.0	16.6667	ND	92.6	25 - 141			
4,4´-DDD [2C]	15.0915	2.0	16.6667	ND	90.5	25 - 141			
4,4´-DDE	15.6773	2.0	16.6667	ND	94.1	22 - 141			
4,4´-DDE [2C]	14.9908	2.0	16.6667	ND	89.9	22 - 141			
4,4´-DDT	18.9112	2.0	16.6667	ND	113	15 - 136			
4,4´-DDT [2C]	17.8175	2.0	16.6667	ND	107	15 - 136			
Aldrin	14.9095	1.0	16.6667	ND	89.5	33 - 118			
Aldrin [2C]	15.0442	1.0	16.6667	ND	90.3	33 - 118			
alpha-BHC	14.0490	1.0	16.6667	ND	84.3	30 - 116			
alpha-BHC [2C]	14.8073	1.0	16.6667	ND	88.8	30 - 116			
alpha-Chlordane	15.1458	1.0	16.6667	ND	90.9	30 - 123			
alpha-Chlordane [2C]	14.6553	1.0	16.6667	ND	87.9	30 - 123			
beta-BHC	13.6873	1.0	16.6667	ND	82.1	24 - 121			
beta-BHC [2C]	13.9343	1.0	16.6667	ND	83.6	24 - 121			
delta-BHC	10.9528	1.0	16.6667	ND	65.7	7 - 120			
delta-BHC [2C]	11.3750	1.0	16.6667	ND	68.2	7 - 120			
Dieldrin	15.7440	2.0	16.6667	ND	94.5	25 - 136			
Dieldrin [2C]	15.0650	2.0	16.6667	ND	90.4	25 - 136			
Endosulfan I	14.8845	1.0	16.6667	ND	89.3	18 - 134			
Endosulfan I [2C]	14.2822	1.0	16.6667	ND	85.7	18 - 134			
Endosulfan II	14.2027	2.0	16.6667	ND	85.2	28 - 128			
Endosulfan II [2C]	13.8733	2.0	16.6667	ND	83.2	28 - 128			

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/11/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0216 - GCSEMI_PCB/PEST_S (continued)									
Matrix Spike (B7A0216-MS1) - Continued		**Source: 1604923-11**		Prepared: 1/9/2017 Analyzed: 1/9/2017					
Endosulfan sulfate	12.4873	2.0	16.6667	ND	74.9	5 - 145			
Endosulfan Sulfate [2C]	12.2628	2.0	16.6667	ND	73.6	5 - 145			
Endrin	16.7130	2.0	16.6667	ND	100	26 - 142			
Endrin [2C]	16.4943	2.0	16.6667	ND	99.0	26 - 142			
Endrin aldehyde	12.1847	2.0	16.6667	ND	73.1	8 - 146			
Endrin aldehyde [2C]	11.6292	2.0	16.6667	ND	69.8	8 - 146			
Endrin ketone	13.9640	2.0	16.6667	ND	83.8	16 - 139			
Endrin ketone [2C]	13.6338	2.0	16.6667	ND	81.8	16 - 139			
gamma-BHC	15.0512	1.0	16.6667	ND	90.3	30 - 122			
gamma-BHC [2C]	15.0232	1.0	16.6667	ND	90.1	30 - 122			
gamma-Chlordane	14.6692	1.0	16.6667	ND	88.0	18 - 132			
gamma-Chlordane [2C]	14.2222	1.0	16.6667	ND	85.3	18 - 132			
Heptachlor	16.3697	1.0	16.6667	ND	98.2	34 - 122			
Heptachlor [2C]	15.8465	1.0	16.6667	ND	95.1	34 - 122			
Heptachlor epoxide	14.4460	1.0	16.6667	ND	86.7	21 - 135			
Heptachlor epoxide [2C]	14.0033	1.0	16.6667	ND	84.0	21 - 135			
Methoxychlor	17.2058	5.0	16.6667	ND	103	8 - 162			
Methoxychlor [2C]	15.9915	5.0	16.6667	ND	95.9	8 - 162			
Surrogate: Decachlorobiphenyl	*14.08*		*16.6667*		*84.5*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*16.38*		*16.6667*		*98.3*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*13.36*		*16.6667*		*80.2*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*14.95*		*16.6667*		*89.7*	*26 - 108*			
Matrix Spike Dup (B7A0216-MSD1)		**Source: 1604923-11**		Prepared: 1/9/2017 Analyzed: 1/9/2017					
4,4´-DDD	15.5127	2.0	16.6667	ND	93.1	25 - 141	0.565	20	
4,4´-DDD [2C]	14.9843	2.0	16.6667	ND	89.9	25 - 141	0.713	20	
4,4´-DDE	15.5420	2.0	16.6667	ND	93.3	22 - 141	0.867	20	
4,4´-DDE [2C]	14.7482	2.0	16.6667	ND	88.5	22 - 141	1.63	20	
4,4´-DDT	18.7388	2.0	16.6667	ND	112	15 - 136	0.915	20	
4,4´-DDT [2C]	17.3135	2.0	16.6667	ND	104	15 - 136	2.87	20	
Aldrin	14.9650	1.0	16.6667	ND	89.8	33 - 118	0.372	20	
Aldrin [2C]	14.9238	1.0	16.6667	ND	89.5	33 - 118	0.803	20	
alpha-BHC	14.3037	1.0	16.6667	ND	85.8	30 - 116	1.80	20	
alpha-BHC [2C]	15.6693	1.0	16.6667	ND	94.0	30 - 116	5.66	20	
alpha-Chlordane	15.3298	1.0	16.6667	ND	92.0	30 - 123	1.21	20	
alpha-Chlordane [2C]	14.6097	1.0	16.6667	ND	87.7	30 - 123	0.312	20	
beta-BHC	14.3312	1.0	16.6667	ND	86.0	24 - 121	4.60	20	
beta-BHC [2C]	15.2982	1.0	16.6667	ND	91.8	24 - 121	9.33	20	
delta-BHC	11.3793	1.0	16.6667	ND	68.3	7 - 120	3.82	20	
delta-BHC [2C]	12.0490	1.0	16.6667	ND	72.3	7 - 120	5.75	20	
Dieldrin	15.8603	2.0	16.6667	ND	95.2	25 - 136	0.736	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/11/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0216 - GCSEMI_PCB/PEST_S (continued)									
Matrix Spike Dup (B7A0216-MSD1) - Continued		**Source: 1604923-11**		Prepared: 1/9/2017 Analyzed: 1/9/2017					
Dieldrin [2C]	14.9598	2.0	16.6667	ND	89.8	25 - 136	0.701	20	
Endosulfan I	15.1470	1.0	16.6667	ND	90.9	18 - 134	1.75	20	
Endosulfan I [2C]	14.2772	1.0	16.6667	ND	85.7	18 - 134	0.0350	20	
Endosulfan II	14.1912	2.0	16.6667	ND	85.1	28 - 128	0.0810	20	
Endosulfan II [2C]	13.6590	2.0	16.6667	ND	82.0	28 - 128	1.56	20	
Endosulfan sulfate	12.5760	2.0	16.6667	ND	75.5	5 - 145	0.708	20	
Endosulfan Sulfate [2C]	12.4305	2.0	16.6667	ND	74.6	5 - 145	1.36	20	
Endrin	16.6498	2.0	16.6667	ND	99.9	26 - 142	0.379	20	
Endrin [2C]	16.2857	2.0	16.6667	ND	97.7	26 - 142	1.27	20	
Endrin aldehyde	11.9440	2.0	16.6667	ND	71.7	8 - 146	1.99	20	
Endrin aldehyde [2C]	11.7077	2.0	16.6667	ND	70.2	8 - 146	0.673	20	
Endrin ketone	13.7225	2.0	16.6667	ND	82.3	16 - 139	1.74	20	
Endrin ketone [2C]	14.0515	2.0	16.6667	ND	84.3	16 - 139	3.02	20	
gamma-BHC	15.6453	1.0	16.6667	ND	93.9	30 - 122	3.87	20	
gamma-BHC [2C]	15.8120	1.0	16.6667	ND	94.9	30 - 122	5.12	20	
gamma-Chlordane	14.8937	1.0	16.6667	ND	89.4	18 - 132	1.52	20	
gamma-Chlordane [2C]	14.3222	1.0	16.6667	ND	85.9	18 - 132	0.701	20	
Heptachlor	16.5055	1.0	16.6667	ND	99.0	34 - 122	0.826	20	
Heptachlor [2C]	15.8330	1.0	16.6667	ND	95.0	34 - 122	0.0852	20	
Heptachlor epoxide	14.8670	1.0	16.6667	ND	89.2	21 - 135	2.87	20	
Heptachlor epoxide [2C]	14.3455	1.0	16.6667	ND	86.1	21 - 135	2.41	20	
Methoxychlor	16.2677	5.0	16.6667	ND	97.6	8 - 162	5.61	20	
Methoxychlor [2C]	16.3940	5.0	16.6667	ND	98.4	8 - 162	2.49	20	
Surrogate: Decachlorobiphenyl	*13.73*		*16.6667*		*82.4*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*16.08*		*16.6667*		*96.5*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*13.58*		*16.6667*		*81.5*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*14.96*		*16.6667*		*89.8*	*26 - 108*			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/11/2017

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0235 - GCSEMI_PCB/PEST_S									
Blank (B7A0235-BLK1)				Prepared: 1/9/2017 Analyzed: 1/10/2017					
4,4´-DDD	ND	2.0			NR				
4,4´-DDD [2C]	ND	2.0			NR				
4,4´-DDE	ND	2.0			NR				
4,4´-DDE [2C]	ND	2.0			NR				
4,4´-DDT	ND	2.0			NR				
4,4´-DDT [2C]	ND	2.0			NR				
Aldrin	ND	1.0			NR				
Aldrin [2C]	ND	1.0			NR				
alpha-BHC	ND	1.0			NR				
alpha-BHC [2C]	ND	1.0			NR				
alpha-Chlordane	ND	1.0			NR				
alpha-Chlordane [2C]	ND	1.0			NR				
beta-BHC	ND	1.0			NR				
beta-BHC [2C]	ND	1.0			NR				
Chlordane	ND	8.5			NR				
Chlordane [2C]	ND	8.5			NR				
delta-BHC	ND	1.0			NR				
delta-BHC [2C]	ND	1.0			NR				
Dieldrin	ND	2.0			NR				
Dieldrin [2C]	ND	2.0			NR				
Endosulfan I	ND	1.0			NR				
Endosulfan I [2C]	ND	1.0			NR				
Endosulfan II	ND	2.0			NR				
Endosulfan II [2C]	ND	2.0			NR				
Endosulfan sulfate	ND	2.0			NR				
Endosulfan Sulfate [2C]	ND	2.0			NR				
Endrin	ND	2.0			NR				
Endrin [2C]	ND	2.0			NR				
Endrin aldehyde	ND	2.0			NR				
Endrin aldehyde [2C]	ND	2.0			NR				
Endrin ketone	ND	2.0			NR				
Endrin ketone [2C]	ND	2.0			NR				
gamma-BHC	ND	1.0			NR				
gamma-BHC [2C]	ND	1.0			NR				
gamma-Chlordane	ND	1.0			NR				
gamma-Chlordane [2C]	ND	1.0			NR				
Heptachlor	ND	1.0			NR				
Heptachlor [2C]	ND	1.0			NR				
Heptachlor epoxide	ND	1.0			NR				
Heptachlor epoxide [2C]	ND	1.0			NR				
Methoxychlor	ND	5.0			NR				

Leighton Consulting, Inc.
17781 Cowan Street
Irvine , CA 92614

Project Number : Burroughs MS, 603378.006
Report To : Julie Harriman
Reported : 01/11/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0235 - GCSEMI_PCB/PEST_S (continued)									
Blank (B7A0235-BLK1) - Continued				Prepared: 1/9/2017 Analyzed: 1/10/2017					
Methoxychlor [2C]	ND	5.0			NR				
Toxaphene	ND	50			NR				
Toxaphene [2C]	ND	50			NR				
Surrogate: Decachlorobiphenyl	*14.37*		*16.6667*		*86.2*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*16.77*		*16.6667*		*101*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*15.96*		*16.6667*		*95.7*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*18.37*		*16.6667*		*110*	*26 - 108*			S1
LCS (B7A0235-BS1)				Prepared: 1/9/2017 Analyzed: 1/10/2017					
4,4´-DDD	15.3787	2.0	16.6667		92.3	53 - 125			
4,4´-DDD [2C]	16.3440	2.0	16.6667		98.1	53 - 125			
4,4´-DDE	14.7990	2.0	16.6667		88.8	54 - 113			
4,4´-DDE [2C]	16.4295	2.0	16.6667		98.6	54 - 113			
4,4´-DDT	15.4752	2.0	16.6667		92.9	25 - 127			
4,4´-DDT [2C]	16.7495	2.0	16.6667		100	25 - 127			
Aldrin	14.7187	1.0	16.6667		88.3	59 - 107			
Aldrin [2C]	15.7300	1.0	16.6667		94.4	59 - 107			
alpha-BHC	14.7045	1.0	16.6667		88.2	59 - 104			
alpha-BHC [2C]	16.2372	1.0	16.6667		97.4	59 - 104			
alpha-Chlordane	14.7417	1.0	16.6667		88.4	54 - 110			
alpha-Chlordane [2C]	16.3408	1.0	16.6667		98.0	54 - 110			
beta-BHC	14.8127	1.0	16.6667		88.9	57 - 103			
beta-BHC [2C]	16.2688	1.0	16.6667		97.6	57 - 103			
delta-BHC	12.1710	1.0	16.6667		73.0	16 - 120			
delta-BHC [2C]	12.7650	1.0	16.6667		76.6	16 - 120			
Dieldrin	14.9372	2.0	16.6667		89.6	61 - 109			
Dieldrin [2C]	16.5335	2.0	16.6667		99.2	61 - 109			
Endosulfan I	14.5767	1.0	16.6667		87.5	60 - 106			
Endosulfan I [2C]	16.4243	1.0	16.6667		98.5	60 - 106			
Endosulfan II	14.4307	2.0	16.6667		86.6	59 - 108			
Endosulfan II [2C]	15.2682	2.0	16.6667		91.6	59 - 108			
Endosulfan sulfate	13.8185	2.0	16.6667		82.9	54 - 110			
Endosulfan Sulfate [2C]	13.9925	2.0	16.6667		84.0	54 - 110			
Endrin	15.7108	2.0	16.6667		94.3	63 - 112			
Endrin [2C]	17.5192	2.0	16.6667		105	63 - 112			
Endrin aldehyde	14.9340	2.0	16.6667		89.6	64 - 119			
Endrin aldehyde [2C]	13.7263	2.0	16.6667		82.4	64 - 119			
Endrin ketone	15.1345	2.0	16.6667		90.8	54 - 115			
Endrin ketone [2C]	15.3532	2.0	16.6667		92.1	54 - 115			
gamma-BHC	15.3095	1.0	16.6667		91.9	60 - 107			
gamma-BHC [2C]	16.7648	1.0	16.6667		101	60 - 107			

Leighton Consulting, Inc.
17781 Cowan Street
Irvine , CA 92614

Project Number : Burroughs MS, 603378.006
Report To : Julie Harriman
Reported : 01/11/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0235 - GCSEMI_PCB/PEST_S (continued)									
LCS (B7A0235-BS1) - Continued				Prepared: 1/9/2017 Analyzed: 1/10/2017					
gamma-Chlordane	14.6223	1.0	16.6667		87.7	57 - 106			
gamma-Chlordane [2C]	15.5615	1.0	16.6667		93.4	57 - 106			
Heptachlor	15.4770	1.0	16.6667		92.9	54 - 114			
Heptachlor [2C]	17.7532	1.0	16.6667		107	54 - 114			
Heptachlor epoxide	14.7627	1.0	16.6667		88.6	61 - 106			
Heptachlor epoxide [2C]	15.9248	1.0	16.6667		95.5	61 - 106			
Methoxychlor	15.5083	5.0	16.6667		93.0	18 - 138			
Methoxychlor [2C]	17.3583	5.0	16.6667		104	18 - 138			
Surrogate: Decachlorobiphenyl	*13.35*		*16.6667*		*80.1*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*15.31*		*16.6667*		*91.9*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*15.90*		*16.6667*		*95.4*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*15.73*		*16.6667*		*94.4*	*26 - 108*			
Duplicate (B7A0235-DUP1)			**Source: 1604923-24**	Prepared: 1/9/2017 Analyzed: 1/10/2017					
4,4´-DDD	ND	2.0		ND	NR			20	
4,4´-DDD [2C]	ND	2.0		ND	NR			20	
4,4´-DDE	ND	2.0		ND	NR			20	
4,4´-DDE [2C]	ND	2.0		ND	NR			20	
4,4´-DDT	ND	2.0		ND	NR			20	
4,4´-DDT [2C]	ND	2.0		ND	NR			20	
Aldrin	ND	1.0		ND	NR			20	
Aldrin [2C]	ND	1.0		ND	NR			20	
alpha-BHC	ND	1.0		ND	NR			20	
alpha-BHC [2C]	ND	1.0		ND	NR			20	
alpha-Chlordane	ND	1.0		ND	NR			20	
alpha-Chlordane [2C]	ND	1.0		ND	NR			20	
beta-BHC	ND	1.0		ND	NR			20	
beta-BHC [2C]	ND	1.0		ND	NR			20	
delta-BHC	ND	1.0		ND	NR			20	
delta-BHC [2C]	ND	1.0		ND	NR			20	
Dieldrin	ND	2.0		ND	NR			20	
Dieldrin [2C]	ND	2.0		ND	NR			20	
Endosulfan I	ND	1.0		ND	NR			20	
Endosulfan I [2C]	ND	1.0		ND	NR			20	
Endosulfan II	ND	2.0		ND	NR			20	
Endosulfan II [2C]	ND	2.0		ND	NR			20	
Endosulfan sulfate	ND	2.0		ND	NR			20	
Endosulfan Sulfate [2C]	ND	2.0		ND	NR			20	
Endrin	ND	2.0		ND	NR			20	
Endrin [2C]	ND	2.0		ND	NR			20	
Endrin aldehyde	ND	2.0		ND	NR			20	

Leighton Consulting, Inc.
17781 Cowan Street
Irvine , CA 92614

Project Number : Burroughs MS, 603378.006
Report To : Julie Harriman
Reported : 01/11/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0235 - GCSEMI_PCB/PEST_S (continued)									
Duplicate (B7A0235-DUP1) - Continued		**Source: 1604923-24**		Prepared: 1/9/2017 Analyzed: 1/10/2017					
Endrin aldehyde [2C]	ND	2.0		ND	NR			20	
Endrin ketone	ND	2.0		ND	NR			20	
Endrin ketone [2C]	ND	2.0		ND	NR			20	
gamma-BHC	ND	1.0		ND	NR			20	
gamma-BHC [2C]	ND	1.0		ND	NR			20	
gamma-Chlordane	ND	1.0		ND	NR			20	
gamma-Chlordane [2C]	ND	1.0		ND	NR			20	
Heptachlor	ND	1.0		ND	NR			20	
Heptachlor [2C]	ND	1.0		ND	NR			20	
Heptachlor epoxide	ND	1.0		ND	NR			20	
Heptachlor epoxide [2C]	ND	1.0		ND	NR			20	
Methoxychlor	ND	5.0		ND	NR			20	
Methoxychlor [2C]	ND	5.0		ND	NR			20	
Surrogate: Decachlorobiphenyl	*13.94*		*16.6667*		*83.6*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*14.40*		*16.6667*		*86.4*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*14.51*		*16.6667*		*87.0*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*14.26*		*16.6667*		*85.6*	*26 - 108*			
Matrix Spike (B7A0235-MS1)		**Source: 1604923-21**		Prepared: 1/9/2017 Analyzed: 1/10/2017					
4,4´-DDD	14.0528	2.0	16.6667	ND	84.3	25 - 141			
4,4´-DDD [2C]	13.9307	2.0	16.6667	ND	83.6	25 - 141			
4,4´-DDE	14.0202	2.0	16.6667	ND	84.1	22 - 141			
4,4´-DDE [2C]	14.2968	2.0	16.6667	ND	85.8	22 - 141			
4,4´-DDT	15.4505	2.0	16.6667	0.138167	91.9	15 - 136			
4,4´-DDT [2C]	15.0303	2.0	16.6667	ND	90.2	15 - 136			
Aldrin	13.4937	1.0	16.6667	ND	81.0	33 - 118			
Aldrin [2C]	13.2385	1.0	16.6667	ND	79.4	33 - 118			
alpha-BHC	12.9687	1.0	16.6667	ND	77.8	30 - 116			
alpha-BHC [2C]	12.9653	1.0	16.6667	ND	77.8	30 - 116			
alpha-Chlordane	13.8957	1.0	16.6667	ND	83.4	30 - 123			
alpha-Chlordane [2C]	14.1163	1.0	16.6667	ND	84.7	30 - 123			
beta-BHC	13.3943	1.0	16.6667	ND	80.4	24 - 121			
beta-BHC [2C]	14.9828	1.0	16.6667	ND	89.9	24 - 121			
delta-BHC	10.8780	1.0	16.6667	ND	65.3	7 - 120			
delta-BHC [2C]	10.6992	1.0	16.6667	ND	64.2	7 - 120			
Dieldrin	14.0132	2.0	16.6667	ND	84.1	25 - 136			
Dieldrin [2C]	14.3260	2.0	16.6667	ND	86.0	25 - 136			
Endosulfan I	13.5922	1.0	16.6667	ND	81.6	18 - 134			
Endosulfan I [2C]	13.7422	1.0	16.6667	ND	82.5	18 - 134			
Endosulfan II	13.5267	2.0	16.6667	ND	81.2	28 - 128			
Endosulfan II [2C]	12.9825	2.0	16.6667	ND	77.9	28 - 128			

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/11/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0235 - GCSEMI_PCB/PEST_S (continued)									
Matrix Spike (B7A0235-MS1) - Continued		**Source: 1604923-21**		Prepared: 1/9/2017 Analyzed: 1/10/2017					
Endosulfan sulfate	12.2015	2.0	16.6667	ND	73.2	5 - 145			
Endosulfan Sulfate [2C]	11.3387	2.0	16.6667	ND	68.0	5 - 145			
Endrin	15.0877	2.0	16.6667	ND	90.5	26 - 142			
Endrin [2C]	15.2943	2.0	16.6667	ND	91.8	26 - 142			
Endrin aldehyde	12.0353	2.0	16.6667	ND	72.2	8 - 146			
Endrin aldehyde [2C]	10.3398	2.0	16.6667	0.972333	56.2	8 - 146			
Endrin ketone	13.7492	2.0	16.6667	ND	82.5	16 - 139			
Endrin ketone [2C]	12.5023	2.0	16.6667	ND	75.0	16 - 139			
gamma-BHC	13.5023	1.0	16.6667	ND	81.0	30 - 122			
gamma-BHC [2C]	14.0945	1.0	16.6667	ND	84.6	30 - 122			
gamma-Chlordane	13.8968	1.0	16.6667	ND	83.4	18 - 132			
gamma-Chlordane [2C]	13.5228	1.0	16.6667	ND	81.1	18 - 132			
Heptachlor	14.1422	1.0	16.6667	ND	84.9	34 - 122			
Heptachlor [2C]	15.0770	1.0	16.6667	ND	90.5	34 - 122			
Heptachlor epoxide	13.7803	1.0	16.6667	ND	82.7	21 - 135			
Heptachlor epoxide [2C]	13.5130	1.0	16.6667	ND	81.1	21 - 135			
Methoxychlor	14.4827	5.0	16.6667	ND	86.9	8 - 162			
Methoxychlor [2C]	15.4858	5.0	16.6667	ND	92.9	8 - 162			
Surrogate: Decachlorobiphenyl	*12.71*		*16.6667*		*76.3*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*13.43*		*16.6667*		*80.6*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*13.44*		*16.6667*		*80.7*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*12.35*		*16.6667*		*74.1*	*26 - 108*			
Matrix Spike Dup (B7A0235-MSD1)		**Source: 1604923-21**		Prepared: 1/9/2017 Analyzed: 1/10/2017					
4,4´-DDD	14.8720	2.0	16.6667	ND	89.2	25 - 141	5.66	20	
4,4´-DDD [2C]	14.9143	2.0	16.6667	ND	89.5	25 - 141	6.82	20	
4,4´-DDE	14.8193	2.0	16.6667	ND	88.9	22 - 141	5.54	20	
4,4´-DDE [2C]	15.1058	2.0	16.6667	ND	90.6	22 - 141	5.50	20	
4,4´-DDT	16.4155	2.0	16.6667	0.138167	97.7	15 - 136	6.06	20	
4,4´-DDT [2C]	16.1050	2.0	16.6667	ND	96.6	15 - 136	6.90	20	
Aldrin	14.3140	1.0	16.6667	ND	85.9	33 - 118	5.90	20	
Aldrin [2C]	13.8848	1.0	16.6667	ND	83.3	33 - 118	4.77	20	
alpha-BHC	13.6773	1.0	16.6667	ND	82.1	30 - 116	5.32	20	
alpha-BHC [2C]	12.0700	1.0	16.6667	ND	72.4	30 - 116	7.15	20	
alpha-Chlordane	14.7240	1.0	16.6667	ND	88.3	30 - 123	5.79	20	
alpha-Chlordane [2C]	15.0107	1.0	16.6667	ND	90.1	30 - 123	6.14	20	
beta-BHC	14.3872	1.0	16.6667	ND	86.3	24 - 121	7.15	20	
beta-BHC [2C]	15.7337	1.0	16.6667	ND	94.4	24 - 121	4.89	20	
delta-BHC	11.7675	1.0	16.6667	ND	70.6	7 - 120	7.86	20	
delta-BHC [2C]	11.3860	1.0	16.6667	ND	68.3	7 - 120	6.22	20	
Dieldrin	14.9005	2.0	16.6667	ND	89.4	25 - 136	6.14	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/11/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0235 - GCSEMI_PCB/PEST_S (continued)									
Matrix Spike Dup (B7A0235-MSD1) - Continued		**Source: 1604923-21**		Prepared: 1/9/2017 Analyzed: 1/10/2017					
Dieldrin [2C]	15.4423	2.0	16.6667	ND	92.7	25 - 136	7.50	20	
Endosulfan I	14.3933	1.0	16.6667	ND	86.4	18 - 134	5.73	20	
Endosulfan I [2C]	14.5747	1.0	16.6667	ND	87.4	18 - 134	5.88	20	
Endosulfan II	14.4977	2.0	16.6667	ND	87.0	28 - 128	6.93	20	
Endosulfan II [2C]	14.0500	2.0	16.6667	ND	84.3	28 - 128	7.90	20	
Endosulfan sulfate	13.3382	2.0	16.6667	ND	80.0	5 - 145	8.90	20	
Endosulfan Sulfate [2C]	12.5287	2.0	16.6667	ND	75.2	5 - 145	9.97	20	
Endrin	16.0502	2.0	16.6667	ND	96.3	26 - 142	6.18	20	
Endrin [2C]	16.4527	2.0	16.6667	ND	98.7	26 - 142	7.30	20	
Endrin aldehyde	13.0098	2.0	16.6667	ND	78.1	8 - 146	7.78	20	
Endrin aldehyde [2C]	11.2865	2.0	16.6667	0.972333	61.9	8 - 146	8.75	20	
Endrin ketone	14.9242	2.0	16.6667	ND	89.5	16 - 139	8.20	20	
Endrin ketone [2C]	14.4995	2.0	16.6667	ND	87.0	16 - 139	14.8	20	
gamma-BHC	14.4122	1.0	16.6667	ND	86.5	30 - 122	6.52	20	
gamma-BHC [2C]	14.8083	1.0	16.6667	ND	88.8	30 - 122	4.94	20	
gamma-Chlordane	14.5275	1.0	16.6667	ND	87.2	18 - 132	4.44	20	
gamma-Chlordane [2C]	14.2185	1.0	16.6667	ND	85.3	18 - 132	5.02	20	
Heptachlor	15.0220	1.0	16.6667	ND	90.1	34 - 122	6.03	20	
Heptachlor [2C]	15.6960	1.0	16.6667	ND	94.2	34 - 122	4.02	20	
Heptachlor epoxide	14.5797	1.0	16.6667	ND	87.5	21 - 135	5.64	20	
Heptachlor epoxide [2C]	14.2523	1.0	16.6667	ND	85.5	21 - 135	5.33	20	
Methoxychlor	15.6263	5.0	16.6667	ND	93.8	8 - 162	7.60	20	
Methoxychlor [2C]	16.7373	5.0	16.6667	ND	100	8 - 162	7.77	20	
Surrogate: Decachlorobiphenyl	*14.24*		*16.6667*		*85.5*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*14.05*		*16.6667*		*84.3*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*14.19*		*16.6667*		*85.2*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*12.97*		*16.6667*		*77.8*	*26 - 108*			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/11/2017

Polychlorinated Biphenyls by EPA 8082 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0217 - GCSEMI_PCB/PEST_S									
Blank (B7A0217-BLK1)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Aroclor 1016	ND	16			NR				
Aroclor 1221	ND	16			NR				
Aroclor 1232	ND	16			NR				
Aroclor 1242	ND	16			NR				
Aroclor 1248	ND	16			NR				
Aroclor 1254	ND	16			NR				
Aroclor 1260	ND	16			NR				
Aroclor 1262	ND	16			NR				
Aroclor 1268	ND	16			NR				
Surrogate: Decachlorobiphenyl	*15.94*		*16.6667*		*95.7*	*26 - 137*			
Surrogate: Tetrachloro-m-xylene	*17.85*		*16.6667*		*107*	*28 - 102*			S1
LCS (B7A0217-BS1)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Aroclor 1016	160.662	16	166.667		96.4	70 - 107			
Aroclor 1260	176.765	16	166.667		106	69 - 120			
Surrogate: Decachlorobiphenyl	*15.69*		*16.6667*		*94.2*	*26 - 137*			
Surrogate: Tetrachloro-m-xylene	*17.13*		*16.6667*		*103*	*28 - 102*			S12
Duplicate (B7A0217-DUP1)		**Source: 1604921-32**		Prepared: 1/9/2017 Analyzed: 1/9/2017					
Aroclor 1016	ND	16		ND	NR			20	
Aroclor 1260	ND	16		ND	NR			20	
Surrogate: Decachlorobiphenyl	*15.69*		*16.6667*		*94.1*	*26 - 137*			
Surrogate: Tetrachloro-m-xylene	*16.86*		*16.6667*		*101*	*28 - 102*			
Matrix Spike (B7A0217-MS1)		**Source: 1604923-11**		Prepared: 1/9/2017 Analyzed: 1/9/2017					
Aroclor 1016	177.864	16	166.667	ND	107	34 - 120			
Aroclor 1260	196.301	16	166.667	ND	118	39 - 128			
Surrogate: Decachlorobiphenyl	*16.90*		*16.6667*		*101*	*26 - 137*			
Surrogate: Tetrachloro-m-xylene	*18.34*		*16.6667*		*110*	*28 - 102*			S12
Matrix Spike Dup (B7A0217-MSD1)		**Source: 1604923-11**		Prepared: 1/9/2017 Analyzed: 1/9/2017					
Aroclor 1016	170.224	16	166.667	ND	102	34 - 120	4.39	20	
Aroclor 1260	188.448	16	166.667	ND	113	39 - 128	4.08	20	
Surrogate: Decachlorobiphenyl	*16.27*		*16.6667*		*97.6*	*26 - 137*			
Surrogate: Tetrachloro-m-xylene	*17.68*		*16.6667*		*106*	*28 - 102*			S12

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/11/2017

Notes and Definitions

S12	Surrogate recovery outside in-house established limit but within method default criteria.
S1	Surrogate recovery was above laboratory acceptance limit. No target analyte was detected in the sample.
R	RPD value outside acceptance criteria. Calculation is based on raw values.
M1	Matrix spike recovery outside of acceptance limit. The analytical batch was validated by the laboratory control sample.
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
D5	Sample diluted due to failing internal standard in the original run.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:
(1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
(2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
(3) Results are wet unless otherwise specified.

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 1 of 3

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☑ ATL	1. CHILLED	☑	☐	5. # OF SAMPLES MATCH COC	☑	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☑
☐ GSO	3. CONTAINER INTACT	☑	☐	7. COOLER TEMP, deg C:		
☐ Other: _____	4. SEALED	☐	☐			

CUSTOMER

Company: Leighton Consulting, Inc. (LCI) — Address: 17781 Cowan — City: Irvine — State: CA — Zip: 92614 — Tel: 949-250-1121 — Fax: 949-250-1114

SEND REPORT TO:	SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Julie Hamman — Email: jhamman@leightongroup.com	Attn: Accounts Payable — Email: acctpayable@leightongroup.com
Company: LCI	Company: Leighton
Address: 17781 Cowan	Address: 17781 Cowan
City: Irvine — State: CA — Zip: 92614	City: Irvine — State: CA — Zip: 92614

PROJECT SAMPLES

Project Name: Burroughs MS
Project No.: 603378.CCL
Sampler: W. Scarnes
Quote No: —
PO #: —
Special Instructions/Comments: Standard TAT

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	Cd/Pb/Cr/As/Ni	Cd/Pb/Cr/Ni	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE/ FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	Container #	Container Type	Container Material	Preservative	REMARKS
1	1605923 - 1	FB4-4-0.5	12-29-16	0800					X	X			X	X	X					5	1	5	1	1	
2	-2	FB4-4-1.5		0801					X				X	X						5					
3	-3	FB4-4-2.5		0802					X				X	X						5					COB 12-29 HOLD
4	-4	FB4-1-0.5		0810					X				X	X						5					
5	-5	FB4-1-1.5		0814					X				X	X						5					Lab SR 12-29
6	-6	FB4-1-2.5		0812					X				X	X						5					HOLD
7	-7	FB4-3-0.5		0813					X				X	X						5					
8	-8	FB4-3-1.5 Lab SR 12-29-16		0814					X				X	X						5					
9	-9	FB4-3-2.5		0815					X				X	X						5					
10	-10	FB4-1-0.5		0825					X				X	X						5					

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

Container Material: 1=Glass; 2=Plastic; 3=Metal
Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4 = 4C; 5=Zn (Ac)2; 6=NaOH; 7=NA2S2O3
Container Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7 = Canister

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for five (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reformated report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Scarnes — Submitter Print Name — Signature

CUSTODY

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Wallace Scarnes	12-29-16	1620		12/29/16	1620
	12/29/16	1815	FEDEX	12/29/16	1815
	Date:	Time:		Date:	Time:

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 2 of 3

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☐ ATL	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☐
☐ GSO	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other: _____	4. SEALED	☐	☐			

CUSTOMER

Company:

Address:

City: State: Zip:

Tel:

Fax:

SEND REPORT TO:

Attn: Email:

Company:

Address: See Page #1

City: State: Zip:

SEND INVOICE TO: ☐ same as SEND REPORT TO

Attn: Email:

Company:

Address:

City: State: Zip:

PROJECT SAMPLES

Project Name:

Project No.:

Sampler:

Quote No:

PO #:

Special Instructions/Comments:

| ITEM | Lab No. | Sample Description: Sample ID / Location | Date | Time | 8260 / 624 (Volatiles) | 8015(GRO) | 8015(DRO) | 8270(Semi-volatiles) | 8081(Organochlorine Pesticides) | 8082(PCBs) | 6010 / 7000(Title 22 Metals) | TO-15 | Lead/Arsenic | Lead/Lead | | | | |

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 3 of 3

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☐ ATL	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☐
☐ GSO	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other: _____	4. SEALED	☐	☐			

CUSTOMER

Company: | Address: | Tel:

City: | State: | Zip: | Fax:

SEND REPORT TO:

Attn: | Email:

Company:

Address: See Page #1

City: | State: | Zip:

SEND INVOICE TO: ☐ same as SEND REPORT TO

Attn: | Email:

Company:

Address:

City: | State: | Zip:

PROJECT SAMPLES

Project Name: | Quote No: | Special Instructions/Comments:

Project No.: | PO #:

Sampler:

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	6010/7000 Arsenic	6010/7000 Lead	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE/ FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	Container: #	Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7=Canister	Material: 1=Glass; 2=Plastic; 3=Metal	Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4=4C; 5=Zn (AcO)2; 6=NaOH; 7=NA2S2O3	REMARKS
1	1C04923 -21	FB9-2-2.5	12-29-16	0900					X				X	X	X					5	1	5	1	1	
2	-22	FB9-3-0.5	↓	0905					X	X			X	X	X					5	1	5	1	1	
3	-23	FB9-3-1.5		0910					X				X	X	X					5	1	5	1	1	
4	-24	FB9-3-2.5		0915					X				X	X	X					5	1	5	1	1	
5																									
6																									
7																									
8																									
9																									
10																									

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

TERMS & CONDITIONS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for fi ve (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-fi ve (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Submitter Print Name ⟷ Signature (Wallace Stowers)

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Wallace Stowers	12-29-16	1620		12/29/16	1620
	12/29/16	1815	Fedex	12/29/16	1815

ADVANCED TECHNOLOGY LABORATORIES

January 20, 2017

Julie Harriman
Leighton Consulting, Inc.
17781 Cowan Street
Irvine, CA 92614
Tel: (949) 250-1421
Fax:(949) 757-7230

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1604923
Client Reference : Burroughs MS, 603378.006

Enclosed are the results for sample(s) received on December 29, 2016 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	01/20/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FB4-1-1.5	1604923-05	Soil	12/29/16 8:11	12/29/16 16:20
FB4-3-0.5	1604923-07	Soil	12/29/16 8:13	12/29/16 16:20
FB9-1-0.5	1604923-10	Soil	12/29/16 8:25	12/29/16 16:20
FB4-2-1.5	1604923-14	Soil	12/29/16 8:36	12/29/16 16:20
FB9-4-0.5	1604923-16	Soil	12/29/16 8:45	12/29/16 16:20
FB9-4-1.5	1604923-17	Soil	12/29/16 8:46	12/29/16 16:20
FB9-3-0.5	1604923-22	Soil	12/29/16 9:05	12/29/16 16:20

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/20/2017

Client Sample ID FB4-1-1.5

Lab ID: 1604923-05

STLC Metals by ICP-AES by EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**2.8**	1.0	0.057	20	B7A0562	01/19/2017	01/19/17 15:35	D1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/20/2017

Client Sample ID FB4-3-0.5

Lab ID: 1604923-07

STLC Metals by ICP-AES by EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**4.0**	1.0	0.057	20	B7A0562	01/19/2017	01/19/17 15:36	D1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/20/2017

Client Sample ID FB9-1-0.5

Lab ID: 1604923-10

STLC Metals by ICP-AES by EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**6.2**	1.0	0.057	20	B7A0562	01/19/2017	01/19/17 16:09	D1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/20/2017

Client Sample ID FB4-2-1.5

Lab ID: 1604923-14

STLC Metals by ICP-AES by EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**3.3**	1.0	0.057	20	B7A0562	01/19/2017	01/19/17 15:41	D1

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	01/20/2017

Client Sample ID FB9-4-0.5

Lab ID: 1604923-16

STLC Metals by ICP-AES by EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**4.2**	1.0	0.057	20	B7A0562	01/19/2017	01/19/17 15:43	D1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/20/2017

Client Sample ID FB9-4-1.5

Lab ID: 1604923-17

TCLP Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**0.14**	0.25	0.014	5	B7A0565	01/19/2017	01/19/17 16:22	D1, J

STLC Metals by ICP-AES by EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**6.7**	1.0	0.057	20	B7A0562	01/19/2017	01/19/17 15:44	D1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/20/2017

Client Sample ID FB9-3-0.5

Lab ID: 1604923-22

STLC Metals by ICP-AES by EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**4.9**	1.0	0.057	20	B7A0562	01/19/2017	01/19/17 15:48	D1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/20/2017

QUALITY CONTROL SECTION

TCLP Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0565 - EPA 3010A_S									
Blank (B7A0565-BLK1)				Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	ND	0.050			NR				
Blank (B7A0565-BLK2)				Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	ND	0.050			NR				
LCS (B7A0565-BS1)				Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	1.00048	0.050	1.00000		100	80 - 120			
Duplicate (B7A0565-DUP1)		**Source: 1700068-97**		Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	0.033328	0.25		0.042393	NR		23.9	20	R, J
Duplicate (B7A0565-DUP2)		**Source: 1604923-17**		Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	0.111112	0.25		0.136256	NR		20.3	20	R, J
Matrix Spike (B7A0565-MS1)		**Source: 1700068-97**		Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	2.36348	0.25	2.50000	0.042393	92.8	78 - 109			
Matrix Spike (B7A0565-MS2)		**Source: 1604923-17**		Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	2.47318	0.25	2.50000	0.136256	93.5	78 - 109			
Matrix Spike Dup (B7A0565-MSD1)		**Source: 1700068-97**		Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	2.29686	0.25	2.50000	0.042393	90.2	78 - 109	2.86	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/20/2017

STLC Metals by ICP-AES by EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0562 - STLC_S Extraction									
Blank (B7A0562-BLK1)				Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	ND	1.0			NR				
Blank (B7A0562-BLK2)				Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	ND	1.0			NR				
LCS (B7A0562-BS1)				Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	1.95830		2.00000		97.9	80 - 120			
Duplicate (B7A0562-DUP1)		**Source: 1604923-17**		Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	7.36136	1.0		6.66843	NR		9.88	20	
Duplicate (B7A0562-DUP2)		**Source: 1700068-16**		Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	1.54080	1.0		1.54702	NR		0.403	20	
Matrix Spike (B7A0562-MS1)		**Source: 1604923-17**		Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	8.64934		2.50000	6.66843	79.2	44 - 130			
Matrix Spike (B7A0562-MS2)		**Source: 1700068-16**		Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	3.83305		2.50000	1.54702	91.4	44 - 130			
Matrix Spike Dup (B7A0562-MSD1)		**Source: 1604923-17**		Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	8.89759		2.50000	6.66843	89.2	44 - 130	2.83	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/20/2017

Notes and Definitions

R	RPD value outside acceptance criteria. Calculation is based on raw values.
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:
(1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
(2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
(3) Results are wet unless otherwise specified.

Rachelle Arada

From: Julie Harriman [jharriman@leightongroup.com]
Sent: Friday, January 13, 2017 11:49 AM
To: Rachelle Arada
Cc: Robert Lovdahl
Subject: Burroughs MS Samples

Rachelle:

Please run soil samples that exceeded 50 mg/kg TTLC-lead for STLC-lead.
Please run soil samples that exceeded 100 mg/kg TTLC-lead for TCLP-lead.

There are approximately 34 samples affected. Do you need me to list all the samples?

Thank you,

Julie C. Harriman, P.E.
Associate Engineer
Leighton
17781 Cowan, Irvine, CA 92614
(949) 681-4264 – Direct
(949) 572-8129 – Cell

Geotechnical | Geoenvironmental | Materials Testing

SOLUTIONS YOU CAN BUILD ON

ADVANCED TECHNOLOGY LABORATORIES

January 11, 2017

Julie Harriman
Leighton Consulting, Inc.
17781 Cowan Street
Irvine, CA 92614
Tel: (949) 250-1421
Fax:(949) 757-7230

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1700026
Client Reference : Burroughs MS, 603378.006

Enclosed are the results for sample(s) received on January 03, 2017 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/11/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
EQB-1-03-17	1700026-01	Water	1/03/17 16:00	1/03/17 18:35

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/11/2017

Client Sample ID EQB-1-03-17

Lab ID: 1700026-01

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	0.010	0.0067	1	B7A0165	01/06/2017	01/09/17 13:30	
Lead	ND	0.0050	0.0028	1	B7A0165	01/06/2017	01/09/17 13:30	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	0.05	0.005	1	B7A0146	01/06/2017	01/07/17 13:02	
4,4´-DDE	ND	0.05	0.005	1	B7A0146	01/06/2017	01/07/17 13:02	
4,4´-DDT	ND	0.05	0.004	1	B7A0146	01/06/2017	01/07/17 13:02	
Aldrin	ND	0.02	0.004	1	B7A0146	01/06/2017	01/07/17 13:02	
alpha-BHC	ND	0.02	0.004	1	B7A0146	01/06/2017	01/07/17 13:02	
alpha-Chlordane	ND	0.02	0.005	1	B7A0146	01/06/2017	01/07/17 13:02	
beta-BHC	ND	0.02	0.005	1	B7A0146	01/06/2017	01/07/17 13:02	
Chlordane	ND	0.25	0.03	1	B7A0146	01/06/2017	01/07/17 13:02	
delta-BHC	ND	0.02	0.004	1	B7A0146	01/06/2017	01/07/17 13:02	
Dieldrin	ND	0.05	0.005	1	B7A0146	01/06/2017	01/07/17 13:02	
Endosulfan I	ND	0.02	0.005	1	B7A0146	01/06/2017	01/07/17 13:02	
Endosulfan II	ND	0.05	0.005	1	B7A0146	01/06/2017	01/07/17 13:02	
Endosulfan sulfate	ND	0.05	0.005	1	B7A0146	01/06/2017	01/07/17 13:02	
Endrin	ND	0.05	0.005	1	B7A0146	01/06/2017	01/07/17 13:02	
Endrin aldehyde	ND	0.05	0.006	1	B7A0146	01/06/2017	01/07/17 13:02	
Endrin ketone	ND	0.05	0.005	1	B7A0146	01/06/2017	01/07/17 13:02	
gamma-BHC	ND	0.02	0.004	1	B7A0146	01/06/2017	01/07/17 13:02	
gamma-Chlordane	ND	0.02	0.005	1	B7A0146	01/06/2017	01/07/17 13:02	
Heptachlor	ND	0.02	0.005	1	B7A0146	01/06/2017	01/07/17 13:02	
Heptachlor epoxide	ND	0.02	0.005	1	B7A0146	01/06/2017	01/07/17 13:02	
Methoxychlor	ND	0.25	0.004	1	B7A0146	01/06/2017	01/07/17 13:02	
Toxaphene	ND	2.5	0.23	1	B7A0146	01/06/2017	01/07/17 13:02	
Surrogate: Decachlorobiphenyl	*78.5 %*	*7 - 127*			B7A0146	01/06/2017	*01/07/17 13:02*	
Surrogate: Tetrachloro-m-xylene	*73.8 %*	*14 - 122*			B7A0146	01/06/2017	*01/07/17 13:02*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/11/2017

Client Sample ID EQB-1-03-17

Lab ID: 1700026-01

Polychlorinated Biphenyls by EPA 8082 **Analyst: RL**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	0.50	0.06	1	B7A0146	01/06/2017	01/06/17 16:35	
Aroclor 1221	ND	1.0	0.06	1	B7A0146	01/06/2017	01/06/17 16:35	
Aroclor 1232	ND	0.50	0.06	1	B7A0146	01/06/2017	01/06/17 16:35	
Aroclor 1242	ND	0.50	0.06	1	B7A0146	01/06/2017	01/06/17 16:35	
Aroclor 1248	ND	0.50	0.06	1	B7A0146	01/06/2017	01/06/17 16:35	
Aroclor 1254	ND	0.50	0.06	1	B7A0146	01/06/2017	01/06/17 16:35	
Aroclor 1260	ND	0.50	0.06	1	B7A0146	01/06/2017	01/06/17 16:35	
Aroclor 1262	ND	0.50	0.06	1	B7A0146	01/06/2017	01/06/17 16:35	
Aroclor 1268	ND	0.50	0.06	1	B7A0146	01/06/2017	01/06/17 16:35	
Surrogate: Decachlorobiphenyl	*83.0 %*	*7 - 127*			B7A0146	01/06/2017	*01/06/17 16:35*	
Surrogate: Tetrachloro-m-xylene	*83.3 %*	*14 - 122*			B7A0146	01/06/2017	*01/06/17 16:35*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/11/2017

QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0165 - EPA 3010A_W									
Blank (B7A0165-BLK1)				Prepared: 1/6/2017 Analyzed: 1/9/2017					
Arsenic	ND	0.010			NR				
Lead	ND	0.0050			NR				
LCS (B7A0165-BS1)				Prepared: 1/6/2017 Analyzed: 1/9/2017					
Arsenic	0.931121	0.010	1.00000		93.1	80 - 120			
Lead	0.988818	0.0050	1.00000		98.9	80 - 120			
Duplicate (B7A0165-DUP1)		**Source: 1604921-88**		Prepared: 1/6/2017 Analyzed: 1/9/2017					
Arsenic	ND	0.010		ND	NR			20	
Lead	ND	0.0050		ND	NR			20	
Matrix Spike (B7A0165-MS1)		**Source: 1604921-88**		Prepared: 1/6/2017 Analyzed: 1/9/2017					
Arsenic	2.33699	0.010	2.50000	ND	93.5	74 - 123			
Lead	2.44334	0.0050	2.50000	ND	97.7	78 - 109			
Matrix Spike Dup (B7A0165-MSD1)		**Source: 1604921-88**		Prepared: 1/6/2017 Analyzed: 1/9/2017					
Arsenic	2.29142	0.010	2.50000	ND	91.7	74 - 123	1.97	20	
Lead	2.39762	0.0050	2.50000	ND	95.9	78 - 109	1.89	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/11/2017

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0146 - GCSEMI_PCB/PEST_W									
Blank (B7A0146-BLK1)				Prepared: 1/6/2017 Analyzed: 1/7/2017					
4,4´-DDD	ND	0.05			NR				
4,4´-DDD [2C]	ND	0.05			NR				
4,4´-DDE	ND	0.05			NR				
4,4´-DDE [2C]	ND	0.05			NR				
4,4´-DDT	ND	0.05			NR				
4,4´-DDT [2C]	ND	0.05			NR				
Aldrin	ND	0.02			NR				
Aldrin [2C]	ND	0.02			NR				
alpha-BHC	ND	0.02			NR				
alpha-BHC [2C]	ND	0.02			NR				
alpha-Chlordane	ND	0.02			NR				
alpha-Chlordane [2C]	ND	0.02			NR				
beta-BHC	ND	0.02			NR				
beta-BHC [2C]	ND	0.02			NR				
Chlordane	ND	0.25			NR				
Chlordane [2C]	ND	0.25			NR				
delta-BHC	ND	0.02			NR				
delta-BHC [2C]	ND	0.02			NR				
Dieldrin	ND	0.05			NR				
Dieldrin [2C]	ND	0.05			NR				
Endosulfan I	ND	0.02			NR				
Endosulfan I [2C]	ND	0.02			NR				
Endosulfan II	ND	0.05			NR				
Endosulfan II [2C]	ND	0.05			NR				
Endosulfan sulfate	ND	0.05			NR				
Endosulfan Sulfate [2C]	ND	0.05			NR				
Endrin	ND	0.05			NR				
Endrin [2C]	ND	0.05			NR				
Endrin aldehyde	ND	0.05			NR				
Endrin aldehyde [2C]	ND	0.05			NR				
Endrin ketone	ND	0.05			NR				
Endrin ketone [2C]	ND	0.05			NR				
gamma-BHC	ND	0.02			NR				
gamma-BHC [2C]	ND	0.02			NR				
gamma-Chlordane	ND	0.02			NR				
gamma-Chlordane [2C]	ND	0.02			NR				
Heptachlor	ND	0.02			NR				
Heptachlor [2C]	ND	0.02			NR				
Heptachlor epoxide	ND	0.02			NR				
Heptachlor epoxide [2C]	ND	0.02			NR				
Methoxychlor	ND	0.25			NR				

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/11/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0146 - GCSEMI_PCB/PEST_W (continued)									
Blank (B7A0146-BLK1) - Continued				Prepared: 1/6/2017 Analyzed: 1/7/2017					
Methoxychlor [2C]	ND	0.25			NR				
Toxaphene	ND	2.5			NR				
Toxaphene [2C]	ND	2.5			NR				
Surrogate: Decachlorobiphenyl	*0.2902*		*0.500000*		*58.0*	*7 - 127*			
Surrogate: Decachlorobiphenyl [2C]	*0.3070*		*0.500000*		*61.4*	*7 - 127*			
Surrogate: Tetrachloro-m-xylene	*0.2925*		*0.500000*		*58.5*	*14 - 122*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.3107*		*0.500000*		*62.1*	*14 - 122*			
LCS (B7A0146-BS1)				Prepared: 1/6/2017 Analyzed: 1/7/2017					
4,4´-DDD	0.409350	0.05	0.500000		81.9	59 - 109			
4,4´-DDD [2C]	0.401880	0.05	0.500000		80.4	59 - 109			
4,4´-DDE	0.362605	0.05	0.500000		72.5	63 - 101			
4,4´-DDE [2C]	0.354520	0.05	0.500000		70.9	63 - 101			
4,4´-DDT	0.346080	0.05	0.500000		69.2	36 - 96			
4,4´-DDT [2C]	0.322585	0.05	0.500000		64.5	36 - 96			
Aldrin	0.363160	0.02	0.500000		72.6	64 - 96			
Aldrin [2C]	0.358190	0.02	0.500000		71.6	64 - 96			
alpha-BHC	0.392880	0.02	0.500000		78.6	63 - 92			
alpha-BHC [2C]	0.393805	0.02	0.500000		78.8	63 - 92			
alpha-Chlordane	0.383590	0.02	0.500000		76.7	63 - 101			
alpha-Chlordane [2C]	0.370335	0.02	0.500000		74.1	63 - 101			
beta-BHC	0.403825	0.02	0.500000		80.8	58 - 95			
beta-BHC [2C]	0.396550	0.02	0.500000		79.3	58 - 95			
delta-BHC	0.324170	0.02	0.500000		64.8	37 - 107			
delta-BHC [2C]	0.328535	0.02	0.500000		65.7	37 - 107			
Dieldrin	0.416745	0.05	0.500000		83.3	62 - 102			
Dieldrin [2C]	0.400660	0.05	0.500000		80.1	62 - 102			
Endosulfan I	0.397040	0.02	0.500000		79.4	61 - 97			
Endosulfan I [2C]	0.379680	0.02	0.500000		75.9	61 - 97			
Endosulfan II	0.412520	0.05	0.500000		82.5	61 - 103			
Endosulfan II [2C]	0.397685	0.05	0.500000		79.5	61 - 103			
Endosulfan sulfate	0.393300	0.05	0.500000		78.7	60 - 112			
Endosulfan Sulfate [2C]	0.392990	0.05	0.500000		78.6	60 - 112			
Endrin	0.441475	0.05	0.500000		88.3	62 - 103			
Endrin [2C]	0.429035	0.05	0.500000		85.8	62 - 103			
Endrin aldehyde	0.428920	0.05	0.500000		85.8	64 - 116			
Endrin aldehyde [2C]	0.414205	0.05	0.500000		82.8	64 - 116			
Endrin ketone	0.411255	0.05	0.500000		82.3	56 - 113			
Endrin ketone [2C]	0.411140	0.05	0.500000		82.2	56 - 113			
gamma-BHC	0.415215	0.02	0.500000		83.0	64 - 95			
gamma-BHC [2C]	0.410380	0.02	0.500000		82.1	64 - 95			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/11/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0146 - GCSEMI_PCB/PEST_W (continued)									
LCS (B7A0146-BS1) - Continued				Prepared: 1/6/2017 Analyzed: 1/7/2017					
gamma-Chlordane	0.373290	0.02	0.500000		74.7	64 - 99			
gamma-Chlordane [2C]	0.363165	0.02	0.500000		72.6	64 - 99			
Heptachlor	0.380640	0.02	0.500000		76.1	64 - 93			
Heptachlor [2C]	0.368960	0.02	0.500000		73.8	64 - 93			
Heptachlor epoxide	0.392000	0.02	0.500000		78.4	65 - 98			
Heptachlor epoxide [2C]	0.380100	0.02	0.500000		76.0	65 - 98			
Methoxychlor	0.373910	0.25	0.500000		74.8	0 - 141			
Methoxychlor [2C]	0.366210	0.25	0.500000		73.2	0 - 141			
Surrogate: Decachlorobiphenyl	*0.3680*		*0.500000*		*73.6*	*7 - 127*			
Surrogate: Decachlorobiphenyl [2C]	*0.3958*		*0.500000*		*79.2*	*7 - 127*			
Surrogate: Tetrachloro-m-xylene	*0.3887*		*0.500000*		*77.7*	*14 - 122*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.4276*		*0.500000*		*85.5*	*14 - 122*			
LCS Dup (B7A0146-BSD1)				Prepared: 1/6/2017 Analyzed: 1/7/2017					
4,4´-DDD	0.429390	0.05	0.500000		85.9	59 - 109	4.78	20	
4,4´-DDD [2C]	0.429570	0.05	0.500000		85.9	59 - 109	6.66	20	
4,4´-DDE	0.383055	0.05	0.500000		76.6	63 - 101	5.49	20	
4,4´-DDE [2C]	0.382800	0.05	0.500000		76.6	63 - 101	7.67	20	
4,4´-DDT	0.361085	0.05	0.500000		72.2	36 - 96	4.24	20	
4,4´-DDT [2C]	0.341135	0.05	0.500000		68.2	36 - 96	5.59	20	
Aldrin	0.388725	0.02	0.500000		77.7	64 - 96	6.80	20	
Aldrin [2C]	0.391270	0.02	0.500000		78.3	64 - 96	8.83	20	
alpha-BHC	0.434245	0.02	0.500000		86.8	63 - 92	10.0	20	
alpha-BHC [2C]	0.442675	0.02	0.500000		88.5	63 - 92	11.7	20	
alpha-Chlordane	0.404710	0.02	0.500000		80.9	63 - 101	5.36	20	
alpha-Chlordane [2C]	0.399915	0.02	0.500000		80.0	63 - 101	7.68	20	
beta-BHC	0.444010	0.02	0.500000		88.8	58 - 95	9.48	20	
beta-BHC [2C]	0.446845	0.02	0.500000		89.4	58 - 95	11.9	20	
delta-BHC	0.353875	0.02	0.500000		70.8	37 - 107	8.76	20	
delta-BHC [2C]	0.365465	0.02	0.500000		73.1	37 - 107	10.6	20	
Dieldrin	0.437995	0.05	0.500000		87.6	62 - 102	4.97	20	
Dieldrin [2C]	0.429590	0.05	0.500000		85.9	62 - 102	6.97	20	
Endosulfan I	0.419990	0.02	0.500000		84.0	61 - 97	5.62	20	
Endosulfan I [2C]	0.411120	0.02	0.500000		82.2	61 - 97	7.95	20	
Endosulfan II	0.434150	0.05	0.500000		86.8	61 - 103	5.11	20	
Endosulfan II [2C]	0.425250	0.05	0.500000		85.0	61 - 103	6.70	20	
Endosulfan sulfate	0.424555	0.05	0.500000		84.9	60 - 112	7.64	20	
Endosulfan Sulfate [2C]	0.420165	0.05	0.500000		84.0	60 - 112	6.68	20	
Endrin	0.463145	0.05	0.500000		92.6	62 - 103	4.79	20	
Endrin [2C]	0.457440	0.05	0.500000		91.5	62 - 103	6.41	20	
Endrin aldehyde	0.469805	0.05	0.500000		94.0	64 - 116	9.10	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/11/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0146 - GCSEMI_PCB/PEST_W (continued)									
LCS Dup (B7A0146-BSD1) - Continued				Prepared: 1/6/2017 Analyzed: 1/7/2017					
Endrin aldehyde [2C]	0.457725	0.05	0.500000		91.5	64 - 116	9.98	20	
Endrin ketone	0.455195	0.05	0.500000		91.0	56 - 113	10.1	20	
Endrin ketone [2C]	0.441920	0.05	0.500000		88.4	56 - 113	7.22	20	
gamma-BHC	0.457520	0.02	0.500000		91.5	64 - 95	9.69	20	
gamma-BHC [2C]	0.459525	0.02	0.500000		91.9	64 - 95	11.3	20	
gamma-Chlordane	0.393815	0.02	0.500000		78.8	64 - 99	5.35	20	
gamma-Chlordane [2C]	0.392650	0.02	0.500000		78.5	64 - 99	7.80	20	
Heptachlor	0.405490	0.02	0.500000		81.1	64 - 93	6.32	20	
Heptachlor [2C]	0.400115	0.02	0.500000		80.0	64 - 93	8.10	20	
Heptachlor epoxide	0.414350	0.02	0.500000		82.9	65 - 98	5.54	20	
Heptachlor epoxide [2C]	0.410065	0.02	0.500000		82.0	65 - 98	7.58	20	
Methoxychlor	0.398795	0.25	0.500000		79.8	0 - 141	6.44	20	
Methoxychlor [2C]	0.381615	0.25	0.500000		76.3	0 - 141	4.12	20	
Surrogate: Decachlorobiphenyl	*0.3766*		*0.500000*		*75.3*	*7 - 127*			
Surrogate: Decachlorobiphenyl [2C]	*0.4092*		*0.500000*		*81.8*	*7 - 127*			
Surrogate: Tetrachloro-m-xylene	*0.4127*		*0.500000*		*82.5*	*14 - 122*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.4678*		*0.500000*		*93.6*	*14 - 122*			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/11/2017

Polychlorinated Biphenyls by EPA 8082 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0146 - GCSEMI_PCB/PEST_W									
Blank (B7A0146-BLK2)					Prepared: 1/6/2017 Analyzed: 1/6/2017				
Aroclor 1016	ND	0.50			NR				
Aroclor 1221	ND	1.0			NR				
Aroclor 1232	ND	0.50			NR				
Aroclor 1242	ND	0.50			NR				
Aroclor 1248	ND	0.50			NR				
Aroclor 1254	ND	0.50			NR				
Aroclor 1260	ND	0.50			NR				
Aroclor 1262	ND	0.50			NR				
Aroclor 1268	ND	0.50			NR				
Surrogate: Decachlorobiphenyl	*0.3228*		*0.500000*		*64.6*	*7 - 127*			
Surrogate: Tetrachloro-m-xylene	*0.3479*		*0.500000*		*69.6*	*14 - 122*			
LCS (B7A0146-BS2)					Prepared: 1/6/2017 Analyzed: 1/6/2017				
Aroclor 1016	4.31393	0.50	5.00000		86.3	68 - 96			
Aroclor 1260	4.04206	0.50	5.00000		80.8	64 - 106			
Surrogate: Decachlorobiphenyl	*0.4578*		*0.500000*		*91.6*	*7 - 127*			
Surrogate: Tetrachloro-m-xylene	*0.4944*		*0.500000*		*98.9*	*14 - 122*			
LCS Dup (B7A0146-BSD2)					Prepared: 1/6/2017 Analyzed: 1/6/2017				
Aroclor 1016	4.13589	0.50	5.00000		82.7	68 - 96	4.21	20	
Aroclor 1260	3.84620	0.50	5.00000		76.9	64 - 106	4.97	20	
Surrogate: Decachlorobiphenyl	*0.4138*		*0.500000*		*82.8*	*7 - 127*			
Surrogate: Tetrachloro-m-xylene	*0.4788*		*0.500000*		*95.8*	*14 - 122*			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/11/2017

Notes and Definitions

ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:
(1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
(2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
(3) Results are wet unless otherwise specified.

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 1 of 1

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt	Y	N	Condition	Y	N
☐ Client ☐ ATL	1. CHILLED	☑	☐	5. # OF SAMPLES MATCH COC	☑	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☑	6. PRESERVED	☐	☐
☐ GSO	3. CONTAINER INTACT	☑	☐	7. COOLER TEMP, deg C:	5.7	
☐ Other:	4. SEALED	☐	☑			

CUSTOMER

Company: Leighton Consulting, Inc (LCI)
Address: 17781 Cowan
Tel: 949-250-1471
City: Irvine State: CA Zip: 92614 Fax: 949-250-1114

SEND REPORT TO:
Attn: Julie Hamman Email: jhamman@leightongroup.com
Company: Leighton (LCI)
Address: 17781 Cowan
City: Irvine State: CA Zip: 92614

SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Accounts Payable Email: acctpayable@leightongroup.com
Company: Leighton
Address: 17781 Cowan
City: Irvine State: CA Zip: 92614

PROJECT SAMPLES

Project Name: Burroughs MS
Project No.: 605378.006
Sampler: W. Scomas
Quote No: —
PO #: —
Special Instructions/Comments:

Encircle or Write Requested Analysis

| ITEM | Lab No. | Sample ID / Location | Date | Time | 8260 / 624 (Volatiles) | 8015(GRO) | 8015(DRO) | 8270(Semi-volatiles) | 8081(Organochlorine Pesticides) | 8082(PCBs) | 6010 / 7000(Title 22 Metals) | TO-15 | LUFT/TCLP Arsenic | LUFT/TCLP Lead | SCIS (DRO) | 8081 COCs | | |

ADVANCED TECHNOLOGY LABORATORIES

January 05, 2017

Julie Harriman
Leighton Consulting, Inc.
17781 Cowan Street
Irvine, CA 92614
Tel: (949) 250-1421
Fax:(949) 757-7230

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

RE: ATL Work Order Number : 1700026
Client Reference : Burroughs MS, 603378.006

Enclosed are the results for sample(s) received on January, 3 2017 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/05/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
DRUM-LIQUID	1700026-03	Water	1/03/17 16:10	1/03/17 18:35

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/05/2017

Client Sample ID DRUM-LIQUID
Lab ID: 1700026-03

Title 22 Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	**0.0066**	0.010	0.0021	1	B7A0054	01/04/2017	01/04/17 15:19	J
Arsenic	ND	0.010	0.0067	1	B7A0054	01/04/2017	01/04/17 15:19	
Barium	**0.20**	0.0030	0.0008	1	B7A0054	01/04/2017	01/04/17 15:19	
Beryllium	ND	0.0030	0.0004	1	B7A0054	01/04/2017	01/04/17 15:19	
Cadmium	**0.0079**	0.0030	0.0002	1	B7A0054	01/04/2017	01/04/17 15:19	
Chromium	**0.051**	0.0030	0.0016	1	B7A0054	01/04/2017	01/04/17 15:19	
Cobalt	**0.030**	0.0030	0.0007	1	B7A0054	01/04/2017	01/04/17 15:19	
Copper	**0.37**	0.0090	0.0023	1	B7A0054	01/04/2017	01/04/17 15:19	
Lead	**0.11**	0.0050	0.0028	1	B7A0054	01/04/2017	01/04/17 15:19	
Molybdenum	**0.026**	0.0050	0.0007	1	B7A0054	01/04/2017	01/04/17 15:19	
Nickel	**0.062**	0.0050	0.0024	1	B7A0054	01/04/2017	01/04/17 15:19	
Selenium	**0.018**	0.010	0.0034	1	B7A0054	01/04/2017	01/04/17 15:19	
Silver	ND	0.0030	0.0006	1	B7A0054	01/04/2017	01/04/17 15:19	
Thallium	**0.0048**	0.015	0.0026	1	B7A0054	01/04/2017	01/04/17 15:19	J
Vanadium	**0.020**	0.0030	0.0011	1	B7A0054	01/04/2017	01/04/17 15:19	
Zinc	**2.6**	0.025	0.0021	1	B7A0054	01/04/2017	01/04/17 15:19	

Mercury by AA (Cold Vapor) EPA 7470A

Analyst: SB

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.20	0.13	1	B7A0073	01/04/2017	01/04/17 14:17	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: VW

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	0.05	0.05	1	B7A0048	01/04/2017	01/04/17 10:55	
Surrogate: 4-Bromofluorobenzene	*85.8 %*		*70 - 130*		B7A0048	01/04/2017	*01/04/17 10:55*	

Diesel Range Organics by EPA 8015B

Analyst: CR

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	**0.72**	0.05	0.05	1	B7A0081	01/04/2017	01/05/17 05:45	
ORO	**0.94**	0.05	0.05	1	B7A0081	01/04/2017	01/05/17 05:45	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/05/2017

Client Sample ID DRUM-LIQUID
Lab ID: 1700026-03

Diesel Range Organics by EPA 8015B

Analyst: CR

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: p-Terphenyl	*5.88 %*	*20 - 150*		B7A0081	01/04/2017	*01/05/17 05:45*	S2

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	0.05	0.005	1	B7A0080	01/04/2017	01/04/17 12:51	
4,4´-DDE	ND	0.05	0.005	1	B7A0080	01/04/2017	01/04/17 12:51	
4,4´-DDT	ND	0.05	0.004	1	B7A0080	01/04/2017	01/04/17 12:51	
Aldrin	ND	0.02	0.004	1	B7A0080	01/04/2017	01/04/17 12:51	
alpha-BHC	ND	0.02	0.004	1	B7A0080	01/04/2017	01/04/17 12:51	
alpha-Chlordane	ND	0.02	0.005	1	B7A0080	01/04/2017	01/04/17 12:51	
beta-BHC	ND	0.02	0.005	1	B7A0080	01/04/2017	01/04/17 12:51	
Chlordane	ND	0.25	0.03	1	B7A0080	01/04/2017	01/04/17 12:51	
delta-BHC	ND	0.02	0.004	1	B7A0080	01/04/2017	01/04/17 12:51	
Dieldrin	ND	0.05	0.005	1	B7A0080	01/04/2017	01/04/17 12:51	
Endosulfan I	ND	0.02	0.005	1	B7A0080	01/04/2017	01/04/17 12:51	
Endosulfan II	ND	0.05	0.005	1	B7A0080	01/04/2017	01/04/17 12:51	
Endosulfan sulfate	ND	0.05	0.005	1	B7A0080	01/04/2017	01/04/17 12:51	
Endrin	ND	0.05	0.005	1	B7A0080	01/04/2017	01/04/17 12:51	
Endrin aldehyde	ND	0.05	0.006	1	B7A0080	01/04/2017	01/04/17 12:51	
Endrin ketone	ND	0.05	0.005	1	B7A0080	01/04/2017	01/04/17 12:51	
gamma-BHC	ND	0.02	0.004	1	B7A0080	01/04/2017	01/04/17 12:51	
gamma-Chlordane	ND	0.02	0.005	1	B7A0080	01/04/2017	01/04/17 12:51	
Heptachlor	ND	0.02	0.005	1	B7A0080	01/04/2017	01/04/17 12:51	
Heptachlor epoxide	ND	0.02	0.005	1	B7A0080	01/04/2017	01/04/17 12:51	
Methoxychlor	ND	0.25	0.004	1	B7A0080	01/04/2017	01/04/17 12:51	
Toxaphene	ND	2.5	0.23	1	B7A0080	01/04/2017	01/04/17 12:51	
Surrogate: Decachlorobiphenyl	*13.6 %*	*7 - 127*		B7A0080	01/04/2017	*01/04/17 12:51*	
Surrogate: Tetrachloro-m-xylene	*17.6 %*	*14 - 122*		B7A0080	01/04/2017	*01/04/17 12:51*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/05/2017

QUALITY CONTROL SECTION

Title 22 Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0054 - EPA 3010A_W									
Blank (B7A0054-BLK1)				Prepared: 1/4/2017 Analyzed: 1/4/2017					
Antimony	ND	0.010			NR				
Arsenic	ND	0.010			NR				
Barium	ND	0.0030			NR				
Beryllium	ND	0.0030			NR				
Cadmium	0.000281	0.0030			NR				J
Chromium	ND	0.0030			NR				
Cobalt	ND	0.0030			NR				
Copper	ND	0.0090			NR				
Lead	ND	0.0050			NR				
Molybdenum	ND	0.0050			NR				
Nickel	ND	0.0050			NR				
Selenium	0.003547	0.010			NR				J
Silver	ND	0.0030			NR				
Thallium	ND	0.015			NR				
Vanadium	ND	0.0030			NR				
Zinc	ND	0.025			NR				
LCS (B7A0054-BS1)				Prepared: 1/4/2017 Analyzed: 1/4/2017					
Antimony	0.970069	0.010	1.00000		97.0	80 - 120			
Arsenic	0.925434	0.010	1.00000		92.5	80 - 120			
Barium	1.02431	0.0030	1.00000		102	80 - 120			
Beryllium	1.00199	0.0030	1.00000		100	80 - 120			
Cadmium	0.955888	0.0030	1.00000		95.6	80 - 120			
Chromium	1.02174	0.0030	1.00000		102	80 - 120			
Cobalt	0.996666	0.0030	1.00000		99.7	80 - 120			
Copper	1.03134	0.0090	1.00000		103	80 - 120			
Lead	0.975916	0.0050	1.00000		97.6	80 - 120			
Molybdenum	0.979812	0.0050	1.00000		98.0	80 - 120			
Nickel	0.979113	0.0050	1.00000		97.9	80 - 120			
Selenium	0.910172	0.010	1.00000		91.0	80 - 120			
Silver	0.972344	0.0030	1.00000		97.2	80 - 120			
Thallium	0.915371	0.015	1.00000		91.5	80 - 120			
Vanadium	0.989986	0.0030	1.00000		99.0	80 - 120			
Zinc	0.946508	0.025	1.00000		94.7	80 - 120			
Duplicate (B7A0054-DUP1)		**Source: 1604857-GR**		Prepared: 1/4/2017 Analyzed: 1/4/2017					
Antimony	ND	0.010		ND	NR			20	
Arsenic	ND	0.010		ND	NR			20	
Barium	ND	0.0030		ND	NR			20	
Beryllium	ND	0.0030		ND	NR			20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/05/2017

Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0054 - EPA 3010A_W (continued)									
Duplicate (B7A0054-DUP1) - Continued		**Source: 1604857-GR**		Prepared: 1/4/2017 Analyzed: 1/4/2017					
Cadmium	1.722E-4	0.0030		0.000215	NR		22.2	20	R, J
Chromium	ND	0.0030		ND	NR			20	
Cobalt	ND	0.0030		ND	NR			20	
Copper	ND	0.0090		ND	NR			20	
Lead	ND	0.0050		ND	NR			20	
Molybdenum	ND	0.0050		0.000755	NR			20	
Nickel	ND	0.0050		ND	NR			20	
Selenium	0.007919	0.010		0.005801	NR		30.9	20	R, J
Silver	ND	0.0030		ND	NR			20	
Thallium	ND	0.015		ND	NR			20	
Vanadium	ND	0.0030		ND	NR			20	
Zinc	ND	0.025		0.003045	NR			20	
Matrix Spike (B7A0054-MS1)		**Source: 1604857-GR**		Prepared: 1/4/2017 Analyzed: 1/4/2017					
Antimony	2.34283	0.010	2.50000	ND	93.7	76 - 118			
Arsenic	2.23353	0.010	2.50000	ND	89.3	74 - 123			
Barium	2.46243	0.0030	2.50000	ND	98.5	76 - 117			
Beryllium	2.46242	0.0030	2.50000	ND	98.5	84 - 114			
Cadmium	2.28230	0.0030	2.50000	0.000215	91.3	73 - 115			
Chromium	2.45377	0.0030	2.50000	ND	98.2	76 - 117			
Cobalt	2.42983	0.0030	2.50000	ND	97.2	78 - 113			
Copper	2.50045	0.0090	2.50000	ND	100	70 - 132			
Lead	2.34831	0.0050	2.50000	ND	93.9	78 - 109			
Molybdenum	2.34895	0.0050	2.50000	0.000755	93.9	84 - 111			
Nickel	2.38000	0.0050	2.50000	ND	95.2	66 - 125			
Selenium	2.17739	0.010	2.50000	0.005801	86.9	76 - 117			
Silver	2.34090	0.0030	2.50000	ND	93.6	64 - 133			
Thallium	2.29102	0.015	2.50000	ND	91.6	63 - 118			
Vanadium	2.37285	0.0030	2.50000	ND	94.9	76 - 119			
Zinc	2.26556	0.025	5.00000	0.003045	45.3	56 - 131			M1
Matrix Spike Dup (B7A0054-MSD1)		**Source: 1604857-GR**		Prepared: 1/4/2017 Analyzed: 1/4/2017					
Antimony	2.30965	0.010	2.50000	ND	92.4	76 - 118	1.43	20	
Arsenic	2.20399	0.010	2.50000	ND	88.2	74 - 123	1.33	20	
Barium	2.38999	0.0030	2.50000	ND	95.6	76 - 117	2.99	20	
Beryllium	2.33903	0.0030	2.50000	ND	93.6	84 - 114	5.14	20	
Cadmium	2.22341	0.0030	2.50000	0.000215	88.9	73 - 115	2.61	20	
Chromium	2.37788	0.0030	2.50000	ND	95.1	76 - 117	3.14	20	
Cobalt	2.36198	0.0030	2.50000	ND	94.5	78 - 113	2.83	20	
Copper	2.41571	0.0090	2.50000	ND	96.6	70 - 132	3.45	20	
Lead	2.31468	0.0050	2.50000	ND	92.6	78 - 109	1.44	20	
Molybdenum	2.27754	0.0050	2.50000	0.000755	91.1	84 - 111	3.09	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/05/2017

Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0054 - EPA 3010A_W (continued)									
Matrix Spike Dup (B7A0054-MSD1) - Continued		**Source: 1604857-GR**		Prepared: 1/4/2017 Analyzed: 1/4/2017					
Nickel	2.31672	0.0050	2.50000	ND	92.7	66 - 125	2.69	20	
Selenium	2.16037	0.010	2.50000	0.005801	86.2	76 - 117	0.785	20	
Silver	2.23910	0.0030	2.50000	ND	89.6	64 - 133	4.45	20	
Thallium	2.25333	0.015	2.50000	ND	90.1	63 - 118	1.66	20	
Vanadium	2.29355	0.0030	2.50000	ND	91.7	76 - 119	3.40	20	
Zinc	2.21103	0.025	5.00000	0.003045	44.2	56 - 131	2.44	20	M1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/05/2017

Mercury by AA (Cold Vapor) EPA 7470A - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0073 - EPA 245.1/7470_W									
Blank (B7A0073-BLK1)				Prepared: 1/4/2017 Analyzed: 1/4/2017					
Mercury	ND	0.20			NR				
LCS (B7A0073-BS1)				Prepared: 1/4/2017 Analyzed: 1/4/2017					
Mercury	10.2180	0.20	10.0000		102	80 - 120			
Matrix Spike (B7A0073-MS1)		**Source: 1700026-03**		Prepared: 1/4/2017 Analyzed: 1/4/2017					
Mercury	9.68295	0.20	10.0000	ND	96.8	70 - 130			
Matrix Spike Dup (B7A0073-MSD1)		**Source: 1700026-03**		Prepared: 1/4/2017 Analyzed: 1/4/2017					
Mercury	9.90261	0.20	10.0000	ND	99.0	70 - 130	2.24	20	
Post Spike (B7A0073-PS1)		**Source: 1700026-03**		Prepared: 1/4/2017 Analyzed: 1/4/2017					
Mercury	5.24149		5.00000	0.107491	103	85 - 115			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/05/2017

Gasoline Range Organics by EPA 8015B (Modified) - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0048 - GCVOA_W									
Blank (B7A0048-BLK1)				Prepared: 1/4/2017 Analyzed: 1/4/2017					
Gasoline Range Organics	ND	0.05			NR				
Surrogate: 4-Bromofluorobenzene	*0.09057*		*0.100000*		*90.6*	*70 - 130*			
LCS (B7A0048-BS1)				Prepared: 1/4/2017 Analyzed: 1/4/2017					
Gasoline Range Organics	0.918000	0.05	1.00000		91.8	70 - 130			
Surrogate: 4-Bromofluorobenzene	*0.09332*		*0.100000*		*93.3*	*70 - 130*			
LCS Dup (B7A0048-BSD1)				Prepared: 1/4/2017 Analyzed: 1/4/2017					
Gasoline Range Organics	0.914000	0.05	1.00000		91.4	70 - 130	0.437	20	
Surrogate: 4-Bromofluorobenzene	*0.09253*		*0.100000*		*92.5*	*70 - 130*			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/05/2017

Diesel Range Organics by EPA 8015B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0081 - GCSEMI_DRO_W									
Blank (B7A0081-BLK1)					Prepared: 1/4/2017 Analyzed: 1/5/2017				
DRO	ND	0.05			NR				
ORO	ND	0.05			NR				
Surrogate: p-Terphenyl	*0.04154*		*8.00000E-2*		*51.9*	*20 - 150*			
LCS (B7A0081-BS1)					Prepared: 1/4/2017 Analyzed: 1/5/2017				
DRO	0.637310	0.05	1.00000		63.7	42 - 142			
Surrogate: p-Terphenyl	*0.03089*		*8.00000E-2*		*38.6*	*20 - 150*			
LCS Dup (B7A0081-BSD1)					Prepared: 1/4/2017 Analyzed: 1/5/2017				
DRO	0.599890	0.05	1.00000		60.0	42 - 142	6.05	20	
Surrogate: p-Terphenyl	*0.02582*		*8.00000E-2*		*32.3*	*20 - 150*			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/05/2017

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0080 - GCSEMI_PCB/PEST_W									
Blank (B7A0080-BLK1)				Prepared: 1/4/2017 Analyzed: 1/4/2017					
4,4´-DDD	ND	0.05			NR				
4,4´-DDD [2C]	ND	0.05			NR				
4,4´-DDE	ND	0.05			NR				
4,4´-DDE [2C]	ND	0.05			NR				
4,4´-DDT	ND	0.05			NR				
4,4´-DDT [2C]	ND	0.05			NR				
Aldrin	ND	0.02			NR				
Aldrin [2C]	ND	0.02			NR				
alpha-BHC	ND	0.02			NR				
alpha-BHC [2C]	ND	0.02			NR				
alpha-Chlordane	ND	0.02			NR				
alpha-Chlordane [2C]	ND	0.02			NR				
beta-BHC	ND	0.02			NR				
beta-BHC [2C]	ND	0.02			NR				
Chlordane	ND	0.25			NR				
Chlordane [2C]	ND	0.25			NR				
delta-BHC	ND	0.02			NR				
delta-BHC [2C]	ND	0.02			NR				
Dieldrin	ND	0.05			NR				
Dieldrin [2C]	ND	0.05			NR				
Endosulfan I	ND	0.02			NR				
Endosulfan I [2C]	ND	0.02			NR				
Endosulfan II	ND	0.05			NR				
Endosulfan II [2C]	ND	0.05			NR				
Endosulfan sulfate	ND	0.05			NR				
Endosulfan Sulfate [2C]	ND	0.05			NR				
Endrin	ND	0.05			NR				
Endrin [2C]	ND	0.05			NR				
Endrin aldehyde	ND	0.05			NR				
Endrin aldehyde [2C]	ND	0.05			NR				
Endrin ketone	ND	0.05			NR				
Endrin ketone [2C]	ND	0.05			NR				
gamma-BHC	ND	0.02			NR				
gamma-BHC [2C]	ND	0.02			NR				
gamma-Chlordane	ND	0.02			NR				
gamma-Chlordane [2C]	ND	0.02			NR				
Heptachlor	ND	0.02			NR				
Heptachlor [2C]	ND	0.02			NR				
Heptachlor epoxide	ND	0.02			NR				
Heptachlor epoxide [2C]	ND	0.02			NR				
Methoxychlor	ND	0.25			NR				

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/05/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0080 - GCSEMI_PCB/PEST_W (continued)									
Blank (B7A0080-BLK1) - Continued				Prepared: 1/4/2017 Analyzed: 1/4/2017					
Methoxychlor [2C]	ND	0.25			NR				
Toxaphene	ND	2.5			NR				
Toxaphene [2C]	ND	2.5			NR				
Surrogate: Decachlorobiphenyl	*0.2579*		*0.500000*		*51.6*	*7 - 127*			
Surrogate: Decachlorobiphenyl [2C]	*0.4556*		*0.500000*		*91.1*	*7 - 127*			
Surrogate: Tetrachloro-m-xylene	*0.2318*		*0.500000*		*46.4*	*14 - 122*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.2511*		*0.500000*		*50.2*	*14 - 122*			
LCS (B7A0080-BS1)				Prepared: 1/4/2017 Analyzed: 1/4/2017					
4,4´-DDD	0.270650	0.05	0.500000		54.1	59 - 109			L2
4,4´-DDD [2C]	0.283970	0.05	0.500000		56.8	59 - 109			L2
4,4´-DDE	0.193125	0.05	0.500000		38.6	63 - 101			L2
4,4´-DDE [2C]	0.173450	0.05	0.500000		34.7	63 - 101			L2
4,4´-DDT	0.142045	0.05	0.500000		28.4	36 - 96			L2
4,4´-DDT [2C]	0.185930	0.05	0.500000		37.2	36 - 96			
Aldrin	0.209990	0.02	0.500000		42.0	64 - 96			L2
Aldrin [2C]	0.200220	0.02	0.500000		40.0	64 - 96			L2
alpha-BHC	0.278590	0.02	0.500000		55.7	63 - 92			L2
alpha-BHC [2C]	0.264955	0.02	0.500000		53.0	63 - 92			L2
alpha-Chlordane	0.209325	0.02	0.500000		41.9	63 - 101			L2
alpha-Chlordane [2C]	0.198535	0.02	0.500000		39.7	63 - 101			L2
beta-BHC	0.261785	0.02	0.500000		52.4	58 - 95			L2
beta-BHC [2C]	0.250315	0.02	0.500000		50.1	58 - 95			L2
delta-BHC	0.216880	0.02	0.500000		43.4	37 - 107			
delta-BHC [2C]	0.200440	0.02	0.500000		40.1	37 - 107			
Dieldrin	0.230430	0.05	0.500000		46.1	62 - 102			L2
Dieldrin [2C]	0.227350	0.05	0.500000		45.5	62 - 102			L2
Endosulfan I	0.224410	0.02	0.500000		44.9	61 - 97			L2
Endosulfan I [2C]	0.221630	0.02	0.500000		44.3	61 - 97			L2
Endosulfan II	0.240370	0.05	0.500000		48.1	61 - 103			L2
Endosulfan II [2C]	0.248510	0.05	0.500000		49.7	61 - 103			L2
Endosulfan sulfate	0.256560	0.05	0.500000		51.3	60 - 112			L2
Endosulfan Sulfate [2C]	0.347835	0.05	0.500000		69.6	60 - 112			
Endrin	0.241780	0.05	0.500000		48.4	62 - 103			L2
Endrin [2C]	0.237355	0.05	0.500000		47.5	62 - 103			L2
Endrin aldehyde	0.288465	0.05	0.500000		57.7	64 - 116			L2
Endrin aldehyde [2C]	0.242575	0.05	0.500000		48.5	64 - 116			L2
Endrin ketone	0.303995	0.05	0.500000		60.8	56 - 113			
Endrin ketone [2C]	0.349925	0.05	0.500000		70.0	56 - 113			
gamma-BHC	0.276515	0.02	0.500000		55.3	64 - 95			L2
gamma-BHC [2C]	0.260730	0.02	0.500000		52.1	64 - 95			L2

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/05/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0080 - GCSEMI_PCB/PEST_W (continued)									
LCS (B7A0080-BS1) - Continued				Prepared: 1/4/2017 Analyzed: 1/4/2017					
gamma-Chlordane	0.206740	0.02	0.500000		41.3	64 - 99			L2
gamma-Chlordane [2C]	0.196020	0.02	0.500000		39.2	64 - 99			L2
Heptachlor	0.227035	0.02	0.500000		45.4	64 - 93			L2
Heptachlor [2C]	0.244200	0.02	0.500000		48.8	64 - 93			L2
Heptachlor epoxide	0.228860	0.02	0.500000		45.8	65 - 98			L2
Heptachlor epoxide [2C]	0.227365	0.02	0.500000		45.5	65 - 98			L2
Methoxychlor	0.186200	0.25	0.500000		37.2	0 - 141			J
Methoxychlor [2C]	0.207795	0.25	0.500000		41.6	0 - 141			J
Surrogate: Decachlorobiphenyl	*0.2286*		*0.500000*		*45.7*	*7 - 127*			
Surrogate: Decachlorobiphenyl [2C]	*0.2126*		*0.500000*		*42.5*	*7 - 127*			
Surrogate: Tetrachloro-m-xylene	*0.2594*		*0.500000*		*51.9*	*14 - 122*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.2338*		*0.500000*		*46.8*	*14 - 122*			
LCS Dup (B7A0080-BSD1)				Prepared: 1/4/2017 Analyzed: 1/4/2017					
4,4´-DDD	0.302040	0.05	0.500000		60.4	59 - 109	11.0	20	
4,4´-DDD [2C]	0.319960	0.05	0.500000		64.0	59 - 109	11.9	20	
4,4´-DDE	0.222045	0.05	0.500000		44.4	63 - 101	13.9	20	L2
4,4´-DDE [2C]	0.202310	0.05	0.500000		40.5	63 - 101	15.4	20	L2
4,4´-DDT	0.168460	0.05	0.500000		33.7	36 - 96	17.0	20	L2
4,4´-DDT [2C]	0.196455	0.05	0.500000		39.3	36 - 96	5.50	20	
Aldrin	0.241915	0.02	0.500000		48.4	64 - 96	14.1	20	L2
Aldrin [2C]	0.226430	0.02	0.500000		45.3	64 - 96	12.3	20	L2
alpha-BHC	0.307320	0.02	0.500000		61.5	63 - 92	9.81	20	L2
alpha-BHC [2C]	0.305200	0.02	0.500000		61.0	63 - 92	14.1	20	L2
alpha-Chlordane	0.234320	0.02	0.500000		46.9	63 - 101	11.3	20	L2
alpha-Chlordane [2C]	0.222835	0.02	0.500000		44.6	63 - 101	11.5	20	L2
beta-BHC	0.291925	0.02	0.500000		58.4	58 - 95	10.9	20	
beta-BHC [2C]	0.283865	0.02	0.500000		56.8	58 - 95	12.6	20	L2
delta-BHC	0.240410	0.02	0.500000		48.1	37 - 107	10.3	20	
delta-BHC [2C]	0.218385	0.02	0.500000		43.7	37 - 107	8.57	20	
Dieldrin	0.255620	0.05	0.500000		51.1	62 - 102	10.4	20	L2
Dieldrin [2C]	0.249230	0.05	0.500000		49.8	62 - 102	9.18	20	L2
Endosulfan I	0.244295	0.02	0.500000		48.9	61 - 97	8.49	20	L2
Endosulfan I [2C]	0.243445	0.02	0.500000		48.7	61 - 97	9.38	20	L2
Endosulfan II	0.256135	0.05	0.500000		51.2	61 - 103	6.35	20	L2
Endosulfan II [2C]	0.265230	0.05	0.500000		53.0	61 - 103	6.51	20	L2
Endosulfan sulfate	0.278375	0.05	0.500000		55.7	60 - 112	8.16	20	L2
Endosulfan Sulfate [2C]	0.270705	0.05	0.500000		54.1	60 - 112	24.9	20	L2, R
Endrin	0.265675	0.05	0.500000		53.1	62 - 103	9.42	20	L2
Endrin [2C]	0.264750	0.05	0.500000		53.0	62 - 103	10.9	20	L2
Endrin aldehyde	0.282590	0.05	0.500000		56.5	64 - 116	2.06	20	L2

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/05/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0080 - GCSEMI_PCB/PEST_W (continued)									
LCS Dup (B7A0080-BSD1) - Continued				Prepared: 1/4/2017 Analyzed: 1/4/2017					
Endrin aldehyde [2C]	0.256900	0.05	0.500000		51.4	64 - 116	5.74	20	L2
Endrin ketone	0.311835	0.05	0.500000		62.4	56 - 113	2.55	20	
Endrin ketone [2C]	0.305885	0.05	0.500000		61.2	56 - 113	13.4	20	
gamma-BHC	0.308735	0.02	0.500000		61.7	64 - 95	11.0	20	L2
gamma-BHC [2C]	0.295175	0.02	0.500000		59.0	64 - 95	12.4	20	L2
gamma-Chlordane	0.232355	0.02	0.500000		46.5	64 - 99	11.7	20	L2
gamma-Chlordane [2C]	0.221625	0.02	0.500000		44.3	64 - 99	12.3	20	L2
Heptachlor	0.256750	0.02	0.500000		51.4	64 - 93	12.3	20	L2
Heptachlor [2C]	0.281430	0.02	0.500000		56.3	64 - 93	14.2	20	L2
Heptachlor epoxide	0.251650	0.02	0.500000		50.3	65 - 98	9.49	20	L2
Heptachlor epoxide [2C]	0.249610	0.02	0.500000		49.9	65 - 98	9.33	20	L2
Methoxychlor	0.206805	0.25	0.500000		41.4	0 - 141	10.5	20	J
Methoxychlor [2C]	0.236285	0.25	0.500000		47.3	0 - 141	12.8	20	J
Surrogate: Decachlorobiphenyl	*0.2541*		*0.500000*		*50.8*	*7 - 127*			
Surrogate: Decachlorobiphenyl [2C]	*0.2302*		*0.500000*		*46.0*	*7 - 127*			
Surrogate: Tetrachloro-m-xylene	*0.2847*		*0.500000*		*56.9*	*14 - 122*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.2600*		*0.500000*		*52.0*	*14 - 122*			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/05/2017

Notes and Definitions

S2	Surrogate recovery was below laboratory acceptance limit. Reextraction and/or reanalysisconfirms low recovery caused by matrix effects.
R	RPD value outside acceptance criteria. Calculation is based on raw values.
M1	Matrix spike recovery outside of acceptance limit. The analytical batch was validated by the laboratory control sample.
L2	Laboratory control sample outside of acceptance limits. Reextraction and/or reanalysis is not possible due to limited amount of sample.
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:
(1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
(2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
(3) Results are wet unless otherwise specified.

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 1 of 1

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☐ ATL	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☑	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☑	6. PRESERVED	☑	☐
☐ GSO	3. CONTAINER INTACT	☑	☐	7. COOLER TEMP, deg C:	2.7	
☐ Other:	4. SEALED	☐	☑			

CUSTOMER

Company: Leighton Consulting, Inc (LCI)
Address: 17781 Cowan
Tel: 949-250-1471
City: Irvine State: CA Zip: 92614 Fax: 949-250-1114

SEND REPORT TO:
Attn: Julie Hamman Email: jhamman@leightongroup.com
Company: Leighton (LCI)
Address: 17781 Cowan
City: Irvine State: CA Zip: 92614

SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Accounts Payable Email: acctpayable@leightongroup.com
Company: Leighton
Address: 17781 Cowan
City: Irvine State: CA Zip: 92614

PROJECT SAMPLES

Project Name: Burroughs MS
Project No.: 603378.006
Sampler: W. Scomas
Quote No: —
PO #: —
Special Instructions/Comments:

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	LUFT/TCLP Arsenic	LUFT/TCLP Lead	SCIS (DRO)	8081 CCRs	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE / FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	Container #	Container Type	Container Material	Preservative	QA/QC	REMARKS
1	1800026 - 1	EGB-1-03-17	1-3-17	1100					X	X			X	X					X			5	6	2/3	1/2			
2	- 2	DRUM2-SOIL	↓	1605		X	X		X		X				X		X					1	1	5	1	—		Hold
3	- 3	DRUM-LIQUID	↓	1610		X	X		X		X				X	X			X	X		1	4	3/9	1/2			
4										(LUFT)	1-3-17						(LUFT)		1-3-17									
5																												
6																												
7																												
8																												
9																												
10																												

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

Container — Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7=Canister — Material: 1=Glass; 2=Plastic; 3=Metal
Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4=4C; 5=Zn (Ac)2; 6=NaOH; 7=NA2S2O3

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for five (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reformatted report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Scomas — Submitter Print Name
Signature

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Wallace Scomas	1-3-17	1835	[signature]	1/3/17	1635
[signature]	1-3-17	1935	[signature]	1/3/17	1935
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:

ADVANCED TECHNOLOGY LABORATORIES

January 12, 2017

Julie Harriman
Leighton Consulting, Inc.
17781 Cowan Street
Irvine, CA 92614
Tel: (949) 250-1421
Fax:(949) 757-7230

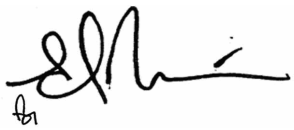
ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1700027
Client Reference : Burroughs MS, 603378.006

Enclosed are the results for sample(s) received on January 03, 2017 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,



Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
EB22-1-0.5	1700027-01	Soil	1/03/17 7:30	1/03/17 18:35
EB22-1-0.5-D	1700027-02	Soil	1/03/17 7:30	1/03/17 18:35
EB22-1-1.5	1700027-03	Soil	1/03/17 7:32	1/03/17 18:35
EB22-1-1.5-D	1700027-04	Soil	1/03/17 7:32	1/03/17 18:35
EB23-2-0.5	1700027-06	Soil	1/03/17 7:45	1/03/17 18:35
EB23-2-0.5-D	1700027-07	Soil	1/03/17 7:45	1/03/17 18:35
EB23-2-1.5	1700027-08	Soil	1/03/17 7:46	1/03/17 18:35
EB24-5-0.5	1700027-10	Soil	1/03/17 7:56	1/03/17 18:35
EB24-5-0.5-D	1700027-11	Soil	1/03/17 7:56	1/03/17 18:35
EB24-5-1.0	1700027-12	Soil	1/03/17 7:59	1/03/17 18:35
EB24-5-1.0-D	1700027-13	Soil	1/03/17 7:59	1/03/17 18:35
EB24-4-0.5	1700027-14	Soil	1/03/17 8:07	1/03/17 18:35
EB24-4-0.5-D	1700027-15	Soil	1/03/17 8:07	1/03/17 18:35
EB24-4-1.5	1700027-16	Soil	1/03/17 8:09	1/03/17 18:35
EB24-4-1.5-D	1700027-17	Soil	1/03/17 8:09	1/03/17 18:35
EB25-1-0.5	1700027-19	Soil	1/03/17 8:25	1/03/17 18:35
EB25-1-0.5-D	1700027-20	Soil	1/03/17 8:25	1/03/17 18:35
EB25-1-1.5	1700027-21	Soil	1/03/17 8:27	1/03/17 18:35
EB3-1-0.5	1700027-23	Soil	1/03/17 8:56	1/03/17 18:35
EB3-1-1.5	1700027-25	Soil	1/03/17 8:58	1/03/17 18:35
EB3-1-1.5-D	1700027-26	Soil	1/03/17 8:58	1/03/17 18:35
EB16-1-0.5	1700027-28	Soil	1/03/17 9:20	1/03/17 18:35
EB16-1-1.5	1700027-29	Soil	1/03/17 9:21	1/03/17 18:35
EB20-1-0.5	1700027-31	Soil	1/03/17 10:20	1/03/17 18:35
EB20-1-0.5-D	1700027-32	Soil	1/03/17 10:20	1/03/17 18:35
EB20-1-1.5	1700027-33	Soil	1/03/17 10:21	1/03/17 18:35
EB20-2-0.5'	1700027-35	Soil	1/03/17 10:27	1/03/17 18:35
EB20-2-0.5-D	1700027-36	Soil	1/03/17 10:27	1/03/17 18:35
EB20-2-1.5	1700027-37	Soil	1/03/17 10:28	1/03/17 18:35
EB20-3-0.5	1700027-39	Soil	1/03/17 10:32	1/03/17 18:35
EB20-3-0.5-D	1700027-40	Soil	1/03/17 10:32	1/03/17 18:35
EB20-3-1.5	1700027-41	Soil	1/03/17 10:34	1/03/17 18:35
EB20-3-1.5-D	1700027-42	Soil	1/03/17 10:34	1/03/17 18:35
EB20-4-0.5	1700027-44	Soil	1/03/17 10:39	1/03/17 18:35
EB20-4-0.5-D	1700027-45	Soil	1/03/17 10:39	1/03/17 18:35
EB20-4-1.5	1700027-46	Soil	1/03/17 10:40	1/03/17 18:35
EB20-4-1.5-D	1700027-47	Soil	1/03/17 10:40	1/03/17 18:35

Leighton Consulting, Inc.	Project Number :	Burroughs MS, 603378.006	
17781 Cowan Street	Report To :	Julie Harriman	
Irvine , CA 92614	Reported :	01/12/2017	

EB20-6-0.5	1700027-49	Soil	1/03/17 12:35	1/03/17 18:35
EB20-6-0.5-D	1700027-50	Soil	1/03/17 12:35	1/03/17 18:35
EB20-6-1.5	1700027-51	Soil	1/03/17 12:36	1/03/17 18:35
EB20-6-1.5-D	1700027-52	Soil	1/03/17 12:36	1/03/17 18:35
EB20-5-0.5	1700027-54	Soil	1/03/17 12:57	1/03/17 18:35
EB20-5-0.5-D	1700027-55	Soil	1/03/17 12:57	1/03/17 18:35
EB20-5-1.5	1700027-56	Soil	1/03/17 12:58	1/03/17 18:35
EB20-5-1.5-D	1700027-57	Soil	1/03/17 12:58	1/03/17 18:35
EB20-7-0.5	1700027-59	Soil	1/03/17 13:00	1/03/17 18:35
EB20-7-1.5	1700027-60	Soil	1/03/17 13:01	1/03/17 18:35
EB20-8-0.5	1700027-62	Soil	1/03/17 13:10	1/03/17 18:35
EB20-8-0.5-D	1700027-63	Soil	1/03/17 13:10	1/03/17 18:35
EB20-8-1.5	1700027-64	Soil	1/03/17 13:11	1/03/17 18:35
EB20-8-1.5-D	1700027-65	Soil	1/03/17 13:11	1/03/17 18:35
EB25-2-0.5	1700027-67	Soil	1/03/17 14:50	1/03/17 18:35
EB23-1-0.5	1700027-68	Soil	1/03/17 15:45	1/03/17 18:35
EB23-1-1.5	1700027-69	Soil	1/03/17 15:46	1/03/17 18:35
EB6-3-0.5	1700027-71	Soil	1/03/17 15:48	1/03/17 18:35
EB6-3-1.5	1700027-72	Soil	1/03/17 15:49	1/03/17 18:35

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB22-1-0.5
Lab ID: 1700027-01

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.3**	1.0	0.70	1	B7A0279	01/10/2017	01/11/17 12:34	
Lead	**3.0**	1.0	0.11	1	B7A0279	01/10/2017	01/11/17 12:34	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0235	01/09/2017	01/10/17 19:12	
4,4´-DDE	ND	2.0	0.20	1	B7A0235	01/09/2017	01/10/17 19:12	
4,4´-DDT	ND	2.0	0.13	1	B7A0235	01/09/2017	01/10/17 19:12	
Aldrin	ND	1.0	0.27	1	B7A0235	01/09/2017	01/10/17 19:12	
alpha-BHC	ND	1.0	0.20	1	B7A0235	01/09/2017	01/10/17 19:12	
alpha-Chlordane	ND	1.0	0.21	1	B7A0235	01/09/2017	01/10/17 19:12	
beta-BHC	ND	1.0	0.23	1	B7A0235	01/09/2017	01/10/17 19:12	
Chlordane	ND	8.5	0.90	1	B7A0235	01/09/2017	01/10/17 19:12	
delta-BHC	ND	1.0	0.21	1	B7A0235	01/09/2017	01/10/17 19:12	
Dieldrin	ND	2.0	0.25	1	B7A0235	01/09/2017	01/10/17 19:12	
Endosulfan I	ND	1.0	0.21	1	B7A0235	01/09/2017	01/10/17 19:12	
Endosulfan II	ND	2.0	0.22	1	B7A0235	01/09/2017	01/10/17 19:12	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0235	01/09/2017	01/10/17 19:12	
Endrin	ND	2.0	0.23	1	B7A0235	01/09/2017	01/10/17 19:12	
Endrin aldehyde	ND	2.0	0.28	1	B7A0235	01/09/2017	01/10/17 19:12	
Endrin ketone	ND	2.0	0.20	1	B7A0235	01/09/2017	01/10/17 19:12	
gamma-BHC	ND	1.0	0.20	1	B7A0235	01/09/2017	01/10/17 19:12	
gamma-Chlordane	ND	1.0	0.23	1	B7A0235	01/09/2017	01/10/17 19:12	
Heptachlor	ND	1.0	0.19	1	B7A0235	01/09/2017	01/10/17 19:12	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0235	01/09/2017	01/10/17 19:12	
Methoxychlor	ND	5.0	0.18	1	B7A0235	01/09/2017	01/10/17 19:12	
Toxaphene	ND	50	8.2	1	B7A0235	01/09/2017	01/10/17 19:12	
Surrogate: Decachlorobiphenyl	*68.4 %*	*27 - 123*			B7A0235	01/09/2017	*01/10/17 19:12*	
Surrogate: Tetrachloro-m-xylene	*58.2 %*	*26 - 108*			B7A0235	01/09/2017	*01/10/17 19:12*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB22-1-0.5-D
Lab ID: 1700027-02

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.3**	1.0	0.70	1	B7A0279	01/10/2017	01/11/17 12:39	
Lead	**3.0**	1.0	0.11	1	B7A0279	01/10/2017	01/11/17 12:39	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0235	01/09/2017	01/10/17 19:23	
4,4´-DDE	ND	2.0	0.20	1	B7A0235	01/09/2017	01/10/17 19:23	
4,4´-DDT	ND	2.0	0.13	1	B7A0235	01/09/2017	01/10/17 19:23	
Aldrin	ND	1.0	0.27	1	B7A0235	01/09/2017	01/10/17 19:23	
alpha-BHC	ND	1.0	0.20	1	B7A0235	01/09/2017	01/10/17 19:23	
alpha-Chlordane	ND	1.0	0.21	1	B7A0235	01/09/2017	01/10/17 19:23	
beta-BHC	ND	1.0	0.23	1	B7A0235	01/09/2017	01/10/17 19:23	
Chlordane	ND	8.5	0.90	1	B7A0235	01/09/2017	01/10/17 19:23	
delta-BHC	ND	1.0	0.21	1	B7A0235	01/09/2017	01/10/17 19:23	
Dieldrin	ND	2.0	0.25	1	B7A0235	01/09/2017	01/10/17 19:23	
Endosulfan I	ND	1.0	0.21	1	B7A0235	01/09/2017	01/10/17 19:23	
Endosulfan II	ND	2.0	0.22	1	B7A0235	01/09/2017	01/10/17 19:23	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0235	01/09/2017	01/10/17 19:23	
Endrin	ND	2.0	0.23	1	B7A0235	01/09/2017	01/10/17 19:23	
Endrin aldehyde	ND	2.0	0.28	1	B7A0235	01/09/2017	01/10/17 19:23	
Endrin ketone	ND	2.0	0.20	1	B7A0235	01/09/2017	01/10/17 19:23	
gamma-BHC	ND	1.0	0.20	1	B7A0235	01/09/2017	01/10/17 19:23	
gamma-Chlordane	ND	1.0	0.23	1	B7A0235	01/09/2017	01/10/17 19:23	
Heptachlor	ND	1.0	0.19	1	B7A0235	01/09/2017	01/10/17 19:23	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0235	01/09/2017	01/10/17 19:23	
Methoxychlor	ND	5.0	0.18	1	B7A0235	01/09/2017	01/10/17 19:23	
Toxaphene	ND	50	8.2	1	B7A0235	01/09/2017	01/10/17 19:23	
Surrogate: Decachlorobiphenyl	*71.9 %*		*27 - 123*		B7A0235	01/09/2017	*01/10/17 19:23*	
Surrogate: Tetrachloro-m-xylene	*60.5 %*		*26 - 108*		B7A0235	01/09/2017	*01/10/17 19:23*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB22-1-0.5-D

Lab ID: 1700027-02

Polychlorinated Biphenyls by EPA 8082 **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B7A0217	01/09/2017	01/10/17 08:28	
Aroclor 1221	ND	16	1.5	1	B7A0217	01/09/2017	01/10/17 08:28	
Aroclor 1232	ND	16	1.5	1	B7A0217	01/09/2017	01/10/17 08:28	
Aroclor 1242	ND	16	1.5	1	B7A0217	01/09/2017	01/10/17 08:28	
Aroclor 1248	ND	16	1.5	1	B7A0217	01/09/2017	01/10/17 08:28	
Aroclor 1254	ND	16	1.5	1	B7A0217	01/09/2017	01/10/17 08:28	
Aroclor 1260	ND	16	1.5	1	B7A0217	01/09/2017	01/10/17 08:28	
Aroclor 1262	ND	16	1.5	1	B7A0217	01/09/2017	01/10/17 08:28	
Aroclor 1268	ND	16	1.5	1	B7A0217	01/09/2017	01/10/17 08:28	
Surrogate: Decachlorobiphenyl	*105 %*	*26 - 137*			B7A0217	01/09/2017	*01/10/17 08:28*	
Surrogate: Tetrachloro-m-xylene	*118 %*	*28 - 102*			B7A0217	01/09/2017	*01/10/17 08:28*	S1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB22-1-1.5
Lab ID: 1700027-03

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.5**	1.0	0.70	1	B7A0279	01/10/2017	01/11/17 12:40	
Lead	**3.0**	1.0	0.11	1	B7A0279	01/10/2017	01/11/17 12:40	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0235	01/09/2017	01/10/17 19:33	
4,4´-DDE	ND	2.0	0.20	1	B7A0235	01/09/2017	01/10/17 19:33	
4,4´-DDT	ND	2.0	0.13	1	B7A0235	01/09/2017	01/10/17 19:33	
Aldrin	ND	1.0	0.27	1	B7A0235	01/09/2017	01/10/17 19:33	
alpha-BHC	ND	1.0	0.20	1	B7A0235	01/09/2017	01/10/17 19:33	
alpha-Chlordane	ND	1.0	0.21	1	B7A0235	01/09/2017	01/10/17 19:33	
beta-BHC	ND	1.0	0.23	1	B7A0235	01/09/2017	01/10/17 19:33	
Chlordane	ND	8.5	0.90	1	B7A0235	01/09/2017	01/10/17 19:33	
delta-BHC	ND	1.0	0.21	1	B7A0235	01/09/2017	01/10/17 19:33	
Dieldrin	ND	2.0	0.25	1	B7A0235	01/09/2017	01/10/17 19:33	
Endosulfan I	ND	1.0	0.21	1	B7A0235	01/09/2017	01/10/17 19:33	
Endosulfan II	ND	2.0	0.22	1	B7A0235	01/09/2017	01/10/17 19:33	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0235	01/09/2017	01/10/17 19:33	
Endrin	ND	2.0	0.23	1	B7A0235	01/09/2017	01/10/17 19:33	
Endrin aldehyde	ND	2.0	0.28	1	B7A0235	01/09/2017	01/10/17 19:33	
Endrin ketone	ND	2.0	0.20	1	B7A0235	01/09/2017	01/10/17 19:33	
gamma-BHC	ND	1.0	0.20	1	B7A0235	01/09/2017	01/10/17 19:33	
gamma-Chlordane	ND	1.0	0.23	1	B7A0235	01/09/2017	01/10/17 19:33	
Heptachlor	ND	1.0	0.19	1	B7A0235	01/09/2017	01/10/17 19:33	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0235	01/09/2017	01/10/17 19:33	
Methoxychlor	ND	5.0	0.18	1	B7A0235	01/09/2017	01/10/17 19:33	
Toxaphene	ND	50	8.2	1	B7A0235	01/09/2017	01/10/17 19:33	
Surrogate: Decachlorobiphenyl	*61.4 %*		*27 - 123*		B7A0235	01/09/2017	*01/10/17 19:33*	
Surrogate: Tetrachloro-m-xylene	*55.5 %*		*26 - 108*		B7A0235	01/09/2017	*01/10/17 19:33*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB22-1-1.5-D
Lab ID: 1700027-04

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.7**	1.0	0.70	1	B7A0279	01/10/2017	01/11/17 12:41	
Lead	**3.1**	1.0	0.11	1	B7A0279	01/10/2017	01/11/17 12:41	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0235	01/09/2017	01/10/17 19:44	
4,4´-DDE	ND	2.0	0.20	1	B7A0235	01/09/2017	01/10/17 19:44	
4,4´-DDT	ND	2.0	0.13	1	B7A0235	01/09/2017	01/10/17 19:44	
Aldrin	ND	1.0	0.27	1	B7A0235	01/09/2017	01/10/17 19:44	
alpha-BHC	ND	1.0	0.20	1	B7A0235	01/09/2017	01/10/17 19:44	
alpha-Chlordane	ND	1.0	0.21	1	B7A0235	01/09/2017	01/10/17 19:44	
beta-BHC	ND	1.0	0.23	1	B7A0235	01/09/2017	01/10/17 19:44	
Chlordane	ND	8.5	0.90	1	B7A0235	01/09/2017	01/10/17 19:44	
delta-BHC	ND	1.0	0.21	1	B7A0235	01/09/2017	01/10/17 19:44	
Dieldrin	ND	2.0	0.25	1	B7A0235	01/09/2017	01/10/17 19:44	
Endosulfan I	ND	1.0	0.21	1	B7A0235	01/09/2017	01/10/17 19:44	
Endosulfan II	ND	2.0	0.22	1	B7A0235	01/09/2017	01/10/17 19:44	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0235	01/09/2017	01/10/17 19:44	
Endrin	ND	2.0	0.23	1	B7A0235	01/09/2017	01/10/17 19:44	
Endrin aldehyde	ND	2.0	0.28	1	B7A0235	01/09/2017	01/10/17 19:44	
Endrin ketone	ND	2.0	0.20	1	B7A0235	01/09/2017	01/10/17 19:44	
gamma-BHC	ND	1.0	0.20	1	B7A0235	01/09/2017	01/10/17 19:44	
gamma-Chlordane	ND	1.0	0.23	1	B7A0235	01/09/2017	01/10/17 19:44	
Heptachlor	ND	1.0	0.19	1	B7A0235	01/09/2017	01/10/17 19:44	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0235	01/09/2017	01/10/17 19:44	
Methoxychlor	ND	5.0	0.18	1	B7A0235	01/09/2017	01/10/17 19:44	
Toxaphene	ND	50	8.2	1	B7A0235	01/09/2017	01/10/17 19:44	
Surrogate: Decachlorobiphenyl	*85.7 %*		*27 - 123*		B7A0235	01/09/2017	*01/10/17 19:44*	
Surrogate: Tetrachloro-m-xylene	*90.0 %*		*26 - 108*		B7A0235	01/09/2017	*01/10/17 19:44*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB23-2-0.5
Lab ID: 1700027-06

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**5.8**	1.0	0.70	1	B7A0279	01/10/2017	01/11/17 12:42	
Lead	**8.0**	1.0	0.11	1	B7A0279	01/10/2017	01/11/17 12:42	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0235	01/09/2017	01/10/17 19:55	
4,4´-DDE	**1.9**	2.0	0.20	1	B7A0235	01/09/2017	01/10/17 19:55	J
4,4´-DDT [2C]	**7.7**	2.0	0.13	1	B7A0235	01/09/2017	01/10/17 19:55	
Aldrin	ND	1.0	0.27	1	B7A0235	01/09/2017	01/10/17 19:55	
alpha-BHC	ND	1.0	0.20	1	B7A0235	01/09/2017	01/10/17 19:55	
alpha-Chlordane	ND	1.0	0.21	1	B7A0235	01/09/2017	01/10/17 19:55	
beta-BHC	ND	1.0	0.23	1	B7A0235	01/09/2017	01/10/17 19:55	
Chlordane	ND	8.5	0.90	1	B7A0235	01/09/2017	01/10/17 19:55	
delta-BHC	ND	1.0	0.21	1	B7A0235	01/09/2017	01/10/17 19:55	
Dieldrin	ND	2.0	0.25	1	B7A0235	01/09/2017	01/10/17 19:55	
Endosulfan I	ND	1.0	0.21	1	B7A0235	01/09/2017	01/10/17 19:55	
Endosulfan II	ND	2.0	0.22	1	B7A0235	01/09/2017	01/10/17 19:55	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0235	01/09/2017	01/10/17 19:55	
Endrin	ND	2.0	0.23	1	B7A0235	01/09/2017	01/10/17 19:55	
Endrin aldehyde	ND	2.0	0.28	1	B7A0235	01/09/2017	01/10/17 19:55	
Endrin ketone	ND	2.0	0.20	1	B7A0235	01/09/2017	01/10/17 19:55	
gamma-BHC	ND	1.0	0.20	1	B7A0235	01/09/2017	01/10/17 19:55	
gamma-Chlordane	ND	1.0	0.23	1	B7A0235	01/09/2017	01/10/17 19:55	
Heptachlor	ND	1.0	0.19	1	B7A0235	01/09/2017	01/10/17 19:55	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0235	01/09/2017	01/10/17 19:55	
Methoxychlor	ND	5.0	0.18	1	B7A0235	01/09/2017	01/10/17 19:55	
Toxaphene	ND	50	8.2	1	B7A0235	01/09/2017	01/10/17 19:55	
Surrogate: Decachlorobiphenyl	*61.5 %*		*27 - 123*		B7A0235	01/09/2017	*01/10/17 19:55*	
Surrogate: Tetrachloro-m-xylene	*62.9 %*		*26 - 108*		B7A0235	01/09/2017	*01/10/17 19:55*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB23-2-0.5-D
Lab ID: 1700027-07

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**5.1**	1.0	0.70	1	B7A0279	01/10/2017	01/11/17 12:46	
Lead	**150**	1.0	0.11	1	B7A0279	01/10/2017	01/11/17 12:46	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0235	01/09/2017	01/10/17 20:05	
4,4´-DDE	ND	2.0	0.20	1	B7A0235	01/09/2017	01/10/17 20:05	
4,4´-DDT	ND	2.0	0.13	1	B7A0235	01/09/2017	01/10/17 20:05	
Aldrin	ND	1.0	0.27	1	B7A0235	01/09/2017	01/10/17 20:05	
alpha-BHC	ND	1.0	0.20	1	B7A0235	01/09/2017	01/10/17 20:05	
alpha-Chlordane	ND	1.0	0.21	1	B7A0235	01/09/2017	01/10/17 20:05	
beta-BHC	ND	1.0	0.23	1	B7A0235	01/09/2017	01/10/17 20:05	
Chlordane	ND	8.5	0.90	1	B7A0235	01/09/2017	01/10/17 20:05	
delta-BHC	ND	1.0	0.21	1	B7A0235	01/09/2017	01/10/17 20:05	
Dieldrin	ND	2.0	0.25	1	B7A0235	01/09/2017	01/10/17 20:05	
Endosulfan I	ND	1.0	0.21	1	B7A0235	01/09/2017	01/10/17 20:05	
Endosulfan II	ND	2.0	0.22	1	B7A0235	01/09/2017	01/10/17 20:05	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0235	01/09/2017	01/10/17 20:05	
Endrin	ND	2.0	0.23	1	B7A0235	01/09/2017	01/10/17 20:05	
Endrin aldehyde	ND	2.0	0.28	1	B7A0235	01/09/2017	01/10/17 20:05	
Endrin ketone	ND	2.0	0.20	1	B7A0235	01/09/2017	01/10/17 20:05	
gamma-BHC	ND	1.0	0.20	1	B7A0235	01/09/2017	01/10/17 20:05	
gamma-Chlordane	ND	1.0	0.23	1	B7A0235	01/09/2017	01/10/17 20:05	
Heptachlor	ND	1.0	0.19	1	B7A0235	01/09/2017	01/10/17 20:05	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0235	01/09/2017	01/10/17 20:05	
Methoxychlor	ND	5.0	0.18	1	B7A0235	01/09/2017	01/10/17 20:05	
Toxaphene	ND	50	8.2	1	B7A0235	01/09/2017	01/10/17 20:05	
Surrogate: Decachlorobiphenyl	*49.8 %*		*27 - 123*		B7A0235	01/09/2017	*01/10/17 20:05*	
Surrogate: Tetrachloro-m-xylene	*59.2 %*		*26 - 108*		B7A0235	01/09/2017	*01/10/17 20:05*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB23-2-1.5
Lab ID: 1700027-08

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.7**	1.0	0.70	1	B7A0279	01/10/2017	01/11/17 12:47	
Lead	**2.8**	1.0	0.11	1	B7A0279	01/10/2017	01/11/17 12:47	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0235	01/09/2017	01/10/17 20:16	
4,4´-DDE	ND	2.0	0.20	1	B7A0235	01/09/2017	01/10/17 20:16	
4,4´-DDT	ND	2.0	0.13	1	B7A0235	01/09/2017	01/10/17 20:16	
Aldrin	ND	1.0	0.27	1	B7A0235	01/09/2017	01/10/17 20:16	
alpha-BHC	ND	1.0	0.20	1	B7A0235	01/09/2017	01/10/17 20:16	
alpha-Chlordane	ND	1.0	0.21	1	B7A0235	01/09/2017	01/10/17 20:16	
beta-BHC	ND	1.0	0.23	1	B7A0235	01/09/2017	01/10/17 20:16	
Chlordane	ND	8.5	0.90	1	B7A0235	01/09/2017	01/10/17 20:16	
delta-BHC	ND	1.0	0.21	1	B7A0235	01/09/2017	01/10/17 20:16	
Dieldrin	ND	2.0	0.25	1	B7A0235	01/09/2017	01/10/17 20:16	
Endosulfan I	ND	1.0	0.21	1	B7A0235	01/09/2017	01/10/17 20:16	
Endosulfan II	ND	2.0	0.22	1	B7A0235	01/09/2017	01/10/17 20:16	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0235	01/09/2017	01/10/17 20:16	
Endrin	ND	2.0	0.23	1	B7A0235	01/09/2017	01/10/17 20:16	
Endrin aldehyde	ND	2.0	0.28	1	B7A0235	01/09/2017	01/10/17 20:16	
Endrin ketone	ND	2.0	0.20	1	B7A0235	01/09/2017	01/10/17 20:16	
gamma-BHC	ND	1.0	0.20	1	B7A0235	01/09/2017	01/10/17 20:16	
gamma-Chlordane	ND	1.0	0.23	1	B7A0235	01/09/2017	01/10/17 20:16	
Heptachlor	ND	1.0	0.19	1	B7A0235	01/09/2017	01/10/17 20:16	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0235	01/09/2017	01/10/17 20:16	
Methoxychlor	ND	5.0	0.18	1	B7A0235	01/09/2017	01/10/17 20:16	
Toxaphene	ND	50	8.2	1	B7A0235	01/09/2017	01/10/17 20:16	
Surrogate: Decachlorobiphenyl	*89.2 %*		*27 - 123*		B7A0235	01/09/2017	*01/10/17 20:16*	
Surrogate: Tetrachloro-m-xylene	*92.2 %*		*26 - 108*		B7A0235	01/09/2017	*01/10/17 20:16*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB24-5-0.5
Lab ID: 1700027-10

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.7**	1.0	0.70	1	B7A0279	01/10/2017	01/11/17 12:48	
Lead	**4.5**	1.0	0.11	1	B7A0279	01/10/2017	01/11/17 12:48	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0235	01/09/2017	01/11/17 13:33	
4,4´-DDE	ND	2.0	0.20	1	B7A0235	01/09/2017	01/11/17 13:33	
4,4´-DDT	ND	2.0	0.13	1	B7A0235	01/09/2017	01/11/17 13:33	
Aldrin	ND	1.0	0.27	1	B7A0235	01/09/2017	01/11/17 13:33	
alpha-BHC	ND	1.0	0.20	1	B7A0235	01/09/2017	01/11/17 13:33	
alpha-Chlordane	ND	1.0	0.21	1	B7A0235	01/09/2017	01/11/17 13:33	
beta-BHC	ND	1.0	0.23	1	B7A0235	01/09/2017	01/11/17 13:33	
Chlordane	ND	8.5	0.90	1	B7A0235	01/09/2017	01/11/17 13:33	
delta-BHC	ND	1.0	0.21	1	B7A0235	01/09/2017	01/11/17 13:33	
Dieldrin	ND	2.0	0.25	1	B7A0235	01/09/2017	01/11/17 13:33	
Endosulfan I	ND	1.0	0.21	1	B7A0235	01/09/2017	01/11/17 13:33	
Endosulfan II	ND	2.0	0.22	1	B7A0235	01/09/2017	01/11/17 13:33	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0235	01/09/2017	01/11/17 13:33	
Endrin	ND	2.0	0.23	1	B7A0235	01/09/2017	01/11/17 13:33	
Endrin aldehyde	ND	2.0	0.28	1	B7A0235	01/09/2017	01/11/17 13:33	
Endrin ketone	ND	2.0	0.20	1	B7A0235	01/09/2017	01/11/17 13:33	
gamma-BHC	ND	1.0	0.20	1	B7A0235	01/09/2017	01/11/17 13:33	
gamma-Chlordane	ND	1.0	0.23	1	B7A0235	01/09/2017	01/11/17 13:33	
Heptachlor	ND	1.0	0.19	1	B7A0235	01/09/2017	01/11/17 13:33	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0235	01/09/2017	01/11/17 13:33	
Methoxychlor	ND	5.0	0.18	1	B7A0235	01/09/2017	01/11/17 13:33	
Toxaphene	ND	50	8.2	1	B7A0235	01/09/2017	01/11/17 13:33	
Surrogate: Decachlorobiphenyl	*53.0 %*		*27 - 123*		B7A0235	01/09/2017	*01/11/17 13:33*	
Surrogate: Tetrachloro-m-xylene	*53.6 %*		*26 - 108*		B7A0235	01/09/2017	*01/11/17 13:33*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB24-5-0.5-D
Lab ID: 1700027-11

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**6.0**	1.0	0.70	1	B7A0279	01/10/2017	01/11/17 12:49	
Lead	**9.0**	1.0	0.11	1	B7A0279	01/10/2017	01/11/17 12:49	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0242	01/09/2017	01/10/17 14:12	
4,4´-DDE	ND	2.0	0.20	1	B7A0242	01/09/2017	01/10/17 14:12	
4,4´-DDT	ND	2.0	0.13	1	B7A0242	01/09/2017	01/10/17 14:12	
Aldrin	ND	1.0	0.27	1	B7A0242	01/09/2017	01/10/17 14:12	
alpha-BHC	ND	1.0	0.20	1	B7A0242	01/09/2017	01/10/17 14:12	
alpha-Chlordane	ND	1.0	0.21	1	B7A0242	01/09/2017	01/10/17 14:12	
beta-BHC	ND	1.0	0.23	1	B7A0242	01/09/2017	01/10/17 14:12	
Chlordane	ND	8.5	0.90	1	B7A0242	01/09/2017	01/10/17 14:12	
delta-BHC	ND	1.0	0.21	1	B7A0242	01/09/2017	01/10/17 14:12	
Dieldrin	ND	2.0	0.25	1	B7A0242	01/09/2017	01/10/17 14:12	
Endosulfan I	ND	1.0	0.21	1	B7A0242	01/09/2017	01/10/17 14:12	
Endosulfan II	ND	2.0	0.22	1	B7A0242	01/09/2017	01/10/17 14:12	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0242	01/09/2017	01/10/17 14:12	
Endrin	ND	2.0	0.23	1	B7A0242	01/09/2017	01/10/17 14:12	
Endrin aldehyde	ND	2.0	0.28	1	B7A0242	01/09/2017	01/10/17 14:12	
Endrin ketone	ND	2.0	0.20	1	B7A0242	01/09/2017	01/10/17 14:12	
gamma-BHC	ND	1.0	0.20	1	B7A0242	01/09/2017	01/10/17 14:12	
gamma-Chlordane	ND	1.0	0.23	1	B7A0242	01/09/2017	01/10/17 14:12	
Heptachlor	ND	1.0	0.19	1	B7A0242	01/09/2017	01/10/17 14:12	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0242	01/09/2017	01/10/17 14:12	
Methoxychlor	ND	5.0	0.18	1	B7A0242	01/09/2017	01/10/17 14:12	
Toxaphene	ND	50	8.2	1	B7A0242	01/09/2017	01/10/17 14:12	
Surrogate: Decachlorobiphenyl	*36.3 %*		*27 - 123*		B7A0242	01/09/2017	*01/10/17 14:12*	
Surrogate: Tetrachloro-m-xylene	*37.4 %*		*26 - 108*		B7A0242	01/09/2017	*01/10/17 14:12*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB24-5-1.0
Lab ID: 1700027-12

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**5.7**	1.0	0.70	1	B7A0279	01/10/2017	01/11/17 12:50	
Lead	**7.3**	1.0	0.11	1	B7A0279	01/10/2017	01/11/17 12:50	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0242	01/09/2017	01/10/17 14:22	
4,4´-DDE	ND	2.0	0.20	1	B7A0242	01/09/2017	01/10/17 14:22	
4,4´-DDT	ND	2.0	0.13	1	B7A0242	01/09/2017	01/10/17 14:22	
Aldrin	ND	1.0	0.27	1	B7A0242	01/09/2017	01/10/17 14:22	
alpha-BHC	ND	1.0	0.20	1	B7A0242	01/09/2017	01/10/17 14:22	
alpha-Chlordane	ND	1.0	0.21	1	B7A0242	01/09/2017	01/10/17 14:22	
beta-BHC	ND	1.0	0.23	1	B7A0242	01/09/2017	01/10/17 14:22	
Chlordane	ND	8.5	0.90	1	B7A0242	01/09/2017	01/10/17 14:22	
delta-BHC	ND	1.0	0.21	1	B7A0242	01/09/2017	01/10/17 14:22	
Dieldrin	ND	2.0	0.25	1	B7A0242	01/09/2017	01/10/17 14:22	
Endosulfan I	ND	1.0	0.21	1	B7A0242	01/09/2017	01/10/17 14:22	
Endosulfan II	ND	2.0	0.22	1	B7A0242	01/09/2017	01/10/17 14:22	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0242	01/09/2017	01/10/17 14:22	
Endrin	ND	2.0	0.23	1	B7A0242	01/09/2017	01/10/17 14:22	
Endrin aldehyde	ND	2.0	0.28	1	B7A0242	01/09/2017	01/10/17 14:22	
Endrin ketone	ND	2.0	0.20	1	B7A0242	01/09/2017	01/10/17 14:22	
gamma-BHC	ND	1.0	0.20	1	B7A0242	01/09/2017	01/10/17 14:22	
gamma-Chlordane	ND	1.0	0.23	1	B7A0242	01/09/2017	01/10/17 14:22	
Heptachlor	ND	1.0	0.19	1	B7A0242	01/09/2017	01/10/17 14:22	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0242	01/09/2017	01/10/17 14:22	
Methoxychlor	ND	5.0	0.18	1	B7A0242	01/09/2017	01/10/17 14:22	
Toxaphene	ND	50	8.2	1	B7A0242	01/09/2017	01/10/17 14:22	
Surrogate: Decachlorobiphenyl	*54.8 %*		*27 - 123*		B7A0242	01/09/2017	*01/10/17 14:22*	
Surrogate: Tetrachloro-m-xylene	*54.1 %*		*26 - 108*		B7A0242	01/09/2017	*01/10/17 14:22*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB24-5-1.0-D
Lab ID: 1700027-13

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**6.8**	1.0	0.70	1	B7A0279	01/10/2017	01/11/17 12:51	
Lead	**7.9**	1.0	0.11	1	B7A0279	01/10/2017	01/11/17 12:51	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0242	01/09/2017	01/10/17 14:33	
4,4´-DDE	ND	2.0	0.20	1	B7A0242	01/09/2017	01/10/17 14:33	
4,4´-DDT	ND	2.0	0.13	1	B7A0242	01/09/2017	01/10/17 14:33	
Aldrin	ND	1.0	0.27	1	B7A0242	01/09/2017	01/10/17 14:33	
alpha-BHC	ND	1.0	0.20	1	B7A0242	01/09/2017	01/10/17 14:33	
alpha-Chlordane	ND	1.0	0.21	1	B7A0242	01/09/2017	01/10/17 14:33	
beta-BHC	ND	1.0	0.23	1	B7A0242	01/09/2017	01/10/17 14:33	
Chlordane	ND	8.5	0.90	1	B7A0242	01/09/2017	01/10/17 14:33	
delta-BHC	ND	1.0	0.21	1	B7A0242	01/09/2017	01/10/17 14:33	
Dieldrin	ND	2.0	0.25	1	B7A0242	01/09/2017	01/10/17 14:33	
Endosulfan I	ND	1.0	0.21	1	B7A0242	01/09/2017	01/10/17 14:33	
Endosulfan II	ND	2.0	0.22	1	B7A0242	01/09/2017	01/10/17 14:33	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0242	01/09/2017	01/10/17 14:33	
Endrin	ND	2.0	0.23	1	B7A0242	01/09/2017	01/10/17 14:33	
Endrin aldehyde	ND	2.0	0.28	1	B7A0242	01/09/2017	01/10/17 14:33	
Endrin ketone	ND	2.0	0.20	1	B7A0242	01/09/2017	01/10/17 14:33	
gamma-BHC	ND	1.0	0.20	1	B7A0242	01/09/2017	01/10/17 14:33	
gamma-Chlordane	ND	1.0	0.23	1	B7A0242	01/09/2017	01/10/17 14:33	
Heptachlor	ND	1.0	0.19	1	B7A0242	01/09/2017	01/10/17 14:33	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0242	01/09/2017	01/10/17 14:33	
Methoxychlor	ND	5.0	0.18	1	B7A0242	01/09/2017	01/10/17 14:33	
Toxaphene	ND	50	8.2	1	B7A0242	01/09/2017	01/10/17 14:33	
Surrogate: Decachlorobiphenyl	*42.5 %*		*27 - 123*		B7A0242	01/09/2017	*01/10/17 14:33*	
Surrogate: Tetrachloro-m-xylene	*48.2 %*		*26 - 108*		B7A0242	01/09/2017	*01/10/17 14:33*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB24-4-0.5
Lab ID: 1700027-14

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.4**	1.0	0.70	1	B7A0279	01/10/2017	01/11/17 12:53	
Lead	**3.4**	1.0	0.11	1	B7A0279	01/10/2017	01/11/17 12:53	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0242	01/09/2017	01/10/17 14:43	
4,4´-DDE	ND	2.0	0.20	1	B7A0242	01/09/2017	01/10/17 14:43	
4,4´-DDT	ND	2.0	0.13	1	B7A0242	01/09/2017	01/10/17 14:43	
Aldrin	ND	1.0	0.27	1	B7A0242	01/09/2017	01/10/17 14:43	
alpha-BHC	ND	1.0	0.20	1	B7A0242	01/09/2017	01/10/17 14:43	
alpha-Chlordane	ND	1.0	0.21	1	B7A0242	01/09/2017	01/10/17 14:43	
beta-BHC	ND	1.0	0.23	1	B7A0242	01/09/2017	01/10/17 14:43	
Chlordane	ND	8.5	0.90	1	B7A0242	01/09/2017	01/10/17 14:43	
delta-BHC	ND	1.0	0.21	1	B7A0242	01/09/2017	01/10/17 14:43	
Dieldrin	ND	2.0	0.25	1	B7A0242	01/09/2017	01/10/17 14:43	
Endosulfan I	ND	1.0	0.21	1	B7A0242	01/09/2017	01/10/17 14:43	
Endosulfan II	ND	2.0	0.22	1	B7A0242	01/09/2017	01/10/17 14:43	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0242	01/09/2017	01/10/17 14:43	
Endrin	ND	2.0	0.23	1	B7A0242	01/09/2017	01/10/17 14:43	
Endrin aldehyde	ND	2.0	0.28	1	B7A0242	01/09/2017	01/10/17 14:43	
Endrin ketone	ND	2.0	0.20	1	B7A0242	01/09/2017	01/10/17 14:43	
gamma-BHC	ND	1.0	0.20	1	B7A0242	01/09/2017	01/10/17 14:43	
gamma-Chlordane	ND	1.0	0.23	1	B7A0242	01/09/2017	01/10/17 14:43	
Heptachlor	ND	1.0	0.19	1	B7A0242	01/09/2017	01/10/17 14:43	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0242	01/09/2017	01/10/17 14:43	
Methoxychlor	ND	5.0	0.18	1	B7A0242	01/09/2017	01/10/17 14:43	
Toxaphene	ND	50	8.2	1	B7A0242	01/09/2017	01/10/17 14:43	
Surrogate: Decachlorobiphenyl	*45.1 %*		*27 - 123*		B7A0242	01/09/2017	*01/10/17 14:43*	
Surrogate: Tetrachloro-m-xylene	*46.7 %*		*26 - 108*		B7A0242	01/09/2017	*01/10/17 14:43*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB24-4-0.5

Lab ID: 1700027-14

Polychlorinated Biphenyls by EPA 8082 **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B7A0217	01/09/2017	01/10/17 08:47	
Aroclor 1221	ND	16	1.5	1	B7A0217	01/09/2017	01/10/17 08:47	
Aroclor 1232	ND	16	1.5	1	B7A0217	01/09/2017	01/10/17 08:47	
Aroclor 1242	ND	16	1.5	1	B7A0217	01/09/2017	01/10/17 08:47	
Aroclor 1248	ND	16	1.5	1	B7A0217	01/09/2017	01/10/17 08:47	
Aroclor 1254	ND	16	1.5	1	B7A0217	01/09/2017	01/10/17 08:47	
Aroclor 1260	ND	16	1.5	1	B7A0217	01/09/2017	01/10/17 08:47	
Aroclor 1262	ND	16	1.5	1	B7A0217	01/09/2017	01/10/17 08:47	
Aroclor 1268	ND	16	1.5	1	B7A0217	01/09/2017	01/10/17 08:47	
Surrogate: Decachlorobiphenyl	*90.1 %*	*26 - 137*			B7A0217	01/09/2017	*01/10/17 08:47*	
Surrogate: Tetrachloro-m-xylene	*96.8 %*	*28 - 102*			B7A0217	01/09/2017	*01/10/17 08:47*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB24-4-0.5-D
Lab ID: 1700027-15

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**0.76**	1.0	0.70	1	B7A0279	01/10/2017	01/11/17 12:54	J
Lead	**2.7**	1.0	0.11	1	B7A0279	01/10/2017	01/11/17 12:54	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0242	01/09/2017	01/10/17 14:53	
4,4´-DDE	ND	2.0	0.20	1	B7A0242	01/09/2017	01/10/17 14:53	
4,4´-DDT	ND	2.0	0.13	1	B7A0242	01/09/2017	01/10/17 14:53	
Aldrin	ND	1.0	0.27	1	B7A0242	01/09/2017	01/10/17 14:53	
alpha-BHC	ND	1.0	0.20	1	B7A0242	01/09/2017	01/10/17 14:53	
alpha-Chlordane	ND	1.0	0.21	1	B7A0242	01/09/2017	01/10/17 14:53	
beta-BHC	ND	1.0	0.23	1	B7A0242	01/09/2017	01/10/17 14:53	
Chlordane	ND	8.5	0.90	1	B7A0242	01/09/2017	01/10/17 14:53	
delta-BHC	ND	1.0	0.21	1	B7A0242	01/09/2017	01/10/17 14:53	
Dieldrin	ND	2.0	0.25	1	B7A0242	01/09/2017	01/10/17 14:53	
Endosulfan I	ND	1.0	0.21	1	B7A0242	01/09/2017	01/10/17 14:53	
Endosulfan II	ND	2.0	0.22	1	B7A0242	01/09/2017	01/10/17 14:53	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0242	01/09/2017	01/10/17 14:53	
Endrin	ND	2.0	0.23	1	B7A0242	01/09/2017	01/10/17 14:53	
Endrin aldehyde	ND	2.0	0.28	1	B7A0242	01/09/2017	01/10/17 14:53	
Endrin ketone	ND	2.0	0.20	1	B7A0242	01/09/2017	01/10/17 14:53	
gamma-BHC	ND	1.0	0.20	1	B7A0242	01/09/2017	01/10/17 14:53	
gamma-Chlordane	ND	1.0	0.23	1	B7A0242	01/09/2017	01/10/17 14:53	
Heptachlor	ND	1.0	0.19	1	B7A0242	01/09/2017	01/10/17 14:53	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0242	01/09/2017	01/10/17 14:53	
Methoxychlor	ND	5.0	0.18	1	B7A0242	01/09/2017	01/10/17 14:53	
Toxaphene	ND	50	8.2	1	B7A0242	01/09/2017	01/10/17 14:53	
Surrogate: Decachlorobiphenyl	*54.1 %*		*27 - 123*		B7A0242	01/09/2017	*01/10/17 14:53*	
Surrogate: Tetrachloro-m-xylene	*55.4 %*		*26 - 108*		B7A0242	01/09/2017	*01/10/17 14:53*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB24-4-1.5
Lab ID: 1700027-16

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.5**	1.0	0.70	1	B7A0279	01/10/2017	01/11/17 12:55	
Lead	**4.3**	1.0	0.11	1	B7A0279	01/10/2017	01/11/17 12:55	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0242	01/09/2017	01/10/17 15:04	
4,4´-DDE	ND	2.0	0.20	1	B7A0242	01/09/2017	01/10/17 15:04	
4,4´-DDT	ND	2.0	0.13	1	B7A0242	01/09/2017	01/10/17 15:04	
Aldrin	ND	1.0	0.27	1	B7A0242	01/09/2017	01/10/17 15:04	
alpha-BHC	ND	1.0	0.20	1	B7A0242	01/09/2017	01/10/17 15:04	
alpha-Chlordane	ND	1.0	0.21	1	B7A0242	01/09/2017	01/10/17 15:04	
beta-BHC	ND	1.0	0.23	1	B7A0242	01/09/2017	01/10/17 15:04	
Chlordane	ND	8.5	0.90	1	B7A0242	01/09/2017	01/10/17 15:04	
delta-BHC	ND	1.0	0.21	1	B7A0242	01/09/2017	01/10/17 15:04	
Dieldrin	ND	2.0	0.25	1	B7A0242	01/09/2017	01/10/17 15:04	
Endosulfan I	ND	1.0	0.21	1	B7A0242	01/09/2017	01/10/17 15:04	
Endosulfan II	ND	2.0	0.22	1	B7A0242	01/09/2017	01/10/17 15:04	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0242	01/09/2017	01/10/17 15:04	
Endrin	ND	2.0	0.23	1	B7A0242	01/09/2017	01/10/17 15:04	
Endrin aldehyde	ND	2.0	0.28	1	B7A0242	01/09/2017	01/10/17 15:04	
Endrin ketone	ND	2.0	0.20	1	B7A0242	01/09/2017	01/10/17 15:04	
gamma-BHC	ND	1.0	0.20	1	B7A0242	01/09/2017	01/10/17 15:04	
gamma-Chlordane	ND	1.0	0.23	1	B7A0242	01/09/2017	01/10/17 15:04	
Heptachlor	ND	1.0	0.19	1	B7A0242	01/09/2017	01/10/17 15:04	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0242	01/09/2017	01/10/17 15:04	
Methoxychlor	ND	5.0	0.18	1	B7A0242	01/09/2017	01/10/17 15:04	
Toxaphene	ND	50	8.2	1	B7A0242	01/09/2017	01/10/17 15:04	
Surrogate: Decachlorobiphenyl	*55.2 %*		*27 - 123*		B7A0242	01/09/2017	*01/10/17 15:04*	
Surrogate: Tetrachloro-m-xylene	*54.5 %*		*26 - 108*		B7A0242	01/09/2017	*01/10/17 15:04*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB24-4-1.5-D
Lab ID: 1700027-17

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.9**	1.0	0.70	1	B7A0279	01/10/2017	01/11/17 12:56	
Lead	**5.7**	1.0	0.11	1	B7A0279	01/10/2017	01/11/17 12:56	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0242	01/09/2017	01/10/17 15:14	
4,4´-DDE	ND	2.0	0.20	1	B7A0242	01/09/2017	01/10/17 15:14	
4,4´-DDT	ND	2.0	0.13	1	B7A0242	01/09/2017	01/10/17 15:14	
Aldrin	ND	1.0	0.27	1	B7A0242	01/09/2017	01/10/17 15:14	
alpha-BHC	ND	1.0	0.20	1	B7A0242	01/09/2017	01/10/17 15:14	
alpha-Chlordane	ND	1.0	0.21	1	B7A0242	01/09/2017	01/10/17 15:14	
beta-BHC	ND	1.0	0.23	1	B7A0242	01/09/2017	01/10/17 15:14	
Chlordane	ND	8.5	0.90	1	B7A0242	01/09/2017	01/10/17 15:14	
delta-BHC	ND	1.0	0.21	1	B7A0242	01/09/2017	01/10/17 15:14	
Dieldrin	ND	2.0	0.25	1	B7A0242	01/09/2017	01/10/17 15:14	
Endosulfan I	ND	1.0	0.21	1	B7A0242	01/09/2017	01/10/17 15:14	
Endosulfan II	ND	2.0	0.22	1	B7A0242	01/09/2017	01/10/17 15:14	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0242	01/09/2017	01/10/17 15:14	
Endrin	ND	2.0	0.23	1	B7A0242	01/09/2017	01/10/17 15:14	
Endrin aldehyde	ND	2.0	0.28	1	B7A0242	01/09/2017	01/10/17 15:14	
Endrin ketone	ND	2.0	0.20	1	B7A0242	01/09/2017	01/10/17 15:14	
gamma-BHC	ND	1.0	0.20	1	B7A0242	01/09/2017	01/10/17 15:14	
gamma-Chlordane	ND	1.0	0.23	1	B7A0242	01/09/2017	01/10/17 15:14	
Heptachlor	ND	1.0	0.19	1	B7A0242	01/09/2017	01/10/17 15:14	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0242	01/09/2017	01/10/17 15:14	
Methoxychlor	ND	5.0	0.18	1	B7A0242	01/09/2017	01/10/17 15:14	
Toxaphene	ND	50	8.2	1	B7A0242	01/09/2017	01/10/17 15:14	
Surrogate: Decachlorobiphenyl	*56.6 %*		*27 - 123*		B7A0242	01/09/2017	*01/10/17 15:14*	
Surrogate: Tetrachloro-m-xylene	*54.3 %*		*26 - 108*		B7A0242	01/09/2017	*01/10/17 15:14*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB25-1-0.5
Lab ID: 1700027-19

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.6**	1.0	0.70	1	B7A0279	01/10/2017	01/11/17 13:00	
Lead	**3.4**	1.0	0.11	1	B7A0279	01/10/2017	01/11/17 13:00	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0242	01/09/2017	01/10/17 15:25	
4,4´-DDE	ND	2.0	0.20	1	B7A0242	01/09/2017	01/10/17 15:25	
4,4´-DDT	ND	2.0	0.13	1	B7A0242	01/09/2017	01/10/17 15:25	
Aldrin	ND	1.0	0.27	1	B7A0242	01/09/2017	01/10/17 15:25	
alpha-BHC	ND	1.0	0.20	1	B7A0242	01/09/2017	01/10/17 15:25	
alpha-Chlordane	ND	1.0	0.21	1	B7A0242	01/09/2017	01/10/17 15:25	
beta-BHC	ND	1.0	0.23	1	B7A0242	01/09/2017	01/10/17 15:25	
Chlordane	ND	8.5	0.90	1	B7A0242	01/09/2017	01/10/17 15:25	
delta-BHC	ND	1.0	0.21	1	B7A0242	01/09/2017	01/10/17 15:25	
Dieldrin	ND	2.0	0.25	1	B7A0242	01/09/2017	01/10/17 15:25	
Endosulfan I	ND	1.0	0.21	1	B7A0242	01/09/2017	01/10/17 15:25	
Endosulfan II	ND	2.0	0.22	1	B7A0242	01/09/2017	01/10/17 15:25	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0242	01/09/2017	01/10/17 15:25	
Endrin	ND	2.0	0.23	1	B7A0242	01/09/2017	01/10/17 15:25	
Endrin aldehyde	ND	2.0	0.28	1	B7A0242	01/09/2017	01/10/17 15:25	
Endrin ketone	ND	2.0	0.20	1	B7A0242	01/09/2017	01/10/17 15:25	
gamma-BHC	ND	1.0	0.20	1	B7A0242	01/09/2017	01/10/17 15:25	
gamma-Chlordane	ND	1.0	0.23	1	B7A0242	01/09/2017	01/10/17 15:25	
Heptachlor	ND	1.0	0.19	1	B7A0242	01/09/2017	01/10/17 15:25	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0242	01/09/2017	01/10/17 15:25	
Methoxychlor	ND	5.0	0.18	1	B7A0242	01/09/2017	01/10/17 15:25	
Toxaphene	ND	50	8.2	1	B7A0242	01/09/2017	01/10/17 15:25	
Surrogate: Decachlorobiphenyl	*55.6 %*		*27 - 123*		B7A0242	01/09/2017	*01/10/17 15:25*	
Surrogate: Tetrachloro-m-xylene	*52.3 %*		*26 - 108*		B7A0242	01/09/2017	*01/10/17 15:25*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB25-1-0.5-D
Lab ID: 1700027-20

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.8**	1.0	0.70	1	B7A0279	01/10/2017	01/11/17 13:01	
Lead	**4.4**	1.0	0.11	1	B7A0279	01/10/2017	01/11/17 13:01	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0242	01/09/2017	01/10/17 15:35	
4,4´-DDE	ND	2.0	0.20	1	B7A0242	01/09/2017	01/10/17 15:35	
4,4´-DDT	ND	2.0	0.13	1	B7A0242	01/09/2017	01/10/17 15:35	
Aldrin	ND	1.0	0.27	1	B7A0242	01/09/2017	01/10/17 15:35	
alpha-BHC	ND	1.0	0.20	1	B7A0242	01/09/2017	01/10/17 15:35	
alpha-Chlordane	ND	1.0	0.21	1	B7A0242	01/09/2017	01/10/17 15:35	
beta-BHC	ND	1.0	0.23	1	B7A0242	01/09/2017	01/10/17 15:35	
Chlordane	ND	8.5	0.90	1	B7A0242	01/09/2017	01/10/17 15:35	
delta-BHC	ND	1.0	0.21	1	B7A0242	01/09/2017	01/10/17 15:35	
Dieldrin	ND	2.0	0.25	1	B7A0242	01/09/2017	01/10/17 15:35	
Endosulfan I	ND	1.0	0.21	1	B7A0242	01/09/2017	01/10/17 15:35	
Endosulfan II	ND	2.0	0.22	1	B7A0242	01/09/2017	01/10/17 15:35	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0242	01/09/2017	01/10/17 15:35	
Endrin	ND	2.0	0.23	1	B7A0242	01/09/2017	01/10/17 15:35	
Endrin aldehyde	ND	2.0	0.28	1	B7A0242	01/09/2017	01/10/17 15:35	
Endrin ketone	ND	2.0	0.20	1	B7A0242	01/09/2017	01/10/17 15:35	
gamma-BHC	ND	1.0	0.20	1	B7A0242	01/09/2017	01/10/17 15:35	
gamma-Chlordane	ND	1.0	0.23	1	B7A0242	01/09/2017	01/10/17 15:35	
Heptachlor	ND	1.0	0.19	1	B7A0242	01/09/2017	01/10/17 15:35	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0242	01/09/2017	01/10/17 15:35	
Methoxychlor	ND	5.0	0.18	1	B7A0242	01/09/2017	01/10/17 15:35	
Toxaphene	ND	50	8.2	1	B7A0242	01/09/2017	01/10/17 15:35	
Surrogate: Decachlorobiphenyl	*56.4 %*		*27 - 123*		B7A0242	01/09/2017	*01/10/17 15:35*	
Surrogate: Tetrachloro-m-xylene	*51.6 %*		*26 - 108*		B7A0242	01/09/2017	*01/10/17 15:35*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB25-1-1.5
Lab ID: 1700027-21

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.0**	1.0	0.70	1	B7A0279	01/10/2017	01/11/17 13:02	
Lead	**3.6**	1.0	0.11	1	B7A0279	01/10/2017	01/11/17 13:02	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0242	01/09/2017	01/10/17 15:46	
4,4´-DDE	ND	2.0	0.20	1	B7A0242	01/09/2017	01/10/17 15:46	
4,4´-DDT	ND	2.0	0.13	1	B7A0242	01/09/2017	01/10/17 15:46	
Aldrin	ND	1.0	0.27	1	B7A0242	01/09/2017	01/10/17 15:46	
alpha-BHC	ND	1.0	0.20	1	B7A0242	01/09/2017	01/10/17 15:46	
alpha-Chlordane	ND	1.0	0.21	1	B7A0242	01/09/2017	01/10/17 15:46	
beta-BHC	ND	1.0	0.23	1	B7A0242	01/09/2017	01/10/17 15:46	
Chlordane	ND	8.5	0.90	1	B7A0242	01/09/2017	01/10/17 15:46	
delta-BHC	ND	1.0	0.21	1	B7A0242	01/09/2017	01/10/17 15:46	
Dieldrin	ND	2.0	0.25	1	B7A0242	01/09/2017	01/10/17 15:46	
Endosulfan I	ND	1.0	0.21	1	B7A0242	01/09/2017	01/10/17 15:46	
Endosulfan II	ND	2.0	0.22	1	B7A0242	01/09/2017	01/10/17 15:46	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0242	01/09/2017	01/10/17 15:46	
Endrin	ND	2.0	0.23	1	B7A0242	01/09/2017	01/10/17 15:46	
Endrin aldehyde	ND	2.0	0.28	1	B7A0242	01/09/2017	01/10/17 15:46	
Endrin ketone	ND	2.0	0.20	1	B7A0242	01/09/2017	01/10/17 15:46	
gamma-BHC	ND	1.0	0.20	1	B7A0242	01/09/2017	01/10/17 15:46	
gamma-Chlordane	ND	1.0	0.23	1	B7A0242	01/09/2017	01/10/17 15:46	
Heptachlor	ND	1.0	0.19	1	B7A0242	01/09/2017	01/10/17 15:46	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0242	01/09/2017	01/10/17 15:46	
Methoxychlor	ND	5.0	0.18	1	B7A0242	01/09/2017	01/10/17 15:46	
Toxaphene	ND	50	8.2	1	B7A0242	01/09/2017	01/10/17 15:46	
Surrogate: Decachlorobiphenyl	*57.5 %*		*27 - 123*		B7A0242	01/09/2017	*01/10/17 15:46*	
Surrogate: Tetrachloro-m-xylene	*52.0 %*		*26 - 108*		B7A0242	01/09/2017	*01/10/17 15:46*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB3-1-0.5
Lab ID: 1700027-23

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**4.5**	1.0	0.70	1	B7A0279	01/10/2017	01/11/17 13:03	
Lead	**43**	1.0	0.11	1	B7A0279	01/10/2017	01/11/17 13:03	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	**0.38**	2.0	0.22	1	B7A0242	01/09/2017	01/10/17 15:56	J
4,4´-DDE	**150**	10	0.98	5	B7A0242	01/09/2017	01/11/17 18:58	
4,4´-DDT	ND	2.0	0.13	1	B7A0242	01/09/2017	01/10/17 15:56	
Aldrin	ND	1.0	0.27	1	B7A0242	01/09/2017	01/10/17 15:56	
alpha-BHC	ND	1.0	0.20	1	B7A0242	01/09/2017	01/10/17 15:56	
alpha-Chlordane	ND	1.0	0.21	1	B7A0242	01/09/2017	01/10/17 15:56	
beta-BHC	ND	1.0	0.23	1	B7A0242	01/09/2017	01/10/17 15:56	
Chlordane	ND	8.5	0.90	1	B7A0242	01/09/2017	01/10/17 15:56	
delta-BHC	ND	1.0	0.21	1	B7A0242	01/09/2017	01/10/17 15:56	
Dieldrin	ND	2.0	0.25	1	B7A0242	01/09/2017	01/10/17 15:56	
Endosulfan I	ND	1.0	0.21	1	B7A0242	01/09/2017	01/10/17 15:56	
Endosulfan II	ND	2.0	0.22	1	B7A0242	01/09/2017	01/10/17 15:56	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0242	01/09/2017	01/10/17 15:56	
Endrin	ND	2.0	0.23	1	B7A0242	01/09/2017	01/10/17 15:56	
Endrin aldehyde	ND	2.0	0.28	1	B7A0242	01/09/2017	01/10/17 15:56	
Endrin ketone	ND	2.0	0.20	1	B7A0242	01/09/2017	01/10/17 15:56	
gamma-BHC	ND	1.0	0.20	1	B7A0242	01/09/2017	01/10/17 15:56	
gamma-Chlordane	ND	1.0	0.23	1	B7A0242	01/09/2017	01/10/17 15:56	
Heptachlor	ND	1.0	0.19	1	B7A0242	01/09/2017	01/10/17 15:56	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0242	01/09/2017	01/10/17 15:56	
Methoxychlor	ND	5.0	0.18	1	B7A0242	01/09/2017	01/10/17 15:56	
Toxaphene	ND	50	8.2	1	B7A0242	01/09/2017	01/10/17 15:56	
Surrogate: Decachlorobiphenyl	*70.0 %*	*27 - 123*			B7A0242	01/09/2017	*01/10/17 15:56*	
Surrogate: Decachlorobiphenyl	*79.7 %*	*27 - 123*			B7A0242	01/09/2017	*01/11/17 18:58*	
Surrogate: Tetrachloro-m-xylene	*54.9 %*	*26 - 108*			B7A0242	01/09/2017	*01/10/17 15:56*	
Surrogate: Tetrachloro-m-xylene	*65.8 %*	*26 - 108*			B7A0242	01/09/2017	*01/11/17 18:58*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB3-1-0.5

Lab ID: 1700027-23

Polychlorinated Biphenyls by EPA 8082 **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B7A0217	01/09/2017	01/10/17 09:06	
Aroclor 1221	ND	16	1.5	1	B7A0217	01/09/2017	01/10/17 09:06	
Aroclor 1232	ND	16	1.5	1	B7A0217	01/09/2017	01/10/17 09:06	
Aroclor 1242	ND	16	1.5	1	B7A0217	01/09/2017	01/10/17 09:06	
Aroclor 1248	ND	16	1.5	1	B7A0217	01/09/2017	01/10/17 09:06	
Aroclor 1254	ND	16	1.5	1	B7A0217	01/09/2017	01/10/17 09:06	
Aroclor 1260	**12**	16	1.5	1	B7A0217	01/09/2017	01/10/17 09:06	J
Aroclor 1262	ND	16	1.5	1	B7A0217	01/09/2017	01/10/17 09:06	
Aroclor 1268	ND	16	1.5	1	B7A0217	01/09/2017	01/10/17 09:06	
Surrogate: Decachlorobiphenyl	*102 %*	*26 - 137*			B7A0217	01/09/2017	*01/10/17 09:06*	
Surrogate: Tetrachloro-m-xylene	*102 %*	*28 - 102*			B7A0217	01/09/2017	*01/10/17 09:06*	S12

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB3-1-1.5
Lab ID: 1700027-25

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**3.1**	1.0	0.70	1	B7A0280	01/10/2017	01/11/17 13:07	
Lead	**6.1**	1.0	0.11	1	B7A0280	01/10/2017	01/11/17 13:07	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0242	01/09/2017	01/11/17 19:08	
4,4´-DDE	**10**	2.0	0.20	1	B7A0242	01/09/2017	01/11/17 19:08	
4,4´-DDT	ND	2.0	0.13	1	B7A0242	01/09/2017	01/11/17 19:08	
Aldrin	ND	1.0	0.27	1	B7A0242	01/09/2017	01/11/17 19:08	
alpha-BHC	ND	1.0	0.20	1	B7A0242	01/09/2017	01/11/17 19:08	
alpha-Chlordane	ND	1.0	0.21	1	B7A0242	01/09/2017	01/11/17 19:08	
beta-BHC	ND	1.0	0.23	1	B7A0242	01/09/2017	01/11/17 19:08	
Chlordane	ND	8.5	0.90	1	B7A0242	01/09/2017	01/11/17 19:08	
delta-BHC	ND	1.0	0.21	1	B7A0242	01/09/2017	01/11/17 19:08	
Dieldrin	ND	2.0	0.25	1	B7A0242	01/09/2017	01/11/17 19:08	
Endosulfan I	ND	1.0	0.21	1	B7A0242	01/09/2017	01/11/17 19:08	
Endosulfan II	ND	2.0	0.22	1	B7A0242	01/09/2017	01/11/17 19:08	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0242	01/09/2017	01/11/17 19:08	
Endrin	ND	2.0	0.23	1	B7A0242	01/09/2017	01/11/17 19:08	
Endrin aldehyde	ND	2.0	0.28	1	B7A0242	01/09/2017	01/11/17 19:08	
Endrin ketone	ND	2.0	0.20	1	B7A0242	01/09/2017	01/11/17 19:08	
gamma-BHC	ND	1.0	0.20	1	B7A0242	01/09/2017	01/11/17 19:08	
gamma-Chlordane	ND	1.0	0.23	1	B7A0242	01/09/2017	01/11/17 19:08	
Heptachlor	ND	1.0	0.19	1	B7A0242	01/09/2017	01/11/17 19:08	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0242	01/09/2017	01/11/17 19:08	
Methoxychlor	ND	5.0	0.18	1	B7A0242	01/09/2017	01/11/17 19:08	
Toxaphene	ND	50	8.2	1	B7A0242	01/09/2017	01/11/17 19:08	
Surrogate: Decachlorobiphenyl	*57.4 %*		*27 - 123*		B7A0242	01/09/2017	*01/11/17 19:08*	
Surrogate: Tetrachloro-m-xylene	*54.3 %*		*26 - 108*		B7A0242	01/09/2017	*01/11/17 19:08*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB3-1-1.5-D
Lab ID: 1700027-26

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**5.0**	1.0	0.70	1	B7A0280	01/10/2017	01/11/17 13:13	
Lead	**12**	1.0	0.11	1	B7A0280	01/10/2017	01/11/17 13:13	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0242	01/09/2017	01/11/17 19:19	
4,4´-DDE	**8.1**	2.0	0.20	1	B7A0242	01/09/2017	01/11/17 19:19	
4,4´-DDT	ND	2.0	0.13	1	B7A0242	01/09/2017	01/11/17 19:19	
Aldrin	ND	1.0	0.27	1	B7A0242	01/09/2017	01/11/17 19:19	
alpha-BHC	ND	1.0	0.20	1	B7A0242	01/09/2017	01/11/17 19:19	
alpha-Chlordane	ND	1.0	0.21	1	B7A0242	01/09/2017	01/11/17 19:19	
beta-BHC	ND	1.0	0.23	1	B7A0242	01/09/2017	01/11/17 19:19	
Chlordane	ND	8.5	0.90	1	B7A0242	01/09/2017	01/11/17 19:19	
delta-BHC	ND	1.0	0.21	1	B7A0242	01/09/2017	01/11/17 19:19	
Dieldrin	ND	2.0	0.25	1	B7A0242	01/09/2017	01/11/17 19:19	
Endosulfan I	ND	1.0	0.21	1	B7A0242	01/09/2017	01/11/17 19:19	
Endosulfan II	ND	2.0	0.22	1	B7A0242	01/09/2017	01/11/17 19:19	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0242	01/09/2017	01/11/17 19:19	
Endrin	ND	2.0	0.23	1	B7A0242	01/09/2017	01/11/17 19:19	
Endrin aldehyde	ND	2.0	0.28	1	B7A0242	01/09/2017	01/11/17 19:19	
Endrin ketone	ND	2.0	0.20	1	B7A0242	01/09/2017	01/11/17 19:19	
gamma-BHC	ND	1.0	0.20	1	B7A0242	01/09/2017	01/11/17 19:19	
gamma-Chlordane	ND	1.0	0.23	1	B7A0242	01/09/2017	01/11/17 19:19	
Heptachlor	ND	1.0	0.19	1	B7A0242	01/09/2017	01/11/17 19:19	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0242	01/09/2017	01/11/17 19:19	
Methoxychlor	ND	5.0	0.18	1	B7A0242	01/09/2017	01/11/17 19:19	
Toxaphene	ND	50	8.2	1	B7A0242	01/09/2017	01/11/17 19:19	
Surrogate: Decachlorobiphenyl	*56.6 %*		*27 - 123*		B7A0242	01/09/2017	*01/11/17 19:19*	
Surrogate: Tetrachloro-m-xylene	*49.1 %*		*26 - 108*		B7A0242	01/09/2017	*01/11/17 19:19*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB16-1-0.5
Lab ID: 1700027-28

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.7**	1.0	0.70	1	B7A0280	01/10/2017	01/11/17 13:15	
Lead	**20**	1.0	0.11	1	B7A0280	01/10/2017	01/11/17 13:15	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0242	01/09/2017	01/10/17 16:27	
4,4´-DDE	ND	2.0	0.20	1	B7A0242	01/09/2017	01/10/17 16:27	
4,4´-DDT	ND	2.0	0.13	1	B7A0242	01/09/2017	01/10/17 16:27	
Aldrin	ND	1.0	0.27	1	B7A0242	01/09/2017	01/10/17 16:27	
alpha-BHC	ND	1.0	0.20	1	B7A0242	01/09/2017	01/10/17 16:27	
alpha-Chlordane	ND	1.0	0.21	1	B7A0242	01/09/2017	01/10/17 16:27	
beta-BHC	ND	1.0	0.23	1	B7A0242	01/09/2017	01/10/17 16:27	
Chlordane	ND	8.5	0.90	1	B7A0242	01/09/2017	01/10/17 16:27	
delta-BHC	ND	1.0	0.21	1	B7A0242	01/09/2017	01/10/17 16:27	
Dieldrin	ND	2.0	0.25	1	B7A0242	01/09/2017	01/10/17 16:27	
Endosulfan I	ND	1.0	0.21	1	B7A0242	01/09/2017	01/10/17 16:27	
Endosulfan II	ND	2.0	0.22	1	B7A0242	01/09/2017	01/10/17 16:27	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0242	01/09/2017	01/10/17 16:27	
Endrin	ND	2.0	0.23	1	B7A0242	01/09/2017	01/10/17 16:27	
Endrin aldehyde	ND	2.0	0.28	1	B7A0242	01/09/2017	01/10/17 16:27	
Endrin ketone	ND	2.0	0.20	1	B7A0242	01/09/2017	01/10/17 16:27	
gamma-BHC	ND	1.0	0.20	1	B7A0242	01/09/2017	01/10/17 16:27	
gamma-Chlordane	ND	1.0	0.23	1	B7A0242	01/09/2017	01/10/17 16:27	
Heptachlor	ND	1.0	0.19	1	B7A0242	01/09/2017	01/10/17 16:27	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0242	01/09/2017	01/10/17 16:27	
Methoxychlor	ND	5.0	0.18	1	B7A0242	01/09/2017	01/10/17 16:27	
Toxaphene	ND	50	8.2	1	B7A0242	01/09/2017	01/10/17 16:27	
Surrogate: Decachlorobiphenyl	*47.3 %*		*27 - 123*		B7A0242	01/09/2017	*01/10/17 16:27*	
Surrogate: Tetrachloro-m-xylene	*45.5 %*		*26 - 108*		B7A0242	01/09/2017	*01/10/17 16:27*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB16-1-1.5
Lab ID: 1700027-29

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.2**	1.0	0.70	1	B7A0280	01/10/2017	01/11/17 13:16	
Lead	**78**	1.0	0.11	1	B7A0280	01/10/2017	01/11/17 13:16	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0242	01/09/2017	01/10/17 16:38	
4,4´-DDE	ND	2.0	0.20	1	B7A0242	01/09/2017	01/10/17 16:38	
4,4´-DDT	ND	2.0	0.13	1	B7A0242	01/09/2017	01/10/17 16:38	
Aldrin	ND	1.0	0.27	1	B7A0242	01/09/2017	01/10/17 16:38	
alpha-BHC	ND	1.0	0.20	1	B7A0242	01/09/2017	01/10/17 16:38	
alpha-Chlordane	ND	1.0	0.21	1	B7A0242	01/09/2017	01/10/17 16:38	
beta-BHC	ND	1.0	0.23	1	B7A0242	01/09/2017	01/10/17 16:38	
Chlordane	ND	8.5	0.90	1	B7A0242	01/09/2017	01/10/17 16:38	
delta-BHC	ND	1.0	0.21	1	B7A0242	01/09/2017	01/10/17 16:38	
Dieldrin	ND	2.0	0.25	1	B7A0242	01/09/2017	01/10/17 16:38	
Endosulfan I	ND	1.0	0.21	1	B7A0242	01/09/2017	01/10/17 16:38	
Endosulfan II	ND	2.0	0.22	1	B7A0242	01/09/2017	01/10/17 16:38	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0242	01/09/2017	01/10/17 16:38	
Endrin	ND	2.0	0.23	1	B7A0242	01/09/2017	01/10/17 16:38	
Endrin aldehyde	ND	2.0	0.28	1	B7A0242	01/09/2017	01/10/17 16:38	
Endrin ketone	ND	2.0	0.20	1	B7A0242	01/09/2017	01/10/17 16:38	
gamma-BHC	ND	1.0	0.20	1	B7A0242	01/09/2017	01/10/17 16:38	
gamma-Chlordane	ND	1.0	0.23	1	B7A0242	01/09/2017	01/10/17 16:38	
Heptachlor	ND	1.0	0.19	1	B7A0242	01/09/2017	01/10/17 16:38	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0242	01/09/2017	01/10/17 16:38	
Methoxychlor	ND	5.0	0.18	1	B7A0242	01/09/2017	01/10/17 16:38	
Toxaphene	ND	50	8.2	1	B7A0242	01/09/2017	01/10/17 16:38	
Surrogate: Decachlorobiphenyl	*56.8 %*		*27 - 123*		B7A0242	01/09/2017	*01/10/17 16:38*	
Surrogate: Tetrachloro-m-xylene	*53.7 %*		*26 - 108*		B7A0242	01/09/2017	*01/10/17 16:38*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB20-1-0.5
Lab ID: 1700027-31

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.3**	1.0	0.70	1	B7A0280	01/10/2017	01/11/17 13:17	
Lead	**4.5**	1.0	0.11	1	B7A0280	01/10/2017	01/11/17 13:17	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0242	01/09/2017	01/10/17 16:48	
4,4´-DDE	ND	2.0	0.20	1	B7A0242	01/09/2017	01/10/17 16:48	
4,4´-DDT	ND	2.0	0.13	1	B7A0242	01/09/2017	01/10/17 16:48	
Aldrin	ND	1.0	0.27	1	B7A0242	01/09/2017	01/10/17 16:48	
alpha-BHC	ND	1.0	0.20	1	B7A0242	01/09/2017	01/10/17 16:48	
alpha-Chlordane	**0.29**	1.0	0.21	1	B7A0242	01/09/2017	01/10/17 16:48	J
beta-BHC	ND	1.0	0.23	1	B7A0242	01/09/2017	01/10/17 16:48	
Chlordane	**4.0**	8.5	0.90	1	B7A0242	01/09/2017	01/10/17 16:48	J
delta-BHC	ND	1.0	0.21	1	B7A0242	01/09/2017	01/10/17 16:48	
Dieldrin	ND	2.0	0.25	1	B7A0242	01/09/2017	01/10/17 16:48	
Endosulfan I	ND	1.0	0.21	1	B7A0242	01/09/2017	01/10/17 16:48	
Endosulfan II	ND	2.0	0.22	1	B7A0242	01/09/2017	01/10/17 16:48	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0242	01/09/2017	01/10/17 16:48	
Endrin	ND	2.0	0.23	1	B7A0242	01/09/2017	01/10/17 16:48	
Endrin aldehyde	ND	2.0	0.28	1	B7A0242	01/09/2017	01/10/17 16:48	
Endrin ketone	ND	2.0	0.20	1	B7A0242	01/09/2017	01/10/17 16:48	
gamma-BHC	ND	1.0	0.20	1	B7A0242	01/09/2017	01/10/17 16:48	
gamma-Chlordane [2C]	**0.43**	1.0	0.23	1	B7A0242	01/09/2017	01/10/17 16:48	J
Heptachlor	ND	1.0	0.19	1	B7A0242	01/09/2017	01/10/17 16:48	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0242	01/09/2017	01/10/17 16:48	
Methoxychlor	ND	5.0	0.18	1	B7A0242	01/09/2017	01/10/17 16:48	
Toxaphene	ND	50	8.2	1	B7A0242	01/09/2017	01/10/17 16:48	
Surrogate: Decachlorobiphenyl	*48.9 %*	*27 - 123*			B7A0242	01/09/2017	*01/10/17 16:48*	
Surrogate: Tetrachloro-m-xylene	*48.0 %*	*26 - 108*			B7A0242	01/09/2017	*01/10/17 16:48*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB20-1-0.5

Lab ID: 1700027-31

Polychlorinated Biphenyls by EPA 8082 **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B7A0217	01/09/2017	01/10/17 09:25	
Aroclor 1221	ND	16	1.5	1	B7A0217	01/09/2017	01/10/17 09:25	
Aroclor 1232	ND	16	1.5	1	B7A0217	01/09/2017	01/10/17 09:25	
Aroclor 1242	ND	16	1.5	1	B7A0217	01/09/2017	01/10/17 09:25	
Aroclor 1248	ND	16	1.5	1	B7A0217	01/09/2017	01/10/17 09:25	
Aroclor 1254	ND	16	1.5	1	B7A0217	01/09/2017	01/10/17 09:25	
Aroclor 1260	**2.6**	16	1.5	1	B7A0217	01/09/2017	01/10/17 09:25	J
Aroclor 1262	ND	16	1.5	1	B7A0217	01/09/2017	01/10/17 09:25	
Aroclor 1268	ND	16	1.5	1	B7A0217	01/09/2017	01/10/17 09:25	
Surrogate: Decachlorobiphenyl	*89.4 %*	*26 - 137*			B7A0217	01/09/2017	*01/10/17 09:25*	
Surrogate: Tetrachloro-m-xylene	*98.9 %*	*28 - 102*			B7A0217	01/09/2017	*01/10/17 09:25*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB20-1-0.5-D
Lab ID: 1700027-32

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.8**	1.0	0.70	1	B7A0280	01/10/2017	01/11/17 13:18	
Lead	**5.0**	1.0	0.11	1	B7A0280	01/10/2017	01/11/17 13:18	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0242	01/09/2017	01/10/17 16:59	
4,4´-DDE	ND	2.0	0.20	1	B7A0242	01/09/2017	01/10/17 16:59	
4,4´-DDT	**0.30**	2.0	0.13	1	B7A0242	01/09/2017	01/10/17 16:59	J
Aldrin	ND	1.0	0.27	1	B7A0242	01/09/2017	01/10/17 16:59	
alpha-BHC	ND	1.0	0.20	1	B7A0242	01/09/2017	01/10/17 16:59	
alpha-Chlordane	**0.94**	1.0	0.21	1	B7A0242	01/09/2017	01/10/17 16:59	J
beta-BHC	ND	1.0	0.23	1	B7A0242	01/09/2017	01/10/17 16:59	
Chlordane	**9.2**	8.5	0.90	1	B7A0242	01/09/2017	01/10/17 16:59	
delta-BHC	ND	1.0	0.21	1	B7A0242	01/09/2017	01/10/17 16:59	
Dieldrin	ND	2.0	0.25	1	B7A0242	01/09/2017	01/10/17 16:59	
Endosulfan I	ND	1.0	0.21	1	B7A0242	01/09/2017	01/10/17 16:59	
Endosulfan II	ND	2.0	0.22	1	B7A0242	01/09/2017	01/10/17 16:59	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0242	01/09/2017	01/10/17 16:59	
Endrin	ND	2.0	0.23	1	B7A0242	01/09/2017	01/10/17 16:59	
Endrin aldehyde	ND	2.0	0.28	1	B7A0242	01/09/2017	01/10/17 16:59	
Endrin ketone	ND	2.0	0.20	1	B7A0242	01/09/2017	01/10/17 16:59	
gamma-BHC	ND	1.0	0.20	1	B7A0242	01/09/2017	01/10/17 16:59	
gamma-Chlordane	**1.3**	1.0	0.23	1	B7A0242	01/09/2017	01/10/17 16:59	
Heptachlor	ND	1.0	0.19	1	B7A0242	01/09/2017	01/10/17 16:59	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0242	01/09/2017	01/10/17 16:59	
Methoxychlor	ND	5.0	0.18	1	B7A0242	01/09/2017	01/10/17 16:59	
Toxaphene	ND	50	8.2	1	B7A0242	01/09/2017	01/10/17 16:59	
Surrogate: Decachlorobiphenyl	*48.3 %*		*27 - 123*		B7A0242	01/09/2017	*01/10/17 16:59*	
Surrogate: Tetrachloro-m-xylene	*50.6 %*		*26 - 108*		B7A0242	01/09/2017	*01/10/17 16:59*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB20-1-1.5
Lab ID: 1700027-33

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**5.1**	1.0	0.70	1	B7A0280	01/10/2017	01/11/17 13:19	
Lead	**16**	1.0	0.11	1	B7A0280	01/10/2017	01/11/17 13:19	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0242	01/09/2017	01/10/17 17:09	
4,4´-DDE	**0.66**	2.0	0.20	1	B7A0242	01/09/2017	01/10/17 17:09	J
4,4´-DDT	**1.9**	2.0	0.13	1	B7A0242	01/09/2017	01/10/17 17:09	J
Aldrin	ND	1.0	0.27	1	B7A0242	01/09/2017	01/10/17 17:09	
alpha-BHC	ND	1.0	0.20	1	B7A0242	01/09/2017	01/10/17 17:09	
alpha-Chlordane	**7.7**	1.0	0.21	1	B7A0242	01/09/2017	01/10/17 17:09	
beta-BHC	ND	1.0	0.23	1	B7A0242	01/09/2017	01/10/17 17:09	
Chlordane	**58**	8.5	0.90	1	B7A0242	01/09/2017	01/10/17 17:09	
delta-BHC	ND	1.0	0.21	1	B7A0242	01/09/2017	01/10/17 17:09	
Dieldrin	**0.79**	2.0	0.25	1	B7A0242	01/09/2017	01/10/17 17:09	J
Endosulfan I	ND	1.0	0.21	1	B7A0242	01/09/2017	01/10/17 17:09	
Endosulfan II	ND	2.0	0.22	1	B7A0242	01/09/2017	01/10/17 17:09	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0242	01/09/2017	01/10/17 17:09	
Endrin	ND	2.0	0.23	1	B7A0242	01/09/2017	01/10/17 17:09	
Endrin aldehyde	ND	2.0	0.28	1	B7A0242	01/09/2017	01/10/17 17:09	
Endrin ketone	ND	2.0	0.20	1	B7A0242	01/09/2017	01/10/17 17:09	
gamma-BHC	ND	1.0	0.20	1	B7A0242	01/09/2017	01/10/17 17:09	
gamma-Chlordane	**7.2**	1.0	0.23	1	B7A0242	01/09/2017	01/10/17 17:09	
Heptachlor	ND	1.0	0.19	1	B7A0242	01/09/2017	01/10/17 17:09	
Heptachlor epoxide	**0.41**	1.0	0.20	1	B7A0242	01/09/2017	01/10/17 17:09	J
Methoxychlor	ND	5.0	0.18	1	B7A0242	01/09/2017	01/10/17 17:09	
Toxaphene	ND	50	8.2	1	B7A0242	01/09/2017	01/10/17 17:09	
Surrogate: Decachlorobiphenyl	*56.5 %*	*27 - 123*			B7A0242	01/09/2017	*01/10/17 17:09*	
Surrogate: Tetrachloro-m-xylene	*72.4 %*	*26 - 108*			B7A0242	01/09/2017	*01/10/17 17:09*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB20-2-0.5'

Lab ID: 1700027-35

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.8**	1.0	0.70	1	B7A0280	01/10/2017	01/11/17 13:20	
Lead	**9.0**	1.0	0.11	1	B7A0280	01/10/2017	01/11/17 13:20	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	10	1.1	5	B7A0242	01/09/2017	01/10/17 17:20	D1
4,4´-DDE	ND	10	0.98	5	B7A0242	01/09/2017	01/10/17 17:20	D1
4,4´-DDT	**1.2**	10	0.67	5	B7A0242	01/09/2017	01/10/17 17:20	D1, J
Aldrin	ND	5.0	1.3	5	B7A0242	01/09/2017	01/10/17 17:20	D1
alpha-BHC	ND	5.0	0.99	5	B7A0242	01/09/2017	01/10/17 17:20	D1
alpha-Chlordane	ND	5.0	1.1	5	B7A0242	01/09/2017	01/10/17 17:20	D1
beta-BHC	ND	5.0	1.1	5	B7A0242	01/09/2017	01/10/17 17:20	D1
Chlordane	**9.4**	42	4.5	5	B7A0242	01/09/2017	01/10/17 17:20	D1, J
delta-BHC	ND	5.0	1.0	5	B7A0242	01/09/2017	01/10/17 17:20	D1
Dieldrin	ND	10	1.2	5	B7A0242	01/09/2017	01/10/17 17:20	D1
Endosulfan I	ND	5.0	1.1	5	B7A0242	01/09/2017	01/10/17 17:20	D1
Endosulfan II	ND	10	1.1	5	B7A0242	01/09/2017	01/10/17 17:20	D1
Endosulfan sulfate	ND	10	1.1	5	B7A0242	01/09/2017	01/10/17 17:20	D1
Endrin	ND	10	1.1	5	B7A0242	01/09/2017	01/10/17 17:20	D1
Endrin aldehyde	ND	10	1.4	5	B7A0242	01/09/2017	01/10/17 17:20	D1
Endrin ketone	ND	10	1.0	5	B7A0242	01/09/2017	01/10/17 17:20	D1
gamma-BHC	ND	5.0	1.0	5	B7A0242	01/09/2017	01/10/17 17:20	D1
gamma-Chlordane [2C]	ND	5.0	1.1	5	B7A0242	01/09/2017	01/10/17 17:20	D1
Heptachlor	ND	5.0	0.95	5	B7A0242	01/09/2017	01/10/17 17:20	D1
Heptachlor epoxide	ND	5.0	1.0	5	B7A0242	01/09/2017	01/10/17 17:20	D1
Methoxychlor	ND	25	0.89	5	B7A0242	01/09/2017	01/10/17 17:20	D1
Toxaphene	ND	250	41	5	B7A0242	01/09/2017	01/10/17 17:20	D1
Surrogate: Decachlorobiphenyl	*54.6 %*		*27 - 123*		B7A0242	01/09/2017	*01/10/17 17:20*	
Surrogate: Tetrachloro-m-xylene	*49.9 %*		*26 - 108*		B7A0242	01/09/2017	*01/10/17 17:20*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB20-2-0.5-D
Lab ID: 1700027-36

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.4**	1.0	0.70	1	B7A0280	01/10/2017	01/11/17 13:21	
Lead	**6.1**	1.0	0.11	1	B7A0280	01/10/2017	01/11/17 13:21	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0242	01/09/2017	01/10/17 17:30	
4,4´-DDE	ND	2.0	0.20	1	B7A0242	01/09/2017	01/10/17 17:30	
4,4´-DDT	**0.22**	2.0	0.13	1	B7A0242	01/09/2017	01/10/17 17:30	J
Aldrin	ND	1.0	0.27	1	B7A0242	01/09/2017	01/10/17 17:30	
alpha-BHC	ND	1.0	0.20	1	B7A0242	01/09/2017	01/10/17 17:30	
alpha-Chlordane	**0.26**	1.0	0.21	1	B7A0242	01/09/2017	01/10/17 17:30	J
beta-BHC	ND	1.0	0.23	1	B7A0242	01/09/2017	01/10/17 17:30	
Chlordane [2C]	**2.6**	8.5	0.90	1	B7A0242	01/09/2017	01/10/17 17:30	J
delta-BHC	ND	1.0	0.21	1	B7A0242	01/09/2017	01/10/17 17:30	
Dieldrin	ND	2.0	0.25	1	B7A0242	01/09/2017	01/10/17 17:30	
Endosulfan I	ND	1.0	0.21	1	B7A0242	01/09/2017	01/10/17 17:30	
Endosulfan II	ND	2.0	0.22	1	B7A0242	01/09/2017	01/10/17 17:30	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0242	01/09/2017	01/10/17 17:30	
Endrin	ND	2.0	0.23	1	B7A0242	01/09/2017	01/10/17 17:30	
Endrin aldehyde	ND	2.0	0.28	1	B7A0242	01/09/2017	01/10/17 17:30	
Endrin ketone	ND	2.0	0.20	1	B7A0242	01/09/2017	01/10/17 17:30	
gamma-BHC	ND	1.0	0.20	1	B7A0242	01/09/2017	01/10/17 17:30	
gamma-Chlordane	**0.37**	1.0	0.23	1	B7A0242	01/09/2017	01/10/17 17:30	J
Heptachlor	ND	1.0	0.19	1	B7A0242	01/09/2017	01/10/17 17:30	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0242	01/09/2017	01/10/17 17:30	
Methoxychlor	ND	5.0	0.18	1	B7A0242	01/09/2017	01/10/17 17:30	
Toxaphene	ND	50	8.2	1	B7A0242	01/09/2017	01/10/17 17:30	
Surrogate: Decachlorobiphenyl	*48.8 %*	*27 - 123*			B7A0242	01/09/2017	*01/10/17 17:30*	
Surrogate: Tetrachloro-m-xylene	*61.8 %*	*26 - 108*			B7A0242	01/09/2017	*01/10/17 17:30*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB20-2-1.5
Lab ID: 1700027-37

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.9**	1.0	0.70	1	B7A0280	01/10/2017	01/11/17 13:22	
Lead	**56**	1.0	0.11	1	B7A0280	01/10/2017	01/11/17 13:22	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0249	01/09/2017	01/11/17 11:19	
4,4´-DDE	ND	2.0	0.20	1	B7A0249	01/09/2017	01/11/17 11:19	
4,4´-DDT	ND	2.0	0.13	1	B7A0249	01/09/2017	01/11/17 11:19	
Aldrin	ND	1.0	0.27	1	B7A0249	01/09/2017	01/11/17 11:19	
alpha-BHC	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 11:19	
alpha-Chlordane	**0.59**	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 11:19	J
beta-BHC	ND	1.0	0.23	1	B7A0249	01/09/2017	01/11/17 11:19	
Chlordane	ND	8.5	0.90	1	B7A0249	01/09/2017	01/11/17 11:19	
delta-BHC	ND	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 11:19	
Dieldrin	ND	2.0	0.25	1	B7A0249	01/09/2017	01/11/17 11:19	
Endosulfan I	ND	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 11:19	
Endosulfan II	ND	2.0	0.22	1	B7A0249	01/09/2017	01/11/17 11:19	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0249	01/09/2017	01/11/17 11:19	
Endrin	ND	2.0	0.23	1	B7A0249	01/09/2017	01/11/17 11:19	
Endrin aldehyde	ND	2.0	0.28	1	B7A0249	01/09/2017	01/11/17 11:19	
Endrin ketone	ND	2.0	0.20	1	B7A0249	01/09/2017	01/11/17 11:19	
gamma-BHC	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 11:19	
gamma-Chlordane	**1.0**	1.0	0.23	1	B7A0249	01/09/2017	01/11/17 11:19	
Heptachlor	ND	1.0	0.19	1	B7A0249	01/09/2017	01/11/17 11:19	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 11:19	
Methoxychlor	ND	5.0	0.18	1	B7A0249	01/09/2017	01/11/17 11:19	
Toxaphene	ND	50	8.2	1	B7A0249	01/09/2017	01/11/17 11:19	
Surrogate: Decachlorobiphenyl	*43.5 %*		*27 - 123*		B7A0249	01/09/2017	*01/11/17 11:19*	
Surrogate: Tetrachloro-m-xylene	*41.6 %*		*26 - 108*		B7A0249	01/09/2017	*01/11/17 11:19*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB20-3-0.5

Lab ID: 1700027-39

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.4**	1.0	0.70	1	B7A0280	01/10/2017	01/11/17 13:24	
Lead	**13**	1.0	0.11	1	B7A0280	01/10/2017	01/11/17 13:24	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0249	01/09/2017	01/11/17 11:29	
4,4´-DDE	ND	2.0	0.20	1	B7A0249	01/09/2017	01/11/17 11:29	
4,4´-DDT	**0.33**	2.0	0.13	1	B7A0249	01/09/2017	01/11/17 11:29	J
Aldrin	ND	1.0	0.27	1	B7A0249	01/09/2017	01/11/17 11:29	
alpha-BHC	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 11:29	
alpha-Chlordane	**1.1**	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 11:29	
beta-BHC	ND	1.0	0.23	1	B7A0249	01/09/2017	01/11/17 11:29	
Chlordane	ND	8.5	0.90	1	B7A0249	01/09/2017	01/11/17 11:29	
delta-BHC	ND	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 11:29	
Dieldrin	ND	2.0	0.25	1	B7A0249	01/09/2017	01/11/17 11:29	
Endosulfan I	ND	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 11:29	
Endosulfan II	ND	2.0	0.22	1	B7A0249	01/09/2017	01/11/17 11:29	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0249	01/09/2017	01/11/17 11:29	
Endrin	ND	2.0	0.23	1	B7A0249	01/09/2017	01/11/17 11:29	
Endrin aldehyde	ND	2.0	0.28	1	B7A0249	01/09/2017	01/11/17 11:29	
Endrin ketone	ND	2.0	0.20	1	B7A0249	01/09/2017	01/11/17 11:29	
gamma-BHC	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 11:29	
gamma-Chlordane	**1.4**	1.0	0.23	1	B7A0249	01/09/2017	01/11/17 11:29	
Heptachlor	ND	1.0	0.19	1	B7A0249	01/09/2017	01/11/17 11:29	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 11:29	
Methoxychlor	ND	5.0	0.18	1	B7A0249	01/09/2017	01/11/17 11:29	
Toxaphene	ND	50	8.2	1	B7A0249	01/09/2017	01/11/17 11:29	
Surrogate: Decachlorobiphenyl	*40.1 %*	*27 - 123*			B7A0249	01/09/2017	*01/11/17 11:29*	
Surrogate: Tetrachloro-m-xylene	*40.9 %*	*26 - 108*			B7A0249	01/09/2017	*01/11/17 11:29*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB20-3-0.5-D
Lab ID: 1700027-40

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.8**	1.0	0.70	1	B7A0280	01/10/2017	01/11/17 15:26	
Lead	**20**	1.0	0.11	1	B7A0280	01/10/2017	01/11/17 15:26	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0249	01/09/2017	01/11/17 11:39	
4,4´-DDE	ND	2.0	0.20	1	B7A0249	01/09/2017	01/11/17 11:39	
4,4´-DDT	**0.29**	2.0	0.13	1	B7A0249	01/09/2017	01/11/17 11:39	J
Aldrin	ND	1.0	0.27	1	B7A0249	01/09/2017	01/11/17 11:39	
alpha-BHC	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 11:39	
alpha-Chlordane	**0.92**	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 11:39	J
beta-BHC	ND	1.0	0.23	1	B7A0249	01/09/2017	01/11/17 11:39	
Chlordane	ND	8.5	0.90	1	B7A0249	01/09/2017	01/11/17 11:39	
delta-BHC	ND	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 11:39	
Dieldrin	ND	2.0	0.25	1	B7A0249	01/09/2017	01/11/17 11:39	
Endosulfan I	ND	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 11:39	
Endosulfan II	ND	2.0	0.22	1	B7A0249	01/09/2017	01/11/17 11:39	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0249	01/09/2017	01/11/17 11:39	
Endrin	ND	2.0	0.23	1	B7A0249	01/09/2017	01/11/17 11:39	
Endrin aldehyde	ND	2.0	0.28	1	B7A0249	01/09/2017	01/11/17 11:39	
Endrin ketone	ND	2.0	0.20	1	B7A0249	01/09/2017	01/11/17 11:39	
gamma-BHC	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 11:39	
gamma-Chlordane	**1.8**	1.0	0.23	1	B7A0249	01/09/2017	01/11/17 11:39	
Heptachlor	ND	1.0	0.19	1	B7A0249	01/09/2017	01/11/17 11:39	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 11:39	
Methoxychlor	ND	5.0	0.18	1	B7A0249	01/09/2017	01/11/17 11:39	
Toxaphene	ND	50	8.2	1	B7A0249	01/09/2017	01/11/17 11:39	
Surrogate: Decachlorobiphenyl	*40.6 %*		*27 - 123*		B7A0249	01/09/2017	*01/11/17 11:39*	
Surrogate: Tetrachloro-m-xylene	*37.5 %*		*26 - 108*		B7A0249	01/09/2017	*01/11/17 11:39*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB20-3-1.5
Lab ID: 1700027-41

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.3**	1.0	0.70	1	B7A0280	01/10/2017	01/11/17 15:27	
Lead	**9.4**	1.0	0.11	1	B7A0280	01/10/2017	01/11/17 15:27	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0249	01/09/2017	01/11/17 11:50	
4,4´-DDE	ND	2.0	0.20	1	B7A0249	01/09/2017	01/11/17 11:50	
4,4´-DDT	ND	2.0	0.13	1	B7A0249	01/09/2017	01/11/17 11:50	
Aldrin	ND	1.0	0.27	1	B7A0249	01/09/2017	01/11/17 11:50	
alpha-BHC	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 11:50	
alpha-Chlordane	ND	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 11:50	
beta-BHC	ND	1.0	0.23	1	B7A0249	01/09/2017	01/11/17 11:50	
Chlordane	ND	8.5	0.90	1	B7A0249	01/09/2017	01/11/17 11:50	
delta-BHC	ND	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 11:50	
Dieldrin	ND	2.0	0.25	1	B7A0249	01/09/2017	01/11/17 11:50	
Endosulfan I	ND	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 11:50	
Endosulfan II	ND	2.0	0.22	1	B7A0249	01/09/2017	01/11/17 11:50	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0249	01/09/2017	01/11/17 11:50	
Endrin	ND	2.0	0.23	1	B7A0249	01/09/2017	01/11/17 11:50	
Endrin aldehyde	ND	2.0	0.28	1	B7A0249	01/09/2017	01/11/17 11:50	
Endrin ketone	ND	2.0	0.20	1	B7A0249	01/09/2017	01/11/17 11:50	
gamma-BHC	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 11:50	
gamma-Chlordane	**0.56**	1.0	0.23	1	B7A0249	01/09/2017	01/11/17 11:50	J
Heptachlor	ND	1.0	0.19	1	B7A0249	01/09/2017	01/11/17 11:50	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 11:50	
Methoxychlor	ND	5.0	0.18	1	B7A0249	01/09/2017	01/11/17 11:50	
Toxaphene	ND	50	8.2	1	B7A0249	01/09/2017	01/11/17 11:50	
Surrogate: Decachlorobiphenyl	*54.5 %*	*27 - 123*			B7A0249	01/09/2017	*01/11/17 11:50*	
Surrogate: Tetrachloro-m-xylene	*55.2 %*	*26 - 108*			B7A0249	01/09/2017	*01/11/17 11:50*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB20-3-1.5

Lab ID: 1700027-41

Polychlorinated Biphenyls by EPA 8082 **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B7A0217	01/09/2017	01/10/17 09:44	
Aroclor 1221	ND	16	1.5	1	B7A0217	01/09/2017	01/10/17 09:44	
Aroclor 1232	ND	16	1.5	1	B7A0217	01/09/2017	01/10/17 09:44	
Aroclor 1242	ND	16	1.5	1	B7A0217	01/09/2017	01/10/17 09:44	
Aroclor 1248	ND	16	1.5	1	B7A0217	01/09/2017	01/10/17 09:44	
Aroclor 1254	ND	16	1.5	1	B7A0217	01/09/2017	01/10/17 09:44	
Aroclor 1260	ND	16	1.5	1	B7A0217	01/09/2017	01/10/17 09:44	
Aroclor 1262	ND	16	1.5	1	B7A0217	01/09/2017	01/10/17 09:44	
Aroclor 1268	ND	16	1.5	1	B7A0217	01/09/2017	01/10/17 09:44	
Surrogate: Decachlorobiphenyl	*66.4 %*		*26 - 137*		B7A0217	01/09/2017	*01/10/17 09:44*	
Surrogate: Tetrachloro-m-xylene	*72.7 %*		*28 - 102*		B7A0217	01/09/2017	*01/10/17 09:44*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB20-3-1.5-D
Lab ID: 1700027-42

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.5**	1.0	0.70	1	B7A0280	01/10/2017	01/11/17 15:28	
Lead	**17**	1.0	0.11	1	B7A0280	01/10/2017	01/11/17 15:28	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0249	01/09/2017	01/11/17 12:00	
4,4´-DDE	**0.29**	2.0	0.20	1	B7A0249	01/09/2017	01/11/17 12:00	J
4,4´-DDT	ND	2.0	0.13	1	B7A0249	01/09/2017	01/11/17 12:00	
Aldrin	ND	1.0	0.27	1	B7A0249	01/09/2017	01/11/17 12:00	
alpha-BHC	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 12:00	
alpha-Chlordane	**0.26**	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 12:00	J
beta-BHC	ND	1.0	0.23	1	B7A0249	01/09/2017	01/11/17 12:00	
Chlordane	ND	8.5	0.90	1	B7A0249	01/09/2017	01/11/17 12:00	
delta-BHC	ND	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 12:00	
Dieldrin	ND	2.0	0.25	1	B7A0249	01/09/2017	01/11/17 12:00	
Endosulfan I	ND	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 12:00	
Endosulfan II	ND	2.0	0.22	1	B7A0249	01/09/2017	01/11/17 12:00	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0249	01/09/2017	01/11/17 12:00	
Endrin	ND	2.0	0.23	1	B7A0249	01/09/2017	01/11/17 12:00	
Endrin aldehyde	ND	2.0	0.28	1	B7A0249	01/09/2017	01/11/17 12:00	
Endrin ketone	ND	2.0	0.20	1	B7A0249	01/09/2017	01/11/17 12:00	
gamma-BHC	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 12:00	
gamma-Chlordane	**1.4**	1.0	0.23	1	B7A0249	01/09/2017	01/11/17 12:00	
Heptachlor	ND	1.0	0.19	1	B7A0249	01/09/2017	01/11/17 12:00	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 12:00	
Methoxychlor	ND	5.0	0.18	1	B7A0249	01/09/2017	01/11/17 12:00	
Toxaphene	ND	50	8.2	1	B7A0249	01/09/2017	01/11/17 12:00	
Surrogate: Decachlorobiphenyl	*45.2 %*		*27 - 123*		B7A0249	01/09/2017	*01/11/17 12:00*	
Surrogate: Tetrachloro-m-xylene	*48.4 %*		*26 - 108*		B7A0249	01/09/2017	*01/11/17 12:00*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB20-4-0.5
Lab ID: 1700027-44

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**3.0**	1.0	0.70	1	B7A0280	01/10/2017	01/11/17 15:29	
Lead	**21**	1.0	0.11	1	B7A0280	01/10/2017	01/11/17 15:29	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0249	01/09/2017	01/11/17 12:11	
4,4´-DDE	ND	2.0	0.20	1	B7A0249	01/09/2017	01/11/17 12:11	
4,4´-DDT	**0.89**	2.0	0.13	1	B7A0249	01/09/2017	01/11/17 12:11	J
Aldrin	ND	1.0	0.27	1	B7A0249	01/09/2017	01/11/17 12:11	
alpha-BHC	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 12:11	
alpha-Chlordane	**0.54**	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 12:11	J
beta-BHC	ND	1.0	0.23	1	B7A0249	01/09/2017	01/11/17 12:11	
Chlordane	ND	8.5	0.90	1	B7A0249	01/09/2017	01/11/17 12:11	
delta-BHC	ND	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 12:11	
Dieldrin	ND	2.0	0.25	1	B7A0249	01/09/2017	01/11/17 12:11	
Endosulfan I	ND	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 12:11	
Endosulfan II	ND	2.0	0.22	1	B7A0249	01/09/2017	01/11/17 12:11	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0249	01/09/2017	01/11/17 12:11	
Endrin	ND	2.0	0.23	1	B7A0249	01/09/2017	01/11/17 12:11	
Endrin aldehyde	ND	2.0	0.28	1	B7A0249	01/09/2017	01/11/17 12:11	
Endrin ketone	ND	2.0	0.20	1	B7A0249	01/09/2017	01/11/17 12:11	
gamma-BHC	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 12:11	
gamma-Chlordane	**2.5**	1.0	0.23	1	B7A0249	01/09/2017	01/11/17 12:11	
Heptachlor	ND	1.0	0.19	1	B7A0249	01/09/2017	01/11/17 12:11	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 12:11	
Methoxychlor	ND	5.0	0.18	1	B7A0249	01/09/2017	01/11/17 12:11	
Toxaphene	ND	50	8.2	1	B7A0249	01/09/2017	01/11/17 12:11	
Surrogate: Decachlorobiphenyl	*32.3 %*		*27 - 123*		B7A0249	01/09/2017	*01/11/17 12:11*	
Surrogate: Tetrachloro-m-xylene	*33.9 %*		*26 - 108*		B7A0249	01/09/2017	*01/11/17 12:11*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB20-4-0.5-D
Lab ID: 1700027-45

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**7.4**	1.0	0.70	1	B7A0280	01/10/2017	01/11/17 15:30	
Lead	**18**	1.0	0.11	1	B7A0280	01/10/2017	01/11/17 15:30	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0249	01/09/2017	01/11/17 12:21	
4,4´-DDE	ND	2.0	0.20	1	B7A0249	01/09/2017	01/11/17 12:21	
4,4´-DDT	ND	2.0	0.13	1	B7A0249	01/09/2017	01/11/17 12:21	
Aldrin	ND	1.0	0.27	1	B7A0249	01/09/2017	01/11/17 12:21	
alpha-BHC	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 12:21	
alpha-Chlordane	**0.41**	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 12:21	J
beta-BHC	ND	1.0	0.23	1	B7A0249	01/09/2017	01/11/17 12:21	
Chlordane	ND	8.5	0.90	1	B7A0249	01/09/2017	01/11/17 12:21	
delta-BHC	ND	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 12:21	
Dieldrin	ND	2.0	0.25	1	B7A0249	01/09/2017	01/11/17 12:21	
Endosulfan I	ND	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 12:21	
Endosulfan II	ND	2.0	0.22	1	B7A0249	01/09/2017	01/11/17 12:21	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0249	01/09/2017	01/11/17 12:21	
Endrin	ND	2.0	0.23	1	B7A0249	01/09/2017	01/11/17 12:21	
Endrin aldehyde	ND	2.0	0.28	1	B7A0249	01/09/2017	01/11/17 12:21	
Endrin ketone	ND	2.0	0.20	1	B7A0249	01/09/2017	01/11/17 12:21	
gamma-BHC	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 12:21	
gamma-Chlordane	**1.7**	1.0	0.23	1	B7A0249	01/09/2017	01/11/17 12:21	
Heptachlor	ND	1.0	0.19	1	B7A0249	01/09/2017	01/11/17 12:21	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 12:21	
Methoxychlor	ND	5.0	0.18	1	B7A0249	01/09/2017	01/11/17 12:21	
Toxaphene	ND	50	8.2	1	B7A0249	01/09/2017	01/11/17 12:21	
Surrogate: Decachlorobiphenyl	*42.0 %*		*27 - 123*		B7A0249	01/09/2017	*01/11/17 12:21*	
Surrogate: Tetrachloro-m-xylene	*42.5 %*		*26 - 108*		B7A0249	01/09/2017	*01/11/17 12:21*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB20-4-1.5
Lab ID: 1700027-46

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**5.4**	1.0	0.70	1	B7A0280	01/10/2017	01/11/17 15:32	
Lead	**16**	1.0	0.11	1	B7A0280	01/10/2017	01/11/17 15:32	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0249	01/09/2017	01/11/17 12:32	
4,4´-DDE	ND	2.0	0.20	1	B7A0249	01/09/2017	01/11/17 12:32	
4,4´-DDT	ND	2.0	0.13	1	B7A0249	01/09/2017	01/11/17 12:32	
Aldrin	ND	1.0	0.27	1	B7A0249	01/09/2017	01/11/17 12:32	
alpha-BHC	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 12:32	
alpha-Chlordane	ND	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 12:32	
beta-BHC	ND	1.0	0.23	1	B7A0249	01/09/2017	01/11/17 12:32	
Chlordane	ND	8.5	0.90	1	B7A0249	01/09/2017	01/11/17 12:32	
delta-BHC	ND	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 12:32	
Dieldrin	ND	2.0	0.25	1	B7A0249	01/09/2017	01/11/17 12:32	
Endosulfan I	ND	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 12:32	
Endosulfan II	ND	2.0	0.22	1	B7A0249	01/09/2017	01/11/17 12:32	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0249	01/09/2017	01/11/17 12:32	
Endrin	ND	2.0	0.23	1	B7A0249	01/09/2017	01/11/17 12:32	
Endrin aldehyde	ND	2.0	0.28	1	B7A0249	01/09/2017	01/11/17 12:32	
Endrin ketone	ND	2.0	0.20	1	B7A0249	01/09/2017	01/11/17 12:32	
gamma-BHC	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 12:32	
gamma-Chlordane	**1.7**	1.0	0.23	1	B7A0249	01/09/2017	01/11/17 12:32	
Heptachlor	ND	1.0	0.19	1	B7A0249	01/09/2017	01/11/17 12:32	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 12:32	
Methoxychlor	ND	5.0	0.18	1	B7A0249	01/09/2017	01/11/17 12:32	
Toxaphene	ND	50	8.2	1	B7A0249	01/09/2017	01/11/17 12:32	
Surrogate: Decachlorobiphenyl	*50.3 %*		*27 - 123*		B7A0249	01/09/2017	*01/11/17 12:32*	
Surrogate: Tetrachloro-m-xylene	*54.2 %*		*26 - 108*		B7A0249	01/09/2017	*01/11/17 12:32*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB20-4-1.5-D
Lab ID: 1700027-47

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**4.7**	1.0	0.70	1	B7A0280	01/10/2017	01/11/17 15:35	
Lead	**14**	1.0	0.11	1	B7A0280	01/10/2017	01/11/17 15:35	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0249	01/09/2017	01/11/17 12:42	
4,4´-DDE	ND	2.0	0.20	1	B7A0249	01/09/2017	01/11/17 12:42	
4,4´-DDT	ND	2.0	0.13	1	B7A0249	01/09/2017	01/11/17 12:42	
Aldrin	ND	1.0	0.27	1	B7A0249	01/09/2017	01/11/17 12:42	
alpha-BHC	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 12:42	
alpha-Chlordane	ND	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 12:42	
beta-BHC	ND	1.0	0.23	1	B7A0249	01/09/2017	01/11/17 12:42	
Chlordane	ND	8.5	0.90	1	B7A0249	01/09/2017	01/11/17 12:42	
delta-BHC	ND	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 12:42	
Dieldrin	ND	2.0	0.25	1	B7A0249	01/09/2017	01/11/17 12:42	
Endosulfan I	ND	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 12:42	
Endosulfan II	ND	2.0	0.22	1	B7A0249	01/09/2017	01/11/17 12:42	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0249	01/09/2017	01/11/17 12:42	
Endrin	ND	2.0	0.23	1	B7A0249	01/09/2017	01/11/17 12:42	
Endrin aldehyde	ND	2.0	0.28	1	B7A0249	01/09/2017	01/11/17 12:42	
Endrin ketone	ND	2.0	0.20	1	B7A0249	01/09/2017	01/11/17 12:42	
gamma-BHC	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 12:42	
gamma-Chlordane	**1.2**	1.0	0.23	1	B7A0249	01/09/2017	01/11/17 12:42	
Heptachlor	ND	1.0	0.19	1	B7A0249	01/09/2017	01/11/17 12:42	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 12:42	
Methoxychlor	ND	5.0	0.18	1	B7A0249	01/09/2017	01/11/17 12:42	
Toxaphene	ND	50	8.2	1	B7A0249	01/09/2017	01/11/17 12:42	
Surrogate: Decachlorobiphenyl	*46.0 %*		*27 - 123*		B7A0249	01/09/2017	*01/11/17 12:42*	
Surrogate: Tetrachloro-m-xylene	*49.8 %*		*26 - 108*		B7A0249	01/09/2017	*01/11/17 12:42*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB20-6-0.5
Lab ID: 1700027-49

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**3.3**	1.0	0.70	1	B7A0280	01/10/2017	01/11/17 15:36	
Lead	**74**	1.0	0.11	1	B7A0280	01/10/2017	01/11/17 15:36	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0249	01/09/2017	01/11/17 12:53	
4,4´-DDE	**0.38**	2.0	0.20	1	B7A0249	01/09/2017	01/11/17 12:53	J
4,4´-DDT	**0.86**	2.0	0.13	1	B7A0249	01/09/2017	01/11/17 12:53	J
Aldrin	ND	1.0	0.27	1	B7A0249	01/09/2017	01/11/17 12:53	
alpha-BHC	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 12:53	
alpha-Chlordane	ND	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 12:53	
beta-BHC	ND	1.0	0.23	1	B7A0249	01/09/2017	01/11/17 12:53	
Chlordane	ND	8.5	0.90	1	B7A0249	01/09/2017	01/11/17 12:53	
delta-BHC	ND	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 12:53	
Dieldrin	ND	2.0	0.25	1	B7A0249	01/09/2017	01/11/17 12:53	
Endosulfan I	ND	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 12:53	
Endosulfan II	ND	2.0	0.22	1	B7A0249	01/09/2017	01/11/17 12:53	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0249	01/09/2017	01/11/17 12:53	
Endrin	ND	2.0	0.23	1	B7A0249	01/09/2017	01/11/17 12:53	
Endrin aldehyde	ND	2.0	0.28	1	B7A0249	01/09/2017	01/11/17 12:53	
Endrin ketone	ND	2.0	0.20	1	B7A0249	01/09/2017	01/11/17 12:53	
gamma-BHC	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 12:53	
gamma-Chlordane	**2.1**	1.0	0.23	1	B7A0249	01/09/2017	01/11/17 12:53	
Heptachlor	ND	1.0	0.19	1	B7A0249	01/09/2017	01/11/17 12:53	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 12:53	
Methoxychlor	ND	5.0	0.18	1	B7A0249	01/09/2017	01/11/17 12:53	
Toxaphene	ND	50	8.2	1	B7A0249	01/09/2017	01/11/17 12:53	
Surrogate: Decachlorobiphenyl	*50.7 %*		*27 - 123*		B7A0249	01/09/2017	*01/11/17 12:53*	
Surrogate: Tetrachloro-m-xylene	*49.6 %*		*26 - 108*		B7A0249	01/09/2017	*01/11/17 12:53*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB20-6-0.5-D
Lab ID: 1700027-50

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**3.0**	1.0	0.70	1	B7A0281	01/10/2017	01/11/17 15:43	
Lead	**120**	1.0	0.11	1	B7A0281	01/10/2017	01/11/17 15:43	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0249	01/09/2017	01/11/17 13:03	
4,4´-DDE	**0.42**	2.0	0.20	1	B7A0249	01/09/2017	01/11/17 13:03	J
4,4´-DDT	**1.2**	2.0	0.13	1	B7A0249	01/09/2017	01/11/17 13:03	J
Aldrin	ND	1.0	0.27	1	B7A0249	01/09/2017	01/11/17 13:03	
alpha-BHC	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 13:03	
alpha-Chlordane	ND	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 13:03	
beta-BHC	ND	1.0	0.23	1	B7A0249	01/09/2017	01/11/17 13:03	
Chlordane	ND	8.5	0.90	1	B7A0249	01/09/2017	01/11/17 13:03	
delta-BHC	ND	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 13:03	
Dieldrin	ND	2.0	0.25	1	B7A0249	01/09/2017	01/11/17 13:03	
Endosulfan I	ND	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 13:03	
Endosulfan II	ND	2.0	0.22	1	B7A0249	01/09/2017	01/11/17 13:03	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0249	01/09/2017	01/11/17 13:03	
Endrin	ND	2.0	0.23	1	B7A0249	01/09/2017	01/11/17 13:03	
Endrin aldehyde	ND	2.0	0.28	1	B7A0249	01/09/2017	01/11/17 13:03	
Endrin ketone	ND	2.0	0.20	1	B7A0249	01/09/2017	01/11/17 13:03	
gamma-BHC	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 13:03	
gamma-Chlordane	**1.4**	1.0	0.23	1	B7A0249	01/09/2017	01/11/17 13:03	
Heptachlor	ND	1.0	0.19	1	B7A0249	01/09/2017	01/11/17 13:03	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 13:03	
Methoxychlor	ND	5.0	0.18	1	B7A0249	01/09/2017	01/11/17 13:03	
Toxaphene	ND	50	8.2	1	B7A0249	01/09/2017	01/11/17 13:03	
Surrogate: Decachlorobiphenyl	*40.3 %*		*27 - 123*		B7A0249	01/09/2017	*01/11/17 13:03*	
Surrogate: Tetrachloro-m-xylene	*42.6 %*		*26 - 108*		B7A0249	01/09/2017	*01/11/17 13:03*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB20-6-1.5
Lab ID: 1700027-51

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.3**	1.0	0.70	1	B7A0281	01/10/2017	01/11/17 15:47	
Lead	**16**	1.0	0.11	1	B7A0281	01/10/2017	01/11/17 15:47	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0249	01/09/2017	01/11/17 13:14	
4,4´-DDE	ND	2.0	0.20	1	B7A0249	01/09/2017	01/11/17 13:14	
4,4´-DDT	ND	2.0	0.13	1	B7A0249	01/09/2017	01/11/17 13:14	
Aldrin	ND	1.0	0.27	1	B7A0249	01/09/2017	01/11/17 13:14	
alpha-BHC	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 13:14	
alpha-Chlordane	ND	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 13:14	
beta-BHC	ND	1.0	0.23	1	B7A0249	01/09/2017	01/11/17 13:14	
Chlordane	ND	8.5	0.90	1	B7A0249	01/09/2017	01/11/17 13:14	
delta-BHC	ND	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 13:14	
Dieldrin	ND	2.0	0.25	1	B7A0249	01/09/2017	01/11/17 13:14	
Endosulfan I	ND	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 13:14	
Endosulfan II	ND	2.0	0.22	1	B7A0249	01/09/2017	01/11/17 13:14	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0249	01/09/2017	01/11/17 13:14	
Endrin	ND	2.0	0.23	1	B7A0249	01/09/2017	01/11/17 13:14	
Endrin aldehyde	ND	2.0	0.28	1	B7A0249	01/09/2017	01/11/17 13:14	
Endrin ketone	ND	2.0	0.20	1	B7A0249	01/09/2017	01/11/17 13:14	
gamma-BHC	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 13:14	
gamma-Chlordane	**0.68**	1.0	0.23	1	B7A0249	01/09/2017	01/11/17 13:14	J
Heptachlor	ND	1.0	0.19	1	B7A0249	01/09/2017	01/11/17 13:14	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 13:14	
Methoxychlor	ND	5.0	0.18	1	B7A0249	01/09/2017	01/11/17 13:14	
Toxaphene	ND	50	8.2	1	B7A0249	01/09/2017	01/11/17 13:14	
Surrogate: Decachlorobiphenyl	*45.3 %*		*27 - 123*		B7A0249	01/09/2017	*01/11/17 13:14*	
Surrogate: Tetrachloro-m-xylene	*49.8 %*		*26 - 108*		B7A0249	01/09/2017	*01/11/17 13:14*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB20-6-1.5-D
Lab ID: 1700027-52

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.9**	1.0	0.70	1	B7A0281	01/10/2017	01/11/17 15:48	
Lead	**7.7**	1.0	0.11	1	B7A0281	01/10/2017	01/11/17 15:48	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0249	01/09/2017	01/11/17 13:24	
4,4´-DDE	ND	2.0	0.20	1	B7A0249	01/09/2017	01/11/17 13:24	
4,4´-DDT	ND	2.0	0.13	1	B7A0249	01/09/2017	01/11/17 13:24	
Aldrin	ND	1.0	0.27	1	B7A0249	01/09/2017	01/11/17 13:24	
alpha-BHC	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 13:24	
alpha-Chlordane	ND	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 13:24	
beta-BHC	ND	1.0	0.23	1	B7A0249	01/09/2017	01/11/17 13:24	
Chlordane	ND	8.5	0.90	1	B7A0249	01/09/2017	01/11/17 13:24	
delta-BHC	ND	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 13:24	
Dieldrin	ND	2.0	0.25	1	B7A0249	01/09/2017	01/11/17 13:24	
Endosulfan I	ND	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 13:24	
Endosulfan II	ND	2.0	0.22	1	B7A0249	01/09/2017	01/11/17 13:24	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0249	01/09/2017	01/11/17 13:24	
Endrin	ND	2.0	0.23	1	B7A0249	01/09/2017	01/11/17 13:24	
Endrin aldehyde	ND	2.0	0.28	1	B7A0249	01/09/2017	01/11/17 13:24	
Endrin ketone	ND	2.0	0.20	1	B7A0249	01/09/2017	01/11/17 13:24	
gamma-BHC	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 13:24	
gamma-Chlordane	ND	1.0	0.23	1	B7A0249	01/09/2017	01/11/17 13:24	
Heptachlor	ND	1.0	0.19	1	B7A0249	01/09/2017	01/11/17 13:24	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 13:24	
Methoxychlor	ND	5.0	0.18	1	B7A0249	01/09/2017	01/11/17 13:24	
Toxaphene	ND	50	8.2	1	B7A0249	01/09/2017	01/11/17 13:24	
Surrogate: Decachlorobiphenyl	*41.1 %*		*27 - 123*		B7A0249	01/09/2017	*01/11/17 13:24*	
Surrogate: Tetrachloro-m-xylene	*43.0 %*		*26 - 108*		B7A0249	01/09/2017	*01/11/17 13:24*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB20-5-0.5
Lab ID: 1700027-54

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.1**	1.0	0.70	1	B7A0281	01/10/2017	01/11/17 15:49	
Lead	**3.6**	1.0	0.11	1	B7A0281	01/10/2017	01/11/17 15:49	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0249	01/09/2017	01/11/17 13:35	
4,4´-DDE	ND	2.0	0.20	1	B7A0249	01/09/2017	01/11/17 13:35	
4,4´-DDT	ND	2.0	0.13	1	B7A0249	01/09/2017	01/11/17 13:35	
Aldrin	ND	1.0	0.27	1	B7A0249	01/09/2017	01/11/17 13:35	
alpha-BHC	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 13:35	
alpha-Chlordane	ND	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 13:35	
beta-BHC	ND	1.0	0.23	1	B7A0249	01/09/2017	01/11/17 13:35	
Chlordane	ND	8.5	0.90	1	B7A0249	01/09/2017	01/11/17 13:35	
delta-BHC	ND	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 13:35	
Dieldrin	ND	2.0	0.25	1	B7A0249	01/09/2017	01/11/17 13:35	
Endosulfan I	ND	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 13:35	
Endosulfan II	ND	2.0	0.22	1	B7A0249	01/09/2017	01/11/17 13:35	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0249	01/09/2017	01/11/17 13:35	
Endrin	ND	2.0	0.23	1	B7A0249	01/09/2017	01/11/17 13:35	
Endrin aldehyde	ND	2.0	0.28	1	B7A0249	01/09/2017	01/11/17 13:35	
Endrin ketone	ND	2.0	0.20	1	B7A0249	01/09/2017	01/11/17 13:35	
gamma-BHC	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 13:35	
gamma-Chlordane	ND	1.0	0.23	1	B7A0249	01/09/2017	01/11/17 13:35	
Heptachlor	ND	1.0	0.19	1	B7A0249	01/09/2017	01/11/17 13:35	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 13:35	
Methoxychlor	ND	5.0	0.18	1	B7A0249	01/09/2017	01/11/17 13:35	
Toxaphene	ND	50	8.2	1	B7A0249	01/09/2017	01/11/17 13:35	
Surrogate: Decachlorobiphenyl	*47.3 %*		*27 - 123*		B7A0249	01/09/2017	*01/11/17 13:35*	
Surrogate: Tetrachloro-m-xylene	*50.3 %*		*26 - 108*		B7A0249	01/09/2017	*01/11/17 13:35*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB20-5-0.5-D
Lab ID: 1700027-55

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**3.2**	1.0	0.70	1	B7A0281	01/10/2017	01/11/17 15:50	
Lead	**22**	1.0	0.11	1	B7A0281	01/10/2017	01/11/17 15:50	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0249	01/09/2017	01/11/17 13:45	
4,4´-DDE	ND	2.0	0.20	1	B7A0249	01/09/2017	01/11/17 13:45	
4,4´-DDT	ND	2.0	0.13	1	B7A0249	01/09/2017	01/11/17 13:45	
Aldrin	ND	1.0	0.27	1	B7A0249	01/09/2017	01/11/17 13:45	
alpha-BHC	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 13:45	
alpha-Chlordane	ND	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 13:45	
beta-BHC	ND	1.0	0.23	1	B7A0249	01/09/2017	01/11/17 13:45	
Chlordane	ND	8.5	0.90	1	B7A0249	01/09/2017	01/11/17 13:45	
delta-BHC	ND	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 13:45	
Dieldrin	ND	2.0	0.25	1	B7A0249	01/09/2017	01/11/17 13:45	
Endosulfan I	ND	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 13:45	
Endosulfan II	ND	2.0	0.22	1	B7A0249	01/09/2017	01/11/17 13:45	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0249	01/09/2017	01/11/17 13:45	
Endrin	ND	2.0	0.23	1	B7A0249	01/09/2017	01/11/17 13:45	
Endrin aldehyde	ND	2.0	0.28	1	B7A0249	01/09/2017	01/11/17 13:45	
Endrin ketone	ND	2.0	0.20	1	B7A0249	01/09/2017	01/11/17 13:45	
gamma-BHC	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 13:45	
gamma-Chlordane	**0.25**	1.0	0.23	1	B7A0249	01/09/2017	01/11/17 13:45	J
Heptachlor	ND	1.0	0.19	1	B7A0249	01/09/2017	01/11/17 13:45	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 13:45	
Methoxychlor	ND	5.0	0.18	1	B7A0249	01/09/2017	01/11/17 13:45	
Toxaphene	ND	50	8.2	1	B7A0249	01/09/2017	01/11/17 13:45	
Surrogate: Decachlorobiphenyl	*48.8 %*		*27 - 123*		B7A0249	01/09/2017	*01/11/17 13:45*	
Surrogate: Tetrachloro-m-xylene	*53.0 %*		*26 - 108*		B7A0249	01/09/2017	*01/11/17 13:45*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB20-5-1.5
Lab ID: 1700027-56

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.9**	1.0	0.70	1	B7A0281	01/10/2017	01/11/17 15:54	
Lead	**4.5**	1.0	0.11	1	B7A0281	01/10/2017	01/11/17 15:54	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0249	01/09/2017	01/11/17 13:55	
4,4´-DDE	ND	2.0	0.20	1	B7A0249	01/09/2017	01/11/17 13:55	
4,4´-DDT	ND	2.0	0.13	1	B7A0249	01/09/2017	01/11/17 13:55	
Aldrin	ND	1.0	0.27	1	B7A0249	01/09/2017	01/11/17 13:55	
alpha-BHC	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 13:55	
alpha-Chlordane	ND	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 13:55	
beta-BHC	ND	1.0	0.23	1	B7A0249	01/09/2017	01/11/17 13:55	
Chlordane	ND	8.5	0.90	1	B7A0249	01/09/2017	01/11/17 13:55	
delta-BHC	ND	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 13:55	
Dieldrin	ND	2.0	0.25	1	B7A0249	01/09/2017	01/11/17 13:55	
Endosulfan I	ND	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 13:55	
Endosulfan II	ND	2.0	0.22	1	B7A0249	01/09/2017	01/11/17 13:55	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0249	01/09/2017	01/11/17 13:55	
Endrin	ND	2.0	0.23	1	B7A0249	01/09/2017	01/11/17 13:55	
Endrin aldehyde	ND	2.0	0.28	1	B7A0249	01/09/2017	01/11/17 13:55	
Endrin ketone	ND	2.0	0.20	1	B7A0249	01/09/2017	01/11/17 13:55	
gamma-BHC	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 13:55	
gamma-Chlordane	ND	1.0	0.23	1	B7A0249	01/09/2017	01/11/17 13:55	
Heptachlor	ND	1.0	0.19	1	B7A0249	01/09/2017	01/11/17 13:55	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 13:55	
Methoxychlor	ND	5.0	0.18	1	B7A0249	01/09/2017	01/11/17 13:55	
Toxaphene	ND	50	8.2	1	B7A0249	01/09/2017	01/11/17 13:55	
Surrogate: Decachlorobiphenyl	*44.0 %*	*27 - 123*			B7A0249	01/09/2017	*01/11/17 13:55*	
Surrogate: Tetrachloro-m-xylene	*46.6 %*	*26 - 108*			B7A0249	01/09/2017	*01/11/17 13:55*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB20-5-1.5-D
Lab ID: 1700027-57

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.2**	1.0	0.70	1	B7A0281	01/10/2017	01/11/17 15:55	
Lead	**5.7**	1.0	0.11	1	B7A0281	01/10/2017	01/11/17 15:55	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0249	01/09/2017	01/11/17 14:06	
4,4´-DDE	ND	2.0	0.20	1	B7A0249	01/09/2017	01/11/17 14:06	
4,4´-DDT	ND	2.0	0.13	1	B7A0249	01/09/2017	01/11/17 14:06	
Aldrin	ND	1.0	0.27	1	B7A0249	01/09/2017	01/11/17 14:06	
alpha-BHC	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 14:06	
alpha-Chlordane	ND	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 14:06	
beta-BHC	ND	1.0	0.23	1	B7A0249	01/09/2017	01/11/17 14:06	
Chlordane	ND	8.5	0.90	1	B7A0249	01/09/2017	01/11/17 14:06	
delta-BHC	ND	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 14:06	
Dieldrin	ND	2.0	0.25	1	B7A0249	01/09/2017	01/11/17 14:06	
Endosulfan I	ND	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 14:06	
Endosulfan II	ND	2.0	0.22	1	B7A0249	01/09/2017	01/11/17 14:06	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0249	01/09/2017	01/11/17 14:06	
Endrin	ND	2.0	0.23	1	B7A0249	01/09/2017	01/11/17 14:06	
Endrin aldehyde	ND	2.0	0.28	1	B7A0249	01/09/2017	01/11/17 14:06	
Endrin ketone	ND	2.0	0.20	1	B7A0249	01/09/2017	01/11/17 14:06	
gamma-BHC	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 14:06	
gamma-Chlordane	ND	1.0	0.23	1	B7A0249	01/09/2017	01/11/17 14:06	
Heptachlor	ND	1.0	0.19	1	B7A0249	01/09/2017	01/11/17 14:06	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 14:06	
Methoxychlor	ND	5.0	0.18	1	B7A0249	01/09/2017	01/11/17 14:06	
Toxaphene	ND	50	8.2	1	B7A0249	01/09/2017	01/11/17 14:06	
Surrogate: Decachlorobiphenyl	*47.1 %*		*27 - 123*		B7A0249	01/09/2017	*01/11/17 14:06*	
Surrogate: Tetrachloro-m-xylene	*53.5 %*		*26 - 108*		B7A0249	01/09/2017	*01/11/17 14:06*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB20-7-0.5
Lab ID: 1700027-59

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**0.76**	1.0	0.70	1	B7A0281	01/10/2017	01/11/17 15:56	J
Lead	**2.2**	1.0	0.11	1	B7A0281	01/10/2017	01/11/17 15:56	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0249	01/09/2017	01/11/17 14:16	
4,4´-DDE	ND	2.0	0.20	1	B7A0249	01/09/2017	01/11/17 14:16	
4,4´-DDT	ND	2.0	0.13	1	B7A0249	01/09/2017	01/11/17 14:16	
Aldrin	ND	1.0	0.27	1	B7A0249	01/09/2017	01/11/17 14:16	
alpha-BHC	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 14:16	
alpha-Chlordane	ND	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 14:16	
beta-BHC	ND	1.0	0.23	1	B7A0249	01/09/2017	01/11/17 14:16	
Chlordane	ND	8.5	0.90	1	B7A0249	01/09/2017	01/11/17 14:16	
delta-BHC	ND	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 14:16	
Dieldrin	ND	2.0	0.25	1	B7A0249	01/09/2017	01/11/17 14:16	
Endosulfan I	ND	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 14:16	
Endosulfan II	ND	2.0	0.22	1	B7A0249	01/09/2017	01/11/17 14:16	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0249	01/09/2017	01/11/17 14:16	
Endrin	ND	2.0	0.23	1	B7A0249	01/09/2017	01/11/17 14:16	
Endrin aldehyde	ND	2.0	0.28	1	B7A0249	01/09/2017	01/11/17 14:16	
Endrin ketone	ND	2.0	0.20	1	B7A0249	01/09/2017	01/11/17 14:16	
gamma-BHC	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 14:16	
gamma-Chlordane	ND	1.0	0.23	1	B7A0249	01/09/2017	01/11/17 14:16	
Heptachlor	ND	1.0	0.19	1	B7A0249	01/09/2017	01/11/17 14:16	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 14:16	
Methoxychlor	ND	5.0	0.18	1	B7A0249	01/09/2017	01/11/17 14:16	
Toxaphene	ND	50	8.2	1	B7A0249	01/09/2017	01/11/17 14:16	
Surrogate: Decachlorobiphenyl	*73.0 %*		*27 - 123*		B7A0249	01/09/2017	*01/11/17 14:16*	
Surrogate: Tetrachloro-m-xylene	*74.7 %*		*26 - 108*		B7A0249	01/09/2017	*01/11/17 14:16*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB20-7-1.5
Lab ID: 1700027-60

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**3.8**	1.0	0.70	1	B7A0281	01/10/2017	01/11/17 15:58	
Lead	**10**	1.0	0.11	1	B7A0281	01/10/2017	01/11/17 15:58	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0249	01/09/2017	01/11/17 14:27	
4,4´-DDE	ND	2.0	0.20	1	B7A0249	01/09/2017	01/11/17 14:27	
4,4´-DDT	ND	2.0	0.13	1	B7A0249	01/09/2017	01/11/17 14:27	
Aldrin	ND	1.0	0.27	1	B7A0249	01/09/2017	01/11/17 14:27	
alpha-BHC	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 14:27	
alpha-Chlordane	**20**	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 14:27	
beta-BHC	ND	1.0	0.23	1	B7A0249	01/09/2017	01/11/17 14:27	
Chlordane	ND	8.5	0.90	1	B7A0249	01/09/2017	01/11/17 14:27	
delta-BHC	ND	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 14:27	
Dieldrin	ND	2.0	0.25	1	B7A0249	01/09/2017	01/11/17 14:27	
Endosulfan I	ND	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 14:27	
Endosulfan II	ND	2.0	0.22	1	B7A0249	01/09/2017	01/11/17 14:27	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0249	01/09/2017	01/11/17 14:27	
Endrin	ND	2.0	0.23	1	B7A0249	01/09/2017	01/11/17 14:27	
Endrin aldehyde	ND	2.0	0.28	1	B7A0249	01/09/2017	01/11/17 14:27	
Endrin ketone	ND	2.0	0.20	1	B7A0249	01/09/2017	01/11/17 14:27	
gamma-BHC	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 14:27	
gamma-Chlordane	**16**	1.0	0.23	1	B7A0249	01/09/2017	01/11/17 14:27	
Heptachlor	ND	1.0	0.19	1	B7A0249	01/09/2017	01/11/17 14:27	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 14:27	
Methoxychlor	ND	5.0	0.18	1	B7A0249	01/09/2017	01/11/17 14:27	
Toxaphene	ND	50	8.2	1	B7A0249	01/09/2017	01/11/17 14:27	
Surrogate: Decachlorobiphenyl	*46.0 %*		*27 - 123*		B7A0249	01/09/2017	*01/11/17 14:27*	
Surrogate: Tetrachloro-m-xylene	*48.1 %*		*26 - 108*		B7A0249	01/09/2017	*01/11/17 14:27*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB20-8-0.5
Lab ID: 1700027-62

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	1.0	0.70	1	B7A0281	01/10/2017	01/11/17 15:59	
Lead	**1.9**	1.0	0.11	1	B7A0281	01/10/2017	01/11/17 15:59	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0250	01/09/2017	01/10/17 11:30	
4,4´-DDE	ND	2.0	0.20	1	B7A0250	01/09/2017	01/10/17 11:30	
4,4´-DDT	ND	2.0	0.13	1	B7A0250	01/09/2017	01/10/17 11:30	
Aldrin	ND	1.0	0.27	1	B7A0250	01/09/2017	01/10/17 11:30	
alpha-BHC	ND	1.0	0.20	1	B7A0250	01/09/2017	01/10/17 11:30	
alpha-Chlordane	ND	1.0	0.21	1	B7A0250	01/09/2017	01/10/17 11:30	
beta-BHC	ND	1.0	0.23	1	B7A0250	01/09/2017	01/10/17 11:30	
Chlordane	ND	8.5	0.90	1	B7A0250	01/09/2017	01/10/17 11:30	
delta-BHC	ND	1.0	0.21	1	B7A0250	01/09/2017	01/10/17 11:30	
Dieldrin	ND	2.0	0.25	1	B7A0250	01/09/2017	01/10/17 11:30	
Endosulfan I	ND	1.0	0.21	1	B7A0250	01/09/2017	01/10/17 11:30	
Endosulfan II	ND	2.0	0.22	1	B7A0250	01/09/2017	01/10/17 11:30	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0250	01/09/2017	01/10/17 11:30	
Endrin	ND	2.0	0.23	1	B7A0250	01/09/2017	01/10/17 11:30	
Endrin aldehyde	ND	2.0	0.28	1	B7A0250	01/09/2017	01/10/17 11:30	
Endrin ketone	ND	2.0	0.20	1	B7A0250	01/09/2017	01/10/17 11:30	
gamma-BHC	ND	1.0	0.20	1	B7A0250	01/09/2017	01/10/17 11:30	
gamma-Chlordane	ND	1.0	0.23	1	B7A0250	01/09/2017	01/10/17 11:30	
Heptachlor	ND	1.0	0.19	1	B7A0250	01/09/2017	01/10/17 11:30	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0250	01/09/2017	01/10/17 11:30	
Methoxychlor	ND	5.0	0.18	1	B7A0250	01/09/2017	01/10/17 11:30	
Toxaphene	ND	50	8.2	1	B7A0250	01/09/2017	01/10/17 11:30	
Surrogate: Decachlorobiphenyl	*85.4 %*	*27 - 123*			B7A0250	01/09/2017	*01/10/17 11:30*	
Surrogate: Tetrachloro-m-xylene	*88.7 %*	*26 - 108*			B7A0250	01/09/2017	*01/10/17 11:30*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB20-8-0.5-D
Lab ID: 1700027-63

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.2**	1.0	0.70	1	B7A0281	01/10/2017	01/11/17 16:00	
Lead	**6.1**	1.0	0.11	1	B7A0281	01/10/2017	01/11/17 16:00	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0249	01/09/2017	01/11/17 14:37	
4,4´-DDE	ND	2.0	0.20	1	B7A0249	01/09/2017	01/11/17 14:37	
4,4´-DDT	ND	2.0	0.13	1	B7A0249	01/09/2017	01/11/17 14:37	
Aldrin	ND	1.0	0.27	1	B7A0249	01/09/2017	01/11/17 14:37	
alpha-BHC	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 14:37	
alpha-Chlordane	ND	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 14:37	
beta-BHC	ND	1.0	0.23	1	B7A0249	01/09/2017	01/11/17 14:37	
Chlordane	ND	8.5	0.90	1	B7A0249	01/09/2017	01/11/17 14:37	
delta-BHC	ND	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 14:37	
Dieldrin	ND	2.0	0.25	1	B7A0249	01/09/2017	01/11/17 14:37	
Endosulfan I	ND	1.0	0.21	1	B7A0249	01/09/2017	01/11/17 14:37	
Endosulfan II	ND	2.0	0.22	1	B7A0249	01/09/2017	01/11/17 14:37	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0249	01/09/2017	01/11/17 14:37	
Endrin	ND	2.0	0.23	1	B7A0249	01/09/2017	01/11/17 14:37	
Endrin aldehyde	ND	2.0	0.28	1	B7A0249	01/09/2017	01/11/17 14:37	
Endrin ketone	ND	2.0	0.20	1	B7A0249	01/09/2017	01/11/17 14:37	
gamma-BHC	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 14:37	
gamma-Chlordane	ND	1.0	0.23	1	B7A0249	01/09/2017	01/11/17 14:37	
Heptachlor	ND	1.0	0.19	1	B7A0249	01/09/2017	01/11/17 14:37	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0249	01/09/2017	01/11/17 14:37	
Methoxychlor	ND	5.0	0.18	1	B7A0249	01/09/2017	01/11/17 14:37	
Toxaphene	ND	50	8.2	1	B7A0249	01/09/2017	01/11/17 14:37	
Surrogate: Decachlorobiphenyl	*76.8 %*		*27 - 123*		B7A0249	01/09/2017	*01/11/17 14:37*	
Surrogate: Tetrachloro-m-xylene	*83.7 %*		*26 - 108*		B7A0249	01/09/2017	*01/11/17 14:37*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB20-8-1.5
Lab ID: 1700027-64

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**3.8**	1.0	0.70	1	B7A0281	01/10/2017	01/11/17 16:01	
Lead	**7.7**	1.0	0.11	1	B7A0281	01/10/2017	01/11/17 16:01	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0250	01/09/2017	01/10/17 11:40	
4,4´-DDE	ND	2.0	0.20	1	B7A0250	01/09/2017	01/10/17 11:40	
4,4´-DDT	ND	2.0	0.13	1	B7A0250	01/09/2017	01/10/17 11:40	
Aldrin	ND	1.0	0.27	1	B7A0250	01/09/2017	01/10/17 11:40	
alpha-BHC	ND	1.0	0.20	1	B7A0250	01/09/2017	01/10/17 11:40	
alpha-Chlordane	**0.26**	1.0	0.21	1	B7A0250	01/09/2017	01/10/17 11:40	J
beta-BHC	ND	1.0	0.23	1	B7A0250	01/09/2017	01/10/17 11:40	
Chlordane	ND	8.5	0.90	1	B7A0250	01/09/2017	01/10/17 11:40	
delta-BHC	ND	1.0	0.21	1	B7A0250	01/09/2017	01/10/17 11:40	
Dieldrin	ND	2.0	0.25	1	B7A0250	01/09/2017	01/10/17 11:40	
Endosulfan I	ND	1.0	0.21	1	B7A0250	01/09/2017	01/10/17 11:40	
Endosulfan II	ND	2.0	0.22	1	B7A0250	01/09/2017	01/10/17 11:40	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0250	01/09/2017	01/10/17 11:40	
Endrin	ND	2.0	0.23	1	B7A0250	01/09/2017	01/10/17 11:40	
Endrin aldehyde	ND	2.0	0.28	1	B7A0250	01/09/2017	01/10/17 11:40	
Endrin ketone	ND	2.0	0.20	1	B7A0250	01/09/2017	01/10/17 11:40	
gamma-BHC	ND	1.0	0.20	1	B7A0250	01/09/2017	01/10/17 11:40	
gamma-Chlordane	ND	1.0	0.23	1	B7A0250	01/09/2017	01/10/17 11:40	
Heptachlor	ND	1.0	0.19	1	B7A0250	01/09/2017	01/10/17 11:40	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0250	01/09/2017	01/10/17 11:40	
Methoxychlor	ND	5.0	0.18	1	B7A0250	01/09/2017	01/10/17 11:40	
Toxaphene	ND	50	8.2	1	B7A0250	01/09/2017	01/10/17 11:40	
Surrogate: Decachlorobiphenyl	*66.5 %*		*27 - 123*		B7A0250	01/09/2017	*01/10/17 11:40*	
Surrogate: Tetrachloro-m-xylene	*65.2 %*		*26 - 108*		B7A0250	01/09/2017	*01/10/17 11:40*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB20-8-1.5-D
Lab ID: 1700027-65

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.3**	1.0	0.70	1	B7A0281	01/10/2017	01/11/17 16:02	
Lead	**4.5**	1.0	0.11	1	B7A0281	01/10/2017	01/11/17 16:02	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0250	01/09/2017	01/10/17 11:51	
4,4´-DDE	ND	2.0	0.20	1	B7A0250	01/09/2017	01/10/17 11:51	
4,4´-DDT	ND	2.0	0.13	1	B7A0250	01/09/2017	01/10/17 11:51	
Aldrin	ND	1.0	0.27	1	B7A0250	01/09/2017	01/10/17 11:51	
alpha-BHC	ND	1.0	0.20	1	B7A0250	01/09/2017	01/10/17 11:51	
alpha-Chlordane	ND	1.0	0.21	1	B7A0250	01/09/2017	01/10/17 11:51	
beta-BHC	ND	1.0	0.23	1	B7A0250	01/09/2017	01/10/17 11:51	
Chlordane	ND	8.5	0.90	1	B7A0250	01/09/2017	01/10/17 11:51	
delta-BHC	ND	1.0	0.21	1	B7A0250	01/09/2017	01/10/17 11:51	
Dieldrin	ND	2.0	0.25	1	B7A0250	01/09/2017	01/10/17 11:51	
Endosulfan I	ND	1.0	0.21	1	B7A0250	01/09/2017	01/10/17 11:51	
Endosulfan II	ND	2.0	0.22	1	B7A0250	01/09/2017	01/10/17 11:51	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0250	01/09/2017	01/10/17 11:51	
Endrin	ND	2.0	0.23	1	B7A0250	01/09/2017	01/10/17 11:51	
Endrin aldehyde	ND	2.0	0.28	1	B7A0250	01/09/2017	01/10/17 11:51	
Endrin ketone	ND	2.0	0.20	1	B7A0250	01/09/2017	01/10/17 11:51	
gamma-BHC	ND	1.0	0.20	1	B7A0250	01/09/2017	01/10/17 11:51	
gamma-Chlordane	ND	1.0	0.23	1	B7A0250	01/09/2017	01/10/17 11:51	
Heptachlor	ND	1.0	0.19	1	B7A0250	01/09/2017	01/10/17 11:51	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0250	01/09/2017	01/10/17 11:51	
Methoxychlor	ND	5.0	0.18	1	B7A0250	01/09/2017	01/10/17 11:51	
Toxaphene	ND	50	8.2	1	B7A0250	01/09/2017	01/10/17 11:51	
Surrogate: Decachlorobiphenyl	*92.5 %*		*27 - 123*		B7A0250	01/09/2017	*01/10/17 11:51*	
Surrogate: Tetrachloro-m-xylene	*93.5 %*		*26 - 108*		B7A0250	01/09/2017	*01/10/17 11:51*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB25-2-0.5
Lab ID: 1700027-67

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**5.7**	1.0	0.70	1	B7A0281	01/10/2017	01/11/17 16:03	
Lead	**16**	1.0	0.11	1	B7A0281	01/10/2017	01/11/17 16:03	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0250	01/09/2017	01/10/17 12:01	
4,4´-DDE	ND	2.0	0.20	1	B7A0250	01/09/2017	01/10/17 12:01	
4,4´-DDT	ND	2.0	0.13	1	B7A0250	01/09/2017	01/10/17 12:01	
Aldrin	ND	1.0	0.27	1	B7A0250	01/09/2017	01/10/17 12:01	
alpha-BHC	ND	1.0	0.20	1	B7A0250	01/09/2017	01/10/17 12:01	
alpha-Chlordane	ND	1.0	0.21	1	B7A0250	01/09/2017	01/10/17 12:01	
beta-BHC	ND	1.0	0.23	1	B7A0250	01/09/2017	01/10/17 12:01	
Chlordane	ND	8.5	0.90	1	B7A0250	01/09/2017	01/10/17 12:01	
delta-BHC	ND	1.0	0.21	1	B7A0250	01/09/2017	01/10/17 12:01	
Dieldrin	ND	2.0	0.25	1	B7A0250	01/09/2017	01/10/17 12:01	
Endosulfan I	ND	1.0	0.21	1	B7A0250	01/09/2017	01/10/17 12:01	
Endosulfan II	ND	2.0	0.22	1	B7A0250	01/09/2017	01/10/17 12:01	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0250	01/09/2017	01/10/17 12:01	
Endrin	ND	2.0	0.23	1	B7A0250	01/09/2017	01/10/17 12:01	
Endrin aldehyde	ND	2.0	0.28	1	B7A0250	01/09/2017	01/10/17 12:01	
Endrin ketone	ND	2.0	0.20	1	B7A0250	01/09/2017	01/10/17 12:01	
gamma-BHC	ND	1.0	0.20	1	B7A0250	01/09/2017	01/10/17 12:01	
gamma-Chlordane	ND	1.0	0.23	1	B7A0250	01/09/2017	01/10/17 12:01	
Heptachlor	ND	1.0	0.19	1	B7A0250	01/09/2017	01/10/17 12:01	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0250	01/09/2017	01/10/17 12:01	
Methoxychlor	ND	5.0	0.18	1	B7A0250	01/09/2017	01/10/17 12:01	
Toxaphene	ND	50	8.2	1	B7A0250	01/09/2017	01/10/17 12:01	
Surrogate: Decachlorobiphenyl	*58.4 %*		*27 - 123*		B7A0250	01/09/2017	*01/10/17 12:01*	
Surrogate: Tetrachloro-m-xylene	*37.7 %*		*26 - 108*		B7A0250	01/09/2017	*01/10/17 12:01*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB23-1-0.5

Lab ID: 1700027-68

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**13**	1.0	0.70	1	B7A0281	01/10/2017	01/11/17 16:04	
Lead	**52**	1.0	0.11	1	B7A0281	01/10/2017	01/11/17 16:04	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0250	01/09/2017	01/10/17 12:12	
4,4´-DDE	ND	2.0	0.20	1	B7A0250	01/09/2017	01/10/17 12:12	
4,4´-DDT	ND	2.0	0.13	1	B7A0250	01/09/2017	01/10/17 12:12	
Aldrin	ND	1.0	0.27	1	B7A0250	01/09/2017	01/10/17 12:12	
alpha-BHC	ND	1.0	0.20	1	B7A0250	01/09/2017	01/10/17 12:12	
alpha-Chlordane	**0.25**	1.0	0.21	1	B7A0250	01/09/2017	01/10/17 12:12	J
beta-BHC	ND	1.0	0.23	1	B7A0250	01/09/2017	01/10/17 12:12	
Chlordane	ND	8.5	0.90	1	B7A0250	01/09/2017	01/10/17 12:12	
delta-BHC	ND	1.0	0.21	1	B7A0250	01/09/2017	01/10/17 12:12	
Dieldrin	ND	2.0	0.25	1	B7A0250	01/09/2017	01/10/17 12:12	
Endosulfan I	ND	1.0	0.21	1	B7A0250	01/09/2017	01/10/17 12:12	
Endosulfan II	ND	2.0	0.22	1	B7A0250	01/09/2017	01/10/17 12:12	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0250	01/09/2017	01/10/17 12:12	
Endrin	ND	2.0	0.23	1	B7A0250	01/09/2017	01/10/17 12:12	
Endrin aldehyde	ND	2.0	0.28	1	B7A0250	01/09/2017	01/10/17 12:12	
Endrin ketone	ND	2.0	0.20	1	B7A0250	01/09/2017	01/10/17 12:12	
gamma-BHC	ND	1.0	0.20	1	B7A0250	01/09/2017	01/10/17 12:12	
gamma-Chlordane	ND	1.0	0.23	1	B7A0250	01/09/2017	01/10/17 12:12	
Heptachlor	ND	1.0	0.19	1	B7A0250	01/09/2017	01/10/17 12:12	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0250	01/09/2017	01/10/17 12:12	
Methoxychlor	ND	5.0	0.18	1	B7A0250	01/09/2017	01/10/17 12:12	
Toxaphene	ND	50	8.2	1	B7A0250	01/09/2017	01/10/17 12:12	
Surrogate: Decachlorobiphenyl	*72.8 %*		*27 - 123*		B7A0250	01/09/2017	*01/10/17 12:12*	
Surrogate: Tetrachloro-m-xylene	*55.7 %*		*26 - 108*		B7A0250	01/09/2017	*01/10/17 12:12*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB23-1-1.5

Lab ID: 1700027-69

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.7**	1.0	0.70	1	B7A0281	01/10/2017	01/11/17 16:09	
Lead	**4.6**	1.0	0.11	1	B7A0281	01/10/2017	01/11/17 16:09	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0250	01/09/2017	01/10/17 12:23	
4,4´-DDE	ND	2.0	0.20	1	B7A0250	01/09/2017	01/10/17 12:23	
4,4´-DDT	ND	2.0	0.13	1	B7A0250	01/09/2017	01/10/17 12:23	
Aldrin	ND	1.0	0.27	1	B7A0250	01/09/2017	01/10/17 12:23	
alpha-BHC	ND	1.0	0.20	1	B7A0250	01/09/2017	01/10/17 12:23	
alpha-Chlordane	ND	1.0	0.21	1	B7A0250	01/09/2017	01/10/17 12:23	
beta-BHC	ND	1.0	0.23	1	B7A0250	01/09/2017	01/10/17 12:23	
Chlordane	ND	8.5	0.90	1	B7A0250	01/09/2017	01/10/17 12:23	
delta-BHC	ND	1.0	0.21	1	B7A0250	01/09/2017	01/10/17 12:23	
Dieldrin	ND	2.0	0.25	1	B7A0250	01/09/2017	01/10/17 12:23	
Endosulfan I	ND	1.0	0.21	1	B7A0250	01/09/2017	01/10/17 12:23	
Endosulfan II	ND	2.0	0.22	1	B7A0250	01/09/2017	01/10/17 12:23	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0250	01/09/2017	01/10/17 12:23	
Endrin	ND	2.0	0.23	1	B7A0250	01/09/2017	01/10/17 12:23	
Endrin aldehyde	ND	2.0	0.28	1	B7A0250	01/09/2017	01/10/17 12:23	
Endrin ketone	ND	2.0	0.20	1	B7A0250	01/09/2017	01/10/17 12:23	
gamma-BHC	ND	1.0	0.20	1	B7A0250	01/09/2017	01/10/17 12:23	
gamma-Chlordane	ND	1.0	0.23	1	B7A0250	01/09/2017	01/10/17 12:23	
Heptachlor	ND	1.0	0.19	1	B7A0250	01/09/2017	01/10/17 12:23	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0250	01/09/2017	01/10/17 12:23	
Methoxychlor	ND	5.0	0.18	1	B7A0250	01/09/2017	01/10/17 12:23	
Toxaphene	ND	50	8.2	1	B7A0250	01/09/2017	01/10/17 12:23	
Surrogate: Decachlorobiphenyl	*75.0 %*		*27 - 123*		B7A0250	01/09/2017	*01/10/17 12:23*	
Surrogate: Tetrachloro-m-xylene	*59.6 %*		*26 - 108*		B7A0250	01/09/2017	*01/10/17 12:23*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB6-3-0.5
Lab ID: 1700027-71

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.7**	1.0	0.70	1	B7A0281	01/10/2017	01/11/17 16:10	
Lead	**4.3**	1.0	0.11	1	B7A0281	01/10/2017	01/11/17 16:10	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0250	01/09/2017	01/10/17 12:33	
4,4´-DDE	ND	2.0	0.20	1	B7A0250	01/09/2017	01/10/17 12:33	
4,4´-DDT	ND	2.0	0.13	1	B7A0250	01/09/2017	01/10/17 12:33	
Aldrin	ND	1.0	0.27	1	B7A0250	01/09/2017	01/10/17 12:33	
alpha-BHC	ND	1.0	0.20	1	B7A0250	01/09/2017	01/10/17 12:33	
alpha-Chlordane	ND	1.0	0.21	1	B7A0250	01/09/2017	01/10/17 12:33	
beta-BHC	ND	1.0	0.23	1	B7A0250	01/09/2017	01/10/17 12:33	
Chlordane	ND	8.5	0.90	1	B7A0250	01/09/2017	01/10/17 12:33	
delta-BHC	ND	1.0	0.21	1	B7A0250	01/09/2017	01/10/17 12:33	
Dieldrin	ND	2.0	0.25	1	B7A0250	01/09/2017	01/10/17 12:33	
Endosulfan I	ND	1.0	0.21	1	B7A0250	01/09/2017	01/10/17 12:33	
Endosulfan II	ND	2.0	0.22	1	B7A0250	01/09/2017	01/10/17 12:33	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0250	01/09/2017	01/10/17 12:33	
Endrin	ND	2.0	0.23	1	B7A0250	01/09/2017	01/10/17 12:33	
Endrin aldehyde	ND	2.0	0.28	1	B7A0250	01/09/2017	01/10/17 12:33	
Endrin ketone	ND	2.0	0.20	1	B7A0250	01/09/2017	01/10/17 12:33	
gamma-BHC	ND	1.0	0.20	1	B7A0250	01/09/2017	01/10/17 12:33	
gamma-Chlordane	ND	1.0	0.23	1	B7A0250	01/09/2017	01/10/17 12:33	
Heptachlor	ND	1.0	0.19	1	B7A0250	01/09/2017	01/10/17 12:33	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0250	01/09/2017	01/10/17 12:33	
Methoxychlor	ND	5.0	0.18	1	B7A0250	01/09/2017	01/10/17 12:33	
Toxaphene	ND	50	8.2	1	B7A0250	01/09/2017	01/10/17 12:33	
Surrogate: Decachlorobiphenyl	*63.4 %*		*27 - 123*		B7A0250	01/09/2017	*01/10/17 12:33*	
Surrogate: Tetrachloro-m-xylene	*56.3 %*		*26 - 108*		B7A0250	01/09/2017	*01/10/17 12:33*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Client Sample ID EB6-3-1.5
Lab ID: 1700027-72

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.0**	1.0	0.70	1	B7A0281	01/10/2017	01/12/17 11:36	
Lead	**3.1**	1.0	0.11	1	B7A0281	01/10/2017	01/12/17 11:36	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	20	2.2	10	B7A0250	01/09/2017	01/12/17 14:03	D1
4,4´-DDE	ND	20	2.0	10	B7A0250	01/09/2017	01/12/17 14:03	D1
4,4´-DDT	ND	20	1.3	10	B7A0250	01/09/2017	01/12/17 14:03	D1
Aldrin	ND	10	2.7	10	B7A0250	01/09/2017	01/12/17 14:03	D1
alpha-BHC	ND	10	2.0	10	B7A0250	01/09/2017	01/12/17 14:03	D1
alpha-Chlordane	ND	10	2.1	10	B7A0250	01/09/2017	01/12/17 14:03	D1
beta-BHC	ND	10	2.3	10	B7A0250	01/09/2017	01/12/17 14:03	D1
Chlordane	ND	85	9.0	10	B7A0250	01/09/2017	01/12/17 14:03	D1
delta-BHC	ND	10	2.1	10	B7A0250	01/09/2017	01/12/17 14:03	D1
Dieldrin	ND	20	2.5	10	B7A0250	01/09/2017	01/12/17 14:03	D1
Endosulfan I	ND	10	2.1	10	B7A0250	01/09/2017	01/12/17 14:03	D1
Endosulfan II	ND	20	2.2	10	B7A0250	01/09/2017	01/12/17 14:03	D1
Endosulfan sulfate	ND	20	2.1	10	B7A0250	01/09/2017	01/12/17 14:03	D1
Endrin	ND	20	2.3	10	B7A0250	01/09/2017	01/12/17 14:03	D1
Endrin aldehyde	ND	20	2.8	10	B7A0250	01/09/2017	01/12/17 14:03	D1
Endrin ketone	ND	20	2.0	10	B7A0250	01/09/2017	01/12/17 14:03	D1
gamma-BHC	ND	10	2.0	10	B7A0250	01/09/2017	01/12/17 14:03	D1
gamma-Chlordane	ND	10	2.3	10	B7A0250	01/09/2017	01/12/17 14:03	D1
Heptachlor	ND	10	1.9	10	B7A0250	01/09/2017	01/12/17 14:03	D1
Heptachlor epoxide	ND	10	2.0	10	B7A0250	01/09/2017	01/12/17 14:03	D1
Methoxychlor	ND	50	1.8	10	B7A0250	01/09/2017	01/12/17 14:03	D1
Toxaphene	ND	500	82	10	B7A0250	01/09/2017	01/12/17 14:03	D1
Surrogate: Decachlorobiphenyl	*111 %*	*27 - 123*			B7A0250	01/09/2017	*01/12/17 14:03*	
Surrogate: Tetrachloro-m-xylene	*90.8 %*	*26 - 108*			B7A0250	01/09/2017	*01/12/17 14:03*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0279 - EPA 3050B_S									
Blank (B7A0279-BLK1)				Prepared: 1/10/2017 Analyzed: 1/11/2017					
Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				
LCS (B7A0279-BS1)				Prepared: 1/10/2017 Analyzed: 1/11/2017					
Arsenic	45.8800	1.0	50.0000		91.8	80 - 120			
Lead	44.0188	1.0	50.0000		88.0	80 - 120			
Duplicate (B7A0279-DUP1)		**Source: 1700027-01**		Prepared: 1/10/2017 Analyzed: 1/11/2017					
Arsenic	1.57657	1.0		1.27658	NR		21.0	20	R
Lead	3.74790	1.0		2.97992	NR		22.8	20	R
Matrix Spike (B7A0279-MS1)		**Source: 1700027-01**		Prepared: 1/10/2017 Analyzed: 1/11/2017					
Arsenic	98.7372	1.0	125.000	1.27658	78.0	59 - 103			
Lead	95.6036	1.0	125.000	2.97992	74.1	34 - 129			
Matrix Spike Dup (B7A0279-MSD1)		**Source: 1700027-01**		Prepared: 1/10/2017 Analyzed: 1/11/2017					
Arsenic	89.3787	1.0	125.000	1.27658	70.5	59 - 103	9.95	20	
Lead	85.8878	1.0	125.000	2.97992	66.3	34 - 129	10.7	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0280 - EPA 3050B_S									
Blank (B7A0280-BLK1)				Prepared: 1/10/2017 Analyzed: 1/11/2017					
Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				
LCS (B7A0280-BS1)				Prepared: 1/10/2017 Analyzed: 1/11/2017					
Arsenic	45.7722	1.0	50.0000		91.5	80 - 120			
Lead	43.7153	1.0	50.0000		87.4	80 - 120			
Duplicate (B7A0280-DUP1)		**Source: 1700027-25**		Prepared: 1/10/2017 Analyzed: 1/11/2017					
Arsenic	3.23839	1.0		3.14248	NR		3.01	20	
Lead	7.02336	1.0		6.13213	NR		13.5	20	
Matrix Spike (B7A0280-MS1)		**Source: 1700027-25**		Prepared: 1/10/2017 Analyzed: 1/11/2017					
Arsenic	86.7328	1.0	125.000	3.14248	66.9	59 - 103			
Lead	78.1753	1.0	125.000	6.13213	57.6	34 - 129			
Matrix Spike Dup (B7A0280-MSD1)		**Source: 1700027-25**		Prepared: 1/10/2017 Analyzed: 1/11/2017					
Arsenic	90.8319	1.0	125.000	3.14248	70.2	59 - 103	4.62	20	
Lead	85.3872	1.0	125.000	6.13213	63.4	34 - 129	8.82	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0281 - EPA 3050B_S									
Blank (B7A0281-BLK1)				Prepared: 1/10/2017 Analyzed: 1/11/2017					
Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				
LCS (B7A0281-BS1)				Prepared: 1/10/2017 Analyzed: 1/11/2017					
Arsenic	47.4830	1.0	50.0000		95.0	80 - 120			
Lead	47.5397	1.0	50.0000		95.1	80 - 120			
Duplicate (B7A0281-DUP1)		**Source: 1700027-50**		Prepared: 1/10/2017 Analyzed: 1/11/2017					
Arsenic	3.04478	1.0		2.98772	NR		1.89	20	
Lead	141.044	1.0		116.209	NR		19.3	20	
Matrix Spike (B7A0281-MS1)		**Source: 1700027-50**		Prepared: 1/10/2017 Analyzed: 1/11/2017					
Arsenic	91.6419	1.0	125.000	2.98772	70.9	59 - 103			
Lead	226.385	1.0	125.000	116.209	88.1	34 - 129			
Matrix Spike Dup (B7A0281-MSD1)		**Source: 1700027-50**		Prepared: 1/10/2017 Analyzed: 1/11/2017					
Arsenic	69.7916	1.0	125.000	2.98772	53.4	59 - 103	27.1	20	R, M1
Lead	177.672	1.0	125.000	116.209	49.2	34 - 129	24.1	20	M1, R

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0235 - GCSEMI_PCB/PEST_S									
Blank (B7A0235-BLK1)				Prepared: 1/9/2017 Analyzed: 1/10/2017					
4,4´-DDD	ND	2.0			NR				
4,4´-DDD [2C]	ND	2.0			NR				
4,4´-DDE	ND	2.0			NR				
4,4´-DDE [2C]	ND	2.0			NR				
4,4´-DDT	ND	2.0			NR				
4,4´-DDT [2C]	ND	2.0			NR				
Aldrin	ND	1.0			NR				
Aldrin [2C]	ND	1.0			NR				
alpha-BHC	ND	1.0			NR				
alpha-BHC [2C]	ND	1.0			NR				
alpha-Chlordane	ND	1.0			NR				
alpha-Chlordane [2C]	ND	1.0			NR				
beta-BHC	ND	1.0			NR				
beta-BHC [2C]	ND	1.0			NR				
Chlordane	ND	8.5			NR				
Chlordane [2C]	ND	8.5			NR				
delta-BHC	ND	1.0			NR				
delta-BHC [2C]	ND	1.0			NR				
Dieldrin	ND	2.0			NR				
Dieldrin [2C]	ND	2.0			NR				
Endosulfan I	ND	1.0			NR				
Endosulfan I [2C]	ND	1.0			NR				
Endosulfan II	ND	2.0			NR				
Endosulfan II [2C]	ND	2.0			NR				
Endosulfan sulfate	ND	2.0			NR				
Endosulfan Sulfate [2C]	ND	2.0			NR				
Endrin	ND	2.0			NR				
Endrin [2C]	ND	2.0			NR				
Endrin aldehyde	ND	2.0			NR				
Endrin aldehyde [2C]	ND	2.0			NR				
Endrin ketone	ND	2.0			NR				
Endrin ketone [2C]	ND	2.0			NR				
gamma-BHC	ND	1.0			NR				
gamma-BHC [2C]	ND	1.0			NR				
gamma-Chlordane	ND	1.0			NR				
gamma-Chlordane [2C]	ND	1.0			NR				
Heptachlor	ND	1.0			NR				
Heptachlor [2C]	ND	1.0			NR				
Heptachlor epoxide	ND	1.0			NR				
Heptachlor epoxide [2C]	ND	1.0			NR				
Methoxychlor	ND	5.0			NR				

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0235 - GCSEMI_PCB/PEST_S (continued)									
Blank (B7A0235-BLK1) - Continued				Prepared: 1/9/2017 Analyzed: 1/10/2017					
Methoxychlor [2C]	ND	5.0			NR				
Toxaphene	ND	50			NR				
Toxaphene [2C]	ND	50			NR				
Surrogate: Decachlorobiphenyl	*14.37*		*16.6667*		*86.2*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*16.77*		*16.6667*		*101*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*15.96*		*16.6667*		*95.7*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*18.37*		*16.6667*		*110*	*26 - 108*			S1
LCS (B7A0235-BS1)				Prepared: 1/9/2017 Analyzed: 1/10/2017					
4,4´-DDD	15.3787	2.0	16.6667		92.3	53 - 125			
4,4´-DDD [2C]	16.3440	2.0	16.6667		98.1	53 - 125			
4,4´-DDE	14.7990	2.0	16.6667		88.8	54 - 113			
4,4´-DDE [2C]	16.4295	2.0	16.6667		98.6	54 - 113			
4,4´-DDT	15.4752	2.0	16.6667		92.9	25 - 127			
4,4´-DDT [2C]	16.7495	2.0	16.6667		100	25 - 127			
Aldrin	14.7187	1.0	16.6667		88.3	59 - 107			
Aldrin [2C]	15.7300	1.0	16.6667		94.4	59 - 107			
alpha-BHC	14.7045	1.0	16.6667		88.2	59 - 104			
alpha-BHC [2C]	16.2372	1.0	16.6667		97.4	59 - 104			
alpha-Chlordane	14.7417	1.0	16.6667		88.4	54 - 110			
alpha-Chlordane [2C]	16.3408	1.0	16.6667		98.0	54 - 110			
beta-BHC	14.8127	1.0	16.6667		88.9	57 - 103			
beta-BHC [2C]	16.2688	1.0	16.6667		97.6	57 - 103			
delta-BHC	12.1710	1.0	16.6667		73.0	16 - 120			
delta-BHC [2C]	12.7650	1.0	16.6667		76.6	16 - 120			
Dieldrin	14.9372	2.0	16.6667		89.6	61 - 109			
Dieldrin [2C]	16.5335	2.0	16.6667		99.2	61 - 109			
Endosulfan I	14.5767	1.0	16.6667		87.5	60 - 106			
Endosulfan I [2C]	16.4243	1.0	16.6667		98.5	60 - 106			
Endosulfan II	14.4307	2.0	16.6667		86.6	59 - 108			
Endosulfan II [2C]	15.2682	2.0	16.6667		91.6	59 - 108			
Endosulfan sulfate	13.8185	2.0	16.6667		82.9	54 - 110			
Endosulfan Sulfate [2C]	13.9925	2.0	16.6667		84.0	54 - 110			
Endrin	15.7108	2.0	16.6667		94.3	63 - 112			
Endrin [2C]	17.5192	2.0	16.6667		105	63 - 112			
Endrin aldehyde	14.9340	2.0	16.6667		89.6	64 - 119			
Endrin aldehyde [2C]	13.7263	2.0	16.6667		82.4	64 - 119			
Endrin ketone	15.1345	2.0	16.6667		90.8	54 - 115			
Endrin ketone [2C]	15.3532	2.0	16.6667		92.1	54 - 115			
gamma-BHC	15.3095	1.0	16.6667		91.9	60 - 107			
gamma-BHC [2C]	16.7648	1.0	16.6667		101	60 - 107			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0235 - GCSEMI_PCB/PEST_S (continued)									
LCS (B7A0235-BS1) - Continued				Prepared: 1/9/2017 Analyzed: 1/10/2017					
gamma-Chlordane	14.6223	1.0	16.6667		87.7	57 - 106			
gamma-Chlordane [2C]	15.5615	1.0	16.6667		93.4	57 - 106			
Heptachlor	15.4770	1.0	16.6667		92.9	54 - 114			
Heptachlor [2C]	17.7532	1.0	16.6667		107	54 - 114			
Heptachlor epoxide	14.7627	1.0	16.6667		88.6	61 - 106			
Heptachlor epoxide [2C]	15.9248	1.0	16.6667		95.5	61 - 106			
Methoxychlor	15.5083	5.0	16.6667		93.0	18 - 138			
Methoxychlor [2C]	17.3583	5.0	16.6667		104	18 - 138			
Surrogate: Decachlorobiphenyl	*13.35*		*16.6667*		*80.1*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*15.31*		*16.6667*		*91.9*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*15.90*		*16.6667*		*95.4*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*15.73*		*16.6667*		*94.4*	*26 - 108*			
Duplicate (B7A0235-DUP1)			**Source: 1604923-24**	Prepared: 1/9/2017 Analyzed: 1/10/2017					
4,4´-DDD	ND	2.0		ND	NR			20	
4,4´-DDD [2C]	ND	2.0		ND	NR			20	
4,4´-DDE	ND	2.0		ND	NR			20	
4,4´-DDE [2C]	ND	2.0		ND	NR			20	
4,4´-DDT	ND	2.0		ND	NR			20	
4,4´-DDT [2C]	ND	2.0		ND	NR			20	
Aldrin	ND	1.0		ND	NR			20	
Aldrin [2C]	ND	1.0		ND	NR			20	
alpha-BHC	ND	1.0		ND	NR			20	
alpha-BHC [2C]	ND	1.0		ND	NR			20	
alpha-Chlordane	ND	1.0		ND	NR			20	
alpha-Chlordane [2C]	ND	1.0		ND	NR			20	
beta-BHC	ND	1.0		ND	NR			20	
beta-BHC [2C]	ND	1.0		ND	NR			20	
delta-BHC	ND	1.0		ND	NR			20	
delta-BHC [2C]	ND	1.0		ND	NR			20	
Dieldrin	ND	2.0		ND	NR			20	
Dieldrin [2C]	ND	2.0		ND	NR			20	
Endosulfan I	ND	1.0		ND	NR			20	
Endosulfan I [2C]	ND	1.0		ND	NR			20	
Endosulfan II	ND	2.0		ND	NR			20	
Endosulfan II [2C]	ND	2.0		ND	NR			20	
Endosulfan sulfate	ND	2.0		ND	NR			20	
Endosulfan Sulfate [2C]	ND	2.0		ND	NR			20	
Endrin	ND	2.0		ND	NR			20	
Endrin [2C]	ND	2.0		ND	NR			20	
Endrin aldehyde	ND	2.0		ND	NR			20	

Leighton Consulting, Inc.
17781 Cowan Street
Irvine , CA 92614

Project Number : Burroughs MS, 603378.006
Report To : Julie Harriman
Reported : 01/12/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0235 - GCSEMI_PCB/PEST_S (continued)									
Duplicate (B7A0235-DUP1) - Continued		**Source: 1604923-24**		Prepared: 1/9/2017 Analyzed: 1/10/2017					
Endrin aldehyde [2C]	ND	2.0		ND	NR			20	
Endrin ketone	ND	2.0		ND	NR			20	
Endrin ketone [2C]	ND	2.0		ND	NR			20	
gamma-BHC	ND	1.0		ND	NR			20	
gamma-BHC [2C]	ND	1.0		ND	NR			20	
gamma-Chlordane	ND	1.0		ND	NR			20	
gamma-Chlordane [2C]	ND	1.0		ND	NR			20	
Heptachlor	ND	1.0		ND	NR			20	
Heptachlor [2C]	ND	1.0		ND	NR			20	
Heptachlor epoxide	ND	1.0		ND	NR			20	
Heptachlor epoxide [2C]	ND	1.0		ND	NR			20	
Methoxychlor	ND	5.0		ND	NR			20	
Methoxychlor [2C]	ND	5.0		ND	NR			20	
Surrogate: Decachlorobiphenyl	*13.94*		*16.6667*		*83.6*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*14.40*		*16.6667*		*86.4*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*14.51*		*16.6667*		*87.0*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*14.26*		*16.6667*		*85.6*	*26 - 108*			
Matrix Spike (B7A0235-MS1)		**Source: 1604923-21**		Prepared: 1/9/2017 Analyzed: 1/10/2017					
4,4´-DDD	14.0528	2.0	16.6667	ND	84.3	25 - 141			
4,4´-DDD [2C]	13.9307	2.0	16.6667	ND	83.6	25 - 141			
4,4´-DDE	14.0202	2.0	16.6667	ND	84.1	22 - 141			
4,4´-DDE [2C]	14.2968	2.0	16.6667	ND	85.8	22 - 141			
4,4´-DDT	15.4505	2.0	16.6667	0.138167	91.9	15 - 136			
4,4´-DDT [2C]	15.0303	2.0	16.6667	ND	90.2	15 - 136			
Aldrin	13.4937	1.0	16.6667	ND	81.0	33 - 118			
Aldrin [2C]	13.2385	1.0	16.6667	ND	79.4	33 - 118			
alpha-BHC	12.9687	1.0	16.6667	ND	77.8	30 - 116			
alpha-BHC [2C]	12.9653	1.0	16.6667	ND	77.8	30 - 116			
alpha-Chlordane	13.8957	1.0	16.6667	ND	83.4	30 - 123			
alpha-Chlordane [2C]	14.1163	1.0	16.6667	ND	84.7	30 - 123			
beta-BHC	13.3943	1.0	16.6667	ND	80.4	24 - 121			
beta-BHC [2C]	14.9828	1.0	16.6667	ND	89.9	24 - 121			
delta-BHC	10.8780	1.0	16.6667	ND	65.3	7 - 120			
delta-BHC [2C]	10.6992	1.0	16.6667	ND	64.2	7 - 120			
Dieldrin	14.0132	2.0	16.6667	ND	84.1	25 - 136			
Dieldrin [2C]	14.3260	2.0	16.6667	ND	86.0	25 - 136			
Endosulfan I	13.5922	1.0	16.6667	ND	81.6	18 - 134			
Endosulfan I [2C]	13.7422	1.0	16.6667	ND	82.5	18 - 134			
Endosulfan II	13.5267	2.0	16.6667	ND	81.2	28 - 128			
Endosulfan II [2C]	12.9825	2.0	16.6667	ND	77.9	28 - 128			

Leighton Consulting, Inc.
17781 Cowan Street
Irvine , CA 92614

Project Number : Burroughs MS, 603378.006
Report To : Julie Harriman
Reported : 01/12/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0235 - GCSEMI_PCB/PEST_S (continued)									
Matrix Spike (B7A0235-MS1) - Continued		**Source: 1604923-21**		Prepared: 1/9/2017 Analyzed: 1/10/2017					
Endosulfan sulfate	12.2015	2.0	16.6667	ND	73.2	5 - 145			
Endosulfan Sulfate [2C]	11.3387	2.0	16.6667	ND	68.0	5 - 145			
Endrin	15.0877	2.0	16.6667	ND	90.5	26 - 142			
Endrin [2C]	15.2943	2.0	16.6667	ND	91.8	26 - 142			
Endrin aldehyde	12.0353	2.0	16.6667	ND	72.2	8 - 146			
Endrin aldehyde [2C]	10.3398	2.0	16.6667	0.972333	56.2	8 - 146			
Endrin ketone	13.7492	2.0	16.6667	ND	82.5	16 - 139			
Endrin ketone [2C]	12.5023	2.0	16.6667	ND	75.0	16 - 139			
gamma-BHC	13.5023	1.0	16.6667	ND	81.0	30 - 122			
gamma-BHC [2C]	14.0945	1.0	16.6667	ND	84.6	30 - 122			
gamma-Chlordane	13.8968	1.0	16.6667	ND	83.4	18 - 132			
gamma-Chlordane [2C]	13.5228	1.0	16.6667	ND	81.1	18 - 132			
Heptachlor	14.1422	1.0	16.6667	ND	84.9	34 - 122			
Heptachlor [2C]	15.0770	1.0	16.6667	ND	90.5	34 - 122			
Heptachlor epoxide	13.7803	1.0	16.6667	ND	82.7	21 - 135			
Heptachlor epoxide [2C]	13.5130	1.0	16.6667	ND	81.1	21 - 135			
Methoxychlor	14.4827	5.0	16.6667	ND	86.9	8 - 162			
Methoxychlor [2C]	15.4858	5.0	16.6667	ND	92.9	8 - 162			
Surrogate: Decachlorobiphenyl	*12.71*		*16.6667*		*76.3*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*13.43*		*16.6667*		*80.6*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*13.44*		*16.6667*		*80.7*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*12.35*		*16.6667*		*74.1*	*26 - 108*			
Matrix Spike Dup (B7A0235-MSD1)		**Source: 1604923-21**		Prepared: 1/9/2017 Analyzed: 1/10/2017					
4,4´-DDD	14.8720	2.0	16.6667	ND	89.2	25 - 141	5.66	20	
4,4´-DDD [2C]	14.9143	2.0	16.6667	ND	89.5	25 - 141	6.82	20	
4,4´-DDE	14.8193	2.0	16.6667	ND	88.9	22 - 141	5.54	20	
4,4´-DDE [2C]	15.1058	2.0	16.6667	ND	90.6	22 - 141	5.50	20	
4,4´-DDT	16.4155	2.0	16.6667	0.138167	97.7	15 - 136	6.06	20	
4,4´-DDT [2C]	16.1050	2.0	16.6667	ND	96.6	15 - 136	6.90	20	
Aldrin	14.3140	1.0	16.6667	ND	85.9	33 - 118	5.90	20	
Aldrin [2C]	13.8848	1.0	16.6667	ND	83.3	33 - 118	4.77	20	
alpha-BHC	13.6773	1.0	16.6667	ND	82.1	30 - 116	5.32	20	
alpha-BHC [2C]	12.0700	1.0	16.6667	ND	72.4	30 - 116	7.15	20	
alpha-Chlordane	14.7240	1.0	16.6667	ND	88.3	30 - 123	5.79	20	
alpha-Chlordane [2C]	15.0107	1.0	16.6667	ND	90.1	30 - 123	6.14	20	
beta-BHC	14.3872	1.0	16.6667	ND	86.3	24 - 121	7.15	20	
beta-BHC [2C]	15.7337	1.0	16.6667	ND	94.4	24 - 121	4.89	20	
delta-BHC	11.7675	1.0	16.6667	ND	70.6	7 - 120	7.86	20	
delta-BHC [2C]	11.3860	1.0	16.6667	ND	68.3	7 - 120	6.22	20	
Dieldrin	14.9005	2.0	16.6667	ND	89.4	25 - 136	6.14	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0235 - GCSEMI_PCB/PEST_S (continued)									
Matrix Spike Dup (B7A0235-MSD1) - Continued		**Source: 1604923-21**		Prepared: 1/9/2017 Analyzed: 1/10/2017					
Dieldrin [2C]	15.4423	2.0	16.6667	ND	92.7	25 - 136	7.50	20	
Endosulfan I	14.3933	1.0	16.6667	ND	86.4	18 - 134	5.73	20	
Endosulfan I [2C]	14.5747	1.0	16.6667	ND	87.4	18 - 134	5.88	20	
Endosulfan II	14.4977	2.0	16.6667	ND	87.0	28 - 128	6.93	20	
Endosulfan II [2C]	14.0500	2.0	16.6667	ND	84.3	28 - 128	7.90	20	
Endosulfan sulfate	13.3382	2.0	16.6667	ND	80.0	5 - 145	8.90	20	
Endosulfan Sulfate [2C]	12.5287	2.0	16.6667	ND	75.2	5 - 145	9.97	20	
Endrin	16.0502	2.0	16.6667	ND	96.3	26 - 142	6.18	20	
Endrin [2C]	16.4527	2.0	16.6667	ND	98.7	26 - 142	7.30	20	
Endrin aldehyde	13.0098	2.0	16.6667	ND	78.1	8 - 146	7.78	20	
Endrin aldehyde [2C]	11.2865	2.0	16.6667	0.972333	61.9	8 - 146	8.75	20	
Endrin ketone	14.9242	2.0	16.6667	ND	89.5	16 - 139	8.20	20	
Endrin ketone [2C]	14.4995	2.0	16.6667	ND	87.0	16 - 139	14.8	20	
gamma-BHC	14.4122	1.0	16.6667	ND	86.5	30 - 122	6.52	20	
gamma-BHC [2C]	14.8083	1.0	16.6667	ND	88.8	30 - 122	4.94	20	
gamma-Chlordane	14.5275	1.0	16.6667	ND	87.2	18 - 132	4.44	20	
gamma-Chlordane [2C]	14.2185	1.0	16.6667	ND	85.3	18 - 132	5.02	20	
Heptachlor	15.0220	1.0	16.6667	ND	90.1	34 - 122	6.03	20	
Heptachlor [2C]	15.6960	1.0	16.6667	ND	94.2	34 - 122	4.02	20	
Heptachlor epoxide	14.5797	1.0	16.6667	ND	87.5	21 - 135	5.64	20	
Heptachlor epoxide [2C]	14.2523	1.0	16.6667	ND	85.5	21 - 135	5.33	20	
Methoxychlor	15.6263	5.0	16.6667	ND	93.8	8 - 162	7.60	20	
Methoxychlor [2C]	16.7373	5.0	16.6667	ND	100	8 - 162	7.77	20	
Surrogate: Decachlorobiphenyl	*14.24*		*16.6667*		*85.5*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*14.05*		*16.6667*		*84.3*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*14.19*		*16.6667*		*85.2*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*12.97*		*16.6667*		*77.8*	*26 - 108*			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0242 - GCSEMI_PCB/PEST_S									
Blank (B7A0242-BLK1)				Prepared: 1/9/2017 Analyzed: 1/10/2017					
4,4´-DDD	ND	2.0			NR				
4,4´-DDD [2C]	ND	2.0			NR				
4,4´-DDE	ND	2.0			NR				
4,4´-DDE [2C]	ND	2.0			NR				
4,4´-DDT	ND	2.0			NR				
4,4´-DDT [2C]	ND	2.0			NR				
Aldrin	ND	1.0			NR				
Aldrin [2C]	ND	1.0			NR				
alpha-BHC	ND	1.0			NR				
alpha-BHC [2C]	ND	1.0			NR				
alpha-Chlordane	ND	1.0			NR				
alpha-Chlordane [2C]	ND	1.0			NR				
beta-BHC	ND	1.0			NR				
beta-BHC [2C]	ND	1.0			NR				
Chlordane	ND	8.5			NR				
Chlordane [2C]	ND	8.5			NR				
delta-BHC	ND	1.0			NR				
delta-BHC [2C]	ND	1.0			NR				
Dieldrin	ND	2.0			NR				
Dieldrin [2C]	ND	2.0			NR				
Endosulfan I	ND	1.0			NR				
Endosulfan I [2C]	ND	1.0			NR				
Endosulfan II	ND	2.0			NR				
Endosulfan II [2C]	ND	2.0			NR				
Endosulfan sulfate	ND	2.0			NR				
Endosulfan Sulfate [2C]	ND	2.0			NR				
Endrin	ND	2.0			NR				
Endrin [2C]	ND	2.0			NR				
Endrin aldehyde	ND	2.0			NR				
Endrin aldehyde [2C]	ND	2.0			NR				
Endrin ketone	ND	2.0			NR				
Endrin ketone [2C]	ND	2.0			NR				
gamma-BHC	ND	1.0			NR				
gamma-BHC [2C]	ND	1.0			NR				
gamma-Chlordane	ND	1.0			NR				
gamma-Chlordane [2C]	ND	1.0			NR				
Heptachlor	ND	1.0			NR				
Heptachlor [2C]	ND	1.0			NR				
Heptachlor epoxide	ND	1.0			NR				
Heptachlor epoxide [2C]	ND	1.0			NR				
Methoxychlor	ND	5.0			NR				

Leighton Consulting, Inc.
17781 Cowan Street
Irvine , CA 92614

Project Number : Burroughs MS, 603378.006
Report To : Julie Harriman
Reported : 01/12/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0242 - GCSEMI_PCB/PEST_S (continued)									
Blank (B7A0242-BLK1) - Continued					Prepared: 1/9/2017 Analyzed: 1/10/2017				
Methoxychlor [2C]	ND	5.0			NR				
Toxaphene	ND	50			NR				
Toxaphene [2C]	ND	50			NR				
Surrogate: Decachlorobiphenyl	*13.95*		*16.6667*		*83.7*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*15.04*		*16.6667*		*90.3*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*15.15*		*16.6667*		*90.9*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*15.77*		*16.6667*		*94.6*	*26 - 108*			
LCS (B7A0242-BS1)					Prepared: 1/9/2017 Analyzed: 1/10/2017				
4,4´-DDD	15.6792	2.0	16.6667		94.1	53 - 125			
4,4´-DDD [2C]	15.4505	2.0	16.6667		92.7	53 - 125			
4,4´-DDE	14.7732	2.0	16.6667		88.6	54 - 113			
4,4´-DDE [2C]	14.3188	2.0	16.6667		85.9	54 - 113			
4,4´-DDT	18.5407	2.0	16.6667		111	25 - 127			
4,4´-DDT [2C]	17.7203	2.0	16.6667		106	25 - 127			
Aldrin	14.4370	1.0	16.6667		86.6	59 - 107			
Aldrin [2C]	14.2312	1.0	16.6667		85.4	59 - 107			
alpha-BHC	14.3010	1.0	16.6667		85.8	59 - 104			
alpha-BHC [2C]	14.2740	1.0	16.6667		85.6	59 - 104			
alpha-Chlordane	14.7632	1.0	16.6667		88.6	54 - 110			
alpha-Chlordane [2C]	14.3557	1.0	16.6667		86.1	54 - 110			
beta-BHC	14.0673	1.0	16.6667		84.4	57 - 103			
beta-BHC [2C]	13.7778	1.0	16.6667		82.7	57 - 103			
delta-BHC	11.6518	1.0	16.6667		69.9	16 - 120			
delta-BHC [2C]	11.8120	1.0	16.6667		70.9	16 - 120			
Dieldrin	15.6085	2.0	16.6667		93.7	61 - 109			
Dieldrin [2C]	14.8990	2.0	16.6667		89.4	61 - 109			
Endosulfan I	14.7488	1.0	16.6667		88.5	60 - 106			
Endosulfan I [2C]	14.1448	1.0	16.6667		84.9	60 - 106			
Endosulfan II	14.8572	2.0	16.6667		89.1	59 - 108			
Endosulfan II [2C]	14.2822	2.0	16.6667		85.7	59 - 108			
Endosulfan sulfate	14.4438	2.0	16.6667		86.7	54 - 110			
Endosulfan Sulfate [2C]	14.3378	2.0	16.6667		86.0	54 - 110			
Endrin	16.7092	2.0	16.6667		100	63 - 112			
Endrin [2C]	16.1973	2.0	16.6667		97.2	63 - 112			
Endrin aldehyde	15.1350	2.0	16.6667		90.8	64 - 119			
Endrin aldehyde [2C]	14.6597	2.0	16.6667		88.0	64 - 119			
Endrin ketone	15.9107	2.0	16.6667		95.5	54 - 115			
Endrin ketone [2C]	15.5892	2.0	16.6667		93.5	54 - 115			
gamma-BHC	14.9977	1.0	16.6667		90.0	60 - 107			
gamma-BHC [2C]	14.8003	1.0	16.6667		88.8	60 - 107			

Leighton Consulting, Inc.
17781 Cowan Street
Irvine , CA 92614

Project Number : Burroughs MS, 603378.006
Report To : Julie Harriman
Reported : 01/12/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0242 - GCSEMI_PCB/PEST_S (continued)									
LCS (B7A0242-BS1) - Continued					Prepared: 1/9/2017 Analyzed: 1/10/2017				
gamma-Chlordane	14.4023	1.0	16.6667		86.4	57 - 106			
gamma-Chlordane [2C]	14.1747	1.0	16.6667		85.0	57 - 106			
Heptachlor	15.4633	1.0	16.6667		92.8	54 - 114			
Heptachlor [2C]	15.0082	1.0	16.6667		90.0	54 - 114			
Heptachlor epoxide	14.4677	1.0	16.6667		86.8	61 - 106			
Heptachlor epoxide [2C]	14.1590	1.0	16.6667		85.0	61 - 106			
Methoxychlor	17.2537	5.0	16.6667		104	18 - 138			
Methoxychlor [2C]	17.8090	5.0	16.6667		107	18 - 138			
Surrogate: Decachlorobiphenyl	*13.61*		*16.6667*		*81.6*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*12.93*		*16.6667*		*77.6*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*14.01*		*16.6667*		*84.1*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*15.12*		*16.6667*		*90.7*	*26 - 108*			
Duplicate (B7A0242-DUP1)			**Source: 1700027-15**		Prepared: 1/9/2017 Analyzed: 1/10/2017				
4,4´-DDD	ND	2.0		ND	NR			20	
4,4´-DDD [2C]	ND	2.0		ND	NR			20	
4,4´-DDE	ND	2.0		ND	NR			20	
4,4´-DDE [2C]	ND	2.0		ND	NR			20	
4,4´-DDT	ND	2.0		ND	NR			20	
4,4´-DDT [2C]	ND	2.0		ND	NR			20	
Aldrin	ND	1.0		ND	NR			20	
Aldrin [2C]	ND	1.0		ND	NR			20	
alpha-BHC	ND	1.0		ND	NR			20	
alpha-BHC [2C]	ND	1.0		ND	NR			20	
alpha-Chlordane	ND	1.0		ND	NR			20	
alpha-Chlordane [2C]	ND	1.0		ND	NR			20	
beta-BHC	ND	1.0		ND	NR			20	
beta-BHC [2C]	ND	1.0		ND	NR			20	
delta-BHC	ND	1.0		ND	NR			20	
delta-BHC [2C]	ND	1.0		ND	NR			20	
Dieldrin	ND	2.0		ND	NR			20	
Dieldrin [2C]	ND	2.0		ND	NR			20	
Endosulfan I	ND	1.0		ND	NR			20	
Endosulfan I [2C]	ND	1.0		ND	NR			20	
Endosulfan II	ND	2.0		ND	NR			20	
Endosulfan II [2C]	ND	2.0		ND	NR			20	
Endosulfan sulfate	ND	2.0		ND	NR			20	
Endosulfan Sulfate [2C]	ND	2.0		ND	NR			20	
Endrin	ND	2.0		ND	NR			20	
Endrin [2C]	ND	2.0		ND	NR			20	
Endrin aldehyde	ND	2.0		ND	NR			20	

Leighton Consulting, Inc.
17781 Cowan Street
Irvine , CA 92614

Project Number : Burroughs MS, 603378.006
Report To : Julie Harriman
Reported : 01/12/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0242 - GCSEMI_PCB/PEST_S (continued)									
Duplicate (B7A0242-DUP1) - Continued		**Source: 1700027-15**		Prepared: 1/9/2017 Analyzed: 1/10/2017					
Endrin aldehyde [2C]	ND	2.0		ND	NR			20	
Endrin ketone	ND	2.0		ND	NR			20	
Endrin ketone [2C]	ND	2.0		ND	NR			20	
gamma-BHC	ND	1.0		ND	NR			20	
gamma-BHC [2C]	ND	1.0		ND	NR			20	
gamma-Chlordane	ND	1.0		ND	NR			20	
gamma-Chlordane [2C]	ND	1.0		ND	NR			20	
Heptachlor	ND	1.0		ND	NR			20	
Heptachlor [2C]	ND	1.0		ND	NR			20	
Heptachlor epoxide	ND	1.0		ND	NR			20	
Heptachlor epoxide [2C]	ND	1.0		ND	NR			20	
Methoxychlor	ND	5.0		ND	NR			20	
Methoxychlor [2C]	ND	5.0		ND	NR			20	
Surrogate: Decachlorobiphenyl	*11.30*		*16.6667*		*67.8*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*12.23*		*16.6667*		*73.4*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*12.13*		*16.6667*		*72.8*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*12.69*		*16.6667*		*76.2*	*26 - 108*			
Matrix Spike (B7A0242-MS1)		**Source: 1700027-26**		Prepared: 1/9/2017 Analyzed: 1/10/2017					
4,4´-DDD	11.2527	2.0	16.6667	ND	67.5	25 - 141			
4,4´-DDD [2C]	11.8970	2.0	16.6667	ND	71.4	25 - 141			
4,4´-DDE	17.0397	2.0	16.6667	8.05417	53.9	22 - 141			
4,4´-DDE [2C]	17.6862	2.0	16.6667	8.16200	57.1	22 - 141			
4,4´-DDT	14.0557	2.0	16.6667	ND	84.3	15 - 136			
4,4´-DDT [2C]	14.4372	2.0	16.6667	ND	86.6	15 - 136			
Aldrin	10.1177	1.0	16.6667	ND	60.7	33 - 118			
Aldrin [2C]	10.3158	1.0	16.6667	ND	61.9	33 - 118			
alpha-BHC	9.31767	1.0	16.6667	ND	55.9	30 - 116			
alpha-BHC [2C]	8.74150	1.0	16.6667	ND	52.4	30 - 116			
alpha-Chlordane	10.5762	1.0	16.6667	ND	63.5	30 - 123			
alpha-Chlordane [2C]	11.1905	1.0	16.6667	ND	67.1	30 - 123			
beta-BHC	9.97067	1.0	16.6667	ND	59.8	24 - 121			
beta-BHC [2C]	9.99917	1.0	16.6667	ND	60.0	24 - 121			
delta-BHC	7.32667	1.0	16.6667	ND	44.0	7 - 120			
delta-BHC [2C]	8.35850	1.0	16.6667	ND	50.2	7 - 120			
Dieldrin	10.9220	2.0	16.6667	ND	65.5	25 - 136			
Dieldrin [2C]	11.4375	2.0	16.6667	ND	68.6	25 - 136			
Endosulfan I	10.3448	1.0	16.6667	ND	62.1	18 - 134			
Endosulfan I [2C]	11.1475	1.0	16.6667	ND	66.9	18 - 134			
Endosulfan II	9.60217	2.0	16.6667	ND	57.6	28 - 128			
Endosulfan II [2C]	10.0007	2.0	16.6667	ND	60.0	28 - 128			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0242 - GCSEMI_PCB/PEST_S (continued)									
Matrix Spike (B7A0242-MS1) - Continued		**Source: 1700027-26**		Prepared: 1/9/2017 Analyzed: 1/10/2017					
Endosulfan sulfate	9.02217	2.0	16.6667	ND	54.1	5 - 145			
Endosulfan Sulfate [2C]	9.57133	2.0	16.6667	ND	57.4	5 - 145			
Endrin	11.9593	2.0	16.6667	ND	71.8	26 - 142			
Endrin [2C]	12.4532	2.0	16.6667	ND	74.7	26 - 142			
Endrin aldehyde	8.40517	2.0	16.6667	ND	50.4	8 - 146			
Endrin aldehyde [2C]	9.10000	2.0	16.6667	ND	54.6	8 - 146			
Endrin ketone	9.75583	2.0	16.6667	ND	58.5	16 - 139			
Endrin ketone [2C]	10.4882	2.0	16.6667	ND	62.9	16 - 139			
gamma-BHC	10.5615	1.0	16.6667	ND	63.4	30 - 122			
gamma-BHC [2C]	12.1510	1.0	16.6667	ND	72.9	30 - 122			
gamma-Chlordane	466.535	1.0	16.6667	ND	2800	18 - 132			M2
gamma-Chlordane [2C]	11.0263	1.0	16.6667	ND	66.2	18 - 132			
Heptachlor	10.9522	1.0	16.6667	ND	65.7	34 - 122			
Heptachlor [2C]	11.1385	1.0	16.6667	ND	66.8	34 - 122			
Heptachlor epoxide	9.36583	1.0	16.6667	ND	56.2	21 - 135			
Heptachlor epoxide [2C]	11.8107	1.0	16.6667	ND	70.9	21 - 135			
Methoxychlor	12.1603	5.0	16.6667	ND	73.0	8 - 162			
Methoxychlor [2C]	13.9517	5.0	16.6667	ND	83.7	8 - 162			
Surrogate: Decachlorobiphenyl	*10.09*		*16.6667*		*60.5*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*12.12*		*16.6667*		*72.7*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*7.476*		*16.6667*		*44.9*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*11.14*		*16.6667*		*66.8*	*26 - 108*			
Matrix Spike Dup (B7A0242-MSD1)		**Source: 1700027-26**		Prepared: 1/9/2017 Analyzed: 1/10/2017					
4,4´-DDD	13.5303	2.0	16.6667	ND	81.2	25 - 141	18.4	20	
4,4´-DDD [2C]	13.1810	2.0	16.6667	ND	79.1	25 - 141	10.2	20	
4,4´-DDE	20.4393	2.0	16.6667	8.05417	74.3	22 - 141	18.1	20	
4,4´-DDE [2C]	19.6468	2.0	16.6667	8.16200	68.9	22 - 141	10.5	20	
4,4´-DDT	16.5313	2.0	16.6667	ND	99.2	15 - 136	16.2	20	
4,4´-DDT [2C]	16.0877	2.0	16.6667	ND	96.5	15 - 136	10.8	20	
Aldrin	12.0658	1.0	16.6667	ND	72.4	33 - 118	17.6	20	
Aldrin [2C]	11.4013	1.0	16.6667	ND	68.4	33 - 118	10.0	20	
alpha-BHC	11.5737	1.0	16.6667	ND	69.4	30 - 116	21.6	20	R3
alpha-BHC [2C]	10.3005	1.0	16.6667	ND	61.8	30 - 116	16.4	20	
alpha-Chlordane	13.0788	1.0	16.6667	ND	78.5	30 - 123	21.2	20	R3
alpha-Chlordane [2C]	12.4195	1.0	16.6667	ND	74.5	30 - 123	10.4	20	
beta-BHC	11.7112	1.0	16.6667	ND	70.3	24 - 121	16.1	20	
beta-BHC [2C]	11.0668	1.0	16.6667	ND	66.4	24 - 121	10.1	20	
delta-BHC	9.33667	1.0	16.6667	ND	56.0	7 - 120	24.1	20	R3
delta-BHC [2C]	10.0648	1.0	16.6667	ND	60.4	7 - 120	18.5	20	
Dieldrin	13.4303	2.0	16.6667	ND	80.6	25 - 136	20.6	20	R3

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0242 - GCSEMI_PCB/PEST_S (continued)									
Matrix Spike Dup (B7A0242-MSD1) - Continued		**Source: 1700027-26**		Prepared: 1/9/2017 Analyzed: 1/10/2017					
Dieldrin [2C]	13.0832	2.0	16.6667	ND	78.5	25 - 136	13.4	20	
Endosulfan I	12.8078	1.0	16.6667	ND	76.8	18 - 134	21.3	20	R3
Endosulfan I [2C]	12.3678	1.0	16.6667	ND	74.2	18 - 134	10.4	20	
Endosulfan II	12.3167	2.0	16.6667	ND	73.9	28 - 128	24.8	20	R3
Endosulfan II [2C]	11.9680	2.0	16.6667	ND	71.8	28 - 128	17.9	20	
Endosulfan sulfate	11.5937	2.0	16.6667	ND	69.6	5 - 145	24.9	20	R3
Endosulfan Sulfate [2C]	11.7643	2.0	16.6667	ND	70.6	5 - 145	20.6	20	R3
Endrin	14.6970	2.0	16.6667	ND	88.2	26 - 142	20.5	20	R3
Endrin [2C]	14.2030	2.0	16.6667	ND	85.2	26 - 142	13.1	20	
Endrin aldehyde	11.6638	2.0	16.6667	ND	70.0	8 - 146	32.5	20	R3
Endrin aldehyde [2C]	10.7775	2.0	16.6667	ND	64.7	8 - 146	16.9	20	
Endrin ketone	12.6445	2.0	16.6667	ND	75.9	16 - 139	25.8	20	R3
Endrin ketone [2C]	13.0568	2.0	16.6667	ND	78.3	16 - 139	21.8	20	R3
gamma-BHC	13.0833	1.0	16.6667	ND	78.5	30 - 122	21.3	20	R3
gamma-BHC [2C]	13.4305	1.0	16.6667	ND	80.6	30 - 122	10.0	20	
gamma-Chlordane	507.535	1.0	16.6667	ND	3050	18 - 132	8.42	20	M2
gamma-Chlordane [2C]	12.2235	1.0	16.6667	ND	73.3	18 - 132	10.3	20	
Heptachlor	12.6360	1.0	16.6667	ND	75.8	34 - 122	14.3	20	
Heptachlor [2C]	12.6717	1.0	16.6667	ND	76.0	34 - 122	12.9	20	
Heptachlor epoxide	10.8050	1.0	16.6667	ND	64.8	21 - 135	14.3	20	
Heptachlor epoxide [2C]	13.0322	1.0	16.6667	ND	78.2	21 - 135	9.83	20	
Methoxychlor	15.0183	5.0	16.6667	ND	90.1	8 - 162	21.0	20	R3
Methoxychlor [2C]	16.1810	5.0	16.6667	ND	97.1	8 - 162	14.8	20	
Surrogate: Decachlorobiphenyl	*11.95*		*16.6667*		*71.7*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*12.00*		*16.6667*		*72.0*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*9.176*		*16.6667*		*55.1*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*11.88*		*16.6667*		*71.3*	*26 - 108*			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0249 - GCSEMI_PCB/PEST_S									
Blank (B7A0249-BLK1)				Prepared: 1/10/2017 Analyzed: 1/11/2017					
4,4´-DDD	ND	2.0			NR				
4,4´-DDD [2C]	ND	2.0			NR				
4,4´-DDE	ND	2.0			NR				
4,4´-DDE [2C]	ND	2.0			NR				
4,4´-DDT	ND	2.0			NR				
4,4´-DDT [2C]	ND	2.0			NR				
Aldrin	ND	1.0			NR				
Aldrin [2C]	ND	1.0			NR				
alpha-BHC	ND	1.0			NR				
alpha-BHC [2C]	ND	1.0			NR				
alpha-Chlordane	ND	1.0			NR				
alpha-Chlordane [2C]	ND	1.0			NR				
beta-BHC	ND	1.0			NR				
beta-BHC [2C]	ND	1.0			NR				
Chlordane	ND	8.5			NR				
Chlordane [2C]	ND	8.5			NR				
delta-BHC	ND	1.0			NR				
delta-BHC [2C]	ND	1.0			NR				
Dieldrin	ND	2.0			NR				
Dieldrin [2C]	ND	2.0			NR				
Endosulfan I	ND	1.0			NR				
Endosulfan I [2C]	ND	1.0			NR				
Endosulfan II	ND	2.0			NR				
Endosulfan II [2C]	ND	2.0			NR				
Endosulfan sulfate	ND	2.0			NR				
Endosulfan Sulfate [2C]	ND	2.0			NR				
Endrin	ND	2.0			NR				
Endrin [2C]	ND	2.0			NR				
Endrin aldehyde	ND	2.0			NR				
Endrin aldehyde [2C]	ND	2.0			NR				
Endrin ketone	ND	2.0			NR				
Endrin ketone [2C]	ND	2.0			NR				
gamma-BHC	ND	1.0			NR				
gamma-BHC [2C]	ND	1.0			NR				
gamma-Chlordane	ND	1.0			NR				
gamma-Chlordane [2C]	ND	1.0			NR				
Heptachlor	ND	1.0			NR				
Heptachlor [2C]	ND	1.0			NR				
Heptachlor epoxide	ND	1.0			NR				
Heptachlor epoxide [2C]	ND	1.0			NR				
Methoxychlor	ND	5.0			NR				

Leighton Consulting, Inc.
17781 Cowan Street
Irvine , CA 92614

Project Number : Burroughs MS, 603378.006
Report To : Julie Harriman
Reported : 01/12/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0249 - GCSEMI_PCB/PEST_S (continued)									
Blank (B7A0249-BLK1) - Continued				Prepared: 1/10/2017 Analyzed: 1/11/2017					
Methoxychlor [2C]	ND	5.0			NR				
Toxaphene	ND	50			NR				
Toxaphene [2C]	ND	50			NR				
Surrogate: Decachlorobiphenyl	*11.86*		*16.6667*		*71.2*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*11.50*		*16.6667*		*69.0*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*12.75*		*16.6667*		*76.5*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*14.12*		*16.6667*		*84.7*	*26 - 108*			
LCS (B7A0249-BS1)				Prepared: 1/10/2017 Analyzed: 1/11/2017					
4,4´-DDD	14.4023	2.0	16.6667		86.4	53 - 125			
4,4´-DDD [2C]	14.1483	2.0	16.6667		84.9	53 - 125			
4,4´-DDE	13.7055	2.0	16.6667		82.2	54 - 113			
4,4´-DDE [2C]	13.0902	2.0	16.6667		78.5	54 - 113			
4,4´-DDT	16.2598	2.0	16.6667		97.6	25 - 127			
4,4´-DDT [2C]	14.6695	2.0	16.6667		88.0	25 - 127			
Aldrin	13.4317	1.0	16.6667		80.6	59 - 107			
Aldrin [2C]	13.0048	1.0	16.6667		78.0	59 - 107			
alpha-BHC	13.2860	1.0	16.6667		79.7	59 - 104			
alpha-BHC [2C]	12.9727	1.0	16.6667		77.8	59 - 104			
alpha-Chlordane	13.7148	1.0	16.6667		82.3	54 - 110			
alpha-Chlordane [2C]	13.0498	1.0	16.6667		78.3	54 - 110			
beta-BHC	13.1498	1.0	16.6667		78.9	57 - 103			
beta-BHC [2C]	12.5838	1.0	16.6667		75.5	57 - 103			
delta-BHC	10.6813	1.0	16.6667		64.1	16 - 120			
delta-BHC [2C]	10.6462	1.0	16.6667		63.9	16 - 120			
Dieldrin	14.5282	2.0	16.6667		87.2	61 - 109			
Dieldrin [2C]	13.5780	2.0	16.6667		81.5	61 - 109			
Endosulfan I	13.7018	1.0	16.6667		82.2	60 - 106			
Endosulfan I [2C]	12.9558	1.0	16.6667		77.7	60 - 106			
Endosulfan II	13.7957	2.0	16.6667		82.8	59 - 108			
Endosulfan II [2C]	13.0797	2.0	16.6667		78.5	59 - 108			
Endosulfan sulfate	13.4658	2.0	16.6667		80.8	54 - 110			
Endosulfan Sulfate [2C]	13.0777	2.0	16.6667		78.5	54 - 110			
Endrin	15.2687	2.0	16.6667		91.6	63 - 112			
Endrin [2C]	14.5860	2.0	16.6667		87.5	63 - 112			
Endrin aldehyde	14.1937	2.0	16.6667		85.2	64 - 119			
Endrin aldehyde [2C]	13.4275	2.0	16.6667		80.6	64 - 119			
Endrin ketone	14.9422	2.0	16.6667		89.7	54 - 115			
Endrin ketone [2C]	13.8028	2.0	16.6667		82.8	54 - 115			
gamma-BHC	13.9878	1.0	16.6667		83.9	60 - 107			
gamma-BHC [2C]	13.3882	1.0	16.6667		80.3	60 - 107			

Leighton Consulting, Inc.
17781 Cowan Street
Irvine , CA 92614

Project Number : Burroughs MS, 603378.006
Report To : Julie Harriman
Reported : 01/12/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0249 - GCSEMI_PCB/PEST_S (continued)									
LCS (B7A0249-BS1) - Continued				Prepared: 1/10/2017 Analyzed: 1/11/2017					
gamma-Chlordane	13.4283	1.0	16.6667		80.6	57 - 106			
gamma-Chlordane [2C]	12.9395	1.0	16.6667		77.6	57 - 106			
Heptachlor	14.3863	1.0	16.6667		86.3	54 - 114			
Heptachlor [2C]	13.5980	1.0	16.6667		81.6	54 - 114			
Heptachlor epoxide	13.6030	1.0	16.6667		81.6	61 - 106			
Heptachlor epoxide [2C]	12.9892	1.0	16.6667		77.9	61 - 106			
Methoxychlor	15.3725	5.0	16.6667		92.2	18 - 138			
Methoxychlor [2C]	14.4642	5.0	16.6667		86.8	18 - 138			
Surrogate: Decachlorobiphenyl	*11.37*		*16.6667*		*68.2*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*10.67*		*16.6667*		*64.0*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*12.24*		*16.6667*		*73.4*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*13.60*		*16.6667*		*81.6*	*26 - 108*			
Duplicate (B7A0249-DUP1)			**Source: 1700027-59**	Prepared: 1/10/2017 Analyzed: 1/11/2017					
4,4´-DDD	ND	2.0		ND	NR			20	
4,4´-DDD [2C]	ND	2.0		ND	NR			20	
4,4´-DDE	ND	2.0		ND	NR			20	
4,4´-DDE [2C]	ND	2.0		ND	NR			20	
4,4´-DDT	ND	2.0		ND	NR			20	
4,4´-DDT [2C]	ND	2.0		ND	NR			20	
Aldrin	ND	1.0		ND	NR			20	
Aldrin [2C]	ND	1.0		ND	NR			20	
alpha-BHC	ND	1.0		ND	NR			20	
alpha-BHC [2C]	ND	1.0		ND	NR			20	
alpha-Chlordane	ND	1.0		ND	NR			20	
alpha-Chlordane [2C]	ND	1.0		ND	NR			20	
beta-BHC	ND	1.0		ND	NR			20	
beta-BHC [2C]	ND	1.0		ND	NR			20	
delta-BHC	ND	1.0		ND	NR			20	
delta-BHC [2C]	ND	1.0		ND	NR			20	
Dieldrin	ND	2.0		ND	NR			20	
Dieldrin [2C]	ND	2.0		ND	NR			20	
Endosulfan I	ND	1.0		ND	NR			20	
Endosulfan I [2C]	ND	1.0		ND	NR			20	
Endosulfan II	ND	2.0		ND	NR			20	
Endosulfan II [2C]	ND	2.0		ND	NR			20	
Endosulfan sulfate	ND	2.0		ND	NR			20	
Endosulfan Sulfate [2C]	ND	2.0		ND	NR			20	
Endrin	ND	2.0		ND	NR			20	
Endrin [2C]	ND	2.0		ND	NR			20	
Endrin aldehyde	ND	2.0		ND	NR			20	

Leighton Consulting, Inc.
17781 Cowan Street
Irvine , CA 92614

Project Number : Burroughs MS, 603378.006
Report To : Julie Harriman
Reported : 01/12/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0249 - GCSEMI_PCB/PEST_S (continued)									
Duplicate (B7A0249-DUP1) - Continued		**Source: 1700027-59**		Prepared: 1/10/2017 Analyzed: 1/11/2017					
Endrin aldehyde [2C]	ND	2.0		ND	NR			20	
Endrin ketone	ND	2.0		ND	NR			20	
Endrin ketone [2C]	ND	2.0		ND	NR			20	
gamma-BHC	ND	1.0		ND	NR			20	
gamma-BHC [2C]	ND	1.0		ND	NR			20	
gamma-Chlordane	ND	1.0		ND	NR			20	
gamma-Chlordane [2C]	ND	1.0		ND	NR			20	
Heptachlor	ND	1.0		ND	NR			20	
Heptachlor [2C]	ND	1.0		ND	NR			20	
Heptachlor epoxide	ND	1.0		ND	NR			20	
Heptachlor epoxide [2C]	ND	1.0		ND	NR			20	
Methoxychlor	ND	5.0		ND	NR			20	
Methoxychlor [2C]	ND	5.0		ND	NR			20	
Surrogate: Decachlorobiphenyl	*14.48*		*16.6667*		*86.9*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*14.21*		*16.6667*		*85.3*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*12.81*		*16.6667*		*76.9*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*13.98*		*16.6667*		*83.9*	*26 - 108*			
Matrix Spike (B7A0249-MS1)		**Source: 1700027-59**		Prepared: 1/10/2017 Analyzed: 1/11/2017					
4,4´-DDD	17.4343	2.0	16.6667	ND	105	25 - 141			
4,4´-DDD [2C]	16.7922	2.0	16.6667	ND	101	25 - 141			
4,4´-DDE	16.3162	2.0	16.6667	ND	97.9	22 - 141			
4,4´-DDE [2C]	15.7145	2.0	16.6667	ND	94.3	22 - 141			
4,4´-DDT	20.7390	2.0	16.6667	ND	124	15 - 136			
4,4´-DDT [2C]	18.3517	2.0	16.6667	ND	110	15 - 136			
Aldrin	16.1647	1.0	16.6667	ND	97.0	33 - 118			
Aldrin [2C]	15.5617	1.0	16.6667	ND	93.4	33 - 118			
alpha-BHC	16.2033	1.0	16.6667	ND	97.2	30 - 116			
alpha-BHC [2C]	15.9137	1.0	16.6667	ND	95.5	30 - 116			
alpha-Chlordane	16.5168	1.0	16.6667	ND	99.1	30 - 123			
alpha-Chlordane [2C]	15.6877	1.0	16.6667	ND	94.1	30 - 123			
beta-BHC	16.1495	1.0	16.6667	ND	96.9	24 - 121			
beta-BHC [2C]	15.5638	1.0	16.6667	ND	93.4	24 - 121			
delta-BHC	13.0180	1.0	16.6667	ND	78.1	7 - 120			
delta-BHC [2C]	13.1100	1.0	16.6667	ND	78.7	7 - 120			
Dieldrin	17.4002	2.0	16.6667	ND	104	25 - 136			
Dieldrin [2C]	16.2585	2.0	16.6667	ND	97.6	25 - 136			
Endosulfan I	16.3067	1.0	16.6667	ND	97.8	18 - 134			
Endosulfan I [2C]	15.3325	1.0	16.6667	ND	92.0	18 - 134			
Endosulfan II	16.7455	2.0	16.6667	ND	100	28 - 128			
Endosulfan II [2C]	15.7597	2.0	16.6667	ND	94.6	28 - 128			

Leighton Consulting, Inc.
17781 Cowan Street
Irvine , CA 92614

Project Number : Burroughs MS, 603378.006
Report To : Julie Harriman
Reported : 01/12/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0249 - GCSEMI_PCB/PEST_S (continued)									
Matrix Spike (B7A0249-MS1) - Continued		**Source: 1700027-59**		Prepared: 1/10/2017 Analyzed: 1/11/2017					
Endosulfan sulfate	16.2230	2.0	16.6667	ND	97.3	5 - 145			
Endosulfan Sulfate [2C]	15.5905	2.0	16.6667	ND	93.5	5 - 145			
Endrin	18.7888	2.0	16.6667	ND	113	26 - 142			
Endrin [2C]	17.7325	2.0	16.6667	ND	106	26 - 142			
Endrin aldehyde	16.7918	2.0	16.6667	ND	101	8 - 146			
Endrin aldehyde [2C]	15.6287	2.0	16.6667	ND	93.8	8 - 146			
Endrin ketone	18.0045	2.0	16.6667	ND	108	16 - 139			
Endrin ketone [2C]	17.0785	2.0	16.6667	ND	102	16 - 139			
gamma-BHC	17.0622	1.0	16.6667	ND	102	30 - 122			
gamma-BHC [2C]	16.3607	1.0	16.6667	ND	98.2	30 - 122			
gamma-Chlordane	16.0887	1.0	16.6667	ND	96.5	18 - 132			
gamma-Chlordane [2C]	15.4932	1.0	16.6667	ND	93.0	18 - 132			
Heptachlor	17.2123	1.0	16.6667	ND	103	34 - 122			
Heptachlor [2C]	16.1365	1.0	16.6667	ND	96.8	34 - 122			
Heptachlor epoxide	16.1650	1.0	16.6667	ND	97.0	21 - 135			
Heptachlor epoxide [2C]	15.3773	1.0	16.6667	ND	92.3	21 - 135			
Methoxychlor	19.2877	5.0	16.6667	ND	116	8 - 162			
Methoxychlor [2C]	17.8692	5.0	16.6667	ND	107	8 - 162			
Surrogate: Decachlorobiphenyl	*14.80*		*16.6667*		*88.8*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*15.61*		*16.6667*		*93.7*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*13.88*		*16.6667*		*83.3*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*15.39*		*16.6667*		*92.4*	*26 - 108*			
Matrix Spike Dup (B7A0249-MSD1)		**Source: 1700027-59**		Prepared: 1/10/2017 Analyzed: 1/11/2017					
4,4´-DDD	16.8328	2.0	16.6667	ND	101	25 - 141	3.51	20	
4,4´-DDD [2C]	16.3900	2.0	16.6667	ND	98.3	25 - 141	2.42	20	
4,4´-DDE	15.7897	2.0	16.6667	ND	94.7	22 - 141	3.28	20	
4,4´-DDE [2C]	15.3418	2.0	16.6667	ND	92.1	22 - 141	2.40	20	
4,4´-DDT	19.9105	2.0	16.6667	ND	119	15 - 136	4.08	20	
4,4´-DDT [2C]	18.2117	2.0	16.6667	ND	109	15 - 136	0.766	20	
Aldrin	15.7432	1.0	16.6667	ND	94.5	33 - 118	2.64	20	
Aldrin [2C]	15.2205	1.0	16.6667	ND	91.3	33 - 118	2.22	20	
alpha-BHC	15.8390	1.0	16.6667	ND	95.0	30 - 116	2.27	20	
alpha-BHC [2C]	15.6218	1.0	16.6667	ND	93.7	30 - 116	1.85	20	
alpha-Chlordane	16.0813	1.0	16.6667	ND	96.5	30 - 123	2.67	20	
alpha-Chlordane [2C]	15.2928	1.0	16.6667	ND	91.8	30 - 123	2.55	20	
beta-BHC	15.6688	1.0	16.6667	ND	94.0	24 - 121	3.02	20	
beta-BHC [2C]	15.3153	1.0	16.6667	ND	91.9	24 - 121	1.61	20	
delta-BHC	12.6517	1.0	16.6667	ND	75.9	7 - 120	2.85	20	
delta-BHC [2C]	12.9057	1.0	16.6667	ND	77.4	7 - 120	1.57	20	
Dieldrin	16.8962	2.0	16.6667	ND	101	25 - 136	2.94	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0249 - GCSEMI_PCB/PEST_S (continued)									
Matrix Spike Dup (B7A0249-MSD1) - Continued		**Source: 1700027-59**		Prepared: 1/10/2017 Analyzed: 1/11/2017					
Dieldrin [2C]	15.8267	2.0	16.6667	ND	95.0	25 - 136	2.69	20	
Endosulfan I	15.8717	1.0	16.6667	ND	95.2	18 - 134	2.70	20	
Endosulfan I [2C]	14.9655	1.0	16.6667	ND	89.8	18 - 134	2.42	20	
Endosulfan II	16.1365	2.0	16.6667	ND	96.8	28 - 128	3.70	20	
Endosulfan II [2C]	15.3622	2.0	16.6667	ND	92.2	28 - 128	2.55	20	
Endosulfan sulfate	15.2415	2.0	16.6667	ND	91.4	5 - 145	6.24	20	
Endosulfan Sulfate [2C]	14.7595	2.0	16.6667	ND	88.6	5 - 145	5.48	20	
Endrin	18.1480	2.0	16.6667	ND	109	26 - 142	3.47	20	
Endrin [2C]	17.2848	2.0	16.6667	ND	104	26 - 142	2.56	20	
Endrin aldehyde	16.0523	2.0	16.6667	ND	96.3	8 - 146	4.50	20	
Endrin aldehyde [2C]	15.1525	2.0	16.6667	ND	90.9	8 - 146	3.09	20	
Endrin ketone	16.9265	2.0	16.6667	ND	102	16 - 139	6.17	20	
Endrin ketone [2C]	16.0297	2.0	16.6667	ND	96.2	16 - 139	6.34	20	
gamma-BHC	16.6755	1.0	16.6667	ND	100	30 - 122	2.29	20	
gamma-BHC [2C]	16.0767	1.0	16.6667	ND	96.5	30 - 122	1.75	20	
gamma-Chlordane	15.6452	1.0	16.6667	ND	93.9	18 - 132	2.80	20	
gamma-Chlordane [2C]	15.0678	1.0	16.6667	ND	90.4	18 - 132	2.78	20	
Heptachlor	16.7563	1.0	16.6667	ND	101	34 - 122	2.68	20	
Heptachlor [2C]	15.8047	1.0	16.6667	ND	94.8	34 - 122	2.08	20	
Heptachlor epoxide	15.7247	1.0	16.6667	ND	94.3	21 - 135	2.76	20	
Heptachlor epoxide [2C]	15.0087	1.0	16.6667	ND	90.1	21 - 135	2.43	20	
Methoxychlor	18.3033	5.0	16.6667	ND	110	8 - 162	5.24	20	
Methoxychlor [2C]	17.6023	5.0	16.6667	ND	106	8 - 162	1.50	20	
Surrogate: Decachlorobiphenyl	*14.52*		*16.6667*		*87.1*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*14.94*		*16.6667*		*89.7*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*13.56*		*16.6667*		*81.3*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*15.10*		*16.6667*		*90.6*	*26 - 108*			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0250 - GCSEMI_PCB/PEST_S									
Blank (B7A0250-BLK1)				Prepared: 1/9/2017 Analyzed: 1/10/2017					
4,4´-DDD	ND	2.0			NR				
4,4´-DDD [2C]	ND	2.0			NR				
4,4´-DDE	ND	2.0			NR				
4,4´-DDE [2C]	ND	2.0			NR				
4,4´-DDT	ND	2.0			NR				
4,4´-DDT [2C]	ND	2.0			NR				
Aldrin	ND	1.0			NR				
Aldrin [2C]	ND	1.0			NR				
alpha-BHC	ND	1.0			NR				
alpha-BHC [2C]	ND	1.0			NR				
alpha-Chlordane	ND	1.0			NR				
alpha-Chlordane [2C]	ND	1.0			NR				
beta-BHC	ND	1.0			NR				
beta-BHC [2C]	ND	1.0			NR				
Chlordane	ND	8.5			NR				
Chlordane [2C]	ND	8.5			NR				
delta-BHC	ND	1.0			NR				
delta-BHC [2C]	ND	1.0			NR				
Dieldrin	ND	2.0			NR				
Dieldrin [2C]	ND	2.0			NR				
Endosulfan I	ND	1.0			NR				
Endosulfan I [2C]	ND	1.0			NR				
Endosulfan II	ND	2.0			NR				
Endosulfan II [2C]	ND	2.0			NR				
Endosulfan sulfate	ND	2.0			NR				
Endosulfan Sulfate [2C]	ND	2.0			NR				
Endrin	ND	2.0			NR				
Endrin [2C]	ND	2.0			NR				
Endrin aldehyde	ND	2.0			NR				
Endrin aldehyde [2C]	ND	2.0			NR				
Endrin ketone	ND	2.0			NR				
Endrin ketone [2C]	ND	2.0			NR				
gamma-BHC	ND	1.0			NR				
gamma-BHC [2C]	ND	1.0			NR				
gamma-Chlordane	ND	1.0			NR				
gamma-Chlordane [2C]	ND	1.0			NR				
Heptachlor	ND	1.0			NR				
Heptachlor [2C]	ND	1.0			NR				
Heptachlor epoxide	ND	1.0			NR				
Heptachlor epoxide [2C]	ND	1.0			NR				
Methoxychlor	ND	5.0			NR				

Leighton Consulting, Inc.
17781 Cowan Street
Irvine , CA 92614

Project Number : Burroughs MS, 603378.006
Report To : Julie Harriman
Reported : 01/12/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0250 - GCSEMI_PCB/PEST_S (continued)									
Blank (B7A0250-BLK1) - Continued				Prepared: 1/9/2017 Analyzed: 1/10/2017					
Methoxychlor [2C]	ND	5.0			NR				
Toxaphene	ND	50			NR				
Toxaphene [2C]	ND	50			NR				
Surrogate: Decachlorobiphenyl	*15.17*		*16.6667*		*91.0*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*23.84*		*16.6667*		*143*	*27 - 123*			S1
Surrogate: Tetrachloro-m-xylene	*15.74*		*16.6667*		*94.4*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*17.66*		*16.6667*		*106*	*26 - 108*			
LCS (B7A0250-BS1)				Prepared: 1/9/2017 Analyzed: 1/10/2017					
4,4´-DDD	14.6850	2.0	16.6667		88.1	53 - 125			
4,4´-DDD [2C]	16.0863	2.0	16.6667		96.5	53 - 125			
4,4´-DDE	13.5773	2.0	16.6667		81.5	54 - 113			
4,4´-DDE [2C]	15.0925	2.0	16.6667		90.6	54 - 113			
4,4´-DDT	11.9492	2.0	16.6667		71.7	25 - 127			
4,4´-DDT [2C]	13.4198	2.0	16.6667		80.5	25 - 127			
Aldrin	13.8723	1.0	16.6667		83.2	59 - 107			
Aldrin [2C]	14.8270	1.0	16.6667		89.0	59 - 107			
alpha-BHC	14.0373	1.0	16.6667		84.2	59 - 104			
alpha-BHC [2C]	15.2580	1.0	16.6667		91.5	59 - 104			
alpha-Chlordane	13.5548	1.0	16.6667		81.3	54 - 110			
alpha-Chlordane [2C]	15.2927	1.0	16.6667		91.8	54 - 110			
beta-BHC	14.0028	1.0	16.6667		84.0	57 - 103			
beta-BHC [2C]	15.1852	1.0	16.6667		91.1	57 - 103			
delta-BHC	11.5717	1.0	16.6667		69.4	16 - 120			
delta-BHC [2C]	12.1058	1.0	16.6667		72.6	16 - 120			
Dieldrin	13.6573	2.0	16.6667		81.9	61 - 109			
Dieldrin [2C]	15.3118	2.0	16.6667		91.9	61 - 109			
Endosulfan I	13.3683	1.0	16.6667		80.2	60 - 106			
Endosulfan I [2C]	15.2525	1.0	16.6667		91.5	60 - 106			
Endosulfan II	12.8540	2.0	16.6667		77.1	59 - 108			
Endosulfan II [2C]	14.2953	2.0	16.6667		85.8	59 - 108			
Endosulfan sulfate	12.3712	2.0	16.6667		74.2	54 - 110			
Endosulfan Sulfate [2C]	13.8402	2.0	16.6667		83.0	54 - 110			
Endrin	14.2378	2.0	16.6667		85.4	63 - 112			
Endrin [2C]	16.1875	2.0	16.6667		97.1	63 - 112			
Endrin aldehyde	13.3180	2.0	16.6667		79.9	64 - 119			
Endrin aldehyde [2C]	12.9218	2.0	16.6667		77.5	64 - 119			
Endrin ketone	13.6412	2.0	16.6667		81.8	54 - 115			
Endrin ketone [2C]	16.0473	2.0	16.6667		96.3	54 - 115			
gamma-BHC	14.5705	1.0	16.6667		87.4	60 - 107			
gamma-BHC [2C]	15.7797	1.0	16.6667		94.7	60 - 107			

Leighton Consulting, Inc.
17781 Cowan Street
Irvine , CA 92614

Project Number : Burroughs MS, 603378.006
Report To : Julie Harriman
Reported : 01/12/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0250 - GCSEMI_PCB/PEST_S (continued)									
LCS (B7A0250-BS1) - Continued				Prepared: 1/9/2017 Analyzed: 1/10/2017					
gamma-Chlordane	13.3950	1.0	16.6667		80.4	57 - 106			
gamma-Chlordane [2C]	14.5265	1.0	16.6667		87.2	57 - 106			
Heptachlor	14.4860	1.0	16.6667		86.9	54 - 114			
Heptachlor [2C]	16.5178	1.0	16.6667		99.1	54 - 114			
Heptachlor epoxide	13.7050	1.0	16.6667		82.2	61 - 106			
Heptachlor epoxide [2C]	15.0267	1.0	16.6667		90.2	61 - 106			
Methoxychlor	12.2015	5.0	16.6667		73.2	18 - 138			
Methoxychlor [2C]	15.9088	5.0	16.6667		95.5	18 - 138			
Surrogate: Decachlorobiphenyl	*13.08*		*16.6667*		*78.5*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*15.78*		*16.6667*		*94.7*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*15.31*		*16.6667*		*91.9*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*14.98*		*16.6667*		*89.9*	*26 - 108*			
Duplicate (B7A0250-DUP1)		**Source: 1700027-72**		Prepared: 1/9/2017 Analyzed: 1/10/2017					
4,4´-DDD	ND	2.0		ND	NR			20	
4,4´-DDD [2C]	ND	2.0		ND	NR			20	
4,4´-DDE	ND	2.0		ND	NR			20	
4,4´-DDE [2C]	ND	2.0		ND	NR			20	
4,4´-DDT	ND	2.0		ND	NR			20	
4,4´-DDT [2C]	ND	2.0		ND	NR			20	
Aldrin	ND	1.0		ND	NR			20	
Aldrin [2C]	ND	1.0		ND	NR			20	
alpha-BHC	ND	1.0		ND	NR			20	
alpha-BHC [2C]	ND	1.0		ND	NR			20	
alpha-Chlordane	ND	1.0		ND	NR			20	
alpha-Chlordane [2C]	ND	1.0		ND	NR			20	
beta-BHC	ND	1.0		ND	NR			20	
beta-BHC [2C]	ND	1.0		ND	NR			20	
delta-BHC	ND	1.0		ND	NR			20	
delta-BHC [2C]	ND	1.0		ND	NR			20	
Dieldrin	ND	2.0		ND	NR			20	
Dieldrin [2C]	ND	2.0		ND	NR			20	
Endosulfan I	ND	1.0		ND	NR			20	
Endosulfan I [2C]	ND	1.0		ND	NR			20	
Endosulfan II	ND	2.0		ND	NR			20	
Endosulfan II [2C]	ND	2.0		ND	NR			20	
Endosulfan sulfate	ND	2.0		ND	NR			20	
Endosulfan Sulfate [2C]	ND	2.0		ND	NR			20	
Endrin	ND	2.0		ND	NR			20	
Endrin [2C]	ND	2.0		ND	NR			20	
Endrin aldehyde	ND	2.0		ND	NR			20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0250 - GCSEMI_PCB/PEST_S (continued)									
Duplicate (B7A0250-DUP1) - Continued		**Source: 1700027-72**		Prepared: 1/9/2017 Analyzed: 1/10/2017					
Endrin aldehyde [2C]	ND	2.0		ND	NR			20	
Endrin ketone	ND	2.0		ND	NR			20	
Endrin ketone [2C]	ND	2.0		ND	NR			20	
gamma-BHC	ND	1.0		ND	NR			20	
gamma-BHC [2C]	ND	1.0		ND	NR			20	
gamma-Chlordane	ND	1.0		ND	NR			20	
gamma-Chlordane [2C]	ND	1.0		ND	NR			20	
Heptachlor	ND	1.0		ND	NR			20	
Heptachlor [2C]	ND	1.0		ND	NR			20	
Heptachlor epoxide	ND	1.0		ND	NR			20	
Heptachlor epoxide [2C]	ND	1.0		ND	NR			20	
Methoxychlor	ND	5.0		ND	NR			20	
Methoxychlor [2C]	ND	5.0		ND	NR			20	
Surrogate: Decachlorobiphenyl	*13.61*		*16.6667*		*81.6*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*14.43*		*16.6667*		*86.6*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*14.29*		*16.6667*		*85.7*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*13.62*		*16.6667*		*81.7*	*26 - 108*			
Matrix Spike (B7A0250-MS1)		**Source: 1700027-72**		Prepared: 1/9/2017 Analyzed: 1/10/2017					
4,4´-DDD	15.2653	2.0	16.6667	ND	91.6	25 - 141			
4,4´-DDD [2C]	14.4032	2.0	16.6667	ND	86.4	25 - 141			
4,4´-DDE	14.1162	2.0	16.6667	ND	84.7	22 - 141			
4,4´-DDE [2C]	13.8267	2.0	16.6667	ND	83.0	22 - 141			
4,4´-DDT	13.8778	2.0	16.6667	ND	83.3	15 - 136			
4,4´-DDT [2C]	13.1982	2.0	16.6667	ND	79.2	15 - 136			
Aldrin	14.5393	1.0	16.6667	ND	87.2	33 - 118			
Aldrin [2C]	13.3850	1.0	16.6667	ND	80.3	33 - 118			
alpha-BHC	14.8935	1.0	16.6667	ND	89.4	30 - 116			
alpha-BHC [2C]	14.0412	1.0	16.6667	ND	84.2	30 - 116			
alpha-Chlordane	14.1058	1.0	16.6667	ND	84.6	30 - 123			
alpha-Chlordane [2C]	13.9578	1.0	16.6667	ND	83.7	30 - 123			
beta-BHC	14.9495	1.0	16.6667	ND	89.7	24 - 121			
beta-BHC [2C]	13.8440	1.0	16.6667	ND	83.1	24 - 121			
delta-BHC	12.2842	1.0	16.6667	ND	73.7	7 - 120			
delta-BHC [2C]	11.3652	1.0	16.6667	ND	68.2	7 - 120			
Dieldrin	14.3682	2.0	16.6667	ND	86.2	25 - 136			
Dieldrin [2C]	14.0267	2.0	16.6667	ND	84.2	25 - 136			
Endosulfan I	13.8380	1.0	16.6667	ND	83.0	18 - 134			
Endosulfan I [2C]	13.7703	1.0	16.6667	ND	82.6	18 - 134			
Endosulfan II	13.7858	2.0	16.6667	ND	82.7	28 - 128			
Endosulfan II [2C]	12.9827	2.0	16.6667	ND	77.9	28 - 128			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0250 - GCSEMI_PCB/PEST_S (continued)									
Matrix Spike (B7A0250-MS1) - Continued		**Source: 1700027-72**		Prepared: 1/9/2017 Analyzed: 1/10/2017					
Endosulfan sulfate	13.4062	2.0	16.6667	ND	80.4	5 - 145			
Endosulfan Sulfate [2C]	13.3867	2.0	16.6667	ND	80.3	5 - 145			
Endrin	15.1508	2.0	16.6667	ND	90.9	26 - 142			
Endrin [2C]	14.8782	2.0	16.6667	ND	89.3	26 - 142			
Endrin aldehyde	14.2057	2.0	16.6667	ND	85.2	8 - 146			
Endrin aldehyde [2C]	13.6043	2.0	16.6667	ND	81.6	8 - 146			
Endrin ketone	15.7590	2.0	16.6667	ND	94.6	16 - 139			
Endrin ketone [2C]	13.7715	2.0	16.6667	ND	82.6	16 - 139			
gamma-BHC	15.3995	1.0	16.6667	ND	92.4	30 - 122			
gamma-BHC [2C]	14.4745	1.0	16.6667	ND	86.8	30 - 122			
gamma-Chlordane	14.0517	1.0	16.6667	ND	84.3	18 - 132			
gamma-Chlordane [2C]	13.2800	1.0	16.6667	ND	79.7	18 - 132			
Heptachlor	15.0885	1.0	16.6667	ND	90.5	34 - 122			
Heptachlor [2C]	15.2300	1.0	16.6667	ND	91.4	34 - 122			
Heptachlor epoxide	14.3763	1.0	16.6667	ND	86.3	21 - 135			
Heptachlor epoxide [2C]	13.5660	1.0	16.6667	ND	81.4	21 - 135			
Methoxychlor	13.8630	5.0	16.6667	ND	83.2	8 - 162			
Methoxychlor [2C]	15.0760	5.0	16.6667	ND	90.5	8 - 162			
Surrogate: Decachlorobiphenyl	*13.84*		*16.6667*		*83.0*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*14.62*		*16.6667*		*87.7*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*15.58*		*16.6667*		*93.5*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*13.53*		*16.6667*		*81.2*	*26 - 108*			
Matrix Spike Dup (B7A0250-MSD1)		**Source: 1700027-72**		Prepared: 1/9/2017 Analyzed: 1/10/2017					
4,4´-DDD	15.4042	2.0	16.6667	ND	92.4	25 - 141	0.905	20	
4,4´-DDD [2C]	14.4630	2.0	16.6667	ND	86.8	25 - 141	0.415	20	
4,4´-DDE	14.1698	2.0	16.6667	ND	85.0	22 - 141	0.379	20	
4,4´-DDE [2C]	13.7068	2.0	16.6667	ND	82.2	22 - 141	0.871	20	
4,4´-DDT	14.0960	2.0	16.6667	ND	84.6	15 - 136	1.56	20	
4,4´-DDT [2C]	13.1660	2.0	16.6667	ND	79.0	15 - 136	0.244	20	
Aldrin	14.4332	1.0	16.6667	ND	86.6	33 - 118	0.733	20	
Aldrin [2C]	13.2645	1.0	16.6667	ND	79.6	33 - 118	0.904	20	
alpha-BHC	15.0943	1.0	16.6667	ND	90.6	30 - 116	1.34	20	
alpha-BHC [2C]	14.2872	1.0	16.6667	ND	85.7	30 - 116	1.74	20	
alpha-Chlordane	14.1337	1.0	16.6667	ND	84.8	30 - 123	0.197	20	
alpha-Chlordane [2C]	13.7883	1.0	16.6667	ND	82.7	30 - 123	1.22	20	
beta-BHC	15.1250	1.0	16.6667	ND	90.7	24 - 121	1.17	20	
beta-BHC [2C]	13.9855	1.0	16.6667	ND	83.9	24 - 121	1.02	20	
delta-BHC	12.4280	1.0	16.6667	ND	74.6	7 - 120	1.16	20	
delta-BHC [2C]	11.2505	1.0	16.6667	ND	67.5	7 - 120	1.01	20	
Dieldrin	14.4153	2.0	16.6667	ND	86.5	25 - 136	0.328	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0250 - GCSEMI_PCB/PEST_S (continued)									
Matrix Spike Dup (B7A0250-MSD1) - Continued		**Source: 1700027-72**		Prepared: 1/9/2017 Analyzed: 1/10/2017					
Dieldrin [2C]	13.9047	2.0	16.6667	ND	83.4	25 - 136	0.874	20	
Endosulfan I	13.9583	1.0	16.6667	ND	83.7	18 - 134	0.866	20	
Endosulfan I [2C]	13.6503	1.0	16.6667	ND	81.9	18 - 134	0.875	20	
Endosulfan II	14.0498	2.0	16.6667	ND	84.3	28 - 128	1.90	20	
Endosulfan II [2C]	12.9683	2.0	16.6667	ND	77.8	28 - 128	0.111	20	
Endosulfan sulfate	13.4205	2.0	16.6667	ND	80.5	5 - 145	0.107	20	
Endosulfan Sulfate [2C]	12.7917	2.0	16.6667	ND	76.8	5 - 145	4.55	20	
Endrin	15.1555	2.0	16.6667	ND	90.9	26 - 142	0.0308	20	
Endrin [2C]	14.8782	2.0	16.6667	ND	89.3	26 - 142	0.00	20	
Endrin aldehyde	14.2567	2.0	16.6667	ND	85.5	8 - 146	0.358	20	
Endrin aldehyde [2C]	13.6687	2.0	16.6667	ND	82.0	8 - 146	0.472	20	
Endrin ketone	14.9492	2.0	16.6667	ND	89.7	16 - 139	5.27	20	
Endrin ketone [2C]	13.6620	2.0	16.6667	ND	82.0	16 - 139	0.798	20	
gamma-BHC	15.5705	1.0	16.6667	ND	93.4	30 - 122	1.10	20	
gamma-BHC [2C]	14.5802	1.0	16.6667	ND	87.5	30 - 122	0.727	20	
gamma-Chlordane	13.9488	1.0	16.6667	ND	83.7	18 - 132	0.735	20	
gamma-Chlordane [2C]	13.1627	1.0	16.6667	ND	79.0	18 - 132	0.887	20	
Heptachlor	15.2178	1.0	16.6667	ND	91.3	34 - 122	0.853	20	
Heptachlor [2C]	15.1087	1.0	16.6667	ND	90.7	34 - 122	0.800	20	
Heptachlor epoxide	14.3460	1.0	16.6667	ND	86.1	21 - 135	0.211	20	
Heptachlor epoxide [2C]	13.4573	1.0	16.6667	ND	80.7	21 - 135	0.804	20	
Methoxychlor	14.1408	5.0	16.6667	ND	84.8	8 - 162	1.98	20	
Methoxychlor [2C]	15.1052	5.0	16.6667	ND	90.6	8 - 162	0.193	20	
Surrogate: Decachlorobiphenyl	*13.45*		*16.6667*		*80.7*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*16.28*		*16.6667*		*97.7*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*15.59*		*16.6667*		*93.6*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*13.42*		*16.6667*		*80.5*	*26 - 108*			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Polychlorinated Biphenyls by EPA 8082 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0217 - GCSEMI_PCB/PEST_S									
Blank (B7A0217-BLK1)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Aroclor 1016	ND	16			NR				
Aroclor 1221	ND	16			NR				
Aroclor 1232	ND	16			NR				
Aroclor 1242	ND	16			NR				
Aroclor 1248	ND	16			NR				
Aroclor 1254	ND	16			NR				
Aroclor 1260	ND	16			NR				
Aroclor 1262	ND	16			NR				
Aroclor 1268	ND	16			NR				
Surrogate: Decachlorobiphenyl	*15.94*		*16.6667*		*95.7*	*26 - 137*			
Surrogate: Tetrachloro-m-xylene	*17.85*		*16.6667*		*107*	*28 - 102*			S1
LCS (B7A0217-BS1)				Prepared: 1/9/2017 Analyzed: 1/9/2017					
Aroclor 1016	160.662	16	166.667		96.4	70 - 107			
Aroclor 1260	176.765	16	166.667		106	69 - 120			
Surrogate: Decachlorobiphenyl	*15.69*		*16.6667*		*94.2*	*26 - 137*			
Surrogate: Tetrachloro-m-xylene	*17.13*		*16.6667*		*103*	*28 - 102*			S12
Duplicate (B7A0217-DUP1)		**Source: 1604921-32**		Prepared: 1/9/2017 Analyzed: 1/9/2017					
Aroclor 1016	ND	16		ND	NR			20	
Aroclor 1260	ND	16		ND	NR			20	
Surrogate: Decachlorobiphenyl	*15.69*		*16.6667*		*94.1*	*26 - 137*			
Surrogate: Tetrachloro-m-xylene	*16.86*		*16.6667*		*101*	*28 - 102*			
Matrix Spike (B7A0217-MS1)		**Source: 1604923-11**		Prepared: 1/9/2017 Analyzed: 1/9/2017					
Aroclor 1016	177.864	16	166.667	ND	107	34 - 120			
Aroclor 1260	196.301	16	166.667	ND	118	39 - 128			
Surrogate: Decachlorobiphenyl	*16.90*		*16.6667*		*101*	*26 - 137*			
Surrogate: Tetrachloro-m-xylene	*18.34*		*16.6667*		*110*	*28 - 102*			S12
Matrix Spike Dup (B7A0217-MSD1)		**Source: 1604923-11**		Prepared: 1/9/2017 Analyzed: 1/9/2017					
Aroclor 1016	170.224	16	166.667	ND	102	34 - 120	4.39	20	
Aroclor 1260	188.448	16	166.667	ND	113	39 - 128	4.08	20	
Surrogate: Decachlorobiphenyl	*16.27*		*16.6667*		*97.6*	*26 - 137*			
Surrogate: Tetrachloro-m-xylene	*17.68*		*16.6667*		*106*	*28 - 102*			S12

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/12/2017

Notes and Definitions

S12	Surrogate recovery outside in-house established limit but within method default criteria.
S1	Surrogate recovery was above laboratory acceptance limit. No target analyte was detected in the sample.
R3	RPD value outside acceptance criteria. Calculation is based on raw values. The analytical batch was validated by the Laboratory Control Sample (LCS).
R	RPD value outside acceptance criteria. Calculation is based on raw values.
M2	Matrix spike recovery outside of acceptance limit due to possible matrix interference. The analytical batch was validated by the laboratory control sample.
M1	Matrix spike recovery outside of acceptance limit. The analytical batch was validated by the laboratory control sample.
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:
(1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
(2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
(3) Results are wet unless otherwise specified.

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 1 of 3

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☑ ATL	1. CHILLED	☑	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☑
☐ GSO	3. CONTAINER INTACT	☑	☐	7. COOLER TEMP, deg C:	5.7, 5.	
☐ Other:	4. SEALED	☐	☑			

CUSTOMER

Company: Leighton Consulting, Inc. (LCI)	Address: 17781 Cowan			Tel: 949-250-1421
	City: Irvine	State: CA	Zip: 92614	Fax: 949-250-1114

SEND REPORT TO:	SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Julie Hamman Email: jhamman@leightongroup.com	Attn: AccountsPayable Email: acctpayable@leightongroup.com
Company: LCI	Company: Leighton
Address: 17781 Cowan	Address: 17781 Cowan
City: Irvine State: CA Zip: 92614	City: Irvine State: CA Zip: 92614

PROJECT SAMPLES

Project Name: Burroughs MS
Project No.: 603378.006
Sampler: W. Scoviers
Quote No: —
PO #: —
Special Instructions/Comments: Standard TAT

Encircle or Write Requested Analysis

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	(6010/7000 Arsenic	(6010/7000 Lead	Encircle Sample Matrix: SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE / FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	Container: #	Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7=Canister	Material: 1=Glass; 2=Plastic; 3=Metal	Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4=4C; 5=Zn (Ac)2; 6=NaOH; 7=NA2S2O3	QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV	REMARKS
1	1700027 - 1	EB22-1-0.5	1-3-17	0730					X				X	X	X					5	1	5	1	-		
2	- 2	EB22-1-0.5-D		0730					X	X			X	X												
3	- 3	EB22-1-1.5		0732					X				X	X												
4	- 4	EB22-1-1.5-D		0732					X				X	X												
5	- 5	EB22-1-2.5		0734																						HOLD
6	- 6	EB23-2-0.5		0745					X				X	X												
7	- 7	EB23-2-0.5-D		0745					X				X	X												
8	- 8	EB23-2-1.5		0746					X				X	X												
9	- 9	~~EB23~~ WBS 1-3-17 EB23-2-2.5		0749																						HOLD
10	- 10	EB24-5-0.5	↓	0756					X				X	X	↓					↓	↓	↓	↓	↓		

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab — ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for fi ve (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-fi ve (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Scoviers — Submitter Print Name — Signature

Relinquished by: (Signature and Printed Name) Wallace Scoviers	Date: 1-3-17	Time: 1735	Received by: (Signature and Printed Name)	Date: 1-3-17	Time: 1835
Relinquished by: (Signature and Printed Name)	Date: 1-3-17	Time: 1935	Received by: (Signature and Printed Name) FEDEX	Date: 1/3/17	Time: 1935
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 2 of 9

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☐ ATL	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☐
☐ GSO	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other: _____	4. SEALED	☐	☐			

CUSTOMER

Company:	Address:		Tel:
	City:	State:	Zip: Fax:

SEND REPORT TO:	SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Email:	Attn: Email:
Company:	Company:
Address: See Page #1	Address:
City: State: Zip:	City: State: Zip:

PROJECT SAMPLES

Project Name:	Quote No:	Special Instructions/Comments:
Project No.:	PO #:	
Sampler:		

Encircle or Write Requested Analysis: 8260 / 624 (Volatiles); 8015(GRO); 8015(DRO); 8270(Semi-volatiles); 8081(Organochlorine Pesticides); 8082(PCBs); 6010 / 7000(Title 22 Metals); TO-15; Lead 7420/7421; Arsenic 7060/7061

Encircle Sample Matrix: SOIL / SEDIMENT / SLUDGE; SOLIDS / WIPE/ FILTER; WATER - DRINKING / GROUND; WATER - STORM / WASTE; AQUEOUS / LAYERED - OIL

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	TAT	Container: #	Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7=Canister	Material: 1=Glass; 2=Plastic; 3=Metal	Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4 = 4C; 5=Zn (Ac)2; 6=NaOH; 7=NA2S2O3	REMARKS
1	1700027 - 11	EB24-S-0.5-D	1-3-17	0756	5	1	5	1	1	
2	- 12	EB24-S-1.0		0759						
3	- 13	EB24-S-1.0-D		0759						
4	- 14	EB24-4-0.5		0807						
5	- 15	EB24-4-0.5-D		0807						
6	- 16	EB24-4-1.5		0809						
7	- 17	EB24-4-1.5-D		0809						
8	- 18	EB24-4-2.5		0811						HOLD
9	- 19	EB25-1-0.5		0825						
10	- 20	EB25-1-0.5-D	↓	0825	↓	↓	↓	↓	↓	

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for five (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reformatted report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Stonich — Submitter Print Name

Signature

CUSTODY

Relinquished by: (Signature and Printed Name) Wallace Stonich	Date: 1-3-17	Time: 1855	Received by: (Signature and Printed Name)	Date: 1-3-17	Time: 1855
Relinquished by: (Signature and Printed Name)	Date: 1-3-17	Time: 1956	Received by: (Signature and Printed Name) Thomas	Date: 1/3/17	Time: 1935
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:

ADVANCED TECHNOLOGY LABORATORIES
3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☐ ATL	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☐
☐ GSO	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other: _____	4. SEALED	☐	☐			

CUSTOMER

Company:	Address:			Tel:
	City:	State:	Zip:	Fax:

SEND REPORT TO:	SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Email:	Attn: Email:
Company: See Page 11	Company:
Address:	Address:
City: State: Zip:	City: State: Zip:

PROJECT SAMPLES

Project Name:	Quote No:	Special Instructions/Comments:
Project No.:	PO #:	
Sampler:		

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	6010/7000 Arsenic	6010/7000 Lead	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE/ FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	Container #	Container Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7 = Canister	Container Material: 1=Glass; 2=Plastic; 3=Metal	Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4 = 4C; 5=Zn (Ac)2; 6=NaOH; 7=NA2S2O3	QA/QC / REMARKS
1	1700027-4	EB25-1-1.5	1-3-17	0827					X				X	X	X					5	1	5	1	1	
2	-22	EB25-1-2.5		0829																				HOLD
3	-23	EB3-1-0.5		0856					X	X			X	X										
4	-24	EB3-1-0.5-D		0856																				HOLD
5	-25	EB3-1-1.5		0858					X				X	X										
6	-26	EB3-1-1.5-D		0858					X				X	X										
7	-27	EB3-1-2.5		0900																				HOLD
8	-28	EB16-1-0.5		0920					X				X	X										
9	-29	EB16-1-1.5		0921					X				X	X										
10	-30	EB16-1-2.5		0922																				HOLD

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for five (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reformatted report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Seemen — Submitter Print Name

Signature

CUSTODY

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Wallace Seemen	1-3-17	1855		1-3-17	1855
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
	1-3-17	1935	FedEx	1/3/17	1935
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 1 of 8

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☐ ATL	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☐
☐ GSO	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other: _____	4. SEALED	☐	☐			

CUSTOMER

Company:	Address:			Tel:
	City:	State:	Zip:	Fax:

SEND REPORT TO:	SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Email: See Page	Attn: Email:
Company:	Company:
Address:	Address:
City: State: Zip:	City: State: Zip:

PROJECT SAMPLES

Project Name:	Quote No:	Special Instructions/Comments:
Project No.:	PO #:	
Sampler:		

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	6010/7000 Arsenic	6010/7000 Lead	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE/ FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	Container #	Container Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7 = Canister	Container Material: 1=Glass; 2=Plastic; 3=Metal	Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4 = 4C; 5=Zn (Ac)2; 6=NaOH; 7=NA2S2O3	REMARKS
1	17000127-31	EB2C-1-0.5	1-3-17	1020					X	X			X	X	X					5	1	5	1	1	
2	-32	EB2C-1-0.5-D		1020					X				X	X											
3	-33	EB2C-1-1.5		1021					X				X	X											
4	-34	EB2C-1-2.5		1022																					HOLD
5	-35	EB2C-2-0.5		1027					X				X	X											
6	-36	EB2C-2-0.5-D		1027					X				X	X											
7	-37	EB2C-2-1.5		1028					X				X	X											
8	-38	EB2C-2-2.5		1029																					HOLD
9	-39	EB2C-3-0.5		1032					X				X	X											
10	-40	EB2C-3-0.5-D		1032					X				X	X											

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab — ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for five (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reformatted report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Scomis — Submitter Print Name

Signature

CUSTODY

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Wallace Scomis	1-3-17	1935	Jonathan Lee	1-3-17	1935
Jonathan Lee	1-3-17	1935	Frans	1/3/17	1935
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 5 of 8

Instruction: Complete all shaded areas.

For Laboratory Use Only					ATLCOC Ver: 20130715
Method of Transport	**Sample Conditions Upon Receipt**				
	Condition	Y	N	Condition	Y	N
☐ Client ☐ ATL	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (V0A)	☐	☐	6. PRESERVED	☐	☐
☐ GSO	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other:	4. SEALED	☐	☐			

CUSTOMER

Company:	Address:			Tel:
	City:	State:	Zip:	Fax:

SEND REPORT TO:	SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Email:	Attn: Email:
Company:	Company:
Address: See Page	Address: #1
City: State: Zip	City: State: Zip:

PROJECT SAMPLES

Project Name:	Quote No:	Special Instructions/Comments:
Project No.:	PO #:	
Sampler:		

| ITEM | Lab No. | Sample Description: Sample ID / Location | Date | Time | 8260 / 624 (Volatiles) | 8015(GRO) | 8015(DRO) | 8270(Semi-volatiles) | 8081(Organochlorine Pesticides) | 8082(PCBs) | 6010 / 7000(Title 22 Metals) | TO-15 | Lead/Tec Arsenic | Lead/Tec Lead | | | | |

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 6 of 8

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☐ ATL	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☐
☐ GSO	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other: _____	4. SEALED	☐	☐			

CUSTOMER

Company:	Address:			Tel:
	City:	State:	Zip:	Fax:

SEND REPORT TO:	SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Email:	Attn: Email:
Company: See Page	Company:
Address:	Address:
City: State: Zip:	City: State: Zip:

PROJECT SAMPLES

Project Name:	Quote No:	Special Instructions/Comments:
Project No.:	PO #:	
Sampler:		

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	LUFT 6000 Arsenic	LUFT 6000 Lead	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE/ FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	Container: #	Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7 = Canister	Material: 1=Glass; 2=Plastic; 3=Metal	Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4 = 4C; 5=Zn (Ac)2; 6=NaOH; 7=NA2S2O3	REMARKS
1	1700027 -51	EB2C-6-1.5	1-3-17	1236					X			X	X	X	X					5	1	5	1	1	
2	-52	EB2C-6-1.5-D		1236					X			X	X	X	X										
3	-53	EB2C-6-2.5		1237																					HOLD
4	-54	EB2C-5-0.5		1257					X			X	X	X	X										
5	-55	EB2C-5-0.5-D		1257					X			X	X	X	X										
6	-56	EB2C-5-1.5		1258					X			X	X	X	X										
7	-57	EB2C-5-1.5-D		1258					X			X	X	X	X										
8	-58	EB2C-5-2.5		1259																					HOLD
9	-59	EB2C-7-0.5		1300					X			X	X	X	X										
10	-60	EB2C-7-1.5		1301					X			X	X	X	X										

Encircle or Write Requested Analysis

Encircle Sample Matrix

Container

QA/QC
- ☐ Routine
- ☐ Caltrans
- ☐ Legal
- ☐ RWQCB
- ☐ Level IV

TERMS & CONDITIONS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge -SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for five (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees.
   - Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Seamens — Submitter Print Name

Signature

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
J. Wallace Seamens	1-3-17	1835		1-3-17	1835
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
	1-3-17	1935	Rojas	1/3/17	1935
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:

ADVANCED ATECHNOLOGY LABORATORIES
3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☐ ATL	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☐
☐ GSO	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other: _____	4. SEALED	☐	☐			

CUSTOMER

Company: | Address: | Tel:
City: | State: | Zip: | Fax:

SEND REPORT TO:
Attn: | Email:
Company:
Address:
City: | State: | Zip:

SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: | Email:
Company:
Address:
City: | State: | Zip:

PROJECT SAMPLES

Project Name: | Quote No: | Special Instructions/Comments:
Project No.: | PO #:
Sampler:

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	6010 Tccc Arsenic	6010 Tccc Lead	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE / FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	Container: #	Container: Type (1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7=Canister)	Container: Material (1=Glass; 2=Plastic; 3=Metal)	Preservative (1=HCl; 2=HNO3; 3=H2SO4; 4=4C; 5=Zn (Ac)2; 6=NaOH; 7=NA2SO3)	QA/QC / REMARKS
1	1700027-01	EB20-7-2.5	1-3-17	1302											X					5	1	5	1	-	HOLD
2	-02	EB20-8-0.5		1310					X				X	X											
3	-03	EB20-8-0.5-D		1310					X				X	X											
4	-04	EB20-8-1.5		1311					X				X	X											
5	-05	EB20-8-1.5-D		1311					X				X	X											
6	-06	EB20-8-2.5		1312																					HOLD
7	-07	EB25-2-0.5		1450					X				X	X											
8	-08	EB23-1-0.5		1505					X				X	X											
9	-09	EB23-1-1.5		1506					X				X	X											
10	-10	EB23-1-2.5	↓	1507											↓					↓	↓	↓	↓	↓	HOLD

TERMS & CONDITIONS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for fi ve (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-fi ve (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Seamers — Submitter Print Name | Signature

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Wallace Seamers	1-3-17	1835		1-3-17	1835
	1-3-17	1935	Fedex	1/3/17	1935

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 8 of 8

Instruction: Complete all shaded areas.

For Laboratory Use Only					ATLCOC Ver: 20130715
Method of Transport		**Sample Conditions Upon Receipt**			
		Condition	Y	N	Condition	Y	N
☐ Client ☐ ATL		1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac		2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☐
☐ GSO		3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other: _____		4. SEALED	☐	☐			

CUSTOMER

Company:	Address:		Tel:
	City:	State: Zip:	Fax:

SEND REPORT TO:	SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Email:	Attn: Email:
Company: See Page	Company: #1
Address:	Address:
City: State: Zip:	City: State: Zip:

PROJECT SAMPLES

Project Name:	Quote No:	Special Instructions/Comments:
Project No.:	PO #:	
Sampler:		

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	6010/7000 Arsenic	6010/7000 Lead	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE/ FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	Container: #	Type	Material	Preservative	QA/QC / REMARKS
1	1700027 -71	EB6-3-0.5	1-3-17	1548					X				X	X	X					5	1	5	1	-	
2	-72	EB6-3-1.5	↓	1549					X				X	X	X					5	1	5	1	-	
3	-73	EB6-3-2.5	↓	1550																					HOLD
4																									
5																									
6																									
7																									
8																									
9																									
10																									

Encircle or Write Requested Analysis

Encircle Sample Matrix

Container: **Type:** 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7 = Canister; **Material:** 1=Glass; 2=Plastic; 3=Metal; **Preservative:** 1=HCl; 2=HNO3; 3=H2SO4; 4 = 4C; 5=Zn (Ac)2; 6=NaOH; 7=NA2S2O3

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

TERMS & CONDITIONS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab ··· ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for fi ve (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-fi ve (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Stemicio — Submitter Print Name

Signature

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Wallace Stemicio	1-3-17	1835		1-3-17	1835
	1-3-17	1955		1/3/17	1935

ADVANCED TECHNOLOGY LABORATORIES

January 20, 2017

Julie Harriman
Leighton Consulting, Inc.
17781 Cowan Street
Irvine, CA 92614
Tel: (949) 250-1421
Fax:(949) 757-7230

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1700027
Client Reference : Burroughs MS, 603378.006

Enclosed are the results for sample(s) received on January 03, 2017 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	01/20/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
EB23-2-0.5-D	1700027-07	Soil	1/03/17 7:45	1/03/17 18:35
EB16-1-1.5	1700027-29	Soil	1/03/17 9:21	1/03/17 18:35
EB20-2-1.5	1700027-37	Soil	1/03/17 10:28	1/03/17 18:35
EB20-6-0.5	1700027-49	Soil	1/03/17 12:35	1/03/17 18:35
EB20-6-0.5-D	1700027-50	Soil	1/03/17 12:35	1/03/17 18:35
EB23-1-0.5	1700027-68	Soil	1/03/17 15:45	1/03/17 18:35

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	01/20/2017

Client Sample ID EB23-2-0.5-D

Lab ID: 1700027-07

TCLP Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	0.25	0.014	5	B7A0565	01/19/2017	01/19/17 16:28	D1

STLC Metals by ICP-AES by EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**2.0**	1.0	0.057	20	B7A0562	01/19/2017	01/19/17 15:49	D1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/20/2017

Client Sample ID EB16-1-1.5

Lab ID: 1700027-29

STLC Metals by ICP-AES by EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**0.64**	1.0	0.057	20	B7A0562	01/19/2017	01/19/17 15:51	D1, J

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/20/2017

Client Sample ID EB20-2-1.5

Lab ID: 1700027-37

STLC Metals by ICP-AES by EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**0.56**	1.0	0.057	20	B7A0562	01/19/2017	01/19/17 15:52	D1, J

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/20/2017

Client Sample ID EB20-6-0.5

Lab ID: 1700027-49

STLC Metals by ICP-AES by EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**7.3**	1.0	0.057	20	B7A0562	01/19/2017	01/19/17 15:55	D1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/20/2017

Client Sample ID EB20-6-0.5-D

Lab ID: 1700027-50

TCLP Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**0.041**	0.25	0.014	5	B7A0565	01/19/2017	01/19/17 16:31	D1, J

STLC Metals by ICP-AES by EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**10**	1.0	0.057	20	B7A0562	01/19/2017	01/19/17 15:57	D1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/20/2017

Client Sample ID EB23-1-0.5

Lab ID: 1700027-68

STLC Metals by ICP-AES by EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**0.24**	1.0	0.057	20	B7A0562	01/19/2017	01/19/17 15:58	D1, J

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/20/2017

QUALITY CONTROL SECTION

TCLP Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0565 - EPA 3010A_S									
Blank (B7A0565-BLK1)				Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	ND	0.050			NR				
Blank (B7A0565-BLK2)				Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	ND	0.050			NR				
LCS (B7A0565-BS1)				Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	1.00048	0.050	1.00000		100	80 - 120			
Duplicate (B7A0565-DUP1)		**Source: 1700068-97**		Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	0.033328	0.25		0.042393	NR		23.9	20	R, J
Duplicate (B7A0565-DUP2)		**Source: 1604923-17**		Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	0.111112	0.25		0.136256	NR		20.3	20	R, J
Matrix Spike (B7A0565-MS1)		**Source: 1700068-97**		Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	2.36348	0.25	2.50000	0.042393	92.8	78 - 109			
Matrix Spike (B7A0565-MS2)		**Source: 1604923-17**		Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	2.47318	0.25	2.50000	0.136256	93.5	78 - 109			
Matrix Spike Dup (B7A0565-MSD1)		**Source: 1700068-97**		Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	2.29686	0.25	2.50000	0.042393	90.2	78 - 109	2.86	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/20/2017

STLC Metals by ICP-AES by EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0562 - STLC_S Extraction									
Blank (B7A0562-BLK1)				Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	ND	1.0			NR				
Blank (B7A0562-BLK2)				Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	ND	1.0			NR				
LCS (B7A0562-BS1)				Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	1.95830		2.00000		97.9	80 - 120			
Duplicate (B7A0562-DUP1)		**Source: 1604923-17**		Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	7.36136	1.0		6.66843	NR		9.88	20	
Duplicate (B7A0562-DUP2)		**Source: 1700068-16**		Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	1.54080	1.0		1.54702	NR		0.403	20	
Matrix Spike (B7A0562-MS1)		**Source: 1604923-17**		Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	8.64934		2.50000	6.66843	79.2	44 - 130			
Matrix Spike (B7A0562-MS2)		**Source: 1700068-16**		Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	3.83305		2.50000	1.54702	91.4	44 - 130			
Matrix Spike Dup (B7A0562-MSD1)		**Source: 1604923-17**		Prepared: 1/19/2017 Analyzed: 1/19/2017					
Lead	8.89759		2.50000	6.66843	89.2	44 - 130	2.83	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/20/2017

Notes and Definitions

R	RPD value outside acceptance criteria. Calculation is based on raw values.
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:
(1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
(2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
(3) Results are wet unless otherwise specified.

Rachelle Arada

From: Julie Harriman [jharriman@leightongroup.com]
Sent: Friday, January 13, 2017 11:49 AM
To: Rachelle Arada
Cc: Robert Lovdahl
Subject: Burroughs MS Samples

Rachelle:

Please run soil samples that exceeded 50 mg/kg TTLC-lead for STLC-lead.
Please run soil samples that exceeded 100 mg/kg TTLC-lead for TCLP-lead.

There are approximately 34 samples affected. Do you need me to list all the samples?

Thank you,

Julie C. Harriman, P.E.
Associate Engineer
Leighton
17781 Cowan, Irvine, CA 92614
(949) 681-4264 – Direct
(949) 572-8129 – Cell

Geotechnical | Geoenvironmental | Materials Testing

SOLUTIONS YOU CAN BUILD ON

ADVANCED TECHNOLOGY LABORATORIES

January 13, 2017

Julie Harriman
Leighton Consulting, Inc.
17781 Cowan Street
Irvine, CA 92614
Tel: (949) 250-1421
Fax:(949) 757-7230

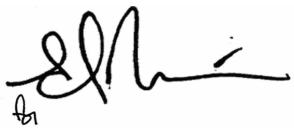
ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1700028
Client Reference : Burroughs MS, 603378.006

Enclosed are the results for sample(s) received on January 03, 2017 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,



Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FB2-2-0.5	1700028-01	Soil	1/03/17 10:00	1/03/17 18:35
FB2-2-1.5	1700028-02	Soil	1/03/17 10:01	1/03/17 18:35
FB2-2-2.5	1700028-03	Soil	1/03/17 10:02	1/03/17 18:35
FB2-4-0.5	1700028-04	Soil	1/03/17 10:04	1/03/17 18:35
FB2-4-1.5	1700028-05	Soil	1/03/17 10:05	1/03/17 18:35
FB2-4-2.5	1700028-06	Soil	1/03/17 10:06	1/03/17 18:35
FB2-3-0.5	1700028-07	Soil	1/03/17 10:10	1/03/17 18:35
FB2-3-1.5	1700028-08	Soil	1/03/17 10:11	1/03/17 18:35
FB2-3-2.5	1700028-09	Soil	1/03/17 10:12	1/03/17 18:35
FB2-1-0.5	1700028-10	Soil	1/03/17 10:13	1/03/17 18:35
FB2-1-1.5	1700028-11	Soil	1/03/17 10:14	1/03/17 18:35
FB2-1-2.5	1700028-12	Soil	1/03/17 10:15	1/03/17 18:35
FB1-7-0.5	1700028-13	Soil	1/03/17 13:30	1/03/17 18:35
FB1-7-0.5-D	1700028-14	Soil	1/03/17 13:30	1/03/17 18:35
FB1-5-0.5	1700028-15	Soil	1/03/17 13:36	1/03/17 18:35
FB1-5-0.5-D	1700028-16	Soil	1/03/17 13:36	1/03/17 18:35
FB1-5-1.5	1700028-17	Soil	1/03/17 13:37	1/03/17 18:35
FB1-5-1.5-D	1700028-18	Soil	1/03/17 13:37	1/03/17 18:35
FB1-5-2.5	1700028-19	Soil	1/03/17 13:38	1/03/17 18:35
FB1-6-0.5	1700028-20	Soil	1/03/17 13:40	1/03/17 18:35
FB1-6-1.5	1700028-22	Soil	1/03/17 13:41	1/03/17 18:35
FB1-6-1.5-D	1700028-23	Soil	1/03/17 13:41	1/03/17 18:35
FB1-6-2.5	1700028-24	Soil	1/03/17 13:42	1/03/17 18:35
FB1-3-0.5	1700028-25	Soil	1/03/17 13:50	1/03/17 18:35
FB1-3-0.5-D	1700028-26	Soil	1/03/17 13:50	1/03/17 18:35
FB1-3-1.5	1700028-27	Soil	1/03/17 13:51	1/03/17 18:35
FB1-3-1.5-D	1700028-28	Soil	1/03/17 13:51	1/03/17 18:35
FB1-3-2.5	1700028-29	Soil	1/03/17 13:52	1/03/17 18:35
FB1-4-0.5	1700028-30	Soil	1/03/17 14:00	1/03/17 18:35
FB1-4-0.5-D	1700028-31	Soil	1/03/17 14:00	1/03/17 18:35
FB1-4-1.5	1700028-32	Soil	1/03/17 14:01	1/03/17 18:35
FB1-4-1.5-D	1700028-33	Soil	1/03/17 14:01	1/03/17 18:35
FB1-4-2.5	1700028-34	Soil	1/03/17 14:02	1/03/17 18:35
FB1-1-0.5	1700028-35	Soil	1/03/17 14:04	1/03/17 18:35
FB1-1-0.5-D	1700028-36	Soil	1/03/17 14:04	1/03/17 18:35
FB1-1-1.5	1700028-37	Soil	1/03/17 14:06	1/03/17 18:35
FB1-1-1.5-D	1700028-38	Soil	1/03/17 14:06	1/03/17 18:35

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	01/13/2017

FB1-1-2.5	1700028-39	Soil	1/03/17 14:07	1/03/17 18:35
FB1-2-0.5	1700028-40	Soil	1/03/17 14:09	1/03/17 18:35
FB1-2-0.5-D	1700028-41	Soil	1/03/17 14:09	1/03/17 18:35
FB1-2-1.5	1700028-42	Soil	1/03/17 14:10	1/03/17 18:35
FB1-2-1.5-D	1700028-43	Soil	1/03/17 14:10	1/03/17 18:35
FB1-2-2.5	1700028-44	Soil	1/03/17 14:11	1/03/17 18:35
FB15-1-0.5	1700028-45	Soil	1/03/17 15:00	1/03/17 18:35
FB15-1-1.5	1700028-46	Soil	1/03/17 15:01	1/03/17 18:35
FB15-1-2.5	1700028-47	Soil	1/03/17 15:02	1/03/17 18:35
FB15-2-0.5	1700028-48	Soil	1/03/17 15:03	1/03/17 18:35
FB15-2-1.5	1700028-49	Soil	1/03/17 15:04	1/03/17 18:35
FB15-2-2.5	1700028-50	Soil	1/03/17 15:05	1/03/17 18:35
FB15-3-0.5	1700028-51	Soil	1/03/17 15:06	1/03/17 18:35
FB15-3-1.5	1700028-52	Soil	1/03/17 15:07	1/03/17 18:35
FB15-3-2.5	1700028-53	Soil	1/03/17 15:08	1/03/17 18:35
FB15-4-0.5	1700028-54	Soil	1/03/17 15:09	1/03/17 18:35
FB15-4-1.5	1700028-55	Soil	1/03/17 15:10	1/03/17 18:35
FB15-4-2.5	1700028-56	Soil	1/03/17 15:11	1/03/17 18:35

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB2-2-0.5
Lab ID: 1700028-01

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.0**	1.0	0.70	1	B7A0281	01/10/2017	01/11/17 16:12	
Lead	**13**	1.0	0.11	1	B7A0281	01/10/2017	01/11/17 16:12	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0271	01/10/2017	01/11/17 17:16	
4,4´-DDE	ND	2.0	0.20	1	B7A0271	01/10/2017	01/11/17 17:16	
4,4´-DDT	ND	2.0	0.13	1	B7A0271	01/10/2017	01/11/17 17:16	
Aldrin	ND	1.0	0.27	1	B7A0271	01/10/2017	01/11/17 17:16	
alpha-BHC	ND	1.0	0.20	1	B7A0271	01/10/2017	01/11/17 17:16	
alpha-Chlordane	**0.27**	1.0	0.21	1	B7A0271	01/10/2017	01/11/17 17:16	J
beta-BHC	ND	1.0	0.23	1	B7A0271	01/10/2017	01/11/17 17:16	
Chlordane [2C]	**3.5**	8.5	0.90	1	B7A0271	01/10/2017	01/11/17 17:16	J
delta-BHC	ND	1.0	0.21	1	B7A0271	01/10/2017	01/11/17 17:16	
Dieldrin	ND	2.0	0.25	1	B7A0271	01/10/2017	01/11/17 17:16	
Endosulfan I	ND	1.0	0.21	1	B7A0271	01/10/2017	01/11/17 17:16	
Endosulfan II	ND	2.0	0.22	1	B7A0271	01/10/2017	01/11/17 17:16	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0271	01/10/2017	01/11/17 17:16	
Endrin	ND	2.0	0.23	1	B7A0271	01/10/2017	01/11/17 17:16	
Endrin aldehyde	ND	2.0	0.28	1	B7A0271	01/10/2017	01/11/17 17:16	
Endrin ketone	ND	2.0	0.20	1	B7A0271	01/10/2017	01/11/17 17:16	
gamma-BHC	ND	1.0	0.20	1	B7A0271	01/10/2017	01/11/17 17:16	
gamma-Chlordane	**0.28**	1.0	0.23	1	B7A0271	01/10/2017	01/11/17 17:16	J
Heptachlor	ND	1.0	0.19	1	B7A0271	01/10/2017	01/11/17 17:16	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0271	01/10/2017	01/11/17 17:16	
Methoxychlor	ND	5.0	0.18	1	B7A0271	01/10/2017	01/11/17 17:16	
Toxaphene	ND	50	8.2	1	B7A0271	01/10/2017	01/11/17 17:16	
Surrogate: Decachlorobiphenyl	*53.5 %*	*27 - 123*			B7A0271	01/10/2017	*01/11/17 17:16*	
Surrogate: Tetrachloro-m-xylene	*51.1 %*	*26 - 108*			B7A0271	01/10/2017	*01/11/17 17:16*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB2-2-1.5
Lab ID: 1700028-02

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.9**	1.0	0.70	1	B7A0282	01/10/2017	01/11/17 16:17	
Lead	**3.4**	1.0	0.11	1	B7A0282	01/10/2017	01/11/17 16:17	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0271	01/10/2017	01/11/17 17:27	
4,4´-DDE	ND	2.0	0.20	1	B7A0271	01/10/2017	01/11/17 17:27	
4,4´-DDT	ND	2.0	0.13	1	B7A0271	01/10/2017	01/11/17 17:27	
Aldrin	ND	1.0	0.27	1	B7A0271	01/10/2017	01/11/17 17:27	
alpha-BHC	ND	1.0	0.20	1	B7A0271	01/10/2017	01/11/17 17:27	
alpha-Chlordane	ND	1.0	0.21	1	B7A0271	01/10/2017	01/11/17 17:27	
beta-BHC	ND	1.0	0.23	1	B7A0271	01/10/2017	01/11/17 17:27	
Chlordane	ND	8.5	0.90	1	B7A0271	01/10/2017	01/11/17 17:27	
delta-BHC	ND	1.0	0.21	1	B7A0271	01/10/2017	01/11/17 17:27	
Dieldrin	ND	2.0	0.25	1	B7A0271	01/10/2017	01/11/17 17:27	
Endosulfan I	ND	1.0	0.21	1	B7A0271	01/10/2017	01/11/17 17:27	
Endosulfan II	ND	2.0	0.22	1	B7A0271	01/10/2017	01/11/17 17:27	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0271	01/10/2017	01/11/17 17:27	
Endrin	ND	2.0	0.23	1	B7A0271	01/10/2017	01/11/17 17:27	
Endrin aldehyde	ND	2.0	0.28	1	B7A0271	01/10/2017	01/11/17 17:27	
Endrin ketone	ND	2.0	0.20	1	B7A0271	01/10/2017	01/11/17 17:27	
gamma-BHC	ND	1.0	0.20	1	B7A0271	01/10/2017	01/11/17 17:27	
gamma-Chlordane	ND	1.0	0.23	1	B7A0271	01/10/2017	01/11/17 17:27	
Heptachlor	ND	1.0	0.19	1	B7A0271	01/10/2017	01/11/17 17:27	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0271	01/10/2017	01/11/17 17:27	
Methoxychlor	ND	5.0	0.18	1	B7A0271	01/10/2017	01/11/17 17:27	
Toxaphene	ND	50	8.2	1	B7A0271	01/10/2017	01/11/17 17:27	
Surrogate: Decachlorobiphenyl	*91.3 %*		*27 - 123*		B7A0271	01/10/2017	*01/11/17 17:27*	
Surrogate: Tetrachloro-m-xylene	*86.5 %*		*26 - 108*		B7A0271	01/10/2017	*01/11/17 17:27*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB2-2-2.5

Lab ID: 1700028-03

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.8**	1.0	0.70	1	B7A0282	01/10/2017	01/11/17 16:22	
Lead	**3.0**	1.0	0.11	1	B7A0282	01/10/2017	01/11/17 16:22	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0271	01/10/2017	01/11/17 17:37	
4,4´-DDE	ND	2.0	0.20	1	B7A0271	01/10/2017	01/11/17 17:37	
4,4´-DDT	ND	2.0	0.13	1	B7A0271	01/10/2017	01/11/17 17:37	
Aldrin	ND	1.0	0.27	1	B7A0271	01/10/2017	01/11/17 17:37	
alpha-BHC	ND	1.0	0.20	1	B7A0271	01/10/2017	01/11/17 17:37	
alpha-Chlordane	ND	1.0	0.21	1	B7A0271	01/10/2017	01/11/17 17:37	
beta-BHC	ND	1.0	0.23	1	B7A0271	01/10/2017	01/11/17 17:37	
Chlordane	ND	8.5	0.90	1	B7A0271	01/10/2017	01/11/17 17:37	
delta-BHC	ND	1.0	0.21	1	B7A0271	01/10/2017	01/11/17 17:37	
Dieldrin	ND	2.0	0.25	1	B7A0271	01/10/2017	01/11/17 17:37	
Endosulfan I	ND	1.0	0.21	1	B7A0271	01/10/2017	01/11/17 17:37	
Endosulfan II	ND	2.0	0.22	1	B7A0271	01/10/2017	01/11/17 17:37	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0271	01/10/2017	01/11/17 17:37	
Endrin	ND	2.0	0.23	1	B7A0271	01/10/2017	01/11/17 17:37	
Endrin aldehyde	ND	2.0	0.28	1	B7A0271	01/10/2017	01/11/17 17:37	
Endrin ketone	ND	2.0	0.20	1	B7A0271	01/10/2017	01/11/17 17:37	
gamma-BHC	ND	1.0	0.20	1	B7A0271	01/10/2017	01/11/17 17:37	
gamma-Chlordane	ND	1.0	0.23	1	B7A0271	01/10/2017	01/11/17 17:37	
Heptachlor	ND	1.0	0.19	1	B7A0271	01/10/2017	01/11/17 17:37	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0271	01/10/2017	01/11/17 17:37	
Methoxychlor	ND	5.0	0.18	1	B7A0271	01/10/2017	01/11/17 17:37	
Toxaphene	ND	50	8.2	1	B7A0271	01/10/2017	01/11/17 17:37	
Surrogate: Decachlorobiphenyl	*84.9 %*		*27 - 123*		B7A0271	01/10/2017	*01/11/17 17:37*	
Surrogate: Tetrachloro-m-xylene	*80.6 %*		*26 - 108*		B7A0271	01/10/2017	*01/11/17 17:37*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB2-4-0.5
Lab ID: 1700028-04

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.6**	1.0	0.70	1	B7A0282	01/10/2017	01/11/17 16:24	
Lead	**11**	1.0	0.11	1	B7A0282	01/10/2017	01/11/17 16:24	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0271	01/10/2017	01/11/17 17:48	
4,4´-DDE	ND	2.0	0.20	1	B7A0271	01/10/2017	01/11/17 17:48	
4,4´-DDT	ND	2.0	0.13	1	B7A0271	01/10/2017	01/11/17 17:48	
Aldrin	ND	1.0	0.27	1	B7A0271	01/10/2017	01/11/17 17:48	
alpha-BHC	ND	1.0	0.20	1	B7A0271	01/10/2017	01/11/17 17:48	
alpha-Chlordane	**0.22**	1.0	0.21	1	B7A0271	01/10/2017	01/11/17 17:48	J
beta-BHC	ND	1.0	0.23	1	B7A0271	01/10/2017	01/11/17 17:48	
Chlordane [2C]	**2.0**	8.5	0.90	1	B7A0271	01/10/2017	01/11/17 17:48	J
delta-BHC	ND	1.0	0.21	1	B7A0271	01/10/2017	01/11/17 17:48	
Dieldrin	ND	2.0	0.25	1	B7A0271	01/10/2017	01/11/17 17:48	
Endosulfan I	ND	1.0	0.21	1	B7A0271	01/10/2017	01/11/17 17:48	
Endosulfan II	ND	2.0	0.22	1	B7A0271	01/10/2017	01/11/17 17:48	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0271	01/10/2017	01/11/17 17:48	
Endrin	ND	2.0	0.23	1	B7A0271	01/10/2017	01/11/17 17:48	
Endrin aldehyde	ND	2.0	0.28	1	B7A0271	01/10/2017	01/11/17 17:48	
Endrin ketone	ND	2.0	0.20	1	B7A0271	01/10/2017	01/11/17 17:48	
gamma-BHC	ND	1.0	0.20	1	B7A0271	01/10/2017	01/11/17 17:48	
gamma-Chlordane	ND	1.0	0.23	1	B7A0271	01/10/2017	01/11/17 17:48	
Heptachlor	ND	1.0	0.19	1	B7A0271	01/10/2017	01/11/17 17:48	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0271	01/10/2017	01/11/17 17:48	
Methoxychlor	ND	5.0	0.18	1	B7A0271	01/10/2017	01/11/17 17:48	
Toxaphene	ND	50	8.2	1	B7A0271	01/10/2017	01/11/17 17:48	
Surrogate: Decachlorobiphenyl	*97.6 %*		*27 - 123*		B7A0271	01/10/2017	*01/11/17 17:48*	
Surrogate: Tetrachloro-m-xylene	*89.4 %*		*26 - 108*		B7A0271	01/10/2017	*01/11/17 17:48*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB2-4-1.5
Lab ID: 1700028-05

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.9**	1.0	0.70	1	B7A0282	01/10/2017	01/11/17 16:25	
Lead	**3.3**	1.0	0.11	1	B7A0282	01/10/2017	01/11/17 16:25	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0271	01/10/2017	01/11/17 17:59	
4,4´-DDE	ND	2.0	0.20	1	B7A0271	01/10/2017	01/11/17 17:59	
4,4´-DDT	ND	2.0	0.13	1	B7A0271	01/10/2017	01/11/17 17:59	
Aldrin	ND	1.0	0.27	1	B7A0271	01/10/2017	01/11/17 17:59	
alpha-BHC	ND	1.0	0.20	1	B7A0271	01/10/2017	01/11/17 17:59	
alpha-Chlordane	ND	1.0	0.21	1	B7A0271	01/10/2017	01/11/17 17:59	
beta-BHC	ND	1.0	0.23	1	B7A0271	01/10/2017	01/11/17 17:59	
Chlordane	ND	8.5	0.90	1	B7A0271	01/10/2017	01/11/17 17:59	
delta-BHC	ND	1.0	0.21	1	B7A0271	01/10/2017	01/11/17 17:59	
Dieldrin	ND	2.0	0.25	1	B7A0271	01/10/2017	01/11/17 17:59	
Endosulfan I	ND	1.0	0.21	1	B7A0271	01/10/2017	01/11/17 17:59	
Endosulfan II	ND	2.0	0.22	1	B7A0271	01/10/2017	01/11/17 17:59	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0271	01/10/2017	01/11/17 17:59	
Endrin	ND	2.0	0.23	1	B7A0271	01/10/2017	01/11/17 17:59	
Endrin aldehyde	ND	2.0	0.28	1	B7A0271	01/10/2017	01/11/17 17:59	
Endrin ketone	ND	2.0	0.20	1	B7A0271	01/10/2017	01/11/17 17:59	
gamma-BHC	ND	1.0	0.20	1	B7A0271	01/10/2017	01/11/17 17:59	
gamma-Chlordane	ND	1.0	0.23	1	B7A0271	01/10/2017	01/11/17 17:59	
Heptachlor	ND	1.0	0.19	1	B7A0271	01/10/2017	01/11/17 17:59	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0271	01/10/2017	01/11/17 17:59	
Methoxychlor	ND	5.0	0.18	1	B7A0271	01/10/2017	01/11/17 17:59	
Toxaphene	ND	50	8.2	1	B7A0271	01/10/2017	01/11/17 17:59	
Surrogate: Decachlorobiphenyl	*85.1 %*		*27 - 123*		B7A0271	01/10/2017	*01/11/17 17:59*	
Surrogate: Tetrachloro-m-xylene	*80.0 %*		*26 - 108*		B7A0271	01/10/2017	*01/11/17 17:59*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB2-4-2.5
Lab ID: 1700028-06

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.8**	1.0	0.70	1	B7A0282	01/10/2017	01/11/17 16:26	
Lead	**3.5**	1.0	0.11	1	B7A0282	01/10/2017	01/11/17 16:26	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	20	2.2	10	B7A0271	01/10/2017	01/12/17 16:27	D1
4,4´-DDE	ND	20	2.0	10	B7A0271	01/10/2017	01/12/17 16:27	D1
4,4´-DDT	ND	20	1.3	10	B7A0271	01/10/2017	01/12/17 16:27	D1
Aldrin	ND	10	2.7	10	B7A0271	01/10/2017	01/12/17 16:27	D1
alpha-BHC	ND	10	2.0	10	B7A0271	01/10/2017	01/12/17 16:27	D1
alpha-Chlordane	ND	10	2.1	10	B7A0271	01/10/2017	01/12/17 16:27	D1
beta-BHC	ND	10	2.3	10	B7A0271	01/10/2017	01/12/17 16:27	D1
Chlordane	ND	85	9.0	10	B7A0271	01/10/2017	01/12/17 16:27	D1
delta-BHC	ND	10	2.1	10	B7A0271	01/10/2017	01/12/17 16:27	D1
Dieldrin	ND	20	2.5	10	B7A0271	01/10/2017	01/12/17 16:27	D1
Endosulfan I	ND	10	2.1	10	B7A0271	01/10/2017	01/12/17 16:27	D1
Endosulfan II	ND	20	2.2	10	B7A0271	01/10/2017	01/12/17 16:27	D1
Endosulfan sulfate	ND	20	2.1	10	B7A0271	01/10/2017	01/12/17 16:27	D1
Endrin	ND	20	2.3	10	B7A0271	01/10/2017	01/12/17 16:27	D1
Endrin aldehyde	ND	20	2.8	10	B7A0271	01/10/2017	01/12/17 16:27	D1
Endrin ketone	ND	20	2.0	10	B7A0271	01/10/2017	01/12/17 16:27	D1
gamma-BHC	ND	10	2.0	10	B7A0271	01/10/2017	01/12/17 16:27	D1
gamma-Chlordane	ND	10	2.3	10	B7A0271	01/10/2017	01/12/17 16:27	D1
Heptachlor	ND	10	1.9	10	B7A0271	01/10/2017	01/12/17 16:27	D1
Heptachlor epoxide	ND	10	2.0	10	B7A0271	01/10/2017	01/12/17 16:27	D1
Methoxychlor	ND	50	1.8	10	B7A0271	01/10/2017	01/12/17 16:27	D1
Toxaphene	ND	500	82	10	B7A0271	01/10/2017	01/12/17 16:27	D1
Surrogate: Decachlorobiphenyl	*87.0 %*		*27 - 123*		B7A0271	01/10/2017	*01/12/17 16:27*	
Surrogate: Tetrachloro-m-xylene	*69.9 %*		*26 - 108*		B7A0271	01/10/2017	*01/12/17 16:27*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB2-3-0.5
Lab ID: 1700028-07

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.2**	1.0	0.70	1	B7A0282	01/10/2017	01/11/17 16:27	
Lead	**6.8**	1.0	0.11	1	B7A0282	01/10/2017	01/11/17 16:27	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0271	01/10/2017	01/11/17 18:20	
4,4´-DDE	ND	2.0	0.20	1	B7A0271	01/10/2017	01/11/17 18:20	
4,4´-DDT [2C]	**0.23**	2.0	0.13	1	B7A0271	01/10/2017	01/11/17 18:20	J
Aldrin	ND	1.0	0.27	1	B7A0271	01/10/2017	01/11/17 18:20	
alpha-BHC	ND	1.0	0.20	1	B7A0271	01/10/2017	01/11/17 18:20	
alpha-Chlordane	ND	1.0	0.21	1	B7A0271	01/10/2017	01/11/17 18:20	
beta-BHC	ND	1.0	0.23	1	B7A0271	01/10/2017	01/11/17 18:20	
Chlordane	ND	8.5	0.90	1	B7A0271	01/10/2017	01/11/17 18:20	
delta-BHC	ND	1.0	0.21	1	B7A0271	01/10/2017	01/11/17 18:20	
Dieldrin	ND	2.0	0.25	1	B7A0271	01/10/2017	01/11/17 18:20	
Endosulfan I	ND	1.0	0.21	1	B7A0271	01/10/2017	01/11/17 18:20	
Endosulfan II	ND	2.0	0.22	1	B7A0271	01/10/2017	01/11/17 18:20	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0271	01/10/2017	01/11/17 18:20	
Endrin	ND	2.0	0.23	1	B7A0271	01/10/2017	01/11/17 18:20	
Endrin aldehyde	ND	2.0	0.28	1	B7A0271	01/10/2017	01/11/17 18:20	
Endrin ketone	ND	2.0	0.20	1	B7A0271	01/10/2017	01/11/17 18:20	
gamma-BHC	ND	1.0	0.20	1	B7A0271	01/10/2017	01/11/17 18:20	
gamma-Chlordane	ND	1.0	0.23	1	B7A0271	01/10/2017	01/11/17 18:20	
Heptachlor	ND	1.0	0.19	1	B7A0271	01/10/2017	01/11/17 18:20	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0271	01/10/2017	01/11/17 18:20	
Methoxychlor	ND	5.0	0.18	1	B7A0271	01/10/2017	01/11/17 18:20	
Toxaphene	ND	50	8.2	1	B7A0271	01/10/2017	01/11/17 18:20	
Surrogate: Decachlorobiphenyl	*58.5 %*		*27 - 123*		B7A0271	01/10/2017	*01/11/17 18:20*	
Surrogate: Tetrachloro-m-xylene	*56.5 %*		*26 - 108*		B7A0271	01/10/2017	*01/11/17 18:20*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB2-3-1.5

Lab ID: 1700028-08

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**3.2**	1.0	0.70	1	B7A0282	01/10/2017	01/11/17 16:28	
Lead	**5.0**	1.0	0.11	1	B7A0282	01/10/2017	01/11/17 16:28	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0271	01/10/2017	01/11/17 18:30	
4,4´-DDE	ND	2.0	0.20	1	B7A0271	01/10/2017	01/11/17 18:30	
4,4´-DDT	ND	2.0	0.13	1	B7A0271	01/10/2017	01/11/17 18:30	
Aldrin	ND	1.0	0.27	1	B7A0271	01/10/2017	01/11/17 18:30	
alpha-BHC	ND	1.0	0.20	1	B7A0271	01/10/2017	01/11/17 18:30	
alpha-Chlordane	ND	1.0	0.21	1	B7A0271	01/10/2017	01/11/17 18:30	
beta-BHC	ND	1.0	0.23	1	B7A0271	01/10/2017	01/11/17 18:30	
Chlordane	ND	8.5	0.90	1	B7A0271	01/10/2017	01/11/17 18:30	
delta-BHC	ND	1.0	0.21	1	B7A0271	01/10/2017	01/11/17 18:30	
Dieldrin	ND	2.0	0.25	1	B7A0271	01/10/2017	01/11/17 18:30	
Endosulfan I	ND	1.0	0.21	1	B7A0271	01/10/2017	01/11/17 18:30	
Endosulfan II	ND	2.0	0.22	1	B7A0271	01/10/2017	01/11/17 18:30	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0271	01/10/2017	01/11/17 18:30	
Endrin	ND	2.0	0.23	1	B7A0271	01/10/2017	01/11/17 18:30	
Endrin aldehyde	ND	2.0	0.28	1	B7A0271	01/10/2017	01/11/17 18:30	
Endrin ketone	ND	2.0	0.20	1	B7A0271	01/10/2017	01/11/17 18:30	
gamma-BHC	ND	1.0	0.20	1	B7A0271	01/10/2017	01/11/17 18:30	
gamma-Chlordane	ND	1.0	0.23	1	B7A0271	01/10/2017	01/11/17 18:30	
Heptachlor	ND	1.0	0.19	1	B7A0271	01/10/2017	01/11/17 18:30	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0271	01/10/2017	01/11/17 18:30	
Methoxychlor	ND	5.0	0.18	1	B7A0271	01/10/2017	01/11/17 18:30	
Toxaphene	ND	50	8.2	1	B7A0271	01/10/2017	01/11/17 18:30	
Surrogate: Decachlorobiphenyl	*93.3 %*		*27 - 123*		B7A0271	01/10/2017	*01/11/17 18:30*	
Surrogate: Tetrachloro-m-xylene	*92.8 %*		*26 - 108*		B7A0271	01/10/2017	*01/11/17 18:30*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB2-3-2.5
Lab ID: 1700028-09

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.8**	1.0	0.70	1	B7A0282	01/10/2017	01/11/17 16:29	
Lead	**3.3**	1.0	0.11	1	B7A0282	01/10/2017	01/11/17 16:29	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0271	01/10/2017	01/11/17 18:41	
4,4´-DDE	ND	2.0	0.20	1	B7A0271	01/10/2017	01/11/17 18:41	
4,4´-DDT	ND	2.0	0.13	1	B7A0271	01/10/2017	01/11/17 18:41	
Aldrin	ND	1.0	0.27	1	B7A0271	01/10/2017	01/11/17 18:41	
alpha-BHC	ND	1.0	0.20	1	B7A0271	01/10/2017	01/11/17 18:41	
alpha-Chlordane	ND	1.0	0.21	1	B7A0271	01/10/2017	01/11/17 18:41	
beta-BHC	ND	1.0	0.23	1	B7A0271	01/10/2017	01/11/17 18:41	
Chlordane	ND	8.5	0.90	1	B7A0271	01/10/2017	01/11/17 18:41	
delta-BHC	ND	1.0	0.21	1	B7A0271	01/10/2017	01/11/17 18:41	
Dieldrin	ND	2.0	0.25	1	B7A0271	01/10/2017	01/11/17 18:41	
Endosulfan I	ND	1.0	0.21	1	B7A0271	01/10/2017	01/11/17 18:41	
Endosulfan II	ND	2.0	0.22	1	B7A0271	01/10/2017	01/11/17 18:41	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0271	01/10/2017	01/11/17 18:41	
Endrin	ND	2.0	0.23	1	B7A0271	01/10/2017	01/11/17 18:41	
Endrin aldehyde	ND	2.0	0.28	1	B7A0271	01/10/2017	01/11/17 18:41	
Endrin ketone	ND	2.0	0.20	1	B7A0271	01/10/2017	01/11/17 18:41	
gamma-BHC	ND	1.0	0.20	1	B7A0271	01/10/2017	01/11/17 18:41	
gamma-Chlordane	ND	1.0	0.23	1	B7A0271	01/10/2017	01/11/17 18:41	
Heptachlor	ND	1.0	0.19	1	B7A0271	01/10/2017	01/11/17 18:41	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0271	01/10/2017	01/11/17 18:41	
Methoxychlor	ND	5.0	0.18	1	B7A0271	01/10/2017	01/11/17 18:41	
Toxaphene	ND	50	8.2	1	B7A0271	01/10/2017	01/11/17 18:41	
Surrogate: Decachlorobiphenyl	*91.5 %*	*27 - 123*			B7A0271	01/10/2017	*01/11/17 18:41*	
Surrogate: Tetrachloro-m-xylene	*94.2 %*	*26 - 108*			B7A0271	01/10/2017	*01/11/17 18:41*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB2-1-0.5
Lab ID: 1700028-10

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**0.77**	1.0	0.70	1	B7A0282	01/10/2017	01/11/17 16:30	J
Lead	**3.4**	1.0	0.11	1	B7A0282	01/10/2017	01/11/17 16:30	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0271	01/10/2017	01/11/17 18:52	
4,4´-DDE	ND	2.0	0.20	1	B7A0271	01/10/2017	01/11/17 18:52	
4,4´-DDT	ND	2.0	0.13	1	B7A0271	01/10/2017	01/11/17 18:52	
Aldrin	ND	1.0	0.27	1	B7A0271	01/10/2017	01/11/17 18:52	
alpha-BHC	ND	1.0	0.20	1	B7A0271	01/10/2017	01/11/17 18:52	
alpha-Chlordane	ND	1.0	0.21	1	B7A0271	01/10/2017	01/11/17 18:52	
beta-BHC	ND	1.0	0.23	1	B7A0271	01/10/2017	01/11/17 18:52	
Chlordane	ND	8.5	0.90	1	B7A0271	01/10/2017	01/11/17 18:52	
delta-BHC	ND	1.0	0.21	1	B7A0271	01/10/2017	01/11/17 18:52	
Dieldrin	ND	2.0	0.25	1	B7A0271	01/10/2017	01/11/17 18:52	
Endosulfan I	ND	1.0	0.21	1	B7A0271	01/10/2017	01/11/17 18:52	
Endosulfan II	ND	2.0	0.22	1	B7A0271	01/10/2017	01/11/17 18:52	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0271	01/10/2017	01/11/17 18:52	
Endrin	ND	2.0	0.23	1	B7A0271	01/10/2017	01/11/17 18:52	
Endrin aldehyde	ND	2.0	0.28	1	B7A0271	01/10/2017	01/11/17 18:52	
Endrin ketone	ND	2.0	0.20	1	B7A0271	01/10/2017	01/11/17 18:52	
gamma-BHC	ND	1.0	0.20	1	B7A0271	01/10/2017	01/11/17 18:52	
gamma-Chlordane	ND	1.0	0.23	1	B7A0271	01/10/2017	01/11/17 18:52	
Heptachlor	ND	1.0	0.19	1	B7A0271	01/10/2017	01/11/17 18:52	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0271	01/10/2017	01/11/17 18:52	
Methoxychlor	ND	5.0	0.18	1	B7A0271	01/10/2017	01/11/17 18:52	
Toxaphene	ND	50	8.2	1	B7A0271	01/10/2017	01/11/17 18:52	
Surrogate: Decachlorobiphenyl	*86.0 %*		*27 - 123*		B7A0271	01/10/2017	*01/11/17 18:52*	
Surrogate: Tetrachloro-m-xylene	*85.8 %*		*26 - 108*		B7A0271	01/10/2017	*01/11/17 18:52*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB2-1-1.5
Lab ID: 1700028-11

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.3**	1.0	0.70	1	B7A0282	01/10/2017	01/11/17 16:31	
Lead	**4.0**	1.0	0.11	1	B7A0282	01/10/2017	01/11/17 16:31	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0271	01/10/2017	01/11/17 19:02	
4,4´-DDE	ND	2.0	0.20	1	B7A0271	01/10/2017	01/11/17 19:02	
4,4´-DDT	ND	2.0	0.13	1	B7A0271	01/10/2017	01/11/17 19:02	
Aldrin	ND	1.0	0.27	1	B7A0271	01/10/2017	01/11/17 19:02	
alpha-BHC	ND	1.0	0.20	1	B7A0271	01/10/2017	01/11/17 19:02	
alpha-Chlordane	ND	1.0	0.21	1	B7A0271	01/10/2017	01/11/17 19:02	
beta-BHC	ND	1.0	0.23	1	B7A0271	01/10/2017	01/11/17 19:02	
Chlordane	ND	8.5	0.90	1	B7A0271	01/10/2017	01/11/17 19:02	
delta-BHC	ND	1.0	0.21	1	B7A0271	01/10/2017	01/11/17 19:02	
Dieldrin	ND	2.0	0.25	1	B7A0271	01/10/2017	01/11/17 19:02	
Endosulfan I	ND	1.0	0.21	1	B7A0271	01/10/2017	01/11/17 19:02	
Endosulfan II	ND	2.0	0.22	1	B7A0271	01/10/2017	01/11/17 19:02	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0271	01/10/2017	01/11/17 19:02	
Endrin	ND	2.0	0.23	1	B7A0271	01/10/2017	01/11/17 19:02	
Endrin aldehyde	ND	2.0	0.28	1	B7A0271	01/10/2017	01/11/17 19:02	
Endrin ketone	ND	2.0	0.20	1	B7A0271	01/10/2017	01/11/17 19:02	
gamma-BHC	ND	1.0	0.20	1	B7A0271	01/10/2017	01/11/17 19:02	
gamma-Chlordane	ND	1.0	0.23	1	B7A0271	01/10/2017	01/11/17 19:02	
Heptachlor	ND	1.0	0.19	1	B7A0271	01/10/2017	01/11/17 19:02	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0271	01/10/2017	01/11/17 19:02	
Methoxychlor	ND	5.0	0.18	1	B7A0271	01/10/2017	01/11/17 19:02	
Toxaphene	ND	50	8.2	1	B7A0271	01/10/2017	01/11/17 19:02	
Surrogate: Decachlorobiphenyl	*63.0 %*		*27 - 123*		B7A0271	01/10/2017	*01/11/17 19:02*	
Surrogate: Tetrachloro-m-xylene	*61.0 %*		*26 - 108*		B7A0271	01/10/2017	*01/11/17 19:02*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB2-1-2.5

Lab ID: 1700028-12

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.5**	1.0	0.70	1	B7A0282	01/10/2017	01/11/17 16:32	
Lead	**4.4**	1.0	0.11	1	B7A0282	01/10/2017	01/11/17 16:32	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0271	01/10/2017	01/11/17 19:13	
4,4´-DDE	ND	2.0	0.20	1	B7A0271	01/10/2017	01/11/17 19:13	
4,4´-DDT	ND	2.0	0.13	1	B7A0271	01/10/2017	01/11/17 19:13	
Aldrin	ND	1.0	0.27	1	B7A0271	01/10/2017	01/11/17 19:13	
alpha-BHC	ND	1.0	0.20	1	B7A0271	01/10/2017	01/11/17 19:13	
alpha-Chlordane	ND	1.0	0.21	1	B7A0271	01/10/2017	01/11/17 19:13	
beta-BHC	ND	1.0	0.23	1	B7A0271	01/10/2017	01/11/17 19:13	
Chlordane	ND	8.5	0.90	1	B7A0271	01/10/2017	01/11/17 19:13	
delta-BHC	ND	1.0	0.21	1	B7A0271	01/10/2017	01/11/17 19:13	
Dieldrin	ND	2.0	0.25	1	B7A0271	01/10/2017	01/11/17 19:13	
Endosulfan I	ND	1.0	0.21	1	B7A0271	01/10/2017	01/11/17 19:13	
Endosulfan II	ND	2.0	0.22	1	B7A0271	01/10/2017	01/11/17 19:13	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0271	01/10/2017	01/11/17 19:13	
Endrin	ND	2.0	0.23	1	B7A0271	01/10/2017	01/11/17 19:13	
Endrin aldehyde	ND	2.0	0.28	1	B7A0271	01/10/2017	01/11/17 19:13	
Endrin ketone	ND	2.0	0.20	1	B7A0271	01/10/2017	01/11/17 19:13	
gamma-BHC	ND	1.0	0.20	1	B7A0271	01/10/2017	01/11/17 19:13	
gamma-Chlordane	ND	1.0	0.23	1	B7A0271	01/10/2017	01/11/17 19:13	
Heptachlor	ND	1.0	0.19	1	B7A0271	01/10/2017	01/11/17 19:13	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0271	01/10/2017	01/11/17 19:13	
Methoxychlor	ND	5.0	0.18	1	B7A0271	01/10/2017	01/11/17 19:13	
Toxaphene	ND	50	8.2	1	B7A0271	01/10/2017	01/11/17 19:13	
Surrogate: Decachlorobiphenyl	*89.3 %*		*27 - 123*		B7A0271	01/10/2017	*01/11/17 19:13*	
Surrogate: Tetrachloro-m-xylene	*84.6 %*		*26 - 108*		B7A0271	01/10/2017	*01/11/17 19:13*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB1-7-0.5
Lab ID: 1700028-13

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.8**	1.0	0.70	1	B7A0282	01/10/2017	01/11/17 16:37	
Lead	**4.3**	1.0	0.11	1	B7A0282	01/10/2017	01/11/17 16:37	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	20	2.2	10	B7A0271	01/10/2017	01/12/17 16:38	D1
4,4´-DDE	ND	20	2.0	10	B7A0271	01/10/2017	01/12/17 16:38	D1
4,4´-DDT	ND	20	1.3	10	B7A0271	01/10/2017	01/12/17 16:38	D1
Aldrin	ND	10	2.7	10	B7A0271	01/10/2017	01/12/17 16:38	D1
alpha-BHC	ND	10	2.0	10	B7A0271	01/10/2017	01/12/17 16:38	D1
alpha-Chlordane	ND	10	2.1	10	B7A0271	01/10/2017	01/12/17 16:38	D1
beta-BHC	ND	10	2.3	10	B7A0271	01/10/2017	01/12/17 16:38	D1
Chlordane	ND	85	9.0	10	B7A0271	01/10/2017	01/12/17 16:38	D1
delta-BHC	ND	10	2.1	10	B7A0271	01/10/2017	01/12/17 16:38	D1
Dieldrin	ND	20	2.5	10	B7A0271	01/10/2017	01/12/17 16:38	D1
Endosulfan I	ND	10	2.1	10	B7A0271	01/10/2017	01/12/17 16:38	D1
Endosulfan II	ND	20	2.2	10	B7A0271	01/10/2017	01/12/17 16:38	D1
Endosulfan sulfate	ND	20	2.1	10	B7A0271	01/10/2017	01/12/17 16:38	D1
Endrin	ND	20	2.3	10	B7A0271	01/10/2017	01/12/17 16:38	D1
Endrin aldehyde	ND	20	2.8	10	B7A0271	01/10/2017	01/12/17 16:38	D1
Endrin ketone	ND	20	2.0	10	B7A0271	01/10/2017	01/12/17 16:38	D1
gamma-BHC	ND	10	2.0	10	B7A0271	01/10/2017	01/12/17 16:38	D1
gamma-Chlordane	ND	10	2.3	10	B7A0271	01/10/2017	01/12/17 16:38	D1
Heptachlor	ND	10	1.9	10	B7A0271	01/10/2017	01/12/17 16:38	D1
Heptachlor epoxide	ND	10	2.0	10	B7A0271	01/10/2017	01/12/17 16:38	D1
Methoxychlor	ND	50	1.8	10	B7A0271	01/10/2017	01/12/17 16:38	D1
Toxaphene	ND	500	82	10	B7A0271	01/10/2017	01/12/17 16:38	D1
Surrogate: Decachlorobiphenyl	*123 %*	*27 - 123*			B7A0271	01/10/2017	*01/12/17 16:38*	S12
Surrogate: Tetrachloro-m-xylene	*115 %*	*26 - 108*			B7A0271	01/10/2017	*01/12/17 16:38*	S12

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB1-7-0.5-D
Lab ID: 1700028-14

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.6**	1.0	0.70	1	B7A0282	01/10/2017	01/11/17 16:38	
Lead	**4.4**	1.0	0.11	1	B7A0282	01/10/2017	01/11/17 16:38	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0271	01/10/2017	01/11/17 19:34	
4,4´-DDE	ND	2.0	0.20	1	B7A0271	01/10/2017	01/11/17 19:34	
4,4´-DDT	ND	2.0	0.13	1	B7A0271	01/10/2017	01/11/17 19:34	
Aldrin	ND	1.0	0.27	1	B7A0271	01/10/2017	01/11/17 19:34	
alpha-BHC	ND	1.0	0.20	1	B7A0271	01/10/2017	01/11/17 19:34	
alpha-Chlordane	ND	1.0	0.21	1	B7A0271	01/10/2017	01/11/17 19:34	
beta-BHC	ND	1.0	0.23	1	B7A0271	01/10/2017	01/11/17 19:34	
Chlordane	ND	8.5	0.90	1	B7A0271	01/10/2017	01/11/17 19:34	
delta-BHC	ND	1.0	0.21	1	B7A0271	01/10/2017	01/11/17 19:34	
Dieldrin	ND	2.0	0.25	1	B7A0271	01/10/2017	01/11/17 19:34	
Endosulfan I	ND	1.0	0.21	1	B7A0271	01/10/2017	01/11/17 19:34	
Endosulfan II	ND	2.0	0.22	1	B7A0271	01/10/2017	01/11/17 19:34	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0271	01/10/2017	01/11/17 19:34	
Endrin	ND	2.0	0.23	1	B7A0271	01/10/2017	01/11/17 19:34	
Endrin aldehyde	ND	2.0	0.28	1	B7A0271	01/10/2017	01/11/17 19:34	
Endrin ketone	ND	2.0	0.20	1	B7A0271	01/10/2017	01/11/17 19:34	
gamma-BHC	ND	1.0	0.20	1	B7A0271	01/10/2017	01/11/17 19:34	
gamma-Chlordane	ND	1.0	0.23	1	B7A0271	01/10/2017	01/11/17 19:34	
Heptachlor	ND	1.0	0.19	1	B7A0271	01/10/2017	01/11/17 19:34	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0271	01/10/2017	01/11/17 19:34	
Methoxychlor	ND	5.0	0.18	1	B7A0271	01/10/2017	01/11/17 19:34	
Toxaphene	ND	50	8.2	1	B7A0271	01/10/2017	01/11/17 19:34	
Surrogate: Decachlorobiphenyl	*84.0 %*	*27 - 123*			B7A0271	01/10/2017	*01/11/17 19:34*	
Surrogate: Tetrachloro-m-xylene	*87.4 %*	*26 - 108*			B7A0271	01/10/2017	*01/11/17 19:34*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB1-7-0.5-D

Lab ID: 1700028-14

Polychlorinated Biphenyls by EPA 8082 **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B7A0272	01/10/2017	01/10/17 14:47	
Aroclor 1221	ND	16	1.5	1	B7A0272	01/10/2017	01/10/17 14:47	
Aroclor 1232	ND	16	1.5	1	B7A0272	01/10/2017	01/10/17 14:47	
Aroclor 1242	ND	16	1.5	1	B7A0272	01/10/2017	01/10/17 14:47	
Aroclor 1248	ND	16	1.5	1	B7A0272	01/10/2017	01/10/17 14:47	
Aroclor 1254	ND	16	1.5	1	B7A0272	01/10/2017	01/10/17 14:47	
Aroclor 1260	ND	16	1.5	1	B7A0272	01/10/2017	01/10/17 14:47	
Aroclor 1262	ND	16	1.5	1	B7A0272	01/10/2017	01/10/17 14:47	
Aroclor 1268	ND	16	1.5	1	B7A0272	01/10/2017	01/10/17 14:47	
Surrogate: Decachlorobiphenyl	*114 %*	*26 - 137*			B7A0272	01/10/2017	*01/10/17 14:47*	
Surrogate: Tetrachloro-m-xylene	*114 %*	*28 - 102*			B7A0272	01/10/2017	*01/10/17 14:47*	S1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB1-5-0.5

Lab ID: 1700028-15

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	1.0	0.70	1	B7A0282	01/10/2017	01/11/17 16:39	
Lead	**2.3**	1.0	0.11	1	B7A0282	01/10/2017	01/11/17 16:39	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0271	01/10/2017	01/11/17 19:45	
4,4´-DDE	ND	2.0	0.20	1	B7A0271	01/10/2017	01/11/17 19:45	
4,4´-DDT	ND	2.0	0.13	1	B7A0271	01/10/2017	01/11/17 19:45	
Aldrin	ND	1.0	0.27	1	B7A0271	01/10/2017	01/11/17 19:45	
alpha-BHC	ND	1.0	0.20	1	B7A0271	01/10/2017	01/11/17 19:45	
alpha-Chlordane	ND	1.0	0.21	1	B7A0271	01/10/2017	01/11/17 19:45	
beta-BHC	ND	1.0	0.23	1	B7A0271	01/10/2017	01/11/17 19:45	
Chlordane	ND	8.5	0.90	1	B7A0271	01/10/2017	01/11/17 19:45	
delta-BHC	ND	1.0	0.21	1	B7A0271	01/10/2017	01/11/17 19:45	
Dieldrin	ND	2.0	0.25	1	B7A0271	01/10/2017	01/11/17 19:45	
Endosulfan I	ND	1.0	0.21	1	B7A0271	01/10/2017	01/11/17 19:45	
Endosulfan II	ND	2.0	0.22	1	B7A0271	01/10/2017	01/11/17 19:45	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0271	01/10/2017	01/11/17 19:45	
Endrin	ND	2.0	0.23	1	B7A0271	01/10/2017	01/11/17 19:45	
Endrin aldehyde	ND	2.0	0.28	1	B7A0271	01/10/2017	01/11/17 19:45	
Endrin ketone	ND	2.0	0.20	1	B7A0271	01/10/2017	01/11/17 19:45	
gamma-BHC	ND	1.0	0.20	1	B7A0271	01/10/2017	01/11/17 19:45	
gamma-Chlordane	ND	1.0	0.23	1	B7A0271	01/10/2017	01/11/17 19:45	
Heptachlor	ND	1.0	0.19	1	B7A0271	01/10/2017	01/11/17 19:45	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0271	01/10/2017	01/11/17 19:45	
Methoxychlor	ND	5.0	0.18	1	B7A0271	01/10/2017	01/11/17 19:45	
Toxaphene	ND	50	8.2	1	B7A0271	01/10/2017	01/11/17 19:45	
Surrogate: Decachlorobiphenyl	*86.9 %*		*27 - 123*		B7A0271	01/10/2017	*01/11/17 19:45*	
Surrogate: Tetrachloro-m-xylene	*88.1 %*		*26 - 108*		B7A0271	01/10/2017	*01/11/17 19:45*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB1-5-0.5-D
Lab ID: 1700028-16

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.2**	1.0	0.70	1	B7A0282	01/10/2017	01/11/17 16:40	
Lead	**3.3**	1.0	0.11	1	B7A0282	01/10/2017	01/11/17 16:40	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0271	01/10/2017	01/11/17 19:56	
4,4´-DDE	ND	2.0	0.20	1	B7A0271	01/10/2017	01/11/17 19:56	
4,4´-DDT	ND	2.0	0.13	1	B7A0271	01/10/2017	01/11/17 19:56	
Aldrin	ND	1.0	0.27	1	B7A0271	01/10/2017	01/11/17 19:56	
alpha-BHC	ND	1.0	0.20	1	B7A0271	01/10/2017	01/11/17 19:56	
alpha-Chlordane	ND	1.0	0.21	1	B7A0271	01/10/2017	01/11/17 19:56	
beta-BHC	ND	1.0	0.23	1	B7A0271	01/10/2017	01/11/17 19:56	
Chlordane	ND	8.5	0.90	1	B7A0271	01/10/2017	01/11/17 19:56	
delta-BHC	ND	1.0	0.21	1	B7A0271	01/10/2017	01/11/17 19:56	
Dieldrin	ND	2.0	0.25	1	B7A0271	01/10/2017	01/11/17 19:56	
Endosulfan I	ND	1.0	0.21	1	B7A0271	01/10/2017	01/11/17 19:56	
Endosulfan II	ND	2.0	0.22	1	B7A0271	01/10/2017	01/11/17 19:56	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0271	01/10/2017	01/11/17 19:56	
Endrin	ND	2.0	0.23	1	B7A0271	01/10/2017	01/11/17 19:56	
Endrin aldehyde	ND	2.0	0.28	1	B7A0271	01/10/2017	01/11/17 19:56	
Endrin ketone	ND	2.0	0.20	1	B7A0271	01/10/2017	01/11/17 19:56	
gamma-BHC	ND	1.0	0.20	1	B7A0271	01/10/2017	01/11/17 19:56	
gamma-Chlordane	ND	1.0	0.23	1	B7A0271	01/10/2017	01/11/17 19:56	
Heptachlor	ND	1.0	0.19	1	B7A0271	01/10/2017	01/11/17 19:56	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0271	01/10/2017	01/11/17 19:56	
Methoxychlor	ND	5.0	0.18	1	B7A0271	01/10/2017	01/11/17 19:56	
Toxaphene	ND	50	8.2	1	B7A0271	01/10/2017	01/11/17 19:56	
Surrogate: Decachlorobiphenyl	*91.3 %*	*27 - 123*			B7A0271	01/10/2017	*01/11/17 19:56*	
Surrogate: Tetrachloro-m-xylene	*93.9 %*	*26 - 108*			B7A0271	01/10/2017	*01/11/17 19:56*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB1-5-1.5

Lab ID: 1700028-17

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.9**	1.0	0.70	1	B7A0282	01/10/2017	01/11/17 16:41	
Lead	**12**	1.0	0.11	1	B7A0282	01/10/2017	01/11/17 16:41	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0271	01/10/2017	01/11/17 20:06	
4,4´-DDE	ND	2.0	0.20	1	B7A0271	01/10/2017	01/11/17 20:06	
4,4´-DDT	**0.21**	2.0	0.13	1	B7A0271	01/10/2017	01/11/17 20:06	J
Aldrin	ND	1.0	0.27	1	B7A0271	01/10/2017	01/11/17 20:06	
alpha-BHC	ND	1.0	0.20	1	B7A0271	01/10/2017	01/11/17 20:06	
alpha-Chlordane [2C]	**0.47**	1.0	0.21	1	B7A0271	01/10/2017	01/11/17 20:06	J
beta-BHC	ND	1.0	0.23	1	B7A0271	01/10/2017	01/11/17 20:06	
Chlordane	**3.6**	8.5	0.90	1	B7A0271	01/10/2017	01/11/17 20:06	J
delta-BHC	ND	1.0	0.21	1	B7A0271	01/10/2017	01/11/17 20:06	
Dieldrin	ND	2.0	0.25	1	B7A0271	01/10/2017	01/11/17 20:06	
Endosulfan I	ND	1.0	0.21	1	B7A0271	01/10/2017	01/11/17 20:06	
Endosulfan II	ND	2.0	0.22	1	B7A0271	01/10/2017	01/11/17 20:06	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0271	01/10/2017	01/11/17 20:06	
Endrin	ND	2.0	0.23	1	B7A0271	01/10/2017	01/11/17 20:06	
Endrin aldehyde	ND	2.0	0.28	1	B7A0271	01/10/2017	01/11/17 20:06	
Endrin ketone	ND	2.0	0.20	1	B7A0271	01/10/2017	01/11/17 20:06	
gamma-BHC	ND	1.0	0.20	1	B7A0271	01/10/2017	01/11/17 20:06	
gamma-Chlordane	**0.44**	1.0	0.23	1	B7A0271	01/10/2017	01/11/17 20:06	J
Heptachlor	ND	1.0	0.19	1	B7A0271	01/10/2017	01/11/17 20:06	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0271	01/10/2017	01/11/17 20:06	
Methoxychlor	ND	5.0	0.18	1	B7A0271	01/10/2017	01/11/17 20:06	
Toxaphene	ND	50	8.2	1	B7A0271	01/10/2017	01/11/17 20:06	
Surrogate: Decachlorobiphenyl	*64.3 %*	*27 - 123*			B7A0271	01/10/2017	*01/11/17 20:06*	
Surrogate: Tetrachloro-m-xylene	*62.7 %*	*26 - 108*			B7A0271	01/10/2017	*01/11/17 20:06*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB1-5-1.5-D
Lab ID: 1700028-18

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**3.6**	1.0	0.70	1	B7A0282	01/10/2017	01/11/17 16:43	
Lead	**14**	1.0	0.11	1	B7A0282	01/10/2017	01/11/17 16:43	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0271	01/10/2017	01/11/17 20:17	
4,4´-DDE [2C]	**0.35**	2.0	0.20	1	B7A0271	01/10/2017	01/11/17 20:17	J
4,4´-DDT [2C]	**0.22**	2.0	0.13	1	B7A0271	01/10/2017	01/11/17 20:17	J
Aldrin	ND	1.0	0.27	1	B7A0271	01/10/2017	01/11/17 20:17	
alpha-BHC	ND	1.0	0.20	1	B7A0271	01/10/2017	01/11/17 20:17	
alpha-Chlordane [2C]	**2.4**	1.0	0.21	1	B7A0271	01/10/2017	01/11/17 20:17	
beta-BHC	ND	1.0	0.23	1	B7A0271	01/10/2017	01/11/17 20:17	
Chlordane [2C]	**16**	8.5	0.90	1	B7A0271	01/10/2017	01/11/17 20:17	
delta-BHC	ND	1.0	0.21	1	B7A0271	01/10/2017	01/11/17 20:17	
Dieldrin	ND	2.0	0.25	1	B7A0271	01/10/2017	01/11/17 20:17	
Endosulfan I	ND	1.0	0.21	1	B7A0271	01/10/2017	01/11/17 20:17	
Endosulfan II	ND	2.0	0.22	1	B7A0271	01/10/2017	01/11/17 20:17	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0271	01/10/2017	01/11/17 20:17	
Endrin	ND	2.0	0.23	1	B7A0271	01/10/2017	01/11/17 20:17	
Endrin aldehyde	ND	2.0	0.28	1	B7A0271	01/10/2017	01/11/17 20:17	
Endrin ketone	ND	2.0	0.20	1	B7A0271	01/10/2017	01/11/17 20:17	
gamma-BHC	ND	1.0	0.20	1	B7A0271	01/10/2017	01/11/17 20:17	
gamma-Chlordane	**1.4**	1.0	0.23	1	B7A0271	01/10/2017	01/11/17 20:17	
Heptachlor	ND	1.0	0.19	1	B7A0271	01/10/2017	01/11/17 20:17	
Heptachlor epoxide	**0.29**	1.0	0.20	1	B7A0271	01/10/2017	01/11/17 20:17	J
Methoxychlor	ND	5.0	0.18	1	B7A0271	01/10/2017	01/11/17 20:17	
Toxaphene	ND	50	8.2	1	B7A0271	01/10/2017	01/11/17 20:17	
Surrogate: Decachlorobiphenyl	*64.1 %*	*27 - 123*			B7A0271	01/10/2017	*01/11/17 20:17*	
Surrogate: Tetrachloro-m-xylene	*56.7 %*	*26 - 108*			B7A0271	01/10/2017	*01/11/17 20:17*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB1-5-2.5

Lab ID: 1700028-19

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.8**	1.0	0.70	1	B7A0282	01/10/2017	01/11/17 16:44	
Lead	**2.8**	1.0	0.11	1	B7A0282	01/10/2017	01/11/17 16:44	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0271	01/10/2017	01/11/17 20:28	
4,4´-DDE	ND	2.0	0.20	1	B7A0271	01/10/2017	01/11/17 20:28	
4,4´-DDT	ND	2.0	0.13	1	B7A0271	01/10/2017	01/11/17 20:28	
Aldrin	ND	1.0	0.27	1	B7A0271	01/10/2017	01/11/17 20:28	
alpha-BHC	ND	1.0	0.20	1	B7A0271	01/10/2017	01/11/17 20:28	
alpha-Chlordane	ND	1.0	0.21	1	B7A0271	01/10/2017	01/11/17 20:28	
beta-BHC	ND	1.0	0.23	1	B7A0271	01/10/2017	01/11/17 20:28	
Chlordane	ND	8.5	0.90	1	B7A0271	01/10/2017	01/11/17 20:28	
delta-BHC	ND	1.0	0.21	1	B7A0271	01/10/2017	01/11/17 20:28	
Dieldrin	ND	2.0	0.25	1	B7A0271	01/10/2017	01/11/17 20:28	
Endosulfan I	ND	1.0	0.21	1	B7A0271	01/10/2017	01/11/17 20:28	
Endosulfan II	ND	2.0	0.22	1	B7A0271	01/10/2017	01/11/17 20:28	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0271	01/10/2017	01/11/17 20:28	
Endrin	ND	2.0	0.23	1	B7A0271	01/10/2017	01/11/17 20:28	
Endrin aldehyde	ND	2.0	0.28	1	B7A0271	01/10/2017	01/11/17 20:28	
Endrin ketone	ND	2.0	0.20	1	B7A0271	01/10/2017	01/11/17 20:28	
gamma-BHC	ND	1.0	0.20	1	B7A0271	01/10/2017	01/11/17 20:28	
gamma-Chlordane	ND	1.0	0.23	1	B7A0271	01/10/2017	01/11/17 20:28	
Heptachlor	ND	1.0	0.19	1	B7A0271	01/10/2017	01/11/17 20:28	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0271	01/10/2017	01/11/17 20:28	
Methoxychlor	ND	5.0	0.18	1	B7A0271	01/10/2017	01/11/17 20:28	
Toxaphene	ND	50	8.2	1	B7A0271	01/10/2017	01/11/17 20:28	
Surrogate: Decachlorobiphenyl	*83.9 %*		*27 - 123*		B7A0271	01/10/2017	*01/11/17 20:28*	
Surrogate: Tetrachloro-m-xylene	*85.6 %*		*26 - 108*		B7A0271	01/10/2017	*01/11/17 20:28*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB1-6-0.5

Lab ID: 1700028-20

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.6**	1.0	0.70	1	B7A0282	01/10/2017	01/11/17 16:45	
Lead	**3.3**	1.0	0.11	1	B7A0282	01/10/2017	01/11/17 16:45	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0271	01/10/2017	01/11/17 20:38	
4,4´-DDE	ND	2.0	0.20	1	B7A0271	01/10/2017	01/11/17 20:38	
4,4´-DDT	ND	2.0	0.13	1	B7A0271	01/10/2017	01/11/17 20:38	
Aldrin	ND	1.0	0.27	1	B7A0271	01/10/2017	01/11/17 20:38	
alpha-BHC	ND	1.0	0.20	1	B7A0271	01/10/2017	01/11/17 20:38	
alpha-Chlordane	ND	1.0	0.21	1	B7A0271	01/10/2017	01/11/17 20:38	
beta-BHC	ND	1.0	0.23	1	B7A0271	01/10/2017	01/11/17 20:38	
Chlordane	ND	8.5	0.90	1	B7A0271	01/10/2017	01/11/17 20:38	
delta-BHC	ND	1.0	0.21	1	B7A0271	01/10/2017	01/11/17 20:38	
Dieldrin	ND	2.0	0.25	1	B7A0271	01/10/2017	01/11/17 20:38	
Endosulfan I	ND	1.0	0.21	1	B7A0271	01/10/2017	01/11/17 20:38	
Endosulfan II	ND	2.0	0.22	1	B7A0271	01/10/2017	01/11/17 20:38	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0271	01/10/2017	01/11/17 20:38	
Endrin	ND	2.0	0.23	1	B7A0271	01/10/2017	01/11/17 20:38	
Endrin aldehyde	ND	2.0	0.28	1	B7A0271	01/10/2017	01/11/17 20:38	
Endrin ketone	ND	2.0	0.20	1	B7A0271	01/10/2017	01/11/17 20:38	
gamma-BHC	ND	1.0	0.20	1	B7A0271	01/10/2017	01/11/17 20:38	
gamma-Chlordane	ND	1.0	0.23	1	B7A0271	01/10/2017	01/11/17 20:38	
Heptachlor	ND	1.0	0.19	1	B7A0271	01/10/2017	01/11/17 20:38	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0271	01/10/2017	01/11/17 20:38	
Methoxychlor	ND	5.0	0.18	1	B7A0271	01/10/2017	01/11/17 20:38	
Toxaphene	ND	50	8.2	1	B7A0271	01/10/2017	01/11/17 20:38	
Surrogate: Decachlorobiphenyl	*61.9 %*		*27 - 123*		B7A0271	01/10/2017	*01/11/17 20:38*	
Surrogate: Tetrachloro-m-xylene	*57.3 %*		*26 - 108*		B7A0271	01/10/2017	*01/11/17 20:38*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB1-6-1.5
Lab ID: 1700028-22

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.8**	1.0	0.70	1	B7A0283	01/10/2017	01/11/17 16:51	
Lead	**3.3**	1.0	0.11	1	B7A0283	01/10/2017	01/11/17 16:51	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0339	01/11/2017	01/12/17 09:30	
4,4´-DDE	ND	2.0	0.20	1	B7A0339	01/11/2017	01/12/17 09:30	
4,4´-DDT	ND	2.0	0.13	1	B7A0339	01/11/2017	01/12/17 09:30	
Aldrin	ND	1.0	0.27	1	B7A0339	01/11/2017	01/12/17 09:30	
alpha-BHC	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 09:30	
alpha-Chlordane	ND	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 09:30	
beta-BHC	ND	1.0	0.23	1	B7A0339	01/11/2017	01/12/17 09:30	
Chlordane	ND	8.5	0.90	1	B7A0339	01/11/2017	01/12/17 09:30	
delta-BHC	ND	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 09:30	
Dieldrin	ND	2.0	0.25	1	B7A0339	01/11/2017	01/12/17 09:30	
Endosulfan I	ND	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 09:30	
Endosulfan II	ND	2.0	0.22	1	B7A0339	01/11/2017	01/12/17 09:30	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0339	01/11/2017	01/12/17 09:30	
Endrin	ND	2.0	0.23	1	B7A0339	01/11/2017	01/12/17 09:30	
Endrin aldehyde	ND	2.0	0.28	1	B7A0339	01/11/2017	01/12/17 09:30	
Endrin ketone	ND	2.0	0.20	1	B7A0339	01/11/2017	01/12/17 09:30	
gamma-BHC	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 09:30	
gamma-Chlordane	ND	1.0	0.23	1	B7A0339	01/11/2017	01/12/17 09:30	
Heptachlor	ND	1.0	0.19	1	B7A0339	01/11/2017	01/12/17 09:30	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 09:30	
Methoxychlor	ND	5.0	0.18	1	B7A0339	01/11/2017	01/12/17 09:30	
Toxaphene	ND	50	8.2	1	B7A0339	01/11/2017	01/12/17 09:30	
Surrogate: Decachlorobiphenyl	*91.5 %*		*27 - 123*		B7A0339	01/11/2017	*01/12/17 09:30*	
Surrogate: Tetrachloro-m-xylene	*88.0 %*		*26 - 108*		B7A0339	01/11/2017	*01/12/17 09:30*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB1-6-1.5-D
Lab ID: 1700028-23

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.9**	1.0	0.70	1	B7A0283	01/10/2017	01/11/17 16:55	
Lead	**4.0**	1.0	0.11	1	B7A0283	01/10/2017	01/11/17 16:55	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0339	01/11/2017	01/12/17 09:41	
4,4´-DDE	ND	2.0	0.20	1	B7A0339	01/11/2017	01/12/17 09:41	
4,4´-DDT	ND	2.0	0.13	1	B7A0339	01/11/2017	01/12/17 09:41	
Aldrin	ND	1.0	0.27	1	B7A0339	01/11/2017	01/12/17 09:41	
alpha-BHC	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 09:41	
alpha-Chlordane	ND	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 09:41	
beta-BHC	ND	1.0	0.23	1	B7A0339	01/11/2017	01/12/17 09:41	
Chlordane	ND	8.5	0.90	1	B7A0339	01/11/2017	01/12/17 09:41	
delta-BHC	ND	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 09:41	
Dieldrin	ND	2.0	0.25	1	B7A0339	01/11/2017	01/12/17 09:41	
Endosulfan I	ND	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 09:41	
Endosulfan II	ND	2.0	0.22	1	B7A0339	01/11/2017	01/12/17 09:41	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0339	01/11/2017	01/12/17 09:41	
Endrin	ND	2.0	0.23	1	B7A0339	01/11/2017	01/12/17 09:41	
Endrin aldehyde	ND	2.0	0.28	1	B7A0339	01/11/2017	01/12/17 09:41	
Endrin ketone	ND	2.0	0.20	1	B7A0339	01/11/2017	01/12/17 09:41	
gamma-BHC	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 09:41	
gamma-Chlordane	ND	1.0	0.23	1	B7A0339	01/11/2017	01/12/17 09:41	
Heptachlor	ND	1.0	0.19	1	B7A0339	01/11/2017	01/12/17 09:41	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 09:41	
Methoxychlor	ND	5.0	0.18	1	B7A0339	01/11/2017	01/12/17 09:41	
Toxaphene	ND	50	8.2	1	B7A0339	01/11/2017	01/12/17 09:41	
Surrogate: Decachlorobiphenyl	*91.6 %*		*27 - 123*		B7A0339	01/11/2017	*01/12/17 09:41*	
Surrogate: Tetrachloro-m-xylene	*87.9 %*		*26 - 108*		B7A0339	01/11/2017	*01/12/17 09:41*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB1-6-2.5

Lab ID: 1700028-24

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.8**	1.0	0.70	1	B7A0283	01/10/2017	01/11/17 16:56	
Lead	**3.1**	1.0	0.11	1	B7A0283	01/10/2017	01/11/17 16:56	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0339	01/11/2017	01/12/17 09:51	
4,4´-DDE	ND	2.0	0.20	1	B7A0339	01/11/2017	01/12/17 09:51	
4,4´-DDT	ND	2.0	0.13	1	B7A0339	01/11/2017	01/12/17 09:51	
Aldrin	ND	1.0	0.27	1	B7A0339	01/11/2017	01/12/17 09:51	
alpha-BHC	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 09:51	
alpha-Chlordane	ND	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 09:51	
beta-BHC	ND	1.0	0.23	1	B7A0339	01/11/2017	01/12/17 09:51	
Chlordane	ND	8.5	0.90	1	B7A0339	01/11/2017	01/12/17 09:51	
delta-BHC	ND	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 09:51	
Dieldrin	ND	2.0	0.25	1	B7A0339	01/11/2017	01/12/17 09:51	
Endosulfan I	ND	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 09:51	
Endosulfan II	ND	2.0	0.22	1	B7A0339	01/11/2017	01/12/17 09:51	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0339	01/11/2017	01/12/17 09:51	
Endrin	ND	2.0	0.23	1	B7A0339	01/11/2017	01/12/17 09:51	
Endrin aldehyde	ND	2.0	0.28	1	B7A0339	01/11/2017	01/12/17 09:51	
Endrin ketone	ND	2.0	0.20	1	B7A0339	01/11/2017	01/12/17 09:51	
gamma-BHC	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 09:51	
gamma-Chlordane	ND	1.0	0.23	1	B7A0339	01/11/2017	01/12/17 09:51	
Heptachlor	ND	1.0	0.19	1	B7A0339	01/11/2017	01/12/17 09:51	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 09:51	
Methoxychlor	ND	5.0	0.18	1	B7A0339	01/11/2017	01/12/17 09:51	
Toxaphene	ND	50	8.2	1	B7A0339	01/11/2017	01/12/17 09:51	
Surrogate: Decachlorobiphenyl	*83.8 %*		*27 - 123*		B7A0339	01/11/2017	*01/12/17 09:51*	
Surrogate: Tetrachloro-m-xylene	*79.4 %*		*26 - 108*		B7A0339	01/11/2017	*01/12/17 09:51*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB1-3-0.5
Lab ID: 1700028-25

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	1.0	0.70	1	B7A0283	01/10/2017	01/11/17 16:57	
Lead	**1.6**	1.0	0.11	1	B7A0283	01/10/2017	01/11/17 16:57	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0339	01/11/2017	01/12/17 10:02	
4,4´-DDE	ND	2.0	0.20	1	B7A0339	01/11/2017	01/12/17 10:02	
4,4´-DDT	ND	2.0	0.13	1	B7A0339	01/11/2017	01/12/17 10:02	
Aldrin	ND	1.0	0.27	1	B7A0339	01/11/2017	01/12/17 10:02	
alpha-BHC	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 10:02	
alpha-Chlordane [2C]	**0.29**	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 10:02	J
beta-BHC	ND	1.0	0.23	1	B7A0339	01/11/2017	01/12/17 10:02	
Chlordane	**2.5**	8.5	0.90	1	B7A0339	01/11/2017	01/12/17 10:02	J
delta-BHC	ND	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 10:02	
Dieldrin	ND	2.0	0.25	1	B7A0339	01/11/2017	01/12/17 10:02	
Endosulfan I	ND	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 10:02	
Endosulfan II	ND	2.0	0.22	1	B7A0339	01/11/2017	01/12/17 10:02	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0339	01/11/2017	01/12/17 10:02	
Endrin	ND	2.0	0.23	1	B7A0339	01/11/2017	01/12/17 10:02	
Endrin aldehyde	ND	2.0	0.28	1	B7A0339	01/11/2017	01/12/17 10:02	
Endrin ketone	ND	2.0	0.20	1	B7A0339	01/11/2017	01/12/17 10:02	
gamma-BHC	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 10:02	
gamma-Chlordane [2C]	ND	1.0	0.23	1	B7A0339	01/11/2017	01/12/17 10:02	
Heptachlor	ND	1.0	0.19	1	B7A0339	01/11/2017	01/12/17 10:02	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 10:02	
Methoxychlor	ND	5.0	0.18	1	B7A0339	01/11/2017	01/12/17 10:02	
Toxaphene	ND	50	8.2	1	B7A0339	01/11/2017	01/12/17 10:02	
Surrogate: Decachlorobiphenyl	*86.8 %*		*27 - 123*		B7A0339	01/11/2017	*01/12/17 10:02*	
Surrogate: Tetrachloro-m-xylene	*80.3 %*		*26 - 108*		B7A0339	01/11/2017	*01/12/17 10:02*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB1-3-0.5

Lab ID: 1700028-25

Polychlorinated Biphenyls by EPA 8082 **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B7A0272	01/10/2017	01/10/17 15:06	
Aroclor 1221	ND	16	1.5	1	B7A0272	01/10/2017	01/10/17 15:06	
Aroclor 1232	ND	16	1.5	1	B7A0272	01/10/2017	01/10/17 15:06	
Aroclor 1242	ND	16	1.5	1	B7A0272	01/10/2017	01/10/17 15:06	
Aroclor 1248	ND	16	1.5	1	B7A0272	01/10/2017	01/10/17 15:06	
Aroclor 1254	ND	16	1.5	1	B7A0272	01/10/2017	01/10/17 15:06	
Aroclor 1260	ND	16	1.5	1	B7A0272	01/10/2017	01/10/17 15:06	
Aroclor 1262	ND	16	1.5	1	B7A0272	01/10/2017	01/10/17 15:06	
Aroclor 1268	ND	16	1.5	1	B7A0272	01/10/2017	01/10/17 15:06	
Surrogate: Decachlorobiphenyl	*111 %*	*26 - 137*			B7A0272	01/10/2017	*01/10/17 15:06*	
Surrogate: Tetrachloro-m-xylene	*109 %*	*28 - 102*			B7A0272	01/10/2017	*01/10/17 15:06*	S1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB1-3-0.5-D
Lab ID: 1700028-26

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.3**	1.0	0.70	1	B7A0283	01/10/2017	01/11/17 16:58	
Lead	**2.3**	1.0	0.11	1	B7A0283	01/10/2017	01/11/17 16:58	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0339	01/11/2017	01/12/17 10:12	
4,4´-DDE	ND	2.0	0.20	1	B7A0339	01/11/2017	01/12/17 10:12	
4,4´-DDT	ND	2.0	0.13	1	B7A0339	01/11/2017	01/12/17 10:12	
Aldrin	ND	1.0	0.27	1	B7A0339	01/11/2017	01/12/17 10:12	
alpha-BHC	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 10:12	
alpha-Chlordane	**0.23**	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 10:12	J
beta-BHC	ND	1.0	0.23	1	B7A0339	01/11/2017	01/12/17 10:12	
Chlordane	**2.7**	8.5	0.90	1	B7A0339	01/11/2017	01/12/17 10:12	J
delta-BHC	ND	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 10:12	
Dieldrin	ND	2.0	0.25	1	B7A0339	01/11/2017	01/12/17 10:12	
Endosulfan I	ND	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 10:12	
Endosulfan II	ND	2.0	0.22	1	B7A0339	01/11/2017	01/12/17 10:12	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0339	01/11/2017	01/12/17 10:12	
Endrin	ND	2.0	0.23	1	B7A0339	01/11/2017	01/12/17 10:12	
Endrin aldehyde	ND	2.0	0.28	1	B7A0339	01/11/2017	01/12/17 10:12	
Endrin ketone	ND	2.0	0.20	1	B7A0339	01/11/2017	01/12/17 10:12	
gamma-BHC	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 10:12	
gamma-Chlordane	**0.54**	1.0	0.23	1	B7A0339	01/11/2017	01/12/17 10:12	J
Heptachlor	ND	1.0	0.19	1	B7A0339	01/11/2017	01/12/17 10:12	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 10:12	
Methoxychlor	ND	5.0	0.18	1	B7A0339	01/11/2017	01/12/17 10:12	
Toxaphene	ND	50	8.2	1	B7A0339	01/11/2017	01/12/17 10:12	
Surrogate: Decachlorobiphenyl	*95.8 %*	*27 - 123*			B7A0339	01/11/2017	*01/12/17 10:12*	
Surrogate: Tetrachloro-m-xylene	*84.7 %*	*26 - 108*			B7A0339	01/11/2017	*01/12/17 10:12*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB1-3-1.5
Lab ID: 1700028-27

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.6**	1.0	0.70	1	B7A0283	01/10/2017	01/11/17 17:02	
Lead	**9.3**	1.0	0.11	1	B7A0283	01/10/2017	01/11/17 17:02	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0339	01/11/2017	01/12/17 10:23	
4,4´-DDE	**0.29**	2.0	0.20	1	B7A0339	01/11/2017	01/12/17 10:23	J
4,4´-DDT	ND	2.0	0.13	1	B7A0339	01/11/2017	01/12/17 10:23	
Aldrin	ND	1.0	0.27	1	B7A0339	01/11/2017	01/12/17 10:23	
alpha-BHC	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 10:23	
alpha-Chlordane	**0.34**	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 10:23	J
beta-BHC	ND	1.0	0.23	1	B7A0339	01/11/2017	01/12/17 10:23	
Chlordane	**3.2**	8.5	0.90	1	B7A0339	01/11/2017	01/12/17 10:23	J
delta-BHC	ND	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 10:23	
Dieldrin	ND	2.0	0.25	1	B7A0339	01/11/2017	01/12/17 10:23	
Endosulfan I	ND	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 10:23	
Endosulfan II	ND	2.0	0.22	1	B7A0339	01/11/2017	01/12/17 10:23	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0339	01/11/2017	01/12/17 10:23	
Endrin	ND	2.0	0.23	1	B7A0339	01/11/2017	01/12/17 10:23	
Endrin aldehyde	ND	2.0	0.28	1	B7A0339	01/11/2017	01/12/17 10:23	
Endrin ketone	ND	2.0	0.20	1	B7A0339	01/11/2017	01/12/17 10:23	
gamma-BHC	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 10:23	
gamma-Chlordane [2C]	**0.33**	1.0	0.23	1	B7A0339	01/11/2017	01/12/17 10:23	J
Heptachlor	ND	1.0	0.19	1	B7A0339	01/11/2017	01/12/17 10:23	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 10:23	
Methoxychlor	ND	5.0	0.18	1	B7A0339	01/11/2017	01/12/17 10:23	
Toxaphene	ND	50	8.2	1	B7A0339	01/11/2017	01/12/17 10:23	
Surrogate: Decachlorobiphenyl	*67.7 %*	*27 - 123*			B7A0339	01/11/2017	*01/12/17 10:23*	
Surrogate: Tetrachloro-m-xylene	*60.9 %*	*26 - 108*			B7A0339	01/11/2017	*01/12/17 10:23*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB1-3-1.5-D
Lab ID: 1700028-28

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.6**	1.0	0.70	1	B7A0283	01/10/2017	01/11/17 17:03	
Lead	**10**	1.0	0.11	1	B7A0283	01/10/2017	01/11/17 17:03	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0339	01/11/2017	01/12/17 10:33	
4,4´-DDE	ND	2.0	0.20	1	B7A0339	01/11/2017	01/12/17 10:33	
4,4´-DDT	ND	2.0	0.13	1	B7A0339	01/11/2017	01/12/17 10:33	
Aldrin	ND	1.0	0.27	1	B7A0339	01/11/2017	01/12/17 10:33	
alpha-BHC	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 10:33	
alpha-Chlordane	**1.1**	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 10:33	
beta-BHC	ND	1.0	0.23	1	B7A0339	01/11/2017	01/12/17 10:33	
Chlordane	**8.9**	8.5	0.90	1	B7A0339	01/11/2017	01/12/17 10:33	
delta-BHC	ND	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 10:33	
Dieldrin	ND	2.0	0.25	1	B7A0339	01/11/2017	01/12/17 10:33	
Endosulfan I	ND	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 10:33	
Endosulfan II	ND	2.0	0.22	1	B7A0339	01/11/2017	01/12/17 10:33	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0339	01/11/2017	01/12/17 10:33	
Endrin	ND	2.0	0.23	1	B7A0339	01/11/2017	01/12/17 10:33	
Endrin aldehyde	ND	2.0	0.28	1	B7A0339	01/11/2017	01/12/17 10:33	
Endrin ketone	ND	2.0	0.20	1	B7A0339	01/11/2017	01/12/17 10:33	
gamma-BHC	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 10:33	
gamma-Chlordane	**1.3**	1.0	0.23	1	B7A0339	01/11/2017	01/12/17 10:33	
Heptachlor	ND	1.0	0.19	1	B7A0339	01/11/2017	01/12/17 10:33	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 10:33	
Methoxychlor	ND	5.0	0.18	1	B7A0339	01/11/2017	01/12/17 10:33	
Toxaphene	ND	50	8.2	1	B7A0339	01/11/2017	01/12/17 10:33	
Surrogate: Decachlorobiphenyl	*91.0 %*	*27 - 123*			B7A0339	01/11/2017	*01/12/17 10:33*	
Surrogate: Tetrachloro-m-xylene	*83.4 %*	*26 - 108*			B7A0339	01/11/2017	*01/12/17 10:33*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB1-3-2.5
Lab ID: 1700028-29

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.3**	1.0	0.70	1	B7A0283	01/10/2017	01/11/17 17:04	
Lead	**3.2**	1.0	0.11	1	B7A0283	01/10/2017	01/11/17 17:04	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0339	01/11/2017	01/12/17 10:44	
4,4´-DDE	ND	2.0	0.20	1	B7A0339	01/11/2017	01/12/17 10:44	
4,4´-DDT	ND	2.0	0.13	1	B7A0339	01/11/2017	01/12/17 10:44	
Aldrin	ND	1.0	0.27	1	B7A0339	01/11/2017	01/12/17 10:44	
alpha-BHC	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 10:44	
alpha-Chlordane	ND	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 10:44	
beta-BHC	ND	1.0	0.23	1	B7A0339	01/11/2017	01/12/17 10:44	
Chlordane	ND	8.5	0.90	1	B7A0339	01/11/2017	01/12/17 10:44	
delta-BHC	ND	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 10:44	
Dieldrin	ND	2.0	0.25	1	B7A0339	01/11/2017	01/12/17 10:44	
Endosulfan I	ND	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 10:44	
Endosulfan II	ND	2.0	0.22	1	B7A0339	01/11/2017	01/12/17 10:44	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0339	01/11/2017	01/12/17 10:44	
Endrin	ND	2.0	0.23	1	B7A0339	01/11/2017	01/12/17 10:44	
Endrin aldehyde	ND	2.0	0.28	1	B7A0339	01/11/2017	01/12/17 10:44	
Endrin ketone	ND	2.0	0.20	1	B7A0339	01/11/2017	01/12/17 10:44	
gamma-BHC	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 10:44	
gamma-Chlordane	**0.27**	1.0	0.23	1	B7A0339	01/11/2017	01/12/17 10:44	J
Heptachlor	ND	1.0	0.19	1	B7A0339	01/11/2017	01/12/17 10:44	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 10:44	
Methoxychlor	ND	5.0	0.18	1	B7A0339	01/11/2017	01/12/17 10:44	
Toxaphene	ND	50	8.2	1	B7A0339	01/11/2017	01/12/17 10:44	
Surrogate: Decachlorobiphenyl	*98.8 %*		*27 - 123*		B7A0339	01/11/2017	*01/12/17 10:44*	
Surrogate: Tetrachloro-m-xylene	*91.9 %*		*26 - 108*		B7A0339	01/11/2017	*01/12/17 10:44*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB1-4-0.5

Lab ID: 1700028-30

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.2**	1.0	0.70	1	B7A0283	01/10/2017	01/11/17 17:05	
Lead	**4.0**	1.0	0.11	1	B7A0283	01/10/2017	01/11/17 17:05	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0339	01/11/2017	01/12/17 10:54	
4,4´-DDE	ND	2.0	0.20	1	B7A0339	01/11/2017	01/12/17 10:54	
4,4´-DDT	ND	2.0	0.13	1	B7A0339	01/11/2017	01/12/17 10:54	
Aldrin	ND	1.0	0.27	1	B7A0339	01/11/2017	01/12/17 10:54	
alpha-BHC	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 10:54	
alpha-Chlordane	ND	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 10:54	
beta-BHC	ND	1.0	0.23	1	B7A0339	01/11/2017	01/12/17 10:54	
Chlordane	ND	8.5	0.90	1	B7A0339	01/11/2017	01/12/17 10:54	
delta-BHC	ND	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 10:54	
Dieldrin	ND	2.0	0.25	1	B7A0339	01/11/2017	01/12/17 10:54	
Endosulfan I	ND	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 10:54	
Endosulfan II	ND	2.0	0.22	1	B7A0339	01/11/2017	01/12/17 10:54	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0339	01/11/2017	01/12/17 10:54	
Endrin	ND	2.0	0.23	1	B7A0339	01/11/2017	01/12/17 10:54	
Endrin aldehyde	ND	2.0	0.28	1	B7A0339	01/11/2017	01/12/17 10:54	
Endrin ketone	ND	2.0	0.20	1	B7A0339	01/11/2017	01/12/17 10:54	
gamma-BHC	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 10:54	
gamma-Chlordane	ND	1.0	0.23	1	B7A0339	01/11/2017	01/12/17 10:54	
Heptachlor	ND	1.0	0.19	1	B7A0339	01/11/2017	01/12/17 10:54	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 10:54	
Methoxychlor	ND	5.0	0.18	1	B7A0339	01/11/2017	01/12/17 10:54	
Toxaphene	ND	50	8.2	1	B7A0339	01/11/2017	01/12/17 10:54	
Surrogate: Decachlorobiphenyl	*92.7 %*		*27 - 123*		B7A0339	01/11/2017	*01/12/17 10:54*	
Surrogate: Tetrachloro-m-xylene	*82.6 %*		*26 - 108*		B7A0339	01/11/2017	*01/12/17 10:54*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB1-4-0.5-D
Lab ID: 1700028-31

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.9**	1.0	0.70	1	B7A0283	01/10/2017	01/11/17 17:07	
Lead	**7.7**	1.0	0.11	1	B7A0283	01/10/2017	01/11/17 17:07	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0339	01/11/2017	01/12/17 11:04	
4,4´-DDE	ND	2.0	0.20	1	B7A0339	01/11/2017	01/12/17 11:04	
4,4´-DDT	ND	2.0	0.13	1	B7A0339	01/11/2017	01/12/17 11:04	
Aldrin	ND	1.0	0.27	1	B7A0339	01/11/2017	01/12/17 11:04	
alpha-BHC	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 11:04	
alpha-Chlordane	ND	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 11:04	
beta-BHC	ND	1.0	0.23	1	B7A0339	01/11/2017	01/12/17 11:04	
Chlordane	ND	8.5	0.90	1	B7A0339	01/11/2017	01/12/17 11:04	
delta-BHC	ND	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 11:04	
Dieldrin	ND	2.0	0.25	1	B7A0339	01/11/2017	01/12/17 11:04	
Endosulfan I	ND	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 11:04	
Endosulfan II	ND	2.0	0.22	1	B7A0339	01/11/2017	01/12/17 11:04	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0339	01/11/2017	01/12/17 11:04	
Endrin	ND	2.0	0.23	1	B7A0339	01/11/2017	01/12/17 11:04	
Endrin aldehyde	ND	2.0	0.28	1	B7A0339	01/11/2017	01/12/17 11:04	
Endrin ketone	ND	2.0	0.20	1	B7A0339	01/11/2017	01/12/17 11:04	
gamma-BHC	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 11:04	
gamma-Chlordane	ND	1.0	0.23	1	B7A0339	01/11/2017	01/12/17 11:04	
Heptachlor	ND	1.0	0.19	1	B7A0339	01/11/2017	01/12/17 11:04	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 11:04	
Methoxychlor	ND	5.0	0.18	1	B7A0339	01/11/2017	01/12/17 11:04	
Toxaphene	ND	50	8.2	1	B7A0339	01/11/2017	01/12/17 11:04	
Surrogate: Decachlorobiphenyl	*94.6 %*	*27 - 123*			B7A0339	01/11/2017	*01/12/17 11:04*	
Surrogate: Tetrachloro-m-xylene	*81.7 %*	*26 - 108*			B7A0339	01/11/2017	*01/12/17 11:04*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB1-4-1.5

Lab ID: 1700028-32

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.5**	1.0	0.70	1	B7A0283	01/10/2017	01/11/17 17:08	
Lead	**3.7**	1.0	0.11	1	B7A0283	01/10/2017	01/11/17 17:08	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0339	01/11/2017	01/12/17 11:15	
4,4´-DDE	ND	2.0	0.20	1	B7A0339	01/11/2017	01/12/17 11:15	
4,4´-DDT	ND	2.0	0.13	1	B7A0339	01/11/2017	01/12/17 11:15	
Aldrin	ND	1.0	0.27	1	B7A0339	01/11/2017	01/12/17 11:15	
alpha-BHC	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 11:15	
alpha-Chlordane	ND	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 11:15	
beta-BHC	ND	1.0	0.23	1	B7A0339	01/11/2017	01/12/17 11:15	
Chlordane	ND	8.5	0.90	1	B7A0339	01/11/2017	01/12/17 11:15	
delta-BHC	ND	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 11:15	
Dieldrin	ND	2.0	0.25	1	B7A0339	01/11/2017	01/12/17 11:15	
Endosulfan I	ND	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 11:15	
Endosulfan II	ND	2.0	0.22	1	B7A0339	01/11/2017	01/12/17 11:15	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0339	01/11/2017	01/12/17 11:15	
Endrin	ND	2.0	0.23	1	B7A0339	01/11/2017	01/12/17 11:15	
Endrin aldehyde	ND	2.0	0.28	1	B7A0339	01/11/2017	01/12/17 11:15	
Endrin ketone	ND	2.0	0.20	1	B7A0339	01/11/2017	01/12/17 11:15	
gamma-BHC	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 11:15	
gamma-Chlordane	ND	1.0	0.23	1	B7A0339	01/11/2017	01/12/17 11:15	
Heptachlor	ND	1.0	0.19	1	B7A0339	01/11/2017	01/12/17 11:15	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 11:15	
Methoxychlor	ND	5.0	0.18	1	B7A0339	01/11/2017	01/12/17 11:15	
Toxaphene	ND	50	8.2	1	B7A0339	01/11/2017	01/12/17 11:15	
Surrogate: Decachlorobiphenyl	*95.0 %*		*27 - 123*		B7A0339	01/11/2017	*01/12/17 11:15*	
Surrogate: Tetrachloro-m-xylene	*84.4 %*		*26 - 108*		B7A0339	01/11/2017	*01/12/17 11:15*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB1-4-1.5-D
Lab ID: 1700028-33

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.4**	1.0	0.70	1	B7A0283	01/10/2017	01/11/17 17:09	
Lead	**3.5**	1.0	0.11	1	B7A0283	01/10/2017	01/11/17 17:09	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0339	01/11/2017	01/12/17 11:25	
4,4´-DDE	ND	2.0	0.20	1	B7A0339	01/11/2017	01/12/17 11:25	
4,4´-DDT	ND	2.0	0.13	1	B7A0339	01/11/2017	01/12/17 11:25	
Aldrin	ND	1.0	0.27	1	B7A0339	01/11/2017	01/12/17 11:25	
alpha-BHC	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 11:25	
alpha-Chlordane	ND	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 11:25	
beta-BHC	ND	1.0	0.23	1	B7A0339	01/11/2017	01/12/17 11:25	
Chlordane	ND	8.5	0.90	1	B7A0339	01/11/2017	01/12/17 11:25	
delta-BHC	ND	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 11:25	
Dieldrin	ND	2.0	0.25	1	B7A0339	01/11/2017	01/12/17 11:25	
Endosulfan I	ND	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 11:25	
Endosulfan II	ND	2.0	0.22	1	B7A0339	01/11/2017	01/12/17 11:25	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0339	01/11/2017	01/12/17 11:25	
Endrin	ND	2.0	0.23	1	B7A0339	01/11/2017	01/12/17 11:25	
Endrin aldehyde	ND	2.0	0.28	1	B7A0339	01/11/2017	01/12/17 11:25	
Endrin ketone	ND	2.0	0.20	1	B7A0339	01/11/2017	01/12/17 11:25	
gamma-BHC	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 11:25	
gamma-Chlordane	ND	1.0	0.23	1	B7A0339	01/11/2017	01/12/17 11:25	
Heptachlor	ND	1.0	0.19	1	B7A0339	01/11/2017	01/12/17 11:25	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 11:25	
Methoxychlor	ND	5.0	0.18	1	B7A0339	01/11/2017	01/12/17 11:25	
Toxaphene	ND	50	8.2	1	B7A0339	01/11/2017	01/12/17 11:25	
Surrogate: Decachlorobiphenyl	*91.6 %*	*27 - 123*			B7A0339	01/11/2017	*01/12/17 11:25*	
Surrogate: Tetrachloro-m-xylene	*78.3 %*	*26 - 108*			B7A0339	01/11/2017	*01/12/17 11:25*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB1-4-2.5

Lab ID: 1700028-34

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.0**	1.0	0.70	1	B7A0283	01/10/2017	01/11/17 17:10	
Lead	**3.8**	1.0	0.11	1	B7A0283	01/10/2017	01/11/17 17:10	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0339	01/11/2017	01/12/17 11:36	
4,4´-DDE	ND	2.0	0.20	1	B7A0339	01/11/2017	01/12/17 11:36	
4,4´-DDT	ND	2.0	0.13	1	B7A0339	01/11/2017	01/12/17 11:36	
Aldrin	ND	1.0	0.27	1	B7A0339	01/11/2017	01/12/17 11:36	
alpha-BHC	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 11:36	
alpha-Chlordane	ND	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 11:36	
beta-BHC	ND	1.0	0.23	1	B7A0339	01/11/2017	01/12/17 11:36	
Chlordane	ND	8.5	0.90	1	B7A0339	01/11/2017	01/12/17 11:36	
delta-BHC	ND	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 11:36	
Dieldrin	ND	2.0	0.25	1	B7A0339	01/11/2017	01/12/17 11:36	
Endosulfan I	ND	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 11:36	
Endosulfan II	ND	2.0	0.22	1	B7A0339	01/11/2017	01/12/17 11:36	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0339	01/11/2017	01/12/17 11:36	
Endrin	ND	2.0	0.23	1	B7A0339	01/11/2017	01/12/17 11:36	
Endrin aldehyde	ND	2.0	0.28	1	B7A0339	01/11/2017	01/12/17 11:36	
Endrin ketone	ND	2.0	0.20	1	B7A0339	01/11/2017	01/12/17 11:36	
gamma-BHC	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 11:36	
gamma-Chlordane	ND	1.0	0.23	1	B7A0339	01/11/2017	01/12/17 11:36	
Heptachlor	ND	1.0	0.19	1	B7A0339	01/11/2017	01/12/17 11:36	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 11:36	
Methoxychlor	ND	5.0	0.18	1	B7A0339	01/11/2017	01/12/17 11:36	
Toxaphene	ND	50	8.2	1	B7A0339	01/11/2017	01/12/17 11:36	
Surrogate: Decachlorobiphenyl	*95.5 %*		*27 - 123*		B7A0339	01/11/2017	*01/12/17 11:36*	
Surrogate: Tetrachloro-m-xylene	*81.7 %*		*26 - 108*		B7A0339	01/11/2017	*01/12/17 11:36*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB1-1-0.5
Lab ID: 1700028-35

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	1.0	0.70	1	B7A0283	01/10/2017	01/11/17 17:11	
Lead	**2.2**	1.0	0.11	1	B7A0283	01/10/2017	01/11/17 17:11	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0339	01/11/2017	01/12/17 11:46	
4,4´-DDE	ND	2.0	0.20	1	B7A0339	01/11/2017	01/12/17 11:46	
4,4´-DDT	ND	2.0	0.13	1	B7A0339	01/11/2017	01/12/17 11:46	
Aldrin	ND	1.0	0.27	1	B7A0339	01/11/2017	01/12/17 11:46	
alpha-BHC	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 11:46	
alpha-Chlordane	**0.28**	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 11:46	J
beta-BHC	ND	1.0	0.23	1	B7A0339	01/11/2017	01/12/17 11:46	
Chlordane	**2.3**	8.5	0.90	1	B7A0339	01/11/2017	01/12/17 11:46	J
delta-BHC	ND	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 11:46	
Dieldrin	ND	2.0	0.25	1	B7A0339	01/11/2017	01/12/17 11:46	
Endosulfan I	ND	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 11:46	
Endosulfan II	ND	2.0	0.22	1	B7A0339	01/11/2017	01/12/17 11:46	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0339	01/11/2017	01/12/17 11:46	
Endrin	ND	2.0	0.23	1	B7A0339	01/11/2017	01/12/17 11:46	
Endrin aldehyde	ND	2.0	0.28	1	B7A0339	01/11/2017	01/12/17 11:46	
Endrin ketone	ND	2.0	0.20	1	B7A0339	01/11/2017	01/12/17 11:46	
gamma-BHC	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 11:46	
gamma-Chlordane	**0.33**	1.0	0.23	1	B7A0339	01/11/2017	01/12/17 11:46	J
Heptachlor	ND	1.0	0.19	1	B7A0339	01/11/2017	01/12/17 11:46	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 11:46	
Methoxychlor	ND	5.0	0.18	1	B7A0339	01/11/2017	01/12/17 11:46	
Toxaphene	ND	50	8.2	1	B7A0339	01/11/2017	01/12/17 11:46	
Surrogate: Decachlorobiphenyl	*63.9 %*		*27 - 123*		B7A0339	01/11/2017	*01/12/17 11:46*	
Surrogate: Tetrachloro-m-xylene	*53.1 %*		*26 - 108*		B7A0339	01/11/2017	*01/12/17 11:46*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB1-1-0.5

Lab ID: 1700028-35

Polychlorinated Biphenyls by EPA 8082 **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B7A0272	01/10/2017	01/10/17 15:25	
Aroclor 1221	ND	16	1.5	1	B7A0272	01/10/2017	01/10/17 15:25	
Aroclor 1232	ND	16	1.5	1	B7A0272	01/10/2017	01/10/17 15:25	
Aroclor 1242	ND	16	1.5	1	B7A0272	01/10/2017	01/10/17 15:25	
Aroclor 1248	ND	16	1.5	1	B7A0272	01/10/2017	01/10/17 15:25	
Aroclor 1254	ND	16	1.5	1	B7A0272	01/10/2017	01/10/17 15:25	
Aroclor 1260	**1.6**	16	1.5	1	B7A0272	01/10/2017	01/10/17 15:25	J
Aroclor 1262	ND	16	1.5	1	B7A0272	01/10/2017	01/10/17 15:25	
Aroclor 1268	ND	16	1.5	1	B7A0272	01/10/2017	01/10/17 15:25	
Surrogate: Decachlorobiphenyl	*110 %*	*26 - 137*			B7A0272	01/10/2017	*01/10/17 15:25*	
Surrogate: Tetrachloro-m-xylene	*110 %*	*28 - 102*			B7A0272	01/10/2017	*01/10/17 15:25*	S1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB1-1-0.5-D
Lab ID: 1700028-36

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	1.0	0.70	1	B7A0283	01/10/2017	01/11/17 17:12	
Lead	**2.2**	1.0	0.11	1	B7A0283	01/10/2017	01/11/17 17:12	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0339	01/11/2017	01/12/17 11:57	
4,4´-DDE	ND	2.0	0.20	1	B7A0339	01/11/2017	01/12/17 11:57	
4,4´-DDT	ND	2.0	0.13	1	B7A0339	01/11/2017	01/12/17 11:57	
Aldrin	ND	1.0	0.27	1	B7A0339	01/11/2017	01/12/17 11:57	
alpha-BHC	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 11:57	
alpha-Chlordane	ND	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 11:57	
beta-BHC	ND	1.0	0.23	1	B7A0339	01/11/2017	01/12/17 11:57	
Chlordane	ND	8.5	0.90	1	B7A0339	01/11/2017	01/12/17 11:57	
delta-BHC	ND	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 11:57	
Dieldrin	ND	2.0	0.25	1	B7A0339	01/11/2017	01/12/17 11:57	
Endosulfan I	ND	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 11:57	
Endosulfan II	ND	2.0	0.22	1	B7A0339	01/11/2017	01/12/17 11:57	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0339	01/11/2017	01/12/17 11:57	
Endrin	ND	2.0	0.23	1	B7A0339	01/11/2017	01/12/17 11:57	
Endrin aldehyde	ND	2.0	0.28	1	B7A0339	01/11/2017	01/12/17 11:57	
Endrin ketone	ND	2.0	0.20	1	B7A0339	01/11/2017	01/12/17 11:57	
gamma-BHC	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 11:57	
gamma-Chlordane	ND	1.0	0.23	1	B7A0339	01/11/2017	01/12/17 11:57	
Heptachlor	ND	1.0	0.19	1	B7A0339	01/11/2017	01/12/17 11:57	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 11:57	
Methoxychlor	ND	5.0	0.18	1	B7A0339	01/11/2017	01/12/17 11:57	
Toxaphene	ND	50	8.2	1	B7A0339	01/11/2017	01/12/17 11:57	
Surrogate: Decachlorobiphenyl	*99.2 %*	*27 - 123*			B7A0339	01/11/2017	*01/12/17 11:57*	
Surrogate: Tetrachloro-m-xylene	*84.7 %*	*26 - 108*			B7A0339	01/11/2017	*01/12/17 11:57*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB1-1-1.5
Lab ID: 1700028-37

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**3.0**	1.0	0.70	1	B7A0283	01/10/2017	01/11/17 17:16	
Lead	**19**	1.0	0.11	1	B7A0283	01/10/2017	01/11/17 17:16	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	**0.79**	2.0	0.22	1	B7A0339	01/11/2017	01/12/17 12:07	J
4,4´-DDE	**1.1**	2.0	0.20	1	B7A0339	01/11/2017	01/12/17 12:07	J
4,4´-DDT	**0.32**	2.0	0.13	1	B7A0339	01/11/2017	01/12/17 12:07	J
Aldrin	ND	1.0	0.27	1	B7A0339	01/11/2017	01/12/17 12:07	
alpha-BHC	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 12:07	
alpha-Chlordane	**1.5**	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 12:07	
beta-BHC	ND	1.0	0.23	1	B7A0339	01/11/2017	01/12/17 12:07	
Chlordane [2C]	**11**	8.5	0.90	1	B7A0339	01/11/2017	01/12/17 12:07	
delta-BHC	ND	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 12:07	
Dieldrin	ND	2.0	0.25	1	B7A0339	01/11/2017	01/12/17 12:07	
Endosulfan I	ND	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 12:07	
Endosulfan II	ND	2.0	0.22	1	B7A0339	01/11/2017	01/12/17 12:07	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0339	01/11/2017	01/12/17 12:07	
Endrin	ND	2.0	0.23	1	B7A0339	01/11/2017	01/12/17 12:07	
Endrin aldehyde	ND	2.0	0.28	1	B7A0339	01/11/2017	01/12/17 12:07	
Endrin ketone	ND	2.0	0.20	1	B7A0339	01/11/2017	01/12/17 12:07	
gamma-BHC	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 12:07	
gamma-Chlordane [2C]	**1.3**	1.0	0.23	1	B7A0339	01/11/2017	01/12/17 12:07	
Heptachlor	ND	1.0	0.19	1	B7A0339	01/11/2017	01/12/17 12:07	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 12:07	
Methoxychlor	ND	5.0	0.18	1	B7A0339	01/11/2017	01/12/17 12:07	
Toxaphene	ND	50	8.2	1	B7A0339	01/11/2017	01/12/17 12:07	
Surrogate: Decachlorobiphenyl	*92.6 %*	*27 - 123*			B7A0339	01/11/2017	*01/12/17 12:07*	
Surrogate: Tetrachloro-m-xylene	*85.7 %*	*26 - 108*			B7A0339	01/11/2017	*01/12/17 12:07*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB1-1-1.5-D
Lab ID: 1700028-38

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.8**	1.0	0.70	1	B7A0283	01/10/2017	01/11/17 17:17	
Lead	**21**	1.0	0.11	1	B7A0283	01/10/2017	01/11/17 17:17	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	**0.23**	2.0	0.22	1	B7A0339	01/11/2017	01/12/17 12:18	J
4,4´-DDE	**0.25**	2.0	0.20	1	B7A0339	01/11/2017	01/12/17 12:18	J
4,4´-DDT	ND	2.0	0.13	1	B7A0339	01/11/2017	01/12/17 12:18	
Aldrin	ND	1.0	0.27	1	B7A0339	01/11/2017	01/12/17 12:18	
alpha-BHC	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 12:18	
alpha-Chlordane	**2.4**	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 12:18	
beta-BHC	ND	1.0	0.23	1	B7A0339	01/11/2017	01/12/17 12:18	
Chlordane	**16**	8.5	0.90	1	B7A0339	01/11/2017	01/12/17 12:18	
delta-BHC	ND	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 12:18	
Dieldrin	ND	2.0	0.25	1	B7A0339	01/11/2017	01/12/17 12:18	
Endosulfan I	ND	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 12:18	
Endosulfan II	ND	2.0	0.22	1	B7A0339	01/11/2017	01/12/17 12:18	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0339	01/11/2017	01/12/17 12:18	
Endrin	ND	2.0	0.23	1	B7A0339	01/11/2017	01/12/17 12:18	
Endrin aldehyde	ND	2.0	0.28	1	B7A0339	01/11/2017	01/12/17 12:18	
Endrin ketone	ND	2.0	0.20	1	B7A0339	01/11/2017	01/12/17 12:18	
gamma-BHC	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 12:18	
gamma-Chlordane [2C]	**1.7**	1.0	0.23	1	B7A0339	01/11/2017	01/12/17 12:18	
Heptachlor	ND	1.0	0.19	1	B7A0339	01/11/2017	01/12/17 12:18	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 12:18	
Methoxychlor	ND	5.0	0.18	1	B7A0339	01/11/2017	01/12/17 12:18	
Toxaphene	ND	50	8.2	1	B7A0339	01/11/2017	01/12/17 12:18	
Surrogate: Decachlorobiphenyl	*63.4 %*	*27 - 123*			B7A0339	01/11/2017	*01/12/17 12:18*	
Surrogate: Tetrachloro-m-xylene	*53.9 %*	*26 - 108*			B7A0339	01/11/2017	*01/12/17 12:18*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB1-1-2.5

Lab ID: 1700028-39

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.7**	1.0	0.70	1	B7A0283	01/10/2017	01/11/17 17:18	
Lead	**3.5**	1.0	0.11	1	B7A0283	01/10/2017	01/11/17 17:18	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0339	01/11/2017	01/12/17 12:28	
4,4´-DDE	ND	2.0	0.20	1	B7A0339	01/11/2017	01/12/17 12:28	
4,4´-DDT	ND	2.0	0.13	1	B7A0339	01/11/2017	01/12/17 12:28	
Aldrin	ND	1.0	0.27	1	B7A0339	01/11/2017	01/12/17 12:28	
alpha-BHC	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 12:28	
alpha-Chlordane	ND	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 12:28	
beta-BHC	ND	1.0	0.23	1	B7A0339	01/11/2017	01/12/17 12:28	
Chlordane	ND	8.5	0.90	1	B7A0339	01/11/2017	01/12/17 12:28	
delta-BHC	ND	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 12:28	
Dieldrin	ND	2.0	0.25	1	B7A0339	01/11/2017	01/12/17 12:28	
Endosulfan I	ND	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 12:28	
Endosulfan II	ND	2.0	0.22	1	B7A0339	01/11/2017	01/12/17 12:28	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0339	01/11/2017	01/12/17 12:28	
Endrin	ND	2.0	0.23	1	B7A0339	01/11/2017	01/12/17 12:28	
Endrin aldehyde	ND	2.0	0.28	1	B7A0339	01/11/2017	01/12/17 12:28	
Endrin ketone	ND	2.0	0.20	1	B7A0339	01/11/2017	01/12/17 12:28	
gamma-BHC	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 12:28	
gamma-Chlordane	ND	1.0	0.23	1	B7A0339	01/11/2017	01/12/17 12:28	
Heptachlor	ND	1.0	0.19	1	B7A0339	01/11/2017	01/12/17 12:28	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 12:28	
Methoxychlor	ND	5.0	0.18	1	B7A0339	01/11/2017	01/12/17 12:28	
Toxaphene	ND	50	8.2	1	B7A0339	01/11/2017	01/12/17 12:28	
Surrogate: Decachlorobiphenyl	*85.4 %*	*27 - 123*			B7A0339	01/11/2017	*01/12/17 12:28*	
Surrogate: Tetrachloro-m-xylene	*75.1 %*	*26 - 108*			B7A0339	01/11/2017	*01/12/17 12:28*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB1-2-0.5

Lab ID: 1700028-40

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.9**	1.0	0.70	1	B7A0283	01/10/2017	01/11/17 17:19	
Lead	**4.2**	1.0	0.11	1	B7A0283	01/10/2017	01/11/17 17:19	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0339	01/11/2017	01/12/17 12:39	
4,4´-DDE	ND	2.0	0.20	1	B7A0339	01/11/2017	01/12/17 12:39	
4,4´-DDT	ND	2.0	0.13	1	B7A0339	01/11/2017	01/12/17 12:39	
Aldrin	ND	1.0	0.27	1	B7A0339	01/11/2017	01/12/17 12:39	
alpha-BHC	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 12:39	
alpha-Chlordane	ND	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 12:39	
beta-BHC	ND	1.0	0.23	1	B7A0339	01/11/2017	01/12/17 12:39	
Chlordane	ND	8.5	0.90	1	B7A0339	01/11/2017	01/12/17 12:39	
delta-BHC	ND	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 12:39	
Dieldrin	ND	2.0	0.25	1	B7A0339	01/11/2017	01/12/17 12:39	
Endosulfan I	ND	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 12:39	
Endosulfan II	ND	2.0	0.22	1	B7A0339	01/11/2017	01/12/17 12:39	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0339	01/11/2017	01/12/17 12:39	
Endrin	ND	2.0	0.23	1	B7A0339	01/11/2017	01/12/17 12:39	
Endrin aldehyde	ND	2.0	0.28	1	B7A0339	01/11/2017	01/12/17 12:39	
Endrin ketone	ND	2.0	0.20	1	B7A0339	01/11/2017	01/12/17 12:39	
gamma-BHC	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 12:39	
gamma-Chlordane	ND	1.0	0.23	1	B7A0339	01/11/2017	01/12/17 12:39	
Heptachlor	ND	1.0	0.19	1	B7A0339	01/11/2017	01/12/17 12:39	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 12:39	
Methoxychlor	ND	5.0	0.18	1	B7A0339	01/11/2017	01/12/17 12:39	
Toxaphene	ND	50	8.2	1	B7A0339	01/11/2017	01/12/17 12:39	
Surrogate: Decachlorobiphenyl	*86.5 %*	*27 - 123*			B7A0339	01/11/2017	*01/12/17 12:39*	
Surrogate: Tetrachloro-m-xylene	*77.2 %*	*26 - 108*			B7A0339	01/11/2017	*01/12/17 12:39*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB1-2-0.5-D
Lab ID: 1700028-41

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.2**	1.0	0.70	1	B7A0284	01/10/2017	01/11/17 17:23	
Lead	**12**	1.0	0.11	1	B7A0284	01/10/2017	01/11/17 17:23	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	**0.32**	2.0	0.22	1	B7A0339	01/11/2017	01/12/17 12:49	J
4,4´-DDE	**0.23**	2.0	0.20	1	B7A0339	01/11/2017	01/12/17 12:49	J
4,4´-DDT	ND	2.0	0.13	1	B7A0339	01/11/2017	01/12/17 12:49	
Aldrin	ND	1.0	0.27	1	B7A0339	01/11/2017	01/12/17 12:49	
alpha-BHC	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 12:49	
alpha-Chlordane	ND	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 12:49	
beta-BHC	ND	1.0	0.23	1	B7A0339	01/11/2017	01/12/17 12:49	
Chlordane [2C]	**1.5**	8.5	0.90	1	B7A0339	01/11/2017	01/12/17 12:49	J
delta-BHC	ND	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 12:49	
Dieldrin	ND	2.0	0.25	1	B7A0339	01/11/2017	01/12/17 12:49	
Endosulfan I	ND	1.0	0.21	1	B7A0339	01/11/2017	01/12/17 12:49	
Endosulfan II	ND	2.0	0.22	1	B7A0339	01/11/2017	01/12/17 12:49	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0339	01/11/2017	01/12/17 12:49	
Endrin	ND	2.0	0.23	1	B7A0339	01/11/2017	01/12/17 12:49	
Endrin aldehyde	ND	2.0	0.28	1	B7A0339	01/11/2017	01/12/17 12:49	
Endrin ketone	ND	2.0	0.20	1	B7A0339	01/11/2017	01/12/17 12:49	
gamma-BHC	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 12:49	
gamma-Chlordane [2C]	ND	1.0	0.23	1	B7A0339	01/11/2017	01/12/17 12:49	
Heptachlor	ND	1.0	0.19	1	B7A0339	01/11/2017	01/12/17 12:49	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0339	01/11/2017	01/12/17 12:49	
Methoxychlor	ND	5.0	0.18	1	B7A0339	01/11/2017	01/12/17 12:49	
Toxaphene	ND	50	8.2	1	B7A0339	01/11/2017	01/12/17 12:49	
Surrogate: Decachlorobiphenyl	*61.9 %*	*27 - 123*			B7A0339	01/11/2017	*01/12/17 12:49*	
Surrogate: Tetrachloro-m-xylene	*56.1 %*	*26 - 108*			B7A0339	01/11/2017	*01/12/17 12:49*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB1-2-1.5

Lab ID: 1700028-42

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.6**	1.0	0.70	1	B7A0284	01/10/2017	01/11/17 17:29	
Lead	**3.6**	1.0	0.11	1	B7A0284	01/10/2017	01/11/17 17:29	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0366	01/12/2017	01/12/17 16:53	
4,4´-DDE	ND	2.0	0.20	1	B7A0366	01/12/2017	01/12/17 16:53	
4,4´-DDT	ND	2.0	0.13	1	B7A0366	01/12/2017	01/12/17 16:53	
Aldrin	ND	1.0	0.27	1	B7A0366	01/12/2017	01/12/17 16:53	
alpha-BHC	ND	1.0	0.20	1	B7A0366	01/12/2017	01/12/17 16:53	
alpha-Chlordane	ND	1.0	0.21	1	B7A0366	01/12/2017	01/12/17 16:53	
beta-BHC	ND	1.0	0.23	1	B7A0366	01/12/2017	01/12/17 16:53	
Chlordane	ND	8.5	0.90	1	B7A0366	01/12/2017	01/12/17 16:53	
delta-BHC	ND	1.0	0.21	1	B7A0366	01/12/2017	01/12/17 16:53	
Dieldrin	ND	2.0	0.25	1	B7A0366	01/12/2017	01/12/17 16:53	
Endosulfan I	ND	1.0	0.21	1	B7A0366	01/12/2017	01/12/17 16:53	
Endosulfan II	ND	2.0	0.22	1	B7A0366	01/12/2017	01/12/17 16:53	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0366	01/12/2017	01/12/17 16:53	
Endrin	ND	2.0	0.23	1	B7A0366	01/12/2017	01/12/17 16:53	
Endrin aldehyde	ND	2.0	0.28	1	B7A0366	01/12/2017	01/12/17 16:53	
Endrin ketone	ND	2.0	0.20	1	B7A0366	01/12/2017	01/12/17 16:53	
gamma-BHC	ND	1.0	0.20	1	B7A0366	01/12/2017	01/12/17 16:53	
gamma-Chlordane	ND	1.0	0.23	1	B7A0366	01/12/2017	01/12/17 16:53	
Heptachlor	ND	1.0	0.19	1	B7A0366	01/12/2017	01/12/17 16:53	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0366	01/12/2017	01/12/17 16:53	
Methoxychlor	ND	5.0	0.18	1	B7A0366	01/12/2017	01/12/17 16:53	
Toxaphene	ND	50	8.2	1	B7A0366	01/12/2017	01/12/17 16:53	
Surrogate: Decachlorobiphenyl	*91.7 %*		*27 - 123*		B7A0366	01/12/2017	*01/12/17 16:53*	
Surrogate: Tetrachloro-m-xylene	*85.0 %*		*26 - 108*		B7A0366	01/12/2017	*01/12/17 16:53*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB1-2-1.5-D
Lab ID: 1700028-43

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.7**	1.0	0.70	1	B7A0284	01/10/2017	01/11/17 17:31	
Lead	**3.6**	1.0	0.11	1	B7A0284	01/10/2017	01/11/17 17:31	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0366	01/12/2017	01/12/17 17:04	
4,4´-DDE	ND	2.0	0.20	1	B7A0366	01/12/2017	01/12/17 17:04	
4,4´-DDT	ND	2.0	0.13	1	B7A0366	01/12/2017	01/12/17 17:04	
Aldrin	ND	1.0	0.27	1	B7A0366	01/12/2017	01/12/17 17:04	
alpha-BHC	ND	1.0	0.20	1	B7A0366	01/12/2017	01/12/17 17:04	
alpha-Chlordane	ND	1.0	0.21	1	B7A0366	01/12/2017	01/12/17 17:04	
beta-BHC	ND	1.0	0.23	1	B7A0366	01/12/2017	01/12/17 17:04	
Chlordane	ND	8.5	0.90	1	B7A0366	01/12/2017	01/12/17 17:04	
delta-BHC	ND	1.0	0.21	1	B7A0366	01/12/2017	01/12/17 17:04	
Dieldrin	ND	2.0	0.25	1	B7A0366	01/12/2017	01/12/17 17:04	
Endosulfan I	ND	1.0	0.21	1	B7A0366	01/12/2017	01/12/17 17:04	
Endosulfan II	ND	2.0	0.22	1	B7A0366	01/12/2017	01/12/17 17:04	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0366	01/12/2017	01/12/17 17:04	
Endrin	ND	2.0	0.23	1	B7A0366	01/12/2017	01/12/17 17:04	
Endrin aldehyde	ND	2.0	0.28	1	B7A0366	01/12/2017	01/12/17 17:04	
Endrin ketone	ND	2.0	0.20	1	B7A0366	01/12/2017	01/12/17 17:04	
gamma-BHC	ND	1.0	0.20	1	B7A0366	01/12/2017	01/12/17 17:04	
gamma-Chlordane	ND	1.0	0.23	1	B7A0366	01/12/2017	01/12/17 17:04	
Heptachlor	ND	1.0	0.19	1	B7A0366	01/12/2017	01/12/17 17:04	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0366	01/12/2017	01/12/17 17:04	
Methoxychlor	ND	5.0	0.18	1	B7A0366	01/12/2017	01/12/17 17:04	
Toxaphene	ND	50	8.2	1	B7A0366	01/12/2017	01/12/17 17:04	
Surrogate: Decachlorobiphenyl	*88.7 %*		*27 - 123*		B7A0366	01/12/2017	*01/12/17 17:04*	
Surrogate: Tetrachloro-m-xylene	*85.5 %*		*26 - 108*		B7A0366	01/12/2017	*01/12/17 17:04*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB1-2-2.5
Lab ID: 1700028-44

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.9**	1.0	0.70	1	B7A0284	01/10/2017	01/11/17 17:32	
Lead	**3.8**	1.0	0.11	1	B7A0284	01/10/2017	01/11/17 17:32	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0366	01/12/2017	01/12/17 17:14	
4,4´-DDE	ND	2.0	0.20	1	B7A0366	01/12/2017	01/12/17 17:14	
4,4´-DDT	ND	2.0	0.13	1	B7A0366	01/12/2017	01/12/17 17:14	
Aldrin	ND	1.0	0.27	1	B7A0366	01/12/2017	01/12/17 17:14	
alpha-BHC	ND	1.0	0.20	1	B7A0366	01/12/2017	01/12/17 17:14	
alpha-Chlordane	ND	1.0	0.21	1	B7A0366	01/12/2017	01/12/17 17:14	
beta-BHC	ND	1.0	0.23	1	B7A0366	01/12/2017	01/12/17 17:14	
Chlordane	ND	8.5	0.90	1	B7A0366	01/12/2017	01/12/17 17:14	
delta-BHC	ND	1.0	0.21	1	B7A0366	01/12/2017	01/12/17 17:14	
Dieldrin	ND	2.0	0.25	1	B7A0366	01/12/2017	01/12/17 17:14	
Endosulfan I	ND	1.0	0.21	1	B7A0366	01/12/2017	01/12/17 17:14	
Endosulfan II	ND	2.0	0.22	1	B7A0366	01/12/2017	01/12/17 17:14	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0366	01/12/2017	01/12/17 17:14	
Endrin	ND	2.0	0.23	1	B7A0366	01/12/2017	01/12/17 17:14	
Endrin aldehyde	ND	2.0	0.28	1	B7A0366	01/12/2017	01/12/17 17:14	
Endrin ketone	ND	2.0	0.20	1	B7A0366	01/12/2017	01/12/17 17:14	
gamma-BHC	ND	1.0	0.20	1	B7A0366	01/12/2017	01/12/17 17:14	
gamma-Chlordane	ND	1.0	0.23	1	B7A0366	01/12/2017	01/12/17 17:14	
Heptachlor	ND	1.0	0.19	1	B7A0366	01/12/2017	01/12/17 17:14	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0366	01/12/2017	01/12/17 17:14	
Methoxychlor	ND	5.0	0.18	1	B7A0366	01/12/2017	01/12/17 17:14	
Toxaphene	ND	50	8.2	1	B7A0366	01/12/2017	01/12/17 17:14	
Surrogate: Decachlorobiphenyl	*86.0 %*		*27 - 123*		B7A0366	01/12/2017	*01/12/17 17:14*	
Surrogate: Tetrachloro-m-xylene	*80.8 %*		*26 - 108*		B7A0366	01/12/2017	*01/12/17 17:14*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB15-1-0.5

Lab ID: 1700028-45

Total Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**5.3**	1.0	0.70	1	B7A0284	01/10/2017	01/11/17 17:33	
Lead	**18**	1.0	0.11	1	B7A0284	01/10/2017	01/11/17 17:33	

Organochlorine Pesticides by EPA 8081 — **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0366	01/12/2017	01/12/17 17:25	
4,4´-DDE [2C]	**4.7**	2.0	0.20	1	B7A0366	01/12/2017	01/12/17 17:25	
4,4´-DDT	**5.6**	2.0	0.13	1	B7A0366	01/12/2017	01/12/17 17:25	
Aldrin	ND	1.0	0.27	1	B7A0366	01/12/2017	01/12/17 17:25	
alpha-BHC	ND	1.0	0.20	1	B7A0366	01/12/2017	01/12/17 17:25	
alpha-Chlordane	**12**	1.0	0.21	1	B7A0366	01/12/2017	01/12/17 17:25	
beta-BHC	ND	1.0	0.23	1	B7A0366	01/12/2017	01/12/17 17:25	
Chlordane	**87**	8.5	0.90	1	B7A0366	01/12/2017	01/12/17 17:25	
delta-BHC	ND	1.0	0.21	1	B7A0366	01/12/2017	01/12/17 17:25	
Dieldrin [2C]	**0.79**	2.0	0.25	1	B7A0366	01/12/2017	01/12/17 17:25	J
Endosulfan I	ND	1.0	0.21	1	B7A0366	01/12/2017	01/12/17 17:25	
Endosulfan II	ND	2.0	0.22	1	B7A0366	01/12/2017	01/12/17 17:25	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0366	01/12/2017	01/12/17 17:25	
Endrin	ND	2.0	0.23	1	B7A0366	01/12/2017	01/12/17 17:25	
Endrin aldehyde	ND	2.0	0.28	1	B7A0366	01/12/2017	01/12/17 17:25	
Endrin ketone	ND	2.0	0.20	1	B7A0366	01/12/2017	01/12/17 17:25	
gamma-BHC	ND	1.0	0.20	1	B7A0366	01/12/2017	01/12/17 17:25	
gamma-Chlordane [2C]	**9.8**	1.0	0.23	1	B7A0366	01/12/2017	01/12/17 17:25	
Heptachlor	ND	1.0	0.19	1	B7A0366	01/12/2017	01/12/17 17:25	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0366	01/12/2017	01/12/17 17:25	
Methoxychlor	ND	5.0	0.18	1	B7A0366	01/12/2017	01/12/17 17:25	
Toxaphene	ND	50	8.2	1	B7A0366	01/12/2017	01/12/17 17:25	
Surrogate: Decachlorobiphenyl	*64.2 %*		*27 - 123*		B7A0366	01/12/2017	*01/12/17 17:25*	
Surrogate: Tetrachloro-m-xylene	*61.5 %*		*26 - 108*		B7A0366	01/12/2017	*01/12/17 17:25*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB15-1-0.5

Lab ID: 1700028-45

Polychlorinated Biphenyls by EPA 8082 **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B7A0339	01/11/2017	01/11/17 20:51	
Aroclor 1221	ND	16	1.5	1	B7A0339	01/11/2017	01/11/17 20:51	
Aroclor 1232	ND	16	1.5	1	B7A0339	01/11/2017	01/11/17 20:51	
Aroclor 1242	ND	16	1.5	1	B7A0339	01/11/2017	01/11/17 20:51	
Aroclor 1248	ND	16	1.5	1	B7A0339	01/11/2017	01/11/17 20:51	
Aroclor 1254	ND	16	1.5	1	B7A0339	01/11/2017	01/11/17 20:51	
Aroclor 1260	ND	16	1.5	1	B7A0339	01/11/2017	01/11/17 20:51	
Aroclor 1262	ND	16	1.5	1	B7A0339	01/11/2017	01/11/17 20:51	
Aroclor 1268	ND	16	1.5	1	B7A0339	01/11/2017	01/11/17 20:51	
Surrogate: Decachlorobiphenyl	*87.6 %*	*26 - 137*			B7A0339	01/11/2017	*01/11/17 20:51*	
Surrogate: Tetrachloro-m-xylene	*85.2 %*	*28 - 102*			B7A0339	01/11/2017	*01/11/17 20:51*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB15-1-1.5
Lab ID: 1700028-46

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**5.0**	1.0	0.70	1	B7A0284	01/10/2017	01/11/17 17:34	
Lead	**19**	1.0	0.11	1	B7A0284	01/10/2017	01/11/17 17:34	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0366	01/12/2017	01/12/17 17:35	
4,4´-DDE	**0.62**	2.0	0.20	1	B7A0366	01/12/2017	01/12/17 17:35	J
4,4´-DDT	**0.57**	2.0	0.13	1	B7A0366	01/12/2017	01/12/17 17:35	J
Aldrin	ND	1.0	0.27	1	B7A0366	01/12/2017	01/12/17 17:35	
alpha-BHC	ND	1.0	0.20	1	B7A0366	01/12/2017	01/12/17 17:35	
alpha-Chlordane	**2.4**	1.0	0.21	1	B7A0366	01/12/2017	01/12/17 17:35	
beta-BHC	ND	1.0	0.23	1	B7A0366	01/12/2017	01/12/17 17:35	
Chlordane	**19**	8.5	0.90	1	B7A0366	01/12/2017	01/12/17 17:35	
delta-BHC	ND	1.0	0.21	1	B7A0366	01/12/2017	01/12/17 17:35	
Dieldrin [2C]	ND	2.0	0.25	1	B7A0366	01/12/2017	01/12/17 17:35	
Endosulfan I	ND	1.0	0.21	1	B7A0366	01/12/2017	01/12/17 17:35	
Endosulfan II	ND	2.0	0.22	1	B7A0366	01/12/2017	01/12/17 17:35	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0366	01/12/2017	01/12/17 17:35	
Endrin	ND	2.0	0.23	1	B7A0366	01/12/2017	01/12/17 17:35	
Endrin aldehyde	ND	2.0	0.28	1	B7A0366	01/12/2017	01/12/17 17:35	
Endrin ketone	ND	2.0	0.20	1	B7A0366	01/12/2017	01/12/17 17:35	
gamma-BHC	ND	1.0	0.20	1	B7A0366	01/12/2017	01/12/17 17:35	
gamma-Chlordane	**1.9**	1.0	0.23	1	B7A0366	01/12/2017	01/12/17 17:35	
Heptachlor	ND	1.0	0.19	1	B7A0366	01/12/2017	01/12/17 17:35	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0366	01/12/2017	01/12/17 17:35	
Methoxychlor	ND	5.0	0.18	1	B7A0366	01/12/2017	01/12/17 17:35	
Toxaphene	ND	50	8.2	1	B7A0366	01/12/2017	01/12/17 17:35	
Surrogate: Decachlorobiphenyl	*59.7 %*	*27 - 123*			B7A0366	01/12/2017	*01/12/17 17:35*	
Surrogate: Tetrachloro-m-xylene	*58.9 %*	*26 - 108*			B7A0366	01/12/2017	*01/12/17 17:35*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB15-1-2.5
Lab ID: 1700028-47

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**4.4**	1.0	0.70	1	B7A0284	01/10/2017	01/11/17 17:35	
Lead	**24**	1.0	0.11	1	B7A0284	01/10/2017	01/11/17 17:35	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0366	01/12/2017	01/12/17 17:46	
4,4´-DDE	**0.61**	2.0	0.20	1	B7A0366	01/12/2017	01/12/17 17:46	J
4,4´-DDT	**0.55**	2.0	0.13	1	B7A0366	01/12/2017	01/12/17 17:46	J
Aldrin	ND	1.0	0.27	1	B7A0366	01/12/2017	01/12/17 17:46	
alpha-BHC	ND	1.0	0.20	1	B7A0366	01/12/2017	01/12/17 17:46	
alpha-Chlordane	**7.4**	1.0	0.21	1	B7A0366	01/12/2017	01/12/17 17:46	
beta-BHC	ND	1.0	0.23	1	B7A0366	01/12/2017	01/12/17 17:46	
Chlordane	**61**	8.5	0.90	1	B7A0366	01/12/2017	01/12/17 17:46	
delta-BHC	ND	1.0	0.21	1	B7A0366	01/12/2017	01/12/17 17:46	
Dieldrin	ND	2.0	0.25	1	B7A0366	01/12/2017	01/12/17 17:46	
Endosulfan I	ND	1.0	0.21	1	B7A0366	01/12/2017	01/12/17 17:46	
Endosulfan II	ND	2.0	0.22	1	B7A0366	01/12/2017	01/12/17 17:46	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0366	01/12/2017	01/12/17 17:46	
Endrin	ND	2.0	0.23	1	B7A0366	01/12/2017	01/12/17 17:46	
Endrin aldehyde	ND	2.0	0.28	1	B7A0366	01/12/2017	01/12/17 17:46	
Endrin ketone	ND	2.0	0.20	1	B7A0366	01/12/2017	01/12/17 17:46	
gamma-BHC	ND	1.0	0.20	1	B7A0366	01/12/2017	01/12/17 17:46	
gamma-Chlordane [2C]	**6.9**	1.0	0.23	1	B7A0366	01/12/2017	01/12/17 17:46	
Heptachlor	ND	1.0	0.19	1	B7A0366	01/12/2017	01/12/17 17:46	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0366	01/12/2017	01/12/17 17:46	
Methoxychlor	ND	5.0	0.18	1	B7A0366	01/12/2017	01/12/17 17:46	
Toxaphene	ND	50	8.2	1	B7A0366	01/12/2017	01/12/17 17:46	
Surrogate: Decachlorobiphenyl	*52.6 %*	*27 - 123*			B7A0366	01/12/2017	*01/12/17 17:46*	
Surrogate: Tetrachloro-m-xylene	*52.6 %*	*26 - 108*			B7A0366	01/12/2017	*01/12/17 17:46*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB15-2-0.5
Lab ID: 1700028-48

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**3.9**	1.0	0.70	1	B7A0284	01/10/2017	01/11/17 21:34	
Lead	**9.8**	1.0	0.11	1	B7A0284	01/10/2017	01/11/17 21:34	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0366	01/12/2017	01/12/17 17:56	
4,4´-DDE	**2.2**	2.0	0.20	1	B7A0366	01/12/2017	01/12/17 17:56	
4,4´-DDT	**2.5**	2.0	0.13	1	B7A0366	01/12/2017	01/12/17 17:56	
Aldrin	ND	1.0	0.27	1	B7A0366	01/12/2017	01/12/17 17:56	
alpha-BHC	ND	1.0	0.20	1	B7A0366	01/12/2017	01/12/17 17:56	
alpha-Chlordane	**5.7**	1.0	0.21	1	B7A0366	01/12/2017	01/12/17 17:56	
beta-BHC	ND	1.0	0.23	1	B7A0366	01/12/2017	01/12/17 17:56	
Chlordane	**46**	8.5	0.90	1	B7A0366	01/12/2017	01/12/17 17:56	
delta-BHC	ND	1.0	0.21	1	B7A0366	01/12/2017	01/12/17 17:56	
Dieldrin	ND	2.0	0.25	1	B7A0366	01/12/2017	01/12/17 17:56	
Endosulfan I	ND	1.0	0.21	1	B7A0366	01/12/2017	01/12/17 17:56	
Endosulfan II	ND	2.0	0.22	1	B7A0366	01/12/2017	01/12/17 17:56	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0366	01/12/2017	01/12/17 17:56	
Endrin	ND	2.0	0.23	1	B7A0366	01/12/2017	01/12/17 17:56	
Endrin aldehyde	ND	2.0	0.28	1	B7A0366	01/12/2017	01/12/17 17:56	
Endrin ketone	ND	2.0	0.20	1	B7A0366	01/12/2017	01/12/17 17:56	
gamma-BHC	ND	1.0	0.20	1	B7A0366	01/12/2017	01/12/17 17:56	
gamma-Chlordane [2C]	**4.4**	1.0	0.23	1	B7A0366	01/12/2017	01/12/17 17:56	
Heptachlor	ND	1.0	0.19	1	B7A0366	01/12/2017	01/12/17 17:56	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0366	01/12/2017	01/12/17 17:56	
Methoxychlor	ND	5.0	0.18	1	B7A0366	01/12/2017	01/12/17 17:56	
Toxaphene	ND	50	8.2	1	B7A0366	01/12/2017	01/12/17 17:56	
Surrogate: Decachlorobiphenyl	*47.1 %*		*27 - 123*		B7A0366	01/12/2017	*01/12/17 17:56*	
Surrogate: Tetrachloro-m-xylene	*47.1 %*		*26 - 108*		B7A0366	01/12/2017	*01/12/17 17:56*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB15-2-1.5
Lab ID: 1700028-49

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**6.7**	1.0	0.70	1	B7A0284	01/10/2017	01/11/17 17:37	
Lead	**15**	1.0	0.11	1	B7A0284	01/10/2017	01/11/17 17:37	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0366	01/12/2017	01/12/17 18:07	
4,4´-DDE	**2.3**	2.0	0.20	1	B7A0366	01/12/2017	01/12/17 18:07	
4,4´-DDT	**2.5**	2.0	0.13	1	B7A0366	01/12/2017	01/12/17 18:07	
Aldrin	ND	1.0	0.27	1	B7A0366	01/12/2017	01/12/17 18:07	
alpha-BHC	ND	1.0	0.20	1	B7A0366	01/12/2017	01/12/17 18:07	
alpha-Chlordane	**13**	1.0	0.21	1	B7A0366	01/12/2017	01/12/17 18:07	
beta-BHC	ND	1.0	0.23	1	B7A0366	01/12/2017	01/12/17 18:07	
Chlordane	**100**	8.5	0.90	1	B7A0366	01/12/2017	01/12/17 18:07	
delta-BHC	ND	1.0	0.21	1	B7A0366	01/12/2017	01/12/17 18:07	
Dieldrin	ND	2.0	0.25	1	B7A0366	01/12/2017	01/12/17 18:07	
Endosulfan I	ND	1.0	0.21	1	B7A0366	01/12/2017	01/12/17 18:07	
Endosulfan II	ND	2.0	0.22	1	B7A0366	01/12/2017	01/12/17 18:07	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0366	01/12/2017	01/12/17 18:07	
Endrin	ND	2.0	0.23	1	B7A0366	01/12/2017	01/12/17 18:07	
Endrin aldehyde	ND	2.0	0.28	1	B7A0366	01/12/2017	01/12/17 18:07	
Endrin ketone	ND	2.0	0.20	1	B7A0366	01/12/2017	01/12/17 18:07	
gamma-BHC	ND	1.0	0.20	1	B7A0366	01/12/2017	01/12/17 18:07	
gamma-Chlordane [2C]	**8.6**	1.0	0.23	1	B7A0366	01/12/2017	01/12/17 18:07	
Heptachlor	ND	1.0	0.19	1	B7A0366	01/12/2017	01/12/17 18:07	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0366	01/12/2017	01/12/17 18:07	
Methoxychlor	ND	5.0	0.18	1	B7A0366	01/12/2017	01/12/17 18:07	
Toxaphene	ND	50	8.2	1	B7A0366	01/12/2017	01/12/17 18:07	
Surrogate: Decachlorobiphenyl	*51.6 %*		*27 - 123*		B7A0366	01/12/2017	*01/12/17 18:07*	
Surrogate: Tetrachloro-m-xylene	*51.2 %*		*26 - 108*		B7A0366	01/12/2017	*01/12/17 18:07*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB15-2-2.5
Lab ID: 1700028-50

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**6.4**	1.0	0.70	1	B7A0284	01/10/2017	01/11/17 17:39	
Lead	**13**	1.0	0.11	1	B7A0284	01/10/2017	01/11/17 17:39	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0366	01/12/2017	01/12/17 18:17	
4,4´-DDE	**0.48**	2.0	0.20	1	B7A0366	01/12/2017	01/12/17 18:17	J
4,4´-DDT	**0.36**	2.0	0.13	1	B7A0366	01/12/2017	01/12/17 18:17	J
Aldrin	ND	1.0	0.27	1	B7A0366	01/12/2017	01/12/17 18:17	
alpha-BHC	ND	1.0	0.20	1	B7A0366	01/12/2017	01/12/17 18:17	
alpha-Chlordane	**6.6**	1.0	0.21	1	B7A0366	01/12/2017	01/12/17 18:17	
beta-BHC	ND	1.0	0.23	1	B7A0366	01/12/2017	01/12/17 18:17	
Chlordane	**70**	8.5	0.90	1	B7A0366	01/12/2017	01/12/17 18:17	
delta-BHC	ND	1.0	0.21	1	B7A0366	01/12/2017	01/12/17 18:17	
Dieldrin	ND	2.0	0.25	1	B7A0366	01/12/2017	01/12/17 18:17	
Endosulfan I	ND	1.0	0.21	1	B7A0366	01/12/2017	01/12/17 18:17	
Endosulfan II	ND	2.0	0.22	1	B7A0366	01/12/2017	01/12/17 18:17	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0366	01/12/2017	01/12/17 18:17	
Endrin	ND	2.0	0.23	1	B7A0366	01/12/2017	01/12/17 18:17	
Endrin aldehyde	ND	2.0	0.28	1	B7A0366	01/12/2017	01/12/17 18:17	
Endrin ketone	ND	2.0	0.20	1	B7A0366	01/12/2017	01/12/17 18:17	
gamma-BHC	ND	1.0	0.20	1	B7A0366	01/12/2017	01/12/17 18:17	
gamma-Chlordane [2C]	**5.4**	1.0	0.23	1	B7A0366	01/12/2017	01/12/17 18:17	
Heptachlor	ND	1.0	0.19	1	B7A0366	01/12/2017	01/12/17 18:17	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0366	01/12/2017	01/12/17 18:17	
Methoxychlor	ND	5.0	0.18	1	B7A0366	01/12/2017	01/12/17 18:17	
Toxaphene	ND	50	8.2	1	B7A0366	01/12/2017	01/12/17 18:17	
Surrogate: Decachlorobiphenyl	*53.8 %*	*27 - 123*			B7A0366	01/12/2017	*01/12/17 18:17*	
Surrogate: Tetrachloro-m-xylene	*50.2 %*	*26 - 108*			B7A0366	01/12/2017	*01/12/17 18:17*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB15-3-0.5
Lab ID: 1700028-51

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**5.8**	1.0	0.70	1	B7A0284	01/10/2017	01/11/17 21:38	
Lead	**12**	1.0	0.11	1	B7A0284	01/10/2017	01/11/17 21:38	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0366	01/12/2017	01/12/17 18:27	
4,4´-DDE	**1.2**	2.0	0.20	1	B7A0366	01/12/2017	01/12/17 18:27	J
4,4´-DDT	**1.3**	2.0	0.13	1	B7A0366	01/12/2017	01/12/17 18:27	J
Aldrin	ND	1.0	0.27	1	B7A0366	01/12/2017	01/12/17 18:27	
alpha-BHC	ND	1.0	0.20	1	B7A0366	01/12/2017	01/12/17 18:27	
alpha-Chlordane	**8.7**	1.0	0.21	1	B7A0366	01/12/2017	01/12/17 18:27	
beta-BHC	ND	1.0	0.23	1	B7A0366	01/12/2017	01/12/17 18:27	
Chlordane	**63**	8.5	0.90	1	B7A0366	01/12/2017	01/12/17 18:27	
delta-BHC	ND	1.0	0.21	1	B7A0366	01/12/2017	01/12/17 18:27	
Dieldrin	**0.73**	2.0	0.25	1	B7A0366	01/12/2017	01/12/17 18:27	J
Endosulfan I	ND	1.0	0.21	1	B7A0366	01/12/2017	01/12/17 18:27	
Endosulfan II	ND	2.0	0.22	1	B7A0366	01/12/2017	01/12/17 18:27	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0366	01/12/2017	01/12/17 18:27	
Endrin	ND	2.0	0.23	1	B7A0366	01/12/2017	01/12/17 18:27	
Endrin aldehyde	ND	2.0	0.28	1	B7A0366	01/12/2017	01/12/17 18:27	
Endrin ketone	ND	2.0	0.20	1	B7A0366	01/12/2017	01/12/17 18:27	
gamma-BHC	ND	1.0	0.20	1	B7A0366	01/12/2017	01/12/17 18:27	
gamma-Chlordane [2C]	**6.1**	1.0	0.23	1	B7A0366	01/12/2017	01/12/17 18:27	
Heptachlor	ND	1.0	0.19	1	B7A0366	01/12/2017	01/12/17 18:27	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0366	01/12/2017	01/12/17 18:27	
Methoxychlor	ND	5.0	0.18	1	B7A0366	01/12/2017	01/12/17 18:27	
Toxaphene	ND	50	8.2	1	B7A0366	01/12/2017	01/12/17 18:27	
Surrogate: Decachlorobiphenyl	*50.7 %*	*27 - 123*			B7A0366	01/12/2017	*01/12/17 18:27*	
Surrogate: Tetrachloro-m-xylene	*48.1 %*	*26 - 108*			B7A0366	01/12/2017	*01/12/17 18:27*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB15-3-0.5

Lab ID: 1700028-51

Polychlorinated Biphenyls by EPA 8082 **Analyst: RL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Aroclor 1016	ND	16	1.5	1	B7A0339	01/11/2017	01/11/17 21:10	
Aroclor 1221	ND	16	1.5	1	B7A0339	01/11/2017	01/11/17 21:10	
Aroclor 1232	ND	16	1.5	1	B7A0339	01/11/2017	01/11/17 21:10	
Aroclor 1242	ND	16	1.5	1	B7A0339	01/11/2017	01/11/17 21:10	
Aroclor 1248	ND	16	1.5	1	B7A0339	01/11/2017	01/11/17 21:10	
Aroclor 1254	ND	16	1.5	1	B7A0339	01/11/2017	01/11/17 21:10	
Aroclor 1260	ND	16	1.5	1	B7A0339	01/11/2017	01/11/17 21:10	
Aroclor 1262	ND	16	1.5	1	B7A0339	01/11/2017	01/11/17 21:10	
Aroclor 1268	ND	16	1.5	1	B7A0339	01/11/2017	01/11/17 21:10	
Surrogate: Decachlorobiphenyl	*93.8 %*	*26 - 137*			B7A0339	01/11/2017	*01/11/17 21:10*	
Surrogate: Tetrachloro-m-xylene	*89.4 %*	*28 - 102*			B7A0339	01/11/2017	*01/11/17 21:10*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB15-3-1.5
Lab ID: 1700028-52

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**7.1**	1.0	0.70	1	B7A0284	01/10/2017	01/11/17 17:43	
Lead	**20**	1.0	0.11	1	B7A0284	01/10/2017	01/11/17 17:43	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0366	01/12/2017	01/12/17 18:38	
4,4´-DDE	**0.92**	2.0	0.20	1	B7A0366	01/12/2017	01/12/17 18:38	J
4,4´-DDT	**0.35**	2.0	0.13	1	B7A0366	01/12/2017	01/12/17 18:38	J
Aldrin	ND	1.0	0.27	1	B7A0366	01/12/2017	01/12/17 18:38	
alpha-BHC	ND	1.0	0.20	1	B7A0366	01/12/2017	01/12/17 18:38	
alpha-Chlordane	**23**	1.0	0.21	1	B7A0366	01/12/2017	01/12/17 18:38	
beta-BHC	ND	1.0	0.23	1	B7A0366	01/12/2017	01/12/17 18:38	
Chlordane	**170**	8.5	0.90	1	B7A0366	01/12/2017	01/12/17 18:38	
delta-BHC	ND	1.0	0.21	1	B7A0366	01/12/2017	01/12/17 18:38	
Dieldrin	ND	2.0	0.25	1	B7A0366	01/12/2017	01/12/17 18:38	
Endosulfan I	ND	1.0	0.21	1	B7A0366	01/12/2017	01/12/17 18:38	
Endosulfan II	ND	2.0	0.22	1	B7A0366	01/12/2017	01/12/17 18:38	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0366	01/12/2017	01/12/17 18:38	
Endrin	ND	2.0	0.23	1	B7A0366	01/12/2017	01/12/17 18:38	
Endrin aldehyde	ND	2.0	0.28	1	B7A0366	01/12/2017	01/12/17 18:38	
Endrin ketone	ND	2.0	0.20	1	B7A0366	01/12/2017	01/12/17 18:38	
gamma-BHC	ND	1.0	0.20	1	B7A0366	01/12/2017	01/12/17 18:38	
gamma-Chlordane [2C]	**15**	1.0	0.23	1	B7A0366	01/12/2017	01/12/17 18:38	
Heptachlor	ND	1.0	0.19	1	B7A0366	01/12/2017	01/12/17 18:38	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0366	01/12/2017	01/12/17 18:38	
Methoxychlor	ND	5.0	0.18	1	B7A0366	01/12/2017	01/12/17 18:38	
Toxaphene	ND	50	8.2	1	B7A0366	01/12/2017	01/12/17 18:38	
Surrogate: Decachlorobiphenyl	*66.2 %*		*27 - 123*		B7A0366	01/12/2017	*01/12/17 18:38*	
Surrogate: Tetrachloro-m-xylene	*64.7 %*		*26 - 108*		B7A0366	01/12/2017	*01/12/17 18:38*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB15-3-2.5
Lab ID: 1700028-53

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**9.6**	1.0	0.70	1	B7A0284	01/10/2017	01/11/17 17:44	
Lead	**27**	1.0	0.11	1	B7A0284	01/10/2017	01/11/17 17:44	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0366	01/12/2017	01/12/17 18:48	
4,4´-DDE	ND	2.0	0.20	1	B7A0366	01/12/2017	01/12/17 18:48	
4,4´-DDT	ND	2.0	0.13	1	B7A0366	01/12/2017	01/12/17 18:48	
Aldrin	ND	1.0	0.27	1	B7A0366	01/12/2017	01/12/17 18:48	
alpha-BHC	ND	1.0	0.20	1	B7A0366	01/12/2017	01/12/17 18:48	
alpha-Chlordane	**38**	2.0	0.43	2	B7A0366	01/12/2017	01/13/17 15:08	
beta-BHC	ND	1.0	0.23	1	B7A0366	01/12/2017	01/12/17 18:48	
Chlordane	**280**	8.5	0.90	1	B7A0366	01/12/2017	01/12/17 18:48	
delta-BHC	ND	1.0	0.21	1	B7A0366	01/12/2017	01/12/17 18:48	
Dieldrin	ND	2.0	0.25	1	B7A0366	01/12/2017	01/12/17 18:48	
Endosulfan I	ND	1.0	0.21	1	B7A0366	01/12/2017	01/12/17 18:48	
Endosulfan II	ND	2.0	0.22	1	B7A0366	01/12/2017	01/12/17 18:48	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0366	01/12/2017	01/12/17 18:48	
Endrin	ND	2.0	0.23	1	B7A0366	01/12/2017	01/12/17 18:48	
Endrin aldehyde	ND	2.0	0.28	1	B7A0366	01/12/2017	01/12/17 18:48	
Endrin ketone	ND	2.0	0.20	1	B7A0366	01/12/2017	01/12/17 18:48	
gamma-BHC	ND	1.0	0.20	1	B7A0366	01/12/2017	01/12/17 18:48	
gamma-Chlordane	**29**	2.0	0.45	2	B7A0366	01/12/2017	01/13/17 15:08	
Heptachlor	ND	1.0	0.19	1	B7A0366	01/12/2017	01/12/17 18:48	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0366	01/12/2017	01/12/17 18:48	
Methoxychlor	ND	5.0	0.18	1	B7A0366	01/12/2017	01/12/17 18:48	
Toxaphene	ND	50	8.2	1	B7A0366	01/12/2017	01/12/17 18:48	
Surrogate: Decachlorobiphenyl	*63.5 %*	*27 - 123*			B7A0366	01/12/2017	*01/13/17 15:08*	
Surrogate: Decachlorobiphenyl	*56.6 %*	*27 - 123*			B7A0366	01/12/2017	*01/12/17 18:48*	
Surrogate: Tetrachloro-m-xylene	*52.7 %*	*26 - 108*			B7A0366	01/12/2017	*01/13/17 15:08*	
Surrogate: Tetrachloro-m-xylene	*52.3 %*	*26 - 108*			B7A0366	01/12/2017	*01/12/17 18:48*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB15-4-0.5
Lab ID: 1700028-54

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**3.6**	1.0	0.70	1	B7A0284	01/10/2017	01/11/17 17:46	
Lead	**17**	1.0	0.11	1	B7A0284	01/10/2017	01/11/17 17:46	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0366	01/12/2017	01/12/17 18:59	
4,4´-DDE	**2.2**	2.0	0.20	1	B7A0366	01/12/2017	01/12/17 18:59	
4,4´-DDT	**1.2**	2.0	0.13	1	B7A0366	01/12/2017	01/12/17 18:59	J
Aldrin	ND	1.0	0.27	1	B7A0366	01/12/2017	01/12/17 18:59	
alpha-BHC	ND	1.0	0.20	1	B7A0366	01/12/2017	01/12/17 18:59	
alpha-Chlordane [2C]	**0.75**	1.0	0.21	1	B7A0366	01/12/2017	01/12/17 18:59	J
beta-BHC	ND	1.0	0.23	1	B7A0366	01/12/2017	01/12/17 18:59	
Chlordane	**8.2**	8.5	0.90	1	B7A0366	01/12/2017	01/12/17 18:59	J
delta-BHC	ND	1.0	0.21	1	B7A0366	01/12/2017	01/12/17 18:59	
Dieldrin	**0.85**	2.0	0.25	1	B7A0366	01/12/2017	01/12/17 18:59	J
Endosulfan I	ND	1.0	0.21	1	B7A0366	01/12/2017	01/12/17 18:59	
Endosulfan II	ND	2.0	0.22	1	B7A0366	01/12/2017	01/12/17 18:59	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0366	01/12/2017	01/12/17 18:59	
Endrin	ND	2.0	0.23	1	B7A0366	01/12/2017	01/12/17 18:59	
Endrin aldehyde	ND	2.0	0.28	1	B7A0366	01/12/2017	01/12/17 18:59	
Endrin ketone	ND	2.0	0.20	1	B7A0366	01/12/2017	01/12/17 18:59	
gamma-BHC	ND	1.0	0.20	1	B7A0366	01/12/2017	01/12/17 18:59	
gamma-Chlordane	**0.92**	1.0	0.23	1	B7A0366	01/12/2017	01/12/17 18:59	J
Heptachlor	ND	1.0	0.19	1	B7A0366	01/12/2017	01/12/17 18:59	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0366	01/12/2017	01/12/17 18:59	
Methoxychlor	ND	5.0	0.18	1	B7A0366	01/12/2017	01/12/17 18:59	
Toxaphene	ND	50	8.2	1	B7A0366	01/12/2017	01/12/17 18:59	
Surrogate: Decachlorobiphenyl	*35.4 %*	*27 - 123*			B7A0366	01/12/2017	*01/12/17 18:59*	
Surrogate: Tetrachloro-m-xylene	*32.9 %*	*26 - 108*			B7A0366	01/12/2017	*01/12/17 18:59*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB15-4-1.5
Lab ID: 1700028-55

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**3.0**	1.0	0.70	1	B7A0284	01/10/2017	01/11/17 17:47	
Lead	**23**	1.0	0.11	1	B7A0284	01/10/2017	01/11/17 17:47	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	2.0	0.22	1	B7A0366	01/12/2017	01/12/17 19:09	
4,4´-DDE	**3.2**	2.0	0.20	1	B7A0366	01/12/2017	01/12/17 19:09	
4,4´-DDT	**0.93**	2.0	0.13	1	B7A0366	01/12/2017	01/12/17 19:09	J
Aldrin	ND	1.0	0.27	1	B7A0366	01/12/2017	01/12/17 19:09	
alpha-BHC	ND	1.0	0.20	1	B7A0366	01/12/2017	01/12/17 19:09	
alpha-Chlordane	**9.2**	1.0	0.21	1	B7A0366	01/12/2017	01/12/17 19:09	
beta-BHC	ND	1.0	0.23	1	B7A0366	01/12/2017	01/12/17 19:09	
Chlordane	**71**	8.5	0.90	1	B7A0366	01/12/2017	01/12/17 19:09	
delta-BHC	ND	1.0	0.21	1	B7A0366	01/12/2017	01/12/17 19:09	
Dieldrin	ND	2.0	0.25	1	B7A0366	01/12/2017	01/12/17 19:09	
Endosulfan I	ND	1.0	0.21	1	B7A0366	01/12/2017	01/12/17 19:09	
Endosulfan II	ND	2.0	0.22	1	B7A0366	01/12/2017	01/12/17 19:09	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0366	01/12/2017	01/12/17 19:09	
Endrin	ND	2.0	0.23	1	B7A0366	01/12/2017	01/12/17 19:09	
Endrin aldehyde	ND	2.0	0.28	1	B7A0366	01/12/2017	01/12/17 19:09	
Endrin ketone	ND	2.0	0.20	1	B7A0366	01/12/2017	01/12/17 19:09	
gamma-BHC	ND	1.0	0.20	1	B7A0366	01/12/2017	01/12/17 19:09	
gamma-Chlordane	**6.2**	1.0	0.23	1	B7A0366	01/12/2017	01/12/17 19:09	
Heptachlor	ND	1.0	0.19	1	B7A0366	01/12/2017	01/12/17 19:09	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0366	01/12/2017	01/12/17 19:09	
Methoxychlor	ND	5.0	0.18	1	B7A0366	01/12/2017	01/12/17 19:09	
Toxaphene	ND	50	8.2	1	B7A0366	01/12/2017	01/12/17 19:09	
Surrogate: Decachlorobiphenyl	*64.5 %*		*27 - 123*		B7A0366	01/12/2017	*01/12/17 19:09*	
Surrogate: Tetrachloro-m-xylene	*60.8 %*		*26 - 108*		B7A0366	01/12/2017	*01/12/17 19:09*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Client Sample ID FB15-4-2.5
Lab ID: 1700028-56

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**3.9**	1.0	0.70	1	B7A0284	01/10/2017	01/11/17 17:48	
Lead	**6.0**	1.0	0.11	1	B7A0284	01/10/2017	01/11/17 17:48	

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	**0.37**	2.0	0.22	1	B7A0366	01/12/2017	01/12/17 19:20	J
4,4´-DDE	ND	2.0	0.20	1	B7A0366	01/12/2017	01/12/17 19:20	
4,4´-DDT	ND	2.0	0.13	1	B7A0366	01/12/2017	01/12/17 19:20	
Aldrin	ND	1.0	0.27	1	B7A0366	01/12/2017	01/12/17 19:20	
alpha-BHC	ND	1.0	0.20	1	B7A0366	01/12/2017	01/12/17 19:20	
alpha-Chlordane	**1.6**	1.0	0.21	1	B7A0366	01/12/2017	01/12/17 19:20	
beta-BHC	ND	1.0	0.23	1	B7A0366	01/12/2017	01/12/17 19:20	
Chlordane	**12**	8.5	0.90	1	B7A0366	01/12/2017	01/12/17 19:20	
delta-BHC	ND	1.0	0.21	1	B7A0366	01/12/2017	01/12/17 19:20	
Dieldrin	ND	2.0	0.25	1	B7A0366	01/12/2017	01/12/17 19:20	
Endosulfan I	ND	1.0	0.21	1	B7A0366	01/12/2017	01/12/17 19:20	
Endosulfan II	ND	2.0	0.22	1	B7A0366	01/12/2017	01/12/17 19:20	
Endosulfan sulfate	ND	2.0	0.21	1	B7A0366	01/12/2017	01/12/17 19:20	
Endrin	ND	2.0	0.23	1	B7A0366	01/12/2017	01/12/17 19:20	
Endrin aldehyde	ND	2.0	0.28	1	B7A0366	01/12/2017	01/12/17 19:20	
Endrin ketone	ND	2.0	0.20	1	B7A0366	01/12/2017	01/12/17 19:20	
gamma-BHC	ND	1.0	0.20	1	B7A0366	01/12/2017	01/12/17 19:20	
gamma-Chlordane	**0.99**	1.0	0.23	1	B7A0366	01/12/2017	01/12/17 19:20	J
Heptachlor	ND	1.0	0.19	1	B7A0366	01/12/2017	01/12/17 19:20	
Heptachlor epoxide	ND	1.0	0.20	1	B7A0366	01/12/2017	01/12/17 19:20	
Methoxychlor	ND	5.0	0.18	1	B7A0366	01/12/2017	01/12/17 19:20	
Toxaphene	ND	50	8.2	1	B7A0366	01/12/2017	01/12/17 19:20	
Surrogate: Decachlorobiphenyl	*57.8 %*	*27 - 123*			B7A0366	01/12/2017	*01/12/17 19:20*	
Surrogate: Tetrachloro-m-xylene	*69.5 %*	*26 - 108*			B7A0366	01/12/2017	*01/12/17 19:20*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0281 - EPA 3050B_S									
Blank (B7A0281-BLK1)				Prepared: 1/10/2017 Analyzed: 1/11/2017					
Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				
LCS (B7A0281-BS1)				Prepared: 1/10/2017 Analyzed: 1/11/2017					
Arsenic	47.4830	1.0	50.0000		95.0	80 - 120			
Lead	47.5397	1.0	50.0000		95.1	80 - 120			
Duplicate (B7A0281-DUP1)		**Source: 1700027-50**		Prepared: 1/10/2017 Analyzed: 1/11/2017					
Arsenic	3.04478	1.0		2.98772	NR		1.89	20	
Lead	141.044	1.0		116.209	NR		19.3	20	
Matrix Spike (B7A0281-MS1)		**Source: 1700027-50**		Prepared: 1/10/2017 Analyzed: 1/11/2017					
Arsenic	91.6419	1.0	125.000	2.98772	70.9	59 - 103			
Lead	226.385	1.0	125.000	116.209	88.1	34 - 129			
Matrix Spike Dup (B7A0281-MSD1)		**Source: 1700027-50**		Prepared: 1/10/2017 Analyzed: 1/11/2017					
Arsenic	69.7916	1.0	125.000	2.98772	53.4	59 - 103	27.1	20	M1, R
Lead	177.672	1.0	125.000	116.209	49.2	34 - 129	24.1	20	M1, R

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0282 - EPA 3050B_S									
Blank (B7A0282-BLK1)				Prepared: 1/10/2017 Analyzed: 1/11/2017					
Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				
LCS (B7A0282-BS1)				Prepared: 1/10/2017 Analyzed: 1/11/2017					
Arsenic	48.3377	1.0	50.0000		96.7	80 - 120			
Lead	48.0049	1.0	50.0000		96.0	80 - 120			
Duplicate (B7A0282-DUP1)		**Source: 1700028-02**		Prepared: 1/10/2017 Analyzed: 1/11/2017					
Arsenic	1.57666	1.0		1.87553	NR		17.3	20	
Lead	3.22505	1.0		3.44539	NR		6.61	20	
Matrix Spike (B7A0282-MS1)		**Source: 1700028-02**		Prepared: 1/10/2017 Analyzed: 1/11/2017					
Arsenic	86.2016	1.0	125.000	1.87553	67.5	59 - 103			
Lead	85.3998	1.0	125.000	3.44539	65.6	34 - 129			
Matrix Spike Dup (B7A0282-MSD1)		**Source: 1700028-02**		Prepared: 1/10/2017 Analyzed: 1/11/2017					
Arsenic	89.8182	1.0	125.000	1.87553	70.4	59 - 103	4.11	20	
Lead	89.5645	1.0	125.000	3.44539	68.9	34 - 129	4.76	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0283 - EPA 3050B_S									
Blank (B7A0283-BLK1)				Prepared: 1/10/2017 Analyzed: 1/11/2017					
Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				
LCS (B7A0283-BS1)				Prepared: 1/10/2017 Analyzed: 1/11/2017					
Arsenic	46.0503	1.0	50.0000		92.1	80 - 120			
Lead	45.9360	1.0	50.0000		91.9	80 - 120			
Duplicate (B7A0283-DUP1)		**Source: 1700028-22**		Prepared: 1/10/2017 Analyzed: 1/11/2017					
Arsenic	1.58635	1.0		1.83042	NR		14.3	20	
Lead	3.40643	1.0		3.25414	NR		4.57	20	
Matrix Spike (B7A0283-MS1)		**Source: 1700028-22**		Prepared: 1/10/2017 Analyzed: 1/11/2017					
Arsenic	94.3380	1.0	125.000	1.83042	74.0	59 - 103			
Lead	94.7650	1.0	125.000	3.25414	73.2	34 - 129			
Matrix Spike Dup (B7A0283-MSD1)		**Source: 1700028-22**		Prepared: 1/10/2017 Analyzed: 1/11/2017					
Arsenic	99.9030	1.0	125.000	1.83042	78.5	59 - 103	5.73	20	
Lead	99.0992	1.0	125.000	3.25414	76.7	34 - 129	4.47	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0284 - EPA 3050B_S									
Blank (B7A0284-BLK1)				Prepared: 1/10/2017 Analyzed: 1/11/2017					
Arsenic	ND	1.0			NR				
Lead	ND	1.0			NR				
LCS (B7A0284-BS1)				Prepared: 1/10/2017 Analyzed: 1/11/2017					
Arsenic	45.6230	1.0	50.0000		91.2	80 - 120			
Lead	45.1108	1.0	50.0000		90.2	80 - 120			
Duplicate (B7A0284-DUP1)		**Source: 1700028-41**		Prepared: 1/10/2017 Analyzed: 1/11/2017					
Arsenic	2.21201	1.0		2.19192	NR		0.912	20	
Lead	62.3461	1.0		11.8072	NR		136	20	R
Matrix Spike (B7A0284-MS1)		**Source: 1700028-41**		Prepared: 1/10/2017 Analyzed: 1/11/2017					
Arsenic	84.9987	1.0	125.000	2.19192	66.2	59 - 103			
Lead	89.6602	1.0	125.000	11.8072	62.3	34 - 129			
Matrix Spike Dup (B7A0284-MSD1)		**Source: 1700028-41**		Prepared: 1/10/2017 Analyzed: 1/11/2017					
Arsenic	91.5234	1.0	125.000	2.19192	71.5	59 - 103	7.39	20	
Lead	95.6894	1.0	125.000	11.8072	67.1	34 - 129	6.51	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0271 - GCSEMI_PCB/PEST_S									
Blank (B7A0271-BLK1)				Prepared: 1/10/2017 Analyzed: 1/11/2017					
4,4´-DDD	ND	2.0			NR				
4,4´-DDD [2C]	ND	2.0			NR				
4,4´-DDE	ND	2.0			NR				
4,4´-DDE [2C]	ND	2.0			NR				
4,4´-DDT	ND	2.0			NR				
4,4´-DDT [2C]	ND	2.0			NR				
Aldrin	ND	1.0			NR				
Aldrin [2C]	ND	1.0			NR				
alpha-BHC	ND	1.0			NR				
alpha-BHC [2C]	ND	1.0			NR				
alpha-Chlordane	ND	1.0			NR				
alpha-Chlordane [2C]	ND	1.0			NR				
beta-BHC	ND	1.0			NR				
beta-BHC [2C]	ND	1.0			NR				
Chlordane	ND	8.5			NR				
Chlordane [2C]	ND	8.5			NR				
delta-BHC	ND	1.0			NR				
delta-BHC [2C]	ND	1.0			NR				
Dieldrin	ND	2.0			NR				
Dieldrin [2C]	ND	2.0			NR				
Endosulfan I	ND	1.0			NR				
Endosulfan I [2C]	ND	1.0			NR				
Endosulfan II	ND	2.0			NR				
Endosulfan II [2C]	ND	2.0			NR				
Endosulfan sulfate	ND	2.0			NR				
Endosulfan Sulfate [2C]	ND	2.0			NR				
Endrin	ND	2.0			NR				
Endrin [2C]	ND	2.0			NR				
Endrin aldehyde	ND	2.0			NR				
Endrin aldehyde [2C]	ND	2.0			NR				
Endrin ketone	ND	2.0			NR				
Endrin ketone [2C]	ND	2.0			NR				
gamma-BHC	ND	1.0			NR				
gamma-BHC [2C]	ND	1.0			NR				
gamma-Chlordane	ND	1.0			NR				
gamma-Chlordane [2C]	ND	1.0			NR				
Heptachlor	ND	1.0			NR				
Heptachlor [2C]	ND	1.0			NR				
Heptachlor epoxide	ND	1.0			NR				
Heptachlor epoxide [2C]	ND	1.0			NR				
Methoxychlor	ND	5.0			NR				

Leighton Consulting, Inc.
17781 Cowan Street
Irvine , CA 92614

Project Number : Burroughs MS, 603378.006
Report To : Julie Harriman
Reported : 01/13/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0271 - GCSEMI_PCB/PEST_S (continued)									
Blank (B7A0271-BLK1) - Continued				Prepared: 1/10/2017 Analyzed: 1/11/2017					
Methoxychlor [2C]	ND	5.0			NR				
Toxaphene	ND	50			NR				
Toxaphene [2C]	ND	50			NR				
Surrogate: Decachlorobiphenyl	*15.86*		*16.6667*		*95.1*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*18.32*		*16.6667*		*110*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*16.39*		*16.6667*		*98.3*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*18.11*		*16.6667*		*109*	*26 - 108*			S1
LCS (B7A0271-BS1)				Prepared: 1/10/2017 Analyzed: 1/11/2017					
4,4´-DDD	16.6802	2.0	16.6667		100	53 - 125			
4,4´-DDD [2C]	17.5698	2.0	16.6667		105	53 - 125			
4,4´-DDE	15.6987	2.0	16.6667		94.2	54 - 113			
4,4´-DDE [2C]	17.7738	2.0	16.6667		107	54 - 113			
4,4´-DDT	16.1805	2.0	16.6667		97.1	25 - 127			
4,4´-DDT [2C]	17.4002	2.0	16.6667		104	25 - 127			
Aldrin	15.7473	1.0	16.6667		94.5	59 - 107			
Aldrin [2C]	16.7227	1.0	16.6667		100	59 - 107			
alpha-BHC	15.7948	1.0	16.6667		94.8	59 - 104			
alpha-BHC [2C]	17.6397	1.0	16.6667		106	59 - 104			L3
alpha-Chlordane	15.7620	1.0	16.6667		94.6	54 - 110			
alpha-Chlordane [2C]	17.8692	1.0	16.6667		107	54 - 110			
beta-BHC	15.9252	1.0	16.6667		95.6	57 - 103			
beta-BHC [2C]	17.5410	1.0	16.6667		105	57 - 103			L3
delta-BHC	13.1528	1.0	16.6667		78.9	16 - 120			
delta-BHC [2C]	14.2803	1.0	16.6667		85.7	16 - 120			
Dieldrin	16.0255	2.0	16.6667		96.2	61 - 109			
Dieldrin [2C]	18.0205	2.0	16.6667		108	61 - 109			
Endosulfan I	15.5210	1.0	16.6667		93.1	60 - 106			
Endosulfan I [2C]	17.8160	1.0	16.6667		107	60 - 106			L3
Endosulfan II	15.4972	2.0	16.6667		93.0	59 - 108			
Endosulfan II [2C]	16.6075	2.0	16.6667		99.6	59 - 108			
Endosulfan sulfate	14.9758	2.0	16.6667		89.9	54 - 110			
Endosulfan Sulfate [2C]	15.2262	2.0	16.6667		91.4	54 - 110			
Endrin	16.7770	2.0	16.6667		101	63 - 112			
Endrin [2C]	18.8748	2.0	16.6667		113	63 - 112			L3
Endrin aldehyde	16.0958	2.0	16.6667		96.6	64 - 119			
Endrin aldehyde [2C]	15.0058	2.0	16.6667		90.0	64 - 119			
Endrin ketone	16.4545	2.0	16.6667		98.7	54 - 115			
Endrin ketone [2C]	17.1097	2.0	16.6667		103	54 - 115			
gamma-BHC	16.5055	1.0	16.6667		99.0	60 - 107			
gamma-BHC [2C]	18.0387	1.0	16.6667		108	60 - 107			L3

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0271 - GCSEMI_PCB/PEST_S (continued)									
LCS (B7A0271-BS1) - Continued				Prepared: 1/10/2017 Analyzed: 1/11/2017					
gamma-Chlordane	15.7083	1.0	16.6667		94.2	57 - 106			
gamma-Chlordane [2C]	16.7985	1.0	16.6667		101	57 - 106			
Heptachlor	16.6528	1.0	16.6667		99.9	54 - 114			
Heptachlor [2C]	19.2370	1.0	16.6667		115	54 - 114			L3
Heptachlor epoxide	15.7798	1.0	16.6667		94.7	61 - 106			
Heptachlor epoxide [2C]	17.2168	1.0	16.6667		103	61 - 106			
Methoxychlor	16.2637	5.0	16.6667		97.6	18 - 138			
Methoxychlor [2C]	18.2377	5.0	16.6667		109	18 - 138			
Surrogate: Decachlorobiphenyl	*15.23*		*16.6667*		*91.4*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*15.80*		*16.6667*		*94.8*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*16.75*		*16.6667*		*100*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*16.74*		*16.6667*		*100*	*26 - 108*			
Duplicate (B7A0271-DUP1)			**Source: 1700028-15**	Prepared: 1/10/2017 Analyzed: 1/11/2017					
4,4´-DDD	ND	2.0		ND	NR			20	
4,4´-DDD [2C]	ND	2.0		ND	NR			20	
4,4´-DDE	ND	2.0		ND	NR			20	
4,4´-DDE [2C]	ND	2.0		ND	NR			20	
4,4´-DDT	ND	2.0		ND	NR			20	
4,4´-DDT [2C]	ND	2.0		ND	NR			20	
Aldrin	ND	1.0		ND	NR			20	
Aldrin [2C]	ND	1.0		ND	NR			20	
alpha-BHC	ND	1.0		ND	NR			20	
alpha-BHC [2C]	ND	1.0		ND	NR			20	
alpha-Chlordane	ND	1.0		ND	NR			20	
alpha-Chlordane [2C]	ND	1.0		ND	NR			20	
beta-BHC	ND	1.0		ND	NR			20	
beta-BHC [2C]	ND	1.0		ND	NR			20	
delta-BHC	ND	1.0		ND	NR			20	
delta-BHC [2C]	ND	1.0		ND	NR			20	
Dieldrin	ND	2.0		ND	NR			20	
Dieldrin [2C]	ND	2.0		ND	NR			20	
Endosulfan I	ND	1.0		ND	NR			20	
Endosulfan I [2C]	ND	1.0		ND	NR			20	
Endosulfan II	ND	2.0		ND	NR			20	
Endosulfan II [2C]	ND	2.0		ND	NR			20	
Endosulfan sulfate	ND	2.0		ND	NR			20	
Endosulfan Sulfate [2C]	ND	2.0		ND	NR			20	
Endrin	ND	2.0		ND	NR			20	
Endrin [2C]	ND	2.0		ND	NR			20	
Endrin aldehyde	ND	2.0		ND	NR			20	

Leighton Consulting, Inc.
17781 Cowan Street
Irvine , CA 92614

Project Number : Burroughs MS, 603378.006
Report To : Julie Harriman
Reported : 01/13/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0271 - GCSEMI_PCB/PEST_S (continued)									
Duplicate (B7A0271-DUP1) - Continued		**Source: 1700028-15**		Prepared: 1/10/2017 Analyzed: 1/11/2017					
Endrin aldehyde [2C]	ND	2.0		ND	NR			20	
Endrin ketone	ND	2.0		ND	NR			20	
Endrin ketone [2C]	ND	2.0		ND	NR			20	
gamma-BHC	ND	1.0		ND	NR			20	
gamma-BHC [2C]	ND	1.0		ND	NR			20	
gamma-Chlordane	ND	1.0		ND	NR			20	
gamma-Chlordane [2C]	ND	1.0		ND	NR			20	
Heptachlor	ND	1.0		ND	NR			20	
Heptachlor [2C]	ND	1.0		ND	NR			20	
Heptachlor epoxide	ND	1.0		ND	NR			20	
Heptachlor epoxide [2C]	ND	1.0		ND	NR			20	
Methoxychlor	ND	5.0		ND	NR			20	
Methoxychlor [2C]	ND	5.0		ND	NR			20	
Surrogate: Decachlorobiphenyl	*14.32*		*16.6667*		*85.9*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*16.27*		*16.6667*		*97.6*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*14.69*		*16.6667*		*88.1*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*15.93*		*16.6667*		*95.6*	*26 - 108*			
Matrix Spike (B7A0271-MS1)		**Source: 1700028-15**		Prepared: 1/10/2017 Analyzed: 1/11/2017					
4,4´-DDD	17.6068	2.0	16.6667	ND	106	25 - 141			
4,4´-DDD [2C]	16.9658	2.0	16.6667	ND	102	25 - 141			
4,4´-DDE	16.7160	2.0	16.6667	ND	100	22 - 141			
4,4´-DDE [2C]	17.4397	2.0	16.6667	ND	105	22 - 141			
4,4´-DDT	18.1802	2.0	16.6667	ND	109	15 - 136			
4,4´-DDT [2C]	17.7577	2.0	16.6667	ND	107	15 - 136			
Aldrin	16.3727	1.0	16.6667	ND	98.2	33 - 118			
Aldrin [2C]	17.4478	1.0	16.6667	ND	105	33 - 118			
alpha-BHC	16.3973	1.0	16.6667	ND	98.4	30 - 116			
alpha-BHC [2C]	16.6182	1.0	16.6667	ND	99.7	30 - 116			
alpha-Chlordane	16.6243	1.0	16.6667	ND	99.7	30 - 123			
alpha-Chlordane [2C]	17.2737	1.0	16.6667	ND	104	30 - 123			
beta-BHC	16.7407	1.0	16.6667	ND	100	24 - 121			
beta-BHC [2C]	16.9242	1.0	16.6667	ND	102	24 - 121			
delta-BHC	13.8558	1.0	16.6667	ND	83.1	7 - 120			
delta-BHC [2C]	14.5188	1.0	16.6667	ND	87.1	7 - 120			
Dieldrin	16.9425	2.0	16.6667	ND	102	25 - 136			
Dieldrin [2C]	17.6628	2.0	16.6667	ND	106	25 - 136			
Endosulfan I	16.3507	1.0	16.6667	ND	98.1	18 - 134			
Endosulfan I [2C]	16.9242	1.0	16.6667	ND	102	18 - 134			
Endosulfan II	16.5342	2.0	16.6667	ND	99.2	28 - 128			
Endosulfan II [2C]	15.9827	2.0	16.6667	ND	95.9	28 - 128			

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0271 - GCSEMI_PCB/PEST_S (continued)									
Matrix Spike (B7A0271-MS1) - Continued		**Source: 1700028-15**		Prepared: 1/10/2017 Analyzed: 1/11/2017					
Endosulfan sulfate	15.9867	2.0	16.6667	ND	95.9	5 - 145			
Endosulfan Sulfate [2C]	15.7395	2.0	16.6667	ND	94.4	5 - 145			
Endrin	17.9812	2.0	16.6667	ND	108	26 - 142			
Endrin [2C]	18.3993	2.0	16.6667	ND	110	26 - 142			
Endrin aldehyde	16.8707	2.0	16.6667	ND	101	8 - 146			
Endrin aldehyde [2C]	14.3420	2.0	16.6667	ND	86.1	8 - 146			
Endrin ketone	18.0737	2.0	16.6667	ND	108	16 - 139			
Endrin ketone [2C]	15.5942	2.0	16.6667	ND	93.6	16 - 139			
gamma-BHC	17.0577	1.0	16.6667	ND	102	30 - 122			
gamma-BHC [2C]	17.1420	1.0	16.6667	ND	103	30 - 122			
gamma-Chlordane	16.4818	1.0	16.6667	ND	98.9	18 - 132			
gamma-Chlordane [2C]	16.7110	1.0	16.6667	ND	100	18 - 132			
Heptachlor	17.3923	1.0	16.6667	ND	104	34 - 122			
Heptachlor [2C]	19.2675	1.0	16.6667	ND	116	34 - 122			
Heptachlor epoxide	16.5342	1.0	16.6667	ND	99.2	21 - 135			
Heptachlor epoxide [2C]	16.9848	1.0	16.6667	ND	102	21 - 135			
Methoxychlor	18.0037	5.0	16.6667	ND	108	8 - 162			
Methoxychlor [2C]	20.1190	5.0	16.6667	ND	121	8 - 162			
Surrogate: Decachlorobiphenyl	*15.11*		*16.6667*		*90.6*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*15.37*		*16.6667*		*92.2*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*16.92*		*16.6667*		*102*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*15.54*		*16.6667*		*93.2*	*26 - 108*			
Matrix Spike Dup (B7A0271-MSD1)		**Source: 1700028-15**		Prepared: 1/10/2017 Analyzed: 1/11/2017					
4,4´-DDD	17.3028	2.0	16.6667	ND	104	25 - 141	1.74	20	
4,4´-DDD [2C]	16.7327	2.0	16.6667	ND	100	25 - 141	1.38	20	
4,4´-DDE	16.2782	2.0	16.6667	ND	97.7	22 - 141	2.65	20	
4,4´-DDE [2C]	16.9022	2.0	16.6667	ND	101	22 - 141	3.13	20	
4,4´-DDT	17.8917	2.0	16.6667	ND	107	15 - 136	1.60	20	
4,4´-DDT [2C]	17.5945	2.0	16.6667	ND	106	15 - 136	0.923	20	
Aldrin	16.0472	1.0	16.6667	ND	96.3	33 - 118	2.01	20	
Aldrin [2C]	16.9498	1.0	16.6667	ND	102	33 - 118	2.90	20	
alpha-BHC	16.0710	1.0	16.6667	ND	96.4	30 - 116	2.01	20	
alpha-BHC [2C]	16.5473	1.0	16.6667	ND	99.3	30 - 116	0.427	20	
alpha-Chlordane	16.2792	1.0	16.6667	ND	97.7	30 - 123	2.10	20	
alpha-Chlordane [2C]	16.8482	1.0	16.6667	ND	101	30 - 123	2.49	20	
beta-BHC	16.5200	1.0	16.6667	ND	99.1	24 - 121	1.33	20	
beta-BHC [2C]	16.0380	1.0	16.6667	ND	96.2	24 - 121	5.38	20	
delta-BHC	13.7012	1.0	16.6667	ND	82.2	7 - 120	1.12	20	
delta-BHC [2C]	13.6337	1.0	16.6667	ND	81.8	7 - 120	6.29	20	
Dieldrin	16.5997	2.0	16.6667	ND	99.6	25 - 136	2.04	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0271 - GCSEMI_PCB/PEST_S (continued)									
Matrix Spike Dup (B7A0271-MSD1) - Continued		**Source: 1700028-15**		Prepared: 1/10/2017 Analyzed: 1/11/2017					
Dieldrin [2C]	17.1418	2.0	16.6667	ND	103	25 - 136	2.99	20	
Endosulfan I	15.9930	1.0	16.6667	ND	96.0	18 - 134	2.21	20	
Endosulfan I [2C]	16.4567	1.0	16.6667	ND	98.7	18 - 134	2.80	20	
Endosulfan II	16.2547	2.0	16.6667	ND	97.5	28 - 128	1.70	20	
Endosulfan II [2C]	15.7205	2.0	16.6667	ND	94.3	28 - 128	1.65	20	
Endosulfan sulfate	15.8425	2.0	16.6667	ND	95.1	5 - 145	0.906	20	
Endosulfan Sulfate [2C]	15.9412	2.0	16.6667	ND	95.6	5 - 145	1.27	20	
Endrin	17.6420	2.0	16.6667	ND	106	26 - 142	1.90	20	
Endrin [2C]	18.0273	2.0	16.6667	ND	108	26 - 142	2.04	20	
Endrin aldehyde	16.6415	2.0	16.6667	ND	99.8	8 - 146	1.37	20	
Endrin aldehyde [2C]	14.7728	2.0	16.6667	ND	88.6	8 - 146	2.96	20	
Endrin ketone	17.8792	2.0	16.6667	ND	107	16 - 139	1.08	20	
Endrin ketone [2C]	16.6595	2.0	16.6667	ND	100	16 - 139	6.61	20	
gamma-BHC	16.8212	1.0	16.6667	ND	101	30 - 122	1.40	20	
gamma-BHC [2C]	16.9795	1.0	16.6667	ND	102	30 - 122	0.952	20	
gamma-Chlordane	16.1198	1.0	16.6667	ND	96.7	18 - 132	2.22	20	
gamma-Chlordane [2C]	16.1388	1.0	16.6667	ND	96.8	18 - 132	3.48	20	
Heptachlor	17.0427	1.0	16.6667	ND	102	34 - 122	2.03	20	
Heptachlor [2C]	17.5392	1.0	16.6667	ND	105	34 - 122	9.39	20	
Heptachlor epoxide	16.1407	1.0	16.6667	ND	96.8	21 - 135	2.41	20	
Heptachlor epoxide [2C]	16.4148	1.0	16.6667	ND	98.5	21 - 135	3.41	20	
Methoxychlor	17.8310	5.0	16.6667	ND	107	8 - 162	0.964	20	
Methoxychlor [2C]	19.9665	5.0	16.6667	ND	120	8 - 162	0.761	20	
Surrogate: Decachlorobiphenyl	*15.64*		*16.6667*		*93.8*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*15.59*		*16.6667*		*93.6*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*16.60*		*16.6667*		*99.6*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*15.25*		*16.6667*		*91.5*	*26 - 108*			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0339 - GCSEMI_PCB/PEST_S									
Blank (B7A0339-BLK1)				Prepared: 1/11/2017 Analyzed: 1/12/2017					
4,4´-DDD	ND	2.0			NR				
4,4´-DDD [2C]	ND	2.0			NR				
4,4´-DDE	ND	2.0			NR				
4,4´-DDE [2C]	ND	2.0			NR				
4,4´-DDT	ND	2.0			NR				
4,4´-DDT [2C]	ND	2.0			NR				
Aldrin	ND	1.0			NR				
Aldrin [2C]	ND	1.0			NR				
alpha-BHC	ND	1.0			NR				
alpha-BHC [2C]	ND	1.0			NR				
alpha-Chlordane	ND	1.0			NR				
alpha-Chlordane [2C]	ND	1.0			NR				
beta-BHC	ND	1.0			NR				
beta-BHC [2C]	ND	1.0			NR				
Chlordane	ND	8.5			NR				
Chlordane [2C]	ND	8.5			NR				
delta-BHC	ND	1.0			NR				
delta-BHC [2C]	ND	1.0			NR				
Dieldrin	ND	2.0			NR				
Dieldrin [2C]	ND	2.0			NR				
Endosulfan I	ND	1.0			NR				
Endosulfan I [2C]	ND	1.0			NR				
Endosulfan II	ND	2.0			NR				
Endosulfan II [2C]	ND	2.0			NR				
Endosulfan sulfate	ND	2.0			NR				
Endosulfan Sulfate [2C]	ND	2.0			NR				
Endrin	ND	2.0			NR				
Endrin [2C]	ND	2.0			NR				
Endrin aldehyde	ND	2.0			NR				
Endrin aldehyde [2C]	ND	2.0			NR				
Endrin ketone	ND	2.0			NR				
Endrin ketone [2C]	ND	2.0			NR				
gamma-BHC	ND	1.0			NR				
gamma-BHC [2C]	ND	1.0			NR				
gamma-Chlordane	ND	1.0			NR				
gamma-Chlordane [2C]	ND	1.0			NR				
Heptachlor	ND	1.0			NR				
Heptachlor [2C]	ND	1.0			NR				
Heptachlor epoxide	ND	1.0			NR				
Heptachlor epoxide [2C]	ND	1.0			NR				
Methoxychlor	ND	5.0			NR				

Leighton Consulting, Inc.
17781 Cowan Street
Irvine , CA 92614

Project Number : Burroughs MS, 603378.006
Report To : Julie Harriman
Reported : 01/13/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0339 - GCSEMI_PCB/PEST_S (continued)									
Blank (B7A0339-BLK1) - Continued				Prepared: 1/11/2017 Analyzed: 1/12/2017					
Methoxychlor [2C]	ND	5.0			NR				
Toxaphene	ND	50			NR				
Toxaphene [2C]	ND	50			NR				
Surrogate: Decachlorobiphenyl	*14.44*		*16.6667*		*86.6*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*14.82*		*16.6667*		*88.9*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*15.23*		*16.6667*		*91.4*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*15.89*		*16.6667*		*95.3*	*26 - 108*			
LCS (B7A0339-BS1)				Prepared: 1/11/2017 Analyzed: 1/12/2017					
4,4´-DDD	16.2718	2.0	16.6667		97.6	53 - 125			
4,4´-DDD [2C]	16.2917	2.0	16.6667		97.8	53 - 125			
4,4´-DDE	15.3100	2.0	16.6667		91.9	54 - 113			
4,4´-DDE [2C]	14.8897	2.0	16.6667		89.3	54 - 113			
4,4´-DDT	17.6367	2.0	16.6667		106	25 - 127			
4,4´-DDT [2C]	16.4917	2.0	16.6667		99.0	25 - 127			
Aldrin	15.0823	1.0	16.6667		90.5	59 - 107			
Aldrin [2C]	14.8200	1.0	16.6667		88.9	59 - 107			
alpha-BHC	14.9183	1.0	16.6667		89.5	59 - 104			
alpha-BHC [2C]	14.8843	1.0	16.6667		89.3	59 - 104			
alpha-Chlordane	15.4005	1.0	16.6667		92.4	54 - 110			
alpha-Chlordane [2C]	14.8950	1.0	16.6667		89.4	54 - 110			
beta-BHC	14.7445	1.0	16.6667		88.5	57 - 103			
beta-BHC [2C]	14.4698	1.0	16.6667		86.8	57 - 103			
delta-BHC	12.2018	1.0	16.6667		73.2	16 - 120			
delta-BHC [2C]	12.1653	1.0	16.6667		73.0	16 - 120			
Dieldrin	16.2345	2.0	16.6667		97.4	61 - 109			
Dieldrin [2C]	15.3872	2.0	16.6667		92.3	61 - 109			
Endosulfan I	15.4020	1.0	16.6667		92.4	60 - 106			
Endosulfan I [2C]	14.6410	1.0	16.6667		87.8	60 - 106			
Endosulfan II	15.4392	2.0	16.6667		92.6	59 - 108			
Endosulfan II [2C]	14.7735	2.0	16.6667		88.6	59 - 108			
Endosulfan sulfate	14.9260	2.0	16.6667		89.6	54 - 110			
Endosulfan Sulfate [2C]	14.3287	2.0	16.6667		86.0	54 - 110			
Endrin	16.3752	2.0	16.6667		98.3	63 - 112			
Endrin [2C]	15.7763	2.0	16.6667		94.7	63 - 112			
Endrin aldehyde	15.9545	2.0	16.6667		95.7	64 - 119			
Endrin aldehyde [2C]	15.3058	2.0	16.6667		91.8	64 - 119			
Endrin ketone	16.7095	2.0	16.6667		100	54 - 115			
Endrin ketone [2C]	15.3985	2.0	16.6667		92.4	54 - 115			
gamma-BHC	15.6428	1.0	16.6667		93.9	60 - 107			
gamma-BHC [2C]	15.3580	1.0	16.6667		92.1	60 - 107			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0339 - GCSEMI_PCB/PEST_S (continued)									
LCS (B7A0339-BS1) - Continued					Prepared: 1/11/2017 Analyzed: 1/12/2017				
gamma-Chlordane	15.0670	1.0	16.6667		90.4	57 - 106			
gamma-Chlordane [2C]	14.7945	1.0	16.6667		88.8	57 - 106			
Heptachlor	15.8733	1.0	16.6667		95.2	54 - 114			
Heptachlor [2C]	15.2712	1.0	16.6667		91.6	54 - 114			
Heptachlor epoxide	15.1195	1.0	16.6667		90.7	61 - 106			
Heptachlor epoxide [2C]	14.6208	1.0	16.6667		87.7	61 - 106			
Methoxychlor	16.2965	5.0	16.6667		97.8	18 - 138			
Methoxychlor [2C]	16.0128	5.0	16.6667		96.1	18 - 138			
Surrogate: Decachlorobiphenyl	*13.23*		*16.6667*		*79.4*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*12.28*		*16.6667*		*73.7*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*14.38*		*16.6667*		*86.3*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*15.37*		*16.6667*		*92.2*	*26 - 108*			
Duplicate (B7A0339-DUP1)		**Source: 1700028-32**			Prepared: 1/11/2017 Analyzed: 1/12/2017				
4,4´-DDD	ND	2.0		ND	NR			20	
4,4´-DDD [2C]	ND	2.0		ND	NR			20	
4,4´-DDE	ND	2.0		ND	NR			20	
4,4´-DDE [2C]	ND	2.0		ND	NR			20	
4,4´-DDT	ND	2.0		ND	NR			20	
4,4´-DDT [2C]	ND	2.0		ND	NR			20	
Aldrin	ND	1.0		ND	NR			20	
Aldrin [2C]	ND	1.0		ND	NR			20	
alpha-BHC	ND	1.0		ND	NR			20	
alpha-BHC [2C]	ND	1.0		ND	NR			20	
alpha-Chlordane	ND	1.0		ND	NR			20	
alpha-Chlordane [2C]	ND	1.0		ND	NR			20	
beta-BHC	ND	1.0		ND	NR			20	
beta-BHC [2C]	ND	1.0		ND	NR			20	
delta-BHC	ND	1.0		ND	NR			20	
delta-BHC [2C]	ND	1.0		ND	NR			20	
Dieldrin	ND	2.0		ND	NR			20	
Dieldrin [2C]	ND	2.0		ND	NR			20	
Endosulfan I	ND	1.0		ND	NR			20	
Endosulfan I [2C]	ND	1.0		ND	NR			20	
Endosulfan II	ND	2.0		ND	NR			20	
Endosulfan II [2C]	ND	2.0		ND	NR			20	
Endosulfan sulfate	ND	2.0		ND	NR			20	
Endosulfan Sulfate [2C]	ND	2.0		ND	NR			20	
Endrin	ND	2.0		ND	NR			20	
Endrin [2C]	ND	2.0		ND	NR			20	
Endrin aldehyde	ND	2.0		ND	NR			20	

Leighton Consulting, Inc.
17781 Cowan Street
Irvine , CA 92614

Project Number : Burroughs MS, 603378.006
Report To : Julie Harriman
Reported : 01/13/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0339 - GCSEMI_PCB/PEST_S (continued)									
Duplicate (B7A0339-DUP1) - Continued		**Source: 1700028-32**		Prepared: 1/11/2017 Analyzed: 1/12/2017					
Endrin aldehyde [2C]	ND	2.0		ND	NR			20	
Endrin ketone	ND	2.0		ND	NR			20	
Endrin ketone [2C]	ND	2.0		ND	NR			20	
gamma-BHC	ND	1.0		ND	NR			20	
gamma-BHC [2C]	ND	1.0		ND	NR			20	
gamma-Chlordane	ND	1.0		ND	NR			20	
gamma-Chlordane [2C]	ND	1.0		ND	NR			20	
Heptachlor	ND	1.0		ND	NR			20	
Heptachlor [2C]	ND	1.0		ND	NR			20	
Heptachlor epoxide	ND	1.0		ND	NR			20	
Heptachlor epoxide [2C]	ND	1.0		ND	NR			20	
Methoxychlor	ND	5.0		ND	NR			20	
Methoxychlor [2C]	ND	5.0		ND	NR			20	
Surrogate: Decachlorobiphenyl	*14.79*		*16.6667*		*88.7*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*15.05*		*16.6667*		*90.3*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*14.01*		*16.6667*		*84.1*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*15.27*		*16.6667*		*91.6*	*26 - 108*			
Matrix Spike (B7A0339-MS1)		**Source: 1700028-32**		Prepared: 1/11/2017 Analyzed: 1/12/2017					
4,4´-DDD	16.8062	2.0	16.6667	ND	101	25 - 141			
4,4´-DDD [2C]	16.9617	2.0	16.6667	ND	102	25 - 141			
4,4´-DDE	15.5940	2.0	16.6667	ND	93.6	22 - 141			
4,4´-DDE [2C]	15.7817	2.0	16.6667	ND	94.7	22 - 141			
4,4´-DDT	19.5305	2.0	16.6667	ND	117	15 - 136			
4,4´-DDT [2C]	19.2895	2.0	16.6667	ND	116	15 - 136			
Aldrin	15.4960	1.0	16.6667	ND	93.0	33 - 118			
Aldrin [2C]	15.4060	1.0	16.6667	ND	92.4	33 - 118			
alpha-BHC	15.3382	1.0	16.6667	ND	92.0	30 - 116			
alpha-BHC [2C]	15.5220	1.0	16.6667	ND	93.1	30 - 116			
alpha-Chlordane	16.0412	1.0	16.6667	ND	96.2	30 - 123			
alpha-Chlordane [2C]	15.7293	1.0	16.6667	ND	94.4	30 - 123			
beta-BHC	15.3690	1.0	16.6667	ND	92.2	24 - 121			
beta-BHC [2C]	15.5112	1.0	16.6667	ND	93.1	24 - 121			
delta-BHC	12.7003	1.0	16.6667	ND	76.2	7 - 120			
delta-BHC [2C]	13.0460	1.0	16.6667	ND	78.3	7 - 120			
Dieldrin	16.8505	2.0	16.6667	ND	101	25 - 136			
Dieldrin [2C]	16.2942	2.0	16.6667	ND	97.8	25 - 136			
Endosulfan I	15.9060	1.0	16.6667	ND	95.4	18 - 134			
Endosulfan I [2C]	15.3368	1.0	16.6667	ND	92.0	18 - 134			
Endosulfan II	15.9262	2.0	16.6667	ND	95.6	28 - 128			
Endosulfan II [2C]	15.7518	2.0	16.6667	ND	94.5	28 - 128			

Leighton Consulting, Inc.
17781 Cowan Street
Irvine , CA 92614

Project Number : Burroughs MS, 603378.006
Report To : Julie Harriman
Reported : 01/13/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0339 - GCSEMI_PCB/PEST_S (continued)									
Matrix Spike (B7A0339-MS1) - Continued		**Source: 1700028-32**		Prepared: 1/11/2017 Analyzed: 1/12/2017					
Endosulfan sulfate	15.4643	2.0	16.6667	ND	92.8	5 - 145			
Endosulfan Sulfate [2C]	15.7952	2.0	16.6667	ND	94.8	5 - 145			
Endrin	17.9693	2.0	16.6667	ND	108	26 - 142			
Endrin [2C]	17.5108	2.0	16.6667	ND	105	26 - 142			
Endrin aldehyde	15.9140	2.0	16.6667	ND	95.5	8 - 146			
Endrin aldehyde [2C]	15.3453	2.0	16.6667	ND	92.1	8 - 146			
Endrin ketone	17.0420	2.0	16.6667	ND	102	16 - 139			
Endrin ketone [2C]	16.9743	2.0	16.6667	ND	102	16 - 139			
gamma-BHC	16.2962	1.0	16.6667	ND	97.8	30 - 122			
gamma-BHC [2C]	16.1308	1.0	16.6667	ND	96.8	30 - 122			
gamma-Chlordane	15.8012	1.0	16.6667	ND	94.8	18 - 132			
gamma-Chlordane [2C]	15.5375	1.0	16.6667	ND	93.2	18 - 132			
Heptachlor	16.4982	1.0	16.6667	ND	99.0	34 - 122			
Heptachlor [2C]	16.1095	1.0	16.6667	ND	96.7	34 - 122			
Heptachlor epoxide	15.6618	1.0	16.6667	ND	94.0	21 - 135			
Heptachlor epoxide [2C]	15.2500	1.0	16.6667	ND	91.5	21 - 135			
Methoxychlor	18.3918	5.0	16.6667	ND	110	8 - 162			
Methoxychlor [2C]	19.0322	5.0	16.6667	ND	114	8 - 162			
Surrogate: Decachlorobiphenyl	*14.39*		*16.6667*		*86.3*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*15.01*		*16.6667*		*90.1*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*13.68*		*16.6667*		*82.1*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*15.19*		*16.6667*		*91.1*	*26 - 108*			
Matrix Spike Dup (B7A0339-MSD1)		**Source: 1700028-32**		Prepared: 1/11/2017 Analyzed: 1/12/2017					
4,4´-DDD	16.6662	2.0	16.6667	ND	100	25 - 141	0.837	20	
4,4´-DDD [2C]	16.8010	2.0	16.6667	ND	101	25 - 141	0.952	20	
4,4´-DDE	15.4283	2.0	16.6667	ND	92.6	22 - 141	1.07	20	
4,4´-DDE [2C]	15.6235	2.0	16.6667	ND	93.7	22 - 141	1.01	20	
4,4´-DDT	19.0432	2.0	16.6667	ND	114	15 - 136	2.53	20	
4,4´-DDT [2C]	19.1127	2.0	16.6667	ND	115	15 - 136	0.921	20	
Aldrin	15.4445	1.0	16.6667	ND	92.7	33 - 118	0.333	20	
Aldrin [2C]	15.2937	1.0	16.6667	ND	91.8	33 - 118	0.732	20	
alpha-BHC	15.2957	1.0	16.6667	ND	91.8	30 - 116	0.277	20	
alpha-BHC [2C]	15.4432	1.0	16.6667	ND	92.7	30 - 116	0.509	20	
alpha-Chlordane	15.9615	1.0	16.6667	ND	95.8	30 - 123	0.498	20	
alpha-Chlordane [2C]	15.5293	1.0	16.6667	ND	93.2	30 - 123	1.28	20	
beta-BHC	15.3093	1.0	16.6667	ND	91.9	24 - 121	0.389	20	
beta-BHC [2C]	15.4053	1.0	16.6667	ND	92.4	24 - 121	0.685	20	
delta-BHC	12.5968	1.0	16.6667	ND	75.6	7 - 120	0.818	20	
delta-BHC [2C]	12.9500	1.0	16.6667	ND	77.7	7 - 120	0.739	20	
Dieldrin	16.7472	2.0	16.6667	ND	100	25 - 136	0.615	20	

Leighton Consulting, Inc.
17781 Cowan Street
Irvine , CA 92614

Project Number : Burroughs MS, 603378.006
Report To : Julie Harriman
Reported : 01/13/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0339 - GCSEMI_PCB/PEST_S (continued)									
Matrix Spike Dup (B7A0339-MSD1) - Continued		**Source: 1700028-32**		Prepared: 1/11/2017 Analyzed: 1/12/2017					
Dieldrin [2C]	16.1347	2.0	16.6667	ND	96.8	25 - 136	0.984	20	
Endosulfan I	15.8342	1.0	16.6667	ND	95.0	18 - 134	0.453	20	
Endosulfan I [2C]	15.1533	1.0	16.6667	ND	90.9	18 - 134	1.20	20	
Endosulfan II	15.7547	2.0	16.6667	ND	94.5	28 - 128	1.08	20	
Endosulfan II [2C]	15.5987	2.0	16.6667	ND	93.6	28 - 128	0.977	20	
Endosulfan sulfate	14.7373	2.0	16.6667	ND	88.4	5 - 145	4.81	20	
Endosulfan Sulfate [2C]	15.3107	2.0	16.6667	ND	91.9	5 - 145	3.12	20	
Endrin	17.8357	2.0	16.6667	ND	107	26 - 142	0.747	20	
Endrin [2C]	17.3365	2.0	16.6667	ND	104	26 - 142	1.00	20	
Endrin aldehyde	15.3985	2.0	16.6667	ND	92.4	8 - 146	3.29	20	
Endrin aldehyde [2C]	15.1495	2.0	16.6667	ND	90.9	8 - 146	1.28	20	
Endrin ketone	16.2552	2.0	16.6667	ND	97.5	16 - 139	4.73	20	
Endrin ketone [2C]	16.4728	2.0	16.6667	ND	98.8	16 - 139	3.00	20	
gamma-BHC	16.2275	1.0	16.6667	ND	97.4	30 - 122	0.422	20	
gamma-BHC [2C]	16.0152	1.0	16.6667	ND	96.1	30 - 122	0.720	20	
gamma-Chlordane	15.7332	1.0	16.6667	ND	94.4	18 - 132	0.431	20	
gamma-Chlordane [2C]	15.3237	1.0	16.6667	ND	91.9	18 - 132	1.39	20	
Heptachlor	16.4358	1.0	16.6667	ND	98.6	34 - 122	0.379	20	
Heptachlor [2C]	15.9870	1.0	16.6667	ND	95.9	34 - 122	0.763	20	
Heptachlor epoxide	15.5638	1.0	16.6667	ND	93.4	21 - 135	0.628	20	
Heptachlor epoxide [2C]	15.1230	1.0	16.6667	ND	90.7	21 - 135	0.836	20	
Methoxychlor	17.4980	5.0	16.6667	ND	105	8 - 162	4.98	20	
Methoxychlor [2C]	18.2002	5.0	16.6667	ND	109	8 - 162	4.47	20	
Surrogate: Decachlorobiphenyl	*14.52*		*16.6667*		*87.1*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*15.09*		*16.6667*		*90.5*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*13.60*		*16.6667*		*81.6*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*15.09*		*16.6667*		*90.6*	*26 - 108*			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0366 - GCSEMI_PCB/PEST_S									
Blank (B7A0366-BLK1)				Prepared: 1/12/2017 Analyzed: 1/12/2017					
4,4´-DDD	ND	2.0			NR				
4,4´-DDD [2C]	ND	2.0			NR				
4,4´-DDE	ND	2.0			NR				
4,4´-DDE [2C]	ND	2.0			NR				
4,4´-DDT	ND	2.0			NR				
4,4´-DDT [2C]	ND	2.0			NR				
Aldrin	ND	1.0			NR				
Aldrin [2C]	ND	1.0			NR				
alpha-BHC	ND	1.0			NR				
alpha-BHC [2C]	ND	1.0			NR				
alpha-Chlordane	ND	1.0			NR				
alpha-Chlordane [2C]	ND	1.0			NR				
beta-BHC	ND	1.0			NR				
beta-BHC [2C]	ND	1.0			NR				
Chlordane	ND	8.5			NR				
Chlordane [2C]	ND	8.5			NR				
delta-BHC	ND	1.0			NR				
delta-BHC [2C]	ND	1.0			NR				
Dieldrin	ND	2.0			NR				
Dieldrin [2C]	ND	2.0			NR				
Endosulfan I	ND	1.0			NR				
Endosulfan I [2C]	ND	1.0			NR				
Endosulfan II	ND	2.0			NR				
Endosulfan II [2C]	ND	2.0			NR				
Endosulfan sulfate	ND	2.0			NR				
Endosulfan Sulfate [2C]	ND	2.0			NR				
Endrin	ND	2.0			NR				
Endrin [2C]	ND	2.0			NR				
Endrin aldehyde	ND	2.0			NR				
Endrin aldehyde [2C]	ND	2.0			NR				
Endrin ketone	ND	2.0			NR				
Endrin ketone [2C]	ND	2.0			NR				
gamma-BHC	ND	1.0			NR				
gamma-BHC [2C]	ND	1.0			NR				
gamma-Chlordane	ND	1.0			NR				
gamma-Chlordane [2C]	ND	1.0			NR				
Heptachlor	ND	1.0			NR				
Heptachlor [2C]	ND	1.0			NR				
Heptachlor epoxide	ND	1.0			NR				
Heptachlor epoxide [2C]	ND	1.0			NR				
Methoxychlor	ND	5.0			NR				

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0366 - GCSEMI_PCB/PEST_S (continued)									
Blank (B7A0366-BLK1) - Continued				Prepared: 1/12/2017 Analyzed: 1/12/2017					
Methoxychlor [2C]	ND	5.0			NR				
Toxaphene	ND	50			NR				
Toxaphene [2C]	ND	50			NR				
Surrogate: Decachlorobiphenyl	*16.13*		*16.6667*		*96.8*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*14.92*		*16.6667*		*89.5*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*15.57*		*16.6667*		*93.4*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*16.77*		*16.6667*		*101*	*26 - 108*			
LCS (B7A0366-BS1)				Prepared: 1/12/2017 Analyzed: 1/12/2017					
4,4´-DDD	17.2418	2.0	16.6667		103	53 - 125			
4,4´-DDD [2C]	17.5173	2.0	16.6667		105	53 - 125			
4,4´-DDE	16.4047	2.0	16.6667		98.4	54 - 113			
4,4´-DDE [2C]	16.1018	2.0	16.6667		96.6	54 - 113			
4,4´-DDT	19.5473	2.0	16.6667		117	25 - 127			
4,4´-DDT [2C]	18.2835	2.0	16.6667		110	25 - 127			
Aldrin	15.9505	1.0	16.6667		95.7	59 - 107			
Aldrin [2C]	15.9132	1.0	16.6667		95.5	59 - 107			
alpha-BHC	15.5722	1.0	16.6667		93.4	59 - 104			
alpha-BHC [2C]	15.6740	1.0	16.6667		94.0	59 - 104			
alpha-Chlordane	16.2605	1.0	16.6667		97.6	54 - 110			
alpha-Chlordane [2C]	16.0152	1.0	16.6667		96.1	54 - 110			
beta-BHC	15.3723	1.0	16.6667		92.2	57 - 103			
beta-BHC [2C]	15.3575	1.0	16.6667		92.1	57 - 103			
delta-BHC	12.5438	1.0	16.6667		75.3	16 - 120			
delta-BHC [2C]	12.7643	1.0	16.6667		76.6	16 - 120			
Dieldrin	17.3168	2.0	16.6667		104	61 - 109			
Dieldrin [2C]	16.7272	2.0	16.6667		100	61 - 109			
Endosulfan I	16.4240	1.0	16.6667		98.5	60 - 106			
Endosulfan I [2C]	15.9843	1.0	16.6667		95.9	60 - 106			
Endosulfan II	16.5165	2.0	16.6667		99.1	59 - 108			
Endosulfan II [2C]	16.1202	2.0	16.6667		96.7	59 - 108			
Endosulfan sulfate	16.0442	2.0	16.6667		96.3	54 - 110			
Endosulfan Sulfate [2C]	16.1065	2.0	16.6667		96.6	54 - 110			
Endrin	18.4445	2.0	16.6667		111	63 - 112			
Endrin [2C]	18.1083	2.0	16.6667		109	63 - 112			
Endrin aldehyde	16.8188	2.0	16.6667		101	64 - 119			
Endrin aldehyde [2C]	16.5850	2.0	16.6667		99.5	64 - 119			
Endrin ketone	17.7395	2.0	16.6667		106	54 - 115			
Endrin ketone [2C]	16.8547	2.0	16.6667		101	54 - 115			
gamma-BHC	16.3598	1.0	16.6667		98.2	60 - 107			
gamma-BHC [2C]	16.1857	1.0	16.6667		97.1	60 - 107			

Leighton Consulting, Inc.
17781 Cowan Street
Irvine , CA 92614

Project Number : Burroughs MS, 603378.006
Report To : Julie Harriman
Reported : 01/13/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0366 - GCSEMI_PCB/PEST_S (continued)									
LCS (B7A0366-BS1) - Continued				Prepared: 1/12/2017 Analyzed: 1/12/2017					
gamma-Chlordane	15.9575	1.0	16.6667		95.7	57 - 106			
gamma-Chlordane [2C]	15.8555	1.0	16.6667		95.1	57 - 106			
Heptachlor	17.1855	1.0	16.6667		103	54 - 114			
Heptachlor [2C]	16.6177	1.0	16.6667		99.7	54 - 114			
Heptachlor epoxide	16.1788	1.0	16.6667		97.1	61 - 106			
Heptachlor epoxide [2C]	15.9128	1.0	16.6667		95.5	61 - 106			
Methoxychlor	18.5188	5.0	16.6667		111	18 - 138			
Methoxychlor [2C]	17.8682	5.0	16.6667		107	18 - 138			
Surrogate: Decachlorobiphenyl	*14.89*		*16.6667*		*89.4*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*14.02*		*16.6667*		*84.1*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*14.71*		*16.6667*		*88.3*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*16.09*		*16.6667*		*96.6*	*26 - 108*			
Duplicate (B7A0366-DUP1)			**Source: 1700028-42**	Prepared: 1/12/2017 Analyzed: 1/12/2017					
4,4´-DDD	ND	2.0		ND	NR			20	
4,4´-DDD [2C]	ND	2.0		ND	NR			20	
4,4´-DDE	ND	2.0		ND	NR			20	
4,4´-DDE [2C]	ND	2.0		ND	NR			20	
4,4´-DDT	ND	2.0		ND	NR			20	
4,4´-DDT [2C]	ND	2.0		ND	NR			20	
Aldrin	ND	1.0		ND	NR			20	
Aldrin [2C]	ND	1.0		ND	NR			20	
alpha-BHC	ND	1.0		ND	NR			20	
alpha-BHC [2C]	ND	1.0		ND	NR			20	
alpha-Chlordane	ND	1.0		ND	NR			20	
alpha-Chlordane [2C]	ND	1.0		ND	NR			20	
beta-BHC	ND	1.0		ND	NR			20	
beta-BHC [2C]	ND	1.0		ND	NR			20	
delta-BHC	ND	1.0		ND	NR			20	
delta-BHC [2C]	ND	1.0		ND	NR			20	
Dieldrin	ND	2.0		ND	NR			20	
Dieldrin [2C]	ND	2.0		ND	NR			20	
Endosulfan I	ND	1.0		ND	NR			20	
Endosulfan I [2C]	ND	1.0		ND	NR			20	
Endosulfan II	ND	2.0		ND	NR			20	
Endosulfan II [2C]	ND	2.0		ND	NR			20	
Endosulfan sulfate	ND	2.0		ND	NR			20	
Endosulfan Sulfate [2C]	ND	2.0		ND	NR			20	
Endrin	ND	2.0		ND	NR			20	
Endrin [2C]	ND	2.0		ND	NR			20	
Endrin aldehyde	ND	2.0		ND	NR			20	

Leighton Consulting, Inc.
17781 Cowan Street
Irvine , CA 92614

Project Number : Burroughs MS, 603378.006
Report To : Julie Harriman
Reported : 01/13/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0366 - GCSEMI_PCB/PEST_S (continued)									
Duplicate (B7A0366-DUP1) - Continued		**Source: 1700028-42**		Prepared: 1/12/2017 Analyzed: 1/12/2017					
Endrin aldehyde [2C]	ND	2.0		ND	NR			20	
Endrin ketone	ND	2.0		ND	NR			20	
Endrin ketone [2C]	ND	2.0		ND	NR			20	
gamma-BHC	ND	1.0		ND	NR			20	
gamma-BHC [2C]	ND	1.0		ND	NR			20	
gamma-Chlordane	ND	1.0		ND	NR			20	
gamma-Chlordane [2C]	ND	1.0		ND	NR			20	
Heptachlor	ND	1.0		ND	NR			20	
Heptachlor [2C]	ND	1.0		ND	NR			20	
Heptachlor epoxide	ND	1.0		ND	NR			20	
Heptachlor epoxide [2C]	ND	1.0		ND	NR			20	
Methoxychlor	ND	5.0		ND	NR			20	
Methoxychlor [2C]	ND	5.0		ND	NR			20	
Surrogate: Decachlorobiphenyl	*15.42*		*16.6667*		*92.5*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*16.12*		*16.6667*		*96.7*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*14.14*		*16.6667*		*84.8*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*15.09*		*16.6667*		*90.6*	*26 - 108*			
Matrix Spike (B7A0366-MS1)		**Source: 1700028-42**		Prepared: 1/12/2017 Analyzed: 1/12/2017					
4,4´-DDD	16.1842	2.0	16.6667	ND	97.1	25 - 141			
4,4´-DDD [2C]	16.7747	2.0	16.6667	ND	101	25 - 141			
4,4´-DDE	15.2817	2.0	16.6667	ND	91.7	22 - 141			
4,4´-DDE [2C]	15.5863	2.0	16.6667	ND	93.5	22 - 141			
4,4´-DDT	19.3058	2.0	16.6667	ND	116	15 - 136			
4,4´-DDT [2C]	19.0840	2.0	16.6667	ND	115	15 - 136			
Aldrin	14.7100	1.0	16.6667	ND	88.3	33 - 118			
Aldrin [2C]	15.1330	1.0	16.6667	ND	90.8	33 - 118			
alpha-BHC	14.5182	1.0	16.6667	ND	87.1	30 - 116			
alpha-BHC [2C]	15.8610	1.0	16.6667	ND	95.2	30 - 116			
alpha-Chlordane	15.3343	1.0	16.6667	ND	92.0	30 - 123			
alpha-Chlordane [2C]	15.4790	1.0	16.6667	ND	92.9	30 - 123			
beta-BHC	14.7747	1.0	16.6667	ND	88.6	24 - 121			
beta-BHC [2C]	15.9428	1.0	16.6667	ND	95.7	24 - 121			
delta-BHC	11.9687	1.0	16.6667	ND	71.8	7 - 120			
delta-BHC [2C]	13.0717	1.0	16.6667	ND	78.4	7 - 120			
Dieldrin	16.2632	2.0	16.6667	ND	97.6	25 - 136			
Dieldrin [2C]	16.1210	2.0	16.6667	ND	96.7	25 - 136			
Endosulfan I	15.2575	1.0	16.6667	ND	91.5	18 - 134			
Endosulfan I [2C]	15.2460	1.0	16.6667	ND	91.5	18 - 134			
Endosulfan II	15.4760	2.0	16.6667	ND	92.9	28 - 128			
Endosulfan II [2C]	15.7248	2.0	16.6667	ND	94.3	28 - 128			

Leighton Consulting, Inc.
17781 Cowan Street
Irvine , CA 92614

Project Number : Burroughs MS, 603378.006
Report To : Julie Harriman
Reported : 01/13/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0366 - GCSEMI_PCB/PEST_S (continued)									
Matrix Spike (B7A0366-MS1) - Continued		**Source: 1700028-42**		Prepared: 1/12/2017 Analyzed: 1/12/2017					
Endosulfan sulfate	15.0910	2.0	16.6667	ND	90.5	5 - 145			
Endosulfan Sulfate [2C]	15.7915	2.0	16.6667	ND	94.7	5 - 145			
Endrin	17.5468	2.0	16.6667	ND	105	26 - 142			
Endrin [2C]	17.5863	2.0	16.6667	ND	106	26 - 142			
Endrin aldehyde	15.1498	2.0	16.6667	ND	90.9	8 - 146			
Endrin aldehyde [2C]	14.9230	2.0	16.6667	ND	89.5	8 - 146			
Endrin ketone	16.7020	2.0	16.6667	ND	100	16 - 139			
Endrin ketone [2C]	17.2740	2.0	16.6667	ND	104	16 - 139			
gamma-BHC	15.4267	1.0	16.6667	ND	92.6	30 - 122			
gamma-BHC [2C]	16.1010	1.0	16.6667	ND	96.6	30 - 122			
gamma-Chlordane	15.2812	1.0	16.6667	ND	91.7	18 - 132			
gamma-Chlordane [2C]	15.3120	1.0	16.6667	ND	91.9	18 - 132			
Heptachlor	15.8460	1.0	16.6667	ND	95.1	34 - 122			
Heptachlor [2C]	15.9902	1.0	16.6667	ND	95.9	34 - 122			
Heptachlor epoxide	15.0218	1.0	16.6667	ND	90.1	21 - 135			
Heptachlor epoxide [2C]	15.2297	1.0	16.6667	ND	91.4	21 - 135			
Methoxychlor	19.0038	5.0	16.6667	ND	114	8 - 162			
Methoxychlor [2C]	19.3122	5.0	16.6667	ND	116	8 - 162			
Surrogate: Decachlorobiphenyl	*14.23*		*16.6667*		*85.4*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*15.89*		*16.6667*		*95.3*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*13.04*		*16.6667*		*78.3*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*14.82*		*16.6667*		*88.9*	*26 - 108*			
Matrix Spike Dup (B7A0366-MSD1)		**Source: 1700028-42**		Prepared: 1/12/2017 Analyzed: 1/12/2017					
4,4´-DDD	16.1858	2.0	16.6667	ND	97.1	25 - 141	0.0103	20	
4,4´-DDD [2C]	16.8472	2.0	16.6667	ND	101	25 - 141	0.431	20	
4,4´-DDE	15.2505	2.0	16.6667	ND	91.5	22 - 141	0.204	20	
4,4´-DDE [2C]	15.6012	2.0	16.6667	ND	93.6	22 - 141	0.0952	20	
4,4´-DDT	19.1617	2.0	16.6667	ND	115	15 - 136	0.750	20	
4,4´-DDT [2C]	19.1937	2.0	16.6667	ND	115	15 - 136	0.573	20	
Aldrin	14.8130	1.0	16.6667	ND	88.9	33 - 118	0.698	20	
Aldrin [2C]	15.2198	1.0	16.6667	ND	91.3	33 - 118	0.572	20	
alpha-BHC	15.2613	1.0	16.6667	ND	91.6	30 - 116	4.99	20	
alpha-BHC [2C]	15.2485	1.0	16.6667	ND	91.5	30 - 116	3.94	20	
alpha-Chlordane	15.3428	1.0	16.6667	ND	92.1	30 - 123	0.0554	20	
alpha-Chlordane [2C]	15.5133	1.0	16.6667	ND	93.1	30 - 123	0.222	20	
beta-BHC	15.6235	1.0	16.6667	ND	93.7	24 - 121	5.58	20	
beta-BHC [2C]	15.2992	1.0	16.6667	ND	91.8	24 - 121	4.12	20	
delta-BHC	12.0825	1.0	16.6667	ND	72.5	7 - 120	0.947	20	
delta-BHC [2C]	12.7913	1.0	16.6667	ND	76.7	7 - 120	2.17	20	
Dieldrin	16.2593	2.0	16.6667	ND	97.6	25 - 136	0.0236	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0366 - GCSEMI_PCB/PEST_S (continued)									
Matrix Spike Dup (B7A0366-MSD1) - Continued		**Source: 1700028-42**		Prepared: 1/12/2017 Analyzed: 1/12/2017					
Dieldrin [2C]	16.1438	2.0	16.6667	ND	96.9	25 - 136	0.142	20	
Endosulfan I	15.2748	1.0	16.6667	ND	91.6	18 - 134	0.114	20	
Endosulfan I [2C]	15.2457	1.0	16.6667	ND	91.5	18 - 134	0.00216	20	
Endosulfan II	15.4035	2.0	16.6667	ND	92.4	28 - 128	0.470	20	
Endosulfan II [2C]	15.7370	2.0	16.6667	ND	94.4	28 - 128	0.0774	20	
Endosulfan sulfate	14.7190	2.0	16.6667	ND	88.3	5 - 145	2.50	20	
Endosulfan Sulfate [2C]	15.5047	2.0	16.6667	ND	93.0	5 - 145	1.83	20	
Endrin	17.5042	2.0	16.6667	ND	105	26 - 142	0.243	20	
Endrin [2C]	17.6857	2.0	16.6667	ND	106	26 - 142	0.563	20	
Endrin aldehyde	14.8992	2.0	16.6667	ND	89.4	8 - 146	1.67	20	
Endrin aldehyde [2C]	14.6655	2.0	16.6667	ND	88.0	8 - 146	1.74	20	
Endrin ketone	16.4100	2.0	16.6667	ND	98.5	16 - 139	1.76	20	
Endrin ketone [2C]	16.7965	2.0	16.6667	ND	101	16 - 139	2.80	20	
gamma-BHC	15.9435	1.0	16.6667	ND	95.7	30 - 122	3.30	20	
gamma-BHC [2C]	15.8785	1.0	16.6667	ND	95.3	30 - 122	1.39	20	
gamma-Chlordane	15.3368	1.0	16.6667	ND	92.0	18 - 132	0.364	20	
gamma-Chlordane [2C]	15.3368	1.0	16.6667	ND	92.0	18 - 132	0.162	20	
Heptachlor	15.9830	1.0	16.6667	ND	95.9	34 - 122	0.861	20	
Heptachlor [2C]	15.9687	1.0	16.6667	ND	95.8	34 - 122	0.135	20	
Heptachlor epoxide	15.0487	1.0	16.6667	ND	90.3	21 - 135	0.179	20	
Heptachlor epoxide [2C]	15.2718	1.0	16.6667	ND	91.6	21 - 135	0.276	20	
Methoxychlor	18.6925	5.0	16.6667	ND	112	8 - 162	1.65	20	
Methoxychlor [2C]	18.9503	5.0	16.6667	ND	114	8 - 162	1.89	20	
Surrogate: Decachlorobiphenyl	*14.57*		*16.6667*		*87.4*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2C]	*16.10*		*16.6667*		*96.6*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*12.94*		*16.6667*		*77.6*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [2C]	*14.88*		*16.6667*		*89.3*	*26 - 108*			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Polychlorinated Biphenyls by EPA 8082 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0272 - GCSEMI_PCB/PEST_S									
Blank (B7A0272-BLK1)				Prepared: 1/10/2017 Analyzed: 1/10/2017					
Aroclor 1016	ND	16			NR				
Aroclor 1221	ND	16			NR				
Aroclor 1232	ND	16			NR				
Aroclor 1242	ND	16			NR				
Aroclor 1248	ND	16			NR				
Aroclor 1254	ND	16			NR				
Aroclor 1260	ND	16			NR				
Aroclor 1262	ND	16			NR				
Aroclor 1268	ND	16			NR				
Surrogate: Decachlorobiphenyl	*18.74*		*16.6667*		*112*	*26 - 137*			
Surrogate: Tetrachloro-m-xylene	*20.01*		*16.6667*		*120*	*28 - 102*			S1
LCS (B7A0272-BS1)				Prepared: 1/10/2017 Analyzed: 1/10/2017					
Aroclor 1016	163.502	16	166.667		98.1	70 - 107			
Aroclor 1260	185.546	16	166.667		111	69 - 120			
Surrogate: Decachlorobiphenyl	*16.18*		*16.6667*		*97.1*	*26 - 137*			
Surrogate: Tetrachloro-m-xylene	*17.40*		*16.6667*		*104*	*28 - 102*			S12
Duplicate (B7A0272-DUP1)		**Source: 1700028-25**		Prepared: 1/10/2017 Analyzed: 1/10/2017					
Aroclor 1016	ND	16		ND	NR			20	
Aroclor 1260	ND	16		ND	NR			20	
Surrogate: Decachlorobiphenyl	*17.78*		*16.6667*		*107*	*26 - 137*			
Surrogate: Tetrachloro-m-xylene	*17.64*		*16.6667*		*106*	*28 - 102*			S1
Matrix Spike (B7A0272-MS1)		**Source: 1700028-14**		Prepared: 1/10/2017 Analyzed: 1/10/2017					
Aroclor 1016	178.009	16	166.667	ND	107	34 - 120			
Aroclor 1260	201.664	16	166.667	ND	121	39 - 128			
Surrogate: Decachlorobiphenyl	*18.65*		*16.6667*		*112*	*26 - 137*			
Surrogate: Tetrachloro-m-xylene	*18.61*		*16.6667*		*112*	*28 - 102*			S12
Matrix Spike Dup (B7A0272-MSD1)		**Source: 1700028-14**		Prepared: 1/10/2017 Analyzed: 1/10/2017					
Aroclor 1016	172.199	16	166.667	ND	103	34 - 120	3.32	20	
Aroclor 1260	195.735	16	166.667	ND	117	39 - 128	2.98	20	
Surrogate: Decachlorobiphenyl	*18.13*		*16.6667*		*109*	*26 - 137*			
Surrogate: Tetrachloro-m-xylene	*17.99*		*16.6667*		*108*	*28 - 102*			S12

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Polychlorinated Biphenyls by EPA 8082 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7A0339 - GCSEMI_PCB/PEST_S									
Blank (B7A0339-BLK2)				Prepared: 1/11/2017 Analyzed: 1/11/2017					
Aroclor 1016	ND	16			NR				
Aroclor 1221	ND	16			NR				
Aroclor 1232	ND	16			NR				
Aroclor 1242	ND	16			NR				
Aroclor 1248	ND	16			NR				
Aroclor 1254	ND	16			NR				
Aroclor 1260	ND	16			NR				
Aroclor 1262	ND	16			NR				
Aroclor 1268	ND	16			NR				
Surrogate: Decachlorobiphenyl	*19.61*		*16.6667*		*118*	*26 - 137*			
Surrogate: Tetrachloro-m-xylene	*19.16*		*16.6667*		*115*	*28 - 102*			S1
LCS (B7A0339-BS2)				Prepared: 1/11/2017 Analyzed: 1/11/2017					
Aroclor 1016	153.593	16	166.667		92.2	70 - 107			
Aroclor 1260	169.272	16	166.667		102	69 - 120			
Surrogate: Decachlorobiphenyl	*16.97*		*16.6667*		*102*	*26 - 137*			
Surrogate: Tetrachloro-m-xylene	*17.13*		*16.6667*		*103*	*28 - 102*			S12
Duplicate (B7A0339-DUP2)		**Source: 1700028-51**		Prepared: 1/11/2017 Analyzed: 1/11/2017					
Aroclor 1016	ND	16		ND	NR			20	
Aroclor 1260	ND	16		ND	NR			20	
Surrogate: Decachlorobiphenyl	*16.04*		*16.6667*		*96.2*	*26 - 137*			
Surrogate: Tetrachloro-m-xylene	*14.56*		*16.6667*		*87.4*	*28 - 102*			
Matrix Spike (B7A0339-MS2)		**Source: 1700028-51**		Prepared: 1/11/2017 Analyzed: 1/11/2017					
Aroclor 1016	151.237	16	166.667	ND	90.7	34 - 120			
Aroclor 1260	175.912	16	166.667	ND	106	39 - 128			
Surrogate: Decachlorobiphenyl	*16.43*		*16.6667*		*98.6*	*26 - 137*			
Surrogate: Tetrachloro-m-xylene	*15.24*		*16.6667*		*91.4*	*28 - 102*			
Matrix Spike Dup (B7A0339-MSD2)		**Source: 1700028-51**		Prepared: 1/11/2017 Analyzed: 1/11/2017					
Aroclor 1016	145.155	16	166.667	ND	87.1	34 - 120	4.10	20	
Aroclor 1260	167.751	16	166.667	ND	101	39 - 128	4.75	20	
Surrogate: Decachlorobiphenyl	*15.94*		*16.6667*		*95.6*	*26 - 137*			
Surrogate: Tetrachloro-m-xylene	*14.73*		*16.6667*		*88.4*	*28 - 102*			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 01/13/2017

Notes and Definitions

S12	Surrogate recovery outside in-house established limit but within method default criteria.
S1	Surrogate recovery was above laboratory acceptance limit. No target analyte was detected in the sample.
R	RPD value outside acceptance criteria. Calculation is based on raw values.
M1	Matrix spike recovery outside of acceptance limit. The analytical batch was validated by the laboratory control sample.
L3	Laboratory control sample outside in-house established limits but within method criteria.
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:
(1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
(2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
(3) Results are wet unless otherwise specified.

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 1 of 6

Instruction: Complete all shaded areas.

For Laboratory Use Only				ATLCOC Ver: 20130715
Method of Transport	**Sample Conditions Upon Receipt**			
	Condition	Y	N	Condition	Y	N
☐ Client ☑ ATL	1. CHILLED	☑	☐	5. # OF SAMPLES MATCH COC	☑	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☑
☐ GSO	3. CONTAINER INTACT	☑	☐	7. COOLER TEMP, deg C:	5.4, 5.5	
☐ Other: _____	4. SEALED	☐	☑			

CUSTOMER

Company: Leighton Consulting, Inc. (LCI)	Address: 17781 Cowan		Tel: 949-250-1421
	City: Irvine	State: CA Zip: 92614	Fax: 949-250-1114

SEND REPORT TO:	SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Julie Hamman Email: jhamman@leightongroup.com	Attn: Accounts Payable Email: acctpayable@leightongroup.com
Company: LCI	Company: Leighton
Address: 17781 Cowan	Address: 17781 Cowan
City: Irvine State: CA Zip: 92614	City: Irvine State: CA Zip: 92614

PROJECT SAMPLES

Project Name: Burroughs MS	Quote No: —	Special Instructions/Comments: Standard TAT
Project No.: 603378.006	PO #: —	
Sampler: LC. Sconiers		

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	6010/7000 Arsenic	6010/7000 Lead	Encircle Sample Matrix: SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE / FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	Container: #	Container: Type	Container: Material	Preservative	REMARKS
1	1700028 - 1	FB2-2-0.5	1-3-17	1000					X				X	X	X					5	1	5	1	—	
2	- 2	FB2-2-1.5		1001																					
3	- 3	~~FB2-2-2~~ (OBS 1-3-17) FB2-2-2.5		1002																					
4	- 4	FB2-4-0.5		1004																					
5	- 5	FB2-4-1.5		1005																					
6	- 6	FB2-4-2.5		1006																					
7	- 7	FB2-3-0.5		1010																					
8	- 8	FB2-3-1.5		1011																					
9	- 9	FB2-3-2.5		1012																					
10	- 10	FB2-1-0.5		1013																					

SUBMITTAL

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and Solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for five (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Sconiers — Submitter Print Name

Signature

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Wallace Sconiers	1-3-17	1835		1-3-17	1835
	1-3-17	1735		1/3/17	1935

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 2 of 6

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☐ ATL	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☐
☐ GSO	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other:	4. SEALED	☐	☐			

CUSTOMER

Company:	Address:			Tel:
	City:	State:	Zip:	Fax:

SEND REPORT TO:	SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Email:	Attn: Email:
Company:	Company:
Address: See Page #1	Address:
City: State: Zip:	City: State: Zip:

PROJECT SAMPLES

Project Name:	Quote No:	Special Instructions/Comments:
Project No.:	PO #:	
Sampler:		

Encircle or Write Requested Analysis: 8260 / 624 (Volatiles); 8015(GRO); 8015(DRO); 8270(Semi-volatiles); 8081(Organochlorine Pesticides); 8082(PCBs); 6010 / 7000(Title 22 Metals); TO-15; Lead/Toxic/CCC Arsenic; Lead/Toxic/Toxic Lead

Encircle Sample Matrix: SOIL / SEDIMENT / SLUDGE; SOLIDS / WIPE/ FILTER; WATER - DRINKING / GROUND; WATER - STORM / WASTE; AQUEOUS / LAYERED - OIL

Container: TAT; # ; Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7 = Canister; Material: 1=Glass; 2=Plastic; 3=Metal; Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4 = 4C; 5=Zn ((Ac)2; 6=NaOH; 7=NA2S2O3

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

ITEM	Lab No.	Sample ID / Location	Date	Time	8260	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	Lead/Toxic/CCC Arsenic	Lead/Toxic/Toxic Lead	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE/ FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	#	Type	Material	Preservative	REMARKS
1	1700028 -11	FB2-1-1.5'	1-3-17	1014					X				X	X	X					5	1	5	1	1	
2	-12	FB2-1-2.5		1015					X				X	X											
3	-13	FB1-7-0.5		1330					X				X	X											
4	-14	FB1-7-0.5-D		1330					X	X			X	X											
5	-15	FB1-5-0.5		1336					X				X	X											
6	-16	FB1-5-0.5-D		1336					X				X	X											
7	-17	FB1-5-1.5		1337					X				X	X											
8	-18	FB1-5-1.5-D		1337					X				X	X											
9	-19	FB1-5-2.5		1338					X				X	X											
10	-20	FB1-6-1.5		1340					X				X	X											

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for five (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reformat ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Scorvies — Submitter Print Name

Signature

CUSTODY

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
T. Wallace Scorvies	1-3-17	1835	Jonathan Hood	1-3-17	1835
Jonathan Hood	1-3-17	1935	Fedex	1/3/17	1935
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 3 of 6

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☐ ATL	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☐
☐ GSO	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other: _____	4. SEALED	☐	☐			

CUSTOMER

Company: | Address: | Tel:

City: | State: | Zip: | Fax:

SEND REPORT TO:

Attn: | Email:

Company:

Address:

City: | State: | Zip:

SEND INVOICE TO: ☐ same as SEND REPORT TO

Attn: | Email:

Company:

Address:

City: | State: | Zip:

PROJECT SAMPLES

Project Name: | Quote No: | Special Instructions/Comments:

Project No.: | PO #:

Sampler:

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	Title 22 Arsenic	Title 22 Lead	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE / FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	#	Type	Material	Preservative	REMARKS
1	1700028-21	FB1-6-0.5-D	1-3-17	1340									X	X	X					5	1	5	1	-	HOLD
2	-22	FB1-6-1.5		1341					X				X	X											
3	-23	FB1-6-1.5-D		1341					X				X	X											
4	-24	FB1-6-2.5		1342					X				X	X											
5	-25	FB1-3-0.5		1350					X	X			X	X											
6	-26	FB1-3-0.5-D		1350					X				X	X											
7	-27	FB1-3-1.5		1351					X				X	X											
8	-28	FB1-3-1.5-D		1351					X				X	X											
9	-29	FB1-3-2.5		1352					X				X	X											
10	-30	FB1-4-0.5	↓	1400					X				X	X	↓					↓	↓	↓	↓	↓	

Encircle or Write Requested Analysis

Encircle Sample Matrix

Container: # | Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7 = Canister | Material: 1=Glass; 2=Plastic; 3=Metal

Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4 = 4C; 5=Zn (Ac)2; 6=NaOH; 7=NA2S2O3

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

SUBMITTAL

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for fi ve (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-fi ve (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Stevens — Submitter Print Name | Signature

Relinquished by: (Signature and Printed Name) Wallace Stevens	Date: 1-3-17	Time: 1835	Received by: (Signature and Printed Name) Joanna Lee	Date: 1-3-17	Time: 1835
Relinquished by: (Signature and Printed Name) Joanna Lee	Date: 1-3-17	Time: 1935	Received by: (Signature and Printed Name) FEDEX	Date: 1/3/17	Time: 1935
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 1 of 6

Instruction: Complete all shaded areas.

For Laboratory Use Only				ATLCOC Ver: 20130715			
Method of Transport		Sample Conditions Upon Receipt					
		Condition	Y	N	Condition	Y	N
☐ Client ☐ ATL		1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac		2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☐
☐ GSO		3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other:		4. SEALED	☐	☐			

CUSTOMER

Company:	Address:		Tel:
	City:	State:	Zip: Fax:

SEND REPORT TO:	SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Email:	Attn: Email:
Company:	Company:
Address:	Address:
City: State: Zip:	City: State: Zip:

PROJECT SAMPLES

Project Name:	Quote No:	Special Instructions/Comments:
Project No.:	PO #:	
Sampler:		

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	Lead/Total Arsenic	Lead/Total Lead	Encircle Sample Matrix: SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE/ FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	Container: #	Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7 = Canister	Material: 1=Glass; 2=Plastic; 3=Metal	Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4 = 4C; 5=Zn ((Ac)2; 6=NaOH; 7=NA2S2O3	REMARKS
1	1700028 - 31	FB1-4-0.5-D	1-3-17	1400					X				X	X	X					5	1	5	—	—	
2	-32	FB1-4-0.5-1.5		1401					X				X	X											
3	-33	FB1-4-1.5-D		1401					X				X	X											
4	-34	FB1-4-2.5		1402					X				X	X											
5	-35	FB1-1-0.5		1404					X	X			X	X											
6	-36	FB1-1-0.5-D		1404					X				X	X											
7	-37	FB1-1-1.5		1406					X				X	X											
8	-38	FB1-1-1.5-D		1406					X				X	X											
9	-39	FB1-1-2.5		1407					X				X	X											
10	-40	FB1-2-0.5	↓	1409					X				X	X	↓					↓	↓	↓	↓	↓	

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for fi ve (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-fi ve (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Scovich — Submitter Print Name

Signature

CUSTODY

Relinquished by: (Signature and Printed Name) Wallace Scovich	Date: 1-3-17	Time: 1835	Received by: (Signature and Printed Name)	Date: 1-3-17	Time: 1835
Relinquished by: (Signature and Printed Name)	Date: 1-3-17	Time: 1935	Received by: (Signature and Printed Name)	Date: 1/3/17	Time: 1935
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☐ ATL	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☐
☐ GSO	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other: _____	4. SEALED	☐	☐			

CUSTOMER

Company:	Address:			Tel:
	City:	State:	Zip:	Fax:

SEND REPORT TO:	SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Email:	Attn: Email:
Company:	Company:
Address:	Address:
City: State: Zip:	City: State: Zip:

PROJECT SAMPLES

Project Name:	Quote No:	Special Instructions/Comments:
Project No.:	PO #:	
Sampler:		

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	Lab/Tech Arsenic	Lab/Tech Lead	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE/ FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	Container #	Container Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7 = Canister	Container Material: 1=Glass; 2=Plastic; 3=Metal	Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4 = 4C; 5=Zn (Ac)2; 6=NaOH; 7=NA2S2O3	REMARKS
1	1700028-41	FB1-2-0.5-D	1-3-17	1409					X				X	X	X					5	1	5	1	-	
2	-42	FB1-2-1.5		1410					X				X	X											
3	-43	FB1-2-1.5-D		1410					X				X	X											
4	-44	FB1-2-2.5		1411					X				X	X											
5	-45	FB15-1-0.5		1500					X	X			X	X											
6	-46	FB15-1-1.5		1501					X				X	X											
7	-47	FB15-1-2.5		1502					X				X	X											
8	-48	FB15-2-0.5		1503					X				X	X											
9	-49	FB15-2-1.5		1504					X				X	X											
10	-50	FB15-2-2.5	↓	1505					X				X	X	↓					↓	↓	↓	↓	↓	

SUBMITTAL

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for fi ve (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-fi ve (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Seaniels — Submitter Print Name

Signature

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Wallace Seaniels	1-3-17	1835	Jonathan Lee	1-3-17	1835
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
	1-3-17	1935	Fedex	1/3/17	1935
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 6 of 6

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☐ ATL	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☐
☐ GSO	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other: _____	4. SEALED	☐	☐			

CUSTOMER

Company: | Address: | Tel:

City: | State: | Zip: | Fax:

SEND REPORT TO:

Attn: | Email:

Company:

Address: See Page #1

City: | State: | Zip:

SEND INVOICE TO: ☐ same as SEND REPORT TO

Attn: | Email:

Company:

Address:

City: | State: | Zip:

PROJECT SAMPLES

Project Name: | Quote No: | Special Instructions/Comments:

Project No.: | PO #:

Sampler:

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	Cd/Tcc/Arsenic	Cd/Tcc/Lead	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE / FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	Container #	Container Type	Container Material	Preservative	REMARKS
1	170022 - 01	FB15-3-0.5	1-3-17	1506					X	X			X	X	X					5	1	5	1	1	
2	- 02	FB15-3-1.5		1507																					
3	- 03	FB15-3-2.5		1508																					
4	- 04	FB15-4-0.5		1509																					
5	- 05	FB15-4-1.5		1510																					
6	- 06	FB15-4-2.5		1511																					
7																									
8																									
9																									
10																									

Encircle or Write Requested Analysis

Encircle Sample Matrix

Container

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4 = 4C; 5=Zn (Ac)2; 6=NaOH; 7=NA2S2O3

Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7 = Canister

Material: 1=Glass; 2=Plastic; 3=Metal

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for fi ve (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-fi ve (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Seamens — Submitter Print Name

Signature

SIGNATURES

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Wallace Seamens WBS 1-3-17	1-3-17	1835	Jonathan Lee	1-3-17	1835
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
	1-3-17	1955	FedEx	1/3/17	1935
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:

APRIL 2017 LABORATORY REPORTS

April 18, 2017

Julie Harriman
Leighton Consulting, Inc.
17781 Cowan Street
Irvine, CA 92614
Tel: (949) 250-1421
Fax:(949) 757-7230

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1701509
Client Reference : Burroughs MS-LAUSD, 603378.006

Enclosed are the results for sample(s) received on April 10, 2017 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/18/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FB9-4-N5-0.5	1701509-01	Soil	4/10/17 7:30	4/10/17 15:25
FB9-4-N5-1.5	1701509-02	Soil	4/10/17 7:32	4/10/17 15:25
FB9-4-N5-2.5	1701509-03	Soil	4/10/17 7:37	4/10/17 15:25
FB9-4-W5-0.5	1701509-04	Soil	4/10/17 7:39	4/10/17 15:25
FB9-4-W5-1.5	1701509-05	Soil	4/10/17 7:42	4/10/17 15:25
FB9-4-W5-2.5	1701509-06	Soil	4/10/17 7:52	4/10/17 15:25
FB9-4-W10-0.5	1701509-07	Soil	4/10/17 7:57	4/10/17 15:25
FB9-4-W10-1.5	1701509-08	Soil	4/10/17 8:00	4/10/17 15:25
FB9-4-W10-2.5	1701509-09	Soil	4/10/17 8:03	4/10/17 15:25
EB-2017-04-10	1701509-10	Water	4/10/17 15:00	4/10/17 15:25
FB9-1-N5-0.5	1701509-11	Soil	4/10/17 8:10	4/10/17 15:25
FB9-1-N5-1.5	1701509-12	Soil	4/10/17 8:12	4/10/17 15:25
FB9-1-N5-2.5	1701509-13	Soil	4/10/17 8:14	4/10/17 15:25
FB9-1-W5-0.5	1701509-14	Soil	4/10/17 8:20	4/10/17 15:25
FB9-1-W5-1.5	1701509-15	Soil	4/10/17 8:22	4/10/17 15:25
FB9-1-W5-2.5	1701509-16	Soil	4/10/17 8:24	4/10/17 15:25
FB9-1-W10-0.5	1701509-17	Soil	4/10/17 8:27	4/10/17 15:25
FB9-1-W10-0.5-D	1701509-18	Soil	4/10/17 8:27	4/10/17 15:25
FB9-1-W10-1.5	1701509-19	Soil	4/10/17 8:29	4/10/17 15:25
FB9-1-W10-2.5	1701509-20	Soil	4/10/17 8:31	4/10/17 15:25
FB9-1-S5-0.5	1701509-21	Soil	4/10/17 8:37	4/10/17 15:25
FB9-1-S5-1.5	1701509-22	Soil	4/10/17 8:39	4/10/17 15:25
FB9-1-S5-2.5	1701509-23	Soil	4/10/17 8:43	4/10/17 15:25
FB9-1-S10-0.5	1701509-24	Soil	4/10/17 8:49	4/10/17 15:25
FB9-1-S10-1.5	1701509-25	Soil	4/10/17 8:52	4/10/17 15:25
FB9-1-S10-1.5-D	1701509-26	Soil	4/10/17 8:52	4/10/17 15:25
FB9-1-S10-2.5	1701509-27	Soil	4/10/17 8:55	4/10/17 15:25
EB9-6-N10-0.5	1701509-28	Soil	4/10/17 9:10	4/10/17 15:25
EB9-6-N10-1.5	1701509-29	Soil	4/10/17 9:12	4/10/17 15:25
EB9-6-N10-2.5	1701509-30	Soil	4/10/17 9:20	4/10/17 15:25
EB9-6-N5-0.5	1701509-31	Soil	4/10/17 9:12	4/10/17 15:25
EB9-6-N5-1.5	1701509-32	Soil	4/10/17 9:15	4/10/17 15:25
EB9-6-N5-2.5	1701509-33	Soil	4/10/17 9:17	4/10/17 15:25
EB9-6-E10-0.5	1701509-34	Soil	4/10/17 9:20	4/10/17 15:25
EB9-6-E10-0.5-D	1701509-35	Soil	4/10/17 9:20	4/10/17 15:25
EB9-6-E10-1.5	1701509-36	Soil	4/10/17 9:22	4/10/17 15:25
EB9-6-E10-2.5	1701509-37	Soil	4/10/17 9:25	4/10/17 15:25

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/18/2017

EB9-6-E5-0.5	1701509-38	Soil	4/10/17 9:22	4/10/17 15:25
EB9-6-E5-1.5	1701509-39	Soil	4/10/17 9:25	4/10/17 15:25
EB9-6-E5-1.5-D	1701509-40	Soil	4/10/17 9:25	4/10/17 15:25
EB9-6-E5-2.5	1701509-41	Soil	4/10/17 9:26	4/10/17 15:25
EB9-6-S5-0.5	1701509-42	Soil	4/10/17 9:30	4/10/17 15:25
EB9-6-S5-1.5	1701509-43	Soil	4/10/17 9:35	4/10/17 15:25
EB9-6-S5-2.5	1701509-44	Soil	4/10/17 9:37	4/10/17 15:25
EB9-6-S10-0.5	1701509-45	Soil	4/10/17 9:40	4/10/17 15:25
EB9-6-S10-1.5	1701509-46	Soil	4/10/17 9:42	4/10/17 15:25
EB9-6-S10-2.5	1701509-47	Soil	4/10/17 9:45	4/10/17 15:25

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/18/2017

Client Sample ID FB9-4-N5-0.5

Lab ID: 1701509-01

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**4.9**	1.0	0.11	1	B7D0388	04/14/2017	04/14/17 15:22	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/18/2017

Client Sample ID FB9-4-N5-1.5

Lab ID: 1701509-02

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**11**	1.0	0.11	1	B7D0388	04/14/2017	04/14/17 15:29	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/18/2017

Client Sample ID FB9-4-N5-2.5

Lab ID: 1701509-03

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**33**	1.0	0.11	1	B7D0388	04/14/2017	04/14/17 15:30	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/18/2017

Client Sample ID FB9-4-W5-0.5

Lab ID: 1701509-04

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**34**	1.0	0.11	1	B7D0388	04/14/2017	04/14/17 15:31	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/18/2017

Client Sample ID FB9-4-W5-1.5

Lab ID: 1701509-05

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**9.6**	1.0	0.11	1	B7D0388	04/14/2017	04/14/17 15:32	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/18/2017

Client Sample ID FB9-4-W5-2.5

Lab ID: 1701509-06

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**200**	1.0	0.11	1	B7D0388	04/14/2017	04/14/17 15:33	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/18/2017

Client Sample ID FB9-4-W10-0.5

Lab ID: 1701509-07

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**12**	1.0	0.11	1	B7D0388	04/14/2017	04/14/17 15:35	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/18/2017

Client Sample ID FB9-4-W10-1.5

Lab ID: 1701509-08

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**2.6**	1.0	0.11	1	B7D0388	04/14/2017	04/14/17 15:36	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/18/2017

Client Sample ID FB9-4-W10-2.5

Lab ID: 1701509-09

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**17**	1.0	0.11	1	B7D0388	04/14/2017	04/14/17 15:37	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/18/2017

Client Sample ID EB-2017-04-10

Lab ID: 1701509-10

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	0.010	0.0067	1	B7D0418	04/14/2017	04/14/17 15:03	
Lead	ND	0.0050	0.0028	1	B7D0418	04/14/2017	04/14/17 15:03	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/18/2017

Client Sample ID FB9-1-N5-0.5

Lab ID: 1701509-11

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**52**	1.0	0.11	1	B7D0388	04/14/2017	04/14/17 15:38	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/18/2017

Client Sample ID FB9-1-N5-1.5

Lab ID: 1701509-12

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**63**	1.0	0.11	1	B7D0388	04/14/2017	04/14/17 15:39	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/18/2017

Client Sample ID FB9-1-N5-2.5

Lab ID: 1701509-13

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**2.2**	1.0	0.11	1	B7D0388	04/14/2017	04/14/17 15:43	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/18/2017

Client Sample ID FB9-1-W5-0.5

Lab ID: 1701509-14

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**9.0**	1.0	0.11	1	B7D0388	04/14/2017	04/14/17 15:44	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/18/2017

Client Sample ID FB9-1-W5-1.5

Lab ID: 1701509-15

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**4.9**	1.0	0.11	1	B7D0388	04/14/2017	04/14/17 15:45	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/18/2017

Client Sample ID FB9-1-W5-2.5

Lab ID: 1701509-16

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**2.2**	1.0	0.11	1	B7D0388	04/14/2017	04/14/17 15:46	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/18/2017

Client Sample ID FB9-1-W10-0.5

Lab ID: 1701509-17

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**27**	1.0	0.11	1	B7D0388	04/14/2017	04/14/17 15:47	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/18/2017

Client Sample ID FB9-1-W10-0.5-D

Lab ID: 1701509-18

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**20**	1.0	0.11	1	B7D0388	04/14/2017	04/14/17 15:48	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/18/2017

Client Sample ID FB9-1-W10-1.5

Lab ID: 1701509-19

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**26**	1.0	0.11	1	B7D0388	04/14/2017	04/14/17 15:49	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/18/2017

Client Sample ID FB9-1-W10-2.5

Lab ID: 1701509-20

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**2.7**	1.0	0.11	1	B7D0388	04/14/2017	04/14/17 15:51	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/18/2017

Client Sample ID FB9-1-S5-0.5

Lab ID: 1701509-21

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**67**	1.0	0.11	1	B7D0389	04/14/2017	04/14/17 15:57	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/18/2017

Client Sample ID FB9-1-S5-1.5

Lab ID: 1701509-22

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**340**	1.0	0.11	1	B7D0389	04/14/2017	04/14/17 16:01	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/18/2017

Client Sample ID FB9-1-S5-2.5

Lab ID: 1701509-23

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**140**	1.0	0.11	1	B7D0389	04/14/2017	04/14/17 16:02	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/18/2017

Client Sample ID FB9-1-S10-0.5

Lab ID: 1701509-24

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**47**	1.0	0.11	1	B7D0389	04/14/2017	04/14/17 16:03	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/18/2017

Client Sample ID FB9-1-S10-1.5

Lab ID: 1701509-25

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**55**	1.0	0.11	1	B7D0389	04/14/2017	04/14/17 16:04	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/18/2017

Client Sample ID FB9-1-S10-1.5-D

Lab ID: 1701509-26

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**58**	1.0	0.11	1	B7D0389	04/14/2017	04/14/17 16:05	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/18/2017

Client Sample ID FB9-1-S10-2.5

Lab ID: 1701509-27

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**43**	1.0	0.11	1	B7D0389	04/14/2017	04/14/17 16:06	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/18/2017

Client Sample ID EB9-6-N10-0.5

Lab ID: 1701509-28

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.3**	1.0	0.70	1	B7D0389	04/14/2017	04/14/17 16:10	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/18/2017

Client Sample ID EB9-6-N10-1.5

Lab ID: 1701509-29

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.7**	1.0	0.70	1	B7D0389	04/14/2017	04/14/17 16:11	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/18/2017

Client Sample ID EB9-6-N10-2.5

Lab ID: 1701509-30

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**3.7**	1.0	0.70	1	B7D0389	04/14/2017	04/14/17 16:12	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/18/2017

Client Sample ID EB9-6-N5-0.5

Lab ID: 1701509-31

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**78**	1.0	0.70	1	B7D0389	04/14/2017	04/14/17 16:13	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/18/2017

Client Sample ID EB9-6-N5-1.5

Lab ID: 1701509-32

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**29**	1.0	0.70	1	B7D0389	04/14/2017	04/14/17 16:15	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/18/2017

Client Sample ID EB9-6-N5-2.5

Lab ID: 1701509-33

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**39**	1.0	0.70	1	B7D0389	04/14/2017	04/14/17 16:16	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/18/2017

Client Sample ID EB9-6-E10-0.5

Lab ID: 1701509-34

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**3.0**	1.0	0.70	1	B7D0389	04/14/2017	04/14/17 16:17	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/18/2017

Client Sample ID EB9-6-E10-0.5-D

Lab ID: 1701509-35

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.8**	1.0	0.70	1	B7D0389	04/14/2017	04/14/17 16:18	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/18/2017

Client Sample ID EB9-6-E10-1.5

Lab ID: 1701509-36

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**0.98**	1.0	0.70	1	B7D0389	04/14/2017	04/14/17 16:19	J

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/18/2017

Client Sample ID EB9-6-E10-2.5

Lab ID: 1701509-37

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.0**	1.0	0.70	1	B7D0389	04/14/2017	04/14/17 16:20	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/18/2017

Client Sample ID EB9-6-E5-0.5

Lab ID: 1701509-38

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**8.6**	1.0	0.70	1	B7D0389	04/14/2017	04/14/17 16:24	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/18/2017

Client Sample ID EB9-6-E5-1.5

Lab ID: 1701509-39

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**13**	1.0	0.70	1	B7D0389	04/14/2017	04/14/17 16:25	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/18/2017

Client Sample ID EB9-6-E5-1.5-D

Lab ID: 1701509-40

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**8.5**	1.0	0.70	1	B7D0390	04/14/2017	04/14/17 16:29	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/18/2017

Client Sample ID EB9-6-E5-2.5

Lab ID: 1701509-41

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.5**	1.0	0.70	1	B7D0390	04/14/2017	04/14/17 16:33	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/18/2017

Client Sample ID EB9-6-S5-0.5

Lab ID: 1701509-42

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.5**	1.0	0.70	1	B7D0390	04/14/2017	04/14/17 16:34	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/18/2017

Client Sample ID EB9-6-S5-1.5

Lab ID: 1701509-43

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.8**	1.0	0.70	1	B7D0390	04/14/2017	04/14/17 16:37	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/18/2017

Client Sample ID EB9-6-S5-2.5

Lab ID: 1701509-44

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.5**	1.0	0.70	1	B7D0390	04/14/2017	04/14/17 16:38	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/18/2017

Client Sample ID EB9-6-S10-0.5

Lab ID: 1701509-45

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.0**	1.0	0.70	1	B7D0390	04/14/2017	04/14/17 16:40	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/18/2017

Client Sample ID EB9-6-S10-1.5

Lab ID: 1701509-46

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.8**	1.0	0.70	1	B7D0390	04/14/2017	04/14/17 16:41	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/18/2017

Client Sample ID EB9-6-S10-2.5

Lab ID: 1701509-47

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**1.8**	1.0	0.70	1	B7D0390	04/14/2017	04/14/17 16:42	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/18/2017

QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7D0388 - EPA 3050B_S										
Blank (B7D0388-BLK1)					Prepared: 4/14/2017 Analyzed: 4/14/2017					
Arsenic	ND	1.0	0.70							
Lead	ND	1.0	0.11							
LCS (B7D0388-BS1)					Prepared: 4/14/2017 Analyzed: 4/14/2017					
Arsenic	44.6583	1.0	0.70	50.0000		89.3	80 - 120			
Lead	45.1174	1.0	0.11	50.0000		90.2	80 - 120			
Duplicate (B7D0388-DUP1)			**Source: 1701509-01**		Prepared: 4/14/2017 Analyzed: 4/14/2017					
Arsenic	1.32016	1.0	0.70		1.40067			5.92	20	
Lead	3.75171	1.0	0.11		4.87239			26.0	20	R
Matrix Spike (B7D0388-MS1)			**Source: 1701509-01**		Prepared: 4/14/2017 Analyzed: 4/14/2017					
Arsenic	91.0580	1.0	0.70	125.000	1.40067	71.7	59 - 103			
Lead	94.6476	1.0	0.11	125.000	4.87239	71.8	34 - 129			
Matrix Spike Dup (B7D0388-MSD1)			**Source: 1701509-01**		Prepared: 4/14/2017 Analyzed: 4/14/2017					
Arsenic	89.4588	1.0	0.70	125.000	1.40067	70.4	59 - 103	1.77	20	
Lead	104.857	1.0	0.11	125.000	4.87239	80.0	34 - 129	10.2	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/18/2017

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7D0389 - EPA 3050B_S										
Blank (B7D0389-BLK1)					Prepared: 4/14/2017 Analyzed: 4/14/2017					
Arsenic	ND	1.0	0.70							
Lead	ND	1.0	0.11							
LCS (B7D0389-BS1)					Prepared: 4/14/2017 Analyzed: 4/14/2017					
Arsenic	45.1810	1.0	0.70	50.0000		90.4	80 - 120			
Lead	45.9882	1.0	0.11	50.0000		92.0	80 - 120			
Duplicate (B7D0389-DUP1)			**Source: 1701509-21**		Prepared: 4/14/2017 Analyzed: 4/14/2017					
Arsenic	2.82644	1.0	0.70		2.63039			7.19	20	
Lead	63.6344	1.0	0.11		67.0130			5.17	20	
Matrix Spike (B7D0389-MS1)			**Source: 1701509-21**		Prepared: 4/14/2017 Analyzed: 4/14/2017					
Arsenic	96.1092	1.0	0.70	125.000	2.63039	74.8	59 - 103			
Lead	155.254	1.0	0.11	125.000	67.0130	70.6	34 - 129			
Matrix Spike Dup (B7D0389-MSD1)			**Source: 1701509-21**		Prepared: 4/14/2017 Analyzed: 4/14/2017					
Arsenic	97.2620	1.0	0.70	125.000	2.63039	75.7	59 - 103	1.19	20	
Lead	197.894	1.0	0.11	125.000	67.0130	105	34 - 129	24.1	20	R

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/18/2017

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7D0390 - EPA 3050B_S										
Blank (B7D0390-BLK1)					Prepared: 4/14/2017 Analyzed: 4/14/2017					
Arsenic	ND	1.0	0.70							
Lead	ND	1.0	0.11							
LCS (B7D0390-BS1)					Prepared: 4/14/2017 Analyzed: 4/14/2017					
Arsenic	44.0331	1.0	0.70	50.0000		88.1	80 - 120			
Lead	44.8843	1.0	0.11	50.0000		89.8	80 - 120			
Duplicate (B7D0390-DUP1)			**Source: 1701509-40**		Prepared: 4/14/2017 Analyzed: 4/14/2017					
Arsenic	7.79903	1.0	0.70		8.46315			8.17	20	
Lead	57.9878	1.0	0.11		58.5847			1.02	20	
Matrix Spike (B7D0390-MS1)			**Source: 1701509-40**		Prepared: 4/14/2017 Analyzed: 4/14/2017					
Arsenic	98.3634	1.0	0.70	125.000	8.46315	71.9	59 - 103			
Lead	153.792	1.0	0.11	125.000	58.5847	76.2	34 - 129			
Matrix Spike Dup (B7D0390-MSD1)			**Source: 1701509-40**		Prepared: 4/14/2017 Analyzed: 4/14/2017					
Arsenic	93.7955	1.0	0.70	125.000	8.46315	68.3	59 - 103	4.75	20	
Lead	121.410	1.0	0.11	125.000	58.5847	50.3	34 - 129	23.5	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/18/2017

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7D0418 - EPA 3010A_W										
Blank (B7D0418-BLK1)					Prepared: 4/14/2017 Analyzed: 4/14/2017					
Arsenic	ND	0.010	0.0067							
Lead	ND	0.0050	0.0028							
LCS (B7D0418-BS1)					Prepared: 4/14/2017 Analyzed: 4/14/2017					
Arsenic	0.961476	0.010	0.0067	1.00000		96.1	80 - 120			
Lead	0.968250	0.0050	0.0028	1.00000		96.8	80 - 120			
Duplicate (B7D0418-DUP1)			**Source: 1701542-52**		Prepared: 4/14/2017 Analyzed: 4/14/2017					
Arsenic	ND	0.010	0.0067		ND			NR	20	
Lead	ND	0.0050	0.0028		ND			NR	20	
Matrix Spike (B7D0418-MS1)			**Source: 1701542-52**		Prepared: 4/14/2017 Analyzed: 4/14/2017					
Arsenic	2.23020	0.010	0.0067	2.50000	ND	89.2	74 - 123			
Lead	2.28637	0.0050	0.0028	2.50000	ND	91.5	78 - 109			
Matrix Spike Dup (B7D0418-MSD1)			**Source: 1701542-52**		Prepared: 4/14/2017 Analyzed: 4/14/2017					
Arsenic	2.25391	0.010	0.0067	2.50000	ND	90.2	74 - 123	1.06	20	
Lead	2.32601	0.0050	0.0028	2.50000	ND	93.0	78 - 109	1.72	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/18/2017

Notes and Definitions

R	RPD value outside acceptance criteria. Calculation is based on raw values.
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:
(1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
(2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
(3) Results are wet unless otherwise specified.

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 1 of 5

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport		Sample Conditions Upon Receipt					
		Condition	Y	N	Condition	Y	N
☐ Client	☑ ATL	1. CHILLED	☑	☐	5. # OF SAMPLES MATCH COC	☑	☐
☐ FedEx	☐ OnTrac	2. HEADSPACE (V0A)	☐	☐	6. PRESERVED	☐	☐
☐ GSO		3. CONTAINER INTACT	☑	☐	7. COOLER TEMP, deg C:		
☐ Other:		4. SEALED	☐	☑			

CUSTOMER

Company: Leighton Consulting, Inc (LCI)
Address: 17781 Cowan
City: Irvine State: CA Zip: 92614
Tel: 949-250-1421 Fax: 949-250-1114

SEND REPORT TO:
Attn: Julie Harriman Email: jharriman@leightongroup.com
Company: LCI
Address: 17781 Cowan
City: Irvine State: CA Zip: 92614

SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Accounts Payable Email: acctpayable@leightongroup.com
Company: Leighton
Address: 17781 Cowan
City: Irvine State: CA Zip: 92614

PROJECT SAMPLES

Project Name: Burroughs MS-LAUSD
Project No.: 603378-006
Sampler: W. Sconiers
Quote No: —
PO #: —
Special Instructions/Comments: —

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	6010B Lead	6010B Arsenic	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE / FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	Container #	Container Type	Container Material	Preservative	REMARKS
1	1701509-1	FB9-4-NS-0.5	4-10-17	0730									X		X					5	1	5	1	—	
2	-2	FB9-4-NS-1.5		0732									X												
3	-3	FB9-4-NS-2.5		0737									X												
4	-4	FB9-4-WS-0.5		0739									X												
5	-5	FB9-4-WS-1.5		0742									X												
6	-6	FB9-4-WS-2.5		0752									X												
7	-7	FB9-4-W10-0.5		0757									X												
8	-8	FB9-4-W10-1.5		0800									X												
9	-9	FB9-4-W10-2.5		0803									X												
10	-10	EB-2017-04-10	4-10-17	1500									X	X			X			5	1	4	2	2	

Encircle or Write Requested Analysis | Encircle Sample Matrix | Container

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Redlar; 7= Canister
Material: 1=Glass; 2=Plastic; 3=Metal
Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4 = 4C; 5=Zn (IAc)2; 6=NaOH; 7=NA2S2O3

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for fi ve (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-fi ve (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Sconiers — Submitter Print Name

Signature

CUSTODY

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Wallace Sconiers	4-10-17	1525	Erick Franca	04/10/17	15:25
Erick Franca	4/10/17	16:39		4/10/17	1639

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☐ ATL	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☐
☐ GSO	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other: _____	4. SEALED	☐	☐			

CUSTOMER

Company:	Address:		Tel:
	City:	State:	Zip: Fax:

SEND REPORT TO:	SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Email:	Attn: Email:
Company: See Page #1	Company: See Page #1
Address:	Address:
City: State: Zip:	City: State: Zip:

PROJECT SAMPLES

Project Name:	Quote No:	Special Instructions/Comments:
Project No.:	PO #:	
Sampler:		

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	6010B Lead	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE / FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	Container #	Container Type	Container Material	Preservative	QA/QC / REMARKS
1	1701509 -1	FB9-1-NS-0.5	4-10-17	0810									X	X					5	1	5	1	i	
2	-12	FB9-1-NS-1.5		0812																				
3	-13	FB9-1-NS-2.5		0814																				
4	-14	FB9-1-WS-0.5		0820																				
5	-15	FB9-1-WS-1.5		0822																				
6	-16	FB9-1-WS-2.5		0824																				
7	-17	FB9-1-W10-0.5		0827																				
8	-18	FB9-1-W10-0.5-D		0827																				
9	-19	FB9-1-W10-1.5		0829																				
10	-20	FB9-1-W10-2.5		0831																				

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab — ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for five (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reformatted report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Stevens — Submitter Print Name

Signature

CUSTODY

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Wallace Stevens	4-10-17	15:25		04/10/17	15:26
Erick Francia	4/10/17	16:39		4/10/17	16:39

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 3 of 5

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☐ ATL	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (V0A)	☐	☐	6. PRESERVED	☐	☐
☐ GSO	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other: _____	4. SEALED	☐	☐			

CUSTOMER

Company:	Address:		Tel:
	City:	State:	Zip: Fax:

SEND REPORT TO:	SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Email:	Attn: Email:
Company: See Page #1	Company: See Page #1
Address:	Address:
City: State: Zip:	City: State: Zip:

PROJECT SAMPLES

Project Name:
Project No.:
Sampler:
Quote No:
PO #:
Special Instructions/Comments:

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	6010B Lead	6010B Arsenic	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE / FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	Container #	Container Type	Container Material	Preservative	REMARKS
1	1701509-21	FB9-1-SS-0.5	4-10-17	0837									X		X					5	1	5	1	-	
2	-22	FB9-1-SS-1.5		0839																					
3	-23	FB9-1-SS-2.5		0843																					
4	-24	FB9-1-S10-0.5		0849																					
5	-25	FB9-1-S10-1.5		0852																					
6	-26	FB9-1-S10-1.5-D		0852																					
7	-27	FB9-1-S10-2.5		0855																					
8	-28	FB9-6-N10-0.5		0910										X											
9	-29	FB9-6-N10-1.5		0912																					
10	-30	FB9-6-N10-2.5		0920																					

Encircle or Write Requested Analysis

Encircle Sample Matrix

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

Container — Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7=Canister — Material: 1=Glass; 2=Plastic; 3=Metal

Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4=4C; 5=Zn ((Ac)2; 6=NaOH; 7=NA2S2O3

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for fi ve (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-fi ve (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Sconiers
Submitter Print Name

Signature

CUSTODY

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Wallace Sconiers	4-10-17	1525	Erick Franco	04/10/18	15:26
Erick Franco	4/10/17	16:39	FEDEX	4/10/17	1639
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 4 of 5

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☐ ATL	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☐
☐ GSO	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other: _____	4. SEALED	☐	☐			

CUSTOMER

Company: | Address: | Tel:
City: | State: | Zip: | Fax:

SEND REPORT TO:
Attn: | Email:
Company:
Address: See Page #1
City: | State: | Zip:

SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: | Email:
Company:
Address: See Page #1
City: | State: | Zip:

PROJECT SAMPLES

Project Name: | Quote No: | Special Instructions/Comments:
Project No.: | PO #:
Sampler:

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	6010B Lead	6010B Arsenic	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE / FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	Container #	Container Type	Container Material	Preservative	REMARKS
1	1701509 -31	EB9-6-N5-0.5	4-10-17	0912										X	X					5	1	5	1	-	
2	-32	EB9-6-N5-1.5		0915										X											
3	-33	EB9-6-N5-2.5		0917										X											
4	-34	EB9-6-E10-0.5		0920										X											
5	-35	EB9-6-E10-0.5-D		0920										X											
6	-36	EB9-6-E10-1.5		0922										X											
7	-37	EB9-6-E10-2.5		0925										X											
8	-38	EB9-6-E5-0.5		0922										X											
9	-39	EB9-6-E5-1.5		0925										X											
10	-40	EB9-6-E5-1.5-D		0925										X											

Encircle or Write Requested Analysis | Encircle Sample Matrix | Container

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

Container Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7=Canister
Container Material: 1=Glass; 2=Plastic; 3=Metal
Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4=4C; 5=Zn ((Ac)2; 6=NaOH; 7=NA2S2O3

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab — ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for fi ve (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-fi ve (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Somers — Submitter Print Name | Signature

CUSTODY

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Wallace Somers	4-10-17	1525	Erick Franca	04/10/17	15:26
Erick Franca	4/10/17	16:40	Fedex	4/10/17	1640
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 5 of 5

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☐ ATL	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☐
☐ GSO	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other: _____	4. SEALED	☐	☐			

CUSTOMER

Company:	Address:		Tel:
	City:	State:	Zip: Fax:

SEND REPORT TO:	SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Email:	Attn: Email:
Company: See Page #1	Company: See Page #1
Address:	Address:
City: State: Zip:	City: State: Zip:

PROJECT SAMPLES

Project Name:	Quote No:	Special Instructions/Comments:
Project No.:	PO #:	
Sampler:		

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	6010B Lead (LUFT Arsenic)	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE / FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	Container #	Container Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7=Canister	Container Material: 1=Glass; 2=Plastic; 3=Metal	Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4=4C; 5=Zn (Ac)2; 6=NaOH; 7=NA2S2O3	REMARKS
1	1701509-41	EB9-6-ES-2.5	4-10-17	0926									X	X					5	1	5	1	-	
2	-42	EB9-6-SS-0.5		0930									X											
3	-43	EB9-6-SS-1.5		0935									X											
4	-44	EB9-6-SS-2.5		0937									X											
5	-45	EB9-6-S10-0.5		0940									X											
6	-46	EB9-6-S10-1.5		0942									X											
7	-47	EB9-6-S10-2.5		0945									X											
8																								
9																								
10																								

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for fi ve (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-fi ve (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Sconiers — Submitter Print Name

Signature

CUSTODY

Relinquished by: (Signature and Printed Name) Wallace Sconiers	Date: 4-10-17	Time: 1525	Received by: (Signature and Printed Name) Erick Franco	Date: 04/10/17	Time: 15:26
Relinquished by: (Signature and Printed Name) Erick Franco	Date: 4/10/17	Time: 16:40	Received by: (Signature and Printed Name)	Date: 4/10/17	Time: 1640
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:

ADVANCED TECHNOLOGY LABORATORIES

April 26, 2017

Julie Harriman
Leighton Consulting, Inc.
17781 Cowan Street
Irvine, CA 92614
Tel: (949) 250-1421
Fax:(949) 757-7230

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1701509
Client Reference : Burroughs MS-LAUSD, 603378.006

Enclosed are the results for sample(s) received on April 10, 2017 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/26/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FB9-4-W5-2.5	1701509-06	Soil	4/10/17 7:52	4/10/17 15:25
FB9-1-N5-0.5	1701509-11	Soil	4/10/17 8:10	4/10/17 15:25
FB9-1-N5-1.5	1701509-12	Soil	4/10/17 8:12	4/10/17 15:25
FB9-1-S5-0.5	1701509-21	Soil	4/10/17 8:37	4/10/17 15:25
FB9-1-S5-1.5	1701509-22	Soil	4/10/17 8:39	4/10/17 15:25
FB9-1-S5-2.5	1701509-23	Soil	4/10/17 8:43	4/10/17 15:25
FB9-1-S10-1.5	1701509-25	Soil	4/10/17 8:52	4/10/17 15:25
FB9-1-S10-1.5-D	1701509-26	Soil	4/10/17 8:52	4/10/17 15:25
EB9-6-N5-0.5	1701509-31	Soil	4/10/17 9:12	4/10/17 15:25

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/26/2017

Client Sample ID FB9-4-W5-2.5

Lab ID: 1701509-06

TCLP Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**2.7**	0.25	0.014	5	B7D0616	04/21/2017	04/21/17 14:35	D1

STLC Metals by ICP-AES by EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**4.0**	1.0	0.057	20	B7D0630	04/22/2017	04/24/17 11:31	D1

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/26/2017

Client Sample ID FB9-1-N5-0.5

Lab ID: 1701509-11

TCLP Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**0.069**	0.25	0.014	5	B7D0616	04/21/2017	04/21/17 14:37	D1, J

STLC Metals by ICP-AES by EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**2.5**	1.0	0.057	20	B7D0630	04/22/2017	04/24/17 11:33	D1

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/26/2017

Client Sample ID FB9-1-N5-1.5

Lab ID: 1701509-12

TCLP Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	0.25	0.014	5	B7D0616	04/21/2017	04/21/17 14:38	D1

STLC Metals by ICP-AES by EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**0.24**	1.0	0.057	20	B7D0630	04/22/2017	04/24/17 11:34	D1, J

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/26/2017

Client Sample ID FB9-1-S5-0.5

Lab ID: 1701509-21

TCLP Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**0.18**	0.25	0.014	5	B7D0616	04/21/2017	04/21/17 14:39	D1, J

STLC Metals by ICP-AES by EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**12**	1.0	0.057	20	B7D0630	04/22/2017	04/24/17 11:36	D1

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/26/2017

Client Sample ID FB9-1-S5-1.5

Lab ID: 1701509-22

TCLP Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**0.71**	0.25	0.014	5	B7D0616	04/21/2017	04/21/17 14:40	D1

STLC Metals by ICP-AES by EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**30**	1.0	0.057	20	B7D0630	04/22/2017	04/24/17 11:37	D1

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/26/2017

Client Sample ID FB9-1-S5-2.5

Lab ID: 1701509-23

TCLP Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	0.25	0.014	5	B7D0616	04/21/2017	04/21/17 16:19	D1

STLC Metals by ICP-AES by EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**9.1**	1.0	0.057	20	B7D0630	04/22/2017	04/24/17 11:38	D1

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/26/2017

Client Sample ID FB9-1-S10-1.5

Lab ID: 1701509-25

TCLP Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	0.25	0.014	5	B7D0616	04/21/2017	04/21/17 16:20	D1

STLC Metals by ICP-AES by EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**2.7**	1.0	0.057	20	B7D0630	04/22/2017	04/24/17 11:40	D1

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/26/2017

Client Sample ID FB9-1-S10-1.5-D

Lab ID: 1701509-26

TCLP Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	0.25	0.014	5	B7D0616	04/21/2017	04/21/17 16:22	D1

STLC Metals by ICP-AES by EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**3.6**	1.0	0.057	20	B7D0630	04/22/2017	04/24/17 11:41	D1

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/26/2017

Client Sample ID EB9-6-N5-0.5

Lab ID: 1701509-31

TCLP Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**0.12**	0.25	0.033	5	B7D0616	04/21/2017	04/21/17 16:26	D1, J

STLC Metals by ICP-AES by EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.1**	1.0	0.13	20	B7D0630	04/22/2017	04/24/17 11:43	D1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/26/2017

QUALITY CONTROL SECTION

TCLP Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7D0616 - EPA 3010A_S										
Blank (B7D0616-BLK1)					Prepared: 4/21/2017 Analyzed: 4/21/2017					
Arsenic	ND	0.050	0.0067							
Lead	ND	0.050	0.0028							
Blank (B7D0616-BLK2)					Prepared: 4/21/2017 Analyzed: 4/21/2017					
Arsenic	ND	0.050	0.0067							
Lead	ND	0.050	0.0028							
LCS (B7D0616-BS1)					Prepared: 4/21/2017 Analyzed: 4/21/2017					
Arsenic	1.00688	0.050	0.0067	1.00000		101	80 - 120			
Lead	1.01408	0.050	0.0028	1.00000		101	80 - 120			
Duplicate (B7D0616-DUP1)			**Source: 1701523-13**		Prepared: 4/21/2017 Analyzed: 4/21/2017					
Arsenic	0.045818	0.25	0.033		ND			NR	20	J
Lead	ND	0.25	0.014		ND			NR	20	
Duplicate (B7D0616-DUP2)			**Source: 1701509-26**		Prepared: 4/21/2017 Analyzed: 4/21/2017					
Arsenic	ND	0.25	0.033		ND			NR	20	
Lead	0.021209	0.25	0.014		ND			NR	20	J
Matrix Spike (B7D0616-MS1)			**Source: 1701523-13**		Prepared: 4/21/2017 Analyzed: 4/21/2017					
Arsenic	2.29631	0.25	0.033	2.50000	ND	91.9	74 - 123			
Lead	2.21253	0.25	0.014	2.50000	ND	88.5	78 - 109			
Matrix Spike (B7D0616-MS2)			**Source: 1701509-26**		Prepared: 4/21/2017 Analyzed: 4/21/2017					
Arsenic	2.33957	0.25	0.033	2.50000	ND	93.6	74 - 123			
Lead	2.30072	0.25	0.014	2.50000	ND	92.0	78 - 109			
Matrix Spike Dup (B7D0616-MSD1)			**Source: 1701523-13**		Prepared: 4/21/2017 Analyzed: 4/21/2017					
Arsenic	2.32711	0.25	0.033	2.50000	ND	93.1	74 - 123	1.33	20	
Lead	2.25410	0.25	0.014	2.50000	ND	90.2	78 - 109	1.86	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/26/2017

STLC Metals by ICP-AES by EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7D0630 - STLC_S Extraction										
Blank (B7D0630-BLK1)					Prepared: 4/22/2017 Analyzed: 4/24/2017					
Arsenic	ND	1.0	0.13							
Lead	ND	1.0	0.057							
Blank (B7D0630-BLK2)					Prepared: 4/22/2017 Analyzed: 4/24/2017					
Arsenic	ND	1.0	0.13							
Lead	ND	1.0	0.057							
LCS (B7D0630-BS1)					Prepared: 4/22/2017 Analyzed: 4/24/2017					
Arsenic	1.89804			2.00000		94.9	80 - 120			
Lead	1.83421			2.00000		91.7	80 - 120			
Duplicate (B7D0630-DUP1)			**Source: 1701509-31**		Prepared: 4/22/2017 Analyzed: 4/24/2017					
Arsenic	2.00415	1.0	0.13		2.08395			3.90	20	
Lead	1.02776	1.0	0.057		1.03059			0.275	20	
Duplicate (B7D0630-DUP2)			**Source: 1701649-01**		Prepared: 4/22/2017 Analyzed: 4/24/2017					
Arsenic	0.162251	1.0	0.13		ND			NR	20	J
Lead	2.42897	1.0	0.057		2.47254			1.78	20	
Matrix Spike (B7D0630-MS1)			**Source: 1701509-31**		Prepared: 4/22/2017 Analyzed: 4/24/2017					
Arsenic	4.22886			2.50000	2.08395	85.8	90 - 110			M1
Lead	3.12915			2.50000	1.03059	83.9	44 - 130			
Matrix Spike (B7D0630-MS2)			**Source: 1701649-01**		Prepared: 4/22/2017 Analyzed: 4/24/2017					
Arsenic	2.42197			2.50000	0.128690	91.7	90 - 110			
Lead	4.65936			2.50000	2.47254	87.5	44 - 130			
Matrix Spike Dup (B7D0630-MSD1)			**Source: 1701509-31**		Prepared: 4/22/2017 Analyzed: 4/24/2017					
Arsenic	4.06811			2.50000	2.08395	79.4	90 - 110	3.88	20	M1
Lead	3.03420			2.50000	1.03059	80.1	44 - 130	3.08	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/26/2017

Notes and Definitions

M1	Matrix spike recovery outside of acceptance limit. The analytical batch was validated by the laboratory control sample.
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:
(1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
(2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
(3) Results are wet unless otherwise specified.

Rachelle Arada

From: Julie Harriman [jharriman@leightongroup.com]
Sent: Wednesday, April 19, 2017 3:06 PM
To: Rachelle Arada
Cc: customer.relations@atlglobal.com
Subject: RE: Results - Burroughs MS-LAUSD, 603378.006 (ATL# 1701542)

Hi Rachelle,

For the Burroughs samples:
- for all samples that exceed 50 mg/kg arsenic, we request STLC-arsenic and TCLP-arsenic.
-for all samples that exceed 50 mg/kg lead, we request STLC-lead and TCLP-lead.

Thank you,
Julie

-------- Original message --------
From: Rachelle Arada <Rachelle@atlglobal.com>
Date: 4/19/17 12:36 PM (GMT-08:00)
To: Julie Harriman <jharriman@leightongroup.com>
Cc: customer.relations@atlglobal.com
Subject: Results - Burroughs MS-LAUSD, 603378.006 (ATL# 1701542)

Hi Julie,

Please find your results for the above project attached. If I can further assist, please let me know. Thanks.

Rachelle Arada
Project Manager
Advanced Technology Laboratories
www.atlglobal.com
Tel: (562) 989-4045 ext. 237
Fax: (562) 989-4040

Advanced Technology Laboratories is a full-service environmental lab providing organic and inorganic analyses of soil, water, wastewater, storm water and hazardous waste samples. ATL is accredited by the State of California, NELAP and State of Oregon (Air) and holds various SBE, DBE and MBE certificates and a USDA soil permit. ATL takes pride in providing our customers with quick turnaround time, excellent customer service and defensible data while offering very competitive rates. *Advanced Technology Labs - Your Partner for Quality Environmental Testing*
This message is intended for the use of the individual or entity to which it is addressed. This may contain information that is privileged, confidential, and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient, or the employee or agent responsible for delivering the message to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by telephone and delete the original message. Thank you.

May 15, 2017

Julie Harriman
Leighton Consulting, Inc.
17781 Cowan Street
Irvine, CA 92614
Tel: (949) 250-1421
Fax:(949) 757-7230

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1701523
Client Reference : Burroughs MS-LAUSD, 603378.006

Enclosed are the results for sample(s) received on April 11, 2017 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/15/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
EB11-2-N10-1.5	1701523-02	Soil	4/10/17 10:52	4/11/17 15:27
EB11-2-E5-0.5	1701523-07	Soil	4/10/17 10:52	4/11/17 15:27
EB11-2-S5-0.5	1701523-11	Soil	4/10/17 11:06	4/11/17 15:27
EB11-2-S5-1.5	1701523-12	Soil	4/10/17 11:08	4/11/17 15:27
EB11-2-S5-2.5	1701523-13	Soil	4/10/17 11:10	4/11/17 15:27
EB10-2-W10-1.5	1701523-15	Soil	4/10/17 10:18	4/11/17 15:27
EB10-2-W5-0.5	1701523-18	Soil	4/10/17 10:11	4/11/17 15:27
EB10-2-W5-1.5	1701523-19	Soil	4/10/17 10:15	4/11/17 15:27
EB10-2-S5-1.5	1701523-22	Soil	4/10/17 10:32	4/11/17 15:27
EB10-2-S10-0.5	1701523-24	Soil	4/10/17 10:33	4/11/17 15:27
EB10-2-S10-1.5	1701523-25	Soil	4/10/17 10:35	4/11/17 15:27
EB10-2-S10-2.5	1701523-26	Soil	4/10/17 10:40	4/11/17 15:27
EB11-1-S5-0.5	1701523-27	Soil	4/10/17 11:05	4/11/17 15:27
EB11-1-S5-1.5	1701523-28	Soil	4/10/17 11:07	4/11/17 15:27
EB11-1-S5-2.5	1701523-29	Soil	4/10/17 11:10	4/11/17 15:27
EB11-1-W5-1.5	1701523-31	Soil	4/10/17 11:00	4/11/17 15:27
EB11-1-W10-0.5	1701523-33	Soil	4/10/17 11:10	4/11/17 15:27
EB11-2-S10-0.5	1701523-37	Soil	4/10/17 11:19	4/11/17 15:27
EB11-2-S10-1.5	1701523-38	Soil	4/10/17 11:20	4/11/17 15:27
EB15-1-S5-0.5	1701523-41	Soil	4/10/17 13:56	4/11/17 15:27
EB12-1-S10-1.5	1701523-45	Soil	4/10/17 13:50	4/11/17 15:27
EB12-1-S5-1.5	1701523-48	Soil	4/10/17 13:41	4/11/17 15:27
EB11-1-S10-0.5	1701523-53	Soil	4/10/17 11:15	4/11/17 15:27
EB12-1-N10-0.5	1701523-56	Soil	4/10/17 13:30	4/11/17 15:27

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	05/15/2017

Client Sample ID EB11-2-N10-1.5

Lab ID: 1701523-02

TCLP Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	0.25	0.014	5	B7D0616	04/21/2017	04/21/17 16:35	D1

STLC Metals by ICP-AES by EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**7.8**	1.0	0.057	20	B7D0630	04/22/2017	04/24/17 11:56	D1

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	05/15/2017

Client Sample ID EB11-2-E5-0.5

Lab ID: 1701523-07

TCLP Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	0.25	0.014	5	B7D0616	04/21/2017	04/21/17 16:37	D1

STLC Metals by ICP-AES by EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**5.2**	1.0	0.057	20	B7D0630	04/22/2017	04/24/17 11:57	D1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/15/2017

Client Sample ID EB11-2-S5-0.5

Lab ID: 1701523-11

TCLP Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**0.017**	0.25	0.014	5	B7D0616	04/21/2017	04/21/17 16:38	D1, J

STLC Metals by ICP-AES by EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**2.7**	1.0	0.057	20	B7D0630	04/22/2017	04/24/17 11:59	D1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/15/2017

Client Sample ID EB11-2-S5-1.5

Lab ID: 1701523-12

TCLP Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**0.019**	0.25	0.014	5	B7D0616	04/21/2017	04/21/17 16:39	D1, J

STLC Metals by ICP-AES by EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**4.0**	1.0	0.057	20	B7D0630	04/22/2017	04/24/17 12:00	D1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/15/2017

Client Sample ID EB11-2-S5-2.5

Lab ID: 1701523-13

TCLP Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	0.25	0.014	5	B7D0616	04/21/2017	04/21/17 16:41	D1

STLC Metals by ICP-AES by EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**3.6**	1.0	0.057	20	B7D0630	04/22/2017	04/24/17 11:23	D1

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	05/15/2017

Client Sample ID EB10-2-W10-1.5

Lab ID: 1701523-15

TCLP Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	0.25	0.014	5	B7D0617	04/21/2017	04/21/17 17:21	D1

STLC Metals by ICP-AES by EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**4.5**	1.0	0.057	20	B7D0631	04/22/2017	04/24/17 12:08	D1

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	05/15/2017

Client Sample ID EB10-2-W5-0.5

Lab ID: 1701523-18

TCLP Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**0.044**	0.25	0.014	5	B7D0617	04/21/2017	04/21/17 17:22	D1, J

STLC Metals by ICP-AES by EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**4.2**	1.0	0.057	20	B7D0631	04/22/2017	04/24/17 12:09	D1

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	05/15/2017

Client Sample ID EB10-2-W5-1.5

Lab ID: 1701523-19

TCLP Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	0.25	0.014	5	B7D0617	04/21/2017	04/21/17 17:23	D1

STLC Metals by ICP-AES by EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**1.6**	1.0	0.057	20	B7D0631	04/22/2017	04/24/17 12:10	D1

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	05/15/2017

Client Sample ID EB10-2-S5-1.5

Lab ID: 1701523-22

TCLP Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**0.070**	0.25	0.014	5	B7D0617	04/21/2017	04/21/17 17:25	D1, J

STLC Metals by ICP-AES by EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**9.7**	1.0	0.057	20	B7D0631	04/22/2017	04/24/17 12:12	D1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/15/2017

Client Sample ID EB10-2-S10-0.5

Lab ID: 1701523-24

TCLP Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**0.042**	0.25	0.014	5	B7D0617	04/21/2017	04/21/17 17:26	D1, J

STLC Metals by ICP-AES by EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**2.6**	1.0	0.057	20	B7D0631	04/22/2017	04/24/17 12:13	D1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/15/2017

Client Sample ID EB10-2-S10-1.5

Lab ID: 1701523-25

TCLP Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**0.042**	0.25	0.014	5	B7D0617	04/21/2017	04/21/17 17:28	D1, J

STLC Metals by ICP-AES by EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**2.8**	1.0	0.057	20	B7D0631	04/22/2017	04/24/17 12:14	D1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/15/2017

Client Sample ID EB10-2-S10-2.5

Lab ID: 1701523-26

TCLP Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	0.25	0.014	5	B7D0617	04/21/2017	04/21/17 17:29	D1

STLC Metals by ICP-AES by EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**2.0**	1.0	0.057	20	B7D0631	04/22/2017	04/24/17 12:46	D1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/15/2017

Client Sample ID EB11-1-S5-0.5

Lab ID: 1701523-27

TCLP Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	0.25	0.014	5	B7D0617	04/21/2017	04/21/17 17:30	D1

STLC Metals by ICP-AES by EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**3.5**	1.0	0.057	20	B7D0631	04/22/2017	04/24/17 12:20	D1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/15/2017

Client Sample ID EB11-1-S5-1.5

Lab ID: 1701523-28

TCLP Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	0.25	0.014	5	B7D0617	04/21/2017	04/21/17 17:34	D1

STLC Metals by ICP-AES by EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**4.0**	1.0	0.057	20	B7D0631	04/22/2017	04/24/17 12:21	D1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/15/2017

Client Sample ID EB11-1-S5-2.5

Lab ID: 1701523-29

TCLP Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	0.25	0.014	5	B7D0617	04/21/2017	04/21/17 17:36	D1

STLC Metals by ICP-AES by EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**3.6**	1.0	0.057	20	B7D0631	04/22/2017	04/24/17 12:22	D1

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	05/15/2017

Client Sample ID EB11-1-W5-1.5

Lab ID: 1701523-31

TCLP Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	0.25	0.014	5	B7D0617	04/21/2017	04/21/17 18:00	D1

STLC Metals by ICP-AES by EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**2.5**	1.0	0.057	20	B7D0631	04/22/2017	04/24/17 12:28	D1

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	05/15/2017

Client Sample ID EB11-1-W10-0.5

Lab ID: 1701523-33

TCLP Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	0.25	0.014	5	B7D0617	04/21/2017	04/21/17 18:01	D1

STLC Metals by ICP-AES by EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**3.6**	1.0	0.057	20	B7D0631	04/22/2017	04/24/17 12:29	D1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/15/2017

Client Sample ID EB11-2-S10-0.5

Lab ID: 1701523-37

TCLP Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**0.019**	0.25	0.014	5	B7D0617	04/21/2017	04/21/17 18:03	D1, J

STLC Metals by ICP-AES by EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**3.7**	1.0	0.057	20	B7D0631	04/22/2017	04/24/17 12:30	D1

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	05/15/2017

Client Sample ID EB11-2-S10-1.5

Lab ID: 1701523-38

TCLP Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	0.25	0.014	5	B7D0617	04/21/2017	04/21/17 18:04	D1

STLC Metals by ICP-AES by EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**5.5**	1.0	0.057	20	B7D0631	04/22/2017	04/24/17 12:32	D1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/15/2017

Client Sample ID EB15-1-S5-0.5

Lab ID: 1701523-41

TCLP Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**0.97**	0.25	0.033	5	B7D0617	04/21/2017	04/21/17 18:05	D1

STLC Metals by ICP-AES by EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**4.8**	1.0	0.13	20	B7D0631	04/22/2017	04/24/17 12:35	D1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/15/2017

Client Sample ID EB12-1-S10-1.5

Lab ID: 1701523-45

TCLP Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**0.32**	0.25	0.033	5	B7D0617	04/21/2017	04/21/17 18:07	D1

STLC Metals by ICP-AES by EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.2**	1.0	0.13	20	B7D0631	04/22/2017	04/24/17 12:37	D1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/15/2017

Client Sample ID EB12-1-S5-1.5

Lab ID: 1701523-48

TCLP Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**0.39**	0.25	0.033	5	B7D0617	04/21/2017	04/21/17 18:11	D1

STLC Metals by ICP-AES by EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.4**	1.0	0.13	20	B7D0631	04/22/2017	04/24/17 12:38	D1

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	05/15/2017

Client Sample ID EB11-1-S10-0.5

Lab ID: 1701523-53

TCLP Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**0.043**	0.25	0.014	5	B7D0617	04/21/2017	04/21/17 18:12	D1, J

STLC Metals by ICP-AES by EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**10**	1.0	0.057	20	B7D0631	04/22/2017	04/24/17 12:40	D1

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	05/15/2017

Client Sample ID EB12-1-N10-0.5

Lab ID: 1701523-56

TCLP Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**0.12**	0.25	0.033	5	B7D0617	04/21/2017	04/21/17 18:14	D1, J

STLC Metals by ICP-AES by EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.0**	1.0	0.13	20	B7D0631	04/22/2017	04/24/17 12:41	D1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/15/2017

QUALITY CONTROL SECTION

TCLP Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7D0616 - EPA 3010A_S										
Blank (B7D0616-BLK1)					Prepared: 4/21/2017 Analyzed: 4/21/2017					
Arsenic	ND	0.050	0.0067							
Lead	ND	0.050	0.0028							
Blank (B7D0616-BLK2)					Prepared: 4/21/2017 Analyzed: 4/21/2017					
Arsenic	ND	0.050	0.0067							
Lead	ND	0.050	0.0028							
LCS (B7D0616-BS1)					Prepared: 4/21/2017 Analyzed: 4/21/2017					
Arsenic	1.00688	0.050	0.0067	1.00000		101	80 - 120			
Lead	1.01408	0.050	0.0028	1.00000		101	80 - 120			
Duplicate (B7D0616-DUP1)			**Source: 1701523-13**		Prepared: 4/21/2017 Analyzed: 4/21/2017					
Arsenic	0.045818	0.25	0.033		ND			NR	20	J
Lead	ND	0.25	0.014		ND			NR	20	
Duplicate (B7D0616-DUP2)			**Source: 1701509-26**		Prepared: 4/21/2017 Analyzed: 4/21/2017					
Arsenic	ND	0.25	0.033		ND			NR	20	
Lead	0.021209	0.25	0.014		ND			NR	20	J
Matrix Spike (B7D0616-MS1)			**Source: 1701523-13**		Prepared: 4/21/2017 Analyzed: 4/21/2017					
Arsenic	2.29631	0.25	0.033	2.50000	ND	91.9	74 - 123			
Lead	2.21253	0.25	0.014	2.50000	ND	88.5	78 - 109			
Matrix Spike (B7D0616-MS2)			**Source: 1701509-26**		Prepared: 4/21/2017 Analyzed: 4/21/2017					
Arsenic	2.33957	0.25	0.033	2.50000	ND	93.6	74 - 123			
Lead	2.30072	0.25	0.014	2.50000	ND	92.0	78 - 109			
Matrix Spike Dup (B7D0616-MSD1)			**Source: 1701523-13**		Prepared: 4/21/2017 Analyzed: 4/21/2017					
Arsenic	2.32711	0.25	0.033	2.50000	ND	93.1	74 - 123	1.33	20	
Lead	2.25410	0.25	0.014	2.50000	ND	90.2	78 - 109	1.86	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/15/2017

TCLP Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7D0617 - EPA 3010A_S										
Blank (B7D0617-BLK1)					Prepared: 4/21/2017 Analyzed: 4/21/2017					
Arsenic	ND	0.050	0.0067							
Lead	ND	0.050	0.0028							
Blank (B7D0617-BLK2)					Prepared: 4/21/2017 Analyzed: 4/21/2017					
Arsenic	ND	0.050	0.0067							
Lead	ND	0.050	0.0028							
LCS (B7D0617-BS1)					Prepared: 4/21/2017 Analyzed: 4/21/2017					
Arsenic	0.910191	0.050	0.0067	1.00000		91.0	80 - 120			
Lead	0.925834	0.050	0.0028	1.00000		92.6	80 - 120			
Duplicate (B7D0617-DUP1)			**Source: 1701542-01**		Prepared: 4/21/2017 Analyzed: 4/21/2017					
Arsenic	ND	0.25	0.033		ND			NR	20	
Lead	0.026931	0.25	0.014		0.025576			5.16	20	J
Duplicate (B7D0617-DUP2)			**Source: 1701523-29**		Prepared: 4/21/2017 Analyzed: 4/21/2017					
Arsenic	0.052348	0.25	0.033		ND			NR	20	J
Lead	ND	0.25	0.014		ND			NR	20	
Matrix Spike (B7D0617-MS1)			**Source: 1701542-01**		Prepared: 4/21/2017 Analyzed: 4/21/2017					
Arsenic	2.35283	0.25	0.033	2.50000	ND	94.1	74 - 123			
Lead	2.31296	0.25	0.014	2.50000	0.025576	91.5	78 - 109			
Matrix Spike (B7D0617-MS2)			**Source: 1701523-29**		Prepared: 4/21/2017 Analyzed: 4/21/2017					
Arsenic	2.30487	0.25	0.033	2.50000	ND	92.2	74 - 123			
Lead	2.25855	0.25	0.014	2.50000	ND	90.3	78 - 109			
Matrix Spike Dup (B7D0617-MSD1)			**Source: 1701542-01**		Prepared: 4/21/2017 Analyzed: 4/21/2017					
Arsenic	2.36177	0.25	0.033	2.50000	ND	94.5	74 - 123	0.379	20	
Lead	2.33791	0.25	0.014	2.50000	0.025576	92.5	78 - 109	1.07	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/15/2017

STLC Metals by ICP-AES by EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7D0630 - STLC_S Extraction										
Blank (B7D0630-BLK1)					Prepared: 4/22/2017 Analyzed: 4/24/2017					
Arsenic	ND	1.0	0.13							
Lead	ND	1.0	0.057							
Blank (B7D0630-BLK2)					Prepared: 4/22/2017 Analyzed: 4/24/2017					
Arsenic	ND	1.0	0.13							
Lead	ND	1.0	0.057							
LCS (B7D0630-BS1)					Prepared: 4/22/2017 Analyzed: 4/24/2017					
Arsenic	1.89804			2.00000		94.9	80 - 120			
Lead	1.83421			2.00000		91.7	80 - 120			
Duplicate (B7D0630-DUP1)			**Source: 1701509-31**		Prepared: 4/22/2017 Analyzed: 4/24/2017					
Arsenic	2.00415	1.0	0.13		2.08395			3.90	20	
Lead	1.02776	1.0	0.057		1.03059			0.275	20	
Duplicate (B7D0630-DUP2)			**Source: 1701649-01**		Prepared: 4/22/2017 Analyzed: 4/24/2017					
Arsenic	0.162251	1.0	0.13		ND			NR	20	J
Lead	2.42897	1.0	0.057		2.47254			1.78	20	
Matrix Spike (B7D0630-MS1)			**Source: 1701509-31**		Prepared: 4/22/2017 Analyzed: 4/24/2017					
Arsenic	4.22886			2.50000	2.08395	85.8	90 - 110			M1
Lead	3.12915			2.50000	1.03059	83.9	44 - 130			
Matrix Spike (B7D0630-MS2)			**Source: 1701649-01**		Prepared: 4/22/2017 Analyzed: 4/24/2017					
Arsenic	2.42197			2.50000	0.128690	91.7	90 - 110			
Lead	4.65936			2.50000	2.47254	87.5	44 - 130			
Matrix Spike Dup (B7D0630-MSD1)			**Source: 1701509-31**		Prepared: 4/22/2017 Analyzed: 4/24/2017					
Arsenic	4.06811			2.50000	2.08395	79.4	90 - 110	3.88	20	M1
Lead	3.03420			2.50000	1.03059	80.1	44 - 130	3.08	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/15/2017

STLC Metals by ICP-AES by EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7D0631 - STLC_S Extraction										
Blank (B7D0631-BLK1)					Prepared: 4/22/2017 Analyzed: 4/24/2017					
Arsenic	ND	1.0	0.13							
Lead	ND	1.0	0.057							
Blank (B7D0631-BLK2)					Prepared: 4/22/2017 Analyzed: 4/24/2017					
Arsenic	ND	1.0	0.13							
Lead	ND	1.0	0.057							
LCS (B7D0631-BS1)					Prepared: 4/22/2017 Analyzed: 4/24/2017					
Arsenic	1.94962			2.00000		97.5	80 - 120			
Lead	1.86197			2.00000		93.1	80 - 120			
Duplicate (B7D0631-DUP1)			**Source: 1701523-29**		Prepared: 4/22/2017 Analyzed: 4/24/2017					
Arsenic	0.528295	1.0	0.13		0.454783			15.0	20	J
Lead	3.70726	1.0	0.057		3.61836			2.43	20	
Duplicate (B7D0631-DUP2)			**Source: 1701542-01**		Prepared: 4/22/2017 Analyzed: 4/24/2017					
Arsenic	0.270294	1.0	0.13		0.189854			35.0	20	R, J
Lead	7.85846	1.0	0.057		7.77845			1.02	20	
Matrix Spike (B7D0631-MS1)			**Source: 1701523-29**		Prepared: 4/22/2017 Analyzed: 4/24/2017					
Arsenic	2.76625			2.50000	0.454783	92.5	90 - 110			
Lead	5.56463			2.50000	3.61836	77.9	44 - 130			
Matrix Spike (B7D0631-MS2)			**Source: 1701542-01**		Prepared: 4/22/2017 Analyzed: 4/24/2017					
Arsenic	2.25652			2.50000	0.189854	82.7	90 - 110			M1
Lead	9.39855			2.50000	7.77845	64.8	44 - 130			
Matrix Spike Dup (B7D0631-MSD1)			**Source: 1701523-29**		Prepared: 4/22/2017 Analyzed: 4/24/2017					
Arsenic	2.73057			2.50000	0.454783	91.0	90 - 110	1.30	20	
Lead	5.72461			2.50000	3.61836	84.3	44 - 130	2.83	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/15/2017

Notes and Definitions

R	RPD value outside acceptance criteria. Calculation is based on raw values.
M1	Matrix spike recovery outside of acceptance limit. The analytical batch was validated by the laboratory control sample.
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:
(1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
(2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
(3) Results are wet unless otherwise specified.

Rachelle Arada

From: Julie Harriman [jharriman@leightongroup.com]
Sent: Wednesday, April 19, 2017 3:06 PM
To: Rachelle Arada
Cc: customer.relations@atlglobal.com
Subject: RE: Results - Burroughs MS-LAUSD, 603378.006 (ATL# 1701542)

Hi Rachelle,

For the Burroughs samples:
- for all samples that exceed 50 mg/kg arsenic, we request STLC-arsenic and TCLP-arsenic.
-for all samples that exceed 50 mg/kg lead, we request STLC-lead and TCLP-lead.

Thank you,
Julie

-------- Original message --------
From: Rachelle Arada <Rachelle@atlglobal.com>
Date: 4/19/17 12:36 PM (GMT-08:00)
To: Julie Harriman <jharriman@leightongroup.com>
Cc: customer.relations@atlglobal.com
Subject: Results - Burroughs MS-LAUSD, 603378.006 (ATL# 1701542)

Hi Julie,

Please find your results for the above project attached. If I can further assist, please let me know. Thanks.

Rachelle Arada
Project Manager
Advanced Technology Laboratories
www.atlglobal.com
Tel: (562) 989-4045 ext. 237
Fax: (562) 989-4040

Advanced Technology Laboratories is a full-service environmental lab providing organic and inorganic analyses of soil, water, wastewater, storm water and hazardous waste samples. ATL is accredited by the State of California, NELAP and State of Oregon (Air) and holds various SBE, DBE and MBE certificates and a USDA soil permit. ATL takes pride in providing our customers with quick turnaround time, excellent customer service and defensible data while offering very competitive rates. *Advanced Technology Labs - Your Partner for Quality Environmental Testing*
This message is intended for the use of the individual or entity to which it is addressed. This may contain information that is privileged, confidential, and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient, or the employee or agent responsible for delivering the message to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by telephone and delete the original message. Thank you.

May 15, 2017

Julie Harriman
Leighton Consulting, Inc.
17781 Cowan Street
Irvine, CA 92614
Tel: (949) 250-1421
Fax:(949) 757-7230

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1701523
Client Reference : Burroughs MS-LAUSD, 603378.006

Enclosed are the results for sample(s) received on April 11, 2017 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/15/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
EB11-2-N10-0.5	1701523-01	Soil	4/10/17 10:50	4/11/17 15:27
EB11-2-N10-1.5	1701523-02	Soil	4/10/17 10:52	4/11/17 15:27
EB11-2-N10-2.5	1701523-03	Soil	4/10/17 10:57	4/11/17 15:27
EB11-2-N5-0.5	1701523-04	Soil	4/10/17 10:40	4/11/17 15:27
EB11-2-N5-1.5	1701523-05	Soil	4/10/17 10:43	4/11/17 15:27
EB11-2-N5-2.5	1701523-06	Soil	4/10/17 10:46	4/11/17 15:27
EB11-2-E5-0.5	1701523-07	Soil	4/10/17 10:52	4/11/17 15:27
EB11-2-E5-1.5	1701523-08	Soil	4/10/17 10:55	4/11/17 15:27
EB11-2-E5-2.5	1701523-09	Soil	4/10/17 11:00	4/11/17 15:27
EB11-2-E5-2.5-D	1701523-10	Soil	4/10/17 11:00	4/11/17 15:27
EB11-2-S5-0.5	1701523-11	Soil	4/10/17 11:06	4/11/17 15:27
EB11-2-S5-1.5	1701523-12	Soil	4/10/17 11:08	4/11/17 15:27
EB11-2-S5-2.5	1701523-13	Soil	4/10/17 11:10	4/11/17 15:27
EB10-2-W10-0.5	1701523-14	Soil	4/10/17 10:15	4/11/17 15:27
EB10-2-W10-1.5	1701523-15	Soil	4/10/17 10:18	4/11/17 15:27
EB10-2-W10-2.5	1701523-16	Soil	4/10/17 10:21	4/11/17 15:27
EB10-2-W10-2.5-D	1701523-17	Soil	4/10/17 10:21	4/11/17 15:27
EB10-2-W5-0.5	1701523-18	Soil	4/10/17 10:11	4/11/17 15:27
EB10-2-W5-1.5	1701523-19	Soil	4/10/17 10:15	4/11/17 15:27
EB10-2-W5-2.5	1701523-20	Soil	4/10/17 10:19	4/11/17 15:27
EB10-2-S5-0.5	1701523-21	Soil	4/10/17 10:30	4/11/17 15:27
EB10-2-S5-1.5	1701523-22	Soil	4/10/17 10:32	4/11/17 15:27
EB10-2-S5-2.5	1701523-23	Soil	4/10/17 10:35	4/11/17 15:27
EB10-2-S10-0.5	1701523-24	Soil	4/10/17 10:33	4/11/17 15:27
EB10-2-S10-1.5	1701523-25	Soil	4/10/17 10:35	4/11/17 15:27
EB10-2-S10-2.5	1701523-26	Soil	4/10/17 10:40	4/11/17 15:27
EB11-1-S5-0.5	1701523-27	Soil	4/10/17 11:05	4/11/17 15:27
EB11-1-S5-1.5	1701523-28	Soil	4/10/17 11:07	4/11/17 15:27
EB11-1-S5-2.5	1701523-29	Soil	4/10/17 11:10	4/11/17 15:27
EB11-1-W5-0.5	1701523-30	Soil	4/10/17 10:58	4/11/17 15:27
EB11-1-W5-1.5	1701523-31	Soil	4/10/17 11:00	4/11/17 15:27
EB11-1-W5-2.5	1701523-32	Soil	4/10/17 11:04	4/11/17 15:27
EB11-1-W10-0.5	1701523-33	Soil	4/10/17 11:10	4/11/17 15:27
EB11-1-W10-0.5-D	1701523-34	Soil	4/10/17 11:10	4/11/17 15:27
EB11-1-W10-1.5	1701523-35	Soil	4/10/17 11:15	4/11/17 15:27
EB11-1-W10-2.5	1701523-36	Soil	4/10/17 11:17	4/11/17 15:27
EB11-2-S10-0.5	1701523-37	Soil	4/10/17 11:19	4/11/17 15:27

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	05/15/2017

EB11-2-S10-1.5	1701523-38	Soil	4/10/17 11:20	4/11/17 15:27
EB11-2-S10-2.5	1701523-39	Soil	4/10/17 11:25	4/11/17 15:27
EB11-2-S10-2.5-D	1701523-40	Soil	4/10/17 11:25	4/11/17 15:27
EB15-1-S5-0.5	1701523-41	Soil	4/10/17 13:56	4/11/17 15:27
EB15-1-S5-1.5	1701523-42	Soil	4/10/17 13:58	4/11/17 15:27
EB15-1-S5-2.5	1701523-43	Soil	4/10/17 14:00	4/11/17 15:27
EB12-1-S10-0.5	1701523-44	Soil	4/10/17 13:45	4/11/17 15:27
EB12-1-S10-1.5	1701523-45	Soil	4/10/17 13:50	4/11/17 15:27
EB12-1-S10-2.5	1701523-46	Soil	4/10/17 13:52	4/11/17 15:27
EB12-1-S5-0.5	1701523-47	Soil	4/10/17 13:39	4/11/17 15:27
EB12-1-S5-1.5	1701523-48	Soil	4/10/17 13:41	4/11/17 15:27
EB12-1-S5-2.5	1701523-49	Soil	4/10/17 13:43	4/11/17 15:27
EB12-1-N5-0.5	1701523-50	Soil	4/10/17 13:20	4/11/17 15:27
EB12-1-N5-1.5	1701523-51	Soil	4/10/17 13:22	4/11/17 15:27
EB12-1-N5-2.5	1701523-52	Soil	4/10/17 13:25	4/11/17 15:27
EB11-1-S10-0.5	1701523-53	Soil	4/10/17 11:15	4/11/17 15:27
EB11-1-S10-1.5	1701523-54	Soil	4/10/17 11:19	4/11/17 15:27
EB11-1-S10-2.5	1701523-55	Soil	4/10/17 11:22	4/11/17 15:27
EB12-1-N10-0.5	1701523-56	Soil	4/10/17 13:30	4/11/17 15:27
EB-2017-04-11	1701523-57	Water	4/11/17 14:50	4/11/17 15:27

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	05/15/2017

Client Sample ID EB11-2-N10-0.5

Lab ID: 1701523-01

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**36**	1.0	0.11	1	B7D0415	04/14/2017	04/17/17 11:20	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	05/15/2017

Client Sample ID EB11-2-N10-1.5

Lab ID: 1701523-02

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**75**	1.0	0.11	1	B7D0415	04/14/2017	04/17/17 11:24	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/15/2017

Client Sample ID EB11-2-N10-2.5

Lab ID: 1701523-03

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**27**	1.0	0.11	1	B7D0415	04/14/2017	04/17/17 11:25	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	05/15/2017

Client Sample ID EB11-2-N5-0.5

Lab ID: 1701523-04

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**44**	1.0	0.11	1	B7D0415	04/14/2017	04/17/17 11:27	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	05/15/2017

Client Sample ID EB11-2-N5-1.5

Lab ID: 1701523-05

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**47**	1.0	0.11	1	B7D0415	04/14/2017	04/17/17 11:28	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	05/15/2017

Client Sample ID EB11-2-N5-2.5

Lab ID: 1701523-06

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**5.7**	1.0	0.11	1	B7D0415	04/14/2017	04/17/17 11:31	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	05/15/2017

Client Sample ID EB11-2-E5-0.5

Lab ID: 1701523-07

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**110**	1.0	0.11	1	B7D0415	04/14/2017	04/17/17 11:32	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	05/15/2017

Client Sample ID EB11-2-E5-1.5

Lab ID: 1701523-08

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**44**	1.0	0.11	1	B7D0415	04/14/2017	04/17/17 11:34	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	05/15/2017

Client Sample ID EB11-2-E5-2.5

Lab ID: 1701523-09

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**42**	1.0	0.11	1	B7D0415	04/14/2017	04/17/17 11:35	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	05/15/2017

Client Sample ID EB11-2-E5-2.5-D

Lab ID: 1701523-10

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**25**	1.0	0.11	1	B7D0415	04/14/2017	04/17/17 11:36	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/15/2017

Client Sample ID EB11-2-S5-0.5

Lab ID: 1701523-11

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**56**	1.0	0.11	1	B7D0415	04/14/2017	04/17/17 11:37	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	05/15/2017

Client Sample ID EB11-2-S5-1.5

Lab ID: 1701523-12

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**82**	1.0	0.11	1	B7D0415	04/14/2017	04/17/17 11:38	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/15/2017

Client Sample ID EB11-2-S5-2.5

Lab ID: 1701523-13

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**83**	1.0	0.11	1	B7D0415	04/14/2017	04/17/17 11:39	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	05/15/2017

Client Sample ID EB10-2-W10-0.5

Lab ID: 1701523-14

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**24**	1.0	0.11	1	B7D0415	04/14/2017	04/17/17 11:40	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	05/15/2017

Client Sample ID EB10-2-W10-1.5

Lab ID: 1701523-15

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**92**	1.0	0.11	1	B7D0415	04/14/2017	04/17/17 11:41	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/15/2017

Client Sample ID EB10-2-W10-2.5

Lab ID: 1701523-16

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**3.3**	1.0	0.11	1	B7D0415	04/14/2017	04/17/17 11:45	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	05/15/2017

Client Sample ID EB10-2-W10-2.5-D

Lab ID: 1701523-17

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**5.2**	1.0	0.11	1	B7D0415	04/14/2017	04/17/17 11:46	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	05/15/2017

Client Sample ID EB10-2-W5-0.5

Lab ID: 1701523-18

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**85**	1.0	0.11	1	B7D0415	04/14/2017	04/17/17 11:47	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/15/2017

Client Sample ID EB10-2-W5-1.5

Lab ID: 1701523-19

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**110**	1.0	0.11	1	B7D0415	04/14/2017	04/17/17 11:48	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/15/2017

Client Sample ID EB10-2-W5-2.5

Lab ID: 1701523-20

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**6.5**	1.0	0.11	1	B7D0416	04/14/2017	04/17/17 11:52	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/15/2017

Client Sample ID EB10-2-S5-0.5

Lab ID: 1701523-21

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**38**	1.0	0.11	1	B7D0416	04/14/2017	04/17/17 11:58	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/15/2017

Client Sample ID EB10-2-S5-1.5

Lab ID: 1701523-22

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**100**	1.0	0.11	1	B7D0416	04/14/2017	04/17/17 11:59	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/15/2017

Client Sample ID EB10-2-S5-2.5

Lab ID: 1701523-23

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**8.0**	1.0	0.11	1	B7D0416	04/14/2017	04/17/17 12:00	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/15/2017

Client Sample ID EB10-2-S10-0.5

Lab ID: 1701523-24

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**55**	1.0	0.11	1	B7D0416	04/14/2017	04/17/17 12:01	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	05/15/2017

Client Sample ID EB10-2-S10-1.5

Lab ID: 1701523-25

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**110**	1.0	0.11	1	B7D0416	04/14/2017	04/17/17 12:03	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	05/15/2017

Client Sample ID EB10-2-S10-2.5

Lab ID: 1701523-26

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**61**	1.0	0.11	1	B7D0416	04/14/2017	04/17/17 12:04	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/15/2017

Client Sample ID EB11-1-S5-0.5

Lab ID: 1701523-27

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**70**	1.0	0.11	1	B7D0416	04/14/2017	04/17/17 12:05	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	05/15/2017

Client Sample ID EB11-1-S5-1.5

Lab ID: 1701523-28

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**100**	1.0	0.11	1	B7D0416	04/14/2017	04/17/17 12:06	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/15/2017

Client Sample ID EB11-1-S5-2.5

Lab ID: 1701523-29

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**66**	1.0	0.11	1	B7D0416	04/14/2017	04/17/17 12:07	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	05/15/2017

Client Sample ID EB11-1-W5-0.5

Lab ID: 1701523-30

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**50**	1.0	0.11	1	B7D0416	04/14/2017	04/17/17 12:08	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	05/15/2017

Client Sample ID EB11-1-W5-1.5

Lab ID: 1701523-31

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**110**	1.0	0.11	1	B7D0416	04/14/2017	04/17/17 12:09	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	05/15/2017

Client Sample ID EB11-1-W5-2.5

Lab ID: 1701523-32

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**3.3**	1.0	0.11	1	B7D0416	04/14/2017	04/17/17 12:15	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/15/2017

Client Sample ID EB11-1-W10-0.5

Lab ID: 1701523-33

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**54**	1.0	0.11	1	B7D0416	04/14/2017	04/17/17 12:16	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/15/2017

Client Sample ID EB11-1-W10-0.5-D

Lab ID: 1701523-34

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**26**	1.0	0.11	1	B7D0416	04/14/2017	04/17/17 12:17	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/15/2017

Client Sample ID EB11-1-W10-1.5

Lab ID: 1701523-35

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**18**	1.0	0.11	1	B7D0416	04/14/2017	04/17/17 12:18	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	05/15/2017

Client Sample ID EB11-1-W10-2.5

Lab ID: 1701523-36

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**5.4**	1.0	0.11	1	B7D0416	04/14/2017	04/17/17 12:19	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/15/2017

Client Sample ID EB11-2-S10-0.5

Lab ID: 1701523-37

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**110**	1.0	0.11	1	B7D0416	04/14/2017	04/17/17 12:20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/15/2017

Client Sample ID EB11-2-S10-1.5

Lab ID: 1701523-38

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**72**	1.0	0.11	1	B7D0416	04/14/2017	04/17/17 12:21	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/15/2017

Client Sample ID EB11-2-S10-2.5

Lab ID: 1701523-39

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**4.7**	1.0	0.11	1	B7D0417	04/14/2017	04/17/17 12:27	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	05/15/2017

Client Sample ID EB11-2-S10-2.5-D

Lab ID: 1701523-40

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**4.4**	1.0	0.11	1	B7D0417	04/14/2017	04/17/17 12:32	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/15/2017

Client Sample ID EB15-1-S5-0.5

Lab ID: 1701523-41

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**82**	1.0	0.70	1	B7D0417	04/14/2017	04/17/17 12:33	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/15/2017

Client Sample ID EB15-1-S5-1.5

Lab ID: 1701523-42

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**32**	1.0	0.70	1	B7D0417	04/14/2017	04/17/17 12:34	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	05/15/2017

Client Sample ID EB15-1-S5-2.5

Lab ID: 1701523-43

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**32**	1.0	0.70	1	B7D0417	04/14/2017	04/17/17 12:35	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	05/15/2017

Client Sample ID EB12-1-S10-0.5

Lab ID: 1701523-44

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**45**	1.0	0.70	1	B7D0417	04/14/2017	04/17/17 12:36	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/15/2017

Client Sample ID EB12-1-S10-1.5

Lab ID: 1701523-45

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**53**	1.0	0.70	1	B7D0417	04/14/2017	04/17/17 12:37	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	05/15/2017

Client Sample ID EB12-1-S10-2.5

Lab ID: 1701523-46

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**3.0**	1.0	0.70	1	B7D0417	04/14/2017	04/17/17 12:42	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/15/2017

Client Sample ID EB12-1-S5-0.5

Lab ID: 1701523-47

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**30**	1.0	0.70	1	B7D0417	04/14/2017	04/17/17 12:43	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/15/2017

Client Sample ID EB12-1-S5-1.5

Lab ID: 1701523-48

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**77**	1.0	0.70	1	B7D0417	04/14/2017	04/17/17 12:44	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/15/2017

Client Sample ID EB12-1-S5-2.5

Lab ID: 1701523-49

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**11**	1.0	0.70	1	B7D0417	04/14/2017	04/17/17 12:45	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	05/15/2017

Client Sample ID EB12-1-N5-0.5

Lab ID: 1701523-50

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**48**	1.0	0.70	1	B7D0417	04/14/2017	04/17/17 12:46	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	05/15/2017

Client Sample ID EB12-1-N5-1.5

Lab ID: 1701523-51

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**25**	1.0	0.70	1	B7D0417	04/14/2017	04/17/17 12:48	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/15/2017

Client Sample ID EB12-1-N5-2.5

Lab ID: 1701523-52

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**4.2**	1.0	0.70	1	B7D0417	04/14/2017	04/17/17 12:49	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	05/15/2017

Client Sample ID EB11-1-S10-0.5

Lab ID: 1701523-53

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**110**	1.0	0.11	1	B7D0417	04/14/2017	04/17/17 12:50	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	05/15/2017

Client Sample ID EB11-1-S10-1.5

Lab ID: 1701523-54

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**37**	1.0	0.11	1	B7D0417	04/14/2017	04/17/17 12:51	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/15/2017

Client Sample ID EB11-1-S10-2.5

Lab ID: 1701523-55

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**3.5**	1.0	0.11	1	B7D0417	04/14/2017	04/17/17 12:55	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/15/2017

Client Sample ID EB12-1-N10-0.5

Lab ID: 1701523-56

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**51**	1.0	0.70	1	B7D0417	04/14/2017	04/17/17 12:56	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/15/2017

Client Sample ID EB-2017-04-11

Lab ID: 1701523-57

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	0.010	0.0067	1	B7D0418	04/14/2017	04/14/17 15:07	
Copper	ND	0.0090	0.0023	1	B7D0418	04/14/2017	04/14/17 15:07	
Lead	ND	0.0050	0.0028	1	B7D0418	04/14/2017	04/14/17 15:07	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/15/2017

QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7D0415 - EPA 3050B_S										
Blank (B7D0415-BLK1)					Prepared: 4/14/2017 Analyzed: 4/17/2017					
Arsenic	ND	1.0	0.70							
Lead	ND	1.0	0.11							
LCS (B7D0415-BS1)					Prepared: 4/14/2017 Analyzed: 4/17/2017					
Arsenic	44.0293	1.0	0.70	50.0000		88.1	80 - 120			
Lead	44.9864	1.0	0.11	50.0000		90.0	80 - 120			
Duplicate (B7D0415-DUP1)			**Source: 1701523-01**		Prepared: 4/14/2017 Analyzed: 4/17/2017					
Arsenic	59.1344	1.0	0.70		37.3589			45.1	20	
Lead	55.0500	1.0	0.11		35.6522			42.8	20	R
Matrix Spike (B7D0415-MS1)			**Source: 1701523-01**		Prepared: 4/14/2017 Analyzed: 4/17/2017					
Arsenic	170.387	1.0	0.70	125.000	37.3589	106	59 - 103			
Lead	132.290	1.0	0.11	125.000	35.6522	77.3	34 - 129			
Matrix Spike Dup (B7D0415-MSD1)			**Source: 1701523-01**		Prepared: 4/14/2017 Analyzed: 4/17/2017					
Arsenic	148.342	1.0	0.70	125.000	37.3589	88.8	59 - 103	13.8	20	
Lead	125.781	1.0	0.11	125.000	35.6522	72.1	34 - 129	5.04	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/15/2017

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7D0416 - EPA 3050B_S										
Blank (B7D0416-BLK1)					Prepared: 4/14/2017 Analyzed: 4/17/2017					
Arsenic	ND	1.0	0.70							
Lead	ND	1.0	0.11							
LCS (B7D0416-BS1)					Prepared: 4/14/2017 Analyzed: 4/17/2017					
Arsenic	42.7891	1.0	0.70	50.0000		85.6	80 - 120			
Lead	44.1274	1.0	0.11	50.0000		88.3	80 - 120			
Duplicate (B7D0416-DUP1)			**Source: 1701523-20**		Prepared: 4/14/2017 Analyzed: 4/17/2017					
Arsenic	1.38484	1.0	0.70		0.983391			33.9	20	
Lead	5.18154	1.0	0.11		6.50792			22.7	20	R
Matrix Spike (B7D0416-MS1)			**Source: 1701523-20**		Prepared: 4/14/2017 Analyzed: 4/17/2017					
Arsenic	85.6039	1.0	0.70	125.000	0.983391	67.7	59 - 103			
Lead	90.4412	1.0	0.11	125.000	6.50792	67.1	34 - 129			
Matrix Spike Dup (B7D0416-MSD1)			**Source: 1701523-20**		Prepared: 4/14/2017 Analyzed: 4/17/2017					
Arsenic	87.6174	1.0	0.70	125.000	0.983391	69.3	59 - 103	2.32	20	
Lead	92.7335	1.0	0.11	125.000	6.50792	69.0	34 - 129	2.50	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/15/2017

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7D0417 - EPA 3050B_S										
Blank (B7D0417-BLK1)					Prepared: 4/14/2017 Analyzed: 4/17/2017					
Arsenic	ND	1.0	0.70							
Lead	ND	1.0	0.11							
LCS (B7D0417-BS1)					Prepared: 4/14/2017 Analyzed: 4/17/2017					
Arsenic	44.5612	1.0	0.70	50.0000		89.1	80 - 120			
Lead	45.0892	1.0	0.11	50.0000		90.2	80 - 120			
Duplicate (B7D0417-DUP1)			**Source: 1701523-39**		Prepared: 4/14/2017 Analyzed: 4/17/2017					
Arsenic	1.68792	1.0	0.70		1.57658			6.82	20	
Lead	5.22279	1.0	0.11		4.71426			10.2	20	
Matrix Spike (B7D0417-MS1)			**Source: 1701523-39**		Prepared: 4/14/2017 Analyzed: 4/17/2017					
Arsenic	85.3304	1.0	0.70	125.000	1.57658	67.0	59 - 103			
Lead	91.0567	1.0	0.11	125.000	4.71426	69.1	34 - 129			
Matrix Spike Dup (B7D0417-MSD1)			**Source: 1701523-39**		Prepared: 4/14/2017 Analyzed: 4/17/2017					
Arsenic	83.3541	1.0	0.70	125.000	1.57658	65.4	59 - 103	2.34	20	
Lead	88.2014	1.0	0.11	125.000	4.71426	66.8	34 - 129	3.19	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/15/2017

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7D0418 - EPA 3010A_W										
Blank (B7D0418-BLK1)					Prepared: 4/14/2017 Analyzed: 4/14/2017					
Arsenic	ND	0.010	0.0067							
Copper	ND	0.0090	0.0023							
Lead	ND	0.0050	0.0028							
LCS (B7D0418-BS1)					Prepared: 4/14/2017 Analyzed: 4/14/2017					
Arsenic	0.961476	0.010	0.0067	1.00000		96.1	80 - 120			
Copper	1.02935	0.0090	0.0023	1.00000		103	80 - 120			
Lead	0.968250	0.0050	0.0028	1.00000		96.8	80 - 120			
Duplicate (B7D0418-DUP1)			**Source: 1701542-52**		Prepared: 4/14/2017 Analyzed: 4/14/2017					
Arsenic	ND	0.010	0.0067		ND			NR	20	
Copper	ND	0.0090	0.0023		ND			NR	20	
Lead	ND	0.0050	0.0028		ND			NR	20	
Matrix Spike (B7D0418-MS1)			**Source: 1701542-52**		Prepared: 4/14/2017 Analyzed: 4/14/2017					
Arsenic	2.23020	0.010	0.0067	2.50000	ND	89.2	74 - 123			
Copper	2.49113	0.0090	0.0023	2.50000	ND	99.6	70 - 132			
Lead	2.28637	0.0050	0.0028	2.50000	ND	91.5	78 - 109			
Matrix Spike Dup (B7D0418-MSD1)			**Source: 1701542-52**		Prepared: 4/14/2017 Analyzed: 4/14/2017					
Arsenic	2.25391	0.010	0.0067	2.50000	ND	90.2	74 - 123	1.06	20	
Copper	2.48042	0.0090	0.0023	2.50000	ND	99.2	70 - 132	0.431	20	
Lead	2.32601	0.0050	0.0028	2.50000	ND	93.0	78 - 109	1.72	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/15/2017

Notes and Definitions

R	RPD value outside acceptance criteria. Calculation is based on raw values.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:
(1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
(2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
(3) Results are wet unless otherwise specified.

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 1 of 6

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☑ ATL	1. CHILLED	☑	☐	5. # OF SAMPLES MATCH COC	☑	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☑
☐ GSO	3. CONTAINER INTACT	☑	☐	7. COOLER TEMP, deg C:	5.9	
☐ Other:	4. SEALED	☐	☑			

CUSTOMER

Company: Leighton Consulting, Inc. (LCI)
Address: 17781 Cowan
City: Irvine State: CA Zip: 92614
Tel: 949-250-1421 Fax: 949-250-1114

SEND REPORT TO:
Attn: Julie Hamman Email: jhamman@leightongroup.com
Company: LCI
Address: 17781 Cowan
City: Irvine State: CA Zip: 92614

SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Accounts Payable Email: acctpayable@leightongroup.com
Company: Leighton
Address: 17781 Cowan
City: Irvine State: CA Zip: 92614

PROJECT SAMPLES

Project Name: Burroughs MS - LAUSD
Project No.: 603378-006
Sampler: W. Sconiers
Quote No: —
PO #: —
Special Instructions/Comments: —

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	LeadBlead	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE/ FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	Container #	Container Type	Container Material	Preservative	QA/QC / REMARKS
1	1701523 - 1	EB11-2-N10-0.5	1-10-17	1050									X	X					5	1	S	1	—	
2	- 2	EB11-2-N10-1.5		1052									X											
3	- 3	EB11-2-N10-2.5		1057									X											
4	- 4	EB11-2-N5-0.5		1040									X											
5	- 5	EB11-2-N5-1.5		1043									X											
6	- 6	EB11-2-N5-2.5		1046									X											
7	- 7	EB11-2-E5-0.5		1052									X											
8	- 8	EB11-2-E5-1.5		1055									X											
9	- 9	EB11-2-E5-2.5		1100									X											
10	- 10	EB11-2-E5-2.5-D		1100									X											

Encircle or Write Requested Analysis

Encircle Sample Matrix

Container: # / Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7=Canister / Material: 1=Glass; 2=Plastic; 3=Metal

Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4=4C; 5=Zn (Ac)2; 6=NaOH; 7=NA2S2O3

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for fi ve (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-fi ve (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Sconiers — Submitter Print Name

Signature

CUSTODY

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Wallace Sconiers	4-11-17	1529	Erick Franco	4/11/17	15:27
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
	4/11/17	16:56		4/11/17	1656
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:

ADVANCED TECHNOLOGY LABORATORIES
3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☒ ATL	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☐
☐ GSO	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other:	4. SEALED	☐	☐			

CUSTOMER

Company: | Address: | Tel:
City: | State: | Zip: | Fax:

SEND REPORT TO:
Attn: | Email:
Company:
Address: See Page #1
City: | State: | Zip:

SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: | Email:
Company:
Address: See Page #1
City: | State: | Zip:

PROJECT SAMPLES

Project Name: | Quote No: | Special Instructions/Comments:
Project No.: | PO #:
Sampler:

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	LUFT 5 Lead	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE / FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	Container #	Container Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7=Canister	Container Material: 1=Glass; 2=Plastic; 3=Metal	Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4=4C; 5=Zn ((Ac)2; 6=NaOH; 7=NA2S2O3	REMARKS
1	1701523 -01	EB11-2-SS-0.5	4-10-17	1106									X	X					5	1	5	1	i	
2	-02	EB11-2-SS-1.5		1108									X										
3	-03	EB11-2-SS-2.5		1110									X										
4	-04	EB10-2-W10-0.5		1015									X										
5	-05	EB10-2-W10-1.5		1018									X										
6	-06	EB10-2-W10-2.5		1021									X										
7	-07	EB10-2-W10-2.5-D		1021									X										
8	-08	EB10-2-WS-0.5		1011									X										
9	-09	EB10-2-WS-1.5		1015									X										
10	-20	EB10-2-WS-2.5		1019									X										

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for fi ve (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-fi ve (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Sommers — Submitter Print Name | Signature

CUSTODY

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Wallace Sommers	4-11-17	1527	Erick Franco	4/11/17	15:27
Erick Franco	4/11/17	16:56	MPR	4/11/17	1656

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 3 of 6

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☑ ATL	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☐
☐ GSO	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other: _____	4. SEALED	☐	☐			

CUSTOMER

Company:

Address:

Tel:

City: State: Zip: Fax:

SEND REPORT TO:

Attn: Email:

Company:

Address: See Page #1

City: State: Zip:

SEND INVOICE TO: ☐ same as SEND REPORT TO

Attn: Email:

Company: See Page #1

Address:

City: State: Zip:

PROJECT SAMPLES

Project Name:

Project No.:

Sampler:

Quote No:

PO #:

Special Instructions/Comments:

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	6010B Lead	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE / FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	Container #	Container Type	Container Material	Preservative	REMARKS
1	1701523-21	EB10-2-SS-0.5	4-10-17	1030									X	X					5	1	5	1	-	
2	-22	EB10-2-SS-1.5		1032																				
3	-23	EB10-2-SS-2.5		1035																				
4	-24	EB10-2-S10-0.5		1033																				
5	-25	EB10-2-S10-1.5		1035																				
6	-26	EB10-2-S10-2.5		1040																				
7	-27	EB11-1-SS-0.5		1105																				
8	-28	EB11-1-SS-1.5		1107																				
9	-29	EB11-1-SS-2.5		1110																				
10	-30	EB11-1-WS-0.5		1058																				

Encircle or Write Requested Analysis

Encircle Sample Matrix

Container

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7 = Canister

Material: 1=Glass; 2=Plastic; 3=Metal

Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4 = 4C; 5=Zn ((Ac)2; 6=NaOH; 7=NA2S2O3

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for fi ve (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-fi ve (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Seamers — Submitter Print Name

Signature

CUSTODY

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Wallace Seamers	4-11-17	1527	Erick Franca	4/11/17	15:27
Erick Franca	4/11/17	16:56	MPP	4/11/17	16:56

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 4 of 6

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☑ ATL	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (V0A)	☐	☐	6. PRESERVED	☐	☐
☐ GSO	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other:	4. SEALED	☐	☐			

CUSTOMER

Company:	Address:		Tel:
	City:	State: Zip:	Fax:

SEND REPORT TO:	SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Email:	Attn: Email:
Company:	Company:
Address: See Page #1	Address: See Page #1
City: State: Zip:	City: State: Zip:

PROJECT SAMPLES

Project Name:	Quote No:	Special Instructions/Comments:
Project No.:	PO #:	
Sampler:		

Encircle or Write Requested Analysis: 8260 / 624 (Volatiles); 8015(GRO); 8015(DRO); 8270(Semi-volatiles); 8081(Organochlorine Pesticides); 8082(PCBs); 6010 / 7000(Title 22 Metals); TO-15; LUFT 5 Lead

Encircle Sample Matrix: SOIL / SEDIMENT / SLUDGE; SOLIDS / WIPE / FILTER; WATER - DRINKING / GROUND; WATER - STORM / WASTE; AQUEOUS / LAYERED - OIL

Container: TAT; # ; Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7=Canister; Material: 1=Glass; 2=Plastic; 3=Metal; Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4=4C; 5=Zn (Ac)2; 6=NaOH; 7=NA2S2O3

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

ITEM	Lab No.	Sample ID / Location	Date	Time	8260	8015(GRO)	8015(DRO)	8270	8081	8082	6010	TO-15	LUFT 5 Lead	SOIL	SOLIDS	WATER-DRINKING	WATER-STORM	AQUEOUS	TAT	#	Type	Material	Preservative	REMARKS
1	1701523-31	EB11-1-W5-1.5	4-10-17	1100									X	X					5	1	5	1	-	
2	-32	EB11-1-W5-2.5		1104									X											
3	WBS 4-11-17 -33	EB11-~~W~~-1-W10-0.5		1110									X											
4	-34	EB11-1-W10-0.5-D		1110									X											
5	-35	EB11-1-W10-1.5		1115									X											
6	-36	EB11-1-W10-2.5		1117									X											
7	-37	EB11-2-S10-0.5		1119									X											
8	-38	EB11-2-S10-1.5		1120									X											
9	-39	EB11-2-S10-2.5		1125									X											
10	-40	EB11-2-S10-2.5-D		1125									X											

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for five (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Seamiers — Submitter Print Name

Signature

CUSTODY

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Wallace Seamiers	4-11-17	1527	Erick Franca	4/11/17	15:27
Erick Franca	4/11/17	16:56	MTR	4/11/17	1656
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 5 of 6

Instruction: Complete all shaded areas.

For Laboratory Use Only				ATLCOC Ver: 20130715			
Method of Transport		Sample Conditions Upon Receipt					
		Condition	Y	N	Condition	Y	N
☐ Client ☑ ATL		1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac		2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☐
☐ GSO		3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other:		4. SEALED	☐	☐			

CUSTOMER

Company:	Address:			Tel:
	City:	State:	Zip:	Fax:

SEND REPORT TO:	SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Email:	Attn: Email:
Company: See Page #1	Company: See Page #1
Address:	Address:
City: State: Zip:	City: State: Zip:

PROJECT SAMPLES

Project Name:	Quote No:	Special Instructions/Comments:
Project No.:	PO #:	
Sampler:		

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	6010B Lead 6010B Arsenic	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE/ FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	Container #	Container Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7 = Canister	Container Material: 1=Glass; 2=Plastic; 3=Metal	Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4 = 4C; 5=Zn (Ac)2; 6=NaOH; 7=NA2SO3	REMARKS
1	1701523 -41	EB15-1-S5-0.5	4-10-17	1356									X	X					5	1	5	1	—	
2	-42	EB15-1-S5-1.5		1358									X											
3	-43	EB15-1-S5-2.5		1400									X											
4	-44	EB12-1-S10-0.5		1345									X											
5	-45	EB12-1-S10-1.5		1350									X											
6	-46	EB12-1-S10-2.5		1352									X											
7	-47	EB12-1-S5-0.5		1339									X											
8	-48	EB12-1-S5-1.5		1341									X											
9	-49	EB12-1-S5-2.5		1343									X											
10	-50	EB12-1-N5-0.5		1320									X											

SUBMITTAL

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for fi ve (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-fi ve (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Sconiers — Submitter Print Name

Signature

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Wallace Sconiers	4-11-17	1527	Erick Franco	4/11/17	15:27
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
	4/11/17	16:56		4/11/17	16:56
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 6 of 6

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☑ ATL	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☐
☐ GSO	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other:	4. SEALED	☐	☐			

CUSTOMER

Company:	Address:		Tel:
	City:	State:	Zip: Fax:

SEND REPORT TO:	SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Email:	Attn: Email:
Company: See Page #1	Company: See Page #1
Address:	Address:
City: State: Zip:	City: State: Zip:

PROJECT SAMPLES

Project Name:
Project No.:
Sampler:
Quote No:
PO #:
Special Instructions/Comments:

Encircle or Write Requested Analysis: 8260 / 624 (Volatiles); 8015(GRO); 8015(DRO); 8270(Semi-volatiles); 8081(Organochlorine Pesticides); 8082(PCBs); 6010 / 7000(Title 22 Metals); TO-15; GOOB Arsenic; GOOB Lead

Encircle Sample Matrix: SOIL / SEDIMENT / SLUDGE; SOLIDS / WIPE/ FILTER; WATER - DRINKING / GROUND; WATER - STORM / WASTE; AQUEOUS / LAYERED - OIL

Container: TAT; # ; Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7 = Canister; Material: 1=Glass; 2=Plastic; 3=Metal; Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4 = 4C; 5=Zn ((Ac)2; 6=NaOH; 7=NA2S2O3

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

ITEM	Lab No.	Sample ID / Location	Date	Time	Arsenic	Lead	SOIL / SEDIMENT / SLUDGE	WATER - DRINKING / GROUND	TAT	#	Type	Material	Preservative	REMARKS
1	1701523 -51	EB12-1-N5-1.5	4-10-17	1322	X		X		5	1	S	1	-	
2	-52	EB12-1-N5-2.5		1325	X									
3	-53	EB11-1-S10-0.5		1115		X								
4	-54	EB11-1-S10-1.5		1119		X								
5	-55	EB11-1-S10-2.5		1122		X								
6	-56	EB12-1-N10-0.5		1330	X									
7	-57	EB-2017-04-11	4-11-17	1450	X	X		X	5	1	4	2	2	
8														
9														
10														

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for five (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Seamers — Submitter Print Name

Signature

CUSTODY

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Wallace Seamers	4-11-17	1527	Erick Franca	4/11/17	15:27
Erick Franca	4/11/17	16:56	MPR	4/11/17	16:56
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:

Rachelle Arada

From: Wallace Sconiers [wsconiers@leightongroup.com]
Sent: Wednesday, April 12, 2017 8:55 AM
To: Rachelle Arada
Cc: Julie Harriman
Subject: Additional analysis for water sample submitted 4-11-2017

Rachelle,

In addition to 6010B lead and arsenic analyses for sample EB-2017-04-11, please add method 6010B for copper to that sample.

Thank you, and please call me 661-302-3169 if you have any questions.

- Wallace.

Sent from my Verizon, Samsung Galaxy smartphone

ADVANCED TECHNOLOGY LABORATORIES

April 19, 2017

Julie Harriman
Leighton Consulting, Inc.
17781 Cowan Street
Irvine, CA 92614
Tel: (949) 250-1421
Fax:(949) 757-7230

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1701542
Client Reference : Burroughs MS-LAUSD, 603378.006

Enclosed are the results for sample(s) received on April 12, 2017 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/19/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
EB13-1-W10-0.5	1701542-01	Soil	4/11/17 9:10	4/12/17 14:22
EB13-1-W10-0.5-D	1701542-02	Soil	4/11/17 9:10	4/12/17 14:22
EB13-1-W10-1.5	1701542-03	Soil	4/11/17 9:13	4/12/17 14:22
EB13-1-W10-2.5	1701542-04	Soil	4/11/17 9:16	4/12/17 14:22
EB13-2-W10-0.5	1701542-05	Soil	4/11/17 8:55	4/12/17 14:22
EB13-2-W10-1.5	1701542-06	Soil	4/11/17 8:57	4/12/17 14:22
EB13-2-W10-2.5	1701542-07	Soil	4/11/17 9:00	4/12/17 14:22
EB13-2-W10-2.5-D	1701542-08	Soil	4/11/17 9:00	4/12/17 14:22
EB13-2-S5-0.5	1701542-09	Soil	4/11/17 9:02	4/12/17 14:22
EB13-2-S5-1.5	1701542-10	Soil	4/11/17 9:05	4/12/17 14:22
EB13-2-S5-1.5-D	1701542-11	Soil	4/11/17 9:05	4/12/17 14:22
EB13-2-S5-2.5	1701542-12	Soil	4/11/17 9:09	4/12/17 14:22
EB23-2-N5-0.5	1701542-13	Soil	4/11/17 13:50	4/12/17 14:22
EB23-2-N5-1.5	1701542-14	Soil	4/11/17 13:52	4/12/17 14:22
EB23-2-N5-2.5	1701542-15	Soil	4/11/17 13:55	4/12/17 14:22
EB23-2-N8-0.5	1701542-16	Soil	4/11/17 14:00	4/12/17 14:22
EB23-2-N8-1.5	1701542-17	Soil	4/11/17 14:02	4/12/17 14:22
EB23-2-N8-2.5	1701542-18	Soil	4/11/17 14:05	4/12/17 14:22
EB23-2-W10-0.5	1701542-19	Soil	4/11/17 14:20	4/12/17 14:22
EB23-2-W10-1.5	1701542-20	Soil	4/11/17 14:22	4/12/17 14:22
EB23-2-W10-2.5	1701542-21	Soil	4/11/17 14:24	4/12/17 14:22
EB23-2-ES-0.5	1701542-22	Soil	4/11/17 14:10	4/12/17 14:22
EB23-2-ES-1.5	1701542-23	Soil	4/11/17 14:11	4/12/17 14:22
EB23-2-ES-2.5	1701542-24	Soil	4/11/17 14:15	4/12/17 14:22
EB23-2-W5-0.5	1701542-25	Soil	4/11/17 14:07	4/12/17 14:22
EB23-2-W5-1.5	1701542-26	Soil	4/11/17 14:09	4/12/17 14:22
EB23-2-W5-2.5	1701542-27	Soil	4/11/17 14:12	4/12/17 14:22
EB23-2-S5-0.5	1701542-28	Soil	4/11/17 13:40	4/12/17 14:22
EB23-2-S5-1.5	1701542-29	Soil	4/11/17 13:42	4/12/17 14:22
EB23-2-S5-2.5	1701542-30	Soil	4/11/17 13:47	4/12/17 14:22
EB23-2-S10-0.5	1701542-31	Soil	4/11/17 14:27	4/12/17 14:22
EB23-2-S10-1.5	1701542-32	Soil	4/11/17 14:29	4/12/17 14:22
EB23-2-S10-2.5	1701542-33	Soil	4/11/17 14:33	4/12/17 14:22
EB13-2-N10-0.5	1701542-34	Soil	4/11/17 8:00	4/12/17 14:22
EB13-2-N10-1.5	1701542-35	Soil	4/11/17 8:02	4/12/17 14:22
EB13-2-N10-2.5	1701542-36	Soil	4/11/17 8:06	4/12/17 14:22
EB13-2-N5-0.5	1701542-37	Soil	4/11/17 8:10	4/12/17 14:22

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/19/2017

EB13-2-N5-1.5	1701542-38	Soil	4/11/17 8:12	4/12/17 14:22
EB13-2-N5-2.5	1701542-39	Soil	4/11/17 8:15	4/12/17 14:22
EB13-2-W5-0.5	1701542-40	Soil	4/11/17 8:22	4/12/17 14:22
EB13-2-W5-1.5	1701542-41	Soil	4/11/17 8:25	4/12/17 14:22
EB13-2-W5-2.5	1701542-42	Soil	4/11/17 8:27	4/12/17 14:22
EB13-2-S10-0.5	1701542-43	Soil	4/11/17 9:16	4/12/17 14:22
EB13-2-S10-1.5	1701542-44	Soil	4/11/17 9:18	4/12/17 14:22
EB13-2-S10-2.5	1701542-45	Soil	4/11/17 9:20	4/12/17 14:22
EB13-1-E5-0.5	1701542-46	Soil	4/11/17 9:45	4/12/17 14:22
EB13-1-E5-1.5	1701542-47	Soil	4/11/17 9:47	4/12/17 14:22
EB13-1-E5-2.5	1701542-48	Soil	4/11/17 9:50	4/12/17 14:22
EB13-1-W5-0.5	1701542-49	Soil	4/11/17 9:30	4/12/17 14:22
EB13-1-W5-1.5	1701542-50	Soil	4/11/17 9:32	4/12/17 14:22
EB13-1-W5-2.5	1701542-51	Soil	4/11/17 9:34	4/12/17 14:22
EB-2017-04-12	1701542-52	Water	4/12/17 14:15	4/12/17 14:22

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/19/2017

Client Sample ID EB13-1-W10-0.5

Lab ID: 1701542-01

Total Metals by ICP-AES EPA 6010B **Analyst: KEK**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**61**	1.0	0.11	1	B7D0468	04/18/2017	04/18/17 13:44	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/19/2017

Client Sample ID EB13-1-W10-0.5-D

Lab ID: 1701542-02

Total Metals by ICP-AES EPA 6010B **Analyst: KEK**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**120**	1.0	0.11	1	B7D0468	04/18/2017	04/18/17 13:56	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/19/2017

Client Sample ID EB13-1-W10-1.5

Lab ID: 1701542-03

Total Metals by ICP-AES EPA 6010B

Analyst: KEK

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**4.5**	1.0	0.11	1	B7D0468	04/18/2017	04/18/17 13:59	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/19/2017

Client Sample ID EB13-1-W10-2.5

Lab ID: 1701542-04

Total Metals by ICP-AES EPA 6010B

Analyst: KEK

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**4.1**	1.0	0.11	1	B7D0468	04/18/2017	04/18/17 14:02	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/19/2017

Client Sample ID EB13-2-W10-0.5

Lab ID: 1701542-05

Total Metals by ICP-AES EPA 6010B

Analyst: KEK

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**140**	1.0	0.11	1	B7D0468	04/18/2017	04/18/17 14:05	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/19/2017

Client Sample ID EB13-2-W10-1.5

Lab ID: 1701542-06

Total Metals by ICP-AES EPA 6010B

Analyst: KEK

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**140**	1.0	0.11	1	B7D0468	04/18/2017	04/18/17 14:15	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/19/2017

Client Sample ID EB13-2-W10-2.5

Lab ID: 1701542-07

Total Metals by ICP-AES EPA 6010B

Analyst: KEK

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**3.8**	1.0	0.11	1	B7D0468	04/18/2017	04/18/17 14:18	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/19/2017

Client Sample ID EB13-2-W10-2.5-D

Lab ID: 1701542-08

Total Metals by ICP-AES EPA 6010B

Analyst: KEK

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**3.8**	1.0	0.11	1	B7D0468	04/18/2017	04/18/17 14:21	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/19/2017

Client Sample ID EB13-2-S5-0.5

Lab ID: 1701542-09

Total Metals by ICP-AES EPA 6010B

Analyst: KEK

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**110**	1.0	0.11	1	B7D0468	04/18/2017	04/18/17 14:24	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/19/2017

Client Sample ID EB13-2-S5-1.5

Lab ID: 1701542-10

Total Metals by ICP-AES EPA 6010B

Analyst: KEK

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**3.4**	1.0	0.11	1	B7D0468	04/18/2017	04/18/17 14:27	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/19/2017

Client Sample ID EB13-2-S5-1.5-D

Lab ID: 1701542-11

Total Metals by ICP-AES EPA 6010B **Analyst: KEK**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**12**	1.0	0.11	1	B7D0468	04/18/2017	04/18/17 14:30	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/19/2017

Client Sample ID EB13-2-S5-2.5

Lab ID: 1701542-12

Total Metals by ICP-AES EPA 6010B

Analyst: KEK

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**4.4**	1.0	0.11	1	B7D0468	04/18/2017	04/18/17 14:33	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/19/2017

Client Sample ID EB23-2-N5-0.5

Lab ID: 1701542-13

Total Metals by ICP-AES EPA 6010B **Analyst: KEK**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**9.7**	1.0	0.11	1	B7D0468	04/18/2017	04/18/17 14:36	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/19/2017

Client Sample ID EB23-2-N5-1.5

Lab ID: 1701542-14

Total Metals by ICP-AES EPA 6010B

Analyst: KEK

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**6.0**	1.0	0.11	1	B7D0468	04/18/2017	04/18/17 14:39	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/19/2017

Client Sample ID EB23-2-N5-2.5

Lab ID: 1701542-15

Total Metals by ICP-AES EPA 6010B

Analyst: KEK

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**4.5**	1.0	0.11	1	B7D0468	04/18/2017	04/18/17 14:42	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/19/2017

Client Sample ID EB23-2-N8-0.5

Lab ID: 1701542-16

Total Metals by ICP-AES EPA 6010B

Analyst: KEK

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**8.4**	1.0	0.11	1	B7D0468	04/18/2017	04/18/17 14:52	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/19/2017

Client Sample ID EB23-2-N8-1.5

Lab ID: 1701542-17

Total Metals by ICP-AES EPA 6010B

Analyst: KEK

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**3.5**	1.0	0.11	1	B7D0468	04/18/2017	04/18/17 14:55	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/19/2017

Client Sample ID EB23-2-N8-2.5

Lab ID: 1701542-18

Total Metals by ICP-AES EPA 6010B

Analyst: KEK

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**2.8**	1.0	0.11	1	B7D0468	04/18/2017	04/18/17 14:57	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/19/2017

Client Sample ID EB23-2-W10-0.5

Lab ID: 1701542-19

Total Metals by ICP-AES EPA 6010B

Analyst: KEK

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**7.5**	1.0	0.11	1	B7D0468	04/18/2017	04/18/17 15:00	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/19/2017

Client Sample ID EB23-2-W10-1.5

Lab ID: 1701542-20

Total Metals by ICP-AES EPA 6010B

Analyst: KEK

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**12**	1.0	0.11	1	B7D0469	04/18/2017	04/18/17 15:10	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/19/2017

Client Sample ID EB23-2-W10-2.5

Lab ID: 1701542-21

Total Metals by ICP-AES EPA 6010B

Analyst: KEK

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**3.3**	1.0	0.11	1	B7D0469	04/18/2017	04/18/17 15:29	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/19/2017

Client Sample ID EB23-2-ES-0.5

Lab ID: 1701542-22

Total Metals by ICP-AES EPA 6010B **Analyst: KEK**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**2.8**	1.0	0.11	1	B7D0469	04/18/2017	04/18/17 15:32	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/19/2017

Client Sample ID EB23-2-ES-1.5

Lab ID: 1701542-23

Total Metals by ICP-AES EPA 6010B

Analyst: KEK

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**8.5**	1.0	0.11	1	B7D0469	04/18/2017	04/18/17 15:35	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/19/2017

Client Sample ID EB23-2-ES-2.5

Lab ID: 1701542-24

Total Metals by ICP-AES EPA 6010B **Analyst: KEK**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**2.2**	1.0	0.11	1	B7D0469	04/18/2017	04/18/17 15:38	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/19/2017

Client Sample ID EB23-2-W5-0.5

Lab ID: 1701542-25

Total Metals by ICP-AES EPA 6010B **Analyst: KEK**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**27**	1.0	0.11	1	B7D0469	04/18/2017	04/18/17 15:41	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/19/2017

Client Sample ID EB23-2-W5-1.5

Lab ID: 1701542-26

Total Metals by ICP-AES EPA 6010B

Analyst: KEK

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**8.1**	1.0	0.11	1	B7D0469	04/18/2017	04/18/17 15:44	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/19/2017

Client Sample ID EB23-2-W5-2.5

Lab ID: 1701542-27

Total Metals by ICP-AES EPA 6010B

Analyst: KEK

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**4.8**	1.0	0.11	1	B7D0469	04/18/2017	04/18/17 15:47	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/19/2017

Client Sample ID EB23-2-S5-0.5

Lab ID: 1701542-28

Total Metals by ICP-AES EPA 6010B

Analyst: KEK

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**6.5**	1.0	0.11	1	B7D0469	04/18/2017	04/18/17 15:49	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/19/2017

Client Sample ID EB23-2-S5-1.5

Lab ID: 1701542-29

Total Metals by ICP-AES EPA 6010B **Analyst: KEK**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**3.2**	1.0	0.11	1	B7D0469	04/18/2017	04/18/17 15:53	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/19/2017

Client Sample ID EB23-2-S5-2.5

Lab ID: 1701542-30

Total Metals by ICP-AES EPA 6010B

Analyst: KEK

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**3.1**	1.0	0.11	1	B7D0469	04/18/2017	04/18/17 15:55	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/19/2017

Client Sample ID EB23-2-S10-0.5

Lab ID: 1701542-31

Total Metals by ICP-AES EPA 6010B **Analyst: KEK**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**12**	1.0	0.11	1	B7D0469	04/18/2017	04/18/17 16:05	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/19/2017

Client Sample ID EB23-2-S10-1.5

Lab ID: 1701542-32

Total Metals by ICP-AES EPA 6010B **Analyst: KEK**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**5.8**	1.0	0.11	1	B7D0469	04/18/2017	04/18/17 16:08	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/19/2017

Client Sample ID EB23-2-S10-2.5

Lab ID: 1701542-33

Total Metals by ICP-AES EPA 6010B **Analyst: KEK**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**2.7**	1.0	0.11	1	B7D0469	04/18/2017	04/18/17 16:11	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/19/2017

Client Sample ID EB13-2-N10-0.5

Lab ID: 1701542-34

Total Metals by ICP-AES EPA 6010B **Analyst: KEK**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**82**	1.0	0.11	1	B7D0469	04/18/2017	04/18/17 16:14	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/19/2017

Client Sample ID EB13-2-N10-1.5

Lab ID: 1701542-35

Total Metals by ICP-AES EPA 6010B **Analyst: KEK**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**22**	1.0	0.11	1	B7D0469	04/18/2017	04/18/17 16:17	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/19/2017

Client Sample ID EB13-2-N10-2.5

Lab ID: 1701542-36

Total Metals by ICP-AES EPA 6010B

Analyst: KEK

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**6.1**	1.0	0.11	1	B7D0469	04/18/2017	04/18/17 16:20	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/19/2017

Client Sample ID EB13-2-N5-0.5

Lab ID: 1701542-37

Total Metals by ICP-AES EPA 6010B

Analyst: KEK

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**210**	1.0	0.11	1	B7D0469	04/18/2017	04/18/17 16:23	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/19/2017

Client Sample ID EB13-2-N5-1.5

Lab ID: 1701542-38

Total Metals by ICP-AES EPA 6010B

Analyst: KEK

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**12**	1.0	0.11	1	B7D0469	04/18/2017	04/18/17 16:26	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/19/2017

Client Sample ID EB13-2-N5-2.5

Lab ID: 1701542-39

Total Metals by ICP-AES EPA 6010B **Analyst: KEK**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**9.8**	1.0	0.11	1	B7D0470	04/18/2017	04/18/17 16:42	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/19/2017

Client Sample ID EB13-2-W5-0.5

Lab ID: 1701542-40

Total Metals by ICP-AES EPA 6010B

Analyst: KEK

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**350**	1.0	0.11	1	B7D0470	04/18/2017	04/18/17 16:54	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/19/2017

Client Sample ID EB13-2-W5-1.5

Lab ID: 1701542-41

Total Metals by ICP-AES EPA 6010B **Analyst: KEK**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**190**	1.0	0.11	1	B7D0470	04/18/2017	04/18/17 16:57	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/19/2017

Client Sample ID EB13-2-W5-2.5

Lab ID: 1701542-42

Total Metals by ICP-AES EPA 6010B **Analyst: KEK**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**8.2**	1.0	0.11	1	B7D0470	04/18/2017	04/18/17 17:00	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/19/2017

Client Sample ID EB13-2-S10-0.5

Lab ID: 1701542-43

Total Metals by ICP-AES EPA 6010B **Analyst: KEK**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**84**	1.0	0.11	1	B7D0470	04/18/2017	04/18/17 17:03	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/19/2017

Client Sample ID EB13-2-S10-1.5

Lab ID: 1701542-44

Total Metals by ICP-AES EPA 6010B **Analyst: KEK**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**9.9**	1.0	0.11	1	B7D0470	04/18/2017	04/18/17 17:06	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/19/2017

Client Sample ID EB13-2-S10-2.5

Lab ID: 1701542-45

Total Metals by ICP-AES EPA 6010B **Analyst: KEK**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**4.6**	1.0	0.11	1	B7D0470	04/18/2017	04/18/17 17:09	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/19/2017

Client Sample ID EB13-1-E5-0.5

Lab ID: 1701542-46

Total Metals by ICP-AES EPA 6010B **Analyst: KEK**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**150**	1.0	0.11	1	B7D0470	04/18/2017	04/18/17 17:19	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/19/2017

Client Sample ID EB13-1-E5-1.5

Lab ID: 1701542-47

Total Metals by ICP-AES EPA 6010B

Analyst: KEK

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**11**	1.0	0.11	1	B7D0470	04/18/2017	04/18/17 17:22	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/19/2017

Client Sample ID EB13-1-E5-2.5

Lab ID: 1701542-48

Total Metals by ICP-AES EPA 6010B

Analyst: KEK

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**14**	1.0	0.11	1	B7D0470	04/18/2017	04/18/17 17:25	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/19/2017

Client Sample ID EB13-1-W5-0.5

Lab ID: 1701542-49

Total Metals by ICP-AES EPA 6010B **Analyst: KEK**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**220**	1.0	0.11	1	B7D0470	04/18/2017	04/18/17 17:27	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/19/2017

Client Sample ID EB13-1-W5-1.5

Lab ID: 1701542-50

Total Metals by ICP-AES EPA 6010B **Analyst: KEK**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**7.1**	1.0	0.11	1	B7D0470	04/18/2017	04/18/17 17:30	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/19/2017

Client Sample ID EB13-1-W5-2.5

Lab ID: 1701542-51

Total Metals by ICP-AES EPA 6010B **Analyst: KEK**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**4.5**	1.0	0.11	1	B7D0470	04/18/2017	04/18/17 17:33	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/19/2017

Client Sample ID EB-2017-04-12

Lab ID: 1701542-52

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	0.010	0.0067	1	B7D0418	04/14/2017	04/14/17 15:15	
Lead	ND	0.0050	0.0028	1	B7D0418	04/14/2017	04/14/17 15:15	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/19/2017

QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7D0418 - EPA 3010A_W										
Blank (B7D0418-BLK1)					Prepared: 4/14/2017 Analyzed: 4/14/2017					
Arsenic	ND	0.010	0.0067							
Lead	ND	0.0050	0.0028							
LCS (B7D0418-BS1)					Prepared: 4/14/2017 Analyzed: 4/14/2017					
Arsenic	0.961476	0.010	0.0067	1.00000		96.1	80 - 120			
Lead	0.968250	0.0050	0.0028	1.00000		96.8	80 - 120			
Duplicate (B7D0418-DUP1)			**Source: 1701542-52**		Prepared: 4/14/2017 Analyzed: 4/14/2017					
Arsenic	ND	0.010	0.0067		ND			NR	20	
Lead	ND	0.0050	0.0028		ND			NR	20	
Matrix Spike (B7D0418-MS1)			**Source: 1701542-52**		Prepared: 4/14/2017 Analyzed: 4/14/2017					
Arsenic	2.23020	0.010	0.0067	2.50000	ND	89.2	74 - 123			
Lead	2.28637	0.0050	0.0028	2.50000	ND	91.5	78 - 109			
Matrix Spike Dup (B7D0418-MSD1)			**Source: 1701542-52**		Prepared: 4/14/2017 Analyzed: 4/14/2017					
Arsenic	2.25391	0.010	0.0067	2.50000	ND	90.2	74 - 123	1.06	20	
Lead	2.32601	0.0050	0.0028	2.50000	ND	93.0	78 - 109	1.72	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/19/2017

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7D0468 - EPA 3050B_S										
Blank (B7D0468-BLK1)					Prepared: 4/18/2017 Analyzed: 4/18/2017					
Lead	ND	1.0	0.11							
LCS (B7D0468-BS1)					Prepared: 4/18/2017 Analyzed: 4/18/2017					
Lead	46.0094	1.0	0.11	50.0000		92.0	80 - 120			
Duplicate (B7D0468-DUP1)			**Source: 1701542-01**		Prepared: 4/18/2017 Analyzed: 4/18/2017					
Lead	134.849	1.0	0.11		61.3832			74.9	20	R
Matrix Spike (B7D0468-MS1)			**Source: 1701542-01**		Prepared: 4/18/2017 Analyzed: 4/18/2017					
Lead	180.195	1.0	0.11	125.000	61.3832	95.0	34 - 129			
Matrix Spike Dup (B7D0468-MSD1)			**Source: 1701542-01**		Prepared: 4/18/2017 Analyzed: 4/18/2017					
Lead	223.645	1.0	0.11	125.000	61.3832	130	34 - 129	21.5	20	M1, R

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/19/2017

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7D0469 - EPA 3050B_S										
Blank (B7D0469-BLK1)					Prepared: 4/18/2017 Analyzed: 4/18/2017					
Lead	ND	1.0	0.11							
LCS (B7D0469-BS1)					Prepared: 4/18/2017 Analyzed: 4/18/2017					
Lead	46.0117	1.0	0.11	50.0000		92.0	80 - 120			
Duplicate (B7D0469-DUP1)			**Source: 1701542-20**		Prepared: 4/18/2017 Analyzed: 4/18/2017					
Lead	8.25829	1.0	0.11		12.1654			38.3	20	R
Matrix Spike (B7D0469-MS1)			**Source: 1701542-20**		Prepared: 4/18/2017 Analyzed: 4/18/2017					
Lead	94.0354	1.0	0.11	125.000	12.1654	65.5	34 - 129			
Matrix Spike Dup (B7D0469-MSD1)			**Source: 1701542-20**		Prepared: 4/18/2017 Analyzed: 4/18/2017					
Lead	96.1724	1.0	0.11	125.000	12.1654	67.2	34 - 129	2.25	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/19/2017

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7D0470 - EPA 3050B_S										
Blank (B7D0470-BLK1)					Prepared: 4/18/2017 Analyzed: 4/18/2017					
Lead	ND	1.0	0.11							
LCS (B7D0470-BS1)					Prepared: 4/18/2017 Analyzed: 4/18/2017					
Lead	44.4131	1.0	0.11	50.0000		88.8	80 - 120			
Duplicate (B7D0470-DUP1)			**Source: 1701542-39**		Prepared: 4/18/2017 Analyzed: 4/18/2017					
Lead	6.77962	1.0	0.11		9.81284			36.6	20	R
Matrix Spike (B7D0470-MS1)			**Source: 1701542-39**		Prepared: 4/18/2017 Analyzed: 4/18/2017					
Lead	93.4870	1.0	0.11	125.000	9.81284	66.9	34 - 129			
Matrix Spike Dup (B7D0470-MSD1)			**Source: 1701542-39**		Prepared: 4/18/2017 Analyzed: 4/18/2017					
Lead	86.6403	1.0	0.11	125.000	9.81284	61.5	34 - 129	7.60	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/19/2017

Notes and Definitions

R	RPD value outside acceptance criteria. Calculation is based on raw values.
M1	Matrix spike recovery outside of acceptance limit. The analytical batch was validated by the laboratory control sample.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:
(1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
(2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
(3) Results are wet unless otherwise specified.

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 1 of 10

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☑ ATL	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☑	☑
☐ GSO	3. CONTAINER INTACT	☑	☐	7. COOLER TEMP, deg C:	5.C	
☐ Other: _____	4. SEALED	☐	☑			

CUSTOMER

Company: Leighton Consulting, Inc. (LCI)		Address: 17781 Cowan		Tel: 949-250-1421	
		City: Irvine	State: CA	Zip: 92614	Fax: 949-250-1114

SEND REPORT TO:	SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Julie Harriman	Attn: Accounts Payable
Email: jharriman@leightongroup.com	Email: acctpayable@leightongroup.com
Company: LCI	Company: Leighton
Address: 17781 Cowan	Address: 17781 Cowan
City: Irvine State: CA Zip: 92614	City: Irvine State: CA Zip: 92614

PROJECT SAMPLES

Project Name: Burroughs MS-LAUSD
Project No.: 603378-006
Sampler: W. Seamers
Quote No: –
PO #: –
Special Instructions/Comments: –

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	6010B Lead	6010B Arsenic	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE / FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	#	Type	Material	Preservative	REMARKS
1	1705742 -1	EB13-1-W10-0.5	4-11-17	0910								X	X		X					5	1	5	1	–	
2	-2	EB13-1-W10-0.5-D		0910								X	X												
3	-3	EB13-1-W10-1.5		0913								X	X												
4	-4	EB13-1-W10-2.5		0916								X	X												
5	-5	EB13-2-W10-0.5		0855								X	X												
6	-6	EB13-2-W10-1.5		0857								X	X												
7	-7	EB13-2-W10-2.5		0900								X	X												
8	-8	EB13-2-W10-2.5-D		0900								X	X												
9	-9	EB13-2-SS-0.5		0902								X	X												
10	-10	EB13-2-SS-1.5		0905								X	X												

Encircle or Write Requested Analysis

Encircle Sample Matrix

Container

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4 = 4C; 5=Zn (Ac)2; 6=NaOH; 7=NA2SO3

Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7 = Canister

Material: 1=Glass; 2=Plastic; 3=Metal

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for five (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Seamers — Submitter Print Name

Signature

CUSTODY

Relinquished by: (Signature and Printed Name) Wallace Seamers	Date: 4-12-17	Time: 1422	Received by: (Signature and Printed Name)	Date: 4/12/17	Time: 1422
Relinquished by: (Signature and Printed Name)	Date: 4/12/17	Time: 1815	Received by: (Signature and Printed Name)	Date: 4/12/17	Time: 1815
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 2 of 6

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport		Sample Conditions Upon Receipt					
		Condition	Y	N	Condition	Y	N
☐ Client	☑ ATL	1. CHILLED	☑	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx	☐ OnTrac	2. HEADSPACE (V0A)	☐	☐	6. PRESERVED	☐	☐
☐ GSO		3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other:		4. SEALED	☐	☐			

CUSTOMER

Company: | Address: | Tel:
City: | State: | Zip: | Fax:

SEND REPORT TO:
Attn: | Email:
Company:
Address: See Page #1
City: | State: | Zip:

SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: | Email:
Company:
Address: See Page #1
City: | State: | Zip:

PROJECT SAMPLES

Project Name: | Quote No: | Special Instructions/Comments:
Project No.: | PO #:
Sampler:

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	6010B Lead / 6010B Arsenic	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE / FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	Container #	Container Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7=Canister	Container Material: 1=Glass; 2=Plastic; 3=Metal	Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4=4C; 5=Zn ((Ac)2; 6=NaOH; 7=NA2S2O3	REMARKS
1	1701542-11	EB13-2-SS-1.5-D	4-11-17	0905								X	X	X					5	1	5	1	-	
2	-12	EB13-2-SS-2.5		0909								X	X											
3	-13	EB23-2-N5-0.5		1350								X	X											
4	-14	EB23-2-N5-1.5		1352								X	X											
5	-15	EB23-2-N5-2.5		1355								X	X											
6	-16	EB23-2-N8-0.5		1400								X	X											
7	-17	EB23-2-N8-1.5		1402								X	X											
8	-18	EB23-2-N8-2.5		1405								X	X											
9	-19	EB23-2-W10-0.5		1420								X	X											
10	-20	EB23-2-W10-1.5		1422								X	X											

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for fi ve (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-fi ve (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Seomes — Submitter Print Name | Signature

CUSTODY

Relinquished by: (Signature and Printed Name) Wallace Seomes	Date: 4-12-17	Time: 1422	Received by: (Signature and Printed Name)	Date: 4/12/17	Time: 1422
Relinquished by: (Signature and Printed Name)	Date: 4/12/17	Time: 1815	Received by: (Signature and Printed Name)	Date: 4/12/17	Time: 1815
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 3 of 6

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☑ ATL	1. CHILLED	☑	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☐
☐ GSO	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other:	4. SEALED	☐	☐			

CUSTOMER

Company: | Address: | Tel:
City: | State: | Zip: | Fax:

SEND REPORT TO:
Attn: | Email:
Company:
Address: See Page #1
City: | State: | Zip:

SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: | Email:
Company:
Address: See Page #1
City: | State: | Zip:

PROJECT SAMPLES

Project Name: | Quote No: | Special Instructions/Comments:
Project No.: | PO #:
Sampler:

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	LUFT Lead	LUFT Arsenic	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE/ FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	Container #	Container Type	Container Material	Preservative	REMARKS
1	1701542-21	EB23-2-W10-2.5	4-11-17	1424									X		X					5	1	5	1	—	
2	-22	EB23-2-ES-0.5		1410																					
3	-23	EB23-2-ES-1.5		1411																					
4	-24	EB23-2-ES-2.5		1415																					
5	-25	EB23-2-W5-0.5		1407																					
6	-26	EB23-2-W5-1.5		1409																					
7	-27	EB23-2-W5-2.5		1412																					
8	-28	EB23-2-SS-0.5		1340																					
9	-29	EB23-2-SS-1.5		1342																					
10	-30	EB23-2-SS-2.5		1347																					

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

Encircle or Write Requested Analysis — Encircle Sample Matrix — Container

Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4 = 4C; 5=Zn((Ac)2; 6=NaOH; 7=NA2S2O3
Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7 = Canister
Material: 1=Glass; 2=Plastic; 3=Metal

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for fi ve (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-fi ve (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Seamons — Submitter Print Name

Signature

CUSTODY

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Wallace Seamons	4-12-17	1422		4/12/17	1422
	4/12/17	1815	FEDEX	4/12/17	1815

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 4 of 6

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☐ ATL	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☐
☐ GSO	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other:	4. SEALED	☐	☐			

CUSTOMER

Company: | Address: | Tel:
City: | State: | Zip: | Fax:

SEND REPORT TO:
Attn: | Email:
Company:
Address: See Page #1
City: | State: | Zip:

SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: | Email:
Company:
Address: See Page #1
City: | State: | Zip:

PROJECT SAMPLES

Project Name: | Quote No: | Special Instructions/Comments:
Project No.: | PO #:
Sampler:

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	6010B Lead	6010B Arsenic	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE/ FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	Container #	Container Type	Container Material	Preservative	REMARKS
1	1701542-31	EB23-2-S10-0.5	4-11-17	1427								X	X		X					5	1	5	1	–	
2	-32	EB23-2-S10-1.5		1429								X	X												
3	-33	EB23-2-S10-2.5		1433								X	X												
4	-34	EB13-2-N10-0.5		0800								X	X												
5	-35	EB13-2-N10-1.5		0802								X	X												
6	-36	EB13-2-N10-2.5		0806								X	X												
7	-37	EB13-2-N5-0.5		0810								X	X												
8	-38	EB13-2-N5-1.5		0812								X	X												
9	-39	EB13-2-N5-2.5		0815								X	X												
10	-40	EB13-2-W5-0.5	↓	0822								X	X		↓					↓	↓	↓	↓	↓	

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

Container — Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7=Canister
Material: 1=Glass; 2=Plastic; 3=Metal
Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4=4C; 5=Zn((Ac)2; 6=NaOH; 7=NA2S2O3

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for fi ve (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-fi ve (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Seamans — Submitter Print Name | Signature

CUSTODY

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Wallace Seamans	4-12-17	1422		4/12/17	1422
	4/12/17	1815		4/12/17	1815

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☑ ATL	1. CHILLED	☑	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☐
☐ GSO	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other:	4. SEALED	☐	☐			

CUSTOMER

Company:	Address:			Tel:
	City:	State:	Zip:	Fax:

SEND REPORT TO:	SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Email:	Attn: Email:
Company:	Company:
Address: See Page #1	Address: See Page #1
City: State: Zip:	City: State: Zip:

PROJECT SAMPLES

Project Name:	Quote No:	Special Instructions/Comments:
Project No.:	PO #:	
Sampler:		

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	6010B Lead	6010B Arsenic	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE / FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	Container: #	Container: Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7=Canister	Container: Material: 1=Glass; 2=Plastic; 3=Metal	Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4=4C; 5=Zn ((AcI2; 6=NaOH; 7=NA2S2O3	REMARKS
1	170542-41	EB13-2-W5-1.5	4-11-17	0825									X		X					5	1	5	1	—	
2	-42	EB13-2-W5-2.5		0827									X												
3	-43	EB13-2-S10-0.5		0916									X												
4	-44	EB13-2-S10-1.5		0918									X												
5	-45	EB13-2-S10-2.5		0920									X												
6	-46	EB13-1-E5-0.5		0945									X												
7	-47	EB13-1-E5-1.5		0947									X												
8	-48	EB13-1-E5-2.5		0950									X												
9	-49	EB13-1-W5-0.5		0930									X												
10	-50	EB13-1-W5-1.5		0932									X												

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for fi ve (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-fi ve (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Scowcroft — Submitter Print Name

Signature

CUSTODY

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Wallace Scowcroft	4-12-17	1422		4/12/17	1422
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
	4/12/17	1815		4/12/17	1815
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 6 of 6

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☑ ATL	1. CHILLED	☑	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (V0A)	☐	☐	6. PRESERVED	☐	☐
☐ GSO	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other:	4. SEALED	☐	☐			

CUSTOMER

Company:	Address:	Tel:
	City: State: Zip:	Fax:

SEND REPORT TO:

Attn: Email:

Company:

Address: See Page #1

City: State: Zip:

SEND INVOICE TO: ☐ same as SEND REPORT TO

Attn: Email:

Company:

Address: See Page #1

City: State: Zip:

PROJECT SAMPLES

Project Name:

Project No.:

Sampler:

Quote No:

PO #:

Special Instructions/Comments:

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	6010B Lead	6010B Arsenic	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE/ FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	Container #	Container Type	Container Material	Container Preservative	REMARKS
1	1701574-01	EB13-1-WS-2.5	4-11-17	0934									X		X					5	1	5	1	--	
2	-02	EB-2017-04-12	4-12-17	1415									X	X			X			5	1	4	2	2	
3																									
4																									
5																									
6																									
7																									
8																									
9																									
10																									

QA/QC
- ☐ Routine
- ☐ Caltrans
- ☐ Legal
- ☐ RWQCB
- ☐ Level IV

Container Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7 = Canister
Container Material: 1=Glass; 2=Plastic; 3=Metal
Container Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4 = 4C; 5=Zn ((Ac)2; 6=NaOH; 7=NA2S2O3

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for fi ve (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-fi ve (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Siemens — Submitter Print Name

Signature

CUSTODY

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Wallace Siemens	4-12-17	1422		4/12/17	1422
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
	4/12/17	1815	Proxima	4/12/17	1815
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:

ADVANCED TECHNOLOGY LABORATORIES

April 26, 2017

Julie Harriman
Leighton Consulting, Inc.
17781 Cowan Street
Irvine, CA 92614
Tel: (949) 250-1421
Fax:(949) 757-7230

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1701542
Client Reference : Burroughs MS-LAUSD, 603378.006

Enclosed are the results for sample(s) received on April 12, 2017 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/26/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
EB13-1-W10-0.5	1701542-01	Soil	4/11/17 9:10	4/12/17 14:22
EB13-1-W10-0.5-D	1701542-02	Soil	4/11/17 9:10	4/12/17 14:22
EB13-2-W10-0.5	1701542-05	Soil	4/11/17 8:55	4/12/17 14:22
EB13-2-W10-1.5	1701542-06	Soil	4/11/17 8:57	4/12/17 14:22
EB13-2-S5-0.5	1701542-09	Soil	4/11/17 9:02	4/12/17 14:22
EB13-2-N10-0.5	1701542-34	Soil	4/11/17 8:00	4/12/17 14:22
EB13-2-N5-0.5	1701542-37	Soil	4/11/17 8:10	4/12/17 14:22
EB13-2-W5-0.5	1701542-40	Soil	4/11/17 8:22	4/12/17 14:22
EB13-2-W5-1.5	1701542-41	Soil	4/11/17 8:25	4/12/17 14:22
EB13-2-S10-0.5	1701542-43	Soil	4/11/17 9:16	4/12/17 14:22
EB13-1-E5-0.5	1701542-46	Soil	4/11/17 9:45	4/12/17 14:22
EB13-1-W5-0.5	1701542-49	Soil	4/11/17 9:30	4/12/17 14:22

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/26/2017

Client Sample ID EB13-1-W10-0.5

Lab ID: 1701542-01

TCLP Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**0.026**	0.25	0.014	5	B7D0617	04/21/2017	04/21/17 18:15	D1, J

STLC Metals by ICP-AES by EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**7.8**	1.0	0.057	20	B7D0631	04/22/2017	04/24/17 12:42	D1

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/26/2017

Client Sample ID EB13-1-W10-0.5-D

Lab ID: 1701542-02

TCLP Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**0.017**	0.25	0.014	5	B7D0618	04/21/2017	04/21/17 18:27	D1, J

STLC Metals by ICP-AES by EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**11**	1.0	0.057	20	B7D0632	04/22/2017	04/24/17 10:19	D1

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/26/2017

Client Sample ID EB13-2-W10-0.5

Lab ID: 1701542-05

TCLP Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**0.060**	0.25	0.014	5	B7D0618	04/21/2017	04/21/17 18:28	D1, J

STLC Metals by ICP-AES by EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**6.8**	1.0	0.057	20	B7D0632	04/22/2017	04/24/17 10:20	D1

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/26/2017

Client Sample ID EB13-2-W10-1.5

Lab ID: 1701542-06

TCLP Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	0.25	0.014	5	B7D0618	04/21/2017	04/21/17 18:30	D1

STLC Metals by ICP-AES by EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**5.8**	1.0	0.057	20	B7D0632	04/22/2017	04/24/17 10:22	D1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/26/2017

Client Sample ID EB13-2-S5-0.5

Lab ID: 1701542-09

TCLP Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**0.047**	0.25	0.014	5	B7D0618	04/21/2017	04/21/17 18:31	D1, J

STLC Metals by ICP-AES by EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**9.0**	1.0	0.057	20	B7D0632	04/22/2017	04/24/17 10:23	D1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/26/2017

Client Sample ID EB13-2-N10-0.5

Lab ID: 1701542-34

TCLP Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	0.25	0.014	5	B7D0618	04/21/2017	04/21/17 18:33	D1

STLC Metals by ICP-AES by EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**3.1**	1.0	0.057	20	B7D0632	04/22/2017	04/24/17 10:25	D1

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/26/2017

Client Sample ID EB13-2-N5-0.5

Lab ID: 1701542-37

TCLP Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**0.028**	0.25	0.014	5	B7D0618	04/21/2017	04/21/17 18:34	D1, J

STLC Metals by ICP-AES by EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**15**	1.0	0.057	20	B7D0632	04/22/2017	04/24/17 10:26	D1

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/26/2017

Client Sample ID EB13-2-W5-0.5

Lab ID: 1701542-40

TCLP Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**0.69**	0.25	0.014	5	B7D0618	04/21/2017	04/21/17 18:35	D1

STLC Metals by ICP-AES by EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**30**	1.0	0.057	20	B7D0632	04/22/2017	04/24/17 10:28	D1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/26/2017

Client Sample ID EB13-2-W5-1.5

Lab ID: 1701542-41

TCLP Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**0.19**	0.25	0.014	5	B7D0618	04/21/2017	04/21/17 18:37	D1, J

STLC Metals by ICP-AES by EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**15**	1.0	0.057	20	B7D0632	04/22/2017	04/24/17 10:32	D1

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/26/2017

Client Sample ID EB13-2-S10-0.5

Lab ID: 1701542-43

TCLP Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**0.036**	0.25	0.014	5	B7D0618	04/21/2017	04/21/17 18:38	D1, J

STLC Metals by ICP-AES by EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**6.6**	1.0	0.057	20	B7D0632	04/22/2017	04/24/17 10:33	D1

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/26/2017

Client Sample ID EB13-1-E5-0.5

Lab ID: 1701542-46

TCLP Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**0.021**	0.25	0.014	5	B7D0618	04/21/2017	04/21/17 18:40	D1, J

STLC Metals by ICP-AES by EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**7.5**	1.0	0.057	20	B7D0632	04/22/2017	04/24/17 10:34	D1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/26/2017

Client Sample ID EB13-1-W5-0.5

Lab ID: 1701542-49

TCLP Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**0.022**	0.25	0.014	5	B7D0618	04/21/2017	04/21/17 18:46	D1, J

STLC Metals by ICP-AES by EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**7.5**	1.0	0.057	20	B7D0632	04/22/2017	04/24/17 10:37	D1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/26/2017

QUALITY CONTROL SECTION

TCLP Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7D0617 - EPA 3010A_S										
Blank (B7D0617-BLK1)					Prepared: 4/21/2017 Analyzed: 4/21/2017					
Lead	ND	0.050	0.0028							
Blank (B7D0617-BLK2)					Prepared: 4/21/2017 Analyzed: 4/21/2017					
Lead	ND	0.050	0.0028							
LCS (B7D0617-BS1)					Prepared: 4/21/2017 Analyzed: 4/21/2017					
Lead	0.925834	0.050	0.0028	1.00000		92.6	80 - 120			
Duplicate (B7D0617-DUP1)			**Source: 1701542-01**		Prepared: 4/21/2017 Analyzed: 4/21/2017					
Lead	0.026931	0.25	0.014		0.025576			5.16	20	J
Duplicate (B7D0617-DUP2)			**Source: 1701523-29**		Prepared: 4/21/2017 Analyzed: 4/21/2017					
Lead	ND	0.25	0.014		ND			NR	20	
Matrix Spike (B7D0617-MS1)			**Source: 1701542-01**		Prepared: 4/21/2017 Analyzed: 4/21/2017					
Lead	2.31296	0.25	0.014	2.50000	0.025576	91.5	78 - 109			
Matrix Spike (B7D0617-MS2)			**Source: 1701523-29**		Prepared: 4/21/2017 Analyzed: 4/21/2017					
Lead	2.25855	0.25	0.014	2.50000	ND	90.3	78 - 109			
Matrix Spike Dup (B7D0617-MSD1)			**Source: 1701542-01**		Prepared: 4/21/2017 Analyzed: 4/21/2017					
Lead	2.33791	0.25	0.014	2.50000	0.025576	92.5	78 - 109	1.07	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/26/2017

TCLP Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7D0618 - EPA 3010A_S										
Blank (B7D0618-BLK1)					Prepared: 4/21/2017 Analyzed: 4/21/2017					
Lead	ND	0.050	0.0028							
Blank (B7D0618-BLK2)					Prepared: 4/21/2017 Analyzed: 4/21/2017					
Lead	ND	0.050	0.0028							
LCS (B7D0618-BS1)					Prepared: 4/21/2017 Analyzed: 4/21/2017					
Lead	0.869360	0.050	0.0028	1.00000		86.9	80 - 120			
Duplicate (B7D0618-DUP1)			**Source: 1701542-49**		Prepared: 4/21/2017 Analyzed: 4/21/2017					
Lead	0.020297	0.25	0.014		0.022032			8.20	20	J
Duplicate (B7D0618-DUP2)			**Source: 1701542-46**		Prepared: 4/21/2017 Analyzed: 4/21/2017					
Lead	0.023636	0.25	0.014		0.021310			10.4	20	J
Matrix Spike (B7D0618-MS1)			**Source: 1701542-49**		Prepared: 4/21/2017 Analyzed: 4/21/2017					
Lead	2.16763	0.25	0.014	2.50000	0.022032	85.8	78 - 109			
Matrix Spike (B7D0618-MS2)			**Source: 1701542-46**		Prepared: 4/21/2017 Analyzed: 4/21/2017					
Lead	2.25538	0.25	0.014	2.50000	0.021310	89.4	78 - 109			
Matrix Spike Dup (B7D0618-MSD1)			**Source: 1701542-49**		Prepared: 4/21/2017 Analyzed: 4/21/2017					
Lead	2.18453	0.25	0.014	2.50000	0.022032	86.5	78 - 109	0.776	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/26/2017

STLC Metals by ICP-AES by EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7D0631 - STLC_S Extraction										
Blank (B7D0631-BLK1)					Prepared: 4/22/2017 Analyzed: 4/24/2017					
Lead	ND	1.0	0.057							
Blank (B7D0631-BLK2)					Prepared: 4/22/2017 Analyzed: 4/24/2017					
Lead	ND	1.0	0.057							
LCS (B7D0631-BS1)					Prepared: 4/22/2017 Analyzed: 4/24/2017					
Lead	1.86197			2.00000		93.1	80 - 120			
Duplicate (B7D0631-DUP1)			**Source: 1701523-29**		Prepared: 4/22/2017 Analyzed: 4/24/2017					
Lead	3.70726	1.0	0.057		3.61836			2.43	20	
Duplicate (B7D0631-DUP2)			**Source: 1701542-01**		Prepared: 4/22/2017 Analyzed: 4/24/2017					
Lead	7.85846	1.0	0.057		7.77845			1.02	20	
Matrix Spike (B7D0631-MS1)			**Source: 1701523-29**		Prepared: 4/22/2017 Analyzed: 4/24/2017					
Lead	5.56463			2.50000	3.61836	77.9	44 - 130			
Matrix Spike (B7D0631-MS2)			**Source: 1701542-01**		Prepared: 4/22/2017 Analyzed: 4/24/2017					
Lead	9.39855			2.50000	7.77845	64.8	44 - 130			
Matrix Spike Dup (B7D0631-MSD1)			**Source: 1701523-29**		Prepared: 4/22/2017 Analyzed: 4/24/2017					
Lead	5.72461			2.50000	3.61836	84.3	44 - 130	2.83	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/26/2017

STLC Metals by ICP-AES by EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7D0632 - STLC_S Extraction										
Blank (B7D0632-BLK1)					Prepared: 4/22/2017 Analyzed: 4/24/2017					
Lead	ND	1.0	0.057							
Blank (B7D0632-BLK2)					Prepared: 4/22/2017 Analyzed: 4/24/2017					
Lead	ND	1.0	0.057							
LCS (B7D0632-BS1)					Prepared: 4/22/2017 Analyzed: 4/24/2017					
Lead	1.82891			2.00000		91.4	80 - 120			
Duplicate (B7D0632-DUP1)			**Source: 1701542-46**		Prepared: 4/22/2017 Analyzed: 4/24/2017					
Lead	7.52641	1.0	0.057		7.53679			0.138	20	
Duplicate (B7D0632-DUP2)			**Source: 1701542-49**		Prepared: 4/22/2017 Analyzed: 4/24/2017					
Lead	7.31865	1.0	0.057		7.49713			2.41	20	
Matrix Spike (B7D0632-MS1)			**Source: 1701542-46**		Prepared: 4/22/2017 Analyzed: 4/24/2017					
Lead	9.29415			2.50000	7.53679	70.3	44 - 130			
Matrix Spike (B7D0632-MS2)			**Source: 1701542-49**		Prepared: 4/22/2017 Analyzed: 4/24/2017					
Lead	9.69158			2.50000	7.49713	87.8	44 - 130			
Matrix Spike Dup (B7D0632-MSD1)			**Source: 1701542-46**		Prepared: 4/22/2017 Analyzed: 4/24/2017					
Lead	9.33102			2.50000	7.53679	71.8	44 - 130	0.396	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/26/2017

Notes and Definitions

J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:
(1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
(2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
(3) Results are wet unless otherwise specified.

Rachelle Arada

From: Julie Harriman [jharriman@leightongroup.com]
Sent: Wednesday, April 19, 2017 3:06 PM
To: Rachelle Arada
Cc: customer.relations@atlglobal.com
Subject: RE: Results - Burroughs MS-LAUSD, 603378.006 (ATL# 1701542)

Hi Rachelle,

For the Burroughs samples:
- for all samples that exceed 50 mg/kg arsenic, we request STLC-arsenic and TCLP-arsenic.
-for all samples that exceed 50 mg/kg lead, we request STLC-lead and TCLP-lead.

Thank you,
Julie

-------- Original message --------
From: Rachelle Arada <Rachelle@atlglobal.com>
Date: 4/19/17 12:36 PM (GMT-08:00)
To: Julie Harriman <jharriman@leightongroup.com>
Cc: customer.relations@atlglobal.com
Subject: Results - Burroughs MS-LAUSD, 603378.006 (ATL# 1701542)

Hi Julie,

Please find your results for the above project attached. If I can further assist, please let me know. Thanks.

Rachelle Arada
Project Manager
Advanced Technology Laboratories
www.atlglobal.com
Tel: (562) 989-4045 ext. 237
Fax: (562) 989-4040

Advanced Technology Laboratories is a full-service environmental lab providing organic and inorganic analyses of soil, water, wastewater, storm water and hazardous waste samples. ATL is accredited by the State of California, NELAP and State of Oregon (Air) and holds various SBE, DBE and MBE certificates and a USDA soil permit. ATL takes pride in providing our customers with quick turnaround time, excellent customer service and defensible data while offering very competitive rates. *Advanced Technology Labs - Your Partner for Quality Environmental Testing*
This message is intended for the use of the individual or entity to which it is addressed. This may contain information that is privileged, confidential, and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient, or the employee or agent responsible for delivering the message to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by telephone and delete the original message. Thank you.

April 24, 2017

Julie Harriman
Leighton Consulting, Inc.
17781 Cowan Street
Irvine, CA 92614
Tel: (949) 250-1421
Fax:(949) 757-7230

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

RE: ATL Work Order Number : 1701565
Client Reference : Burroughs MS-LAUSD, 603378.006

Enclosed are the results for sample(s) received on April, 13 2017 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
EB9-1-S5-0.5	1701565-01	Soil	4/11/17 10:00	4/13/17 15:23
EB9-1-S5-1.5	1701565-02	Soil	4/11/17 10:02	4/13/17 15:23
EB9-1-S5-2.5	1701565-03	Soil	4/11/17 10:07	4/13/17 15:23
EB9-1-W5-0.5	1701565-04	Soil	4/11/17 10:12	4/13/17 15:23
EB9-1-W5-1.5	1701565-05	Soil	4/11/17 10:14	4/13/17 15:23
EB9-1-W5-2.5	1701565-06	Soil	4/11/17 10:16	4/13/17 15:23
EB9-1-S10-0.5	1701565-07	Soil	4/11/17 10:06	4/13/17 15:23
EB9-1-S10-1.5	1701565-08	Soil	4/11/17 10:08	4/13/17 15:23
EB9-1-S10-2.5	1701565-09	Soil	4/11/17 10:10	4/13/17 15:23
EB9-1-E9-0.5	1701565-10	Soil	4/11/17 9:47	4/13/17 15:23

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID EB9-1-S5-0.5

Lab ID: 1701565-01

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**99**	1.0	0.11	1	B7D0526	04/19/2017	04/20/17 10:38	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID EB9-1-S5-1.5

Lab ID: 1701565-02

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**2700**	5.0	0.56	5	B7D0526	04/19/2017	04/20/17 15:00	D6

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Client Sample ID EB9-1-S5-2.5

Lab ID: 1701565-03

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**3.9**	1.0	0.11	1	B7D0526	04/19/2017	04/20/17 10:44	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID EB9-1-W5-0.5

Lab ID: 1701565-04

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**260**	1.0	0.11	1	B7D0526	04/19/2017	04/20/17 10:45	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID EB9-1-W5-1.5

Lab ID: 1701565-05

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**21**	1.0	0.11	1	B7D0526	04/19/2017	04/20/17 10:46	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID EB9-1-W5-2.5

Lab ID: 1701565-06

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**5.5**	1.0	0.11	1	B7D0526	04/19/2017	04/20/17 10:50	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID EB9-1-S10-0.5

Lab ID: 1701565-07

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**34**	1.0	0.11	1	B7D0526	04/19/2017	04/20/17 10:51	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID EB9-1-S10-1.5

Lab ID: 1701565-08

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**36**	1.0	0.11	1	B7D0526	04/19/2017	04/20/17 10:52	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID EB9-1-S10-2.5

Lab ID: 1701565-09

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**7.6**	1.0	0.11	1	B7D0526	04/19/2017	04/20/17 10:53	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Client Sample ID EB9-1-E9-0.5
Lab ID: 1701565-10

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**26**	1.0	0.11	1	B7D0526	04/19/2017	04/20/17 10:54	

QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7D0526 - EPA 3050B_S										
Blank (B7D0526-BLK1)					Prepared: 4/19/2017 Analyzed: 4/20/2017					
Lead	ND	1.0	0.11							
LCS (B7D0526-BS1)					Prepared: 4/19/2017 Analyzed: 4/20/2017					
Lead	44.9924	1.0	0.11	50.0000		90.0	80 - 120			
Duplicate (B7D0526-DUP1)			**Source: 1701565-01**		Prepared: 4/19/2017 Analyzed: 4/20/2017					
Lead	115.773	1.0	0.11		99.4774			15.1	20	
Matrix Spike (B7D0526-MS1)			**Source: 1701565-01**		Prepared: 4/19/2017 Analyzed: 4/20/2017					
Lead	224.334	1.0	0.11	125.000	99.4774	99.9	34 - 129			
Matrix Spike Dup (B7D0526-MSD1)			**Source: 1701565-01**		Prepared: 4/19/2017 Analyzed: 4/20/2017					
Lead	213.233	1.0	0.11	125.000	99.4774	91.0	34 - 129	5.07	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Notes and Definitions

D6	Sample required dilution due to high concentration of target analyte.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:
(1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
(2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
(3) Results are wet unless otherwise specified.

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 1 of 1

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☑ ATL	1. CHILLED	☑	☐	5. # OF SAMPLES MATCH COC	☑	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (V0A)	☐	☐	6. PRESERVED	☐	☑
☐ GSO	3. CONTAINER INTACT	☑	☐	7. COOLER TEMP, deg C:	5.6	
☐ Other:	4. SEALED	☐	☑			

CUSTOMER

Company: Leighton Consulting, Inc. (LCI) — Address: 17781 Cowan — Tel: 949-250-1421
City: Irvine — State: CA — Zip: 92614 — Fax: 949-250-1114

SEND REPORT TO:
Attn: Julie Harriman — Email: jharriman@leightongroup.com
Company: LCI
Address: 17781 Cowan
City: Irvine — State: CA — Zip: 92614

SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Accounts Payable — Email: acctpayable@leightongroup.com
Company: Leighton
Address: 17781 Cowan
City: Irvine — State: CA — Zip: 92614

PROJECT SAMPLES

Project Name: Burroughs MS-LAUSD
Project No.: 603378-006
Sampler: W. Stevens
Quote No: —
PO #: —
Special Instructions/Comments: —

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	6010B Lead	6010B Arsenic	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE/ FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	Container #	Container Type	Container Material	Preservative	REMARKS
1	1701565 - 1	EB9-1-S5 0.5	4-11-17	1000									X		X					5	1	5	1	—	
2	- 2	EB9-1-S5-1.5		1002									X												
3	- 3	EB9-1-S5-2.5		1007									X												
4	- 4	EB9-1-W5-0.5		1012									X												
5	- 5	EB9-1-W5-1.5		1014									X												
6	- 6	EB9-1-W5-2.5		1016									X												
7	- 7	EB9-1-S10-0.5		1006									X												
8	- 8	EB9-1-S10-1.5		1008									X												
9	- 9	EB9-1-S10-2.5		1010									X												
10	- 10	EB9-1-EB-0.5		0947									X												

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4 = 4C; 5=Zn (Ac)2; 6=NaOH; 7=NA2S2O3
Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Redlar; 7 = Canister
Material: 1=Glass; 2=Plastic; 3=Metal

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for five (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Stevens — Submitter Print Name — Signature

CUSTODY

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Wallace Stevens	4-13-17	15:23	Erick Francis	4/13/17	15:23
Erick Francis	4/13/17	17:07	MFR	4/13/17	1707
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:

ADVANCED TECHNOLOGY LABORATORIES

April 28, 2017

Julie Harriman
Leighton Consulting, Inc.
17781 Cowan Street
Irvine, CA 92614
Tel: (949) 250-1421
Fax:(949) 757-7230

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1701565
Client Reference : Burroughs MS-LAUSD, 603378.006

Enclosed are the results for sample(s) received on April 13, 2017 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/28/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
EB9-1-S5-0.5	1701565-01	Soil	4/11/17 10:00	4/13/17 15:23
EB9-1-S5-1.5	1701565-02	Soil	4/11/17 10:02	4/13/17 15:23
EB9-1-W5-0.5	1701565-04	Soil	4/11/17 10:12	4/13/17 15:23

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/28/2017

Client Sample ID EB9-1-S5-0.5

Lab ID: 1701565-01

TCLP Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**0.10**	0.25	0.014	5	B7D0747	04/26/2017	04/26/17 12:37	D1, J

STLC Metals by ICP-AES by EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**9.3**	1.0	0.057	20	B7D0802	04/27/2017	04/27/17 13:27	D1

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/28/2017

Client Sample ID EB9-1-S5-1.5

Lab ID: 1701565-02

TCLP Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	0.25	0.014	5	B7D0747	04/26/2017	04/26/17 12:38	D1

STLC Metals by ICP-AES by EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**2.3**	1.0	0.057	20	B7D0802	04/27/2017	04/27/17 13:29	D1

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/28/2017

Client Sample ID EB9-1-W5-0.5

Lab ID: 1701565-04

TCLP Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**0.35**	0.25	0.014	5	B7D0747	04/26/2017	04/26/17 12:39	D1

STLC Metals by ICP-AES by EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**6.6**	1.0	0.057	20	B7D0802	04/27/2017	04/27/17 13:30	D1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/28/2017

QUALITY CONTROL SECTION

TCLP Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7D0747 - EPA 3010A_S										
Blank (B7D0747-BLK1)					Prepared: 4/26/2017 Analyzed: 4/26/2017					
Lead	ND	0.050	0.0028							
Blank (B7D0747-BLK2)					Prepared: 4/26/2017 Analyzed: 4/26/2017					
Lead	ND	0.050	0.0028							
LCS (B7D0747-BS1)					Prepared: 4/26/2017 Analyzed: 4/26/2017					
Lead	0.968051	0.050	0.0028	1.00000		96.8	80 - 120			
Duplicate (B7D0747-DUP1)			**Source: 1701567-36**		Prepared: 4/26/2017 Analyzed: 4/26/2017					
Lead	ND	0.25	0.014		ND			NR	20	
Duplicate (B7D0747-DUP2)			**Source: 1701567-62**		Prepared: 4/26/2017 Analyzed: 4/26/2017					
Lead	0.675978	0.25	0.014		0.654948			3.16	20	
Matrix Spike (B7D0747-MS1)			**Source: 1701567-36**		Prepared: 4/26/2017 Analyzed: 4/26/2017					
Lead	2.51553	0.25	0.014	2.50000	ND	101	78 - 109			
Matrix Spike (B7D0747-MS2)			**Source: 1701567-62**		Prepared: 4/26/2017 Analyzed: 4/26/2017					
Lead	3.10911	0.25	0.014	2.50000	0.654948	98.2	78 - 109			
Matrix Spike Dup (B7D0747-MSD1)			**Source: 1701567-36**		Prepared: 4/26/2017 Analyzed: 4/26/2017					
Lead	2.48512	0.25	0.014	2.50000	ND	99.4	78 - 109	1.22	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/28/2017

STLC Metals by ICP-AES by EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7D0802 - STLC_S Extraction										
Blank (B7D0802-BLK1)					Prepared: 4/27/2017 Analyzed: 4/27/2017					
Lead	ND	1.0	0.057							
LCS (B7D0802-BS1)					Prepared: 4/27/2017 Analyzed: 4/27/2017					
Lead	1.83514			2.00000		91.8	80 - 120			
Duplicate (B7D0802-DUP1)			**Source: 1701567-62**		Prepared: 4/27/2017 Analyzed: 4/27/2017					
Lead	3.32208	1.0	0.057		3.27259			1.50	20	
Matrix Spike (B7D0802-MS1)			**Source: 1701567-62**		Prepared: 4/27/2017 Analyzed: 4/27/2017					
Lead	5.28083			2.50000	3.27259	80.3	44 - 130			
Matrix Spike Dup (B7D0802-MSD1)			**Source: 1701567-62**		Prepared: 4/27/2017 Analyzed: 4/27/2017					
Lead	5.20516			2.50000	3.27259	77.3	44 - 130	1.44	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/28/2017

Notes and Definitions

J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:
(1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
(2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
(3) Results are wet unless otherwise specified.

Rachelle Arada

From: Julie Harriman [jharriman@leightongroup.com]
Sent: Wednesday, April 19, 2017 3:06 PM
To: Rachelle Arada
Cc: customer.relations@atlglobal.com
Subject: RE: Results - Burroughs MS-LAUSD, 603378.006 (ATL# 1701542)

Hi Rachelle,

For the Burroughs samples:
- for all samples that exceed 50 mg/kg arsenic, we request STLC-arsenic and TCLP-arsenic.
-for all samples that exceed 50 mg/kg lead, we request STLC-lead and TCLP-lead.

Thank you,
Julie

-------- Original message --------
From: Rachelle Arada <Rachelle@atlglobal.com>
Date: 4/19/17 12:36 PM (GMT-08:00)
To: Julie Harriman <jharriman@leightongroup.com>
Cc: customer.relations@atlglobal.com
Subject: Results - Burroughs MS-LAUSD, 603378.006 (ATL# 1701542)

Hi Julie,

Please find your results for the above project attached. If I can further assist, please let me know. Thanks.

Rachelle Arada
Project Manager
Advanced Technology Laboratories
www.atlglobal.com
Tel: (562) 989-4045 ext. 237
Fax: (562) 989-4040

Advanced Technology Laboratories is a full-service environmental lab providing organic and inorganic analyses of soil, water, wastewater, storm water and hazardous waste samples. ATL is accredited by the State of California, NELAP and State of Oregon (Air) and holds various SBE, DBE and MBE certificates and a USDA soil permit. ATL takes pride in providing our customers with quick turnaround time, excellent customer service and defensible data while offering very competitive rates. *Advanced Technology Labs - Your Partner for Quality Environmental Testing*
This message is intended for the use of the individual or entity to which it is addressed. This may contain information that is privileged, confidential, and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient, or the employee or agent responsible for delivering the message to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by telephone and delete the original message. Thank you.

April 24, 2017

Julie Harriman
Leighton Consulting, Inc.
17781 Cowan Street
Irvine, CA 92614
Tel: (949) 250-1421
Fax:(949) 757-7230

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

RE: ATL Work Order Number : 1701566
Client Reference : Burroughs MS-LAUSD, 603378.006

Enclosed are the results for sample(s) received on April, 13 2017 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
EB5-4-N5-0.5	1701566-01	Soil	4/11/17 13:00	4/13/17 15:23
EB5-4-N5-1.5	1701566-02	Soil	4/11/17 13:04	4/13/17 15:23
EB5-4-N5-2.5	1701566-03	Soil	4/11/17 13:05	4/13/17 15:23
EB5-4-N10-0.5	1701566-04	Soil	4/11/17 13:10	4/13/17 15:23
EB5-4-N10-1.5	1701566-05	Soil	4/11/17 13:12	4/13/17 15:23
EB5-4-N10-2.5	1701566-06	Soil	4/11/17 13:15	4/13/17 15:23
EB5-4-S7.5-0.5	1701566-07	Soil	4/11/17 12:55	4/13/17 15:23
EB5-4-S7.5-1.5	1701566-08	Soil	4/11/17 12:57	4/13/17 15:23
EB5-4-S7.5-2.5	1701566-09	Soil	4/11/17 12:59	4/13/17 15:23
EB5-3-E5-0.5	1701566-10	Soil	4/11/17 13:24	4/13/17 15:23
EB5-3-E5-1.5	1701566-11	Soil	4/11/17 13:26	4/13/17 15:23
EB5-3-E5-2.5	1701566-12	Soil	4/11/17 13:30	4/13/17 15:23
EB5-3-W5-0.5	1701566-13	Soil	4/11/17 13:24	4/13/17 15:23
EB5-3-W5-1.5	1701566-14	Soil	4/11/17 13:26	4/13/17 15:23
EB5-3-W5-2.5	1701566-15	Soil	4/11/17 13:31	4/13/17 15:23
EB5-3-W10-0.5	1701566-16	Soil	4/11/17 13:37	4/13/17 15:23
EB5-3-W10-1.5	1701566-17	Soil	4/11/17 13:39	4/13/17 15:23
EB5-3-W10-2.5	1701566-18	Soil	4/11/17 13:41	4/13/17 15:23
EB9-1-E9-1.5	1701566-19	Soil	4/11/17 9:50	4/13/17 15:23
EB9-1-E9-2.5	1701566-20	Soil	4/11/17 9:53	4/13/17 15:23
EB9-1-E5-0.5	1701566-21	Soil	4/11/17 9:55	4/13/17 15:23
EB9-1-E5-1.5	1701566-22	Soil	4/11/17 9:57	4/13/17 15:23
EB9-1-E5-2.5	1701566-23	Soil	4/11/17 9:59	4/13/17 15:23
EB9-7-W6-0.5	1701566-24	Soil	4/11/17 10:40	4/13/17 15:23
EB9-7-W6-1.5	1701566-25	Soil	4/11/17 10:41	4/13/17 15:23
EB9-7-W6-2.5	1701566-26	Soil	4/11/17 10:45	4/13/17 15:23
EB9-6-N10-3	1701566-27	Soil	4/11/17 10:00	4/13/17 15:23
EB9-6-S5-3	1701566-28	Soil	4/11/17 10:32	4/13/17 15:23
EB9-6-S5-4	1701566-29	Soil	4/11/17 10:35	4/13/17 15:23
EB9-6-E5-3	1701566-30	Soil	4/11/17 10:20	4/13/17 15:23
EB9-6-E5-3-D	1701566-31	Soil	4/11/17 10:20	4/13/17 15:23
EB9-6-E5-4	1701566-32	Soil	4/11/17 10:23	4/13/17 15:23
EB9-6-N5-3	1701566-33	Soil	4/11/17 10:10	4/13/17 15:23
EB9-6-N5-4	1701566-34	Soil	4/11/17 10:10	4/13/17 15:23
EB9-6-S10-3	1701566-35	Soil	4/11/17 10:40	4/13/17 15:23
EB9-6-E10-3	1701566-36	Soil	4/11/17 10:27	4/13/17 15:23
EB9-6-E10-4	1701566-37	Soil	4/11/17 10:29	4/13/17 15:23

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

DRUM-1	1701566-38	Soil	4/13/17 14:55	4/13/17 15:23
DRUM-1	1701566-38	Soil	4/13/17 14:55	4/13/17 15:23

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID EB5-4-N5-0.5

Lab ID: 1701566-01

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**15**	1.0	0.11	1	B7D0526	04/19/2017	04/20/17 10:55	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Client Sample ID EB5-4-N5-1.5

Lab ID: 1701566-02

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**3.6**	1.0	0.11	1	B7D0526	04/19/2017	04/20/17 10:56	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID EB5-4-N5-2.5

Lab ID: 1701566-03

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**3.1**	1.0	0.11	1	B7D0526	04/19/2017	04/20/17 10:57	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID EB5-4-N10-0.5

Lab ID: 1701566-04

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**17**	1.0	0.11	1	B7D0526	04/19/2017	04/20/17 10:58	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID EB5-4-N10-1.5

Lab ID: 1701566-05

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**5.8**	1.0	0.11	1	B7D0526	04/19/2017	04/20/17 10:59	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID EB5-4-N10-2.5

Lab ID: 1701566-06

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**2.8**	1.0	0.11	1	B7D0526	04/19/2017	04/20/17 11:06	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID EB5-4-S7.5-0.5

Lab ID: 1701566-07

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**21**	1.0	0.11	1	B7D0526	04/19/2017	04/20/17 11:07	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID EB5-4-S7.5-1.5

Lab ID: 1701566-08

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**3.6**	1.0	0.11	1	B7D0526	04/19/2017	04/20/17 11:08	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID EB5-4-S7.5-2.5

Lab ID: 1701566-09

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**2.3**	1.0	0.11	1	B7D0526	04/19/2017	04/20/17 11:11	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID EB5-3-E5-0.5

Lab ID: 1701566-10

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**34**	1.0	0.11	1	B7D0527	04/19/2017	04/20/17 11:31	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Client Sample ID EB5-3-E5-1.5

Lab ID: 1701566-11

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**3.3**	1.0	0.11	1	B7D0527	04/19/2017	04/20/17 11:35	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID EB5-3-E5-2.5

Lab ID: 1701566-12

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**3.2**	1.0	0.11	1	B7D0527	04/19/2017	04/20/17 11:37	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID EB5-3-W5-0.5

Lab ID: 1701566-13

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**22**	1.0	0.11	1	B7D0527	04/19/2017	04/20/17 11:38	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Client Sample ID EB5-3-W5-1.5

Lab ID: 1701566-14

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**4.7**	1.0	0.11	1	B7D0527	04/19/2017	04/20/17 11:39	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Client Sample ID EB5-3-W5-2.5

Lab ID: 1701566-15

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**3.7**	1.0	0.11	1	B7D0527	04/19/2017	04/20/17 11:42	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID EB5-3-W10-0.5

Lab ID: 1701566-16

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**14**	1.0	0.11	1	B7D0527	04/19/2017	04/20/17 11:43	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID EB5-3-W10-1.5

Lab ID: 1701566-17

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**2.9**	1.0	0.11	1	B7D0527	04/19/2017	04/20/17 11:44	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID EB5-3-W10-2.5

Lab ID: 1701566-18

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**2.8**	1.0	0.11	1	B7D0527	04/19/2017	04/20/17 11:46	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID EB9-1-E9-1.5

Lab ID: 1701566-19

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**110**	1.0	0.11	1	B7D0527	04/19/2017	04/20/17 11:47	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Client Sample ID EB9-1-E9-2.5

Lab ID: 1701566-20

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**40**	1.0	0.11	1	B7D0527	04/19/2017	04/20/17 11:48	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Client Sample ID EB9-1-E5-0.5

Lab ID: 1701566-21

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**230**	1.0	0.11	1	B7D0527	04/19/2017	04/20/17 11:49	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Client Sample ID EB9-1-E5-1.5

Lab ID: 1701566-22

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**20**	1.0	0.11	1	B7D0527	04/19/2017	04/20/17 11:50	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Client Sample ID EB9-1-E5-2.5

Lab ID: 1701566-23

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**4.6**	1.0	0.11	1	B7D0527	04/19/2017	04/20/17 11:51	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID EB9-7-W6-0.5

Lab ID: 1701566-24

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Copper	**12**	2.0	0.11	1	B7D0527	04/19/2017	04/20/17 11:52	
Lead	**6.4**	1.0	0.11	1	B7D0527	04/19/2017	04/20/17 11:52	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID EB9-7-W6-1.5

Lab ID: 1701566-25

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Copper	**18**	2.0	0.11	1	B7D0527	04/19/2017	04/20/17 11:56	
Lead	**9.6**	1.0	0.11	1	B7D0527	04/19/2017	04/20/17 11:56	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID EB9-7-W6-2.5

Lab ID: 1701566-26

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Copper	**13**	2.0	0.11	1	B7D0527	04/19/2017	04/20/17 11:57	
Lead	**3.1**	1.0	0.11	1	B7D0527	04/19/2017	04/20/17 11:57	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Client Sample ID EB9-6-N10-3

Lab ID: 1701566-27

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**4.8**	1.0	0.70	1	B7D0527	04/19/2017	04/20/17 11:58	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID EB9-6-S5-3

Lab ID: 1701566-28

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**4.1**	1.0	0.70	1	B7D0527	04/19/2017	04/20/17 11:59	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Client Sample ID EB9-6-S5-4

Lab ID: 1701566-29

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**3.1**	1.0	0.70	1	B7D0528	04/19/2017	04/20/17 12:02	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Client Sample ID EB9-6-E5-3

Lab ID: 1701566-30

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**3.3**	1.0	0.70	1	B7D0528	04/19/2017	04/20/17 12:09	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Client Sample ID EB9-6-E5-3-D

Lab ID: 1701566-31

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**3.1**	1.0	0.70	1	B7D0528	04/19/2017	04/20/17 12:10	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Client Sample ID EB9-6-E5-4

Lab ID: 1701566-32

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**3.1**	1.0	0.70	1	B7D0528	04/19/2017	04/20/17 12:11	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Client Sample ID EB9-6-N5-3

Lab ID: 1701566-33

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**48**	1.0	0.70	1	B7D0528	04/19/2017	04/20/17 12:13	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID EB9-6-N5-4

Lab ID: 1701566-34

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**24**	1.0	0.70	1	B7D0528	04/19/2017	04/20/17 12:14	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID EB9-6-S10-3

Lab ID: 1701566-35

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**5.0**	1.0	0.70	1	B7D0528	04/19/2017	04/20/17 14:09	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Client Sample ID EB9-6-E10-3

Lab ID: 1701566-36

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.8**	1.0	0.70	1	B7D0528	04/19/2017	04/20/17 14:10	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Client Sample ID EB9-6-E10-4

Lab ID: 1701566-37

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**2.8**	1.0	0.70	1	B7D0528	04/19/2017	04/20/17 14:11	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Client Sample ID DRUM-1
Lab ID: 1701566-38

Title 22 Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.32	1	B7D0535	04/19/2017	04/20/17 16:52	
Arsenic	**2.3**	1.0	0.70	1	B7D0535	04/19/2017	04/20/17 16:52	
Barium	**71**	1.0	0.10	1	B7D0535	04/19/2017	04/20/17 16:52	
Beryllium	ND	1.0	0.04	1	B7D0535	04/19/2017	04/20/17 16:52	
Cadmium	**0.11**	1.0	0.09	1	B7D0535	04/19/2017	04/20/17 16:52	J
Chromium	**11**	1.0	0.12	1	B7D0535	04/19/2017	04/20/17 16:52	
Cobalt	**6.1**	1.0	0.10	1	B7D0535	04/19/2017	04/20/17 16:52	
Copper	**13**	2.0	0.11	1	B7D0535	04/19/2017	04/20/17 16:52	
Lead	**17**	1.0	0.11	1	B7D0535	04/19/2017	04/20/17 16:52	
Molybdenum	ND	1.0	0.13	1	B7D0535	04/19/2017	04/20/17 16:52	
Nickel	**11**	1.0	0.10	1	B7D0535	04/19/2017	04/20/17 16:52	
Selenium	ND	1.0	0.88	1	B7D0535	04/19/2017	04/20/17 16:52	
Silver	ND	1.0	0.04	1	B7D0535	04/19/2017	04/20/17 16:52	
Thallium	ND	1.0	0.42	1	B7D0535	04/19/2017	04/20/17 16:52	
Vanadium	**25**	1.0	0.19	1	B7D0535	04/19/2017	04/20/17 16:52	
Zinc	**39**	1.0	0.18	1	B7D0535	04/19/2017	04/20/17 16:52	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: KEK

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	**0.05**	0.10	0.005	1	B7D0537	04/19/2017	04/20/17 10:47	J

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: VW

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	**0.72**	1.0	0.20	1	B7D0465	04/18/2017	04/18/17 10:08	J
Surrogate: 4-Bromofluorobenzene	*94.3 %*		*36 - 125*		B7D0465	04/18/2017	*04/18/17 10:08*	

Diesel Range Organics by EPA 8015B

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	**320**	20	20	20	B7D0439	04/14/2017	04/19/17 18:17	
ORO	**1100**	20	20	20	B7D0439	04/14/2017	04/19/17 18:17	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Client Sample ID DRUM-1
Lab ID: 1701566-38

Diesel Range Organics by EPA 8015B

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: p-Terphenyl	*0%*	*18 - 130*		B7D0439	04/14/2017	*04/19/17 18:17*	S4

Organochlorine Pesticides by EPA 8081

Analyst: RL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	**0.53**	2.0	0.22	1	B7D0426	04/14/2017	04/17/17 17:50	J
4,4´-DDE	**2.9**	2.0	0.20	1	B7D0426	04/14/2017	04/17/17 17:50	
4,4´-DDT	**2.3**	2.0	0.13	1	B7D0426	04/14/2017	04/17/17 17:50	
Aldrin	ND	1.0	0.27	1	B7D0426	04/14/2017	04/17/17 17:50	
alpha-BHC	ND	1.0	0.20	1	B7D0426	04/14/2017	04/17/17 17:50	
alpha-Chlordane	ND	1.0	0.21	1	B7D0426	04/14/2017	04/17/17 17:50	
beta-BHC	ND	1.0	0.23	1	B7D0426	04/14/2017	04/17/17 17:50	
Chlordane	ND	8.5	0.90	1	B7D0426	04/14/2017	04/17/17 17:50	
delta-BHC	ND	1.0	0.21	1	B7D0426	04/14/2017	04/17/17 17:50	
Dieldrin	ND	2.0	0.25	1	B7D0426	04/14/2017	04/17/17 17:50	
Endosulfan I	ND	1.0	0.21	1	B7D0426	04/14/2017	04/17/17 17:50	
Endosulfan II	ND	2.0	0.22	1	B7D0426	04/14/2017	04/17/17 17:50	
Endosulfan sulfate	ND	2.0	0.21	1	B7D0426	04/14/2017	04/17/17 17:50	
Endrin	ND	2.0	0.23	1	B7D0426	04/14/2017	04/17/17 17:50	
Endrin aldehyde	ND	2.0	0.28	1	B7D0426	04/14/2017	04/17/17 17:50	
Endrin ketone	ND	2.0	0.20	1	B7D0426	04/14/2017	04/17/17 17:50	
gamma-BHC	ND	1.0	0.20	1	B7D0426	04/14/2017	04/17/17 17:50	
gamma-Chlordane	ND	1.0	0.23	1	B7D0426	04/14/2017	04/17/17 17:50	
Heptachlor	ND	1.0	0.19	1	B7D0426	04/14/2017	04/17/17 17:50	
Heptachlor epoxide	ND	1.0	0.20	1	B7D0426	04/14/2017	04/17/17 17:50	
Methoxychlor	ND	5.0	0.18	1	B7D0426	04/14/2017	04/17/17 17:50	
Toxaphene	ND	50	8.2	1	B7D0426	04/14/2017	04/17/17 17:50	
Surrogate: Decachlorobiphenyl	*28.0 %*	*27 - 123*		B7D0426	04/14/2017	*04/17/17 17:50*		
Surrogate: Tetrachloro-m-xylene	*26.1 %*	*26 - 108*		B7D0426	04/14/2017	*04/17/17 17:50*		

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7D0526 - EPA 3050B_S										
Blank (B7D0526-BLK1)					Prepared: 4/19/2017 Analyzed: 4/20/2017					
Arsenic	ND	1.0	0.70							
Copper	ND	2.0	0.11							
Lead	ND	1.0	0.11							
LCS (B7D0526-BS1)					Prepared: 4/19/2017 Analyzed: 4/20/2017					
Arsenic	43.8814	1.0	0.70	50.0000		87.8	80 - 120			
Copper	46.8745	2.0	0.11	50.0000		93.7	80 - 120			
Lead	44.9924	1.0	0.11	50.0000		90.0	80 - 120			
Duplicate (B7D0526-DUP1)			**Source: 1701565-01**		Prepared: 4/19/2017 Analyzed: 4/20/2017					
Arsenic	5.37928	1.0	0.70		4.64989			14.5	20	
Copper	72.9598	2.0	0.11		76.6644			4.95	20	
Lead	115.773	1.0	0.11		99.4774			15.1	20	
Matrix Spike (B7D0526-MS1)			**Source: 1701565-01**		Prepared: 4/19/2017 Analyzed: 4/20/2017					
Arsenic	90.5297	1.0	0.70	125.000	4.64989	68.7	59 - 103			
Copper	198.830	2.0	0.11	125.000	76.6644	97.7	53 - 126			
Lead	224.334	1.0	0.11	125.000	99.4774	99.9	34 - 129			
Matrix Spike Dup (B7D0526-MSD1)			**Source: 1701565-01**		Prepared: 4/19/2017 Analyzed: 4/20/2017					
Arsenic	95.1112	1.0	0.70	125.000	4.64989	72.4	59 - 103	4.94	20	
Copper	169.061	2.0	0.11	125.000	76.6644	73.9	53 - 126	16.2	20	
Lead	213.233	1.0	0.11	125.000	99.4774	91.0	34 - 129	5.07	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7D0527 - EPA 3050B_S										
Blank (B7D0527-BLK1)					Prepared: 4/19/2017 Analyzed: 4/20/2017					
Arsenic	ND	1.0	0.70							
Copper	0.446243	2.0	0.11							J
Lead	ND	1.0	0.11							
LCS (B7D0527-BS1)					Prepared: 4/19/2017 Analyzed: 4/20/2017					
Arsenic	43.4046	1.0	0.70	50.0000		86.8	80 - 120			
Copper	47.4455	2.0	0.11	50.0000		94.9	80 - 120			
Lead	44.3618	1.0	0.11	50.0000		88.7	80 - 120			
Duplicate (B7D0527-DUP1)			**Source: 1701566-10**		Prepared: 4/19/2017 Analyzed: 4/20/2017					
Arsenic	4.12177	1.0	0.70		4.19008			1.64	20	
Copper	22.5070	2.0	0.11		20.3615			10.0	20	
Lead	32.5004	1.0	0.11		33.5587			3.20	20	
Matrix Spike (B7D0527-MS1)			**Source: 1701566-10**		Prepared: 4/19/2017 Analyzed: 4/20/2017					
Arsenic	98.7422	1.0	0.70	125.000	4.19008	75.6	59 - 103			
Copper	121.219	2.0	0.11	125.000	20.3615	80.7	53 - 126			
Lead	122.422	1.0	0.11	125.000	33.5587	71.1	34 - 129			
Matrix Spike Dup (B7D0527-MSD1)			**Source: 1701566-10**		Prepared: 4/19/2017 Analyzed: 4/20/2017					
Arsenic	85.0208	1.0	0.70	125.000	4.19008	64.7	59 - 103	14.9	20	
Copper	118.692	2.0	0.11	125.000	20.3615	78.7	53 - 126	2.11	20	
Lead	113.946	1.0	0.11	125.000	33.5587	64.3	34 - 129	7.17	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7D0528 - EPA 3050B_S										
Blank (B7D0528-BLK1)					Prepared: 4/19/2017 Analyzed: 4/20/2017					
Arsenic	ND	1.0	0.70							
Copper	0.503539	2.0	0.11							J
Lead	ND	1.0	0.11							
LCS (B7D0528-BS1)					Prepared: 4/19/2017 Analyzed: 4/20/2017					
Arsenic	42.4417	1.0	0.70	50.0000		84.9	80 - 120			
Copper	46.5882	2.0	0.11	50.0000		93.2	80 - 120			
Lead	42.5134	1.0	0.11	50.0000		85.0	80 - 120			
Duplicate (B7D0528-DUP1)			**Source: 1701566-29**		Prepared: 4/19/2017 Analyzed: 4/20/2017					
Arsenic	3.41420	1.0	0.70		3.14130			8.33	20	
Copper	11.3909	2.0	0.11		10.5796			7.38	20	
Lead	8.06575	1.0	0.11		5.16330			43.9	20	R
Matrix Spike (B7D0528-MS1)			**Source: 1701566-29**		Prepared: 4/19/2017 Analyzed: 4/20/2017					
Arsenic	86.8025	1.0	0.70	125.000	3.14130	66.9	59 - 103			
Copper	108.632	2.0	0.11	125.000	10.5796	78.4	53 - 126			
Lead	88.4072	1.0	0.11	125.000	5.16330	66.6	34 - 129			
Matrix Spike Dup (B7D0528-MSD1)			**Source: 1701566-29**		Prepared: 4/19/2017 Analyzed: 4/20/2017					
Arsenic	88.1229	1.0	0.70	125.000	3.14130	68.0	59 - 103	1.51	20	
Copper	110.042	2.0	0.11	125.000	10.5796	79.6	53 - 126	1.29	20	
Lead	90.5414	1.0	0.11	125.000	5.16330	68.3	34 - 129	2.39	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Title 22 Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7D0535 - EPA 3050B_S										
Blank (B7D0535-BLK1)					Prepared: 4/19/2017 Analyzed: 4/21/2017					
Antimony	ND	2.0	0.32							
Arsenic	ND	1.0	0.70							
Barium	0.125108	1.0	0.10							J
Beryllium	ND	1.0	0.04							
Cadmium	ND	1.0	0.09							
Chromium	0.172879	1.0	0.12							J
Cobalt	0.153452	1.0	0.10							J
Copper	ND	2.0	0.11							
Lead	0.334573	1.0	0.11							J
Molybdenum	ND	1.0	0.13							
Nickel	0.118493	1.0	0.10							J
Selenium	ND	1.0	0.88							
Silver	0.128423	1.0	0.04							J
Thallium	ND	1.0	0.42							
Vanadium	ND	1.0	0.19							
Zinc	ND	1.0	0.18							
LCS (B7D0535-BS1)					Prepared: 4/19/2017 Analyzed: 4/21/2017					
Antimony	44.6704	2.0	0.32	50.0000		89.3	80 - 120			
Arsenic	44.1682	1.0	0.70	50.0000		88.3	80 - 120			
Barium	44.9971	1.0	0.10	50.0000		90.0	80 - 120			
Beryllium	43.4288	1.0	0.04	50.0000		86.9	80 - 120			
Cadmium	42.2623	1.0	0.09	50.0000		84.5	80 - 120			
Chromium	46.2971	1.0	0.12	50.0000		92.6	80 - 120			
Cobalt	47.5754	1.0	0.10	50.0000		95.2	80 - 120			
Copper	48.2584	2.0	0.11	50.0000		96.5	80 - 120			
Lead	45.1230	1.0	0.11	50.0000		90.2	80 - 120			
Molybdenum	44.7143	1.0	0.13	50.0000		89.4	80 - 120			
Nickel	44.1599	1.0	0.10	50.0000		88.3	80 - 120			
Selenium	42.6160	1.0	0.88	50.0000		85.2	80 - 120			
Silver	43.3835	1.0	0.04	50.0000		86.8	80 - 120			
Thallium	45.3358	1.0	0.42	50.0000		90.7	80 - 120			
Vanadium	45.3832	1.0	0.19	50.0000		90.8	80 - 120			
Zinc	41.6581	1.0	0.18	50.0000		83.3	80 - 120			
Duplicate (B7D0535-DUP1)				**Source: 1701566-38**	Prepared: 4/19/2017 Analyzed: 4/20/2017					
Antimony	ND	2.0	0.32		ND			NR	20	
Arsenic	2.09643	1.0	0.70		2.29439			9.02	20	
Barium	71.4672	1.0	0.10		70.5851			1.24	20	
Beryllium	ND	1.0	0.04		ND			NR	20	
Cadmium	0.102950	1.0	0.09		0.110102			6.71	20	J
Chromium	9.07020	1.0	0.12		11.4407			23.1	20	R

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7D0535 - EPA 3050B_S (continued)										
Duplicate (B7D0535-DUP1) - Continued			**Source: 1701566-38**		Prepared: 4/19/2017 Analyzed: 4/20/2017					
Cobalt	5.95976	1.0	0.10		6.06400			1.73	20	
Copper	14.2813	2.0	0.11		12.6548			12.1	20	
Lead	12.6377	1.0	0.11		16.6774			27.6	20	R
Molybdenum	ND	1.0	0.13		ND			NR	20	
Nickel	7.91104	1.0	0.10		11.1967			34.4	20	R
Selenium	ND	1.0	0.88		ND			NR	20	
Silver	ND	1.0	0.04		ND			NR	20	
Thallium	ND	1.0	0.42		ND			NR	20	
Vanadium	19.1723	1.0	0.19		25.0121			26.4	20	R
Zinc	39.7674	1.0	0.18		38.8452			2.35	20	
Matrix Spike (B7D0535-MS1)			**Source: 1701566-38**		Prepared: 4/19/2017 Analyzed: 4/20/2017					
Antimony	65.0671	2.0	0.32	125.000	ND	52.1	34 - 103			
Arsenic	82.2384	1.0	0.70	125.000	2.29439	64.0	59 - 103			
Barium	156.444	1.0	0.10	125.000	70.5851	68.7	30 - 134			
Beryllium	85.4198	1.0	0.04	125.000	ND	68.3	62 - 105			
Cadmium	78.7389	1.0	0.09	125.000	0.110102	62.9	53 - 102			
Chromium	94.6728	1.0	0.12	125.000	11.4407	66.6	51 - 111			
Cobalt	83.5392	1.0	0.10	125.000	6.06400	62.0	55 - 105			
Copper	109.322	2.0	0.11	125.000	12.6548	77.3	53 - 126			
Lead	90.7563	1.0	0.11	125.000	16.6774	59.3	34 - 129			
Molybdenum	78.1069	1.0	0.13	125.000	ND	62.5	57 - 105			
Nickel	86.3464	1.0	0.10	125.000	11.1967	60.1	49 - 109			
Selenium	78.2716	1.0	0.88	125.000	ND	62.6	57 - 99			
Silver	91.3550	1.0	0.04	125.000	ND	73.1	64 - 105			
Thallium	74.8711	1.0	0.42	125.000	ND	59.9	46 - 105			
Vanadium	109.416	1.0	0.19	125.000	25.0121	67.5	60 - 109			
Zinc	116.852	1.0	0.18	125.000	38.8452	62.4	29 - 122			
Matrix Spike Dup (B7D0535-MSD1)			**Source: 1701566-38**		Prepared: 4/19/2017 Analyzed: 4/20/2017					
Antimony	52.3305	2.0	0.32	125.000	ND	41.9	34 - 103	21.7	20	R
Arsenic	67.3304	1.0	0.70	125.000	2.29439	52.0	59 - 103	19.9	20	M1
Barium	142.486	1.0	0.10	125.000	70.5851	57.5	30 - 134	9.34	20	
Beryllium	69.1006	1.0	0.04	125.000	ND	55.3	62 - 105	21.1	20	M1, R
Cadmium	67.1150	1.0	0.09	125.000	0.110102	53.6	53 - 102	15.9	20	
Chromium	86.0042	1.0	0.12	125.000	11.4407	59.7	51 - 111	9.60	20	
Cobalt	69.9930	1.0	0.10	125.000	6.06400	51.1	55 - 105	17.6	20	M1
Copper	89.7430	2.0	0.11	125.000	12.6548	61.7	53 - 126	19.7	20	
Lead	76.7048	1.0	0.11	125.000	16.6774	48.0	34 - 129	16.8	20	
Molybdenum	64.8630	1.0	0.13	125.000	ND	51.9	57 - 105	18.5	20	M1
Nickel	73.8502	1.0	0.10	125.000	11.1967	50.1	49 - 109	15.6	20	
Selenium	64.1899	1.0	0.88	125.000	ND	51.4	57 - 99	19.8	20	M1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7D0535 - EPA 3050B_S (continued)										
Matrix Spike Dup (B7D0535-MSD1) - Continued			**Source: 1701566-38**		Prepared: 4/19/2017 Analyzed: 4/20/2017					
Silver	78.7722	1.0	0.04	125.000	ND	63.0	64 - 105	14.8	20	M1
Thallium	63.9610	1.0	0.42	125.000	ND	51.2	46 - 105	15.7	20	
Vanadium	92.6960	1.0	0.19	125.000	25.0121	54.1	60 - 109	16.5	20	M1
Zinc	98.7486	1.0	0.18	125.000	38.8452	47.9	29 - 122	16.8	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Mercury by AA (Cold Vapor) EPA 7471A - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7D0537 - EPA 7471_S										
Blank (B7D0537-BLK1)					Prepared: 4/19/2017 Analyzed: 4/20/2017					
Mercury	ND	0.10	0.005							
LCS (B7D0537-BS1)					Prepared: 4/19/2017 Analyzed: 4/20/2017					
Mercury	0.758226	0.10	0.005	0.833333		91.0	80 - 120			
Duplicate (B7D0537-DUP1)			**Source: 1701566-38**		Prepared: 4/19/2017 Analyzed: 4/20/2017					
Mercury	0.048109	0.10	0.005		0.053844			11.3	20	J
Matrix Spike (B7D0537-MS1)			**Source: 1701566-38**		Prepared: 4/19/2017 Analyzed: 4/20/2017					
Mercury	0.926889	0.10	0.005	0.833333	0.053844	105	70 - 130			
Matrix Spike Dup (B7D0537-MSD1)			**Source: 1701566-38**		Prepared: 4/19/2017 Analyzed: 4/20/2017					
Mercury	0.976224	0.10	0.005	0.833333	0.053844	111	70 - 130	5.18	20	
Post Spike (B7D0537-PS1)			**Source: 1701566-38**		Prepared: 4/19/2017 Analyzed: 4/20/2017					
Mercury	0.005554			5.00000E-3	0.000646	98.2	85 - 115			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Gasoline Range Organics by EPA 8015B (Modified) - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7D0465 - GCVOA_S										
Blank (B7D0465-BLK1)					Prepared: 4/18/2017 Analyzed: 4/18/2017					
Gasoline Range Organics	ND	1.0	0.20							
C6-C12	ND	1.0	0.20							
Surrogate: 4-Bromofluorobenzene	*0.1772*			*0.200000*		*88.6*	*36 - 125*			
LCS (B7D0465-BS1)					Prepared: 4/18/2017 Analyzed: 4/18/2017					
Gasoline Range Organics	5.63500	1.0	0.20	5.00000		113	70 - 130			
Surrogate: 4-Bromofluorobenzene	*0.1949*			*0.200000*		*97.4*	*36 - 125*			
Duplicate (B7D0465-DUP1)			**Source: 1701566-38**		Prepared: 4/18/2017 Analyzed: 4/18/2017					
Gasoline Range Organics	0.705000	1.0	0.20		0.722000			2.38	20	J
Surrogate: 4-Bromofluorobenzene	*0.1901*			*0.200000*		*95.1*	*36 - 125*			
Matrix Spike (B7D0465-MS1)			**Source: 1701566-38**		Prepared: 4/18/2017 Analyzed: 4/18/2017					
Gasoline Range Organics	3.73400	1.0	0.20	5.00000	0.722000	60.2	32 - 161			
Surrogate: 4-Bromofluorobenzene	*0.1785*			*0.200000*		*89.2*	*36 - 125*			
Matrix Spike Dup (B7D0465-MSD1)			**Source: 1701566-38**		Prepared: 4/18/2017 Analyzed: 4/18/2017					
Gasoline Range Organics	3.61000	1.0	0.20	5.00000	0.722000	57.8	32 - 161	3.38	20	
Surrogate: 4-Bromofluorobenzene	*0.1989*			*0.200000*		*99.4*	*36 - 125*			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Diesel Range Organics by EPA 8015B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7D0439 - GCSEMI_DRO_LL_S										
Blank (B7D0439-BLK1)						Prepared: 4/14/2017 Analyzed: 4/18/2017				
DRO	ND	1.0	1.0							
ORO	ND	1.0	1.0							
Surrogate: p-Terphenyl	*2.568*			*2.66667*		*96.3*	*18 - 130*			
LCS (B7D0439-BS1)						Prepared: 4/14/2017 Analyzed: 4/18/2017				
DRO	26.9620	1.0	1.0	33.3333		80.9	34 - 120			
Surrogate: p-Terphenyl	*2.543*			*2.66667*		*95.4*	*18 - 130*			
Duplicate (B7D0439-DUP1)			**Source: 1701566-38**			Prepared: 4/14/2017 Analyzed: 4/19/2017				
DRO	532.553	20	20		323.053			49.0	20	R2
Surrogate: p-Terphenyl	*0.000*			*2.66667*		*NR*	*18 - 130*			S4
Matrix Spike (B7D0439-MS1)			**Source: 1701566-38**			Prepared: 4/14/2017 Analyzed: 4/19/2017				
DRO	566.307	20	20	33.3333	323.053	730	12 - 132			M2
Surrogate: p-Terphenyl	*0.000*			*2.66667*		*NR*	*18 - 130*			S4
Matrix Spike Dup (B7D0439-MSD1)			**Source: 1701566-38**			Prepared: 4/14/2017 Analyzed: 4/19/2017				
DRO	551.720	20	20	33.3333	323.053	686	12 - 132	2.61	20	M2
Surrogate: p-Terphenyl	*0.000*			*2.66667*		*NR*	*18 - 130*			S4

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7D0426 - GCSEMI_PCB/PEST_S										
Blank (B7D0426-BLK1)							Prepared: 4/14/2017 Analyzed: 4/17/2017			
4,4´-DDD	ND	2.0	0.22							
4,4´-DDD [2C]	ND	2.0	0.22							
4,4´-DDE	ND	2.0	0.20							
4,4´-DDE [2C]	ND	2.0	0.20							
4,4´-DDT	ND	2.0	0.13							
4,4´-DDT [2C]	ND	2.0	0.13							
Aldrin	ND	1.0	0.27							
Aldrin [2C]	ND	1.0	0.27							
alpha-BHC	ND	1.0	0.20							
alpha-BHC [2C]	ND	1.0	0.20							
alpha-Chlordane	ND	1.0	0.21							
alpha-Chlordane [2C]	ND	1.0	0.21							
beta-BHC	ND	1.0	0.23							
beta-BHC [2C]	ND	1.0	0.23							
Chlordane	ND	8.5	0.90							
Chlordane [2C]	ND	8.5	0.90							
delta-BHC	ND	1.0	0.21							
delta-BHC [2C]	ND	1.0	0.21							
Dieldrin	ND	2.0	0.25							
Dieldrin [2C]	ND	2.0	0.25							
Endosulfan I	ND	1.0	0.21							
Endosulfan I [2C]	ND	1.0	0.21							
Endosulfan II	ND	2.0	0.22							
Endosulfan II [2C]	ND	2.0	0.22							
Endosulfan sulfate	ND	2.0	0.21							
Endosulfan Sulfate [2C]	ND	2.0	0.21							
Endrin	ND	2.0	0.23							
Endrin [2C]	ND	2.0	0.23							
Endrin aldehyde	ND	2.0	0.28							
Endrin aldehyde [2C]	ND	2.0	0.28							
Endrin ketone	ND	2.0	0.20							
Endrin ketone [2C]	ND	2.0	0.20							
gamma-BHC	ND	1.0	0.20							
gamma-BHC [2C]	ND	1.0	0.20							
gamma-Chlordane	ND	1.0	0.23							
gamma-Chlordane [2C]	ND	1.0	0.23							
Heptachlor	ND	1.0	0.19							
Heptachlor [2C]	ND	1.0	0.19							
Heptachlor epoxide	ND	1.0	0.20							
Heptachlor epoxide [2C]	ND	1.0	0.20							
Methoxychlor	ND	5.0	0.18							

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7D0426 - GCSEMI_PCB/PEST_S (continued)										
Blank (B7D0426-BLK1) - Continued					Prepared: 4/14/2017 Analyzed: 4/17/2017					
Methoxychlor [2C]	ND	5.0	0.18							
Toxaphene	ND	50	8.2							
Toxaphene [2C]	ND	50	8.2							
Surrogate: Decachlorobiphenyl	*12.15*			*16.6667*		*72.9*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2	*12.30*			*16.6667*		*73.8*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*15.01*			*16.6667*		*90.1*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [	*15.10*			*16.6667*		*90.6*	*26 - 108*			
LCS (B7D0426-BS1)					Prepared: 4/14/2017 Analyzed: 4/17/2017					
4,4´-DDD	15.7835	2.0	0.22	16.6667		94.7	53 - 125			
4,4´-DDD [2C]	16.4917	2.0	0.22	16.6667		99.0	53 - 125			
4,4´-DDE	16.2935	2.0	0.20	16.6667		97.8	54 - 113			
4,4´-DDE [2C]	14.3695	2.0	0.20	16.6667		86.2	54 - 113			
4,4´-DDT	14.8480	2.0	0.13	16.6667		89.1	25 - 127			
4,4´-DDT [2C]	16.3647	2.0	0.13	16.6667		98.2	25 - 127			
Aldrin	16.2392	1.0	0.27	16.6667		97.4	59 - 107			
Aldrin [2C]	15.7210	1.0	0.27	16.6667		94.3	59 - 107			
alpha-BHC	16.5517	1.0	0.20	16.6667		99.3	59 - 104			
alpha-BHC [2C]	16.2627	1.0	0.20	16.6667		97.6	59 - 104			
alpha-Chlordane	16.9882	1.0	0.21	16.6667		102	54 - 110			
alpha-Chlordane [2C]	16.2660	1.0	0.21	16.6667		97.6	54 - 110			
beta-BHC	16.4027	1.0	0.23	16.6667		98.4	57 - 103			
beta-BHC [2C]	15.6707	1.0	0.23	16.6667		94.0	57 - 103			
delta-BHC	15.7592	1.0	0.21	16.6667		94.6	16 - 120			
delta-BHC [2C]	15.8637	1.0	0.21	16.6667		95.2	16 - 120			
Dieldrin	16.9317	2.0	0.25	16.6667		102	61 - 109			
Dieldrin [2C]	15.6850	2.0	0.25	16.6667		94.1	61 - 109			
Endosulfan I	16.4617	1.0	0.21	16.6667		98.8	60 - 106			
Endosulfan I [2C]	17.0247	1.0	0.21	16.6667		102	60 - 106			
Endosulfan II	18.6303	2.0	0.22	16.6667		112	59 - 108			L3
Endosulfan II [2C]	16.8212	2.0	0.22	16.6667		101	59 - 108			
Endosulfan sulfate	16.5657	2.0	0.21	16.6667		99.4	54 - 110			
Endosulfan Sulfate [2C]	16.1845	2.0	0.21	16.6667		97.1	54 - 110			
Endrin	17.7447	2.0	0.23	16.6667		106	63 - 112			
Endrin [2C]	17.7043	2.0	0.23	16.6667		106	63 - 112			
Endrin aldehyde	16.6300	2.0	0.28	16.6667		99.8	64 - 119			
Endrin aldehyde [2C]	16.2312	2.0	0.28	16.6667		97.4	64 - 119			
Endrin ketone	15.5378	2.0	0.20	16.6667		93.2	54 - 115			
Endrin ketone [2C]	15.4843	2.0	0.20	16.6667		92.9	54 - 115			
gamma-BHC	16.2885	1.0	0.20	16.6667		97.7	60 - 107			
gamma-BHC [2C]	16.1593	1.0	0.20	16.6667		97.0	60 - 107			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7D0426 - GCSEMI_PCB/PEST_S (continued)										
LCS (B7D0426-BS1) - Continued						Prepared: 4/14/2017 Analyzed: 4/17/2017				
gamma-Chlordane	16.4947	1.0	0.23	16.6667		99.0	57 - 106			
gamma-Chlordane [2C]	15.9988	1.0	0.23	16.6667		96.0	57 - 106			
Heptachlor	16.8713	1.0	0.19	16.6667		101	54 - 114			
Heptachlor [2C]	16.3550	1.0	0.19	16.6667		98.1	54 - 114			
Heptachlor epoxide	15.6200	1.0	0.20	16.6667		93.7	61 - 106			
Heptachlor epoxide [2C]	15.2282	1.0	0.20	16.6667		91.4	61 - 106			
Methoxychlor	15.2128	5.0	0.18	16.6667		91.3	18 - 138			
Methoxychlor [2C]	17.1605	5.0	0.18	16.6667		103	18 - 138			
Surrogate: Decachlorobiphenyl	*15.81*			*16.6667*		*94.8*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2	*16.47*			*16.6667*		*98.8*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*16.57*			*16.6667*		*99.4*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [	*17.37*			*16.6667*		*104*	*26 - 108*			
Duplicate (B7D0426-DUP1)			**Source: 1701566-38**			Prepared: 4/14/2017 Analyzed: 4/17/2017				
4,4´-DDD	0.456333	2.0	0.22		0.527333			14.4	20	J
4,4´-DDD [2C]	0.451833	2.0	0.22		0.548667			19.4	20	J
4,4´-DDE	2.60133	2.0	0.20		2.86250			9.56	20	
4,4´-DDE [2C]	2.07700	2.0	0.20		2.33800			11.8	20	
4,4´-DDT	2.07983	2.0	0.13		2.31900			10.9	20	
4,4´-DDT [2C]	2.02100	2.0	0.13		2.17667			7.42	20	
Aldrin	ND	1.0	0.27		ND				20	
Aldrin [2C]	ND	1.0	0.27		ND				20	
alpha-BHC	ND	1.0	0.20		ND				20	
alpha-BHC [2C]	ND	1.0	0.20		ND				20	
alpha-Chlordane	ND	1.0	0.21		ND				20	
alpha-Chlordane [2C]	ND	1.0	0.21		ND				20	
beta-BHC	ND	1.0	0.23		ND				20	
beta-BHC [2C]	ND	1.0	0.23		ND				20	
delta-BHC	ND	1.0	0.21		ND				20	
delta-BHC [2C]	ND	1.0	0.21		ND				20	
Dieldrin	ND	2.0	0.25		ND				20	
Dieldrin [2C]	ND	2.0	0.25		ND				20	
Endosulfan I	ND	1.0	0.21		ND				20	
Endosulfan I [2C]	ND	1.0	0.21		ND				20	
Endosulfan II	ND	2.0	0.22		ND				20	
Endosulfan II [2C]	ND	2.0	0.22		ND				20	
Endosulfan sulfate	ND	2.0	0.21		ND				20	
Endosulfan Sulfate [2C]	ND	2.0	0.21		ND				20	
Endrin	ND	2.0	0.23		ND				20	
Endrin [2C]	ND	2.0	0.23		ND				20	
Endrin aldehyde	ND	2.0	0.28		ND				20	

Leighton Consulting, Inc.
17781 Cowan Street
Irvine , CA 92614

Project Number : Burroughs MS-LAUSD, 603378.006
Report To : Julie Harriman
Reported : 04/24/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7D0426 - GCSEMI_PCB/PEST_S (continued)										
Duplicate (B7D0426-DUP1) - Continued			**Source: 1701566-38**		Prepared: 4/14/2017 Analyzed: 4/17/2017					
Endrin aldehyde [2C]	ND	2.0	0.28		ND				20	
Endrin ketone	ND	2.0	0.20		ND				20	
Endrin ketone [2C]	ND	2.0	0.20		ND				20	
gamma-BHC	ND	1.0	0.20		ND				20	
gamma-BHC [2C]	ND	1.0	0.20		ND				20	
gamma-Chlordane	ND	1.0	0.23		ND				20	
gamma-Chlordane [2C]	ND	1.0	0.23		ND				20	
Heptachlor	ND	1.0	0.19		ND				20	
Heptachlor [2C]	ND	1.0	0.19		ND				20	
Heptachlor epoxide	ND	1.0	0.20		ND				20	
Heptachlor epoxide [2C]	ND	1.0	0.20		ND				20	
Methoxychlor	ND	5.0	0.18		ND				20	
Methoxychlor [2C]	ND	5.0	0.18		ND				20	
Surrogate: Decachlorobiphenyl	*4.426*			*16.6667*		*26.6*	*27 - 123*			S13
Surrogate: Decachlorobiphenyl [2	*2.961*			*16.6667*		*17.8*	*27 - 123*			S13
Surrogate: Tetrachloro-m-xylene	*3.873*			*16.6667*		*23.2*	*26 - 108*			S13
Surrogate: Tetrachloro-m-xylene [	*3.283*			*16.6667*		*19.7*	*26 - 108*			S13
Matrix Spike (B7D0426-MS1)			**Source: 1701572-02**		Prepared: 4/14/2017 Analyzed: 4/17/2017					
4,4´-DDD	11.6982	2.0	0.22	16.6667	2.36900	56.0	25 - 141			
4,4´-DDD [2C]	11.1825	2.0	0.22	16.6667	2.20233	53.9	25 - 141			
4,4´-DDE	17.6425	2.0	0.20	16.6667	5.54850	72.6	22 - 141			
4,4´-DDE [2C]	15.7603	2.0	0.20	16.6667	5.17350	63.5	22 - 141			
4,4´-DDT	12.0813	2.0	0.13	16.6667	0.281833	70.8	15 - 136			
4,4´-DDT [2C]	11.9882	2.0	0.13	16.6667	0.359667	69.8	15 - 136			
Aldrin	10.9267	1.0	0.27	16.6667	ND	65.6	33 - 118			
Aldrin [2C]	10.5145	1.0	0.27	16.6667	ND	63.1	33 - 118			
alpha-BHC	8.79867	1.0	0.20	16.6667	ND	52.8	30 - 116			
alpha-BHC [2C]	8.53033	1.0	0.20	16.6667	ND	51.2	30 - 116			
alpha-Chlordane	9.86267	1.0	0.21	16.6667	ND	59.2	30 - 123			
alpha-Chlordane [2C]	9.14583	1.0	0.21	16.6667	ND	54.9	30 - 123			
beta-BHC	5.59283	1.0	0.23	16.6667	ND	33.6	24 - 121			
beta-BHC [2C]	5.46300	1.0	0.23	16.6667	ND	32.8	24 - 121			
delta-BHC	3.49317	1.0	0.21	16.6667	ND	21.0	7 - 120			
delta-BHC [2C]	3.49367	1.0	0.21	16.6667	ND	21.0	7 - 120			
Dieldrin	3.99667	2.0	0.25	16.6667	ND	24.0	25 - 136			M2
Dieldrin [2C]	3.61700	2.0	0.25	16.6667	ND	21.7	25 - 136			M2
Endosulfan I	4.99483	1.0	0.21	16.6667	ND	30.0	18 - 134			
Endosulfan I [2C]	5.07167	1.0	0.21	16.6667	ND	30.4	18 - 134			
Endosulfan II	2.24000	2.0	0.22	16.6667	ND	13.4	28 - 128			M2
Endosulfan II [2C]	1.73283	2.0	0.22	16.6667	ND	10.4	28 - 128			M2, J

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7D0426 - GCSEMI_PCB/PEST_S (continued)										
Matrix Spike (B7D0426-MS1) - Continued			**Source: 1701572-02**		Prepared: 4/14/2017 Analyzed: 4/17/2017					
Endosulfan sulfate	1.43567	2.0	0.21	16.6667	ND	8.61	5 - 145			J
Endosulfan Sulfate [2C]	1.28967	2.0	0.21	16.6667	ND	7.74	5 - 145			J
Endrin	4.25383	2.0	0.23	16.6667	ND	25.5	26 - 142			M2
Endrin [2C]	4.04983	2.0	0.23	16.6667	ND	24.3	26 - 142			M2
Endrin aldehyde	1.42000	2.0	0.28	16.6667	ND	8.52	8 - 146			J
Endrin aldehyde [2C]	1.30950	2.0	0.28	16.6667	ND	7.86	8 - 146			M2, J
Endrin ketone	1.33983	2.0	0.20	16.6667	ND	8.04	16 - 139			M2, J
Endrin ketone [2C]	1.23717	2.0	0.20	16.6667	ND	7.42	16 - 139			M2, J
gamma-BHC	7.54650	1.0	0.20	16.6667	ND	45.3	30 - 122			
gamma-BHC [2C]	7.39733	1.0	0.20	16.6667	ND	44.4	30 - 122			
gamma-Chlordane	15.0507	1.0	0.23	16.6667	ND	90.3	18 - 132			
gamma-Chlordane [2C]	8.48367	1.0	0.23	16.6667	ND	50.9	18 - 132			
Heptachlor	11.1077	1.0	0.19	16.6667	ND	66.6	34 - 122			
Heptachlor [2C]	10.8563	1.0	0.19	16.6667	ND	65.1	34 - 122			
Heptachlor epoxide	5.58433	1.0	0.20	16.6667	ND	33.5	21 - 135			
Heptachlor epoxide [2C]	5.54967	1.0	0.20	16.6667	ND	33.3	21 - 135			
Methoxychlor	2.50483	5.0	0.18	16.6667	ND	15.0	8 - 162			J
Methoxychlor [2C]	2.48250	5.0	0.18	16.6667	ND	14.9	8 - 162			J
Surrogate: Decachlorobiphenyl	*9.956*			*16.6667*		*59.7*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2	*9.665*			*16.6667*		*58.0*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*11.07*			*16.6667*		*66.4*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [	*11.19*			*16.6667*		*67.2*	*26 - 108*			
Matrix Spike (B7D0426-MS2)			**Source: 1701566-38**		Prepared: 4/14/2017 Analyzed: 4/17/2017					
4,4´-DDD	4.29117	2.0	0.22	16.6667	0.527333	22.6	25 - 141			M2
4,4´-DDD [2C]	4.36067	2.0	0.22	16.6667	0.548667	22.9	25 - 141			M2
4,4´-DDE	8.98233	2.0	0.20	16.6667	2.86250	36.7	22 - 141			
4,4´-DDE [2C]	8.29550	2.0	0.20	16.6667	2.33800	35.7	22 - 141			
4,4´-DDT	10.0042	2.0	0.13	16.6667	2.31900	46.1	15 - 136			
4,4´-DDT [2C]	9.38400	2.0	0.13	16.6667	2.17667	43.2	15 - 136			
Aldrin	5.79900	1.0	0.27	16.6667	ND	34.8	33 - 118			
Aldrin [2C]	5.83067	1.0	0.27	16.6667	ND	35.0	33 - 118			
alpha-BHC	4.36383	1.0	0.20	16.6667	ND	26.2	30 - 116			M2
alpha-BHC [2C]	4.63867	1.0	0.20	16.6667	ND	27.8	30 - 116			M2
alpha-Chlordane	5.13883	1.0	0.21	16.6667	ND	30.8	30 - 123			
alpha-Chlordane [2C]	5.37000	1.0	0.21	16.6667	ND	32.2	30 - 123			
beta-BHC	2.08250	1.0	0.23	16.6667	ND	12.5	24 - 121			M2
beta-BHC [2C]	1.72433	1.0	0.23	16.6667	ND	10.3	24 - 121			M2
delta-BHC	2.39183	1.0	0.21	16.6667	ND	14.4	7 - 120			
delta-BHC [2C]	1.83533	1.0	0.21	16.6667	ND	11.0	7 - 120			
Dieldrin	3.37250	2.0	0.25	16.6667	ND	20.2	25 - 136			M2

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7D0426 - GCSEMI_PCB/PEST_S (continued)										
Matrix Spike (B7D0426-MS2) - Continued			**Source: 1701566-38**			Prepared: 4/14/2017 Analyzed: 4/17/2017				
Dieldrin [2C]	2.82483	2.0	0.25	16.6667	ND	16.9	25 - 136			M2
Endosulfan I	3.28500	1.0	0.21	16.6667	ND	19.7	18 - 134			
Endosulfan I [2C]	2.62050	1.0	0.21	16.6667	ND	15.7	18 - 134			M2
Endosulfan II	1.87017	2.0	0.22	16.6667	ND	11.2	28 - 128			M2, J
Endosulfan II [2C]	1.70600	2.0	0.22	16.6667	ND	10.2	28 - 128			M2, J
Endosulfan sulfate	1.75300	2.0	0.21	16.6667	ND	10.5	5 - 145			J
Endosulfan Sulfate [2C]	1.40283	2.0	0.21	16.6667	ND	8.42	5 - 145			J
Endrin	3.27433	2.0	0.23	16.6667	ND	19.6	26 - 142			M2
Endrin [2C]	3.01667	2.0	0.23	16.6667	ND	18.1	26 - 142			M2
Endrin aldehyde	1.98900	2.0	0.28	16.6667	ND	11.9	8 - 146			J
Endrin aldehyde [2C]	1.66133	2.0	0.28	16.6667	ND	9.97	8 - 146			J
Endrin ketone	1.43950	2.0	0.20	16.6667	ND	8.64	16 - 139			M2, J
Endrin ketone [2C]	1.31167	2.0	0.20	16.6667	ND	7.87	16 - 139			M2, J
gamma-BHC	3.91667	1.0	0.20	16.6667	ND	23.5	30 - 122			M2
gamma-BHC [2C]	3.54383	1.0	0.20	16.6667	ND	21.3	30 - 122			M2
gamma-Chlordane	51.5935	1.0	0.23	16.6667	ND	310	18 - 132			M2
gamma-Chlordane [2C]	6.07367	1.0	0.23	16.6667	ND	36.4	18 - 132			
Heptachlor	6.42850	1.0	0.19	16.6667	ND	38.6	34 - 122			
Heptachlor [2C]	5.89600	1.0	0.19	16.6667	ND	35.4	34 - 122			
Heptachlor epoxide	4.72733	1.0	0.20	16.6667	ND	28.4	21 - 135			
Heptachlor epoxide [2C]	3.06733	1.0	0.20	16.6667	ND	18.4	21 - 135			M2
Methoxychlor	2.60533	5.0	0.18	16.6667	ND	15.6	8 - 162			J
Methoxychlor [2C]	2.88633	5.0	0.18	16.6667	ND	17.3	8 - 162			J
Surrogate: Decachlorobiphenyl	*6.496*			*16.6667*		*39.0*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2	*6.691*			*16.6667*		*40.1*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*6.532*			*16.6667*		*39.2*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [	*6.267*			*16.6667*		*37.6*	*26 - 108*			
Matrix Spike Dup (B7D0426-MSD1)			**Source: 1701572-02**			Prepared: 4/14/2017 Analyzed: 4/17/2017				
4,4´-DDD	7.52467	2.0	0.22	16.6667	2.36900	30.9	25 - 141	43.4	20	R3
4,4´-DDD [2C]	7.54633	2.0	0.22	16.6667	2.20233	32.1	25 - 141	38.8	20	R3
4,4´-DDE	14.9440	2.0	0.20	16.6667	5.54850	56.4	22 - 141	16.6	20	
4,4´-DDE [2C]	14.1523	2.0	0.20	16.6667	5.17350	53.9	22 - 141	10.8	20	
4,4´-DDT	9.07467	2.0	0.13	16.6667	0.281833	52.8	15 - 136	28.4	20	R3
4,4´-DDT [2C]	9.24767	2.0	0.13	16.6667	0.359667	53.3	15 - 136	25.8	20	R3
Aldrin	9.23350	1.0	0.27	16.6667	ND	55.4	33 - 118	16.8	20	
Aldrin [2C]	9.77467	1.0	0.27	16.6667	ND	58.6	33 - 118	7.29	20	
alpha-BHC	6.01750	1.0	0.20	16.6667	ND	36.1	30 - 116	37.5	20	R3
alpha-BHC [2C]	6.06617	1.0	0.20	16.6667	ND	36.4	30 - 116	33.8	20	R3
alpha-Chlordane	6.95700	1.0	0.21	16.6667	ND	41.7	30 - 123	34.6	20	R3
alpha-Chlordane [2C]	6.80267	1.0	0.21	16.6667	ND	40.8	30 - 123	29.4	20	R3

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7D0426 - GCSEMI_PCB/PEST_S (continued)										
Matrix Spike Dup (B7D0426-MSD1) - Continued			**Source: 1701572-02**		Prepared: 4/14/2017 Analyzed: 4/17/2017					
beta-BHC	2.77517	1.0	0.23	16.6667	ND	16.7	24 - 121	67.3	20	M2, R3
beta-BHC [2C]	3.86067	1.0	0.23	16.6667	ND	23.2	24 - 121	34.4	20	M2, R3
delta-BHC	1.37900	1.0	0.21	16.6667	ND	8.27	7 - 120	86.8	20	R3
delta-BHC [2C]	1.53617	1.0	0.21	16.6667	ND	9.22	7 - 120	77.8	20	R3
Dieldrin	1.67933	2.0	0.25	16.6667	ND	10.1	25 - 136	81.7	20	M2, R3, J
Dieldrin [2C]	1.47383	2.0	0.25	16.6667	ND	8.84	25 - 136	84.2	20	M2, R3, J
Endosulfan I	2.19583	1.0	0.21	16.6667	ND	13.2	18 - 134	77.9	20	M2, R3
Endosulfan I [2C]	2.52050	1.0	0.21	16.6667	ND	15.1	18 - 134	67.2	20	M2, R3
Endosulfan II	0.854333	2.0	0.22	16.6667	ND	5.13	28 - 128	89.6	20	M2, R3, J
Endosulfan II [2C]	0.591333	2.0	0.22	16.6667	ND	3.55	28 - 128	98.2	20	M2, R3, J
Endosulfan sulfate	0.462833	2.0	0.21	16.6667	ND	2.78	5 - 145	102	20	M2, R3, J
Endosulfan Sulfate [2C]	0.447000	2.0	0.21	16.6667	ND	2.68	5 - 145	97.0	20	M2, R3, J
Endrin	1.67483	2.0	0.23	16.6667	ND	10.0	26 - 142	87.0	20	M2, R3, J
Endrin [2C]	1.62217	2.0	0.23	16.6667	ND	9.73	26 - 142	85.6	20	M2, R3, J
Endrin aldehyde	0.464333	2.0	0.28	16.6667	ND	2.79	8 - 146	101	20	M2, R3, J
Endrin aldehyde [2C]	0.436167	2.0	0.28	16.6667	ND	2.62	8 - 146	100	20	M2, R3, J
Endrin ketone	0.412167	2.0	0.20	16.6667	ND	2.47	16 - 139	106	20	M2, R3, J
Endrin ketone [2C]	0.396833	2.0	0.20	16.6667	ND	2.38	16 - 139	103	20	M2, R3, J
gamma-BHC	4.48300	1.0	0.20	16.6667	ND	26.9	30 - 122	50.9	20	M2, R3
gamma-BHC [2C]	5.21417	1.0	0.20	16.6667	ND	31.3	30 - 122	34.6	20	R3
gamma-Chlordane	12.9673	1.0	0.23	16.6667	ND	77.8	18 - 132	14.9	20	
gamma-Chlordane [2C]	5.93700	1.0	0.23	16.6667	ND	35.6	18 - 132	35.3	20	R3
Heptachlor	9.18083	1.0	0.19	16.6667	ND	55.1	34 - 122	19.0	20	
Heptachlor [2C]	9.55117	1.0	0.19	16.6667	ND	57.3	34 - 122	12.8	20	
Heptachlor epoxide	2.68450	1.0	0.20	16.6667	ND	16.1	21 - 135	70.1	20	M2, R3
Heptachlor epoxide [2C]	2.84667	1.0	0.20	16.6667	ND	17.1	21 - 135	64.4	20	M2, R3
Methoxychlor	0.906333	5.0	0.18	16.6667	ND	5.44	8 - 162	93.7	20	M2, R3, J
Methoxychlor [2C]	0.971000	5.0	0.18	16.6667	ND	5.83	8 - 162	87.5	20	M2, R3, J
Surrogate: Decachlorobiphenyl	*8.765*			*16.6667*		*52.6*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2	*8.922*			*16.6667*		*53.5*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*9.234*			*16.6667*		*55.4*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [	*10.06*			*16.6667*		*60.4*	*26 - 108*			
Matrix Spike Dup (B7D0426-MSD2)			**Source: 1701566-38**		Prepared: 4/14/2017 Analyzed: 4/17/2017					
4,4´-DDD	5.34667	2.0	0.22	16.6667	0.527333	28.9	25 - 141	21.9	20	R3
4,4´-DDD [2C]	5.39417	2.0	0.22	16.6667	0.548667	29.1	25 - 141	21.2	20	R3
4,4´-DDE	10.1767	2.0	0.20	16.6667	2.86250	43.9	22 - 141	12.5	20	
4,4´-DDE [2C]	9.30133	2.0	0.20	16.6667	2.33800	41.8	22 - 141	11.4	20	
4,4´-DDT	9.53200	2.0	0.13	16.6667	2.31900	43.3	15 - 136	4.83	20	
4,4´-DDT [2C]	9.07833	2.0	0.13	16.6667	2.17667	41.4	15 - 136	3.31	20	
Aldrin	6.67517	1.0	0.27	16.6667	ND	40.1	33 - 118	14.0	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7D0426 - GCSEMI_PCB/PEST_S (continued)										
Matrix Spike Dup (B7D0426-MSD2) - Continued			**Source: 1701566-38**		Prepared: 4/14/2017 Analyzed: 4/17/2017					
Aldrin [2C]	6.71583	1.0	0.27	16.6667	ND	40.3	33 - 118	14.1	20	
alpha-BHC	5.32250	1.0	0.20	16.6667	ND	31.9	30 - 116	19.8	20	
alpha-BHC [2C]	5.35750	1.0	0.20	16.6667	ND	32.1	30 - 116	14.4	20	
alpha-Chlordane	5.78117	1.0	0.21	16.6667	ND	34.7	30 - 123	11.8	20	
alpha-Chlordane [2C]	6.00733	1.0	0.21	16.6667	ND	36.0	30 - 123	11.2	20	
beta-BHC	2.36100	1.0	0.23	16.6667	ND	14.2	24 - 121	12.5	20	M2
beta-BHC [2C]	2.29833	1.0	0.23	16.6667	ND	13.8	24 - 121	28.5	20	M2, R3
delta-BHC	2.71650	1.0	0.21	16.6667	ND	16.3	7 - 120	12.7	20	
delta-BHC [2C]	2.11300	1.0	0.21	16.6667	ND	12.7	7 - 120	14.1	20	
Dieldrin	3.51300	2.0	0.25	16.6667	ND	21.1	25 - 136	4.08	20	M2
Dieldrin [2C]	3.03533	2.0	0.25	16.6667	ND	18.2	25 - 136	7.18	20	M2
Endosulfan I	3.63067	1.0	0.21	16.6667	ND	21.8	18 - 134	10.0	20	
Endosulfan I [2C]	3.31367	1.0	0.21	16.6667	ND	19.9	18 - 134	23.4	20	R3
Endosulfan II	1.95767	2.0	0.22	16.6667	ND	11.7	28 - 128	4.57	20	M2, J
Endosulfan II [2C]	1.92433	2.0	0.22	16.6667	ND	11.5	28 - 128	12.0	20	M2, J
Endosulfan sulfate	1.96917	2.0	0.21	16.6667	ND	11.8	5 - 145	11.6	20	J
Endosulfan Sulfate [2C]	2.14283	2.0	0.21	16.6667	ND	12.9	5 - 145	41.7	20	R3
Endrin	3.36717	2.0	0.23	16.6667	ND	20.2	26 - 142	2.80	20	M2
Endrin [2C]	3.31267	2.0	0.23	16.6667	ND	19.9	26 - 142	9.35	20	M2
Endrin aldehyde	1.99000	2.0	0.28	16.6667	ND	11.9	8 - 146	0.0503	20	J
Endrin aldehyde [2C]	1.62450	2.0	0.28	16.6667	ND	9.75	8 - 146	2.24	20	J
Endrin ketone	1.46050	2.0	0.20	16.6667	ND	8.76	16 - 139	1.45	20	M2, J
Endrin ketone [2C]	1.37783	2.0	0.20	16.6667	ND	8.27	16 - 139	4.92	20	M2, J
gamma-BHC	4.56383	1.0	0.20	16.6667	ND	27.4	30 - 122	15.3	20	M2
gamma-BHC [2C]	4.13450	1.0	0.20	16.6667	ND	24.8	30 - 122	15.4	20	M2
gamma-Chlordane	68.9985	1.0	0.23	16.6667	ND	414	18 - 132	28.9	20	M2, R3
gamma-Chlordane [2C]	6.78200	1.0	0.23	16.6667	ND	40.7	18 - 132	11.0	20	
Heptachlor	7.44217	1.0	0.19	16.6667	ND	44.7	34 - 122	14.6	20	
Heptachlor [2C]	6.69417	1.0	0.19	16.6667	ND	40.2	34 - 122	12.7	20	
Heptachlor epoxide	3.68917	1.0	0.20	16.6667	ND	22.1	21 - 135	24.7	20	R3
Heptachlor epoxide [2C]	3.43717	1.0	0.20	16.6667	ND	20.6	21 - 135	11.4	20	M2
Methoxychlor	3.72500	5.0	0.18	16.6667	ND	22.4	8 - 162	35.4	20	R3, J
Methoxychlor [2C]	2.76600	5.0	0.18	16.6667	ND	16.6	8 - 162	4.26	20	J
Surrogate: Decachlorobiphenyl	*9.238*			*16.6667*		*55.4*	*27 - 123*			
Surrogate: Decachlorobiphenyl [2	*7.769*			*16.6667*		*46.6*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*8.130*			*16.6667*		*48.8*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene [	*7.092*			*16.6667*		*42.6*	*26 - 108*			

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Notes and Definitions

S4	Surrogate was diluted out.
S13	Surrogate recovery was below laboratory acceptance limit. Sample reanalysis showed the same low recovery.
R3	RPD value outside acceptance criteria. Calculation is based on raw values. The analytical batch was validated by the Laboratory Control Sample (LCS).
R2	RPD value outside acceptance criteria due to possible matrix interference.
R	RPD value outside acceptance criteria. Calculation is based on raw values.
M2	Matrix spike recovery outside of acceptance limit due to possible matrix interference. The analytical batch was validated by the laboratory control sample.
M1	Matrix spike recovery outside of acceptance limit. The analytical batch was validated by the laboratory control sample.
L3	Laboratory control sample outside in-house established limits but within method criteria.
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:
(1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
(2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
(3) Results are wet unless otherwise specified.

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 1 of 4

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☑ ATL	1. CHILLED	☐	☑	5. # OF SAMPLES MATCH COC	☑	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (V0A)	☐	☐	6. PRESERVED	☐	☑
☐ GSO	3. CONTAINER INTACT	☑	☐	7. COOLER TEMP, deg C:	5.6	
☐ Other:	4. SEALED	☐	☑			

CUSTOMER

Company: Leighton Consulting, Inc. (LCI)	Address: 17781 Cowan		Tel: 949-250-1421
	City: Irvine	State: CA Zip: 92614	Fax: 949-250-1114

SEND REPORT TO:	SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Julie Harriman	Attn: Accounts Payable
Email: jharriman@leightongroup.com	Email: acctpayable@leightongroup.com
Company: LCI	Company: Leighton
Address: 17781 Cowan	Address: 17781 Cowan
City: Irvine State: CA Zip: 92614	City: Irvine State: CA Zip: 92614

PROJECT SAMPLES

Project Name: Burroughs MS - LAUSD
Project No.: 603378-006
Sampler: W. Scomers
Quote No: —
PO #: —
Special Instructions/Comments: —

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	LUFT 5 Lead	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE / FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	Container #	Container Type	Container Material	Preservative	QA/QC / REMARKS
1	1701566-1	EBS-4-NS-0.5	4-11-17	1300									X	X					5	1	5	1	-	
2	-2	EBS-4-NS-1.5		1304																				
3	-3	EBS-4-NS-2.5		1305																				
4	-4	EBS-4-N10-0.5		1310																				
5	-5	EBS-4-N10-1.5		1312																				
6	-6	EBS-4-N10-2.5		1315																				
7	-7	EBS-4-S7.5-0.5 WBS 4-11-17		1255																				
8	-8	EBS-4-S7.5-~~0.5~~ 1.5		1257																				
9	-9	EBS-4-S7.5-2.5		1259																				
10	-10	EBS-3-ES-0.5		1324																				

Encircle or Write Requested Analysis

Encircle Sample Matrix: SOIL / SEDIMENT / SLUDGE; SOLIDS / WIPE / FILTER; WATER - DRINKING / GROUND; WATER - STORM / WASTE; AQUEOUS / LAYERED - OIL

Container: # | Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7=Canister | Material: 1=Glass; 2=Plastic; 3=Metal | Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4=4C; 5=Zn (Ac)2; 6=NaOH; 7=NA2S2O3

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for five (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Scomers — Submitter Print Name

Signature

CUSTODY

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
W. Wallace Scomers	4/13/17	15:23	Erick Franco	4/13/17	15:23
Erick Franco	4/13/17	17:07	MPL CR	4/13/17	1707
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 2 of 4

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☐ ATL	1. CHILLED	☑	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☐
☐ GSO	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other: _____	4. SEALED	☐	☐			

CUSTOMER

Company:	Address:		Tel:
	City:	State: Zip:	Fax:

SEND REPORT TO:	SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Email:	Attn: Email:
Company:	Company:
Address: See Page #1	Address: See Page #1
City: State: Zip:	City: State: Zip:

PROJECT SAMPLES

Project Name:	Quote No:	Special Instructions/Comments:
Project No.:	PO #:	
Sampler:		

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	LUFT Metals	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE / FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED OIL	TAT	Container #	Container Type	Container Material	Preservative	REMARKS
1	1701566-1	EB5-3-E5-1.5	4-11-17	1326									X	X					5	1	5	1	—	
2	-2	EB5-3-E5-2.5		1330																				
3	-3	EB5-3-W5-0.5		1324																				
4	-4	EB5-3-W5-1.5		1326																				
5	-5	EB5-3-W5-2.5		1331																				
6	-6	EB5-3-W10-0.5		1337																				
7	-7	EB5-3-W10-1.5		1339																				
8	-8	EB5-3-W10-2.5		1341																				
9	-9	EB9-1-E9-1.5		0950																				
10	-10	EB9-1-E9-2.5		0953																				

Encircle or Write Requested Analysis

Encircle Sample Matrix

Container: # = #; Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7 = Canister; Material: 1=Glass; 2=Plastic; 3=Metal

Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4 = 4C; 5=Zn (Ac)2; 6=NaOH; 7=NAZSO3

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for fi ve (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-fi ve (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Scowcis
Submitter Print Name

Signature

CUSTODY

	Date:	Time:		Date:	Time:
Relinquished by: (Signature and Printed Name) Wallace Scowcis	4/13/17	15:23	Received by: (Signature and Printed Name) Erick Franco	4/13/17	15:23
Relinquished by: (Signature and Printed Name) Erick Franco	4/13/17	17:07	Received by: (Signature and Printed Name) MPR	4/13/17	1707
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 3 of 4

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☑ ATL	1. CHILLED	☐	☑	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (V0A)	☐	☐	6. PRESERVED	☐	☐
☐ GSO	3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other: _____	4. SEALED	☐	☐			

CUSTOMER

Company:	Address:		Tel:
	City:	State: Zip:	Fax:

SEND REPORT TO:	SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Email:	Attn: Email:
Company:	Company:
Address: See Page #1	Address: See Page #1
City: State: Zip:	City: State: Zip:

PROJECT SAMPLES

Project Name:	Quote No:	Special Instructions/Comments:
Project No.:	PO #:	
Sampler:		

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	Co10Blead	Co10Bcopper	Co10Barsenic	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE / FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	Container #	Container Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7=Canister	Container Material: 1=Glass; 2=Plastic; 3=Metal	Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4=4C; 5=Zn (Ac)2; 6=NaOH; 7=NA2S2O3	REMARKS
1	1701566-21	EB9-1-ES-0.5	4-11-17	0955									X			X					5	1	5	1	—	
2	-22	EB9-1-ES-1.5		0957									X												
3	-23	EB9-1-ES-2.5		0959									X												
4	-24	EB9-7-W06-0.5		1040									X	X											
5	-25	EB9-7-W06-1.5		1041									X	X											
6	-26	EB9-7-W06-2.5 WBS 4-13-17		1045									X	X											
7	-27	EB9-6-N10-3		1000											X										
8	-28	EB9-6-SS-3		1032											X										
9	-29	EB9-6-SS-4		1035											X										
10	-30	EB9-6-ES-3		1020											X										

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for fi ve (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-fi ve (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Stevens — Submitter Print Name

Signature

CUSTODY

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Wallace Stevens	4/13/16	15:23	Erick Franco	4/13/16	15:23
Erick Franco	4/13/17	17:07	MPR	4/13/17	1707
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 4 of 4

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport		Sample Conditions Upon Receipt					
		Condition	Y	N	Condition	Y	N
☐ Client	☑ ATL	1. CHILLED	☐	☐	5. # OF SAMPLES MATCH COC	☐	☐
☐ FedEx	☐ OnTrac	2. HEADSPACE (V0A)	☐	☐	6. PRESERVED	☐	☐
☐ GSO		3. CONTAINER INTACT	☐	☐	7. COOLER TEMP, deg C:		
☐ Other:		4. SEALED	☐	☐			

CUSTOMER

Company:	Address:			Tel:
	City:	State:	Zip:	Fax:

SEND REPORT TO:	SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Email:	Attn: Email:
Company:	Company:
Address: See Page #1	Address: See Page #1
City: State: Zip:	City: State: Zip:

PROJECT SAMPLES

Project Name:	Quote No:	Special Instructions/Comments:
Project No.:	PO #:	
Sampler:		

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	6010B Arsenic	6010M Hg, Cd, Pb	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE / FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	Container #	Container Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7=Canister	Container Material: 1=Glass; 2=Plastic; 3=Metal	Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4=4C; 5=Zn ((Ac)2 6=NaOH; 7=NA2S2O3	REMARKS
1	1701526-31	EB9-6-ES-3-D	4-11-17	1020									X		X					5	1	5	1	-	
2	-32	EB9-6-ES-4		1023																					
3	-33	EB9-6-NS-3		1010																					
4	-34	EB9-6-NS-4		1010																					
5	-35	EB9-6-S10-3		1040																					
6	-36	EB9-6-E10-3		1027																					
7	-37	EB9-6-E10-4		1029																					
8	-38	DRUM-1	4-13-17	1455					X		X			X						4	5	1	-		
9																									
10																									

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for fi ve (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-fi ve (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Scomics — Submitter Print Name

Signature

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Wallace Scomics	4/13/17	15:23	Erick Franco	4/13/17	15:23
Erick Franco	4/13/17	17:07	MPR	4/13/17	1707
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:

ADVANCED TECHNOLOGY LABORATORIES

May 01, 2017

Julie Harriman
Leighton Consulting, Inc.
17781 Cowan Street
Irvine, CA 92614
Tel: (949) 250-1421
Fax:(949) 757-7230

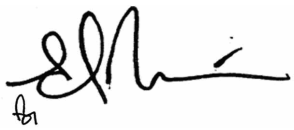
ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1701566
Client Reference : Burroughs MS-LAUSD, 603378.006

Enclosed are the results for sample(s) received on April 13, 2017 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,



Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	05/01/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
EB9-1-E9-1.5	1701566-19	Soil	4/11/17 9:50	4/13/17 15:23
EB9-1-E5-0.5	1701566-21	Soil	4/11/17 9:55	4/13/17 15:23

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	05/01/2017

Client Sample ID EB9-1-E9-1.5

Lab ID: 1701566-19

TCLP Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**0.019**	0.25	0.014	5	B7D0747	04/26/2017	04/26/17 12:41	D1, J

STLC Metals by ICP-AES by EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**2.5**	1.0	0.057	20	B7D0802	04/27/2017	04/27/17 13:31	D1

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	05/01/2017

Client Sample ID EB9-1-E5-0.5

Lab ID: 1701566-21

TCLP Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**0.74**	0.25	0.014	5	B7D0747	04/26/2017	04/26/17 12:42	D1

STLC Metals by ICP-AES by EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**51**	1.0	0.057	20	B7E0009	05/01/2017	05/01/17 11:52	D1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/01/2017

QUALITY CONTROL SECTION

TCLP Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7D0747 - EPA 3010A_S										
Blank (B7D0747-BLK1)					Prepared: 4/26/2017 Analyzed: 4/26/2017					
Lead	ND	0.050	0.0028							
Blank (B7D0747-BLK2)					Prepared: 4/26/2017 Analyzed: 4/26/2017					
Lead	ND	0.050	0.0028							
LCS (B7D0747-BS1)					Prepared: 4/26/2017 Analyzed: 4/26/2017					
Lead	0.968051	0.050	0.0028	1.00000		96.8	80 - 120			
Duplicate (B7D0747-DUP1)			**Source: 1701567-36**		Prepared: 4/26/2017 Analyzed: 4/26/2017					
Lead	ND	0.25	0.014		ND			NR	20	
Duplicate (B7D0747-DUP2)			**Source: 1701567-62**		Prepared: 4/26/2017 Analyzed: 4/26/2017					
Lead	0.675978	0.25	0.014		0.654948			3.16	20	
Matrix Spike (B7D0747-MS1)			**Source: 1701567-36**		Prepared: 4/26/2017 Analyzed: 4/26/2017					
Lead	2.51553	0.25	0.014	2.50000	ND	101	78 - 109			
Matrix Spike (B7D0747-MS2)			**Source: 1701567-62**		Prepared: 4/26/2017 Analyzed: 4/26/2017					
Lead	3.10911	0.25	0.014	2.50000	0.654948	98.2	78 - 109			
Matrix Spike Dup (B7D0747-MSD1)			**Source: 1701567-36**		Prepared: 4/26/2017 Analyzed: 4/26/2017					
Lead	2.48512	0.25	0.014	2.50000	ND	99.4	78 - 109	1.22	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/01/2017

STLC Metals by ICP-AES by EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7D0802 - STLC_S Extraction										
Blank (B7D0802-BLK1)					Prepared: 4/27/2017 Analyzed: 4/27/2017					
Lead	ND	1.0	0.057							
LCS (B7D0802-BS1)					Prepared: 4/27/2017 Analyzed: 4/27/2017					
Lead	1.83514			2.00000		91.8	80 - 120			
Duplicate (B7D0802-DUP1)			**Source: 1701567-62**		Prepared: 4/27/2017 Analyzed: 4/27/2017					
Lead	3.32208	1.0	0.057		3.27259			1.50	20	
Matrix Spike (B7D0802-MS1)			**Source: 1701567-62**		Prepared: 4/27/2017 Analyzed: 4/27/2017					
Lead	5.28083			2.50000	3.27259	80.3	44 - 130			
Matrix Spike Dup (B7D0802-MSD1)			**Source: 1701567-62**		Prepared: 4/27/2017 Analyzed: 4/27/2017					
Lead	5.20516			2.50000	3.27259	77.3	44 - 130	1.44	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/01/2017

STLC Metals by ICP-AES by EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7E0009 - STLC_S Extraction										
Blank (B7E0009-BLK1)					Prepared: 5/1/2017 Analyzed: 5/1/2017					
Lead	ND	1.0	0.057							
LCS (B7E0009-BS1)					Prepared: 5/1/2017 Analyzed: 5/1/2017					
Lead	1.93342			2.00000		96.7	80 - 120			
Duplicate (B7E0009-DUP1)			**Source: 1701566-21RE1**		Prepared: 5/1/2017 Analyzed: 5/1/2017					
Lead	51.1119	1.0	0.057		51.2241			0.219	20	
Matrix Spike (B7E0009-MS1)			**Source: 1701566-21RE1**		Prepared: 5/1/2017 Analyzed: 5/1/2017					
Lead	53.0480			2.50000	51.2241	73.0	44 - 130			
Matrix Spike Dup (B7E0009-MSD1)			**Source: 1701566-21RE1**		Prepared: 5/1/2017 Analyzed: 5/1/2017					
Lead	51.6272			2.50000	51.2241	16.1	44 - 130	2.71	20	M1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/01/2017

Notes and Definitions

M1	Matrix spike recovery outside of acceptance limit. The analytical batch was validated by the laboratory control sample.
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:
(1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
(2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
(3) Results are wet unless otherwise specified.

Rachelle Arada

From: Julie Harriman [jharriman@leightongroup.com]
Sent: Wednesday, April 19, 2017 3:06 PM
To: Rachelle Arada
Cc: customer.relations@atlglobal.com
Subject: RE: Results - Burroughs MS-LAUSD, 603378.006 (ATL# 1701542)

Hi Rachelle,

For the Burroughs samples:
- for all samples that exceed 50 mg/kg arsenic, we request STLC-arsenic and TCLP-arsenic.
-for all samples that exceed 50 mg/kg lead, we request STLC-lead and TCLP-lead.

Thank you,
Julie

-------- Original message --------
From: Rachelle Arada <Rachelle@atlglobal.com>
Date: 4/19/17 12:36 PM (GMT-08:00)
To: Julie Harriman <jharriman@leightongroup.com>
Cc: customer.relations@atlglobal.com
Subject: Results - Burroughs MS-LAUSD, 603378.006 (ATL# 1701542)

Hi Julie,

Please find your results for the above project attached. If I can further assist, please let me know. Thanks.

Rachelle Arada
Project Manager
Advanced Technology Laboratories
www.atlglobal.com
Tel: (562) 989-4045 ext. 237
Fax: (562) 989-4040

Advanced Technology Laboratories is a full-service environmental lab providing organic and inorganic analyses of soil, water, wastewater, storm water and hazardous waste samples. ATL is accredited by the State of California, NELAP and State of Oregon (Air) and holds various SBE, DBE and MBE certificates and a USDA soil permit. ATL takes pride in providing our customers with quick turnaround time, excellent customer service and defensible data while offering very competitive rates. *Advanced Technology Labs - Your Partner for Quality Environmental Testing*
This message is intended for the use of the individual or entity to which it is addressed. This may contain information that is privileged, confidential, and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient, or the employee or agent responsible for delivering the message to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by telephone and delete the original message. Thank you.

ADVANCED TECHNOLOGY LABORATORIES

April 24, 2017

Julie Harriman
Leighton Consulting, Inc.
17781 Cowan Street
Irvine, CA 92614
Tel: (949) 250-1421
Fax:(949) 757-7230

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

RE: ATL Work Order Number : 1701567
Client Reference : Burroughs MS-LAUSD, 603378.006

Enclosed are the results for sample(s) received on April, 13 2017 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
EB20-6-N5-0.5	1701567-01	Soil	4/12/17 12:20	4/13/17 15:23
EB20-6-N5-1.5	1701567-02	Soil	4/12/17 12:22	4/13/17 15:23
EB20-6-N5-2.5	1701567-03	Soil	4/12/17 12:24	4/13/17 15:23
EB20-6-N10-0.5	1701567-04	Soil	4/12/17 12:07	4/13/17 15:23
EB20-6-N10-1.5	1701567-05	Soil	4/12/17 12:09	4/13/17 15:23
EB20-6-N10-1.5-D	1701567-06	Soil	4/12/17 12:09	4/13/17 15:23
EB20-6-N10-2.5	1701567-07	Soil	4/12/17 12:12	4/13/17 15:23
EB20-6-S5-0.5	1701567-08	Soil	4/12/17 12:40	4/13/17 15:23
EB20-6-S5-1.5	1701567-09	Soil	4/12/17 12:43	4/13/17 15:23
EB20-6-S5-2.5	1701567-10	Soil	4/12/17 12:46	4/13/17 15:23
EB20-6-W5-0.5	1701567-11	Soil	4/12/17 12:10	4/13/17 15:23
EB20-6-W5-1.5	1701567-12	Soil	4/12/17 12:12	4/13/17 15:23
EB20-6-W5-2.5	1701567-13	Soil	4/12/17 12:14	4/13/17 15:23
EB20-6-W8-0.5	1701567-14	Soil	4/12/17 12:17	4/13/17 15:23
EB20-6-W8-1.5	1701567-15	Soil	4/12/17 12:19	4/13/17 15:23
EB20-6-W8-2.5	1701567-16	Soil	4/12/17 12:21	4/13/17 15:23
EB20-6-W8-2.5-D	1701567-17	Soil	4/12/17 12:21	4/13/17 15:23
FB14-4-N10-0.5	1701567-18	Soil	4/12/17 8:10	4/13/17 15:23
FB14-4-N10-1.5	1701567-19	Soil	4/12/17 8:12	4/13/17 15:23
FB14-4-N10-2.5	1701567-20	Soil	4/12/17 8:17	4/13/17 15:23
FB14-4-W5-0.5	1701567-21	Soil	4/12/17 8:51	4/13/17 15:23
FB14-4-W5-1.5	1701567-22	Soil	4/12/17 8:52	4/13/17 15:23
FB14-4-W5-1.5-D	1701567-23	Soil	4/12/17 8:52	4/13/17 15:23
FB14-4-W5-2.5	1701567-24	Soil	4/12/17 8:55	4/13/17 15:23
FB14-4-W10-0.5	1701567-25	Soil	4/12/17 9:00	4/13/17 15:23
FB14-4-W10-1.5	1701567-26	Soil	4/12/17 9:02	4/13/17 15:23
FB14-4-W10-2.5	1701567-27	Soil	4/12/17 9:04	4/13/17 15:23
EB15-1-S5-3-D	1701567-28	Soil	4/12/17 7:55	4/13/17 15:23
EB15-1-S5-3	1701567-29	Soil	4/12/17 7:55	4/13/17 15:23
EB15-1-S5-4	1701567-30	Soil	4/12/17 8:02	4/13/17 15:23
FB14-4-N5-0.5	1701567-31	Soil	4/12/17 8:20	4/13/17 15:23
FB14-4-N5-1.5	1701567-32	Soil	4/12/17 8:23	4/13/17 15:23
FB14-4-N5-1.5-D	1701567-33	Soil	4/12/17 8:23	4/13/17 15:23
FB14-4-N5-2.5	1701567-34	Soil	4/12/17 8:26	4/13/17 15:23
FB14-4-E8.5-0.5	1701567-35	Soil	4/12/17 8:33	4/13/17 15:23
FB14-4-E8.5-1.5	1701567-36	Soil	4/12/17 8:35	4/13/17 15:23
FB14-4-E8.5-2.5	1701567-37	Soil	4/12/17 8:40	4/13/17 15:23

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

FB14-4-E8.5-2.5-D	1701567-38	Soil	4/12/17 8:40	4/13/17 15:23
FB14-4-E5-0.5	1701567-39	Soil	4/12/17 8:30	4/13/17 15:23
FB14-4-E5-1.5	1701567-40	Soil	4/12/17 8:32	4/13/17 15:23
FB14-4-E5-2.5	1701567-41	Soil	4/12/17 8:35	4/13/17 15:23
FB14-4-E5-2.5-D	1701567-42	Soil	4/12/17 8:35	4/13/17 15:23
FB16-1-E10-0.5	1701567-43	Soil	4/12/17 11:10	4/13/17 15:23
FB16-1-E10-1.5	1701567-44	Soil	4/12/17 11:12	4/13/17 15:23
FB16-1-E10-1.5-D	1701567-45	Soil	4/12/17 11:12	4/13/17 15:23
FB16-1-E10-2.5	1701567-46	Soil	4/12/17 11:15	4/13/17 15:23
FB16-1-E5-0.5	1701567-47	Soil	4/12/17 11:07	4/13/17 15:23
FB16-1-E5-1.5	1701567-48	Soil	4/12/17 11:09	4/13/17 15:23
FB16-1-E5-2.5	1701567-49	Soil	4/12/17 11:13	4/13/17 15:23
FB16-1-E5-2.5-D	1701567-50	Soil	4/12/17 11:13	4/13/17 15:23
FB16-1-W10-0.5	1701567-51	Soil	4/12/17 11:25	4/13/17 15:23
FB16-1-W10-0.5-D	1701567-52	Soil	4/12/17 11:25	4/13/17 15:23
FB16-1-W10-1.5	1701567-53	Soil	4/12/17 11:29	4/13/17 15:23
FB16-1-W10-2.5	1701567-54	Soil	4/12/17 11:32	4/13/17 15:23
FB16-1-W5-0.5	1701567-55	Soil	4/12/17 11:35	4/13/17 15:23
FB16-1-W5-0.5-D	1701567-56	Soil	4/12/17 11:35	4/13/17 15:23
FB16-1-W5-1.5	1701567-57	Soil	4/12/17 11:37	4/13/17 15:23
FB16-1-W5-2.5	1701567-58	Soil	4/12/17 11:40	4/13/17 15:23
FB16-1-S5-0.5	1701567-59	Soil	4/12/17 12:10	4/13/17 15:23
FB16-1-S5-1.5	1701567-60	Soil	4/12/17 12:13	4/13/17 15:23
FB16-1-S5-2.5	1701567-61	Soil	4/12/17 12:15	4/13/17 15:23
FB16-1-S5-2.5-D	1701567-62	Soil	4/12/17 12:15	4/13/17 15:23
FB16-1-S10-0.5	1701567-63	Soil	4/12/17 12:20	4/13/17 15:23
FB16-1-S10-1.5	1701567-64	Soil	4/12/17 12:22	4/13/17 15:23
FB16-1-S10-2.5	1701567-65	Soil	4/12/17 12:24	4/13/17 15:23
FB16-1-N10-0.5	1701567-66	Soil	4/12/17 12:26	4/13/17 15:23
FB16-1-N10-0.5-D	1701567-67	Soil	4/12/17 12:26	4/13/17 15:23
FB16-1-N10-1.5	1701567-68	Soil	4/12/17 12:28	4/13/17 15:23
FB16-1-N10-2.5	1701567-69	Soil	4/12/17 12:31	4/13/17 15:23
FB16-1-N5-0.5	1701567-70	Soil	4/12/17 12:34	4/13/17 15:23
FB16-1-N5-1.5	1701567-71	Soil	4/12/17 12:37	4/13/17 15:23
FB16-1-N5-1.5-D	1701567-72	Soil	4/12/17 12:37	4/13/17 15:23
FB16-1-N5-2.5	1701567-73	Soil	4/12/17 12:40	4/13/17 15:23

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID EB20-6-N5-0.5

Lab ID: 1701567-01

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**99**	1.0	0.11	1	B7D0528	04/19/2017	04/20/17 14:12	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Client Sample ID EB20-6-N5-1.5

Lab ID: 1701567-02

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**13**	1.0	0.11	1	B7D0528	04/19/2017	04/20/17 14:13	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Client Sample ID EB20-6-N5-2.5

Lab ID: 1701567-03

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**8.4**	1.0	0.11	1	B7D0528	04/19/2017	04/20/17 12:55	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID EB20-6-N10-0.5

Lab ID: 1701567-04

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**23**	1.0	0.11	1	B7D0528	04/19/2017	04/20/17 12:56	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID EB20-6-N10-1.5

Lab ID: 1701567-05

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**13**	1.0	0.11	1	B7D0528	04/19/2017	04/20/17 12:57	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID EB20-6-N10-1.5-D

Lab ID: 1701567-06

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**19**	1.0	0.11	1	B7D0528	04/19/2017	04/20/17 12:58	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID EB20-6-N10-2.5

Lab ID: 1701567-07

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**8.1**	1.0	0.11	1	B7D0528	04/19/2017	04/20/17 12:59	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID EB20-6-S5-0.5

Lab ID: 1701567-08

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**54**	1.0	0.11	1	B7D0528	04/19/2017	04/20/17 13:00	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Client Sample ID EB20-6-S5-1.5

Lab ID: 1701567-09

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**12**	1.0	0.11	1	B7D0528	04/19/2017	04/20/17 13:01	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID EB20-6-S5-2.5

Lab ID: 1701567-10

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**3.1**	1.0	0.11	1	B7D0528	04/19/2017	04/20/17 13:03	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID EB20-6-W5-0.5

Lab ID: 1701567-11

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**33**	1.0	0.11	1	B7D0529	04/19/2017	04/20/17 13:08	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID EB20-6-W5-1.5

Lab ID: 1701567-12

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**15**	1.0	0.11	1	B7D0529	04/19/2017	04/20/17 13:13	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID EB20-6-W5-2.5

Lab ID: 1701567-13

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**3.4**	1.0	0.11	1	B7D0529	04/19/2017	04/20/17 13:14	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID EB20-6-W8-0.5

Lab ID: 1701567-14

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**27**	1.0	0.11	1	B7D0529	04/19/2017	04/20/17 13:15	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID EB20-6-W8-1.5

Lab ID: 1701567-15

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**16**	1.0	0.11	1	B7D0529	04/19/2017	04/20/17 13:16	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Client Sample ID EB20-6-W8-2.5

Lab ID: 1701567-16

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**3.6**	1.0	0.11	1	B7D0529	04/19/2017	04/20/17 13:17	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID EB20-6-W8-2.5-D

Lab ID: 1701567-17

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**6.9**	1.0	0.11	1	B7D0529	04/19/2017	04/20/17 13:18	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID FB14-4-N10-0.5

Lab ID: 1701567-18

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**17**	1.0	0.11	1	B7D0529	04/19/2017	04/20/17 13:33	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID FB14-4-N10-1.5

Lab ID: 1701567-19

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**4.9**	1.0	0.11	1	B7D0529	04/19/2017	04/20/17 13:34	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Client Sample ID FB14-4-N10-2.5

Lab ID: 1701567-20

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**7.6**	1.0	0.11	1	B7D0529	04/19/2017	04/20/17 13:35	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID FB14-4-W5-0.5

Lab ID: 1701567-21

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**35**	1.0	0.11	1	B7D0529	04/19/2017	04/20/17 13:36	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Client Sample ID FB14-4-W5-1.5

Lab ID: 1701567-22

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**18**	1.0	0.11	1	B7D0529	04/19/2017	04/20/17 15:55	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID FB14-4-W5-1.5-D

Lab ID: 1701567-23

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**13**	1.0	0.11	1	B7D0529	04/19/2017	04/20/17 13:38	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Client Sample ID FB14-4-W5-2.5

Lab ID: 1701567-24

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**56**	1.0	0.11	1	B7D0529	04/19/2017	04/20/17 13:39	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID FB14-4-W10-0.5

Lab ID: 1701567-25

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**17**	1.0	0.11	1	B7D0529	04/19/2017	04/20/17 13:41	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID FB14-4-W10-1.5

Lab ID: 1701567-26

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**20**	1.0	0.11	1	B7D0529	04/19/2017	04/20/17 13:42	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID FB14-4-W10-2.5

Lab ID: 1701567-27

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**24**	1.0	0.11	1	B7D0529	04/19/2017	04/20/17 13:43	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID EB15-1-S5-3-D

Lab ID: 1701567-28

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**16**	1.0	0.70	1	B7D0529	04/19/2017	04/20/17 14:07	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Client Sample ID EB15-1-S5-3

Lab ID: 1701567-29

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**25**	1.0	0.70	1	B7D0529	04/19/2017	04/20/17 14:08	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Client Sample ID EB15-1-S5-4

Lab ID: 1701567-30

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	**3.0**	1.0	0.70	1	B7D0532	04/19/2017	04/20/17 15:16	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID FB14-4-N5-0.5

Lab ID: 1701567-31

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**21**	1.0	0.11	1	B7D0532	04/19/2017	04/20/17 15:20	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID FB14-4-N5-1.5

Lab ID: 1701567-32

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**18**	1.0	0.11	1	B7D0532	04/19/2017	04/20/17 15:21	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID FB14-4-N5-1.5-D

Lab ID: 1701567-33

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**29**	1.0	0.11	1	B7D0532	04/19/2017	04/20/17 15:24	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID FB14-4-N5-2.5

Lab ID: 1701567-34

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**8.4**	1.0	0.11	1	B7D0532	04/19/2017	04/20/17 15:26	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID FB14-4-E8.5-0.5

Lab ID: 1701567-35

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**20**	1.0	0.11	1	B7D0532	04/19/2017	04/20/17 15:27	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Client Sample ID FB14-4-E8.5-1.5

Lab ID: 1701567-36

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**89**	1.0	0.11	1	B7D0532	04/19/2017	04/20/17 15:28	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Client Sample ID FB14-4-E8.5-2.5

Lab ID: 1701567-37

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**8.4**	1.0	0.11	1	B7D0532	04/19/2017	04/20/17 15:29	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Client Sample ID FB14-4-E8.5-2.5-D

Lab ID: 1701567-38

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**36**	1.0	0.11	1	B7D0532	04/19/2017	04/20/17 15:30	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Client Sample ID FB14-4-E5-0.5

Lab ID: 1701567-39

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**8.2**	1.0	0.11	1	B7D0532	04/19/2017	04/20/17 15:31	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID FB14-4-E5-1.5

Lab ID: 1701567-40

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**110**	1.0	0.11	1	B7D0532	04/19/2017	04/20/17 15:32	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID FB14-4-E5-2.5

Lab ID: 1701567-41

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**53**	1.0	0.11	1	B7D0532	04/19/2017	04/20/17 15:33	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID FB14-4-E5-2.5-D

Lab ID: 1701567-42

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**40**	1.0	0.11	1	B7D0532	04/19/2017	04/20/17 15:34	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID FB16-1-E10-0.5

Lab ID: 1701567-43

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**16**	1.0	0.11	1	B7D0532	04/19/2017	04/20/17 15:38	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Client Sample ID FB16-1-E10-1.5

Lab ID: 1701567-44

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**4.0**	1.0	0.11	1	B7D0532	04/19/2017	04/20/17 15:39	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID FB16-1-E10-1.5-D

Lab ID: 1701567-45

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**3.6**	1.0	0.11	1	B7D0532	04/19/2017	04/20/17 15:40	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID FB16-1-E10-2.5

Lab ID: 1701567-46

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**2.9**	1.0	0.11	1	B7D0532	04/19/2017	04/20/17 15:41	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID FB16-1-E5-0.5

Lab ID: 1701567-47

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**1.3**	1.0	0.11	1	B7D0532	04/19/2017	04/20/17 15:42	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID FB16-1-E5-1.5

Lab ID: 1701567-48

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**7.9**	1.0	0.11	1	B7D0532	04/19/2017	04/20/17 15:44	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID FB16-1-E5-2.5

Lab ID: 1701567-49

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**2.9**	1.0	0.11	1	B7D0533	04/19/2017	04/20/17 15:47	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID FB16-1-E5-2.5-D

Lab ID: 1701567-50

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**3.3**	1.0	0.11	1	B7D0533	04/19/2017	04/20/17 15:58	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID FB16-1-W10-0.5

Lab ID: 1701567-51

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**42**	1.0	0.11	1	B7D0533	04/19/2017	04/20/17 16:00	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Client Sample ID FB16-1-W10-0.5-D

Lab ID: 1701567-52

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**9.7**	1.0	0.11	1	B7D0533	04/19/2017	04/20/17 16:01	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Client Sample ID FB16-1-W10-1.5

Lab ID: 1701567-53

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**9.3**	1.0	0.11	1	B7D0533	04/19/2017	04/20/17 16:02	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID FB16-1-W10-2.5

Lab ID: 1701567-54

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**4.4**	1.0	0.11	1	B7D0533	04/19/2017	04/20/17 16:03	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID FB16-1-W5-0.5

Lab ID: 1701567-55

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**8.3**	1.0	0.11	1	B7D0533	04/19/2017	04/20/17 16:04	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID FB16-1-W5-0.5-D

Lab ID: 1701567-56

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**56**	1.0	0.11	1	B7D0533	04/19/2017	04/20/17 16:08	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Client Sample ID FB16-1-W5-1.5

Lab ID: 1701567-57

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**8.0**	1.0	0.11	1	B7D0533	04/19/2017	04/20/17 16:09	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID FB16-1-W5-2.5

Lab ID: 1701567-58

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**6.7**	1.0	0.11	1	B7D0533	04/19/2017	04/20/17 16:10	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Client Sample ID FB16-1-S5-0.5

Lab ID: 1701567-59

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**20**	1.0	0.11	1	B7D0533	04/19/2017	04/20/17 16:11	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Client Sample ID FB16-1-S5-1.5

Lab ID: 1701567-60

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**11**	1.0	0.11	1	B7D0533	04/19/2017	04/20/17 16:12	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Client Sample ID FB16-1-S5-2.5

Lab ID: 1701567-61

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**82**	1.0	0.11	1	B7D0533	04/19/2017	04/20/17 16:13	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Client Sample ID FB16-1-S5-2.5-D

Lab ID: 1701567-62

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**62**	1.0	0.11	1	B7D0533	04/19/2017	04/20/17 16:14	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Client Sample ID FB16-1-S10-0.5

Lab ID: 1701567-63

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**21**	1.0	0.11	1	B7D0533	04/19/2017	04/20/17 16:15	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Client Sample ID FB16-1-S10-1.5

Lab ID: 1701567-64

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**12**	1.0	0.11	1	B7D0533	04/19/2017	04/20/17 16:17	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Client Sample ID FB16-1-S10-2.5

Lab ID: 1701567-65

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**9.5**	1.0	0.11	1	B7D0533	04/19/2017	04/20/17 16:18	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Client Sample ID FB16-1-N10-0.5

Lab ID: 1701567-66

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**22**	1.0	0.11	1	B7D0533	04/19/2017	04/20/17 16:22	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID FB16-1-N10-0.5-D

Lab ID: 1701567-67

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**25**	1.0	0.11	1	B7D0533	04/19/2017	04/20/17 16:23	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Client Sample ID FB16-1-N10-1.5

Lab ID: 1701567-68

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**5.1**	1.0	0.11	1	B7D0534	04/19/2017	04/20/17 16:29	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Client Sample ID FB16-1-N10-2.5

Lab ID: 1701567-69

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**2.2**	1.0	0.11	1	B7D0534	04/19/2017	04/20/17 16:36	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID FB16-1-N5-0.5

Lab ID: 1701567-70

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**15**	1.0	0.11	1	B7D0534	04/19/2017	04/20/17 16:38	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID FB16-1-N5-1.5

Lab ID: 1701567-71

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**4.9**	1.0	0.11	1	B7D0534	04/19/2017	04/20/17 16:39	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID FB16-1-N5-1.5-D

Lab ID: 1701567-72

Total Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**5.2**	1.0	0.11	1	B7D0534	04/19/2017	04/20/17 16:40	

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	04/24/2017

Client Sample ID FB16-1-N5-2.5

Lab ID: 1701567-73

Total Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**6.4**	1.0	0.11	1	B7D0534	04/19/2017	04/20/17 16:42	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7D0528 - EPA 3050B_S										
Blank (B7D0528-BLK1)					Prepared: 4/19/2017 Analyzed: 4/20/2017					
Arsenic	ND	1.0	0.70							
Lead	ND	1.0	0.11							
LCS (B7D0528-BS1)					Prepared: 4/19/2017 Analyzed: 4/20/2017					
Arsenic	42.4417	1.0	0.70	50.0000		84.9	80 - 120			
Lead	42.5134	1.0	0.11	50.0000		85.0	80 - 120			
Duplicate (B7D0528-DUP1)			**Source: 1701566-29**		Prepared: 4/19/2017 Analyzed: 4/20/2017					
Arsenic	3.41420	1.0	0.70		3.14130			8.33	20	
Lead	8.06575	1.0	0.11		5.16330			43.9	20	R
Matrix Spike (B7D0528-MS1)			**Source: 1701566-29**		Prepared: 4/19/2017 Analyzed: 4/20/2017					
Arsenic	86.8025	1.0	0.70	125.000	3.14130	66.9	59 - 103			
Lead	88.4072	1.0	0.11	125.000	5.16330	66.6	34 - 129			
Matrix Spike Dup (B7D0528-MSD1)			**Source: 1701566-29**		Prepared: 4/19/2017 Analyzed: 4/20/2017					
Arsenic	88.1229	1.0	0.70	125.000	3.14130	68.0	59 - 103	1.51	20	
Lead	90.5414	1.0	0.11	125.000	5.16330	68.3	34 - 129	2.39	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7D0529 - EPA 3050B_S										
Blank (B7D0529-BLK1)					Prepared: 4/19/2017 Analyzed: 4/20/2017					
Arsenic	ND	1.0	0.70							
Lead	ND	1.0	0.11							
LCS (B7D0529-BS1)					Prepared: 4/19/2017 Analyzed: 4/20/2017					
Arsenic	40.2993	1.0	0.70	50.0000		80.6	80 - 120			
Lead	42.4234	1.0	0.11	50.0000		84.8	80 - 120			
Duplicate (B7D0529-DUP1)			**Source: 1701567-11**		Prepared: 4/19/2017 Analyzed: 4/20/2017					
Arsenic	7.43695	1.0	0.70		7.29050			1.99	20	
Lead	34.8074	1.0	0.11		33.1349			4.92	20	
Matrix Spike (B7D0529-MS1)			**Source: 1701567-11**		Prepared: 4/19/2017 Analyzed: 4/20/2017					
Arsenic	96.6070	1.0	0.70	125.000	7.29050	71.5	59 - 103			
Lead	123.834	1.0	0.11	125.000	33.1349	72.6	34 - 129			
Matrix Spike Dup (B7D0529-MSD1)			**Source: 1701567-11**		Prepared: 4/19/2017 Analyzed: 4/20/2017					
Arsenic	93.8578	1.0	0.70	125.000	7.29050	69.3	59 - 103	2.89	20	
Lead	118.235	1.0	0.11	125.000	33.1349	68.1	34 - 129	4.63	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7D0532 - EPA 3050B_S										
Blank (B7D0532-BLK1)					Prepared: 4/19/2017 Analyzed: 4/20/2017					
Arsenic	ND	1.0	0.70							
Lead	ND	1.0	0.11							
LCS (B7D0532-BS1)					Prepared: 4/19/2017 Analyzed: 4/20/2017					
Arsenic	44.6135	1.0	0.70	50.0000		89.2	80 - 120			
Lead	45.0206	1.0	0.11	50.0000		90.0	80 - 120			
Duplicate (B7D0532-DUP1)			**Source: 1701567-30**		Prepared: 4/19/2017 Analyzed: 4/20/2017					
Arsenic	2.24431	1.0	0.70		3.04505			30.3	20	R
Lead	3.69798	1.0	0.11		3.18674			14.9	20	
Matrix Spike (B7D0532-MS1)			**Source: 1701567-30**		Prepared: 4/19/2017 Analyzed: 4/20/2017					
Arsenic	95.1329	1.0	0.70	125.000	3.04505	73.7	59 - 103			
Lead	92.4884	1.0	0.11	125.000	3.18674	71.4	34 - 129			
Matrix Spike Dup (B7D0532-MSD1)			**Source: 1701567-30**		Prepared: 4/19/2017 Analyzed: 4/20/2017					
Arsenic	104.305	1.0	0.70	125.000	3.04505	81.0	59 - 103	9.20	20	
Lead	89.4257	1.0	0.11	125.000	3.18674	69.0	34 - 129	3.37	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7D0533 - EPA 3050B_S										
Blank (B7D0533-BLK1)					Prepared: 4/19/2017 Analyzed: 4/20/2017					
Arsenic	ND	1.0	0.70							
Lead	ND	1.0	0.11							
LCS (B7D0533-BS1)					Prepared: 4/19/2017 Analyzed: 4/20/2017					
Arsenic	44.2432	1.0	0.70	50.0000		88.5	80 - 120			
Lead	44.6589	1.0	0.11	50.0000		89.3	80 - 120			
Duplicate (B7D0533-DUP1)			**Source: 1701567-49**		Prepared: 4/19/2017 Analyzed: 4/20/2017					
Arsenic	0.792802	1.0	0.70		0.801102			1.04	20	J
Lead	2.71772	1.0	0.11		2.89042			6.16	20	
Matrix Spike (B7D0533-MS1)			**Source: 1701567-49**		Prepared: 4/19/2017 Analyzed: 4/20/2017					
Arsenic	88.0040	1.0	0.70	125.000	0.801102	69.8	59 - 103			
Lead	92.1822	1.0	0.11	125.000	2.89042	71.4	34 - 129			
Matrix Spike Dup (B7D0533-MSD1)			**Source: 1701567-49**		Prepared: 4/19/2017 Analyzed: 4/20/2017					
Arsenic	89.8267	1.0	0.70	125.000	0.801102	71.2	59 - 103	2.05	20	
Lead	92.5210	1.0	0.11	125.000	2.89042	71.7	34 - 129	0.367	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7D0534 - EPA 3050B_S										
Blank (B7D0534-BLK1)					Prepared: 4/19/2017 Analyzed: 4/20/2017					
Arsenic	ND	1.0	0.70							
Lead	ND	1.0	0.11							
LCS (B7D0534-BS1)					Prepared: 4/19/2017 Analyzed: 4/20/2017					
Arsenic	40.9289	1.0	0.70	50.0000		81.9	80 - 120			
Lead	42.0465	1.0	0.11	50.0000		84.1	80 - 120			
Duplicate (B7D0534-DUP1)			**Source: 1701567-68**		Prepared: 4/19/2017 Analyzed: 4/20/2017					
Arsenic	1.97925	1.0	0.70		1.67537			16.6	20	
Lead	8.29736	1.0	0.11		5.10290			47.7	20	R
Matrix Spike (B7D0534-MS1)			**Source: 1701567-68**		Prepared: 4/19/2017 Analyzed: 4/20/2017					
Arsenic	79.3623	1.0	0.70	125.000	1.67537	62.1	59 - 103			
Lead	82.7338	1.0	0.11	125.000	5.10290	62.1	34 - 129			
Matrix Spike Dup (B7D0534-MSD1)			**Source: 1701567-68**		Prepared: 4/19/2017 Analyzed: 4/20/2017					
Arsenic	87.5214	1.0	0.70	125.000	1.67537	68.7	59 - 103	9.78	20	
Lead	91.5306	1.0	0.11	125.000	5.10290	69.1	34 - 129	10.1	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 04/24/2017

Notes and Definitions

R	RPD value outside acceptance criteria. Calculation is based on raw values.
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:
(1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
(2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
(3) Results are wet unless otherwise specified.

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 1 of 8

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☑ ATL	1. CHILLED	☑	☐	5. # OF SAMPLES MATCH COC	☑	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☑
☐ GSO	3. CONTAINER INTACT	☑	☐	7. COOLER TEMP, deg C:	5.5	
☐ Other:	4. SEALED	☐	☑			

CUSTOMER

Company: Leighton Consulting, Inc (LCI)
Address: 17781 Cowan
City: Irvine State: CA Zip: 92614
Tel: 949-250-1421 Fax: 949-250-1114

SEND REPORT TO:
Attn: Julie Harriman Email: jharriman@leightongroup.com
Company: LCI
Address: 17781 Cowan
City: Irvine State: CA Zip: 92614

SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Accounts Payable Email: acctpayable@leightongroup.com
Company: Leighton
Address: 17781 Cowan
City: Irvine State: CA Zip: 92614

PROJECT SAMPLES

Project Name: Burroughs MS - LAUSD
Project No.: 603378-006
Sampler: W. Sconiers
Quote No: —
PO #: —
Special Instructions/Comments: —

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	6010B Lead	6010B Arsenic	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE / FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	Container #	Container Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7=Canister	Container Material: 1=Glass; 2=Plastic; 3=Metal	Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4=4C; 5=Zn (Ac)2; 6=NaOH; 7=NA2S2O3	REMARKS
1	1701507-1	EB20-6-N5-0.5	4-12-17	1220								X	X		X					5	1	5	1	—	
2	-2	EB20-6-N5-1.5		1222																					
3	-3	EB20-6-N5-2.5		1224																					
4	-4	EB20-6-N10-0.5		1209																					
5	-5	EB20-6-N10-1.5		1209																					
6	-6	EB20-6-N10-1.5-D		1209																					
7	-7	EB20-6-N10-2.5		1212																					
8	-8	EB20-6-S5-0.5		1240																					
9	-9	EB20-6-S5-1.5		1243																					
10	-10	EB20-6-S5-2.5		1246																					

Encircle or Write Requested Analysis

Encircle Sample Matrix

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for five (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reformatted report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Sconiers — Submitter Print Name

Signature

CUSTODY

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Wallace Sconiers	4-13-17	1523	Erick Franco	4/13/17	15:22
Erick Franco	4/13/17	17:07	MPR	4/13/17	1707

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 2 of 8

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport		Sample Conditions Upon Receipt					
		Condition	Y	N	Condition	Y	N
☐ Client	☑ ATL	1. CHILLED	☑	☐	5. # OF SAMPLES MATCH COC	☑	☐
☐ FedEx	☐ OnTrac	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☑
☐ GSO		3. CONTAINER INTACT	☑	☐	7. COOLER TEMP, deg C:		
☐ Other:		4. SEALED	☐	☑			

CUSTOMER

Company:
Address:
City: State: Zip:
Tel:
Fax:

SEND REPORT TO:
Attn: Email:
Company: See Page #1
Address:
City: State: Zip:

SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Email:
Company: See Page #1
Address:
City: State: Zip:

PROJECT SAMPLES

Project Name:
Project No.:
Sampler:
Quote No:
PO #:
Special Instructions/Comments:

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	LOW B Lead	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE / FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	Container #	Container Type	Container Material	REMARKS
1	570157 -11	EB20-6-WS-0.5	4-12-17	1210									X	X					5	1	5	1	WB3S 4-12-17
2	-12	EB20-6-WS-1.5		1212																			
3	-13	EB20-6-WS-2.5		1214																			
4	-14	EB20-6-WS-0.5		1217																			
5	-15	EB20-6-WS-1.5		1219																			
6	-16	EB20-6-WS-2.5		1221																			
7	-17	EB20-6-WS-2.5-D		1221																			
8	-18	FB14-4-N10-0.5		0810																			
9	-19	FB14-4-N10-1.5		0812																			
10	-20	FB14-4-N10-2.5		0817																			

Encircle or Write Requested Analysis

Encircle Sample Matrix

Container: # | Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7=Canister | Material: 1=Glass; 2=Plastic; 3=Metal

Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4 = 4C; 5=Zn ((Ac)2; 6=NaOH; 7=NA2S2O3

QA/QC
☐ Routine
☐ Caltrans
☐ Legal
☐ RWQCB
☐ Level IV

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for fi ve (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-fi ve (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Siomcis — Submitter Print Name

Signature

CUSTODY

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Wallace Siomcis	4-13-17	1523	Erick Franca	4/13/17	15:23
Erick Franca	4/13/17	17:07	MPR	4/13/17	1707

ADVANCED TECHNOLOGY LABORATORIES
3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☑ ATL	1. CHILLED	☑	☐	5. # OF SAMPLES MATCH COC	☑	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☑
☐ GSO	3. CONTAINER INTACT	☑	☐	7. COOLER TEMP, deg C:		
☐ Other:	4. SEALED	☐	☑			

CUSTOMER

Company:
Address:
City: State: Zip:
Tel:
Fax:

SEND REPORT TO:
Attn: Email:
Company: See Page #1
Address:
City: State: Zip:

SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Email:
Company: See Page #1
Address:
City: State: Zip:

PROJECT SAMPLES

Project Name:
Project No.:
Sampler:
Quote No:
PO #:
Special Instructions/Comments:

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	6010B Lead	6010B Arsenic	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE / FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	Container #	Container Type	Container Material	Preservative	REMARKS
1	1701567 -21	FB144-WS-0.5	4-12-17	0851									X		X					5	1	5	1	-	
2	-22	FB144-WS-1.5		0852																					
3	-23	FB144-WS-1.5-D		0852																					
4	-24	FB144-WS-2.5		0855																					
5	-25	FB144-W10-0.5		0900																					
6	-26	FB144-W10-1.5		0902																					
7	-27	FB144-W10-2.5		0904																					
8	-28	EB15-1-SS-3-D		0755										X											
9	-29	EB15-1-SS-3		0755										X											
10	-30	EB15-1-SS-4		0802										X											

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

Encircle or Write Requested Analysis
Encircle Sample Matrix
TAT
Container: # / Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7=Canister / Material: 1=Glass; 2=Plastic; 3=Metal
Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4=4C; 5=Zn ((Ac)2; 6=NaOH; 7=NA2S2O3

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for fi ve (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-fi ve (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Seomeis — Submitter Print Name
Signature

CUSTODY

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Wallace Seomeis	4-13-17	1523	Erick Franca	4/13/17	15:23
Erick Franca	4/13/17	17:07	MPR	4/13/17	1707

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 4 of 8

Instruction: Complete all shaded areas.

For Laboratory Use Only					ATLCOC Ver: 20130715
Method of Transport		**Sample Conditions Upon Receipt**			
		Condition	Y	N	Condition	Y	N
☐ Client ☑ ATL		1. CHILLED	☑	☐	5. # OF SAMPLES MATCH COC	☑	☐
☐ FedEx ☐ OnTrac		2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☑
☐ GSO		3. CONTAINER INTACT	☑	☐	7. COOLER TEMP, deg C:		
☐ Other: _____		4. SEALED	☐	☑			

CUSTOMER

Company:	Address:			Tel:
	City:	State:	Zip:	Fax:

SEND REPORT TO:	SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Email:	Attn: Email:
Company:	Company:
Address: See Page #1	Address: See Page #1
City: State: Zip:	City: State: Zip:

PROJECT SAMPLES

Project Name:	Quote No:	Special Instructions/Comments:
Project No.:	PO #:	
Sampler:		

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	6010B lead	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE / FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	Container #	Container Type	Container Material	Preservative	REMARKS
1	1701567-31	FB14-4-NS-0.5	4-12-17	0820									X	X					5	1	5	1	—	
2	-32	FB14-4-NS-1.5		0823																				
3	-33	FB14-4-NS-1.5-D		0823																				
4	-34	FB14-4-NS-2.5		0826																				
5	-35	FB14-4-E8.5-0.5		0833																				
6	-36	FB14-4-E8.5-1.5		0835																				
7	-37	FB14-4-E8.5-2.5		0840																				
8	-38	FB14-4-E8.5-2.5-D		0840																				
9	-39	FB14-4-E5-0.5		0830																				
10	-40	FB14-4-E5-1.5		0832																				

Encircle or Write Requested Analysis

Encircle Sample Matrix

Container: # = Container #; Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7=Canister; Material: 1=Glass; 2=Plastic; 3=Metal

Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4=4C; 5=Zn ((Ac)2; 6=NaOH; 7=NA2S2O3

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for fi ve (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-fi ve (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Scomiers — Submitter Print Name

Signature

CUSTODY

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Wallace Scomiers	4-13-17	1523	Erick Franco	4/13/17	15:23
Erick Franco	4/13/17	17:07	MTR	4/13/17	1707
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 5 of 8

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☐ ATL	1. CHILLED	☑	☐	5. # OF SAMPLES MATCH COC	☑	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☑
☐ GSO	3. CONTAINER INTACT	☑	☐	7. COOLER TEMP, deg C:		
☐ Other:	4. SEALED	☐	☑			

CUSTOMER

Company:

Address:

City: State: Zip:

Tel:

Fax:

SEND REPORT TO:

Attn: Email:

Company:

Address: See Page #1

City: State: Zip:

SEND INVOICE TO: ☐ same as SEND REPORT TO

Attn: Email:

Company:

Address: See Page #1

City: State: Zip:

PROJECT SAMPLES

Project Name:

Project No.:

Sampler:

Quote No:

PO #:

Special Instructions/Comments:

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	Lead	Encircle Sample Matrix: SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE / FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	Container: #	Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Ziplar; 7=Canister	Material: 1=Glass; 2=Plastic; 3=Metal	Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4=4C; 5=Zn([Ac]2; 6=NaOH; 7=NA2S2O3	REMARKS
1	1701527-41	FB144-ES-2.5	4-12-17	0835									X	X					5	1	5	1	—	
2	-42	FB144-ES-2.5-D		0835																				
3	-43	FB16-1-E10-0.5		1110																				
4	-44	FB16-1-E10-1.5		1112																				
5	-45	FB16-1-E10-1.5-D		1112																				
6	-46	FB16-1-E10-2.5		1115																				
7	-47	FB16-1-ES-0.5		1107																				
8	-48	FB16-1-ES-1.5		1109																				
9	-49	FB16-1-ES-2.5		1113																				
10	-50	FB16-1-ES-2.5-D		1113																				

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for fi ve (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-fi ve (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Stevens — Submitter Print Name

Signature

CUSTODY

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Wallace Stevens	4-13-17	1523	Erick Franco	4/13/17	15:23
Erick Franco	4/13/17	17:07	MFR	4/13/17	1707

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 6 of 8

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☑ ATL	1. CHILLED	☑	☐	5. # OF SAMPLES MATCH COC	☑	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (V0A)	☐	☐	6. PRESERVED	☐	☑
☐ GSO	3. CONTAINER INTACT	☑	☐	7. COOLER TEMP, deg C:		
☐ Other:	4. SEALED	☐	☑			

CUSTOMER

Company: | Address: | Tel:
City: | State: | Zip: | Fax:

SEND REPORT TO:
Attn: | Email:
Company: See Page #1
Address:
City: | State: | Zip:

SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: | Email:
Company: See Page #1
Address:
City: | State: | Zip:

PROJECT SAMPLES

Project Name: | Quote No: | Special Instructions/Comments:
Project No.: | PO #:
Sampler:

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	6010B Lead	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE / FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	Container #	Container Type	Container Material	Preservative	REMARKS
1	1701527-51	FB16-1-W10-0.5	4-12-17	1125									X	X					5	1	5	1	–	
2	-52	FB16-1-W10-0.5-D		1125																				
3	-53	FB16-1-W10-1.5		1129																				
4	-54	FB16-1-W10-2.5		1132																				
5	-55	FB16-1-W5-0.5		1135																				
6	-56	FB16-1-W5-0.5-D		1135																				
7	-57	FB16-1-W5-1.5		1137																				
8	-58	FB16-1-W5-2.5		1140																				
9	-59	FB16-1-S5-0.5		1210																				
10	-60	FB16-1-S5-1.5		1213																				

Encircle or Write Requested Analysis | Encircle Sample Matrix | Container

QA/QC
☐ Routine
☐ Caltrans
☐ Legal
☐ RWQCB
☐ Level IV

Container Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7 = Canister
Container Material: 1=Glass; 2=Plastic; 3=Metal
Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4 = 4C; 5=Zn ((Ac)2; 6=NaOH; 7=NA2S2O3

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for fi ve (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-fi ve (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Seomics
Submitter Print Name

Signature

CUSTODY

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Wallace Seomics	4-13-17	1523	Erick Franca	4/13/17	1523
Erick Franca	4/13/17	17:07	MAR	4/13/17	1707
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 7 of 8

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☑ ATL	1. CHILLED	☑	☐	5. # OF SAMPLES MATCH COC	☑	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☑
☐ GSO	3. CONTAINER INTACT	☑	☐	7. COOLER TEMP, deg C:		
☐ Other: _____	4. SEALED	☐	☑			

CUSTOMER

Company:	Address:			Tel:
	City:	State:	Zip:	Fax:

SEND REPORT TO:	SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Email:	Attn: Email:
Company: See Page #1	Company: See Page #1
Address:	Address:
City: State: Zip:	City: State: Zip:

PROJECT SAMPLES

Project Name:	Quote No:	Special Instructions/Comments:
Project No.:	PO #:	
Sampler:		

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	6010B Lead	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE/ FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	Container #	Container Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7 = Canister	Container Material: 1=Glass; 2=Plastic; 3=Metal	Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4 = 4C; 5=Zn ((Ac)2; 6=NaOH; 7=NA2S2O3	REMARKS
1	1701587-01	FB16-1-SS-2.5	4-12-17	1215									X	X					5	1	5	1	-	
2	-02	FB16-1-SS-2.5-D		1215																				
3	-03	FB16-1-S10-0.5		1220																				
4	-04	FB16-1-S10-1.5		1222																				
5	-05	FB16-1-S10-2.5		1224																				
6	-06	FB16-1-N10-0.5		1226																				
7	-07	FB16-1-N10-0.5-D		1226																				
8	-08	FB16-1-N10-1.5		1228																				
9	-09	FB16-1-N10-2.5		1231																				
10	-10	FB16-1-N5-0.5		1234																				

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for five (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Scorcio — Submitter Print Name

Signature

CUSTODY

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
J. Wallace Scorcio	4-13-17	1523	Erick France	4/13/17	15:23
Erick France	4/13/17	17:07	MFR	4/13/17	1707
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 8 of 8

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☑ ATL	1. CHILLED	☑	☐	5. # OF SAMPLES MATCH COC	☑	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☐	6. PRESERVED	☐	☑
☐ GSO	3. CONTAINER INTACT	☑	☐	7. COOLER TEMP, deg C:		
☐ Other:	4. SEALED	☐	☑			

CUSTOMER

Company:	Address:			Tel:
	City:	State:	Zip:	Fax:

SEND REPORT TO:	SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Email:	Attn: Email:
Company:	Company:
Address: See Page #1	Address: See Page #1
City: State: Zip:	City: State: Zip:

PROJECT SAMPLES

Project Name:	Quote No:	Special Instructions/Comments:
Project No.:	PO #:	
Sampler:		

ITEM	Lab No.	Sample Description: Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	6010B Lead	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE / FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	Container #	Container Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=TedlarBag; 7=Canister	Container Material: 1=Glass; 2=Plastic; 3=Metal	Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4=4C; 5=Zn((Ac)2; 6=NaOH; 7=NA2S2O3	REMARKS
1	1701537 -71	FB16-1-NS-1.5	4-12-17	1237									X	X					5	1	5	1	-	
2	-72	FB16-1-NS-1.5-D	↓	1237									X	X					↓	↓	↓	↓	↓	
3	-73	FB16-1-NS-2.5	↓	1240									X	X					↓	↓	↓	↓	↓	
4																								
5																								
6																								
7																								
8																								
9																								
10																								

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for five (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Scomers — Submitter Print Name

Signature

CUSTODY

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Wallace Scomers	4-13-17	1503	Erick France	4/13/17	15:27
Relinquished by: (Signature and Printed Name) Erick France	Date: 4/13/17	Time: 17:07	Received by: (Signature and Printed Name) MPR	Date: 4/13/17	Time: 1707
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:

ADVANCED TECHNOLOGY LABORATORIES

May 01, 2017

Julie Harriman
Leighton Consulting, Inc.
17781 Cowan Street
Irvine, CA 92614
Tel: (949) 250-1421
Fax:(949) 757-7230

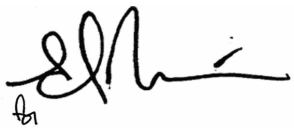
ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1701567
Client Reference : Burroughs MS-LAUSD, 603378.006

Enclosed are the results for sample(s) received on April 13, 2017 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,



Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	05/01/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
EB20-6-N5-0.5	1701567-01	Soil	4/12/17 12:20	4/13/17 15:23
EB20-6-S5-0.5	1701567-08	Soil	4/12/17 12:40	4/13/17 15:23
FB14-4-W5-2.5	1701567-24	Soil	4/12/17 8:55	4/13/17 15:23
FB14-4-E8.5-1.5	1701567-36	Soil	4/12/17 8:35	4/13/17 15:23
FB14-4-E5-1.5	1701567-40	Soil	4/12/17 8:32	4/13/17 15:23
FB14-4-E5-2.5	1701567-41	Soil	4/12/17 8:35	4/13/17 15:23
FB16-1-W5-0.5-D	1701567-56	Soil	4/12/17 11:35	4/13/17 15:23
FB16-1-S5-2.5	1701567-61	Soil	4/12/17 12:15	4/13/17 15:23
FB16-1-S5-2.5-D	1701567-62	Soil	4/12/17 12:15	4/13/17 15:23

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/01/2017

Client Sample ID EB20-6-N5-0.5

Lab ID: 1701567-01

TCLP Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**0.091**	0.25	0.014	5	B7D0747	04/26/2017	04/26/17 12:44	D1, J

STLC Metals by ICP-AES by EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**4.1**	1.0	0.057	20	B7D0802	04/27/2017	04/27/17 13:34	D1

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	05/01/2017

Client Sample ID EB20-6-S5-0.5

Lab ID: 1701567-08

TCLP Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	0.25	0.014	5	B7D0747	04/26/2017	04/26/17 12:48	D1

STLC Metals by ICP-AES by EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**2.3**	1.0	0.057	20	B7D0802	04/27/2017	04/27/17 13:36	D1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/01/2017

Client Sample ID FB14-4-W5-2.5

Lab ID: 1701567-24

TCLP Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	0.25	0.014	5	B7D0747	04/26/2017	04/26/17 12:49	D1

STLC Metals by ICP-AES by EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**2.2**	1.0	0.057	20	B7D0802	04/27/2017	04/27/17 13:37	D1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/01/2017

Client Sample ID FB14-4-E8.5-1.5

Lab ID: 1701567-36

TCLP Metals by ICP-AES EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	0.25	0.014	5	B7D0747	04/26/2017	04/26/17 12:51	D1

STLC Metals by ICP-AES by EPA 6010B **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**1.0**	1.0	0.057	20	B7D0802	04/27/2017	04/27/17 13:41	D1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/01/2017

Client Sample ID FB14-4-E5-1.5

Lab ID: 1701567-40

TCLP Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**0.17**	0.25	0.014	5	B7D0747	04/26/2017	04/26/17 12:56	D1, J

STLC Metals by ICP-AES by EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**4.9**	1.0	0.057	20	B7E0009	05/01/2017	05/01/17 11:58	D1

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	05/01/2017

Client Sample ID FB14-4-E5-2.5

Lab ID: 1701567-41

TCLP Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	0.25	0.014	5	B7D0747	04/26/2017	04/26/17 12:57	D1

STLC Metals by ICP-AES by EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**1.9**	1.0	0.057	20	B7D0802	04/27/2017	04/27/17 13:44	D1

Certificate of Analysis

Leighton Consulting, Inc.		Project Number :	Burroughs MS-LAUSD, 603378.006
17781 Cowan Street		Report To :	Julie Harriman
Irvine , CA 92614		Reported :	05/01/2017

Client Sample ID FB16-1-W5-0.5-D

Lab ID: 1701567-56

TCLP Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	0.25	0.014	5	B7D0747	04/26/2017	04/26/17 12:59	D1

STLC Metals by ICP-AES by EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**0.40**	1.0	0.057	20	B7D0802	04/27/2017	04/27/17 13:45	D1, J

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/01/2017

Client Sample ID FB16-1-S5-2.5

Lab ID: 1701567-61

TCLP Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**1.6**	0.25	0.014	5	B7D0747	04/26/2017	04/26/17 13:00	D1

STLC Metals by ICP-AES by EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**5.1**	1.0	0.057	20	B7D0802	04/27/2017	04/27/17 13:47	D1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/01/2017

Client Sample ID FB16-1-S5-2.5-D

Lab ID: 1701567-62

TCLP Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**0.65**	0.25	0.014	5	B7D0747	04/26/2017	04/26/17 13:04	D1

STLC Metals by ICP-AES by EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**3.3**	1.0	0.057	20	B7D0802	04/27/2017	04/27/17 13:48	D1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/01/2017

QUALITY CONTROL SECTION

TCLP Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7D0747 - EPA 3010A_S										
Blank (B7D0747-BLK1)					Prepared: 4/26/2017 Analyzed: 4/26/2017					
Lead	ND	0.050	0.0028							
Blank (B7D0747-BLK2)					Prepared: 4/26/2017 Analyzed: 4/26/2017					
Lead	ND	0.050	0.0028							
LCS (B7D0747-BS1)					Prepared: 4/26/2017 Analyzed: 4/26/2017					
Lead	0.968051	0.050	0.0028	1.00000		96.8	80 - 120			
Duplicate (B7D0747-DUP1)			**Source: 1701567-36**		Prepared: 4/26/2017 Analyzed: 4/26/2017					
Lead	ND	0.25	0.014		ND			NR	20	
Duplicate (B7D0747-DUP2)			**Source: 1701567-62**		Prepared: 4/26/2017 Analyzed: 4/26/2017					
Lead	0.675978	0.25	0.014		0.654948			3.16	20	
Matrix Spike (B7D0747-MS1)			**Source: 1701567-36**		Prepared: 4/26/2017 Analyzed: 4/26/2017					
Lead	2.51553	0.25	0.014	2.50000	ND	101	78 - 109			
Matrix Spike (B7D0747-MS2)			**Source: 1701567-62**		Prepared: 4/26/2017 Analyzed: 4/26/2017					
Lead	3.10911	0.25	0.014	2.50000	0.654948	98.2	78 - 109			
Matrix Spike Dup (B7D0747-MSD1)			**Source: 1701567-36**		Prepared: 4/26/2017 Analyzed: 4/26/2017					
Lead	2.48512	0.25	0.014	2.50000	ND	99.4	78 - 109	1.22	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/01/2017

STLC Metals by ICP-AES by EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7D0802 - STLC_S Extraction										
Blank (B7D0802-BLK1)					Prepared: 4/27/2017 Analyzed: 4/27/2017					
Lead	ND	1.0	0.057							
LCS (B7D0802-BS1)					Prepared: 4/27/2017 Analyzed: 4/27/2017					
Lead	1.83514			2.00000		91.8	80 - 120			
Duplicate (B7D0802-DUP1)			**Source: 1701567-62**		Prepared: 4/27/2017 Analyzed: 4/27/2017					
Lead	3.32208	1.0	0.057		3.27259			1.50	20	
Matrix Spike (B7D0802-MS1)			**Source: 1701567-62**		Prepared: 4/27/2017 Analyzed: 4/27/2017					
Lead	5.28083			2.50000	3.27259	80.3	44 - 130			
Matrix Spike Dup (B7D0802-MSD1)			**Source: 1701567-62**		Prepared: 4/27/2017 Analyzed: 4/27/2017					
Lead	5.20516			2.50000	3.27259	77.3	44 - 130	1.44	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/01/2017

STLC Metals by ICP-AES by EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7E0009 - STLC_S Extraction										
Blank (B7E0009-BLK1)					Prepared: 5/1/2017 Analyzed: 5/1/2017					
Lead	ND	1.0	0.057							
LCS (B7E0009-BS1)					Prepared: 5/1/2017 Analyzed: 5/1/2017					
Lead	1.93342			2.00000		96.7	80 - 120			
Duplicate (B7E0009-DUP1)			**Source: 1701566-21RE1**		Prepared: 5/1/2017 Analyzed: 5/1/2017					
Lead	51.1119	1.0	0.057		51.2241			0.219	20	
Matrix Spike (B7E0009-MS1)			**Source: 1701566-21RE1**		Prepared: 5/1/2017 Analyzed: 5/1/2017					
Lead	53.0480			2.50000	51.2241	73.0	44 - 130			
Matrix Spike Dup (B7E0009-MSD1)			**Source: 1701566-21RE1**		Prepared: 5/1/2017 Analyzed: 5/1/2017					
Lead	51.6272			2.50000	51.2241	16.1	44 - 130	2.71	20	M1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS-LAUSD, 603378.006
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 05/01/2017

Notes and Definitions

M1	Matrix spike recovery outside of acceptance limit. The analytical batch was validated by the laboratory control sample.
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:
(1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
(2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
(3) Results are wet unless otherwise specified.

Rachelle Arada

From: Julie Harriman [jharriman@leightongroup.com]
Sent: Wednesday, April 19, 2017 3:06 PM
To: Rachelle Arada
Cc: customer.relations@atlglobal.com
Subject: RE: Results - Burroughs MS-LAUSD, 603378.006 (ATL# 1701542)

Hi Rachelle,

For the Burroughs samples:
- for all samples that exceed 50 mg/kg arsenic, we request STLC-arsenic and TCLP-arsenic.
-for all samples that exceed 50 mg/kg lead, we request STLC-lead and TCLP-lead.

Thank you,
Julie

-------- Original message --------
From: Rachelle Arada <Rachelle@atlglobal.com>
Date: 4/19/17 12:36 PM (GMT-08:00)
To: Julie Harriman <jharriman@leightongroup.com>
Cc: customer.relations@atlglobal.com
Subject: Results - Burroughs MS-LAUSD, 603378.006 (ATL# 1701542)

Hi Julie,

Please find your results for the above project attached. If I can further assist, please let me know. Thanks.

Rachelle Arada
Project Manager
Advanced Technology Laboratories
www.atlglobal.com
Tel: (562) 989-4045 ext. 237
Fax: (562) 989-4040

Advanced Technology Laboratories is a full-service environmental lab providing organic and inorganic analyses of soil, water, wastewater, storm water and hazardous waste samples. ATL is accredited by the State of California, NELAP and State of Oregon (Air) and holds various SBE, DBE and MBE certificates and a USDA soil permit. ATL takes pride in providing our customers with quick turnaround time, excellent customer service and defensible data while offering very competitive rates. *Advanced Technology Labs - Your Partner for Quality Environmental Testing*
This message is intended for the use of the individual or entity to which it is addressed. This may contain information that is privileged, confidential, and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient, or the employee or agent responsible for delivering the message to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by telephone and delete the original message. Thank you.

JULY 2017 LABORATORY REPORTS

ADVANCED TECHNOLOGY LABORATORIES

July 28, 2017

Julie Harriman
Leighton Consulting, Inc.
17781 Cowan Street
Irvine, CA 92614
Tel: (949) 250-1421
Fax:(949) 757-7230

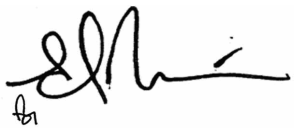
ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1702649
Client Reference : Burroughs MS, 11640.001

Enclosed are the results for sample(s) received on July 17, 2017 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,



Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 11640.001
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 07/28/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
IDW-S	1702649-01	Soil	7/17/17 9:42	7/17/17 15:15
IDW-L	1702649-02	Water	7/17/17 9:45	7/17/17 15:15

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 11640.001
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 07/28/2017

Client Sample ID IDW-S
Lab ID: 1702649-01

Title 22 Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	0.44	1	B7G0486	07/20/2017	07/21/17 10:12	
Arsenic	**20**	1.0	0.70	1	B7G0486	07/20/2017	07/21/17 10:12	
Barium	**120**	1.0	0.10	1	B7G0486	07/20/2017	07/21/17 10:12	
Beryllium	ND	1.0	0.04	1	B7G0486	07/20/2017	07/21/17 10:12	
Cadmium	**0.53**	1.0	0.09	1	B7G0486	07/20/2017	07/21/17 10:12	J
Chromium	**23**	1.0	0.12	1	B7G0486	07/20/2017	07/21/17 10:12	
Cobalt	**8.9**	1.0	0.10	1	B7G0486	07/20/2017	07/21/17 10:12	
Copper	**22**	2.0	0.11	1	B7G0486	07/20/2017	07/21/17 10:12	
Lead	**110**	1.0	0.19	1	B7G0486	07/20/2017	07/21/17 10:12	
Molybdenum	ND	1.0	0.13	1	B7G0486	07/20/2017	07/21/17 10:12	
Nickel	**20**	1.0	0.10	1	B7G0486	07/20/2017	07/21/17 10:12	
Selenium	ND	1.0	0.88	1	B7G0486	07/20/2017	07/21/17 10:12	
Silver	ND	1.0	0.07	1	B7G0486	07/20/2017	07/21/17 10:12	
Thallium	ND	1.0	0.42	1	B7G0486	07/20/2017	07/21/17 10:12	
Vanadium	**28**	1.0	0.19	1	B7G0486	07/20/2017	07/21/17 10:12	
Zinc	**130**	1.0	0.18	1	B7G0486	07/20/2017	07/21/17 10:12	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: KEK

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	**0.11**	0.10	0.005	1	B7G0488	07/20/2017	07/21/17 09:54	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: VW

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	0.20	1	B7G0426	07/19/2017	07/19/17 10:33	
Surrogate: 4-Bromofluorobenzene	*106 %*		*36 - 125*		B7G0426	07/19/2017	*07/19/17 10:33*	

Diesel Range Organics by EPA 8015B

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	**120**	5.0	5.0	5	B7G0589	07/24/2017	07/24/17 16:39	
ORO	**440**	5.0	5.0	5	B7G0589	07/24/2017	07/24/17 16:39	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 11640.001
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 07/28/2017

Client Sample ID IDW-S
Lab ID: 1702649-01

Diesel Range Organics by EPA 8015B

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: p-Terphenyl	*76.2 %*	*18 - 130*		B7G0589	07/24/2017	*07/24/17 16:39*	

Organochlorine Pesticides by EPA 8081

Analyst: CO

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	**0.80**	4.0	0.44	2	B7G0514	07/20/2017	07/23/17 15:38	J
4,4´-DDE	**0.42**	4.0	0.39	2	B7G0514	07/20/2017	07/23/17 15:38	J
4,4´-DDT [2C]	**1.3**	4.0	0.27	2	B7G0514	07/20/2017	07/23/17 15:38	J
Aldrin	ND	2.0	0.54	2	B7G0514	07/20/2017	07/23/17 15:38	
alpha-BHC	ND	2.0	0.39	2	B7G0514	07/20/2017	07/23/17 15:38	
alpha-Chlordane [2C]	**1.1**	2.0	0.43	2	B7G0514	07/20/2017	07/23/17 15:38	J
beta-BHC	ND	2.0	0.45	2	B7G0514	07/20/2017	07/23/17 15:38	
Chlordane [2C]	**11**	17	1.8	2	B7G0514	07/20/2017	07/23/17 15:38	J
delta-BHC	ND	2.0	0.41	2	B7G0514	07/20/2017	07/23/17 15:38	
Dieldrin	ND	4.0	0.50	2	B7G0514	07/20/2017	07/23/17 15:38	
Endosulfan I	ND	2.0	0.43	2	B7G0514	07/20/2017	07/23/17 15:38	
Endosulfan II	ND	4.0	0.43	2	B7G0514	07/20/2017	07/23/17 15:38	
Endosulfan sulfate	ND	4.0	0.43	2	B7G0514	07/20/2017	07/23/17 15:38	
Endrin	ND	4.0	0.45	2	B7G0514	07/20/2017	07/23/17 15:38	
Endrin aldehyde	ND	4.0	0.55	2	B7G0514	07/20/2017	07/23/17 15:38	
Endrin ketone	ND	4.0	0.41	2	B7G0514	07/20/2017	07/23/17 15:38	
gamma-BHC	ND	2.0	0.40	2	B7G0514	07/20/2017	07/23/17 15:38	
gamma-Chlordane [2C]	**1.6**	2.0	0.45	2	B7G0514	07/20/2017	07/23/17 15:38	J
Heptachlor	ND	2.0	0.38	2	B7G0514	07/20/2017	07/23/17 15:38	
Heptachlor epoxide	ND	2.0	0.41	2	B7G0514	07/20/2017	07/23/17 15:38	
Methoxychlor	ND	10	0.36	2	B7G0514	07/20/2017	07/23/17 15:38	
Toxaphene	ND	100	16	2	B7G0514	07/20/2017	07/23/17 15:38	
Surrogate: Decachlorobiphenyl	*29.5 %*	*27 - 123*			B7G0514	07/20/2017	*07/23/17 15:38*	
Surrogate: Tetrachloro-m-xylene	*33.7 %*	*26 - 108*			B7G0514	07/20/2017	*07/23/17 15:38*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 11640.001
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 07/28/2017

Client Sample ID IDW-L

Lab ID: 1702649-02

Title 22 Metals by ICP-AES EPA 6010B

Analyst: GO

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	**0.010**	0.010	0.0021	1	B7G0459	07/19/2017	07/19/17 16:28	
Arsenic	**0.025**	0.010	0.0067	1	B7G0459	07/19/2017	07/19/17 16:28	
Barium	**0.16**	0.0030	0.0008	1	B7G0459	07/19/2017	07/19/17 16:28	
Beryllium	ND	0.0030	0.0004	1	B7G0459	07/19/2017	07/19/17 16:28	
Cadmium	**0.0011**	0.0030	0.0002	1	B7G0459	07/19/2017	07/19/17 16:28	J
Chromium	**0.031**	0.0030	0.0016	1	B7G0459	07/19/2017	07/19/17 16:28	
Cobalt	**0.034**	0.0030	0.0007	1	B7G0459	07/19/2017	07/19/17 16:28	
Copper	**0.064**	0.0090	0.0023	1	B7G0459	07/19/2017	07/19/17 16:28	
Lead	**0.13**	0.0050	0.0028	1	B7G0459	07/19/2017	07/19/17 16:28	
Molybdenum	**0.0009**	0.0050	0.0007	1	B7G0459	07/19/2017	07/19/17 16:28	J
Nickel	**0.023**	0.0050	0.0024	1	B7G0459	07/19/2017	07/19/17 16:28	
Selenium	ND	0.010	0.0034	1	B7G0459	07/19/2017	07/19/17 16:28	
Silver	ND	0.0030	0.0006	1	B7G0459	07/19/2017	07/19/17 16:28	
Thallium	ND	0.015	0.0026	1	B7G0459	07/19/2017	07/19/17 16:28	
Vanadium	**0.028**	0.0030	0.0011	1	B7G0459	07/19/2017	07/19/17 16:28	
Zinc	**0.26**	0.025	0.0021	1	B7G0459	07/19/2017	07/19/17 16:28	

Mercury by AA (Cold Vapor) EPA 7470A

Analyst: KEK

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.20	0.05	1	B7G0461	07/19/2017	07/20/17 10:43	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: VW

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	0.05	0.05	1	B7G0470	07/20/2017	07/20/17 14:19	
Surrogate: 4-Bromofluorobenzene	*91.8 %*		*70 - 130*		B7G0470	07/20/2017	*07/20/17 14:19*	

Diesel Range Organics by EPA 8015B

Analyst: CR

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	**0.39**	0.05	0.05	1	B7G0548	07/21/2017	07/21/17 18:07	
ORO	**0.46**	0.05	0.05	1	B7G0548	07/21/2017	07/21/17 18:07	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 11640.001
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 07/28/2017

Client Sample ID IDW-L
Lab ID: 1702649-02

Diesel Range Organics by EPA 8015B

Analyst: CR

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: p-Terphenyl	*59.0 %*	*20 - 150*		B7G0548	07/21/2017	*07/21/17 18:07*	

Organochlorine Pesticides by EPA 8081

Analyst: CO

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4´-DDD	ND	0.05	0.005	1	B7G0534	07/21/2017	07/23/17 01:52	
4,4´-DDE	ND	0.05	0.005	1	B7G0534	07/21/2017	07/23/17 01:52	
4,4´-DDT [2C]	**0.02**	0.05	0.004	1	B7G0534	07/21/2017	07/23/17 01:52	J
Aldrin	ND	0.02	0.004	1	B7G0534	07/21/2017	07/23/17 01:52	
alpha-BHC	ND	0.02	0.004	1	B7G0534	07/21/2017	07/23/17 01:52	
alpha-Chlordane	ND	0.02	0.005	1	B7G0534	07/21/2017	07/23/17 01:52	
beta-BHC	ND	0.02	0.005	1	B7G0534	07/21/2017	07/23/17 01:52	
Chlordane	ND	0.25	0.03	1	B7G0534	07/21/2017	07/23/17 01:52	
delta-BHC	ND	0.02	0.004	1	B7G0534	07/21/2017	07/23/17 01:52	
Dieldrin	ND	0.05	0.005	1	B7G0534	07/21/2017	07/23/17 01:52	
Endosulfan I	ND	0.02	0.005	1	B7G0534	07/21/2017	07/23/17 01:52	
Endosulfan II	ND	0.05	0.005	1	B7G0534	07/21/2017	07/23/17 01:52	
Endosulfan sulfate	ND	0.05	0.005	1	B7G0534	07/21/2017	07/23/17 01:52	
Endrin	ND	0.05	0.005	1	B7G0534	07/21/2017	07/23/17 01:52	
Endrin aldehyde	ND	0.05	0.006	1	B7G0534	07/21/2017	07/23/17 01:52	
Endrin ketone	ND	0.05	0.005	1	B7G0534	07/21/2017	07/23/17 01:52	
gamma-BHC	ND	0.02	0.004	1	B7G0534	07/21/2017	07/23/17 01:52	
gamma-Chlordane	ND	0.02	0.005	1	B7G0534	07/21/2017	07/23/17 01:52	
Heptachlor	ND	0.02	0.005	1	B7G0534	07/21/2017	07/23/17 01:52	
Heptachlor epoxide	ND	0.02	0.005	1	B7G0534	07/21/2017	07/23/17 01:52	
Methoxychlor	ND	0.25	0.004	1	B7G0534	07/21/2017	07/23/17 01:52	
Toxaphene	ND	2.5	0.23	1	B7G0534	07/21/2017	07/23/17 01:52	
Surrogate: Decachlorobiphenyl	*9.93 %*	*0 - 132*		B7G0534	07/21/2017	*07/23/17 01:52*	
Surrogate: Tetrachloro-m-xylene	*17.0 %*	*15 - 130*		B7G0534	07/21/2017	*07/23/17 01:52*	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 11640.001
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 07/28/2017

QUALITY CONTROL SECTION

Title 22 Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7G0459 - EPA 3010A_W										
Blank (B7G0459-BLK1)					Prepared: 7/19/2017 Analyzed: 7/19/2017					
Antimony	0.003218	0.010	0.0021							J
Arsenic	ND	0.010	0.0067							
Barium	ND	0.0030	0.0008							
Beryllium	ND	0.0030	0.0004							
Cadmium	0.000187	0.0030	0.0002							J
Chromium	ND	0.0030	0.0016							
Cobalt	0.001099	0.0030	0.0007							J
Copper	ND	0.0090	0.0023							
Lead	ND	0.0050	0.0028							
Molybdenum	0.000736	0.0050	0.0007							J
Nickel	ND	0.0050	0.0024							
Selenium	0.004344	0.010	0.0034							J
Silver	ND	0.0030	0.0006							
Thallium	ND	0.015	0.0026							
Vanadium	ND	0.0030	0.0011							
Zinc	4.1571E-3	0.025	0.0021							J
LCS (B7G0459-BS1)					Prepared: 7/19/2017 Analyzed: 7/19/2017					
Antimony	0.974333	0.010	0.0021	1.00000		97.4	80 - 120			
Arsenic	0.935420	0.010	0.0067	1.00000		93.5	80 - 120			
Barium	0.972224	0.0030	0.0008	1.00000		97.2	80 - 120			
Beryllium	0.968532	0.0030	0.0004	1.00000		96.9	80 - 120			
Cadmium	0.930034	0.0030	0.0002	1.00000		93.0	80 - 120			
Chromium	0.975613	0.0030	0.0016	1.00000		97.6	80 - 120			
Cobalt	0.965338	0.0030	0.0007	1.00000		96.5	80 - 120			
Copper	0.962520	0.0090	0.0023	1.00000		96.3	80 - 120			
Lead	0.953383	0.0050	0.0028	1.00000		95.3	80 - 120			
Molybdenum	0.933606	0.0050	0.0007	1.00000		93.4	80 - 120			
Nickel	0.951306	0.0050	0.0024	1.00000		95.1	80 - 120			
Selenium	0.922274	0.010	0.0034	1.00000		92.2	80 - 120			
Silver	0.939275	0.0030	0.0006	1.00000		93.9	80 - 120			
Thallium	0.952020	0.015	0.0026	1.00000		95.2	80 - 120			
Vanadium	0.966612	0.0030	0.0011	1.00000		96.7	80 - 120			
Zinc	0.927362	0.025	0.0021	1.00000		92.7	80 - 120			
Duplicate (B7G0459-DUP1)				**Source: 1702649-02**	Prepared: 7/19/2017 Analyzed: 7/19/2017					
Antimony	0.011957	0.010	0.0021		0.010132			16.5	20	
Arsenic	0.026658	0.010	0.0067		0.025324			5.13	20	
Barium	0.130601	0.0030	0.0008		0.155732			17.6	20	
Beryllium	ND	0.0030	0.0004		ND			NR	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 11640.001
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 07/28/2017

Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7G0459 - EPA 3010A_W (continued)										
Duplicate (B7G0459-DUP1) - Continued			**Source: 1702649-02**		Prepared: 7/19/2017 Analyzed: 7/19/2017					
Cadmium	0.001066	0.0030	0.0002		0.001105			3.64	20	J
Chromium	0.028430	0.0030	0.0016		0.030780			7.94	20	
Cobalt	0.032451	0.0030	0.0007		0.033671			3.69	20	
Copper	0.062042	0.0090	0.0023		0.063905			2.96	20	
Lead	0.130377	0.0050	0.0028		0.129757			0.476	20	
Molybdenum	1.0868E-3	0.0050	0.0007		0.000896			19.2	20	J
Nickel	0.021925	0.0050	0.0024		0.022516			2.66	20	
Selenium	ND	0.010	0.0034		ND			NR	20	
Silver	0.000683	0.0030	0.0006		ND			NR	20	J
Thallium	ND	0.015	0.0026		ND			NR	20	
Vanadium	0.026162	0.0030	0.0011		0.028271			7.75	20	
Zinc	0.253307	0.025	0.0021		0.259653			2.47	20	
Matrix Spike (B7G0459-MS1)			**Source: 1702649-02**		Prepared: 7/19/2017 Analyzed: 7/19/2017					
Antimony	2.42559	0.010	0.0021	2.50000	0.010132	96.6	76 - 118			
Arsenic	2.41919	0.010	0.0067	2.50000	0.025324	95.8	74 - 123			
Barium	2.56434	0.0030	0.0008	2.50000	0.155732	96.3	76 - 117			
Beryllium	2.42720	0.0030	0.0004	2.50000	ND	97.1	84 - 114			
Cadmium	2.35505	0.0030	0.0002	2.50000	0.001105	94.2	73 - 115			
Chromium	2.47558	0.0030	0.0016	2.50000	0.030780	97.8	76 - 117			
Cobalt	2.40617	0.0030	0.0007	2.50000	0.033671	94.9	78 - 113			
Copper	2.53596	0.0090	0.0023	2.50000	0.063905	98.9	70 - 132			
Lead	2.51125	0.0050	0.0028	2.50000	0.129757	95.3	78 - 109			
Molybdenum	2.40380	0.0050	0.0007	2.50000	0.000896	96.1	84 - 111			
Nickel	2.39545	0.0050	0.0024	2.50000	0.022516	94.9	66 - 125			
Selenium	2.33176	0.010	0.0034	2.50000	ND	93.3	76 - 117			
Silver	2.41198	0.0030	0.0006	2.50000	ND	96.5	64 - 133			
Thallium	2.36867	0.015	0.0026	2.50000	ND	94.7	63 - 118			
Vanadium	2.46826	0.0030	0.0011	2.50000	0.028271	97.6	76 - 119			
Zinc	2.57717	0.025	0.0021	2.50000	0.259653	92.7	56 - 131			
Matrix Spike Dup (B7G0459-MSD1)			**Source: 1702649-02**		Prepared: 7/19/2017 Analyzed: 7/19/2017					
Antimony	2.35905	0.010	0.0021	2.50000	0.010132	94.0	76 - 118	2.78	20	
Arsenic	2.34931	0.010	0.0067	2.50000	0.025324	93.0	74 - 123	2.93	20	
Barium	2.47993	0.0030	0.0008	2.50000	0.155732	93.0	76 - 117	3.35	20	
Beryllium	2.37119	0.0030	0.0004	2.50000	ND	94.8	84 - 114	2.33	20	
Cadmium	2.25833	0.0030	0.0002	2.50000	0.001105	90.3	73 - 115	4.19	20	
Chromium	2.38094	0.0030	0.0016	2.50000	0.030780	94.0	76 - 117	3.90	20	
Cobalt	2.30963	0.0030	0.0007	2.50000	0.033671	91.0	78 - 113	4.09	20	
Copper	2.43424	0.0090	0.0023	2.50000	0.063905	94.8	70 - 132	4.09	20	
Lead	2.43447	0.0050	0.0028	2.50000	0.129757	92.2	78 - 109	3.10	20	
Molybdenum	2.32184	0.0050	0.0007	2.50000	0.000896	92.8	84 - 111	3.47	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 11640.001
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 07/28/2017

Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7G0459 - EPA 3010A_W (continued)										
Matrix Spike Dup (B7G0459-MSD1) - Continued			**Source: 1702649-02**		Prepared: 7/19/2017 Analyzed: 7/19/2017					
Nickel	2.30755	0.0050	0.0024	2.50000	0.022516	91.4	66 - 125	3.74	20	
Selenium	2.26397	0.010	0.0034	2.50000	ND	90.6	76 - 117	2.95	20	
Silver	2.32099	0.0030	0.0006	2.50000	ND	92.8	64 - 133	3.84	20	
Thallium	2.28378	0.015	0.0026	2.50000	ND	91.4	63 - 118	3.65	20	
Vanadium	2.37053	0.0030	0.0011	2.50000	0.028271	93.7	76 - 119	4.04	20	
Zinc	2.48464	0.025	0.0021	2.50000	0.259653	89.0	56 - 131	3.66	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 11640.001
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 07/28/2017

Title 22 Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7G0486 - EPA 3050B_S										
Blank (B7G0486-BLK1)					Prepared: 7/20/2017 Analyzed: 7/21/2017					
Antimony	ND	2.0	0.44							
Arsenic	ND	1.0	0.70							
Barium	ND	1.0	0.10							
Beryllium	ND	1.0	0.04							
Cadmium	ND	1.0	0.09							
Chromium	ND	1.0	0.12							
Cobalt	ND	1.0	0.10							
Copper	ND	2.0	0.11							
Lead	ND	1.0	0.19							
Molybdenum	ND	1.0	0.13							
Nickel	ND	1.0	0.10							
Selenium	ND	1.0	0.88							
Silver	ND	1.0	0.07							
Thallium	ND	1.0	0.42							
Vanadium	ND	1.0	0.19							
Zinc	ND	1.0	0.18							
LCS (B7G0486-BS1)					Prepared: 7/20/2017 Analyzed: 7/21/2017					
Antimony	47.1331	2.0	0.44	50.0000		94.3	80 - 120			
Arsenic	44.1001	1.0	0.70	50.0000		88.2	80 - 120			
Barium	46.2284	1.0	0.10	50.0000		92.5	80 - 120			
Beryllium	45.2512	1.0	0.04	50.0000		90.5	80 - 120			
Cadmium	43.5351	1.0	0.09	50.0000		87.1	80 - 120			
Chromium	46.9726	1.0	0.12	50.0000		93.9	80 - 120			
Cobalt	46.3382	1.0	0.10	50.0000		92.7	80 - 120			
Copper	46.2811	2.0	0.11	50.0000		92.6	80 - 120			
Lead	45.6250	1.0	0.19	50.0000		91.2	80 - 120			
Molybdenum	45.2419	1.0	0.13	50.0000		90.5	80 - 120			
Nickel	45.5069	1.0	0.10	50.0000		91.0	80 - 120			
Selenium	43.3984	1.0	0.88	50.0000		86.8	80 - 120			
Silver	44.8576	1.0	0.07	50.0000		89.7	80 - 120			
Thallium	46.6156	1.0	0.42	50.0000		93.2	80 - 120			
Vanadium	46.4723	1.0	0.19	50.0000		92.9	80 - 120			
Zinc	42.6512	1.0	0.18	50.0000		85.3	80 - 120			
Duplicate (B7G0486-DUP1)				**Source: 1702649-01**	Prepared: 7/20/2017 Analyzed: 7/21/2017					
Antimony	ND	2.0	0.44		ND			NR	20	
Arsenic	16.6710	1.0	0.70		19.6942			16.6	20	
Barium	129.440	1.0	0.10		123.413			4.77	20	
Beryllium	ND	1.0	0.04		ND			NR	20	
Cadmium	0.387918	1.0	0.09		0.531008			31.1	20	R, J
Chromium	23.0640	1.0	0.12		22.6405			1.85	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 11640.001
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 07/28/2017

Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7G0486 - EPA 3050B_S (continued)										
Duplicate (B7G0486-DUP1) - Continued			**Source: 1702649-01**		Prepared: 7/20/2017 Analyzed: 7/21/2017					
Cobalt	8.62827	1.0	0.10		8.90114			3.11	20	
Copper	20.2936	2.0	0.11		22.3667			9.72	20	
Lead	96.4308	1.0	0.19		107.842			11.2	20	
Molybdenum	ND	1.0	0.13		ND			NR	20	
Nickel	19.2280	1.0	0.10		20.3725			5.78	20	
Selenium	ND	1.0	0.88		ND			NR	20	
Silver	ND	1.0	0.07		ND			NR	20	
Thallium	ND	1.0	0.42		ND			NR	20	
Vanadium	27.8039	1.0	0.19		28.2434			1.57	20	
Zinc	112.829	1.0	0.18		131.913			15.6	20	
Matrix Spike (B7G0486-MS1)			**Source: 1702649-01**		Prepared: 7/20/2017 Analyzed: 7/21/2017					
Antimony	75.3101	2.0	0.44	125.000	ND	60.2	34 - 103			
Arsenic	115.065	1.0	0.70	125.000	19.6942	76.3	59 - 103			
Barium	233.976	1.0	0.10	125.000	123.413	88.5	30 - 134			
Beryllium	94.8668	1.0	0.04	125.000	ND	75.9	62 - 105			
Cadmium	89.3710	1.0	0.09	125.000	0.531008	71.1	53 - 102			
Chromium	120.838	1.0	0.12	125.000	22.6405	78.6	51 - 111			
Cobalt	101.993	1.0	0.10	125.000	8.90114	74.5	55 - 105			
Copper	121.596	2.0	0.11	125.000	22.3667	79.4	53 - 126			
Lead	205.713	1.0	0.19	125.000	107.842	78.3	34 - 129			
Molybdenum	98.6078	1.0	0.13	125.000	ND	78.9	57 - 105			
Nickel	111.777	1.0	0.10	125.000	20.3725	73.1	49 - 109			
Selenium	90.9420	1.0	0.88	125.000	ND	72.8	57 - 99			
Silver	95.9850	1.0	0.07	125.000	ND	76.8	64 - 105			
Thallium	86.1432	1.0	0.42	125.000	ND	68.9	46 - 105			
Vanadium	127.734	1.0	0.19	125.000	28.2434	79.6	60 - 109			
Zinc	216.094	1.0	0.18	125.000	131.913	67.3	29 - 122			
Matrix Spike Dup (B7G0486-MSD1)			**Source: 1702649-01**		Prepared: 7/20/2017 Analyzed: 7/21/2017					
Antimony	77.0928	2.0	0.44	125.000	ND	61.7	34 - 103	2.34	20	
Arsenic	114.058	1.0	0.70	125.000	19.6942	75.5	59 - 103	0.879	20	
Barium	242.024	1.0	0.10	125.000	123.413	94.9	30 - 134	3.38	20	
Beryllium	96.0674	1.0	0.04	125.000	ND	76.9	62 - 105	1.26	20	
Cadmium	92.3565	1.0	0.09	125.000	0.531008	73.5	53 - 102	3.29	20	
Chromium	125.482	1.0	0.12	125.000	22.6405	82.3	51 - 111	3.77	20	
Cobalt	103.153	1.0	0.10	125.000	8.90114	75.4	55 - 105	1.13	20	
Copper	128.519	2.0	0.11	125.000	22.3667	84.9	53 - 126	5.54	20	
Lead	222.823	1.0	0.19	125.000	107.842	92.0	34 - 129	7.99	20	
Molybdenum	100.094	1.0	0.13	125.000	ND	80.1	57 - 105	1.50	20	
Nickel	114.155	1.0	0.10	125.000	20.3725	75.0	49 - 109	2.11	20	
Selenium	91.6209	1.0	0.88	125.000	ND	73.3	57 - 99	0.744	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 11640.001
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 07/28/2017

Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7G0486 - EPA 3050B_S (continued)										
Matrix Spike Dup (B7G0486-MSD1) - Continued			**Source: 1702649-01**		Prepared: 7/20/2017 Analyzed: 7/21/2017					
Silver	100.731	1.0	0.07	125.000	ND	80.6	64 - 105	4.83	20	
Thallium	87.9654	1.0	0.42	125.000	ND	70.4	46 - 105	2.09	20	
Vanadium	131.901	1.0	0.19	125.000	28.2434	82.9	60 - 109	3.21	20	
Zinc	228.574	1.0	0.18	125.000	131.913	77.3	29 - 122	5.61	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 11640.001
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 07/28/2017

Mercury by AA (Cold Vapor) EPA 7470A - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7G0461 - EPA 245.1/7470_W										
Blank (B7G0461-BLK1)					Prepared: 7/19/2017 Analyzed: 7/20/2017					
Mercury	ND	0.20	0.05							
LCS (B7G0461-BS1)					Prepared: 7/19/2017 Analyzed: 7/20/2017					
Mercury	10.2624	0.20	0.05	10.0000		103	80 - 120			
Duplicate (B7G0461-DUP1)			**Source: 1702649-02**		Prepared: 7/19/2017 Analyzed: 7/20/2017					
Mercury	ND	0.20	0.05		ND			NR	20	
Matrix Spike (B7G0461-MS1)			**Source: 1702649-02**		Prepared: 7/19/2017 Analyzed: 7/20/2017					
Mercury	10.2044	0.20	0.05	10.0000	ND	102	70 - 130			
Matrix Spike Dup (B7G0461-MSD1)			**Source: 1702649-02**		Prepared: 7/19/2017 Analyzed: 7/20/2017					
Mercury	10.2956	0.20	0.05	10.0000	ND	103	70 - 130	0.890	20	
Post Spike (B7G0461-PS1)			**Source: 1702649-02**		Prepared: 7/19/2017 Analyzed: 7/20/2017					
Mercury	4.93542			5.00000	0.040590	97.9	85 - 115			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 11640.001
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 07/28/2017

Mercury by AA (Cold Vapor) EPA 7471A - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7G0488 - EPA 7471_S										
Blank (B7G0488-BLK1)					Prepared: 7/20/2017 Analyzed: 7/21/2017					
Mercury	ND	0.10	0.005							
LCS (B7G0488-BS1)					Prepared: 7/20/2017 Analyzed: 7/21/2017					
Mercury	0.856861	0.10	0.005	0.833333		103	80 - 120			
Duplicate (B7G0488-DUP1)			**Source: 1702649-01**		Prepared: 7/20/2017 Analyzed: 7/21/2017					
Mercury	0.094660	0.10	0.005		0.111760			16.6	20	J
Matrix Spike (B7G0488-MS1)			**Source: 1702649-01**		Prepared: 7/20/2017 Analyzed: 7/21/2017					
Mercury	0.992788	0.10	0.005	0.833333	0.111760	106	70 - 130			
Matrix Spike Dup (B7G0488-MSD1)			**Source: 1702649-01**		Prepared: 7/20/2017 Analyzed: 7/21/2017					
Mercury	1.01193	0.10	0.005	0.833333	0.111760	108	70 - 130	1.91	20	
Post Spike (B7G0488-PS1)			**Source: 1702649-01**		Prepared: 7/20/2017 Analyzed: 7/21/2017					
Mercury	0.008542			5.00000E-3	0.001341	144	85 - 115			M1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 11640.001
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 07/28/2017

Gasoline Range Organics by EPA 8015B (Modified) - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7G0426 - GCVOA_S										
Blank (B7G0426-BLK1)					Prepared: 7/19/2017 Analyzed: 7/19/2017					
Gasoline Range Organics	ND	1.0	0.20							
Surrogate: 4-Bromofluorobenzene	*0.2113*			*0.200000*		*106*	*36 - 125*			
LCS (B7G0426-BS1)					Prepared: 7/19/2017 Analyzed: 7/19/2017					
Gasoline Range Organics	5.08800	1.0	0.20	5.00000		102	70 - 130			
Surrogate: 4-Bromofluorobenzene	*0.2144*			*0.200000*		*107*	*36 - 125*			
Duplicate (B7G0426-DUP1)			**Source: 1702649-01**		Prepared: 7/19/2017 Analyzed: 7/19/2017					
Gasoline Range Organics	ND	1.0	0.20		ND			NR	20	
Surrogate: 4-Bromofluorobenzene	*0.2096*			*0.200000*		*105*	*36 - 125*			
Matrix Spike (B7G0426-MS1)			**Source: 1702649-01**		Prepared: 7/19/2017 Analyzed: 7/19/2017					
Gasoline Range Organics	3.74700	1.0	0.20	5.00000	ND	74.9	32 - 161			
Surrogate: 4-Bromofluorobenzene	*0.2178*			*0.200000*		*109*	*36 - 125*			
Matrix Spike Dup (B7G0426-MSD1)			**Source: 1702649-01**		Prepared: 7/19/2017 Analyzed: 7/19/2017					
Gasoline Range Organics	3.79700	1.0	0.20	5.00000	ND	75.9	32 - 161	1.33	20	
Surrogate: 4-Bromofluorobenzene	*0.2182*			*0.200000*		*109*	*36 - 125*			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 11640.001
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 07/28/2017

Gasoline Range Organics by EPA 8015B (Modified) - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7G0470 - GCVOA_W										
Blank (B7G0470-BLK1)						Prepared: 7/20/2017 Analyzed: 7/20/2017				
Gasoline Range Organics	ND	0.05	0.05							
Surrogate: 4-Bromofluorobenzene	*0.09805*			*0.100000*		*98.0*	*70 - 130*			
LCS (B7G0470-BS1)						Prepared: 7/20/2017 Analyzed: 7/20/2017				
Gasoline Range Organics	0.883000	0.05	0.05	1.00000		88.3	70 - 130			
Surrogate: 4-Bromofluorobenzene	*0.09488*			*0.100000*		*94.9*	*70 - 130*			
LCS Dup (B7G0470-BSD1)						Prepared: 7/20/2017 Analyzed: 7/20/2017				
Gasoline Range Organics	0.902000	0.05	0.05	1.00000		90.2	70 - 130	2.13	20	
Surrogate: 4-Bromofluorobenzene	*0.09718*			*0.100000*		*97.2*	*70 - 130*			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 11640.001
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 07/28/2017

Diesel Range Organics by EPA 8015B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7G0548 - GCSEMI_DRO_W										
Blank (B7G0548-BLK1)					Prepared: 7/21/2017 Analyzed: 7/21/2017					
DRO	ND	0.05	0.05							
ORO	ND	0.05	0.05							
Surrogate: p-Terphenyl	*0.07944*			*8.00000E-2*		*99.3*	*20 - 150*			
LCS (B7G0548-BS1)					Prepared: 7/21/2017 Analyzed: 7/21/2017					
DRO	1.24702	0.05	0.05	1.00000		125	42 - 142			
Surrogate: p-Terphenyl	*0.07653*			*8.00000E-2*		*95.7*	*20 - 150*			
LCS Dup (B7G0548-BSD1)					Prepared: 7/21/2017 Analyzed: 7/21/2017					
DRO	0.912970	0.05	0.05	1.00000		91.3	42 - 142	30.9	20	R
Surrogate: p-Terphenyl	*0.07791*			*8.00000E-2*		*97.4*	*20 - 150*			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 11640.001
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 07/28/2017

Diesel Range Organics by EPA 8015B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7G0589 - GCSEMI_DRO_LL_S										
Blank (B7G0589-BLK1)					Prepared: 7/24/2017 Analyzed: 7/24/2017					
DRO	ND	1.0	1.0							
ORO	ND	1.0	1.0							
Surrogate: p-Terphenyl	*2.730*			*2.66667*		*102*	*18 - 130*			
LCS (B7G0589-BS1)					Prepared: 7/24/2017 Analyzed: 7/24/2017					
DRO	23.8250	1.0	1.0	33.3333		71.5	34 - 120			
Surrogate: p-Terphenyl	*2.316*			*2.66667*		*86.8*	*18 - 130*			
Duplicate (B7G0589-DUP1)			**Source: 1702649-01**		Prepared: 7/24/2017 Analyzed: 7/24/2017					
DRO	89.9533	5.0	5.0		124.403			32.1	20	R
Surrogate: p-Terphenyl	*1.743*			*2.66667*		*65.4*	*18 - 130*			
Matrix Spike (B7G0589-MS1)			**Source: 1702649-01**		Prepared: 7/24/2017 Analyzed: 7/24/2017					
DRO	76.2550	5.0	5.0	33.3333	124.403	-144	12 - 132			M2
Surrogate: p-Terphenyl	*1.942*			*2.66667*		*72.8*	*18 - 130*			
Matrix Spike Dup (B7G0589-MSD1)			**Source: 1702649-01**		Prepared: 7/24/2017 Analyzed: 7/24/2017					
DRO	119.410	5.0	5.0	33.3333	124.403	-15.0	12 - 132	44.1	20	M2
Surrogate: p-Terphenyl	*2.098*			*2.66667*		*78.7*	*18 - 130*			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 11640.001
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 07/28/2017

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7G0514 - GCSEMI_PCB/PEST_S										
Blank (B7G0514-BLK1)							Prepared: 7/20/2017 Analyzed: 7/23/2017			
4,4´-DDD	ND	2.0	0.22							
4,4´-DDD [2C]	ND	2.0	0.22							
4,4´-DDE	ND	2.0	0.20							
4,4´-DDE [2C]	ND	2.0	0.20							
4,4´-DDT	ND	2.0	0.13							
4,4´-DDT [2C]	ND	2.0	0.13							
Aldrin	ND	1.0	0.27							
Aldrin [2C]	ND	1.0	0.27							
alpha-BHC	ND	1.0	0.20							
alpha-BHC [2C]	ND	1.0	0.20							
alpha-Chlordane	ND	1.0	0.21							
alpha-Chlordane [2C]	ND	1.0	0.21							
beta-BHC	ND	1.0	0.23							
beta-BHC [2C]	ND	1.0	0.23							
Chlordane	ND	8.5	0.90							
Chlordane [2C]	ND	8.5	0.90							
delta-BHC	ND	1.0	0.21							
delta-BHC [2C]	ND	1.0	0.21							
Dieldrin	ND	2.0	0.25							
Dieldrin [2C]	ND	2.0	0.25							
Endosulfan I	ND	1.0	0.21							
Endosulfan I [2C]	ND	1.0	0.21							
Endosulfan II	ND	2.0	0.22							
Endosulfan II [2C]	ND	2.0	0.22							
Endosulfan sulfate	ND	2.0	0.21							
Endosulfan Sulfate [2C]	ND	2.0	0.21							
Endrin	ND	2.0	0.23							
Endrin [2C]	ND	2.0	0.23							
Endrin aldehyde	ND	2.0	0.28							
Endrin aldehyde [2C]	ND	2.0	0.28							
Endrin ketone	ND	2.0	0.20							
Endrin ketone [2C]	ND	2.0	0.20							
gamma-BHC	ND	1.0	0.20							
gamma-BHC [2C]	ND	1.0	0.20							
gamma-Chlordane	ND	1.0	0.23							
gamma-Chlordane [2C]	ND	1.0	0.23							
Heptachlor	ND	1.0	0.19							
Heptachlor [2C]	ND	1.0	0.19							
Heptachlor epoxide	ND	1.0	0.20							
Heptachlor epoxide [2C]	ND	1.0	0.20							
Methoxychlor	ND	5.0	0.18							

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 11640.001
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 07/28/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7G0514 - GCSEMI_PCB/PEST_S (continued)										
Blank (B7G0514-BLK1) - Continued					Prepared: 7/20/2017 Analyzed: 7/23/2017					
Methoxychlor [2C]	ND	5.0	0.18							
Toxaphene	ND	50	8.2							
Toxaphene [2C]	ND	50	8.2							
Surrogate: Decachlorobiphenyl	*10.62*			*16.6667*		*63.7*	*27 - 123*			
Surrogate: Decachlorobiphenyl [	*12.04*			*16.6667*		*72.3*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*11.93*			*16.6667*		*71.6*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene	*13.05*			*16.6667*		*78.3*	*26 - 108*			
LCS (B7G0514-BS1)					Prepared: 7/20/2017 Analyzed: 7/23/2017					
4,4´-DDD	12.9503	2.0	0.22	16.6667		77.7	53 - 125			
4,4´-DDD [2C]	14.1093	2.0	0.22	16.6667		84.7	53 - 125			
4,4´-DDE	13.4623	2.0	0.20	16.6667		80.8	54 - 113			
4,4´-DDE [2C]	15.0345	2.0	0.20	16.6667		90.2	54 - 113			
4,4´-DDT	13.6382	2.0	0.13	16.6667		81.8	25 - 127			
4,4´-DDT [2C]	10.0243	2.0	0.13	16.6667		60.1	25 - 127			
Aldrin	13.0273	1.0	0.27	16.6667		78.2	59 - 107			
Aldrin [2C]	14.4058	1.0	0.27	16.6667		86.4	59 - 107			
alpha-BHC	13.5518	1.0	0.20	16.6667		81.3	59 - 104			
alpha-BHC [2C]	16.2495	1.0	0.20	16.6667		97.5	59 - 104			
alpha-Chlordane	13.1315	1.0	0.21	16.6667		78.8	54 - 110			
alpha-Chlordane [2C]	13.6488	1.0	0.21	16.6667		81.9	54 - 110			
beta-BHC	13.1033	1.0	0.23	16.6667		78.6	57 - 103			
beta-BHC [2C]	14.9875	1.0	0.23	16.6667		89.9	57 - 103			
delta-BHC	12.7670	1.0	0.21	16.6667		76.6	16 - 120			
delta-BHC [2C]	12.3385	1.0	0.21	16.6667		74.0	16 - 120			
Dieldrin	12.0535	2.0	0.25	16.6667		72.3	61 - 109			
Dieldrin [2C]	13.3643	2.0	0.25	16.6667		80.2	61 - 109			
Endosulfan I	12.2777	1.0	0.21	16.6667		73.7	60 - 106			
Endosulfan I [2C]	13.5990	1.0	0.21	16.6667		81.6	60 - 106			
Endosulfan II	12.9163	2.0	0.22	16.6667		77.5	59 - 108			
Endosulfan II [2C]	13.5197	2.0	0.22	16.6667		81.1	59 - 108			
Endosulfan sulfate	11.2922	2.0	0.21	16.6667		67.8	54 - 110			
Endosulfan Sulfate [2C]	13.1095	2.0	0.21	16.6667		78.7	54 - 110			
Endrin	13.7228	2.0	0.23	16.6667		82.3	63 - 112			
Endrin [2C]	15.0182	2.0	0.23	16.6667		90.1	63 - 112			
Endrin aldehyde	10.7207	2.0	0.28	16.6667		64.3	64 - 119			
Endrin aldehyde [2C]	12.4433	2.0	0.28	16.6667		74.7	64 - 119			
Endrin ketone	11.1127	2.0	0.20	16.6667		66.7	54 - 115			
Endrin ketone [2C]	11.7950	2.0	0.20	16.6667		70.8	54 - 115			
gamma-BHC	13.1295	1.0	0.20	16.6667		78.8	60 - 107			
gamma-BHC [2C]	15.2695	1.0	0.20	16.6667		91.6	60 - 107			

Leighton Consulting, Inc.
17781 Cowan Street
Irvine , CA 92614

Project Number : Burroughs MS, 11640.001
Report To : Julie Harriman
Reported : 07/28/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7G0514 - GCSEMI_PCB/PEST_S (continued)										
LCS (B7G0514-BS1) - Continued						Prepared: 7/20/2017 Analyzed: 7/23/2017				
gamma-Chlordane	12.6913	1.0	0.23	16.6667		76.1	57 - 106			
gamma-Chlordane [2C]	13.9725	1.0	0.23	16.6667		83.8	57 - 106			
Heptachlor	14.6355	1.0	0.19	16.6667		87.8	54 - 114			
Heptachlor [2C]	16.7355	1.0	0.19	16.6667		100	54 - 114			
Heptachlor epoxide	12.5060	1.0	0.20	16.6667		75.0	61 - 106			
Heptachlor epoxide [2C]	13.7505	1.0	0.20	16.6667		82.5	61 - 106			
Methoxychlor	12.9535	5.0	0.18	16.6667		77.7	18 - 138			
Methoxychlor [2C]	14.8625	5.0	0.18	16.6667		89.2	18 - 138			
Surrogate: Decachlorobiphenyl	*11.71*			*16.6667*		*70.3*	*27 - 123*			
Surrogate: Decachlorobiphenyl [	*13.11*			*16.6667*		*78.7*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*13.38*			*16.6667*		*80.3*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene	*14.84*			*16.6667*		*89.1*	*26 - 108*			
Duplicate (B7G0514-DUP1)			**Source: 1702649-01**			Prepared: 7/20/2017 Analyzed: 7/23/2017				
4,4´-DDD	0.946000	4.0	0.44		0.795333			17.3	20	J
4,4´-DDD [2C]	ND	4.0	0.44		ND			NR	20	
4,4´-DDE	0.473000	4.0	0.39		0.416667			12.7	20	J
4,4´-DDE [2C]	ND	4.0	0.39		ND			NR	20	
4,4´-DDT	1.52567	4.0	0.27		0.792333			63.3	20	R, J
4,4´-DDT [2C]	1.39200	4.0	0.27		1.27233			8.98	20	J
Aldrin	ND	2.0	0.54		ND				20	
Aldrin [2C]	ND	2.0	0.54		ND				20	
alpha-BHC	ND	2.0	0.39		ND				20	
alpha-BHC [2C]	ND	2.0	0.39		ND				20	
alpha-Chlordane	0.638667	2.0	0.43		0.536000			17.5	20	J
alpha-Chlordane [2C]	1.65633	2.0	0.43		1.12600			38.1	20	R, J
beta-BHC	ND	2.0	0.45		ND				20	
beta-BHC [2C]	ND	2.0	0.45		ND				20	
delta-BHC	ND	2.0	0.41		ND				20	
delta-BHC [2C]	ND	2.0	0.41		ND				20	
Dieldrin	ND	4.0	0.50		ND				20	
Dieldrin [2C]	ND	4.0	0.50		ND				20	
Endosulfan I	ND	2.0	0.43		ND				20	
Endosulfan I [2C]	ND	2.0	0.43		ND				20	
Endosulfan II	ND	4.0	0.43		ND				20	
Endosulfan II [2C]	ND	4.0	0.43		ND				20	
Endosulfan sulfate	ND	4.0	0.43		ND				20	
Endosulfan Sulfate [2C]	ND	4.0	0.43		ND				20	
Endrin	ND	4.0	0.45		ND			NR	20	
Endrin [2C]	ND	4.0	0.45		ND			NR	20	
Endrin aldehyde	ND	4.0	0.55		ND				20	

Leighton Consulting, Inc.
17781 Cowan Street
Irvine , CA 92614

Project Number : Burroughs MS, 11640.001
Report To : Julie Harriman
Reported : 07/28/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7G0514 - GCSEMI_PCB/PEST_S (continued)										
Duplicate (B7G0514-DUP1) - Continued			**Source: 1702649-01**		Prepared: 7/20/2017 Analyzed: 7/23/2017					
Endrin aldehyde [2C]	ND	4.0	0.55		ND				20	
Endrin ketone	ND	4.0	0.41		ND				20	
Endrin ketone [2C]	ND	4.0	0.41		ND				20	
gamma-BHC	ND	2.0	0.40		ND				20	
gamma-BHC [2C]	ND	2.0	0.40		ND				20	
gamma-Chlordane	0.507000	2.0	0.45		ND			NR	20	J
gamma-Chlordane [2C]	1.83233	2.0	0.45		1.62200			12.2	20	J
Heptachlor	ND	2.0	0.38		ND				20	
Heptachlor [2C]	ND	2.0	0.38		ND				20	
Heptachlor epoxide	ND	2.0	0.41		ND				20	
Heptachlor epoxide [2C]	ND	2.0	0.41		ND				20	
Methoxychlor	ND	10	0.36		ND				20	
Methoxychlor [2C]	ND	10	0.36		ND				20	
Surrogate: Decachlorobiphenyl	*5.237*			*16.6667*		*31.4*	*27 - 123*			
Surrogate: Decachlorobiphenyl [	*4.893*			*16.6667*		*29.4*	*27 - 123*			
Surrogate: Tetrachloro-m-xylene	*6.159*			*16.6667*		*37.0*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene	*5.565*			*16.6667*		*33.4*	*26 - 108*			
Matrix Spike (B7G0514-MS1)			**Source: 1702649-01**		Prepared: 7/20/2017 Analyzed: 7/23/2017					
4,4´-DDD	5.71933	4.0	0.44	16.6667	0.795333	29.5	25 - 141			
4,4´-DDD [2C]	4.56833	4.0	0.44	16.6667	ND	27.4	25 - 141			
4,4´-DDE	6.17833	4.0	0.39	16.6667	0.416667	34.6	22 - 141			
4,4´-DDE [2C]	5.29033	4.0	0.39	16.6667	ND	31.7	22 - 141			
4,4´-DDT	9.91633	4.0	0.27	16.6667	0.792333	54.7	15 - 136			
4,4´-DDT [2C]	5.02833	4.0	0.27	16.6667	1.27233	22.5	15 - 136			
Aldrin	6.07167	2.0	0.54	16.6667	ND	36.4	33 - 118			
Aldrin [2C]	5.79033	2.0	0.54	16.6667	ND	34.7	33 - 118			
alpha-BHC	5.54400	2.0	0.39	16.6667	ND	33.3	30 - 116			
alpha-BHC [2C]	4.98833	2.0	0.39	16.6667	ND	29.9	30 - 116			M
alpha-Chlordane	6.31267	2.0	0.43	16.6667	0.536000	34.7	30 - 123			
alpha-Chlordane [2C]	8.42233	2.0	0.43	16.6667	1.12600	43.8	30 - 123			
beta-BHC	3.56467	2.0	0.45	16.6667	ND	21.4	24 - 121			M
beta-BHC [2C]	2.76467	2.0	0.45	16.6667	ND	16.6	24 - 121			M
delta-BHC	2.51733	2.0	0.41	16.6667	ND	15.1	7 - 120			
delta-BHC [2C]	2.11633	2.0	0.41	16.6667	ND	12.7	7 - 120			
Dieldrin	3.62967	4.0	0.50	16.6667	ND	21.8	25 - 136			M, J
Dieldrin [2C]	3.20933	4.0	0.50	16.6667	ND	19.3	25 - 136			M, J
Endosulfan I	4.05367	2.0	0.43	16.6667	ND	24.3	18 - 134			
Endosulfan I [2C]	3.76100	2.0	0.43	16.6667	ND	22.6	18 - 134			
Endosulfan II	2.51867	4.0	0.43	16.6667	ND	15.1	28 - 128			M, J
Endosulfan II [2C]	1.94500	4.0	0.43	16.6667	ND	11.7	28 - 128			M, J

Leighton Consulting, Inc.
17781 Cowan Street
Irvine , CA 92614

Project Number : Burroughs MS, 11640.001
Report To : Julie Harriman
Reported : 07/28/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7G0514 - GCSEMI_PCB/PEST_S (continued)										
Matrix Spike (B7G0514-MS1) - Continued			**Source: 1702649-01**			Prepared: 7/20/2017 Analyzed: 7/23/2017				
Endosulfan sulfate	1.79433	4.0	0.43	16.6667	ND	10.8	5 - 145			J
Endosulfan Sulfate [2C]	1.17867	4.0	0.43	16.6667	ND	7.07	5 - 145			J
Endrin	4.54700	4.0	0.45	16.6667	ND	27.3	26 - 142			
Endrin [2C]	3.67000	4.0	0.45	16.6667	ND	22.0	26 - 142			M, J
Endrin aldehyde	1.64067	4.0	0.55	16.6667	ND	9.84	8 - 146			J
Endrin aldehyde [2C]	1.27200	4.0	0.55	16.6667	ND	7.63	8 - 146			M, J
Endrin ketone	1.85100	4.0	0.41	16.6667	ND	11.1	16 - 139			M, J
Endrin ketone [2C]	1.33733	4.0	0.41	16.6667	ND	8.02	16 - 139			M, J
gamma-BHC	4.83833	2.0	0.40	16.6667	ND	29.0	30 - 122			M
gamma-BHC [2C]	4.24300	2.0	0.40	16.6667	ND	25.5	30 - 122			M
gamma-Chlordane	5.41167	2.0	0.45	16.6667	ND	32.5	18 - 132			
gamma-Chlordane [2C]	4.52767	2.0	0.45	16.6667	1.62200	17.4	18 - 132			M
Heptachlor	7.02667	2.0	0.38	16.6667	ND	42.2	34 - 122			
Heptachlor [2C]	6.33300	2.0	0.38	16.6667	ND	38.0	34 - 122			
Heptachlor epoxide	4.55000	2.0	0.41	16.6667	ND	27.3	21 - 135			
Heptachlor epoxide [2C]	3.94300	2.0	0.41	16.6667	ND	23.7	21 - 135			
Methoxychlor	3.89333	10	0.36	16.6667	ND	23.4	8 - 162			J
Methoxychlor [2C]	3.55600	10	0.36	16.6667	ND	21.3	8 - 162			J
Surrogate: Decachlorobiphenyl	*5.307*			*16.6667*		*31.8*	*27 - 123*			
Surrogate: Decachlorobiphenyl [	*3.969*			*16.6667*		*23.8*	*27 - 123*			M
Surrogate: Tetrachloro-m-xylene	*6.004*			*16.6667*		*36.0*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene	*5.281*			*16.6667*		*31.7*	*26 - 108*			
Matrix Spike Dup (B7G0514-MSD1)			**Source: 1702649-01**			Prepared: 7/20/2017 Analyzed: 7/23/2017				
4,4´-DDD	6.54167	4.0	0.44	16.6667	0.795333	34.5	25 - 141	13.4	20	
4,4´-DDD [2C]	5.24600	4.0	0.44	16.6667	ND	31.5	25 - 141	13.8	20	
4,4´-DDE	6.29533	4.0	0.39	16.6667	0.416667	35.3	22 - 141	1.88	20	
4,4´-DDE [2C]	5.43267	4.0	0.39	16.6667	ND	32.6	22 - 141	2.65	20	
4,4´-DDT	11.4943	4.0	0.27	16.6667	0.792333	64.2	15 - 136	14.7	20	
4,4´-DDT [2C]	5.19233	4.0	0.27	16.6667	1.27233	23.5	15 - 136	3.21	20	
Aldrin	6.32533	2.0	0.54	16.6667	ND	38.0	33 - 118	4.09	20	
Aldrin [2C]	6.52633	2.0	0.54	16.6667	ND	39.2	33 - 118	12.0	20	
alpha-BHC	6.64300	2.0	0.39	16.6667	ND	39.9	30 - 116	18.0	20	
alpha-BHC [2C]	6.31233	2.0	0.39	16.6667	ND	37.9	30 - 116	23.4	20	R3
alpha-Chlordane	6.90333	2.0	0.43	16.6667	0.536000	38.2	30 - 123	8.94	20	
alpha-Chlordane [2C]	13.1523	2.0	0.43	16.6667	1.12600	72.2	30 - 123	43.8	20	R3
beta-BHC	4.79700	2.0	0.45	16.6667	ND	28.8	24 - 121	29.5	20	R3
beta-BHC [2C]	3.94833	2.0	0.45	16.6667	ND	23.7	24 - 121	35.3	20	R3
delta-BHC	3.79433	2.0	0.41	16.6667	ND	22.8	7 - 120	40.5	20	R3
delta-BHC [2C]	3.13333	2.0	0.41	16.6667	ND	18.8	7 - 120	38.7	20	R3
Dieldrin	4.79867	4.0	0.50	16.6667	ND	28.8	25 - 136	27.7	20	R3

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 11640.001
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 07/28/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7G0514 - GCSEMI_PCB/PEST_S (continued)										
Matrix Spike Dup (B7G0514-MSD1) - Continued			**Source: 1702649-01**		Prepared: 7/20/2017 Analyzed: 7/23/2017					
Dieldrin [2C]	4.30667	4.0	0.50	16.6667	ND	25.8	25 - 136	29.2	20	R3
Endosulfan I	5.18400	2.0	0.43	16.6667	ND	31.1	18 - 134	24.5	20	R3
Endosulfan I [2C]	4.99800	2.0	0.43	16.6667	ND	30.0	18 - 134	28.2	20	R3
Endosulfan II	3.78100	4.0	0.43	16.6667	ND	22.7	28 - 128	40.1	20	R3, J
Endosulfan II [2C]	2.89233	4.0	0.43	16.6667	ND	17.4	28 - 128	39.2	20	R3, J
Endosulfan sulfate	2.57300	4.0	0.43	16.6667	ND	15.4	5 - 145	35.7	20	R3, J
Endosulfan Sulfate [2C]	1.96733	4.0	0.43	16.6667	ND	11.8	5 - 145	50.1	20	R3, J
Endrin	6.03700	4.0	0.45	16.6667	ND	36.2	26 - 142	28.2	20	R3
Endrin [2C]	4.86800	4.0	0.45	16.6667	ND	29.2	26 - 142	28.1	20	R3
Endrin aldehyde	2.40767	4.0	0.55	16.6667	ND	14.4	8 - 146	37.9	20	R3, J
Endrin aldehyde [2C]	1.97067	4.0	0.55	16.6667	ND	11.8	8 - 146	43.1	20	R3, J
Endrin ketone	2.40533	4.0	0.41	16.6667	ND	14.4	16 - 139	26.0	20	R3, J
Endrin ketone [2C]	2.30433	4.0	0.41	16.6667	ND	13.8	16 - 139	53.1	20	R3, J
gamma-BHC	6.09300	2.0	0.40	16.6667	ND	36.6	30 - 122	23.0	20	R3
gamma-BHC [2C]	5.65067	2.0	0.40	16.6667	ND	33.9	30 - 122	28.5	20	R3
gamma-Chlordane	6.02133	2.0	0.45	16.6667	ND	36.1	18 - 132	10.7	20	
gamma-Chlordane [2C]	6.14033	2.0	0.45	16.6667	1.62200	27.1	18 - 132	30.2	20	R3
Heptachlor	7.64600	2.0	0.38	16.6667	ND	45.9	34 - 122	8.44	20	
Heptachlor [2C]	6.92500	2.0	0.38	16.6667	ND	41.5	34 - 122	8.93	20	
Heptachlor epoxide	5.52533	2.0	0.41	16.6667	ND	33.2	21 - 135	19.4	20	
Heptachlor epoxide [2C]	5.28433	2.0	0.41	16.6667	ND	31.7	21 - 135	29.1	20	R3
Methoxychlor	5.22700	10	0.36	16.6667	ND	31.4	8 - 162	29.2	20	R3, J
Methoxychlor [2C]	5.06067	10	0.36	16.6667	ND	30.4	8 - 162	34.9	20	R3, J
Surrogate: Decachlorobiphenyl	*5.296*			*16.6667*		*31.8*	*27 - 123*			
Surrogate: Decachlorobiphenyl [	*4.428*			*16.6667*		*26.6*	*27 - 123*			M
Surrogate: Tetrachloro-m-xylene	*6.324*			*16.6667*		*37.9*	*26 - 108*			
Surrogate: Tetrachloro-m-xylene	*5.781*			*16.6667*		*34.7*	*26 - 108*			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 11640.001
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 07/28/2017

Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7G0534 - GCSEMI_PCB/PEST_W										
Blank (B7G0534-BLK1)							Prepared: 7/21/2017 Analyzed: 7/23/2017			
4,4´-DDD	ND	0.05	0.005							
4,4´-DDD [2C]	ND	0.05	0.005							
4,4´-DDE	ND	0.05	0.005							
4,4´-DDE [2C]	ND	0.05	0.005							
4,4´-DDT	ND	0.05	0.004							
4,4´-DDT [2C]	ND	0.05	0.004							
Aldrin	ND	0.02	0.004							
Aldrin [2C]	ND	0.02	0.004							
alpha-BHC	ND	0.02	0.004							
alpha-BHC [2C]	ND	0.02	0.004							
alpha-Chlordane	ND	0.02	0.005							
alpha-Chlordane [2C]	ND	0.02	0.005							
beta-BHC	ND	0.02	0.005							
beta-BHC [2C]	ND	0.02	0.005							
Chlordane	ND	0.25	0.03							
Chlordane [2C]	ND	0.25	0.03							
delta-BHC	ND	0.02	0.004							
delta-BHC [2C]	ND	0.02	0.004							
Dieldrin	ND	0.05	0.005							
Dieldrin [2C]	ND	0.05	0.005							
Endosulfan I	ND	0.02	0.005							
Endosulfan I [2C]	ND	0.02	0.005							
Endosulfan II	ND	0.05	0.005							
Endosulfan II [2C]	ND	0.05	0.005							
Endosulfan sulfate	ND	0.05	0.005							
Endosulfan Sulfate [2C]	ND	0.05	0.005							
Endrin	ND	0.05	0.005							
Endrin [2C]	ND	0.05	0.005							
Endrin aldehyde	ND	0.05	0.006							
Endrin aldehyde [2C]	ND	0.05	0.006							
Endrin ketone	ND	0.05	0.005							
Endrin ketone [2C]	ND	0.05	0.005							
gamma-BHC	ND	0.02	0.004							
gamma-BHC [2C]	ND	0.02	0.004							
gamma-Chlordane	ND	0.02	0.005							
gamma-Chlordane [2C]	ND	0.02	0.005							
Heptachlor	ND	0.02	0.005							
Heptachlor [2C]	ND	0.02	0.005							
Heptachlor epoxide	ND	0.02	0.005							
Heptachlor epoxide [2C]	ND	0.02	0.005							
Methoxychlor	ND	0.25	0.004							

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 11640.001
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 07/28/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7G0534 - GCSEMI_PCB/PEST_W (continued)										
Blank (B7G0534-BLK1) - Continued					Prepared: 7/21/2017 Analyzed: 7/23/2017					
Methoxychlor [2C]	ND	0.25	0.004							
Toxaphene	ND	2.5	0.23							
Toxaphene [2C]	ND	2.5	0.23							
Surrogate: Decachlorobiphenyl	*0.3117*			*0.500000*		*62.3*	*0 - 132*			
Surrogate: Decachlorobiphenyl [	*0.3253*			*0.500000*		*65.1*	*0 - 132*			
Surrogate: Tetrachloro-m-xylene	*0.3610*			*0.500000*		*72.2*	*15 - 130*			
Surrogate: Tetrachloro-m-xylene	*0.3873*			*0.500000*		*77.5*	*15 - 130*			
LCS (B7G0534-BS1)					Prepared: 7/21/2017 Analyzed: 7/23/2017					
4,4´-DDD	0.363685	0.05	0.005	0.500000		72.7	42 - 135			
4,4´-DDD [2C]	0.388545	0.05	0.005	0.500000		77.7	42 - 135			
4,4´-DDE	0.377710	0.05	0.005	0.500000		75.5	37 - 133			
4,4´-DDE [2C]	0.404960	0.05	0.005	0.500000		81.0	37 - 133			
4,4´-DDT	0.397040	0.05	0.004	0.500000		79.4	9 - 142			
4,4´-DDT [2C]	0.281530	0.05	0.004	0.500000		56.3	9 - 142			
Aldrin	0.365675	0.02	0.004	0.500000		73.1	42 - 127			
Aldrin [2C]	0.395960	0.02	0.004	0.500000		79.2	42 - 127			
alpha-BHC	0.384770	0.02	0.004	0.500000		77.0	48 - 126			
alpha-BHC [2C]	0.442350	0.02	0.004	0.500000		88.5	48 - 126			
alpha-Chlordane	0.368190	0.02	0.005	0.500000		73.6	42 - 130			
alpha-Chlordane [2C]	0.370415	0.02	0.005	0.500000		74.1	42 - 130			
beta-BHC	0.370390	0.02	0.005	0.500000		74.1	49 - 120			
beta-BHC [2C]	0.413335	0.02	0.005	0.500000		82.7	49 - 120			
delta-BHC	0.388825	0.02	0.004	0.500000		77.8	22 - 133			
delta-BHC [2C]	0.368340	0.02	0.004	0.500000		73.7	22 - 133			
Dieldrin	0.337925	0.05	0.005	0.500000		67.6	46 - 131			
Dieldrin [2C]	0.361435	0.05	0.005	0.500000		72.3	46 - 131			
Endosulfan I	0.344240	0.02	0.005	0.500000		68.8	45 - 125			
Endosulfan I [2C]	0.370780	0.02	0.005	0.500000		74.2	45 - 125			
Endosulfan II	0.364790	0.05	0.005	0.500000		73.0	45 - 134			
Endosulfan II [2C]	0.361400	0.05	0.005	0.500000		72.3	45 - 134			
Endosulfan sulfate	0.330990	0.05	0.005	0.500000		66.2	41 - 123			
Endosulfan Sulfate [2C]	0.364480	0.05	0.005	0.500000		72.9	41 - 123			
Endrin	0.383585	0.05	0.005	0.500000		76.7	46 - 138			
Endrin [2C]	0.403755	0.05	0.005	0.500000		80.8	46 - 138			
Endrin aldehyde	0.312200	0.05	0.006	0.500000		62.4	46 - 125			
Endrin aldehyde [2C]	0.341845	0.05	0.006	0.500000		68.4	46 - 125			
Endrin ketone	0.326055	0.05	0.005	0.500000		65.2	40 - 128			
Endrin ketone [2C]	0.328220	0.05	0.005	0.500000		65.6	40 - 128			
gamma-BHC	0.372500	0.02	0.004	0.500000		74.5	48 - 129			
gamma-BHC [2C]	0.425035	0.02	0.004	0.500000		85.0	48 - 129			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 11640.001
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 07/28/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7G0534 - GCSEMI_PCB/PEST_W (continued)										
LCS (B7G0534-BS1) - Continued						Prepared: 7/21/2017 Analyzed: 7/23/2017				
gamma-Chlordane	0.355460	0.02	0.005	0.500000		71.1	41 - 126			
gamma-Chlordane [2C]	0.380600	0.02	0.005	0.500000		76.1	41 - 126			
Heptachlor	0.413365	0.02	0.005	0.500000		82.7	41 - 132			
Heptachlor [2C]	0.451925	0.02	0.005	0.500000		90.4	41 - 132			
Heptachlor epoxide	0.350840	0.02	0.005	0.500000		70.2	45 - 123			
Heptachlor epoxide [2C]	0.376480	0.02	0.005	0.500000		75.3	45 - 123			
Methoxychlor	0.379530	0.25	0.004	0.500000		75.9	13 - 140			
Methoxychlor [2C]	0.403480	0.25	0.004	0.500000		80.7	13 - 140			
Surrogate: Decachlorobiphenyl	*0.3205*			*0.500000*		*64.1*	*0 - 132*			
Surrogate: Decachlorobiphenyl [	*0.3297*			*0.500000*		*65.9*	*0 - 132*			
Surrogate: Tetrachloro-m-xylene	*0.3745*			*0.500000*		*74.9*	*15 - 130*			
Surrogate: Tetrachloro-m-xylene	*0.4016*			*0.500000*		*80.3*	*15 - 130*			
LCS Dup (B7G0534-BSD1)						Prepared: 7/21/2017 Analyzed: 7/23/2017				
4,4´-DDD	0.354345	0.05	0.005	0.500000		70.9	42 - 135	2.60	20	
4,4´-DDD [2C]	0.376835	0.05	0.005	0.500000		75.4	42 - 135	3.06	20	
4,4´-DDE	0.369515	0.05	0.005	0.500000		73.9	37 - 133	2.19	20	
4,4´-DDE [2C]	0.389240	0.05	0.005	0.500000		77.8	37 - 133	3.96	20	
4,4´-DDT	0.389680	0.05	0.004	0.500000		77.9	9 - 142	1.87	20	
4,4´-DDT [2C]	0.313135	0.05	0.004	0.500000		62.6	9 - 142	10.6	20	
Aldrin	0.357150	0.02	0.004	0.500000		71.4	42 - 127	2.36	20	
Aldrin [2C]	0.384380	0.02	0.004	0.500000		76.9	42 - 127	2.97	20	
alpha-BHC	0.376640	0.02	0.004	0.500000		75.3	48 - 126	2.14	20	
alpha-BHC [2C]	0.427980	0.02	0.004	0.500000		85.6	48 - 126	3.30	20	
alpha-Chlordane	0.360105	0.02	0.005	0.500000		72.0	42 - 130	2.22	20	
alpha-Chlordane [2C]	0.359825	0.02	0.005	0.500000		72.0	42 - 130	2.90	20	
beta-BHC	0.361100	0.02	0.005	0.500000		72.2	49 - 120	2.54	20	
beta-BHC [2C]	0.399250	0.02	0.005	0.500000		79.8	49 - 120	3.47	20	
delta-BHC	0.379140	0.02	0.004	0.500000		75.8	22 - 133	2.52	20	
delta-BHC [2C]	0.357435	0.02	0.004	0.500000		71.5	22 - 133	3.01	20	
Dieldrin	0.329905	0.05	0.005	0.500000		66.0	46 - 131	2.40	20	
Dieldrin [2C]	0.350590	0.05	0.005	0.500000		70.1	46 - 131	3.05	20	
Endosulfan I	0.337000	0.02	0.005	0.500000		67.4	45 - 125	2.13	20	
Endosulfan I [2C]	0.360680	0.02	0.005	0.500000		72.1	45 - 125	2.76	20	
Endosulfan II	0.356590	0.05	0.005	0.500000		71.3	45 - 134	2.27	20	
Endosulfan II [2C]	0.365820	0.05	0.005	0.500000		73.2	45 - 134	1.22	20	
Endosulfan sulfate	0.334620	0.05	0.005	0.500000		66.9	41 - 123	1.09	20	
Endosulfan Sulfate [2C]	0.351315	0.05	0.005	0.500000		70.3	41 - 123	3.68	20	
Endrin	0.374545	0.05	0.005	0.500000		74.9	46 - 138	2.38	20	
Endrin [2C]	0.391705	0.05	0.005	0.500000		78.3	46 - 138	3.03	20	
Endrin aldehyde	0.347025	0.05	0.006	0.500000		69.4	46 - 125	10.6	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 11640.001
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 07/28/2017

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7G0534 - GCSEMI_PCB/PEST_W (continued)										
LCS Dup (B7G0534-BSD1) - Continued					Prepared: 7/21/2017 Analyzed: 7/23/2017					
Endrin aldehyde [2C]	0.367350	0.05	0.006	0.500000		73.5	46 - 125	7.19	20	
Endrin ketone	0.306550	0.05	0.005	0.500000		61.3	40 - 128	6.17	20	
Endrin ketone [2C]	0.320845	0.05	0.005	0.500000		64.2	40 - 128	2.27	20	
gamma-BHC	0.364300	0.02	0.004	0.500000		72.9	48 - 129	2.23	20	
gamma-BHC [2C]	0.411530	0.02	0.004	0.500000		82.3	48 - 129	3.23	20	
gamma-Chlordane	0.347295	0.02	0.005	0.500000		69.5	41 - 126	2.32	20	
gamma-Chlordane [2C]	0.367290	0.02	0.005	0.500000		73.5	41 - 126	3.56	20	
Heptachlor	0.404375	0.02	0.005	0.500000		80.9	41 - 132	2.20	20	
Heptachlor [2C]	0.438640	0.02	0.005	0.500000		87.7	41 - 132	2.98	20	
Heptachlor epoxide	0.343270	0.02	0.005	0.500000		68.7	45 - 123	2.18	20	
Heptachlor epoxide [2C]	0.365670	0.02	0.005	0.500000		73.1	45 - 123	2.91	20	
Methoxychlor	0.398955	0.25	0.004	0.500000		79.8	13 - 140	4.99	20	
Methoxychlor [2C]	0.393260	0.25	0.004	0.500000		78.7	13 - 140	2.57	20	
Surrogate: Decachlorobiphenyl	*0.3129*			*0.500000*		*62.6*	*0 - 132*			
Surrogate: Decachlorobiphenyl [	*0.3278*			*0.500000*		*65.6*	*0 - 132*			
Surrogate: Tetrachloro-m-xylene	*0.3659*			*0.500000*		*73.2*	*15 - 130*			
Surrogate: Tetrachloro-m-xylene	*0.3889*			*0.500000*		*77.8*	*15 - 130*			

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 11640.001
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 07/28/2017

Notes and Definitions

R3	RPD value outside acceptance criteria. Calculation is based on raw values. The analytical batch was validated by the Laboratory Control Sample (LCS).
R	RPD value outside acceptance criteria. Calculation is based on raw values.
M2	Matrix spike recovery outside of acceptance limit due to possible matrix interference. The analytical batch was validated by the laboratory control sample.
M1	Matrix spike recovery outside of acceptance limit. The analytical batch was validated by the laboratory control sample.
M	Matrix spike recovery outside of acceptance limit.
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:
(1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
(2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
(3) Results are wet unless otherwise specified.

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 1 of 1

Instruction: Complete all shaded areas.

For Laboratory Use Only — ATLCOC Ver: 20130715

Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
☐ Client ☒ ATL	1. CHILLED	☒	☐	5. # OF SAMPLES MATCH COC	☒	☐
☐ FedEx ☐ OnTrac	2. HEADSPACE (VOA)	☐	☒	6. PRESERVED	☒	☐
☐ GSO	3. CONTAINER INTACT	☒	☐	7. COOLER TEMP, deg C:		
☐ Other: _____	4. SEALED	☐	☒		5.9	

CUSTOMER

Company: Leighton Consulting, Inc. (LCI)
Address: 17781 Cowan
City: Irvine State: CA Zip: 92614
Tel: 949-250-1421 Fax: 949-250-1114

SEND REPORT TO:
Attn: Julie Harriman Email: jharriman@leightongroup.com
Company: LCI
Address: 17781 Cowan
City: Irvine State: CA Zip: 92614

SEND INVOICE TO: ☐ same as SEND REPORT TO
Attn: Accounts Payable Email: acctpayable@leightongroup.com
Company: Leighton
Address: 17781 Cowan
City: Irvine State: CA Zip: 92614

PROJECT SAMPLES

Project Name: Burroughs MS
Project No.: 11640.001
Sampler: W. Scomicr
Quote No: —
PO #: —
Special Instructions/Comments: —

ITEM	Lab No. 1702649 thru 1249	Sample ID / Location	Date	Time	8260 / 624 (Volatiles)	8015(GRO)	8015(DRO)	8270(Semi-volatiles)	8081(Organochlorine Pesticides)	8082(PCBs)	6010 / 7000(Title 22 Metals)	TO-15	TPH(as gas, diesel, and oil) by 8015M	6010B/7470A-Title 22metals	SOIL / SEDIMENT / SLUDGE	SOLIDS / WIPE/ FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL	TAT	Container #	Container Type	Container Material	Preservative	REMARKS
1	1702647-01	IDW-S	7-17-17	0942					X				X	X	X					5	2	5	1	—	
2	↓ -02	IDW-L	"	0945					X				X	X				X		5	6	3/1/3	1/2		
3																									
4																									
5																									
6																									
7																									
8																									
9																									
10																									

QA/QC: ☐ Routine ☐ Caltrans ☐ Legal ☐ RWQCB ☐ Level IV

Encircle or Write Requested Analysis — Encircle Sample Matrix

Container: # — Type: 1=Tube; 2=VOA; 3=Liter; 4=Pint; 5=Jar; 6=Tedlar; 7 = Canister — Material: 1=Glass; 2=Plastic; 3=Metal

Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4 = 4C; 5=Zn ((Ac)2; 6=NaOH; 7=NA2S2O3

TERMS

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
   - TAT = 0 : 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM
   - TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
   - TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
   - TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
   - TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
   - TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab --- ask for quote.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Electronic records maintained for five (5) years from report date.
8. Hard copy reports will be disposed of after 45 calendar days from report date.
9. Storage and Report Fees:
   - Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; $2/sample/month if extended storage or hold is requested.
   - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; $20/ sample/week if extended storage is requested.
   - Hard copy and regenerated reports/EDDs: $17.50 per hard copy report requested; $50.00 per regenerated/reforma? ed report; $35 per reprocessed EDD.
10. Rush TCLP/STLC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of $7 per sample.

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Wallace Scomicr — Submitter Print Name — Signature

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Wallace Scomicr	7-17-17	0915	Jonathan KEO	7-17-17	1515
	7.17.17	1800	MAR	7/17/17	1800

ADVANCED TECHNOLOGY LABORATORIES

August 24, 2017

Julie Harriman
Leighton Consulting, Inc.
17781 Cowan Street
Irvine, CA 92614
Tel: (949) 250-1421
Fax:(949) 757-7230

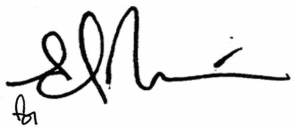
ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1702649
Client Reference : Burroughs MS, 11640.001

Enclosed are the results for sample(s) received on July 17, 2017 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,



Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 11640.001
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 08/24/2017

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
IDW-S	1702649-01	Soil	7/17/17 9:42	7/17/17 15:15

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 11640.001
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 08/24/2017

Client Sample ID IDW-S

Lab ID: 1702649-01

TCLP Metals by ICP-AES EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**0.021**	0.25	0.014	5	B7H0453	08/22/2017	08/22/17 11:21	J

STLC Metals by ICP-AES by EPA 6010B — **Analyst: GO**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**4.6**	1.0	0.057	20	B7H0486	08/23/2017	08/23/17 15:19	D1

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 11640.001
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 08/24/2017

QUALITY CONTROL SECTION

TCLP Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7H0453 - EPA 3010A_S										
Blank (B7H0453-BLK1)					Prepared: 8/22/2017 Analyzed: 8/22/2017					
Lead	ND	0.050	0.0028							
LCS (B7H0453-BS1)					Prepared: 8/22/2017 Analyzed: 8/22/2017					
Lead	0.935275	0.050	0.0028	1.00000		93.5	80 - 120			
Duplicate (B7H0453-DUP1)			**Source: 1702649-01**		Prepared: 8/22/2017 Analyzed: 8/22/2017					
Lead	ND	0.25	0.014		0.020938			NR	20	
Matrix Spike (B7H0453-MS1)			**Source: 1702649-01**		Prepared: 8/22/2017 Analyzed: 8/22/2017					
Lead	2.17334	0.25	0.014	2.50000	0.020938	86.1	78 - 109			
Matrix Spike Dup (B7H0453-MSD1)			**Source: 1702649-01**		Prepared: 8/22/2017 Analyzed: 8/22/2017					
Lead	2.32455	0.25	0.014	2.50000	0.020938	92.1	78 - 109	6.72	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 11640.001
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 08/24/2017

STLC Metals by ICP-AES by EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B7H0486 - STLC_S Extraction										
Blank (B7H0486-BLK1)					Prepared: 8/23/2017 Analyzed: 8/23/2017					
Lead	ND	1.0	0.057							
LCS (B7H0486-BS1)					Prepared: 8/23/2017 Analyzed: 8/23/2017					
Lead	1.88292			2.00000		94.1	80 - 120			
Duplicate (B7H0486-DUP1)			**Source: 1702649-01**		Prepared: 8/23/2017 Analyzed: 8/23/2017					
Lead	4.64251	1.0	0.057		4.55612			1.88	20	
Matrix Spike (B7H0486-MS1)			**Source: 1702649-01**		Prepared: 8/23/2017 Analyzed: 8/23/2017					
Lead	6.38981			2.50000	4.55612	73.3	44 - 130			
Matrix Spike Dup (B7H0486-MSD1)			**Source: 1702649-01**		Prepared: 8/23/2017 Analyzed: 8/23/2017					
Lead	6.64953			2.50000	4.55612	83.7	44 - 130	3.98	20	

Certificate of Analysis

Leighton Consulting, Inc.	Project Number : Burroughs MS, 11640.001
17781 Cowan Street	Report To : Julie Harriman
Irvine , CA 92614	Reported : 08/24/2017

Notes and Definitions

J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:
(1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
(2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
(3) Results are wet unless otherwise specified.

Dominic Mata

From: Julie Harriman [jharriman@leightongroup.com]
Sent: Monday, August 21, 2017 12:24 PM
To: Dominic Mata
Cc: customer.relations@atlglobal.com; Aiko Mackus (Aiko.Mackus@belshire.com)
Subject: RE: Results - Burroughs MS, 11640.001 (ATL# 1702649)
Attachments: 1702649.pdf

Dominic,

Please analyze the IDW-S sample for lead-STLC and lead-TCLP on 24 hr rush. Please cc Aiko Mackus when you send the report to us.

Thank you,
Julie

From: Dominic Mata [mailto:dominic@atlglobal.com]
Sent: Friday, July 28, 2017 4:52 PM
To: Julie Harriman
Cc: customer.relations@atlglobal.com
Subject: Results - Burroughs MS, 11640.001 (ATL# 1702649)

Hi Julie,

Please find your results for the above project attached. If I can further assist, please let me know. Thanks.

Dominic Mata
Project Coordinator

Advanced Technology Laboratories
www.atlglobal.com
Tel: (562) 989-4045 ext. 238
Fax: (562) 989-4040

Advanced Technology Laboratories is a full-service environmental lab providing organic and inorganic analyses of soil, water, wastewater, storm water and hazardous waste samples. ATL is accredited by the State of California, NELAP and State of Oregon (Air) and holds various SBE, DBE and MBE certificates and a USDA soil permit. ATL takes pride in providing our customers with quick turnaround time, excellent customer service and defensible data while offering very competitive rates. *Advanced Technology Labs - Your Partner for Quality Environmental Testing*

This message is intended for the use of the individual or entity to which it is addressed. This may contain information that is privileged, confidential, and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient, or the employee or agent responsible for delivering the message to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by telephone and delete the original message. Thank you.

Enthalpy Analytical, LLC
931 W. Barkley Ave - Orange, CA 92868
Tel: (714)771-6900 Fax: (714)538-1209
www.enthalpy.com
info-sc@enthalpy.com

MONTROSE ENVIRONMENTAL

Client:	Leighton Consulting
Address:	17781 Cowan Suite 100 Irvine, CA 92614
Attn:	Julie Harriman

Lab Request:	392713
Report Date:	07/25/2017
Date Received:	07/18/2017
Client ID:	5970

Comments: Burroughs MS
#11640.001
660 S. McCadden Place, Los Angeles, CA

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods. Methods accredited by NELAC are indicated on the report. This cover letter is an integral part of the final report.

Sample #	Client Sample ID
392713-001	EB-1-2017-07-17
392713-002	EB-10-2-S15-0.5
392713-003	EB-10-2-S15-1.5
392713-004	EB-10-2-S15-2.5
392713-005	EB-10-2-S20-0.5
392713-006	EB-10-2-S20-1.5
392713-007	EB-10-2-S20-2.5
392713-008	EB-11-1-S15-0.5
392713-009	EB-11-1-S15-1.5
392713-010	EB-11-2-N15-0.5
392713-011	EB-11-2-N15-0.5-D
392713-012	EB-11-2-N15-1.5
392713-013	EB-11-2-N15-2.5
392713-014	EB-12-1-S15-0.5
392713-015	EB-12-1-S15-1.5
392713-016	EB-12-1-S15-2.5
392713-017	EB-12-1-S20-0.5
392713-018	EB-12-1-S20-0.5-D
392713-019	EB-12-1-S20-1.5
392713-020	EB-12-1-S20-2.5

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

Diane M. Galvan

Report Review performed by: Diane Galvan, Project Manager

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 60 days from date received.

The reports of the Enthalpy Analytical, Inc. are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

ACCREDITED IN ACCORDANCE WITH nelac

Matrix: Water **Client:** Leighton Consulting **Collector:** Client
Sampled: 07/17/2017 09:40 **Site:**
Sample #: **392713-001** **Client Sample #:** EB-1-2017-07-17 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3010A					QCBatchID: QC1180736		
Arsenic	ND	1	0.01	mg/L	07/19/17	07/19/17	JN	
Lead	ND	1	0.005	mg/L	07/19/17	07/19/17	JN	

Matrix: Solid **Client:** Leighton Consulting **Collector:** Client
Sampled: 07/17/2017 08:40 **Site:**
Sample #: **392713-002** **Client Sample #:** EB-10-2-S15-0.5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B					QCBatchID: QC1180749		
Lead	**48.9**	1	0.5	mg/Kg	07/19/17	07/20/17	JN	

Matrix: Solid **Client:** Leighton Consulting **Collector:** Client
Sampled: 07/17/2017 08:42 **Site:**
Sample #: **392713-003** **Client Sample #:** EB-10-2-S15-1.5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B					QCBatchID: QC1180749		
Lead	**72.9**	1	0.5	mg/Kg	07/19/17	07/20/17	JN	

Matrix: Solid **Client:** Leighton Consulting **Collector:** Client
Sampled: 07/17/2017 08:45 **Site:**
Sample #: **392713-004** **Client Sample #:** EB-10-2-S15-2.5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B					QCBatchID: QC1180749		
Lead	**8.60**	1	0.5	mg/Kg	07/19/17	07/20/17	JN	

Matrix: Solid **Client:** Leighton Consulting **Collector:** Client
Sampled: 07/17/2017 08:49 **Site:**
Sample #: **392713-005** **Client Sample #:** EB-10-2-S20-0.5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B					QCBatchID: QC1180749		
Lead	**74.3**	1	0.5	mg/Kg	07/19/17	07/20/17	JN	

Matrix: Solid **Client:** Leighton Consulting **Collector:** Client
Sampled: 07/17/2017 08:51 **Site:**
Sample #: **392713-006** **Client Sample #:** EB-10-2-S20-1.5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B					QCBatchID: QC1180749		
Lead	**87.7**	1	0.5	mg/Kg	07/19/17	07/20/17	JN	

Matrix: Solid **Client:** Leighton Consulting **Collector:** Client
Sampled: 07/17/2017 08:55 **Site:**
Sample #: **392713-007** **Client Sample #:** EB-10-2-S20-2.5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B					QCBatchID: QC1180749		
Lead	**42.8**	1	0.5	mg/Kg	07/19/17	07/20/17	JN	

Matrix: Solid **Client:** Leighton Consulting **Collector:** Client
Sampled: 07/17/2017 09:00 **Site:**
Sample #: 392713-008 **Client Sample #:** EB-11-1-S15-0.5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B NELAC	Prep Method: EPA 3050B					QCBatchID: QC1180749		
Lead	**231**	1	0.5	mg/Kg	07/19/17	07/20/17	JN	

Matrix: Solid **Client:** Leighton Consulting **Collector:** Client
Sampled: 07/17/2017 09:05 **Site:**
Sample #: 392713-009 **Client Sample #:** EB-11-1-S15-1.5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B NELAC	Prep Method: EPA 3050B					QCBatchID: QC1180749		
Lead	**94.8**	1	0.5	mg/Kg	07/19/17	07/20/17	JN	

Matrix: Solid **Client:** Leighton Consulting **Collector:** Client
Sampled: 07/17/2017 08:30 **Site:**
Sample #: 392713-010 **Client Sample #:** EB-11-2-N15-0.5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B NELAC	Prep Method: EPA 3050B					QCBatchID: QC1180749		
Lead	**68.8**	1	0.5	mg/Kg	07/19/17	07/20/17	JN	

Matrix: Solid **Client:** Leighton Consulting **Collector:** Client
Sampled: 07/17/2017 08:30 **Site:**
Sample #: 392713-011 **Client Sample #:** EB-11-2-N15-0.5-D **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B NELAC	Prep Method: EPA 3050B					QCBatchID: QC1180749		
Lead	**79.3**	1	0.5	mg/Kg	07/19/17	07/20/17	JN	

Matrix: Solid **Client:** Leighton Consulting **Collector:** Client
Sampled: 07/17/2017 08:34 **Site:**
Sample #: 392713-012 **Client Sample #:** EB-11-2-N15-1.5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B NELAC	Prep Method: EPA 3050B					QCBatchID: QC1180749		
Lead	**72.0**	1	0.5	mg/Kg	07/19/17	07/20/17	JN	

Matrix: Solid **Client:** Leighton Consulting **Collector:** Client
Sampled: 07/17/2017 08:37 **Site:**
Sample #: 392713-013 **Client Sample #:** EB-11-2-N15-2.5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B NELAC	Prep Method: EPA 3050B					QCBatchID: QC1180749		
Lead	**63.9**	1	0.5	mg/Kg	07/19/17	07/20/17	JN	

Matrix: Solid **Client:** Leighton Consulting **Collector:** Client
Sampled: 07/17/2017 09:07 **Site:**
Sample #: 392713-014 **Client Sample #:** EB-12-1-S15-0.5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B NELAC	Prep Method: EPA 3050B					QCBatchID: QC1180749		
Arsenic	**59.7**	1	1	mg/Kg	07/19/17	07/20/17	JN	

Matrix: Solid **Client:** Leighton Consulting **Collector:** Client
Sampled: 07/17/2017 09:10 **Site:**
Sample #: 392713-015 **Client Sample #:** EB-12-1-S15-1.5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B NELAC	Prep Method: EPA 3050B					QCBatchID: QC1180749		
Arsenic	**44.1**	1	1	mg/Kg	07/19/17	07/20/17	JN	

Matrix:	Solid	**Client:**	Leighton Consulting	**Collector:**	Client
Sampled:	07/17/2017 09:12	**Site:**			
Sample #:	**392713-016**	**Client Sample #:**	EB-12-1-S15-2.5	**Sample Type:**	

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B					QCBatchID: QC1180749		
Arsenic	**42.7**	1	1	mg/Kg	07/19/17	07/20/17	JN	

Matrix:	Solid	**Client:**	Leighton Consulting	**Collector:**	Client
Sampled:	07/17/2017 09:12	**Site:**			
Sample #:	**392713-017**	**Client Sample #:**	EB-12-1-S20-0.5	**Sample Type:**	

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B					QCBatchID: QC1180749		
Arsenic	**38.2**	1	1	mg/Kg	07/19/17	07/20/17	JN	

Matrix:	Solid	**Client:**	Leighton Consulting	**Collector:**	Client
Sampled:	07/17/2017 09:12	**Site:**			
Sample #:	**392713-018**	**Client Sample #:**	EB-12-1-S20-0.5-D	**Sample Type:**	

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B					QCBatchID: QC1180749		
Arsenic	**78.6**	1	1	mg/Kg	07/19/17	07/20/17	JN	

Matrix:	Solid	**Client:**	Leighton Consulting	**Collector:**	Client
Sampled:	07/17/2017 09:15	**Site:**			
Sample #:	**392713-019**	**Client Sample #:**	EB-12-1-S20-1.5	**Sample Type:**	

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B					QCBatchID: QC1180749		
Arsenic	**48.4**	1	1	mg/Kg	07/19/17	07/20/17	JN	

Matrix:	Solid	**Client:**	Leighton Consulting	**Collector:**	Client
Sampled:	07/17/2017 09:18	**Site:**			
Sample #:	**392713-020**	**Client Sample #:**	EB-12-1-S20-2.5	**Sample Type:**	

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC*	Prep Method: EPA 3050B					QCBatchID: QC1180749		
Arsenic	**17.4**	1	1	mg/Kg	07/19/17	07/20/17	JN	

QCBatchID: QC1180736	**Analyst:** dswafford	**Method:** EPA 6010B	
Matrix: Water	**Analyzed:** 07/19/2017	**Instrument:** AAICP (group)	

Blank Summary

Analyte	Blank Result	Units		RDL	Notes
QC1180736MB1					
Antimony	ND	mg/L		0.02	
Arsenic	ND	mg/L		0.01	
Barium	ND	mg/L		0.01	
Beryllium	ND	mg/L		0.005	
Cadmium	ND	mg/L		0.005	
Calcium	ND	mg/L		0.1	
Chromium	ND	mg/L		0.01	
Cobalt	ND	mg/L		0.005	
Copper	ND	mg/L		0.01	
Lead	ND	mg/L		0.005	
Magnesium	ND	mg/L		0.1	
Molybdenum	ND	mg/L		0.01	
Nickel	ND	mg/L		0.02	
Selenium	ND	mg/L		0.01	
Silver	ND	mg/L		0.005	
Thallium	ND	mg/L		0.005	
Vanadium	ND	mg/L		0.005	
Zinc	ND	mg/L		0.02	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1180736LCS1											
Antimony	2		1.81		mg/L	91			80-120		
Arsenic	2		1.80		mg/L	90			80-120		
Barium	2		1.87		mg/L	94			80-120		
Beryllium	2		1.88		mg/L	94			80-120		
Cadmium	2		1.87		mg/L	94			80-120		
Chromium	2		1.84		mg/L	92			80-120		
Cobalt	2		1.89		mg/L	95			80-120		
Copper	2		1.84		mg/L	92			80-120		
Lead	2		1.85		mg/L	93			80-120		
Molybdenum	2		1.85		mg/L	93			80-120		
Nickel	2		1.88		mg/L	94			80-120		
Selenium	2		1.82		mg/L	91			80-120		
Silver	2		1.85		mg/L	93			80-120		
Thallium	2		1.81		mg/L	91			80-120		
Vanadium	2		1.86		mg/L	93			80-120		
Zinc	2		1.86		mg/L	93			80-120		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1180736MS1, QC1180736MSD1												**Source: 392713-001**
Antimony	ND	1	1	0.915	0.956	mg/L	92	96	4.4	75-125	20	
Arsenic	ND	1	1	0.956	0.906	mg/L	96	91	5.4	75-125	20	
Barium	ND	1	1	0.947	0.902	mg/L	95	90	4.9	75-125	20	
Beryllium	ND	1	1	0.977	0.964	mg/L	98	96	1.3	75-125	20	
Cadmium	ND	1	1	0.950	0.905	mg/L	95	91	4.9	75-125	20	
Chromium	ND	1	1	0.939	0.894	mg/L	94	89	4.9	75-125	20	
Cobalt	ND	1	1	0.959	0.918	mg/L	96	92	4.4	75-125	20	

QCBatchID: QC1180736	**Analyst:** dswafford	**Method:** EPA 6010B	
Matrix: Water	**Analyzed:** 07/19/2017	**Instrument:** AAICP (group)	

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1180736MS1, QC1180736MSD1												**Source: 392713-001**
Copper	ND	1	1	0.944	1.00	mg/L	94	100	5.8	75-125	20	
Lead	ND	1	1	0.925	0.898	mg/L	93	90	3.0	75-125	20	
Molybdenum	0.003	1	1	0.947	0.899	mg/L	94	90	5.2	75-125	20	
Nickel	ND	1	1	0.948	0.906	mg/L	95	91	4.5	75-125	20	
Selenium	ND	1	1	0.904	0.960	mg/L	90	96	6.0	75-125	20	
Silver	ND	1	1	0.930	0.923	mg/L	93	92	0.8	75-125	20	
Thallium	ND	1	1	0.961	0.904	mg/L	96	90	6.1	75-125	20	
Vanadium	ND	1	1	0.946	0.930	mg/L	95	93	1.7	75-125	20	
Zinc	ND	1	1	0.952	0.908	mg/L	95	91	4.7	75-125	20	

QCBatchID: QC1180749	**Analyst:** dswafford	**Method:** EPA 6010B	
Matrix: Solid	**Analyzed:** 07/19/2017	**Instrument:** AAICP (group)	

Blank Summary

Analyte	Blank Result	Units		RDL	Notes	
QC1180749MB1						
Arsenic	ND	mg/Kg		1		
Lead	ND	mg/Kg		0.5		

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
	LCS	LCSD	LCS	LCSD		LCS	LCSD		%Rec	RPD	
QC1180749LCS1											
Arsenic	100		93.0		mg/Kg	93			80-120		
Lead	100		93.4		mg/Kg	93			80-120		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
		MS	MSD	MS	MSD		MS	MSD		%Rec	RPD	
QC1180749MS1, QC1180749MSD1												**Source: 392713-002**
Arsenic	4.82	100	100	106	106	mg/Kg	101	101	0.0	75-125	20	
Lead	48.9	100	100	157	163	mg/Kg	108	114	3.8	75-125	20	

Data Qualifiers and Definitions

Qualifiers

A	See Report Comments.
B	Analyte was present in an associated method blank.
B1	Analyte was present in a sample and associated method blank greater than MDL but less than RDL.
BQ1	No valid test replicates. Sample Toxicity is possible. Best result was reported.
BQ2	No valid test replicates.
BQ3	No valid test replicates. Final DO is less than 1.0 mg/L. Result may be greater.
C	Possible laboratory contamination.
D	RPD was not within control limits. The sample data was reported without further clarification.
D1	Lesser amount of sample was used due to insufficient amount of sample supplied.
D2	Reporting limit is elevated due to sample matrix. Target analyte was not detected above the elevated reporting limit.
D3	Insufficient sample was supplied for TCLP. Client was notified. TCLP was performed per the Client's instructions.
DW	Sample result is calculated on a dry weigh basis.
E	Concentration is estimated because it exceeds the quantification limits of the method.
I	The sample was read outside of the method required incubation period.
J	Reported value is estimated
L	The laboratory control sample (LCS) or laboratory control sample duplicate (LCSD) was out of control limits. Associated sample data was reported with qualifier.
M	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits due to matrix interference. The associated LCS and/or LCSD was within control limits and the sample data was reported without further clarification.
M1	The matrix spike (MS) or matrix spike duplicate (MSD) is not within control limits due to matrix interference.
M2	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits. The associated LCS and/or LCSD was not within control limits. Sample result is estimated.
N1	Sample chromatography does not match the specified TPH standard pattern.
NC	The analyte concentration in the sample exceeded the spike level by a factor of four or greater, spike recovery and limits do not apply.
P	Sample was received without proper preservation according to EPA guidelines.
P1	Temperature of sample storage refrigerator was out of acceptance limits.
P2	The sample was preserved within 24 hours of collection in accordance with EPA 218.6.
P3	Per Client request, sample was composited for volatile analysis. Sample compositing for volatile analysis is not recommended due to potential loss of target analytes. Results may be biased low.
Q1	Analyte Calibration Verification exceeds criteria. The result is estimated.
Q2	Analyte calibration was not verified and the result was estimated.
Q3	Analyte initial calibration was not available or exceeds criteria. The result was estimated.
S	The surrogate recovery was out of control limits due to matrix interference. The associated method blank surrogate recovery was within control limits and the sample data was reported without further clarification.
S1	The associated surrogate recovery was out of control limits; result is estimated.
S2	The surrogate was diluted out due to the presence of high concentrations of target and/or non-target compounds. Surrogate recoveries in the associated batch QC met recovery criteria.
S3	Internal Standard did not meet recovery limits. Analyte concentration is estimated.
T	Sample was extracted/analyzed past the holding time.
T1	Reanalysis was reported past hold time due to failing replicates in the original analysis (BOD only).
T2	Sample was analyzed ASAP but received and analyzed past the 15 minute holding time.
T3	Sample received and analyzed out of hold time per client's request.
T4	Sample was analyzed out of hold time per client's request.
T5	Reanalysis was reported past hold time. The original analysis was within hold time, but not reportable.
T6	Hold time is indeterminable due to unspecified sampling time.
T7	Sample was analyzed past hold time due to insufficient time remaining at time of receipt.

Definitions

DF	Dilution Factor
MDL	Method Detection Limit. Result is reported ND when it is less than or equal to MDL.
ND	Analyte was not detected or was less than the detection limit.
NR	Not Reported. See Report Comments.
RDL	Reporting Detection Limit
TIC	Tentatively Identified Compounds

ENTHALPY ANALYTICAL, INC.	Chain of Custody Record	Turn Around Time (Rush by advanced notice only)
931 W. Barkley Ave, Orange, CA 92868 Phone: (714) 771-6900 Fax: (714)771-9933	Lab No: 392713 Page: 1 of 2	Standard: ✓ 4 Day: 3 Day: 2 Day: 1 Day: Same Day:
Billing: Enthalpy - SoCal c/o Montrose Environmental Group 1 Park Plaza, Suite 1000, Irvine, CA 92614	**Matrix:** A = Air DW = Drinking Water FL = Food Liquid FS = Food Solid L = Liquid PP = Pure Product S = Solid SeaW = Sea Water SW = Swab W = Water WP = Wipe O = Other	**Preservatives:** 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	Leighton Consulting, Inc.	Name:	Burroughs MS
Report To:	Julie Harriman	Number:	11640.001
Email:	jharriman@leightongroup.com	P.O. #:	—
Address:	17781 Cowan	Address:	660 S. McCadden Place
	Irvine, CA 92614		Los Angeles, CA
Phone:	949-250-1421	Global ID:	—
Fax:	949-250-1114	Sampled By:	W. Siemers

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	Analysis Request: EPA 6010C Lead	Analysis Request: EPA 6010C Arsenic	Test Instructions / Comments
1	EB-1-2017-07-17	7-17-17	0940	W	1	3	X	X	
2	EB-10-2-S15-0.5		0840	S		—	X		
3	EB-10-2-S15-1.5		0842				X		
4	EB-10-2-S15-2.5		0845				X		
5	EB-10-2-S20-0.5		0849				X		
6	EB-10-2-S20-1.5		0851				X		
7	EB-10-2-S20-2.5		0855				X		
8	EB-11-1-S15-0.5		0900				X		
9	EB-11-1-S15-1.5		0905				X		
10	EB-11-2-N15-0.5		0830				X		

	Signature	Print Name	Company / Title	Date / Time
[1] Relinquished By:	Renee S. Morales	Renee S. Morales	Project Engineer / Leighton	7/18/17 11:37 AM
[1] Received By:	Max Montiel	Max Montiel	Enthalpy A.	7/18/17 1137
[2] Relinquished By:	Max Montiel	Max Montiel	Enthalpy A.	7/18/17 1440
[2] Received By:	G. Kim	G. Kim	EA	7/18/17 1440
[3] Relinquished By:				
[3] Received By:				

ENTHALPY ANALYTICAL, INC.	Chain of Custody Record	Turn Around Time (Rush by advanced notice only)
931 W. Barkley Ave, Orange, CA 92868 Phone: (714) 771-6900 Fax: (714)771-9933	Lab No:	Standard: 4 Day: 3 Day:
Billing: Enthalpy - SoCal c/o Montrose Environmental Group 1 Park Plaza, Suite 1000, Irvine, CA 92614	Page: 2 of 2	2 Day: 1 Day: Same Day:

Matrix: A = Air DW = Drinking Water FL = Food Liquid FS = Food Solid L = Liquid PP = Pure Product S = Solid SeaW = Sea Water SW = Swab W = Water WP = Wipe O = Other

Preservatives: 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:		Name:	
Report To:	See Page #1	Number:	
Email:		P.O. #:	See Page #1
Address:		Address:	
Phone:		Global ID:	
Fax:		Sampled By:	

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	Analysis Request: EPA 6010B Lead	Analysis Request: EPA 6020B Arsenic	Test Instructions / Comments
1	EB-11-2-N15-0.5-D	7-17-17	0830	S	1	—	X		
2	EB-11-2-N15-1.5		0834				X		
3	EB-11-2-N15-2.5		0837				X		
4	EB12-1-S15-0.5		0907					X	
5	EB12-1-S15-1.5		0910					X	
6	EB-12-1-S15-2.5		0912					X	
7	EB-12-1-S20-0.5		0912					X	
8	EB-12-1-S20-0.5-D		0912					X	
9	EB-12-1-S20-1.5		0915					X	
10	EB-12-1-S20-2.5		0-918					X	

	Signature	Print Name	Company / Title	Date / Time
[1] Relinquished By:	Renee S Morales	Renee S Morales	Project Engineer/ Leighton	11:37AM
[1] Received By:	Max Montiel	Max Montiel	Enthalpy A-	7/18/17 1137
[2] Relinquished By:	Max Montiel	Max Montiel	Enthalpy A.	7/18/17 1440
[2] Received By:	Cyl	Glen	EA	7/18/17 1440
[3] Relinquished By:				
[3] Received By:				

Enthalpy Analytical Field Technician Request Form

Version # 2.7
Effective 9/10/15

Client Info	
Client Name:	Leighton
Address:	26074 Avenue Hall, Suite 21
City:	Santa Clarita, CA 91355
Ordered By:	Wallace Sconiers
Client Project Manager:	Diane Galvan
Phone:	661-302-3169
Email:	

Site Info	
Address:	
City:	
Site Contact:	
Phone:	
2nd Site Contact:	
Phone:	

Request Completed By	
Enthalpy Contact:	Diane Galvan
Date / Time:	7/17/17 @ 14:00

Date(s) Needed:	7/18/17 AM				
Before:		After:		Between:	
Assigned Field Technician:					
Arrival Time:		Leave Time:			
Pick Up	✓	**Delivery**			

Micro Sampling					
1st Day:		Sampling Time:		# of samples:	
2nd Day:		Sampling Time:		# of samples:	
Verbal Notification required (ASAP):					
Primary Notification Contact Info:					
Secondary Notification Contact Info:					
Analysis:					

Water/Soil Sampling					
ISCO:		Soil:		Water:	
Meter readings (ISCO):		# of samples:			
Analysis:					

Sampling Notes					
TAT:		Return ASAP:		Return by:	
Comments/Instructions:					

Enthalpy Coordinator Use Only		Enthalpy PM Use Only	
Request Approved:		☐ Emailed ☑ Phoned ☐ No Notification	
Alternate Date/Time proposed:		Client contact notified:	Wallace Sconiers
Request Denied:			
Name / Signature:		Name / Signature:	Diane Galvan
Date/Time:		Date/Time:	7/17/17 @ 14:00

Please initial and date any changes.

ENTHALPY

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: Leighton Consulting Project: Burroughs MS

Date Received: 07/18/17 Sampler's Name Present ☑ Yes ☐ No

Sample(s) received in a cooler? ☑ Yes How many? 1 ☐ No (skip section 2) Sample Temp (°C): _____

Sample Temp (°C) from each cooler: #1: 4.1 #2: _____ #3: _____ #4: _____

(Acceptance range is 0 to 6°C or, for samples collected the same day as sample receipt, arrival on ice; For Microbiology sample 0 to 10°C or, for samples collected the same day as sample receipt, arrival on ice)

Shipping Information: _____

Section 2

Was the cooler packed with: ✓ Ice ____ Ice Packs ____ Bubble Wrap ____ Styrofoam ____ Paper ____None ____ Other _____

Cooler Temp (°C): #1: 1.1 #2: _____ #3: _____ #4: _____

Section 3	YES	NO	N/A
Was a COC received?	✓		
Are sample IDs present?	✓		
Are sampling dates & times present?	✓		
Is a relinquished signature present?	✓		
Are the tests required clearly indicated on the COC?	✓		
Are custody seals present?		✓	
If custody seals are present, were they intact?			✓
Are all samples sealed in plastic bags? Recommended for Microbiology samples)	✓		
Did all samples arrive intact? If no, indicate in Section 4 below.	✓		
Did all bottle labels agree with COC? (ID, dates and times)	✓		
Were the samples collected in the correct containers for the required tests?	✓		
Are the containers labeled with the correct preservatives?	✓		
Is there headspace in the VOA vials greater than 5-6 mm in diameter?			✓
Was a sufficient amount of sample submitted for the requested tests?	✓		

Section 4 Explanations/Comments

Section 5

For discrepancies, how was the Project Manager notified? ☐ Verbal ☐ Email PM Initials: _____ Date/Time _____ (email sent to/on): _____ / _____

Project Manager's response:

Completed By: _____ Date: 7/18/17

Enthalpy Analytical, a subsidiary of Montrose Environmental Group ,Inc.
931 W. Barkley Ave, Orange, CA 92868 • T: (714) 771-6900 • F: (714) 538-1209
www.enthalpy.com/socal

Enthalpy Analytical, LLC
931 W. Barkley Ave - Orange, CA 92868
Tel: (714)771-6900 Fax: (714)538-1209
www.enthalpy.com
info-sc@enthalpy.com

MONTROSE ENVIRONMENTAL

Client: Leighton Consulting
Address: 17781 Cowan
Suite 100
Irvine, CA 92614
Attn: Julie Harriman

Lab Request: 392713
Report Date: 08/18/2017
Date Received: 07/18/2017
Client ID: 5970

Comments: Burroughs MS
#11640.001
660 S. McCadden Place, Los Angeles, CA

Supplemental 1

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods. Methods accredited by NELAC are indicated on the report. This cover letter is an integral part of the final report.

Sample #	Client Sample ID
392713-003	EB-10-2-S15-1.5
392713-005	EB-10-2-S20-0.5
392713-006	EB-10-2-S20-1.5
392713-008	EB-11-1-S15-0.5
392713-009	EB-11-1-S15-1.5
392713-010	EB-11-2-N15-0.5
392713-011	EB-11-2-N15-0.5-D
392713-012	EB-11-2-N15-1.5
392713-013	EB-11-2-N15-2.5
392713-014	EB-12-1-S15-0.5
392713-018	EB-12-1-S20-0.5-D

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

Diane M. Galvan

Report Review performed by: Diane Galvan, Project Manager

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 60 days from date received.

The reports of the Enthalpy Analytical, Inc. are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

ACCREDITED IN ACCORDANCE WITH nelac

Matrix: Solid **Client:** Leighton Consulting **Collector:** Client
Sampled: 07/17/2017 08:42 **Site:**
Sample #: **392713-003** **Client Sample #:** EB-10-2-S15-1.5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 1311/3010A						QCBatchID: QC1181654		
Lead	ND	1	0.05	mg/L	08/17/17	08/17/17	KLN	
Method: EPA 6010B *NELAC* Prep Method: STLC						QCBatchID: QC1181660		
Lead	**3.37**	10	0.15	mg/L	08/17/17	08/17/17	KLN	

Matrix: Solid **Client:** Leighton Consulting **Collector:** Client
Sampled: 07/17/2017 08:49 **Site:**
Sample #: **392713-005** **Client Sample #:** EB-10-2-S20-0.5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 1311/3010A						QCBatchID: QC1181654		
Lead	ND	1	0.05	mg/L	08/17/17	08/17/17	KLN	
Method: EPA 6010B *NELAC* Prep Method: STLC						QCBatchID: QC1181660		
Lead	**3.67**	10	0.15	mg/L	08/17/17	08/17/17	KLN	

Matrix: Solid **Client:** Leighton Consulting **Collector:** Client
Sampled: 07/17/2017 08:51 **Site:**
Sample #: **392713-006** **Client Sample #:** EB-10-2-S20-1.5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 1311/3010A						QCBatchID: QC1181654		
Lead	ND	1	0.05	mg/L	08/17/17	08/17/17	KLN	
Method: EPA 6010B *NELAC* Prep Method: STLC						QCBatchID: QC1181660		
Lead	**6.40**	10	0.15	mg/L	08/17/17	08/17/17	KLN	

Matrix: Solid **Client:** Leighton Consulting **Collector:** Client
Sampled: 07/17/2017 09:00 **Site:**
Sample #: **392713-008** **Client Sample #:** EB-11-1-S15-0.5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 1311/3010A						QCBatchID: QC1181654		
Lead	**0.278**	1	0.05	mg/L	08/17/17	08/17/17	KLN	
Method: EPA 6010B *NELAC* Prep Method: STLC						QCBatchID: QC1181660		
Lead	**10.4**	10	0.15	mg/L	08/17/17	08/17/17	KLN	

Matrix: Solid **Client:** Leighton Consulting **Collector:** Client
Sampled: 07/17/2017 09:05 **Site:**
Sample #: **392713-009** **Client Sample #:** EB-11-1-S15-1.5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 1311/3010A						QCBatchID: QC1181654		
Lead	ND	1	0.05	mg/L	08/17/17	08/17/17	KLN	
Method: EPA 6010B *NELAC* Prep Method: STLC						QCBatchID: QC1181660		
Lead	**2.02**	10	0.15	mg/L	08/17/17	08/17/17	KLN	

Matrix: Solid **Client:** Leighton Consulting **Collector:** Client
Sampled: 07/17/2017 08:30 **Site:**
Sample #: **392713-010** **Client Sample #:** EB-11-2-N15-0.5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B *NELAC* Prep Method: EPA 1311/3010A						QCBatchID: QC1181654		
Lead	ND	1	0.05	mg/L	08/17/17	08/17/17	KLN	
Method: EPA 6010B *NELAC* Prep Method: STLC						QCBatchID: QC1181660		
Lead	**3.16**	10	0.15	mg/L	08/17/17	08/17/17	KLN	

Matrix: Solid **Client:** Leighton Consulting **Collector:** Client
Sampled: 07/17/2017 08:30 **Site:**
Sample #: 392713-011 **Client Sample #:** EB-11-2-N15-0.5-D **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B NELAC	Prep Method: EPA 1311/3010A					QCBatchID: QC1181654		
Lead	ND	1	0.05	mg/L	08/17/17	08/17/17	KLN	
Method: EPA 6010B NELAC	Prep Method: STLC					QCBatchID: QC1181660		
Lead	**3.10**	10	0.15	mg/L	08/17/17	08/17/17	KLN	

Matrix: Solid **Client:** Leighton Consulting **Collector:** Client
Sampled: 07/17/2017 08:34 **Site:**
Sample #: 392713-012 **Client Sample #:** EB-11-2-N15-1.5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B NELAC	Prep Method: EPA 1311/3010A					QCBatchID: QC1181654		
Lead	ND	1	0.05	mg/L	08/17/17	08/17/17	KLN	
Method: EPA 6010B NELAC	Prep Method: STLC					QCBatchID: QC1181660		
Lead	**4.15**	10	0.15	mg/L	08/17/17	08/17/17	KLN	

Matrix: Solid **Client:** Leighton Consulting **Collector:** Client
Sampled: 07/17/2017 08:37 **Site:**
Sample #: 392713-013 **Client Sample #:** EB-11-2-N15-2.5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B NELAC	Prep Method: EPA 1311/3010A					QCBatchID: QC1181654		
Lead	ND	1	0.05	mg/L	08/17/17	08/17/17	KLN	
Method: EPA 6010B NELAC	Prep Method: STLC					QCBatchID: QC1181660		
Lead	**2.01**	10	0.15	mg/L	08/17/17	08/17/17	KLN	

Matrix: Solid **Client:** Leighton Consulting **Collector:** Client
Sampled: 07/17/2017 09:07 **Site:**
Sample #: 392713-014 **Client Sample #:** EB-12-1-S15-0.5 **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B NELAC	Prep Method: EPA 1311/3010A					QCBatchID: QC1181654		
Arsenic	**0.095**	1	0.05	mg/L	08/17/17	08/17/17	KLN	
Method: EPA 6010B NELAC	Prep Method: STLC					QCBatchID: QC1181660		
Arsenic	**2.46**	10	0.3	mg/L	08/17/17	08/17/17	KLN	

Matrix: Solid **Client:** Leighton Consulting **Collector:** Client
Sampled: 07/17/2017 09:12 **Site:**
Sample #: 392713-018 **Client Sample #:** EB-12-1-S20-0.5-D **Sample Type:**

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 6010B NELAC	Prep Method: EPA 1311/3010A					QCBatchID: QC1181654		
Arsenic	**0.169**	1	0.05	mg/L	08/17/17	08/17/17	KLN	
Method: EPA 6010B NELAC	Prep Method: STLC					QCBatchID: QC1181660		
Arsenic	**2.31**	10	0.3	mg/L	08/17/17	08/17/17	KLN	

QCBatchID: QC1181654	**Analyst:** dswafford	**Method:** EPA 6010B			
Matrix: Solid	**Analyzed:** 08/17/2017	**Instrument:** AAICP (group)			

Blank Summary

Analyte	Blank Result	Units		RDL	Notes	
QC1181654MB1						
Arsenic	ND	mg/L		0.05		
Lead	ND	mg/L		0.05		

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
	LCS	LCSD	LCS	LCSD		LCS	LCSD		%Rec	RPD	
QC1181654LCS1											
Arsenic	2		2.02		mg/L	101			80-120		
Lead	2		1.693		mg/L	85			80-120		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount		Spike Result		Units	Recoveries		RPD	Limits		Notes
		MS	MSD	MS	MSD		MS	MSD		%Rec	RPD	
QC1181654MS1, QC1181654MSD1												**Source: 392713-003**
Arsenic	0.011	1	1	1.005	1.030	mg/L	99	102	2.5	75-125	20	
Lead	0.021	1	1	0.863	0.878	mg/L	84	86	1.7	75-125	20	

QCBatchID: QC1181660	**Analyst:** dswafford	**Method:** EPA 6010B			
Matrix: Solid	**Analyzed:** 08/17/2017	**Instrument:** AAICP (group)			

Blank Summary

Analyte	Blank Result	Units		RDL	Notes	
QC1181660MB1						
Arsenic	ND	mg/L		0.03		
Lead	**0.041**	mg/L		0.015		

Matrix Spike/Matrix Spike Duplicate Summary

Analyte	Sample Amount	Spike Amount MS	Spike Amount MSD	Spike Result MS	Spike Result MSD	Units	Recoveries MS	Recoveries MSD	RPD	Limits %Rec	Limits RPD	Notes
QC1181660MS1, QC1181660MSD1												**Source: 392713-003**
Arsenic	0.468	10	10	10.4	10.7	mg/L	99	102	2.8	75-125	20	
Lead	3.37	10	10	11.6	12.0	mg/L	82	86	3.4	75-125	20	

Data Qualifiers and Definitions

Qualifiers

A	See Report Comments.
B	Analyte was present in an associated method blank.
B1	Analyte was present in a sample and associated method blank greater than MDL but less than RDL.
BQ1	No valid test replicates. Sample Toxicity is possible. Best result was reported.
BQ2	No valid test replicates.
BQ3	No valid test replicates. Final DO is less than 1.0 mg/L. Result may be greater.
C	Possible laboratory contamination.
D	RPD was not within control limits. The sample data was reported without further clarification.
D1	Lesser amount of sample was used due to insufficient amount of sample supplied.
D2	Reporting limit is elevated due to sample matrix. Target analyte was not detected above the elevated reporting limit.
D3	Insufficient sample was supplied for TCLP. Client was notified. TCLP was performed per the Client's instructions.
DW	Sample result is calculated on a dry weigh basis.
E	Concentration is estimated because it exceeds the quantification limits of the method.
I	The sample was read outside of the method required incubation period.
J	Reported value is estimated
L	The laboratory control sample (LCS) or laboratory control sample duplicate (LCSD) was out of control limits. Associated sample data was reported with qualifier.
M	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits due to matrix interference. The associated LCS and/or LCSD was within control limits and the sample data was reported without further clarification.
M1	The matrix spike (MS) or matrix spike duplicate (MSD) is not within control limits due to matrix interference.
M2	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits. The associated LCS and/or LCSD was not within control limits. Sample result is estimated.
N1	Sample chromatography does not match the specified TPH standard pattern.
NC	The analyte concentration in the sample exceeded the spike level by a factor of four or greater, spike recovery and limits do not apply.
P	Sample was received without proper preservation according to EPA guidelines.
P1	Temperature of sample storage refrigerator was out of acceptance limits.
P2	The sample was preserved within 24 hours of collection in accordance with EPA 218.6.
P3	Per Client request, sample was composited for volatile analysis. Sample compositing for volatile analysis is not recommended due to potential loss of target analytes. Results may be biased low.
Q1	Analyte Calibration Verification exceeds criteria. The result is estimated.
Q2	Analyte calibration was not verified and the result was estimated.
Q3	Analyte initial calibration was not available or exceeds criteria. The result was estimated.
S	The surrogate recovery was out of control limits due to matrix interference. The associated method blank surrogate recovery was within control limits and the sample data was reported without further clarification.
S1	The associated surrogate recovery was out of control limits; result is estimated.
S2	The surrogate was diluted out due to the presence of high concentrations of target and/or non-target compounds. Surrogate recoveries in the associated batch QC met recovery criteria.
S3	Internal Standard did not meet recovery limits. Analyte concentration is estimated.
T	Sample was extracted/analyzed past the holding time.
T1	Reanalysis was reported past hold time due to failing replicates in the original analysis (BOD only).
T2	Sample was analyzed ASAP but received and analyzed past the 15 minute holding time.
T3	Sample received and analyzed out of hold time per client's request.
T4	Sample was analyzed out of hold time per client's request.
T5	Reanalysis was reported past hold time. The original analysis was within hold time, but not reportable.
T6	Hold time is indeterminable due to unspecified sampling time.
T7	Sample was analyzed past hold time due to insufficient time remaining at time of receipt.

Definitions

DF	Dilution Factor
MDL	Method Detection Limit. Result is reported ND when it is less than or equal to MDL.
ND	Analyte was not detected or was less than the detection limit.
NR	Not Reported. See Report Comments.
RDL	Reporting Detection Limit
TIC	Tentatively Identified Compounds

From: Julie Harriman
To: "Diane Galvan"
Subject: RE: Burroughs MS, Enthalpy Analytical Final Report #392713
Date: Thursday, August 10, 2017 3:02:56 PM
Attachments: 392713-00072179-SIGNED.PDF

Diane,

Please run any results for lead exceeding 50mg/kg for STLC-lead and TCLP-lead. Please run any results for arsenic exceeding 50mg/kg for STLC-arsenic and TCLP-arsenic.

Standard TAT is fine.

Thank you,
Julie

APPENDIX E

WASTE DISPOSAL DOCUMENTATION

NO. 731657

NON-HAZARDOUS WASTE DATA FORM

BESI # 276063

GENERATOR

Generator's Name and Mailing Address
L.A.U.S.D. - OEHS
333 S. BEAUDRY AVE., 21ST FLOOR
LOS ANGELES, CA 90017

Generator's Site Address (if different than mailing address)
LAUSD - JOHN BURROUGHS MIDDLE SCHOOL
600 S. MCCADDEN PLACE
LOS ANGELES, CA 90005

Generator's Phone: 213-241-3199

Container type removed from site:
☒ Drums ☐ Vacuum Truck ☐ Roll-off Truck ☐ Dump Truck
☐ Other _____
Quantity 02

Container type transported to receiving facility:
☐ Drums ☐ Vacuum Truck ☐ Roll-off Truck ☐ Dump Truck
☐ Other _____
Quantity _____ Volume _____

WASTE DESCRIPTION NON-HAZARDOUS SOIL

GENERATING PROCESS SITE INVESTIGATION (DRILL CUTTINGS)

COMPONENTS OF WASTE	PPM	%
1. SOIL		
2.		
3.		
4. 100%		

Waste Profile _____ PROPERTIES: pH _____ ☐ SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER _____

HANDLING INSTRUCTIONS: _____

Generator Printed/Typed Name: [illegible] on behalf of LAUSD Kevin Hall
Signature: Kevin C. Hall
Month 01 Day 06 Year 17

The Generator certifies that the waste as described is 100% non-hazardous

TRANSPORTER

Transporter 1 Company Name: BELSHIRE
Phone#: 949-460-5200

Transporter 1 Printed/Typed Name: Jose Ferreyra
Signature:
Month 01 Day 06 Year 17

Transporter Acknowledgment of Receipt of Materials

Transporter 2 Company Name:
Phone#:

Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

Transporter Acknowledgment of Receipt of Materials

RECEIVING FACILITY

Designated Facility Name and Site Address
U.S. ECOLOGY, NEVADA OPERATIONS
HIGHWAY 95, 11 MILES S. OF BEATTY
BEATTY, NV 89003

Phone#: 775-553-2203

Printed/Typed Name:
Signature:
Month Day Year

Designated Facility Owner or Operator: Certification of receipt of materials covered by this data form.

NO. 731656

NON-HAZARDOUS WASTE DATA FORM

BESI # 276063

GENERATOR

Generator's Name and Mailing Address

L.A.U.S.D. - OEHS
333 S. BEAUDRY AVE., 21ST FLOOR
LOS ANGELES, CA 90017

Generator's Site Address (if different than mailing address)

LAUSD - JOHN BURROUGHS MIDDLE SCHOOL
600 S. MCCADDEN PLACE
LOS ANGELES, CA 90005

Generator's Phone: 213-241-3199

Container type removed from site:

☒ Drums ☐ Vacuum Truck ☐ Roll-off Truck ☐ Dump Truck

☐ Other _____

Quantity 01

Container type transported to receiving facility:

☐ Drums ☒ Vacuum Truck ☐ Roll-off Truck ☐ Dump Truck

☐ Other _____

Quantity _____ Volume _____

WASTE DESCRIPTION NON-HAZARDOUS WATER

GENERATING PROCESS ~~WELL PURGING~~ / DECON WATER

COMPONENTS OF WASTE	PPM	%
1. WATER		99-100%
2. TPH		<1%

COMPONENTS OF WASTE	PPM	%
3.		
4.		

Waste Profile _____ PROPERTIES: pH 7-10 ☐ SOLID ☒ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER _____

HANDLING INSTRUCTIONS: _____

Generator Printed/Typed Name: ~~LEE O'BRIEN JR. LAUSD~~ Kevin Hall | Signature: Kevin C. Hall | Month 01 Day 06 Year 17

The Generator certifies that the waste as described is 100% non-hazardous

TRANSPORTER

Transporter 1 Company Name: BELSHIRE | Phone#: 949-460-5200

Transporter 1 Printed/Typed Name: Jose Ferreyra | Signature: [signature] | Month Day Year: 01 06 17

Transporter Acknowledgment of Receipt of Materials

Transporter 2 Company Name: NIETO & SONS TRUCKING, INC. | Phone#: 714-990-8865

Transporter 2 Printed/Typed Name: | Signature: | Month Day Year:

Transporter Acknowledgment of Receipt of Materials

RECEIVING FACILITY

Designated Facility Name and Site Address

DEMENNO KERDOON
2000 N. ALAMEDA ST.
COMPTON, CA 90222

Phone#: 310-537-7100

Printed/Typed Name: | Signature: | Month Day Year:

Designated Facility Owner or Operator: Certification of receipt of materials covered by this data form.

NO. 736365

NON-HAZARDOUS WASTE DATA FORM

BESI # 285550

GENERATOR

Generator's Name and Mailing Address

L.A.U.S.D. - OEHS
333 S. BEAUDRY AVE., 21ST FLOOR
LOS ANGELES, CA 90017

Generator's Site Address (if different than mailing address)

LAUSD - JOHN BURROUGHS MIDDLE SCHOOL
600 S. MCCADDEN PLACE
LOS ANGELES, CA 90005

Generator's Phone: 213-241-3199

Container type removed from site:

☒ Drums ☐ Vacuum Truck ☐ Roll-off Truck ☐ Dump Truck ☐ Other _____

Quantity 01

Container type transported to receiving facility:

☒ Drums ☐ Vacuum Truck ☐ Roll-off Truck ☐ Dump Truck ☐ Other _____

Quantity 1 Volume 150 LBS

WASTE DESCRIPTION NON-HAZARDOUS SOIL

GENERATING PROCESS SITE INVESTIGATION (DRILL CUTTINGS)

COMPONENTS OF WASTE	PPM	%
1. SOIL		100%
2.		
3.		
4.		

Waste Profile 070128043-13448 PROPERTIES: pH _____ ☐ SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER _____

HANDLING INSTRUCTIONS: _____

Generator Printed/Typed Name: Dave T Robinson AS Agent For LAUSD | Signature: Dave T Robinson | Month 9 Day 8 Year 17

The Generator certifies that the waste as described is 100% non-hazardous

TRANSPORTER

Transporter 1 Company Name: BELSHIRE | Phone#: 949-460-5200

Transporter 1 Printed/Typed Name: Jose Ferreyra | Signature: Jose Ferreyra | Month 09 Day 08 Year 17

Transporter Acknowledgment of Receipt of Materials

Transporter 2 Company Name: | Phone#:

Transporter 2 Printed/Typed Name: | Signature: | Month Day Year

Transporter Acknowledgment of Receipt of Materials

RECEIVING FACILITY

Designated Facility Name and Site Address

U.S. ECOLOGY, NEVADA OPERATIONS
HIGHWAY 95, 11 MILES S. OF BEATTY
BEATTY, NV 89003

Phone#: 775-553-2203

Printed/Typed Name: Emily Salisbury | Signature: Emily Salisbury | Month 9 Day 13 Year 17

Designated Facility Owner or Operator: Certification of receipt of materials covered by this data form.

600SMCCA
1668781

APPENDIX F

METHANE SURVEY REPORT

METHANE MONITORING REPORT
BURROUGHS MIDDLE SCHOOL COMPREHENSIVE MODERNIZATION PROJECT
600 SOUTH MCCADDEN PLACE
LOS ANGELES, CALIFORNIA, 90005

Prepared For:

LOS ANGELES UNIFIED SCHOOL DISTRICT

Office of Environmental Health and Safety
333 South Beaudry Avenue, 21st Floor
Los Angeles, California 90017

Project No. 603378.006

October 5, 2017

DRAFT FINAL DOCUMENT

Leighton Consulting, Inc.
A LEIGHTON GROUP COMPANY

October 5, 2017

Project No. 603378.006

Los Angeles Unified School District
Office of Environmental Health and Safety
333 South Beaudry Avenue, 21st Floor
Los Angeles, California 90017

Attention: Mr. Dane Robinson and Mr. Jeffery Otter

Subject: Methane Monitoring Report
Burroughs Middle School Comprehensive Modernization Project
600 South McCadden Place, Los Angeles, California, 90005

Leighton Consulting, Inc. is pleased to present this Methane Monitoring Report for the subject site which documents the field activities and results from methane and hydrogen sulfide screening at the subject site.

If you have any questions regarding this report, please do not hesitate to contact the undersigned at your earliest convenience. We appreciate the opportunity to be of service to the District.

Respectfully submitted,

LEIGHTON CONSULTING, INC.

DRAFT

Julie Harriman, P.E.
Associate Engineer

DRAFT

Kris Lutton, P.G.
Senior Vice Principal

JCH/KRL/lr

Distribution: Addressees

DRAFT FINAL DOCUMENT

17781 Cowan ■ Irvine, CA 92614-6009
949.250.1421 ■ Fax 949.250.1114 ■ www.leightongroup.com

TABLE OF CONTENTS

Section **Page**

LIST OF ABBREVIATIONS/ACRONYMS III

EXECUTIVE SUMMARY E-1

1.0 INTRODUCTION 1

1.1 Site Description and Features 1
1.2 Background 2
1.3 Regional Geology and Hydrogeology 2
1.4 Oil and Gas Review 3

2.0 SAMPLING ACTIVITIES AND RATIONALE 5

2.1 Objectives 5
2.2 Utility Clearance 5
2.3 Health & Safety Plan 6
2.4 Field Procedures 6

2.4.1 Drilling, Probe Installation and Sampling 6
2.4.2 Equipment Decontamination 8
2.4.3 Sample Handling and Storage 8
2.4.4 Sample Custody 9
2.4.5 Field Quality Assurance/Quality Control 9

2.5 Investigation Derived Waste Management 10

3.0 RESULTS 11

3.1 Subsurface Conditions 11
3.2 Field Monitoring Results - Soil Gas 11
3.3 Analytical Results – Soil Gas 13
3.4 Data Quality Assurance/Quality Control 14

4.0 INTERPRETATION AND CONCLUSIONS 15

4.1 Potential Methane Concerns 15
4.2 Opinion of Environmental Professional/Adequacy of Assessment 15
4.3 Summary of Soil Gas Results 15
4.4 Conclusions/Objectives Met 16

5.0 RECOMMENDATIONS 17

6.0 LIMITATIONS 18

DRAFT FINAL DOCUMENT

Leighton

TABLE OF CONTENTS (Continued)

List of Accompanying Figures, Tables and Appendices

Figure 1 – Site Location Map
Figure 2 – Methane Probe Location Map

Table 1 – Summary of Field Results for Methane and Hydrogen Sulfide in Soil Gas
Table 2 – Summary of Laboratory Analytical Results for Methane and Hydrogen Sulfide in Soil Gas

Attachment A – References
Attachment B – DOGGR Oil Well Data – No Oil Wells Onsite
Attachment C – Boring and Probe Construction Logs
Attachment D – Laboratory Analytical Reports – Methane and Hydrogen Sulfide in Soil Gas
Attachment E – Manifests
Attachment F – Form 1, Certificate of Compliance for Methane Test Data, Parts 1 and 2

DRAFT FINAL DOCUMENT

LIST OF ABBREVIATIONS/ACRONYMS

AIN	Assessor's ID Number
amsl	above mean sea level
bgs	below ground surface
Cal/EPA	California Environmental Protection Agency
CGS	California Geological Survey
District	Los Angeles Unified School District
DOGGR	Division of Oil, Gas, and Geothermal Resources
DTSC	Department of Toxic Substances Control
Enthalpy	Enthalpy Analytical
EPA	Environmental Protection Agency
HASP	Site-specific health and safety plan
HHRA	Human Health Risk Assessment
J&H	J&H Drilling Co. Inc.
LADBS	Los Angeles Department of Building and Safety
LAUSD	Los Angeles Unified School District
Leighton	Leighton Consulting Inc.
Millennium	Millennium Environmental Inc.
OEHS	Office of Environmental Health and Safety
PPE	Personal protective equipment
PQL	Laboratory practical quantitation limit
School property	Burroughs Middle School Campus
Site	Burroughs Middle School Comprehensive Modernization Project
Spectrum	Spectrum Geophysics

DRAFT FINAL DOCUMENT

EXECUTIVE SUMMARY

This Methane Monitoring Report summarizes the approach utilized and data collected as part of the recently concluded methane survey for the Burroughs Middle School Comprehensive Modernization Project (the 'Site', Figures 1, 2 and 3). The Site is part of the Burroughs Middle School property (hereinafter also referred to as 'the School property'), located at 600 South McCadden Place, Los Angeles, California, 90005. The District contracted Leighton Consulting Inc. (Leighton) to perform the methane survey in general conformance with various existing guidance documents per the Scope of Services (OEHS, 2016).

The primary objectives of this methane survey were to screen soil gas for oil field gases, and to recommend a level of mitigation for new construction at the Site, per the Los Angeles Department of Building and Safety (LADBS) Methane Mitigation Standards. The Site lies within a City of Los Angeles methane zone. Additionally, the Salt Lake Oil Field lies approximately 1,500 feet north of the Site and 2,000 feet west of the Site. One plugged oil and gas production well is also located approximately 1,300 feet west/southwest of the Site (API 03720045). Based on the Site's location within a methane zone, the Project may create a new or exacerbate an existing significant safety hazard to students from a known methane zone.

For this survey, thirty soil borings were advanced between December 23 and 28, 2016 to a maximum total depth of 15.5 feet below ground surface (bgs). Dual methane probes were installed at approximately 5 and 15 feet bgs at each location in general conformance with the DTSC Advisory Active Soil Gas Investigations dated July 2015. Following probe installation, two sampling events were conducted on January 3 and 16, 2017. Field measurements, including subsurface pressure, methane and hydrogen sulfide were collected at each probe, and seven confirmation soil gas samples were collected for laboratory analysis during each sampling event as shown in Tables 1 and 2.

Maximum methane concentrations measured using field instruments and reported by the laboratory were above 12,500 parts per million (ppm). Based on field measurements and laboratory analytical results, the Site is categorized as a Level V design category per LADBS Methane Mitigation Standards (>12,500 ppm at all pressures).

It is our opinion that the objectives of the methane survey were met, and no additional assessment is necessary to meet the objectives of the methane survey. Maximum methane concentrations observed in the soil gas probes in January 2017 meet criteria for a Level V design category.

DRAFT FINAL DOCUMENT

1.0 INTRODUCTION

This *Methane Monitoring Report (hereinafter also referred to as 'the report')* outlines the approach utilized and data collected as part of the recently concluded methane screening survey conducted at the Burroughs Middle School Comprehensive Modernization Project (the 'Site', Figures 1 and 2).

This report was prepared by Leighton Consulting Inc. (Leighton) on behalf of the District in general conformance with various existing guidance documents related to site assessment, characterization and investigation published by the California Environmental Protection Agency (Cal/EPA) – Department of Toxic Substances Control (DTSC, 2006, 2015, 2017). Pertinent references related to the Site are listed in Attachment A.

1.1 Site Description and Features

The School property is identified by the Los Angeles County Assessor's Office with Assessor's ID Number (AIN) 5507-017-900 and occupies approximately 10.23 acres. The property is owned and operated by the Los Angeles Unified School District (LAUSD) (hereinafter also referred to as 'the District' or LAUSD). The School property is bounded to the north by residential properties across West 6th Street, to the east by residential properties and a commercial building, to the south by residential properties, Wilshire Private School, and commercial buildings across Wilshire Boulevard, and to the west by residential properties across South McCadden Place.

The Site is part of the Burroughs Middle School property (hereinafter also referred to as 'the School property'), which is located at 600 South McCadden Place, Los Angeles, California, 90005. The majority of the Site is paved and currently developed with three two-story administrative/classroom buildings, 23 single-story multi-purpose buildings that contain such things as classrooms, restrooms, gymnasiums, lounges and storage rooms. Two paved parking areas are located in the northeast corner and the southwest corner of the Site. Two tennis courts are located in the center of the Site. A paved and dirt playground area is located in the southern portion of the Site.

DRAFT FINAL DOCUMENT

1.2 Background

The school opened as "John Burroughs Junior High School" in 1924. Since 1924, various construction activities at the Site added and removed various structures, added parking lots and paved areas. From at least 1894 to 1921 the land was undeveloped with the exception of a small building located on the southern portion of the Site adjacent to Wilshire Boulevard (WorleyParsons, 2016).

The District plans to redevelop the Site as part of the Burroughs Middle School Comprehensive Modernization Project. Leighton was contracted by the District to screen for oil field gases in soil gas and recommend a level of mitigation for new construction at the Site, per the Los Angeles Department of Building and Safety (LADBS) Methane Mitigation Standards.

The current Site contact related to the soil gas matters is listed below:

Mr. Jeffery Otter
Los Angeles Unified School District
Office of Environmental Health and Safety
333 South Beaudry Avenue, 21st Floor
Los Angeles, California 90017

1.3 Regional Geology and Hydrogeology

Geologic Setting: Locally, the Site is located in the Hollywood Basin within the central block of the Los Angeles Basin, a structural trough, characterized as a northwest-trending alluviated lowland plain approximately 50 miles long and 20 miles wide. The Santa Monica Mountains, Beverly Hills and Elysian Hills that generally expose Late Cretaceous to Late Pleistocene-age sedimentary and igneous rocks bound the Hollywood Basin along the north, northeast and east (Yerkes, 1965).

The sediments deposited in the Hollywood Basin have subsequently been faulted and folded during uplift of the Santa Monica Mountains and contraction of the basin (Tsutsumi et al., 2001; Catchings et al., 2001). Uplift of the Santa Monica Mountains is occurring along a zone of faults that comprise the Santa Monica Fault System, and include the Malibu Coast, Santa Monica and the Hollywood faults (Tsutsumi et al., 2001; Catchings et al., 2001; Dolan, et al., 2000). Deformation caused by the Hollywood Fault of the near-surface sediments has resulted in the formation of the Hollywood Basin. The Hollywood Basin is

DRAFT FINAL DOCUMENT

situated between the Hollywood fault and the Santa Monica Mountains on its north, and a subsurface fold to the south, known as the Wilshire Arch, located near Wilshire Boulevard (Dolan et al., 1997 and 2000; Hildenbrand et al., 2001; Hummon et al., 1994; California Department of Water Resources, 1988).

The Site, southeast of the Salt Lake Oilfield, is underlain by surficial sediments consisting generally of clay, sand and gravel including gravel of minor stream channels (Dibblee, 1991). Older surficial sediments underlying the site can be expected to consist generally of unconsolidated to weakly consolidated, dissected alluvial fan sediments consisting chiefly of clay, silt, sand and gravels overlying the Lakewood and San Pedro Formations. At depth, petroliferous sands (tar sand) present within the San Pedro Formation can be expected.

Groundwater: The Site lies within the northeastern part of the Coastal Plain at an approximate elevation of 209 feet above mean sea level (amsl) (USGS, 1972) and located within the Hollywood sub-basin. This groundwater basin is bound on the north by the Santa Monica Mountains and the Hollywood fault, on the east by the Elysian Hills and on the west by the Newport-Inglewood fault zone. Southerly, the basin is bound by anticlinal structure termed the La Brea High were the San Pedro formation was eroded prior to deposition of the Lakewood Formation. This anticlinal structure brings less permeable bedrock close to the surface forcing groundwater to shallow depths primarily within the Pleistocene sands and gravels. Based on the approximate site elevation (El. 209 feet) and depth to groundwater recorded at 5020 to 5044 Wilshire Boulevard (1,000 feet southwest of the site) groundwater is likely to occur at approximate elevations (El.) 189 feet to El. 186 feet (Western Environmental Engineers Company, 2006). These elevations suggest groundwater may be encountered beneath the Site at approximately 20 to 23 feet below ground surface (bgs).

Historic High Groundwater: Historic groundwater levels, as interpreted from the Hollywood 7.5 Minute Quadrangle, Los Angeles County, Seismic Hazard Evaluation (California Geological Survey [CGS], 1998) indicate historic high groundwater at levels of approximately 20 feet bgs.

1.4 Oil and Gas Review

Information provided by the City of Los Angeles NavigateLA Web site, the LADBS, and the City's Public Works Departments, indicates that the Site lies within a City of Los Angeles designated methane zone.

DRAFT FINAL DOCUMENT

The Salt Lake Oil Field lies approximately 1,500 feet north of the Site and 2,000 feet west of the Site. One plugged oil and gas production well is also located approximately 1,300 feet west/southwest of the Site (API 03720045). Attachment B contains Division of Oil, Gas, and Geothermal Resources (DOGGR) oil well data for this one well located offsite. No oil wells were identified on the Site and no other oil wells were identified within 1,500 feet of the Site.

Based on the site being located within a City of Los Angeles designated methane zone and its proximity to the Salt Lake Oil Field, the Project may create a new or exacerbate an existing significant safety hazard to students from a known methane zone and screening of soil gas for oil field gases was included in the Scope of Services (OEHS, 2016).

DRAFT FINAL DOCUMENT

2.0 SAMPLING ACTIVITIES AND RATIONALE

To screen for oil field gases in soil gas, soil borings were advanced at thirty (30) locations between December 23 and 28, 2016 to a maximum total depth of 15.5 feet bgs. Dual methane probes were installed at approximately 5 and 15 feet bgs at each location. Probe locations are shown on Figure 2. Soil gas screening for oil field gases was conducted on January 3 and 16, 2017, as summarized in Tables 1 and 2. Attachment C contains boring and probe construction logs, and Attachment D contains laboratory analytical reports. Sampling activities consisted of the following components discussed below.

2.1 Objectives

The primary objectives of this assessment were:

- To screen soil gas for oil field gases, and
- To recommend a level of mitigation for new construction at the Site, per the LADBS Methane Mitigation Standards.

2.2 Utility Clearance

Underground Service Alert (USA) was notified more than 48-hours prior to initiation of field activities for marking subsurface utilities in and around the Site. Leighton reviewed an ALTA survey map (Surveying and Drafting Services, Inc., 2016) provided by the District indicating the anticipated locations of known sub-surface utilities at the School property prior to field activities in an effort to avoid encountering potential subsurface utilities during advancement of borings sampling. The Site boring locations were clearly marked with white water-base chalk paint on December 20, 2016 prior to USA notification. Subsurface utilities were also cleared to 5 feet bgs by hand augering between December 23 and 28, 2016, followed by direct push drilling to the total depth of approximately 15.5 feet bgs. On December 27, 2016 Spectrum Geophysics completed a geophysical survey to identify potential underground utilities or obstructions in conflict with the soil boring locations, for an added safety measure, as directed by the Office of Environmental Health and Safety (OEHS). Select proposed boring locations were adjusted in the field where necessary to minimize risk to damaging underground utilities.

DRAFT FINAL DOCUMENT

2.3 Health & Safety Plan

A Site-specific health and safety plan (HASP) was prepared for the field activities. The HASP addressed issues regarding chemical exposure, personal protective equipment (PPE), physical and biological hazards that might be expected at the Site, an emergency response plan, and route to the nearest hospital. Site personnel engaged in field activities were required to read and sign the HASP. Subcontractor(s) were required to prepare and follow their own HASP during field activities, considering the Site-specific conditions.

2.4 Field Procedures

Collection of environmental samples of high integrity is important to the quality of chemical data to be generated. To this end, strict field procedures have been developed. General descriptions of field methods that were employed at various locations during various phases of the field investigation are described below.

2.4.1 Drilling, Probe Installation and Sampling

To screen for methane in soil gas, thirty (30) soil borings were advanced between December 23 and 28, 2016 to a maximum total depth of 15.5 feet bgs. Dual methane probes were installed at approximately 5 and 15 feet bgs at each location.

Soil borings were advanced by Millennium Environmental, Inc. (Millennium), a State of California licensed driller, using hand-auger tools or direct-push drilling methods (Attachment C). Additionally, J&H Drilling (J&H), a State of California licensed driller, advanced soil borings using hand-auger tools or direct-push drilling methods and installed methane probes on December 28, 2016. The addition of J&H to complete drilling on December 28, 2016 was necessary due to difficult drilling conditions encountered and to complete sampling within the winter break. Asphalt or concrete pavement was cored by the respective driller prior to advancing the soil borings. Each boring was advanced to the maximum target depth or refusal. When refusal was encountered up to three additional attempts were made to advance a soil boring in the vicinity of the original attempted boring location. Lithologic information and soil descriptions from the soil borings were recorded by Leighton's on-Site staff and reviewed by a State Certified Professional Geologist.

DRAFT FINAL DOCUMENT

Upon reaching the total target depth, soil gas probes were installed per the DTSC *Advisory Active Soil Gas Investigations* dated July 2015. Soil gas probes were installed at approximately 5 and 15 feet bgs in each location for an overall total of sixty (60) individual soil gas probes. Details of soil gas probe installation include:

- Dual-nested soil gas probes were installed at approximate target depths of 5 and 15 feet bgs in each boring.

- A small-diameter, inert Nylaflow tube with an attached sampling filter was inserted into each probe upon reaching desired depths. Displaced annular space was back-filled above and below each installed sampling probe for a total of approximately one vertical foot of sand filter-pack. Hydrated granular bentonite was placed from the top of the sand filter pack up to existing grade or 6-inches below the next probe depth. Sand filter-pack and bentonite placement were repeated as necessary until all probes were installed. The probes were sealed with bentonite for a minimum of 48 hours prior to sample collection.

- Two rounds of sampling for methane and hydrogen sulfide in soil gas were conducted at each probe in accordance with the *Advisory Active Soil Gas Investigations* (July 2015):

  - Sampling took place after the appropriate equilibration time

  - Prior to collecting gas samples, the probes were monitored for the buildup of pressure. Probe pressure was recorded in the field logs and each probe was then purged a minimum of three tubing volumes prior to collecting soil gas samples.

  - Samples were then extracted at a rate of approximately 200 milliliters per minute using a Xitech 1-Liter bag sampler and transferred into Tedlar bags.

  - Field monitoring of samples collected in the Tedlar bags was conducted for oil field gases utilizing a pre-calibrated Landtec GEM-2000 Plus, Jerome 631-X H2S Analyzer, and a Photovac MicroFID.

- Approximately 10% of soil gas samples were placed in new 1-L Tedlar bags, protected from ultra-violet light in a black protective bag, and

DRAFT FINAL DOCUMENT

transported using chain-of-custody protocol to Enthalpy Analytical (Enthalpy) a California Department of Public Health, Environmental Laboratory Accreditation Program-certified laboratory for analysis for methane and hydrogen sulfide, as follows:

  - Methane by EPA 8015 analyzed within 24 hours of collection, and
  - Hydrogen Sulfide by ASTM D5504M analyzed within 24 hours of collection.

- Upon completion of soil gas sampling and with OEHS approval, soil gas sampling points will be decommissioned in accordance with the *Advisory Active Soil Gas Investigations* (July 2015).

2.4.2 Equipment Decontamination

Any equipment that came into contact with potentially contaminated materials was decontaminated consistently to assure the quality of samples collected. Disposable equipment intended for one time use was not decontaminated, but was packaged for appropriate disposal. Decontamination occurred prior to and after each use of a reusable piece of equipment. Equipment used (e.g., hand auger, drilling equipment) was decontaminated using the following procedures:

- Non-phosphate detergent and tap water scrub, using a brush if necessary;
- Tap water rinse; and
- Final deionized/distilled water rinse.

2.4.3 Sample Handling and Storage

In the field, each sample container was marked with their unique sampling location number, date and time of sample collection. Each of the sample containers were wiped with clean paper towels, and securely packed in laboratory supplied containers, in preparation for delivery to the laboratory.

DRAFT FINAL DOCUMENT

2.4.4 Sample Custody

An entry was made on a chain-of-custody form supplied by the laboratory for each sample that was submitted to the laboratory for analysis. The information recorded included the sampling date and time, sample identification number, matrix type, requested analyses and methods, preservatives, and the sampler's name. Sampling team members maintained custody of the samples until they were relinquished to laboratory personnel or professional courier service. The chain-of-custody form accompanied the samples from the time of collection until received by the laboratory. Each party in possession of the samples signed the chain-of-custody form signifying receipt.

Collected soil samples were transported using standard chain-of-custody protocol to using chain-of-custody protocol to Enthalpy Analytical (Enthalpy) a California Department of Public Health, Environmental Laboratory Accreditation Program-certified laboratory for analysis for methane and hydrogen sulfide. Upon receipt, the laboratory inspected the condition of the sample containers and reported the information on chain-of-custody or similar form.

A copy of the original completed chain-of-custody form was provided by the laboratory along with the report of results. Attachment D contains copies of the laboratory analytical reports.

2.4.5 Field Quality Assurance/Quality Control

Quality assurance and control measures implemented included the following:

- New acetate sleeves, probe tips, and tubing were used for the construction of soil gas monitoring probes.
- Approximately 10% of soil gas samples were collected and submitted to a laboratory for confirmation of field results.
- Prior to monitoring samples, the equipment calibration was checked using appropriate calibration gases. Equipment was recalibrated as necessary.

DRAFT FINAL DOCUMENT

2.5 Investigation Derived Waste Management

Different types of potentially contaminated Investigation Derived Waste (IDW) were generated that included used PPE, disposable sampling equipment, excess soil cuttings, and decontamination fluids. Listed below are the procedures that were followed for handling the IDW:

- Used PPE and disposable equipment were double bagged and placed in a municipal refuse dumpster. These wastes are not considered hazardous and could be sent to a municipal landfill.

- Soil cuttings and decontamination wastewater were placed in US Department of Transportation (DOT)-approved 55-gallon drums. The drums were labeled and sealed, pending receipt of analytical results, waste profiling and off-Site disposal.

Three 55-gallon drums containing IDW were generated during field activities associated with environmental sampling in support of the proposed site development project. The IDW sample results indicate that the IDW was classified as nonhazardous waste. Two drums containing soil cuttings and one drum containing sample equipment decontamination water were removed from the Site on January 6, 2017. The two drums containing soil cuttings were transported to US Ecology in Beatty, Nevada for disposal. The one drum containing water only was transported to Demenno Kerdoon in Compton, California for disposal. Copies of the relevant manifests are included in Attachment E.

DRAFT FINAL DOCUMENT

3.0 RESULTS

3.1 Subsurface Conditions

A majority of soil borings were completed in paved areas consisting of 3-4 inches of asphaltic concrete with the exception of borings completed on the athletic field and the locations adjacent to the southern margin of the Site. Methane probe locations, completed to approximately 15.5 feet bgs encountered native fine-grained soils dominated by silt and clay with varying amounts of fine to medium-grained sand as a secondary component. Artificial fill materials were identified in several deeper boring locations (M-3, M-8, M-9) primarily based on the coarse nature of the soil and presence of construction debris, brick or asphalt, observed between 0.5 and 11.5 feet in specific locations.

Varying levels of naturally occurring bitumen or tar were noted in soil from 10 methane probe locations including M-1, M-2, M-12, M-13, M-14, M-23, M-24, M-25, M-26, and M-30. These locations were generally located in the southern half of the Site and/or near the eastern Site boundary. Observations ranged from gray to black soil coloration with a distinct tar-like odor to soil saturated with black, viscous bitumen. Soils that exhibited these characteristics were noted as "bituminous" in the methane probe construction log. Natural deposits of bitumen are not uncommon for this area as seen in the nearby La Brea Tar Pits, which is located approximately one mile west of the Site. Soils exhibiting the presence of bitumen were generally encountered at depths greater than 5 feet below grade.

Groundwater was not encountered in the borings completed during this investigation with the exception of boring location M-30. The M-30 boring was advanced to 15.5 feet bgs and soil was noted as "moist" during drilling from 9 feet to total depth. Upon reaching total depth, the drill rod was removed from the borehole and water was observed pooling in the bottom of the borehole up to approximately 12 feet bgs. Methane probes were set at 5 feet bgs and 9.5 feet bgs at location M-30. This occurrence is likely an isolated zone of perched groundwater related to irrigation water infiltration taking place on the athletic field. Groundwater was not observed in any of the remaining borings (Attachment C).

3.2 Field Monitoring Results - Soil Gas

Probes were installed between December 23 and 28, 2016 using hand augering and direct-push drilling methods. Probe locations are shown in Figure 2.

DRAFT FINAL DOCUMENT

Monitoring for methane and hydrogen sulfide was conducted on January 3 and 16, 2017. The probes were monitored using a magnahelic gauge for initial subsurface pressure, and a GEM2000 Plus for methane, fixed gases, and hydrogen sulfide. A Jerome 631-X H2S Analyzer was also used to monitor for hydrogen sulfide, and a Photovac MicroFID was used to monitor for methane. Table 1 summarizes field readings collected throughout the Site at the thirty (30) methane probe locations.

During the initial round of monitoring, the GEM 2000 Plus measured methane between 0.0% and 48.8% (M-17 probe set at 5 feet bgs), and hydrogen sulfide between 0.0 ppm and 1.0 ppm (M-1 and M-20 at 15 feet bgs). Methane was measured between 0.0 ppm and 3,800 ppm (M-14 at 15 feet bgs) using the MicroFID, and hydrogen sulfide was measured between 0.00 ppm and 0.78 ppm (M-14 at 15 feet bgs) using the Jerome 631-X H2S Analyzer. At some locations, the MicroFID experienced flame out conditions and the Jerome 631-X H2S Analyzer did not display a reading ("MF") preventing collection of measurements with these instruments. No flow was observed in some probes, as summarized in Table 1.

During the second round of monitoring on January 16, 2017, the GEM 2000 Plus measured methane between 0.0% and 57.8% (M-17 probe set at 5 feet bgs), and hydrogen sulfide between 0.0 ppm and 1.0 ppm (M-24 at 15 feet bgs). Methane was measured between 0.0 ppm and 2,427 ppm (M-13 at 5 feet bgs) using the MicroFID, and hydrogen sulfide was measured between 0.00 ppm and 0.02 ppm (multiple probe locations) using the Jerome 631-X H2S Analyzer. At some locations, the MicroFID did not display a reading ("MF") preventing collection of measurements with these instruments.

In addition, fixed gases in the field measurements included carbon dioxide and oxygen, using the GEM2000 Plus. On January 3, 2017, carbon dioxide was measured between 0.0% (multiple probes) and 19.2% (M-6 at 5 feet bgs), and oxygen was measured between 1.6% (M-6 at 5 feet bgs) and 21.1% (M-14 at 5 feet bgs). On January 16, 2017, carbon dioxide was measured between 0.0% (multiple probes) and 17.0% (M-15 at 15 feet bgs) and oxygen was measured between 0.6% (M-17 at 5 feet bgs) and 21.1% (M-4 at 15 feet bgs).

DRAFT FINAL DOCUMENT

Background outdoor air concentrations of methane and hydrogen sulfide were:

Date Sampled	% Methane (GEM2000 Plus)	Methane (ppm) (MicroFID)	Hydrogen Sulfide (ppm) (Jerome 631-X)
January 3, 2017	0.0	0.0	0.00
January 16, 2017	0.0	0.0	0.00

A summary of the monitoring results for soil gas samples is presented in Table 1.

3.3 Analytical Results – Soil Gas

During each event conducted on January 3 and 16, 2017, seven (7) soil gas samples were collected for laboratory analysis of methane by EPA method 8015 and hydrogen sulfide by ASTM method D5504M. The January 3, 2017 samples were collected from probes M-1 at 15 feet bgs, M-7 at 5 feet bgs, M-8 at 5 feet bgs, M-14 at 15 feet bgs, M-15 at 15 feet bgs, and M-17 at 5 feet bgs (original and duplicate sample). The January 16, 2017 samples were collected from probes M-7 at 5 feet bgs, M-13 at 5 feet bgs, M-14 at 15 feet bgs, M-15 at 15 feet bgs, M-17 at 5 feet bgs (original and duplicate sample) and M-24 at 15 feet bgs. Laboratory results for methane and hydrogen sulfide in soil gas are presented in Table 2. Copies of the laboratory reports are included in Attachment D.

During the initial round of sampling on January 3, 2017, the laboratory reported methane between 124 ppm (M-7 at 5 feet bgs) and 577,000 ppm (M-17 duplicate sample at 5 feet bgs), and hydrogen sulfide between 0.008 ppm (M-8 at 5 feet bgs) and 3.5 ppm (M-1 at 15 feet bgs). samples analyzed. During the second round of sampling on January 16, 2017, the laboratory reported methane between 84,200 ppm (M-15 at 15 feet bgs) and 388,000 ppm (M-17 duplicate sample at 5 feet bgs), and hydrogen sulfide between 0.021 ppm (M-13 at 5 feet bgs) and 5.4 ppm (M-24 at 15 feet bgs).

Methane field readings were generally similar to laboratory results for methane and hydrogen sulfide. Where variability was observed between field and laboratory results, the field result was qualified in Table 1 with a J1 or J2 qualifier. The qualifier indicates that the result is an estimate based on variability between the field and laboratory results for methane, with the field result being lower (J1)

DRAFT FINAL DOCUMENT

or higher (J2) than the laboratory result. As qualified, the data is usable for its intended purpose of screening the Site for methane in soil gas beneath the Site.

The maximum positive pressure measured in the probes prior to monitoring was a maximum of 1.0 inches of water column (multiple probes, Table 1). Based on the maximum methane concentrations measured above 12,500 ppm, the Site is a Level V design category per LADBS methane regulations (>12,500 ppm at all pressures). Hydrogen sulfide was detected at a maximum of 5.4 ppm.

3.4 Data Quality Assurance/Quality Control

The laboratory data package provided includes quality control sample results for blanks and laboratory control samples/laboratory control sample duplicates, as specified by the method. All samples were analyzed within their prescribed hold times. The laboratory reports indicate that the quality control sample results met quality assurance objectives for soil gas. The laboratory reports containing the quality control results are included in Attachment D.

The practical quantitation limits (PQLs) of the laboratory analytical methods and the detection limits of the field equipment were low enough to detect methane or hydrogen sulfide below any action levels.

DRAFT FINAL DOCUMENT

4.0 INTERPRETATION AND CONCLUSIONS

4.1 Potential Methane Concerns

Based on the site being located within a City of Los Angeles designated methane zone and proximity to the Salt Lake Oil Field, the Project may create a new or exacerbate an existing significant safety hazard to students from a known methane zone and screening of soil gas for oil field gases was warranted to determine an appropriate mitigation level for new construction.

Methane gas is a non-poisonous, non-toxic, non-carcinogenic, and simple asphyxiant. Methane is considered for its explosive concerns and not health concerns. Accumulation of methane gas is combustible and potentially explosive at concentrations above the lower explosive limit of 50,000 ppm (equivalent to 5% v/v methane in air, and 100% of the LEL) in the presence of oxygen and an ignition source.

4.2 Opinion of Environmental Professional/Adequacy of Assessment

It is our opinion that the objectives of the methane screening survey were met, and no additional assessment is necessary to assess the objectives of the methane survey. Soil gas probes were installed per the DTSC Advisory Active Soil Gas Investigations dated July 2015, as required by the RFP (OEHS, 2016). Maximum methane concentrations observed in the soil gas probes in January 2017 trigger Design Level V, which is the highest level of mitigation LADBS specifies. Additional sampling per LADBS testing depths (5, 10 and 20 feet) does not appear warranted because the existing data indicates the highest level of mitigation.

4.3 Summary of Soil Gas Results

The maximum positive pressure measured in the soil gas probes prior to monitoring was a maximum of 1.0 inches of water column (multiple probes, Table 1). Maximum methane concentrations measured using field instruments and reported by the laboratory were above 12,500 ppm (multiple probes, Table 1 and Table 2). Review of hydrogen sulfide results in Tables 1 and 2, show that the maximum hydrogen sulfide result reported was 5.4 ppm (laboratory result for the soil gas sample collected from the 15 feet bgs M-24 probe on January 16, 2017.

DRAFT FINAL DOCUMENT

Based on the maximum methane concentrations measured above 12,500 ppm, the Site is a Level V design category per LADBS methane regulations (>12,500 ppm methane at all pressures). Attachment F provides the LADBS Form 1, Certificate of Compliance for Methane Test Data, Parts 1 and 2.

4.4 Conclusions/Objectives Met

The purpose of conducting the methane screening survey was to evaluate the Site for the presence of oil field gases and determine the design level of mitigation required. The Site lies within the City of Los Angeles methane zone. The Salt Lake Oil Field lies approximately 1,500 feet north of the Site and 2,000 feet west of the Site. One plugged oil and gas production well is also located approximately 1,300 feet west/southwest of the Site. Maximum field measurements and the maximum laboratory reported concentrations from sampling events on January 3 and 16, 2017 exceeded 12,500 ppm methane. The maximum positive pressure measured in the probes prior to monitoring was a maximum of 1.0 inches of water column. Hydrogen sulfide was detected at a maximum of 5.4 ppm at the Site. Based on the field measurements and the laboratory results the Site is categorized as Design Level V at all pressures per the LADBS criteria. It is our opinion that the objectives of the methane screening survey were met, and no additional assessment is necessary to assess the objectives of the methane survey.

DRAFT FINAL DOCUMENT

5.0 RECOMMENDATIONS

It is our opinion that the objectives of the methane screening survey were met, and no additional assessment is necessary to assess the objectives of the methane survey.

Based on the field measurements and the laboratory results the Site is categorized as Design Level V at all pressures per the LADBS criteria. The minimum methane mitigation measures required for a site within a Los Angeles City designated methane zone with a designation of Design Level V at all pressures typically include:

- Passive ventilation system components: de-watering system, subsurface slab passive venting system for slab-on-grade construction, and the installation of an impermeable gas membrane;
- Active ventilation system components: subsurface slab active venting system for slab-on-grade construction, lowest occupied space system (gas detection, mechanical ventilation and alarm system), and control panel; and
- Miscellaneous system components: trench dams, conduit seals, and additional vent risers.
- Exceptions and/or substitutions for select methane mitigation measures may be permitted as specified by the methane code or in consultation with LADBS, as applicable.

DRAFT FINAL DOCUMENT

6.0 LIMITATIONS

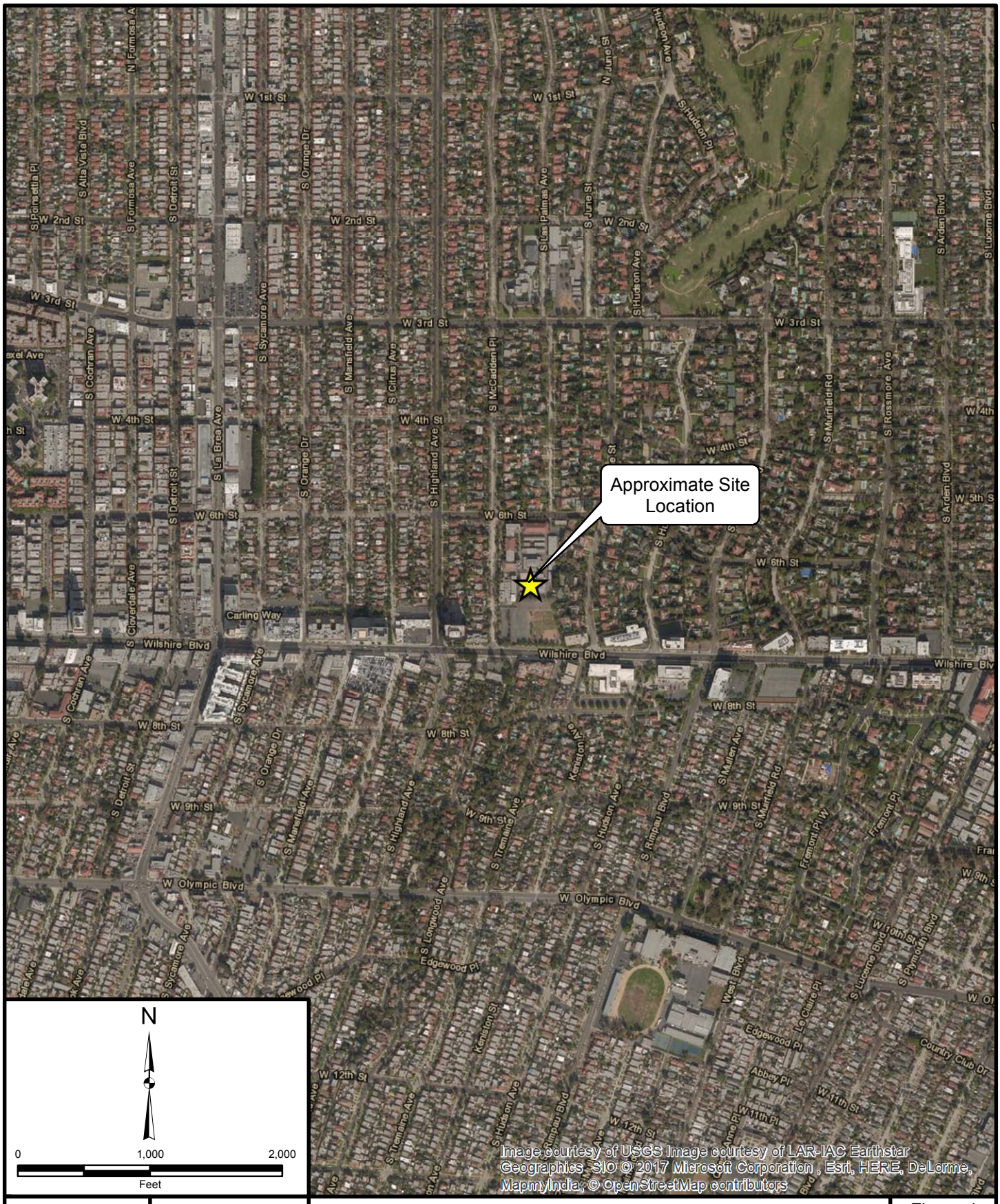
The services described in this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, express or implied, is made. Opinions, conclusions, and recommendations contained in this report apply to conditions existing when the services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. Where subsurface exploratory work, monitoring, and/or testing was performed, our professional opinions and conclusions are based in part on interpretation of data from discrete sampling or measurement locations that may not represent actual conditions at un-sampled or un-measured locations. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of the services. We assume no responsibility for conditions we were not authorized to evaluate, or conditions not generally recognized as predictable when the services were performed. We do not warranty the accuracy of information supplied by others, or the use of segregated portions of this report.

This document is intended to be used only in its entirety. No portion of the document, by itself, is designed to completely represent any aspect of the project described herein. Leighton should be contacted if the reader requires any additional information, or has questions regarding content, interpretations presented, or completeness of this document.

Leighton's professional opinions and recommendations regarding environmental conditions, as presented in this report, are based on limited subsurface assessment and chemical analyses data. Further assessment of potential adverse environmental impacts from past on-Site and/or nearby use of hazardous materials may be accomplished by a more comprehensive assessment. The samples collected and used for testing, and the observations made, are believed to be representative of the area(s) evaluated; however, conditions can vary significantly between and beyond the sampling locations. Variations in subsurface conditions likely exist beyond the points explored in this assessment.

DRAFT FINAL DOCUMENT

FIGURES



Project: 603378.006	Eng/Geol: JCH/RAL
Scale:1 " = 1,000 '	Date: March 2017

Base Map: ESRI ArcGIS Online 2017
Thematic Information: Leighton
Author: Leighton Geomatics (btran)

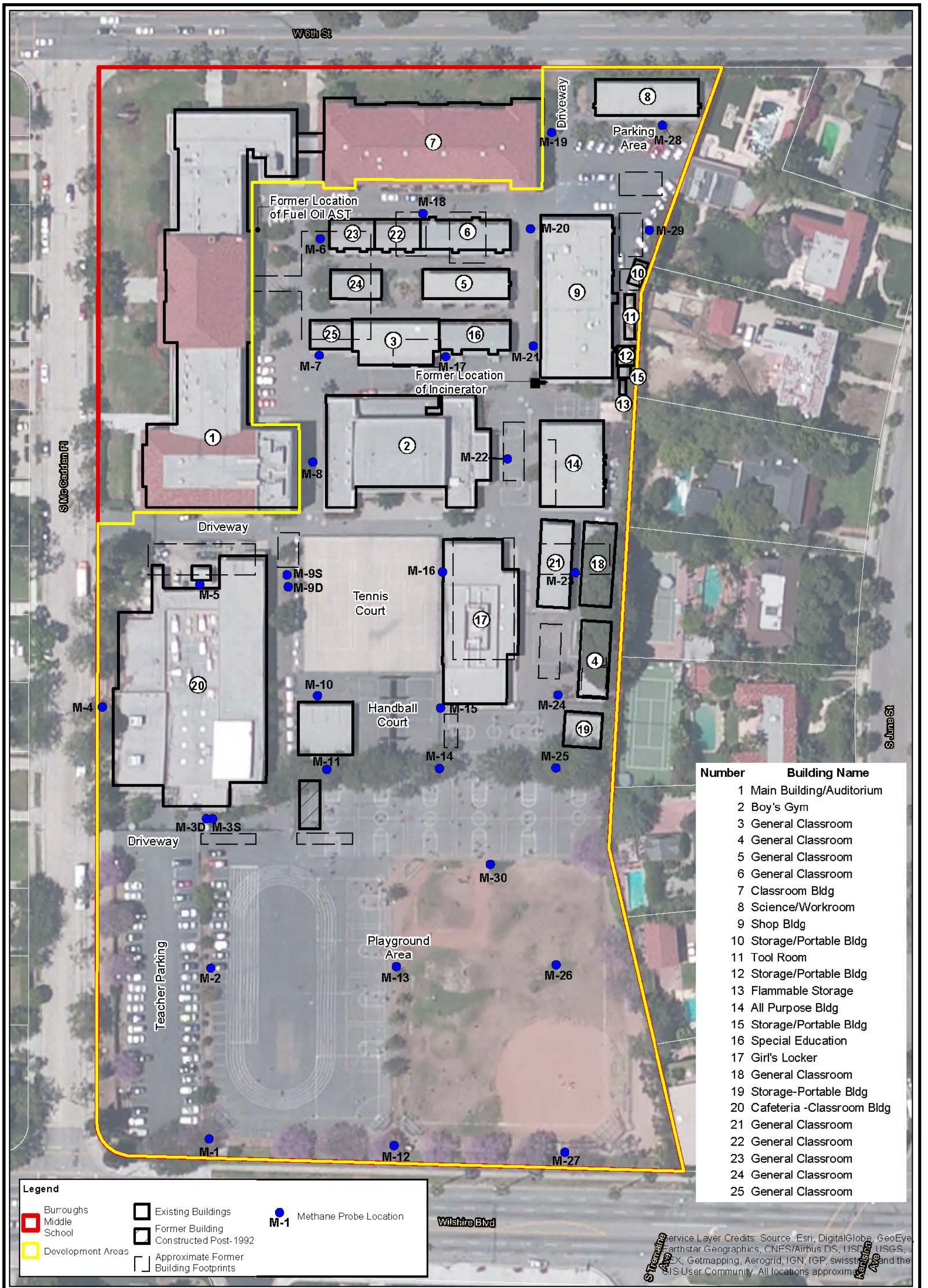
SITE LOCATION MAP

LAUSD Burroughs Middle School
600 South McCadden Place,
Los Angeles, California

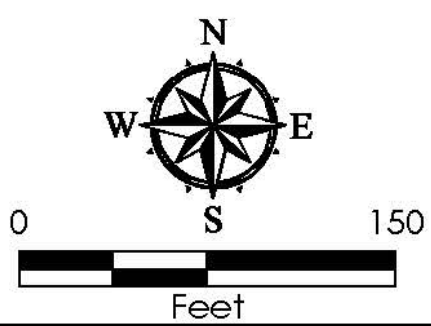
Figure 1

Leighton

Map Saved as V:\Drafting\603378\006\Maps\603378-006_F01_SLM_2017-03-28.mxd on 3/28/2017 10:16:46 AM



Number	Building Name
1	Main Building/Auditorium
2	Boy's Gym
3	General Classroom
4	General Classroom
5	General Classroom
6	General Classroom
7	Classroom Bldg
8	Science/Workroom
9	Shop Bldg
10	Storage/Portable Bldg
11	Tool Room
12	Storage/Portable Bldg
13	Flammable Storage
14	All Purpose Bldg
15	Storage/Portable Bldg
16	Special Education
17	Girl's Locker
18	General Classroom
19	Storage-Portable Bldg
20	Cafeteria -Classroom Bldg
21	General Classroom
22	General Classroom
23	General Classroom
24	General Classroom
25	General Classroom



Site Plan provided by Advisian,Worley Parsons Group. dated 10/16/2016.

METHANE PROBE LOCATION MAP

600 South McCadden Place,
Los Angeles, CA

FIGURE 2

Project: 603378.006	Eng/Geol: JCH/RL
Approx. Scale 1"=75'	Date:03/24/17
Drafted By: BES	Checked By: JCH

Leighton

TABLES

Table 1
Summary of Field Results for Methane and Hydrogen Sulfide in Soil Gas

Soil Vapor Probe	Soil Vapor Probe Depth	Sample Date	Pressure (IN H2O) Magna-helic Gauge	Methane (CH4) Reading (%)-GEM 2K+	Methane (CH4) Reading (ppmv)-MICRO FID	Oxygen (O2) (%)	Carbon Dioxide (CO2) (%)	Hydrogen Sulfide (H2S) (ppmv)-GEM 2K+	Hydrogen Sulfide (H2S) (ppmv)-Jerome	Comments
Background Ambient Air		1/3/2017	0.0	0.0	0.0	20.7	0.0	0.0	0.00	
Background Ambient Air		1/16/2017	0.0	0.0	0.0	20.8	0.0	0.0	0.00	
M-1	5	1/3/2017	0.0	0.0	MF	11.6	5.4	0.0	LB	
M-1	5	1/16/2017	0.0	0.0	16.7	6.7	8.0	0.0	0.00	
M-1	15	1/3/2017	0.0	1.5	MF	2.6	16.9	1.0	LB	Slow flow
M-1	15	1/16/2017	0.0	0.1	1,246	19.6	1.7	0.0	0.02	
M-2	5	1/3/2017	0.0	Moisture entered sample train. No sample.						
M-2	5	1/16/2017	0.0	0.0	301	20.7	0.0	0.0	0.00	
M-2	15	1/3/2017	1.0	NF	NF	NF	NF	NF	NF	
M-2	15	1/16/2017	1.0	0.0	0.0	20.8	0.0	0.0	0.01	
M-3	5	1/3/2017	1.0	NF	NF	NF	NF	NF	NF	
M-3	5	1/16/2017	0.0	Moisture entered sample train. No sample.						
M-3	14.5	1/3/2017	Probe tip not visible in borehole/not found.							
M-3	14.5	1/16/2017	Probe tip not visible in borehole/not found.							
M-4	5	1/3/2017	1.0	NF	NF	NF	NF	NF	NF	
M-4	5	1/16/2017	0.0	NF	NF	NF	NF	NF	NF	
M-4	15	1/3/2017	1.0	NF	NF	NF	NF	NF	NF	
M-4	15	1/16/2017	0.0	0.0	MF	21.1	0.0	0.0	0.02	
M-5	5	1/3/2017	0.2	1.4	FO	13.6	3.8	0.0	MF	
M-5	5	1/16/2017	0.0	0.0	MF	11.4	4.3	0.0	0.00	
M-5	15	1/3/2017	0.0	0.1	FO	17.0	3.0	0.0	MF	
M-5	15	1/16/2017	0.2	0.0	MF	20.6	0.0	0.0	0.01	Slow flow
M-6	5	1/3/2017	0.0	0.0	FO	1.6	19.2	0.0	0.01	
M-6	5	1/16/2017	0.0	0.0	MF	20.5	0.0	0.0	0.02	Slow flow

Table 1
Summary of Field Results for Methane and Hydrogen Sulfide in Soil Gas

Soil Vapor Probe	Soil Vapor Probe Depth	Sample Date	Pressure (IN H2O) Magna-helic Gauge	Methane (CH4) Reading (%)-GEM 2K+	Methane (CH4) Reading (ppmv)-MICRO FID	Oxygen (O2) (%)	Carbon Dioxide (CO2) (%)	Hydrogen Sulfide (H2S) (ppmv)-GEM 2K+	Hydrogen Sulfide (H2S) (ppmv)-Jerome	Comments
M-6	11	1/3/2017	0.0	0.0	FO	3.1	18.1	0.0	MF	
M-6	11	1/16/2017	0.0	NF	NF	NF	NF	NF	NF	
M-7	5	1/3/2017	0.0	11.1	FO	6.7	5.0	0.0	MF	
M-7	5	1/16/2017	0.0	16.5	MF	0.9	6.9	0.0	0.00	
M-7	14.5	1/16/2017	0.0	0.0	MF	20.8	0.0	0.0	0.00	
M-7	14.5	1/3/2017	0.0	0.0	FO	20.1	0.0	0.0	MF	
M-8	5	1/3/2017	0.0	0.8 J2	FO	19.4	0.0	0.0	MF	
M-8	5	1/16/2017	0.10	0.0	MF	20.8	0.0	0.0	0.00	
M-8	14.5	1/3/2017	1.0	0.0	FO	20.6	0.0	0.0	MF	
M-8	14.5	1/16/2017	-0.02	0.0	MF	20.6	0.0	0.0	0.00	Low flow
M-9	5	1/3/2017	0.0	0.0	FO	19.4	0.8	0.0	MF	
M-9	5	1/16/2017	0.0	0.0	MF	18.5	0.8	0.0	0.00	
M-9	15	1/3/2017	Probe tip not visible in borehole/not found.							
M-9	15	1/16/2017	0.0	0.0	MF	19.4	0.4	0.0	0.01	
M-10	5	1/3/2017	0.0	0.0	FO	17.6	2.7	0.0	MF	
M-10	5	1/16/2017	0.0	0.0	MF	15.9	2.9	0.0	0.00	
M-10	13	1/3/2017	0.0	0.0	FO	17.0	3.5	0.0	MF	
M-10	13	1/16/2017	0.0	0.0	MF	15.5	3.5	0.0	0.00	
M-11	5	1/3/2017	0.0	0.0	MF	12.7	7.3	0.0	LB	
M-11	5	1/16/2017	0.0	0.0	MF	17.7	1.9	0.0	0.00	
M-11	15	1/3/2017	0.0	0.0	MF	15.6	2.9	0.0	LB	
M-11	15	1/16/2017	0.0	0.0	MF	10.0	8.1	0.0	0.00	
M-12	5	1/3/2017	0.0	0.0	MF	13.5	5.4	0.0	LB	
M-12	5	1/16/2017	0.0	0.0	12.5	18.3	1.7	0.0	0.00	

Table 1
Summary of Field Results for Methane and Hydrogen Sulfide in Soil Gas

Soil Vapor Probe	Soil Vapor Probe Depth	Sample Date	Pressure (IN H2O) Magna-helic Gauge	Methane (CH4) Reading (%)-GEM 2K+	Methane (CH4) Reading (ppmv)-MICRO FID	Oxygen (O2) (%)	Carbon Dioxide (CO2) (%)	Hydrogen Sulfide (H2S) (ppmv)-GEM 2K+	Hydrogen Sulfide (H2S) (ppmv)-Jerome	Comments
M-12	15	1/3/2017	0.0	NF	NF	NF	NF	NF	NF	
M-12	15	1/16/2017	0.0	NF	NF	NF	NF	NF	NF	
M-13	5	1/3/2017	0.1	0.0	MF	21.0	0.0	0.0	LB	
M-13	5	1/16/2017	1.0	0.5 J1	2,427 J1	20.5	0.1	0.0	0.00	
M-13	15	1/3/2017	0.0	NF	NF	NF	NF	NF	NF	
M-13	15	1/16/2017	-0.02	NF	NF	NF	NF	NF	NF	
M-14	5	1/3/2017	-0.2	0.0	0.0	21.1	0.0	0.0	0.00	
M-14	5	1/16/2017	0.0	0.1	MF	20.3	0.0	0.0	0.00	
M-14	15	1/3/2017	0.0	18.7 J1	3,800 J1	15.0	6.6	0.0	0.78	
M-14	15	1/16/2017	0.0	15.6 J1	MF	14.9	5.2	0.0	0.00	
M-15	5	1/3/2017	0.0	0.0	FO	10.9	3.8	0.0	MF	
M-15	5	1/16/2017	0.0	0.0	MF	0.7	12.3	0.0	0.00	
M-15	15	1/3/2017	0.0	9.4	FO	4.9	17.3	0.0	MF	Low flow
M-15	15	1/16/2017	0.18	9.2	MF	4.5	17.0	0.0	0.02	
M-16	5	1/3/2017	0.6	NF	NF	NF	NF	NF	NF	
M-16	5	1/16/2017	0.0	NF	NF	NF	NF	NF	NF	
M-16	14.5	1/3/2017	1.0	NF	NF	NF	NF	NF	NF	
M-16	14.5	1/16/2017	1.0	NF	NF	NF	NF	NF	NF	
M-17	5	1/3/2017	0.0	48.8	FO	4.1	3.7	0.0	MF	
M-17	5	1/16/2017	0.0	57.8 J2	MF	0.6	4.0	0.0	0.01	
M-17	15	1/3/2017	0.0	NF	NF	NF	NF	NF	NF	
M-17	15	1/16/2017	1.0	NF	NF	NF	NF	NF	NF	
M-18	5	1/3/2017	0.0	0.0	FO	20.8	0.0	0.0	0.00	
M-18	5	1/16/2017	0.0	NF	NF	NF	NF	NF	NF	

Table 1
Summary of Field Results for Methane and Hydrogen Sulfide in Soil Gas

Soil Vapor Probe	Soil Vapor Probe Depth	Sample Date	Pressure (IN H2O) Magna-helic Gauge	Methane (CH4) Reading (%)-GEM 2K+	Methane (CH4) Reading (ppmv)-MICRO FID	Oxygen (O2) (%)	Carbon Dioxide (CO2) (%)	Hydrogen Sulfide (H2S) (ppmv)-GEM 2K+	Hydrogen Sulfide (H2S) (ppmv)-Jerome	Comments
M-18	15	1/3/2017	0.0	NF	NF	NF	NF	NF	NF	
M-18	15	1/16/2017	0.0	0.1	MF	20.6	0.0	0.0	0.01	Low flow
M-19	5	1/3/2017	0.0	0.0	260	17.4	2.3	0.0	0.00	
M-19	5	1/16/2017	0.0	NF	NF	NF	NF	NF	NF	
M-19	15	1/3/2017	0.0	0.0	150	20.8	0.0	0.0	0.00	
M-19	15	1/16/2017	0.0	NF	NF	NF	NF	NF	NF	
M-20	5	1/3/2017	0.0	0.0	FO	20.8	0.0	0.0	0.00	
M-20	5	1/16/2017	0.0	0.0	MF	20.7	0.0	0.0	0.01	Low flow
M-20	15	1/3/2017	1.0	0.1	FO	20.7	0.0	1.0	LB	
M-20	15	1/16/2017	0.0	0.0	MF	20.6	0.0	0.0	0.02	Low flow
M-21	5	1/3/2017	0.0	0.0	FO	20.8	0.0	0.0	0.00	
M-21	5	1/16/2017	0.0	0.1	MF	20.4	0.0	0.0	0.00	Low flow
M-21	15	1/3/2017	0.14	0.2	FO	20.6	0.0	0.0	0.00	
M-21	15	1/16/2017	0.0	0.3	MF	20.3	0.0	0.0	0.01	Low flow
M-22	5	1/3/2017	0.0	0.3	FO	15.3	3.0	0.0	0.00	
M-22	5	1/16/2017	1.0	0.0	MF	20.0	0.0	0.0	0.01	
M-22	15	1/3/2017	1.0	0.4	FO	20.5	0.0	0.0	0.00	
M-22	15	1/16/2017	-0.02	0.0	MF	19.5	0.2	0.0	0.00	
M-23	5	1/3/2017	0.0	0.0	FO	13.2	2.7	0.0	MF	
M-23	5	1/16/2017	0.0	0.0	MF	1.2	12.8	0.0	0.00	
M-23	15	1/3/2017	0.0	0.0	FO	20.6	0.0	0.0	MF	
M-23	15	1/16/2017	0.30	0.0	MF	20.2	0.0	0.0	0.00	Slow flow
M-24	5	1/3/2017	0.0	0.0	FO	20.3	0.4	0.0	0.01	
M-24	5	1/16/2017	0.0	0.1	MF	1.2	13.2	0.0	0.00	

Table 1
Summary of Field Results for Methane and Hydrogen Sulfide in Soil Gas

Soil Vapor Probe	Soil Vapor Probe Depth	Sample Date	Pressure (IN H2O) Magna-helic Gauge	Methane (CH4) Reading (%)-GEM 2K+	Methane (CH4) Reading (ppmv)-MICRO FID	Oxygen (O2) (%)	Carbon Dioxide (CO2) (%)	Hydrogen Sulfide (H2S) (ppmv)-GEM 2K+	Hydrogen Sulfide (H2S) (ppmv)-Jerome	Comments
M-24	15	1/3/2017	0.0	0.0	FO	20.8	0.0	0.0	0.00	
M-24	15	1/16/2017	0.8	21.7	MF	3.8	16.5	1.0	0.02	
M-25	5	1/3/2017	0.0	NF	NF	NF	NF	NF	NF	
M-25	5	1/16/2017	0.0	0.0	MF	6.0	11.6	0.0	0.00	
M-25	15	1/3/2017	0.1	NF	NF	NF	NF	NF	NF	
M-25	15	1/16/2017	0.0	0.0	MF	20.4	0.0	0.0	0.00	
M-26	5	1/3/2017	1.0	NF	NF	NF	NF	NF	NF	
M-26	5	1/16/2017	1.0	NF	NF	NF	NF	NF	NF	
M-26	15	1/3/2017	1.0	NF	NF	NF	NF	NF	NF	
M-26	15	1/16/2017	0.72	NF	NF	NF	NF	NF	NF	
M-27	5	1/3/2017	0.0	0.0	MF	15.5	3.0	0.0	LB	
M-27	5	1/16/2017	0.0	0.0	1.2	14.4	3.6	0.0	0.00	
M-27	15	1/3/2017	0.0	0.0	MF	15.2	4.8	0.0	LB	
M-27	15	1/16/2017	0.0	0.0	3.4	14.0	5.0	0.0	0.00	
M-28	5	1/3/2017	0.0	0.0	46.0	20.9	0.0	0.0	0.01	
M-28	5	1/16/2017	0.0	0.0	MF	20.8	0.0	0.0	0.02	Slow flow
M-28	14.5	1/3/2017	0.2	0.0	54.0	20.9	0.0	0.0	0.01	
M-28	14.5	1/16/2017	0.0	0.0	MF	20.7	0.0	0.0	0.01	High vacuum, low flow
M-29	5	1/3/2017	0.0	0.0	51.5	15.5	4.0	0.0	0.00	
M-29	5	1/16/2017	0.0	NF	NF	NF	NF	NF	NF	
M-29	15	1/3/2017	0.0	0.0	129	10.4	9.5	0.0	0.00	
M-29	15	1/16/2017	0.0	NF	NF	NF	NF	NF	NF	
M-30	5	1/3/2017	0.0	0.0	MF	20.9	0.0	0.0	LB	
M-30	5	1/16/2017	-0.02	NF	NF	NF	NF	NF	NF	

Table 1
Summary of Field Results for Methane and Hydrogen Sulfide in Soil Gas

Soil Vapor Probe	Soil Vapor Probe Depth	Sample Date	Pressure (IN H2O) Magna-helic Gauge	Methane (CH4) Reading (%)-GEM 2K+	Methane (CH4) Reading (ppmv)-MICRO FID	Oxygen (O2) (%)	Carbon Dioxide (CO2) (%)	Hydrogen Sulfide (H2S) (ppmv)-GEM 2K+	Hydrogen Sulfide (H2S) (ppmv)-Jerome	Comments
M-30	9.5	1/16/2017	-0.02	NF	NF	NF	NF	NF	NF	
M-30	9.5	1/3/2017	0.0	NF	NF	NF	NF	NF	NF	

Notes:

FO=Flame Out
LB=Low Battery
MF=Malfunction
NF=No Flow
J1 = Estimate only based on variability between the field and laboratory results for methane, with the field result being lower than the laboratory result.
J2 = Estimate only based on variability between the field and laboratory results for methane, with the field result being higher than the laboratory result.
ppmv= Parts per million by volume in air
%=Percentage by volume in air
IN H2O= Inches of water column

Table 2

Summary of Laboratory Analytical Results for Methane and Hydrogen Sulfide in Soil Gas

Soil Vapor Probe	Soil Vapor Probe Depth	Sample Date	Field Pressure Reading (IN H2O) Magna-helic Gauge	Sample ID	Methane EPA Method 8015B (ppm)	Hydrogen Sulfide by ASTM Method D5504M (ppm)	Comments
M-1	15	1/3/2017	0.0	M-1-15.0'	20,100	3.500	Slow flow
M-7	5	1/3/2017	0.0	M-7-5.0'	106,000	0.0540	
		1/16/2017	0.0	M-7-6.0	133,000	0.0540	Probe depth is 5.0' bgs per boring log
M-8	5	1/3/2017	0.0	M-8-5.0'	124	0.00800	
M-13	5	1/16/2017	1.0	M-13-5.0	96,800	0.0210	
M-14	15	1/3/2017	0.0	M-14-15.0'	518,000	0.0640	
		1/16/2017	0.0	M-14-15	298,000	0.790	
M-15	15	1/3/2017	0.0	M-15-15.0'	62,300	1.100	Low flow
		1/16/2017	0.18	M-15-15	84,200	4.500	
M-17	5	1/3/2017	0.0	M-17-5.0'	472,000	0.530	Original sample
				M-17D-5.0'	577,000	0.540	Duplicate field sample
		1/16/2017	0.0	M-17-5.0	297,000	0.760	Original sample
				M-17-5.0D	388,000	0.840	Duplicate field sample
M-24	15	1/16/2017	0.8	M-24-15	285,000	5.400	

Notes:

ppm= Parts per million by volume in air
IN H2O= Inches of water column

ATTACHMENT A

REFERENCES

ATTACHMENT A

References

California Geological Survey (CGS), Seismic Hazard Evaluation of the Hollywood 7.5 Minute Quadrangle, Los Angeles, County, California, Open File Report 98-17, 1998.

California Department of Water Resources (DWR), Planned Utilization of the Ground Water Basins of the Coastal Plain of Los Angeles County, Appendix A, Ground Water Geology: California Department of Water Resources Bulletin 104, 181 p, 1988.

Catchings, R.D., Gandhok, G., Goldman, M.R., and Okaya, D., Seismic Images and Fault Relations of the Santa Monica Thrust Fault, West Los Angeles, California: U.S. Geological Survey Open-File Report 01-111, 15 p, 2001.

Dibblee, T. W., Jr., Geologic Map of the Hollywood and Burbank South ½ Quadrangles, Los Angeles County, California, DF-30, 1991.

Dolan, J.F., Sieh, K, Rockwell, T.K., Guptill, P., and Miller, G., Active Tectonics, Paleoseismology, and Seismic Hazards of the Hollywood Fault, Northern Los Angeles Basin, California: Geological Society of America Bulletin, Volume 109, No. 12, pp. 1595-1616, 1997.

Dolan, J.F., Sieh, K., and Rockwell, T.K., Late Quaternary Activity and Seismic Potential of the Santa Monica Fault System, Los Angeles, California: Geological Society of America Bulletin, Volume 112, No. 10, pp. 1559-1581, 2000.

Freeman, S.T., Heath, E.G., Guptill, P.D., and Waggoneer, J.T., Seismic Hazard Assessment, Newport-Inglewood Fault Zone, in Pipkin, B.W. and Proctor, R.J. (editors), Engineering Geologic Practice in Southern California: Association of Engineering Geologists Special Publication No. 4, pp. 211-231, 1992.

Hildenbrand, T.G., Davidson, J.G., Ponti, D.J., and Langenheim, V.E., Implications for the Hollywood Basin from Gravity Interpretations of the Northern Los Angeles Basin, California: U.S. Geological Survey Open-File Report 2001-394, 24 p, 2001.

Hummon, C., Schneider, C.L., Yeats, R.S., Dolan, J.F., Sieh, K.E., and Huftile, G.J., Wilshire fault: Earthquake in Hollywood: Geological Society of America Geology, Volume 22, No. 4, pp. 291-294, 1994.

Office of Environmental Health and Safety (OEHS), Scope of Services, prepared by OEHS, dated November 22, 2016.

_____, Response to Request for Clarifications, prepared by OEHS, dated November 29, 2016.

Surveying and Drafting Services, Inc. Title, Ground Topographic and Subsurface Utility Survey, John Burroughs M.S., 600 McCadden Place, Los Angeles, CA 90005, Drawing No. 1-7, May 18, 2016.

State of California Environmental Protection Agency - Department of Toxic Substances Control (DTSC), Advisory – Active Soil Gas Investigations, developed jointly with the Los Angeles Regional Water Quality Control Board and the San Francisco Regional Water Quality Control Board, dated July 2015.

_____, Advisory on Methane Assessment and Common Remedies at School Sites, School Property Evaluation and Cleanup Division Department of Toxic Substances Control, dated June 16, 2006.

_____, Human Health Risk Assessment (HHRA) Note Number: 3, DTSC-modified screening levels, https://www.dtsc.ca.gov/AssessingRisk/upload/HHRA-Note-3-2016-01.pdf, August 2017.

Tsutsumi, H., Yeats, R.S., and Huftile, G.J., Late Cenozoic Tectonics of the Northern Los Angeles Fault System, California: Geological Society of America Bulletin, Volume 113, No. 4, pp. 454-468, 2001.

United States Environmental Protection Agency (EPA), Regional Screening Levels, Region 9: Pacific Southwest, Residential Soil Tables (TR-1E-06, THQ=1.0), http://www.epa.gov/region9/superfund/prg/, June 2017.

Western Environmental Engineers Co., Groundwater Sampling Report First Quarter, 2006 at Highland Express Cleaners Former Tidewater Retail Service Station 5020-5044 Wilshire Boulevard, Los Angeles, California, dated April 11, 2006.

WorleyParsons, Phase I Environmental Site Assessment, John Burroughs Middle School, 600 South McCadden Place, Los Angeles, California 90005, May 18, 2016.

Wright, T.L., Structural Geology and Tectonic Evolution if the Los Angeles Basin, California, in Biddle, K.T. (editor), Active Margin Basins: American Association of Petroleum Geologists Memoir 52, pp. 35-134, 1991.

Yerkes, R.F.; McCollouch, T.H.; Schoellhamer, J.E.; Vedder, J.G, Geology of the Los Angeles Basin, California- An Introduction: U.S. Geological Survey Professional Paper 420-A pp. 57, 1965.

ATTACHMENT B

DOGGR OIL WELL DATA – NO OIL WELLS ONSITE

Department of Conservation

Lat: 34.06952, Long: -118.32651

Division of Oil, Gas & Geothermal Resources Well Finder

Find By Location

Find My Current Location

or

Street: 600 south mccadden place

City: los angeles

Zip: 90005 Find

Display a 1500 foot buffer

Buffer radius is limited to 10 mi (52800ft).

Find By API

Find By Lat, Long

Find By PLSS

Find By Oil/Gas Field

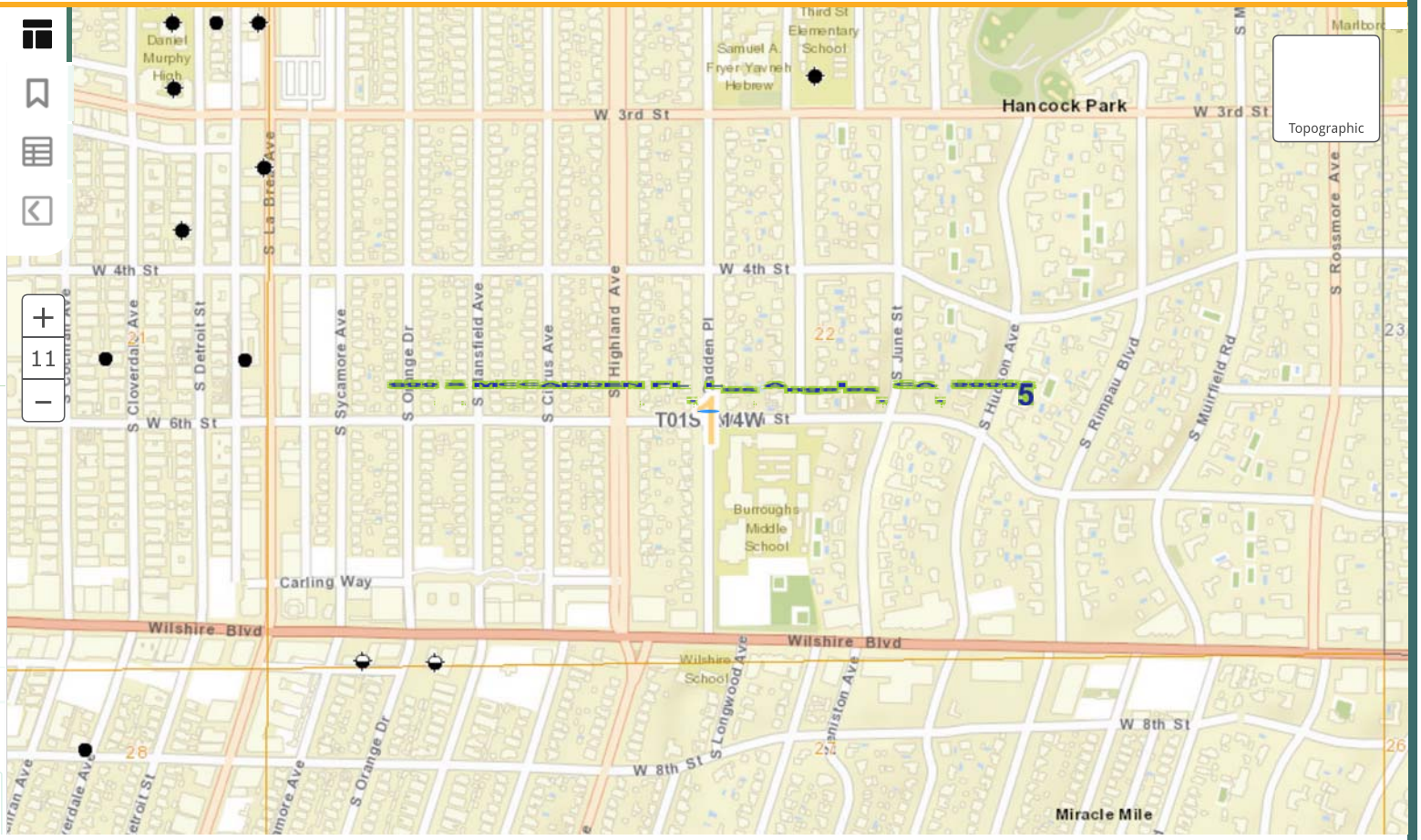
Data (Layers):

- Notices & Permits
- DOGGR Wells

Label: API# Well# Detailed

EPA Wells for Aquifer Exemption Review

Enhanced Oil Recovery Wells



200m
600ft

Copyright © 2014 State of California Conditions of Use | Privacy Policy

DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS & GEOTHERMAL RESOURCES
5816 Corporate Ave., Suite 100 Cypress, CA 90630-4731
Phone:(714) 816-6847 Fax:(714) 816-6853

REPORT OF WELL ABANDONMENT

Cypress, California
January 04, 2017

Mr. Robert Rosenblum
3279 Bernard L.P., A California Limited Partnership (A0010)
1875 Century Park East, Suite 2000
Los Angeles, CA 90067

Your report of abandonment of well **"Highland Corehole" 2**, A.P.I. No. **037-20045**, Section **22**, T. **01S**, R. **14W**, **SB** B.&M., **--** field, **Los Angeles** County, dated **12/15/2016**, received **12/19/2016**, has been examined in conjunction with records filed in this office. We have determined that the requirements of this Division have been fulfilled relative to plugging and abandonment of the well, removal of well equipment and junk, and filing of well records. The plugging and abandonment of the well is **approved**.

The determination of this well plugging and abandonment is based on the following information, consistent with California Public Resources Code (PRC), and the California Code of Regulations (CCR):

1. Surface plugging completed on 12/30/2015.

2. Site inspection made and approved on 10/21/2016.

Kenneth A. Harris Jr.
State Oil and Gas Supervisor

By _____
For Daniel J. Dudak, *District Deputy*

Individual Bond 10033566

cc: EDP
L.A. City Fire Dept.
L.A. City Petroleum Administrator

EPM:epm

EXPIRED _____
CANCELLED _____
MAILED CC'S 1/5/17 vm
EMAILED operator 1/5/17 vm

OG159

DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

CHECKLIST – RECORDS RECEIVED AND WELL STATUS

Operator: 3279 Bernard L.P., A California Limited Partnership [A0010]
API #: 037-20045 **County** Los Angeles
Permit #: 115-0523

Well: Highland Corehole 2
Sec. 22 **T.** 01S **R.** 14W SB B&M
Field: Any Field

RV	RECORDS RECEIVED	Date
☒	Well Summary (Form OG100)	12/19/2016
☒	History (Form OG103)	12/19/2016
☐	Core Record	
☐	Directional Survey	
☐	Sidewall Samples	
☐	Pressure Test Chart	
☐	RA Survey	
☐	Other:	
	Well Logs (List Below):	
☐		
☐		
☐		
☐		
☐		
☐		
☐		
☐		
☐		

STATUS

Active	☐	Drilling	☐
Abandoned	☐	Idle	☐
Re-abandoned	☒	Other:	☐

WELL TYPE

Air Injection	☐	Ground Monitoring	☐	Steamflood	☐
Cyclic Steam	☐	Liquefied Gas	☐	Water Disposal	☐
Dry Gas	☐	Observation	☐	Water Flood	☐
Gas Disposal	☐	Oil & Gas	☒	Water Source	☐
Gas Storage	☐	Pressure Maintenance	☐	Other:	☐

EFFECTIVE DATE: 12/30/15

REMARKS: Re-abandoned

AREA ENGINEER'S CHECKLIST

RQ	RV		RQ	RV	Test	# of Tests	T-RPT	# of Reports
☒	☒	Operator's Name	☐	☐	BOPE		☐	
☒	☒	Well Designation	☒	☒	BOPI		☐	
☒	☒	Location	☒	☒	CEM		☒	116-1620
☒	☒	Elevation	☐	☐	RA		☐	
☒	☒	Notices	☐	☐	SAPT		☐	
☒	☒	Casing Record	☐	☐	Lap Test (WSO Form)		☐	
☒	☒	Plugs	☐	☐	Other:		☐	
☐	☐	Production/Injection *FAP Codes:* 000-00-00	☒	☒	Surface Inspection *Date(s):* 10/21/2016			
☐	☐	Notice of Records Due *Date(s):*			*If Waived* Island ☐ Platform ☐ Drill Site ☐ Common Cellar ☐			
☐	☐	CalWIMS Updated	☒	☒	Final Letter (OG159) AB: ☐ REAB: ☒			
☐	☐	Other:						

CLERICAL CHECKLIST

	Date & Initial		Date & Initial
WellStat Updated	N/A	Verify FAP codes	1/5/2017 vm
CalWIMS Updated	1/5/2017 vm	Moved to Public Access	1/5/2017 vm
Final Letter (OG159) Abd to current std.	1/4/2017 EM		

RECORDS NOT APPROVED (Reason) *Date(s):*

RECORDS APPROVED

Signature Ellen Plaza Moser *Date* 12/29/2016

**RQ – Required, RV - Reviewed*

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

HISTORY OF OIL OR GAS WELL

Operator 3279 Bernard L.P. Field Los Angeles County Los Angeles

Well "Highland Corehole" 2 Sec. 22 T. 01s R. 14w sbB.&M.

A.P.I. No. 037-20045 Name Mick Beyer Title Operations Manager

(Person submitting report) (President, Secretary, or Agent)

Date 12-15-16
(Month, day, year)

Signature M. B

Address 2109 Gundry Ave. Signal Hill, Ca. 90755 Telephone Number 562 989-6100

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandonment, with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests, and initial production data.

11-25-15	M.I.R.U. – Installed and tested B.O.P.E. (Waived by DOGGR) – Secured location
11-30-15 to 12-09-15	M.U. and R.I.H. W/ 5 5/8" Drill bit – Drilled hard cement from surface to 205' Broke through – (Tamara Escobedo w/DOGGR witnessed Approved BOPE) Cont. running drill bit tagged down at 440' drilled hard cement to 961' P.O.H.- Secured location
12-10-15	R.I.H. w/tbg. tail at 961' mixed and pumped 185 cu/ft. (162 sxs) class G cement (ETOC 100') All witnessed by P. Maat w/DOGGR – Secured location
12-11-15	R.I.H. Tagged cement at 97' – Removed BOPE – Rigged down all equipment – Secured location
12-30-15	Rigged up Crane ran tbg. tagged cement at 96' - mixed and pumped 38 cu/ft (33 sxs) class G cement from 96' to surface – P.O.H. – All witnessed by K. Bowen w/DOGGR – RDMO – Secured location
01-04-16	Dug down around well and cut casing 6' below surface – Secured well
01-15-16	Surface tag and welding of I.D.Plate all waived by P. Kaufman w/DOGGR – Installed Vent Cone - Backfilled location – All witnessed by J. Bosco w/ L.A.F.D. - Job complete.

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

WELL SUMMARY REPORT

API NO. **037-20045**

Operator	Well				
3279 Bernard L.P.	**"Highland Corehole" 2**				
Field	County	Sec.	T.	R.	B.&M.
Los Angeles	**Los Angeles**	**22**	**01s**	**14w**	**sb**

Location (Give surface location from property or section corner, street center line)
From intersection of C/L's of Wilshire Blvd. and S. Orange Dr. go 22' E'ly & 116.5' S'ly.

Elevation of ground above sea level **356.52'**

California Coordinates (if known): **NAD83 LAT. 34.061777 LONG. -118.341420**

Was the well directionally drilled? ☐ Yes ☒ No If yes, show coordinates at total depth.

Commenced drilling (date)	Total depth		
1967	(1st hole) **6000'**	(2nd)	(3rd)
Completed drilling (date) **1967**			

Depth measurements taken from top of:
☐ Derrick Floor ☒ Rotary Table ☐ Kelly Bushing

Which is **10'** feet above ground

Commenced production/injection (date)

Present effective depth

Production mode: ☐ Flowing ☐ Pumping ☐ Gas lift

Junk
Cement plug 6000' to 1303"
Cement plug 1145" to 6'

Name of production/injection zone(s)
N/A Stratigraphic CoreHole

GEOLOGICAL MARKERS	DEPTH

Formation and age at total depth

Base of fresh water **300'**

	Clean Oil (bbl per day)	API Gravity (clean oil)	Percent Water (including emulsion)	Gas (Mcf per day)	Tubing Pressure	Casing Pressure
Initial Production						
Production After 30 days						

CASING AND CEMENTING RECORD (Present Hole)

Size of Casing (API)	Top of Casing	Depth of Shoe	Weight of Casing	Grade and Type of Casing	New (N) or Used (U)	Size of Hole Drilled	Number of Sacks or Cubic Feet of Cement	Depth of Cementing (if through perforations)	Top(s) of Cement in Annulus
10 3/4"	6'	90'	40#			22"	220 sacks		6'
7"	6'	994'	23#			9 7/8"	320 sacks		6'

PERFORATED CASING (Size, top, bottom, perforated intervals, size and spacing of perforations, and method.)

Logs/surveys run? ☐ Yes ☒ No If yes, list type(s) and depth(s).

In compliance with Sec. 3215, Division 3, of the *Public Resources Code*, the information given herewith is a complete and correct record of the present condition of the well and all work done thereon, so far as can be determined from all available records.

Name	Title	
Mick Beyer	**Operations Manager**	
Address **2109 Gundry Ave.**	City/State **Signal Hill**	Zip Code **90755**
Telephone Number **562 989-6100**	Signature M. B	Date **11-29-16**

OG100 (1/98/GSR/1M)
Printed on recycled paper.

SUBMIT IN DUPLICATE

Job # 15-4352

NATURAL RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS & GEOTHERMAL RESOURCES
5816 Corporate Ave., Suite 100 Cypress, CA 90630 - 4731

No. P 115-0517

Old	New
000	000
FIELD CODE	
00	00
AREA CODE	
00	00
POOL CODE	

PERMIT TO CONDUCT WELL OPERATIONS

CRITICAL WELL

Cypress, California
November 12, 2015

Mr. Robert Rosenblum, Agent
3279 Bernard L.P., A California Limited Partnership (A0010)
1875 Century Park East, Suite 2000
Los Angeles, CA 90067

Your proposal to **Re-Abandon** well **"Highland Corehole" 2**, A.P.I. No. **037-20045**, Section **22**, T. **01S**, R. **14W**, SB B. & M. (Lat: **34.061777** Long: **-118.341420** Datum:**83**), -- field, -- area, -- pool, **Los Angeles** County, dated **7/30/2015**, received **8/3/2015** has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED:

1. Blowout prevention equipment, as defined by this Division's publication No. M07, shall be installed and maintained in operating condition and meet the following minimum requirements:
   a. Class **II2M,** with hydraulic controls, for **re-abandonment** operations.
2. Blowout prevention practice drills are conducted at least weekly and recorded on the tour sheet. A practice drill may be required at the time of the test/inspection.
3. Hole fluid of a quality and in sufficient quantity to control all subsurface conditions in order to prevent blowouts shall be used.
4. All annuli are filed with cement from **35'** to **5'**.
5. All casing must be removed from between **5'** and **10'** below ground level.
6. A steel plate, at least as thick as the outer well casing and bearing the last five digits of the API number, shall be tack welded around the top circumference of the outer casing.
7. The well location shall be surveyed prior to burying the well, and the survey shall be filed with this office. Latitude and longitude shall be in decimal degrees, to six decimal places, in NAD83
8. Well site restoration shall be completed within 60 days following the completion of plugging operations.
9. No program changes are made without prior Division approval.
10. **THIS DIVISION SHALL BE NOTIFIED TO:**
    a. Inspect the installed blowout prevention equipment prior to commencing **downhole** operations.
    b. Witness the clean-out depth at **944'** (estimated depth of the top of the "intermediate" plug).
    c. Witness the placing of the cement plug from **944'** to **surface**.
    d. Witness the location and hardness of cement at surface, including all annular spaces.
    e. Inspect the restored well site.

(Continued on Page 2)

Steven Bohlen
State Oil and Gas Supervisor

By
For Daniel J. Dudak, *District Deputy*

Individual #10033566 Bond
cc:

Engineer Callie L. Cullum
Office (714) 816-6847

CC/cc

A copy of this permit and the proposal must be posted at the well site prior to commencing operations. Records for work done under this permit are due within 60 days after the work has been completed or the operations have been suspended. Issuance of this permit does not affect the Operator's responsibility to comply with other applicable state, federal, and local laws, regulations, and ordinances.

OG111 (revised 6/2011)

Well #: **"Highland Corehole" 2**
API #: **037-20045**
Permit : **P 115-0517**
Date: November 12, 2015

NOTE:

1. All depths are referenced to Kelly Bushing (KB) which is 11 feet above the ground.
2. The proposed surface plug shall not contain rock or gravel.
3. Zone isolation cement plugs shall use cement that has a minimum compressive strength of 1000 psi and a maximum liquid permeability of 0.1 millidarcy (md).
4. Upon completion of the proposed work, a Well Summary Report (form OG100), a History of Oil or Gas Well (form OG103), and copies of all logs, tests, and surveys shall be submitted to this office.
5. The Division recommends that not structure be placed in a manner that will impede future access to the well.
6. Report of Well Plugging and RE-Abandonment (form OG159) will not be released until all records and histories are on file with this Division.
7. This permit was held in abeyance pending receipt and review of additional documents that demonstrate the potential freshwater sands will be protected.

12/2/15 Tamara Estibedo - witnessed BOP I and conducted a BOP drill.
12/10/15 witnessed cleanout tag at 961' and placement of 185cf cements; ETOC 100' P. Macat CA DOGGR
12/30/15 witnessed cleanout tag @ 96' and placement of 35 cu ft of CMT to surface - K Bowen DOGGR

1-15-2016 - witness plate + cave placement on corehole #1 + #2
LAFD Inspector [signature]

From:	Martinez, Valerie@DOC
To:	Jones, Tiffany@DOC
Subject:	FW: Re-P&A Documentation for 3279 Bernard L.P. (former Chevron USA, Inc.) "Highland Corehole" 2
Date:	Monday, December 19, 2016 8:02:42 AM
Attachments:	API 037-20045 CVX Highland Corehole #2 Well History .pdf

---

From: Benjamin Lawrence "Larry" Barnes III [mailto:envirogenesis@gmail.com]
Sent: Friday, December 16, 2016 2:15 PM
To: Irick, Barry@DOC; Martinez, Valerie@DOC
Cc: Aaron Korda; Daniel Korda; Dalia Pelleg; David Noddle
Subject: Re-P&A Documentation for 3279 Bernard L.P. (former Chevron USA, Inc.) "Highland Corehole" 2

To All Interested Parties-

The former Chevron U.S.A., Inc. (now 3279 Bernard L.P.) "Highland Corehole" 2 (API No. 037-20045) was re-plugged and re-abandoned (re-P&A'd) by AllenCo pursuant to a well program approved by and compliant with DOGGR guidelines approximately one year ago. The attached forms and documentation are hereby submitted to remedy any outstanding administrative deficiencies that have prevented closure of the well file and cancellation of the well indemnification bond.

Attached please find the following:

1. DOGGR Form OG103 "History of Oil or Gas Well" dated 12-15-16;
2. DOGGR Form 100 "Well Summary Report" dated 11-29-16; and
3. DOGGR Form 111 "Permit to Conduct Well Operations" dated 11-12-15 together with witness "sign-offs" by DOGGR and LAFD-HIU engineers.

Please advise if you require another formal Request for Release of Individual Oil and Gas Well Indemnification Bond by the ownership entity or any other forms to close this well file.

THANK YOU for your assistance and patience regarding this matter.

Larry Barnes
Petroleum Engineer
Environmental Engineer
Geologist for The Korda Group

NATURAL RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS & GEOTHERMAL RESOURCES
5816 Corporate Ave., Suite 100 Cypress, CA 90630-4731
Phone:(714) 816-6847 Fax:(714) 816-6853

No. T **116-1620**

REPORT ON OPERATIONS

Mr. Robert Rosenblum
3279 Bernard L.P., A California Limited Partnership (A0010)
1875 Century Park East, Suite 2000
Los Angeles, CA 90067

Cypress, California
December 29, 2016

Your operations at well **"Highland Corehole" 2**, A.P.I. No. **037-20045**, Sec. **22**, T. **01S**, R. **14W**, **SB** B.&M., **--** field, in **Los Angeles** County, were witnessed on **12/30/2015**, by **Kenton Bowen**, a representative of the supervisor.

The operations were performed for the purpose of **re-abandonment**.

DECISION: **APPROVED**

Notes: The required Class II3M blowout prevention equipment was inspected and approved on 12/2/2015

EXPIRED
CANCELLED
MAILED
EMAILED 1.3.17 TL

KCB/EPM

Kenneth A. Harris Jr.
State Oil and Gas Supervisor

By
For Daniel J. Dudak, *District Deputy*

116-1620

DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

CEMENTING/PLUGGING MEMO

Operator 3279 Bernard L.P., A California Limited Partnership Well No. Highland Corehole 2

API No. 037-20045 Sec. 22 T. 01S R. 14W , SB B&M

Field ---- LA. County , County Los Angeles . On ~~1/15/15~~ 12/30/2015

Mr. / Ms. ~~Waived~~ Kenton Bowen representative of the supervisor, was present from 0845 to 1145 .

There were also present J Boscoe - fire Department

Casing record of well: 10-3/4 CEM to 90'; 7" CEM to 994

The operations were performed for the purpose of: Re-Abandon

☒ The plugging/cementing operations as witnessed and reported are approved.

☐ The location and hardness of the cement plug @ _____ ' are approved.

Hole size: _____ " fr. _____ ' to _____ ', _____ " to _____ ' & _____ " to _____ '

Casing				Cemented			Top of Fill		Squeezed Away	Final Pressure	Perforations
Size	Wt.	Top	Bottom	Date	MO-Depth	Volume	Annulus	Casing			

Casing/tubing recovered: _____ " Shot/cut at _____ ', _____ ', _____ ', Pulled fr. _____ ';

_____ " Shot/cut at _____ ', _____ ', _____ ', Pulled fr. _____ '.

_____ " Shot/cut at _____ ', _____ ', _____ ', Pulled fr. _____ '.

Junk (in hole): _____

Hole fluid (bailed to) at _____ '. Witnessed by _____

Mudding	Date	bbls	Displaced	Poured	Fill	Engineer

Note (12) Class II 2M; 12-2-15; T. Escobedo

C/O @ 961'; 12-10-15; P. Maat

Cement Plugs		Placing	Placing Witnessed		Top Witnessed			
Date	Sx./cf	MO & Depth	Time	Engineer	Depth	Wt/Sample	Date & Time	Engineer
12-10-15	185cf	Tbg @ 961'	1230	P. Maat	96'	visual	0945; 12/30	KB
12-30-15	40 cf	Tbg @ 96'	1100	K Bowen	6'	visual	1/15 rpt by	J.Boscoe

API No. 037-20045 DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES T _____

BLOWOUT PREVENTION EQUIPMENT MEMO

Operator 3279 Bernard L.P. Well "Highland Corehole" 2 Sec. 22 T. 01S R. 14W

Field --- County Los Angeles Spud Date _____

VISITS:	Date	Engineer	Time	Operator's Rep.	Title
1st	12/2/2015	Tamara Escobedo	(1145 to 1330)	Kenneth Wenger	Consultant
2nd			(to)		

Contractor Allenco Rig # 7 Contractor's Rep. & Title Ivan Sandoval, Drill Rig Superintendant

Casing record of well: 10-3/4" cem 90'; 7" cem 994'. TD 6000'. Plugged w/ cem 5990' – 794', 200' – surface.

MEMO

OPERATION: Testing (inspecting) the blowout prevention equipment and installation. Critical well? Y ☒ N ☐

DECISION: The blowout prevention equipment and its installation on the 7" " casing are approved.

Proposed Well Opns: Reabandonment . MACP: _____ psi

Hole size: _____ " fr. _____ ' to _____ ', _____ " to _____ ' & _____ " to _____ '

REQUIRED BOPE CLASS: II2M

CASING RECORD OF BOPE ANCHOR STRING

Size	Weight(s)	Grade(s)	Shoe at	CP at	Cement Details	Top of Cement Casing	Top of Cement Annulus

BOP STACK

API Symb.	Ram Size (in.)	Manufacturer	Model or Type	Vert. Bore Size (in.)	Press. Rtg.	Date Last Overhaul
Rd	2-7/8	Shaffer	LWS	9"	3M	
Rd	CSO	Shaffer	LWS	9"	3M	

TEST DATA

Gal. to Close	Recov. Time (Min.)	Calc. GPM Output	psi Drop to Close	Secs. to Close	Test Date	Test Press.
3						
3						

ACTUATING SYSTEM

Accumulator Unit(s) Working Pressure N/A psi

Total Rated Pump Output _____ gpm Fluid Level OK

Distance from Well Bore 25 ft.

	Accum. Manufacturer	Capacity	Precharge
1		gal.	psi
2		gal.	psi

	CONTROL STATIONS	Elec.	Hyd.	Pneu
	Manifold at accumulator unit			
	Remote at Driller's station			
x	Other: hand pump		x	

	EMERG. BACKUP SYSTEM			Press.	Wkg.
	N_2 Cylinders	1	L= 51 "	2200	6 gal.
	Other:	2	L= "		gal.
		3	L= "		gal.
		4	L= "		gal.
		5	L= "		gal.
		6	L= "		gal.
			TOTAL: 6		gal

	HOLE FLUID MONITORING EQUIPMENT	Alarm Type Audible	Alarm Type Visual	Class
x	Calibrated Mud Pit			A
	Pit Level Indicator			
	Pump Stroke Counter			B
	Pit Level Recorder			
	Flow Sensor			C
	Mud Totalizer			
	Calibrated Trip Tank			
	Other:			

TOTAL: 2

AUXILIARY EQUIPMENT

		No.	Size (in.)	Rated Press.	Connections Weld	Connections Flange	Connections Thread	Test Press.
	Fill-up Line							
x	Kill Line		32	2M			x	
x	Control Valve(s)	3		2M			x	
	Check Valve(s)							
	Aux. Pump Connect.							
x	Choke Line							
	Control Valve(s)							
	Pressure Gauge							
	Adjustable Choke(s)							
	Bleed Line							
	Upper Kelly Cock							
	Lower Kelly Cock							
	Standpipe Valve							
	Standpipe Press.							
x	Pipe Safety Valve		2 3/8	3M				
	Internal Preventer							

Hole Fluid Type	Weight	Storage Pits (Type & Size)
lease water		60 bbls

REMARKS AND DEFICIENCIES:

OGD9 (3/98)

Huff, John@DOC

From: Huff, John@DOC
Sent: Friday, December 4, 2015 11:09 AM
To: 'Mick Beyer'
Cc: Moser, Ellen@DOC; Morlan, Randall@DOC; Cullum, Callie@DOC
Subject: RE: Highland core hole #1

Mick,

Based on the latest information available, this well appears to be "Highland Corehole" 2 (037-20045), not "Highland Corehole" 1 as stated in your subject line. As there was no Division-approved cement plug placed in this well between 200' and 944', this well will need to be cleaned out to 944' and re-abandoned according to the requirements on permit # P115-0517.

Regards,

John Huff
Associate Oil & Gas Engineer
Department of Conservation
Division of Oil, Gas & Geothermal Resources
5816 Corporate Ave., Suite 100
Cypress, CA 90630-4731
(714) 816-6847

Every Californian should conserve water. Find out how at:

SaveOurWater.com · Drought.CA.gov

-----Original Message-----
From: Mick Beyer [mailto:mbeyer@allencoca.com]
Sent: Friday, December 4, 2015 9:53 AM
To: Huff, John@DOC <John.C.Huff@conservation.ca.gov>
Subject: Highland core hole #1

John,
We have been drilling hard concrete with no voids. We are at 630'
Can we cement at this depth?

ALLENCO WELL CREW REPORTS 15-4352 Thursday

WELL NAME	RIG NO .	Service Report Num	COMPANY	LEASE	DATE
Westside Corehole	7	30874	Westside CO	SFS	12/3/2015

VENDORS NAME	DAILY COST
AllenCo 4 man Crew $408 hr X 12	$ 4,896.00
Allenco Rig #2 $117 hr X 10	$ 1,170.00
Allenco Fuel $100	$ 100.00
Allenco Power swivel	$ 950.00
Allenco Mud pump & Pit	$ 980.00
Allenco BOP	$ 600.00
Allenco Vac Truck $95 X 4	$ 380.00
Est. DAILY TOTAL	$ 9,076.00

FAILURE :

DAY_5

TODAYS COST	TODAYS HOURS
$9,076.00	12

PREVIOUS COST	PREVIOUS HOURS
$37,213.50	45 1/2

CUMULATIVE COST	CUMULATIVE HOURS
$46,289.50	57 1/2

TAGGED FILL	KB
RECOVERED :	TD
BAILER:	
SCRAPER SIZE :	STOPPED :

CASING :	LINER SIZE
PBTD:	LINER DEPTHS :
PERFS :	

PUMP MAKE PULLED:	
PUMP MAKE RAN :	

PUMP SIZE :	
PUMP SIZE :	

TUBING DETAIL : Well Head Flange:

Description	NUMBER	LENGTH	DEPTH

ROD DETAIL :

SIZE	AMOUNT	GRADE	GUIDES

SUMMARY OF PROCEDURES :

START TIME: 6:00 AM STOP TIME: 6:00 PM

DTL, Held JSA meeting, Replaced 5 5/8" Drill bit w/ new one, Ran back and tagged cement @ 555', Drilled out concrete to 630', (Drilling Hard concrete 30' in 3.5 hrs) Circulated Hole Clean, Secured well, EOT.

FOREMAN :	Ken	RIG SUPERVISOR:	Ivan Sandoval

ALLENCO WELL CREW REPORTS 15-4352 Wednesday

WELL NAME	RIG NO .	Service Report Num	COMPANY	LEASE	DATE
Westside Corehole	7	30873	Westside CO	SFS	12/2/2015

VENDORS NAME	DAILY COST
AllenCo 4 man Crew $408 hr X 12	$ 4,896.00
Allenco Rig #2 $117 hr X 10	$ 1,170.00
Allenco Fuel $100	$ 100.00
Allenco Power swivel	$ 950.00
Allenco Mud pump & Pit	$ 980.00
Allenco BOP	$ 600.00
Allenco Vac Truck $95 X 8	$ 760.00
Est. DAILY TOTAL	$ 9,456.00

FAILURE :

DAY_4

TODAYS COST	TODAYS HOURS
$9,456.00	12

PREVIOUS COST	PREVIOUS HOURS
$27,757.50	33 1/2

CUMULATIVE COST	CUMULATIVE HOURS
$37,213.50	45 1/2

TAGGED FILL	KB
RECOVERED :	TD
BAILER:	
SCRAPER SIZE :	STOPPED :

CASING :	LINER SIZE
PBTD:	LINER DEPTHS :
PERFS :	

PUMP MAKE PULLED:	
PUMP MAKE RAN :	

PUMP SIZE :	
PUMP SIZE :	

TUBING DETAIL : Well Head Flange:

Description	NUMBER	LENGTH	DEPTH

ROD DETAIL :

SIZE	AMOUNT	GRADE	GUIDES

SUMMARY OF PROCEDURES :

START TIME: 6:00 AM STOP TIME: 6:00 PM

DTL, Held JSA meeting, Lowered 5 5/8" to concrete, Drilled out Concrete From 175' to 210', At That Point broke thru, Continued running Tbg to 450' top of 2nd Plug, Drilled out cement to 555', Circulated Hole Clean, POH, Inspected Drill bit, Look Wore, Secured well, EOT.

FOREMAN :	Ken	RIG SUPERVISOR:	Ivan Sandoval

ALLENCO WELL CREW REPORTS 15-4352 Tuesday

WELL NAME	RIG NO .	Service Report Num	COMPANY	LEASE	DATE
Westside Corehole	7	30872	Westside CO	SFS	12/1/2015

VENDORS NAME	DAILY COST
AllenCo 4 man Crew $408 hr X 12	$ 4,896.00
Allenco Rig #2 $117 hr X 10	$ 1,170.00
Allenco Fuel $100	$ 100.00
Allenco Power swivel	$ 950.00
Allenco Mud pump & Pit	$ 980.00
Allenco BOP	$ 600.00
Allenco Vac Truck $95 X 10	$ 950.00
Est. DAILY TOTAL	$ 9,646.00

FAILURE :

DAY_3

TODAYS COST	TODAYS HOURS
$9,646.00	12

PREVIOUS COST	PREVIOUS HOURS
$18,111.50	21 1/2

CUMULATIVE COST	CUMULATIVE HOURS
$27,757.50	33 1/2

TAGGED FILL	KB
RECOVERED :	TD
BAILER:	
SCRAPER SIZE :	STOPPED :

CASING :	LINER SIZE
PBTD:	LINER DEPTHS :
PERFS :	

PUMP MAKE PULLED:	
PUMP MAKE RAN :	

PUMP SIZE :	
PUMP SIZE :	

TUBING DETAIL : Well Head Flange:

Description	NUMBER	LENGTH	DEPTH

ROD DETAIL :

SIZE	AMOUNT	GRADE	GUIDES

SUMMARY OF PROCEDURES :

START TIME: 6:00 AM STOP TIME: 6:00 PM

DTL, Held JSA meeting, Lowered 5 5/8" to concrete, Drilled out Concrete From 65' to 175', Circulated hole Clean, POH, Inspected Drill bit, Look OK, Secured well, EOT.

FOREMAN :	Ken	RIG SUPERVISOR:	Ivan Sandoval

ALLENCO WELL CREW REPORTS 15-4352 Monday

WELL NAME	RIG NO .	Service Report Num	COMPANY	LEASE	DATE
Westside Corehole	7	30871	Westside CO	SFS	11/30/2015

VENDORS NAME	DAILY COST
AllenCo 4 man Crew $408 hr X 12	$ 4,896.00
Allenco Rig #2 $117 hr X 10	$ 1,170.00
Allenco Fuel $100	$ 100.00
Allenco Power swivel	$ 950.00
Allenco Mud pump & Pit	$ 980.00
Allenco BOP	$ 600.00
Allenco Vac Truck $95 X 10	$ 950.00
Est. DAILY TOTAL	$ 9,646.00

FAILURE :

DAY_2

TODAYS COST	TODAYS HOURS
$9,646.00	12

PREVIOUS COST	PREVIOUS HOURS
$8,465.50	9 1/2

CUMULATIVE COST	CUMULATIVE HOURS
$18,111.50	21 1/2

TAGGED FILL	KB
RECOVERED :	TD
BAILER:	
SCRAPER SIZE :	STOPPED :

CASING :	LINER SIZE
PBTD:	LINER DEPTHS :
PERFS :	

PUMP MAKE PULLED:	
PUMP MAKE RAN :	

PUMP SIZE :	
PUMP SIZE :	

TUBING DETAIL : Well Head Flange:

Description	NUMBER	LENGTH	DEPTH

ROD DETAIL :

SIZE	AMOUNT	GRADE	GUIDES

SUMMARY OF PROCEDURES :

START TIME: 6:00 AM STOP TIME: 6:00 PM

DTL, Held JSA meeting, P/U 1 joint of 4 3/4" Drill collar w/ 5 5/8" Drill bit on bottom, Drilled out Concrete From surface to 65', Circulated hole clean, Pilled up 30', Secured well, EOT.

FOREMAN :	Ken	RIG SUPERVISOR:	Ivan Sandoval

ALLENCO WELL CREW REPORTS 15-4352 Wednesday

WELL NAME	RIG NO .	Service Report Num	COMPANY	LEASE	DATE
Westside Corehole	7	30870	Westside CO	SFS	11/25/2015

VENDORS NAME	DAILY COST
AllenCo 4 man Crew $408 hr X 9.5	$ 3,876.00
Allenco Rig #2 $117 hr X 8.5	$ 994.50
Allenco Fuel $100	$ 100.00
AllenCo Trucking $95 hr X 9	$ 855.00
Allenco Backhoe $125 X 12	$ 1,500.00
Welder $95 X 12	$ 1,140.00
Est. DAILY TOTAL	$ 8,465.50

FAILURE :

DAY_1

TODAYS COST	TODAYS HOURS
$8,465.50	9 1/2

PREVIOUS COST	PREVIOUS HOURS

CUMULATIVE COST	CUMULATIVE HOURS
$8,465.50	9 1/2

TAGGED FILL	KB
RECOVERED :	TD
BAILER:	
SCRAPER SIZE :	STOPPED :

CASING :	LINER SIZE
PBTD:	LINER DEPTHS :
PERFS :	

PUMP MAKE PULLED:	
PUMP MAKE RAN :	

PUMP SIZE :	
PUMP SIZE :	

TUBING DETAIL : Well Head Flange:

Description	NUMBER	LENGTH	DEPTH

ROD DETAIL :

SIZE	AMOUNT	GRADE	GUIDES

SUMMARY OF PROCEDURES :

START TIME: 6:30 AM STOP TIME: 4:00 PM

DTL, Held JSA meeting, Had backhoe to dig cellar and install cellar Ring, Had welder to Weld wellhead To 7" Casing, Moved Rig and rigged up, Secured hoist, Installed and function tested BOP, Good, R/U Power swivel and working floor, Had Trucking to deliver and spot, Tbg trailer and Mud pump, Secured Well, EOT. (BOP Inspection Deferred By DOGGER, Paula)

FOREMAN :	Ken	RIG SUPERVISOR:	Ivan Sandoval

Customer	Westside Contractors	KB	22.00	KB + TOOLS - ADJ.	BHA
WELL #	Highland Corehole	TOOLS	93.00		115.00
DATE	12/1/2015	ADJUSTMENT	0.00	Jts Target	
Total Joints	117	Size and Weight		Out 30 Jts on Hook/Ftln	87--14

JOINT #		TOTAL LENGTH	10 JT TOTAL	W/ BHA	Joint #		TOTAL LENGTH	10 JT TOTAL	W/ BHA	JOINT #		TBG LENGTH	10 JT TALLY	W/ BHA
1	31.79	31.79		146.79	51		-		-	101		-		-
2	32.10	63.89		178.89	52		-		-	102		-		-
3	31.69	95.58		210.58	53		-		-	103		-		-
4	32.35	127.93		242.93	54		-		-	104		-		-
5	32.95	160.88		275.88	55		-		-	105		-		-
6	31.80	192.68		307.68	56		-		-	106		-		-
7	31.60	224.28		339.28	57		-		-	107		-		-
8	32.36	256.64		371.64	58		-		-	108		-		-
9	31.95	288.59		403.59	59		-		-	109		-		-
10	31.20	319.79	319.79	434.79	60		-	0.00	-	110		-	0.00	-
11	32.15	351.94		466.94	61		-		-	111		-		-
12	32.40	384.34		499.34	62		-		-	112		-		-
13	32.40	416.74		531.74	63		-		-	113		-		-
14	32.50	449.24		564.24	64		-		-	114		-		-
15	31.62	480.86		595.86	65		-		-	115		-		-
16	32.35	513.21		628.21	66		-		-	116		-		-
17	32.38	545.59		660.59	67		-		-	117		-		-
18	32.30	577.89		692.89	68		-		-	118		-		-
19	31.65	609.54		724.54	69		-		-	119		-		-
20		-	289.75	-	70		-	0.00	-	120		-	0.00	-
21		-		-	71		-		-	121		-		-
22		-		-	72		-		-	122		-		-
23		-		-	73		-		-	123		-		-
24		-		-	74		-		-	124		-		-
25		-		-	75		-		-	125		-		-
26		-		-	76		-		-	126		-		-
27		-		-	77		-		-	127		-		-
28		-		-	78		-		-	128		-		-
29		-		-	79		-		-	129		-		-
30		-	0.00	-	80		-	0.00	-	130		-	0.00	-
31		-		-	81		-		-	131		-		-
32		-		-	82		-		-	132		-		-
33		-		-	83		-		-	133		-		-
34		-		-	84		-		-	134		-		-
35		-		-	85		-		-	135		-		-
36		-		-	86		-		-	136		-		-
37		-		-	87		-		-	137		-		-
38		-		-	88		-		-	138		-		-
39		-		-	89		-		-	139		-		-
40		-	0.00	-	90		-	0.00	-	140		-	0.00	-
41		-		-	91		-		-	141		-		-
42		-		-	92		-		-	142		-		-
43		-		-	93		-		-	143		-		-
44		-		-	94		-		-	144		-		-
45		-		-	95		-		-	145		-		-
46		-		-	96		-		-	146		-		-
47		-		-	97		-		-	147		-		-
48		-		-	98		-		-	148		-		-
49		-		-	99		-		-	149		-		-
50		-	0.00	-	100		-	0.00	-	150		-	0.00	-

Huff, John@DOC

From: Mick Beyer <mbeyer@allencoca.com>
Sent: Wednesday, December 2, 2015 5:12 PM
To: Huff, John@DOC
Subject: Re: Highland corehole 2

Ok thanks

Sent from my iPhone

On Dec 2, 2015, at 4:01 PM, Huff, John@DOC <John.C.Huff@conservation.ca.gov> wrote:

> Mick,
>
> Based on the information provided below and found in our well files for Highland Corehole 1 and Highland Corehole 2, we cannot approve placing a cement plug from 530'. It will be necessary to continue cleaning out this well. When the well is cleaned out to 800', please contact this office with information about the cleanout operations. If a void is encountered between 530' and 800', please also contact this office so that this well's situation can be reevaluated.
>
> Regards,
>
> **John Huff**
> Associate Oil & Gas Engineer
> Department of Conservation
> Division of Oil, Gas & Geothermal Resources
> 5816 Corporate Ave., Suite 100
> Cypress, CA 90630-4731
> (714) 816-6847
>
> Every Californian should conserve water. Find out how at:
>
> Save Our Water
>
> SaveOurWater.com · Drought.CA.gov

From: Beyer Mick [mailto:mbeyer@allencoca.com]
Sent: Wednesday, December 2, 2015 2:50 PM
To: Huff, John@DOC <John.C.Huff@conservation.ca.gov>
Subject: Highland corehole 2

Hi John,
Per our phone call;
We have drilled out 200' surface cement plug on this well, fell through from 200' to 450'. We hit another hard cement plug at 450' and have been drilling hard cement for 4 ½ hours down to 530'.
I would like to cement from 530' to surface.

Sincerely,

Mick

Mick Beyer, Operations Manager
mbeyer@allencoca.com
AllenCo
2109 Gundry Avenue
Signal Hill, CA 90755
Phone: 562-989-6100
FAX: 562-989-6104
Cell: 310-505-9787
www.allenco-oilwellservice.com

NATURAL RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS & GEOTHERMAL RESOURCES
5816 Corporate Ave., Suite 100 Cypress, CA 90630 - 4731

No. P 115-0517

Old	New
000	000
FIELD CODE	
00	00
AREA CODE	
00	00
POOL CODE	

PERMIT TO CONDUCT WELL OPERATIONS

CRITICAL WELL

Cypress, California
November 12, 2015

Mr. Robert Rosenblum, Agent
3279 Bernard L.P., A California Limited Partnership (A0010)
1875 Century Park East, Suite 2000
Los Angeles, CA 90067

EXPIRED _____
CANCELLED _____
MAILED _____
EMAILED 11.17.15 TL

Your proposal to **Re-Abandon** well **"Highland Corehole" 2**, A.P.I. No. **037-20045**, Section **22**, T. **01S**, R. **14W**, **SB** B. & M. (Lat: **34.061777** Long: **-118.341420** Datum:**83**), **--** field, **--** area, **--** pool, **Los Angeles** County, dated **7/30/2015**, received **8/3/2015** has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED:

1. Blowout prevention equipment, as defined by this Division's publication No. M07, shall be installed and maintained in operating condition and meet the following minimum requirements:
   a. Class **II2M,** with hydraulic controls, for **re-abandonment** operations.
2. Blowout prevention practice drills are conducted at least weekly and recorded on the tour sheet. A practice drill may be required at the time of the test/inspection.
3. Hole fluid of a quality and in sufficient quantity to control all subsurface conditions in order to prevent blowouts shall be used.
4. All annuli are filed with cement from **35'** to **5'**.
5. All casing must be removed from between **5'** and **10'** below ground level.
6. A steel plate, at least as thick as the outer well casing and bearing the last five digits of the API number, shall be tack welded around the top circumference of the outer casing.
7. The well location shall be surveyed prior to burying the well, and the survey shall be filed with this office. Latitude and longitude shall be in decimal degrees, to six decimal places, in NAD83
8. Well site restoration shall be completed within 60 days following the completion of plugging operations.
9. No program changes are made without prior Division approval.
10. **THIS DIVISION SHALL BE NOTIFIED TO:**
    a. Inspect the installed blowout prevention equipment prior to commencing **downhole** operations.
    b. Witness the clean-out depth at **944**' (estimated depth of the top of the "intermediate" plug).
    c. Witness the placing of the cement plug from **944**' to **surface**'.
    d. Witness the location and hardness of cement at surface, including all annular spaces.
    e. Inspect the restored well site.

(Continued on Page 2)

Steven Bohlen
State Oil and Gas Supervisor

Individual #10033566 Bond
cc:

Engineer Callie L. Cullum
Office (714) 816-6847

By _____
For Daniel J. Dudak, *District Deputy*

CC/cc

A copy of this permit and the proposal must be posted at the well site prior to commencing operations. Records for work done under this permit are due within 60 days after the work has been completed or the operations have been suspended. Issuance of this permit does not affect the Operator's responsibility to comply with other applicable state, federal, and local laws, regulations, and ordinances.

NOTE:

1. All depths are referenced to Kelly Bushing (KB) which is 11 feet above the ground.
2. The proposed surface plug shall not contain rock or gravel.
3. Zone isolation cement plugs shall use cement that has a minimum compressive strength of 1000 psi and a maximum liquid permeability of 0.1 millidarcy (md).
4. Upon completion of the proposed work, a Well Summary Report (form OG100), a History of Oil or Gas Well (form OG103), and copies of all logs, tests, and surveys shall be submitted to this office.
5. The Division recommends that not structure be placed in a manner that will impede future access to the well.
6. Report of Well Plugging and RE-Abandonment (form OG159) will not be released until all records and histories are on file with this Division.
7. This permit was held in abeyance pending receipt and review of additional documents that demonstrate the potential freshwater sands will be protected.

P#115-0517

NATURAL RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

FOR DIVISION USE ONLY			
	Forms		
Bond	OGD114	OGD121	
IB	11/7/15	11/2/15	TL

OG/EM

NOTICE OF INTENTION TO ABANDON / RE-ABANDON WELL

Detailed instructions can be found at: www.conservation.ca.gov/dog

In compliance with Section 3229, Division 3, Public Resources Code, notice is hereby given that it is our intention to abandon ☐ / re-abandon ■ well Chevron USA, Inc. "Highland Corehole" 2 , API No. 037-20045 ,
(Check one)
Sec. 22 , T. 1-S , R. 14-W , SB B.&M., Salt Lake (640) Field, Los Angeles County.

The complete casing record of the well (present hole), including plugs and perforations, is as follows: (Attach wellbore schematics diagram also.)

SEE ATTACHED CORE HOLE SCHEMATIC.

The total depth is: 6,000 MD feet. The effective depth is: 5,824 TVD feet.

Present completion zone(s): N/A; Stratigraphic Corehole (Name) . Present zone pressure: N/A psi.

Oil or gas shows: N/A (Name and depth) feet. Depth to base of fresh water: N/A feet.

Top of uppermost hydrocarbon zone (which may be behind unperforated casing): N/A (Depth of interval) feet.

Is this a critical well as defined in the California Code of Regulations, Title 14, Section 1720(a) (see next page)? Yes■ No☐

The proposed work is as follows: (A complete program is preferred and may be attached.)

SEE ATTACHED CORE HOLE ABANDONMENT PROGRAM.

DOGGR
Received-
AUG -3 2015

The Division must be notified immediately of changes to the proposed operations. Failure to provide a true and accurate representation of the well and proposed operations may cause rescission of the permit.

Name of Operator			
3279 BERNARD L.P., a California limited partnership			
Address		City/State	Zip Code
2566 Overland Avenue, Suite 700		Los Angeles, CA	90064
Name of Person Filing Notice	Telephone Number:	Signature	Date
Robert Korda, Manager General Partner	(310) 842-4600		7/30/15
Individual to contact for technical questions:	Telephone Number:	E-Mail Address:	
Larry Barnes, Petroleum Operations Geologist	(949) 650-5824	envirogenesis@gmail.com	

This notice must be filed, and approval given, before plugging and abandonment operations begin. If operations have not commenced within one year of the Division's receipt of the notice, this notice will be considered cancelled.

CRITICAL WELL DEFINITION

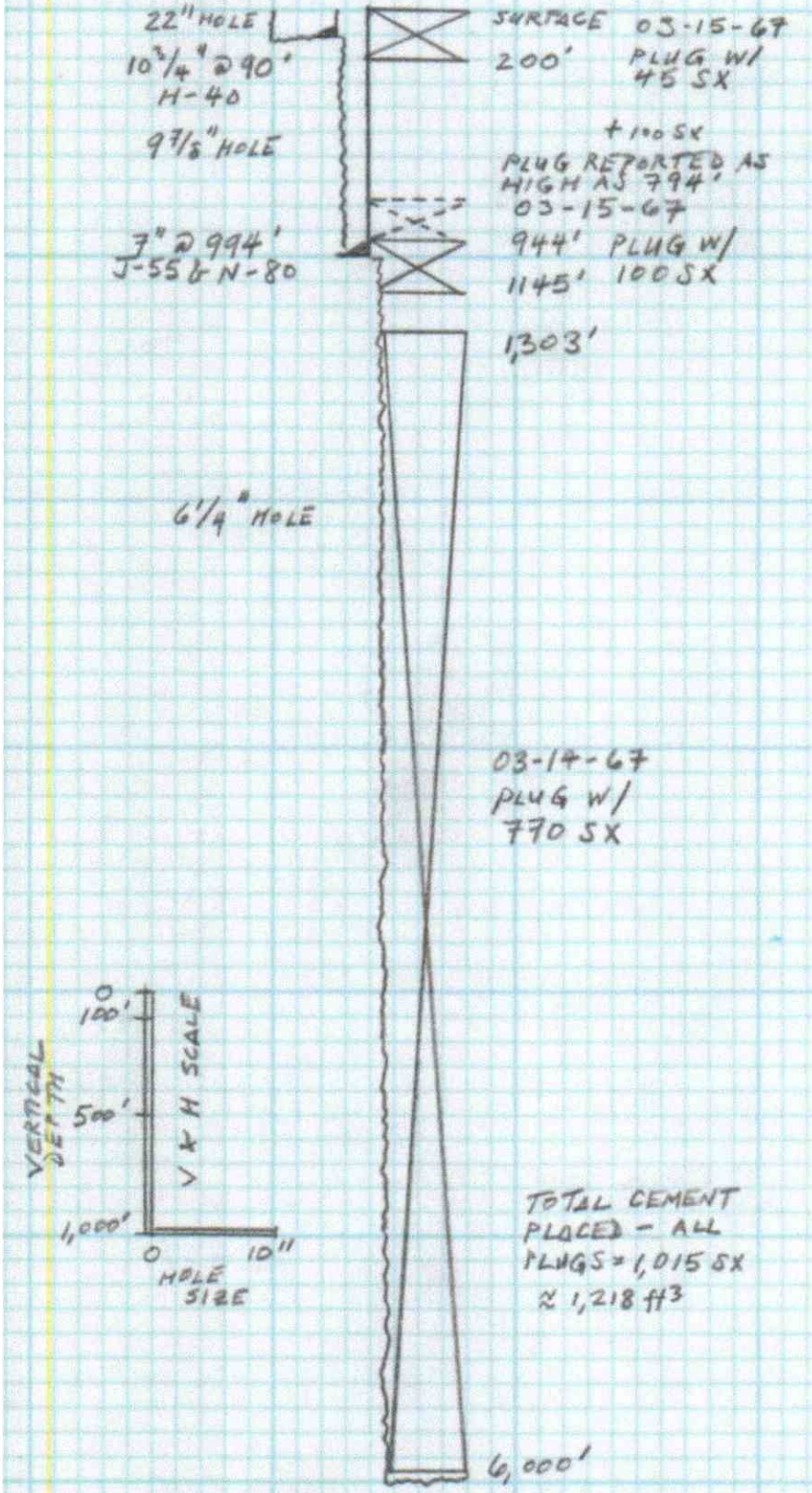
As defined in the California Code of Regulations, Title 14, Section 1720 (a), "Critical well" means a well within:

(1) 300 feet of the following:
  (A) Any building intended for human occupancy that is not necessary to the operation of the well; or
  (B) Any airport runway.
(2) 100 feet of the following:
  (A) Any dedicated public street, highway or the nearest rail of an operating railway that is in general use;
  (B) Any navigable body of water or watercourse perennially covered by water;
  (C) Any public recreational facility such as a golf course, amusement park, picnic ground, campground or any other area of periodic high-density population; or
  (D) Any officially recognized wildlife preserve.

This form may be printed from the DOGGR website at www.conservation.ca.gov/dog/

DOGGR
Received–
AUG – 3 2015

CHEVRON USA, INC.
"HIGHLAND CORE HOLE" NO. 2
API No. 037-20045
STRATIGRAPHIC - GEOLOGIC
CORE HOLE; NO PERFS. &
NO O&G PRODUCTION



TOTAL CEMENT PLACED - ALL PLUGS = 1,015 SX ≈ 1,218 ft³

TOTAL DEPTH = 6,000' MD
5,824' TVD
@ 16° DECLINATION
SOUTH 801.03'
WEST 978.11'

DOGGR
Received-
AUG - 3 2015

Corehole Abandonment Program

Operator: Chevron USA, Inc.
Fee Name: "Highland Corehole"
Well #: 2
API No.: 037-20045
Location: From intersection of C/Ls of Wilshire Blvd and S Orange Dr go 22' E'ly & 116.5' S'ly at R/As
History: Drilled 02/15/67 and Abandoned 03/16/67
Field: Salt Lake (640)

1. Excavate 10' L x 10' W x 5.0' D pit at a minimum to expose piping from plugged and abandoned corehole. *Note:* 10¾" conductor casing set at 90' and run to surface and 7.0" casing set at 994' and run to surface.

2. Cut 2:1 slope on one side of corehole pit to allow safe access to a reasonably flat pit floor and to piping. *Note:* excavation work may be performed by General Contractor for developer or by others.

3. Notify DOGGR at (714) 816-6847 and at dogdist!@conservation.ca.gov as a courtesy 72 hours prior to corehole shortening so that an agency inspector may schedule to witness on-site operations.

4. AllenCo Well Service & Abandonment (AllenCo) may install 8.0' OD round steel collar ring or a 10' square steel shoring box to guarantee pit safety if warranted due to potential caving, unstable soil conditions or other site-specific conditions.

5. Petroleum engineer shall inspect soil comprising pit, physical character of piping and presence of any discoloration, odors and remnant corehole drilling or abandonment detritus.

6. Petroleum engineer shall conduct preliminary "sniff test" using hand-held instrumentation to record fugitive gas emissions that may be present in the pit.

7. If the "sniff test" is benign then AllenCo shall cut-off or "shorten" the piping to a point that is at least 5.0' below the final plan grade and not greater than 10' below the final plan grade. Tools employed shall be non-sparking for fire safety and explosivity considerations. *Note:* cut-off elevation must be determined from the working plans and specified by the site development team.

8. Petroleum engineer shall inspect the "shortened" piping and perform final "sniff test" to document the status of fugitive gas emissions.

9. Petroleum engineer shall measure the length of the removed piping segment.

10. AllenCo shall tack weld the corehole identification plate atop the piping. If the old ID plate is deficient in any way then a new ID plate shall be fabricated and tack welded onto the piping. The corehole was plugged by Standard Oil (Chevron) on 03/15/1967.

11. Registered Land Surveyor shall record coordinates of corehole as part of Final Capped Well Survey and said data shall be incorporated into the plans for the subject development.

12. AllenCo may be discharged if no additional abandonment actions are deemed necessary by DOGGR and by petroleum engineer.

13. Corehole pit may be backfilled and compacted.

Complications or deviations from the mini-spec due to site-specific conditions or special requests from oversight agencies may result in delays or change orders. Likewise, the subject mini-spec may be modified prior to the field events if DOGGR recommends additional procedures.

Prepared by Larry Barnes on behalf of Terra-Petra and 3279 Bernard L.P. on July 20, 2015.

DOGGR
Received-
AUG -3 2015

Moser, Ellen@DOC

From: Scott, Phyllis@DOC
Sent: Wednesday, October 21, 2015 8:28 AM
To: Moser, Ellen@DOC
Cc: Martinez, Valerie@DOC
Subject: FW: Bond Application for NOI Abandonment

Ellen,

Would you contact Mr. Corda regarding submission of NOI and appropriate bond amounts. Once the Bond application is complete then office support staff can process it.

Thanks,

Phyllis

From: Irick, Barry@DOC
Sent: Wednesday, October 21, 2015 6:18 AM
To: Scott, Phyllis@DOC <Phyllis.Scott@conservation.ca.gov>
Subject: RE: Bond Application for NOI Abandonment

This will actually be Ellen's well. I have not reviewed the NOI. I started it because we thought the wells were within the Salt Lake South Field. Turns out they were outside the field and fell under Ellen's jurisdiction. Since I was original contact, they kept calling me, so I was helping move transfer along. Aaron Korda's number is: 310-842-4607. There should have been contact info on well file I put on Val's desk.

From: Scott, Phyllis@DOC
Sent: Tuesday, October 20, 2015 11:15 AM
To: Irick, Barry@DOC <Barry.Irick@conservation.ca.gov>
Cc: Welty, Curtis@DOC <Curtis.Welty@conservation.ca.gov>; Dudak, Daniel@DOC <Daniel.Dudak@conservation.ca.gov>; Martinez, Valerie@DOC <Valerie.M.Martinez@conservation.ca.gov>
Subject: Bond Application for NOI Abandonment

Barry,

Mr. Aaron Corda contacted Valerie to inquire about the appropriate bond amount for a submission of NOI to abandon. Mr. Corda indicated he had spoken to you regarding the submission of the NOI.

Could you follow-up with Mr. Corda and assist him on the required bond amount necessary for the NOI.

Once bond amount and type is identified he can complete and submit the application to Valerie be processed and transferred to Sacramento.

I do not have the contact information for Mr. Corda. If you do not have his contact information you can check with Valerie to see if she collected the information when he contacted her.

Thank you,

Phyllis Scott
Administrative Office Services Manager
Department of Conservation
Division of Oil, Gas and Geothermal Resources - District 1
5816 Corporate Avenue, Suite 100
Cypress, CA 90630
714-816-6847 *office*
714-484-6211 *direct*
714-640-4929 *cellular*

Every Californian should conserve water. Find out how at:

Save Our Water

SaveOurWater.com · Drought.CA.gov

NATURAL RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

FOR DIVISION USE ONLY			
	Forms		
Bond	OGD114	OGD121	
1B	11/14/15	11/9/15	TW

Addendum

~~SUPPLEMENTARY NOTICE~~

Detailed instructions can be found at: www.conservation.ca.gov/dog/

A notice to the Division of Oil, Gas, and Geothermal Resources, dated November 5, 2015, stating the intention to

Re-Abandon (Drill, Rework, Abandon) well Chevron USA, Inc. "Highland Corehole" 2, API No. 037-20045,

Sec. 22, T. 1-S, R. 14-W, SB B.&M., **Salt Lake (640)** Field, **Los Angeles** County

should be amended because of changed conditions.

The complete casing record of the well (present hole), including plugs and perforations, is as follows: (Attach wellbore schematics diagram also.)
See attached Stratigraphic Core Hole schematic.

DOGGR Received – NOV – 6 2015 BT 11/09/15

The total depth is: 6,000 MD feet. The effective depth is: 5,824 TVD feet.

Present completion zone(s): N/A; Stratigraphic Corehole (Name). Anticipated completion zone(s): None (Name)

Present zone pressure: N/A psi. Anticipated/existing new zone pressure: N/A psi.

We now propose: (A complete program is preferred and may be attached.)
See attached Stratigraphic Core Hole Re-Abandonment plan that includes DOGGR requirement to drill out a surface plug from top of casing to 200' and to clean-out and/or drill-out 7.0" cased hole to a depth of approximately 944' (top of "intermediate" plug) in order to place new cement from 944' to surface and to include cementing across a base of fresh water zone estimated at 200' to 300' by DOGGR.

If well is to be redrilled or deepened, show proposed coordinates (from surface location) and true vertical depth at total depth: N/A feet N/A (Direction) and N/A feet N/A (Direction) Estimated true vertical depth: N/A

Will the Field and/or Area change? Yes☐ No☒ If yes, specify New Field: N/A New Area: N/A

The Division must be notified immediately of changes to the proposed operations. Failure to provide a true and accurate representation of the well and proposed operations may cause rescission of the permit.

Name of Operator 3279 BERNARD L.P., a California limited partnership			
Address 2566 Overland Avenue, Suite 700		City/State Los Angeles, CA	Zip Code 90064
Name of Person Filing Notice Robert Korda, General Partner	Telephone Number: (310) 842-4600	Signature	Date 11/05/2015
Individual to contact for technical questions: Larry Barnes, Petroleum Geologist	Telephone Number: (949) 650-5824	E-Mail Address: envirogenesis@gmail.com	

This notice must be filed, and approval given, before the operations begin. If operations have not commenced within one year of the Division's receipt of this supplementary notice, this notice will be considered cancelled.

CRITICAL WELL DEFINITION

As defined in the California Code of Regulations, Title 14, Section 1720 (a), "Critical well" means a well within:

(1) 300 feet of the following:
  (A) Any building intended for human occupancy that is not necessary to the operation of the well; or
  (B) Any airport runway.
(2) 100 feet of the following:
  (A) Any dedicated public street, highway or the nearest rail of an operating railway that is in general use;
  (B) Any navigable body of water or watercourse perennially covered by water;
  (C) Any public recreational facility such as a golf course, amusement park, picnic ground, campground or any other area of periodic high-density population; or
  (D) Any officially recognized wildlife preserve.

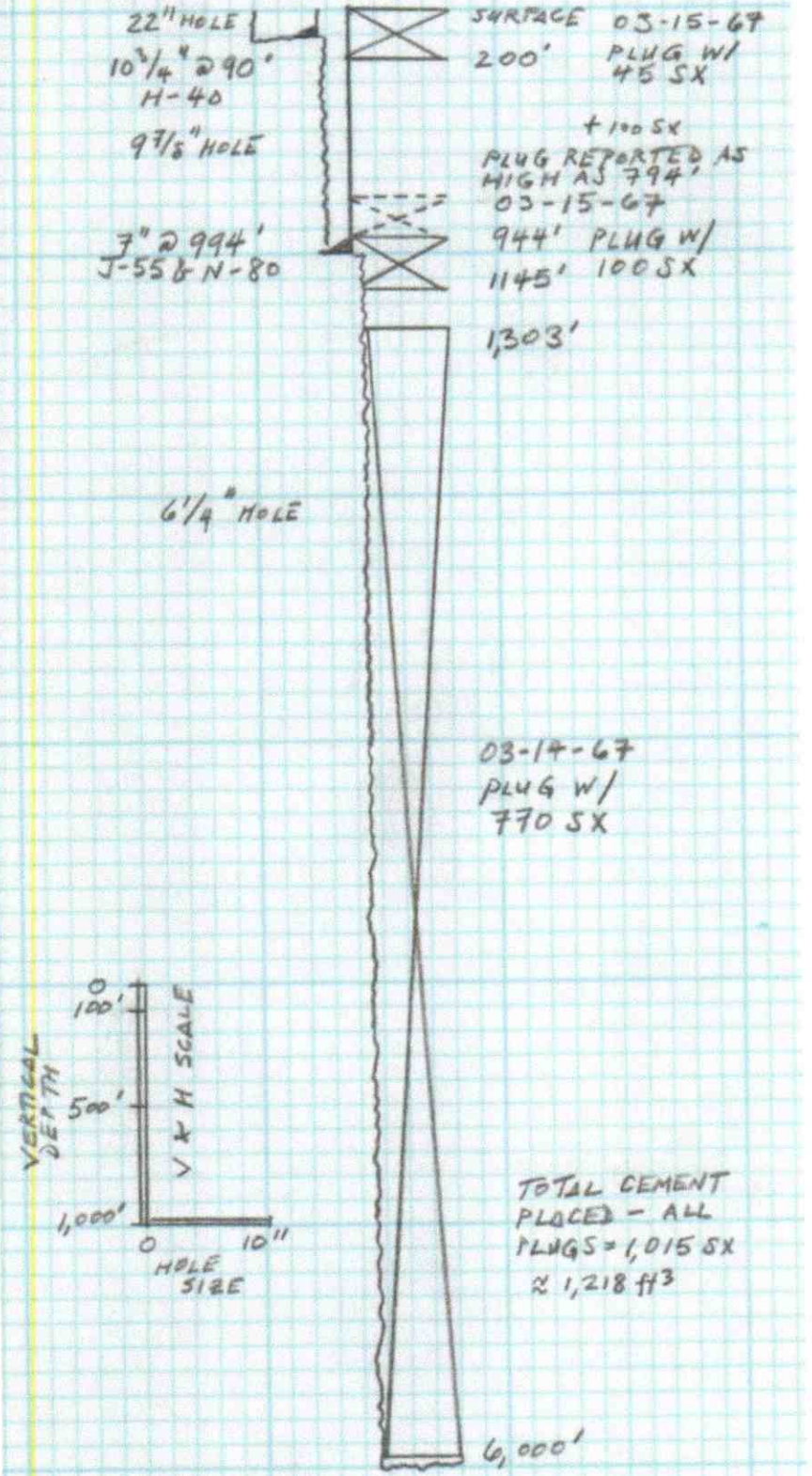
WELL OPERATIONS REQUIRING BONDING

1. Drilling, redrilling, or deepening any well.
2. Milling out or removing a casing or liner.
3. Running and cementing casing or tubing.
4. Running and cementing liners and inner liners.
5. Perforating casing in a previously unperforated interval for production, injection, testing, observation, or cementing purposes.
6. Drilling out any type of permanent plug.
7. Reentering an abandoned well having no bond.

This form may be printed from the DOGGR website at www.conservation.ca.gov/dog/

DOGGR
Received
NOV - 6 2015

CHEVRON USA, INC.
"HIGHLAND CORE HOLE" N=2
API N= 037-20045
STRATIGRAPHIC - GEOLOGIC
CORE HOLE : NO PERFS. &
NO O&G PRODUCTION



TOTAL CEMENT PLACED - ALL PLUGS = 1,015 SX
≈ 1,218 ft³

TOTAL DEPTH = 6,000' MD
5,824' TVD
@ 16° DECLINATION
SOUTH 801.03'
WEST 978.11'

Corehole Abandonment Program

Operator: Chevron USA, Inc.
Fee Name: "Highland Corehole"
Well #: 2
API No.: 037-20045
Location: From intersection of C/Ls of Wilshire Blvd and S Orange Dr go 22' E'ly & 116.5' S'ly at R/As
History: Drilled 02/15/67 and Abandoned 03/16/67
Field: Salt Lake (640)

1. Excavate 10' L x 10' W x 5.0' D pit at a minimum to expose piping from plugged and abandoned corehole. *Note:* 10¾" conductor casing set at 90' and run to surface and 7.0" casing set at 994' and run to surface.

2. Notify DOGGR at (714) 816-6847 and at dogdist!@conservation.ca.gov as a courtesy 72 hours prior to initiating well operations.

3. Move-in and rig-up (MIRU) AllenCo Well Service & Abandonment (AllenCo) rig and equipment. AllenCo may install 8.0' OD round steel collar ring or a 10' square steel shoring box to guarantee pit safety if warranted due to potential caving, unstable soil conditions or other site-specific conditions.

4. Install Class II 2M blow-out prevention equipment (BOPE).

5. Go in hole (GIH) with 6.0" OD drill bit and drill-out surface cement plug inside 7.0" casing from surface to a bottom depth of approximately 200'.

6. Continue to clean-out hole until tagging an "intermediate" plug placed from a bottom depth of 1,145' to a top depth of 944' to as high as 794' (core hole records may be inaccurate).

7. Drill-out and clean-out inside of 7.0" casing to a depth of 944' or thereabouts.

8. Place cement from a depth of approximately 944' to 5'.

9. Rig-down and move-off (RDMO).

10. Cut 2:1 slope on one side of corehole pit to allow safe access to a reasonably flat pit floor and to piping. *Note:* excavation work may be performed by General Contractor for developer or by others.

11. Notify DOGGR at (714) 816-6847 and at dogdist!@conservation.ca.gov as a courtesy 72 hours prior to final corehole shortening so that an agency inspector may schedule to witness on-site operations.

12. Petroleum engineer shall conduct preliminary "sniff test" using hand-held instrumentation to record fugitive gas emissions that may be present in the pit.

13. If the "sniff test" is benign then AllenCo shall cut-off or "shorten" the piping to a point that is at least 5.0' below the final plan grade and not greater than 10' below the final plan grade. Tools employed shall be non-sparking for fire safety and explosivity considerations. *Note:* cut-off elevation must be determined from the working plans and specified by the site development team.

14. Petroleum engineer shall inspect the "shortened" piping and perform final "sniff test" to document the status of fugitive gas emissions.

15. Petroleum engineer shall measure the length of the removed piping segment(s).

16. AllenCo shall tack weld the corehole identification plate atop the piping. If the old ID plate is deficient in any way then a new ID plate shall be fabricated and tack welded onto the piping. The corehole was plugged by Standard Oil (Chevron) on 03/15/1967.

17. Registered Land Surveyor shall record coordinates of corehole as part of Final Capped Well Survey and said data shall be incorporated into the plans for the subject development.

18. AllenCo may be discharged if no additional abandonment actions are deemed necessary by DOGGR and by petroleum engineer.

19. Corehole pit may be backfilled and compacted.

Complications or deviations from the mini-spec due to site-specific conditions or special requests from oversight agencies may result in delays or change orders. Likewise, the subject mini-spec may be modified prior to the field events if DOGGR recommends additional procedures.

Prepared by Larry Barnes on behalf of Terra-Petra and 3279 Bernard L.P. on November 5, 2015.

DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS & GEOTHERMAL RESOURCES
5816 Corporate Ave., Suite 100 Cypress, CA 90630-4731
Phone:(714) 816-6847 Fax:(714) 816-6853

Cypress, California
November 03, 2015

Mr. Robert Rosenblum
3279 Bernard L.P., A California Limited Partnership (A0010)
1875 Century Park East, Suite 2000
Los Angeles, CA 90067

This Division has received your Notice of Intention to **Re-Abandon** dated **7/30/2015,** for **"Highland Corehole" 2**, API. **037-20045**, **--** field, Sec. **22**, T. **01S**, R. **14W**, **SB** B&M, **Los Angeles** County.

THIS NOTICE IS BEING HELD IN ABEYANCE PENDING RECEIPT AND REVIEW OF ADDITIONAL DOCUMENTS THAT DEMONSTRATE THE POTENTIAL FRESHWATER SANDS WILL BE PROTECTED.

If you have any questions, please call Randall Morlan at (714) 816 - 6805.

EXPIRED _____
CANCELLED _____
MAILED 11.4.15 TL
EMAILED 11.4.15 TL

Steven Bohlen
State Oil and Gas Supervisor

By _____
For Daniel J. Dudak, *District Deputy*

RM:rm

cc: EDP

OG113

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS AND GEOTHERMAL RESOURCES

REPORT OF PROPERTY AND WELL TRANSFER

Field or county Los Angeles County		District 1 (Cypress, California)
Former owner Chevron U.S.A. Inc.	Opcode: C5640	Date: 9/17/2015

Name and location of well(s)

"Highland Corehole" 1 037-01151 Sec. 22-1S-14W
"Highland Corehole" 2 037-20045 Sec. 22-1S-14W

Description of the land upon which the well(s) is (are) located Parcel 1 lots 101 and 102 of tract no 5690 in the city and county of LA as per map recorded book 60. Page 76 of maps; parcel 2; lot 226, 227 and 228 of tract no 4642 in the City and County of LA, as per map recorded in book 50. Pages 42 & 43 of maps.

Date of transfer, sale, assignment, conveyance, or exchange	New Owner	Operator code	Type of Organization
8/18/2015	3279 BERNARD L.P., a California Limited Partnership	A0010	LP
	Address: 2566 Overland Avenue, Suite 700, Los Angeles, CA 90064		Telephone No.: (310) 842-4600

Reported by
OG30A signed by both operators.

Confirmed by
OG30A signed by both operators.

New operator new status (status abbreviation)	Request Designation of Agent
NPI	Robert Rosenblum
Old operator new status (status abbreviation)	Remarks
PA	See Operator File

Deputy Supervisor	Signature
Daniel J. Dudak	

OPERATOR STATUS ABBREVIATIONS

PA - Producing Active
NPA - No Potential Active
PI - Potential Inactive
NPI - No Potential Inactive
Ab - Abandoned or No More Wells

FORM AND RECORD CHECK LIST

Form or record	Initials	Date	Form or record	Initials	Date
Operator File	VM	10-20-15	Transfer List	VM	10-20-15
Well records	VM	10-20-15	Lease Files	VM	10-20-15
Calwims	VM	10-20-15	Well Stat N/A	VM	10-20-15

OGD156 (Modified 1/00)

DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS & GEOTHERMAL RESOURCES
5816 Corporate Ave., Suite 100 Cypress, CA 90630-4731
Phone:(714) 816-6847 Fax:(714) 816-6853

Cypress, California
August 04, 2015

Mr. David Lopez
Chevron U.S.A. Inc. (C5640)
P.O. Box 1392
Bakersfield, CA 93302

This Division has received your Notice of Intention to **Re-abandon** dated **7/30/2015,** for **"Highland Corehole" 2**, API. **037-20045**, **Los Angeles County** field, Sec. **22**, T. **01S**, R. **14W**, **SB** B&M, **Los Angeles** County.

THIS NOTICE IS BEING HELD IN ABEYANCE PENDING RECEIPT OF AND/OR APPROVAL OF TRANSFER.

If you have any questions, please call Barry Irick at (714) 816 - 6804.

EXPIRED _____
CANCELLED _____
MAILED _____
EMAILED 8/4/15

Steven Bohlen
State Oil and Gas Supervisor

By _____
Daniel J. Dudak, *District Deputy*

BI:tl

cc: EDP
Robert Korda
Larry Barnes

OG113

DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS & GEOTHERMAL RESOURCES
5816 Corporate Ave., Suite 100 Cypress, CA 90630-4731
Phone:(714) 816-6847 Fax:(714) 816-6853

Cypress, California
July 24, 2015

Mr. Robert Korda
32979 Bernard LP
2566 Overland Ave. Ste. 700
Los Angeles, CA 90064

This Division has received your Notice of Intention to **Abandon** dated **7/23/2015,** for **"Highland Corehole" 2**, API. **037-20045**, -- field, Sec. **22**, T. **01S**, R. **14W**, **SB** B&M, **Los Angeles** County.

THIS NOTICE IS BEING HELD IN ABEYANCE PENDING RECEIPT OF AND/OR APPROVAL OF TRANSFER.

If you have any questions, please call Barry Irick at (714) 816 - 6804.

EXPIRED _____
CANCELLED _____
MAILED _____
EMAILED 7.28.15 gh

Steven Bohlen
State Oil and Gas Supervisor

By _____
For: Daniel J. Dudak, *District Deputy*

BI:tw2

cc: EDP
David Lopez
Chevron USA Inc.
P.O. Box 1392
Bakersfield, CA 93302

OG113

NATURAL RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

FOR DIVISION USE ONLY			
	Forms		
Bond	OGD114	OGD121	

NOTICE OF INTENTION TO ABANDON / RE-ABANDON WELL

Detailed instructions can be found at: www.conservation.ca.gov/dog

In compliance with Section 3229, Division 3, Public Resources Code, notice is hereby given that it is our intention to abandon ☐ / re-abandon ■ well Chevron USA, Inc. "Highland Corehole" 2 , API No. 037-20045 ,
(Check one)
Sec. 22 , T. 1-S , R. 14-W , SB B.&M., Salt Lake (640) Field, Los Angeles County.

The complete casing record of the well (present hole), including plugs and perforations, is as follows: (Attach wellbore schematics diagram also.)

SEE ATTACHED CORE HOLE SCHEMATIC.

The total depth is: 6,000 MD feet. The effective depth is: 5,824 TVD feet.

Present completion zone(s): N/A; Stratigraphic Corehole (Name) . Present zone pressure: N/A psi.

Oil or gas shows: N/A (Name and depth) feet. Depth to base of fresh water: N/A feet.

Top of uppermost hydrocarbon zone (which may be behind unperforated casing): N/A (Depth of interval) feet.

Is this a critical well as defined in the California Code of Regulations, Title 14, Section 1720(a) (see next page)? Yes■ No☐

The proposed work is as follows: (A complete program is preferred and may be attached.)

SEE ATTACHED CORE HOLE ABANDONMENT PROGRAM.

The Division must be notified immediately of changes to the proposed operations. Failure to provide a true and accurate representation of the well and proposed operations may cause rescission of the permit.

Name of Operator			
3279 Bernard L.P., a California Limited Partnership			
Address		City/State	Zip Code
2566 Overland Avenue, Suite 700		Los Angeles, CA	90064
Name of Person Filing Notice	Telephone Number:	Signature	Date
Robert Korda, Manager	(310) 842-4600		July 22, 2015
Individual to contact for technical questions:	Telephone Number:	E-Mail Address:	
Larry Barnes, Petroleum Operations Geologist	(949) 650-5824	envirogenesis@gmail.com	

This notice must be filed, and approval given, before plugging and abandonment operations begin. If operations have not commenced within one year of the Division's receipt of the notice, this notice will be considered cancelled.

DOGGR
JUL 23 2015

OG108 (1/09)

CRITICAL WELL DEFINITION

As defined in the California Code of Regulations, Title 14, Section 1720 (a), "Critical well" means a well within:

(1) 300 feet of the following:
  (A) Any building intended for human occupancy that is not necessary to the operation of the well; or
  (B) Any airport runway.
(2) 100 feet of the following:
  (A) Any dedicated public street, highway or the nearest rail of an operating railway that is in general use;
  (B) Any navigable body of water or watercourse perennially covered by water;
  (C) Any public recreational facility such as a golf course, amusement park, picnic ground, campground or any other area of periodic high-density population; or
  (D) Any officially recognized wildlife preserve.

This form may be printed from the DOGGR website at www.conservation.ca.gov/dog/

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

REPORT OF PROPERTY AND WELL TRANSFER

Field or County	District
Imperial Co., Wilmington, L.A. Co., W. Coyote, Montebello, Beverly Hills, Seal Beach, El Segundo, Inglewood, Rosecrans, Venice Beach, Las Cienegas, S. Salt Lake, Dominguez, Hyperion, Lawndale, Leffingwell, Long Beach, Los Angeles Downtown, Potrero, Salt Lake, Santa Fe Springs, Cheviot Hills, Sherman, Torrance, Whittier, Howard Townsite, Huntington Beach, Yorba Linda, Orange Co., Richfield, Kraemer, W. Newport, Sunset Beach, Belmont Offshore	District 1 (Cypress, California)
Former owner: ChevronTexaco Exploration & Production Co. — C5680	Date: 9/23/2005

Well Name	API Number	Section Township Range
See Attached List For Complete List of Wells See Operator Folder (C5640) Chevron U.S.A. Inc. Dist. 1, Cypress, CA	See Attached List For Complete List of Wells See Operator Folder (C5640) Chevron U.S.A. Inc. Dist. 1, Cypress, CA	See Attached List For Complete List of Wells See Operator Folder (C5640) Chevron U.S.A. Inc. Dist. 1, Cypress, CA

Description of the land upon which the well (s) is (are) located.
Various

Date of transfer	New owner		Type of organization
7/11/2005		Chevron U.S.A. Inc. **C5640**	Corp.
	Address:	9525 Camino Media Bakersfield, CA 93311	Telephone: 661/654-7065

Reported by	OG30A received in Sacramento 9/2005
Confirmed by	Same as above
New operator new status: **PA**	Designation of Agent: Greg Leyendecker, Agent
Old operator new status: **AB**	Remarks: For further information see Operator file (C5640) Chevron U.S.A. Inc.

OPERATOR STATUS ABBREVIATIONS
PA – Producing Active
NPA- No potential, Active
PI- Potential Inactive
NPI-No potential, Inactive
AB-Abandoned or No More Wells

cc: Update; Envir Desk (2); File
Conservation Committee
Harold W. Bertholf, Inc.
L.A. & Orange County Assessors
WellStats – Cypress Dist. 1
WellStats – Sacrament HQS

Deputy Supervisor: R. K. Baker

Signature: Richard K. Baker, District Deputy

FORM AND RECORD CHECK LIST

Form or Record	Initials	Date	Form or Record	Initials	Date
Form OGD121	———	———	Map and Book		
Operator Card	(RK)	9-23-05	Notice cancellations	———	———
Well Records	(RK)	9/26/05 —	Bond Status BB	(RK)	9-23-05
Log Records	(RK)	9/26/05 —	EDP HQS	J.C	7-11-05
Production Reports	———	———	Data Base Dist D1	(RK)	9-26-05

WELL TRANSFER NOTICE

Effective August 22, 2002

Chevron USA Inc.
Texaco California Inc.
And
Texaco Exploration and Production, Inc.

Transferred ALL THEIR WELLS
To

ChevronTexaco Exploration & Production Company

See OGD156 dated October 18, 2002 in Operator File for ChevronTexaco Exploration & Production Company (C5680) for details

See Ownership file, CHEVRON U.S.A. INC., for Form 156 dated 1-12-77 listing all wells (Imperial, Los Angeles, and Orange Counties) transferred effective 1-1-77 from Standard Oil Co. of Calif. (change of operating name).

FORM 159

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF WELL ABANDONMENT

Inglewood, California

April 14, 1967

Mr. L. W. Derry
P. O. Box 606
La Habra, California
~~Agent~~ for STANDARD OIL COMPANY OF CALIFORNIA

DEAR SIR:

Your report of abandonment of Well No. (037-20045) "Highland Corehole" 2, Sec. 22, T. 1 S., R. 14 W., S. B. B. & M., - - - field, Los Angeles County, dated March 15, 1967, received April 13, 1967, has been examined in conjunction with records filed in this office.

A review of the reports and records shows that the requirements of this Division, which are based on all information filed with it, have been fulfilled.

RC:es

cc - Mr. E. R. Murray-Aaron
Mr. L. W. Derry

BLANKET BOND.

E. R. MURRAY-AARON
State Oil and Gas Supervisor

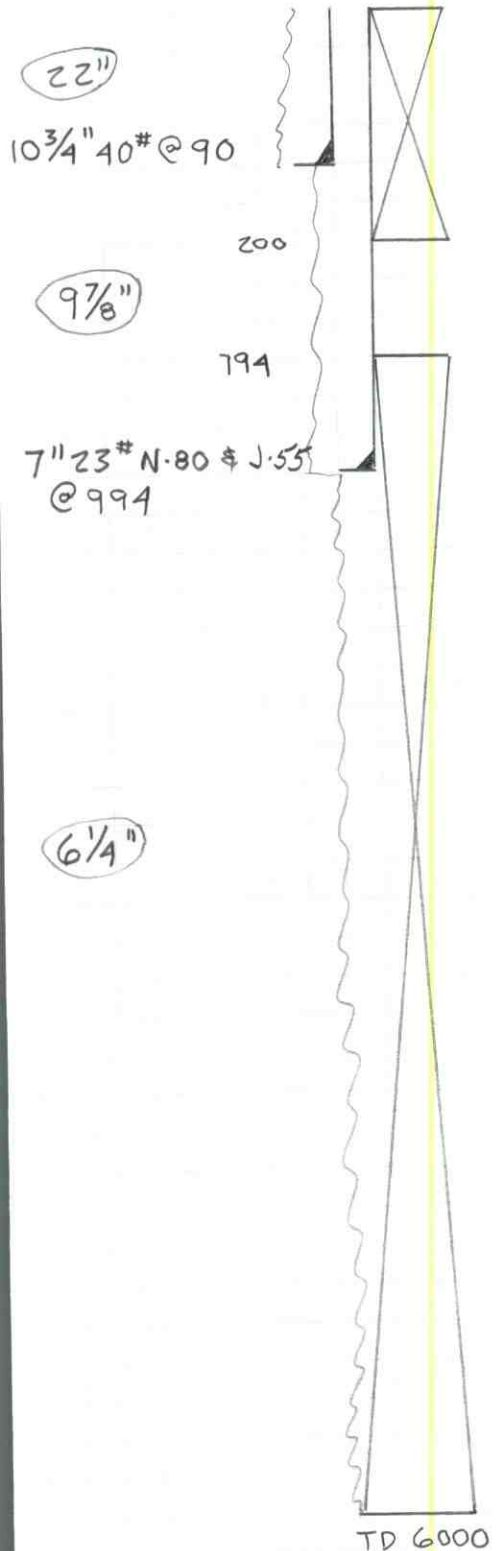
By _____
Deputy Supervisor

27538-705 7-64 10M OSP

HIGHLAND COREHOLE 2
03720045
CHEVRON

ELEV 195
ALL MEA KB
11 ↑ GR

SPUD 2-15-67
ABD 3-16-67



PLUG 200 - SURFACE 45 SX 3-15-67

PLUG 6000 - 794 970 SX 3-14-67

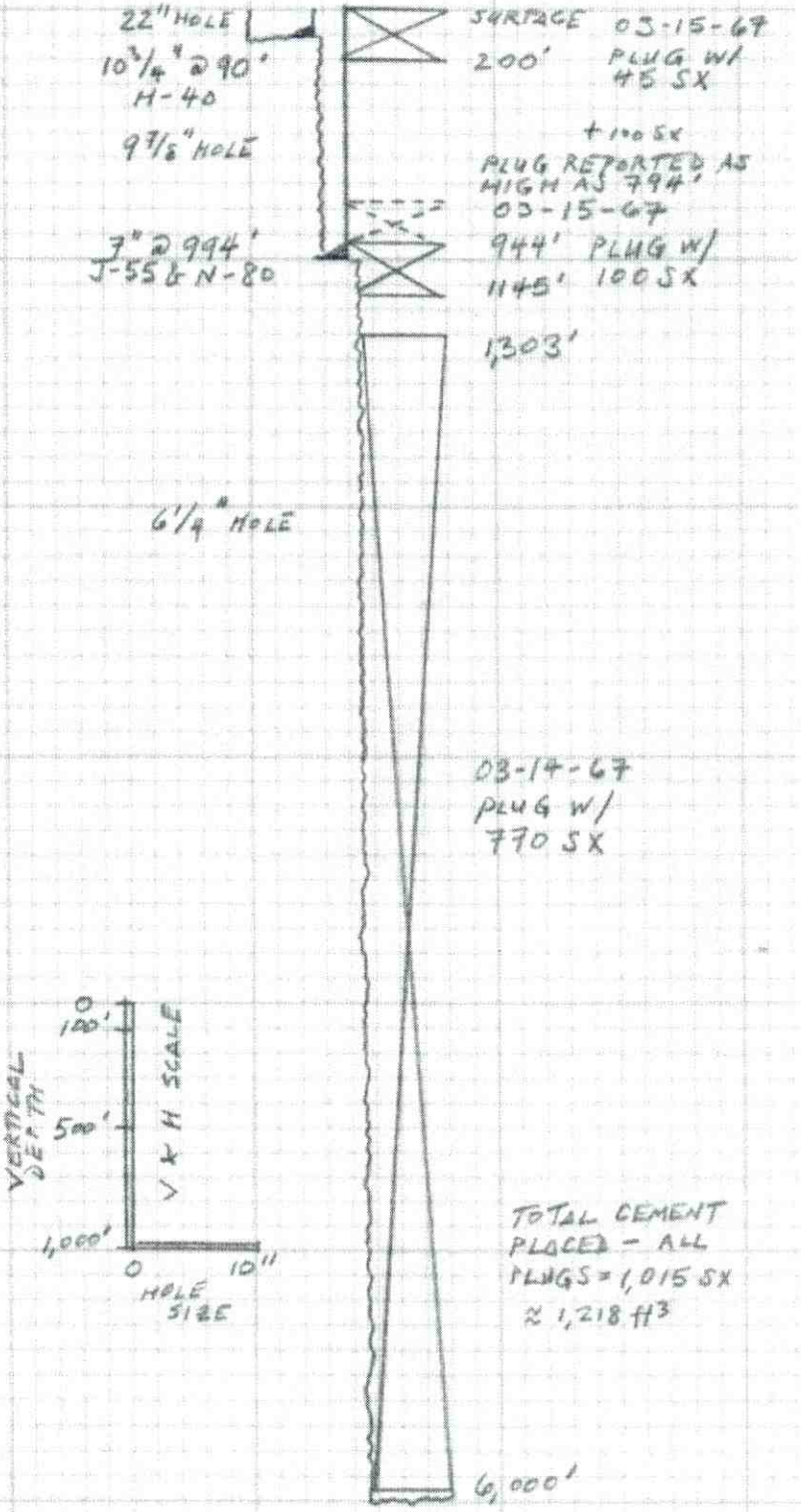
320 SX RTS 2-16-67

3-13-67

DIRECTIONALLY DRILLED

RRC
10-13-98

CHEVRON USA, INC.
"HIGHLAND CORE HOLE" No 2
API No 037-20045
STRATIGRAPHIC - GEOLOGIC
CORE HOLE; NO PERFS. &
NO O&G PRODUCTION



TOTAL CEMENT PLACED - ALL PLUGS = 1,015 SX ≈ 1,218 ft³

TOTAL DEPTH = 6,000' MD
5,824' TVD
@ 16° DECLINATION
SOUTH 801.03'
WEST 978.11'

Corehole Abandonment Program

Operator:	Chevron USA, Inc.
Fee Name:	"Highland Corehole"
Well #:	2
API No.:	037-20045
Location:	From intersection of C/Ls of Wilshire Blvd and S Orange Dr go 22' E'ly & 116.5' S'ly at R/As
History:	Drilled 02/15/67 and Abandoned 03/16/67
Field:	Salt Lake (640)

1. Excavate 10' L x 10' W x 5.0' D pit at a minimum to expose piping from plugged and abandoned corehole. *Note:* 10¾" conductor casing set at 90' and run to surface and 7.0" casing set at 994' and run to surface.

2. Cut 2:1 slope on one side of corehole pit to allow safe access to a reasonably flat pit floor and to piping. *Note:* excavation work may be performed by General Contractor for developer or by others.

3. Notify DOGGR at (714) 816-6847 and at dogdist!@conservation.ca.gov as a courtesy 72 hours prior to corehole shortening so that an agency inspector may schedule to witness on-site operations.

4. AllenCo Well Service & Abandonment (AllenCo) may install 8.0' OD round steel collar ring or a 10' square steel shoring box to guarantee pit safety if warranted due to potential caving, unstable soil conditions or other site-specific conditions.

5. Petroleum engineer shall inspect soil comprising pit, physical character of piping and presence of any discoloration, odors and remnant corehole drilling or abandonment detritus.

6. Petroleum engineer shall conduct preliminary "sniff test" using hand-held instrumentation to record fugitive gas emissions that may be present in the pit.

7. If the "sniff test" is benign then AllenCo shall cut-off or "shorten" the piping to a point that is at least 5.0' below the final plan grade and not greater than 10' below the final plan grade. Tools employed shall be non-sparking for fire safety and explosivity considerations. *Note:* cut-off elevation must be determined from the working plans and specified by the site development team.

8. Petroleum engineer shall inspect the "shortened" piping and perform final "sniff test" to document the status of fugitive gas emissions.

9. Petroleum engineer shall measure the length of the removed piping segment.

10. AllenCo shall tack weld the corehole identification plate atop the piping. If the old ID plate is deficient in any way then a new ID plate shall be fabricated and tack welded onto the piping. The corehole was plugged by Standard Oil (Chevron) on 03/15/1967.

11. Registered Land Surveyor shall record coordinates of corehole as part of Final Capped Well Survey and said data shall be incorporated into the plans for the subject development.

12. AllenCo may be discharged if no additional abandonment actions are deemed necessary by DOGGR and by petroleum engineer.

13. Corehole pit may be backfilled and compacted.

Complications or deviations from the mini-spec due to site-specific conditions or special requests from oversight agencies may result in delays or change orders. Likewise, the subject mini-spec may be modified prior to the field events if DOGGR recommends additional procedures.

Prepared by Larry Barnes on behalf of Terra-Petra and 3279 Bernard L.P. on July 20, 2015.

WORK PERFORMED:

Drill ✓ Redrill ____ Deepen ____

Plug ____ Alter casing ____

Water flood ____ Water disposal ____

Abandon ✓

Other ____

STATUS: (Date)

Producing ____

Recomp. prod. ____

Water flood ____

Water disposal ____

Abandoned ✓

Other ____

MAP AND BOOK ~~4~~ 01-3 4-14-67 Yrsn
167-6000'

RECORDS FILED & DATE: Clerk Scott

✓ Summary (dup.) 4/13/67

✓ Log & Core (dup.) 4/13/67

✓ History (dup.) 4/13/67

Induction E-log 994-5998 (x) 4/13/67

Radio log 1 reg, 1 small

✓ D. Survey 1000-6000 4/13/67

Other ____

(Check records for signature and correct name of operator or well, S.T.R. and field.)

Location ____ Notice states ✓

Agrees with location shown under "Legal description of mineral (right lease"

Elevation Ok Notice states ____

Production Reports ____

(If production reports not received, make notation and inform Sr. Steno. when rec'd.)

If stimulation or disposal well:
Form 121 ____ Folder ____

Form 19-A

RECORDS & REQUIREMENTS CHECKED: Eng. RE

✓

✓

✓

✓

✓

Surface inspection ____

Data needed None

Request records ____

Correct records ____
(Specify)

CARDS ____

BOND: Blanket

Hold ____ Reason ____

Release ____ Date elig. ____

End premium year ____
Release requested ____ (Check one)
Bond superseded ____
Well abandoned ____

FINAL LETTER Yes
and
FILE CLEARED Yes

Clerk:

F 170 ____

F 165 ____

165A ____

F 150b

F 159 Lett

F 121 M.J.

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

WELL SUMMARY REPORT

SUBMIT IN DUPLICATE

DIVISION OF OIL AND GAS
RECEIVED
APR 13 1967

Chevron

Operator Standard Oil Company of California, WOI Well No. "Highland C.H. #2" (Corehole) WILSHIRE, CALIFORNIA

Sec. 27 SW, T. 1S, R. 14W, S.B. B. & M. Salt Lake Field Los Angeles County.

Location From the intersecting centerlines of Orange Dr. and Wilshire Blvd., 22' East along the centerline of Wilshire, thence 116.5' South at right angles. (Give location from property or section corner, or street center lines)

Elevation of ground above sea level 195 feet.

All depth measurements taken from top of Kelly Bushing which is 11 feet above ground.
(Derrick Floor, Rotary Table or Kelly Bushing)

In compliance with Sec. 3215, of the Public Resources Code, the information given herewith is a complete and correct record of the present condition of the well and all work done thereon, so far as can be determined from all available records.

Date March 15, 1967

Signed R R Knapp
R. R. Knapp

L. A. Headlee (Engineer or Geologist)

M. W. Wolf (Superintendent)

Title Division Development Geologist (President, Secretary or Agent)

Commenced drilling

Completed drilling March 15, 1967

Total depth 6000' Plugged depth Plugged solid

Junk None

GEOLOGICAL MARKERS	DEPTH
None	

Geologic age at total depth: Miocene

Commenced producing -- (Date) Flowing/gas lift/pumping (Cross out unnecessary words)

Name of producing zone None

	Clean Oil bbl. per day	Gravity Clean Oil	Per Cent Water including emulsion	Gas Mcf. per day	Tubing Pressure	Casing Pressure
Initial production						
Production after 30 days						

Casing Record (Present Hole)

Size of Casing (A. P. I.)	Depth of Shoe	Top of Casing	Weight of Casing	New or Second Hand	Seamless or Lapweld	Grade of Casing	Size of Hole Drilled	Number of Sacks of Cement	Depth of Cementing if through perforations
10-3/4"	90 KB	0	40#	New	Seamless	N.A.	22"	220	--
7"	994 KB	0	23#	S.H.	Seamless	J-55 & N-80	9-7/8"	320	--

Perforated Casing

(Size, top, bottom, perforated intervals, size and spacing of perforation and method.)

None

Was the well directionally drilled? Yes Electrical Log Depths 994'-6000' (Attach Copy of Log)

△ OSP

FORM 103

SUBMIT IN DUPLICATE

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

History of Oil or Gas Well

OPERATOR Standard Oil Company of Calif., WOI FIELD Salt Lake (Los Angeles County)

Well No. Highland C.H. #2, Sec. 27, T. 1S, R. 14W, S.B. B. & M.

Date March 15, 1967 Signed R. R. Knapp

R. R. Knapp

P. O. Box 606, La Habra, Calif. (Address) 691-2251 (Telephone Number) Title Division Development Geologist (President, Secretary or Agent)

It is of the greatest importance to have a complete history of the well. Use this form to report a full account of all important operations during the drilling and testing of the well or during re-drilling, altering of casing, plugging, or abandonment with the dates thereof. Be sure to include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests, shooting and initial production data.

Date	
2-15-67	Drilled 95'-726' with 9-7/8" bit.
2-16-67	Drilled 726'-994' with 9-7/8" bit. Ran 997' of 7", 23#, J-55 and N-80 secondhand surface casing. Casing shoe landed at 994'. Cemented casing with 320 sacks Riverside Class "G". Last 150 sacks treated with 2% $CaCl_2$. Good circulation and cement returns.
2-17-67	Installed Class III BOPE on 7" surface casing. Drilled 994'-1100' with $6\frac{1}{4}$" bit.
2-18-67	Drilled 1100'-1459' with $6\frac{1}{4}$" bit. Directed.
2-19-67	Sunday - no drilling.
2-20-67	Drilled 1459'-1963' with $6\frac{1}{4}$" bit. Directed.
2-21-67	Drilled 1963'-2474' with $6\frac{1}{4}$" bit. Directed.
2-22-67	Holiday - no drilling.
2-23-67	Drilled 2474'-2921' with $6\frac{1}{4}$" bit. Directed.
2-24-67	Ran Johnston tight hole subtest on interval 2901'-2921'. Drilled 2921'-3120' with $6\frac{1}{4}$" bit. Directed.
2-25-67	Drilled 3120'-3525' with $6\frac{1}{4}$" bit. Directed.
2-26-67	Sunday - no drilling.
2-27-67	Drilled 3525'-3937' with $6\frac{1}{4}$" bit. Directed.
2-28-67	Drilled 3937'-4200' with $6\frac{1}{4}$" bit. Directed.
3- 1-67	Drilled 4200'-4454' with $6\frac{1}{4}$" bit. Directed.

Standard Oil Company of California
Highland C.H. #2
Section 27, T1S, R14W

3- 2-67 Drilled 4454'-4707' with 6¼" bit. Directed.

3- 3-67 Ran Schlumberger IES and CDM from 994'-4707'.

3- 4-67 Drilled 4707'-4823' with 6¼" bit. Directed.

3- 5-67 Sunday - no drilling.

3- 6-67 Drilled 4823'-5000' with 6¼" bit. Directed.

3- 7-67 Drilled 5000'-5290' with 6¼" bit. Directed.

3- 8-67 Cored 5290'-5308' with 6¼" bit, recovered 18'.

3- 9-67 Drilled 5308'-5496' with 6¼" bit. Directed.

3-10-67 Drilled 5496'-5800' with 6¼" bit. Directed.

3-11-67 Cored 5800'-5818' with 6¼" bit, recovered 18'.

3-12-67 Sunday - no drilling.

3-13-67 Drilled 5818'-6000' with 6¼" bit. Directed.

3-14-67 Ran Schlumberger IES and CDM from 4707'-6000'. Began cementing hole from T.D. 6000' to 794' in 400' stages with Class "G" cement.

3-15-67 Completed cementing from 6000'-794', with total 970 sacks, witnessed and approved by D.O.G., surface plug inside 7" casing from 200' to surface took 45 sacks Class "G". Total cement 1015 sacks.

3-16-67 Cut off 7" surface casing and 10-3/4" conductor flush with cellar floor and welded ½" steel plates inside each. Surface plug and steel plates witnessed and approved by Los Angeles Fire Department. Rig released 11:00 a.m. 3-16-67.

March 17, 1967
La Habra, California

FORM 101
CALIFORNIA STATE PRINTING OFFICE

SUBMIT IN DUPLICATE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

LOG AND CORE RECORD OF OIL OR GAS WELL

Operator Standard Oil Company of California, WOI Field Salt Lake) Los Angeles County

Well No. Highland C.H. #2 Sec. 27, T. 1S, R. 14W, S.B. B. & M.

FORMATIONS PENETRATED BY WELL

DEPTH TO Top of Formation	DEPTH TO Bottom of Formation	Thickness	Drilled or Cored	Recovery	DESCRIPTION
95'	5290'	5195'	Drilled	--	--
5290'	5308'	18'	Cored	18'	Sand and sandstone with minor amount laminated siltstone.
5308'	5800'	492'	Drilled	--	--
5800'	5818'	18'	Cored	18'	Sandstone with minor amount laminated siltstone and shale.

FORM 109-D

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

Special Report on Operations Witnessed

No. T 167-311

Mr. L. W. Derry
P. O. Box 606
La Habra, California

Inglewood, Calif.
April 6, 1967

~~Agent~~ for STANDARD OIL COMPANY OF CALIFORNIA

DEAR SIR:

(037-20045)

Operations at well No. "Highland Corehole" 2, Sec. 22, T. 1 S, R. 14 W, S.B.B & M. ~~----------~~ Field, in Los Angeles County, were witnessed on March 15, 1967. Mr. R. Rothermel, Engineer, representative of the supervisor was present from 4:30 p.m. to 5:00 p.m. There were also present K. Brunot & E. Cothran, Drilling Foremen

Present condition of well: 10-3/4" cem. 90'; 7" cem. 994'. TD 6000', plugged w/cem. 5990'-1303', 1145'-944'.

The operations were performed for the purpose of testing the location and hardness of a cement plug placed from 1145' to 944' in the process of abandonment.

Mr. Cothran reported:

1. A 6-1/4" hole was drilled from 994' to 6000'.
2. On March 14, 1967, 770 sacks of cement was pumped into the hole in stages through 3-1/2" drill pipe hanging initially at 5990', filling to 1303'.
3. On March 15, 1967, 100 sacks of cement was pumped into the hole through 3-1/2" drill pipe hanging at 1145'.

THE ENGINEER NOTED THAT the cement plug at the reported depth of 944' supported all of the weight of the drill pipe.

THE LOCATION AND HARDNESS OF THE CEMENT PLUG AT 944' ARE APPROVED.

RR:nw

cc Division Engineer
Prod. Dept.

E. R. MURRAY-AARON
State Oil and Gas Supervisor

By _____ Deputy

57152-705 10-65 15M ② OSP

FORM 111

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

REPORT ON PROPOSED OPERATIONS No. P 167-315

Mr. L. W. Derry
P. O. Box 606
La Habra, California

Inglewood, Calif.
March 17, 1967

~~Agent~~ for STANDARD OIL COMPANY OF CALIFORNIA

(037-20045)

DEAR SIR:

Your proposal to abandon Well No. "Highland Corehole" 2
Section 22, T. 1 S, R. 14 W, S.B.B. & M., Salt Lake Field, Los Angeles County,
dated Mar. 15, 1967, received Mar. 16, 1967, has been examined in conjunction with records filed in this office.
Present conditions as shown by the records and the proposal are as follows:

RECORDS IN ADDITION TO, OR AT VARIANCE WITH, THOSE SHOWN IN THE NOTICE.
10-3/4" cem. 90'; 7" cem. 994'.

THE NOTICE STATES
"THE PRESENT CONDITION OF THE WELL IS:
1. Total Depth: 6000'
2. Complete casing record, including plugs:
   10-3/4" at 100'±
   7" at 1000'±
3. East Produced Stratigraphic Corehole

ADDITIONAL DATA FOR DRY HOLE
4. Oil or Gas showings and results of tests: -
5. Stratigraphic markers and depths: -
6. Formation at bottom: Miocene
7. Base of fresh water sands: 2200'±"

PROPOSAL
"THE PROPOSED WORK IS
1. Plug from T.D. to 794', which is 200' inside casing shoe.
   To be witnessed by D.O.G.
2. Plug from 200' to surface. To be witnessed by Los Angeles City Fire Department.
3. Weld ½" steel plates inside 7" surface casing and 10-3/4" conductor pipe."

DECISION
THE PROPOSAL IS APPROVED PROVIDED THAT THIS DIVISION SHALL BE NOTIFIED:
1. To witness the location and hardness of the cement plug at 794'±.
2. To inspect the completed surface plug.

RC:nw

cc L. W. Derry

Blanket Bond

Surf Insp - R. Rothermel 3/21/67
Surf graded over, no evidence, oil, gas or water seepage.

E. R. MURRAY-AARON, State Oil and Gas Supervisor

By _____ Deputy

1T OSP

FORM 108. 64284-705 2-66 10M ⓢ OSP

STATE OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
RECEIVED
MAR 16 1967
INGLEWOOD, CALIFORNIA

Notice of Intention to Abandon Well

This notice must be given at least five days before work is to begin; one copy only.

La Habra Calif. March 15 19 67

DIVISION OF OIL AND GAS

In compliance with Division 3, Public Resources Code, notice is hereby given that it is our intention to abandon

Well No. "Highland Corehole" #2 (037-20045), Sec. 22, T. 1S,

R. 14W, S.B. B. & M., Salt Lake Field, Los Angeles County,

commencing work on March 14 19 67.

THE PRESENT CONDITION OF THE WELL IS:

1. Total Depth: 6000'

2. Complete casing record, including plugs:

10-3/4" at 100'±
7" at 1000'±

3. Last Produced Stratigraphic Corehole
(Date) (Oil, B/D) (Gas, Mcf/D) (Water, B/D)

ADDITIONAL DATA FOR DRY HOLE

4. Oil or Gas showings and results of tests:

-

5. Stratigraphic markers and depths:

-

6. Formation at bottom: Miocene
7. Base of fresh water sands: 2200'±

THE PROPOSED WORK IS

1. Plug from T.D. to 794', which is 200' inside casing shoe. To be witnessed by D.O.G.
2. Plug from 200' to surface. To be witnessed by Los Angeles City Fire Department.
3. Weld ½" steel plates inside 7" surface casing and 10-3/4" conductor pipe.

abandon

MAP	MAP BOOK	CARDS	BOND	FORMS 114	FORMS 121
		m	Blanket	m	m

P.O. Box 606, La Habra, California
(Address)

691-2251
(Telephone No.)

Standard Oil Company of California, WOI
(Name of Operator)

By L. W. Derry

ADDRESS ONE COPY OF NOTICE TO DIVISION OF OIL AND GAS IN DISTRICT WHERE WELL IS LOCATED

FORM 109-D

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

Special Report on Operations Witnessed

No. T 167-191

Mr. L. W. Derry
P. O. Box 606
La Habra, California

Inglewood, Calif.
March 2, 1967

~~Agent~~ for STANDARD OIL COMPANY OF CALIFORNIA

DEAR SIR:

Operations at well No. (037-20045) "Highland Corehole" 2, Sec. 22, T. 1 S, R. 14 W, S.B. B & M. Salt Lake Field, in Los Angeles County, were witnessed on February 24, 1967. Mr. R. Rothermel, Engineer, representative of the supervisor was present from 1:30 p.m. to 2:30 p.m. There were also present K. Price, Drilling Foreman

Present condition of well: 10-3/4" cem. 90'; 7" cem. 994'. TD 3000' drilling

The operations were performed for the purpose of inspecting the blowout prevention equipment and installation.

Mr. ---------- reported:

THE BLOWOUT PREVENTION EQUIPMENT AND INSTALLATION ARE APPROVED.

RR:nw

cc L. W. Derry

WS

E. R. MURRAY-AARON
State Oil and Gas Supervisor

By [signature] Deputy

57152-705 10-65 15M ② OSP

FORM 111

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

REPORT ON PROPOSED OPERATIONS No. P 167-173

Mr. L. W. Derry
P. O. Box 606
La Habra, California
~~X~~ for STANDARD OIL COMPANY OF CALIFORNIA

121

Inglewood, Calif.
February 16, 1967

(037-20045)

DEAR SIR:

Your proposal to drill Well No. "Highland Corehole" 2
Section 22, T. 1 S, R. 14 W, S.B. B. & M., Salt Lake Field, Los Angeles County,
dated Feb. 10,1967, received Feb. 15,1967, has been examined in conjunction with records filed in this office.
Present conditions as shown by the records and the proposal are as follows:

THE NOTICE STATES
"Legal description of mineral-right lease, consisting of one or more acres, is as follows: From the intersecting centerlines of Orange Drive and Wilshire Boulevard 22' Easterly along the centerline of Wilshire Boulevard, thence 116.5' Southerly at right angles.
Do mineral and surface leases coincide? Yes X No____
Location of Well: 715 feet Easterly along section line and 25' feet Northerly at right angles to said line from the Southwest corner of section 22 (Proj.)
All depth measurements taken from top of Kelly Bushing which is 11'± feet above ground. Elevation of ground above sea level 195' feet Topo datum."

PROPOSAL
"PROPOSED CASING PROGRAM

Size of Casing	Weight	Grade and Type	Top	Bottom	Cementing Depths
10-3/4"	40.5#	H-40	Surface	100±	Same
7"	23#	J-55	Surface	1000±	Same

Intended zone of completion: Stratigraphic Corehole Estimated total depth 6000'±
It is understood that if changes in this plan become necessary we are to notify you immediately."

DECISION
THE PROPOSAL IS APPROVED PROVIDED:

1. Fluid consistent with good drilling practice shall be used, and the column of fluid maintained at all times to the surface, particularly while pulling the drill pipe.
2. Adequate blowout prevention equipment shall be installed and maintained in operating condition at all times.
3. The hole shall be drilled in such a manner and plugged or cased, in the event of abandonment or suspension of drilling, as to prevent contamination or damage of any oil or gas bearing strata or any fresh water strata.
4. THIS DIVISION SHALL BE NOTIFIED TO INSPECT the installed blowout prevention equipment before drilling below 1500'.

NOTE: It is understood that this well is to be drilled for geological information only and is not to be completed as an oil or gas well.

RC:mw

cc L. W. Derry

Blanket Bond

E. R. MURRAY-AARON, State Oil and Gas Supervisor

By _____, Deputy

4/5

1T OSP

FORM 105

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

Notice of Intention to Drill New Well

This notice and surety bond must be filed before drilling begins

DIVISION OF OIL AND GAS
RECEIVED
FEB 15 1967
037-20045
INGLEWOOD, CALIFORNIA

(E)

Chevron U.S.A Inc.

La Habra, Calif. February 10, 1967

DIVISION OF OIL AND GAS "Highland Corehole" 2

In compliance with Section 3203, Division III, Article 4, Public Resources Code, notice is hereby given that it is our intention to commence drilling well No. "Highland Corehole" (#2) (037-20045), Sec. 22, T. 1S, R. 14W, S.B. B. & M., Salt Lake Field, Los Angeles County.

Legal description of mineral-right lease, consisting of one or more acres, is as follows: From the intersecting centerlines of Orange Drive and Wilshire Boulevard 22' Easterly along the centerline of Wilshire Boulevard, thence 116.5' Southerly at right angles. (Attach map or plat to scale)

Do mineral and surface leases coincide? Yes X No ____ If answer is no, attach legal description of both surface and mineral leases, and map or plat to scale.

Location of Well: 715 feet Easterly (Direction) along ~~property~~ section line and 25' feet Northerly (Direction)

at right angles to said line from the Southwest corner of ~~property~~ section 22 (Proj.)

Elevation of ground above sea level 195' feet Topo datum.

All depth measurements taken from top of Kelly Bushing (Derrick Floor, Rotary Table or Kelly Bushing) which is 11'± feet above ground.

PROPOSED CASING PROGRAM

SIZE OF CASING INCHES A.P.I.	WEIGHT	GRADE AND TYPE	TOP	BOTTOM	CEMENTING DEPTHS
10-3/4"	40.5#	H-40	Surface	100±	Same
7"	23#	J-55	Surface	1000±	Same

Intended zone(s) of completion: Stratigraphic Corehole (Name) Estimated total depth 6000'± (Depth, top and bottom)

MAP	MAP BOOK	CARDS	BOND	FORMS 114	FORMS 121
W1-3 SC 2-15-67	SC	W	Blanket	W	W

It is understood that if changes in this plan become necessary we are to notify you immediately.

Address Post Office Box 606
La Habra, California

Telephone Number 691-2251

Standard Oil Company of California, WOI (Name of Operator)

By L. W. Derry

Type of Organization Corporation (Corporation, Partnership, Individual, etc.)

27537-705 7-64 20M △ OSP

ATTACHMENT C

BORING AND PROBE CONSTRUCTION LOGS

PROBE CONSTRUCTION LOG

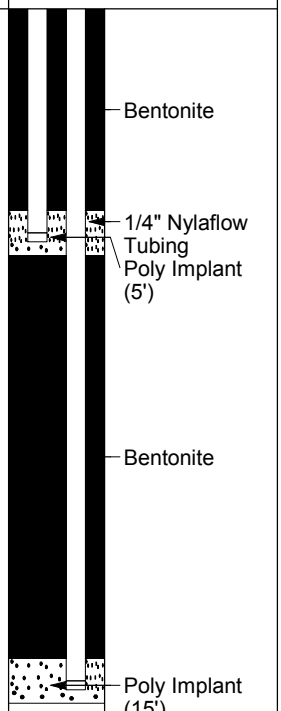
PROJECT NUMBER 603378.006
PROJECT NAME LAUSD Burroughs Middle School
LOCATION 600 South McCadden Place Los Angeles, CA
DRILLING METHOD Direct Push
SAMPLING METHOD Direct Push
GROUND ELEVATION ft.
TOP OF CASING ft.
LOGGED BY KCH
REMARKS

BORING/WELL NUMBER M-1
DATE DRILLED 12/28/2016
CASING TYPE/DIAMETER Nylaflow / 1/4-inch
SCREEN TYPE/SLOT Poly Implant
GRAVEL PACK TYPE #3 Sand
GROUT TYPE/QUANTITY Hydrated Bentonite
DEPTH TO WATER ft.
GROUND WATER ELEVATION ft.

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
								@Surface: Top soil	0.5
						ML		@1': SILT, dark brown, moist, firm, no odor or staining.	
									8.0
						CL		@8': Silty CLAY, brown, moist, stiff, slight odor, no staining.	
								@14': CLAY, dark brown, moist, stiff, odor, no staining.	
								@15': CLAY with Sand, mottled gray/dark brown, firm, odor, no staining, bituminous.	15.5
									20.0

Notes:
Total Depth of Boring: 15.5 feet
No groundwater encountered during drilling

WELL DIAGRAM



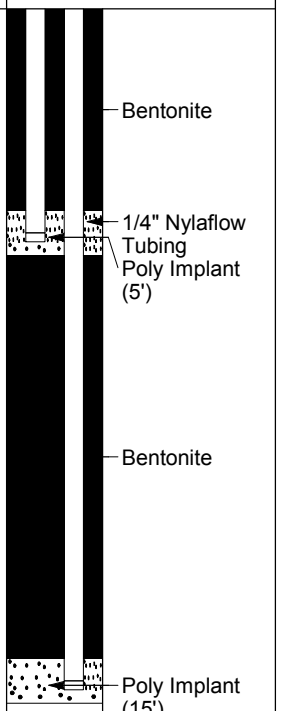
GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

PROBE CONSTRUCTION LOG

PROJECT NUMBER	603378.006	**BORING/WELL NUMBER**	M-2
PROJECT NAME	LAUSD Burroughs Middle School	**DATE DRILLED**	12/28/2016
LOCATION	600 South McCadden Place Los Angeles, CA	**CASING TYPE/DIAMETER**	Nylaflow / 1/4-inch
DRILLING METHOD	Direct Push	**SCREEN TYPE/SLOT**	Poly Implant
SAMPLING METHOD	Direct Push	**GRAVEL PACK TYPE**	#3 Sand
GROUND ELEVATION	ft.	**GROUT TYPE/QUANTITY**	Hydrated Bentonite
TOP OF CASING	ft.	**DEPTH TO WATER**	ft.
LOGGED BY	KCH	**GROUND WATER ELEVATION**	ft.
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
								@Surface: Top soil	0.5
						ML		@1': SILT, brown, moist, firm, some gravel, no odor or staining.	
5								@7': Sandy SILT, brown, moist, firm, low plasticity, some sand, no odor or staining.	8.0
						CL		@8': Sandy CLAY, orange brown, moist, soft, odor and no staining. @9': Black, strong odor, no staining, bituminous.	
10								@10': CLAY, black/gray-blue, moist, firm, odor, no staining, bituminous.	11.0
						SW		@11': SAND, black, soft, strong odor, no staining, bituminous.	12.0
						ML		@12': SAND with Clay.	
15								@15': Clayey SAND, mottled black/gray, firm, odor, no staining, bituminous.	15.5
20								**Notes:** Total Depth of Boring: 15.5 feet No groundwater encountered during drilling	20.0
25									
30									

WELL DIAGRAM



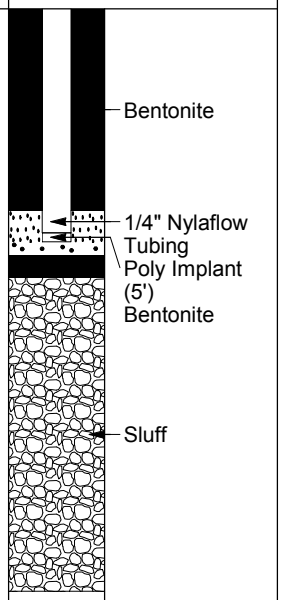
GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

PROBE CONSTRUCTION LOG

PROJECT NUMBER	603378.006	**BORING/WELL NUMBER**	M-3-Shallow
PROJECT NAME	LAUSD Burroughs Middle School	**DATE DRILLED**	12/23/2016
LOCATION	600 South McCadden Place Los Angeles, CA	**CASING TYPE/DIAMETER**	Nylaflow / 1/4-inch
DRILLING METHOD	Direct Push	**SCREEN TYPE/SLOT**	Poly Implant
SAMPLING METHOD	Direct Push	**GRAVEL PACK TYPE**	#3 Sand
GROUND ELEVATION	ft.	**GROUT TYPE/QUANTITY**	Hydrated Bentonite
TOP OF CASING	ft.	**DEPTH TO WATER**	ft.
LOGGED BY	RAL	**GROUND WATER ELEVATION**	ft.
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
							@Surface: 3" Asphalt	0.5
						SW	@0.5': Gravelly SAND, brown, medium dense, dry, fine to coarse grained sand (artificial fill).	
5							@5.5': Brick fragments in sampler.	6.0
		6	M-3-6.0			CL	@6': CLAY, dark gray, hard, slightly moist, some sand, slight odor and staining, brick fragments.	
10		6	M-3-10.0				@11.5': CLAY, asphalt fragments present.	12.0
		6	M-3-12.5			ML	@12': Sandy SILT, brown, hard, slightly moist, fine grained sand, no staining or odor.	13.0
							@13': Refusal at depth.	
15								
20								
25								
30								

WELL DIAGRAM



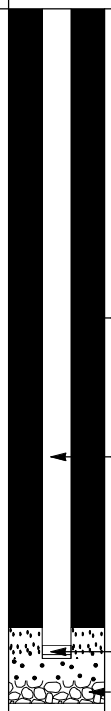
Notes:
Total Depth of Boring: 13 feet
No groundwater encountered during drilling

GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

PROBE CONSTRUCTION LOG

PROJECT NUMBER	603378.006	**BORING/WELL NUMBER**	M-3-Deep
PROJECT NAME	LAUSD Burroughs Middle School	**DATE DRILLED**	12/27/2016
LOCATION	600 South McCadden Place Los Angeles, CA	**CASING TYPE/DIAMETER**	Nylaflow / 1/4-inch
DRILLING METHOD	Direct Push	**SCREEN TYPE/SLOT**	Poly Implant
SAMPLING METHOD	Direct Push	**GRAVEL PACK TYPE**	#3 Sand
GROUND ELEVATION	ft.	**GROUT TYPE/QUANTITY**	Hydrated Bentonite
TOP OF CASING	ft.	**DEPTH TO WATER**	ft.
LOGGED BY	RAL	**GROUND WATER ELEVATION**	ft.
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
								@Surface: 3" Asphalt	0.5
						SW		@0.5': Gravelly SAND, brown, medium dense, dry, fine to coarse grained sand (artificial fill).	
5								@5.5': Brick fragements in sampler.	6.0
						CL		@6': CLAY, dark gray, hard, slightly moist, some sand, slight odor and staining, brick fragments in sampler.	
10								@11.5': CLAY, asphalt fragments present.	12.0
						ML		@12': Sandy SILT, brown, hard, slightly moist, fine grained sand, no staining or odor.	
15									15.5
20								**Notes:** Total Depth of Boring: 15.5 feet No groundwater encountered during drilling	
25									
30									



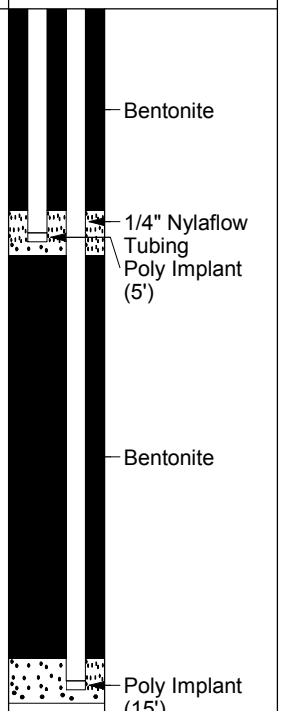
GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

PROBE CONSTRUCTION LOG

PROJECT NUMBER	603378.006	**BORING/WELL NUMBER**	M-4
PROJECT NAME	LAUSD Burroughs Middle School	**DATE DRILLED**	12/27/2016
LOCATION	600 South McCadden Place Los Angeles, CA	**CASING TYPE/DIAMETER**	Nylaflow / 1/4-inch
DRILLING METHOD	Direct Push	**SCREEN TYPE/SLOT**	Poly Implant
SAMPLING METHOD	Direct Push	**GRAVEL PACK TYPE**	#3 Sand
GROUND ELEVATION	ft.	**GROUT TYPE/QUANTITY**	Hydrated Bentonite
TOP OF CASING	ft.	**DEPTH TO WATER**	ft.
LOGGED BY	RAL	**GROUND WATER ELEVATION**	ft.
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
								@Surface: 3" Asphalt	0.5
						CL		@0.5': CLAY, dark olive brown, stiff, slightly moist, no odor or staining.	1.0
						SM		@1': Sandy SILT, brown, hard, slightly moist, fine grained sand, no staining or odor.	
									4.0
5						CL		@4': Silty CLAY, light olive brown, hard, moist, trace sand, no staining or odor.	
								@7': Some sand.	
10								@10': CLAY, brown, hard, moist, trace sand, no odor or staining.	
								@12': Some silt.	
15									15.5
20								**Notes:** Total Depth of Boring: 15.5 feet No groundwater encountered during drilling	
25									
30									

WELL DIAGRAM



GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

PROBE CONSTRUCTION LOG

PROJECT NUMBER 603378.006
PROJECT NAME LAUSD Burroughs Middle School
LOCATION 600 South McCadden Place Los Angeles, CA
DRILLING METHOD Direct Push
SAMPLING METHOD Direct Push
GROUND ELEVATION ft.
TOP OF CASING ft.
LOGGED BY RAL
REMARKS

BORING/WELL NUMBER M-5
DATE DRILLED 12/27/2016
CASING TYPE/DIAMETER Nylaflow / 1/4-inch
SCREEN TYPE/SLOT Poly Implant
GRAVEL PACK TYPE #3 Sand
GROUT TYPE/QUANTITY Hydrated Bentonite
DEPTH TO WATER ft.
GROUND WATER ELEVATION ft.

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH	WELL DIAGRAM
								@Surface: 6" Concrete	0.5	Bentonite
						CL		@0.5': CLAY, dark brown, stiff, moist, no odor or staining.	4.0	
5						SM		@4': Silty SAND, light brown, medium dense, fine to medium grained sand, some gravel, no staining or odor.	5.0	1/4" Nylaflow Tubing Poly Implant (5')
						ML		@5': SILT, light brown, hard, dry, some sand, no staining or odor.		
10										Bentonite
15									15.5	Poly Implant (15')
20								**Notes:** Total Depth of Boring: 15.5 feet No groundwater encountered during drilling		
25										
30										

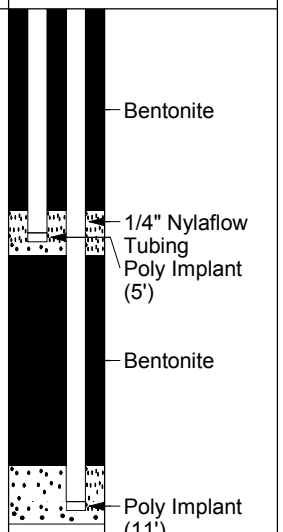
GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

PROBE CONSTRUCTION LOG

PROJECT NUMBER 603378.006
PROJECT NAME LAUSD Burroughs Middle School
LOCATION 600 South McCadden Place Los Angeles, CA
DRILLING METHOD Direct Push
SAMPLING METHOD Direct Push
GROUND ELEVATION ft.
TOP OF CASING ft.
LOGGED BY RAL
REMARKS

BORING/WELL NUMBER M-6
DATE DRILLED 12/27/2016
CASING TYPE/DIAMETER Nylaflow / 1/4-inch
SCREEN TYPE/SLOT Poly Implant
GRAVEL PACK TYPE #3 Sand
GROUT TYPE/QUANTITY Hydrated Bentonite
DEPTH TO WATER ft.
GROUND WATER ELEVATION ft.

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
								@Surface: 3" Asphalt	0.5
						SP		@0.5': SAND, light brown, loose, dry, fine to medium grained sand, some silt, no odor or staining.	
5									5.5
						CL		@5.5': CLAY, dark brown, very stiff, slightly moist, no odor or staining.	
									9.0
						SM		@9': Silty SAND, tan, very dense, dry, fine to medium grained sand, no odor or staining.	
10									11.5
								@ 11.5': Refusal encountered.	
15									
20								**Notes:** Total Depth of Boring: 11.5 feet No groundwater encountered during drilling	
25									
30									

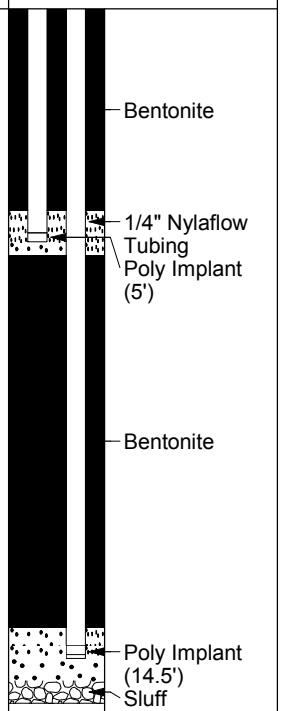


GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

PROBE CONSTRUCTION LOG

PROJECT NUMBER	603378.006	**BORING/WELL NUMBER**	M-7
PROJECT NAME	LAUSD Burroughs Middle School	**DATE DRILLED**	12/27/2016
LOCATION	600 South McCadden Place Los Angeles, CA	**CASING TYPE/DIAMETER**	Nylaflow / 1/4-inch
DRILLING METHOD	Direct Push	**SCREEN TYPE/SLOT**	Poly Implant
SAMPLING METHOD	Direct Push	**GRAVEL PACK TYPE**	#3 Sand
GROUND ELEVATION	ft.	**GROUT TYPE/QUANTITY**	Hydrated Bentonite
TOP OF CASING	ft.	**DEPTH TO WATER**	ft.
LOGGED BY	RAL	**GROUND WATER ELEVATION**	ft.
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
								@Surface: 2" Asphalt	0.5
						CL		@0.5': CLAY, olive-gray, firm, moist, no odor or staining.	
5									6.0
						ML		@6': Sandy SILT, olive gray, stiff, moist, fine to medium grained sand, no odor or staining. @7': Sandy SILT, trace sand.	9.0
10						CL		@9': CLAY, brown, hard, moist, no odor or staining.	
15								@14': Clayey SILT, olive gray, hard, slightly moist, trace sand, no odor or staining.	15.0
								@ 15': Refusal encountered.	
20								**Notes:** Total Depth of Boring: 15 feet No groundwater encountered during drilling	
25									
30									



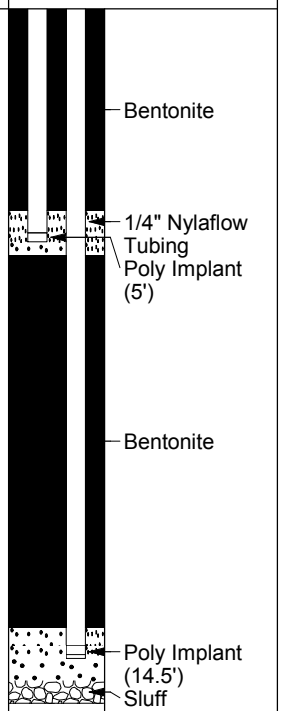
GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

PROBE CONSTRUCTION LOG

PROJECT NUMBER 603378.006
PROJECT NAME LAUSD Burroughs Middle School
LOCATION 600 South McCadden Place Los Angeles, CA
DRILLING METHOD Direct Push
SAMPLING METHOD Direct Push
GROUND ELEVATION ft.
TOP OF CASING ft.
LOGGED BY RAL
REMARKS

BORING/WELL NUMBER M-8
DATE DRILLED 12/27/2016
CASING TYPE/DIAMETER Nylaflow / 1/4-inch
SCREEN TYPE/SLOT Poly Implant
GRAVEL PACK TYPE #3 Sand
GROUT TYPE/QUANTITY Hydrated Bentonite
DEPTH TO WATER ft.
GROUND WATER ELEVATION ft.

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
								@Surface: 2" Asphalt	0.5
								@0.5': Brick and gravel (artificial fill).	
									2.5
						ML		@2.5': Clayey SILT, light brown, firm, moist, trace sand, no odor or staining.	
5									
								@9': sand.	
10									10.0
						CL		@10': CLAY, dark gray, hard, slightly moist, some sand, odor, no staining, brick fragments.	
									14.0
						ML		@14': Clayey SILT, light brown, hard, slightly moist, some sand, no odor or staining.	15.0
15								@ 15': Refusal encountered.	
20									
25									
30									



Notes:
Total Depth of Boring: 15 feet
No groundwater encountered during drilling

GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

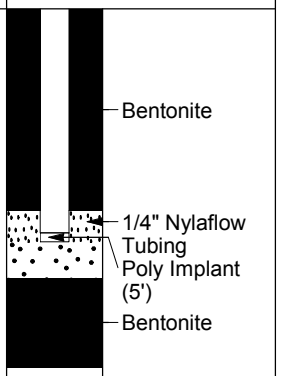
PROBE CONSTRUCTION LOG

PROJECT NUMBER 603378.006
PROJECT NAME LAUSD Burroughs Middle School
LOCATION 600 South McCadden Place Los Angeles, CA
DRILLING METHOD Direct Push
SAMPLING METHOD Direct Push
GROUND ELEVATION ft.
TOP OF CASING ft.
LOGGED BY RAL
REMARKS

BORING/WELL NUMBER M-9-Shallow
DATE DRILLED 12/23/2016
CASING TYPE/DIAMETER Nylaflow / 1/4-inch
SCREEN TYPE/SLOT Poly Implant
GRAVEL PACK TYPE #3 Sand
GROUT TYPE/QUANTITY Hydrated Bentonite
DEPTH TO WATER ft.
GROUND WATER ELEVATION ft.

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
								@Surface: 3" Asphalt	0.5
						SW		@0.5': Gravelly SAND, light brown, medium dense, fine to coarse grained sand with asphalt debris from 0.5-2ft bgs, no odor, no staining.	4.0
5						SM		@4': Silty SAND, light brown, medium dense, no odor or staining.	6.0
						CL		@6': Silty CLAY, brown, hard, dry, no odor or staining.	8.0
								@8': Refusal at depth.	
10									
15									
20									
25									
30									

Notes:
Total Depth of Boring: 8 feet
No groundwater encountered during drilling



GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

PROBE CONSTRUCTION LOG

PROJECT NUMBER	603378.006	**BORING/WELL NUMBER**	M-9-Deep
PROJECT NAME	LAUSD Burroughs Middle School	**DATE DRILLED**	12/27/2016
LOCATION	600 South McCadden Place Los Angeles, CA	**CASING TYPE/DIAMETER**	Nylaflow / 1/4-inch
DRILLING METHOD	Direct Push	**SCREEN TYPE/SLOT**	Poly Implant
SAMPLING METHOD	Direct Push	**GRAVEL PACK TYPE**	#3 Sand
GROUND ELEVATION	ft.	**GROUT TYPE/QUANTITY**	Hydrated Bentonite
TOP OF CASING	ft.	**DEPTH TO WATER**	ft.
LOGGED BY	RAL	**GROUND WATER ELEVATION**	ft.
REMARKS			

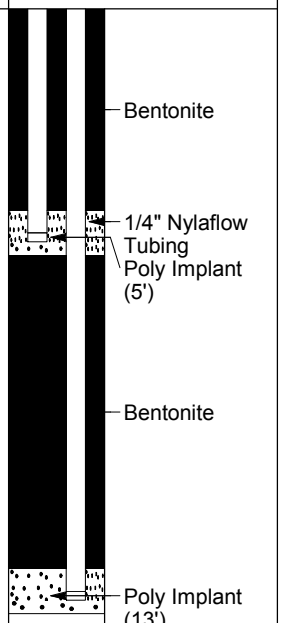
DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH	WELL DIAGRAM
								@Surface: 3" Asphalt	0.5	
						SW		@0.5': Gravelly SAND, light brown, medium dense, fine to coarse grained sand with asphalt debris from 0.5-2ft bgs no odor, no staining.	4.0	
5						SM		@4': Silty SAND, light brown, medium dense, no odor or staining.	6.0	
						CL		@6': Silty CLAY, brown, hard, dry, no odor or staining.	9.5	Bentonite
10						ML		@9.5': Clayey SILT, light brown, hard, slightly moist, trace sand, no odor or staining.		1/4" Nylaflow Tubing
15									15.5	Poly Implant (15')
20								**Notes:** Total Depth of Boring: 15.5 feet No groundwater encountered during drilling		
25										
30										

GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

PROBE CONSTRUCTION LOG

PROJECT NUMBER	603378.006	**BORING/WELL NUMBER**	M-10
PROJECT NAME	LAUSD Burroughs Middle School	**DATE DRILLED**	12/23/2016
LOCATION	600 South McCadden Place Los Angeles, CA	**CASING TYPE/DIAMETER**	Nylaflow / 1/4-inch
DRILLING METHOD	Direct Push	**SCREEN TYPE/SLOT**	Poly Implant
SAMPLING METHOD	Direct Push	**GRAVEL PACK TYPE**	#3 Sand
GROUND ELEVATION	ft.	**GROUT TYPE/QUANTITY**	Hydrated Bentonite
TOP OF CASING	ft.	**DEPTH TO WATER**	ft.
LOGGED BY	RAL	**GROUND WATER ELEVATION**	ft.
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
								@Surface: 2" Asphalt	0.2
								6" Concrete	0.7
						CL		@1': Sandy CLAY, brown, stiff, moist, no odor or staining.	
5						ML		@5': Sandy SILT, dark brown, stiff, slightly moist, fine to coarse grained sand, brick fragments, no odor or staining.	5.0
						CL		@8': CLAY, dark brown, hard, slightly moist, no odor or staining.	8.0
10						ML		@10': Sandy SILT, light brown, dry, no odor or staining.	10.0
						SM		@12': Silty SAND, tan, very dense, dry, fine to coarse grained sand, no odor or staining.	12.0
								@ 13.5': Refusal encountered.	13.0
15									
20									
25									
30									



Notes:
Total Depth of Boring: 13.5 feet
No groundwater encountered during drilling

GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

PROBE CONSTRUCTION LOG

PROJECT NUMBER	603378.006	**BORING/WELL NUMBER**	M-11
PROJECT NAME	LAUSD Burroughs Middle School	**DATE DRILLED**	12/28/2016
LOCATION	600 South McCadden Place Los Angeles, CA	**CASING TYPE/DIAMETER**	Nylaflow / 1/4-inch
DRILLING METHOD	Direct Push	**SCREEN TYPE/SLOT**	Poly Implant
SAMPLING METHOD	Direct Push	**GRAVEL PACK TYPE**	#3 Sand
GROUND ELEVATION	ft.	**GROUT TYPE/QUANTITY**	Hydrated Bentonite
TOP OF CASING	ft.	**DEPTH TO WATER**	ft.
LOGGED BY	KCH	**GROUND WATER ELEVATION**	ft.
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH	WELL DIAGRAM
								@Surface: 3" Asphalt	0.5	Bentonite
						ML		@2': Sandy SILT, brown, moist, soft, slight odor, no staining.		
5								@5': Black.		1/4" Nylaflow Tubing; Poly Implant (5')
									9.0	
10								@9': Silty CLAY, dark brown, moist, firm, odor, no staining.		Bentonite
						CL		@11': Sandy CLAY, mottled light brown-white, moist, white sand content, slight odor, no staining.		
15									15.5	Poly Implant (15')
									20.0	
20								**Notes:** Total Depth of Boring: 15.5 feet No groundwater encountered during drilling		
25										
30										

GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

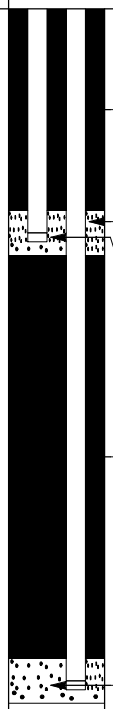
PROBE CONSTRUCTION LOG

PROJECT NUMBER 603378.006
PROJECT NAME LAUSD Burroughs Middle School
LOCATION 600 South McCadden Place Los Angeles, CA
DRILLING METHOD Direct Push
SAMPLING METHOD Direct Push
GROUND ELEVATION ft.
TOP OF CASING ft.
LOGGED BY KCH
REMARKS

BORING/WELL NUMBER M-12
DATE DRILLED 12/28/2016
CASING TYPE/DIAMETER Nylaflow / 1/4-inch
SCREEN TYPE/SLOT Poly Implant
GRAVEL PACK TYPE #3 Sand
GROUT TYPE/QUANTITY Hydrated Bentonite
DEPTH TO WATER ft.
GROUND WATER ELEVATION ft.

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
								@Surface: Topsoil	0.5
						ML		@2': SILT, dark brown, moist, firm, no odor or staining. @3': Sandy SILT, brown, slightly moist, stiff, no odor or staining.	
5						CL		@5': Silty CLAY, brown/orange, slightly moist, stiff, iron oxidized, no odor or staining.	5.0
10								@9': Silty CLAY, dark brown, slightly moist, very stiff, no odor or staining. @12': CLAY, black, moist, firm, low plasticity, odor, no staining, bituminous.	
15									15.5
20								**Notes:** Total Depth of Boring: 15.5 feet No groundwater encountered during drilling	20.0
25									
30									

WELL DIAGRAM



GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

PROBE CONSTRUCTION LOG

PROJECT NUMBER	603378.006	**BORING/WELL NUMBER**	M-13
PROJECT NAME	LAUSD Burroughs Middle School	**DATE DRILLED**	12/28/2016
LOCATION	600 South McCadden Place Los Angeles, CA	**CASING TYPE/DIAMETER**	Nylaflow / 1/4-inch
DRILLING METHOD	Direct Push	**SCREEN TYPE/SLOT**	Poly Implant
SAMPLING METHOD	Direct Push	**GRAVEL PACK TYPE**	#3 Sand
GROUND ELEVATION	ft.	**GROUT TYPE/QUANTITY**	Hydrated Bentonite
TOP OF CASING	ft.	**DEPTH TO WATER**	ft.
LOGGED BY	KCH	**GROUND WATER ELEVATION**	ft.
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH	WELL DIAGRAM
								@Surface: Topsoil	0.5	
						ML		@1': SILT with concrete debris. @2': SILT, black, moist, soft, no odor or staining.		Bentonite
5								@5': Sandy SILT, black, moist, soft, odor, no staining.		1/4" Nylaflow Tubing Poly Implant (5')
									8.0	
						CL		@8': Silty CLAY, black, moist, soft, odor and no staining. @10': CLAY, mottled black and brown, moist, firm, odor, no staining, bitumenous.		Bentonite
10										
15									15.0	Poly Implant (15')
20								**Notes:** Total Depth of Boring: 15.5 feet No groundwater encountered during drilling		
25										
30										

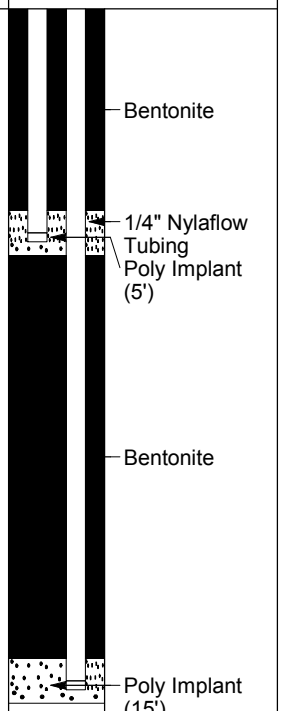
GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

PROBE CONSTRUCTION LOG

PROJECT NUMBER 603378.006
PROJECT NAME LAUSD Burroughs Middle School
LOCATION 600 South McCadden Place Los Angeles, CA
DRILLING METHOD Direct Push
SAMPLING METHOD Direct Push
GROUND ELEVATION ft.
TOP OF CASING ft.
LOGGED BY KCH
REMARKS

BORING/WELL NUMBER M-14
DATE DRILLED 12/28/2016
CASING TYPE/DIAMETER Nylaflow / 1/4-inch
SCREEN TYPE/SLOT Poly Implant
GRAVEL PACK TYPE #3 Sand
GROUT TYPE/QUANTITY Hydrated Bentonite
DEPTH TO WATER ft.
GROUND WATER ELEVATION ft.

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
								@Surface: 3" Asphalt with 3" Base-gravelly SAND.	0.5
						ML		@1': Clayey SILT, dark brown, slightly moist, very stiff, some sand, no odor or staining.	
5								@5': Black, moist, stiff, slight odor, no staining.	
								@7': Mottled gray-black, odor, no staining.	
10								@9': Black, soft, odor, no staining, bituminous.	
15									15.0
20								**Notes:** Total Depth of Boring: 15.5 feet No groundwater encountered during drilling	20.0
25									
30									



GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

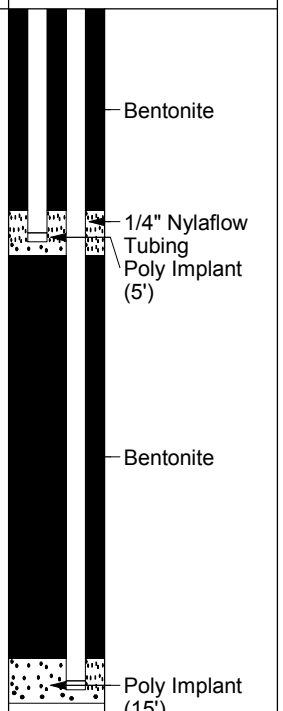
PROBE CONSTRUCTION LOG

PROJECT NUMBER 603378.006
PROJECT NAME LAUSD Burroughs Middle School
LOCATION 600 South McCadden Place Los Angeles, CA
DRILLING METHOD Direct Push
SAMPLING METHOD Direct Push
GROUND ELEVATION ft.
TOP OF CASING ft.
LOGGED BY RAL
REMARKS

BORING/WELL NUMBER M-15
DATE DRILLED 12/27/2016
CASING TYPE/DIAMETER Nylaflow / 1/4-inch
SCREEN TYPE/SLOT Poly Implant
GRAVEL PACK TYPE #3 Sand
GROUT TYPE/QUANTITY Hydrated Bentonite
DEPTH TO WATER ft.
GROUND WATER ELEVATION ft.

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
								@Surface: 3" Asphalt	0.5
						CL		@0.5': Sandy CLAY, light brown, stiff, moist, fine to medium grained, no odor or staining.	
5								@5': Dark brown.	
								@8': Brick fragments in sampler.	
10								@10': Rock blocked sample recovery. No recovery from 10-15.5 feet bgs.	10.0
15									
20								**Notes:** Total Depth of Boring: 15.5 feet No groundwater encountered during drilling	
25									
30									

WELL DIAGRAM



GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

PROBE CONSTRUCTION LOG

PROJECT NUMBER	603378.006	**BORING/WELL NUMBER**	M-16
PROJECT NAME	LAUSD Burroughs Middle School	**DATE DRILLED**	12/23/2016
LOCATION	600 South McCadden Place Los Angeles, CA	**CASING TYPE/DIAMETER**	Nylaflow / 1/4-inch
DRILLING METHOD	Direct Push	**SCREEN TYPE/SLOT**	Poly Implant
SAMPLING METHOD	Direct Push	**GRAVEL PACK TYPE**	#3 Sand
GROUND ELEVATION	ft.	**GROUT TYPE/QUANTITY**	Hydrated Bentonite
TOP OF CASING	ft.	**DEPTH TO WATER**	ft.
LOGGED BY	RAL	**GROUND WATER ELEVATION**	ft.
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH	WELL DIAGRAM
								@Surface: 3" Asphalt	0.5	Bentonite
						CL		@0.5': Silty CLAY, olive brown, moist, firm, trace sand, no odor or staining.		
5								@4.5': Dark gray, slight odor and staining. @5.5': Asphalt debris in sampler. @7': Silty CLAY, olive gray. @8': CLAY, brown, moist, stiff, no odor or staining.		1/4" Nylaflow Tubing Poly Implant (5')
10								@10': CLAY, dark gray, slight odor and staining.		Bentonite
15								@14': No odor, no staining. @15': Boring refusal at 15' bgs.	15.0	Poly Implant (14.5')
20								**Notes:** Total Depth of Boring: 15 feet No groundwater encountered during drilling		
25										
30										

GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

PROBE CONSTRUCTION LOG

PROJECT NUMBER 603378.006
PROJECT NAME LAUSD Burroughs Middle School
LOCATION 600 South McCadden Place Los Angeles, CA
DRILLING METHOD Direct Push
SAMPLING METHOD Direct Push
GROUND ELEVATION ft.
TOP OF CASING ft.
LOGGED BY KCH
REMARKS

BORING/WELL NUMBER M-17
DATE DRILLED 12/28/2016
CASING TYPE/DIAMETER Nylaflow / 1/4-inch
SCREEN TYPE/SLOT Poly Implant
GRAVEL PACK TYPE #3 Sand
GROUT TYPE/QUANTITY Hydrated Bentonite
DEPTH TO WATER ft.
GROUND WATER ELEVATION ft.

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH	WELL DIAGRAM
								@Surface: 3" Asphalt	0.5	Bentonite
						CL		@2': CLAY, black, moist, firm, low plasticity, no odor or staining.		
5								@6': Stiff.		1/4" Nylaflow Tubing; Poly Implant (5')
10								@10': Gray-blue.		Bentonite
15									15.5	Poly Implant (15')
20								**Notes:** Total Depth of Boring: 15.5 feet. No groundwater encountered during drilling		
25										
30										

GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

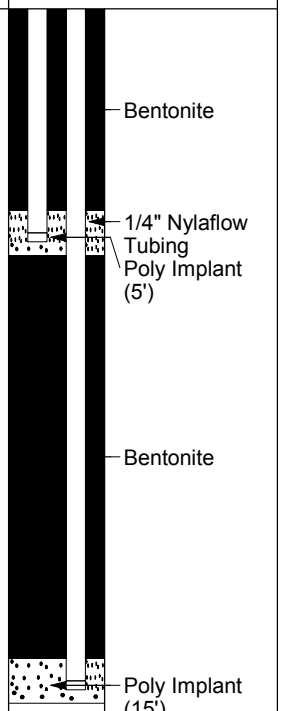
PROBE CONSTRUCTION LOG

PROJECT NUMBER	603378.006	**BORING/WELL NUMBER**	M-18
PROJECT NAME	LAUSD Burroughs Middle School	**DATE DRILLED**	12/27/2016
LOCATION	600 South McCadden Place Los Angeles, CA	**CASING TYPE/DIAMETER**	Nylaflow / 1/4-inch
DRILLING METHOD	Direct Push	**SCREEN TYPE/SLOT**	Poly Implant
SAMPLING METHOD	Direct Push	**GRAVEL PACK TYPE**	#3 Sand
GROUND ELEVATION	ft.	**GROUT TYPE/QUANTITY**	Hydrated Bentonite
TOP OF CASING	ft.	**DEPTH TO WATER**	ft.
LOGGED BY	RAL	**GROUND WATER ELEVATION**	ft.
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
								@Surface: Planter soil	0.5
						CL		@0.5': CLAY, dark brown, moist, stiff, no odor or staining.	
									4.0
5						ML		@4': SILT, light brown, slightly moist, stiff, some clay, no odor and staining.	
								@7': Clayey SILT, light brown, slightly moist, stiff, no odor or staining.	9.0
						SP		@9': SAND, light brown, moist, medium dense, fine to medium grained, no odor and staining.	9.5
10								@9.5': CLAY, dark brown, stiff, slightly moist, trace sand, no odor or staining.	
								@13': Trace gravel, light brown.	
						CL		@14': Dark olive brown.	
15									15.5
20									20.0
25									
30									

Notes:
Total Depth of Boring: 15.5 feet
No groundwater encountered during drilling

WELL DIAGRAM



GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

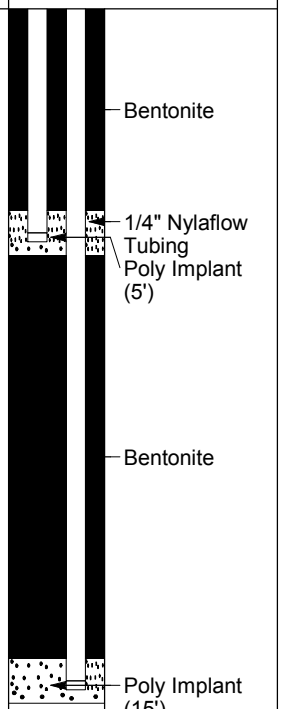
PROBE CONSTRUCTION LOG

PROJECT NUMBER 603378.006
PROJECT NAME LAUSD Burroughs Middle School
LOCATION 600 South McCadden Place Los Angeles, CA
DRILLING METHOD Direct Push
SAMPLING METHOD Direct Push
GROUND ELEVATION ft.
TOP OF CASING ft.
LOGGED BY RAL
REMARKS

BORING/WELL NUMBER M-19
DATE DRILLED 12/27/2016
CASING TYPE/DIAMETER Nylaflow / 1/4-inch
SCREEN TYPE/SLOT Poly Implant
GRAVEL PACK TYPE #3 Sand
GROUT TYPE/QUANTITY Hydrated Bentonite
DEPTH TO WATER ft.
GROUND WATER ELEVATION ft.

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
								@Surface: Planter soil	0.5
						ML		@0.5': Clayey SILT, brown, moist, stiff, no odor or staining.	
5									6.0
								@6': CLAY, brown, slightly moist, hard, no odor or staining.	
10									
						CL		@12': Some sand.	
15									15.5
								Notes: Total Depth of Boring: 15.5 feet No groundwater encountered during drilling	20.0
20									
25									
30									

WELL DIAGRAM



GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

PROBE CONSTRUCTION LOG

PROJECT NUMBER	603378.006	**BORING/WELL NUMBER**	M-20
PROJECT NAME	LAUSD Burroughs Middle School	**DATE DRILLED**	12/27/2016
LOCATION	600 South McCadden Place Los Angeles, CA	**CASING TYPE/DIAMETER**	Nylaflow / 1/4-inch
DRILLING METHOD	Direct Push	**SCREEN TYPE/SLOT**	Poly Implant
SAMPLING METHOD	Direct Push	**GRAVEL PACK TYPE**	#3 Sand
GROUND ELEVATION	ft.	**GROUT TYPE/QUANTITY**	Hydrated Bentonite
TOP OF CASING	ft.	**DEPTH TO WATER**	ft.
LOGGED BY	RAL	**GROUND WATER ELEVATION**	ft.
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH	WELL DIAGRAM
								@Surface: 3" Asphalt	0.5	
						ML		@0.5': Sandy SILT, brown.		
								@2': Concrete layer~2-3 inches	2.5	Bentonite
						CL		@2.5': CLAY, dark brown, moist, stiff, some silt, trace sand, no odor or staining.		
5										1/4" Nylaflow Tubing Poly Implant (5')
								@8': Olive brown, trace gravel, no odor or staining.		
10										Bentonite
								@12': Sandy CLAY, olive brown, slightly moist, very stiff, no odor or staining.		
15									15.5	Poly Implant (15')
									20.0	
20								**Notes:** Total Depth of Boring: 15.5 feet No groundwater encountered during drilling		
25										
30										

GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

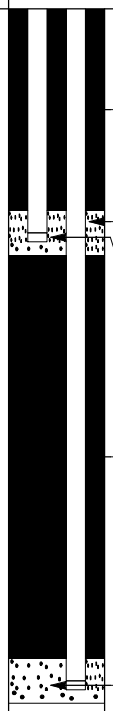
PROBE CONSTRUCTION LOG

PROJECT NUMBER 603378.006
PROJECT NAME LAUSD Burroughs Middle School
LOCATION 600 South McCadden Place Los Angeles, CA
DRILLING METHOD Direct Push
SAMPLING METHOD Direct Push
GROUND ELEVATION ft.
TOP OF CASING ft.
LOGGED BY RAL
REMARKS

BORING/WELL NUMBER M-21
DATE DRILLED 12/27/2016
CASING TYPE/DIAMETER Nylaflow / 1/4-inch
SCREEN TYPE/SLOT Poly Implant
GRAVEL PACK TYPE #3 Sand
GROUT TYPE/QUANTITY Hydrated Bentonite
DEPTH TO WATER ft.
GROUND WATER ELEVATION ft.

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
								@Surface: 3" Asphalt	0.5
						SC		@0.5': Clayey SAND, brown, loose, slightly moist, fine to medium grained, no odor or staining.	
						CL		@4': CLAY, dark brown, moist, firm, no odor or staining.	4.0
5									
10								@10': CLAY, stiff.	
15									15.5
20								**Notes:** Total Depth of Boring: 15.5 feet No groundwater encountered during drilling	20.0
25									
30									

WELL DIAGRAM



GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

PROBE CONSTRUCTION LOG

PROJECT NUMBER	603378.006	**BORING/WELL NUMBER**	M-22
PROJECT NAME	LAUSD Burroughs Middle School	**DATE DRILLED**	12/28/2016
LOCATION	600 South McCadden Place Los Angeles, CA	**CASING TYPE/DIAMETER**	Nylaflow / 1/4-inch
DRILLING METHOD	Direct Push	**SCREEN TYPE/SLOT**	Poly Implant
SAMPLING METHOD	Direct Push	**GRAVEL PACK TYPE**	#3 Sand
GROUND ELEVATION	ft.	**GROUT TYPE/QUANTITY**	Hydrated Bentonite
TOP OF CASING	ft.	**DEPTH TO WATER**	ft.
LOGGED BY	KCH	**GROUND WATER ELEVATION**	ft.
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH	WELL DIAGRAM
								@Surface: 3" Asphalt	0.5	
						ML		@1':SILT with Gravel, brown, moist, no odor or staining. @2':SILT, dark brown, moist, firm, low plasticity, no odor or staining.		Bentonite
5										1/4" Nylaflow Tubing Poly Implant (5')
									8.0	
						CL		@8': CLAY, mottled gray-brown, moist, stiff, low plasticity, no odor, no staining. @12': Gray.		Bentonite
10										
15									15.0	Poly Implant (15')
									20.0	
20								**Notes:** Total Depth of Boring: 15.5 feet No groundwater encountered during drilling		
25										
30										

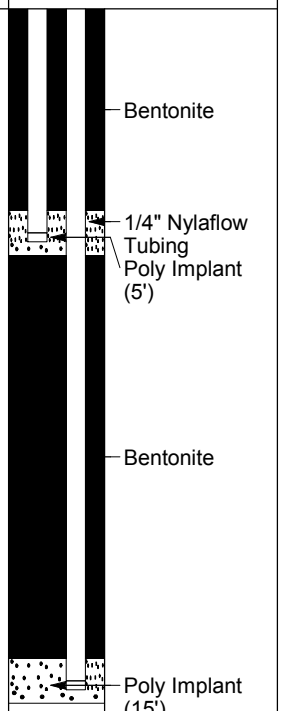
GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

PROBE CONSTRUCTION LOG

PROJECT NUMBER 603378.006
PROJECT NAME LAUSD Burroughs Middle School
LOCATION 600 South McCadden Place Los Angeles, CA
DRILLING METHOD Direct Push
SAMPLING METHOD Direct Push
GROUND ELEVATION ft.
TOP OF CASING ft.
LOGGED BY RAL
REMARKS

BORING/WELL NUMBER M-23
DATE DRILLED 12/27/2016
CASING TYPE/DIAMETER Nylaflow / 1/4-inch
SCREEN TYPE/SLOT Poly Implant
GRAVEL PACK TYPE #3 Sand
GROUT TYPE/QUANTITY Hydrated Bentonite
DEPTH TO WATER ft.
GROUND WATER ELEVATION ft.

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
								@Surface: 3" Asphalt	0.5
						CL		@0.5': Sandy CLAY, brown, stiff, moist, fine to medium grained sand, no odor or staining.	
5						ML		@5': Sandy SILT, light grayish brown, very dense, some gravel, no odor or staining.	5.0
10									12.0
						CL		@12': CLAY, dark grayish brown, slightly moist, stiff, trace sand, odor, no staining, bituminous.	
15									15.0
20								**Notes:** Total Depth of Boring: 15.5 feet No groundwater encountered during drilling	
25									
30									



GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

PROBE CONSTRUCTION LOG

PROJECT NUMBER 603378.006
PROJECT NAME LAUSD Burroughs Middle School
LOCATION 600 South McCadden Place Los Angeles, CA
DRILLING METHOD Direct Push
SAMPLING METHOD Direct Push
GROUND ELEVATION ft.
TOP OF CASING ft.
LOGGED BY RAL
REMARKS

BORING/WELL NUMBER M-24
DATE DRILLED 12/27/2016
CASING TYPE/DIAMETER Nylaflow / 1/4-inch
SCREEN TYPE/SLOT Poly Implant
GRAVEL PACK TYPE #3 Sand
GROUT TYPE/QUANTITY Hydrated Bentonite
DEPTH TO WATER ft.
GROUND WATER ELEVATION ft.

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH	WELL DIAGRAM
								@Surface: 3" Asphalt	0.5	Bentonite
						CL		@0.5': Sandy CLAY, brown, very stiff, slightly moist, fine to medium grained sand, no odor or staining.		1/4" Nylaflow Tubing
5										Poly Implant (5')
								@8': Wood fragments in sampler, trace gravel.		
10								@10': CLAY, dark grayish brown, odor, no staining, bituminous.		Bentonite
15									15.0	Poly Implant (15')
20								**Notes:** Total Depth of Boring: 15.5 feet No groundwater encountered during drilling		
25										
30										

GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

PROBE CONSTRUCTION LOG

PROJECT NUMBER	603378.006	**BORING/WELL NUMBER**	M-25
PROJECT NAME	LAUSD Burroughs Middle School	**DATE DRILLED**	12/27/2016
LOCATION	600 South McCadden Place Los Angeles, CA	**CASING TYPE/DIAMETER**	Nylaflow / 1/4-inch
DRILLING METHOD	Direct Push	**SCREEN TYPE/SLOT**	Poly Implant
SAMPLING METHOD	Direct Push	**GRAVEL PACK TYPE**	#3 Sand
GROUND ELEVATION	ft.	**GROUT TYPE/QUANTITY**	Hydrated Bentonite
TOP OF CASING	ft.	**DEPTH TO WATER**	ft.
LOGGED BY	RAL	**GROUND WATER ELEVATION**	ft.
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH	WELL DIAGRAM
								@Surface: 3" Asphalt	0.5	
						CL		@0.5': Sandy CLAY, brown, dry, stiff, fine to medium grained sand, no odor or staining.		Bentonite
									4.0	
5						SW		@4': SAND, tan, dry, medium dense, fine to coarse grained, no odor or staining.	4.5	1/4" Nylaflow Tubing
								@4.5': Sandy CLAY, brown, dry, hard, fine grained sand, no odor or staining.		Poly Implant (5')
10						CL		@9.5': Dark gray to black, odor, no staining, bituminous.		Bentonite
15									15.5	Poly Implant (15')
20								**Notes:** Total Depth of Boring: 15.5 feet No groundwater encountered during drilling	20.0	
25										
30										

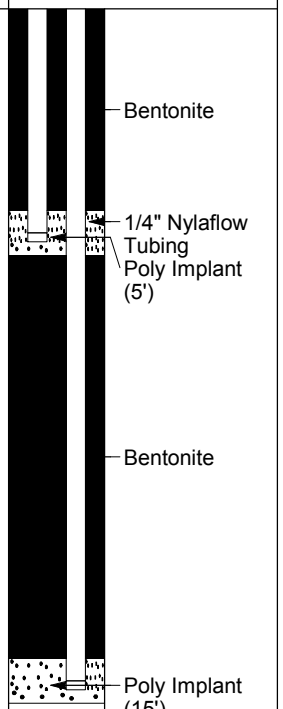
GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

PROBE CONSTRUCTION LOG

PROJECT NUMBER	603378.006	**BORING/WELL NUMBER**	M-26
PROJECT NAME	LAUSD Burroughs Middle School	**DATE DRILLED**	12/28/2016
LOCATION	600 South McCadden Place Los Angeles, CA	**CASING TYPE/DIAMETER**	Nylaflow / 1/4-inch
DRILLING METHOD	Direct Push	**SCREEN TYPE/SLOT**	Poly Implant
SAMPLING METHOD	Direct Push	**GRAVEL PACK TYPE**	#3 Sand
GROUND ELEVATION	ft.	**GROUT TYPE/QUANTITY**	Hydrated Bentonite
TOP OF CASING	ft.	**DEPTH TO WATER**	ft.
LOGGED BY	KCH	**GROUND WATER ELEVATION**	ft.
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
								@Surface: Topsoil	0.5
						ML		@2': Clayey SILT, dark brown, moist, firm, no odor or staining.	5.0
5						SW		@5': Gravelly SAND, black, moist, loose, fine to coarse grained, slight odor, no staining, bituminous.	6.0
						ML		@6': Silty CLAY, dark brown, moist, soft, slight odor and no staining. @8': With gravel.	10.0
10						CL		@10': CLAY, black, slightly moist, very stiff, odor, no staining, bituminous. @11': Sandy CLAY, dark brown, moist, very stiff, medium grained sand, slight odor, no staining.	14.0
15						ML		@14': Clayey SAND, black, moist, soft, slight odor, no staining, bituminous	15.5
20								**Notes:** Total Depth of Boring: 15.5 feet No groundwater encountered during drilling	
25									
30									

WELL DIAGRAM



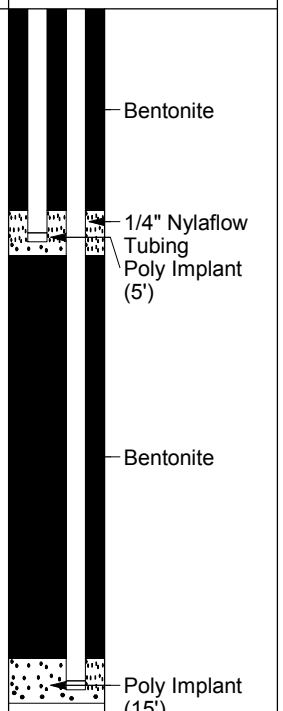
GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

PROBE CONSTRUCTION LOG

PROJECT NUMBER	603378.006	**BORING/WELL NUMBER**	M-27
PROJECT NAME	LAUSD Burroughs Middle School	**DATE DRILLED**	12/28/2016
LOCATION	600 South McCadden Place Los Angeles, CA	**CASING TYPE/DIAMETER**	Nylaflow / 1/4-inch
DRILLING METHOD	Direct Push	**SCREEN TYPE/SLOT**	Poly Implant
SAMPLING METHOD	Direct Push	**GRAVEL PACK TYPE**	#3 Sand
GROUND ELEVATION	ft.	**GROUT TYPE/QUANTITY**	Hydrated Bentonite
TOP OF CASING	ft.	**DEPTH TO WATER**	ft.
LOGGED BY	KCH	**GROUND WATER ELEVATION**	ft.
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
								@Surface: Topsoil	0.5
						CL		@3': Silty CLAY, brown, moist, stiff, low plasticity, no odor or staining.	
5						ML		@5': Sandy SILT, light brown, slightly moist, very stiff, no odor or staining.	5.0
						SW		@6': SAND, mottled gold and brown, slightly moist, loose, fine to coarse grained, no odor and staining.	6.0
						ML		@7.5': SILT, brown, stiff, slightly moist, low plasticity, some iron oxidation, no tar odor or staining.	7.5
10								@ 10'-15' bgs- Liner jammed due to very dense material at depth, no sample recovery	10.0
						SC		@ 15': Clayey SAND, light brown, dry, very dense, no odor or staining.	14.5 15.0
15									
20									
25									
30									

Notes:
Total Depth of Boring: 15.5 feet
No groundwater encountered during drilling



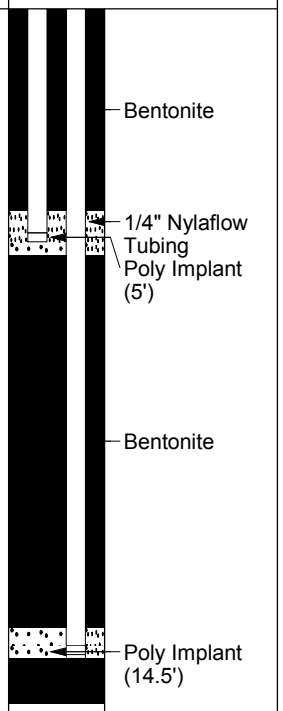
GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

PROBE CONSTRUCTION LOG

PROJECT NUMBER	603378.006	**BORING/WELL NUMBER**	M-28
PROJECT NAME	LAUSD Burroughs Middle School	**DATE DRILLED**	12/27/2016
LOCATION	600 South McCadden Place Los Angeles, CA	**CASING TYPE/DIAMETER**	Nylaflow / 1/4-inch
DRILLING METHOD	Direct Push	**SCREEN TYPE/SLOT**	Poly Implant
SAMPLING METHOD	Direct Push	**GRAVEL PACK TYPE**	#3 Sand
GROUND ELEVATION	ft.	**GROUT TYPE/QUANTITY**	Hydrated Bentonite
TOP OF CASING	ft.	**DEPTH TO WATER**	ft.
LOGGED BY	RAL	**GROUND WATER ELEVATION**	ft.
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
								@Surface: Grass	0.5
						CL		@0.5': CLAY, dark brown, stiff, moist, no odor or staining.	
									4.5
5						ML		@4.5': Sandy SILT, light brown, slightly moist, stiff, fine grained sand, no odor or staining.	5.5
						CL		@5.5': CLAY, light brown, moist, stiff, no odor or staining.	6.5
						SW		@6.5': SAND, light brown, dry, medium dense, fine to coarse grained sand, no odor or staining.	7.5
						CL		@7.5': Silty CLAY, light brown, slightly moist, stiff, no odor, no staining.	
10								@12': CLAY, olive brown, slightly moist, hard, no odor or staining.	
								@14': Light brown.	
15								@15': Boring refusal.	15.0
20								**Notes:** Total Depth of Boring: 15 feet No groundwater encountered during drilling	
25									
30									

WELL DIAGRAM



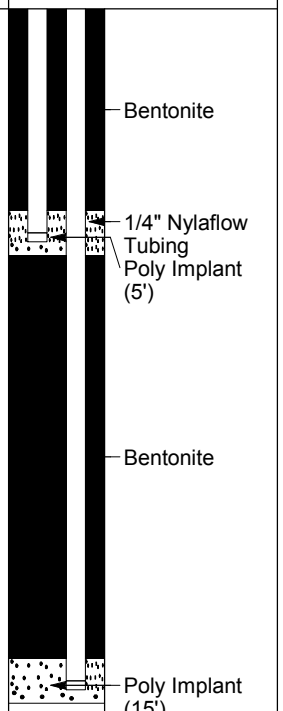
GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

PROBE CONSTRUCTION LOG

PROJECT NUMBER	603378.006	**BORING/WELL NUMBER**	M-29
PROJECT NAME	LAUSD Burroughs Middle School	**DATE DRILLED**	12/27/2016
LOCATION	600 South McCadden Place Los Angeles, CA	**CASING TYPE/DIAMETER**	Nylaflow / 1/4-inch
DRILLING METHOD	Direct Push	**SCREEN TYPE/SLOT**	Poly Implant
SAMPLING METHOD	Direct Push	**GRAVEL PACK TYPE**	#3 Sand
GROUND ELEVATION	ft.	**GROUT TYPE/QUANTITY**	Hydrated Bentonite
TOP OF CASING	ft.	**DEPTH TO WATER**	ft.
LOGGED BY	RAL	**GROUND WATER ELEVATION**	ft.
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH
								@Surface: 3" Asphalt	0.5
						CL		@0.5': Sandy CLAY, brown, hard, dry, fine to medium grained sand, no odor or staining.	
5								@5': Dark brown.	
10						SP		@10': SAND, brown, medium dense, slightly moist, no odor or staining.	10.0
						CL		@13': Sandy CLAY, light brown, hard, dry, fine to medium grained sand, no odor or staining.	13.0
15									15.5
20								**Notes:** Total Depth of Boring: 15.5 feet No groundwater encountered during drilling	20.0
25									
30									

WELL DIAGRAM



GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

PROBE CONSTRUCTION LOG

PROJECT NUMBER	603378.006	**BORING/WELL NUMBER**	M-30
PROJECT NAME	LAUSD Burroughs Middle School	**DATE DRILLED**	12/28/2016
LOCATION	600 South McCadden Place Los Angeles, CA	**CASING TYPE/DIAMETER**	Nylaflow / 1/4-inch
DRILLING METHOD	Direct Push	**SCREEN TYPE/SLOT**	Poly Implant
SAMPLING METHOD	Direct Push	**GRAVEL PACK TYPE**	#3 Sand
GROUND ELEVATION	ft.	**GROUT TYPE/QUANTITY**	Hydrated Bentonite
TOP OF CASING	ft.	**DEPTH TO WATER**	12.0ft.
LOGGED BY	KCH	**GROUND WATER ELEVATION**	ft.
REMARKS			

DEPTH (ft. BGL)	BLOW COUNTS	RECOVERY (inches)	SAMPLE ID.	EXTENT	PID (ppm)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH	WELL DIAGRAM
								@Surface: Topsoil	0.5	Bentonite
						ML		@3': Sandy SILT, black, soft, slightly moist, no odor, no staining, oragnic rich. @4': SILT, dark brown, firm, slightly moist, low plasticity, some sand, no odor or staining.		1/4" Nylaflow Tubing Poly Implant (5')
5										Bentonite
								@8': Mottled brown and dark brown.	9.0	
						CL		@9': Sandy CLAY, black, moist, firm, low plasticity, no odor, no staining, bitunminous.		Poly Implant (9.5')
10								@12': Perched groundwater encountered post drilling. @12.5'- CLAY, black, moist, firm, no odor, no staining, bituminous.		Bentonite
15									15.5	
20								**Notes:** Total Depth of Boring: 15.5 feet Perched groundwater was encountered after tooling was removed from the boring. No evidence of broken utility in the area. Bentonite was added to dry up the boring from 15.5'bgs to 10' bgs. Probes were set at 5' bgs and 9.5' bgs.		
25										
30										

GE-LAEWNN01 METHANE PROBE LOGS.GPJ LAEWNN01.GDT 2/6/17

ATTACHMENT D

LABORATORY ANALYTICAL REPORTS – METHANE AND HYDROGEN SULFIDE IN SOIL GAS

Enthalpy Analytical, Inc.
Formerly Associated Labs
806 N. Batavia - Orange, CA 92868
Tel: (714)771-6900 Fax: (714)538-1209
www.associatedlabs.com
info-sc@enthalpy.com

MONTROSE ENVIRONMENTAL

Client:	Leighton Consulting, Inc.
Address:	17781 Cowan Suite 100 Irvine, CA 92614
Attn:	Julie C. Harriman, P.E.

Lab Request:	386058
Report Date:	01/04/2017
Date Received:	01/03/2017
Client ID:	5970

Comments: Burroughs MS
Project# 603378.006

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods. Methods accredited by NELAC are indicated on the report. This cover letter is an integral part of the final report.

Sample #	Client Sample ID
386058-001	M-1-15.0'
386058-002	M-8-5.0'
386058-003	M-7-5.0'
386058-004	M-17-5.0'
386058-005	M-17D-5.0'
386058-006	M-14-15.0'
386058-007	M-15-15.0'

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

Ranjit K. K. Clarke

Report Review performed by: Ranjit Clarke, Project Manager

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 60 days from date received.

The reports of the Enthalpy Analytical, Inc. are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

ACCREDITED IN ACCORDANCE WITH nelac

Matrix: Air **Client:** Leighton Consulting, Inc. **Collector:**
Sampled: 01/03/2017 16:05 **Site:**
Sample #: 386058-001 **Client Sample #:** M-1-15.0' **Sample Type:**

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: ASTM D5504M	Prep Method: Method						QCBatchID: QC1174021		
Hydrogen Sulfide	**3500**	1	4	4	Vppb		01/04/17 08:40	ZZ	
Method: EPA 8015B	Prep Method: RSK-175						QCBatchID: QC1174025		
Methane	**20100**	10		500	Vppm		01/04/17 12:11	EW	

Matrix: Air **Client:** Leighton Consulting, Inc. **Collector:**
Sampled: 01/03/2017 15:42 **Site:**
Sample #: 386058-002 **Client Sample #:** M-8-5.0' **Sample Type:**

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: ASTM D5504M	Prep Method: Method						QCBatchID: QC1174021		
Hydrogen Sulfide	**8.00**	1	4	4	Vppb		01/04/17 08:43	ZZ	
Method: EPA 8015B	Prep Method: RSK-175						QCBatchID: QC1174025		
Methane	**124**	1		50	Vppm		01/04/17 10:58	EW	

Matrix: Air **Client:** Leighton Consulting, Inc. **Collector:**
Sampled: 01/03/2017 15:45 **Site:**
Sample #: 386058-003 **Client Sample #:** M-7-5.0' **Sample Type:**

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: ASTM D5504M	Prep Method: Method						QCBatchID: QC1174021		
Hydrogen Sulfide	**54.0**	1	4	4	Vppb		01/04/17 08:46	ZZ	
Method: EPA 8015B	Prep Method: RSK-175						QCBatchID: QC1174025		
Methane	**106000**	60		3000	Vppm		01/04/17 12:49	EW	

Matrix: Air **Client:** Leighton Consulting, Inc. **Collector:**
Sampled: 01/03/2017 15:50 **Site:**
Sample #: 386058-004 **Client Sample #:** M-17-5.0' **Sample Type:**

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: ASTM D5504M	Prep Method: Method						QCBatchID: QC1174021		
Hydrogen Sulfide	**530**	1	4	4	Vppb		01/04/17 08:48	ZZ	
Method: EPA 8015B	Prep Method: RSK-175						QCBatchID: QC1174025		
Methane	**472000**	200		10000	Vppm		01/04/17 14:22	EW	

Matrix: Air **Client:** Leighton Consulting, Inc. **Collector:**
Sampled: 01/03/2017 15:51 **Site:**
Sample #: 386058-005 **Client Sample #:** M-17D-5.0' **Sample Type:**

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: ASTM D5504M	Prep Method: Method						QCBatchID: QC1174021		
Hydrogen Sulfide	**540**	1	4	4	Vppb		01/04/17 08:50	ZZ	
Method: EPA 8015B	Prep Method: RSK-175						QCBatchID: QC1174025		
Methane	**577000**	200		10000	Vppm		01/04/17 14:28	EW	

Matrix: Air **Client:** Leighton Consulting, Inc. **Collector:**
Sampled: 01/03/2017 16:03 **Site:**
Sample #: 386058-006 **Client Sample #:** M-14-15.0' **Sample Type:**

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: ASTM D5504M	Prep Method: Method						QCBatchID: QC1174021		
Hydrogen Sulfide	**64.0**	1	4	4	Vppb		01/04/17 09:10	ZZ	
Method: EPA 8015B	Prep Method: RSK-175						QCBatchID: QC1174025		
Methane	**518000**	200		10000	Vppm		01/04/17 14:33	EW	

Matrix:	Air	**Client:**	Leighton Consulting, Inc.	**Collector:**	
Sampled:	01/03/2017 16:00	**Site:**			
Sample #:	**386058-007**	**Client Sample #:**	M-15-15.0'	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: ASTM D5504M	Prep Method: Method						QCBatchID: QC1174021		
Hydrogen Sulfide	**1100**	1	4	4	Vppb		01/04/17 08:50	ZZ	
Method: EPA 8015B	Prep Method: RSK-175						QCBatchID: QC1174025		
Methane	**62300**	60		3000	Vppm		01/04/17 13:35	EW	

QCBatchID:	**QC1174021**	**Analyst:**	nicollez	**Method:**	ASTM D5504M
Matrix:	Air	**Analyzed:**	01/04/2017	**Instrument:**	VOA-GC (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1174021MB1					
Hydrogen Sulfide	ND	Vppb	4	4	

Duplicate Summary

Analyte	Sample Amount	Duplicate Amount	Units	RPD	Limits RPD	Notes
QC1174021DUP1						**Source: 386058-005**
Hydrogen Sulfide	540	540	Vppb	0.0	25	

QCBatchID:	**QC1174025**	**Analyst:**	sandyw	**Method:**	EPA 8015B
Matrix:	Air	**Analyzed:**	01/04/2017	**Instrument:**	VOA-GC (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1174025MB1					
Methane	ND	Vppm		50	

Duplicate Summary

Analyte	Sample Amount	Duplicate Amount	Units	RPD	Limits RPD	Notes
QC1174025DUP1						**Source: 386058-001**
Methane	20100	20100	Vppm	0.0	20	

Data Qualifiers and Definitions

Qualifiers

A	See Report Comments.
B	Analyte was present in an associated method blank.
B1	Analyte was present in a sample and associated method blank greater than MDL but less than RDL.
BQ1	No valid test replicates. Sample Toxicity is possible. Best result was reported.
BQ2	No valid test replicates.
BQ3	No valid test replicates. Final DO is less than 1.0 mg/L. Result may be greater.
C	Possible laboratory contamination.
D	RPD was not within control limits. The sample data was reported without further clarification.
D1	Lesser amount of sample was used due to insufficient amount of sample supplied.
D2	Reporting limit is elevated due to sample matrix. Target analyte was not detected above the elevated reporting limit.
DW	Sample result is calculated on a dry weigh basis.
E	Concentration is estimated because it exceeds the quantification limits of the method.
I	The sample was read outside of the method required incubation period.
J	Reported value is estimated
L	The laboratory control sample (LCS) or laboratory control sample duplicate (LCSD) was out of control limits. Associated sample data was reported with qualifier.
M	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits due to matrix interference. The associated LCS and/or LCSD was within control limits and the sample data was reported without further clarification.
M1	The matrix spike (MS) or matrix spike duplicate (MSD) is not within control limits due to matrix interference.
M2	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits. The associated LCS and/or LCSD was not within control limits. Sample result is estimated.
N1	Sample chromatography does not match the specified TPH standard pattern.
NC	The analyte concentration in the sample exceeded the spike level by a factor of four or greater, spike recovery and limits do not apply.
P	Sample was received without proper preservation according to EPA guidelines.
P1	Temperature of sample storage refrigerator was out of acceptance limits.
P2	The sample was preserved within 24 hours of collection in accordance with EPA 218.6.
Q1	Analyte Calibration Verification exceeds criteria. The result is estimated.
Q2	Analyte calibration was not verified and the result was estimated.
Q3	Analyte initial calibration was not available or exceeds criteria. The result was estimated.
S	The surrogate recovery was out of control limits due to matrix interference. The associated method blank surrogate recovery was within control limits and the sample data was reported without further clarification.
S1	The associated surrogate recovery was out of control limits; result is estimated.
S2	The surrogate was diluted out due to the presence of high concentrations of target and/or non-target compounds. Surrogate recoveries in the associated batch QC met recovery criteria.
S3	Internal Standard did not meet recovery limits. Analyte concentration is estimated.
T	Sample was extracted/analyzed past the holding time.
T1	Reanalysis was reported past hold time due to failing replicates in the original analysis (BOD only).
T2	Sample was analyzed ASAP but received and analyzed past the 15 minute holding time.
T3	Sample received and analyzed out of hold time per client's request.
T4	Sample was analyzed out of hold time per client's request.
T5	Reanalysis was reported past hold time. The original analysis was within hold time, but not reportable.
T6	Hold time is indeterminable due to unspecified sampling time.
T7	Sample was analyzed past hold time due to insufficient time remaining at time of receipt.

Definitions

DF	Dilution Factor
MDL	Method Detection Limit. Result is reported ND when it is less than or equal to MDL.
ND	Analyte was not detected or was less than the detection limit.
NR	Not Reported. See Report Comments.
RDL	Reporting Detection Limit
TIC	Tentatively Identified Compounds

ENTHALPY ANALYTICAL, INC.	Chain of Custody Record	Turn Around Time (Rush by advanced notice only)
806 N. Batavia St., Orange, CA 92868	Lab No: 386058	Standard: ☐ 4 Day: ☐ 3 Day: ☐
Phone: (714) 771-6900 Fax: (714)771-9933	Page: 1 of 1	2 Day: ☐ 1 Day: ☐ Same Day: ☐
Billing: Enthalpy - SoCal c/o Montrose Environmental Group 1 Park Plaza, Suite 1000, Irvine, CA 92614	**Matrix:** A = Air DW = Drinking Water FL = Food Liquid FS = Food Solid L = Liquid PP = Pure Product S = Solid SeaW = Sea Water SW = Swab W = Water WP = Wipe O = Other	**Preservatives:** 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	Leighton Consulting Inc.	Name:	Burroughs MS
Report To:	Julie Harriman	Number:	603378.006
Email:	Jharriman@leightongroup.com	P.O. #:	
Address:	17781 Cowan	Address:	600 S. McCadden
	Irvine, CA 92614		
Phone:		Global ID:	
Fax:		Sampled By:	K. Hall (LCI)

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	Methane EPA8015	H2S ASTM D5504M	Test Instructions / Comments
1	M4-15.0'	1/3/17	1605	SV	1 tedlar	N/A	X	X	* RUSH * 24hr TAT
2	M-8-5.0'	↓	1542	↓	↓	↓	X	X	* *
3	M-7-5.0'		1545				X	X	
4	M-17~~X~~ 5.0'		1550				X	X	
5	M-17D 5.0		1551				X	X	
6	M-14 - 15.0'		1603				X	X	
7	M-15 - 15.0'		1600				X	X	
8									
9									
10									

	Signature	Print Name	Company / Title	Date / Time
[1] Relinquished By:	Kevin C. Hall	Kevin Hall	LCI / Sr. Staff Sci.	1/3/17 / 1620
[1] Received By:		C. Marrokett		1/3/17 1620
[2] Relinquished By:		C. Marrokett		1/3/17 1750
[2] Received By:		T. Nash	EA	1/3/17 1756
[3] Relinquished By:				
[3] Received By:				

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: LEIGHTON CONSULTING Project: BURROUGHS M.S.

Date Received: 1/3/17 Sampler's Name Present: (Yes) No

Sample(s) received in a cooler? Yes How many? _____ (No) (skip section 2) Sample Temp (°C): TEMP

Sample Temp (°C) from each cooler: #1: _____ #2: _____ #3: _____ #4: _____

(Acceptance range is 0 to 6°C or, for samples collected the same day as sample receipt, arrival on ice; For Microbiology sample 0 to 10°C or, for samples collected the same day as sample receipt, arrival on ice)

Shipping Information: _____

Section 2

Was the cooler packed with: ____ Ice ____ Ice Packs ____ Bubble Wrap ____ Styrofoam ____ Paper ____ None ____ Other _____

Cooler Temp (°C): #1: _____ #2: _____ #3: _____ #4: _____

Section 3	YES	NO	N/A
Was a COC received?	✓		
Were sample IDs present?	✓		
Were sampling dates & times present?	✓		
Was a relinquished signature present?	✓		
Were the tests required clearly indicated?	✓		
Were custody seals present?		✓	
If Yes – were they intact?			✓
Were all samples sealed in plastic bags?	✓		
Did all samples arrive intact? If no, indicate below.	✓		
Did all bottle labels agree with COC? (ID, dates and times)	✓		
Were correct containers used for the tests required?	✓		
Was a sufficient amount of sample sent for tests indicated?	✓		
Was there headspace in VOA vials?			✓
Were the containers labeled with correct preservatives?			✓

Section 4

Explanations/Comments: _____

Section 5

For discrepancies, how was the Project Manager notified? Verbal PM Initials: _____ Date/Time _____

Email (email sent to/on): _____ / _____

Project Manager's response:

Completed By: _____ Date: 1/3/17

Enthalpy Analytical, a subsidiary of Montrose Environmental Group ,Inc.
931 W. Barkley Ave, Orange, CA 92868 • T: (714) 771-6900 • F: (714) 538-1209
www.enthalpy.com/socal

Enthalpy Analytical, Inc.
Formerly Associated Labs
806 N. Batavia - Orange, CA 92868
Tel: (714)771-6900 Fax: (714)538-1209
www.associatedlabs.com
info-sc@enthalpy.com

MONTROSE ENVIRONMENTAL

Client:	Leighton Consulting, Inc.
Address:	17781 Cowan Suite 100 Irvine, CA 92614
Attn:	Julie C. Harriman, P.E.

Lab Request:	386635
Report Date:	01/17/2017
Date Received:	01/16/2017
Client ID:	5970

Comments: LAUSD Burroughs
PO# 603378.006
600 S. McFadden Pl., Los Angeles, CA

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods. Methods accredited by NELAC are indicated on the report. This cover letter is an integral part of the final report.

Sample #	Client Sample ID
386635-001	M-13-5.0
386635-002	M-14-15
386635-003	M-15-15
386635-004	M-24-15
386635-005	M-17-5.0
386635-006	M-17-5.0D
386635-007	M-7-6.0

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

Ranjit K. K. Clarke

Report Review performed by: Ranjit Clarke, Project Manager

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 60 days from date received.

The reports of the Enthalpy Analytical, Inc. are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

ACCREDITED IN ACCORDANCE WITH nelac

Matrix: Air **Client:** Leighton Consulting, Inc. **Collector:** Client
Sampled: 01/16/2017 16:14 **Site:**
Sample #: 386635-001 **Client Sample #:** M-13-5.0 **Sample Type:**

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: ASTM D5504M	Prep Method: Method						QCBatchID: QC1174375		
Hydrogen Sulfide	**21.0**	1	4	4	Vppb		01/17/17 08:34	ZZ	
Method: EPA 8015B	Prep Method: RSK-175						QCBatchID: QC1174402		
Methane	**96800**	100		5000	Vppm		01/17/17 14:33	EW	

Matrix: Air **Client:** Leighton Consulting, Inc. **Collector:** Client
Sampled: 01/16/2017 16:18 **Site:**
Sample #: 386635-002 **Client Sample #:** M-14-15 **Sample Type:**

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: ASTM D5504M	Prep Method: Method						QCBatchID: QC1174375		
Hydrogen Sulfide	**790**	1	4	4	Vppb		01/17/17 08:36	ZZ	
Method: EPA 8015B	Prep Method: RSK-175						QCBatchID: QC1174402		
Methane	**298000**	100		5000	Vppm		01/17/17 13:52	EW	

Matrix: Air **Client:** Leighton Consulting, Inc. **Collector:** Client
Sampled: 01/16/2017 16:22 **Site:**
Sample #: 386635-003 **Client Sample #:** M-15-15 **Sample Type:**

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: ASTM D5504M	Prep Method: Method						QCBatchID: QC1174375		
Hydrogen Sulfide	**4500**	1	4	4	Vppb		01/17/17 08:48	ZZ	
Method: EPA 8015B	Prep Method: RSK-175						QCBatchID: QC1174402		
Methane	**84200**	100		5000	Vppm		01/17/17 13:26	EW	

Matrix: Air **Client:** Leighton Consulting, Inc. **Collector:** Client
Sampled: 01/16/2017 16:25 **Site:**
Sample #: 386635-004 **Client Sample #:** M-24-15 **Sample Type:**

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: ASTM D5504M	Prep Method: Method						QCBatchID: QC1174375		
Hydrogen Sulfide	**5400**	10	40	40	Vppb		01/17/17 08:58	ZZ	
Method: EPA 8015B	Prep Method: RSK-175						QCBatchID: QC1174402		
Methane	**285000**	200		10000	Vppm		01/17/17 14:05	EW	

Matrix: Air **Client:** Leighton Consulting, Inc. **Collector:** Client
Sampled: 01/16/2017 16:26 **Site:**
Sample #: 386635-005 **Client Sample #:** M-17-5.0 **Sample Type:**

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: ASTM D5504M	Prep Method: Method						QCBatchID: QC1174375		
Hydrogen Sulfide	**760**	1	4	4	Vppb		01/17/17 08:39	ZZ	
Method: EPA 8015B	Prep Method: RSK-175						QCBatchID: QC1174402		
Methane	**297000**	100		5000	Vppm		01/17/17 13:59	EW	

Matrix: Air **Client:** Leighton Consulting, Inc. **Collector:** Client
Sampled: 01/16/2017 16:27 **Site:**
Sample #: 386635-006 **Client Sample #:** M-17-5.0D **Sample Type:**

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: ASTM D5504M	Prep Method: Method						QCBatchID: QC1174375		
Hydrogen Sulfide	**840**	1	4	4	Vppb		01/17/17 08:42	ZZ	
Method: EPA 8015B	Prep Method: RSK-175						QCBatchID: QC1174402		
Methane	**388000**	200		10000	Vppm		01/17/17 14:11	EW	

Matrix:	Air	**Client:**	Leighton Consulting, Inc.	**Collector:**	Client
Sampled:	01/16/2017 16:32	**Site:**			
Sample #:	**386635-007**	**Client Sample #:**	M-7-6.0	**Sample Type:**	

Analyte	Result	DF	MDL	RDL	Units	Prepared	Analyzed	By	Notes
Method: ASTM D5504M	Prep Method: Method						QCBatchID: QC1174375		
Hydrogen Sulfide	**54.0**	1	4	4	Vppb		01/17/17 08:45	ZZ	
Method: EPA 8015B	Prep Method: RSK-175						QCBatchID: QC1174402		
Methane	**133000**	50		2500	Vppm		01/17/17 14:25	EW	

QCBatchID:	**QC1174375**	**Analyst:**	nicollez	**Method:**	ASTM D5504M
Matrix:	Air	**Analyzed:**	01/17/2017	**Instrument:**	VOA-GC (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1174375MB1					
Hydrogen Sulfide	ND	Vppb	4	4	

Duplicate Summary

Analyte	Sample Amount	Duplicate Amount	Units	RPD	Limits RPD	Notes
QC1174375DUP1						**Source: 386635-001**
Hydrogen Sulfide	21.0	21.0	Vppb	0.0	25	

QCBatchID:	**QC1174402**	**Analyst:**	sandyw	**Method:**	EPA 8015B
Matrix:	Air	**Analyzed:**	01/17/2017	**Instrument:**	VOA-GC (group)

Blank Summary

Analyte	Blank Result	Units	MDL	RDL	Notes
QC1174402MB1					
Methane	ND	Vppm		50	

Duplicate Summary

Analyte	Sample Amount	Duplicate Amount	Units	RPD	Limits RPD	Notes
QC1174402DUP1						**Source: 386635-003**
Methane	84200	77000	Vppm	8.9	20	

Data Qualifiers and Definitions

Qualifiers

A	See Report Comments.
B	Analyte was present in an associated method blank.
B1	Analyte was present in a sample and associated method blank greater than MDL but less than RDL.
BQ1	No valid test replicates. Sample Toxicity is possible. Best result was reported.
BQ2	No valid test replicates.
BQ3	No valid test replicates. Final DO is less than 1.0 mg/L. Result may be greater.
C	Possible laboratory contamination.
D	RPD was not within control limits. The sample data was reported without further clarification.
D1	Lesser amount of sample was used due to insufficient amount of sample supplied.
D2	Reporting limit is elevated due to sample matrix. Target analyte was not detected above the elevated reporting limit.
DW	Sample result is calculated on a dry weigh basis.
E	Concentration is estimated because it exceeds the quantification limits of the method.
I	The sample was read outside of the method required incubation period.
J	Reported value is estimated
L	The laboratory control sample (LCS) or laboratory control sample duplicate (LCSD) was out of control limits. Associated sample data was reported with qualifier.
M	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits due to matrix interference. The associated LCS and/or LCSD was within control limits and the sample data was reported without further clarification.
M1	The matrix spike (MS) or matrix spike duplicate (MSD) is not within control limits due to matrix interference.
M2	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits. The associated LCS and/or LCSD was not within control limits. Sample result is estimated.
N1	Sample chromatography does not match the specified TPH standard pattern.
NC	The analyte concentration in the sample exceeded the spike level by a factor of four or greater, spike recovery and limits do not apply.
P	Sample was received without proper preservation according to EPA guidelines.
P1	Temperature of sample storage refrigerator was out of acceptance limits.
P2	The sample was preserved within 24 hours of collection in accordance with EPA 218.6.
Q1	Analyte Calibration Verification exceeds criteria. The result is estimated.
Q2	Analyte calibration was not verified and the result was estimated.
Q3	Analyte initial calibration was not available or exceeds criteria. The result was estimated.
S	The surrogate recovery was out of control limits due to matrix interference. The associated method blank surrogate recovery was within control limits and the sample data was reported without further clarification.
S1	The associated surrogate recovery was out of control limits; result is estimated.
S2	The surrogate was diluted out due to the presence of high concentrations of target and/or non-target compounds. Surrogate recoveries in the associated batch QC met recovery criteria.
S3	Internal Standard did not meet recovery limits. Analyte concentration is estimated.
T	Sample was extracted/analyzed past the holding time.
T1	Reanalysis was reported past hold time due to failing replicates in the original analysis (BOD only).
T2	Sample was analyzed ASAP but received and analyzed past the 15 minute holding time.
T3	Sample received and analyzed out of hold time per client's request.
T4	Sample was analyzed out of hold time per client's request.
T5	Reanalysis was reported past hold time. The original analysis was within hold time, but not reportable.
T6	Hold time is indeterminable due to unspecified sampling time.
T7	Sample was analyzed past hold time due to insufficient time remaining at time of receipt.

Definitions

DF	Dilution Factor
MDL	Method Detection Limit. Result is reported ND when it is less than or equal to MDL.
ND	Analyte was not detected or was less than the detection limit.
NR	Not Reported. See Report Comments.
RDL	Reporting Detection Limit
TIC	Tentatively Identified Compounds

ENTHALPHY ANALYTICAL, INC.	Chain of Custody Record	Turn Around Time (Rush by advanced notice only)
806 N. Batavia St., Orange, CA 92868 Phone: (714) 771-6900 Fax: (714)771-9933 Billing: Enthalpy - SoCal c/o Montrose Environmental Group 1 Park Plaza, Suite 1000, Irvine, CA 92614	Lab No: ~~386635~~ Page: 1 of 1 **Matrix:** A = Air DW = Drinking Water FL = Food Liquid FS = Food Solid L = Liquid PP = Pure Product S = Solid SeaW = Sea Water SW = Swab W = Water WP = Wipe O = Other	Standard: ✓ 4 Day: 3 Day: 2 Day: 1 Day: Same Day: **Preservatives:** 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	Leighton Consulting Inc.	Name:	~~Jule Harriman~~
Report To:	Julie Harriman	Number:	LAUSD Burroughs
Email:	Jharriman@leightongroup.com	P.O. #:	603378.006
Address:	17781 Cowan	Address:	600 S. McFadden Pl.
	Irvine CA 92614		Los Angeles, CA
Phone:	949-253-9836	Global ID:	
Fax:	949-250-1114	Sampled By:	K. Hall

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	Methane EPA 8015	H2S ASTM D5504M	Test Instructions / Comments
1	M-13-5.0	1/16/17	1614	SV	1L Tedlar		X	X	* RUSH 24hr TAT *
2	M-14-15	↓	1618	↓	↓				*
3	M-15-15		1622						
4	M-24-15		1625						
5	~~M-24~~ M-17-5.0		1626						
6	M-17-5.0D		1627						
7	M-7-6.0	↓	1632	↓	↓		↓	↓	
8									
9									
10									

	Signature	Print Name	Company / Title	Date / Time
[1] Relinquished By:	Kevin C. Hall	Kevin Hall	LCI / Sr. Staff Sci.	1/16/17 1650
[1] Received By:		L. Marcoletti		1/16/17 1650
[2] Relinquished By:		L. Marcoletti		1/16/17 1823
[2] Received By:		Enthalpy	EA	1/16/17 1840
[3] Relinquished By:				
[3] Received By:				

ENTHALPY analytical, inc.

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: LEIGHTON CONSULTING Project: LAIRD BURROUGHS

Date Received: 1/16/17 Sampler's Name Present: Yes No

Sample(s) received in a cooler? Yes How many? _____ No (skip section 2) Sample Temp (°C): 15.1

Sample Temp (°C) from each cooler: #1: _____ #2: _____ #3: _____ #4: _____

(Acceptance range is 0 to 6°C or, for samples collected the same day as sample receipt, arrival on ice; For Microbiology sample 0 to 10°C or, for samples collected the same day as sample receipt, arrival on ice)

Shipping Information: _____

Section 2

Was the cooler packed with: ____ Ice ____ Ice Packs ____ Bubble Wrap ___ Styrofoam ____ Paper ____None ____ Other_____

Cooler Temp (°C): #1: _____ #2: _____ #3: _____ #4: _____

Section 3	YES	NO	N/A
Was a COC received?	✓		
Were sample IDs present?	✓		
Were sampling dates & times present?	✓		
Was a relinquished signature present?	✓		
Were the tests required clearly indicated?	✓		
Were custody seals present?		✓	
If Yes – were they intact?			✓
Were all samples sealed in plastic bags?			✓
Did all samples arrive intact? If no, indicate below.	✓		
Did all bottle labels agree with COC? (ID, dates and times)	✓		
Were correct containers used for the tests required?	✓		
Was a sufficient amount of sample sent for tests indicated?	✓		
Was there headspace in VOA vials?			✓
Were the containers labeled with correct preservatives?			✓

Section 4

Explanations/Comments: SAMPLE #1 HAD LOWER SAMPLE VOLUME

Section 5

For discrepancies, how was the Project Manager notified? Verbal Email PM Initials: _____ Date/Time _____

(email sent to/on): ICW / 1/16/17

Project Manager's response:

Completed By: _____ Date: 1/16 1/16/17 1/16/17

ATTACHMENT E

MANIFESTS

NO. 731657

NON-HAZARDOUS WASTE DATA FORM

BESI # 276063

GENERATOR

Generator's Name and Mailing Address
L.A.U.S.D. - OEHS
333 S. BEAUDRY AVE., 21ST FLOOR
LOS ANGELES, CA 90017

Generator's Site Address (if different than mailing address)
LAUSD - JOHN BURROUGHS MIDDLE SCHOOL
600 S. MCCADDEN PLACE
LOS ANGELES, CA 90005

Generator's Phone: 213-241-3199

Container type removed from site:
☒ Drums ☐ Vacuum Truck ☐ Roll-off Truck ☐ Dump Truck
☐ Other _____
Quantity 02

Container type transported to receiving facility:
☐ Drums ☐ Vacuum Truck ☐ Roll-off Truck ☐ Dump Truck
☐ Other _____
Quantity _____ Volume _____

WASTE DESCRIPTION NON-HAZARDOUS SOIL

GENERATING PROCESS SITE INVESTIGATION (DRILL CUTTINGS)

COMPONENTS OF WASTE	PPM	%
1. SOIL		
2.		
3.		
4. 100%		

Waste Profile _____ PROPERTIES: pH _____ ☐ SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER _____

HANDLING INSTRUCTIONS: _____

Generator Printed/Typed Name: [illegible] on behalf of LAUSD Kevin Hall
Signature: Kevin C. Hall
Month 01 Day 06 Year 17

The Generator certifies that the waste as described is 100% non-hazardous

TRANSPORTER

Transporter 1 Company Name: BELSHIRE
Phone#: 949-460-5200

Transporter 1 Printed/Typed Name: Jose Ferreyra
Signature:
Month 01 Day 06 Year 17

Transporter Acknowledgment of Receipt of Materials

Transporter 2 Company Name:
Phone#:

Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

Transporter Acknowledgment of Receipt of Materials

RECEIVING FACILITY

Designated Facility Name and Site Address
U.S. ECOLOGY, NEVADA OPERATIONS
HIGHWAY 95, 11 MILES S. OF BEATTY
BEATTY, NV 89003

Phone#: 775-553-2203

Printed/Typed Name:
Signature:
Month Day Year

Designated Facility Owner or Operator: Certification of receipt of materials covered by this data form.

NO. 731656

NON-HAZARDOUS WASTE DATA FORM

BESI # 276063

GENERATOR

Generator's Name and Mailing Address

L.A.U.S.D. - OEHS
333 S. BEAUDRY AVE., 21ST FLOOR
LOS ANGELES, CA 90017

Generator's Site Address (if different than mailing address)

LAUSD - JOHN BURROUGHS MIDDLE SCHOOL
600 S. MCCADDEN PLACE
LOS ANGELES, CA 90005

Generator's Phone: 213-241-3199

Container type removed from site:

☒ Drums ☐ Vacuum Truck ☐ Roll-off Truck ☐ Dump Truck

☐ Other _____

Quantity 01

Container type transported to receiving facility:

☐ Drums ☒ Vacuum Truck ☐ Roll-off Truck ☐ Dump Truck

☐ Other _____

Quantity _____ Volume _____

WASTE DESCRIPTION NON-HAZARDOUS WATER

GENERATING PROCESS ~~WELL PURGING~~ / DECON WATER

COMPONENTS OF WASTE	PPM	%
1. WATER		99-100%
2. TPH		<1%

COMPONENTS OF WASTE	PPM	%
3.		
4.		

Waste Profile _____ PROPERTIES: pH 7-10 ☐ SOLID ☒ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER _____

HANDLING INSTRUCTIONS: _____

Generator Printed/Typed Name: ~~LEE O'BRIEN JR. LAUSD~~ Kevin Hall | Signature: Kevin C. Hall | Month 01 Day 06 Year 17

The Generator certifies that the waste as described is 100% non-hazardous

TRANSPORTER

Transporter 1 Company Name: BELSHIRE | Phone#: 949-460-5200

Transporter 1 Printed/Typed Name: Jose Ferreyra | Signature: [signature] | Month Day Year: 01 06 17

Transporter Acknowledgment of Receipt of Materials

Transporter 2 Company Name: NIETO & SONS TRUCKING, INC. | Phone#: 714-990-8865

Transporter 2 Printed/Typed Name: | Signature: | Month Day Year:

Transporter Acknowledgment of Receipt of Materials

RECEIVING FACILITY

Designated Facility Name and Site Address

DEMENNO KERDOON
2000 N. ALAMEDA ST.
COMPTON, CA 90222

Phone#: 310-537-7100

Printed/Typed Name: | Signature: | Month Day Year:

Designated Facility Owner or Operator: Certification of receipt of materials covered by this data form.

ATTACHMENT F

FORM 1, CERTIFICATE OF COMPLIANCE FOR METHANE TEST DATA, PARTS 1 AND 2

FORM 1 - CERTIFICATE OF COMPLIANCE FOR METHANE TEST DATA

Part 1: Certification Sheet

Site Address: John Burroughs Middle School, 600 South McCadden Place, Los Angeles, California 90005
Legal Description: Tract: 6388 Lot: 14&15 Block:
Building Use: Proposed Modernization of Existing School

Architect's, Engineer's or Geologist's Stamp:

Name of Architect, Engineer, or Geologist:
Julie C. Harriman, PE
Mailing Address:
17781 Cowan
Irvine, CA 92614
Telephone: 949-681-4264

Name of Testing Laboratory:
Leighton Consulting, Inc.
City Test Lab License #: TA10069
Telephone: 949-681-4264

I hereby certify that I have tested the above site for the purpose of methane mitigation and that all procedures were conducted by a City of Los Angeles licensed testing agency in conformity with the requirements of the LADBS Information Bulletin P/BC 2014-101. Where the inspection and testing of all or part of the work above is delegated, full responsibility shall be assumed by the architect, engineer or geologist whose signature is affixed thereon.

Signed: _____ date 9/25/2017

Required Data:

- Project is in the (Methane Zone) or (Methane Buffer Zone).
- Depth of ground water observed during testing: N/A feet below the Impervious Membrane.
- Depth of Historical High Ground Water Table Elevation*: ~20 feet below the Impervious Membrane.
- Design Methane Concentration**: 578,000 parts per million in volume (ppmv).
- Design Methane Pressure***: 1.0 inches of water column.
- Site Design Level: (Level I, Level II, Level III, Level IV, (Level V) with all pressures inches of water column.

De-watering:

- De-watering (is) (is not) required per Section 7104.3.7. [groundwater anticipated >10 ft below perforated pipe]
- Pump discharge rate _____ cubic feet per minute per reference geology or soil report: _____ dated _____.

Additional Investigation:

- Additional investigation (was) (was not) conducted.

Latest Grading on Site:

- Date of last grading on site (was) (was not) more than 30 days before Site Testing.
- See Attached explanation of the effect on soil gas survey results by grading operations.

Notes:

* Historical High Ground Water Table Elevation shall mean the highest recorded elevation of ground water table based on historical records and field investigations as determined by the engineer for the methane mitigation system.

** Design Methane Concentration shall mean the highest recorded measured methane concentration from either Shallow Soil Gas Test or any Gas Probe Set on the site.

*** Design Methane Pressure shall mean the highest total pressure measured from any Gas Probe Set on the site.

As a covered entity under Title II of the Americans with Disabilities Act, the City of Los Angeles does not discriminate on the basis of disability and, upon request, will provide reasonable accommodation to ensure equal access to its programs, services and activities. For efficient handling of information internally and in the internet, conversion to this new format of code related and administrative information bulletins including MGD and RGA that were previously issued will allow flexibility and timely distribution of information to the public.

FORM 1 (CONTINUED) - CERTIFICATE OF COMPLIANCE FOR METHANE TEST DATA

Part 2: Test Data - Shallow Soil Gas Test and Gas Probe Test
Site Address: John Burroughs Middle School, 600 South McCadden Place, Los Angeles, California 90005
Description of Gas Analysis Instrument(s):
Instrument Name and Model: Landtec GEM-2000 Plus Instrument Accuracy: ± 500 ppmv.
City of Los Angeles Testing License #: TA10069

Date	Time (Approx.)	Probe Set #	Concentration (ppmv)	Pressure (inches water column)	Probe Depth (feet)	Description / Probe Location
1/3/2017	8:10	Outdoor Air	0	0.0	Not applicable	Near M-14
1/16/2017	8:12	Outdoor Air	0	0.0	Not applicable	Near M-2
1/3/2017	13:55	M-1	0	0.0	5	SW Portion of Site
1/16/2017	8:25	M-1	0	0.0	5	SW Portion of Site
1/3/2017	14:00	M-1	15,000	0.0	15	SW Portion of Site
1/16/2017	8:30	M-1	1,000	0.0	15	SW Portion of Site
1/3/2017	13:50	M-2	Moisture. No Sample	0.0	5	SW Portion of Site
1/16/2017	8:15	M-2	0	0.0	5	SW Portion of Site
1/3/2017	13:52	M-2	No Flow	1.0	15	SW Portion of Site
1/16/2017	8:20	M-2	0	1.0	15	SW Portion of Site
1/3/2017	13:40	M-3	No Flow	1.0	5	West Portion of Site
1/16/2017	9:40	M-3	Moisture. No Sample	0.0	5	West Portion of Site
1/3/2017	13:42	M-3	Probe tip lost.	Not applicable	14.5	West Portion of Site
1/16/2017	9:48	M-3	Probe tip lost.	Not applicable	14.5	West Portion of Site
1/3/2017	13:45	M-4	No Flow	1.0	5	West Portion of Site
1/16/2017	15:20	M-4	No Flow	0.0	5	West Portion of Site
1/3/2017	13:48	M-4	No Flow	1.0	15	West Portion of Site
1/16/2017	15:30	M-4	0	0.0	15	West Portion of Site
1/3/2017	12:35	M-5	14,000	0.2	5	West Portion of Site
1/16/2017	12:40	M-5	0	0.0	5	West Portion of Site
1/3/2017	12:40	M-5	1,000	0.0	15	West Portion of Site
1/16/2017	12:50	M-5	0	0.2	15	West Portion of Site

TABLE 1 - DATA COLLECTION EQUIPMENT

As a covered entity under Title II of the Americans with Disabilities Act, the City of Los Angeles does not discriminate on the basis of disability and, upon request, will provide reasonable accommodation to ensure equal access to its programs, services and activities. For efficient handling of information internally and in the internet, conversion to this new format of code related and administrative information bulletins including MGD and RGA that were previously issued will allow flexibility and timely distribution of information to the public.

FORM 1 (CONTINUED) - CERTIFICATE OF COMPLIANCE FOR METHANE TEST DATA

Part 2: Test Data - Shallow Soil Gas Test and Gas Probe Test

Site Address: John Burroughs Middle School, 600 South McCadden Place, Los Angeles, California 90005
Description of Gas Analysis Instrument(s):
Instrument Name and Model: Landtec GEM-2000 Plus Instrument Accuracy: ± 500 ppmv.
City of Los Angeles Testing License #: TA10069

Date	Time (Approx.)	Probe Set #	Concentration (ppmv)	Pressure (inches water column)	Probe Depth (feet)	Description / Probe Location
1/3/2017	11:40	M-6	0	0.0	5	NW Portion of Site
1/16/2017	13:58	M-6	0	0.0	5	NW Portion of Site
1/3/2017	11:55	M-6	0	0.0	11	NW Portion of Site
1/16/2017	14:05	M-6	No Flow	0.0	11	NW Portion of Site
1/3/2017	12:10	M-7	111,000	0.0	5	NW Portion of Site
1/16/2017	13:20	M-7	165,000	0.0	5	NW Portion of Site
1/16/2017	12:20	M-7	0	0.0	14.5	NW Portion of Site
1/3/2017	13:25	M-7	0	0.0	14.5	NW Portion of Site
1/3/2017	12:00	M-8	8,000	0.0	5	NW Portion of Site
1/16/2017	13:00	M-8	0	0.10	5	NW Portion of Site
1/3/2017	12:05	M-8	0	1.0	14.5	NW Portion of Site
1/16/2017	13:10	M-8	0	-0.02	14.5	NW Portion of Site
1/3/2017	12:45	M-9	0	0.0	5	West Portion of Site
1/16/2017	12:25	M-9	0	0.0	5	West Portion of Site
1/3/2017	12:45	M-9	Probe tip lost.	Not applicable	15	West Portion of Site
1/16/2017	12:30	M-9	0	0.0	15	West Portion of Site
1/3/2017	12:50	M-10	0	0.0	5	West Portion of Site
1/16/2017	12:10	M-10	0	0.0	5	West Portion of Site
1/3/2017	12:55	M-10	0	0.0	13	West Portion of Site
1/16/2017	12:20	M-10	0	0.0	13	West Portion of Site
1/3/2017	13:33	M-11	0	0.0	5	West Portion of Site
1/16/2017	9:55	M-11	0	0.0	5	West Portion of Site
1/3/2017	13:36	M-11	0	0.0	15	West Portion of Site
1/16/2017	10:00	M-11	0	0.0	15	West Portion of Site

TABLE 1 - DATA COLLECTION EQUIPMENT

As a covered entity under Title II of the Americans with Disabilities Act, the City of Los Angeles does not discriminate on the basis of disability and, upon request, will provide reasonable accommodation to ensure equal access to its programs, services and activities. For efficient handling of information internally and in the internet, conversion to this new format of code related and administrative information bulletins including MGD and RGA that were previously issued will allow flexibility and timely distribution of information to the public.

FORM 1 (CONTINUED) - CERTIFICATE OF COMPLIANCE FOR METHANE TEST DATA

Part 2: Test Data - Shallow Soil Gas Test and Gas Probe Test

Site Address: John Burroughs Middle School, 600 South McCadden Place, Los Angeles, California 90005
Description of Gas Analysis Instrument(s):
Instrument Name and Model: Landtec GEM-2000 Plus Instrument Accuracy: ± 500 ppmv.
City of Los Angeles Testing License #: TA10069

Date	Time (Approx.)	Probe Set #	Concentration (ppmv)	Pressure (inches water column)	Probe Depth (feet)	Description / Probe Location
1/3/2017	14:10	M-12	0	0.0	5	South Portion of Site
1/16/2017	8:35	M-12	0	0.0	5	South Portion of Site
1/3/2017	14:15	M-12	No Flow	0.0	15	South Portion of Site
1/16/2017	8:40	M-12	No Flow	0.0	15	South Portion of Site
1/3/2017	14:50	M-13	0	0.1	5	South Portion of Site
1/16/2017	9:10	M-13	5,000	1.0	5	South Portion of Site
1/3/2017	15:00	M-13	No Flow	0.0	15	South Portion of Site
1/16/2017	9:20	M-13	No Flow	-0.02	15	South Portion of Site
1/3/2017	8:15	M-14	0	-0.2	5	East Portion of Site
1/16/2017	10:15	M-14	1,000	0.0	5	East Portion of Site
1/3/2017	8:20	M-14	187,000	0.0	15	East Portion of Site
1/16/2017	10:20	M-14	156,000	0.0	15	East Portion of Site
1/3/2017	13:20	M-15	0	0.0	5	East Portion of Site
1/16/2017	10:45	M-15	0	0.0	5	East Portion of Site
1/3/2017	13:22	M-15	94,000	0.0	15	East Portion of Site
1/16/2017	10:50	M-15	92,000	0.18	15	East Portion of Site
1/3/2017	13:10	M-16	No Flow	0.6	5	East Portion of Site
1/16/2017	11:00	M-16	No Flow	0.0	5	East Portion of Site
1/3/2017	13:15	M-16	No Flow	1.0	14.5	East Portion of Site
1/16/2017	11:08	M-16	No Flow	1.0	14.5	East Portion of Site
1/3/2017	12:25	M-17	488,000	0.0	5	North Portion of Site
1/16/2017	13:30	M-17	578,000	0.0	5	North Portion of Site
1/3/2017	12:30	M-17	No Flow	0.0	15	North Portion of Site
1/16/2017	13:45	M-17	No Flow	1.0	15	North Portion of Site

TABLE 1 - DATA COLLECTION EQUIPMENT

As a covered entity under Title II of the Americans with Disabilities Act, the City of Los Angeles does not discriminate on the basis of disability and, upon request, will provide reasonable accommodation to ensure equal access to its programs, services and activities. For efficient handling of information internally and in the internet, conversion to this new format of code related and administrative information bulletins including MGD and RGA that were previously issued will allow flexibility and timely distribution of information to the public.

FORM 1 (CONTINUED) - CERTIFICATE OF COMPLIANCE FOR METHANE TEST DATA

Part 2: Test Data - Shallow Soil Gas Test and Gas Probe Test

Site Address: John Burroughs Middle School, 600 South McCadden Place, Los Angeles, California 90005
Description of Gas Analysis Instrument(s):
Instrument Name and Model: Landtec GEM-2000 Plus Instrument Accuracy: ± 500 ppmv.
City of Los Angeles Testing License #: TA10069

Date	Time (Approx.)	Probe Set #	Concentration (ppmv)	Pressure (inches water column)	Probe Depth (feet)	Description / Probe Location
1/3/2017	10:30	M-18	0	0.0	5	North Portion of Site
1/16/2017	14:10	M-18	No Flow	0.0	5	North Portion of Site
1/3/2017	10:40	M-18	No Flow	0.0	15	North Portion of Site
1/16/2017	14:15	M-18	1,000	0.0	15	North Portion of Site
1/3/2017	8:35	M-19	0	0.0	5	NE Portion of Site
1/16/2017	14:30	M-19	No Flow	0.0	5	NE Portion of Site
1/3/2017	8:40	M-19	0	0.0	15	NE Portion of Site
1/16/2017	14:35	M-19	No Flow	0.0	15	NE Portion of Site
1/3/2017	10:15	M-20	0	0.0	5	NE Portion of Site
1/16/2017	14:18	M-20	0	0.0	5	NE Portion of Site
1/3/2017	10:22	M-20	1,000	1.0	15	NE Portion of Site
1/16/2017	14:22	M-20	0	0.0	15	NE Portion of Site
1/3/2017	10:04	M-21	0	0.0	5	NE Portion of Site
1/16/2017	13:50	M-21	1,000	0.0	5	NE Portion of Site
1/3/2017	10:08	M-21	2,000	0.14	15	NE Portion of Site
1/16/2017	13:55	M-21	3,000	0.0	15	NE Portion of Site
1/3/2017	10:00	M-22	3,000	0.0	5	NE Portion of Site
1/16/2017	11:45	M-22	0	1.0	5	NE Portion of Site
1/3/2017	10:02	M-22	4,000	1.0	15	NE Portion of Site
1/16/2017	11:50	M-22	0	-0.02	15	NE Portion of Site
1/3/2017	13:00	M-23	0	0.0	5	East Portion of Site
1/16/2017	11:30	M-23	0	0.0	5	East Portion of Site
1/3/2017	13:05	M-23	0	0.0	15	East Portion of Site
1/16/2017	11:35	M-23	0	0.30	15	East Portion of Site

TABLE 1 - DATA COLLECTION EQUIPMENT

As a covered entity under Title II of the Americans with Disabilities Act, the City of Los Angeles does not discriminate on the basis of disability and, upon request, will provide reasonable accommodation to ensure equal access to its programs, services and activities. For efficient handling of information internally and in the internet, conversion to this new format of code related and administrative information bulletins including MGD and RGA that were previously issued will allow flexibility and timely distribution of information to the public.

FORM 1 (CONTINUED) - CERTIFICATE OF COMPLIANCE FOR METHANE TEST DATA

Part 2: Test Data - Shallow Soil Gas Test and Gas Probe Test

Site Address: John Burroughs Middle School, 600 South McCadden Place, Los Angeles, California 90005
Description of Gas Analysis Instrument(s):
Instrument Name and Model: Landtec GEM-2000 Plus Instrument Accuracy: ± 500 ppmv.
City of Los Angeles Testing License #: TA10069

Date	Time (Approx.)	Probe Set #	Concentration (ppmv)	Pressure (inches water column)	Probe Depth (feet)	Description / Probe Location
1/3/2017	9:45	M-24	0	0.0	5	East Portion of Site
1/16/2017	11:20	M-24	1,000	0.0	5	East Portion of Site
1/3/2017	9:50	M-24	0	0.0	15	East Portion of Site
1/16/2017	11:25	M-24	217,000	0.8	15	East Portion of Site
1/3/2017	13:24	M-25	No Flow	0.0	5	East Portion of Site
1/16/2017	10:30	M-25	0	0.0	5	East Portion of Site
1/3/2017	13:26	M-25	No Flow	0.1	15	East Portion of Site
1/16/2017	13:35	M-25	0	0.0	15	East Portion of Site
1/3/2017	14:35	M-26	No Flow	1.0	5	SE Portion of Site
1/16/2017	9:00	M-26	No Flow	1.0	5	SE Portion of Site
1/3/2017	14:40	M-26	No Flow	1.0	15	SE Portion of Site
1/16/2017	9:05	M-26	No Flow	0.72	15	SE Portion of Site
1/3/2017	14:25	M-27	0	0.0	5	SE Portion of Site
1/16/2017	8:50	M-27	0	0.0	5	SE Portion of Site
1/3/2017	14:30	M-27	0	0.0	15	SE Portion of Site
1/16/2017	8:55	M-27	0	0.0	15	SE Portion of Site
1/3/2017	8:50	M-28	0	0.0	5	NE Portion of Site
1/16/2017	14:45	M-28	0	0.0	5	NE Portion of Site
1/3/2017	9:10	M-28	0	0.2	14.5	NE Portion of Site
1/16/2017	14:50	M-28	0	0.0	14.5	NE Portion of Site
1/3/2017	9:20	M-29	0	0.0	5	NE Portion of Site
1/16/2017	15:00	M-29	No Flow	0.0	5	NE Portion of Site
1/3/2017	9:25	M-29	0	0.0	15	NE Portion of Site
1/16/2017	15:10	M-29	No Flow	0.0	15	NE Portion of Site

TABLE 1 - DATA COLLECTION EQUIPMENT

As a covered entity under Title II of the Americans with Disabilities Act, the City of Los Angeles does not discriminate on the basis of disability and, upon request, will provide reasonable accommodation to ensure equal access to its programs, services and activities. For efficient handling of information internally and in the internet, conversion to this new format of code related and administrative information bulletins including MGD and RGA that were previously issued will allow flexibility and timely distribution of information to the public.

FORM 1 (CONTINUED) - CERTIFICATE OF COMPLIANCE FOR METHANE TEST DATA

Part 2: Test Data - Shallow Soil Gas Test and Gas Probe Test

Site Address: John Burroughs Middle School, 600 South McCadden Place, Los Angeles, California 90005
Description of Gas Analysis Instrument(s):
Instrument Name and Model: Landtec GEM-2000 Plus Instrument Accuracy: ± 500 ppmv.
City of Los Angeles Testing License #: TA10069

Date	Time (Approx.)	Probe Set #	Concentration (ppmv)	Pressure (inches water column)	Probe Depth (feet)	Description / Probe Location
1/3/2017	13:28	M-30	0	0.0	5	SE Portion of Site
1/16/2017	9:32	M-30	No Flow	-0.02	5	SE Portion of Site
1/16/2017	13:30	M-30	No Flow	-0.02	9.5	SE Portion of Site
1/3/2017	9:36	M-30	No Flow	0.0	9.5	SE Portion of Site

TABLE 1 - DATA COLLECTION EQUIPMENT

As a covered entity under Title II of the Americans with Disabilities Act, the City of Los Angeles does not discriminate on the basis of disability and, upon request, will provide reasonable accommodation to ensure equal access to its programs, services and activities. For efficient handling of information internally and in the internet, conversion to this new format of code related and administrative information bulletins including MGD and RGA that were previously issued will allow flexibility and timely distribution of information to the public.

APPENDIX G

PROUCL OUTPUT SPREADSHEETS

UCL Statistics for Uncensored Full Data Sets

User Selected Options	
Date/Time of Computation	ProUCL 5.19/6/2017 2:42:32 PM
From File	Arsenic ProUCL.xls
Full Precision	OFF
Confidence Coefficient	95%
mber of Bootstrap Operations	2000

Arsenic

General Statistics

Total Number of Observations	326	Number of Distinct Observations	89
		Number of Missing Observations	11
Minimum	1	Mean	6.696
Maximum	82	Median	2.4
SD	13.03	Std. Error of Mean	0.722
Coefficient of Variation	1.946	Skewness	3.653

Normal GOF Test

Shapiro Wilk Test Statistic	0.44	**Shapiro Wilk GOF Test**
5% Shapiro Wilk P Value	0	Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.362	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.0495	Data Not Normal at 5% Significance Level

Data Not Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	7.887	95% Adjusted-CLT UCL (Chen-1995)	8.039
		95% Modified-t UCL (Johnson-1978)	7.911

Gamma GOF Test

A-D Test Statistic	43.52	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.794	Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.277	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.0522	Data Not Gamma Distributed at 5% Significance Level

Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	0.816	k star (bias corrected MLE)	0.811
Theta hat (MLE)	8.202	Theta star (bias corrected MLE)	8.257
nu hat (MLE)	532.3	nu star (bias corrected)	528.7
MLE Mean (bias corrected)	6.696	MLE Sd (bias corrected)	7.436
		Approximate Chi Square Value (0.05)	476.4
Adjusted Level of Significance	0.0493	Adjusted Chi Square Value	476.2

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	7.431	95% Adjusted Gamma UCL (use when n<50)	7.435

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.78	**Shapiro Wilk Lognormal GOF Test**
5% Shapiro Wilk P Value	0	Data Not Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.187	**Lilliefors Lognormal GOF Test**
5% Lilliefors Critical Value	0.0495	Data Not Lognormal at 5% Significance Level

56	**Data Not Lognormal at 5% Significance Level**											
57												
58	**Lognormal Statistics**											
59					Minimum of Logged Data	0			Mean of logged Data	1.176		
60					Maximum of Logged Data	4.407			SD of logged Data	0.958		
61												
62	**Assuming Lognormal Distribution**											
63					95% H-UCL	5.733			90% Chebyshev (MVUE) UCL	6.099		
64					95% Chebyshev (MVUE) UCL	6.542			97.5% Chebyshev (MVUE) UCL	7.158		
65					99% Chebyshev (MVUE) UCL	8.366						
66												
67	**Nonparametric Distribution Free UCL Statistics**											
68	**Data do not follow a Discernible Distribution (0.05)**											
69												
70	**Nonparametric Distribution Free UCLs**											
71					95% CLT UCL	7.883			95% Jackknife UCL	7.887		
72					95% Standard Bootstrap UCL	7.849			95% Bootstrap-t UCL	8.023		
73					95% Hall's Bootstrap UCL	7.995			95% Percentile Bootstrap UCL	7.898		
74					95% BCA Bootstrap UCL	8.003						
75					90% Chebyshev(Mean, Sd) UCL	8.861			95% Chebyshev(Mean, Sd) UCL	9.842		
76					97.5% Chebyshev(Mean, Sd) UCL	11.2			99% Chebyshev(Mean, Sd) UCL	13.88		
77												
78	**Suggested UCL to Use**											
79					95% Chebyshev (Mean, Sd) UCL	9.842						
80												
81	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
82	Recommendations are based upon data size, data distribution, and skewness.											
83	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
84	owever, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statisticia											
85												

UCL Statistics for Uncensored Full Data Sets

User Selected Options	
Date/Time of Computation	ProUCL 5.19/7/2017 6:52:22 PM
From File	Lead ProUCL.xls
Full Precision	OFF
Confidence Coefficient	95%
mber of Bootstrap Operations	2000

Lead

General Statistics

Total Number of Observations	521	Number of Distinct Observations	163
		Number of Missing Observations	0
Minimum	1.3	Mean	36.53
Maximum	2700	Median	11
SD	129.6	Std. Error of Mean	5.678
Coefficient of Variation	3.548	Skewness	17.13

Normal GOF Test

Shapiro Wilk Test Statistic	0.233	**Shapiro Wilk GOF Test**
5% Shapiro Wilk P Value	0	Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.393	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.0392	Data Not Normal at 5% Significance Level

Data Not Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	45.89	95% Adjusted-CLT UCL (Chen-1995)	50.43
		95% Modified-t UCL (Johnson-1978)	46.6

Gamma GOF Test

A-D Test Statistic	1.919E+28	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.81	Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.15	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.0419	Data Not Gamma Distributed at 5% Significance Level

Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	0.626	k star (bias corrected MLE)	0.624
Theta hat (MLE)	58.32	Theta star (bias corrected MLE)	58.54
nu hat (MLE)	652.7	nu star (bias corrected)	650.3
MLE Mean (bias corrected)	36.53	MLE Sd (bias corrected)	46.24
		Approximate Chi Square Value (0.05)	592.1
Adjusted Level of Significance	0.0495	Adjusted Chi Square Value	592

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	40.12	95% Adjusted Gamma UCL (use when n<50)	40.13

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.944	**Shapiro Wilk Lognormal GOF Test**
5% Shapiro Wilk P Value	0	Data Not Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.0867	**Lilliefors Lognormal GOF Test**
5% Lilliefors Critical Value	0.0392	Data Not Lognormal at 5% Significance Level

	A	B	C	D	E	F	G	H	I	J	K	L
56	**Data Not Lognormal at 5% Significance Level**											
57												
58	**Lognormal Statistics**											
59	Minimum of Logged Data					0.262	Mean of logged Data					2.618
60	Maximum of Logged Data					7.901	SD of logged Data					1.256
61												
62	**Assuming Lognormal Distribution**											
63	95% H-UCL					34.3	90% Chebyshev (MVUE) UCL					36.69
64	95% Chebyshev (MVUE) UCL					39.68	97.5% Chebyshev (MVUE) UCL					43.83
65	99% Chebyshev (MVUE) UCL					51.97						
66												
67	**Nonparametric Distribution Free UCL Statistics**											
68	**Data do not follow a Discernible Distribution (0.05)**											
69												
70	**Nonparametric Distribution Free UCLs**											
71	95% CLT UCL					45.87	95% Jackknife UCL					45.89
72	95% Standard Bootstrap UCL					46.02	95% Bootstrap-t UCL					58.21
73	95% Hall's Bootstrap UCL					83.27	95% Percentile Bootstrap UCL					47.24
74	95% BCA Bootstrap UCL					51.08						
75	90% Chebyshev(Mean, Sd) UCL					53.57	95% Chebyshev(Mean, Sd) UCL					61.28
76	97.5% Chebyshev(Mean, Sd) UCL					71.99	99% Chebyshev(Mean, Sd) UCL					93.03
77												
78	**Suggested UCL to Use**											
79	95% Chebyshev (Mean, Sd) UCL					61.28						
80												
81	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
82	Recommendations are based upon data size, data distribution, and skewness.											
83	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
84	owever, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statisticia											
85												

Appendix H
Final Removal Action Workplan

ESA

Leighton Consulting, Inc.
A LEIGHTON GROUP COMPANY

TRANSMITTAL

To: Los Angeles Unified School District
Office of Environmental Health and Safety
333 South Beaudry Avenue, 21st Floor
Los Angeles, California 90017

Date: February 9, 2018

Leighton Project No. 11640.004

Attention: Mr. Dane Robinson

Transmitted:		The Following:		For:	
____	Mail/Overnight	_X_	Draft Report	_X_	Your Use
____	Courier	____	Final Report	____	As Requested
____	Pick Up	____	Extra Report		
_X_	Email	____	Proposal		
		____	Draft Final Report		

Subject: Final Draft Removal Action Workplan (RAW), Burroughs Middle School Comprehensive Modernization Project, 600 South McCadden Place, Los Angeles, California, 90005

LEIGHTON CONSULTING, INC.

By: Kris Lutton, PG

Distribution: Addressee

17781 Cowan ■ Irvine, CA 92614-6009
949.250.1421 ■ Fax 949.250.1114 ■ www.leightongroup.com

FINAL DRAFT
REMOVAL ACTION WORKPLAN
BURROUGHS MIDDLE SCHOOL COMPREHENSIVE MODERNIZATION PROJECT
600 SOUTH MCCADDEN PLACE
LOS ANGELES, CALIFORNIA, 90005

Prepared For:

LOS ANGELES UNIFIED SCHOOL DISTRICT

Office of Environmental Health and Safety
333 South Beaudry Avenue, 21st Floor
Los Angeles, California 90017

Project No. 11640.004

February 8, 2018

Leighton Consulting, Inc.
A LEIGHTON GROUP COMPANY

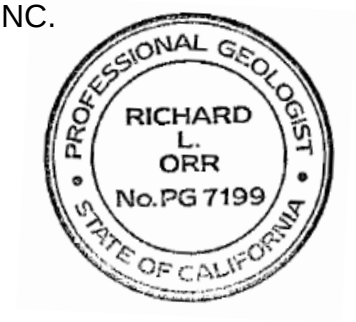
Leighton Consulting, Inc.
A LEIGHTON GROUP COMPANY

FINAL DRAFT
Removal Action Workplan (RAW)

Burroughs Middle School Comprehensive Modernization Project
600 South McCadden Place,
Los Angeles, California, 90005

Leighton Consulting, Inc. (Leighton) is pleased to present this Removal Action Workplan (RAW) for the proposed comprehensive modernization project to address areas of elevated arsenic and lead in soil at the Site on portions of the existing Burroughs Middle School campus located at 600 South McCadden Place in Los Angeles, California. This RAW was prepared by Leighton for the Los Angeles Unified School District, in a manner consistent with the level of care and skill ordinarily exercised by professional geologists and environmental scientists. This RAW was prepared under the technical direction of the undersigned, who is a California Professional Geologist.

LEIGHTON CONSULTING, INC.



Richard L. Orr, PG
Associate Geologist

Kris Lutton, PG
Senior Vice President

February 8, 2018

17781 Cowan ■ Irvine, CA 92614-6009
949.250.1421 ■ Fax 949.250.1114 ■ www.leightongroup.com

TABLE OF CONTENTS

Section **Page**

LIST OF ABBREVIATIONS/ACRONYMS V

1.0 INTRODUCTION 1

1.1 Removal Action Objectives 2

2.0 SITE BACKGROUND 4

2.1 Site Location and Description 4

2.1.1 Site Name and Address 4
2.1.2 Contact Person, Mailing Address and Telephone Number 5
2.1.3 EPA ID Number and CalSites Database Number 5
2.1.4 Assessor's Parcel Number 5
2.1.5 Ownership 6
2.1.6 Township, Range, Section and Meridian 6

2.2 Operational History and Status 6
2.3 Topography 7
2.4 Regional Geology and Hydrogeology 7
2.5 Soil Type and Groundwater 8
2.6 Land Uses, Sensitive Receptors, Ecosystems and Cultural Resources 9
2.7 Meteorology 9
2.8 Previous Site Actions 10
2.9 Phase I Environmental Site Assessment 10
2.10 PEA-Equivalent 12

3.0 NATURE, SOURCE AND EXTENT OF CHEMICALS OF CONCERN 14

3.1 Chemicals of Concern: Arsenic and Lead 14
3.2 Source and Location of Chemicals of Concern 14
3.3 Extent and Volume of Soil Removal 14
3.4 Health Effects of Chemicals of Concern 22
3.5 Targets Potentially Affected by the Site 22

4.0 RISK EVALUATION AND CLEANUP GOALS 24

4.1 Human Health Risk Screening Evaluation 24
4.2 Environmental Screening Risk Evaluation 26
4.3 Endangerment Determination 26
4.4 Cleanup Goals (CGs) 27

5.0 ENGINEERING EVALUATION/COST ANALYSIS (EE/CA) 28

5.1 Removal Action Scope 28
5.2 Identification and Evaluation of Removal Action Alternatives 28

5.2.1 EE/CA Alternative Evaluation Criteria 29

TABLE OF CONTENTS (Continued)

5.2.2 Description and Comparative Analysis of Removal Action Alternatives 30
5.3 Description of Recommended Remedy 33
5.4 Cost Estimates of Recommended Remedy 34
6.0 APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS 35
6.1 Public Participation 35
6.1.1 Community Assessment 35
6.1.2 Community Profile Report 36
6.1.3 Public Participation Activities 37
6.2 Hazardous Waste Management 38
6.3 Air Quality Management 39
6.4 Storm Water Discharge Management 39
6.5 California Environmental Quality Act (CEQA) 40
6.6 Health and Safety Plan (HASP) 41
6.7 Quality Assurance Project Plan (QAPP) 42
6.8 Others 42
7.0 REMOVAL ACTION IMPLEMENTATION 44
7.1 Field Documentation 44
7.1.1 Daily Field Logs (DFLs) 44
7.1.2 Chain-of-Custody Records 46
7.1.3 Photographs 46
7.2 Site Preparation and Security Measures 47
7.2.1 Delineation of Excavation Areas 47
7.2.2 Utility Clearance 48
7.2.3 Security Measures 48
7.2.4 Contaminant Control 49
7.2.5 Cultural Resources Consideration 49
7.2.6 Biological Resources Consideration 50
7.2.7 Noise Control 50
7.2.8 Permits and Plans 50
7.3 Excavation 50
7.3.1 Confined Space Entry Requirements 51
7.3.2 Soil Staging and Storage Operations 52
7.3.3 Waste Segregation Operations 52
7.3.4 Decontamination Area 53
7.3.5 Decontamination Procedures 53
7.3.6 Excavation Plan 54
7.4 Air and Meteorological Monitoring 54

Leighton

TABLE OF CONTENTS (Continued)

7.4.1 Air Monitoring 55
7.4.2 Meteorological Monitoring 58
7.4.3 Other Environmental Monitoring 58
7.5 Dust Control Plan 59
7.6 Sampling and Analysis Plan 60
7.6.1 Waste Profiling Sampling 60
7.6.2 Confirmation Sampling 61
7.7 Transportation Plan for Offsite Disposal 62
7.8 Backfill and Site Restoration 62
7.9 Variance or Explanation of Significant Difference (ESD) 62
7.9.1 Criteria for Fundamental, Significant or Minor Changes 63
7.9.2 ESD Process 64
8.0 PROJECT SCHEDULE AND REPORT OF COMPLETION 66
9.0 ADMINISTRATIVE RECORDS 67

List of Accompanying Figures, Tables and Appendices

Figure 1 – Site Location Map
Figure 2 – Current and Historical Building and Structure Locations
Figure 3 – Soil Boring Location Map
Figure 4 – AOC: Excavation Area and Proposed Confirmation Samples, Existing Building 5 and Existing Building 23 (EB5-3, EB5-4 and EB23-2)
Figure 5 – AOC: Excavation Area and Proposed Confirmation Samples, Existing Building 9 and Vicinity (EB9-1, EB9-6, EB9-7, EB10-2, EB11-1, EB11-2, EB12-1, EB13-1, EB13-2, EB15-1, FB9-1 and FB9-4)
Figure 6 – AOC: Excavation Area, Former Building 14 (FB14-1)
Figure 7 – AOC: Excavation Area, Existing Building 20 and Former Building 16 (EB-20-6 and FB16-1)

Table 1 – Summary of Laboratory Results in Soil for Organochlorine Pesticides (OCPs), Arsenic, Lead, and Polychlorinated Biphenyls (PCBs)
Table 2 – Summary of Laboratory Results in Soil for Polycyclic Aromatic Hydrocarbons (PAHs) and Title 22 Metals at Boring EB9-7
Table 3 – Summary of Laboratory Results in Soil for Total Petroleum Hydrocarbons (TPH) and Volatile Organic Compounds (VOCs)
Table 4 – Prevailing Wind Directions
Table 5 – Summary of Sampling and Analysis Program
Table 6 – Proposed Confirmation Sample List

Leighton

TABLE OF CONTENTS (Continued)

Appendix A – References
Appendix B – Conceptual Site Exposure Model
Appendix C – Community Profile
Appendix D – Health and Safety Plan (HASP)
Appendix E – Quality Assurance Project Plan (QAPP)
Appendix F – Transportation Plan and Map
Appendix G – Generic Removal Action Completion Report Table of Contents
Appendix H – RAW Process Schedule
Appendix I – Information about your Geoenvironmental Report

LIST OF ABBREVIATIONS/ACRONYMS

ACGIH	American Conference of Governmental Industrial Hygienists
AIN	Assessor's ID Number
amsl	above mean sea level
AOC	Area of Concern
AQMD	Air Quality Management District
ARARs	Applicable or Relevant and Appropriate Requirements
bgs	below ground surface
BMPs	Best management practices
Cal/EPA	California Environmental Protection Agency
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERCLIS	CERCLA Information System
CFR	Code of Federal Regulations
CG	Cleanup Goal
CIH	Certified Industrial Hygienist
COC	Chemical of concern
CY	Cubic yards
District	Los Angeles Unified School District
DQOs	Data Quality Objectives
DTSC	Department of Toxic Substances Control
DTSC-SL	DTSC Modified Screening Level
DWR	Department of Water Resources
EE/CA	Engineering Evaluation/Cost Analysis
EIR	Environmental Impact Report
ELAP	Environmental Laboratory Accreditation Program
Enthalpy	Enthalpy Analytical
EPA	Environmental Protection Agency
ESA	Environmental Site Assessment
ESD	Explanation of Significant Difference
H&SC	Health and Safety Code
HASP	Health and safety plan
HAZWOPER	Hazardous Waste Operations and Emergency Response
HHRA	Human Health Risk Assessment
LAUSD	Los Angeles Unified School District
LBP	lead-based paint
Leighton	Leighton Consulting Inc.

List of Abbreviations/Acronyms (Continued)

LUC	Land Use Covenant
LUFT	Leaking Underground Fuel Tank
mg/kg	Milligrams per kilogram
mg/L	Milligrams per liter
MND	Mitigated Negative Declaration
mph	Miles per hour
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
ND	Not Detected
NEPA	National Environmental Policy Act
NFA	No Further Action
NIOSH	National Institute of Occupational Safety and Health
NOAA	National Oceanographic and Atmospheric Administration
NOE	Notice of Exemption
NPDES	National Pollution Discharge Elimination System
O&M	Operations and maintenance
OCPs	Organochlorine Pesticides
OEHHA	Office of Environmental Health Hazard Assessment
OEHS	Office of Environmental Health and Safety
OSHA	Occupational Safety and Health Administration
PAHs	Polyaromatic hydrocarbons
PCBs	Polychlorinated Biphenyls
PEA-E	Preliminary Environmental Assessment Equivalent Document
PEL	Permissible Exposure Limit
PID	Photoionization detector
PPE	Personal protective equipment
ppm	Parts per million
PQL	Laboratory practical quantitation limit
QA/QC	Quality Assurance/Quality Control
QAPP	Quality Assurance Project Plan
RA	Removal Action
RACR	Removal Action Completion Report
RAOs	Removal Action Objectives
RAW	Removal Action Workplan
RCRA	Resource Conservation and Recovery Act

List of Abbreviations/Acronyms (Continued)

REC	Recognized environmental condition
RWQCB	Regional Water Quality Control Board
School property	Burroughs Middle School Campus
Site	Burroughs Middle School Comprehensive Modernization Project
Spectrum	Spectrum Geophysics
STLC	Soluble Threshold Limit Concentration
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TBD	To be determined
TCLP	Toxicity Characteristic Leaching Procedure
TLVs	Threshold Limit Values
TPH	Total petroleum hydrocarbons
TTLC	Total Threshold Limit Concentration
UCL	Upper confidence limit
USA	Underground Service Alert
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
VOCs	Volatile Organic Compounds
WET	Waste Extraction Test
µg/kg	Micrograms per kilogram

REMOVAL ACTION WORKPLAN

Name of Project Site (Site): Burroughs Middle School Comprehensive Modernization Project

Name of Project Proponent: Los Angeles Unified School District (the District) (see Section 2.1.2)

Chemicals of Concern (COCs): Arsenic and Lead (see Section 3.1)

Cleanup Goal (CG): 12.0 milligrams per kilogram (mg/kg) for arsenic and 80 mg/kg for lead in soil (see Section 4.4)

Estimated Volume of Soil Removal (see Section 3.3):

- Approximately 54 cubic yards (CY) of arsenic and lead-impacted soil with non-hazardous waste classification (Areas A, E, and G shown on Figures 4 and 5), and
- Approximately 106 CY of arsenic and lead-impacted soil with California-restricted non-RCRA hazardous waste classification due to elevated lead levels (Areas B, C, D, F, H, I, J, K, L and M shown on Figures 4 through 7).

1.0 INTRODUCTION

This *Removal Action Workplan (RAW)* has been prepared to address the removal of soils impacted with the chemicals of concern (COCs) at the existing Burroughs Middle School Comprehensive Modernization Project (Site) (Figures 1, 2 and 3). The RAW includes a detailed engineering plan for conducting the removal action (RA), a description of the onsite contamination, and the goals to be achieved by the RA, as required by the California Health and Safety Code (H&SC) section 25323.1. The RAW is also consistent with the criteria specified in the H&SC section 25356.1(h).

A *Draft Final Preliminary Environmental Assessment Equivalent* (PEA-E) (Leighton, 2017) was previously conducted at the Site. Elevated levels of the COCs arsenic and lead were detected in the Site soils that pose a potential threat to human health and/or the environment. Based on the data collected during the PEA-E, the District will require a "Response Action" to address the potential threat or hazard posed by the presence of elevated levels of the COCs detected at the Site.

This report was prepared by Leighton Consulting Inc. (Leighton) on behalf of the District in general conformance with various existing guidance documents related to site assessment, characterization, and investigation published by the California Environmental Protection Agency (Cal/EPA) – Department of Toxic Substances Control (DTSC, 2015). Pertinent references related to the Site are listed in Appendix A.

(Select all that are applicable)

__X__ There are sufficient data to support the RA as proposed in this RAW. A Supplemental Site Investigation (SSI) at this Site is therefore not warranted.

_____ An SSI at this Site was subsequently conducted to determine the source and extent of the identified soil contamination. There are sufficient data to support the RA as proposed in this RAW.

__X__ (Type in site-specific situations) WorleyParsons completed a Phase I Environmental Site Assessment (ESA) for the School Property in May 2016 (WorleyParsons, 2016). A PEA-E at this Site was conducted to determine the source and extent of the identified soil contamination (Leighton, 2017). There are sufficient data to support the RA as proposed in this RAW. Due to the physical and chemical nature of the COCs, onsite releases of the COCs would likely persist in shallow Site soil. Because the COCs typically have a low migration potential within a soil column, it is recommended that a RA be performed to mitigate the identified potential threat to human health and/or the environment prior to construction activities for the comprehensive modernization project at the existing school.

(Select all that are applicable)

_____ Construction of the proposed school.

__X__ Construction of the proposed school addition/expansion.

_____ Converting the Site as the proposed charter school site.

_____ (Type in site-specific situations)

1.1 Removal Action Objectives

Removal action objectives (RAOs), that are protective of human health and the environment, have been established as shown below:

- To minimize exposure of humans to the COCs in shallow soil through inhalation, dermal absorption, and ingestion.
- To minimize potential for migration of the COC from the soil to other media.
- To remove or treat impacted soils that:

  1. exceed the following human health risk criteria, to prevent exposure to the excessive COC (only those that are applicable are shown):

     __X__ the DTSC Screening Level of 80 mg/kg for total lead in soils at school sites.

     __X__ the DTSC Screening Level of 12.0 mg/kg for arsenic in soils at school sites.

  2. exceed the following environmental risk criteria (only those that are applicable are shown):

     ___X__ the California hazardous waste classification concentration of 5.0 mg/L for soluble lead in soils.

The removal goals developed and adopted for impacted media at the Site will be responsive to these RAOs. The primary remedial goal for the Site is performance based and focuses on restoring the soils to acceptable conditions in regard to the COCs detected in shallow soil. The goal of this RA is for significant contamination to be excavated, removed from the Site, and disposed of offsite. The proposed action at the Site focuses on the removal and disposal of soils impacted with the COC to reduce the threat to human health, safety and the environment and to provide a permanent solution that reduces the toxicity, mobility, and volume of impacted soil. The District has preliminarily determined that the proposed action (removal of affected soils) is the preferred RA remedy in terms of the three broad technology evaluation criteria: effectiveness, implementability, and cost.

As part of the final remediation, the District's environmental consultant will certify that all necessary removal actions have been completed in accordance with the approved RAW and that post-RAW Site conditions do not pose a significant risk to human health, safety, or the environment.

2.0 SITE BACKGROUND

A Phase I ESA was completed for the School property on May 18, 2016 by WorleyParsons (WorleyParson, 2016). The purpose of the Phase I ESA is to identify recognized environmental conditions (RECs) in order to assist in the evaluation of historical land use, assess potential environmental impacts on- and off-site, and evaluate if potential environmental impacts may pose a threat to on-site occupants, off-site individuals, and the environment. Leighton completed a subsequent PEA-E in 2016-2017 (Leighton, 2017).

2.1 Site Location and Description

The School property is identified by the Los Angeles County Assessor's Office with Assessor's Parcel Number (APN) 5507-017-900 and occupies approximately 10.23 acres. The property is owned and operated by the Los Angeles Unified School District (LAUSD) (hereinafter also referred to as 'the District' or LAUSD). The School property is bounded to the north by residential properties across West 6th Street, to the east by residential properties and a commercial building, to the south by residential properties, Wilshire Private School, and commercial buildings across Wilshire Boulevard and to the west by residential properties across South McCadden Place.

The Site is part of the Burroughs Middle School property (hereinafter also referred to as 'the School property'), which is located at 600 South McCadden Place, Los Angeles, California, 90005. The majority of the Site is paved and currently developed with three two-story administrative/classroom buildings, 23 single-story multi-purpose buildings that contain such things as classrooms, restrooms, gymnasiums, lounges and storage rooms. Two paved parking areas are located in the northeast corner and the southwest corner of the Site. Two tennis courts are located in the center of the Site. A paved and dirt playground area is located in the southern portion of the Site.

2.1.1 Site Name and Address

Site Name: Burroughs Middle School Comprehensive Modernization Project Site

Address: 600 South McCadden Place, Los Angeles, California, 90005

Site Size: Area B = 10.23 acres

2.1.2 Contact Person, Mailing Address and Telephone Number

The project proponent for this RAW is the Los Angeles Unified School District. For the purposes of this RAW, the current Site contact related to the environmental matters is listed below:

Mr. Dane Robinson
Los Angeles Unified School District
Office of Environmental Health and Safety
333 South Beaudry Avenue, 21st Floor
Los Angeles, California 90017

2.1.3 EPA ID Number and CalSites Database Number

Common regulatory agency databases may include USEPA's Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Information System (CERCLIS) or Resource Conservation and Recovery Act (RCRA) Information System (RCRIS), DTSC's RCRA database (managed by Hazardous Waste Management Program) and EnviroStor database (managed by Site Mitigation and Brownfields Reuse Program), and State Water Resources Control Board's Geotracker database [for Leaking Underground Fuel Tank (LUFT) program sites or Spills Leaks Investigation and Cleanup (SLIC) program sites].

The EPA ID number assigned to the Site for the Burroughs MS is CAD982039505. Nonhazardous and Non-RCRA CA-Restricted wastes are expected to be generated during this RA. The waste is to be handled, transported, and disposed under Nonhazardous and Non-RCRA CA-Restricted waste manifests, as appropriate.

Review of selected regulatory agency databases did not identify records of database numbers assigned to the Site, and no active EnviroStor record for school site cleanup was found.

2.1.4 Assessor's Parcel Number

The School property is identified by the Los Angeles County Assessor's Office with Assessor's Parcel Number (APN) 5507-017-900.

2.1.5 Ownership

Property Owner: Los Angeles Unified School District

2.1.6 Township, Range, Section and Meridian

Based on a review of the United States Geological Survey (USGS) 7.5–Minute Topographic Map Series, Hollywood, California Quadrangle Map, dated 1991, the Site is located in the southeast ¼ of the southwest ¼ of Section 22, Township 1 South, Range 14 West of the San Bernardino Baseline and Meridian (USGS, 1981).

Longitude: -118.33627° West

Latitude: 34.06375° North

2.2 Operational History and Status

The school opened as "John Burroughs Junior High School" in 1924. Since 1924, various construction activities at the Site added and removed various structures, added parking lots and paved areas. From at least 1894 to 1921, the land was undeveloped with the exception of a small building located on the southern portion of the Site adjacent to Wilshire Boulevard (WorleyParsons, 2016). WorleyParsons completed a Phase I ESA for the School Property in May 2016.

WorleyParsons identified RECs for the Site. Identified RECs include the potential presence of lead-based paint (LBP) residue, organochlorine pesticide (OCP), and arsenic in soils at the Site; asbestos containing material (ACM) in the Site building materials, the historical presence of a heating oil aboveground storage tank (AST) on-Site, the historical presence of an incinerator on-Site, and the former presence of two nearby off-site gasoline service stations.

Based on the Phase I ESA's investigation of historical aerial images, topographic maps, site reconnaissance, and fire insurance maps, existing and former building footprints were identified within the proposed development area at the Site (WorleyParsons, 2016). Existing and former building footprints are shown on Figure 2.

Leighton completed a subsequent PEA-E in 2016-2017. The information in the report for this PEA-E was evaluated in the preparation of the RAW.

2.3 Topography

Based on a review of the USGS 7.5-Minute Topographic Map Series, Hollywood Quadrangle Map, dated 2012, the Site lies at an approximate elevation of 213 feet above mean sea level. The local area surrounding the Site slopes gently toward the southwest.

2.4 Regional Geology and Hydrogeology

Geologic Setting: Locally, the Site is located in the Hollywood Basin within the central block of the Los Angeles Basin, a structural trough, characterized as a northwest-trending alluvial lowland plain approximately 50 miles long and 20 miles wide. The Santa Monica Mountains, Beverly Hills and Elysian Hills that generally expose Late Cretaceous to Late Pleistocene-age sedimentary and igneous rocks bound the Hollywood Basin along the north, northeast and east (Yerkes, 1965).

The sediments deposited in the Hollywood Basin have subsequently been faulted and folded during uplift of the Santa Monica Mountains and contraction of the basin (Tsutsumi et al., 2001; Catchings et al., 2001). Uplift of the Santa Monica Mountains is occurring along a zone of faults that comprise the Santa Monica Fault System, and include the Malibu Coast, Santa Monica and the Hollywood faults (Tsutsumi et al., 2001; Catchings et al., 2001; Dolan, et al., 2000). Deformation caused by the Hollywood Fault of the near-surface sediments has resulted in the formation of the Hollywood Basin. The Hollywood Basin is situated between the Hollywood fault and the Santa Monica Mountains on its north, and a subsurface fold to the south, known as the Wilshire Arch, located near Wilshire Boulevard (Dolan et al., 1997 and 2000; Hildenbrand et al., 2001; Hummon et al., 1994; California Department of Water Resources, 1988).

The Site, southeast of the Salt Lake Oilfield, is underlain by surficial sediments consisting generally of clay, sand and gravel including gravel of minor stream channels (Dibblee, 1991). Older surficial sediments underlying the site can be expected to consist generally of unconsolidated to weakly consolidated, dissected alluvial fan sediments consisting chiefly of clay, silt, sand and gravels overlying the Lakewood and San Pedro Formations. At depth, petroliferous sands (tar sand) present within the San Pedro Formation can be expected.

Groundwater: The Site lies within the northeastern part of the Coastal Plain at an approximate elevation of 209 feet above mean sea level (amsl) (USGS, 1972)

and located within the Hollywood sub-basin. This groundwater basin is bound on the north by the Santa Monica Mountains and the Hollywood fault, on the east by the Elysian Hills and on the west by the Newport-Inglewood fault zone. Southerly, the basin is bound by anticlinal structure termed the La Brea High were the San Pedro formation was eroded prior to deposition of the Lakewood Formation. This anticlinal structure brings less permeable bedrock close to the surface forcing groundwater to shallow depths primarily within the Pleistocene sands and gravels. Based on the approximate site elevation (Elev. 209 feet) and depth to groundwater recorded at 5020 to 5044 Wilshire Boulevard (1,000 feet southwest of the site) groundwater is likely to occur at approximate elevations (Elev.) 189 feet to Elev. 186 feet (Western Environmental Engineers Company, 2006). These elevations suggest groundwater may be encountered beneath the Site at approximately 20 to 23 feet below grade.

2.5 Soil Type and Groundwater

The limited subsurface investigation conducted at the Site included a total of one hundred and ninety (190) soil borings to facilitate soil sampling and thirty (30) soil borings to facilitate methane probe installation (Leighton, 2017).

A majority of soil borings were completed in paved areas consisting of 3-4 inches of asphaltic concrete with the exception of borings completed on the athletic field and the locations adjacent to the southern margin of the Site. Soil logging within shallow boreholes, up to 2.5 feet bgs, generally consisted of fine-grained soils of predominantly silt and clay with varying amounts of fine to medium-grained sand as a secondary component. Deeper borings, or methane probe locations, completed to approximately 15.5 feet bgs encountered similar native fine-grained soils dominated by silt and clay. Artificial fill materials were identified in several deeper boring locations (M-3, M-8, M-9) primarily based on the coarse nature of the soil and presence of construction debris, brick or asphalt, observed between 0.5 and 11.5 feet in specific locations.

Varying levels of naturally occurring bitumen or tar were noted in soil from 10 methane probe locations including M-1, M-2, M-12, M-13, M-14, M-23, M-24, M-25, M-26, and M-30. These locations were generally located in the southern half of the Site and/or near the eastern Site boundary. Observations ranged from gray to black soil coloration with a distinct tar-like odor to soil saturated with black, viscous bitumen. Soils that exhibited these characteristics were noted as “bituminous” in the methane probe construction log. Natural deposits of bitumen

are not uncommon for this area as seen in the nearby La Brea Tar Pits, which is located approximately one mile west of the Site. Soils exhibiting the presence of bitumen were generally encountered at depths greater than 5 feet below grade.

Groundwater was not encountered in the borings completed during the investigation with the exception of boring location M-30. The M-30 boring was advanced to 15.5 feet bgs and soil was noted as "moist" during drilling from 9 feet to total depth. Upon reaching total depth, the drill rod was removed from the borehole and water was observed pooling in the bottom of the borehole up to approximately 12 feet bgs. Methane probes were set at 5 feet bgs and 9.5 feet bgs at location M-30. This occurrence is likely an isolated zone of perched groundwater related to irrigation water infiltration taking place on the athletic field. Groundwater was not observed in the remaining borings installed between December 23, 2016 and July 17, 2017.

2.6 Land Uses, Sensitive Receptors, Ecosystems and Cultural Resources

The Site is currently zoned for school use. Surrounding land use consists primarily of residential properties. Figure 1 shows land uses on the Site and within approximately 3,000 feet of the Site.

The Site is not in an area of known significant biological or cultural resources. The Site is on an existing middle school campus. Excavation areas exist east of existing building 9 along the eastern property line, which lie adjacent to residential properties (Figure 3).

2.7 Meteorology

Los Angeles climate is categorized as Mediterranean. This climate type is characterized by pronounced seasonal changes in rainfall with a dry summer and a rainy winter, but relatively modest transitions in temperature. Most of the rainfall occurs during the months of December through March. While precipitation during summer months does occur, it is infrequent. Rainless periods of several months are common in Los Angeles County (NOAA, 2014).

A prevailing wind direction table and average wind speed chart for Los Angeles, Downtown, located approximately 4.5 southeast of the Site, is included as Table 4 (WRCC, 2018). Greatest wind velocities are generally associated with

the Santa Ana winds season, typically in late October through November, and can reach 60+ miles per hour (mph).

2.8 Previous Site Actions

No previous removals or remedial actions are known for the Site.

2.9 Phase I Environmental Site Assessment

The Phase I ESA (WorleyParsons, 2016) found no evidence of the storage or release of hazardous materials during the on-site inspection at the School property with the exception of the storage of small quantities of janitorial supplies and a 55-gallon steel drum containing gasoline, stored in a flammable materials storage building located southeast of Building No. 9 (Shop Building). Staining on the concrete floor adjacent to this drum was observed during the reconnaissance inspection. During review of regulatory databases, the John Burroughs Middle School is identified as a large quantity hazardous waste generator; as a result of past school renovation activities, which included the abatement of asbestos and polychlorinated biphenyls (PCBs)-containing equipment. According to Mr. Martin Nevarez, the Site Plant Manager, these wastes are not and have not been disposed at the Site. Based on the site reconnaissance and records reviewed as part of the Phase I ESA, WorleyParsons identified the following RECs associated with the Site:

- Potential presence of lead based paint (LBP) residue in shallow soils around the drip lines of the existing and former buildings at the Site.
- Potential presence of organochlorine pesticides (OCPs) in shallow soils around the foundations of the existing and former buildings at the Site.
- Potential presence of arsenic in shallow soils under pavement at the Site.
- Potential presence of asbestos containing materials (ACM) in Site building materials.
- Potential presence of hydrocarbons in groundwater due to the historical presence of two gasoline service stations approximately 60 and 250 feet west of the Site.

- Potential presence of petroleum products in soil and groundwater due to the historical presence of a heating oil AST located adjacent to Building No. 1 (Main/Auditorium Building).

- Potential presence of burn ash in soils due to the historical presence of an incinerator located adjacent to Building No. 9 (Shop Building).

Based on the age of the existing Site buildings, it is possible that LBP has been applied to the exterior finishes of the buildings. As such, it is possible that LBP residue is present in soils around the perimeters of the existing and former buildings (WorleyParsons, 2016). DTSC guidance indicates that LBP residue from paint or surface coatings may be present in soil around school structures that are adjacent or near unpaved areas where runoff could occur and were constructed prior to January 1993 (DTSC, 2006).

It is possible that OCPs in the form of termiticides have been applied around the foundations of these Site buildings or in the areas (WorleyParsons, 2016). OCPs were commonly used as insecticides for termite control around structures between 1948 and 1989 (DTSC, 2006).

There is the potential presence of arsenic underneath pavement that may have been applied as an herbicide (WorleyParsons, 2016).

Based on the age of the existing Site buildings, it is possible that ACM are present in building materials (WorleyParsons, 2016).

Two “oil and gas” service stations were located west of the Site (approximately 60 feet west of the Site and cross/upgradient with respect the reported groundwater flow direction), at the northwest intersection of South McCadden Place and Wilshire Boulevard and at the northeast corner of South Highland Avenue and Wilshire Boulevard, from at least 1938 to at least 1964. Based on their location relative to the Site, it is possible that groundwater beneath the Site has been impacted by releases of petroleum hydrocarbons at these facilities (WorleyParsons, 2016).

A heating oil AST was located on the Site adjacent to the east of Building No. 1 (Main/Auditorium Building). Based on this, it is possible that leaks or spills from this tank have impacted soil and groundwater at the Site (WorleyParsons, 2016).

An incinerator, presumably for solid waste, was located on the Site near the southwest corner of Building No. 9 (Shop Building). Based on this, it is possible that adjacent soils have been impacted by burn ash containing combustion by-products such as polycyclic aromatic hydrocarbons (PAHs), furans, and heavy metals (WorleyParsons, 2016).

A hazardous material property condition survey was recommended in the Phase I ESA to identify and quantify hazardous construction-related materials (ACM, LBP, mold, PCBs, mercury, tritium, radium and universal wastes). The hazardous material survey is not addressed in this RAW.

2.10 PEA-Equivalent

Leighton was contracted by the District to complete a PEA-Equivalent (PEA-E) study to address soil concerns identified in the Phase I ESA, specifically to collect soil samples near former and existing buildings at the Site and analyze select samples for lead, OCPs, arsenic, PCBs, petroleum hydrocarbons, PAH's, and CA Title 22 metals (CAM-17). Where elevated levels of chemicals of potential concern (COPCs) are identified, a human health risk screening assessment is included to determine if the levels may pose a risk to future Site occupants. PCBs were used widely in caulking and elastic sealant materials, particularly from 1950 through the 1970s until PCBs were banned in 1979. DTSC guidance indicates that PCBs may exist in soil near exterior caulking present in buildings meeting the age criteria and adjacent to unpaved areas (DTSC, 2006). Although not identified as a COPC in soil by WorleyParsons, screening for PCBs was included in the PEA-E for select samples.

Based upon the findings presented in the PEA-E study, elevated levels of COPCs were identified at the Site in soil, including arsenic and lead in soil in select areas (Table 1). With the exception of arsenic and lead in select borings, the soil matrix analytical results (Tables 1 through 3) indicate that remaining COPCs at the Site were either below detection or below regulatory screening levels. On behalf of the District, Leighton recommended preparation of a Removal Action Workplan (RAW) to address areas of elevated arsenic and lead in soil at the Site per DTSC guidelines (DTSC, 2017 and 2008).

Information provided by the City of Los Angeles NavigateLA Web site, the Los Angeles Department of Building and Safety (LADBS), and the City's Public Works Departments, indicates that the Site lies within a City of Los Angeles

designated methane zone. The Salt Lake Oil Field lies approximately 1,500 feet north of the Site and 2,000 feet west of the Site. One plugged oil and gas production well is also located approximately 1,300 feet west/southwest of the Site (API 03720045). Based on this, the Project may create a new or exacerbate an existing significant safety hazard to students from a known methane zone. Screening of soil gas for methane was included in the PEA-E, per the PEA-E Scope of Services (OEHS, 2016). Based on the field measurements and the laboratory results from the PEA-E the Site is categorized as Design Level V at all pressures per the LADBS criteria. It is Leighton understands that methane mitigation will be addressed by the District per Los Angeles Department of Building and Safety requirements and regulatory agency requirements, as applicable. Methane mitigation is not included in this RAW.

3.0 NATURE, SOURCE AND EXTENT OF CHEMICALS OF CONCERN

3.1 Chemicals of Concern: Arsenic and Lead

During the PEA equivalent, arsenic was detected in soil samples collected from the Site, ranging from below the PQL of 0.70 mg/kg up to 82 mg/kg. Elevated levels of arsenic (in excess of the CG of 12.0 mg/kg TTLC) were detected in three areas of concern (AOCs) at the Site. These AOCs include: A2, E and G, and are designated on Figures 4 and 5, and detailed in Table 1.

Elevated levels of lead (in excess of the CG of 80 mg/kg TTLC) were detected in eleven AOCs. These AOCs include: A1, B, C, D, F, H, I, J, K, L and M, and are designated on Figures 4 through 7, and detailed in Table 1.

In addition, waste soil containing total arsenic and lead concentrations at 50 mg/kg or above requires leachability testing by the soluble threshold limit concentration (STLC) or waste extraction test (WET) analysis for California designated hazardous waste and the toxicity characteristic leaching procedure (TCLP) analysis for RCRA designated hazardous waste. None of the arsenic samples above 50 mg/kg exceeded the STLC or TCLP criteria for RCRA or California hazardous waste. Most of the lead samples above 50 mg/kg exceeded the STLC California Hazardous waste criteria, but were below the RCRA TCLP criteria of 5 mg/l (Table 1).

3.2 Source and Location of Chemicals of Concern

Sources of COCs: Unknown, possible arsenical herbicides used prior to school construction or as weed abatement at the school site. Unknown, possible lead paint use on adjacent structures.

Location of COCs: A total of 14 AOCs (A1 and A2 through M) are located in the modernization area of the campus. The impacts from lead and arsenic are generally distinct, they do not appear to be collocated, and are generally located in distinct AOCs. See Figures 4 through 7 for the AOCs and excavation locations.

3.3 Extent and Volume of Soil Removal

Based on the data presented in the PEA-E, the lateral and vertical extent of arsenic and lead impacts above the CGs have been characterized in most

locations. The excavation areas for each AOC to meet the CGs are described below:

AOCs A1, A2, B and C: Existing Building 5 and Existing Building 23 (EB5-3, EB5-4 and EB23-2), Excavation Area and Proposed Confirmation Samples [Table 1, Figure 4]

AOCs D, E, F, G, H, I, and J: Existing Building 9 and vicinity (EB9-1, EB9-6, EB9-7, EB10-2, EB11-1, EB11-2, EB12-1, EB13-1, EB13-2, EB15-1, FB9-1 and FB9-4), Excavation Area and Proposed Confirmation Samples [Table 1, Figure 5]

AOC K: Former Building 14 (FB14-1), Excavation Area [Table 1, Figure 6]

AOCs L and M: Existing Building 20 and Former Building 16 (EB-20-6 and FB16-1), Excavation Area [Table 1, Figure 7]

The total estimated volume of soil removal is:

- Approximately 54 cubic yards (CY) of arsenic-impacted soil with non-hazardous waste classification (Areas A, E, and G shown on Figures 4 and 5), and

- Approximately 106 CY of lead-impacted soil with California-restricted non-RCRA hazardous waste classification due to elevated soluble lead levels (Areas B, C, D, F, H, I, J, K, L and M shown on Figures 4 through 7).

Detailed Discussion of Soil Results from the PEA-E: Between December 28, 2016 and July 17, 2017, a total of one hundred and ninety (190) soil borings were advanced using hand auger or direct push drilling methods for the purpose of collecting soil samples in the vicinity of existing and former buildings, a former incinerator and a former AST (Figures 3 through 7). Tables 1 through 3 summarize data collected during the PEA-E from these soil borings at various depths, as follows:
The soil matrix analytical results indicate the following for screening for arsenic, lead, OCPs and/or PCBs at one hundred and eighty-eight (188) total soil borings in the vicinity of existing and former buildings (Table 1):

- One hundred and eighty-one (181) soil borings were advanced to a target maximum total depth of 2.5 feet below ground surface (bgs), with soil samples typically collected from 0.5, 1.5 and 2.5 feet bgs, to the extent

practicable. Seven (7) step-out borings were advanced to a target maximum total depth of 4 feet to delineate the vertical extent of arsenic impacts in soil in select areas, with soil samples typically collected at 0.5, 1.5, 2.5, 3, and 4 feet bgs (EB9-6 step-out samples and EB15-1 step-out sample).

- An initial round of soil sampling conducted between December 28, 2017 and January 3, 2017, identified lead or arsenic impacts in soil in eighteen (18) borings. Subsequent sampling events conducted April 10-12, 2017 and July 17, 2017 further delineated the extent of lead or arsenic contamination in these areas (Figures 3 through 7). Borings installed in April and July 2017 are referred to as step-outs or step-out borings throughout this report.

- During the PEA-E, three hundred and fifty-one (351) original and step-out samples were analyzed for arsenic in soil with the following results (Table 1).

  – Arsenic was reported above the practical quantitation limit (PQL) in three hundred and twenty-six (326) samples at concentrations ranging between 1.0 mg/kg (EB6-3 at 1.5 feet bgs and EB9-6-E10 at 2.5 feet bgs) and a maximum of 82 mg/kg (EB15-1-S5 step-out at 0.5 feet bgs).

  – The DTSC-adopted ambient background arsenic concentration is 12 mg/kg (DTSC, 2008), and thirty-four (34) of the soil samples analyzed reported concentrations above 12 mg/kg (Table 1).

  – Additionally, nine (9) samples were also analyzed for arsenic using the Waste Extraction Test (WET) for STLC and/or TCLP by EPA Method 6010B, because the TTLC arsenic result in these samples was greater than 50 mg/kg. Each resulting arsenic concentration was below the STLC and TCLP regulatory limits of 5 milligrams per liter (mg/L). Additionally, no arsenic results exceeded the California hazardous waste criteria of 500 mg/kg TTLC for arsenic. Based on these TTLC, STLC and TCLP results, the levels of arsenic in soil are representative of non-hazardous material under California waste disposal regulations, per the California Code of Regulations, Title 22, Chapter 11, Article 3.

- During the PEA-E, five hundred and twenty-one (521) original and step-out samples were analyzed for lead in soil with the following results (Table 1):

  – Lead was reported above the PQL in all five hundred and twenty-one (521) samples at concentrations ranging between 1.3 mg/kg (FB16-1-E5

step-out at 0.5 feet bgs) and a maximum of 2,700 mg/kg (EB9-1-S5 step-out at 1.5 feet bgs).

- The EPA Region 9 Regional Screening Level (RSL) for lead is 400 mg/kg (RSL for soil considering residential land use) (EPA, 2017), and three (3) of the soil samples analyzed showed concentrations above 400 mg/kg (Table 1).

- The DTSC-modified screening level is 80 mg/kg (screening level for use in human health risk assessments) (DTSC, 2017), and fifty-three (53) of the soil samples analyzed showed concentrations above 80 mg/kg (Table 1).

- Additionally, ninety-nine (99) samples were analyzed for lead using the WET-STLC and/or TCLP by EPA Method 6010B, because the TTLC-lead result in these samples was greater than 50 mg/kg. Each resulting lead concentration is shown on Table 1. One (1) lead result (EB9-1-S5 step-out at 1.5 feet bgs) exceeded the state hazardous waste criteria of 1,000 mg/kg TTLC-lead, and thirty-eight (38) STLC-lead results exceeded the STLC-lead limit of 5 mg/L. STLC-lead results were between 0.24 mg/L (FB9-1-N5 at 1.5 feet bgs) and 51 mg/L (EB9-1-E5 step-out at 0.5 feet bgs). TCLP-lead ranged between <0.014 mg/L (multiple samples) and 3.8 mg/L (FB14-4 at 1.5 feet bgs), so all TCLP-lead concentrations were below the TCLP regulatory limit of 5 mg/L for RCRA Hazardous waste criteria.

- Because lead results in select samples exceeded the state hazardous waste criteria of 1,000 mg/kg TTLC-lead or 5 mg/L STLC-lead, areas were identified with soil representative of hazardous material under California waste disposal regulations, per the California Code of Regulations, Title 22, Chapter 11, Article 3 (California-restricted non-RCRA hazardous waste was identified).

- Federal RCRA hazardous waste was not identified based on the TCLP-lead results, which were all below 5 mg/L.

- As presented on Table 1, low concentrations of OCPs were detected above the laboratory PQL in forty-seven (47) out of two hundred and eighty (280) samples analyzed for OCPs between December 28, 2016 and January 3, 2017. OCP compounds with detections above the PQL included 4,4-DDD,

4,4-DDE, 4,4-DDT, alpha-Chlordane, Chlordane, gamma-Chlordane, and Methoxychlor in the following ranges:

- 4,4-DDD from 2.1 micrograms per kilogram (µg/kg) (FB9-3 at 0.5 feet bgs) to 21 µg/kg (FB14-4 at 0.5 feet bgs),
- 4,4-DDE from 2.2 µg/kg (FB15-2 at 0.5 feet bgs, and FB15-4 at 0.5 feet bgs) to 600 µg/kg (EB5-3 at 0.5 feet bgs),
- 4,4-DDT from 2.1 µg/kg (FB4-3 at 0.5 feet bgs) to 25 µg/kg (FB14-4 at 0.5 feet bgs),
- alpha-Chlordane from 1.1 µg/kg (FB1-3 at 1.5 feet bgs [duplicate], and EB20-3 at 0.5 feet bgs) to 38 µg/kg (FB15-3 at 2.5 feet bgs),
- Chlordane (total) from 8.9 µg/kg (FB1-3 at 1.5 feet bgs [duplicate]) to 280 µg/kg (EB15-3 at 2.5 feet bgs),
- gamma-Chlordane from 1.0 µg/kg (EB20-2 at 1.5 feet bgs) to 29 µg/kg (FB15-3 at 2.5 feet bgs), and
- Methoxychlor from 48 µg/kg (EB5-4 at 0.5 feet bgs) to 180 µg/kg (EB5-3 at 1.5 feet bgs).
- The above reported concentrations for OCP compounds were below published regulatory screening levels in all borings sampled for OCPs between December 28, 2016 and January 3, 2017 (Table 1). Based on these initial results, no step-out samples were analyzed for OCPs in subsequent soil sampling events in April and July 2017.

- PCB concentrations were below the laboratory PQL in the subset of soil samples chosen for PCB analysis (38 samples collected from a depth of 0.5 or 1.5 feet bgs) (Table 1).

The soil matrix analytical results indicate the following for screening for PCBs, PAHs, and Title 22 metals in soil in the vicinity of a former incinerator (Tables 1 and 2):

- For one (1) soil boring (EB9-7), and one (1) step-out soil boring located 6 feet to the west (EB9-7-W6), soil samples were collected from target depths of 0.5, 1.5, and 2.5 feet bgs. Borings EB9-7 and EB9-7-W6 lie in the vicinity of a

former on-site incinerator. The EB9-7 samples were analyzed for PAHs, PCBs, and Title 22 metals at each depth. The EB9-7-W6 step-out samples were analyzed for copper and lead at each depth. Additional step-out borings were attempted in the compass directions around the EB-9-7 boring. An aboveground structure prevented step-outs to the north, and utilities prevented step-outs to the east, south, and further west.

- PCB concentrations were below the laboratory PQL in each of the EB9-7 samples (0.5, 1.5, and 2.5 feet bgs samples) (Table 1).
- PAHs concentrations were below the laboratory PQL in each of the EB9-7 samples (0.5, 1.5, and 2.5 feet bgs samples) (Table 2).
- Metals with detections above the PQL included arsenic, barium, chromium, cobalt, copper, lead, mercury, nickel, vanadium and zinc in the following ranges:
  - Arsenic from 1.5 mg/kg (EB9-7 at 2.5 feet bgs) to 2.3 mg/kg (EB9-7 at 0.5 feet bgs),
  - Barium from 88 mg/kg (EB9-7 at 2.5 feet bgs) to 180 mg/kg (EB9-7 at 1.5 feet bgs),
  - Chromium from 14 mg/kg (EB9-7 at 0.5 feet bgs) to 20 mg/kg (EB9-7 at 2.5 feet bgs),
  - Cobalt from 8.0 mg/kg (EB9-7 at 0.5 feet bgs) to 9.0 mg/kg (EB9-7 at 2.5 feet bgs),
  - Copper from 25 mg/kg (EB9-7 at 2.5 feet bgs) to 2,800 mg/kg (EB9-7 at 0.5 feet bgs),
  - Lead from 11 mg/kg (EB9-7 at 2.5 feet bgs) to 250 mg/kg (EB9-7 at 0.5 feet bgs),
  - Mercury at 0.12 mg/kg (EB9-7 at 1.5 feet bgs) and below the PQL in remaining samples analyzed at EB9-7,
  - Nickel from 13 mg/kg (EB9-7 at 0.5 feet bgs) to 18 mg/kg (EB9-7 at 2.5 feet bgs),

  - Vanadium from 26 mg/kg (EB9-7 at 0.5 feet bgs) to 31 mg/kg (EB9-7 at 1.5 feet bgs and 2.5 feet bgs), and

  - Zinc from 38 mg/kg (EB9-7 at 2.5 feet bgs) to 170 mg/kg (EB9-7 at 1.5 feet bgs).

- With the exception of copper, lead, and arsenic, Title 22 metals results were below published regulatory screening levels in each sample in the vicinity of the former incinerator (Table 2).

- None of the EB9-7 sample results for arsenic exceeded the DTSC-adopted background arsenic concentration of 12 mg/kg (DTSC, 2008), and arsenic was not analyzed in the step out samples from EB9-7-W6 (Table 1 and Table 2). Arsenic was not elevated above 12 mg/kg in the vicinity of the former incinerator. Arsenic results from the EB9-7 and EB9-7-W6 borings were included in the data set for arsenic in soil surrounding existing and former buildings at the Site (Table 1), as discussed in Section 4.0.

- For lead results, none of the EB9-7 or EB9-7-W6 step-out samples exceeded the EPA Region 9 RSL of 400 mg/kg lead. Two (2) of the soil samples analyzed showed concentrations above 80 mg/kg (250 mg/kg and 130 mg/kg lead were reported for EB9-7 soil samples at 0.5 and 1.5 feet bgs, respectively). Lead results from the EB9-7 and EB9-7-W6 borings were included in the data set for lead in soil surrounding existing and former buildings at the Site (Table 1), as discussed in Section 4.0.

- For potential waste characterization purposes, EB9-7 soil samples at 0.5 and 1.5 feet bgs were analyzed for lead using the WET-STLC and TCLP by EPA Method 6010B. Each resulting lead concentration is shown on Table 1. Both STLC-lead results exceeded the STLC-lead limit of 5 mg/L. All TTLC-lead results were below the state hazardous waste criteria of 1,000 mg/kg TTLC-lead. Because lead results in select samples exceeded the 5 mg/L STLC-lead limit, areas were identified with soil representative of hazardous material under California waste disposal regulations, per the California Code of Regulations, Title 22, Chapter 11, Article 3 (California-restricted non-RCRA hazardous waste was identified). Federal RCRA hazardous waste was not identified based on the TCLP-lead results, which were all below 5 mg/L.

- For copper results, none of the EB9-7 or EB9-7-W6 step-out samples exceeded the EPA Region 9 RSL of 3,100 mg/kg copper. For waste

characterization purposes, one 2,800 mg/kg TTLC-copper result at EB9-7 at 0.5 feet bgs exceeded the state hazardous waste criteria of 2,500 mg/kg TTLC-copper. Because copper results in the 0.5 feet bgs sample exceeded the state TTLC limit, areas were identified California-restricted non-RCRA hazardous waste was identified. There is no federal TCLP limit for copper. Elevated copper was not identified in other deeper samples at EB9-7 or in step-out samples at EB9-7-W6. The elevated copper result in the one sample from EB9-7 at 0.5 feet bgs was co-located with elevated lead results that also indicated California-restricted non-RCRA hazardous waste identified based on lead results.

The soil matrix analytical results indicate the following for screening for TPH in Soil in the Vicinity of a Former AST (Table 3):

- One (1) boring installed in the vicinity of a former fuel oil AST (EB1-1) was advanced to a target maximum total depth of 10 feet bgs, with soil samples collected from 1, 5 and 10 feet bgs. The samples from EB1-1 were analyzed for TPH.

- As shown on Table 3, TPH results were below published regulatory screening levels in each sample in the vicinity of the former fuel AST.

The soil matrix analytical results indicate the following for Supplemental Soil Samples from methane probe location M-3 where stained soil was screened for TPH and VOCs (potentially naturally-occurring tar sand) (Table 3):

- To screen for methane in soil gas, thirty (30) additional soil borings were advanced between December 23 and 28, 2016 to a maximum total depth of 15.5 feet bgs. Soil samples were not typically collected from methane probe locations; however, in consultation with OEHS, two supplemental soil samples were collected from one location (M-3 at 10 and 12.5 feet bgs) where soil staining (potentially tar sand) was observed.

- The M-3 soil samples were analyzed for TPH and VOCs, and results from the limited soil sampling at the M-3 location are presented in Table 3. As shown on Table 3, TPH results were below published regulatory screening levels in the M-3 samples at 10 and 12.5 feet bgs. VOCs in the M-3 samples were below the laboratory PQL.

Duplicate samples collected during the PEA-E are included in Tables 1 to 2 in the row beneath the relevant original sample. Duplicate samples show similar results to the original samples considering the observed heterogeneity of the soil matrix. Equipment blank sample results indicated levels of COPCs below the laboratory PQLs. Field procedures (sampling and decontamination) were conducted in compliance with the above procedures. Laboratory procedures were in compliance with the method requirements, including acceptable reporting limits, laboratory selection, and laboratory reporting of quality control information. Samples from borings and quality control samples were analyzed as planned; therefore, an acceptable level of completeness was achieved. Borings that could not be installed due to refusal, proximity to utilities, or surface obstructions/structures were not considered in the assessment of completeness. Acceptable sensitivity was achieved by selecting analytical methods with reporting limits suitable for comparison with action levels. Overall, the dataset is considered to be of acceptable quality. As such, the data set is considered acceptable for use in assessing human health risk at the Site.

3.4 Health Effects of Chemicals of Concern

Long term chronic exposure to arsenic can cause liver damage, heart disease, peripheral neuropathy, melanosis, keratosis, and carcinogenic effects. The ambient background arsenic concentration in southern California soils, as determined by the DTSC, is 12.0 mg/kg (DTSC, 2008). Average site concentrations above this concentration may pose an increased health risk to site occupants and are considered actionable levels.

Lead is a bio-accumulative substance and can cause gastrointestinal distress, central nervous system damage, encephalopathy, hypertension, and kidney damage. Long term chronic exposure to lead has been found to cause brain damage. Lead is also a known animal carcinogen and a suspected human carcinogen. The DTSC human health screening level for lead in soils is 80 mg/kg (DTSC, 2017). Average site concentrations above this concentration may pose an increased health risk to site occupants and are considered actionable levels.

3.5 Targets Potentially Affected by the Site

A conceptual site model that identifies the receptors who may contact the COCs and the exposure pathways through which they may contact the COCs has been

developed. The pathways are airborne dust and direct contact. Routes of exposure are inhalation, ingestion, and dermal contact. The potential exposed populations are students, staff, and visitors. Due to the long term chronic exposure risk, the concentrations do not pose a substantial risk to construction workers performing the RA. Onsite removal contractor personnel are responsible for operating in accordance with all applicable regulations of OSHA outlined in 8 CCR General Industry and Construction Safety Orders and 29 CFR 1910 and 29 CFR 1926, Construction Industry Standards, as well as other applicable federal, state and local laws and regulations. All personnel shall operate in compliance with all California OSHA requirements. A copy of the Conceptual Site Exposure Model is attached as Appendix B.

4.0 RISK EVALUATION AND CLEANUP GOALS

This section presents detailed information regarding the CGs for the identified arsenic and lead contamination at the Site. The CGs, based on a screening level evaluation, will be used to support decisions with respect to the need for and the extent of remediation.

4.1 Human Health Risk Screening Evaluation

A human health screening evaluation, conducted as part of the PEA-E, shows an increased human health risk over background to human receptors at the Site due to elevated levels of arsenic and lead detected in soils. Areas surrounding existing and former buildings are typically paved at the Site. There is no direct pathway between the current Site occupants and shallow soil in paved areas.

Elevated levels of arsenic and lead were identified at the Site based upon the initial soil sampling activities conducted between December 28, 2017 and January 3, 3017, during which select samples were analyzed for arsenic, lead, OCPs, PCBs, TPH, PAHs, Title 22 metals, and/or VOCs (Tables 1 through 3), as described in Section 3, above. Results for remaining Title 22 Metals, OCPs, PCBs, TPH, PAHs, and VOCs were below their respective screening levels (Human and Ecological Risk Office (HERO) Note #3, and RSLs).

Arsenic in Soil: A 12 mg/kg concentration of arsenic in soil represents an upper-bound value for background ambient levels of arsenic found in southern California and is actually a 95% upper confidence limit (UCL) (DTSC, 2008). The 12 mg/kg concentration was used as the screening level for arsenic at the Site.

Arsenic was reported above the PQL in three hundred and twenty-six (326) samples at concentrations ranging between 1.0 mg/kg (EB6-3 at 1.5 feet bgs and EB9-6-E10 at 2.5 feet bgs) and a maximum of 82 mg/kg (EB15-1-S5 step-out at 0.5 feet bgs) (Table 1). Due to the presence of sample results above 12 mg/kg in thirty-four (34) of the samples, a 95% upper confidence limit (UCL) analysis was completed. The analysis used the three hundred and twenty-six (326) detections above the PQL to evaluate if arsenic in soil exceeded the screening level, and would potentially present a human health risk to current or future occupants of the Site. The 95% UCL Analysis Report is included in Appendix G of the PEA-E. The result was 9.842 mg/kg for arsenic. The median arsenic result is 2.4 mg/kg.

The arsenic data set is consistent with the southern California arsenic data set and the central tendencies are also similar.

Shallow soil where elevated arsenic results were reported will be targeted for removal, so that arsenic remaining at the Site is below background arsenic levels for southern California per DTSC guidelines (12 mg/kg arsenic) (DTSC, 2008).

Lead in Soil: The 80 mg/kg concentration is the DTSC screening level for lead in soil (HERO Note #3, soil lead discussion, available at http://www.dtsc.ca.gov/ Assessing Risk/ LeadSpread8.cfm).

Due to the presence of sample results above 80 mg/kg in fifty-three (53) of the samples, a 95% UCL analysis was completed. The analysis used the five hundred and twenty-one (521) detections above the PQL to evaluate if lead in soil exceeded the screening level, and would potentially present a human health risk to current or future occupants of the Site. The 95% UCL Analysis Report is included as Appendix G of the PEA-E. The result was 61.28 mg/kg for lead. The median lead result is 11 mg/kg. The lead data set indicates that the 95% UCL is below the screening level of 80 mg/kg.

Shallow soil where elevated lead results were reported will be targeted for removal, so that lead remaining at the Site is below the DTSC-modified screening level (80 mg/kg lead) (DTSC, 2017).

Other COPCs in Soil (remaining Title 22 Metals, OCPs, PCBs, TPH, PAHs, and VOCs):

With the exception of limited areas with elevated arsenic and lead in soil, the PEA-E sampling results, indicate that soil analytical results for remaining Title 22 Metals, OCPs, PCBs, TPH, PAHs, and VOCs were either below the laboratory PQL or below regulatory screening levels.

Arsenic and lead have been identified as chemicals of concern in soil. Based on District preference to remove isolated areas with elevated arsenic and lead above the established screening levels, further action appears warranted at the Site.

4.2 Environmental Screening Risk Evaluation

Arsenic and lead were detected in Site soil, at concentrations above the CGs of 12 mg/kg and 80 mg/kg, respectively. This has identified a release of hazardous material into the Site soil from previous onsite activities. A cleanup of the identified releases is necessary. There are no potential threats to the environment other than the potential for wind and surface water runoff to cause the migration of impacted soils from the Site to other areas during construction. Covering the impacted soils impedes wind or surface runoff induced erosion of soil impacted with arsenic. The low average annual precipitation and asphalt cover in the area of impact reduces the potential for surface water runoff and thereby limits erosion.

Information on surface water bodies was provided in Section 2.4 and 2.5. There is no documented release or threatened release of hazardous materials to surface water.

Information on depth to groundwater in the Site area was provided in Section 2.4. No evidence has been found to suggest a release or threatened release from the Site to groundwater. Therefore, aquifers are not known or suspected to have been impacted from Site releases.

Potential sources of release of a hazardous material to the atmosphere are limited to fugitive dust from surface soils. The arsenic and lead concentrations pose a long term chronic exposure risk and are not expected to exceed short term permissible exposure limits (PELs) in air borne dust. There is no documentation of a release of hazardous materials from the Site to the atmosphere. Therefore, the potential for releases of hazardous materials from the Site to the atmosphere is considered to be de minimus.

4.3 Endangerment Determination

Arsenic and lead are “hazardous substances” as defined in H&SC section 25316. There has been a “release” and/or there is a “threatened release” of arsenic and lead at the Site, as defined in H&SC section 25320. Although there are no documented instances of human exposure to the chemicals found in the impacted soils of the Site, the actual and/or threatened release of arsenic and lead at the Site may present an imminent and substantial endangerment to the public health or welfare or to the environment. As such, the District has

determined that a response action is necessary at the Site to protect and preserve the public health.

4.4 Cleanup Goals (CGs)

As discussed in Section 3.1, the COCs for this Site are arsenic and lead. The CG for arsenic is 12.0 mg/kg, based on ambient background concentrations in southern California soils. The CG for lead is 80 mg/kg, based on the DTSC human health screening level for lead.

In addition, these values are responsive to the RAOs identified in Section 1.1, in particular to remove impacted soils that exceed the human health risk criteria.

5.0 ENGINEERING EVALUATION/COST ANALYSIS (EE/CA)

This Engineering Evaluation/Cost Analysis (EE/CA) was conducted for the proposed RA at the Site in accordance with the USEPA guidance, titled "Guidance on Conducting Non-Time-Critical Removal Actions under CERCLA" (USEPA, 1993). It was prepared, as part of the RAW developed for the Site, to aid in the evaluation of remediation alternatives for the mitigation of impacted soils at the Site. The proposed RA at the Site has been determined to be a non-time-critical removal, based on the risk evaluation and Site considerations. The proposed RA will be conducted in accordance with protocols of CERCLA and the NCP codified in Part 300 of Code of Federal Regulations (CFR), Title 40 (40 CFR 300). Under 40 CFR 300.415 of the NCP, an EE/CA is required to address the implementability, effectiveness, and cost of a non-time-critical RA.

This EE/CA will be used as the basis for the planned non-time-critical RA. As the project proponent, the District will have final authority of the selected alternative and of overall public participation activities.

5.1 Removal Action Scope

This RAW outlines the remedy to address the COCs at the Site. It is prepared to address the arsenic and lead-impacted soils identified in the AOCs (Figures 4 to 7).

The estimated volume of soil proposed for the RA was calculated to be:

- Approximately 54 cubic yards (CY) of arsenic and lead-impacted soil with non-hazardous waste classification (Areas A, E, and G shown on Figures 4 and 5), and
- Approximately 106 CY of arsenic and lead-impacted soil with California-restricted non-RCRA hazardous waste classification due to elevated lead levels (Areas B, C, D, F, H, I, J, K, L and M shown on Figures 4 through 7).

The goals and objectives of the proposed RA are presented in Section 1.1.

5.2 Identification and Evaluation of Removal Action Alternatives

This RAW describes a RA to prevent, minimize, stabilize, mitigate, or eliminate the release or threat of release of a hazardous waste or substance at the Site. Based on historical patterns of remedy selection for sites where arsenic and lead

are the only COC, the “No Action” alternative and three (3) common alternatives were identified. A screening process was then used to generally evaluate the applicability of options to treat or otherwise remediate the COCs that drive risk at the Site, based on EE/CA evaluation criteria (effectiveness, implementability, and relative cost) and general scientific and engineering evaluation.

5.2.1 EE/CA Alternative Evaluation Criteria

The criteria listed below were used during this evaluation process.

Effectiveness:

- Performance and reliability to eliminate or reduce the risk associated with the identified COCs (in terms of toxicity, mobility, or volume) at the Site.
- Overall protection of public health and the environment (threshold factor).
- Compliance with the applicable or relevant and appropriate requirements (ARARs) presented in Section 6.0 (threshold factor).
- Long- and short-term effectiveness (balancing factor).
    - o Reduction of toxicity, mobility, or volume through treatment (balancing factor).
    - o Ability to meet the RAOs presented in Section 1.1 (threshold factor).

Implementability: a balancing factor

- Capability of the alternative with respect to administrative and technical feasibility to Site conditions, (e.g., space limitations, equipment availability, resource availability, utility requirements, monitoring concerns, and operation and maintenance).
- Ability of the alternate to meet applicable federal, state, and local regulations and permitting requirements.
- Ability of the alternate to meet the project schedule and facility operations requirements.

Cost: a balancing factor

- Assess the relative cost of each alternative based on estimated capital cost for construction or initial implementation and ongoing operation and maintenance (O&M) costs.

5.2.2 Description and Comparative Analysis of Removal Action Alternatives

A screening evaluation was conducted to assess remedial technologies and process options for mitigating the impacted soil present at the Site. Based on the RAOs presented in Section 1.1, the following four (4) alternatives were identified and developed for the proposed RA at the Site. Most of the identified remedial alternatives were considered for application at this Site, but were screened out immediately without detailed evaluation. The screen-out decision was made based on past experience at other similar sites and on scientific consideration and engineering judgment that indicated that they would either be ineffective in achieving RAOs, inappropriate technologies for remediating the COC, or could not be implemented in a cost-effective manner.

5.2.2.1 No Action

The "No Action" alternative does not meet the criteria of effectiveness. While the "No Action" alternative was not considered by the District, it was evaluated (as required under the NCP) as a baseline to which the relative benefits of the other alternatives could be compared. The No Action alternative would not address the existing impacts and would result in the materials being disturbed and distributed during the scheduled construction activities of the modernization project.

5.2.2.2 Treatment

A range of treatment technologies was identified. Arsenic and lead contamination generally cannot be destroyed or biodegraded in an efficient or practical manner. The soil composition and contaminant concentrations are the key considerations for selection of a proper treatment. The factors and ratings used to qualitatively rate the technologies are those described in the USEPA document, "Remediation Technologies Screening Matrix and Reference

Guide, 2nd ed.", EPA/542-B-94-0-13, October 1994. Other possible treatment technologies were also found to be unacceptable due to project timing, probable permitting, and location constraints. Therefore, this alternative was not considered further for this Site.

5.2.2.3 Institutional Controls and Onsite Containment (Capping)

The total cost (capital, land use restriction, and O&M) for the capping alternative is expected to be much higher than the cost for the recommended RA alternative (remedy). The capping alternative was considered and determined to be unacceptable since the contaminated soils are surficial and would be disturbed during any form of capping response and are in the area to be disturbed by scheduled site modernization activities.

5.2.2.4 Excavation and Offsite Disposal

Due to the shallow nature of the soil contamination, an immediate soil removal will be required prior to future school construction activities in Area B. Therefore, the alternative of soil excavation and offsite disposal has been accepted by the District as the preferred remedial action. No other alternative removal options will be considered further for this RAW.

Excavation: Excavation involves the removal of soil containing the COC. Excavation includes using loaders, backhoes, large diameter augers, and/or other appropriate equipment. Excavation operations may generate fugitive dust emissions. Suppressant foam, water spray, and other forms of vapor and dust control may be required during excavation, and workers may be required to use personal protective equipment to reduce exposure to the COC (see HASP in Appendix D). The depth of excavations may be limited due to physical constraints associated with the Site. Due to the shallow impacts of less than 3 feet bgs, sloping excavation sidewalls is not anticipated and may result in increased volume of soil requiring excavation. Any soils excavated outside of the plan area will be tested and segregated as clean fill. The excavations will extend to known points below the CGs. Where confirmation soil sampling

and analysis will be conducted to verify that CGs were met at the excavation bottoms and sidewalls are designated in Figures 4 through 7. The sampling and analysis program and confirmation sample list are provided in Tables 5 and 6, respectively. The confirmation samples will be evaluated to confirm the remaining soils meet the CGs of 12.0 mg/kg for arsenic and 80 mg/kg for lead. Excavations may require additional area for soil stockpiling, prior to transporting offsite for disposal. Imported backfill material is not required as the modernization area will be mass graded prior to construction activities. Excavation would be an effective means for removing impacted soil from the Site and would be used in conjunction with appropriate disposal options.

The estimated volume of soil proposed for the RA was calculated to be:

- Approximately 54 CY of arsenic and lead-impacted soil with non-hazardous waste classification (Areas A, E, and G shown on Figures 4 and 5), and
- Approximately 106 CY of arsenic and lead-impacted soil with California-restricted non-RCRA hazardous waste classification due to elevated lead levels (Areas B, C, D, F, H, I, J, K, L and M shown on Figures 4 through 7).

Offsite Disposal: Offsite disposal involves removing impacted soil from the Site and transporting it to an appropriate offsite facility for disposal. Approximately 54 CY of soil is considered nonhazardous and is expected to be disposed of at a Class III landfill. Approximately, 106 CY is considered California-restricted non-RCRA hazardous waste and is expected to be disposed of at a Class I landfill under hazardous waste manifest.

This would be an effective means of removing impacted soil from the Site and meeting the RAOs for soil.

5.2.2.4 Response Action Cost and Feasibility

The cost comparison of the Response Actions described above is presented in the table below:

Response Option	Action Costs	O&M Costs*	Overall Cost	Feasibility
No Action	$30,000	$150,000	$180,000	Not Feasible
Treatment	N/A	N/A	N/A	Not Feasible
Capping & Containment	$150,000	$150,000	$300,000	Feasible
Excavation & Disposal	$125,000	N/A	$125,000	Feasible

*Estimate for 10 years

5.3 Description of Recommended Remedy

The recommended RA remedy combines excavation with offsite disposal of the impacted soil at a landfill. The activities that would be conducted to implement this RA are described below:

- In order to expedite the confirmation sample results, initial potholing and/or hand augering will be performed in the designated locations (Table 5) and laboratory analysis (Table 6) expedited on same day or 24-hour turn-around time prior to start of the bulk of the excavation activities. Subsequent confirmation step-out sampling will be performed as needed in areas not meeting the CGs.

- Waste profile samples will also be collected and analyzed as needed during the initial activity to provide the contractor with the necessary analyses for waste acceptance at the designated disposal facility.

- Excavate approximately 160 bank CY of impacted soil from identified locations (Figures 4 through 7).

- If necessary, segregate and stockpile impacted soils that contain the COC at concentrations greater than the CG presented in Section 4.3 on visqueen sheeting or hard surfaces and cover with visqueen to protect from precipitation runoff.

- Load and transport approximately 160 bank CY or ~192 loose "fluff" CY of impacted soil to an appropriate disposal facility (65 CY loose to a Class III landfill and 127 CY loose to a Class I California Hazardous Waste landfill).

- If necessary, grade, backfill and compact previously excavated areas using clean locally derived on-site fill material (approximately 192 CY loose).

- Obtaining any import fill material for the remainder of the modernization project will be in accordance with the current OEHS and LAUSD Specification 01 4524 on import fill material and retained in the construction documentation files.

5.4 Cost Estimates of Recommended Remedy

The RA to be taken to prevent, minimize, stabilize, mitigate, or eliminate the release or threat of release of a hazardous waste or substance, costing approximately $95,000 including RA contractor and environmental professional fees. Sampling activities may include air monitoring, waste profile, and confirmation sampling. A rough cost breakdown for the proposed remedy of excavation and offsite disposal is listed below:

- Field Excavation, Mobilization and Demobilization: $25,000
- Transport and Class 1 and Class 3 Disposal of Excavated Soils: $35,000
- Sampling and Analysis, Air Monitoring: $10,000
- Preparation of a Removal Action Completion Report: $20,000
- Other (Project Management and Administration): $5,000

TOTAL $95,000

6.0 APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS

Previous investigations of the Site indicate the presence of the COC (arsenic) in soil exceeding the CGs of 12 mg/kg for arsenic and 80 mg/kg for lead, as approved by the DTSC. The most effective remedial action has been identified to be removal consisting of soil excavation and offsite disposal. This section discusses the applicable or relevant and appropriate requirements (ARARs) for the proposed soil excavation and offsite disposal.

6.1 Public Participation

The LAUSD OEHS has developed a public participation strategy to determine the level of public interest in the proposed RA and verify that the local community is informed of the proposed RA at the Site. Through the planned community survey, community interviews and/or other public participation activities, LAUSD will provide the community with opportunities to be involved in LAUSD's decision-making process for the Site.

Based on expressed community interest or other factors, LAUSD may hold a public comment period to accept comments on the proposed RA and, if appropriate (e.g., when there is high interest in the Site), a public meeting(s) to brief interested parties locally about the proposed RA during the public comment period, before approving the RAW. When a public comment period is planned, LAUSD will determine its appropriate duration (0 to 30+ days). In general, LAUSD will hold a 30-day public comment period. However, the public comment period may be shortened, as appropriate, if expressed community interest in the proposed RA is moderate and compliance with NCP for cost recovery is not an issue.

6.1.1 Community Assessment

Community Demographics: A brief summary of the community demographics for the zip code 90005 in Los Angeles County according to the 2010 US Census (factfinder.census.gov) is as follows:

- Total population: 37,681
- Male: 19,299 (51.2%)
- Female: 18,382 (48.8%)

- Median Age: 33.9
- Population 18 years and over: 79.7%
- Total Housing units: 16,345
- Average Household Size: 2.5
- Population by race: White: 10,953 (29.1%)
  Black or African American: 2,007 (5.3%)
  American Indian and Alaska Native: 317 (0.8%)
  Asian: 12,740 (33.8%)
  Native Hawaiian and Pacific Islander: 40 (0.1%)
  Other: 9,940 (26.4%)
  Two or More Races: 1,684 (4.5%)

Local Participation and Involvement: In December 2016, a fact sheet, in the form of a flyer, was produced in English, Spanish, and Korean (double-sided flyer) to provide members of the community with details regarding the PEA-E investigation including who would perform the work, project schedule, when and where the results of the investigation would be posted, and who to contact regarding additional information. This work notice flyer was handed out to School staff, mailed to parents of students, hand-delivered to line-of-site neighbors of the School, and posted along the boundary fence of the School property.

6.1.2 Community Profile Report

If directed by the District, a Community Survey can be mailed to stakeholders and the community with a 30-day response period. Once the community responses are received, the Community Profile Report (CPR) will be updated for the Site under the direction and guidance of LAUSD. The CPR is based on the information from a variety of sources including file review, site visits, demographic data, similar or relevant community interest/concerns shown during previous public participation activities for other LAUSD projects within the surrounding community, and likely or existing level of community interest/concerns identified for the Site through the community survey or interviews. A copy of the current CPR is included as Appendix C.

6.1.3 Public Participation Activities

A public notice in the languages appropriate to the community will be published in local newspapers (e.g., The Los Angeles Times and La Opinión), and posted at the Site. This notice will inform the community of the proposed soil cleanup RA at the Site and the availability of the Administrative Record file for public inspection during office hours at the temporarily established Information Repository (e.g., a local library or the school office) listed below. Copies of this RAW and project CEQA documents will be placed in the Information Repositories. These Administrative records are listed in Section 9.0 and are also contained under references in Section 10.0. Public comment Period is 30 days. It will be February 14, 2018 through March 15, 2018.

Los Angeles Unified School District
Office of Environmental Health and Safety
333 South Beaudry Avenue, 21th Floor
Los Angeles, California 90017
Attn: Mr. Dane Robinson
(213) 241-4122

Burroughs Middle School
Administrative Office
600 South McCadden Place
Los Angeles, California 90005

A Fact Sheet in English and Spanish will be prepared to provide information about the Site and the proposed removal action, including information concerning history, levels of contaminants found, possible health effects from contaminant exposures, proposed RA activities, precautions to minimize worker exposure, controls to reduce dust, truck route for offsite disposal of excavated materials, public participation activities, and contact information. This Fact Sheet will be circulated to affected community members (residences and businesses) in the immediate area of the Site as follows:

(**Select one that is applicable**)

_____ within a radius of ¼ mile from the Site

__X__within a radius of 1/8 mile from the Site (in dense urban area)

A 30-day comment period with a public meeting is planned at this time and is expected to occur during the DTSC review in February 2018. The length of the comment period and the decision to have a public meeting may be modified as necessary.

6.2 Hazardous Waste Management

Elevated levels of arsenic, up to 89.8 mg/kg and lead up to 2,700 mg/kg by TTLC analysis were detected in the Site soil. The TTLC limits for arsenic and lead as a hazardous waste are 500 mg/kg and 1,000 mg/kg, respectively. The STLC limit for California hazardous waste classification and the TCLP limit for RCRA hazardous waste are 5 mg/L for soluble arsenic and soluble lead. Lead exceeded the TTLC hazardous waste criteria in one sample (EB9-1-S5-1.5).

A total of 9 samples exceeded 10 times the STLC (50 mg/kg) and TCLP (50 mg/kg) for arsenic. The STLC and TCLP analyses were run on each of the arsenic samples above 50 mg/k and all were reported below 5 mg/L STLC and TCLP (see Table 1). In addition, the average concentration of arsenic excavated from the site is expected to be much less than 50 mg/kg. As a result, arsenic impacted soils removed from the Site will be handled as a non-hazardous waste and disposed at a Class III landfill.

A total of 99 lead samples exceeded 10 times the STLC (50 mg/kg) and TCLP (50 mg/kg) for lead. The STLC and TCLP analyses were run on each of the lead samples above 50 mg/kg and 38 were above the 5 mg/L STLC (see Table 1). None of the TCLP soluble lead exceeded the 5 mg/L criteria for RCRA hazardous waste. Many of the samples below 5mg/L STLC were also below the CG of 80 mg/kg. As a result, the majority of lead-impacted soils to be removed from the Site will be handled as a California hazardous waste and disposed of at a Class I landfill.

As a portion of the waste is to be handled as hazardous waste and disposed at a Class I landfill, a USEPA ID number is required for this RA. The EPA ID number for the Burroughs MS is CAD982039505 and will be used for proper management of the all hazardous waste. Compliance with the DTSC requirements of hazardous waste generation, temporary onsite storage,

transportation and disposal will be required for this RA. Any container used for onsite storage of hazardous waste will be properly labeled with a hazardous waste label. Within 90 days after its generation, the hazardous waste will be transported offsite for disposal. Any shipment of hazardous wastes in California will be transported by a registered hazardous waste hauler under a uniform hazardous waste manifest. Land ban requirements will also be followed as necessary.

6.3 Air Quality Management

South Coast Air Quality Management District (AQMD) has two rules, which address fugitive dust (Rules 403 and 1466). Several elements of Rules 403 and 1466, such as protocols for mitigation of potential fugitive dust emissions and warning signage have been incorporated into this RAW. Excavation, loading, and transport of impacted soils shall be in compliance with South Coast AQMD Rules 403 and 1466 for prevention, reduction, and mitigation measures for fugitive dust emissions. Greater than 50 cubic yards of soil will be disturbed during the RA activities, therefore South Coast AQMD will be notified a minimum of 72 hours, but no more than 30 days prior to the start of the RA at the Site.

6.4 Storm Water Discharge Management

The State Water Resources Control Board (SWRCB), as part of the National Pollutant Discharge Elimination System (NPDES), has adopted a statewide NPDES General Permit for Stormwater Discharges Associated with Construction Activity (General Permit) to address discharges of storm water runoff from construction projects that encompass one acre or more in total acreage of soil disturbances. Construction activities subject to the General Permit include demolition, clearing, grading, excavation, soil stockpiling, material storing, onsite staging, offsite staging, and other land disturbance activities. To obtain coverage under the General Permit, dischargers shall electronically submit the Permit Registration Documents (PRDs) which includes a Notice of Intent, Storm Water Pollution Prevention Plan (SWPPP), and SWPPP Compliance Checklist and mail the appropriate permit fee to SWRCB. The SWPPP shall specify Best Management Practices to prevent all construction pollutants from contacting storm water and with the intent of keeping all products of erosion from moving offsite into receiving waters. The discharger shall obtain coverage under the General Permit prior to commencement of construction activities. When construction is complete or ownership has been transferred, the discharger shall

file a Notice of Termination with the appropriate Regional Water Quality Control Board certifying that all State and local requirement have been met in accordance with the General Permit. Since the RA will be performed during the demolition and grading of the Site, the PP's RA contractor will perform the RA under the PRDs and SWPPP prepared by the general contractor and submitted to the SWRCB for the Site modernization project.

6.5 California Environmental Quality Act (CEQA)

The California Environmental Quality Act (CEQA) is a statute that requires State and local agencies to identify the significant environmental impacts of their actions and to avoid or mitigate those impacts, if feasible. In response to the passage of the National Environmental Policy Act (NEPA) in 1969, the California Legislature passed the CEQA in 1970 as a system of checks and balances for land use development and management decisions in California. CEQA was subsequently codified into the Public Resources Code (division 13, section 21000 et seq.). The Resources Agency adopts and certifies certain regulations (known as CEQA Guidelines) to explain and interpret the CEQA law. These regulations were codified into the California Code of Regulations (CCR), title 14, chapter 3, section 15000 et seq. CEQA is a self-executing statute with administrative procedures to ensure comprehensive environmental impact review prior to project approval. The Resources Agency does not enforce CEQA, nor does it review governmental actions for CEQA compliance. If necessary, the public may challenge a CEQA project decision in court. Where a State agency is the lead agency or a responsible/trustee agency, or where the project has statewide, regional, or area wide significance, such CEQA documents shall be submitted to the State Clearinghouse within the Governor's Office of Planning and Research for processing State agency review.

A CEQA project is a California project that has a potential for resulting in a direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment. CEQA applies to discretionary CEQA projects proposed to be carried out or approved by California public agencies, unless an exemption applies. Once an activity is determined as a CEQA project, the lead agency shall conduct a preliminary review to determine whether the project is exempt from CEQA. When the lead agency approves or determines to carry out a project that has the potential to significantly impact the environment, the

agency is required to submit an Environmental Impact Report (EIR). Significant impact on the environment is defined as:

- When a project has the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of an endangered, rare or threatened species, or eliminate important examples of the major periods of California history or prehistory;
- When a project has the potential to achieve short-term goals to the disadvantage of long-term environmental goals;
- When a project has possible environmental effects which are individually limited but cumulatively considerable; or
- When the environmental effects of a project will cause substantial adverse effects on human beings, either directly or indirectly.

Leighton understands that the Initial Study is currently underway and that an Environmental Impact Report will follow.

6.6 Health and Safety Plan (HASP)

All contractors will be responsible for operating in accordance with the most current requirements of Title 8, California Code of Regulations, section 5192 (8 CCR 5192) and Title 29, Code of Federal Regulations, section 1910.120 (29 CFR 1910.120), Standards for Hazardous Waste Operations and Emergency Response (HAZWOPER). Onsite personnel are responsible for operating in accordance with all applicable regulations of OSHA outlined in 8 CCR General Industry and Construction Safety Orders and 29 CFR 1910 and 29 CFR 1926, Construction Industry Standards, as well as other applicable federal, state and local laws and regulations. All personnel shall operate in compliance with all California OSHA requirements.

In addition, California OSHA's Construction Safety Orders (especially 8 CCR 1539 and 1541) will be followed as appropriate. Specific requirements are identified below:

- The maximum depth of the excavation will be less than three feet; therefore, excavation permits and shoring of the excavation area is not required.

- Underground service alert will be notified a minimum of 48 hours and a survey or inspection of subsurface utilities will be conducted by the RA contractor prior to the commencement of excavation activities.

- Excavations will remain two feet from any active utility lines and will be hand dug if additional removals are required.

A site-specific health and safety plan (HASP) has been prepared for the Site under the supervision of a certified industrial hygienist (CIH) in accordance with current health and safety standards as specified by the Federal and California OSHAs. A copy of the HASP is included as Appendix D.

The provisions of the HASP are mandatory for all personnel of the PP, environmental professional, and RA contractor who are at the Site. The RA contractor and its subcontractors doing fieldwork in association with this RAW will either adopt and abide by the HASP or shall develop their own safety plans which, at a minimum, meet the requirements of the HASP and are reviewed and signed by a CIH. All onsite personnel shall read the HASP and sign the "Plan Acceptance Form" (Attachment A of the HASP) before starting Site activities. Any personal air monitoring, medical surveillance, PPE, or decontamination requirements will be the responsibility of the RA contractor.

6.7 Quality Assurance Project Plan (QAPP)

Quality assurance/quality control measures that will be used during project execution and are documented in the Quality Assurance Project Plan (QAPP) included as Appendix E. The QAPP will provide the guidelines that the Site field and analytical data collected meet project Data Quality Objectives (DQOs) and RAOs to support decisions for proceeding with the modernization activities for the Site.

6.8 Others

All necessary permits and approvals identified in this RAW will be obtained prior to removal activities. Upon approval from LAUSD-OEHS, the RA will be performed by a California licensed contractor with oversight from an

environmental professional who is either a California Professional Geologist or Professional Civil Engineer. According to Education Code section 17213.2 (e), if a previously unidentified environmental concern is discovered at any time during school construction process, the PP shall cease all construction activities at the Site, notify LAUSD-OEHS, and take necessary response actions as required by the LAUSD-OEHS.

7.0 REMOVAL ACTION IMPLEMENTATION

Data from the investigation of the Site indicates the COC (arsenic and lead) in soil at concentrations exceeding the CGs. The CGs for this RA are presented in Section 4.3. An EE/CA for the removal is included in Section 5.0. The most effective remedial action has been identified to be removal consisting of soil excavation and offsite disposal. Upon receipt of LAUSD-OEHS approval, removal activities will be performed by a California licensed contractor with supervision of a California Professional Geologist or Professional Civil Engineer (to be hired by the PP).

Removal, transportation and disposal will be performed in accordance with applicable Federal, State, and local laws, regulations, ordinances and requirements. Field operations shall follow the suggested operational guidelines to prevent cross-media transfer of contaminants, as specified in "Best Management Practices (BMP) for Soils Treatment Technologies" (U.S. EPA 530-R-97-007). Figures 4 through 7 illustrate the excavation areas, as well as, the sampling points from the previous investigations within the Site.

7.1 Field Documentation

The environmental professional will be responsible for maintaining a daily field log (DFL) during the RA activities. The DFL will serve to document observations, personnel onsite, equipment arrival and departure times, and other vital project information.

7.1.1 Daily Field Logs (DFLs)

Daily field logs will document where, when, how, and from whom vital project information was obtained. DFL entries will be complete and accurate enough to permit reconstruction of field activities. DFLs will be bound with consecutively numbered pages. Each page will be dated and the time of entry noted in military time. Entries will be legible, written in ink, and signed by the individual making the entries. Language will be factual, objective, and free of personal opinions or other terminology, which might prove inappropriate. If an error is made, corrections will be made by crossing a line through the error and entering the correct information. Corrections will be dated and initialed. No entries will be obliterated or rendered unreadable. Entries in the DFL will include the following for each fieldwork date:

- Site name and address
- Recorder's name
- Team members and their responsibilities
- Time of Site arrival/entry on Site and time of site departure
- Other personnel onsite
- A summary of any onsite meetings
- Quantity of impacted soils (in terms of RCRA hazardous wastes, non-RCRA hazardous waste, and non-hazardous wastes) excavated
- Quantity of impacted soils (in terms of RCRA hazardous wastes, non-RCRA hazardous waste, and non-hazardous wastes) temporarily stored onsite
- Quantity of excavated soils in truckloads and load size (in terms of RCRA hazardous wastes, non-RCRA hazardous waste, and non-hazardous wastes) transported offsite
- Names of waste transporters and proposed disposal facilities
- Copies or numbers of manifests or other shipping documents (such as bill of landing) for waste shipments
- Quantity of import fill material in truckloads
- Deviations from this RAW and Site HASP
- Changes in personnel and responsibilities as well as reasons for the changes
- Levels of safety protection
- Calibration readings and equipment model for any equipment used

The following information will be recorded during the collection of each sample:

- Sample identification number
- Sample location and description including GPS coordinates
- Site sketch showing sample location and measured distances
- Sampler's name(s)

- Date and time of sample collection
- Designation of sample as composite or grab
- Type of sample (i.e., matrix)
- Type of preservation
- Type of sampling equipment used
- Field observations and details important to analysis or integrity of samples (e.g., heavy rains, odors, colors, etc.)
- Instrument readings (e.g., air monitors, etc.)
- Chain-of-custody form numbers and chain-of-custody seal numbers
- Transport arrangements (courier delivery, lab pickup, etc.)
- Recipient laboratory(ies)

7.1.2 Chain-of-Custody Records

Chain-of-custody records are used to document sample collection and shipment to laboratory for analysis. All sample shipments for analyses will be accompanied by a chain-of-custody record. Form(s) will be completed and sent with the samples for each laboratory and each shipment. If multiple coolers are sent to a single laboratory on a single day, chain-of-custody form(s) will be completed and sent with the samples for each cooler. The chain-of-custody record will identify the contents of each shipment and maintain the custodial integrity of the samples. Generally, a sample is considered to be in someone's custody if it is either in someone's physical possession, in someone's view, locked up, or kept in a secured area that is restricted to authorized personnel. Until receipt by the laboratory, the custody of the samples will be the responsibility of the sample collector. See the QAPP (Appendix E) for more detailed information. The shipping containers in which samples are stored (usually sturdy cooler or ice chest) will also be sealed with self-adhesive custody seals when they are not in someone's possession or view before shipping. All custody seals will be signed and dated.

7.1.3 Photographs

Photographs will be taken of the excavation area(s), confirmation sample locations, and other areas of interest onsite to document the RA. They will

serve to verify information entered in the DFL. When a photograph is taken, the following information will be written in the DFLs or will be recorded in a separate field photography log:

- Time, date, location, and, if appropriate, weather conditions
- Description of the subject photographed
- Name of person taking the photograph

7.2 Site Preparation and Security Measures

Prior to mobilization for the proposed RA, site preparation activities will be performed and may include site inspections, surveying, boundary staking, sampling, demarcation of hot spots, improvement of access roads, utility connections or disconnections, and fencing installation.

7.2.1 Delineation of Excavation Areas

The areal limits of the excavations will be delineated by the environmental professional, in consultation with LAUSD-OEHS representatives, before commencement of removal activities. The areas to be excavated shall be called the "excavation areas" and they will be marked (as the exclusion zones) in the field by the environmental professional with stakes and/or high visibility paint. GPS coordinates will be collected at the time of excavation and compared to GPS data or other location references of the previous investigations.

The RA contractor will initially excavate the designated confirmation sample points to the specified depths. The environmental professional will collect and analyze samples from each designated sidewall and bottom sample location. The samples will be run on a same day or 24 hour expedited turn-around time. If an impacted sidewall is found, an additional excavation will be made in that direction until arsenic or lead impacts above the CGs are no longer detected. Once sidewall and bottom concentrations below the CGs have been reached, the remedial excavation will commence and the data set of remaining samples evaluated to confirm the CGs of 12.0 mg/kg arsenic and 80 mg/kg lead have been achieved.

7.2.2 Utility Clearance

Clearance of remaining utilities and other hazardous underground obstacles will be conducted by the RA contractor prior to initiating soil intrusion or subsurface activities. Such possible obstacles may include water, electrical, gas, oil, communication cable, phone cable, TV cable, and sewer lines. At a minimum, the utility clearance will include a 48-hour notification of the local Underground Services Alert (USA) and a Site visit. In addition, a geophysical survey or hand-augering down to 1 foot below the intended excavation depth may be conducted as appropriate to clear the excavation locations.

7.2.3 Security Measures

Appropriate barriers and/or privacy fencing will be installed prior to beginning the excavation process to provide that work areas are secure and safe. To prevent trespassers or unauthorized personnel not allowed near work areas, security measures may include, but are not limited to:

- Posting notices directing visitors to the Site manager.
- Maintaining a visitor's log. Visitors shall have prior approval from the Site manager to enter the Site. Visitors shall not be permitted to enter the Site without first receiving site-specific health and safety information from the Site safety coordinator.
- Installing barrier fencing to restrict access to sensitive areas such as exclusion zones.
- Providing adequate Site security to provide that unauthorized personnel have no access to work areas and/or impacted materials.
- Before leaving the Site, personnel must sign out in the visitor's log.
- Maintaining a safe and secure work area, including areas where equipment is stored or placed, at the close of each workday.

Persons requesting Site access will be required to demonstrate a valid purpose for access and if access to work areas and/or impacted materials is planned, provide appropriate documentation to demonstrate they have

received proper training required by the site-specific HASP (see Appendix D).

7.2.4 Contaminant Control

In order to prevent potential exposure of material to the adjacent properties, the following measures will be implemented during soil excavation activities:

- The PP will take necessary steps to minimize impact to the community.
- Air monitoring procedures (see Section 7.4) will be implemented by the environmental professional during excavation activities.
- RA activities will not be conducted during inclement weather (e.g., high winds, heavy rains, or electrical storms) or unfavorable hours reasonably raised by the community concerns or City ordinances.
- Community members will be informed prior to initiation of removal activities.

7.2.5 Cultural Resources Consideration

The Site is not in an area of cultural resources significance (see Section 2.5). Prior to excavation, all contractors and subcontractors will be informed of the potential for discovering important paleontological, prehistorical, or historical resources below the ground surface and the legal consequences for damaging or destroying such resources. If any such resources are found, all field activities shall halt within the area in question and a qualified paleontological or cultural resources specialist shall evaluate the situations and make recommendations for further action. In the event of discovery or recognition of human remains at the Site, there will be no further excavation or disturbance of the area in question or any nearby area reasonably suspected to overlie adjacent human remains until:

- The County Coroner (where the project is located) has been informed and has determined that no investigation of the cause of death is required, and

- If the remains are suspected of Native American origin, the descendants from the deceased Native Americans have made a recommendation to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code section 5097.98, or

- The Native American Heritage Commission was unable to identify a descendant or the descendant failed to make a recommendation within 24 hours after being notified by the Commission.

7.2.6 Biological Resources Consideration

The Site is not in an area of biological resources significance (see Section 2.5).

7.2.7 Noise Control

The Site is located in a residential neighborhood. Per the City of Los Angeles Noise Control Ordinance, noise-generating construction operations will be limited to between the hours of 7:00 AM to 9:00 PM Monday through Friday; 8:00 AM to 6:00 PM on Saturdays and no construction allowed on Sundays. Construction equipment will be properly maintained and equipped with noise reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturers' recommendations. Equipment engine shrouds will be closed during equipment operation. When not in use, motorized construction equipment will not be left idling.

7.2.8 Permits and Plans

As discussed in Section 6.8, necessary permits, approvals, and South Coast AQMD Rule 1466 notification will be obtained by the RA contractor prior to the implementation of the RA.

7.3 Excavation

Fieldwork will be completed by properly trained and equipped hazardous waste workers. Impacted soil will be removed with a backhoe, bulldozer, tracked excavator, shovels or other types of earth moving equipment, as necessary. As

soil is excavated, it will be loaded directly onto transportation trucks or temporarily stored on and covered by plastic sheeting in stockpile staging areas onsite. Use of roll-off bins in areas of limited access, with the capability to be covered for transport is also acceptable. In addition, California OSHA's Construction Safety Orders (especially 8 CCR 1539 and 1541) will be followed as appropriate.

To enable systematic review of the excavation areas identified for soil cleanup, the removal of impacted soil will be to the desired depth and lateral extent at each identified excavation area. Hand digging may be performed when utilities are encountered or exposed. Excavations in areas requiring confirmation sampling will be scheduled first as practical to expedite characterization in these areas. Based on results of confirmation sample results, an excavation of each additional grid of 5 feet by 5 feet and lift of 1-foot depth (approximately 1 CY) will proceed until the CGs are met.

Excavation areas will be controlled to avoid dust generation with physical barriers (such as perimeter fencing with windscreen), soil wetting, and air monitoring (at property perimeter and work area). Each excavation area will be secured and water will be used to control fugitive dust from blowing onto other properties. The Site will be controlled and no excavation will be conducted in times of high wind conditions (e.g., wind speed in excess of 25 miles per hour) or inclement weather conditions.

7.3.1 Confined Space Entry Requirements

In the event an excavation is five (5) feet deep or deeper, it must be shored or sloped if entry is necessary. If there is a possibility of soil movement or structural compromise, shallower trenches may have to be shored to protect structures or utilities. If workers are required to enter an excavation that is five feet or deeper, a permit from the Division of Occupational Safety and Health, California Department of Industrial Relations must be obtained before excavating and entry. For the proposed RA, confined-space entry procedures do not apply. Whenever compliance is necessary, the site-specific HASP (Appendix D) will be updated to reflect this change.

7.3.2 Soil Staging and Storage Operations

If it is necessary to temporarily store the excavated soil onsite until offsite transportation and disposal are available, the following may apply. The staging process will be conducted in a manner to minimize the generation of dust. At the stockpile staging areas, excavated soil will be placed on an impermeable barrier base (e.g., asphalt, plastic sheeting) and covered with tarps or other proper materials to prevent run-on and/or dust generation. If significant rainfall is anticipated, the staging areas will be bermed to contain potential run-off. When possible, excavated soils may be placed in covered roll-off bins or drums, or may be loaded directly onto transportation trucks. Temporary onsite storage of excavated soil wastes will be secured and properly labeled until offsite transportation and disposal are ready for loading. In no case, will hazardous waste storage be longer than 90 days after its generation. Storage of hazardous waste longer than 90 days after its generation may require a permit or approval from DTSC. Direct loading may take place concurrently with excavation operations, with access of loaders to the stockpile from outside of the excavation areas, while excavation operations deposit impacted soil from the excavation areas to the staging areas. During non-excavation hours, excavated soil stockpiles will be covered with plastic sheeting or other proper materials. Additional field applications may involve installation of a temporary canopy, liner, or other physical barrier that minimizes movement of materials from the Site by wind, water, or other mechanism.

7.3.3 Waste Segregation Operations

Prior to stockpiling/staging, the excavated soil will be segregated to the extent possible to avoid mixture of hazardous and non-hazardous soils. This segregation will minimize the amount of hazardous soils generated and its associated disposal cost. The soil segregation will be based upon criteria for hazardous and non-hazardous soils and the available sampling data. Although not anticipated, RCRA hazardous soils will be transported to a licensed Class I landfill and California hazardous soils will be transported to a licensed Class I landfill or a properly permitted out-of-state disposal facility. Non-hazardous soils will be transported to an approved facility or Class III landfill to be used for alternate daily cover or disposal within the landfill. Reuse of the material outside the designated landfill disposal sites will not be permitted.

7.3.4 Decontamination Area

Each transport truck leaving the Site will be decontaminated utilizing the procedures below in the designated decontamination area. The decontamination area is located in the parking area near the northern driveway off of Wet 6th Street on the northern boundary of the Site (Appendix F – Figure). The decontamination area will be covered with plastic sheeting to collect any debris removed from the trucks prior to leaving the site. The plastic sheeting shall be maintained in good condition at all times and damaged sheeting and debris can be loaded in the transport trucks for off-site disposal. All areas around the excavations and egress points will be maintained in a broom cleaned condition. Entry to the impacted areas should be limited to avoid unnecessary exposure and related transfer of contaminants.

7.3.5 Decontamination Procedures

Sampling equipment that comes into direct contact with potentially impacted soil or water will be decontaminated to assure the quality of samples collected and/or to avoid cross contamination. Disposable sampling equipment intended for one-time use will not be decontaminated, but will be packaged for appropriate disposal. Decontamination will occur prior to and after each designated use of a piece of sampling equipment, using the following procedures:

- Non-phosphate detergent and tap water wash, using a brush if necessary
- Tap-water rinse
- Initial deionized/distilled water rinse
- Final deionized/distilled water rinse

Trucks that come into direct contact with potentially impacted soil or water will be decontaminated prior to leaving the Site to prevent the offsite tracking of impacted soil. Trucks will be visually inspected before leaving the Site (Appendix F – Figure F1); rumble plates stationed at departure and decontamination stations and dirt adhering to the exterior surfaces will be brushed off with brooms and collected on plastic sheeting or hardscape surface. The storage bins or beds of the trucks will be inspected to ensure

the loads are properly covered and secured. Excavation equipment surfaces will also be brushed off prior to removing it from the exclusion zone. Equipment will be decontaminated in a pre-designated area on pallets or plastic sheeting. Clean bulky equipment will be stored on plastic sheeting in unimpacted areas. Cleaned small equipment will be stored in plastic bags. Materials to be stored more than a few hours will also be covered.

7.3.6 Excavation Plan

Initial Excavation: The initial excavation includes fourteen (14) identified AOCs as discussed in Section 3.2 and shown on Figures 4 through 7. The initial excavation will produce approximately 160 CY of bank run material, or 248 tons using a conversion factor of 1.55 tons per CY. See Section 3.3 for loose "fluff" soil volume conversion factor to estimate the number of trucks needed for offsite transportation. Approximately thirteen (13) truck loads are anticipated.

The excavations include non-hazardous arsenic-impacted soils above 12 mg/kg and non-hazardous lead-impacted soils above 80 mg/kg in AOCs: A1 and A2 (~5 CY), E (~31 CY), and G (~18 CY). The remaining excavations include California hazardous lead-impacted soils exceeding the STLC in AOCs: B (~1.8 CY), C (~0.2 CY), D (~22 CY), F (~20 CY), H (~18 CY), I (~14 CY), J (~3 CY), K (~10 CY), L (~3 CY), and M (~14 CY). The excavations range from 1.0 feet to 4.5 feet in depth and are further detailed on Figures 4 through 7.

Post Confirmation Excavation: After consultation with LAUSD-OEHS, additional excavation may be necessary depending on the results of confirmation sampling, as discussed in Section 7.6. All sample results will be provided to the LAUSD-OEHS for a decision on final clearance and completion of excavation activities.

7.4 Air and Meteorological Monitoring

This section details the air and meteorological monitoring strategy and methodologies that will be used during the soil RA. The strategy and methodologies are designed to achieve several goals:

- Identify and measure the air contaminants generated during the soil removal and decontamination activities to assign the appropriate personal protective equipment (PPE) and safety systems specified for those activities.

- Provide feedback to Site operations personnel regarding potential hazards from exposure to hazardous air contaminants generated through Site activities.

- Identify and measure air contaminants at points outside of the soil removal and decontamination exclusion zones. Air monitoring will be conducted during work activities to measure potential exposure of sensitive receptors to Site chemical constituents, as a result of removal activities.

7.4.1 Air Monitoring

As required by South Coast AQMD Rule 1466, air monitoring will be performed during Site activities in which impacted or potentially impacted materials are being disturbed or handled. The environmental professional will staff the Site with an air monitoring/health and safety professional whose responsibilities will include:

- Monitoring dust levels in the exclusion zone and other locations. The Site air monitoring professional will have the authority to stop-work in the event that onsite activities generate dust levels that exceed the Site or community action levels (see the chart below). The air-monitoring professional will monitor onsite meteorological instrumentation and/or coordinate with offsite meteorological professionals to identify conditions that require cessation of work, e.g., winds in excess of 25 mph or inclement weather. Based on the SCAQMD Rules 403 and 1466 an action level for work stoppage will be set at an instantaneous wind velocity of 25 mph or if wind speed is greater than 15 mph averaged over a 15-minute period of time.

- Assure that real-time aerosol monitors and industrial hygiene air sampling equipment and media are properly calibrated and in good working condition. Real-time, data-logging aerosol monitors (personal data ram) will be used, when required, to measure dust levels. Real-time information will be posted daily, and discussed with Site workers. As analytical results for industrial hygiene samples [using Occupational

Safety and Health Administration/National Institute of Occupational Safety and Health (OSHA/NIOSH) approved methods are received, the air monitoring professional will prepare summary sheets and discuss results with onsite management and workers].

- Attend general Site safety activities including daily hazard communication, safety practices and procedure briefings.
- General Site safety leadership, support and recordkeeping activities.

7.4.1.1 Air Monitoring Strategy and Methodologies

The RA contractor will monitor dust levels at the following general locations: (Final locations and number will be evaluated in the field.)

- Upwind (offsite property if possible)
- Proximate to the exclusion zone (with the equipment operator)
- Up to three (3) Fence Line / Downwind locations
- As deemed necessary to evaluate employee exposure (to be performed by the RA contractor)

The prevailing wind direction is anticipated to be from the W or WSW (Table 4, WRCC, 2017) depending on the time of year of the excavation activities. Wind direction and proposed monitoring points and weather station locations will be determined in the field. Air monitoring samples will be collected over an 8 to 10-hour period each day that RA activities are conducted. The air monitoring professional will check the equipment every 15 minutes during operation. Due to the fact that the Site COCs are exclusively particulates, the RA contractor will focus on collection and analysis of airborne dust levels and calculated concentrations of the COCs associated with dusts generated by removal activities. As specified in the HASP (see Appendix D), the RA contractor will base Site safety procedures, including dust control measures and employee PPE (including respiratory protection), on the Personal Action Levels specific in the chart below.

Exposure Guidelines for Site Chemical Hazards

Chemical Name	Odor Threshold	CAL/OSHA PEL [a]	ACGIH TLV [b]	Site Action Levels [c]	Community Action Level (Arsenic Action Level) [d]
Total Dust	Not Listed	10 mg/m^3	10 mg/m^3	1.0 mg/m^3	0.05 mg/m^3
Arsenic	Not Listed	0.01 mg/m^3	0.2 mg/m^3	0.001 mg/m^3	0.001 mg/m^3
Lead	Not Listed0	0.05 mg/m^3	0.4 mg/m^3	0.005 mg/m^3	0.001 mg/m^3

Notes:
a Permissible Exposure Limits (Cal/OSHA Article 107, Table AC1)
b 2014 Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices, American Conference of Governmental Industrial Hygienists (ACGIH)
c Site Action Level is calculated as 10% of threshold limit value or PEL (as measured by NIOSH methods), whichever is lower. If an action level is met or exceeded, then additional dust mitigation measures will be implemented. If the Site air contaminants cannot be controlled reliably within 15 minutes, all work will cease and a CIH will be consulted. If Site action level for calculated arsenic is exceeded on the integrated air monitors, a CIH will be immediately consulted.
d Community action level for total dust/particulate is based on South Coast Air Quality Management District regulations. The community action levels for arsenic and lead are based on the site action level. Community action level for arsenic and lead dust is determined based on review of available data regarding soil concentrations of arsenic and lead and will be protective of Site workers and surrounding protectors. Site dust levels will be measured using real time aerosol monitors.
ppm — parts per million
mg/m^3 — milligrams per cubic meter
$\mu g/m^3$ — micrograms per cubic meter

7.4.1.2 Dust Monitoring

As required by South Coast AQMD, the Site air monitoring professional will monitor airborne dust levels, using real-time, data-logging aerosol monitors (i.e., Personal DataRam or PDM-3 Miniram particulate monitor manufactured by MIE or equivalent), in the locations determined in the field and daily conditions. These instruments will be calibrated daily, set to log dust levels over 5 minute periods and visually read every 15 minutes. In consultation with AQMD, the frequency may be changed based on Site conditions and newly available data. At a minimum, a PDM-3 Miniram, or equivalent, will be placed upwind to monitor background and the second set will be placed in the exclusion zone to monitor worker exposure to dust concentrations at the Site.

7.4.1.3 Arsenic and Lead Monitoring

If required, in consultation with LAUSD-OEHS, the RA contractor will document airborne concentrations of the COC in the locations outlined Section 7.4.1 and as necessary to evaluate employee exposure. The RA contractor will use OSHA/NIOSH approved methods to collect and analyze personal air samples. This should be sufficient to allow for quantification to onsite and community action levels.

If needed, as analytical results for industrial hygiene samples (using OSHA/NIOSH approved methods for the COCs dust scan, such as US EPA 7300 for arsenic dust scan) are received, the air monitoring professional will prepare summary sheets and discuss results with onsite management and workers. The environmental professional will arrange for COC sample analysis to be completed within 5 days. However, efforts will be made to receive 24-hour turnaround from the laboratory.

However, due to the limited excavation, proposed dust control measures, and the low levels of soil impacts, no monitoring of airborne concentrations of arsenic or lead is proposed.

7.4.2 Meteorological Monitoring

Onsite ambient weather conditions (wind speed and direction, temperature, and relative humidity) will be monitored by the environmental professional following methods: an onsite meteorological station, real-time internet weather locations, and/or the National Weather Service (if a local station can provide data relevant to the Site). If offsite meteorological stations cannot provide data relevant to the Site, an onsite meteorological station will be set up and monitored during excavation activities. Onsite meteorological monitoring will be performed simultaneously with the excavation activities to verify necessary precautions have been taken. Detailed information is described in the site-specific HASP (see Appendix D).

7.4.3 Other Environmental Monitoring

None.

7.5 Dust Control Plan

In accordance with South Coast AQMD Rule 1466, the RA contractor will implement appropriate procedures to control the generation of airborne dusts from soil removal activities. Such procedures will include but will not be limited to the following:

- The Site air monitoring professional will monitor dust levels in the locations determined in the field. They will have the authority to stop-work in the event that onsite activities generate dust levels in excess of the onsite (1.0 mg/m_3) or community/fence line (0.05 mg/m_3) action levels. Generation of dust during the removal operations will be minimized as necessary with the use of water as a dust suppressant. The water will be available via a water truck or a metered discharge from a fire hydrant or water spigot located proximate to the Site. The RA contractor will control dust generation by spraying water prior to daily work activities, during excavation/loading activities (as necessary to maintain concentrations below action levels), and at truck staging locations. Watering equipment will be continuously available to provide proper dust control.

- Appropriate warning signage will be installed around the perimeter of the Site at all entrances and at intervals of 1,000 feet or less around the perimeter of the Site, with a minimum of one sign along each side, in accordance with South Coast AQMD Rule 1466.

- If required, the air monitoring professional will monitor onsite meteorological instrumentation and/or coordinate with offsite meteorological professionals to identify conditions that require cessation of work. All removal activities will cease in the event wind conditions change creating an uncontrollable condition.

- Measurement of airborne dust levels at locations outlined in Section 7.4.1 using real-time, data-logging aerosol monitors (e.g., Personal DataRam or PDM-3 Miniram particular monitor manufactured by MIE).

These instruments will be calibrated daily and monitoring information posted daily, and discussed with Site workers. The monitors will be set to log dust levels over 5 minute periods and will be visually read every 15 minutes. In consultation with LAUSD-OEHS, the frequency may be changed based on Site conditions and newly available data. At a minimum, PDM-3 Miniram or equivalent will be placed

upwind to monitor background and the second set will be placed on the backhoe operator or assistant to provide worst case dust concentrations on the Site. Dust masks will be provided to Site workers in the event particulate concentrations exceed 1.0 mg/m3 (see Appendix D – Health and Safety Plan).

7.6 Sampling and Analysis Plan

7.6.1 Waste Profiling Sampling

Site-Specific COCs: Arsenic and Lead: Waste profiles for arsenic-impacted soils will be submitted to local Class III municipal landfill and for lead-impacted hazardous waste soils will be submitted to a Class I landfill by the RA Contractor for acceptance prior to start of excavation work or based on submittal of representative site characterization laboratory reports. Profile samples will be collected from the excavation areas by potholing or hand augering areas designated for sidewall of bottom confirmation sampling. The samples will be submitted for waste profiling in accordance with Table 5.

An acceptance letter will be issued by the disposal facilities once the waste transporter has been contracted by the District and final profile sample results are submitted. The collection of the identified confirmation samples and the in-situ waste profile samples will be performed in advance of the excavation activities.

Soils excavated from the Site will be managed (handled, transported and disposed of) as: (Select all that are applicable)

___ a hazardous waste requiring compliance with requirements of land ban restrictions

_X_ a hazardous waste requiring no compliance with requirements of land ban restrictions

____ a PCB waste

_X_ a non-hazardous and non-PCB waste

7.6.2 Confirmation Sampling

To the extent possible, the previous sampling data will be used as confirmation sampling points. Prior to implementation of excavation activities, the excavation areas that are not currently delineated with confirmation point samples will be sampled at the designated bottom and sidewall locations through potholing or hand augering to confirm that elevated arsenic and lead concentrations exceeding the CGs do not extend vertically to deeper depths or horizontally beyond the excavation boundaries. Based on the proposed excavations, selected sidewall and bottom confirmation samples will be collected at the locations shown in Figures 4 through 7 and listed in Table 6. The exact sample locations will be evaluated in the field. Sidewall confirmation samples will be collected from the depth with the highest concentration of arsenic and/or lead exceeding the CGs encountered during the PEA-E sampling in each excavation area. Additional confirmation sampling will be implemented if the original samples exceed to CGs. Confirmation samples will be collected using a clean trowel or newly gloved hand and transferred directly into sampling jars thereby reducing the number of sampling equipment which will significantly reduce the possibility of cross contamination. The final confirmation samples will be properly sealed, labeled and stored onsite in a cooled chest prior to delivery to a California Environmental Laboratory Accreditation Program (ELAP) certified laboratory. Samples will be delivered to the laboratory on the same day collected, if time permits, and no later than the day following collection. In the event the samples are delivered the day after they are collected, the samples will be secured under proper chain of custody documentation at the environmental professional's office until delivery. All confirmation soil samples will be analyzed for TTLC arsenic and TTLC lead, using USEPA SW-846 Method 6010B.

Confirmation soil samples will be compared to the CGs. Analytical results from confirmation samples exceeding the CGs will result in further excavation and confirmation sampling. The excavation of each additional 5x5-foot grid and 1-foot depth lift will proceed until the CGs are met.

After the removal action is complete, the confirmation data will be compiled and reported in the Removal Action Completion Report (RACR) (see Section 8.0). The entire arsenic and lead data set for the Site will be

included in the RACR reflecting the now-current conditions of the Site for arsenic and lead. This data set will not include arsenic or lead values for soil which have been removed. The data will be expressed as both the range of values and the 95 percent UCL when there are sufficient samples to calculate this value. These calculations are required to give an overall representation of arsenic and lead concentrations of the Site following the removal action.

7.7 Transportation Plan for Offsite Disposal

The waste material will be profiled and approval will be received from the disposal facilities before soil is transported offsite for lawful disposal. Based on the analytical results gathered during the PEA-E, the arsenic-impacted soil excavated from the Site will be handled, transported and disposed of as non-hazardous waste and will be transported to a Class III landfill facility. The lead-impacted soil with soluble lead will be soil excavated from the Site will be handled, transported and disposed of as non-RCRA California hazardous waste and will be transported to a Class I landfill facility. Final determination of the facility identified for disposal will be based on approval from the facility. Detailed information on waste transportation, transportation routes, and disposal is described in the Transportation Plan (see Appendix F).

7.8 Backfill and Site Restoration

Based on Site conditions and school construction plans, the RA excavations are not expected to be backfilled with clean fill material from an offsite source, but rather, through grading operations of the proposed site modernization development.

7.9 Variance or Explanation of Significant Difference (ESD)

After this RAW is approved, new information may be received or generated that could affect the implementation of the remedy selected in this RAW (as specified in Section 5.3), or could prompt the reassessment of that remedy. Appropriate actions should be taken to address the newly developed situations (which are deviated from or are not covered by the approved RAW). New information may include:

1. a change in scope, performance, or cost of the selected remedy; and
2. advances in remediation science and technology which may impact the remedy selection.

7.9.1 Criteria for Fundamental, Significant or Minor Changes

Based on an evaluation, and depending on the extent or scope of modification being considered, one of the following three types of changes may be classified, identified, and followed: minor changes, significant changes, or fundamental changes.

Criteria for Fundamental Changes:
When a fundamental change will be made to the selected remedy, a RAW Amendment, a new RAW, or a new Remedial Action Plan (RAP) may be developed, issued and approved consistent with the normal RAW/RAP process. In such a case, additional field work not covered by the approved RAW should not be conducted until the new RAW/RAP process for the additional work is completed. Possible scenarios for fundamental changes include:

1. selection of a different alternative; e.g., from excavation to soil vapor extraction, from groundwater natural attenuation monitoring to pump and treat, from in-situ soil washing to excavation, from containment cap to treatment,
2. change or addition of media; e.g., from soil to groundwater,
3. substantial cost increase; e.g., less than $1 million to more than $2 million,
4. preparation of a new CEQA or RA decision document; e.g., from Mitigated Negative Declaration (MND) to an Environmental Impact Report (EIR), or
5. from RAW to RAP.

Criteria for Significant Changes:
When a significant change will be made, an Explanation of Significant Differences (ESD) along with a NOE should be developed and documented. As provided in section 300.435(c)(2)(i) of Code of Federal Regulations, Title 40 (40 CFR 300.435(c)(2)(i)), ESD is a federal process

designed for a record of decision (ROD) for a remedial action project, when a difference significantly changes but does not fundamentally alter the remedy selected in the ROD with respect to scope, performance or cost. There is no "official" mechanism for RAWs to document significant changes after a RAW is approved. Using the ESD process (in an equivalent manner) as a means to document significant changes encountered during implementation of RAWs may be used.

Possible scenarios for an ESD include:

1. moderate cost increase; e.g., from less than $1 million to more than $1 million but less than $2 million, or
2. preparation of a new NOE (e.g., from categorical exemption to general exemption) or other CEQA documents (e.g., ND or EIR).

Criteria for Minor Changes (Variances):
As conditions in the field may vary, it may become necessary to implement minor modifications to the selected remedy as presented in this RAW. Modifications to the approved RAW will be documented in the DFL and in the RACR for this RA.

7.9.2 ESD Process

Compliance With CEQA – ESD:
When an ESD is necessary, LAUSD-OEHS will prepare and file a NOE or other proper CEQA documents for the planned ESD with the Office of Planning and Research as part of its approval process for the ESD. All protective measures considered in the RAW and in the CEQA documents will apply to this removal action.

Public Participation for ESD:
In accordance with the NCP, aka CFR, Title 40, Part 300, section 300.435 (40 CFR 300.435), a formal public comment period is not required when issuing an ESD.

RAP:
As provided in 40 CFR 300.435(c)(2)(i), to issue an ESD for a RAP, the lead agency shall:

1. make the ESD and supporting information for a RAP available to the public in the administrative record and the information repository; and
2. publish a notice that briefly summarizes the ESD for a RAP in a major local newspaper of general circulation.

After an ESD has been approved, a notification to the public concerning the ESD should be published in local newspapers (which are published in the languages appropriate to the local community), and posted at the Site. LAUSD-OEHS should also notify each person who has submitted written comments or request notice of the project updates, concerning the ESD. The Administrative Record for the Site should be available for public inspection at the designated Information Repositories.

RAW:
As provided in 40 CFR 300.435(c)(2)(i), to issue an ESD for a RAW, the lead agency shall:

1. make the ESD and supporting information for a RAW available to the public in the administrative record and the information repository; and
2. publish a notice that briefly summarizes the ESD for a RAW in a major local newspaper of general circulation.

After an ESD has been approved, a notification to the public concerning the ESD should be published in local newspapers (which are published in the languages appropriate to the local community), and posted at the Site. LAUSD-OEHS should also notify each person who has submitted written comments or request notice of the project updates, concerning the ESD. The Administrative Record for the Site should be available for public inspection at the designated Information Repositories.

Additional Public Participation Activities:
Additional public participation activities (e.g., public information meeting, public comment period, fact sheet mailing) may be conducted by LAUSD-OEHS if warranted by public interest or upon request.

8.0 PROJECT SCHEDULE AND REPORT OF COMPLETION

The PP is prepared to proceed with removal activities upon receiving approval of this RAW. The RA will focus on excavation, air monitoring, confirmation sampling, and offsite disposal.

Although the schedule for implementation of the RAW is unknown at this time, the following chart indicates the anticipated schedule of implementation and subsequent reporting for this project from a number of days standpoint. A project schedule for the RAW and RA will be included in Appendix H once a construction schedule has been determined by the District. A Removal Action Completion Report (RACR), documenting all activities conducted pursuant to the approved RAW and certifying that activities have been conducted consistent with this RAW, will be prepared as expeditiously as possible upon completion of the RA. A generic RACR table of content format is included as Appendix G.

Schedule of Tasks

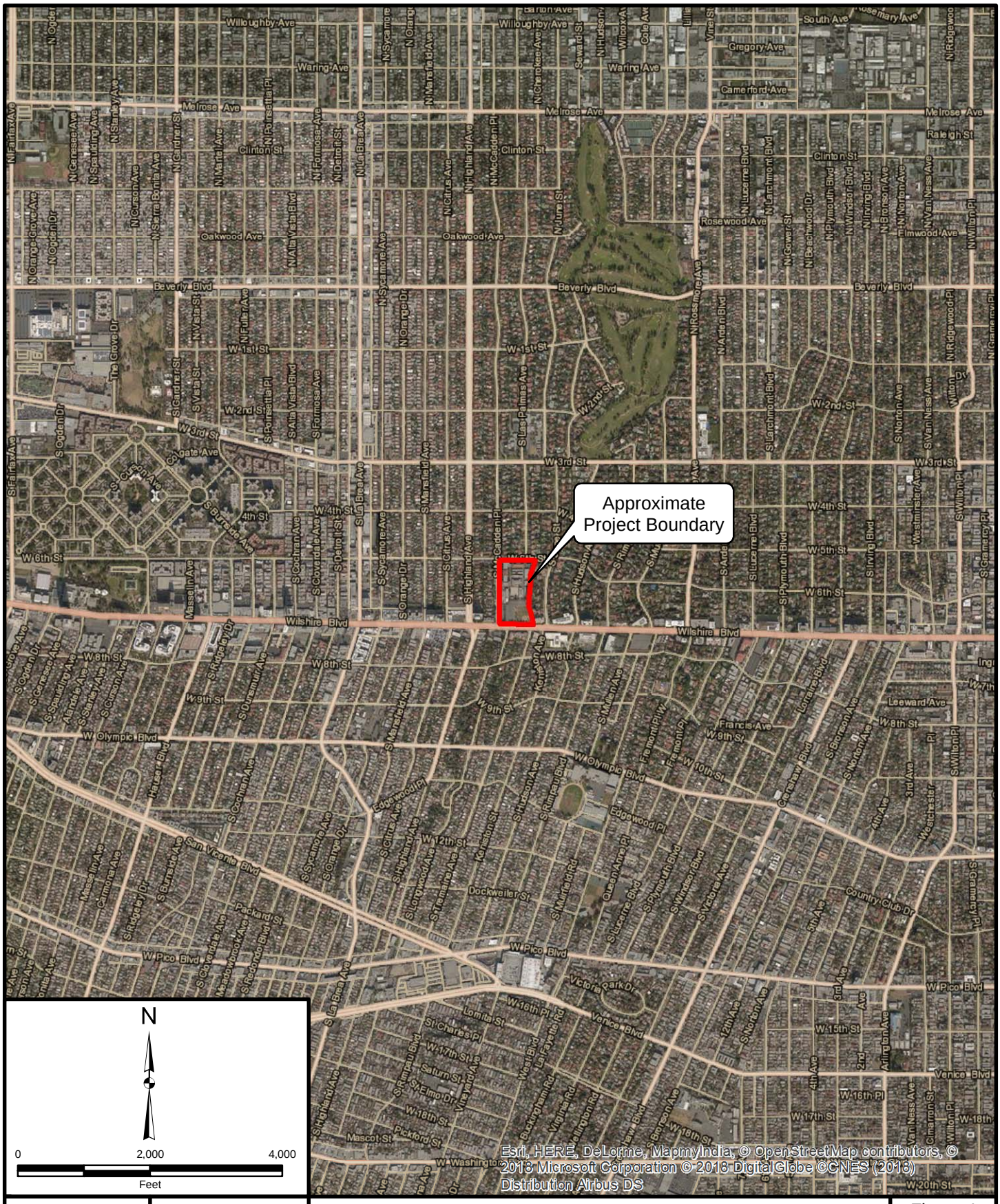
	Task	Days to Complete	Cumulative Days	Notes
1	Field Preparation	10	10	Coordinate contractors and waste stream approval.
2	Field Implementation	5	15	Assumes minimal weather delays.
3	Data Compilation	10	25	Data review and presentation.
4	Reporting	15	40	RACR is submitted

9.0 ADMINISTRATIVE RECORDS

Administrative records in association with this RAW which will be maintained in the information repositories are listed chronologically and include the following:

None

FIGURES



Project: 11640.004	Eng/Geol: JCH/RAL
Scale:1 " = 2,000 '	Date: January 2018

Base Map: ESRI ArcGIS Online 2018
Thematic Information: Leighton
Author: Leighton Geomatics (btran)

SITE LOCATION MAP

600 South McCadden Place,
Los Angeles, California

Figure 1

Leighton

Map Saved as V:\Drafting\11640\004\Maps\11640-004_F01_SLM_2018-01-15.mxd on 1/15/2018 12:53:46 PM

W 6th St
S McCadden Pl
S June St
Wilshire Blvd
S Trenaire Ave
Kenisco Ave
Driveway
Parking Area
Former Location of Fuel Oil AST
Former Location of Incinerator
Driveway
Tennis Court
Handball Court
Driveway
Teacher Parking
Playground Area

Number	Building Name
1	Main Building/Auditorium
2	Boy's Gym
3	General Classroom
4	General Classroom
5	General Classroom
6	General Classroom
7	Classroom Bldg
8	Science/Workroom
9	Shop Bldg
10	Storage/Portable Bldg
11	Tool Room
12	Storage/Portable Bldg
13	Flammable Storage
14	All Purpose Bldg
15	Storage/Portable Bldg
16	Special Education
17	Girl's Locker
18	General Classroom
19	Storage-Portable Bldg
20	Cafeteria -Classroom Bldg
21	General Classroom
22	General Classroom
23	General Classroom
24	General Classroom
25	General Classroom

Legend

- Burroughs Middle School
- Development Areas
- Existing Buildings
- Former Building Constructed Post-1992
- Approximate Former Building Footprints

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community. All locations approximate.

N W E S

0 150

Feet

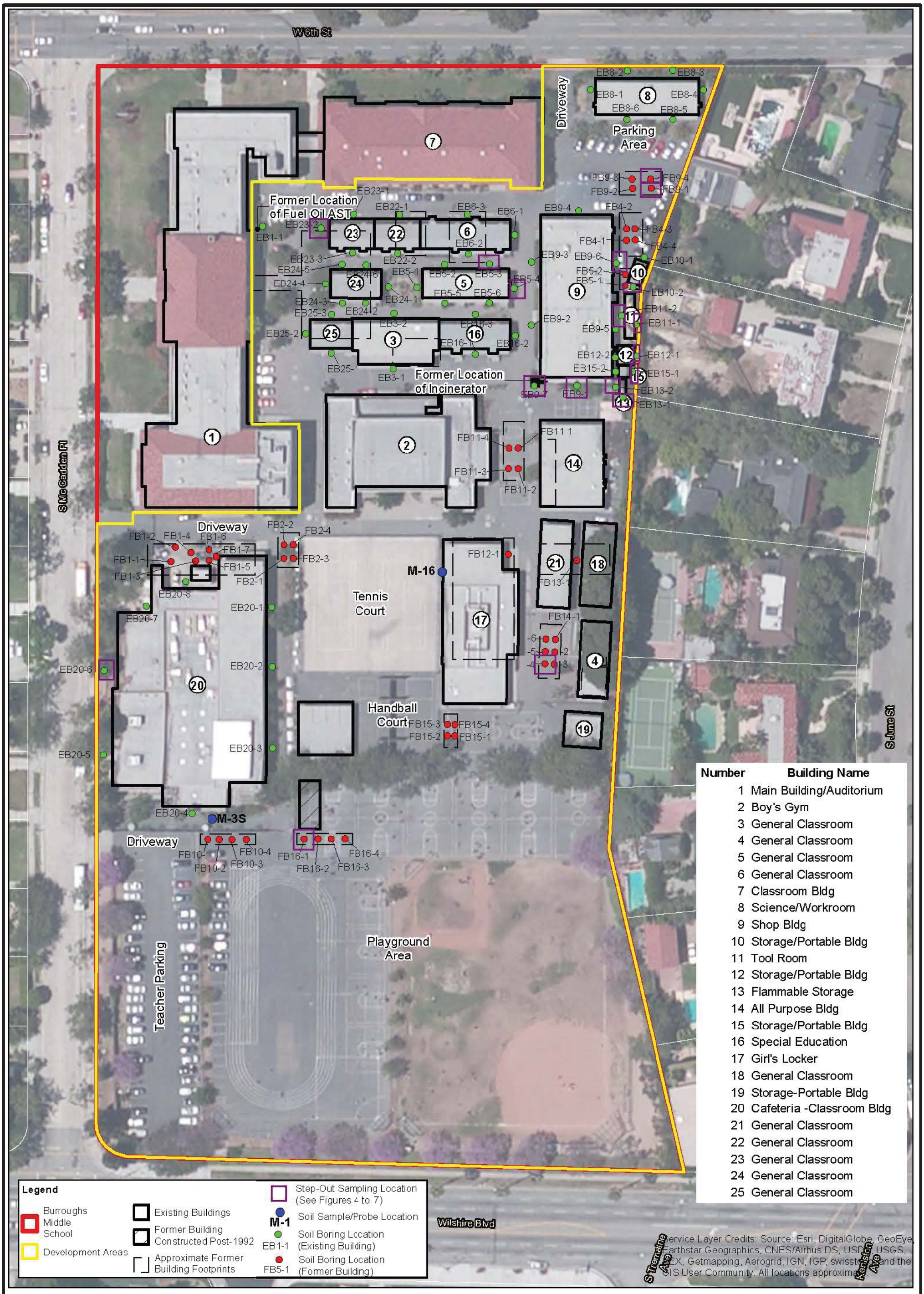
CURRENT AND HISTORICAL BUILDING AND STRUCTURE LOCATIONS

600 South McCadden Place,
Los Angeles, CA

FIGURE 2

Project: 11640.004	Eng/Geol: JCH/RL
Approx. Scale 1"=75'	Date: January 2018
Drafted By: BES	Checked By: JCH

Leighton



Site Plan provided by Advisian,Worley Parsons Group. dated 10/16/2016.

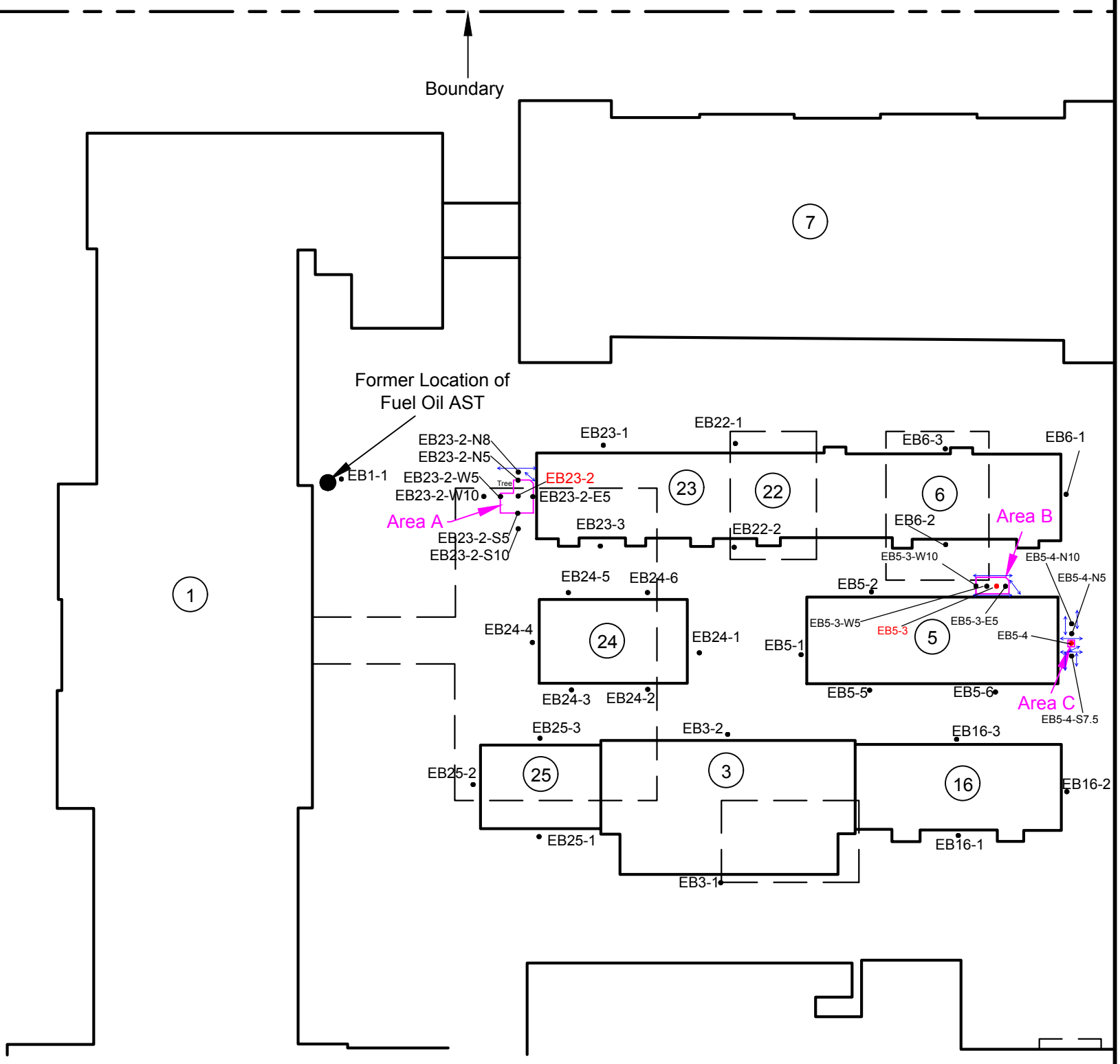
SOIL BORING LOCATION MAP

600 South McCadden Place,
Los Angeles, CA

FIGURE 3

Project: 11640.004	Eng/Geol: JCH/RL
Approx. Scale 1"=75'	Date: January 2018
Drafted By: BES	Checked By: JCH

Leighton



Notes/Definitions:

bgs = below ground surface
mg/kg = Milligrams per kilogram
mg/L = Milligrams per liter
NA = not analyzed for arsenic and/or lead TTLC
STLC = Soluble threshold limit concentration
TCLP = Toxicity characteristic leaching procedure
TTLC = Total threshold limit concentration
RCRA = Resource Conservation and Recovery Act
* Replicate/duplicate soil sample

Approximate Volume of Soil Impacted with Arsenic or Lead for Removal**:
Area A (to 1.5 ft bgs) = ~5.0 CY (Non-Hazardous)
Area B (to 1 feet bgs) = ~1.8 CY (CA-Haz Non-RCRA)
Area C (to 1.5 feet bgs) = ~0.2 CY (CA-Haz Non-RCRA)
**Removal to within 1 foot of surface structures and to within 2 feet of identified utilities was assumed.

LEGEND

EB1-1 — Sample: Where Lead-TTLC (mg/kg) or Arsenic-TTLC (mg/kg) results are greater than >80 mg/kg lead or >12 mg/kg arsenic the ID is red

Non-Hazardous Waste - Soil Sample Location where no results exceeded hazardous waste criteria

California-Restricted (Non-RCRA) Hazardous Waste - Soil Sample Location where Lead STLC exceeded 5.0 mg/L, arsenic STLC exceeded 5 mg/L and/or Lead TTLC exceeded 1,000 mg/kg [No sample results exceeded Federal RCRA Hazardous Waste criteria]

Approximate location of detected utilities near impacted soil areas

Existing Buildings

Approximate Former Building Footprints

Approximate extent of lead or arsenic impacted soil based on TTLC Lead >80 mg/kg, TTLC Arsenic >12 mg/kg, or CA Hazardous Levels

N

0 40 80
Feet

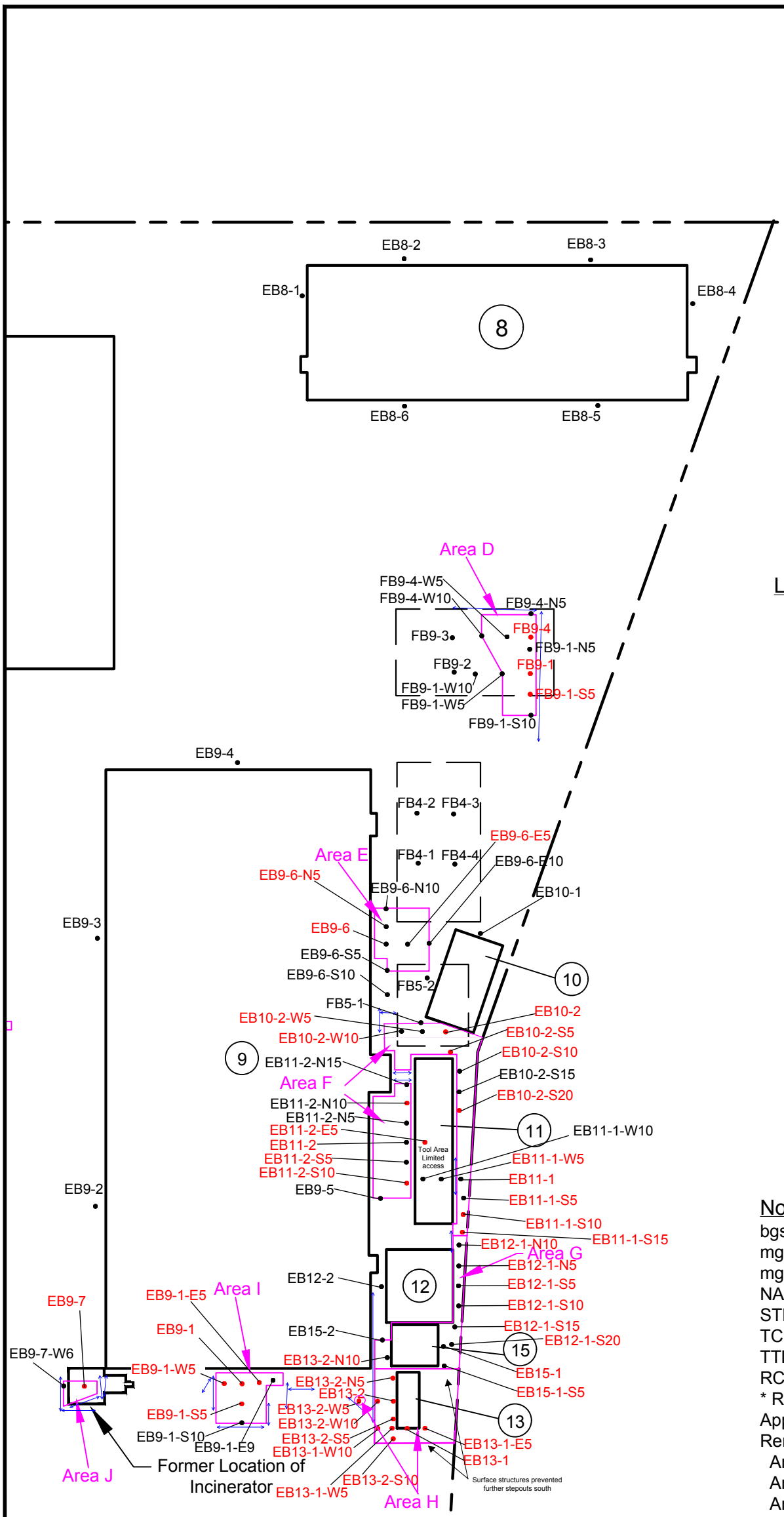
Project: **11640.004**	Eng/Geol: JH
Scale: 1"=40'	Date: January 2018
Reference:	
Author: MAM	

STEP-OUT SOIL BORING LOCATION MAP
EXISTING BUILDING 5 AND EXISTING BUILDING 23

600 South McCadden Place
Los Angeles, CaliforniJn

Figure 4

Leighton



LEGEND

EB1-1 — Sample: Where Lead-TTLC (mg/kg) or Arsenic-TTLC (mg/kg) results are greater than >80 mg/kg lead and >12 mg/kg arsenic the ID is red

Non-Hazardous Waste - Soil Sample Location where no results exceeded hazardous waste criteria

California-Restricted (Non-RCRA) Hazardous Waste - Soil Sample Location where Lead STLC exceeded 5.0 mg/L, arsenic STLC exceeded 5 mg/L and/or Lead TTLC exceeded 1,000 mg/kg
[No sample results exceeded Federal RCRA Hazardous Waste criteria]

Approximate location of detected utilities near impacted soil areas

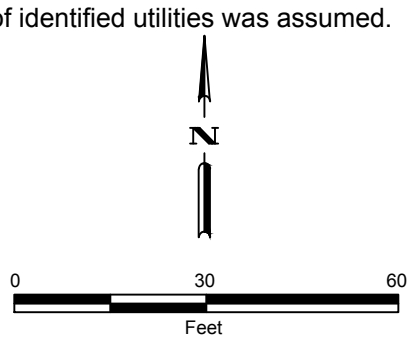
Approximate extent of lead or arsenic impacted soil based on TTLC Lead >80 mg/kg, TTLC Arsenic >12 mg/kg, or CA Hazardous Levels

Existing Buildings

Approximate Former Building Footprints

Notes/Definitions:

bgs = below ground surface
mg/kg = Milligrams per kilogram
mg/L = Milligrams per liter
NA = not analyzed for arsenic and/or lead TTLC
STLC = Soluble threshold limit concentration
TCLP = Toxicity characteristic leaching procedure
TTLC = Total threshold limit concentration
RCRA = Resource Conservation and Recovery Act
* Replicate/duplicate soil sample
Approximate Volume of Soil Impacted with Arsenic or Lead for Removal**:
Area D (to 2.5 feet bgs) = ~22 CY (CA-Haz Non-RCRA)
Area E (to 4.5 feet bgs) = ~31 CY (Non-Hazardous)
Area F (to 2.5 feet bgs) = ~20 CY (CA-Haz Non-RCRA)
Area G(to 3.5 feet bgs) = ~18 CY (Non-Hazardous)
Area H** (to 2.5 feet bgs) = ~18 CY (CA-Haz Non-RCRA)
Area I (to 2.5 feet bgs) = ~14 CY (CA-Haz Non-RCRA)
Area J (to 2.5 feet bgs) = ~3 CY (CA-Haz Non-RCRA)
**Survey monument to protect in Area H west of Building 13. Removal to within 1 foot of surface structures and to within 2 feet of identified utilities was assumed.



Project: 11640.004	Eng/Geol: JH
Scale: 1"=30'	Date: January 2018
Reference:	
Author: MAM	

STEP-OUT SOIL BORING LOCATION MAP
EXISTING BUILDING 9 AND VICINITY

600 South McCadden Place
Los Angeles, CaliforniaJanJanuary

Figure 5

Leighton

Boundary

2

14

FB11-4
FB11-1
FB11-3
FB11-2

FB12-1

M-16

21

FB13-1

18

17

Tennis
Court

FB14-6
FB14-1
FB14-5
FB14-2
FB14-4-N10
FB14-4-N5
FB14-4-W10
FB14-4-W5
FB14-4
FB14-3
FB14-4-E8.5
FB14-4-E5

4

Area K

FB15-4
FB15-3
FB15-1
FB15-2

19

Notes/Definitions:

bgs = below ground surface
mg/kg = Milligrams per kilogram
mg/L = Milligrams per liter
NA = not analyzed for arsenic and/or lead TTLC
STLC = Soluble threshold limit concentration
TCLP = Toxicity characteristic leaching procedure
TTLC = Total threshold limit concentration
RCRA = Resource Conservation and Recovery Act
* Replicate/duplicate soil sample
Approximate Volume of Soil Impacted with Arsenic or Lead for Removal**:
Area K (to 2.5 feet bgs) = ~10 CY (CA-Haz Non-RCRA)
**Removal to within 1 foot of surface structures and to within 2 feet of identified utilities was assumed.

N

0 30 60
Feet

LEGEND

EB1-1 Sample: Where Lead-TTLC (mg/kg) or Arsenic-TTLC (mg/kg) results are greater than >80 mg/kg lead and >12 mg/kg arsenic the ID is red

Non-Hazardous Waste - Soil Sample Location where no results exceeded hazardous waste criteria

California-Restricted (Non-RCRA) Hazardous Waste - Soil Sample Location where Lead STLC >5.0 mg/L, arsenic STLC >5 mg/L and/or Lead TTLC >1,000 mg/kg [No sample results exceeded Federal RCRA Hazardous Waste criteria]

Existing Buildings

Former Building Constructed Post-1992

Approximate Former Building Footprints

Approximate extent of lead or arsenic impacted soil based on TTLC Lead >80 mg/kg, TTLC Arsenic >12 mg/kg, or CA Hazardous Levels

Approximate location of detected utilities near impacted soil areas

Project: 11640.004	Eng/Geol: JH
Scale: 1"=30'	Date: January 2018
Reference:	
Author: MAM	

STEP-OUT SOIL BORING LOCATION MAP
FORMER BUILDING 14

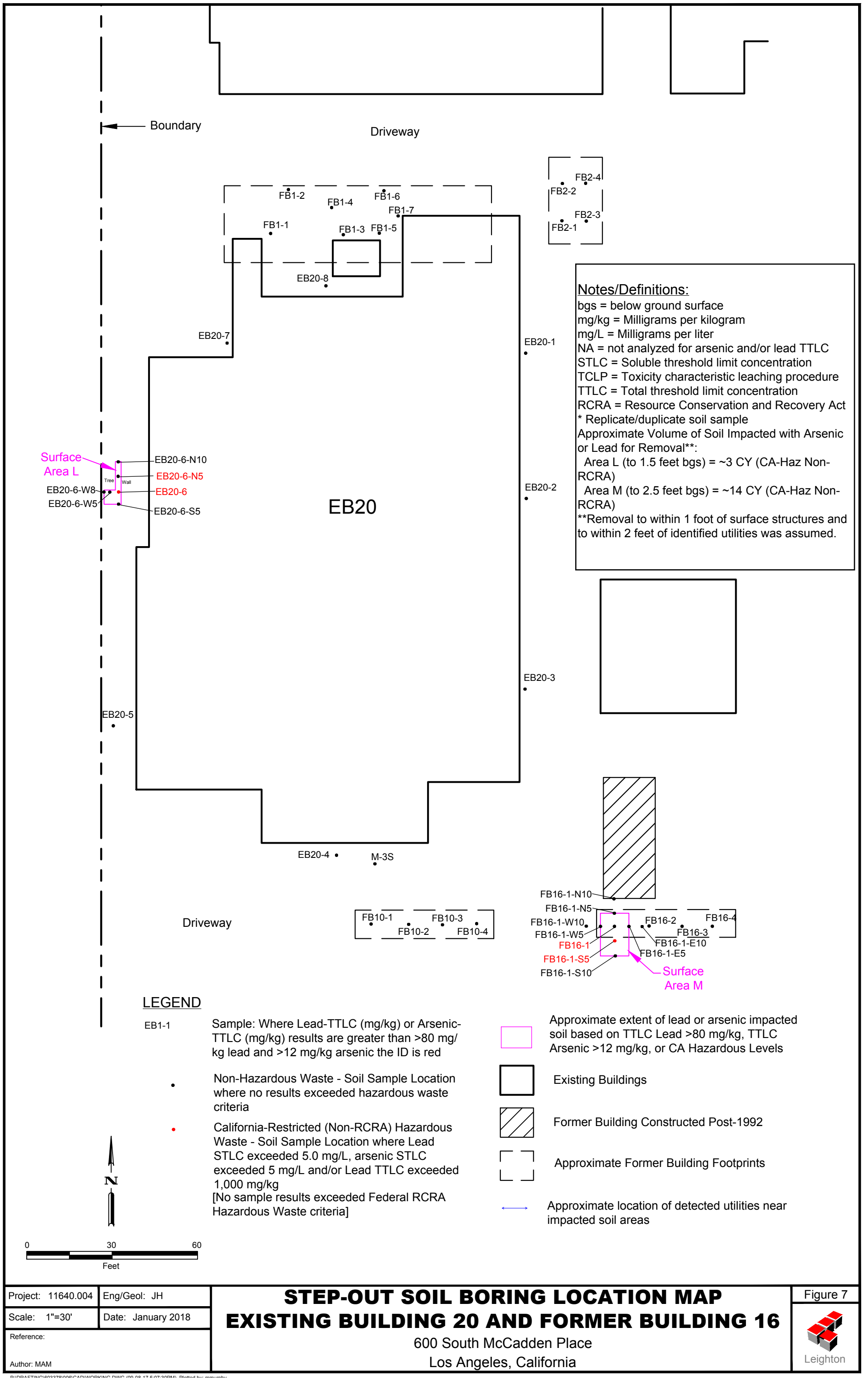
600 South McCadden Place
Los Angeles, California

JJ

Figure 6

Leighton

P:\DRAFTING\603278\006\CAD\WORKING.DWG (09.08.17 5:07:46PM) Plotted by: mmurphy



Project: 11640.004	Eng/Geol: JH
Scale: 1"=30'	Date: January 2018
Reference:	
Author: MAM	

STEP-OUT SOIL BORING LOCATION MAP
EXISTING BUILDING 20 AND FORMER BUILDING 16

600 South McCadden Place
Los Angeles, California

Figure 7

Leighton

P:\DRAFTING\60337\006\CAD\WORKING.DWG (09.08.17 5:07:30PM) Plotted by: mmurphy

TABLES

TABLE 1
Summary of Laboratory Results in Soil for Organochlorine Pesticides (OCPs), Arsenic, Lead and Polychlorinated Biphenyls (PCBs)
Burroughs Middle School

Location	Borehole ID	Sample ID	Sample Depth (feet bgs)	Date Sampled	OCPs by EPA Method 8081 (ug/kg)											Arsenic & Lead by EPA Method 6010B (mg/kg)		STLC by WET/EPA Method 6010B (mg/L)		TCLP by EPA Method 6010B (mg/L)		PCBs by EPA Method 8082 (ug/kg)	
					4,4-DDD	4,4-DDE	4,4-DDT	alpha-Chlordane	Chlordane (Total)	Dieldrin	Endrin	gamma-Chlordane	Heptachlor epoxide	Methoxy-chlor	All Other OCPs	Arsenic	Lead	Arsenic	Lead	Arsenic	Lead	Aroclor 1260	All Other PCBs
Main Building/ Auditorium (EB1)	EB1-1**	EB1-1-1	1.0	12/28/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		EB1-1-5	5.0	12/28/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		EB1-1-10	10.0	12/28/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Classroom Building No. 3 (EB3)	EB3-1*	EB3-1-0.5	0.5	1/3/17	0.38 J	**150**	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**4.5**	**43**	--	--	--	--	12 J	ND
		EB3-1-1.5	1.5	1/3/17	<0.22	**10**	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**3.1**	**6.1**	--	--	--	--	--	--
		EB3-1-1.5-D	1.5	1/3/17	<0.22	**8.1**	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**5.0**	**12**	--	--	--	--	--	--
		EB3-1-2.5	2.5	1/3/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB3-2	EB3-2-0.5	0.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.5**	**24**	--	--	--	--	--	--
		EB3-2-1.5	1.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.7**	**4.4**	--	--	--	--	--	--
		EB3-2-2.5	2.5	12/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Classroom Building No. 5 (EB5)	EB5-1	EB5-1-0.5	0.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.7**	**25**	--	--	--	--	--	--
		EB5-1-1.5	1.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.7**	**3.7**	--	--	--	--	--	--
		EB5-1-2.5	2.5	12/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB5-2	EB5-2-0.5	0.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.1**	**7.9**	--	--	--	--	--	--
		EB5-2-1.5	1.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.0**	**3.7**	--	--	--	--	--	--
		EB5-2-2.5	2.5	12/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB5-3	EB5-3-0.5	0.5	12/29/16	**13**	**600**	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**7.9**	**170**	--	**7.3 D1**	--	0.038 D1, J	--	--
		EB5-3-1.0	1.0	12/29/16	0.30 J	**33**	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	**180**	ND	**3.2**	**25**	--	--	--	--	--	--
		Refusal at 1.0' bgs in boring.																		--			
	Step out boreholes near boring EB5-3:																						
	EB5-3-W5	EB5-3-W5-0.5	0.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**22**	--	--	--	--	--	--
		EB5-3-W5-1.5	1.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**4.7**	--	--	--	--	--	--
		EB5-3-W5-2.5	2.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**3.7**	--	--	--	--	--	--
	EB5-3-W10	EB5-3-W10-0.5	0.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**14**	--	--	--	--	--	--
		EB5-3-W10-1.5	1.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**2.9**	--	--	--	--	--	--
		EB5-3-W10-2.5	2.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**2.8**	--	--	--	--	--	--
	EB5-3-E5	EB5-3-E5-0.5	0.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**34**	--	--	--	--	--	--
		EB5-3-E5-1.5	1.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**3.3**	--	--	--	--	--	--
		EB5-3-E5-2.5	2.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**3.2**	--	--	--	--	--	--
	EB5-4	EB5-4-0.5	0.5	12/29/16	<1.1 D1	<0.98 D1	<0.67 D1	<1.1 D1	<4.5 D1	<1.2 D1	<1.1 D1	<1.1 D1	<1.0 D1	**48 D1**	ND	**2.2**	**56**	--	**7.7 D1**	--	--	--	--
		EB5-4-1.5	1.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.9**	**18**	--	--	--	--	--	--
		EB5-4-2.5	2.5	12/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Step out boreholes near boring EB5-4:																						
	EB5-4-N5	EB5-4-N5-0.5	0.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**15**	--	--	--	--	--	--
		EB5-4-N5-1.5	1.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**3.6**	--	--	--	--	--	--
		EB5-4-N5-2.5	2.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**3.1**	--	--	--	--	--	--
	EB5-4-N10	EB5-4-N10-0.5	0.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**17**	--	--	--	--	--	--
		EB5-4-N10-1.5	1.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**5.8**	--	--	--	--	--	--
		EB5-4-N10-2.5	2.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**2.8**	--	--	--	--	--	--
	EB5-4-S7.5	EB5-4-S7.5-0.5	0.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**21**	--	--	--	--	--	--
		EB5-4-S7.5-1.5	1.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**3.6**	--	--	--	--	--	--
		EB5-4-S7.5-2.5	2.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**2.3**	--	--	--	--	--	--
	EB5-5	EB5-5-0.5	0.5	12/29/16	<2.2 D1	<2.0 D1	<1.3 D1	<2.1 D1	<9.0 D1	<2.5 D1	<2.3 D1	<2.3 D1	<2.0 D1	<1.8 D1	ND	**3.6**	**22**	--	--	--	--	--	--
		EB5-5-1.5	1.5	12/29/16	<2.2 D1	<2.0 D1	<1.3 D1	<2.1 D1	<9.0 D1	<2.5 D1	<2.3 D1	<2.3 D1	<2.0 D1	<1.8 D1	ND	**2.5**	**8.5**	--	--	--	--	--	--
		EB5-5-2.5	2.5	12/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB5-6	EB5-6-0.5	0.5	12/29/16	<2.2 D1	<2.0 D1	<1.3 D1	<2.1 D1	<9.0 D1	<2.5 D1	<2.3 D1	<2.3 D1	<2.0 D1	<1.8 D1	ND	**3.8**	**24**	--	--	--	--	2.6 J	ND
		EB5-6-1.5	1.5	12/29/16	<2.2 D1	<2.0 D1	<1.3 D1	5.5 D1, J	67 D1, J	<2.5 D1	<2.3 D1	6.0 D1, J	<2.0 D1	<1.8 D1	ND	**1.5**	**67**	--	**1.9 D1**	--	--	--	--
		EB5-6-2.5	2.5	12/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Classroom Building No. 6 (EB6)	EB6-1	EB6-1-0.5	0.5	12/29/16	<1.1 D1	1.6 D1, J	<0.67 D1	<1.1 D1	<4.5 D1	<1.2 D1	<1.1 D1	<1.1 D1	<1.0 D1	<0.89 D1	ND	**3.4**	**15**	--	--	--	--	--	--
		EB6-1-1.5	1.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.1**	**8.7**	--	--	--	--	--	--
		EB6-1-2.5	2.5	12/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB6-2	EB6-2-0.5	0.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.4**	**3.5**	--	--	--	--	--	--
		EB6-2-1.5	1.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.5**	**3.1**	--	--	--	--	<1.5	ND
		EB6-2-2.5	2.5	12/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB6-3*	EB6-3-0.5	0.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.7**	**4.3**	--	--	--	--	--	--
		EB6-3-1.5	1.5	1/3/17	<2.2 D1	<2.0 D1	<1.3 D1	<2.1 D1	<9.0 D1	<2.5 D1	<2.3 D1	<2.3 D1	<2.0 D1	<1.8 D1	ND	**1.0**	**3.1**	--	--	--	--	--	--
		EB6-3-2.5	2.5	1/3/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

TABLE 1
Summary of Laboratory Results in Soil for Organochlorine Pesticides (OCPs), Arsenic, Lead and Polychlorinated Biphenyls (PCBs)
Burroughs Middle School

Location	Borehole ID	Sample ID	Sample Depth (feet bgs)	Date Sampled	OCPs by EPA Method 8081 (ug/kg)											Arsenic & Lead by EPA Method 6010B (mg/kg)		STLC by WET/EPA Method 6010B (mg/L)		TCLP by EPA Method 6010B (mg/L)		PCBs by EPA Method 8082 (ug/kg)	
					4,4-DDD	4,4-DDE	4,4-DDT	alpha-Chlordane	Chlordane (Total)	Dieldrin	Endrin	gamma-Chlordane	Heptachlor epoxide	Methoxy-chlor	All Other OCPs	Arsenic	Lead	Arsenic	Lead	Arsenic	Lead	Aroclor 1260	All Other PCBs
Classroom Building No. 8 (EB8)	EB8-1	EB8-1-0.5	0.5	12/29/16	<2.2 D1	<2.0 D1	<1.3 D1	<2.1 D1	<9.0 D1	<2.5 D1	<2.3 D1	<2.3 D1	<2.0 D1	<1.8 D1	ND	**3.2**	**39**	--	--	--	--	--	--
		EB8-1-1.5	1.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.8**	**3.5**	--	--	--	--	<1.5	ND
		EB8-1-2.5	2.5	12/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB8-2	EB8-2-0.5	0.5	12/29/16	<0.22	<0.20	0.22 J	<0.21	<0.90	<0.25	<0.23	0.23 J	<0.20	<0.18	ND	**10**	**9.4**	--	--	--	--	--	--
		EB8-2-1.5	1.5	12/29/16	<0.22	0.21 J	0.61 J	0.31 J	2.5 J	<0.25	<0.23	0.33 J	<0.20	<0.18	ND	**7.7**	**3.5**	--	--	--	--	--	--
		EB8-2-2.5	2.5	12/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB8-3	EB8-3-0.5	0.5	12/29/16	0.29 J	0.20 J	0.52 J	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.8**	**16**	--	--	--	--	2.7 J	ND
		EB8-3-1.5	1.5	12/29/16	0.23 J	<0.20	0.45 J	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.3**	**6.1**	--	--	--	--	--	--
		EB8-3-2.5	2.5	12/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB8-4	EB8-4-0.5	0.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.4**	**3.9**	--	--	--	--	--	--
		EB8-4-1.5	1.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.5**	**4.2**	--	--	--	--	--	--
		EB8-4-2.5	2.5	12/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB8-5	EB8-5-0.5	0.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.3**	**3.6**	--	--	--	--	--	--
		EB8-5-1.5	1.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.1**	**2.8**	--	--	--	--	--	--
		EB8-5-2.5	2.5	12/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB8-6	EB8-6-0.5	0.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.9**	**50**	--	0.72 D1, J	--	--	--	--
		EB8-6-1.5	1.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.8**	**3.7**	--	--	--	--	--	--
		EB8-6-2.5	2.5	12/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Classroom Building No. 9 (EB9)	EB9-1	EB9-1-0.5	0.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**3.8**	**150**	--	**16**	--	**0.38 D1**	--	--
		EB9-1-1.5	1.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.0**	**18**	--	--	--	--	<1.5	ND
		EB9-1-2.5	2.5	12/28/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Step out boreholes near boring EB9-1:																						
	EB9-1-W5	EB9-1-W5-0.5	0.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**260**	--	**6.6 D1**	--	0.35 D1	--	--
		EB9-1-W5-1.5	1.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**21**	--	--	--	--	--	--
		EB9-1-W5-2.5	2.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**5.5**	--	--	--	--	--	--
	EB9-1-S5	EB9-1-S5-0.5	0.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**99**	--	**9.3 D1**	--	0.10 D1,J	--	--
		EB9-1-S5-1.5	1.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**2700 D6**	--	**2.3 D1**	--	<0.014 D1	--	--
		EB9-1-S5-2.5	2.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**3.9**	--	--	--	--	--	--
	EB9-1-S10	EB9-1-S10-0.5	0.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**34**	--	--	--	--	--	--
		EB9-1-S10-1.5	1.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**36**	--	--	--	--	--	--
		EB9-1-S10-2.5	2.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**7.6**	--	--	--	--	--	--
	EB9-1-E5	EB9-1-E5-0.5	0.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**230**	--	**51 D1**	--	**0.74 D1**	--	--
		EB9-1-E5-1.5	1.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**20**	--	--	--	--	--	--
		EB9-1-E5-2.5	2.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**4.6**	--	--	--	--	--	--
	EB9-1-E9	EB9-1-E9-0.5	0.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**26**	--	--	--	--	--	--
		EB9-1-E9-1.5	1.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**110**	--	**2.5 D1**	--	0.019 D1,J	--	--
		EB9-1-E9-2.5	2.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**40**	--	--	--	--	--	--
	EB9-2	EB9-2-0.5	0.5	12/29/16	<0.22	0.39 J	<0.13	**1.5**	**13**	0.29 J	<0.23	**1.5**	<0.20	<0.18	ND	**5.2**	**13**	--	--	--	--	--	--
		EB9-2-1.5	1.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.9**	**4.5**	--	--	--	--	--	--
		EB9-2-2.5	2.5	12/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB9-3	EB9-3-0.5	0.5	12/29/16	<0.22	0.49 J	0.38 J	0.56 J	6.1 J	<0.25	<0.23	0.60 J	<0.20	<0.18	ND	**2.4**	**17**	--	--	--	--	--	--
		EB9-3-1.5	1.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	0.92 J	**3.4**	--	--	--	--	<1.5	ND
		EB9-3-2.5	2.5	12/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB9-4	EB9-4-0.5	0.5	12/29/16	<1.1 D1	<0.98 D1	<0.67 D1	4.9 D1, J	38 D1, J	<1.2 D1	<1.1 D1	**5.5 D1**	1.5 D1, J	<0.89 D1	ND	**1.9**	**28**	--	--	--	--	--	--
		EB9-4-1.5	1.5	12/29/16	<2.2 D1	<2.0 D1	<1.3 D1	<2.1 D1	<9.0 D1	<2.5 D1	<2.3 D1	<2.3 D1	<2.0 D1	<1.8 D1	ND	**1.5**	**12**	--	--	--	--	--	--
		EB9-4-2.5	2.5	12/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB9-5	EB9-5-0.5	0.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**4.2**	**69**	--	**2.3**	--	--	--	--
		EB9-5-1.5	1.5	12/28/16	<0.22	<0.20	<0.13	0.37 J	3.6 J	<0.25	<0.23	0.31 J	<0.20	<0.18	ND	**3.8**	**53**	--	**2.1**	--	--	--	--
		EB9-5-2.5	2.5	12/28/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB9-6	EB9-6-0.5	0.5	12/29/16	<2.2 D1	<2.0 D1	<1.3 D1	<2.1 D1	<9.0 D1	<2.5 D1	<2.3 D1	<2.3 D1	<2.0 D1	<1.8 D1	ND	**40**	**34**	--	--	--	--	3.7 J	ND
		EB9-6-1.5	1.5	12/29/16	<11 D1	<9.8 D1	<6.7 D1	<11 D1	<45 D1	<12 D1	<11 D1	<11 D1	<10 D1	<8.9 D1	ND	**18**	**54**	--	**2.9 D1**	--	--	--	--
		EB9-6-2.5	2.5	12/29/16	--	--	--	--	--	--	--	--	--	--	--	**22**	--	--	--	--	--	--	--
	Step out boreholes near boring EB9-6:																						
	EB9-6-N5	EB9-6-N5-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**78**	--	**2.1 D1**	--	0.12 D1, J	--	--	--
		EB9-6-N5-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**29**	--	--	--	--	--	--	--
		EB9-6-N5-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**39**	--	--	--	--	--	--	--
		EB9-6-N5-3	3.0	4/11/17	--	--	--	--	--	--	--	--	--	--	--	**48**	--	--	--	--	--	--	--
		EB9-6-N5-4	4.0	4/11/17	--	--	--	--	--	--	--	--	--	--	--	**24**	--	--	--	--	--	--	--

TABLE 1
Summary of Laboratory Results in Soil for Organochlorine Pesticides (OCPs), Arsenic, Lead and Polychlorinated Biphenyls (PCBs)
Burroughs Middle School

Location	Borehole ID	Sample ID	Sample Depth (feet bgs)	Date Sampled	OCPs by EPA Method 8081 (ug/kg)											Arsenic & Lead by EPA Method 6010B (mg/kg)		STLC by WET/EPA Method 6010B (mg/L)		TCLP by EPA Method 6010B (mg/L)		PCBs by EPA Method 8082 (ug/kg)	
					4,4-DDD	4,4-DDE	4,4-DDT	alpha-Chlordane	Chlordane (Total)	Dieldrin	Endrin	gamma-Chlordane	Heptachlor epoxide	Methoxy-chlor	All Other OCPs	Arsenic	Lead	Arsenic	Lead	Arsenic	Lead	Aroclor 1260	All Other PCBs
Classroom Building No. 9 (EB9)	EB9-6-N10	EB9-6-N10-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**2.3**	--	--	--	--	--	--	--
		EB9-6-N10-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**1.7**	--	--	--	--	--	--	--
		EB9-6-N10-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**3.7**	--	--	--	--	--	--	--
		EB9-6-N10-3	3.0	4/11/17	--	--	--	--	--	--	--	--	--	--	--	**4.8**	--	--	--	--	--	--	--
		Refusal below 3 ft depth.																					
	EB9-6-S5	EB9-6-S5-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**1.5**	--	--	--	--	--	--	--
		EB9-6-S5-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**2.8**	--	--	--	--	--	--	--
		EB9-6-S5-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**1.5**	--	--	--	--	--	--	--
		EB9-6-S5-3	3.0	4/11/17	--	--	--	--	--	--	--	--	--	--	--	**4.1**	--	--	--	--	--	--	--
		EB9-6-S5-4	4.0	4/11/17	--	--	--	--	--	--	--	--	--	--	--	**3.1**	--	--	--	--	--	--	--
	EB9-6-S10	EB9-6-S10-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**2.0**	--	--	--	--	--	--	--
		EB9-6-S10-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**2.8**	--	--	--	--	--	--	--
		EB9-6-S10-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**1.8**	--	--	--	--	--	--	--
		EB9-6-S10-3	3.0	4/11/17	--	--	--	--	--	--	--	--	--	--	--	**5.0**	--	--	--	--	--	--	--
		Refusal below 3 ft depth.																					
	EB9-6-E5	EB9-6-E5-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**8.6**	--	--	--	--	--	--	--
		EB9-6-E5-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**13**	--	--	--	--	--	--	--
		EB9-6-E5-1.5-D	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**8.5**	--	--	--	--	--	--	--
		EB9-6-E5-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**1.5**	--	--	--	--	--	--	--
		EB9-6-E5-3	3.0	4/11/17	--	--	--	--	--	--	--	--	--	--	--	**3.3**	--	--	--	--	--	--	--
		EB9-6-E5-3-D	3.0	4/11/17	--	--	--	--	--	--	--	--	--	--	--	**3.1**	--	--	--	--	--	--	--
		EB9-6-E5-4	4.0	4/11/17	--	--	--	--	--	--	--	--	--	--	--	**3.1**	--	--	--	--	--	--	--
	EB9-6-E10	EB9-6-E10-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**3.0**	--	--	--	--	--	--	--
		EB9-6-E10-0.5-D	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**1.8**	--	--	--	--	--	--	--
		EB9-6-E10-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	0.98 J	--	--	--	--	--	--	--
		EB9-6-E10-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**1.0**	--	--	--	--	--	--	--
		EB9-6-E10-3	3.0	4/11/17	--	--	--	--	--	--	--	--	--	--	--	**2.8**	--	--	--	--	--	--	--
		EB9-6-E10-4	4.0	4/11/17	--	--	--	--	--	--	--	--	--	--	--	**2.8**	--	--	--	--	--	--	--
	EB9-7**	EB9-7-0.5	0.5	12/28/16	--	--	--	--	--	--	--	--	--	--	--	**2.3**	**250**	--	**12 D1**	--	**0.34 D1**	<1.5	ND
		EB9-7-1.5	1.5	12/28/16	--	--	--	--	--	--	--	--	--	--	--	**2.1**	**130**	--	**9.3 D1**	--	0.036 D1, J	<1.5	ND
		EB9-7-2.5	2.5	12/28/16	--	--	--	--	--	--	--	--	--	--	--	**1.5**	**11**	--	--	--	--	<1.5	ND
	Step out boreholes near boring EB9-7:																						
	EB9-7-W6	EB9-7-W6-0.5	0.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**6.4**	--	--	--	--	--	--
		EB9-7-W6-1.5	1.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**9.6**	--	--	--	--	--	--
		EB9-7-W6-2.5	2.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**3.1**	--	--	--	--	--	--
Storage Building No. 10 (EB10)	EB10-1	EB10-1-0.5	0.5	12/29/16	<11 D1	<9.8 D1	<6.7 D1	<11 D1	<45 D1	<12 D1	<11 D1	<11 D1	<10 D1	<8.9 D1	ND	**3.0**	**25**	--	--	--	--	--	--
		EB10-1-1.5	1.5	12/29/16	<2.2 D1	<2.0 D1	<1.3 D1	<2.1 D1	<9.0 D1	<2.5 D1	<2.3 D1	<2.3 D1	<2.0 D1	<1.8 D1	ND	**3.8**	**58**	--	**4.9 D1**	--	--	--	--
		EB10-1-2.5	2.5	12/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB10-2*	EB10-2-0.5	0.5	12/28/16	0.28 J	**3.1**	1.1 J	0.95 J	**10**	0.33 J	<0.23	**1.4**	<0.20	<0.18	ND	**12**	**220**	--	**7.6 D1**	--	<0.014 D1	--	--
		Refusal ~0.5' bgs in boring.																		--			
	Step out boreholes near boring EB10-2:																						
	EB10-2-W5	EB10-2-W5-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**85**	--	**4.2 D1**	--	0.044 D1,J	--	--
		EB10-2-W5-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**110**	--	**1.6 D1**	--	<0.014 D1	--	--
		EB10-2-W5-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**6.5**	--	--	--	--	--	--
	EB10-2-W10	EB10-2-W10-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**24**	--	--	--	--	--	--
		EB10-2-W10-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**92**	--	**4.5 D1**	--	<0.014 D1	--	--
		EB10-2-W10-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**3.3**	--	--	--	--	--	--
		EB10-2-W10-2.5-	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**5.2**	--	--	--	--	--	--
	EB10-2-S5	EB10-2-S5-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**38**	--	--	--	--	--	--
		EB10-2-S5-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**100**	--	**9.7 D1**	--	0.070 D1,J	--	--
		EB10-2-S5-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**8.0**	--	--	--	--	--	--
	EB10-2-S10	EB10-2-S10-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**55**	--	**2.6 D1**	--	0.042 D1,J	--	--
		EB10-2-S10-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**110**	--	**2.8 D1**	--	0.042 D1,J	--	--
		EB10-2-S10-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**61**	--	**2.0 D1**	--	<0.014 D1	--	--
	EB10-2-S15	EB10-2-S15-0.5	0.5	7/17/17	--	--	--	--	--	--	--	--	--	--	--	--	**48.9**	--	--	--	--	--	--
		EB10-2-S15-1.5	1.5	7/17/17	--	--	--	--	--	--	--	--	--	--	--	--	**72.9**	--	**3.37**	--	<0.05	--	--
		EB10-2-S15-2.5	2.5	7/17/17	--	--	--	--	--	--	--	--	--	--	--	--	**8.60**	--	--	--	--	--	--

TABLE 1
Summary of Laboratory Results in Soil for Organochlorine Pesticides (OCPs), Arsenic, Lead and Polychlorinated Biphenyls (PCBs)
Burroughs Middle School

Location	Borehole ID	Sample ID	Sample Depth (feet bgs)	Date Sampled	OCPs by EPA Method 8081 (ug/kg)											Arsenic & Lead by EPA Method 6010B (mg/kg)		STLC by WET/EPA Method 6010B (mg/L)		TCLP by EPA Method 6010B (mg/L)		PCBs by EPA Method 8082 (ug/kg)	
					4,4-DDD	4,4-DDE	4,4-DDT	alpha-Chlordane	Chlordane (Total)	Dieldrin	Endrin	gamma-Chlordane	Heptachlor epoxide	Methoxy-chlor	All Other OCPs	Arsenic	Lead	Arsenic	Lead	Arsenic	Lead	Aroclor 1260	All Other PCBs
Storage Building No. 10 (EB10)	EB10-2-S20	EB10-2-S20-0.5	0.5	7/17/17	--	--	--	--	--	--	--	--	--	--	--	--	**74.3**	--	**3.67**	**--**	<0.05	--	--
		EB10-2-S20-1.5	1.5	7/17/17	--	--	--	--	--	--	--	--	--	--	--	--	**87.7**	--	**6.40**	**--**	<0.05	--	--
		EB10-2-S20-2.5	2.5	7/17/17	--	--	--	--	--	--	--	--	--	--	--	--	**42.8**	--	**--**	**--**	**--**	--	--
Tool Room Building No. 11 (EB11)	EB11-1	EB11-1-0.5	0.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**4.6**	**84**	--	**4.9 D1**	--	--	6.1 J	ND
		EB11-1-1.5	1.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**5.7**	**65**	--	**3.0 D1**	--	--	--	--
		EB11-1-2.5	2.5	12/28/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Step out boreholes near boring EB11-1:																						
	EB11-1-W5	EB11-1-W5-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**50**	--	--	--	--	--	--
		EB11-1-W5-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**110**	--	**2.5 D1**	--	<0.014 D1	--	--
		EB11-1-W5-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**3.3**	--	--	--	--	--	--
	EB11-1-W10	EB11-1-W10-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**54**	--	**3.6 D1**	--	<0.014 D1	--	--
		EB11-1-W10-0.5-	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**26**	--	--	--	--	--	--
		EB11-1-W10-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**18**	--	--	--	--	--	--
		EB11-1-W10-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**5.4**	--	--	--	--	--	--
	EB11-1-S5	EB11-1-S5-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**70**	--	**3.5 D1**	--	<0.014 D1	--	--
		EB11-1-S5-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**100**	--	**4.0 D1**	--	<0.014 D1	--	--
		EB11-1-S5-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**66**	--	**3.6 D1**	--	<0.014 D1	--	--
	EB11-1-S10	EB11-1-S10-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**110**	--	**10 D1**	--	0.043 D1,J	--	--
		EB11-1-S10-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**37**	--	--	--	--	--	--
		EB11-1-S10-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**3.5**	--	--	--	--	--	--
	EB11-1-S15	EB11-1-S15-0.5	0.5	7/17/17	--	--	--	--	--	--	--	--	--	--	--	--	**231**	--	**10.4**	--	**0.278**	--	--
		EB11-1-S15-1.5	1.5	7/17/17	--	--	--	--	--	--	--	--	--	--	--	--	**94.8**	--	**2.02**	--	<0.05	--	--
	EB11-2	EB11-2-0.5	0.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**6.8**	**90**	--	**3.9 D1**	--	--	--	--
		EB11-2-1.5	1.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**3.2**	**46**	--	--	--	--	--	--
		EB11-2-2.5	2.5	12/28/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Step out boreholes near boring EB11-2:																						
	EB11-2-N5	EB11-2-N5-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**44**	--	--	--	--	--	--
		EB11-2-N5-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**47**	--	--	--	--	--	--
		EB11-2-N5-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**5.7**	--	--	--	--	--	--
	EB11-2-N10	EB11-2-N10-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**36**	--	--	--	--	--	--
		EB11-2-N10-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**75**	--	**7.8 D1**	--	<0.014 D1	--	--
		EB11-2-N10-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**27**	--	--	--	--	--	--
	EB11-2-N15	EB11-2-N15-0.5	0.5	7/17/17	--	--	--	--	--	--	--	--	--	--	--	--	**68.8**	--	**3.16**	--	<0.05	--	--
		EB11-2-N15-0.5-D	0.5	7/17/17	--	--	--	--	--	--	--	--	--	--	--	--	**79.3**	--	**3.10**	--	<0.05	--	--
		EB11-2-N15-1.5	1.5	7/17/17	--	--	--	--	--	--	--	--	--	--	--	--	**72.0**	--	**4.15**	--	<0.05	--	--
		EB11-2-N15-2.5	2.5	7/17/17	--	--	--	--	--	--	--	--	--	--	--	--	**63.9**	--	**2.01**	--	<0.05	--	--
	EB11-2-S5	EB11-2-S5-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**56**	--	**2.7 D1**	--	0.017 D1,J	--	--
		EB11-2-S5-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**82**	--	**4.0 D1**	--	0.019 D1,J	--	--
		EB11-2-S5-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**83**	--	**3.6 D1**	--	<0.014 D1	--	--
	EB11-2-S10	EB11-2-S10-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**110**	--	**3.7 D1**	--	**0.019 D1,J**	--	--
		EB11-2-S10-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**72**	--	**5.5 D1**	--	<0.014 D1	--	--
		EB11-2-S10-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**4.7**	--	--	--	--	--	--
		EB11-2-S10-2.5-D	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**4.4**	--	--	--	--	--	--
	EB11-2-E5	EB11-2-E5-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**110**	--	**5.2 D1**	--	<0.014 D1	--	--
		EB11-2-E5-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**44**	--	--	--	--	--	--
		EB11-2-E5-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**42**	--	--	--	--	--	--
		EB11-2-E5-2.5-D	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**25**	--	--	--	--	--	--
Storage Building No. 12 (EB12)	EB12-1	EB12-1-0.5	0.5	12/28/16	<0.22	<0.20	<0.13	0.44 J	3.7 J	<0.25	<0.23	0.38 J	<0.20	<0.18	ND	**55**	**74**	**2.3 D1**	**3.2 D1**	--	--	--	--
		EB12-1-1.5	1.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**40**	**28**	--	--	--	--	--	--
		EB12-1-2.5	2.5	12/28/16	--	--	--	--	--	--	--	--	--	--	--	**11**	--	--	--	--	--	--	--
	Step out boreholes near boring EB12-1:																						
	EB12-1-N5	EB12-1-N5-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**48**	--	--	--	--	--	--	--
		EB12-1-N5-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**25**	--	--	--	--	--	--	--
		EB12-1-N5-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**4.2**	--	--	--	--	--	--	--
	EB12-1-N10	EB12-1-N10-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**51**	--	**2.0 D1**	--	0.12 D1,J	--	--	--
		Refusal below 0.5 ft depth.																					

TABLE 1
Summary of Laboratory Results in Soil for Organochlorine Pesticides (OCPs), Arsenic, Lead and Polychlorinated Biphenyls (PCBs)
Burroughs Middle School

Location	Borehole ID	Sample ID	Sample Depth (feet bgs)	Date Sampled	OCPs by EPA Method 8081 (ug/kg)											Arsenic & Lead by EPA Method 6010B (mg/kg)		STLC by WET/EPA Method 6010B (mg/L)		TCLP by EPA Method 6010B (mg/L)		PCBs by EPA Method 8082 (ug/kg)	
					4,4-DDD	4,4-DDE	4,4-DDT	alpha-Chlordane	Chlordane (Total)	Dieldrin	Endrin	gamma-Chlordane	Heptachlor epoxide	Methoxy-chlor	All Other OCPs	Arsenic	Lead	Arsenic	Lead	Arsenic	Lead	Aroclor 1260	All Other PCBs
Storage Building No. 12 (EB12)	EB12-1-S5	EB12-1-S5-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**30**	--	--	--	--	--	--	--
		EB12-1-S5-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**77**	--	**2.4 D1**	--	**0.39 D1**	--	--	--
		EB12-1-S5-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**11**	--	--	--	--	--	--	--
	EB12-1-S10	EB12-1-S10-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**45**	--	--	--	--	--	--	--
		EB12-1-S10-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**53**	--	**2.2 D1**	--	**0.32 D1**	--	--	--
		EB12-1-S10-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**3.0**	--	--	--	--	--	--	--
	EB12-1-S15	EB12-1-S15-0.5	0.5	7/17/17	--	--	--	--	--	--	--	--	--	--	--	**59.7**	--	**2.46**	--	**0.095**	--	--	--
		EB12-1-S15-1.5	1.5	7/17/17	--	--	--	--	--	--	--	--	--	--	--	**44.1**	--	--	--	--	--	--	--
		EB12-1-S15-2.5	2.5	7/17/17	--	--	--	--	--	--	--	--	--	--	--	**42.7**	--	--	--	--	--	--	--
	EB12-1-S20	EB12-1-S20-0.5	0.5	7/17/17	--	--	--	--	--	--	--	--	--	--	--	**38.2**	--	--	--	--	--	--	--
		EB12-1-S20-0.5-D	0.5	7/17/17	--	--	--	--	--	--	--	--	--	--	--	**78.6**	--	**2.31**	--	**0.169**	--	--	--
		EB12-1-S20-1.5	1.5	7/17/17	--	--	--	--	--	--	--	--	--	--	--	**48.4**	--	--	--	--	--	--	--
		EB12-1-S20-2.5	2.5	7/17/17	--	--	--	--	--	--	--	--	--	--	--	**17.4**	--	--	--	--	--	--	--
	EB12-2	EB12-2-0.5	0.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**3.2**	**33**	--	--	--	--	--	--
		EB12-2-1.5	1.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.4**	**5.9**	--	--	--	--	--	--
		EB12-2-2.5	2.5	12/28/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB13-1	EB13-1-0.5	0.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**3.6**	**600**	--	**6.6 D1**	--	0.016 D1,J	--	--
		EB13-1-1.5	1.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.7**	**6.5**	--	--	--	--	<1.5	ND
		EB13-1-2.5	2.5	12/28/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Step out boreholes near boring EB13-1:																						
	EB13-1-W5	EB13-1-W5-0.5	0.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**220**	--	**7.5 D1**	--	0.022 D1,J	--	--
		EB13-1-W5-1.5	1.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**7.1**	--	--	--	--	--	--
		EB13-1-W5-2.5	2.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**4.5**	--	--	--	--	--	--
	EB13-1-W10	EB13-1-W10-0.5	0.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**61**	--	**7.8 D1**	--	0.026 D1,J	--	--
		EB13-1-W10-0.5-	0.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**120**	--	**11 D1**	--	0.017 D1,J	--	--
		EB13-1-W10-1.5	1.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**4.5**	--	--	--	--	--	--
		EB13-1-W10-2.5	2.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**4.1**	--	--	--	--	--	--
	EB13-1-E5	EB13-1-E5-0.5	0.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**150**	--	**7.5 D1**	--	0.021 D1, J	--	--
		EB13-1-E5-1.5	1.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**11**	--	--	--	--	--	--
		EB13-1-E5-2.5	2.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**14**	--	--	--	--	--	--
	EB13-2	EB13-2-0.5	0.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**12**	**520**	--	**11 D1**	--	0.053 D1, J	<1.5	ND
		EB13-2-1.5	1.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.2**	**6.9**	--	--	--	--	--	--
		EB13-2-2.5	2.5	12/28/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Storage Building No. 13 (EB13)	*Step out boreholes near boring EB13-2:*																						
	EB13-2-N5	EB13-2-N5-0.5	0.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**210**	--	**15 D1**	--	0.028 D1, J	--	--
		EB13-2-N5-1.5	1.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**12**	--	--	--	--	--	--
		EB13-2-N5-2.5	2.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**9.8**	--	--	--	--	--	--
	EB13-2-N10	EB13-2-N10-0.5	0.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**82**	--	3.1 D1	--	<0.014 D1	--	--
		EB13-2-N10-1.5	1.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**22**	--	--	--	--	--	--
		EB13-2-N10-2.5	2.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**6.1**	--	--	--	--	--	--
	EB13-2-W5	EB13-2-W5-0.5	0.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**350**	--	**30 D1**	--	0.69 D1	--	--
		EB13-2-W5-1.5	1.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**190**	--	**15 D1**	--	0.19 D1, J	--	--
		EB13-2-W5-2.5	2.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**8.2**	--	--	--	--	--	--
	EB13-2-W10	EB13-2-W10-0.5	0.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**140**	--	**6.8 D1**	--	0.060 D1,J	--	--
		EB13-2-W10-1.5	1.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**140**	--	**5.8 D1**	--	<0.014 D1	--	--
		EB13-2-W10-2.5	2.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**3.8**	--	--	--	--	--	--
		EB13-2-W10-2.5-	2.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**3.8**	--	--	--	--	--	--
	EB13-2-S5	EB13-2-S5-0.5	0.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**110**	--	**9.0 D1**	--	0.047 D1,J	--	--
		EB13-2-S5-1.5	1.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**3.4**	--	--	--	--	--	--
		EB13-2-S5-1.5-D	1.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**12**	--	--	--	--	--	--
		EB13-2-S5-2.5	2.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**4.4**	--	--	--	--	--	--
	EB13-2-S10	EB13-2-S10-0.5	0.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**84**	--	**6.6 D1**	--	0.036 D1,J	--	--
		EB13-2-S10-1.5	1.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**9.9**	--	--	--	--	--	--
		EB13-2-S10-2.5	2.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**4.6**	--	--	--	--	--	--

TABLE 1
Summary of Laboratory Results in Soil for Organochlorine Pesticides (OCPs), Arsenic, Lead and Polychlorinated Biphenyls (PCBs)
Burroughs Middle School

Location	Borehole ID	Sample ID	Sample Depth (feet bgs)	Date Sampled	OCPs by EPA Method 8081 (ug/kg)											Arsenic & Lead by EPA Method 6010B (mg/kg)		STLC by WET/EPA Method 6010B (mg/L)		TCLP by EPA Method 6010B (mg/L)		PCBs by EPA Method 8082 (ug/kg)	
					4,4-DDD	4,4-DDE	4,4-DDT	alpha-Chlordane	Chlordane (Total)	Dieldrin	Endrin	gamma-Chlordane	Heptachlor epoxide	Methoxy-chlor	All Other OCPs	Arsenic	Lead	Arsenic	Lead	Arsenic	Lead	Aroclor 1260	All Other PCBs
Storage Building No. 15 (EB15)	EB15-1	EB15-1-0.5	0.5	12/28/16	<0.22	<0.20	0.20 J	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**51**	**46**	**2.2 D1**	--	--	--	--	--
		EB15-1-1.5	1.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**21**	**9.0**	--	--	--	--	--	--
		EB15-1-2.5	2.5	12/28/16	--	--	--	--	--	--	--	--	--	--	--	**14**	**--**	--	--	--	--	--	--
	Step out boreholes near boring EB15-1:																						
	EB15-1-S5	EB15-1-S5-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**82**	--	**4.8 D1**	--	**0.97 D1**	--	--	--
		EB15-1-S5-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**32**	--	--	--	--	--	--	--
		EB15-1-S5-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	**32**	--	--	--	--	--	--	--
		EB15-1-S5-3	3.0	4/12/17	--	--	--	--	--	--	--	--	--	--	--	**25**	--	--	--	--	--	--	--
		EB15-1-S5-3-D	3.0	4/12/17	--	--	--	--	--	--	--	--	--	--	--	**16**	--	--	--	--	--	--	--
		EB15-1-S5-4	4.0	4/12/17	--	--	--	--	--	--	--	--	--	--	--	**3.0**	--	--	--	--	--	--	--
	EB15-2	EB15-2-0.5	0.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**4.0**	**24**	--	--	--	--	--	--
		EB15-2-1.5	1.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.5**	**12**	--	--	--	--	--	--
		EB15-2-2.5	2.5	12/28/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Classroom Building No. 16 (EB16)	EB16-1	EB16-1-0.5	0.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.7**	**20**	--	--	--	--	--	--
		EB16-1-1.5	1.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.2**	**78**	--	0.64 D1, J	--	--	--	--
		EB16-1-2.5	2.5	1/3/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB16-2	EB16-2-0.5	0.5	12/29/16	<2.2 D1	<2.0 D1	<1.3 D1	<2.1 D1	<9.0 D1	<2.5 D1	<2.3 D1	<2.3 D1	<2.0 D1	<1.8 D1	ND	**2.4**	**19**	--	--	--	--	--	--
		EB16-2-1.5	1.5	12/29/16	<2.2 D1	<2.0 D1	<1.3 D1	<2.1 D1	<9.0 D1	<2.5 D1	<2.3 D1	<2.3 D1	<2.0 D1	<1.8 D1	ND	**2.0**	**8.8**	--	--	--	--	--	--
		EB16-2-2.5	2.5	12/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB16-3	EB16-3-0.5	0.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.6**	**5.3**	--	--	--	--	--	--
		EB16-3-1.5	1.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	<0.70	**1.7**	--	--	--	--	--	--
		EB16-3-2.5	2.5	12/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cafeteria/ Classroom Building No. 20 (EB20)	EB20-1	EB20-1-0.5	0.5	1/3/17	<0.22	<0.20	<0.13	0.29 J	4.0 J	<0.25	<0.23	0.43 J	<0.20	<0.18	ND	**1.3**	**4.5**	--	--	--	--	2.6 J	ND
		EB20-1-0.5-D	0.5	1/3/17	<0.22	<0.20	0.30 J	0.94 J	**9.2**	<0.25	<0.23	**1.3**	<0.20	<0.18	ND	**1.8**	**5.0**	--	--	--	--	--	--
		EB20-1-1.5	1.5	1/3/17	<0.22	0.66 J	1.9 J	**7.7**	**58**	0.79 J	<0.23	**7.2**	0.41 J	<0.18	ND	**5.1**	**16**	--	--	--	--	--	--
		EB20-1-2.5	2.5	1/3/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB20-2	EB20-2-0.5'	0.5	1/3/17	<1.1 D1	<0.98 D1	1.2 D1, J	<1.1 D1	9.4 D1, J	<1.2 D1	<1.1 D1	<1.1 D1	<1.0 D1	<0.89 D1	ND	**1.8**	**9.0**	--	--	--	--	--	--
		EB20-2-0.5-D	0.5	1/3/17	<0.22	<0.20	0.22 J	0.26 J	2.6 J	<0.25	<0.23	0.37 J	<0.20	<0.18	ND	**1.4**	**6.1**	--	--	--	--	--	--
		EB20-2-1.5	1.5	1/3/17	<0.22	<0.20	<0.13	0.59 J	<0.90	<0.25	<0.23	**1.0**	<0.20	<0.18	ND	**2.9**	**56**	--	0.56 D1, J	--	--	--	--
		EB20-2-2.5	2.5	1/3/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB20-3	EB20-3-0.5	0.5	1/3/17	<0.22	<0.20	0.33 J	**1.1**	<0.90	<0.25	<0.23	**1.4**	<0.20	<0.18	ND	**2.4**	**13**	--	--	--	--	--	--
		EB20-3-0.5-D	0.5	1/3/17	<0.22	<0.20	0.29 J	0.92 J	<0.90	<0.25	<0.23	**1.8**	<0.20	<0.18	ND	**2.8**	**20**	--	--	--	--	--	--
		EB20-3-1.5	1.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	0.56 J	<0.20	<0.18	ND	**2.3**	**9.4**	--	--	--	--	<1.5	ND
		EB20-3-1.5-D	1.5	1/3/17	<0.22	0.29 J	<0.13	0.26 J	<0.90	<0.25	<0.23	**1.4**	<0.20	<0.18	ND	**2.5**	**17**	--	--	--	--	--	--
		EB20-3-2.5	2.5	1/3/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB20-4	EB20-4-0.5	0.5	1/3/17	<0.22	<0.20	0.89 J	0.54 J	<0.90	<0.25	<0.23	**2.5**	<0.20	<0.18	ND	**3.0**	**21**	--	--	--	--	--	--
		EB20-4-0.5-D	0.5	1/3/17	<0.22	<0.20	<0.13	0.41 J	<0.90	<0.25	<0.23	**1.7**	<0.20	<0.18	ND	**7.4**	**18**	--	--	--	--	--	--
		EB20-4-1.5	1.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	**1.7**	<0.20	<0.18	ND	**5.4**	**16**	--	--	--	--	--	--
		EB20-4-1.5-D	1.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	**1.2**	<0.20	<0.18	ND	**4.7**	**14**	--	--	--	--	--	--
		EB20-4-2.5	2.5	1/3/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB20-5	EB20-5-0.5	0.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.1**	**3.6**	--	--	--	--	--	--
		EB20-5-0.5-D	0.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	0.25 J	<0.20	<0.18	ND	**3.2**	**22**	--	--	--	--	--	--
		EB20-5-1.5	1.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.9**	**4.5**	--	--	--	--	--	--
		EB20-5-1.5-D	1.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.2**	**5.7**	--	--	--	--	--	--
		EB20-5-2.5	2.5	1/3/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB20-6	EB20-6-0.5	0.5	1/3/17	<0.22	0.38 J	0.86 J	<0.21	<0.90	<0.25	<0.23	**2.1**	<0.20	<0.18	ND	**3.3**	**74**	--	**7.3 D1**	--	--	--	--
		EB20-6-0.5-D	0.5	1/3/17	<0.22	0.42 J	1.2 J	<0.21	<0.90	<0.25	<0.23	**1.4**	<0.20	<0.18	ND	**3.0**	**120**	--	**10 D1**	--	0.041 D1, J	--	--
		EB20-6-1.5	1.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	0.68 J	<0.20	<0.18	ND	**2.3**	**16**	--	--	--	--	--	--
		EB20-6-1.5-D	1.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.9**	**7.7**	--	--	--	--	--	--
		EB20-6-2.5	2.5	1/3/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Step out boreholes near boring EB20-6:																						
	EB20-6-N5	EB20-6-N5-0.5	0.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**99**	--	**4.1 D1**	--	0.091 D1,J	--	--
		EB20-6-N5-1.5	1.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**13**	--	--	--	--	--	--
		EB20-6-N5-2.5	2.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**8.4**	--	--	--	--	--	--
	EB20-6-N10	EB20-6-N10-0.5	0.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**23**	--	--	--	--	--	--
		EB20-6-N10-1.5	1.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**13**	--	--	--	--	--	--
		EB20-6-N10-1.5-D	1.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**19**	--	--	--	--	--	--
		EB20-6-N10-2.5	2.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**8.1**	--	--	--	--	--	--

TABLE 1
Summary of Laboratory Results in Soil for Organochlorine Pesticides (OCPs), Arsenic, Lead and Polychlorinated Biphenyls (PCBs)
Burroughs Middle School

Location	Borehole ID	Sample ID	Sample Depth (feet bgs)	Date Sampled	OCPs by EPA Method 8081 (ug/kg)											Arsenic & Lead by EPA Method 6010B (mg/kg)		STLC by WET/EPA Method 6010B (mg/L)		TCLP by EPA Method 6010B (mg/L)		PCBs by EPA Method 8082 (ug/kg)	
					4,4-DDD	4,4-DDE	4,4-DDT	alpha-Chlordane	Chlordane (Total)	Dieldrin	Endrin	gamma-Chlordane	Heptachlor epoxide	Methoxy-chlor	All Other OCPs	Arsenic	Lead	Arsenic	Lead	Arsenic	Lead	Aroclor 1260	All Other PCBs
Cafeteria/ Classroom Building No. 20 (EB20)	EB20-6-W5	EB20-6-W5-0.5	0.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**33**	--	--	--	--	--	--
		EB20-6-W5-1.5	1.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**15**	--	--	--	--	--	--
		EB20-6-W5-2.5	2.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**3.4**	--	--	--	--	--	--
	EB20-6-W8	EB20-6-W8-0.5	0.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**27**	--	--	--	--	--	--
		EB20-6-W8-1.5	1.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**16**	--	--	--	--	--	--
		EB20-6-W8-2.5	2.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**3.6**	--	--	--	--	--	--
		EB20-6-W8-2.5-D	2.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**6.9**	--	--	--	--	--	--
	EB20-6-S5	EB20-6-S5-0.5	0.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**54**	--	**2.3 D1**	--	<0.014 D1	--	--
		EB20-6-S5-1.5	1.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**12**	--	--	--	--	--	--
		EB20-6-S5-2.5	2.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**3.1**	--	--	--	--	--	--
	EB20-7	EB20-7-0.5	0.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	0.76 J	**2.2**	--	--	--	--	--	--
		EB20-7-1.5	1.5	1/3/17	<0.22	<0.20	<0.13	**20**	<0.90	<0.25	<0.23	**16**	<0.20	<0.18	ND	**3.8**	**10**	--	--	--	--	--	--
		EB20-7-2.5	2.5	1/3/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB20-8	EB20-8-0.5	0.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	<0.70	**1.9**	--	--	--	--	--	--
		EB20-8-0.5-D	0.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.2**	**6.1**	--	--	--	--	--	--
		EB20-8-1.5	1.5	1/3/17	<0.22	<0.20	<0.13	0.26 J	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**3.8**	**7.7**	--	--	--	--	--	--
		EB20-8-1.5-D	1.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.3**	**4.5**	--	--	--	--	--	--
		EB20-8-2.5	2.5	1/3/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Classroom Building No. 22 (EB22)	EB22-1	EB22-1-0.5	0.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.3**	**3.0**	--	--	--	--	--	--
		EB22-1-0.5-D	0.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.3**	**3.0**	--	--	--	--	<1.5	ND
		EB22-1-1.5	1.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.5**	**3.0**	--	--	--	--	--	--
		EB22-1-1.5-D	1.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.7**	**3.1**	--	--	--	--	--	--
		EB22-1-2.5	2.5	1/3/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB22-2*	EB22-2-0.5	0.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.4**	**3.9**	--	--	--	--	--	--
		EB22-2-1.5	1.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.2**	**3.2**	--	--	--	--	<1.5	ND
		EB22-2-2.5	2.5	12/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Classroom Building No. 23 (EB23)	EB23-1	EB23-1-0.5	0.5	1/3/17	<0.22	<0.20	<0.13	0.25 J	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**13**	**52**	--	0.24 D1, J	--	--	--	--
		EB23-1-1.5	1.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.7**	**4.6**	--	--	--	--	--	--
		EB23-1-2.5	2.5	1/3/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB23-2	EB23-2-0.5	0.5	1/3/17	<0.22	1.9 J	**7.7**	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**5.8**	**8.0**	--	--	--	--	--	--
		EB23-2-0.5-D	0.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**5.1**	**150**	--	**2.0 D1**	--	<0.014 D1	--	--
		EB23-2-1.5	1.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.7**	**2.8**	--	--	--	--	--	--
		EB23-2-2.5	2.5	1/3/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Step out boreholes near boring EB23-2:																						
	EB23-2-N5	EB23-2-N5-0.5	0.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**9.7**	--	--	--	--	--	--
		EB23-2-N5-1.5	1.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**6.0**	--	--	--	--	--	--
		EB23-2-N5-2.5	2.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**4.5**	--	--	--	--	--	--
	EB23-2-N8	EB23-2-N8-0.5	0.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**8.4**	--	--	--	--	--	--
		EB23-2-N8-1.5	1.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**3.5**	--	--	--	--	--	--
		EB23-2-N8-2.5	2.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**2.8**	--	--	--	--	--	--
	EB23-2-W5	EB23-2-W5-0.5	0.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**27**	--	--	--	--	--	--
		EB23-2-W5-1.5	1.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**8.1**	--	--	--	--	--	--
		EB23-2-W5-2.5	2.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**4.8**	--	--	--	--	--	--
	EB23-2-W10	EB23-2-W10-0.5	0.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**7.5**	--	--	--	--	--	--
		EB23-2-W10-1.5	1.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**12**	--	--	--	--	--	--
		EB23-2-W10-2.5	2.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**3.3**	--	--	--	--	--	--
	EB23-2-S5	EB23-2-S5-0.5	0.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**6.5**	--	--	--	--	--	--
		EB23-2-S5-1.5	1.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**3.2**	--	--	--	--	--	--
		EB23-2-S5-2.5	2.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**3.1**	--	--	--	--	--	--
	EB23-2-S10	EB23-2-S10-0.5	0.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**12**	--	--	--	--	--	--
		EB23-2-S10-1.5	1.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**5.8**	--	--	--	--	--	--
		EB23-2-S10-2.5	2.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**2.7**	--	--	--	--	--	--
	EB23-2-E5	EB23-2-E5-0.5	0.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**2.8**	--	--	--	--	--	--
		EB23-2-E5-1.5	1.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**8.5**	--	--	--	--	--	--
		EB23-2-E5-2.5	2.5	4/11/17	--	--	--	--	--	--	--	--	--	--	--	--	**2.2**	--	--	--	--	--	--
	EB23-3*	EB23-3-0.5	0.5	12/29/16	<0.22	<0.20	<0.13	<0.21	1.6 J	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.6**	**5.0**	--	--	--	--	<1.5	ND
		EB23-3-1.5	1.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	0.73 J	**5.2**	--	--	--	--	<1.5	ND
		EB23-3-2.5	2.5	12/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

TABLE 1
Summary of Laboratory Results in Soil for Organochlorine Pesticides (OCPs), Arsenic, Lead and Polychlorinated Biphenyls (PCBs)
Burroughs Middle School

Location	Borehole ID	Sample ID	Sample Depth (feet bgs)	Date Sampled	OCPs by EPA Method 8081 (ug/kg)											Arsenic & Lead by EPA Method 6010B (mg/kg)		STLC by WET/EPA Method 6010B (mg/L)		TCLP by EPA Method 6010B (mg/L)		PCBs by EPA Method 8082 (ug/kg)	
					4,4-DDD	4,4-DDE	4,4-DDT	alpha-Chlordane	Chlordane (Total)	Dieldrin	Endrin	gamma-Chlordane	Heptachlor epoxide	Methoxy-chlor	All Other OCPs	Arsenic	Lead	Arsenic	Lead	Arsenic	Lead	Aroclor 1260	All Other PCBs
Classroom Building No. 24 (EB24)	EB24-1	EB24-1-0.5	0.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**3.6**	**2.5**	--	--	--	--	<1.5	ND
		EB24-1-1.5	1.5	12/29/16	<0.22	0.73 J	0.62 J	0.65 J	7.6 J	<0.25	<0.23	0.76 J	<0.20	<0.18	ND	**3.7**	**7.5**	--	--	--	--	--	--
		EB24-1-2.5	2.5	12/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB24-2	EB24-2-0.5	0.5	12/29/16	<0.22	0.71 J	<0.13	0.30 J	2.7 J	<0.25	<0.23	0.23 J	<0.20	<0.18	ND	**2.8**	**8.5**	--	--	--	--	--	--
		EB24-2-1.5	1.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.5**	**17**	--	--	--	--	--	--
		EB24-2-2.5	2.5	12/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB24-3	EB24-3-0.5	0.5	12/29/16	<0.22	<0.20	<0.13	0.25 J	3.0 J	<0.25	<0.23	0.34 J	<0.20	<0.18	ND	**2.1**	**10**	--	--	--	--	--	--
		EB24-3-1.5	1.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	<0.70	**2.5**	--	--	--	--	--	--
		EB24-3-2.5	2.5	12/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB24-4	EB24-4-0.5	0.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.4**	**3.4**	--	--	--	--	<1.5	ND
		EB24-4-0.5-D	0.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	0.76 J	**2.7**	--	--	--	--	--	--
		EB24-4-1.5	1.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.5**	**4.3**	--	--	--	--	--	--
		EB24-4-1.5-D	1.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.9**	**5.7**	--	--	--	--	--	--
		EB24-4-2.5	2.5	1/3/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB24-5	EB24-5-0.5	0.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.7**	**4.5**	--	--	--	--	--	--
		EB24-5-0.5-D	0.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**6.0**	**9.0**	--	--	--	--	--	--
		EB24-5-1.0	1.0	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**5.7**	**7.3**	--	--	--	--	--	--
		EB24-5-1.0-D	1.0	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**6.8**	**7.9**	--	--	--	--	--	--
		Refusal at 1.25' bgs in boring (possible cobble).																					
	EB24-6*	EB24-6-0.5	0.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.6**	**10**	--	--	--	--	--	--
		EB24-6-1.5	1.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**3.3**	**4.5**	--	--	--	--	--	--
		EB24-6-2.5	2.5	12/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Classroom Building No. 25 (EB25)	EB25-1	EB25-1-0.5	0.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.6**	**3.4**	--	--	--	--	--	--
		EB25-1-0.5-D	0.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.8**	**4.4**	--	--	--	--	--	--
		EB25-1-1.5	1.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.0**	**3.6**	--	--	--	--	--	--
		EB25-1-2.5	2.5	1/3/17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	EB25-2	EB25-2-0.5	0.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**5.7**	**16**	--	--	--	--	--	--
		Refusal at 1' bgs in boring (unknown obstruction).																					
	EB25-3*	EB25-3-0.5	0.5	12/29/16	<0.22	0.21 J	<0.13	0.46 J	4.0 J	<0.25	<0.23	0.41 J	<0.20	<0.18	ND	**3.4**	**10**	--	--	--	--	--	--
		EB25-3-1.5	1.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.1**	**4.9**	--	--	--	--	<1.5	ND
		EB25-3-2.5	2.5	12/29/16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Former Building No. 1 (FB1)	FB1-1	FB1-1-0.5	0.5	1/3/17	<0.22	<0.20	<0.13	0.28 J	2.3 J	<0.25	<0.23	0.33 J	<0.20	<0.18	ND	<0.70	**2.2**	--	--	--	--	1.6 J	ND
		FB1-1-0.5-D	0.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	<0.70	**2.2**	--	--	--	--	--	--
		FB1-1-1.5	1.5	1/3/17	0.79 J	1.1 J	0.32 J	**1.5**	**11**	<0.25	<0.23	**1.3**	<0.20	<0.18	ND	**3.0**	**19**	--	--	--	--	--	--
		FB1-1-1.5-D	1.5	1/3/17	0.23 J	0.25 J	<0.13	**2.4**	**16**	<0.25	<0.23	**1.7**	<0.20	<0.18	ND	**2.8**	**21**	--	--	--	--	--	--
		FB1-1-2.5	2.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.7**	**3.5**	--	--	--	--	--	--
	FB1-2	FB1-2-0.5	0.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.9**	**4.2**	--	--	--	--	--	--
		FB1-2-0.5-D	0.5	1/3/17	0.32 J	0.23 J	<0.13	<0.21	1.5 J	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.2**	**12**	--	--	--	--	--	--
		FB1-2-1.5	1.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.6**	**3.6**	--	--	--	--	--	--
		FB1-2-1.5-D	1.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.7**	**3.6**	--	--	--	--	--	--
		FB1-2-2.5	2.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.9**	**3.8**	--	--	--	--	--	--
	FB1-3	FB1-3-0.5	0.5	1/3/17	<0.22	<0.20	<0.13	0.29 J	2.5 J	<0.25	<0.23	<0.23	<0.20	<0.18	ND	<0.70	**1.6**	--	--	--	--	<1.5	ND
		FB1-3-0.5-D	0.5	1/3/17	<0.22	<0.20	<0.13	0.23 J	2.7 J	<0.25	<0.23	0.54 J	<0.20	<0.18	ND	**1.3**	**2.3**	--	--	--	--	--	--
		FB1-3-1.5	1.5	1/3/17	<0.22	0.29 J	<0.13	0.34 J	3.2 J	<0.25	<0.23	0.33 J	<0.20	<0.18	ND	**2.6**	**9.3**	--	--	--	--	--	--
		FB1-3-1.5-D	1.5	1/3/17	<0.22	<0.20	<0.13	**1.1**	**8.9**	<0.25	<0.23	**1.3**	<0.20	<0.18	ND	**2.6**	**10**	--	--	--	--	--	--
		FB1-3-2.5	2.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	0.27 J	<0.20	<0.18	ND	**1.3**	**3.2**	--	--	--	--	--	--
	FB1-4	FB1-4-0.5	0.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.2**	**4.0**	--	--	--	--	--	--
		FB1-4-0.5-D	0.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.9**	**7.7**	--	--	--	--	--	--
		FB1-4-1.5	1.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.5**	**3.7**	--	--	--	--	--	--
		FB1-4-1.5-D	1.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.4**	**3.5**	--	--	--	--	--	--
		FB1-4-2.5	2.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.0**	**3.8**	--	--	--	--	--	--
	FB1-5	FB1-5-0.5	0.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	<0.70	**2.3**	--	--	--	--	--	--
		FB1-5-0.5-D	0.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.2**	**3.3**	--	--	--	--	--	--
		FB1-5-1.5	1.5	1/3/17	<0.22	<0.20	0.21 J	0.47 J	3.6 J	<0.25	<0.23	0.44 J	<0.20	<0.18	ND	**1.9**	**12**	--	--	--	--	--	--
		FB1-5-1.5-D	1.5	1/3/17	<0.22	0.35 J	0.22 J	**2.4**	**16**	<0.25	<0.23	**1.4**	0.29 J	<0.18	ND	**3.6**	**14**	--	--	--	--	--	--
		FB1-5-2.5	2.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.8**	**2.8**	--	--	--	--	--	--

TABLE 1
Summary of Laboratory Results in Soil for Organochlorine Pesticides (OCPs), Arsenic, Lead and Polychlorinated Biphenyls (PCBs)
Burroughs Middle School

Location	Borehole ID	Sample ID	Sample Depth (feet bgs)	Date Sampled	OCPs by EPA Method 8081 (ug/kg)											Arsenic & Lead by EPA Method 6010B (mg/kg)		STLC by WET/EPA Method 6010B (mg/L)		TCLP by EPA Method 6010B (mg/L)		PCBs by EPA Method 8082 (ug/kg)	
					4,4-DDD	4,4-DDE	4,4-DDT	alpha-Chlordane	Chlordane (Total)	Dieldrin	Endrin	gamma-Chlordane	Heptachlor epoxide	Methoxy-chlor	All Other OCPs	Arsenic	Lead	Arsenic	Lead	Arsenic	Lead	Aroclor 1260	All Other PCBs
Former Building No. 1 (FB1)	FB1-6	FB1-6-0.5	0.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.6**	**3.3**	--	--	--	--	--	--
		FB1-6-1.5	1.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.8**	**3.3**	--	--	--	--	--	--
		FB1-6-1.5-D	1.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.9**	**4.0**	--	--	--	--	--	--
		FB1-6-2.5	2.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.8**	**3.1**	--	--	--	--	--	--
	FB1-7	FB1-7-0.5	0.5	1/3/17	<2.2 D1	<2.0 D1	<1.3 D1	<2.1 D1	<9.0 D1	<2.5 D1	<2.3 D1	<2.3 D1	<2.0 D1	<1.8 D1	ND	**1.8**	**4.3**	--	--	--	--	--	--
		FB1-7-0.5-D	0.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.6**	**4.4**	--	--	--	--	<1.5	ND
	Refusal at 1.0' bgs in boring.																						
Former Building No. 2 (FB2)	FB2-1	FB2-1-0.5	0.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	0.77 J	**3.4**	--	--	--	--	--	--
		FB2-1-1.5	1.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.3**	**4.0**	--	--	--	--	--	--
		FB2-1-2.5	2.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.5**	**4.4**	--	--	--	--	--	--
	FB2-2	FB2-2-0.5	0.5	1/3/17	<0.22	<0.20	<0.13	0.27 J	3.5 J	<0.25	<0.23	0.28 J	<0.20	<0.18	ND	**2.0**	**13**	--	--	--	--	--	--
		FB2-2-1.5	1.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.9**	**3.4**	--	--	--	--	--	--
		FB2-2-2.5	2.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.8**	**3.0**	--	--	--	--	--	--
	FB2-3	FB2-3-0.5	0.5	1/3/17	<0.22	<0.20	0.23 J	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.2**	**6.8**	--	--	--	--	--	--
		FB2-3-1.5	1.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**3.2**	**5.0**	--	--	--	--	--	--
		FB2-3-2.5	2.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.8**	**3.3**	--	--	--	--	--	--
	FB2-4	FB2-4-0.5	0.5	1/3/17	<0.22	<0.20	<0.13	0.22 J	2.0 J	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.6**	**11**	--	--	--	--	--	--
		FB2-4-1.5	1.5	1/3/17	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.9**	**3.3**	--	--	--	--	--	--
		FB2-4-2.5	2.5	1/3/17	<2.2 D1	<2.0 D1	<1.3 D1	<2.1 D1	<9.0 D1	<2.5 D1	<2.3 D1	<2.3 D1	<2.0 D1	<1.8 D1	ND	**1.8**	**3.5**	--	--	--	--	--	--
Former Building No. 3 (FB3)	See Existing Building EB3.																						
Former Building No. 4 (FB4)	FB4-1	FB4-1-0.5	0.5	12/29/16	<1.1 D1	3.1 D1, J	1.5 D1, J	1.9 D1, J	18 D1, J	<1.2 D1	<1.1 D1	2.3 D1, J	<1.0 D1	<0.89 D1	ND	**4.2**	**20**	--	--	--	--	--	--
		FB4-1-1.5	1.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**7.2**	**54**	--	**2.8 D1**	--	--	--	--
		FB4-1-2.5	2.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**3.4**	**7.7**	--	--	--	--	--	--
	FB4-2	FB4-2-0.5	0.5	12/29/16	<0.22	<0.20	0.36 J	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.2**	**34**	--	--	--	--	--	--
		FB4-2-1.5	1.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**4.5**	**52**	--	**3.3 D1**	--	--	--	--
		FB4-2-2.5	2.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.6**	**21**	--	--	--	--	--	--
	FB4-3	FB4-3-0.5	0.5	12/29/16	1.8 J	**22**	**2.1**	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**3.0**	**66**	--	**4.0 D1**	--	--	--	--
		FB4-3-1.5	1.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**3.1**	**46**	--	--	--	--	--	--
		FB4-3-2.5	2.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.6**	**6.9**	--	--	--	--	--	--
	FB4-4	FB4-4-0.5	0.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.8**	**26**	--	--	--	--	3.3 J	ND
		FB4-4-1.5	1.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.9**	**44**	--	--	--	--	--	--
		FB4-4-2.5	2.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.2**	**4.6**	--	--	--	--	--	--
Former Building No. 5 (FB5)	FB5-1	FB5-1-0.5	0.5	12/28/16	0.28 J	<0.20	<0.13	0.37 J	4.1 J	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**4.0**	**53**	--	**2.9 D1**	--	--	--	--
		FB5-1-1.5	1.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.8**	**65**	--	**3.5 D1**	--	--	--	--
		FB5-1-2.5	2.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.2**	**8.4**	--	--	--	--	--	--
	FB5-2	FB5-2-0.5	0.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.6**	**47**	--	--	--	--	--	--
		FB5-2-1.5	1.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.5**	**63**	--	**3.0 D1**	--	--	--	--
		FB5-2-2.5	2.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.3**	**9.7**	--	--	--	--	--	--
Former Building No. 6 (FB6)	See Existing Building EB6.																						
Former Building No. 7 (FB7)	See Existing Building EB22.																						
Former Building No. 8 (FB8)	See Existing Buildings EB23, EB24 and EB25.																						
Former Building No. 9 (FB9)	FB9-1	FB9-1-0.5	0.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	0.28 J	<0.20	<0.18	ND	**3.2**	**82**	--	**6.2 D1**	--	--	--	--
		FB9-1-1.5	1.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.6**	**5.5**	--	--	--	--	<1.5	ND
		FB9-1-2.5	2.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.6**	**2.8**	--	--	--	--	--	--
	Step out boreholes near boring FB9-1:																						
	FB9-1-N5	FB9-1-N5-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**52**	--	**2.5 D1**	--	0.069 D1, J	--	--
		FB9-1-N5-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**63**	--	**0.24 D1**	--	<0.014 D1	--	--
		FB9-1-N5-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**2.2**	--	--	--	--	--	--
	FB9-1-W5	FB9-1-W5-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**9.0**	--	--	--	--	--	--
		FB9-1-W5-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**4.9**	--	--	--	--	--	--
		FB9-1-W5-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**2.2**	--	--	--	--	--	--

TABLE 1
Summary of Laboratory Results in Soil for Organochlorine Pesticides (OCPs), Arsenic, Lead and Polychlorinated Biphenyls (PCBs)
Burroughs Middle School

Location	Borehole ID	Sample ID	Sample Depth (feet bgs)	Date Sampled	OCPs by EPA Method 8081 (ug/kg)											Arsenic & Lead by EPA Method 6010B (mg/kg)		STLC by WET/EPA Method 6010B (mg/L)		TCLP by EPA Method 6010B (mg/L)		PCBs by EPA Method 8082 (ug/kg)	
					4,4-DDD	4,4-DDE	4,4-DDT	alpha-Chlordane	Chlordane (Total)	Dieldrin	Endrin	gamma-Chlordane	Heptachlor epoxide	Methoxy-chlor	All Other OCPs	Arsenic	Lead	Arsenic	Lead	Arsenic	Lead	Aroclor 1260	All Other PCBs
Former Building No. 9 (FB9)	FB9-1-W10	FB9-1-W10-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**27**	--	--	--	--	--	--
		FB9-1-W10-0.5-D	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**20**	--	--	--	--	--	--
		FB9-1-W10-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**26**	--	--	--	--	--	--
		FB9-1-W10-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**2.7**	--	--	--	--	--	--
	FB9-1-S5	FB9-1-S5-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**67**	--	**12 D1**	--	0.18 D1, J	--	--
		FB9-1-S5-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**340**	--	**30 D1**	--	0.71 D1, J	--	--
		FB9-1-S5-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**140**	--	**9.1 D1**	--	<0.014 D1	--	--
	FB9-1-S10	FB9-1-S10-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**47**	--	--	--	--	--	--
		FB9-1-S10-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**55**	--	**2.7 D1**	--	<0.014 D1	--	--
		FB9-1-S10-1.5-D	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**58**	--	**3.6 D1**	--	<0.014 D1	--	--
		FB9-1-S10-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**43**	--	--	--	--	--	--
	FB9-2	FB9-2-0.5	0.5	12/29/16	<0.22	<0.20	0.19 J	0.23 J	2.9 J	<0.25	<0.23	0.26 J	<0.20	<0.18	ND	**1.6**	**7.9**	--	--	--	--	--	--
		FB9-2-1.5	1.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.8**	**3.2**	--	--	--	--	--	--
		FB9-2-2.5	2.5	12/29/16	<0.22	<0.20	0.14 J	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.7**	**3.3**	--	--	--	--	--	--
	FB9-3	FB9-3-0.5	0.5	12/29/16	**2.1**	1.3 J	<0.13	**15**	**110**	<0.25	0.55 J	**13**	<0.20	<0.18	ND	**2.0**	**53**	--	**4.9 D1**	--	--	<1.5	ND
		FB9-3-1.5	1.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.8**	**3.8**	--	--	--	--	--	--
		FB9-3-2.5	2.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	3.9 D5, J	**10 D5**	--	--	--	--	--	--
	FB9-4	FB9-4-0.5	0.5	12/29/16	<0.22	1.1 J	0.97 J	**1.4**	**12**	<0.25	<0.23	**1.4**	<0.20	<0.18	ND	**9.3**	**65**	--	**4.2 D1**	--	--	--	--
		FB9-4-1.5	1.5	12/29/16	<0.22	<0.20	<0.13	0.42 J	3.5 J	<0.25	<0.23	0.40 J	<0.20	<0.18	ND	**1.8**	**160**	--	**6.7 D1**	--	0.14 D1, J	--	--
		FB9-4-2.5	2.5	12/29/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.1**	**33**	--	--	--	--	--	--
	Step out boreholes near boring FB9-4:																			--			
	FB9-4-N5	FB9-4-N5-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**4.9**	--	--	--	--	--	--
		FB9-4-N5-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**11**	--	--	--	--	--	--
		FB9-4-N5-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**33**	--	--	--	--	--	--
	FB9-4-W5	FB9-4-W5-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**34**	--	--	--	--	--	--
		FB9-4-W5-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**9.6**	--	--	--	--	--	--
		FB9-4-W5-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**200**	--	**4.0 D1**	--	**2.7 D1**	--	--
	FB9-4-W10	FB9-4-W10-0.5	0.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**12**	--	--	--	--	--	--
		FB9-4-W10-1.5	1.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**2.6**	--	--	--	--	--	--
		FB9-4-W10-2.5	2.5	4/10/17	--	--	--	--	--	--	--	--	--	--	--	--	**17**	--	--	--	--	--	--
Former Building No. 10 (FB10)	FB10-1	FB10-1-0.5	0.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.7**	**17**	--	--	--	--	<1.5	ND
		FB10-1-1.5	1.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.6**	**8.8**	--	--	--	--	--	--
		FB10-1-2.5	2.5	12/28/16	<2.2 D1	<2.0 D1	<1.3 D1	<2.1 D1	<9.0 D1	<2.5 D1	<2.3 D1	<2.3 D1	<2.0 D1	<1.8 D1	ND	**1.7**	**8.0**	--	--	--	--	--	--
	FB10-2	FB10-2-0.5	0.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.8**	**6.8**	--	--	--	--	--	--
		FB10-2-1.5	1.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.7**	**3.8**	--	--	--	--	--	--
		FB10-2-2.5	2.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.6**	**4.3**	--	--	--	--	--	--
	FB10-3	FB10-3-0.5	0.5	12/28/16	<0.22	<0.20	<0.13	<0.21	2.3 J	<0.25	<0.23	0.24 J	<0.20	<0.18	ND	**1.6**	**9.1**	--	--	--	--	--	--
		FB10-3-1.5	1.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.3**	**4.3**	--	--	--	--	--	--
		FB10-3-2.5	2.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.7**	**15**	--	--	--	--	--	--
	FB10-4	FB10-4-0.5	0.5	12/28/16	<0.22	<0.20	0.23 J	0.24 J	2.7 J	<0.25	<0.23	0.27 J	<0.20	<0.18	ND	**1.7**	**28**	--	--	--	--	--	--
		FB10-4-1.5	1.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.1**	**3.8**	--	--	--	--	--	--
		FB10-4-2.5	2.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.4**	**3.0**	--	--	--	--	--	--
Former Building No. 11 (FB11)	FB11-1	FB11-1-0.5	0.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.6**	**23**	--	--	--	--	--	--
		FB11-1-1.5	1.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.7**	**11**	--	--	--	--	--	--
		FB11-1-2.5	2.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.6**	**4.8**	--	--	--	--	--	--
	FB11-2	FB11-2-0.5	0.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.0**	**28**	--	--	--	--	<1.5	ND
		FB11-2-1.5	1.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.4**	**6.2**	--	--	--	--	--	--
		FB11-2-2.5	2.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.4**	**3.5**	--	--	--	--	--	--
	FB11-3	FB11-3-0.5	0.5	12/28/16	<0.22	0.20 J	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.7**	**23**	--	--	--	--	--	--
		FB11-3-1.5	1.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.4**	**17**	--	--	--	--	--	--
		FB11-3-2.5	2.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.4**	**4.5**	--	--	--	--	--	--
	FB11-4	FB11-4-0.5	0.5	12/28/16	<0.22	0.97 J	0.98 J	0.46 J	5.3 J	0.67 J	<0.23	0.47 J	<0.20	<0.18	ND	**2.6**	**18**	--	--	--	--	--	--
		FB11-4-1.5	1.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.9**	**9.6**	--	--	--	--	--	--
		FB11-4-2.5	2.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.8**	**12**	--	--	--	--	--	--

TABLE 1
Summary of Laboratory Results in Soil for Organochlorine Pesticides (OCPs), Arsenic, Lead and Polychlorinated Biphenyls (PCBs)
Burroughs Middle School

Location	Borehole ID	Sample ID	Sample Depth (feet bgs)	Date Sampled	OCPs by EPA Method 8081 (ug/kg)											Arsenic & Lead by EPA Method 6010B (mg/kg)		STLC by WET/EPA Method 6010B (mg/L)		TCLP by EPA Method 6010B (mg/L)		PCBs by EPA Method 8082 (ug/kg)	
					4,4-DDD	4,4-DDE	4,4-DDT	alpha-Chlordane	Chlordane (Total)	Dieldrin	Endrin	gamma-Chlordane	Heptachlor epoxide	Methoxy-chlor	All Other OCPs	Arsenic	Lead	Arsenic	Lead	Arsenic	Lead	Aroclor 1260	All Other PCBs
Former Building No. 12 (FB12)	FB12-1	FB12-1-0.5	0.5	12/28/16	<0.22	0.40 J	<0.13	**9.8**	**77**	<0.25	<0.23	**6.7**	<0.20	<0.18	ND	**2.3**	**7.3**	--	--	--	--	<1.5	ND
		FB12-1-1.5	1.5	12/28/16	<0.22	1.5 J	0.24 J	**14**	**120**	<0.25	<0.23	**12**	<0.20	<0.18	ND	**3.5**	**14**	--	--	--	--	--	--
		FB12-1-2.5	2.5	12/28/16	<0.22	<0.20	<0.13	**18**	**150**	<0.25	<0.23	**17**	<0.20	<0.18	ND	**6.7**	**25**	--	--	--	--	--	--
Former Building No. 13 (FB13)	FB13-1	FB13-1-0.5	0.5	12/28/16	<0.22	<0.20	0.24 J	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.9**	**27**	--	--	--	--	--	--
		FB13-1-1.5	1.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.9**	**4.5**	--	--	--	--	<1.5	ND
		FB13-1-2.5	2.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.7**	**3.6**	--	--	--	--	--	--
Former Building No. 14 (FB14)	FB14-1	FB14-1-0.5	0.5	12/28/16	<0.22	0.67 J	1.7 J	0.40 J	4.2 J	<0.25	<0.23	0.47 J	<0.20	<0.18	ND	**4.4**	**29**	--	--	--	--	--	--
		FB14-1-1.5	1.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.9**	**9.6**	--	--	--	--	--	--
		FB14-1-2.5	2.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.0**	**9.0**	--	--	--	--	--	--
	FB14-2	FB14-2-0.5	0.5	12/28/16	<0.22	<0.20	<0.13	0.25 J	2.8 J	<0.25	<0.23	0.29 J	<0.20	<0.18	ND	**3.2**	**25**	--	--	--	--	--	--
		FB14-2-1.5	1.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.8**	**19**	--	--	--	--	--	--
		FB14-2-2.5	2.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.1**	**11**	--	--	--	--	--	--
	FB14-3	FB14-3-0.5	0.5	12/28/16	**4.6**	**10**	**9.3**	0.67 J	6.3 J	<0.25	<0.23	0.42 J	<0.20	<0.18	ND	**3.9**	**16**	--	--	--	--	--	--
		FB14-3-1.5	1.5	12/28/16	<1.1 D1	<0.98 D1	<0.67 D1	<1.1 D1	<4.5 D1	<1.2 D1	<1.1 D1	<1.1 D1	<1.0 D1	<0.89 D1	ND	**2.9**	**28**	--	--	--	--	--	--
		FB14-3-2.5	2.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.5**	**3.3**	--	--	--	--	--	--
	FB14-4	FB14-4-0.5	0.5	12/28/16	**21**	**50**	**25**	**3.6**	**38**	<0.25	<0.23	**4.8**	<0.20	<0.18	ND	**3.0**	**46**	--	--	--	--	--	--
		FB14-4-1.5	1.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.6**	**140**	--	**9.9 D1**	--	**3.8 D1**	--	--
		FB14-4-2.5	2.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**2.0**	**47**	--	--	--	--	--	--
	Step out boreholes near boring FB14-4:																						
	FB14-4-N5	FB14-4-N5-0.5	0.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**21**	--	--	--	--	--	--
		FB14-4-N5-1.5	1.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**18**	--	--	--	--	--	--
		FB14-4-N5-1.5-D	1.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**29**	--	--	--	--	--	--
		FB14-4-N5-2.5	2.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**8.4**	--	--	--	--	--	--
	FB14-4-N10	FB14-4-N10-0.5	0.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**17**	--	--	--	--	--	--
		FB14-4-N10-1.5	1.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**4.9**	--	--	--	--	--	--
		FB14-4-N10-2.5	2.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**7.6**	--	--	--	--	--	--
	FB14-4-W5	FB14-4-W5-0.5	0.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**35**	--	--	--	--	--	--
		FB14-4-W5-1.5	1.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**18**	--	--	--	--	--	--
		FB14-4-W5-1.5-D	1.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**13**	--	--	--	--	--	--
		FB14-4-W5-2.5	2.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**56**	--	**2.2 D1**	--	<0.014 D1	--	--
	FB14-4-W10	FB14-4-W10-0.5	0.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**17**	--	--	--	--	--	--
		FB14-4-W10-1.5	1.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**20**	--	--	--	--	--	--
		FB14-4-W10-2.5	2.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**24**	--	--	--	--	--	--
	FB14-4-E5	FB14-4-E5-0.5	0.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**8.2**	--	--	--	--	--	--
		FB14-4-E5-1.5	1.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**110**	--	**4.9 D1**	--	0.17 D1,J	--	--
		FB14-4-E5-2.5	2.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**53**	--	**1.9 D1**	--	<0.014 D1	--	--
		FB14-4-E5-2.5-D	2.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**40**	--	--	--	--	--	--
	FB14-4-E8.5	FB14-4-E8.5-0.5	0.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**20**	--	--	--	--	--	--
		FB14-4-E8.5-1.5	1.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**89**	--	**1.0 D1**	--	<0.014 D1	--	--
		FB14-4-E8.5-2.5	2.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**8.4**	--	--	--	--	--	--
		FB14-4-E8.5-2.5-	2.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**36**	--	--	--	--	--	--
	FB14-5	FB14-5-0.5	0.5	12/28/16	<0.22	0.88 J	<0.13	0.41 J	2.9 J	<0.25	<0.23	0.39 J	<0.20	<0.18	ND	**2.8**	**20**	--	--	--	--	--	--
		FB14-5-1.5	1.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.5**	**15**	--	--	--	--	--	--
		FB14-5-2.5	2.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.9**	**12**	--	--	--	--	--	--
	FB14-6	FB14-6-0.5	0.5	12/28/16	<0.22	0.63 J	<0.13	0.24 J	2.7 J	<0.25	<0.23	0.29 J	<0.20	<0.18	ND	**4.2**	**37**	--	--	--	--	6.8 J	ND
		FB14-6-1.5	1.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.9**	**6.8**	--	--	--	--	--	--
		FB14-6-2.5	2.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.7**	**6.3**	--	--	--	--	--	--

TABLE 1
Summary of Laboratory Results in Soil for Organochlorine Pesticides (OCPs), Arsenic, Lead and Polychlorinated Biphenyls (PCBs)
Burroughs Middle School

Location	Borehole ID	Sample ID	Sample Depth (feet bgs)	Date Sampled	OCPs by EPA Method 8081 (ug/kg)											Arsenic & Lead by EPA Method 6010B (mg/kg)		STLC by WET/EPA Method 6010B (mg/L)		TCLP by EPA Method 6010B (mg/L)		PCBs by EPA Method 8082 (ug/kg)	
					4,4-DDD	4,4-DDE	4,4-DDT	alpha-Chlordane	Chlordane (Total)	Dieldrin	Endrin	gamma-Chlordane	Heptachlor epoxide	Methoxy-chlor	All Other OCPs	Arsenic	Lead	Arsenic	Lead	Arsenic	Lead	Aroclor 1260	All Other PCBs
Former Building No. 15 (FB15)	FB15-1	FB15-1-0.5	0.5	1/3/17	<0.22	**4.7**	**5.6**	**12**	**87**	0.79 J	<0.23	**9.8**	<0.20	<0.18	ND	**5.3**	**18**	--	--	--	--	<1.5	ND
		FB15-1-1.5	1.5	1/3/17	<0.22	0.62 J	0.57 J	**2.4**	**19**	<0.25	<0.23	**1.9**	<0.20	<0.18	ND	**5.0**	**19**	--	--	--	--	--	--
		FB15-1-2.5	2.5	1/3/17	<0.22	0.61 J	0.55 J	**7.4**	**61**	<0.25	<0.23	**6.9**	<0.20	<0.18	ND	**4.4**	**24**	--	--	--	--	--	--
	FB15-2	FB15-2-0.5	0.5	1/3/17	<0.22	**2.2**	**2.5**	**5.7**	**46**	<0.25	<0.23	**4.4**	<0.20	<0.18	ND	**3.9**	**9.8**	--	--	--	--	--	--
		FB15-2-1.5	1.5	1/3/17	<0.22	**2.3**	**2.5**	**13**	**100**	<0.25	<0.23	**8.6**	<0.20	<0.18	ND	**6.7**	**15**	--	--	--	--	--	--
		FB15-2-2.5	2.5	1/3/17	<0.22	0.48 J	0.36 J	**6.6**	**70**	<0.25	<0.23	**5.4**	<0.20	<0.18	ND	**6.4**	**13**	--	--	--	--	--	--
	FB15-3	FB15-3-0.5	0.5	1/3/17	<0.22	1.2 J	1.3 J	**8.7**	**63**	0.73 J	<0.23	**6.1**	<0.20	<0.18	ND	**5.8**	**12**	--	--	--	--	<1.5	ND
		FB15-3-1.5	1.5	1/3/17	<0.22	0.92 J	0.35 J	**23**	**170**	<0.25	<0.23	**15**	<0.20	<0.18	ND	**7.1**	**20**	--	--	--	--	--	--
		FB15-3-2.5	2.5	1/3/17	<0.22	<0.20	<0.13	**38**	**280**	<0.25	<0.23	**29**	<0.20	<0.18	ND	**9.6**	**27**	--	--	--	--	--	--
	FB15-4	FB15-4-0.5	0.5	1/3/17	<0.22	**2.2**	1.2 J	0.75 J	8.2 J	0.85 J	<0.23	0.92 J	<0.20	<0.18	ND	**3.6**	**17**	--	--	--	--	--	--
		FB15-4-1.5	1.5	1/3/17	<0.22	**3.2**	0.93 J	**9.2**	**71**	<0.25	<0.23	**6.2**	<0.20	<0.18	ND	**3.0**	**23**	--	--	--	--	--	--
		FB15-4-2.5	2.5	1/3/17	0.37 J	<0.20	<0.13	**1.6**	**12**	<0.25	<0.23	0.99 J	<0.20	<0.18	ND	**3.9**	**6.0**	--	--	--	--	--	--
Former Building No. 16 (FB16)	FB16-1	FB16-1-0.5	0.5	12/28/16	<2.2 D1	<2.0 D1	<1.3 D1	<2.1 D1	<9.0 D1	<2.5 D1	<2.3 D1	<2.3 D1	<2.0 D1	<1.8 D1	ND	**2.0**	**10**	--	--	--	--	--	--
		FB16-1-1.5	1.5	12/28/16	<2.2 D1	<2.0 D1	<1.3 D1	<2.1 D1	<9.0 D1	<2.5 D1	<2.3 D1	<2.3 D1	<2.0 D1	<1.8 D1	ND	**2.6**	**170**	--	**1.3 D1**	--	<0.014 D1	--	--
		FB16-1-2.5	2.5	12/28/16	<2.2 D1	<2.0 D1	<1.3 D1	<2.1 D1	<9.0 D1	<2.5 D1	<2.3 D1	<2.3 D1	<2.0 D1	<1.8 D1	ND	**1.8**	**7.5**	--	--	--	--	--	--
	Step out boreholes near boring FB16-1:																						
	FB16-1-N5	FB16-1-N5-0.5	0.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**15**	--	--	--	--	--	--
		FB16-1-N5-1.5	1.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**4.9**	--	--	--	--	--	--
		FB16-1-N5-1.5-D	1.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**5.2**	--	--	--	--	--	--
		FB16-1-N5-2.5	2.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**6.4**	--	--	--	--	--	--
	FB16-1-N10	FB16-1-N10-0.5	0.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**22**	--	--	--	--	--	--
		FB16-1-N10-0.5-D	0.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**25**	--	--	--	--	--	--
		FB16-1-N10-1.5	1.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**5.1**	--	--	--	--	--	--
		FB16-1-N10-2.5	2.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**2.2**	--	--	--	--	--	--
	FB16-1-W5	FB16-1-W5-0.5	0.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**8.3**	--	--	--	--	--	--
		FB16-1-W5-0.5-D	0.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**56**	--	0.40 D1,J	--	<0.014 D1	--	--
		FB16-1-W5-1.5	1.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**8.0**	--	--	--	--	--	--
		FB16-1-W5-2.5	2.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**6.7**	--	--	--	--	--	--
	FB16-1-W10	FB16-1-W10-0.5	0.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**42**	--	--	--	--	--	--
		FB16-1-W10-0.5-	0.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**9.7**	--	--	--	--	--	--
		FB16-1-W10-1.5	1.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**9.3**	--	--	--	--	--	--
		FB16-1-W10-2.5	2.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**4.4**	--	--	--	--	--	--
	FB16-1-S5	FB16-1-S5-0.5	0.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**20**	--	--	--	--	--	--
		FB16-1-S5-1.5	1.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**82**	--	**5.1 D1**	--	**1.6 D1**	--	--
		FB16-1-S5-2.5	2.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**62**	--	**3.3 D1**	--	**0.65 D1**	--	--
		FB16-1-S5-2.5-D	2.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**3.3**	--	--	--	--	--	--
	FB16-1-S10	FB16-1-S10-0.5	0.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**21**	--	--	--	--	--	--
		FB16-1-S10-1.5	1.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**12**	--	--	--	--	--	--
		FB16-1-S10-2.5	2.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**9.5**	--	--	--	--	--	--
	FB16-1-E5	FB16-1-E5-0.5	0.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**1.3**	--	--	--	--	--	--
		FB16-1-E5-1.5	1.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**7.9**	--	--	--	--	--	--
		FB16-1-E5-2.5	2.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**2.9**	--	--	--	--	--	--
		FB16-1-E5-2.5-D	2.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**3.3**	--	--	--	--	--	--
	FB16-1-E10	FB16-1-E10-0.5	0.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**16**	--	--	--	--	--	--
		FB16-1-E10-1.5	1.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**4.0**	--	--	--	--	--	--
		FB16-1-E10-1.5-D	1.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**3.6**	--	--	--	--	--	--
		FB16-1-E10-2.5	2.5	4/12/17	--	--	--	--	--	--	--	--	--	--	--	--	**2.9**	--	--	--	--	--	--
	FB16-2	FB16-2-0.5	0.5	12/28/16	<2.2 D1	<2.0 D1	<1.3 D1	<2.1 D1	<9.0 D1	<2.5 D1	<2.3 D1	<2.3 D1	<2.0 D1	<1.8 D1	ND	**2.4**	**5.3**	--	--	--	--	--	--
		FB16-2-1.5	1.5	12/28/16	<2.2	<2.0	<1.3	<2.1	<9.0	<2.5	<2.3	<2.3	<2.0	<1.8	ND	**2.9**	**6.8**	--	--	--	--	<1.5	ND
		FB16-2-2.5	2.5	12/28/16	<2.2 D1	<2.0 D1	<1.3 D1	<2.1 D1	<9.0 D1	<2.5 D1	<2.3 D1	<2.3 D1	<2.0 D1	<1.8 D1	ND	**1.7**	**3.2**	--	--	--	--	--	--

TABLE 1
Summary of Laboratory Results in Soil for Organochlorine Pesticides (OCPs), Arsenic, Lead and Polychlorinated Biphenyls (PCBs)
Burroughs Middle School

Location	Borehole ID	Sample ID	Sample Depth (feet bgs)	Date Sampled	OCPs by EPA Method 8081 (ug/kg)											Arsenic & Lead by EPA Method 6010B (mg/kg)		STLC by WET/EPA Method 6010B (mg/L)		TCLP by EPA Method 6010B (mg/L)		PCBs by EPA Method 8082 (ug/kg)	
					4,4-DDD	4,4-DDE	4,4-DDT	alpha-Chlordane	Chlordane (Total)	Dieldrin	Endrin	gamma-Chlordane	Heptachlor epoxide	Methoxy-chlor	All Other OCPs	Arsenic	Lead	Arsenic	Lead	Arsenic	Lead	Aroclor 1260	All Other PCBs
Former Building No. 16 (FB16)	FB16-3	FB16-3-0.5	0.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.8**	**12**	--	--	--	--	--	--
		FB16-3-1.5	1.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.8**	**6.7**	--	--	--	--	--	--
		FB16-3-2.5	2.5	12/28/16	<1.1 D1	<0.98 D1	<0.67 D1	<1.1 D1	<4.5 D1	<1.2 D1	<1.1 D1	<1.1 D1	<1.0 D1	<0.89 D1	ND	**2.1**	**4.3**	--	--	--	--	--	--
	FB16-4	FB16-4-0.5	0.5	12/28/16	<0.22	0.23 J	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.5**	**33**	--	--	--	--	--	--
		FB16-4-1.5	1.5	12/28/16	<2.2 D1	<2.0 D1	<1.3 D1	<2.1 D1	<9.0 D1	<2.5 D1	<2.3 D1	<2.3 D1	<2.0 D1	<1.8 D1	ND	**1.6**	**11**	--	--	--	--	--	--
		FB16-4-2.5	2.5	12/28/16	<0.22	<0.20	<0.13	<0.21	<0.90	<0.25	<0.23	<0.23	<0.20	<0.18	ND	**1.9**	**11**	--	--	--	--	--	--
Regulatory Screening Levels:																							
DTSC HERO HHRA Note 3 (August 2017)[1]					NA	NA	NA	NA	440	NA	NA	NA	NA	NA	Varies	0.11	80 [2]	NA	NA	NA	NA	NA	Varies
RSLs (June 2017)[3]					2,300	2,000	1,900	NA	1,700	34	19,000	NA	70	320,000	Varies	0.68	400	NA	NA	NA	NA	240	Varies
Southern California Regional Background Level (DTSC, 2008)[4]					NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12	NA	NA	NA	NA	NA	NA	NA
Federal and State Hazardous Waste Criteria					1,000	1,000	1,000	NA	2,500	8,000	200	NA	4,700	100,000	Varies	500	1,000	5 mg/L	5 mg/L	5 mg/L	5 mg/L	50,000	50,000

Notes:

Yellow high-lighted values exceeded one or more screening level.

Purple high-lighted values exceeded non-RCRA (CA-restricted) hazardous waste criteria.

1. DTSC, HERO HHRA Note Number 3 (August 2017). Criteria selected: Residential soil, cancer endpoint (carcinogens), non-cancer endpoint (all others)

2. DTSC recommends that a 95% upper confidence limit on the arithmetic mean calculated to be 80 mg/kg or less is protective of human health.

3. RSLs, Regional Screening Levels for Region 9, Updated June 2017, Criteria selected: Residential soil, Total Hazard Quotient = 1.0, Target risk of 1.0E-6

4. DTSC, Determination of a Southern California Regional Background Arsenic Concentration in Soil, March 2008. Background arsenic was selected as the screening level for arsenic.

5. Where TTLC lead and/or arsenic was greater than 50 mg/kg, the sample was analyzed using the Waste Extraction Test for STLC by EPA Method 6010B. Where the result is below the STLC regulatory limit of 5 mg/L arsenic or 5 mg/L lead, the material is non-hazardous under California waste disposal regulations, as per the California Code of Regulations, Title 22, Chapter 11, Article 3.

Acronyms/Abbreviations:

bgs	Below ground surface
D1	Laboratory data qualifier indicating that the sample required dilution due to possible matrix interference.
D5	Sample diluted due to failing internal standard in the original run.
D6	Sample required dilution due to high concentration of target analyte.
DTSC	California Department of Toxic Substances Control
EPA	United States Environmental Protection Agency
HERO	Office of Human and Ecological Risk
HHRA	Human Health Risk Assessment
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
NA	Not applicable or not available.
ND	Not detected above the laboratory reporting limit.
OCPs	Organochlorine Pesticides
PCBs	Polychlorinated biphenyls
RSLs	Regional Screening Levels (see Note 3, above)
STLC	Soluble Threshold Limit Concentration
TCLP	Total Threshold Limit Concentration
TTLC	Toxicity characteristic leaching procedure
ug/kg	micrograms per kilogram
4,4-DDD	Dichlorodiphenyldichloroethane
4,4-DDE	Dichlorodiphenyldichloroethylene
4,4-DDT	Dichlorodiphenyltrichloroethane
< 1.0	Analyte not detected above the referenced detection limit.
-	Not analyzed.
*	Includes testing for overlapping former buildings.
**	See additional soil analyses for these samples in Table 2 and/or Table 3.

TABLE 2
Summary of Laboratory Results in Soil for Polycyclic Aromatic Hydrocarbons (PAHs), and Title 22 Metals at Boring EB9-7
Burroughs Middle School

Location	Boring ID	Sample ID	Sample Depth (feet bgs)	Sample Date	Title 22 Metals by EPA Method 6010B/7471A (mg/kg)													Polycyclic Aromatic Hydrocarbons (PAHs) by EPA Method 8270C SIM (ug/kg)							
					Antimony	Arsenic	Barium	Beryllium	Chromium	Cobalt	Copper	Lead[5]	Mercury	Nickel	Silver	Vanadium	Zinc	Other Metals Analyzed	Benzo(a) pyrene	Benzo(b) fluoranthene	Benzo(g,h,i) perylene	Chrysene	Fluoranthene	Indeno (1,2,3-cd) pyrene	Pyrene	Other PAHs Analyzed
Classroom Building No. 9 (EB9)	EB9-7	EB9-7-0.5	0.5	12/28/16	1.5 J	**2.3**	**130**	0.30 J	**14**	**8.0**	2,800 [6]	**250**	0.04 J	**13**	0.08 J	**26**	**150**	ND	2.0 D1, J	2.2 D1, J	3.3 D1, J	2.0 D1, J	1.9 D1, J	1.6 D1, J	2.3 D1, J	ND
		EB9-7-1.5	1.5	12/28/16	<0.32	**2.1**	**180**	0.31 J	**19**	**8.3**	**260**	**130**	**0.12**	**17**	<0.04	**31**	**170**	ND	<13 D1	<13 D1	22 D1, J	15 D1, J	<11 D1	<9.4 D1	12 D1, J	ND
		EB9-7-2.5	2.5	12/28/16	<0.32	**1.5**	**88**	0.31 J	**20**	**9.0**	**25**	**11**	0.04 J	**18**	<0.04	**31**	**38**	ND	15 D1, J	14 D1, J	26 D1, J	25 D1, J	16 D1, J	9.8 D1, J	23 D1, J	ND
	Step out boreholes near boring EB9-7 (the below step-out lead results are also reported in Table 1):																									
	EB9-7-W6	EB9-7-W6-	0.5	4/11/17	--	--	--	--	--	--	**12**	**6.4**	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		EB9-7-W6-1.5	1.5	4/11/17	--	--	--	--	--	--	**18**	**9.6**	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		EB9-7-W6-2.5	2.5	4/11/17	--	--	--	--	--	--	**13**	**3.1**	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Regulatory Screening Levels:																										
DTSC HERO HHRA Note 3 (August 2017)[1]					NA	0.11	NA	1,600	NA	NA	NA	80 [2]	1.0	15,000	390	390	NA	Varies	NA	NA	NA	NA	NA	NA	NA	Varies
RSLs (June 2017)[3]					31	0.68	15,000	160	NA	23	3,100	400	11	1,500	390	390	23,000	Varies	110	1,100	NA	110,000	2,400,000	1,100	1,800,000	Varies
Southern California Regional Background Level (DTSC, 2008)[4]					NA	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Federal and State Hazardous Waste Criteria					500	500	10,000	75	2,500	8,000	2,500	1,000	20	2,000	500	2,400	5,000	Varies	NA	NA	NA	NA	NA	NA	NA	NA	Varies

Notes:
Yellow high-lighted values exceeded one or more screening level.
Purple high-lighted values exceeded non-RCRA (CA-restricted) hazardous waste criteria.
1. DTSC, HERO HHRA Note Number 3 (August 2017). Criteria selected: Residential soil, cancer endpoint (carcinogens), non-cancer endpoint (all others)
2. DTSC recommends that a 95% upper confidence limit on the arithmetic mean calculated to be 80 mg/kg or less is protective of human health
3. RSLs, Regional Screening Levels for Region 9, Updated June 2017, Criteria selected: Residential soil, Total Hazard Quotient = 1.0, Target risk of 1.0E-6
4. DTSC, Determination of a Southern California Regional Background Arsenic Concentration in Soil, March 2008. Background arsenic was selected as the screening level for arsenic.
5. See Table 1 for results using the Waste Extraction Test for STLC by EPA Method 6010B and TCLP results for lead.
6. Laboratory results for lead in sample EB9-7-0.5 exceed non-RCRA hazardous (CA-restricted) waste disposal regulations based on the lead results (See Table 1), as per the California Code of Regulations, Title 22, Chapter 11, Article 3. Further analysis of the sample for copper by the extraction test for STLC would not alter the classification and was not performed.

Acronyms/Abbreviations:

bgs	Below ground surface
D1	Laboratory data qualifier indicating that the sample required dilution due to possible matrix interference.
DTSC	California Department of Toxic Substances Control
EPA	United States Environmental Protection Agency
HERO	Office of Human and Ecological Risk
HHRA	Human Health Risk Assessment
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
NA	Not applicable or not available.
ND	Not detected above the laboratory reporting limit.
PAHs	Polycyclic Aromatic Hydrocarbons
RSLs	Regional Screening Levels (see Note 3, above)
STLC	Soluble Threshold Limit Concentration
TTLC	Total Threshold Limit Concentration
ug/kg	micrograms per kilogram
< 1.0	Analyte not detected above the referenced detection limit.
-	Not analyzed.

TABLE 3
Summary of Laboratory Results in Soil for Total Petroleum Hydrocarbons (TPH), and Volatile Organic Compounds (VOCs)
Burroughs Middle School

Location	Boring ID	Sample ID	Sample Depth (feet bgs)	Date Sampled	Total Petroleum Hydrocarbons (TPH) by EPA Method 8015M (mg/kg)						Volatile Organic Compounds (VOCs) by EPA Method 8260B (ug/kg)
					C8-C10	C10-C18	C18-C28	C28-C36	C36-C40	C8-C40 (Total)	
Main Building/ Auditorium (EB1)	EB1-1	EB1-1-1	1.0	12/28/16	<10	<10	**39**	**130**	**120**	**290**	--
		EB1-1-5	5.0	12/28/16	<1.0	**1.3**	**4.5**	**11**	**8.7**	**26**	--
		EB1-1-10	10.0	12/28/16	<1.0	**1.4**	**2.3**	**1.8**	**1.2**	**6.8**	--
Methane Probe M-3	M-3	M-3-10.0	10.0	12/23/16	<10	**32**	**230**	**410**	**250**	**930**	ND
		M-3-12.5	12.5	12/23/16	<1.0	**1.4**	**3.0**	**3.1**	**2.3**	**9.8**	ND
Regulatory Screening Levels:											
October 2011 LAUSD 01 4524 Environmental Import/Export Materials Testing Spec.					100 (gasoline)	1,000 mg/kg (oil/diesel and long-chain hydrocarbons)					>ND
DTSC HERO HHRA Note 3 (August 2017)[1]					NA	16,000 (Mineral Oil ~C15-C50)				NA	Varies
RSLs (June 2017)[2]					520 (aliphatic low-C6); 96 (aliphatic medium-C9)	230,000 (aliphatic high-Mineral Oil ~C15-C50)				NA	Varies
					82 (aromatic low-C6)	110 (aromatic medium-C10/C11); 2,500 (aromatic high-C16)	NA				

NOTES:

1. DTSC, HERO HHRA Note Number 3 (August 2017). Criteria selected: Residential soil, cancer endpoint (carcinogens), non-cancer endpoint (all others)
2. RSLs, Regional Screening Levels for Region 9, Updated June 2017, Criteria selected: Residential soil, Total Hazard Quotient = 1.0, Target risk of 1.0E-6

Acronyms/Abbreviations:

bgs	Below ground surface
DTSC	California Department of Toxic Substances Control
EPA	United States Environmental Protection Agency
HERO	Office of Human and Ecological Risk
HHRA	Human Health Risk Assessment
mg/kg	milligrams per kilogram
NA	Not applicable or not available.
ND	Not detected above the laboratory reporting limit.
RSLs	Regional Screening Levels (see Note 2, above)
TPH	Total Petroleum Hydrocarbons
VOCs	Volatile Organic Compounds
ug/kg	micrograms per kilogram
< 1.0	Analyte not detected above the referenced detection limit.
-	Not analyzed.

TABLE 4
Prevailing Wind Direction
Burroughs Middle School

Weather Station[2]	Prevailing Wind Speed (mph) and Direction[1]												
	Monthly Average												Annual Average
	January	February	March	April	May	June	July	August	September	October	November	December	
Los Angeles, Downtown	1.0	1.3	1.7	2.1	1.8	1.6	1.4	1.3	1.0	0.8	0.8	0.8	1.2
Los Angeles, Downtown	W	WSW	WSW	WSW	WSW	WSW	WSW	WSW	W	W	W	W	WSW

NOTES:

1. Prevailing wind from the direction indicated is based on hourly data from 1992-2002 and is defined as the direction with the highest percent of frequency, http://www.wrcc.dri.edu/htmlfiles/westwinddir.html.

2 Station is approximately 4.5 miles southeast of the Burroughs Middle School site

Acronyms/Abbreviations:
W = from the west
WSW = from the west-southwest
mph = miles per hour

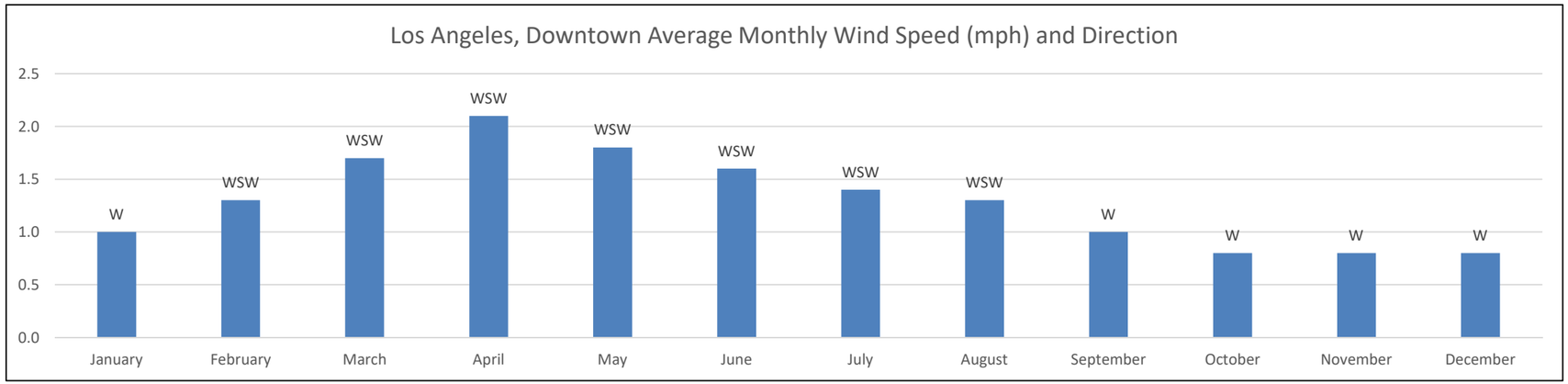


TABLE 5
SUMMARY OF SAMPLING AND ANALYSIS PROGRAM
Burroughs Middle School

Sample Location/ Number	General Parameters	Test Method of Analyses	Container	Preservative	Hold Time
Arsenic: Confirmation samples for arsenic will be collected as shown in Table 5. Bottom samples will be collected from the bottom of the excavations. Sidewall samples will be collected from the depth of the highest arsenic concentration identified in the excavation in the vicinity of the confirmation sample. Additional confirmation samples may be collected based on sample results and any additional excavation.	Arsenic	EPA 6010B	8 oz glass jar	4°C	180 days
Lead: Confirmation samples for lead will be collected as shown in Table 5. Bottom samples will be collected from the bottom of the excavations. Sidewall samples will be collected from the depth of the highest lead concentration identified in the excavation in the vicinity of the confirmation sample. Additional confirmation samples may be collected based on sample results and any additional excavation.	Lead	EPA 6010B	8 oz glass jar	4°C	180 days
Waste Profile Samples					
Title 22 CAM 17 Metals - Up to 10 samples will be collected for waste disposal profiling (estimated one 4-point composite sample per bin for 10 bins).	Title 22 CAM 17 Metals (Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Hg, Mo, Ni, Se, Ag, Ti, V, ZN)	EPA 6010B/7471A	8 oz glass jar	4°C	180 days, 28 days for mercury, 28 days hexavalent chromium
	STLC-Lead	WET/EPA 6010B		4°C	180 days
	STLC-Arsenic	WET/EPA 6010B		4°C	180 days
	TCLP-Lead	TCLP-EPA 6010B		4°C	180 days
	TCLP-Arsenic	TCLP-EPA 6010B		4°C	180 days
Total Petroleum Hydrocarbons - Up to 10 samples will be collected for waste disposal profiling (estimated one 4-point composite sample per bin for 10 bins).	Full carbon chain	EPA 8015B	8 oz glass jar	4°C	14 days
Volatile Organic Compounds - Up to 10 samples will be collected for waste disposal profiling (estimated one 4-point composite sample per bin for 10 bins).	VOCs Full Suite	EPA 8260B		4°C	14 days
Organochlorine Pesticides - Up to 10 samples will be collected for waste disposal profiling (estimated one 4-point composite sample per bin for 10 bins).	OCPs	EPA 8081A		4°C	14 days to extraction, 40 days to analyze

TABLE 6
Proposed Confirmation Sample List
Burroughs Middle School

Area of Concern	Excavation	Sample ID	Sample Depth (feet bgs)	Analyses		Rationale for Confirmation Sampling
				Arsenic	Lead	
Existing Building 5 and Existing Building 23 (Figure 4)	A1	N/A	N/A			No confirmation samples required. Existing data set adequately provides confirmation (Table 1, Figure 4)
	A2	A2-CS1	0.5	X		Sidewall confirmation sampling near EB23-1
		A2-CS2	0.5	X		Sidewall confirmation sampling near EB23-1
		A2-CS3	0.5	X		Sidewall confirmation sampling near EB23-1
	B	N/A	N/A			No confirmation samples required. Existing data set adequately provides confirmation (Table 1, Figure 4)
	C	N/A	N/A			No confirmation samples required. Existing data set adequately provides confirmation (Table 1, Figure 4)
Existing Building 9 and Vicinity (Figure 5)	D	D-CS1	2.5		X	Bottom confirmation at FB9-4-W5
	E	E-CS1	4.5	X		Bottom confirmation at EB9-6-N5
		E-CS2	4.5	X		Bottom confirmation at EB9-6
	F	F-CS1	2.5		X	Bottom confirmation at EB11-2-S5
		F-CS2	2.5		X	Bottom confirmation at EB11-1-S15
	G	G-CS1	3.5	X		Bottom confirmation at EB12-1-S15 and EB12-1-S20
		G-CS2	3.5	X		Bottom confirmation at EB12-1-S20 and EB15-1
	H	N/A	N/A			No confirmation samples required. Existing data set adequately provides confirmation (Table 1, Figure 5)
	I	N/A	N/A			No confirmation samples required. Existing data set adequately provides confirmation (Table 1, Figure 5)
	J	N/A	N/A			No confirmation samples required. Existing data set adequately provides confirmation (Table 1, Figure 5)
Former Building 14 (Figure 6)	K	N/A	N/A			No confirmation samples required. Existing data set adequately provides confirmation (Table 1, Figure 6)
Existing Building 20 and Former Building 16 (Figure 7)	L	N/A	N/A			No confirmation samples required. Existing data set adequately provides confirmation (Table 1, Figure 7)
	M	N/A	N/A			No confirmation samples required. Existing data set adequately provides confirmation (Table 1, Figure 7)
Field Quality Control Samples	Equipment Blanks-Lead and Arsenic			X	X	Daily equipment blank on days when confirmation samples are collected.
	Duplicate Soil Samples-Arsenic			X		Maintain 1:10 ratio for original to duplicate confirmation samples.
	Duplicate Soil Samples-Lead				X	Maintain 1:10 ratio for original to duplicate confirmation samples.

APPENDIX A

REFERENCES

APPENDIX A

References

American Conference of Governmental Industrial Hygienists (ACGIH), 1999, *TLVs and BEIs Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices*, 1999, http://www.epa.gov/ttn/atw/hlthef/polychlo.html

California Code of Regulations, CCR Title 5, Education Code, Part 10.5, Chapter 1, Section 17213.2(e), School Facilities.

California Code of Regulations, CCR Title 8, California Health & Safety Code, General Industry and Construction Safety Orders.

Ibid., CCR Title 8, Section 1539, Permits

Ibid., CCR Title 8, Section 1541, Excavations Ibid., CCR Title 8, Section 5192, Hazardous Waste Operations and Emergency Response

California Department of Water Resources (DWR), Planned Utilization of the Ground Water Basins of the Coastal Plain of Los Angeles County, Appendix A, Ground Water Geology: California Department of Water Resources Bulletin 104, 181 p, 1988.

California Health and Safety Code, Section 25316, Hazardous Substances.

Ibid., Section 25320, Hazardous Substances Account, Release

Ibid., Section 25323.1, Hazardous Substances Account, Removal Action Workplan Ibid., Section 25356.1(h), Hazardous Substances Account, Uses of the State Account

California Public Resources Code, Chapter 3, Section 15000 et seq., CEQA

Ibid., 14 CCR 15330, Class 30 Categorical Exemption

Ibid., 14 CCR 15016(b)(3), General Rule Exemption

Ibid., 14 CCR 5097.98, California Indian Heritage Center Task Force

Ibid., 14 CCR 21000 et seq., Environmental Quality

California State Water Resources Control Board, NPDES, General Permit, 2009-0009-DWQ amended by 2010-0014-DWQ & 2012-0006-DWQ

Cal/OSHA Article 107, Table AC1.

Catchings, R.D., Gandhok, G., Goldman, M.R., and Okaya, D., Seismic Images and Fault Relations of the Santa Monica Thrust Fault, West Los Angeles, California: U.S. Geological Survey Open-File Report 01-111, 15 p, 2001.

Code of Federal Regulations, 29 CFR 1910, Occupational Safety and Health Standards.

Ibid., 29 CFR 1910.120, Occupational Safety and Health Standards, Hazardous Waste Operations and Emergency Response (HAZWOPER).

Ibid., 29 CFR 1926, Safety and Health Regulations for Construction.

Ibid., 40 CFR 300, National Oil and Hazardous Substances Pollution Contingency Plan.

Ibid., 40 CFR 300.415, National Oil and Hazardous Substances Pollution Contingency Plan, Removal Action.

Ibid., 40 CFR 300.435(c)(2)(i), National Oil and Hazardous Substances Pollution Contingency Plan, Remedial Design/Remedial Action, Operation and Maintenance.

Dibblee, T. W., Jr., Geologic Map of the Hollywood and Burbank South ½ Quadrangles, Los Angeles County, California, DF-30, 1991.

Dolan, J.F., Sieh, K, Rockwell, T.K., Guptill, P., and Miller, G., Active Tectonics, Paleoseismology, and Seismic Hazards of the Hollywood Fault, Northern Los Angeles Basin, California: Geological Society of America Bulletin, Volume 109, No. 12, pp. 1595-1616, 1997.

Dolan, J.F., Sieh, K., and Rockwell, T.K., Late Quaternary Activity and Seismic Potential of the Santa Monica Fault System, Los Angeles, California: Geological Society of America Bulletin, Volume 112, No. 10, pp. 1559-1581, 2000.

DTSC, 2001, *Interim Guidance for Sampling Agricultural Properties (Third Revision)*, dated April 30, 2008.

DTSC, 2002, *Fact Sheet: Information Advisory – Clean Imported Fill Material***,** October 2001

DTSC, 2009, *Arsenic Strategies Determination of Arsenic Remediation Development of Arsenic Cleanup Goals*, dated January 16, 2009.

DTSC, 2013a, Preliminary Endangerment Assessment Guidance Manual, January 1994, revised January 2013.

Freeman, S.T., Heath, E.G., Guptill, P.D., and Waggoneer, J.T., Seismic Hazard Assessment, Newport-Inglewood Fault Zone, in Pipkin, B.W. and Proctor, R.J. (editors), Engineering Geologic Practice in Southern California: Association of Engineering Geologists Special Publication No. 4, pp. 211-231, 1992.

Hildenbrand, T.G., Davidson, J.G., Ponti, D.J., and Langenheim, V.E., Implications for the Hollywood Basin from Gravity Interpretations of the Northern Los Angeles Basin, California: U.S. Geological Survey Open-File Report 2001-394, 24 p, 2001.

Hummon, C., Schneider, C.L., Yeats, R.S., Dolan, J.F., Sieh, K.E., and Huftile, G.J., Wilshire fault: Earthquake in Hollywood: Geological Society of America Geology, Volume 22, No. 4, pp. 291-294, 1994.

Leighton Consulting, Inc., 2017, Draft Final Preliminary Environmental Assessment (PEA) Equivalent Burroughs Middle School Comprehensive Modernization Project, October 5, 2017.

National Institute of Occupational Safety and Health, NIOSH 7300 Arsenic Dust Scan.

National Oceanic and Atmospheric Administration, 2008, *Annual Average Precipitation (Inches) Southern California, Period 1961 – 1990*, http://www.wrh.noaa.gov/sgx/climate/pcpn-avg.php?wfo=sgx, NOAA, December 2008.

Office of Environmental Health and Safety (OEHS), Scope of Services, prepared by OEHS, dated November 22, 2016.

_____, Response to Request for Clarifications, prepared by OEHS, dated November 29, 2016.

South Coast Air Quality Management District, *Rule 403, Fugitive Dust.*

South Coast Air Quality Management District, *Rule 1150, Excavation of Land Fill Sites.*

South Coast Air Quality Management District, Rule *1166, Volatile Organic Compound Emissions from Decontamination of Soil.*

State of California Environmental Protection Agency - Department of Toxic Substances Control (DTSC), Interim Guidance, Evaluation of School Sites with Potential Soil Contamination as a Result of Lead from Lead-Based Paint, Organochlorine Pesticides from Termiticides, and Polychlorinated Biphenyls from Electrical Transformers, dated June 9, 2006, revised September 12, 2006.

_____, Determination of a Southern California Regional Background Arsenic Concentration in Soil, http://www.dtsc.ca.gov/ upload/Background-Arsenic.pdf, 2008.

_____, Interim Guidance for Sampling Agricultural Properties (Third Revision), dated April 30, 2008.

_____, Preliminary Endangerment Assessment Guidance Manual, January 1994, Revised October 2015.

_____, Human Health Risk Assessment (HHRA) Note Number: 3, DTSC-modified screening levels, https://www.dtsc.ca.gov/AssessingRisk/upload/HHRA-Note-3-2016-01.pdf, August 2017.

State Water Resources Control Board (SWRCB), Low-Threat Underground Storage Tank Case Closure Policy, State Water Board Resolution No. 2012-0016.

Surveying and Drafting Services, Inc. Title, Ground Topographic and Subsurface Utility Survey, John Burroughs M.S., 600 McCadden Place, Los Angeles, CA 90005, Drawing No. 1-7, May 18, 2016.

Tsutsumi, H., Yeats, R.S., and Huftile, G.J., Late Cenozoic Tectonics of the Northern Los Angeles Fault System, California: Geological Society of America Bulletin, Volume 113, No. 4, pp. 454-468, 2001.

United States Census Bureau, Profile of General Population and Housing Characteristics: 2010, Zip Code 90005, http://factfinder.census.gov/, 2010.

United States Environmental Protection Agency (EPA), Regional Screening Levels, Region 9: Pacific Southwest, Residential Soil Tables (TR-1E-06, THQ=1.0), http://www.epa.gov/region9/superfund/prg/, November 2017.

U.S. EPA, 1993, *Guidance on Conducting Non-Time Critical Removal Actions under CERCLA*. U.S. EPA, 1994, *Remediation Technologies Screening Matrix and Reference Guide*, 2nd ed., EPA/542-B-94-0-13, October 1994.

_____, 1997, *Best Management Practices (BMP) for Soils Treatment Technologies*, USEPA 530-R-97-007.

United States Geological Survey Topographic Map, Hollywood, California 7.5 Minute Quadrangle (1991).

Western Environmental Engineers Co., Groundwater Sampling Report First Quarter, 2006 at Highland Express Cleaners Former Tidewater Retail Service Station 5020-5044 Wilshire Boulevard, Los Angeles, California, dated April 11, 2006.

Western Regional Climate Center, 2008, *Prevailing Wind Direction, Riverside Municipal Airport*, http://www.wrcc.dri.edu/htmlfiles/westwinddir.html, WRCC, December 2008.

WorleyParsons, Phase I Environmental Site Assessment, John Burroughs Middle School, 600 South McCadden Place, Los Angeles, California 90005, May 18, 2016.

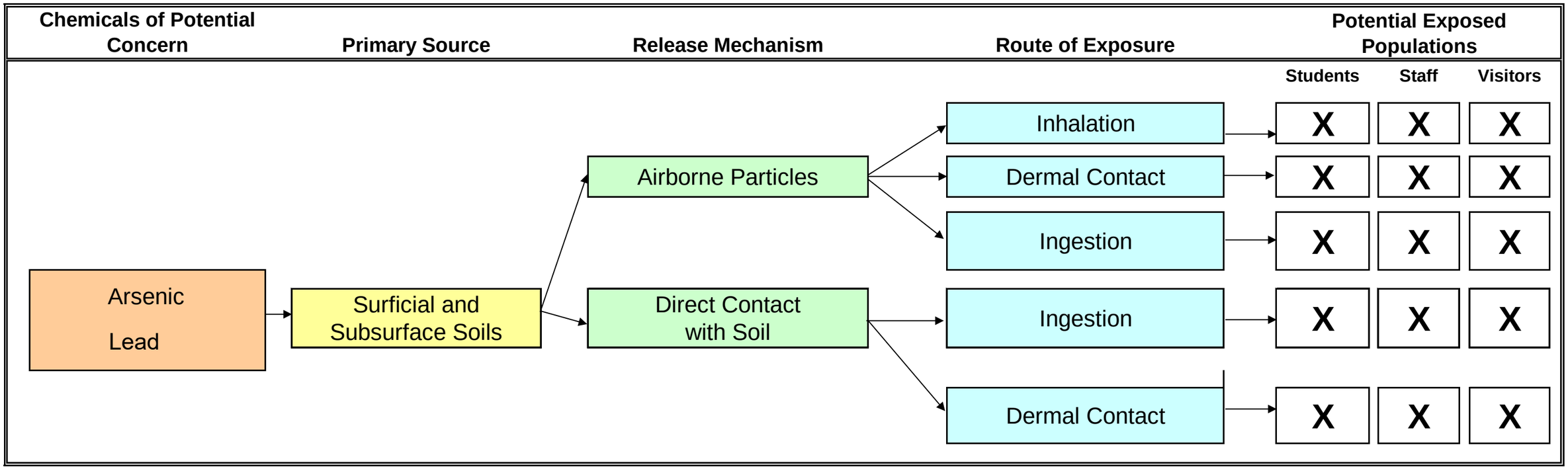
Wright, T.L., Structural Geology and Tectonic Evolution if the Los Angeles Basin, California, in Biddle, K.T. (editor), Active Margin Basins: American Association of Petroleum Geologists Memoir 52, pp. 35-134, 1991.

Yerkes, R.F.; McCollouch, T.H.; Schoellhamer, J.E.; Vedder, J.G, Geology of the Los Angeles Basin, California- An Introduction: U.S. Geological Survey Professional Paper 420-A pp. 57, 1965.

APPENDIX B

CONCEPTUAL SITE EXPOSURE MODEL

APPENDIX B
CONCEPTUAL SITE EXPOSURE MODEL
Burroughs Middle School



APPENDIX C

COMMUNITY PROFILE

COMMUNITY PROFILE

Community Demographics

A brief summary of the community demographics for the zip code 90005 in Los Angeles County according to the 2010 US Census (factfinder.census.gov) is as follows:

- Total population: 37,681
- Male: 13,635 (51.2%)
- Female: 14,292 (48.8%)
- Median Age: 33.9
- Population 18 years and over: 79.7%
- Total Housing units: 16,345
- Average Household Size: 2.5
- Population by race: White: 10,953 (29.1%)
  Black or African American: 2,007 (5.3%)
  American Indian and Alaska Native: 317 (0.8%)
  Asian: 12,740 (33.8%)
  Native Hawaiian and Pacific Islander: 40 (0.1%)
  Other: 9,940 (26.4%)
  Two or More Races: 1,684 (4.5%)

Local Participation and Involvement

At the time of this report, Leighton is not aware of any current or past media coverage with relation to the School property or the Site. A fact sheet, in the form of a flyer, was produced in English, Spanish, and Korean (double-sided flyer) to provide members of the community with details regarding the PEA-E investigation including who would perform the work, project schedule, when and where the results of the investigation would be posted, and who to contact regarding additional information. This work notice flyer was handed out to School staff, mailed to parents of students, hand-delivered to line-of-site neighbors of the School, and posted along the boundary fence of the School property.

No specific environmental concerns or issues have been brought to the District's attention regarding the onsite activities at this time. In terms of project visibility, the onsite work took place during School shut downs (i.e., winter break and summer break) to minimize any interference with school activities. Line-of-site neighbors, School staff, and parents were given copies of the work notice flyer. With the exception of offsite former gas station sites identified by WorleyParsons in the Phase 1 ESA (WorleyParsons, 2016), Leighton is unaware of environmental concerns or issues with relation to neighboring sites at this time.

It is Leighton's understanding that the Draft Final PEA-E will go through a 30-day public comment period.

APPENDIX D

HEALTH AND SAFETY PLAN

HEALTH AND SAFETY PLAN
REMOVAL ACTION

BURROUGHS MIDDLE SCHOOL COMPREHENSIVE MODERNIZATION PROJECT
600 SOUTH MCCADDEN PLACE
LOS ANGELES, CALIFORNIA 90005

Prepared For:

LOS ANGELES UNIFIED SCHOOL DISTRICT

Office of Environmental Health and Safety
333 South Beaudry Avenue, 21st Floor
Los Angeles, California 90017

Project No. 11640.004
January 15, 2018

HEALTH AND SAFETY PLAN

Project Number	11640.004
Project Location	Burroughs Middle School 600 South McCadden Place Los Angeles, California
Client	Los Angeles Unified School District
Owner	Los Angeles Unified School District
Project Manager	Kris Lutton
Site Safety Officer	Kevin Hall
Plan Preparer	Zach Freeman / Ines Cadavid-Parr
Date Finalized	January 15, 2018
Expiration Date	January 15, 2019

Site Specific Approvals:

Kris Lutton, P.G.
Director of Environmental Services and Senior Vice President

TABLE OF CONTENTS

Section **Page**

1.0 INTRODUCTION **1**

2.0 BACKGROUND **2**

2.1 SAMPLING STRATEGY AND APPROACH 2

3.0 SCOPE OF WORK **5**

4.0 ORGANIZATION AND MANAGEMENT **7**

4.1 KEY PERSONNEL 7

5.0 JOB HAZARD ANALYSIS **10**

5.1 SUMMARY OF JOB-SPECIFIC HAZARDS 10

6. 0 AIR MONITORING PLAN **20**

7.0 PERSONAL PROTECTIVE EQUIPMENT (PPE) **23**

7.1 RATIONALE FOR SELECTION OF PPE 23
7.2 EQUIPMENT 23
7.3 ACTION LEVELS 24

8. 0 SITE CONTROL – WORK ZONES AND SECURITY **25**

9.0 DECONTAMINATION PROCEDURES **26**

9.1 PERSONNEL DECONTAMINATION 26
9.2 HAND TOOLS AND PERSONAL EQUIPMENT 27
9.3 HEAVY EQUIPMENT 28

10.0 CONFINED SPACE ENTRY PROCEDURES **29**

11.0 CONTINGENCY PLAN **30**

12.0 SPILL CONTROL AND RESPONSES **32**

12.1 NOTIFICATION PROCEDURES 32
12.2 SUMMARY OF APPROPRIATE RESPONSE ACTIONS 32

13.0 GENERAL SAFE WORK PRACTICES **34**

14.0 EMERGENCY CONTACTS AND PROCEDURES **36**

14.1 SITE EMERGENCY PROCEDURES 37

15.0 TRAINING REQUIREMENTS **40**

16.0 MEDICAL SURVEILLANCE PROGRAM **43**

ACCOMPANYING TABLES, ILLUSTRATIONS AND APPENDICES

FIGURES

Hospital Route Map..... 10

APPENDICES

Appendix A - Chemical Information Sheets
Appendix B - Forms
Appendix C - Equipment Checklist

1.0 INTRODUCTION

This Health and Safety Plan **(HASP)** outlines the health and safety procedures to be used during the excavation and sampling of soils at the Burroughs Middle School Comprehensive Modernization Project (Site), to remove and dispose of soils impacted with lead and arsenic. This HASP has been prepared as an appendix to the Remedial Action Workplan **(RAW)**, prepared by Leighton Consulting, Inc. dated January 15, 2018. This HASP applies only to the work described in Section 3.0 and the anticipated hazards identified in Section 4.0 of the RAW. If additional work is to be completed, this plan will be modified by the Plan Reviewer to incorporate the changes, or a new HASP will be developed. The safety procedures within this HASP cannot be modified or altered by field personnel without clearance from the Plan Reviewer.

This plan was developed with the best knowledge available at the time. If additional information becomes available or Site conditions change, the HASP will be modified if necessary by the Plan Reviewer prior to the continuation of field work. In the event that a subcontractor's HASP differs from this plan, the most restrictive HASP will be used after approval of the Plan Reviewer.

2.0 BACKGROUND

2.1 Sampling Strategy and Approach

Phase I Environmental Site Assessment

The Phase I ESA found no evidence of the storage or release of hazardous materials during the on-site inspection at the School property with the exception of the storage of small quantities of janitorial supplies and a 55-gallon steel drum containing gasoline, stored in a flammable materials storage building located southeast of Building No. 9 (Shop Building). Staining on the concrete floor adjacent to this drum was observed during the reconnaissance inspection. During review of regulatory databases, the John Burroughs Middle School is identified as a large quantity hazardous waste generator; as a result of past school renovation activities, which included the abatement of asbestos and polychlorinated biphenyls (PCB)-containing equipment. According to Mr. Martin Nevarez, the Site Plant Manager, these wastes are not and have not been disposed at the Site. Based on the site reconnaissance and records reviewed as part of the Phase I ESA, WorleyParsons identified the following RECs associated with the Site:

- Potential presence of LBP residue in shallow soils around the drip lines of the existing and former buildings at the Site.
- Potential presence of OCP in shallow soils around the foundations of the existing and former buildings at the Site.
- Potential presence of arsenic in shallow soils under pavement at the Site.
- Potential presence of ACM in Site building materials.
- Potential presence of hydrocarbons in groundwater due to the historical presence of two gasoline service stations approximately 60 and 250 feet west of the Site.
- Potential presence of petroleum products in soil and groundwater due to the historical presence of an heating oil AST located adjacent to Building No. 1 (Main/Auditorium Building).

- Potential presence of burn ash in soils due to the historical presence of an incinerator located adjacent to Building No. 9 (Shop Building).

Based on the age of the existing Site buildings, it is possible that LBP has been applied to the exterior finishes of the buildings. As such, it is possible that LBP residue is present in soils around the perimeters of the existing and former buildings (WorleyParsons, 2016). DTSC guidance indicates that LBP residue from paint or surface coatings may be present in soil around school structures that are adjacent or near unpaved areas where runoff could occur and were constructed prior to January 1993 (DTSC, 2006).

It is possible that OCPs in the form of termiticides have been applied around the foundations of these Site buildings or in the areas (WorleyParsons, 2016). OCPs were commonly used as insecticides for termite control, around structures between 1948 and 1989 (DTSC, 2006).

There is the potential presence of arsenic underneath pavement that may have been applied as an herbicide (WorleyParsons, 2016).

Based on the age of the existing Site buildings, it is possible that ACM are present in building materials (WorleyParsons, 2016).

Two “oil and gas” service stations were located west of the Site (approximately 60 feet west of the Site and cross/upgradient with respect the reported groundwater flow direction), at the northwest intersection of South McCadden Place and Wilshire Boulevard and at the northeast corner of South Highland Avenue and Wilshire Boulevard, from at least 1938 to at least 1964. Based on their location relative to the Site, it is possible that groundwater beneath the Site has been impacted by releases of petroleum hydrocarbons at these facilities (WorleyParsons, 2016).

A heating oil AST was located on the Site adjacent to the east of Building No. 1 (Main/Auditorium Building). Based on this, it is possible that leaks or spills from this tank have impacted soil and groundwater at the Site (WorleyParsons, 2016).

An incinerator, presumably for solid waste, was located on the Site near the southwest corner of Building No. 9 (Shop Building). Based on this, it is possible that adjacent soils have been impacted by burn ash containing combustion by-

products such as polycyclic aromatic hydrocarbons (PAHs), furans, and heavy metals (WorleyParsons, 2016).

PEA Equivalent (PEA-E) Investigation

Leighton was contracted by the District to complete a PEA-E study to address soil concerns identified in the Phase I ESA, specifically to collect soil samples near former and existing buildings at the Site and analyze select samples for lead, OCPs, arsenic, PCBs, petroleum hydrocarbons, PAH's, and CA Title 22 metals (CAM-17). Where elevated levels of chemicals of potential concern (COPCs) are identified, a human health risk screening assessment is included to determine if the levels may pose a risk to future Site occupants. PCBs were used widely in caulking and elastic sealant materials, particularly from 1950 through the 1970s until PCBs were banned in 1979. DTSC guidance indicates that PCBs may exist in soil near exterior caulking present in buildings meeting the age criteria and adjacent to unpaved areas (DTSC, 2006). Although not identified as a COPC in soil by WorleyParsons, screening for PCBs was included in the PEA-E for select samples.

Based upon the findings presented in the PEA-E study, elevated levels of COPCs were identified at the Site in soil, including arsenic and lead in soil in select areas (Table 1). With the exception of arsenic and lead in select borings, the soil matrix analytical results (Tables 1 through 3) indicate that remaining COPCs at the Site were either below detection or below regulatory screening levels. On behalf of the District, Leighton recommended preparation of a Removal Action Workplan (RAW) to address areas of elevated arsenic and lead in soil at the Site per DTSC guidelines (DTSC, 2017 and 2008).

3.0 SCOPE OF WORK

The following is a list of the tasks associated with the field activities at the Site as part of the proposed Remedial Action Workplan.

1. Site preparation activities such as site inspections, surveying, boundary staking, sampling, demarcation of hot spots, improvement of access roads, utility connections or disconnections, utility notification and fencing installation.

2. Delineation of Excavation Areas - The areal limits of the excavations will be delineated by the RA environmental professional, in consultation with DTSC representatives, before commencement of removal activities.

3. Clearance of remaining utilities and other hazardous underground obstacles. Notification of the local Underground Services Alert **(USA).** In addition, a geophysical survey or hand-auguring down to 5 feet bgs may be conducted as appropriate to clear the excavation locations.

4. Excavation Activities - The initial excavation includes 14 identified areas as discussed in Section 3.2 of the RAW and shown on Figures 4 through 7 of the RAW. The initial excavation will produce approximately 160.0 cubic yards **(CY)** of material, or 248.0 tons using a conversion factor of 1.55 tons per in-situ CY. Approximately fourteen (14) truck loads are anticipated.

5. Soil Sampling - The environmental professional will collect and analyze samples collected from each designated sidewall and bottom sample location. The excavation confirmation samples collected from the Site will be analyzed for arsenic or lead as necessary. Waste profile samples, if necessary, will be analyzed for Title 22 metals, OCPs, PCBs, semi-volatile organic compounds **(SVOCs)**, volatile organic compounds **(VOCs)**, and total petroleum hydrocarbons **(TPH)**.

6. Air Monitoring - Dust levels will be monitored at the following general locations: (Final locations and number will be evaluated in the field.)
    - Upwind (off-site property if possible)
    - Proximate to the exclusion zone (with the equipment operator)
    - Up to three (3) Fence Line / Downwind locations; and
    - As deemed necessary to evaluate employee exposure.

7. Waste Segregation Operations - Prior to stockpiling/staging, the excavated soil will be segregated to the extent possible to avoid mixture of hazardous and non-hazardous soils. This segregation will minimize the amount of hazardous soils generated and its associated disposal cost. The soil segregation will be based upon criteria for hazardous and non-hazardous soils and the available sampling data.

8. Soil Staging and Storage Operations - If it is necessary to temporarily store the excavated soil on-site until off-site transportation and disposal are available; the staging process will be conducted in a manner to minimize the generation of dust. At the stockpile staging areas, excavated soil will be placed on an impermeable barrier base (e.g., asphalt, plastic sheeting) and covered with tarps or other proper materials to prevent run-on and/or dust generation. If significant rainfall is anticipated, the staging areas will be bermed to contain potential run-off. When possible, excavated soils may be placed in covered roll-off bins or drums, or may be loaded directly onto transportation trucks.

9. Backfill Operations - Based on Site conditions and school construction plans, the RA excavations are not expected to be backfilled with clean fill material from an off-site source, but rather, through grading operations of the proposed site development. Should import fill be needed, these soils will be appropriately tested before backfilling activities commence. The estimated volume of import clean fill material is 240 CY (loose).

4.0 ORGANIZATION AND MANAGEMENT

4.1 Key Personnel

Technical Consultant/Project Manager:	Kris Lutton, PG
Project Geologist/Site Safety Officer:	Kevin Hall
Site Safety Officer:	Kevin Hall
Industrial Hygienist:	Ines Cadavid-Parr

RA Contractor: To Be Determined
Subcontractor(s): To Be Determined

Site Safety Officer **(SSO)**

Specific duties of the SSO will include:

1. Conduct safety orientation for all Contractor personnel, subcontractor personnel, and sponsored visitors new to the project Site. All personnel will be notified of hazards associated with work being performed during the orientation. Documentation of the orientation shall be maintained on-site.
2. Conduct all safety-related training required for work being performed by company employees, subcontractor personnel, and visitors.
3. Monitor Company's own compliance with site-specific safety rules and HASP guidelines.
4. Verify compliance with Federal and Cal-OSHA regulations.
5. Conduct daily tailgate briefings and record all health and safety activities.
6. Compile documentation of training, medical surveillance, and fit-testing for all personnel on-site.
7. Post safety posters, OSHA statistics, and worker's compensation posters as required by law.
8. Prepare appropriate investigative report forms for any accident causing injury to Contractor employee and submit to corporate headquarters.
9. The SSO has the authority to suspend work at any time he/she determines that the provisions of the HASP are inadequate to ensure worker safety.

On-site Project Manager/Geologist

The Project Manager **(PM)**, Professional Geologist **(PG)**, and the SSO are responsible for verifying compliance with safety procedures established for the performance of the work. The PM may modify work practices to meet the safety requirements. The SSO has the primary responsibility in determining the modifications of any safety procedures.

The PM is responsible for the dissemination of the information contained in the HASP to the field personnel and to the responsible representative of each subcontractor working on the project.

The PM may also act as SSO and will be required to ensure the all applicable health and safety rules, Contractors procedures and health and safety related documentation are completed accurately and on time.

Only Leighton Consulting, Inc. (Leighton) environmental personnel trained in working with hazardous materials will work in contaminated areas of the Site. They must have completed the 40 hour hazardous waste operations and emergency response (HAZWOPER) training course as required by Leighton Consulting policy and Federal Occupational Safety and Health Administration **(OSHA)** (Title 29 CFR 1910.120) and California OSHA (Cal-OSHA) (Title 8 CCR 5192), and have possess a current 8-hour refresher certification. In addition, personnel shall be approved under a medical monitoring program.

All subcontractors who work in the Exclusion Zone **(EZ)** or the Contamination Reduction Zone (CRZ) must also have the appropriate training and medical monitoring as required by OSHA. Written documentation of the OSHA required training and medical surveillance must be presented to the SSO prior to the subcontractors' performance of field activities.

The SSO will hold a site-specific safety meeting prior to start of work. During the site-specific safety meeting, the SSO will discuss: potential chemical and safety hazards; potential routes of exposure for each chemical hazard; types, limitations, proper use of personal protective equipment **(PPE)**, emergency procedures, job hazard analysis, and proper decontamination procedures. The SSO is also responsible for enforcing this HASP.

Leighton personnel and its subcontractors who will work in the potentially contaminated areas of the Site will read and agree to follow this HASP before performing any fieldwork.

This will be documented by having personnel sign the Plan Acceptance Form in Appendix B.

This HASP, a first aid kit, eye wash station, telephone, and fire extinguisher must be on site during all field activities described in Section 3.0. The emergency contacts, the action levels, and the Hospital Map must be maintained on site. Additional equipment required for this job is listed in Appendix C.

5.0 JOB HAZARD ANALYSIS

5.1 Summary of Job-Specific Hazards

Hazards include trauma from physical hazards (including slips, trips, and falls), open trenches/excavations, exposure to chemicals through ingestion, inhalation, or contact with contaminated waste, and biological hazards. The main physical hazards are:

- Moving excavating equipment
- Being hit by equipment
- Falling objects
- Brush, equipment, or gas main fires
- Excavations/trenches
- Exposure to excessive noise
- Exposure to excessive outside temperatures (heat stress).

Physical hazards will be controlled by a combination of personal protective equipment (PPE) use and training of employees in safe and proper operation of equipment they will be using at the Site. Subcontractors are responsible for the training of their employees in the proper use of their equipment. Daily safety meetings will emphasize the hazards that may exist that day and the precautions that should be taken to avoid injuries.

Chemical hazards associated with the Site were based on the results of the PEA-E. Arsenic and lead are the main chemical concern with respect to worker safety and are the reason for the field activities. Hazards due to chemical exposures will be minimized through the use of engineering controls, air monitoring and PPE as outlined in this HASP.

During site activities, exposure to potentially contaminated dust and soil is possible. To mitigate any dust issue that may occur, soil on-site will be wetted with water for dust control. Level D PPE, work gloves, and safety glasses will be worn at all times to minimize contact with personnel. Decontamination procedures will also aid in exposure prevention. There will be no eating, drinking, or smoking in the Exclusion Zone or Contamination Reduction Zone. No contact lenses will be worn on the site and nitrile or latex gloves will be worn when contaminated soils are being handled.

A first-aid kit, a 15 minute ANSI-approved eye-wash station, and a fire extinguisher will be present as part of the Contractors field equipment. Biological hazards will be minimized utilizing PPE and safe work practices. A list of tasks, hazards and mitigation

measures is provided in Table 1. The exposure limits for arsenic, target organs and symptoms of exposure are provided in Table 2.

Table 1. Job Task Analysis and Mitigation Measures

Task	Description of Task	Chemical Hazards	Physical Hazard	Biological Hazards
Site Preparation	Site inspections, surveying, boundary staking, sampling, demarcation hot spots, improvement of access roads, utility connections or disconnections, utility notification, fencing installation	None anticipated for this phase of the work	Manual labor, cuts, bruises from use of hand tools, slips, trips and falls from uneven terrain, and heat stress.	Common biological hazards (i.e. spiders, snakes, poisonous plants, bees, etc.).
Mitigation Measures				
Chemical Hazards - No chemical hazards are anticipated. **Physical Hazards** - Personnel will inspect tools prior to their use. PPE required consists of hard hat, safety vests, safety glasses, gloves, and steel-toed boots. The effects of extreme outside temperatures will be controlled by a combination of workplace observations and work/rest cycles. (Section 16.0, Table 5). **Biological Hazards** - The following precautions shall be taken to avoid exposure to these hazards: *Poisonous plants* --Avoid areas where there are poisonous plants; Immediately wash affected areas that come in contact with plants; Use protective clothing/barrier creams as appropriate when working in areas known to have poisonous plants. *Bees, spiders, other insects* - Always where gloves; Be aware of surroundings (i.e. bee hives, snakes holes); Have appropriate first-aid kit on hand at all times.			

Task	Description of Task	Chemical Hazards	Physical Hazard	Biological Hazards
Utility Clearance and/or Hand Auguring	Clearance of utilities and other hazardous underground obstacles, geophysical survey or hand-auguring	Arsenic and Lead	Manual labor, cuts, bruises from use of hand tools, slips, trips and falls from uneven terrain, and heat stress.	Common biological hazards (i.e. spiders, snakes, poisonous plants, bees, etc.).

Mitigation Measures

Chemical Hazards - Personal protective equipment (gloves, safety glasses) will be used to prevent exposure to potentially contaminated soil. Air monitoring using a dust monitor (Miniram) will be conducted in and around the work area and in the workers breathing zone during activities. If concentrations exceed the action levels, then engineering controls (wetting down of the area), and or respiratory protection will be used to protect personnel from exposure.

Physical Hazards - Only personnel associated with the field activities will be allowed in the work area. Caution tape, cones, barricades, etc. will be provided to delineated the work area and prevent unauthorized personnel from entering work area. Prior to intrusive activities, utilities will be well marked, and/or shut down, and visually surveyed overhead. Personnel will inspect tools prior to their use. Personnel will wear high visibility vests at all times while on-site and shall be aware of the movement of heavy equipment and general traffic at the Site if applicable. PPE required consists of hardhat, safety glasses, safety vest, gloves, hearing protection devices, and steel toed boots. The effects of extreme outside temperatures will be controlled by a combination of workplace observations and work/rest cycles. (Section 16.0, Table 5).

Biological Hazards - The following precautions shall be taken to avoid exposure to these hazards:

Poisonous plants --Avoid areas where there are poisonous plants; Immediately wash affected areas that come in contact with plants; Use protective clothing/barrier creams as appropriate when working in areas known to have poisonous plants.

Bees, spiders, other insects - Always where gloves; Be aware of surroundings (i.e. bee hives, snakes holes); Have appropriate first-aid kit on hand at all times.

Task	Description of Task	Chemical Hazards	Physical Hazard	Biological Hazards
Trench and Excavation Activities	Initial excavation includes 14 identified areas that will produce approximately 160 cubic yards of material. Maximum anticipated depth is 3' bgs.	Dusts, Arsenic, and Lead	Heavy equipment manual labor, noise, injuries to eyes, cuts, bruises from use of hand tools, slips, trips and falls, noise, underground utilities; cave-in and heat stress.	Common biological hazards (i.e. spiders, snakes, poisonous plants, bees, etc.).

Mitigation Measures

Chemical Hazards - Personal protective equipment (gloves, safety glasses) will be used to prevent exposure to potentially contaminated soil. Air monitoring using a dust monitor will be conducted in and around the work area and in the workers breathing zone during activities. If concentrations exceed the action levels, then engineering controls (wetting down the area), and or respiratory protection will be used to protect personnel from exposure.

Physical Hazards - Prior to trenching, utilities will be well marked, shut down confirmed if applicable, and visually surveyed overhead. Only personnel associated with the trenching activities will be allowed in the vicinity of the work area. Caution tape, cones, barricades, etc. will be provided to delineated the work area and prevent unauthorized personnel from entering work area. Excavations are not anticipated to be deeper than 3' bgs. However, in the event excavations are greater than 5' and personnel are entering excavation, then the excavation shall be sloped 1.5 to1 or shored, a Cal-OSHA notification shall be submitted to Cal OSHA, and a competent person shall conduct inspections daily prior to personnel entry. Personnel will inspect tools prior to their use. Personnel will wear high visibility vests at all times while on-site and shall be aware of the movement of heavy equipment. PPE required consists of hardhat, safety glasses, safety vest, gloves, hearing protection devices, and steel toed boots. The effects of extreme outside temperatures will be controlled by a combination of workplace observations and work/rest cycles. (Section 16.0, Table 5).

Biological Hazards - The following precautions shall be taken to avoid exposure to these hazards:
Poisonous plants --Avoid areas where there are poisonous plants; Immediately wash affected areas that come in contact with plants; Use protective clothing/barrier creams as appropriate when working in areas known to have poisonous plants.
Bees, spiders, other insects - Always where gloves; Be aware of surroundings (i.e. bee hives, snakes holes); Have appropriate first-aid kit on hand at all times.

Task	Description of Task	Chemical Hazards	Physical Hazard	Biological Hazards
Soil Sampling	Soil samples will be collected from stockpiles, from sidewalls and/or bottom of the trenches.	Dusts, Arsenic, and Lead	Heavy equipment manual labor, noise, injuries to eyes, cuts, bruises from use of hand tools, slips, trips and falls, noise, underground utilities; cave-in and heat stress.	Common biological hazards (i.e. spiders, snakes, poisonous plants, bees, etc.).

Mitigation Measures

Chemical Hazards - Personal protective equipment (gloves, safety glasses) will be used to prevent exposure to potentially contaminated soil. Air monitoring using a dust monitor will be conducted in and around the work area and in the workers breathing zone during activities. If concentrations exceed the action levels, then engineering controls (wetting down the area), and or respiratory protection will be used to protect personnel from exposure. Note: A water truck will be on-site to assist with dust control.

Physical Hazards - Prior to sampling, utilities will be well marked, and shut down confirmed if applicable. Only personnel associated with the sampling will be allowed in the vicinity of the work area. Caution tape, cones, barricades, etc. will be provided to delineated the work area and prevent unauthorized personnel from entering work area. Personnel will inspect tools prior to their use. Personnel will wear high visibility vests at all times while on-site and shall be aware of the movement of heavy equipment. PPE required consists of hardhat, safety glasses, safety vest, gloves, hearing protection devices, and steel toed boots. The effects of extreme outside temperatures will be controlled by a combination of workplace observations and work/rest cycles. (Section 16.0, Table 5).

Biological Hazards - The following precautions shall be taken to avoid exposure to these hazards:
Poisonous plants --Avoid areas where there are poisonous plants; Immediately wash affected areas that come in contact with plants; Use protective clothing/barrier creams as appropriate when working in areas known to have poisonous plants.
Bees, spiders, other insects - Always where gloves; Be aware of surroundings (i.e. bee hives, snakes holes); Have appropriate first-aid kit on hand at all times.

Task	Description of Task	Chemical Hazards	Physical Hazard	Biological Hazards
Air Monitoring	Dust levels will be monitored at the following general locations: Upwind (off-site property if possible); Proximate to the exclusion zone (with the equipment operator); Up to three Fence Line and Downwind locations; as deemed necessary to evaluate employee exposure.	Dusts, Arsenic, and Lead	Use of heavy equipment (excavator, backhoe, etc.), manual labor, noise, injuries to eyes, cuts, bruises from use of hand tools, slips, trips and falls from uneven terrain and open trenches, noise, underground utilities, and heat stress.	Common biological hazards (i.e. spiders, snakes, poisonous plants, bees, etc.).

Mitigation Measures

Chemical Hazards - Personal protective equipment (gloves, safety glasses) will be used to prevent exposure to potentially contaminated soil. Air monitoring using a dust monitor will be conducted in and around the work area and in the workers breathing zone during activities. If concentrations exceed the action levels, then engineering controls (wetting down the area), and or respiratory protection will be used to protect personnel from exposure.

Physical Hazards - Prior to sampling, utilities will be well marked, and shut down confirmed if applicable. Only personnel associated with the sampling will be allowed in the vicinity of the work area. Caution tape, cones, barricades, etc. will be provided to delineated the work area and prevent unauthorized personnel from entering work area. Personnel will inspect tools prior to their use. Personnel will wear high visibility vests at all times while on-site and shall be aware of the movement of heavy equipment. PPE required consists of hardhat, safety glasses, safety vest, gloves, hearing protection devices, and steel toed boots. The effects of extreme outside temperatures will be controlled by a combination of workplace observations and work/rest cycles. (Section 16.0, Table 5). Note: A water truck will be on-site to assist with dust control.

Biological Hazards - The following precautions shall be taken to avoid exposure to these hazards:
Poisonous plants --Avoid areas where there are poisonous plants; Immediately wash affected areas that come in contact with plants; Use protective clothing/barrier creams as appropriate when working in areas known to have poisonous plants.
Bees, spiders, other insects - Always where gloves; Be aware of surroundings (i.e. bee hives, snakes holes); Have appropriate first-aid kit on hand at all times.

Task	Description of Task	Chemical Hazards	Physical Hazard	Biological Hazards
Waste Segregation Operations and Storage of Stockpiles	Excavated soil will be segregated for hazardous and non-hazardous soils.	Dusts, Arsenic, and Lead	Use of heavy equipment (excavator, backhoe, etc.), noise; heat stress.	Common biological hazards (i.e. spiders, snakes, poisonous plants, bees, etc.).

Mitigation Measures

Chemical Hazards - Personal protective equipment (gloves, safety glasses) will be used to prevent exposure to potentially contaminated soil. Air monitoring using a dust monitor will be conducted in and around the work area and in the workers breathing zone during activities. If concentrations exceed the action levels, then engineering controls (wetting down the area), and or respiratory protection will be used to protect personnel from exposure. Note: A water truck will be on-site to assist with dust control.

Physical Hazards – Traffic routes shall be established prior to the commencement of field activities. All personnel will be required to wear appropriate PPE including high visibility vests and hearing protection; and shall be aware of the movement of traffic at all times.

Biological Hazards - The following precautions shall be taken to avoid exposure to these hazards:
Poisonous plants --Avoid areas where there are poisonous plants; Immediately wash affected areas that come in contact with plants; Use protective clothing/barrier creams as appropriate when working in areas known to have poisonous plants.
Bees, spiders, other insects - Always where gloves; Be aware of surroundings (i.e. bee hives, snakes holes); Have appropriate first-aid kit on hand at all times.

Task	Description of Task	Chemical Hazards	Physical Hazard	Biological Hazards
Backfill Operations	The excavations are expected to be backfilled through grading operations of the proposed site development.	Dusts	Use of heavy equipment (excavator, backhoe, etc.), noise; heat stress.	Common biological hazards (i.e. spiders, snakes, poisonous plants, bees, etc.).

Mitigation Measures

Chemical Hazards - Personal protective equipment (gloves, safety glasses) will be used to prevent exposure to potentially contaminated soil. Air monitoring using a dust monitor will be conducted in and around the work area and in the workers breathing zone during activities. If concentrations exceed the action levels, then engineering controls (wetting down the area), and or respiratory protection will be used to protect personnel from exposure. Note: A water truck will be on-site to assist with dust control.

Physical Hazards – Traffic routes shall be established prior to the commencement of field activities. All personnel will be required to wear appropriate PPE including high visibility vests and hearing protection; and shall be aware of the movement of traffic at all times.

Biological Hazards - The following precautions shall be taken to avoid exposure to these hazards:
Poisonous plants --Avoid areas where there are poisonous plants; Immediately wash affected areas that come in contact with plants; Use protective clothing/barrier creams as appropriate when working in areas known to have poisonous plants.
Bees, spiders, other insects - Always where gloves; Be aware of surroundings (i.e. bee hives, snakes holes); Have appropriate first-aid kit on hand at all times.

Note: Personnel shall adhere to LCI Standard Operating Procedures for: Excavations, Air and Soil Monitoring and Sampling

A summary of the chemicals of concern and their health effects is provided in Table 2 below.

Table 2 - Suspected Chemicals of Concern [1]

Compound	Health Effects	Exposure Limits
Arsenic	Exposure Routes - inhalation, skin absorption, skin and/or eye contact, ingestion Symptoms - Ulceration of nasal septum, dermatitis, gastrointestinal disturbances, peripheral neuropathy, respiratory irritation, hyperpigmentation of skin, (potential occupational carcinogen) Target Organs - Liver, kidneys, skin, lungs, lymphatic system Cancer Site – (lung & lymphatic cancer) **Note: Arsenic standard applies 8 CCR 5214**	CA-PEL[2] = 0.01 mg/m^3 Skin Notation - indicates that the cutaneous route of exposure (including mucous membranes and eyes) contributes to overall exposure [29 CFR 1910.1000, Table Z]. Site Action Level = 0.001 mg/m^3 TLV[3] = 0.01 mg/m^3 REL[4] = 0.002 mg/m^3

[1] Chemicals listed are based upon historical activities at the Site.
[2] CA-PEL – California OSHA Permissible Exposure Limit, 8 CCR 5155, Table AC-1
[3] TLV – Threshold Limit Value, American Conference of Governmental Industrial Hygienist (ACGIH)
[4] REL – Recommended Exposure Limit - National Institute for Occupational Safety and Health (NIOSH)

Compound	Health Effects	Exposure Limits
Lead	Exposure Routes - inhalation, skin absorption, skin and/or eye contact, ingestion Symptoms – Lassitude, insomnia, facial pallor, anorexia, weight loss, malnutrition, constipation, abdominal pain, anemia, gingival lead line, tremor, paralysis of the wrist and ankles, encephalopathy, kidney disease, irritation of the eyes, hypertension Target Organs – Eyes, GI tract, CNS, kidneys, blood, gingival tissue	CA-PEL[2] = 0.05 mg/m^3 Site Action Level = 0.005 mg/m^3 TLV[3] = 0.05 mg/m^3 REL[4] = 0.05 mg/m^3

[1] Chemicals listed are based upon historical activities at the Site.
[2] CA-PEL – California OSHA Permissible Exposure Limit, 8 CCR 5155, Table AC-1
[3] TLV – Threshold Limit Value, American Conference of Governmental Industrial Hygienist (ACGIH)
[4] REL – Recommended Exposure Limit - National Institute for Occupational Safety and Health (NIOSH)

Exposure Limit Terms

Permissible Exposure Limits **(PELs)**, Threshold Limit Values **(TLVs)**, and Recommended Exposure Limits **(RELs)** represent the permissible limit of time-weighted averages of chemical concentrations that may be present in a workplace over a period of time. Under these limits and standards, workers can come in contact with a chemical for a period of eight hours a day and a 40 hour work week without expecting to suffer adverse health effects.

Short Term Exposure Limits **(STELs)** represent levels of chemical concentrations that workers can be exposed to for a limited amount of time without adverse effects such as irritation, tissue damage, or narcosis that may result in impairment of self-rescue or result in accidental injury. The STEL is a short term time-weighted average that should not be surpassed during the duration of a day's work.

Time Weighted Averages **(TWAs)** are the average value of the chemical concentrations that should not be exceeded over the duration of a work shift, typically 8 hours.

Arsenic

Arsenic is a bio-accumulative substance and can cause dermatitis, gastrointestinal distress, lung, liver, and kidney damage. Chronic exposure to arsenic has been found to cause lung and lymphatic cancers. .

Airborne dust levels will be controlled by wetting soils to limit worker exposure to less than the 8-hour time weighted average (TWA) Permissible Exposure Limit (PEL) of 10 mg/m^3 for particulates not otherwise regulated (nuisance particulates). Fugitive dust monitoring will be performed during excavation and loading activities. The maximum expected

arsenic concentration for a dust level equal to the nuisance particulate PEL is 8.95E-05 mg/m^3 compared to the CA-PEL of 0.01 mg/m^3 for arsenic. Therefore, no arsenic monitoring will be employed at this site. Additionally, work gloves and/or a new pair of nitrile or latex gloves will be utilized to eliminate and/or minimize potential COC contact with unprotected skin when contaminated soils are being encountered.

Lead

Lead is a bio-accumulative substance and can cause gastrointestinal distress, central nervous system damage, encephalopathy, hypertension, and kidney damage. Chronic exposure to lead has been found to cause brain damage.

Airborne dust levels will be controlled by wetting soils to limit worker exposure to less than the 8-hour time weighted average (TWA) Permissible Exposure Limit (PEL) of 10 mg/m^3 for particulates not otherwise regulated (nuisance particulates). Fugitive dust monitoring will be performed during excavation and loading activities. The maximum expected lead concentration for a dust level equal to the nuisance particulate PEL is 3.4E-05 mg/m^3. The maximum expected lead concentration for a dust level equal to the nuisance particulate PEL is compared to the CA-PEL of 0.01 mg/m^3 for arsenic. Therefore, no lead monitoring will be employed at this site. Additionally, work gloves and/or a new pair of nitrile or latex gloves will be utilized to eliminate and/or minimize potential COC contact with unprotected skin when contaminated soils are being encountered.

6.0 AIR MONITORING PLAN

Implementation of the air monitoring program at the Site will be determined by conditions encountered during excavation and sampling activities. The action levels selected for use in this HASP are based on compounds and elements that are expected to be detected at the Site.

As required by South Coast AQMD (Rule 1466), airborne dust levels will be monitored using real-time, data-logging aerosol monitors (e.g., Personal DataRam or PDM-3 Miniram particulate monitor manufactured by MIE), at locations determined in the field. These instruments will be calibrated daily, set to log dust levels over 5 minute periods and visually read every 15 minutes. In consultation with DTSC, the frequency may be changed based on Site conditions and newly available data. At a minimum, one dust monitoring station will be placed upwind to monitor background levels and two downwind stations will be place at the Site boundary. A personal dust monitor will be in the exclusion zone to monitor worker safety at the Site.

Dust control measures in the exclusion zone will be based on the Action Levels specific in the chart below.

Exposure Guidelines for Site Chemical Hazards					
Chemical Name	Odor Threshold	CAL/OSHA PEL [a]	ACGIH TLV [b]	Site Action Levels [c]	Community Action Level (Arsenic Action Level) [d]
Total Dust	Not Listed	10 mg/m^3	10 mg/m^3	1.0 mg/m^3	0.05 mg/m^3
Arsenic	Not Listed	0.01 mg/m^3	0.2 mg/m^3	0.001 mg/m^3	0.001 mg/m^3
Lead	Not Listed0	0.05 mg/m^3	0.4 mg/m^3	0.005 mg/m^3	0.001 mg/m^3

Notes:

a. Permissible Exposure Limits (Cal/OSHA Article 107, Table AC1)

b. 2008 Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices, American Conference of Governmental Industrial Hygienists

c. Site Action Level is calculated as 10% of threshold limit value or PEL (as measured by NIOSH methods), whichever is lower. If an action level is met or exceeded, then additional dust mitigation measures will be implemented. If the Site air contaminants cannot be controlled reliably within 15 minutes, all work will cease and a certified Industrial Hygienist will be consulted. If Site action level for calculated arsenic is exceeded on the integrated air monitors, a certified Industrial Hygienist will be immediately consulted.

d. Community action level for total dust/particulate is based on South Coast Air Quality Management District regulations. Arsenic action level is based on Cal/OSHA arsenic action level.

Airborne dust levels will be controlled by wetting soils to limit worker exposure to less than the 8-hour TWA PEL of 10 mg/m^3. Fugitive dust monitoring will be performed during excavation and loading activities. The maximum expected arsenic concentration for a dust level equal to the nuisance particulate PEL is 8.59E-05 mg/m^3 compared to the PEL of 0.5 mg/m^3 for arsenic. Therefore, no arsenic monitoring will be employed at this Site.

Airborne dust levels will be controlled by wetting soils to limit potential community exposure to less than the Community Action Level of 0.001 mg/m^3. Fugitive dust monitoring will be performed during excavation and loading activities. The maximum dust concentration from the dust monitoring station placed upwind of the excavation and near the excavation will be compared to the community action level of 0.001 mg/m^3 for arsenic.

The purpose of air monitoring is to identify and measure airborne contaminants in order to verify and determine the level of worker protection needed. Initial screening for identification is often qualitative (e.g., the contaminant, or the class to which it belongs, is demonstrated to be present), but determination of its concentration (quantification) must await subsequent testing. Two principle approaches are available for identifying and/or quantifying airborne contaminants:

- The on-site use of direct-reading instruments.
- Laboratory samples obtained by collection media (e.g., filter, absorbent, containers, etc.).

Direct-Reading Monitoring Instruments

Unlike air sampling devices, which are used to collect samples for subsequent analysis in a laboratory, direct-reading instruments provide information at the time of sampling, enabling rapid-decision making. Data obtained from the real-time monitors are used to assure proper selection of personnel protection equipment, engineering controls, and work practices. Overall, the instruments allow the user to determine if Site personnel are being exposed to concentrations that exceed exposure limits or action levels for specific hazardous materials.

INSTRUMENT: AEROSOL MONITOR

HAZARDS MONITORED: Airborne particulates

APPLICATION: Detects total concentration of airborne particulates at various particle sizes
DETECTION METHOD: Light Scattering
GENERAL CARE: Recharge or replace battery. Regularly clean lamp window
MAINTENANCE: Regularly clean and maintain the instrument and accessories.
TYPICAL OPERATING
TIME: Up to 24 hours

Site Air Monitoring and Sampling Program
See Table 4- Action Levels Below.

TABLE 4 - ACTION LEVELS

Work Zone	Device	Action* Level	Action
Breathing Zone	Aerosol Monitor	**1-10** mg/m^3	Monitor and record results initially and at least every 30 minutes.
		10-100 mg/m^3	All personnel will immediately leave the work area and contact the Project Manager. Apply engineering controls (e.g., wetting of soils) to reduce dust levels. With approval, personnel may re-enter the work zone using Level C protection. Monitor and record results at least every 15 minutes.
		>100 mg/m^3	Suppress dust levels by wetting with water. Erect wind breaks and cover exposed soils with plastic or tarps. All Level D personnel will immediately leave the work area. All Level C personnel will immediately leave the work area after covering the contaminated stockpiles. Contact the Project Manager.

All applicable monitoring or analytical instruments shall be calibrated daily. Calibration data, site reading, date, time, weather conditions, wind direction, and monitoring locations shall be recorded in Appendix B.

7.0 PERSONAL PROTECTIVE EQUIPMENT (PPE)

7.1 Rationale for Selection of PPE

All Site workers shall wear, at a minimum, sturdy leather boots or shoes, safety glasses, hardhat, high visibility vest, and hearing protection. Leather or cloth work gloves will be worn when a potential exists for puncture wounds associated with the use of wood, cable, wire, etc., or temperatures warrant. A minimum of latex and nitrile gloves will be worn when hazardous materials are being handled. Levels D PPE is anticipated for this project when conducting site preparation work, excavation activities, air and soil monitoring and sampling.

7.2 Equipment

The anticipated level of protection for the activities is Level D and possibly Level C. However, descriptions of the US EPA levels of protection are listed below as reference.

Level of Protection:	**A ☐ B ☐ C ☒ D ☐**		
Respiratory Protection:	Air Purifying ☒		
	If Air-Purifying:	Canister ☐	Cartridge ☒
	Half Face ☒	Full Face ☒	
Canister/Cartridge Type:	HEPA Filter		

Personnel will abide by a change out schedule should it be necessary to use Level C protection. Cartridges may be used for up to 8 hours or if breathing becomes difficult. Protective Clothing:

Suit Type:	Tyvek	**Boot Type:**	Sturdy Leather
Glove Type(s):	Nitrile	**Head Protection Type**:	Hard Hat
Eye Protection Type:	Glasses/Goggles	**Other Protection Clothing:**	N/A
Hearing Protection:	Muff Type or Foam Inserts		

Level of Protection:	**A ☐ B ☐ C ☐ D ☒**		
Respiratory Protection:	None ☒		
If Air-Purifying:	Canister ☐	Cartridge ☐	None ☒
	Half Face ☐	Full Face ☐	
Canister/Cartridge Type:	N/A		

Suit Type:	Tyvek	**Boot Type:**	Sturdy Leather
Glove Type(s):	Nitrile	**Head Protection Type**:	Hard Hat
Eye Protection Type:	Glasses/Goggles	**Other Protection Clothing:**	N/A
Hearing Protection:	Muff Type or Foam Inserts		

+ Persons handling samples will be required to wear nitrile inner gloves.

7.3 Action Levels

Action levels for upgrade and downgrade of respiratory protection and PPE will be adjusted if new data indicates such action.

8. 0 SITE CONTROL – Work Zones and Security

Appropriate barriers and/or privacy fencing will be installed prior to beginning the excavation process to provide that work areas are secure and safe. To prevent trespassers or unauthorized personnel are not allowed near work areas, security measures may include, but are not limited to:

- Posting notices directing visitors to the Site manager.
- Maintaining a visitor's log. Visitors shall have prior approval from the Site manager to enter the Site. Visitors shall not be permitted to enter the Site without first receiving site-specific health and safety information from the Site safety coordinator.
- Installing barrier fencing to restrict access to sensitive areas such as exclusion zones.
- Providing adequate Site security to provide that unauthorized personnel have no access to work areas and/or impacted materials.
- Before leaving the Site, personnel must sign out in the visitor's log.
- Maintaining a safe and secure work area, including areas where equipment is stored or placed, at the close of each workday.

Persons requesting Site access will be required to demonstrate a valid purpose for access and if access to work areas and/or impacted materials is planned, provide appropriate documentation to demonstrate they have received proper training required by the site-specific HASP.

- Visitors who do not have business related to the project will be excluded from the Site.
- Traffic routes will be clearly established. All Site workers and visitors will be briefed as to routes.
- Workers in work zones and all visitors will be required to wear high visibility vests.
- All Contractor-sponsored visitors are the responsibility of Contractor.

The work zone for this Site shall consist of the individual sampling locations and a setback providing sufficient room to provide safe working distances for all equipment and personnel. No equipment other than that needed for field activities shall be placed in this area. Persons outside this area should place their equipment and themselves upwind of any open sampling activities. In the event that hazardous or potentially hazardous waste is encountered, exclusion, decontamination and support zones will be established. Personnel and equipment entering the established zone will be required to follow all health and safety requirements provided in this HASP.

9.0 DECONTAMINATION PROCEDURES

9.1 Personnel Decontamination

If hazardous materials are encountered to prevent or reduce the physical transfer of contaminants by people, the following procedures will be instituted for decontaminating all personnel leaving the Exclusion Zone and Contamination Reduction Zone **(CRZ)**. These procedures include the decontamination of personnel and equipment. In general, personnel decontamination at the Site will consist of washing with a detergent/water solution and then rinsing with copious amounts of water. Used solution, brushes, sponges, and containers will be properly disposed of. Based on the level of protection (B, C, D), the decontamination step-off will be modified. Reusable personal equipment shall be decontaminated and stored for air drying. All personnel shall adhere to the following decontamination procedures:

Decontamination – Level C

1. Segregated equipment drop;
2. Outer boot and outer glove wash (Tyvek disposable outer boot covers, if used, shall be removed here prior to boot wash);
3. Outer boot and outer glove rinse;
4. Tape removal;
5. Outer boot removal;
6. Outer glove removal
7. Disposable suit removal;
8. Respirator removal;
9. Inner glove removal/disposal

CRZ/SAFE ZONE BOUNDARY

10. Field Wash

If Level D decontamination is required, adhere to steps 1 through 6.

Decontamination – Level B

1. Segregated equipment drop/decontaminate if necessary;
2. Outer boot cover and outer glove wash;
3. Outer boot cover and outer glove rinse;

4. Tape removal;
5. Outer boot cover removal;
6. Outer glove removal;
7. Remove SCBA backpack; remain on supplied air;
8. Disposable suit removal;
9. Disconnect from supplied air;
10. Face-piece removal;
11. Inner glove removal/disposal;

CRZ/SAFETY ZONE BOUNDARY

12. Field Wash.

During short rest breaks, workers may remain in the CRZ area and drink water after they have removed their outer gloves. All respiratory PPE will be stored in a sealable plastic bag to protect against dust, sunlight, extreme temperatures, excessive moisture, or damaging chemicals.

During lunch breaks and at the end of the work shift, personnel will be required to doff their disposable PPE and wash their hands and face prior to eating, drinking, or smoking.

9.2 Hand Tools and Personal Equipment

All hand and personal equipment contaminated by activities at the Site will be decontaminated using a solution of trisodium phosphate **(TSP)** and water, then rinsed in tap water. All contaminated Site equipment will be decontaminated both before and after Site activities. All uncontaminated Site equipment should be wiped with a wet towel at the close of Site activities to remove dust.

Equipment which will be used in the decontamination procedure

- TSP;
- Distilled water;
- Scrub Brushes;
- Towels; and
- Plastic Buckets.

9.3 Heavy Equipment

The movement of all heavy equipment will be restricted in a manner which reduces the surfaces of the equipment which come into contact with contaminated water or waste. All portions of equipment which have been placed in direct contact with contaminated waste or water will be cleaned prior to leaving the work area. All uncontaminated portions of the equipment will be wiped with a wet rag, or brushed clean.

10.0 CONFINED SPACE ENTRY PROCEDURES

Confined spaces at the Site are not anticipated for this project. However, in the event conditions change, then personnel are required to monitor and follow confined space entry procedures prior to entry. When confined space entry becomes necessary, Leighton personnel and subcontractors will do so in accordance with OSHA regulation 29 CFR 1910.146/8 CCR 5156-5158. An authorized Confined Space Entry Supervisor **(CSES)** prior to entry will perform a thorough inspection and evaluation of each confined space.

Entry into confined spaces will be restricted to personnel trained in accordance with provisions outlined in CFR 1910.146/8CCR 5156, wearing appropriate PPE.

Prior to entry into any confined space, a Confined Space Entry Permit will be obtained. The SSO will ensure the following:

- Atmosphere(s) surrounding and within the confined space are not potentially hazardous, explosive and/or oxygen deficient.
- Appropriate safety equipment is available and in use as designed.
- All assigned tasks are defined and approved by Client.
- Permits required for specific tasks have been obtained prior to initiating work.
- Appropriate monitoring equipment has been selected.
- Monitoring is performed correctly and with appropriate frequency.
- All foreseeable hazards have been mitigated.
- Adequate means of egress has been provided at sufficient intervals, and is properly secured.
- Emergency procedures have been established and rehearsed.
- Properly trained emergency personnel have been notified of intent to enter.
- Emergency equipment is readily available and in good condition.
- A designated, properly trained attendant is present.

11.0 CONTINGENCY PLAN

The potential of encountering liquid wastes at the facility is considered to be very low. Liquid waste may be generated by routine equipment maintenance and repairs, and on occasion by failures of equipment hoses or parts.

The potential of exposure to liquid waste by Site personnel will be minimized by worker awareness, preparation, and adherence to the following spill contingency plan.

Spills and exposure to liquid waste will be minimized by worker awareness to conditions which exist prior to, or in the event of, a spill. Three stages of response will facilitate reduction of waste generated.

- Identification – Identification of potential sources of liquid hazards will be made by regular inspections of containers, and of equipment to determine if mechanical parts or hoses are worn or defective. Spills or releases of liquid wastes will be immediately reported to the nearest grading foreman or Site manager.

- Prevention/Response – A rapid response to the spill will be initiated by all personnel involved. The following responses will be followed to minimize spills.

  - Release of liquids from Site equipment will be minimized by immediately stopping and shutting down the affected equipment, and safely relieving all system pressure if possible.

  - Visqueen will be stored on-site and will be placed beneath the equipment to contain leaking fluids, when conditions permit. Absorbent material will be stored on-site and will be used in conjunction with plastic.

  - Spill protection (Visqueen, absorbent material, and/or appropriate containers) will be strategically placed beneath equipment being repaired or maintained which requires draining of fluids.

  - Transfer of fluids from containers to equipment reservoirs will be performed in a controlled manner.

- Storage – Liquid wastes will be stored in Department of Transportation **(DOT)** approved, sealable containers, and properly labeled. A specific area will be designated for liquid waste storage.

  – The designated storage area will be lined with a minimum of 6-mil Visqueen to preclude contact of liquids.

  – The storage area will be demarcated to preclude entry by unauthorized personnel.

  – Absorbent material will be stored on-site and will be readily available in the event of spills or leaks within the storage area.

Handling of Contaminated Material

Advise Owner of spill and notification requirements. Do not transport or approve transportation of hazardous materials/waste. Do not sign manifests as generator of waste. Notify Client compliance manager or Owner representative for waste disposal procedures.

12.0 SPILL CONTROL AND RESPONSES

A reportable spill (discharge), as described in 40 CFR 110.3, is a quantity that is found to be harmful to the public health and/or welfare of the United States.

12.1 Notification Procedures

Minor spills and leaks involving oil or hazardous substances must be reported to the Leighton PM. The person reporting the leak, spill, etc. is required to provide the following information:

- His/her name
- Location of spill and facility number if known
- Number of injured personnel and nature of injuries (if known)
- Substance spilled
- Amount spilled (estimate)
- Extent of spill
- Rate that substance is currently being released (estimated)
- Time spill occurred (estimated)
- Any other pertinent information

Once the spill, leak, or fire is reported to the Local Fire Department, the PM or his/her designated representative is responsible for initially investigating the reported spill.

Notifications to regulatory agencies will be conducted under the direction of the PM or his/her designated representative.

12.2 Summary of Appropriate Response Actions

A minor spill would involve no immediate threat to human health or the environment, minimal property damage, and no exceedance of the reportable quantity for that material. In the event of a minor spill, the appropriate response action is to call the Local Fire Department and supply the responders with as much information as possible. Stop leakage or contain the spilled material with absorbent material in an attempt containment to prevent the further leakage/migration of waste material only if adequate PPE and resources are available.

A major spill would involve immediate threat to human health or the environment, substantial property damage, or exceedance of the reportable quantity for that material. In the event of a major spill, the appropriate response action is to call the Local Fire Department by dialing 911 and supply the responders with as much information as possible. **Do not attempt to respond to major spills.**

13.0 GENERAL SAFE WORK PRACTICES

Each contractor shall provide all the equipment necessary to meet safe operating practices and procedures for their personnel on-site (this includes respirators, cartridges, sturdy leather boots, eye protection, Tyvek suits, hearing protectors, and neoprene and nitrile gloves) and be responsible for the safety of their workers. All general safety guidelines and procedures will conform to:

- Title 8 CCR 5192 – HAZWOPER Standard;
- Title 8 Hazard Communication Standard;
- Title 8 Construction Safety Orders,
- Contractor Standard Operating Procedures (Refer to list below). Contractor will update versions of these safety guidelines and procedures if changes in the Operations Plan occur.

Leighton will utilize a “three warning” system to enforce compliance with health and safety procedures as follows:

- First infraction – violator receives a verbal warning;
- Second infraction of same rule – violator receives a written warning; and
- Third infraction of same rule – violators will be requested to leave the Site.

The “three warning” system applies to the following safe work practices which will be implemented at the Site for worker safety:

- Eating, drinking, chewing gum or tobacco, and smoking will be allowed only in designated areas;
- Wash facilities will be utilized by workers in the work areas before eating, drinking, or use of the toilet facilities;
- Containers will be labeled identifying them as waste, debris, or contaminated clothing;
- Personnel at the Site will use the “buddy system” when wearing any respiratory protective equipment. No one will be allowed to engage in sampling operations alone;

- No facial hair which interferes with a satisfactory fit of the mask-to face seal will be allowed (no beards, large mustaches, or long sideburns);
- All respiratory protection selection, use, and maintenance will meet the requirements of established procedures, recognized consensus standards (AIHA, ANSI, MSHA, and NIOSH), and will comply in all respects to the requirements set forth in 8 CCR 5144;
- All Site personnel will be required to wear hats, protective glasses and adequate hand protection when in the work zone; and
- Any other action which is determined to be unsafe by the Site Safety Officer.
- Lighting will be at a minimum of 5 foot-candles. If needed, additional lighting will be provided.

14.0 EMERGENCY CONTACTS AND PROCEDURES

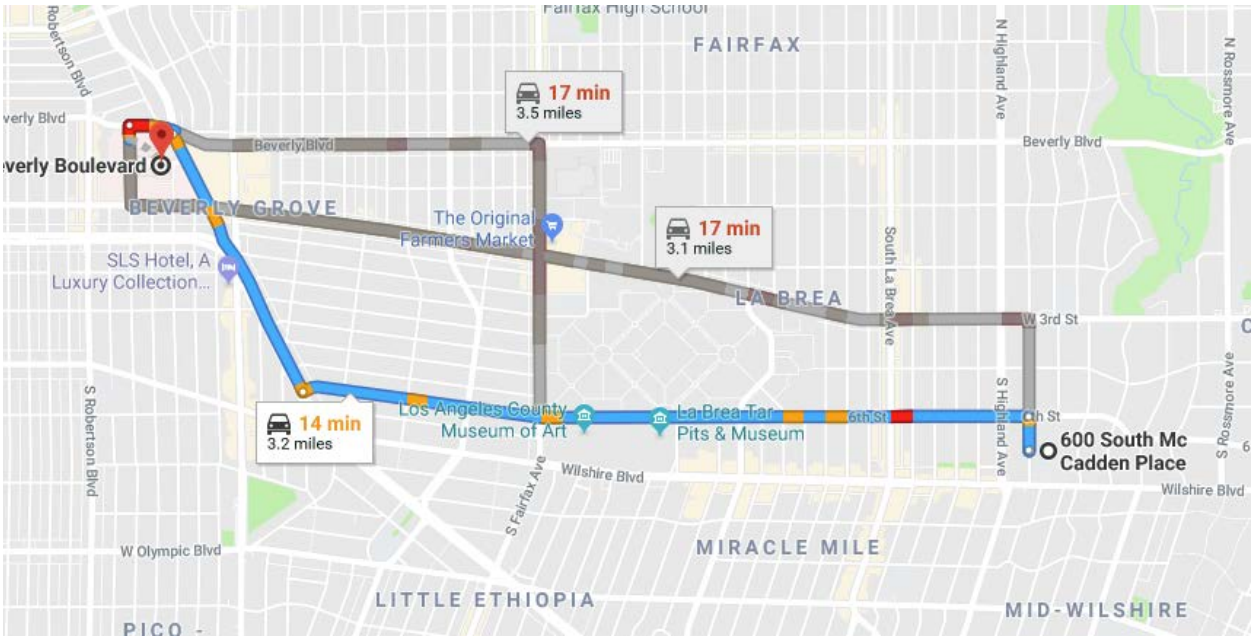
In case of any situation or unexpected occurrence, which requires outside assistance or support, the proper contact from the following list should be made:

Agency	Name of Contact	Telephone No.
Ambulance	n/a	911
Fire	n/a	911
Police	n/a	911
Cedars-Sinai Medical Center	Emergency Room	(310) 423-8780
Project Manager	Kris Lutton	(949) 681-4203
Safety and Health Officer	Kevin Hall	(949) 302-8491
Poison Control Center	n/a	(800) 876-4766
U.S. Dig Alert	n/a	(800) 227-2600
Centers for Disease Control	n/a	(800) 311-3435
National Response Center	n/a	(800) 424-8802
U.S. Healthworks	Corporate Physician	(909) 945-5011

Cedars-Sinai
8700 Beverly Boulevard
Los Angeles, CA 90048
Emergency Room: (310) 423-8780

1. Head north on South McCadden Place Toward West 6th Street (0.1 mile)
2. Turn left at the first cross street onto West 6th Street (2.1 miles)
3. Turn right onto South San Vicente Boulevard (0.8 mile)
4. Turn left onto Beverly Boulevard (0.1 mile)
5. Turn Left onto North George Burns Road (210 feet)

Hospital Route Map



14.1 Site Emergency Procedures

In the event of an emergency that necessitates an evacuation of the Site, the following alarm procedures will be implemented:

1. Equipment and/or portable air horns will be used to alert ALL Site personnel of an evacuation emergency. Two sustained blasts followed by one or two blasts will notify all personnel to exit the Site and gather and the proposed meeting areas.

The one or two blasts following the two sustained blasts will indicate gathering at the primary or secondary meeting areas. For example, two sustained blasts, followed by one blast, will indicate evacuation to the primary meeting area. The primary and secondary meeting area will be established on a site-specific basis during the morning safety briefing. The Site Supervisor will complete a head count at the meeting area and further directions or response discussions coordinated at that point.

2. In the event that a facility-wide evacuation is necessary, radio and telephone communication will be used to cue employees to evacuate the Site.

Normal traffic flow patterns will be in effect unless a local detour is required.

Following an Emergency Alarm signal, access to the Site and immediate vicinity of the incident will be restricted. Depending upon the severity and location of the incident, physical barriers or banner guard will be used to delineate restricted areas. Site Control will be the responsibility of the Site Supervisor who will establish the new work area boundaries if necessary. Future entries into restricted areas will require permission from the Site Supervisor.

PERSONNEL EMERGENCY SIGNALS

The following communication signals will be utilized, if necessary, in case of an emergency on-site.

Gesture	Meaning
Hand clutching throat	Out of air/can't breath
Hands on top of head	Need assistance
Thumbs up	OK/I'm all right/I understand
Thumbs down	No/negative
Grip partner's wrists	Informing partner to leave area immediately

EMERGENCY NOTIFICATION

Initial emergency notification: Dial 911.

EMERGENCY DECONTAMINATION

In an emergency, the primary concern is to prevent the loss of life or sever injury to Site personnel. If immediate medical treatment is required to save a life, decontamination should be delayed until the victim is stabilized. If decontamination can be performed without interfering with essential life-saving techniques or first aid, or if a worker has

been contaminated with an extremely toxic or corrosive material that could cause severe injury or loss of life, decontamination must be performed immediately. If an emergency due to heat-related illness develops, protective clothing should be removed from the victim as soon as possible to reduce heat stress. The Site Safety Officer and the Field Team Leader must supervise all emergency decontamination procedures.

In the event of a spill, leak explosion or condition that may potentially cause harms loss of life or severe injury appropriate notifications must be made. It is the responsibility of the Site manager in charge to contact their immediate supervisor and or Leighton health and safety officer so that the appropriate agencies can be notified in a timely manner.

15.0 TRAINING REQUIREMENTS

Prior to mobilization at the job Site or at any time during Site activities, if the Project Manager or Site Safety Officer requests, all applicable personnel and sub-contractors shall submit evidence that Site workers have completed a 40-hour course and 8 hour refresher course in hazardous waste site operations training as specified in 29 CFR Part 1910.120, along with a letter from a physician stating that they have received a physical examination within one year and are physically capable of working on hazardous sites and wearing respiratory protection devices.

All Leighton staff working on-site has completed the OSHA mandatory 40-hour hazardous waste operations training and are trained annually in accordance with 29 CFR 1910.120 and 8 CCR 5192. Leighton staff is also trained and receive annual training in CPR and first aid (every 3 years), Hazard Communication, Blood borne Pathogens, and the Company's Injury & Illness Prevention Plan (IIPP). Prior to involvement in any field program, all personnel will attend a safety briefing. The briefing will include the nature of the wastes at the Site, donning personal protection equipment, decontamination procedures, respirator fit testing, and emergency procedures. Included in the initial briefing will be a review of:

- Site emergency signals;
- Use of visual emergency signals;
- The limitations and capabilities of the equipment and PPE;
- Proper use and maintenance of the selected PPE;
- The nature of the hazards and the consequences of not using the PPE;
- The human factor influencing PPE performance;
- Inspection, donning, checking, fitting, and using the PPE;
- Provide individualized respirator fit testing to ensure proper fit;
- The user's responsibility for decontamination, cleaning, maintenance, and repair (if any) of PPE. Personnel will be required to clean and maintain respirators after each use;
- Emergency procedures and self-rescue in the event of PPE failure; and
- The Site Safety Plan and the individual's responsibilities and duties in an emergency.

Daily, prior to commencement of operations, all personnel involved with the remedial investigations shall attend a short "tailgate" safety briefing, which will cover:

- Expected conditions at the Site;
- Daily activities;
- Safety deficiencies previously observed; and
- Any changes in the emergency procedure.

Record of Training – Upon completion of the project safety briefing, all personnel will sign a statement indicating that they have read and understand and that they agree to abide by this project Health and Safety Plan. A record of attendance will be kept for all safety briefings.

Confined Space Entry

Leighton personnel are trained in confined space entry procedures in accordance with OSHA regulation 29 CFR 1910.146 and 8 CCR 5156 - 5158. The training is conducted to educate employees on the recognition of hazards associated with confined spaces and on the proper procedures to be implemented prior to entrance.

Blood Borne Pathogens

Leighton personnel trained in CPR and first aid have the potential for exposure to blood borne pathogens; therefore, they are trained annually in accordance with 29 CFR 1910.1030 and 8 CCR 5193. Exposure to blood borne pathogens is prevented through the use of universal precautions, engineering and work practice controls, and personal protective equipment. Each work area shall be equipped with an industrial first-aid kit supplemented by a blood borne pathogen exposure control kit. Personnel will follow appropriate decontamination and disposal procedures in the event of a potential exposure to bodily fluids potentially infected with blood borne pathogens. All incidents must be immediately reported to the SSO and corporate health and safety director.

Injury and Illness Prevention Program

Leighton has an Injury IIPP as part of the Health and Safety Program. Leighton personnel are trained annually as required by 8 CCR 3203 (Senate Bill 198). The training is conducted in an effort to reduce the frequency and severity of work-related accidents/incidents, injuries and illnesses; provide uniform health and safety guidance for personnel and comply with all federal, state and local health regulations that affect Leighton activities.

Hazard Communication

Leighton trains employees in accordance with the Hazard Communication Standard (29 CFR 1910. 120 and 8 CCR 5194) in the law, material safety data sheets (MSDSs) and

labeling requirements. As part of the hazard communication standard, Leighton is required to provide MSDSs of chemicals brought to the facility and has them readily accessible to personnel as well as to facility representatives. Some MSDSs that would be brought on-site include the following:

- Calibration gases (methane, hydrogen, and isobutylene)
- Fit-test chemicals (isoamyl acetate (banana oil) stannous chloride (smoke tubes)
- Alconox or other decontamination soap
- Laboratory reagents or preservatives (HCI)
- Resins and epoxies

16.0 MEDICAL SURVEILLANCE PROGRAM

Prior to assignment to any task requiring a level of personal protection above Level D, personnel will submit, if requested by the project manager, evidence that they have received a physical examination within the previous twelve months which incorporates the following:

- An occupation and general physical history;
- Complete physical examination which incorporates the head, torso, abdomen, limbs, and musculo-skeletal system;
- Chest X-ray;
- Pulmonary function test;
- Audiometric exam for persons working around drill rigs;
- Laboratory testing of blood and urine to include the following: C.B.C., albumin phosphatase, total bilirubin, SGOT, SGPT, cholesterol, total protein, albumin, globulin, A/G ratio, BUN, and creatinine.
- Vision test;
- Electrocardiogram; and
- Physician's certification that the employee is physically capable of wearing respiratory protection.

HEAT STRESS MONITORING

Heat Hazards

The effects of extreme outside temperatures will be controlled by a combination of workplace observations and work/rest cycles (see Table 5).

Rest break will be in a sheltered area. The Site Safety Officer will encourage workers to drink 16 oz. of water at each rest break even if they are not thirsty. (The normal thirst mechanism is not sensitive enough to ensure enough water will be drunk to replace fluids lost in sweat.) The Site Safety Officer will check each person for signs of heat exhaustion and heat stroke.

Heat exhaustion symptoms include pale, cool, moist skin, heavy sweating, dizziness, nausea, and fainting. If these symptoms occur move the person to the shade and give them a salt solution (2 pinches of salt per glass of water) every 15 minutes for 1 hour.

Table 5

Anywhere in Work Area, Monitoring with a Thermometer

Observe a 15-Minute Rest Break

59.5° - 64.5° F:	Cotton Clothes:	After each 150 minutes of work
	Coated Tyvek:	After each 120 minutes of work
64.5° - 69.5° F:	Cotton Clothes:	After each 120 minutes of work
	Coated Tyvek:	After each 90 minutes of work
69.5° - 74.5° F:	Cotton Clothes:	After each 90 minutes of work
	Coated Tyvek:	After each 60 minutes of work
74.5° - 77° F:	Cotton Clothes:	After each 60 minutes of work
	Coated Tyvek:	After each 30 minutes of work
77° F and above:	Cotton Clothes:	After each 45 minutes of work
	Coated Tyvek:	After each 15 minutes of work

*The Site Safety Officer has the authority to lengthen the work periods if conditions (e.g. wind, cloud cover) exist, which may reduce heat stress.

Heat stroke symptoms are red, hot, dry skin, lack of or reduced perspiration, nausea, dizziness and confusion, and strong and rapid pulse. If any of these symptoms are present, medical help will be obtained immediately. **Heat stress is a life-threatening condition CALL 911.**

If an employee experiences heat exhaustion or heat stroke, the Project Manager will be contacted as soon as possible.

Site personnel should use sunscreen, shade hats, long-sleeve shirts and long pants to avoid sun exposure

APPENDIX A

CHEMICAL INFORMATION SHEETS

Arsenic (inorganic compounds, as As)			**CAS** 7440-38-2 (metal)
As (metal)			**RTECS** CG0525000 (metal)
Synonyms & Trade Names Arsenic metal: Arsenic Other synonyms vary depending upon the specific As compound. [Note: OSHA considers "Inorganic Arsenic" to mean copper acetoarsenite & all inorganic compounds containing arsenic except ARSINE.]			**DOT ID & Guide** 1558 152 (metal) 1562 152 (dust)
Exposure Limits	NIOSH REL: Ca C 0.002 mg/m^3 [15-minute] See Appendix A		
	OSHA PEL: [1910.1018] TWA 0.010 mg/m^3		
	CAL OSHA PEL: 0.01 mg/m^3		
IDLH Ca [5 mg/m^3 (as As)] See: 7440382	**Conversion**		
Physical Description - Metal: Silver-gray or tin-white, brittle, odorless solid.			
MW: 74.9	BP: Sublimes	MLT: 1135°F (Sublimes)	Sol: Insoluble
VP: 0 mmHg (approx)	IP: NA		Sp.Gr: 5.73 (metal)
Fl.P: NA	UEL: NA	LEL: NA	
Metal: Noncombustible Solid in bulk form, but a slight explosion hazard in the form of dust when exposed to flame.			
Incompatibilities & Reactivities - Strong oxidizers, bromine azide [Note: Hydrogen gas can react with inorganic arsenic to form the highly toxic gas arsine.]			
Measurement Methods - NIOSH 7300, 7900; OSHA ID105			
Personal Protection & Sanitation Skin: Prevent skin contact Eyes: Prevent eye contact Wash skin: When contaminated/Daily Remove: When wet or contaminated Change: Daily Provide: Eyewash, Quick drench		**First Aid** (See procedures) Eye: Irrigate immediately Skin: Soap wash immediately Breathing: Respiratory support Swallow: Medical attention immediately	
Respirator Recommendations NIOSH At concentrations above the NIOSH REL, or where there is no REL, at any detectable concentration: (APF = 10,000) Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode/(APF = 10,000) Any supplied-air respirator that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained positive-pressure breathing apparatus Escape: (APF = 50) Any air-purifying, full-facepiece respirator (gas mask) with a chin-style, front- or back-mounted acid gas canister having a high-efficiency particulate filter/Any appropriate escape-type, self-contained breathing apparatus			
Exposure Routes inhalation, skin absorption, skin and/or eye contact ingestion			
Symptoms Ulceration of nasal septum, dermatitis, gastrointestinal disturbances, peripheral neuropathy, respiratory irritation, hyperpigmentation of skin, [potential occupational carcinogen]			
Target Organs Liver, kidneys, skin, lungs, lymphatic system **Cancer Site** [lung & lymphatic cancer]			

Lead		
Pb		
Synonyms & Trade Names - Lead metal, Plumbum		
Exposure Limits	NIOSH REL*: TWA 0.050 mg/m^3 See Appendix C [*Note: The REL also applies to other lead compounds (as Pb)	
	OSHA PEL*: [1910.1025] TWA 0.050 mg/m^3 See Appendix C [*Note: The PEL also applies to other lead compounds (as Pb)	
	CAL OSHA: PEL 0.05 mg/m^3	
IDLH 100 mg/m^3 (as Pb) See: 7439921		**Conversion**
Physical Description - A heavy, ductile, soft, gray solid.		
MW: 207.2	BP: 3164°F	MLT: 621°F
VP: 0 mmHg (approx)	IP: NA	
Fl.P: NA	UEL: NA	LEL: NA
Noncombustible Solid in bulk form.		
Incompatibilities & Reactivities - Strong oxidizers, hydrogen peroxide, acids		
Measurement Methods - NIOSH 7082, 7105, 7300, 7700, 7701, 7702; OSHA ID121, ID125G, ID206 (See: NMAM or OSHA Methods)		
Personal Protection & Sanitation Skin: Prevent skin contact Eyes: Prevent eye contact Wash skin: Daily Remove: When wet or contaminated Change: Daily		**First Aid** (See procedures) Eye: Irrigate immediately Skin: Soap flush promptly Breathing: Respiratory support Swallow: Medical attention immediately
Respirator Recommendations NIOSH/OSHA Up to 0.5 mg/m^3: (APF = 10) Any air-purifying respirator with a high-efficiency particulate filter/(APF = 10) Any supplied-air respirator Up to 1.25 mg/m^3: (APF = 25) Any supplied-air respirator operated in a continuous-flow mode/(APF = 25) Any powered, air-purifying respirator with a high-efficiency particulate filter Up to 2.5 mg/m^3: (APF = 50) Any air-purifying, full-facepiece respirator with a high-efficiency particulate filter/(APF = 50) Any supplied-air respirator that has a tight-fitting facepiece and is operated in a continuous-flow mode/(APF = 50) Any powered, air-purifying respirator with a tight-fitting facepiece and a high-efficiency particulate filter/(APF = 50) Any self-contained breathing apparatus with a full facepiece/(APF = 50) Any supplied-air respirator with a full facepiece Up to 50 mg/m^3: (APF = 1000) Any supplied-air respirator operated in a pressure-demand or other positive-pressure mode Up to 100 mg/m^3: (APF = 2000) Any supplied-air respirator that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode Emergency or planned entry into unknown concentrations or IDLH conditions: (APF = 10,000) Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode/(APF = 10,000) Any supplied-air respirator that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained positive-pressure breathing apparatus Escape: (APF = 50) Any air-purifying, full-facepiece respirator with a high-efficiency particulate filter/Any appropriate escape-type, self-contained breathing apparatus		
Exposure Routes inhalation, ingestion, skin and/or eye contact		
Symptoms Lassitude (weakness, exhaustion), insomnia; facial pallor; anorexia, weight loss, malnutrition; constipation, abdominal pain, colic; anemia; gingival lead line; tremor; paralysis wrist, ankles; encephalopathy; kidney disease; irritation eyes; hypotension		
Target Organs Eyes, gastrointestinal tract, central nervous system, kidneys, blood, gingival tissue		

APPENDIX B

FORMS

PLAN ACCEPTANCE FORM

Instructions: This form is to be completed by all Leighton Consulting personnel and subcontractors that work on the subject project work site. This form also incorporates the acknowledgement of an on-site safety meeting prior to the beginning of work.

Project No.: 11640.004

Client: Los Angeles Unified High School District (LAUSD)

Leighton Consulting Personnel

I represent that I have read and understood the contents of the above plan and agree to perform my work in accordance with it.

Signed	Date	Signed	Date
Signed	Date	Signed	Date

Subcontractor Personnel

The following subcontractors have been hired to perform work during this operation. All employees of subcontractors hired to perform work with the potential for exposure to hazardous waste shall meet the requirements of 29 CFR 1910.120.

Name: **Tel. No:**_____
Address:
Authorized Representative:
Services Provided:
Contract No.

Signature/Print Name **Date**

Name: **Tel. No:**_____
Address:
Authorized Representative:
Services Provided:
Contract No.

Signature/Print Name **Date**

For Subcontractor: Leighton Consulting is informing the subcontractor on this project of the known potential for encountering hazardous materials during this field investigation. The subcontractor will indemnify and hold Leighton Consulting harmless from and against all loss, damage and expense arising out of the work to be performed by the subcontractor at the site where hazardous materials may be expected.

Note: Return completed forms to Project File

UNDERGROUND SERVICE ALERT INFORMATION CHECKLIST
(1-800-227-2600)

Underground Service Alert will be contacted
prior to the start of field work.

1. LOCATION: Burroughs Middle School, 600 South McCadden Place, Los Angeles, CA
2. JOB FOREMAN: Kevin Hall CELL: (949) 302-8491
3. PROJECT MANAGER: Kris Lutton OFFICE: (949) 681-4203
4. FIELD REPRESENTATIVE: Kevin Hall
5. COMPANY ADDRESS: 17781 Cowan, Irvine, CA 92614
   OFFICE HOURS: 8am–5pm
6. PURPOSE OF FIELD WORK: Soil remediation and sampling

   STARTING DATE:

U.S.A.'S INFORMATION

1. CALLER: DATE: Time:
2. TICKET NO:
3. UTILITIES THEY WILL CONTACT:

_____ _____

_____ _____

4. REMARK: "Mark all on-site utilities"

Note: Return completed forms to Project File

FIELD EXPOSURE FORM

NAME: Kevin Hall
OTHER LEIGTHON CONSULTING PERSONNEL ON-SITE (Initials):
PROJECT NAME: Burroughs Middle School Comprehensive Modernization
PROJECT NUMBER: 11640.004
DATE(S) ON-SITE:
DURATION ON SITE: 7am to 4pm

FIELD ACTIVITIES:

___ DRILLING (Drilling Method: HAS__ AIR ROTARY__ MUD ROTARY___ DIRECT PUSH _ OTHER__)
_X_ EXCAVATION (Equipment Type: Backhoe_X_ Gradall___ Bulldozer___ Other___)
___ WATER SAMPLING (Quarterly Sampling: Yes___ No___)
_X_ SOIL SAMPLING
___ AIR MONITORING (Equipment Type: PID___ OVA___ Explosimeter___ Other_X_)
___ AIR SAMPLING
___ OTHER _____

REMARKS:

POTENTIAL CONTAMINANTS:

___ GASOLINE
___ DIESEL
___ SOLVENTS
_X_ METALS (Type: Arsenic and lead)
___ PESTICIDES (Type: _____)
___ VINYL CHLORIDE
___ OTHER (e.g, PCBs)

REMARKS:

PERSONAL PROTECTIVE EQUIPMENT (PPE)

___	LEVEL A	_X_	HARD HAT	_X_	GLOVES (Nitrile)
___	LEVEL B	_X_	SAFETY VEST	___	GLOVES (Leather)
___	LEVEL C	_X_	SAFETY GLASSES/GOGGLES	___	RESPIRATOR (Cartridge)
_X_	LEVEL D	_X_	GLOVES (Disposable)		TYPE: (_____)
		_X_	HEARING PROTECTION		

OTHER:

INDICATE ANY PROBLEMS ENCOUNTERED WHILE ON-SITE:

_____ _____
SIGNATURE DATE

APPENDIX C

EQUIPMENT CHECKLIST

EQUIPMENT CHECKLIST

Personal Protective Equipment (PPE)

___ APR available
- ___ Full Face
- ___ Half Face
- ___ Cartridge Type: Organic Vapor

___ Escape pack
X Latex Gloves
X Outer work gloves
___ Type: Solvex
___ Protective Clothing
___ Type: TYVEK Coated __ Uncoated _
___ Rain suit
___ Butyl apron
X Safety glasses
X Hard hat
___ Neoprene safety boots
X Steel-toed boots
___ Boot covers
X Hearing protection

Instrumentation

___ OVA
___ OVM
___ TIP
___ Explosimeter (GasTech)
___ Draeger kit:
Tubes:_____
___ Low flow air pumps
___ High flow air pumps
___ Radiation monitor
___ Radiation dosimeters
___ Noise meter
___ WBGT
___ pH meter
___ Magnetometer
___ GPR
___ EM
___ Hydrogen sulfide meter
X GPS

First Aid Equipment/Supplies

X First Aid kit
___ Oxygen
X Eye wash
___ Stretcher
X Fire Extinguishers
___ Thermometer(s)
___ Blood pressure monitor
X Drinking water

Site Security

___ Traffic cones
___ Flagging Tape
___ Warning signs
___ Waste Drum labels
___ Security guard
___ _____

Decontamination Equipment

___ Plastic Sheeting
___ Large Washtubs
__ Small Washtubs
X Scrub brushes
___ Pressurized Sprayers
___ Solvent Sprayer(s)
___ Plastic Trash Cans
X Trash Bags
X Water bottles
X Paper towels
___ Duct tape
___ Masking tape
X Zip lock bags
X Detergent
___ TSP
X Distilled Water
___ Sodium Hypochlorite
___ Sodium Bicarbonate
___ Bleach
___ Hand Soap
___ Solvent Rinse
___ Acetone
___ Hexane
X Plastic Buckets
___ Methanol
___ Isopropyl Alcohol
___ Other:
___ Tables
___ Chairs
X Tool Kit

Sampling Equipment

- [X] Submersible Pump
- [ ] Bladder Pump
- [ ] Foot Pump
- [ ] Teflon Hose (__ ft)
- [ ] Hose Connector
- [ ] Bailer
- [ ] Rope
- [ ] Brass Sleeves (6 inch)
- [X] Plastic End Caps
- [X] Teflon Sheets
- [X] 40 ml Vials
- [X] Sampling Jars
- [X] Ice Chest and Ice
- [ ] Sampler Rack
- [ ] Soil Gas Survey Kit
- [ ] Hand Auger

Other Equipment

- [X] Camera
- [ ] Film
- [ ] Drum Dolly
- [X] Trowels (stainless steel)
- [ ] Pick
- [X] Shovels
- [ ] Binoculars
- [ ] Megaphone
- [X] Radio/Mobile Telephone
- [ ] Fencing
- [ ] Thieving Rods
- [ ] Bung wrench (brass)
- [ ] Step ladder
- [X] 55-gallon drums

APPENDIX E

QUALITY ASSURANCE PROJECT PLAN

QUALITY ASSURANCE PROJECT PLAN
BURROUGHS MIDDLE SCHOOL COMPREHENSIVE MODERNIZATION PROJECT
600 SOUTH MCCADEN PLACE
LOS ANGELES, CALIFORNIA 90005

Prepared For:

LOS ANGELES UNIFIED SCHOOL DISTRICT
Office of Environmental Health and Safety
333 South Beaudry Avenue, 21st Floor
Los Angeles, California 90017

Project No. 11640.004

January 15, 2018

TABLE OF CONTENTS

Section **Page**

1.0 QUALITY OBJECTIVES 1

1.1 Data Quality Objectives 1
1.2 Problem Definition/Background 2
1.3 Project Task Description 2
1.4 Project Quality Objectives 2
1.5 Documentation and Records 3

2.0 DATA GENERATION AND ACQUISITION 4

2.1 Sampling Process Design 4
2.2 Sampling Methods 4
2.3 Sample Handling and Custody 4
2.4 Analytical Methods 5
2.5 Quality Control 5
2.5.1 Field QC Requirements 5
2.5.2 Laboratory QC Requirements 6
2.6 Instrument Testing, Inspection, and Maintenance 6
2.7 Instrument Calibration and Frequency 7
2.8 Data Acquisition Requirements 7
2.9 Data Management 7

3.0 ASSESSMENT AND OVERSIGHT 9

3.1 Technical Systems Audit 9
3.2 Performance Evaluation Audits 9
3.3 Reports to Management 10

4.0 DATA VALIDATION AND USABILITY 11

4.1 Data Review, Verification, and Validation 11
4.2 Reconciliation with Data Quality Objectives 15

1.0 QUALITY OBJECTIVES

1.1 Data Quality Objectives

Data Quality Objectives (DQOs) are established to verify that the data collected are sufficient and of adequate quality for intended uses. The following five levels of data quality are recognized by the US EPA:

Screening (DQO Level I): This level provides the lowest data quality but the most rapid results. It is often used for health and safety monitoring at the site, preliminary comparison to Applicable or Relevant and Appropriate Requirements (ARARs), and initial site characterization to locate areas for subsequent and more accurate analysis. The data are typically collected using portable field equipment. Field analyses are used for gross engineering assessments and for health and safety screening.

Field Analyses (DQO Level II): Field analyses are performed using instruments and procedures equivalent to field laboratory analyses, and they produce legally defensible data if Quality Control (QC) procedures are implemented. This level provides rapid results and higher quality than in Level I. Quality Assurance (QA)/QC procedures are usually less rigorous than Level III but more stringent than Level I. No Level II procedures are planned for this project.

Engineering (DQO Level III): This level provides an intermediate level of data quality and is often used for site or waste characterization. Level III data are generated by laboratories using US EPA SW-846 procedures without full reporting requirements. Level III data packages will be provided for waste profile analysis.

Conformational (DQO Level IV): This provides the highest level of data quality and is used for purposes of risk assessment and evaluation of remedial alternatives. These analyses require full analytical and data validation procedures in accordance with US EPA recognized protocols. A level IV-type data package will be used for the confirmation samples collected for this project and will include the following: analytical report, chain-of-custody (COC), narrative, corrective action reports, surrogate recoveries for GC, GC/MS analysis with control limits, detection limits and reporting limits, LCS / MS / MSD with control limits and method blanks in order to comply with the EPA National Functional Guidelines.

Non-Standard (DQO Level V): This refers to analyses by non-standard protocols, for example, when exacting detection limits or analysis of an unusual chemical compound is required. These analyses often require method development or adaptation. This level of quality control is usually similar to DQO Level IV data.

The overall data quality objective is to produce data of sufficient quality for use in risk assessment and to support remedial alternative selection. These policies are intended to provide analytical data that will yield comprehensive and valid results and will comply with applicable federal and state regulations.

1.2 Problem Definition/Background

Soils impacted by arsenic and lead were identified at the site. Soil remediation through excavation and off-site disposal is the preferred option. Confirmation soil samples will be collected and analyzed for arsenic and lead. Waste profile samples will be collected for waste characterization suitable for acceptance at a designated landfill. Air monitoring of dust levels will be performed for health and safety requirements and ambient air levels monitoring.

1.3 Project Task Description

This project includes attending a scoping meeting with the DTSC, preparing a Removal Action Workplan (RAW), remedial excavation and off-site disposal, and preparing a Removal Action Completion Report (RACR). Upon completion of the RACR, copies will be submitted to the DTSC.

1.4 Project Quality Objectives

The necessary QA/QC procedures will be performed in accordance with acceptable protocols, and that the data generated meet the overall project objectives for precision and accuracy. Sampling and analysis procedures, personnel requirements, chain-of-custody and documentation requirements, and specific criteria for evaluating data acceptability will be traceable. Procedures will be followed on how to address data deficiencies, data reduction and evaluation, and preparation of field observation reports, which will be produced so that outputs are accurate and technically sound.

1.5 Documentation and Records

The following information will be included in each laboratory data report package.

1. Cover Letter and Laboratory Manager (or designee's) signature.
2. Data reports for each sample submitted which include at a minimum:
   - Results, reporting units for each parameter;
   - Project detection limits and reporting limits;
   - Date of extraction(s) and analyses;
   - List of project specified methodologies for each parameter; and
   - Dates of sample collection and laboratory receipt.
3. Quality Control Summary Forms with method blank results, GC, GC/MS or MS/MSD recoveries with control limits and RPD calculations.
4. LCS / MS / MSD with control limits.
5. Chain-of-Custody forms.
6. A Sample Receipt Record documenting the condition of the samples upon receipt by the laboratory.
7. A Case Narrative, as necessary, to discuss quality control limit exceedances, specific sample problems, and analytical methodology problems observed.
8. Corrective Action Reports (as required).

2.0 DATA GENERATION AND ACQUISITION

2.1 Sampling Process Design

The primary objective is to identify areas of the site with contamination that might pose a potential risk to human health and the environment and to verify remediation performance.

The sampling program assumes that conditions will be generally consistent throughout the sampling locations and that the analytical instrument response will be consistent with samples within the same medium.

Thirteen locations ranging in size from approximately 25 square feet to approximately 450 square feet will be excavated to between 1.5 and 4.5 feet below ground surface (bgs).

Once complete, the excavation areas will be sampled at the sidewalls in areas that do not contain existing compliance point samples to verify contaminant removal and to confirm that elevated chemicals of concern (COC) concentrations exceeding the cleanup goals (CGs) horizontally beyond the excavation boundaries. Based on the proposed excavations, a total of three sidewall samples (A2-CS1-0.5, A2-CS2-0.5, and A2-CS3-0.5) and seven bottom samples (D-CS1-2.5, E-CS1-4.5, E-CS2-4.5, F-CS1-2.5, F-CS2-2.5, G-CS1-3.5, and G-CS2-3.5) will be collected. Additional confirmation sampling will be collected if confirmation soil sample results are above the CGs.

2.2 Sampling Methods

Confirmation samples will be collected using a clean stainless steel trowel and transferred directly into clean laboratory provided 4-oz. glass jars with Teflon-lined plastic lids. The confirmation samples will be properly labeled and placed in individual Ziploc bags. The confirmation samples will be stored onsite in an ice-cooled chest prior to delivery to a California ELAP-certified laboratory.

2.3 Sample Handling and Custody

Samples will be delivered to the laboratory on the same day collected, if time permits, and no later than the day following collection. In the event the samples are delivered the day after they are collected, the samples will be secured under

proper chain of custody documentation at the environmental professional's office until delivery.

2.4 Analytical Methods

The confirmation soil samples will be analyzed for arsenic and lead, using USEPA Method 6010B. Samples will be extracted within 14 days and analyzed within 40 days of extraction. Analytical procedures applicable to samples obtained from the site are presented below. The laboratory will be instructed to report estimated values as J-flag values (e.g., concentrations above the method detection limit (MDL) and below the practical quantitation limit (PQL)).

List of General Parameters	EPA Method of Analysis	MDL (mg/kg)	PQL (mg/kg)
Arsenic	6010B	0.248	0.30
Lead	6010B	0.192	0.50

2.5 Quality Control

The Project Manager will be responsible for implementing the quality control requirements for the project.

The quality control procedures specified in the current SW-846 methodologies and specified US EPA methods will be followed in the laboratory and the field.

2.5.1 Field QC Requirements

Field sampling procedures call for preparation and submittal of two types of QC samples.

- Equipment blanks – These samples are prepared in the field to evaluate if a sampling device (e.g., hand trowel) has been effectively cleaned. The sampling device will be scrubbed with non-phosphate detergent, rinsed with tap water, and double-rinsed with organic-free, de-ionized water that will then be poured over the device, transferred to the appropriate sample bottles, preserved, and returned to the laboratory for analysis. One equipment blank will be collected per sampling tool used at the site each day. The equipment blank will be analyzed for arsenic and lead.

- Field duplicates– Two sets of samples (primary and duplicate) each from a single source will be prepared, labeled with unique sample numbers, and submitted to the laboratory without cross-referencing data and without identification as duplicates on the parameter request sheet. Two field duplicates, E-CS102-4.5 and D-CS101-2.5, will be collected.

2.5.2 Laboratory QC Requirements

To obtain data on the precision, accuracy, and recovery, the analytical laboratory will analyze the QC samples as specified in Section 2.5.1. The control limits and corrective actions for each parameter are specified in each analytical method.

For inorganic analyses of soil and water, the analytical methods require analyses of the following QC samples:

- Calibration verification following instrument calibration and once every tenth sample thereafter through the working day.
- Laboratory blank verification at instrument calibration and once every tenth sample thereafter through the working day to check instrument drift.
- Method blank analysis at a rate of once per batch of samples or one per 20 samples of a single matrix, whichever is more frequent, to evaluate contamination levels during preparation.
- Matrix spike/matrix spike duplicate (MS/MSD) analyses at a rate of one per batch of samples for each matrix type (e.g., soil, water) and concentration level (e.g., low, medium) or one in 20 samples, whichever is more frequent. The MS/MSDs are used to check for the ability to accurately and precisely recover compounds of interest from the matrix.

The results of analyses of these QC samples will be used as independent, external checks on laboratory and field contamination.

2.6 Instrument Testing, Inspection, and Maintenance

Each analyst is responsible for conducting a daily inspection of critical systems on instruments under their charge. Inspections include vacuum lines and pumps

for GC/MS, automatic injection systems, controlled reagent-feed motors, temperature-controlled ovens in GCs, capillary columns, detectors and support systems, gas control system for AA's, and many others. Wear-dependent items such as septa on GC injection systems are to be replaced as needed. The performance of instruments is to be checked against known standards at the beginning of each working day or shift. Failure to achieve proper performance indicates a system problem, which will be dealt with by laboratory personnel or by the manufacturer's service representative.

In addition, laboratory personnel or the manufacturer's service representative will service working systems according to a fixed schedule. A record of service and repairs, whether accomplished by laboratory personnel or by the manufacturer's service representative, will be maintained in a logbook kept with each instrument.

2.7 Instrument Calibration and Frequency

Field monitoring and analytical equipment will be maintained in accordance with the manufacturers' recommended schedules and procedures. Maintenance activities will be documented by either field or laboratory personnel. Calibration will be performed on a routine basis and as otherwise required. Calibrating equipment will also be routinely recalibrated and documented. Routine inspection of equipment is intended to identify problems requiring maintenance before they cause a major disruption of the field monitoring or analytical activities or adversely affect the validity and precision of the data being measured.

2.8 Data Acquisition Requirements

Data used for project decisions and reports that were obtained from data tables, other sources, or calculations will be verified by at least two project personnel prior to use. Data tables or other data summaries will include "Prepared by" and "Checked by" fields at the end of the data to document this two-person review process.

2.9 Data Management

Data resulting from laboratory analysis will be consistent with the appropriate methods and equations stated in the procedure. Individual laboratory supervisors will review data before forwarding it to the data management supervisor. Final reports will be reviewed by the laboratory QA Manager for error or deviations before release. Final reports will include the Quality Control

Summary data required to perform data assessment. Procedures used for analyses will be compared with the reference methods. Discrepancies or deviations will be noted and explained.

The data generated during the sample collection and analysis will be centralized into one project file including information about the instrument conditions. The data management system allows review by project personnel.

3.0 ASSESSMENT AND OVERSIGHT

3.1 Technical Systems Audit

Audit programs are established and directed by the consultant's quality assurance staff to monitor that field and laboratory activities are performed in compliance with project controlling documents.

Laboratory audits include reviews of sample handling procedures, internal sample tracking, SOPs, analytical data documentation, QA/QC protocols, and data reporting. The selected mobile or offsite laboratory will be licensed by the State of California as a certified testing laboratory, and will participate in the WP/WS Performance Program for hazardous waste, wastewater, and/or drinking water analyses.

3.2 Performance Evaluation Audits

Field audits focus on appropriateness of personnel assignments and expertise, availability of field equipment, adherence to project controlling documents for sample collection and identification, sample handling and transport, use of QA samples, chain-of-custody procedures, equipment decontamination and documentation. Field audits are not required, but may be performed in the event significant discrepancies are identified that warrant evaluation of field practices.

Data audits will be performed on analytical results received from the laboratories. These audits will be accomplished through the process of data validation as described in Section 4, or may involve a more detailed review of laboratory analytical results. Data audits require the laboratory to submit complete raw data files to the consultant for validation. Staff or subcontracted chemists will perform a review of the data consistent with the level of effort described in the *National Functional Guidelines*. This level of validation consists of a detailed review of sample data, including verification of data calculations for calibration and quality control samples to assess if these data are consistent with method requirements. Upon request, the laboratory will make available supporting documentation in a timely fashion.

3.3 Reports to Management

A summary of QA/QC related reports are listed below:

- Data Validation Report;
- Data Assessment Reports; and
- Progress Reports.

4.0 DATA VALIDATION AND USABILITY

4.1 Data Review, Verification, and Validation

Proper data management is as important as proper analysis and custody procedures in obtaining representativeness. Data review, verification, and validation procedures function to control data handling from field collection through laboratory analysis and data processing to the point where data are turned over to the data user.

Data review is the in-house examination to ensure that the data have been recorded, transmitted, and processed correctly. That includes, for example, checking for data entry, transcription, calculation, reduction, and transformation errors. It may also mean ensuring that there is a complete list of sample information available, such as sample matrixes, blanks, duplicates, shipping dates, preservatives, holding times, etc., and verifying that there are no programming errors. It is also a completeness check to evaluate if there are any deficiencies, such as data missing or integrity lost (for example, due to corruption or loss in storage or processing).

Data verification is the process for evaluating the completeness, correctness, and conformance/compliance of a specific data set against the method, procedural, or contractual specifications. It essentially evaluates performance against pre-determined specifications, for example, in an analytical method, or a software or hardware operations system.

Data validation is an analyte- and sample-specific process that extends the evaluation of data beyond method, procedure, or contractual compliance (e.g., data verification) to evaluate the quality of a specific data set relative to the end use. It focuses on the project's specifications or needs, designed to meet the needs of the decision makers/data users and should note potentially unacceptable departures from the Quality Assurance Project Plan. The potential effects of the deviation will be evaluated during the data quality assessment.

Data verification is generally done first, internally by those generating the data or by an organization external to that group. Data validation is generally performed on the verified data later in the process and by someone independent or external to the data generator and the data user. These processes may occur both during and at the end of the project.

Data quality and utility depend on many factors including sampling methods, sample preparation, analytical methods, QC, and documentation. Subcontractors, such as laboratories or sampling personnel, will be advised of applicable documentation and procedural requirements. Once the data are assembled, satisfaction of validation criteria will be documented as listed below. Chemical data must meet criteria of: (1) quantitative statistical significance; (2) custody and document control; and (3) sample representativeness.

To evaluate the quantitative statistical significance of chemical data, items will be documented as appropriate (e.g., with laboratory records, with laboratory Standard Operating Procedures (SOPs) by reference to an approved SOP manual, or with equipment manufacturer/supplier records).

Documentation may be either direct (for example, listing of dates, names, and methodologies) or by reference to existing documents. Referenced documents will be specifically identified. The precise and retrievable location of nonstandard documents (e.g., in-house procedure manuals, chain-of-custody forms, and laboratory reports) will be stated.

To evaluate sample representativeness, the following items will be checked:

- Compatibility between field and laboratory measurements or suitable explanation of a discrepancy;
- Sample preservation techniques and holding time;
- Sample storage within suitable temperature, light, and moisture conditions;
- Use of proper sample containers;
- Use of proper sample collection equipment;
- Use of proper decontamination procedures;
- Use of proper laboratory preparation techniques; and
- Proper sample site selection.

To evaluate the physical data that support the analytical data, the following items will be documented:

- Sampling date and time;
- Sampling team; observer and recorder, team leader;
- Sampling location and physical description;
- Sample depth increment for soils;
- Sample collection techniques;

- Field preparation techniques (e.g., containerization, transfer, and compositing);
- Visual classification of sample using an accepted classification system;
- A thorough description of the methodology used, and a rationale for the use of that methodology; and
- Examination of documentation of record keeping practices.

Field Measurements

Raw data from field measurements and sample collection activities will be appropriately recorded in the daily field report (DFR). If the data are to be used in the project reports, they will be reduced or summarized and the method of reduction will be documented in the report.

Laboratory Analysis

The following sections describe the data reduction, validation, and reporting procedures to be performed by the laboratory and the consultant.

Data Review

The analyst will perform the analysis and enter the data on the parameter bench sheet and corresponding data station(s). Bench sheets contain necessary information to establish sample identity, integrity, calibration evaluation, and analytical observation and results. A bench sheet key is provided to the analyst which specifies the way in which bench sheets are to be filled out (e.g., notation, significant figures, etc.), the data reduction formula and the QC samples required, and their control criteria. QC samples include duplicates, MS or MSDs, continuing calibration verification samples (CCVs), etc.

For the duration of the study, the laboratory will keep raw, preliminary, and final data and instrument readouts (e.g., chromatograms, printed digital readouts, etc). Ultimately, data will be archived along with other project records.

Data Verification and Validation

Data will be summarized as they are generated and submitted to the project team. The data will be considered preliminary until completion of review and validation.

One hundred percent of the data will be validated by an electronic data management system. Approximately 20 percent of the data will be randomly selected for more detailed data validation and further reviewed by a project chemist to assess whether they have met the project DQOs for intended data uses. If the subset of data validated indicates a potential QA/QC problem, additional data will be validated. Data validation will be performed using criteria described in this QAPP and specific analytical methods.

The data review and validation consists of checking samples and QC results to show that the analyses are within prescribed criteria for precision, accuracy, completeness, sensitivity, selectivity, blank contamination, etc. In addition to tabulated results, instrument readouts (e.g., calibration curves, summary reports, etc.) are checked.

The review will consist of an evaluation of the routine QA/QC performed by the laboratory. This will include review of the following QA/QC controls:

- Extraction blanks;
- Matrix spike and matrix spike duplicates;
- Surrogate spikes, if applicable;
- Laboratory control samples;
- Preparation blanks;
- Sample preservation (e.g., 4°C);
- Holding times (e.g., 14 days to extraction, 40 days to analysis); and
- Continuing calibration verification samples.

If data points are qualified, they will receive data qualifiers. The qualifiers will indicate if results are usable as-is, usable as-estimated, or unusable (rejected). A case narrative will be generated for each analytical package submitted by the laboratory. This narrative represents a summary on the quality of the data. Standard data qualifiers will be used to classify data as to their conformance to QA/QC requirements.

The Field Coordinator or other qualified personnel will perform validation of data obtained from field measurements (dust concentrations, wind speed, temperature). Data validity will be evaluated by checking calibration procedures utilized in the field as appropriate and by comparing the data to previous measurements obtained at the Site. Variations in data that cannot be explained will be assigned a lower level of validity and will be used for limited purposes. The Field Technician will summarize the data obtained from the field measurements and will include this information on the DFRs.

4.2 Reconciliation with Data Quality Objectives

Data reconciliation requires evaluation of precision, accuracy, representativeness, comparability, and completeness (PARCC) criteria, field quality control results, and conformance to method standards (including sample holding times).

Precision

Precision is a measure of the degree to which two or more measurements are in agreement. Precision is based on the relative percent difference (RPD) of duplicates analyses or duplicate spike analyses.

Field precision is assessed through the collection and measurement of field duplicates at a rate of 1 duplicate per 10 primary analytical samples. RPDs will be calculated as shown below.

Precision in the laboratory is assessed through the calculation of RPDs for two or more replicate samples. The RPD equation is given by:

$$RPD = A - B / [(A + B)/2] \times 100\%$$

Where: RPD = Relative Percent Difference
A = First sample value
B = Second sample value

Laboratory precision will be assessed at a rate of 1 per 10 primary analytical samples.

Duplicate samples are analyzed to check for sampling and analytical reproducibility. Duplicates are discussed in Section 2.5.1 Field QC Requirements. Duplicate sample locations are listed in Table 5 of the RAW.

Matrix spikes (MS) and matrix spike duplicate (MSD) samples are field samples spiked by the laboratory with target analytes prior to preparation and analysis. These samples measure the overall efficiency of the analytical method in recovering target analytes from an environmental matrix. A laboratory control sample (LCS) is similar to an MS/MSD sample in that the LCS is spiked with the same target analytes prior to preparation and analysis. However, the LCS is

prepared using a controlled interference-free matrix instead of a field sample aliquot. Laboratory reagent water is used to prepare aqueous LCS. Non-aqueous LCSs are prepared using solid media approved by the American Society for Testing and Materials (ASTM) for their homogeneity. The LCS measures laboratory efficiency in recovering target analytes from either a solid or aqueous matrix in the absence of matrix interferences.

For inorganic analysis, one primary sample is analyzed and accompanied by an unspiked laboratory duplicate. The data reviewer compares the reported results of the primary analysis and the laboratory duplicate, and then calculates RPDs, which are used to assess laboratory precision.

An RPD outside the numerical QC limit in either MS/MSD samples or LCS/LCSD indicates imprecision. Imprecision is the variance in the consistency with which the laboratory arrives at a particular reported result. Thus, the actual analyte concentration may be higher or lower than the reported result.

Possible causes of poor precision include sample matrix interference, improper sample collection or handling, inconsistent sample preparation, and poor instrument stability. In some duplicate pairs, results maybe reported in either the primary or duplicate samples at levels below the reporting limit or non-detected. Since these values are considered to be estimates, RPD exceedances from these duplicate pairs do not suggest a significant impact on the data quality.

Accuracy

Accuracy is a measure of the agreement of an experimental result and the true value of the parameter being measured. It is used to identify bias in a given measurement system. Recoveries outside acceptable QC limits may be caused by factors such as instrumentation, analyst error, or matrix interference. Accuracy is assessed through the analysis of MS, MSD, LCS, and samples containing surrogate spikes. In some cases, samples from multiple sample delivery groups (SDGs) are within one QC batch and therefore are associated with the same laboratory QC samples. Surrogate spikes are either isotopically labeled compounds or compounds that are not typically detected in the samples. Surrogate spikes are added to every blank, environmental sample, MS/MSD, and standard. Accuracy of inorganic analyses is assessed using the percent recoveries of MS and LCS analyses.

Percent recovery (%R) is calculated using the following equation:

%R = (A-B)/C x 100

Where:

A = measured concentration in the spiked sample
B = measured concentration of the spike compound in the unspiked sample
C = concentration of the spike

The percent recovery of each analyte spiked in MS/MSD samples, LCS, and surrogate compounds added to environmental samples is evaluated with the acceptance criteria specified by the previously noted documents. Spike recoveries outside the acceptable QC accuracy limits provide an indication of bias, where the reported data may overestimate or underestimate the actual concentration of compounds detected or quantification limits reported for environmental samples.

Representativeness

Representativeness is a qualitative parameter that expresses the degree to which the sample data are characteristic of a population. It is evaluated by reviewing the QC results of blank samples and holding times. Positive detects of compounds in the blank samples identify compounds that may have been introduced into the samples during sample collection, transport, preparation, or analysis. The QA/QC blanks collected and analyzed are method blanks.

A method blank is a laboratory grade water or solid matrix that contains the method reagents and has undergone the same preparation and analysis as the environmental samples. The method blank provides a measure of the combined contamination derived from the laboratory source water, glassware, instruments, reagents, and sample preparation steps. Method blanks are prepared for each sample of a similar matrix extracted by the same method at a similar concentration level.

Comparability

Comparability is a qualitative expression of the confidence with which one data set may be compared to another. It provides an assessment of the equivalence of the analytical results to data obtained from other analyses. It is important that data sets be comparable if they are used in conjunction with other data sets. The

factors affecting comparability include the following: sample collection and handling techniques, matrix type, and analytical method. If these aspects of sampling and analysis are carried out according to standard analytical procedures, the data are considered comparable. Comparability is also dependent upon other PARCC criteria, because only when precision, accuracy, and representativeness are known can data sets be compared with confidence.

Completeness

Completeness is defined as the percentage of acceptable sample results compared to the total number of sample results. Completeness is evaluated to assess if an acceptable amount of usable data were obtained so that a valid scientific site assessment can be completed. Completeness equals the total number of sample results for each fraction minus the total number of rejected sample results divided by the total number of sample results multiplied by 100. As specified in the project DQOs, the goal for completeness for target analytes in each analytical fraction is 90 percent.

Percent completeness is calculated using the following equation:

$$\%C = (T - R)/T \times 100$$

Where:

%C = percent completeness
T = total number of sample results
R = total number of rejected sample results

Completeness is also evaluated by comparing the planned number of samples per method and matrix with the number determined above.

Field QC

Equipment blanks consist of analyte-free water poured over or through the sample collection equipment. The water is collected in a sample container for laboratory analysis. These blanks are collected after the sampling equipment is decontaminated and measure efficiency of the decontamination procedure. Equipment blanks will be collected and analyzed for each target analyte.

Field blanks consist of analyte-free source water stored at the sample collection site. The water is collected from each source used during each sampling event.

Because the chemicals of concern are arsenic and lead, field blanks will not be collected for this investigation.

Contaminants found in both the environmental sample and a blank sample are assumed to be laboratory artifacts if the concentration in the environmental sample is less than 10 times the blank value for common laboratory contaminants including methylene chloride, acetone, 2-butanone, and phthalate esters or 5 times the blank value for other laboratory contaminants.

Method Holding Times

Holding times are evaluated to verify that the sample integrity is intact for accurate sample preparation and analysis. Holding times are specific for each method and matrix analyzed. Holding time exceedances can cause loss of sample constituents due to biodegradation, precipitation, volatilization, and chemical degradation.

APPENDIX F

TRANSPORTATION PLAN

TRANSPORTATION PLAN

Leighton has prepared a Removal Action Work plan (RAW) to address arsenic- and lead-impacted soils in the comprehensive modernization area on the Burroughs Middle School campus, located at 600 South McCadden Place in Los Angeles, California. The response action (RA) proposed in the RAW includes impacted soil removal and off-site disposal.

As part of the implementation of the RAW, excavated soil will be generated during removal activities. This Transportation Plan is prepared to address excavated soil that will be generated as part of the implementation of the RAW. Removal, transportation, and disposal activities will be performed in accordance with applicable federal, state, and local laws, regulations and ordinances.

WASTE CHARACTERIZATION AND QUANTITY

Soil sampling results from recent subsurface investigations in the areas of the proposed remediation activities generally contain chemicals of concern (COCs) above DTSC Screening Levels for arsenic (>12.0 mg/kg) and/or lead (>80 mg/kg). Waste characterization was performed during the subsurface investigation. Soils excavated from the modernization area will be handled as non-hazardous waste or non-RCRA hazardous waste, as appropriate. During field activities, the contractor will perform dust control measures including wetting disturbed ground with water as needed and the use of gravel blankets at truck ingress and egress points to reduce tracked material. Work will be stopped if wind speed exceeds 25 miles per hour. Dust control measures will follow the South Coast Air Quality Management District Rule 403 for Fugitive Dust and Rule 1466 for Control of Particulate Emissions from Soils with Toxic Air Contaminants (arsenic and lead).

Waste Profile

The waste material will be profiled based on existing in-situ analytical data to the extent it is acceptable to the receiving facility. Profile data will be submitted to the disposal facility, and once approval from the disposal facility is obtained, the excavated soil will be transported to the disposal facility. If the disposal facility requires additional analytical data, waste characterization samples will be collected from stockpiled soil, as summarized in Tables 5 and 6 of the RAW. Additional documentation will be provided to the Department of Toxic Substances Control (DTSC) pertaining to waste disposal profiles and waste disposal acceptance prior to off-site shipments of waste.

Hazardous Waste Management

During the subsurface investigation, soils from the modernization area were analyzed and found to contain elevated concentrations of arsenic and lead. The soils from within the modernization area were evaluated to contain nonhazardous levels of arsenic. Soluble lead was present in select areas above the standard for non-RCRA (California) hazardous waste designation. Based on the soluble lead content in select excavation areas (Figures 4 through 7 of the RAW), soils from the modernization area will be handled and disposed as non-RCRA (California) hazardous waste. Wastes will be properly managed, manifested, and transported by a registered waste hauler to a permitted waste disposal facility. Nonhazardous waste soil is anticipated to be transported to the Chiquita Canyon Landfill in Castaic, California. Non-RCRA hazardous waste soil is anticipated to be transported to South Yuma County Landfill in South Yuma, Arizona.

SOIL STAGING

Soils may be stockpiled on visqueen during the excavations from the area or excavated and transferred directly to waiting trucks or covered bins.

REQUIREMENTS OF TRANSPORTERS

The RA contractor will retain qualified transporters for hauling the excavated soils off-site. The selected transporters will be fully licensed and insured to transport the excavated soils. For transportation of hazardous wastes, the selected transporter will be a registered hazardous waste hauler.

TRAFFIC CONTROL PROCEDURES

Soil for off-site disposal will be loaded, covered, and transported to the designated disposal facility. Prior to loading, trucks will be staged on-site to avoid impacts to the local streets. It is anticipated that approximately 9 truckloads will be removed from the Site. While at the Site, all vehicles will be required to maintain slow speeds (less than five miles per hour) for safety and dust control.

TRUCK LOADING OPERATIONS

Excavation and loading operations will commence no earlier than 7:00 am and continue until no later than 9:00 pm during weekdays and between 8:00 am and 6:00 pm on Saturdays in conformance with local noise ordnances. It is anticipated that

approximately 9 truckloads will be removed from the Site. The excavation activities are expected to last no longer than five days. Trucks will enter the Site along West 6th Street and either be direct loaded from the excavation area or be loaded in the first parking lot where stockpiled soil will be staged (Figure F-1). After loading, trucks will proceed to the decontamination area. The decontamination area will consist of an area in the eastern parking lot with asphaltic concrete surface covered in Visqueen. Trucks will drive over a rumble plate and onto the visqueen-covered decontamination area and their wheels and sides will be brushed and swept of loose contaminated soil. Trucks will be decontaminated by dry brushing and sweeping then exit the Site via 6th Street. Excavating equipment used during the remedial action will be swept and decontaminated in similar fashion. The trucks will then exit the decontamination area and leave the Site traveling west on W 6th Street. Trucks will turn right (north) onto Highland Ave, then merge onto I-101, at which point they will travel to Castaic, California, or South Yuma, Arizona for nonhazardous waste soil and non-RCRA (California) hazardous waste soil respectively.

SHIPMENT DOCUMENTATION

Hazardous Waste Shipment

Non-hazardous waste manifests will be used to track non-hazardous waste. A Uniform Hazardous Waste Manifest (UHWM) form will be used to track the movement of non-RCRA (California) hazardous waste soils at the modernization area from the point of generation to the point of final deposition. Prior to transporting the excavated soil off-site, an authorized LAUSD representative will sign each waste manifest. The waste hauler will then sign the manifest and distribute one signed copy to the removal action contractor's site manager. The environmental professional will maintain a copy of the waste manifest for each truckload on-site until completion of the removal action. At a minimum, the shipping document will include the following information:

- Name and address of waste generator (LAUSD)
- Name and address of waste transporter
- Name and address of disposal facility
- Description of the waste
- Quantity of waste shipped

TRANSPORTATION ROUTES

Transportation of impacted soils will be on arterial streets and/or freeways, approved for truck traffic, to minimize potential impact on the local neighborhood. In general, the

transport trucks will exit the Site, turn left onto 6th Street, turn right onto Highland Ave, merge onto I-101 and then merge onto I-5. This route was chosen to minimize the time trucks would spend on residential streets. There are numerous alternate routes that can be taken to the designated disposal facility as determined by the RA contractor.

OFF-SITE LAND DISPOSAL FACILITIES

Based on the results of the subsurface investigation, the excavated soil will be transported to a proper off-site land disposal facility. Final evaluation of the landfill selected for disposal will be based on an approved profile from the landfill. Once the landfill is determined, copies of soil analytical reports used to secure disposal permission from the landfill will be provided to DTSC.

Compliance with the land disposal restrictions and land ban requirements for California hazardous wastes, as necessary, will be documented and provided to DTSC once it is evaluated which disposal facility will be used.

RECORDKEEPING

The environmental professional will be responsible for maintaining daily reports during the removal action activities. The daily reports will serve to document observation, personnel on-site, truck arrival and departure times, and other vital project information.

HEALTH AND SAFETY

The health and safety plan (HASP) is included as an Appendix to the RAW. Personnel working at the Site will be required to be familiar with the HASP.

CONTINGENCY PLAN

Waste haulers are required to have a contingency plan prepared for emergency situations (e.g., vehicle breakdown, accident, waste spill, waste leak, fire, and explosion) during transportation of excavated soils from the Site to the designated disposal facility. Once the waste hauler is selected, a copy of its contingency plan will be attached to the Transportation Plan.

Trucks will enter and leave via West 6th Street Gate

Truck staging area within secured gated school property

W 6th St

S McCadden Pl

S June St

Wilshire Blvd

S Tremaine Ave

Kenesaw Ave

Driveway

Parking Area

Decon

Former Location of Fuel Oil AST

Former Location of Incinerator

Tennis Court

Handball Court

Playground Area

Teacher Parking

Driveway

M-16

M-3S

Number	Building Name
1	Main Building/Auditorium
2	Boy's Gym
3	General Classroom
4	General Classroom
5	General Classroom
6	General Classroom
7	Classroom Bldg
8	Science/Workroom
9	Shop Bldg
10	Storage/Portable Bldg
11	Tool Room
12	Storage/Portable Bldg
13	Flammable Storage
14	All Purpose Bldg
15	Storage/Portable Bldg
16	Special Education
17	Girl's Locker
18	General Classroom
19	Storage-Portable Bldg
20	Cafeteria -Classroom Bldg
21	General Classroom
22	General Classroom
23	General Classroom
24	General Classroom
25	General Classroom

Legend

- Burroughs Middle School
- Development Areas
- Existing Buildings
- Former Building Constructed Post-1992
- Approximate Former Building Footprints
- Step-Out Sampling Location (See Figures 4 to 7)
- M-1 Soil Sample/Probe Location
- EB1-1 Soil Boring Location (Existing Building)
- FB5-1 Soil Boring Location (Former Building)

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community. All locations approximate.

N W E S

0 150 Feet

Site Plan provided by Advisian,Worley Parsons Group. dated 10/16/2016.

TRUCK ROUTE MAP
Burroughs Middle School

FIGURE F-1

Project: 11640.004	Eng/Geol: JCH/RL
Approx. Scale 1"=75'	Date: January 2018

Drafted By: BES | Checked By: JCH

Leighton

APPENDIX G

GENERIC
REMOVAL ACTION COMPLETION REPORT
TABLE OF CONTENTS

REMOVAL ACTION COMPLETION REPORT
TABLE OF CONTENTS

1.0 INTRODUCTION
- 1.1 Site Description and Historical Perspective
- 1.2 Preliminary Endangerment Assessment
- 1.3 Supplemental Site Investigation
- 1.4 Removal Action Workplan
- 1.5 Health and Safety Plan
- 1.6 Public Participation

2.0 PERMITTING AND SITE PREPARATION ACTIVITIES
- 2.1 Permitting
- 2.2 Topographic and Utility Survey
- 2.3 Contractor Selection and Scope
- 2.4 Site Preparation

3.0 REMOVAL ACTION ACTIVITIES
- 3.1 Soil Excavation
- 3.2 Soil Stockpiling and Segregation
- 3.3 Soil Loading
- 3.4 Transportation
- 3.5 Offsite Disposal
- 3.6 Volume and Weight of Waste Soils

4.0 SAMPLING AND ANALYSIS
- 4.1 Waste Characterization and Profiling
- 4.2 Air Monitoring
- 4.3 Confirmation Sampling
  - 4.3.1 Confirmation Sampling
  - 4.3.2 Analytical Results
  - 4.3.3 Data Validation
  - 4.3.4 Evaluation of Analytical Results
  - 4.3.5 Confirmation Sampling Findings

5.0 SITE RESTORATION
- 5.1 Backfill and Compaction
- 5.2 Site Restoration

6.0 HUMAN HEALTH SCREENING EVALUATION

7.0 HEALTH AND SAFETY PLAN IMPLEMENTATION

8.0 FIELD VARIANCES

9.0 REFERENCES

LIST OF TABLES

1. Confirmation Sample List
2. Arsenic Results, Confirmation Soil Sampling
3. Stockpile Sampling Results

LIST OF FIGURES

1. Vicinity Map

2. Site Plan
3. Soil Boring Location Map – SSI
4. Initial Excavation Areas
5. Confirmation Sampling Locations and Results
6. Final Excavation Areas

LIST OF APPENDICES

A DTSC Approval Letter of Removal Action Workplan and NOE
B Grading Permit and Haul Route Permit Memo
C Site Photographs
D Stockpile Sampling Laboratory Reports
E Waste Manifests and Bills of Lading
F Air Monitoring Data
G Site Safety Meeting Records
H Confirmation Sampling Laboratory Reports
I Backfill Source Information and Chemical Analysis of Fill Material
J Data Validation Memo
K Residual Chemicals Remaining in Soil

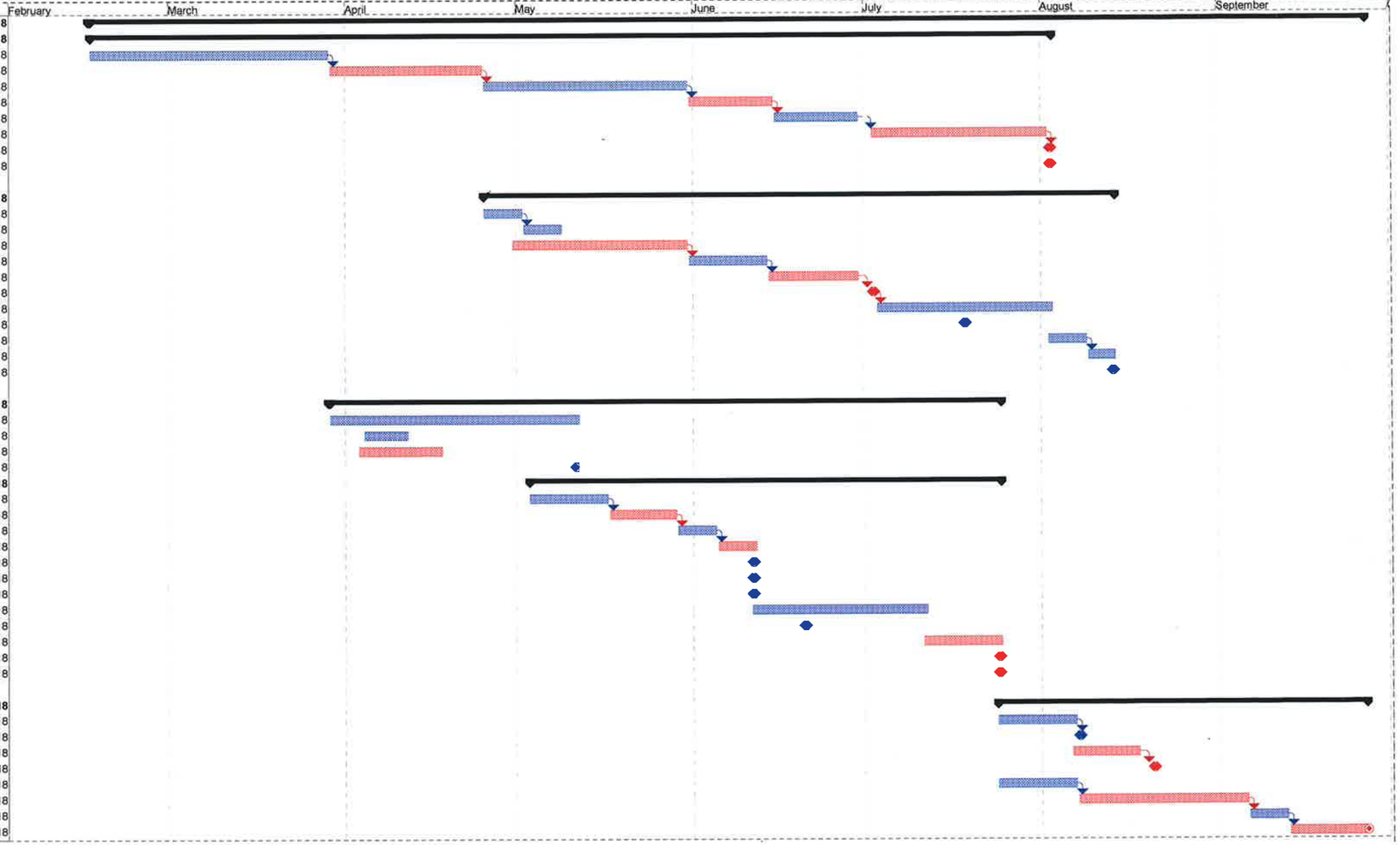
APPENDIX H

RAW PROCESS SCHEDULE

11640.004

Appendix H
RAW Process Schedule
LAUSD Burroughs Middle School Comprehensive Modernizaton Project
600 McCadden Place
Los Angeles, CA

ID	Task Name	Duration	Start	Finish
1	**RAW Process**	**160 days**	**Thu 2/15/18**	**Wed 9/26/18**
2	**REMEDIAL ACTION WORKPLAN**	**121 days**	**Thu 2/15/18**	**Thu 8/2/18**
3	District Prepares and Submits Draft RAW	30 days	Thu 2/15/18	Wed 3/28/18
4	DTSC Reviews and Comments on Draft RAW	19 days	Thu 3/29/18	Tue 4/24/18
5	District Revises Draft Final RAW	26 days	Wed 4/25/18	Wed 5/30/18
6	DTSC Reviews and Comments on Final Draft RAW	11 days	Thu 5/31/18	Thu 6/14/18
7	District Prepares Draft Final RAW	11 days	Fri 6/15/18	Fri 6/29/18
8	DTSC Reviews Draft Final Raw	23 days	Mon 7/2/18	Wed 8/1/18
9	DTSC Issues Adequacy Letter for Draft Final RAW	1 day	Thu 8/2/18	Thu 8/2/18
10	DTSC Prepares Completion form for RAW	1 day	Thu 8/2/18	Thu 8/2/18
11				
12	**CEQA Document Addendum**	**79 days**	**Wed 4/25/18**	**Mon 8/13/18**
13	District Prepares and Submits Draft CEQA Document Addendum	5 days	Wed 4/25/18	Tue 5/1/18
14	Preparation of Responsible Agency Checklist	5 days	Wed 5/2/18	Tue 5/8/18
15	DTSC Review of Draft CEQA Addendum	23 days	Mon 4/30/18	Wed 5/30/18
16	District Revises Draft CEQA Document Addendum	10 days	Thu 5/31/18	Wed 6/13/18
17	DTSC Reviews Draft Revised CEQA Addendum	12 days	Thu 6/14/18	Fri 6/29/18
18	DTSC Approval for 30-Day Public Review	1 day	Mon 7/2/18	Mon 7/2/18
19	30-Day Public Review Period	23 days	Tue 7/3/18	Thu 8/2/18
20	Public Meeting (optional)	1 day	Wed 7/18/18	Wed 7/18/18
21	District Responds to Comments and Finalizes MND	5 days	Thu 8/2/18	Wed 8/8/18
22	District Prepares Notice of Determination (NOD)	3 days	Thu 8/9/18	Mon 8/13/18
23	District files NOD with County Clerk and State Clearing House	1 day	Mon 8/13/18	Mon 8/13/18
24				
25	**PUBLIC PARTICIPATION ACTIVITIES**	**84 days**	**Thu 3/29/18**	**Tue 7/24/18**
26	District Prepares Draft Community Letter & Survey	32 days	Thu 3/29/18	Fri 5/11/18
27	District Updates Mailing List and CRP/PPP	6 days	Wed 4/4/18	Wed 4/11/18
28	DTSC Reviews and Approves Community Letter and Survey	11 days	Tue 4/3/18	Tue 4/17/18
29	District Mails Community Letter and Survey	1 day	Fri 5/11/18	Fri 5/11/18
30	**Community Profile, Public Notice (PN) & Fact Sheet (FS)**	**59 days**	**Thu 5/3/18**	**Tue 7/24/18**
31	District Prepares Draft Community Profile with PN & FS	10 days	Thu 5/3/18	Wed 5/16/18
32	DTSC Reviews Draft Community Profile with PN & FS	8 days	Thu 5/17/18	Mon 5/28/18
33	District Revises Community Profile with PN & FS	5 days	Tue 5/29/18	Mon 6/4/18
34	DTSC Reviews & Approves Community Profile with PN & FS	5 days	Tue 6/5/18	Mon 6/11/18
35	District Mails Fact Sheet	1 day	Mon 6/11/18	Mon 6/11/18
36	District Publishes Public Notice in Local Newspapers	1 day	Mon 6/11/18	Mon 6/11/18
37	District Updates Information Repositories	1 day	Mon 6/11/18	Mon 6/11/18
38	RAW Public Comment Period	23 days	Mon 6/11/18	Wed 7/11/18
39	Public Meeting (optional)	1 day	Wed 6/20/18	Wed 6/20/18
40	DTSC Prepares Responsiveness Summary	10 days	Wed 7/11/18	Tue 7/24/18
41	DTSC Transmits Responsiveness Summary to Commentors	1 day	Tue 7/24/18	Tue 7/24/18
42	DTSC Approves RAW	1 day	Tue 7/24/18	Tue 7/24/18
43				
44	**PERFORM REMEDIAL ACTION--UNDER CONSTRUCTION SITE OCCUPANCY**	**47 days**	**Tue 7/24/18**	**Wed 9/26/18**
45	District Implements RAW	10 days	Tue 7/24/18	Mon 8/6/18
46	District Submits Confirmation Data and Maps to DTSC	1 day	Tue 8/7/18	Tue 8/7/18
47	DTSC Reviews Confirmation Data and Maps for Expansion Area	10 days	Mon 8/6/18	Fri 8/17/18
48	DTSC Provides District with Approval for Site Grading	1 day	Mon 8/20/18	Mon 8/20/18
49	District Prepares Removal Action Completion Report (RACR)	10 days	Tue 7/24/18	Mon 8/6/18
50	DTSC Reviews RACR	22 days	Tue 8/7/18	Wed 9/5/18
51	District Revises RACR	5 days	Thu 9/6/18	Wed 9/12/18
52	DTSC Approves RACR	10 days	Thu 9/13/18	Wed 9/26/18



Task	Rolled Up Milestone	Project Summary	Inactive Milestone	Manual Summary Rollup	External Tasks
Milestone	Rolled Up Progress	Group By Summary	Inactive Summary	Manual Summary	External Milestone
Summary	Split	Inactive Task	Manual Task	Start-only	Progress
Rolled Up Task	External Tasks	Inactive Milestone	Duration-only	Finish-only	Deadline

APPENDIX I

INFORMATION ABOUT YOUR GEOENVIRONMENTAL REPORT

Important Information about This

Geoenvironmental Report

Geoenvironmental studies are commissioned to gain information about environmental conditions on and beneath the surface of a site. The more comprehensive the study, the more reliable the assessment is likely to be. But remember: Any such assessment is to a greater or lesser extent based on professional opinions about conditions that cannot be seen or tested. Accordingly, no matter how many data are developed, risks created by unanticipated conditions will always remain. *Have realistic expectations.* Work with your geoenvironmental consultant to manage known and unknown risks. Part of that process should already have been accomplished, through the risk allocation provisions you and your geoenvironmental professional discussed and included in your contract's general terms and conditions. This document is intended to explain some of the concepts that may be included in your agreement, and to pass along information and suggestions to help you manage your risk.

Beware of Change; Keep Your Geoenvironmental Professional Advised

The design of a geoenvironmental study considers a variety of factors that are subject to change. Changes can undermine the applicability of a report's findings, conclusions, and recommendations. *Advise your geoenvironmental professional about any changes you become aware of.* Geoenvironmental professionals cannot accept responsibility or liability for problems that occur because a report fails to consider conditions that did not exist when the study was designed. Ask your geoenvironmental professional about the types of changes you should be particularly alert to. Some of the most common include:

- modification of the proposed development or ownership group,
- sale or other property transfer,
- replacement of or additions to the financing entity,
- amendment of existing regulations or introduction of new ones, or
- changes in the use or condition of adjacent property.

Should you become aware of any change, *do not rely on a geoenvironmental report.* Advise your geoenvironmental professional immediately; follow the professional's advice.

Recognize the Impact of Time

A geoenvironmental professional's findings, recommendations, and conclusions cannot remain valid indefinitely. The more time that passes, the more likely it is that important latent changes will occur. *Do not rely on a geoenvironmental report if too much time has elapsed since it was completed.* Ask your environmental professional to define "too much time." In the case of Phase I Environmental Site Assessments (ESAs), for example, more than 180 days after submission is generally considered "too much."

Prepare To Deal with Unanticipated Conditions

The findings, recommendations, and conclusions of a Phase I ESA report typically are based on a review of historical information, interviews, a site "walkover," and other forms of noninvasive research. When site subsurface conditions are not sampled in any way, the risk of unanticipated conditions is higher than it would otherwise be.

While borings, installation of monitoring wells, and similar invasive test methods can help reduce the risk of unanticipated conditions, *do not overvalue the effectiveness of testing.* Testing provides information about actual conditions only at the precise locations where samples are taken, and only when they are taken. Your geoenvironmental

professional has applied that specific information to develop a general opinion about environmental conditions. *Actual conditions in areas not sampled may differ (sometimes sharply) from those predicted in a report.* For example, a site may contain an unregistered underground storage tank that shows no surface trace of its existence. *Even conditions in areas that were tested can change*, sometimes suddenly, due to any number of events, not the least of which include occurrences at adjacent sites. Recognize, too, that *even some conditions in tested areas may go undiscovered,* because the tests or analytical methods used were designed to detect only those conditions assumed to exist.

Manage your risks by retaining your geoenvironmental professional to work with you as the project proceeds. Establish a contingency fund or other means to enable your geoenvironmental professional to respond rapidly, in order to limit the impact of unforeseen conditions. And to help prevent any misunderstanding, identify those empowered to authorize changes and the administrative procedures that should be followed.

Do Not Permit Any Other Party To Rely on the Report

Geoenvironmental professionals design their studies and prepare their reports to meet the specific needs of the clients who retain them, in light of the risk management methods that the client and geoenvironmental professional agree to, and the statutory, regulatory, or other requirements that apply. The study designed for a developer may differ sharply from one designed for a lender, insurer, public agency...or even another developer. *Unless the report specifically states otherwise, it was developed for you and only you.* Do not unilaterally permit any other party to rely on it. The report and the study underlying it may not be adequate for another party's needs, and you could be held liable for shortcomings your geoenvironmental professional was powerless to prevent or anticipate. Inform your geoenvironmental professional when you know or expect that someone else—a third-party—will want to use or rely on the report. *Do not permit third-party use or reliance until you first confer with the geoenvironmental professional who prepared the report.* Additional testing, analysis, or study may be required and, in any event, appropriate terms and conditions should be agreed to so both you and your geoenvironmental professional are protected from third-party risks. *Any party who relies on a geoenvironmental report without the express written permission of the professional who prepared it and the client for whom it was prepared may be solely liable for any problems that arise.*

Avoid Misinterpretation of the Report

Design professionals and other parties may want to rely on the report in developing plans and specifications. They need to be advised, in writing, that their needs may not have been considered when the study's scope was developed, and, even if their needs were considered, they might misinterpret geoenvironmental findings, conclusions, and recommendations. *Commission your geoenvironmental professional to explain pertinent elements of the report to others who are permitted to rely on it, and to review any plans, specifications or other instruments of professional service that incorporate any of the report's findings, conclusions, or recommendations.* Your geoenvironmental professional has the best understanding of the issues involved, including the fundamental assumptions that underpinned the study's scope.

Give Contractors Access to the Report

Reduce the risk of delays, claims, and disputes by giving contractors access to the full report, *providing that it is accompanied by a letter of transmittal that can protect you* by making it unquestionably clear that: 1) the study was not conducted and the report was not prepared for purposes of bid development, and 2) the findings, conclusions, and recommendations included in the report are based on a variety of opinions, inferences, and assumptions and are subject to interpretation. Use the letter to also advise contractors to consult with your geoenvironmental professional to obtain clarifications, interpretations, and guidance (a fee may be required for this service), and that—in any event—they should conduct additional studies to obtain the specific type and extent of information each prefers for preparing a bid or cost estimate. Providing access to the full report, with the appropriate caveats, helps prevent formation of adversarial attitudes and claims of concealed or differing conditions. If a contractor elects to ignore the warnings and advice in the letter of transmittal, it would do so at its own risk. Your geoenvironmental professional should be able to help you prepare an effective letter.

Do Not Separate Documentation from the Report

Geoenvironmental reports often include supplemental documentation, such as maps and copies of regulatory files, permits, registrations, citations, and correspondence with regulatory agencies. If subsurface explorations were performed, the report may contain final boring logs and copies of laboratory data. If remediation activities occurred on site, the report may include: copies of daily field reports; waste manifests; and information about the disturbance of subsurface materials, the type and thickness of any fill placed on site, and fill placement practices, among other types of documentation. *Do not separate supplemental documentation from the report. Do not, and do not permit any other party to redraw or modify any of the supplemental documentation for incorporation into other professionals' instruments of service.*

Understand the Role of Standards

Unless they are incorporated into statutes or regulations, standard practices and standard guides developed by the American Society for Testing and Materials (ASTM) and other recognized standards-developing organizations (SDOs) are little more than aspirational methods agreed to by a consensus of a committee. The committees that develop standards may not comprise those best-qualified to establish methods and, no matter what, no standard method can possibly consider the infinite client- and project-specific variables that fly in the face of the theoretical "standard conditions" to which standard practices and standard guides apply. In fact, these variables can be so pronounced that geoenvironmental professionals who comply with every directive of an ASTM or other standard procedure could run afoul of local custom and practice, thus violating the standard of care. Accordingly, when geoenvironmental professionals indicate in their reports that they have performed a service "in general compliance" with one standard or another, it means they have applied professional judgement in creating and implementing a scope of service designed for the specific client and project involved, and which follows some of the general precepts laid out in the referenced standard. To the extent that a report indicates "general compliance" with a standard, you may wish to speak with your geoenvironmental professional to learn more about what was and was not done. *Do not assume a given standard was followed to the letter.* Research indicates that that seldom is the case.

Realize That Recommendations May Not Be Final

The technical recommendations included in a geoenvironmental report are based on assumptions about actual conditions, and so are preliminary or tentative. Final recommendations can be prepared only by observing actual conditions as they are exposed. For that reason, you should retain the geoenvironmental professional of record to observe construction and/or remediation activities on site, to permit rapid response to unanticipated conditions. *The geoenvironmental professional who prepared the report cannot assume responsibility or liability for the report's recommendations if that professional is not retained to observe relevant site operations.*

Understand That Geotechnical Issues Have Not Been Addressed

Unless geotechnical engineering was specifically included in the scope of professional service, a report is not likely to relate any findings, conclusions, or recommendations about the suitability of subsurface materials for construction purposes, especially when site remediation has been accomplished through the removal, replacement, encapsulation, or chemical treatment of on-site soils. The equipment, techniques, and testing used by geotechnical engineers differ markedly from those used by geoenvironmental professionals; their education, training, and experience are also significantly different. If you plan to build on the subject site, but have not yet had a geotechnical engineering study conducted, your geoenvironmental professional should be able to provide guidance about the next steps you should take. The same firm may provide the services you need.

Read Responsibility Provisions Closely

Geoenvironmental studies cannot be exact; they are based on professional judgement and opinion. Nonetheless, some clients, contractors, and others assume geoenvironmental reports are or certainly should be unerringly precise. Such assumptions have created unrealistic expectations that have led to wholly unwarranted claims and disputes. To help prevent such problems, geoenvironmental professionals have developed a number of report provisions and contract terms that explain who is responsible for what, and how risks are to be allocated. Some people mistake these for "exculpatory clauses," that is, provisions whose purpose is to transfer one party's rightful responsibilities and liabilities to someone else. Read the responsibility provisions included in a report and in the contract you and your geoenvironmental professional agreed to. *Responsibility provisions are not "boilerplate."* They are important.

Rely on Your Geoenvironmental Professional for Additional Assistance

Membership in the Geoprofessional Business Association exposes geoenvironmental professionals to a wide array of risk management techniques that can be of genuine benefit for everyone involved with a geoenvironmental project. Confer with your GBA-member geoenvironmental professional for more information.

GEOPROFESSIONAL BUSINESS ASSOCIATION

8811 Colesville Road/Suite G106, Silver Spring, MD 20910
Telephone: 301/565-2733 Facsimile: 301/589-2017
e-mail: info@geoprofessional.org www.geoprofessional.org

Copyright 2015 by the Geoprofessional Business Association (GBA). Duplication, reproduction, copying, or storage of this document, in whole or in part, by any means whatsoever, is strictly prohibited, except with GBA's specific written permission. Excerpting, quoting, or otherwise extracting wording from this document is permitted only with the express written permission of GBA, and only for purposes of scholarly research or book review. Only GBA-Member Firms may use this document as a complement to or as an element of a geoenvironmental report. Any other firm, individual, or entity that so uses this document without being a GBA-Member Firm could be committing negligent or intentional (fraudulent) misrepresentation.

Appendix I

John Burroughs Middle School Comprehensive Modernization Project Noise Calculations

ESA

Los Angeles Unified School District
Burroughs Middle School
Comprehensive Modernization Project

Noise and Vibration Technical Report

Prepared for
Los Angeles Unified School District
Office of Environmental Health and Safety
3333 South Beaudry Avenue, 21st Floor
Los Angeles, CA 90017

April 2019

ESA

Los Angeles Unified School District
Burroughs Middle School
Comprehensive Modernization Project

Noise and Vibration Technical Report

Prepared for
Los Angeles Unified School District
Office of Environmental Health and Safety
3333 South Beaudry Avenue, 21st Floor
Los Angeles, CA 90017

April 2019

626 Wilshire Boulevard
Suite 1100
Los Angeles, CA 90017
213.599.4300
www.esassoc.com

ESA

Bend	Oakland	San Francisco
Camarillo	Orlando	Santa Monica
Delray Beach	Pasadena	Sarasota
Destin	Petaluma	Seattle
Irvine	Portland	Sunrise
Los Angeles	Sacramento	Tampa
Miami	San Diego	

D211085.33

TABLE OF CONTENTS

LAUSD Burroughs Middle School Comprehensive Modernization Project Noise and Vibration Technical Report

Page

Executive Summary **ES-1**

1. Introduction **1**
- 1.1 Existing Conditions 3
- 1.2 Project Location 3
- 1.3 Project Description 3
- 1.4 Fundamentals of Noise 9
- 1.5 Fundamentals of Vibration 14
- 1.6 Existing Conditions 15

2. Regulatory Setting **18**
- 2.1 Federal 18
- 2.2 State 19
- 2.3 Local 19

3. Significance Thresholds **27**
- 3.1 City of Los Angeles 27
- 3.2 Los Angeles Unified School District 28
- 3.3 Vibration Criteria 28

4. Methodology **28**
- 4.1 Construction Noise Levels 28
- 4.2 Operational Noise Levels 29
- 4.3 Groundborne Vibration Levels 29

5. Environmental Impacts **29**
- 5.1 Noise Levels in Excess of Standards 29
- 5.2 Ground-Borne Vibration 35
- 5.3 Permanent Increase in Ambient Noise Levels 37
- 5.4 Temporary Increase in Ambient Noise Levels 37
- 5.5 Airport-related Excessive Noise Levels 38

6. Cumulative Impacts **38**

7. Summary of Results **38**

8. References **39**

Appendices

A. Noise Measurements
B. Noise Calculation Worksheets

Figures

1 Project Vicinity 4
2 Project Location 5
3 Decibel Scale and Common Noise Sources 11
4 Noise Measurement Locations 17

Tables

1 Summary of LAUSD SUP PEIR Noise and Vibration Impacts 2
2 Proposed Project (Demolition, Remodel, and Construction) 6
3 Summary of Ambient Noise Measurements 16
4 Ground-Borne Vibration Criteria: Human Annoyance 18
5 Ground-Borne Vibration Criteria: Architectural Damage 19
6 City of Los Angeles Land Use Compatibility for Community Noise 21
7 Noise Standard Conditions of Approval 23
8 Construction Equipment Usage and Noise Levels 31
9 Estimated Construction Noise Levels at Sensitive Receptors 32
10 On-Road Construction Traffic Noise Levels 33
11 Vibration Source Levels for Construction Equipment 35

LAUSD BURROUGHS MIDDLE SCHOOL COMPREHENSIVE MODERNIZATION PROJECT

Noise and Vibration Technical Report

Executive Summary

Los Angeles Unified School District (LAUSD) proposes a Comprehensive Modernization to Burroughs Middle School (Burroughs MS) (proposed Project), located at 600 South McCadden Place, Los Angeles, California. Burroughs MS is within Local District West. The proposed Project is designed to address the most critical physical concerns of the buildings and grounds at the campus while upgrading, renovating, modernizing, and reconfiguring the campus to provide facilities that are safe, secure, and better aligned with the current instructional program.

The purpose of this Noise and Vibration Technical Report is to assess and discuss the impacts of potential noise and vibration impacts that may occur with the implementation of the proposed Project.

The analysis describes the existing noise environment in the Project area, estimates future noise and vibration levels at surrounding land uses resulting from construction and operation of the Project, and identifies the potential for significant impacts. An evaluation of the Project's contribution to potential cumulative noise impacts is also provided. Noise worksheets and technical data used in this analysis are provided in the Appendices.

The report summarizes the potential for the Project to conflict with applicable noise and vibration regulations, standards, and thresholds. The findings of the analyses are as follows:

- On-site construction noise levels would not exceed the significance threshold at on-site receptors or three out of four studied off-site receptors with implementation of mitigation measures as well as complying with the Program EIR Standard Conditions. However, construction noise would exceed the significance thresholds at one off-site receptor and impacts would be significant and unavoidable.
- Construction vibration levels associated with the Project would not exceed the significance threshold at the off-site and on-site sensitive receptors with the implementation of mitigation measures as well as complying with the Program EIR Standard Conditions. Therefore, construction noise and vibration impacts would be less than significant.
- Operation of the Project would not expose persons to, or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of

other agencies with the compliance of the Program EIR Standard Conditions. Therefore, operation noise impacts would be less than significant.

- As discussed above, Project construction would not result in a substantial temporary or permanent increase in ambient noise at on-site receptors or three out of four studied receptors. However, Project construction would result in significant temporary increases of ambient noise at one off-site receptor, resulting in a significant and unavoidable impact.
- The Project would not result in significant permanent increases in ambient noise and impacts would be less than significant.

LAUSD Burroughs Middle School Comprehensive Modernization Project

Noise and Vibration Technical Report

1. Introduction

This Noise and Vibration Technical Report was prepared by ESA to support a Draft Environmental Impact Report (EIR) for the proposed Burroughs Middle School Comprehensive Modernization Project (proposed Project) located in the City of Los Angeles.

Ongoing master planning activities and facility site assessments conducted for Los Angeles Unified School District (LAUSD or District) facilities over the last several years have identified school sites throughout the District that exhibit critical physical conditions. The School Upgrade Program (SUP) implemented by LAUSD outlines a series of capital improvements intended to rehabilitate and modernize these schools so they are safe, healthy, and functional places to learn.

LAUSD prepared a Program Environmental Impact Report (SCH No. 2013111046) to evaluate the direct and indirect environmental effects of the SUP program.[1] The SUP Program EIR (Program EIR or PEIR) was certified by the LAUSD Board on November 10, 2015.[2] As provided in Section 15168 of the State California Environmental Quality Act (CEQA) Guidelines, a Program EIR may be prepared on a series of actions that can be characterized as one large project. Use of a Program EIR provides LAUSD, as lead agency, with the opportunity to consider broad policy alternatives and program-wide mitigation measures, and provides LAUSD with greater flexibility to address project-specific and cumulative environmental impacts on a comprehensive basis.[3]

Subsequent activities under the SUP are evaluated to determine whether an additional CEQA document needs to be prepared. However, if the Program EIR addresses the program's effects as specifically and comprehensively as possible, many subsequent activities could be found to be within the Program EIR scope, and additional environmental documents may not be required.[4] When a Program EIR is relied on for a subsequent activity, the lead agency must incorporate any

1 Los Angeles Unified School District. 2015. School Upgrade Program Final Environmental Impact Report, http://achieve.lausd.net/ceqa. Adopted by the Board of Education on November 10, 2015.

2 Los Angeles Unified School District, Board of Education. Regular Board Meeting -November 10, 2015. http://laschoolboard.org/11-10-15RegBd.

3 Los Angeles Unified School District. 2015. School Upgrade Program Final Environmental Impact Report, http://achieve.lausd.net/ceqa. Adopted by the Board of Education on November 10, 2015. p. 1-5.

4 14 CCR Section 15168(c).

feasible mitigation measures and alternatives developed in the Program EIR into the subsequent activities.[5] **Table 1** *Summary of LAUSD SUP PEIR Noise and Vibration Impacts*, summarizes the PEIR's conclusions regarding the noise and vibration impacts of the SUP, as well as the findings of this project-specific analysis.

TABLE 1
SUMMARY OF LAUSD SUP PEIR NOISE AND VIBRATION IMPACTS

ENVIRONMENTAL THRESHOLD WOULD THE PROJECT:		PEIR LEVEL OF IMPACT SIGNIFICANCE	PROJECT-SPECIFIC LEVEL OF IMPACT SIGNIFICANCE	APPLICABLE STANDARD CONDITIONS (SCS) OF APPROVAL	**MITIGATION MEASURES**
a)	Result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance?	Potentially Significant and Unavoidable	Less than Significant	SC-N-1 SC-N-2 SC-N-4	No required
b)	Result in the generation of excessive ground-borne vibration during construction activities?	Potentially Significant and Unavoidable	Less than Significant with Mitigation Incorporated	SC-N-5 SC-N-6 SC-N-7 SC-N-8	Noise-1 Noise-2
c)	Result in substantial permanent increase in ambient noise levels from traffic?	Less than Significant	Less than Significant	SC-N-3	Not required
d)	Result in substantial temporary or periodic increase in ambient noise levels in the project vicinity during construction?	Potentially Significant and Unavoidable	Less than Significant	SC-N-5 SC-N-9	Not required
e)	If within an airport land use plan or within two miles of a public use airport or private airstrip, expose students or staff to excessive noise levels?	Less than Significant	Less than Significant	SC-N-2	Not required

SOURCE: LAUSD SUP FEIR 2015; ESA 2017

According to the PEIR, projects implemented under the SUP are anticipated to have less than significant and potentially significant impacts on noise and vibration. The project-specific analysis provided in Section 5.0 Environmental Impacts of this report concludes that implementation of the proposed Project would have less than significant and potentially significant impacts on the surrounding community and the school site.

The purpose of this report is to provide a detailed technical noise and vibration analysis of the proposed Project. ESA has conducted this noise and vibration assessment to evaluate the potential noise and vibration impacts associated with construction activities, traffic, and other aspects of the proposed Project construction and operations that have the potential to generate noise and vibration. The objectives of this Noise and Vibration Technical Report are to:

5 14 CCR Section 15168(c)(3).

- Establish the existing noise environment at the Project site;
- Evaluate the construction and operational noise and vibration levels associated with proposed Project development and the potential for noise and vibration impacts based on applicable standards and thresholds;
- Provide, if needed, noise and vibration mitigation measures as required to meet applicable noise and vibration standards and thresholds.

1.1 Existing Conditions

Burroughs MS is an operational middle school serving students in grades six through eight. The campus is comprised of 25 buildings and structures, including 14 portable buildings. Buildings at the Project site include: two-story Administrative and Auditorium Building, various classroom buildings, Food Service/Lunch Shelter Building, Gymnasium, and portable buildings. The school is also developed with landscaped areas containing playfields and ornamental landscaping with trees, shrubs, and grass.

1.2 Project Location

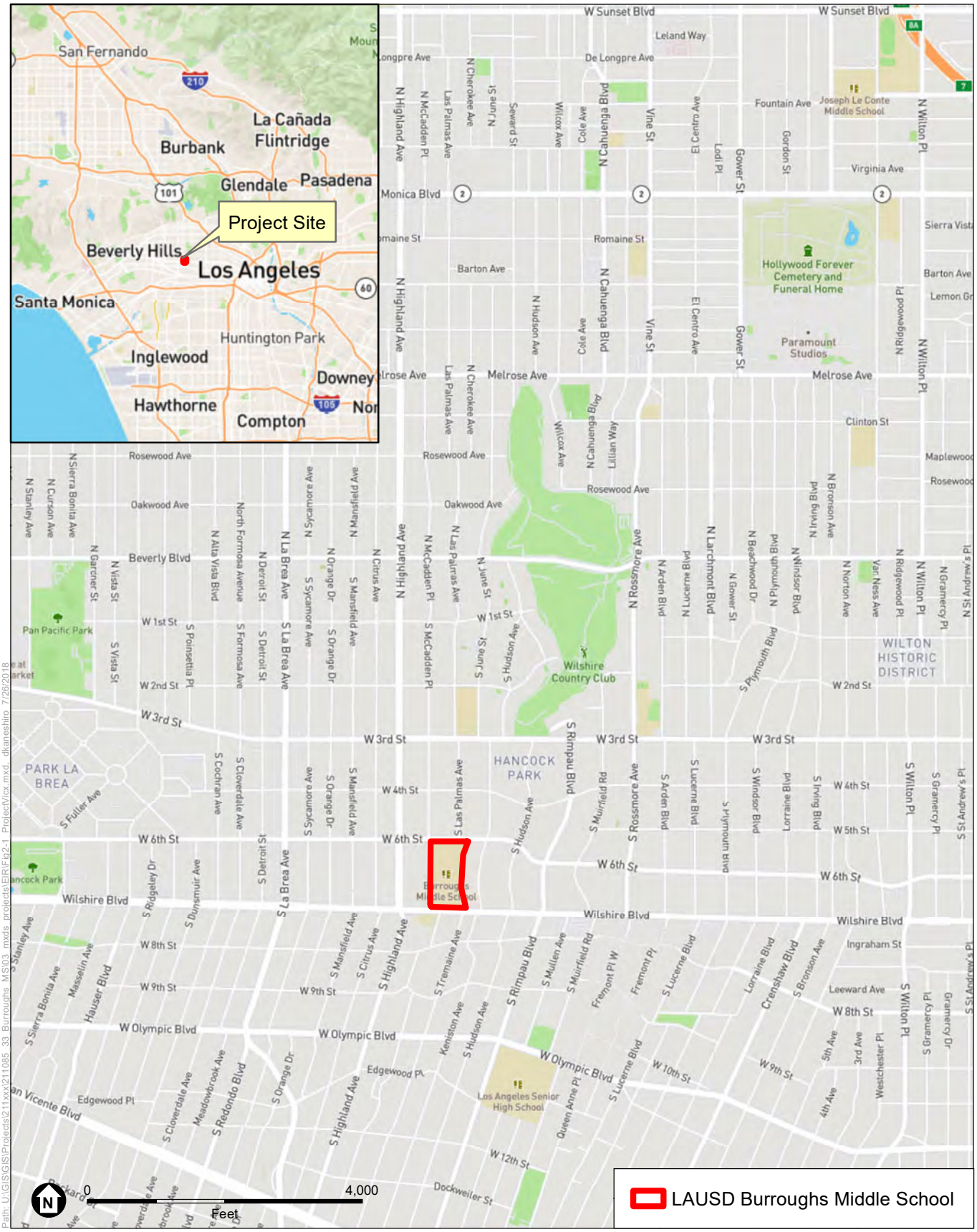
Burroughs MS is located approximately 5 miles west of downtown Los Angeles. Primary regional access is provided by Interstate 10 (I-10), approximately 2 miles to the south of the Project site and 10 miles east of the Pacific Ocean (**Figure 1**, *Project Vicinity*). Major arterials providing regional and sub-regional access to the project vicinity include Wilshire Boulevard, immediately south of the Project site, and South La Brea Avenue, approximately 0.5 miles west of the Project site (**Figure 2**, *Project Location*). The Assessor's Parcel Number (APN) for the Project site is 5507-017-900. The campus is located within the Hancock Park Historic Preservation Overlay Zone (HPOZ).

1.3 Project Description

The proposed Project would result in demolition of and/or modifications to existing buildings, potentially including historic buildings and resources. However, the Project would be designed to preserve and enhance significant (primary) character-defining features associated with the campus. Additionally, the proposed Project would be designed and implemented in a manner that complies with the LAUSD Design Guidelines and Treatment Approaches for Historic Schools.[6]

Upon completion of Project construction, the Burroughs MS would have 71 classrooms including 6 existing classrooms, 38 remodeled classrooms, and 27 new classrooms. Approximately 7,000 square feet of existing area is to remain (with minor renovations such as new paint). **Table 2**, *Proposed Project (Demolition, Remodel, and Construction)* shows details about the characteristics of the existing buildings to be demolished and/or renovated.

6 LAUSD. January 2015. Los Angeles Unified School District Design Guidelines and Treatment Approaches for Historic Schools. Los Angeles, CA.

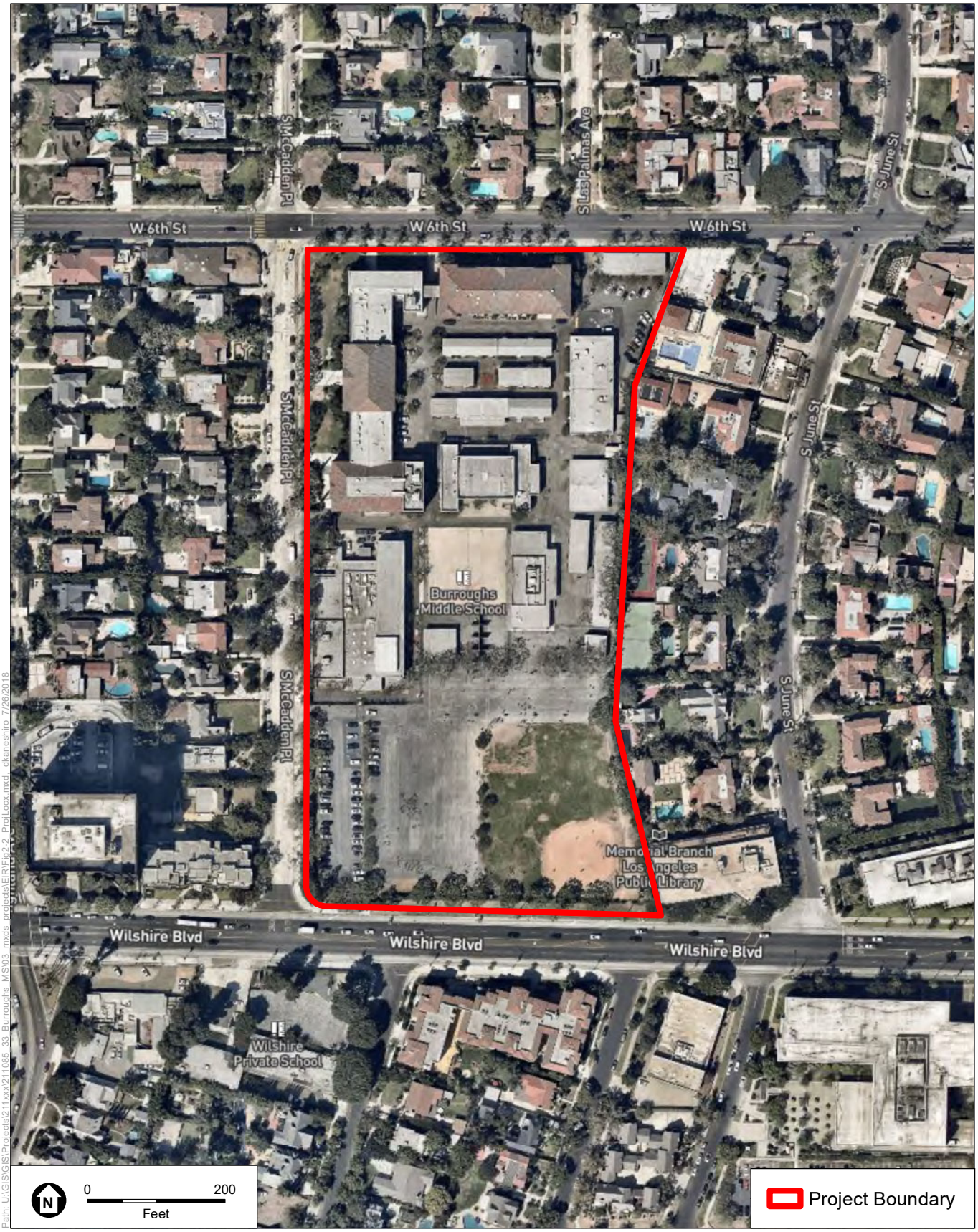


SOURCE: OpenStreetMap, 2018

LAUSD Burroughs Middle School Comprehensive Modernization Project

Figure 1
Project Vicinity

ESA



SOURCE: OpenStreetMap, 2018

LAUSD Burroughs Middle School Comprehensive Modernization Project

Figure 2
Project Location

ESA

TABLE 2
PROPOSED PROJECT (DEMOLITION, REMODEL, AND CONSTRUCTION)

Bldg. ID*	Bldg. DSA No.	Building Name	Class-rooms	Demolition/ Removal (sf)	Remodel (sf)	New Construction (sf)	Existing to Remain (sf)
1	A748	Main and Auditorium Building			67,381		
2	A749	Boys' Gym			11,868		
3	A13356	Classroom Building		1,907			
4	A7055	Classroom Building					1,824
5	A6655	Classroom Building		1,824			
6	A58913	Classroom Building		1,859			
7	A24637	Classroom Building			28,529		
8	A22091	Classroom Building		2,520			
9	A749	Shop Building			9,032		
10	M0051F (No DSA)	Storage		200			
11	L0029G	Tool Room		168			
12	M0586K (No DSA)	Storage		80			
14	A16058	All Purpose Building					3,252
16	A2677	Classroom Building		1,509			
17	A39162	Girls' Locker		7,603			
18	A10407	Classroom Building					1,824
19	A20797	Sanitary Administrative Building		896			
20	A39162	Cafeteria-Classroom Building		25,415			
21	A10407	Classroom Building		1,824			
22	A6492	Classroom Building		912			
23	A6582	Classroom Building		912			
24	A15745	Classroom Building		1,056	5		
25	A7256	Classroom Building		864			
26	X3865Y (No DSA Listed)	Classroom Building		1,920			
Q	-	Two One-Story Specialty Classroom Buildings	3			9,584	
B	-	Three-Story Food Services; MPR/Classroom/Lockers	24			66,452	
		Total	**27**	**51,469**	**116,815**	**76,036**	

sf = Square footage

As outlined in Table 2, the proposed Project would include demolition of the following facilities:

- Cafeteria-Classroom Building (Bldg. 20)
- Flammable Storage Building (Bldg. 13)
- Girls' Locker Building (Bldg. 17)
- Approximately 28 standard and specialty classrooms located in 13 relocatable or portable buildings

The total demolition footprint of the proposed Project would be approximately 51,500 square feet.

The proposed Project would include construction of the following facilities that would be designed, constructed, and furnished/equipped to current code requirements and District design standards:

- Two One-Story Specialty Classroom Buildings (Bldg. A)
  - Approximately three specialty classrooms (instrumental music, maker space, and flexible drama) and support spaces[7] on the first floor
- Three-Story Food Services + MPR/Classroom/Lockers (Bldg. B)
  - Approximately one student store, boys' and girls' lockers, food services, and indoor dining/MPR facilities on the first floor
  - Approximately 14 standard classrooms on the second floor
  - Approximately 2 standard classrooms and 8 science classrooms on the third floor

The total construction footprint of the proposed Project would be approximately 76,000 square feet.

Modernization and/or upgrades would be completed for the following buildings:

- Administrative/Library/Auditorium (Bldg. 1)
- Boys' Gymnasium Building (Bldg. 2)
- Classroom Building (Bldg. 7)
- AA-610 (Bldg. 4)
- All Purpose Building (Bldg. 14)
- AA-1143 (Bldg. 18)

[7] Support spaces include storage, custodian rooms, and boys' and girls' restrooms.

The proposed improvements to existing buildings include the following:

- Administrative/Library/Auditorium (Bldg. 1)
  - Seismic retrofit
  - Reconfiguration of interior walls while maintaining existing stairs and central corridors
  - Construction of an ADA compliant entry ramp on the west side of the building
  - Renovate and reconfigure the south basement section to accommodate M&O functions, including general storage, receiving storage, restrooms, and plant manager. A new freight-sized elevator would be installed on the east side of the Auditorium in order to access the basement area.
  - Auditorium upgrades
    - Fix broken seats and install seat padding and upholstery
    - Install automatic seat uplift for egress compliance
    - Provide designated aisle seats for ADA compliance
    - Install additional aisle lighting
    - Alter seating layout to provide accessible route to the performance area
    - Install handrails where required in seating aisles
    - Install guardrails in the balcony
    - Construct new control booth under balcony seating
    - Remove the fire curtain
    - Install guardrails around backstage technical circulation levels and grid iron
    - Install fall arrest points for workers at the first row of balcony
    - Install smoke vents or a smoke evacuation system over the stage
    - Replace all cotton drapery with inherently flame-retardant (IFR) drapes
    - Repair stage floor
    - Relocate balcony rail lighting
    - Remove interior wall backstage
    - Reinforce the gridiron
    - Electrical upgrades
    - Upgrade the lighting system including switching to light-emitting diode (LED) lights
- Boys' Gymnasium Building (Bldg. 2)
  - Seismic retrofit
  - Minor reconfiguration of interior walls (Practice Gym will remain the same size)

- Classroom Building (Bldg. 7)
  - Seismic retrofit
  - Reconfiguration of interior walls while maintaining existing stairs and central corridors
- Shop Building (Bldg. 9)
  - Seismic retrofit
  - Reconfiguration of interior walls and entry points to accommodate seven classrooms (six standard and one special education) and support spaces
- General Classroom Buildings (Bldgs. 4, 14, 18)
  - Interior and exterior paint and finish upgrades

The proposed Project would modify and remodel 117,000 square feet of building space (100,000 square foot not including basement areas).

Upgrades to the Administrative/Library/Auditorium Building, Gymnasium Building, and Classroom Building would entail seismic retrofits. Seismic retrofitting would be completed in compliance with the seismic safety requirements of the LAUSD Supplemental Geohazard Assessment Scope of Work, California Building Code, Division of Stat Architect, and California Department of Education.

Site upgrades that would be completed throughout the campus include:

- Site-wide infrastructure, including plumbing, electrical, and storm drain
- Site-wide upgrades to remove identified and prioritized barriers to program accessibility
- Landscape, hardscape, and exterior paint

The Project would include improvements as required by the ADA, Division of the State Architect (DSA), CEQA, Office of the Independent Monitor (OIM) for ADA program accessibility, and any other required improvements or mitigations to ensure compliance with local, state, and/or federal facilities requirements.

1.4 Fundamentals of Noise

1.4.1 Noise Principles and Descriptors

Sound can be described as the mechanical energy of a vibrating object transmitted by pressure waves through a liquid, or gaseous, medium (e.g., air). Noise is generally defined as unwanted sound (i.e., loud, unexpected, or annoying sound). Acoustics is defined as the physics of sound. In acoustics, the fundamental scientific model consists of a sound (or noise) source, a receiver, and the propagation path between the two. The loudness of the noise source and obstructions, or atmospheric factors affecting the propagation path to the receiver determines the sound level and

characteristics of the noise perceived by the receiver. Acoustics addresses primarily the propagation and control of sound.[8]

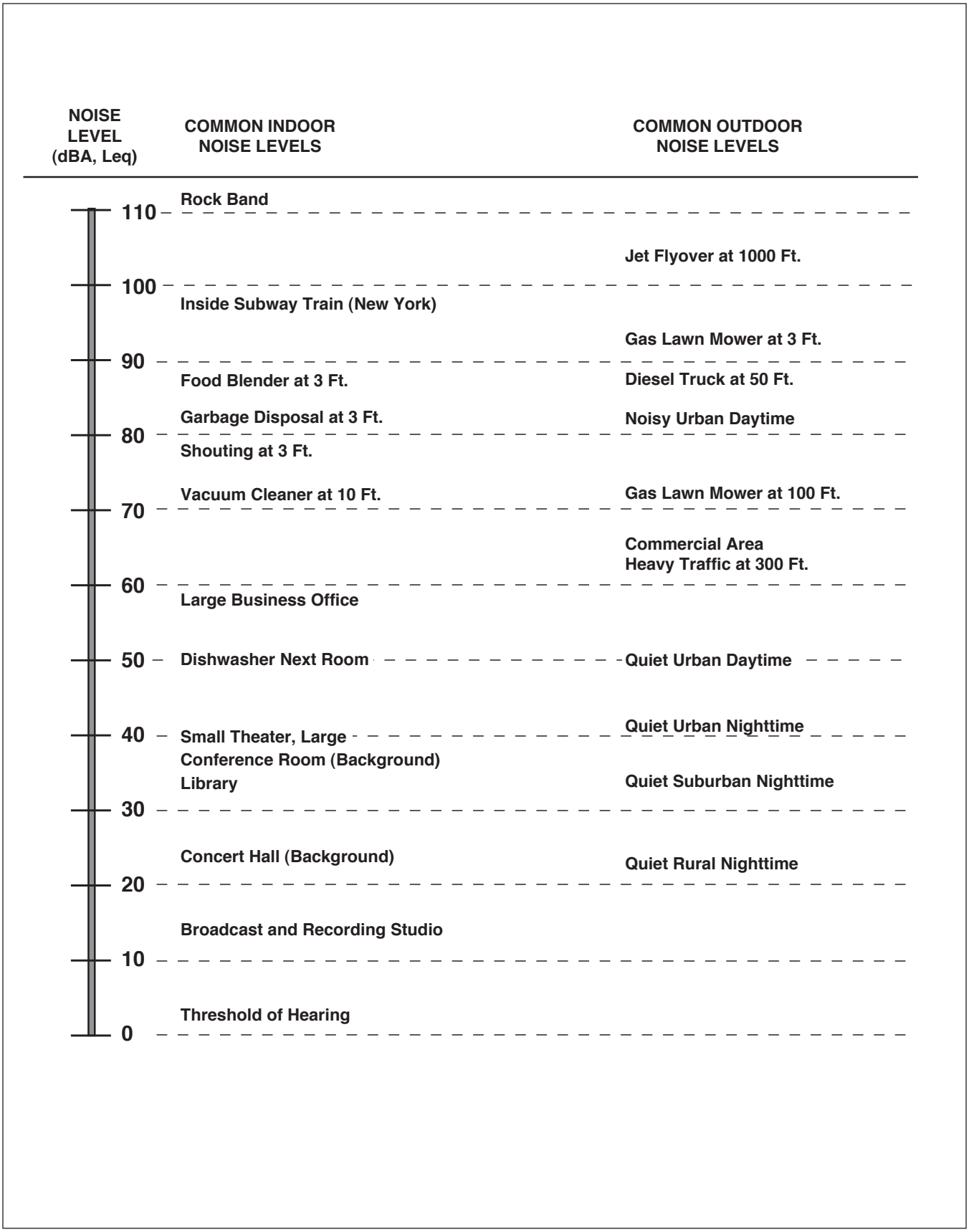
Sound, traveling in the form of waves from a source, exerts a sound pressure level (referred to as sound level) that is measured in decibels (dB), which is the standard unit of sound amplitude measurement. The dB scale is a logarithmic scale that describes the physical intensity of the pressure vibrations that make up any sound, with 0 dB corresponding roughly to the threshold of human hearing and 120 to 140 dB corresponding to the threshold of pain. Pressure waves traveling through air exert a force registered by the human ear as sound.[9]

Sound pressure fluctuations can be measured in units of hertz (Hz), which correspond to the frequency of a particular sound. Typically, sound does not consist of a single frequency, but rather a broad band of frequencies varying in levels of magnitude, with audible frequencies of the sound spectrum ranging from 20 to 20,000 Hz. The sound pressure level, therefore, constitutes the additive force exerted by a sound corresponding to the sound frequency/sound power level spectrum.[10] The typical human ear is not equally sensitive to this frequency range. As a consequence, when assessing potential noise impacts, sound is measured using an electronic filter that deemphasizes the frequencies below 1,000 Hz and above 5,000 Hz in a manner corresponding to the human ear's decreased sensitivity to these extremely low and extremely high frequencies. This method of frequency filtering, or weighting, is referred to as A-weighting, expressed in units of A-weighted decibels (dBA), which is typically applied to community noise measurements.[11] Some representative common outdoor and indoor noise sources and their corresponding A-weighted noise levels are shown in **Figure 3**, *Decibel Scale and Common Noise Sources*.

1.4.2 Noise Exposure and Community Noise

An individual's noise exposure is a measure of noise over a period of time; a noise level is a measure of noise at a given instant in time, as presented Figure 3. However, noise levels rarely persist at that level over a long period of time. Rather, community noise varies continuously over a period of time with respect to the sound sources contributing to the community noise environment. Community noise is primarily the product of many distant noise sources, which constitute a relatively stable background noise exposure, with many of the individual contributors unidentifiable. The background noise level changes throughout a typical day, but does so gradually, corresponding with the addition and subtraction of distant noise sources, such as changes in traffic volume. What makes community noise variable throughout a day, besides the slowly changing background noise, is the addition of short-duration, single-event noise sources (e.g., aircraft flyovers, motor vehicles, sirens), which are readily identifiable to the individual.[12]

8 M David Egan, *Architectural Acoustics*, Chapter 1, March, 1988.
9 M David Egan, *Architectural Acoustics*, Chapter 1, March, 1988.
10 M David Egan, *Architectural Acoustics*, Chapter 1, March, 1988.
11 M David Egan, *Architectural Acoustics*, Chapter 1, March, 1988.
12 California Department of Transportation, *Technical Noise Supplement* (TeNS), Section 2.2.2.1, September, 2013.



D211085.33

SOURCE: State of California, Department of Transportation (Caltrans), Technical Noise Supplement (TeNS). October 1998. Available: http://www.dot.ca.gov/hq/env/noise/pub/Technical Noise Supplement.pdf

LAUSD Burroughs Middle School Comprehensive Modernization Project

Figure 3
Decibel Scale and Common Noise Sources

ESA

These successive additions of sound to the community noise environment change the community noise level from instant to instant, requiring the noise exposure to be measured over periods of time to legitimately characterize a community noise environment and evaluate cumulative noise impacts. The following noise descriptors are used to characterize environmental noise levels over time, which are applicable to the Project.[13]

L_{eq}: The equivalent sound level, is used to describe noise over a specified period of time in terms of a single numerical value; the L_{eq} of a time-varying signal and that of a steady signal are the same if they deliver the same acoustic energy over a given time. The L_{eq} may also be referred to as the average sound level.

L_{dn}: the average A-weighted noise level during a 24-hour day, obtained after an addition of 10 dB to measured noise levels between the hours of 10:00 p.m. to 7:00 a.m. to account nighttime noise sensitivity. The L_{dn} is also termed the day-night average noise level (DNL).

CNEL: The Community Noise Equivalent Level (CNEL) is the average A-weighted noise level during a 24-hour day that is obtained after an addition of 5 dB to measured noise levels between the hours of 7:00 a.m. to 10:00 p.m. and after an addition of 10 dB to noise levels between the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the evening and nighttime, respectively.

1.4.3 Effects of Noise on People

Noise is generally loud, unpleasant, unexpected, or undesired sound that is typically associated with human activity that is a nuisance, or disruptive. The effects of noise on people can be placed into four general categories:

- Subjective effects (e.g., dissatisfaction, annoyance);
- Interference effects (e.g., communication, sleep, and learning interference);
- Physiological effects (e.g., startle response); and
- Physical effects (e.g., hearing loss).

Although exposure to high noise levels has been demonstrated to cause physical and physiological effects, the principal human responses to typical environmental noise exposure are related to subjective effects and interference with activities. Interference effects interrupt daily activities and include interference with human communication activities, such as normal conversations, watching television, telephone conversations, and interference with sleep. Sleep interference effects can include both awakening and arousal to a lesser state of sleep.[14]

With regard to the subjective effects, the responses of individuals to similar noise events are diverse and influenced by many factors, including the type of noise, the perceived importance of the noise, the appropriateness of the noise to the setting, the duration of the noise, the time of day

[13] California Department of Transportation, *Technical Noise Supplement* (TeNS), Section 2.2.2.2, September, 2013.
[14] California Department of Transportation, *Technical Noise Supplement* (TeNS), Section 2.2.1, September 2013.

and the type of activity during which the noise occurs, and individual noise sensitivity. Overall, there is no completely satisfactory way to measure the subjective effects of noise, or the corresponding reactions of annoyance and dissatisfaction on people. A wide variation in individual thresholds of annoyance exists, and different tolerances to noise tend to develop based on an individual's past experiences with noise. Thus, an important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted (i.e., comparison to the ambient noise environment). In general, the more a new noise level exceeds the previously existing ambient noise level, the less acceptable the new noise level will be judged by those hearing it. With regard to increases in A-weighted noise level, the following relationships generally occur:[15]

- Except in carefully controlled laboratory experiments, a change of 1 dBA in ambient noise levels cannot be perceived;
- Outside of the laboratory, a 3 dBA change in ambient noise levels is considered to be a barely perceivable difference;
- A change in ambient noise levels of 5 dBA is considered to be a readily perceivable difference; and
- A change in ambient noise levels of 10 dBA is subjectively heard as doubling of the perceived loudness.

These relationships occur in part because of the logarithmic nature of sound and the decibel scale. The human ear perceives sound in a non-linear fashion; therefore, the dBA scale was developed. Because the dBA scale is based on logarithms, two noise sources do not combine in a simple additive fashion, but rather logarithmically. Under the dBA scale, a doubling of sound energy corresponds to a 3 dBA increase. In other words, when two sources are each producing sound of the same loudness, the resulting sound level at a given distance would be approximately 3 dBA higher than one of the sources under the same conditions. For example, if two identical noise sources produce noise levels of 50 dBA, the combined sound level would be 53 dBA, not 100 dBA. Under the dB scale, three sources of equal loudness together produce a sound level of approximately 5 dBA louder than one source, and 10 sources of equal loudness together produce a sound level of approximately 10 dBA louder than the single source.[16]

1.4.4 Noise Attenuation

When noise propagates over a distance, the noise level reduces with distance depending on the type of noise source and the propagation path. Noise from a localized source (i.e., point source) propagates uniformly outward in a spherical pattern, referred to as "spherical spreading." Stationary point sources of noise, including stationary mobile sources such as idling vehicles, attenuate (i.e., reduce) at a rate between 6 dBA for acoustically "hard" sites and 7.5 dBA for "soft" sites for each doubling of distance from the reference measurement, as their energy is continuously spread out over a spherical surface (e.g., for hard surfaces, 80 dBA at 50 feet attenuates to 74 at 100 feet, 68 dBA at 200 feet, etc.). Hard sites are those with a reflective surface between the source and the receiver, such as asphalt, or concrete, surfaces, or smooth

[15] California Department of Transportation, *Technical Noise Supplement* (TeNS), Section 2.2.1, September 2013.
[16] California Department of Transportation, *Technical Noise Supplement* (TeNS), Section 2.2.1.1, September 2013.

bodies of water. No excess ground attenuation is assumed for hard sites and the reduction in noise levels with distance (drop-off rate) is simply the geometric spreading of the noise from the source. Soft sites have an absorptive ground surface, such as soft dirt, grass, or scattered bushes and trees, which in addition to geometric spreading, provides an excess ground attenuation value of 1.5 dBA (per doubling distance).[17]

Roadways and highways consist of several localized noise sources on a defined path, and hence are treated as "line" sources, which approximate the effect of several point sources. Noise from a line source propagates over a cylindrical surface, often referred to as "cylindrical spreading."[18] Line sources (e.g., traffic noise from vehicles) attenuate at a rate between 3 dBA for hard sites and 4.5 dBA for soft sites for each doubling of distance from the reference measurement.[19] Therefore, noise due to a line source attenuates less with distance than that of a point source with increased distance.

Additionally, receptors located downwind from a noise source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lowered noise levels. Atmospheric temperature inversion (i.e., increasing temperature with elevation) can increase sound levels at long distances (e.g., more than 500 feet). Other factors such as air temperature, humidity, and turbulence can also have significant effects on noise levels.[20]

1.5 Fundamentals of Vibration

Vibration can be interpreted as energy transmitted in waves through the ground, or man-made structures, which generally dissipate with distance from the vibration source. Because energy is lost during the transfer of energy from one particle to another, vibration becomes less perceptible with increasing distance from the source.

As described in the Federal Transit Administration's (FTA) *Transit Noise and Vibration Impact Assessment*, ground-borne vibration can be a serious concern for nearby neighbors of a transit system route, or maintenance facility, causing buildings to shake and rumbling sounds to be heard.[21] In contrast to airborne noise, ground-borne vibration is not a common environmental problem, as it is unusual for vibration from sources such as buses and trucks to be perceptible, even in locations close to major roads. Some common sources of ground-borne vibration are trains, heavy trucks traveling on rough roads, and construction activities, such as blasting, pile-driving, and operation of heavy earth-moving equipment.[22]

There are several different methods that are used to quantify vibration. The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal in inches per second

17 California Department of Transportation, *Technical Noise Supplement* (TeNS), Section 2.1.4.2, September 2013.
18 California Department of Transportation, *Technical Noise Supplement* (TeNS), Section 2.1.4.1, September 2013
19 California Department of Transportation, *Technical Noise Supplement* (TeNS), Section 2.1.4.1, September 2013.
20 California Department of Transportation, *Technical Noise Supplement* (TeNS), Section 2.1.4.3, September 2013.
21 Federal Transit Administration, Transit Noise and Vibration Impact Assessment, Section 7, May 2006.
22 California Department of Transportation, *Transportation and Construction Vibration Guidance Manual*, p. 1, September 2013.

(in/sec), and is most frequently used to describe vibration impacts to buildings. The root mean square (RMS) amplitude is defined as the average of the squared amplitude of the signal and is most frequently used to describe the effect of vibration on the human body. Decibel notation (VdB) is commonly used to measure RMS. The relationship of PPV to RMS velocity is expressed in terms of the "crest factor," defined as the ratio of the PPV amplitude to the RMS amplitude. PPV is typically a factor of 1.7 to 6 times greater than RMS vibration velocity.[23] The decibel notation VdB acts to compress the range of numbers required to describe vibration. Typically, ground-borne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration. Sensitive receptors for vibration include buildings where vibration would interfere with operations within the building, or cause damage (especially older masonry structures), locations where people sleep, and locations with vibration sensitive equipment.[24]

The effects of ground-borne vibration include movement of the building floors, rattling of windows, shaking of items on shelves, or hanging on walls, and rumbling sounds. In extreme cases, the vibration can cause damage to buildings. Building damage is not a factor for most projects, with the occasional exception of blasting and pile-driving during construction. Annoyance from vibration often occurs when the vibration levels exceed the threshold of perception by only a small margin. A vibration level that causes annoyance will be well below the damage threshold for normal buildings.

1.6 Existing Conditions

Some land uses are considered more sensitive to ambient noise levels than others are, due to the amount of noise exposure (in terms of both exposure duration and insulation from noise) and the types of activities typically involved. According to the City of Los Angeles General Plan, residential areas are considered to be the most sensitive type of land use to noise and industrial/commercial areas are considered to be the least sensitive. Existing noise sensitive uses on the Project site and in the immediate vicinity include:

- Onsite: School classrooms;
- To the North: single-family residences are located along West 6th Street.
- To the South: multi-family residences are located along Wilshire Boulevard.
- To the West: single-family residences are located along McCadden Place.
- To the East: single-family residences are located along South June Street.

1.6.1 Ambient Noise Levels

Schools can generate noise from sports events, athletic fields, playgrounds and parking lot activity, and some of these features may potentially cause noise increases at nearby receptors, as

[23] Federal Transit Administration, Transit Noise and Vibration Impact Assessment, Section 12.2.2, May 2006.

[24] Federal Transit Administration, Transit Noise and Vibration Impact Assessment, Section 6.1, 6.2, and 6.3, September 2013.

schools are typically located in residential areas.[25] Burroughs MS is predominantly surrounded by single- and multi-family residential uses.

To establish existing ambient noise levels, ambient noise measurements were conducted at four locations, representing the nearest land uses in the vicinity of the Project site. The measurement locations, along with existing development, are shown on **Figure 4***, Noise Measurement Locations*. Short-term (15-minute) noise measurements were conducted at locations R1 through R4 between approximately 8:10 A.M. and 9:28 A.M. on Thursday, August 16, 2018, to characterize the existing noise environment in the Project vicinity.

The ambient noise measurements were conducted using the Larson-Davis 820 Precision Integrated Sound Level Meter ("SLM"). The Larson-Davis 820 SLM is a Type 1 standard instrument as defined in the American National Standard Institute S1.4. All instruments were calibrated and operated according to the applicable manufacturer specification. The microphone was placed at a height of 5 feet above the local grade at the following locations, as shown in Figure 4:

- R1: Represents the existing noise environment of residential uses along June Street.
- R2: Represents the existing noise environment of residential uses along Wilshire Boulevard.
- R3: Represents the existing noise environment of residential uses along McCadden Place.
- R4: Represents the existing noise environment of residential uses along 6th Street.

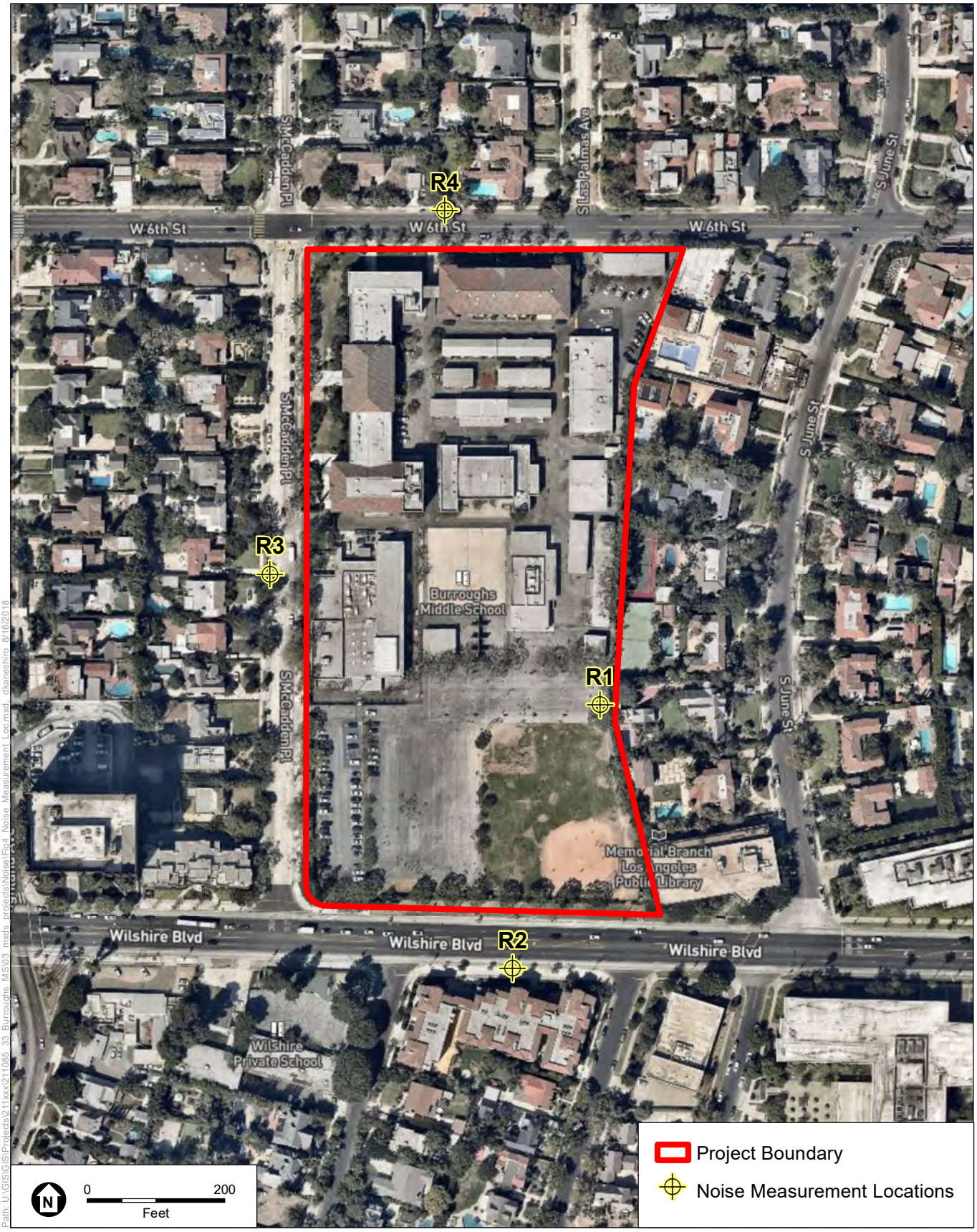
A summary of noise measurement data is provided in **Table 3** *Summary of Ambient Noise Measurements*. As shown in Table 3, daytime ambient noise levels ranged from approximately 55.4 dBA to 73.2 dBA, L_{eq}.

TABLE 3
SUMMARY OF AMBIENT NOISE MEASUREMENTS

Location, Duration, Date of Measurements	Measured Daytime Ambient Noise Levels (7 A.M. to 10 P.M.) Hourly dBA L_{eq}
R1	
8/16/18 8:10 A.M. to 8/16/18 8:25 A.M.	55.4
R2	
8/16/18 9:13 A.M. to 8/16/18 9:28 A.M.	72.8
R3	
8/16/18 8:33 A.M. to 8/16/18 8:48 A.M.	61.9
R4	
8/16/18 8:51 A.M. to 8/16/18 9:06 A.M.	73.2

SOURCE: ESA, 2018

[25] LAUSD School Upgrade Program Draft EIR, June 2014, at pages 5.12-23 to 5.12-24.



SOURCE: OpenStreetMap, 2018

LAUSD Burroughs Middle School Comprehensive Modernization Project

Figure 4
Noise Measurement Locations

ESA

1.6.2 Existing Groundborne Vibration Levels

Aside from periodic construction work that may occur throughout the City, sources of groundborne vibration in the Project site vicinity may include heavy-duty vehicular travel (e.g., refuse trucks, delivery trucks, etc.) on local roadways. According to FTA, rubber-tire vehicles rarely create ground-borne vibration problems unless there is a discontinuity, or bump, in the road that causes the vibration. A typical bus operating on smooth roadway would generate groundborne vibration velocity levels of approximately 63 VdB (approximately 0.006 in/sec PPV) at 50 feet.[26]

2. Regulatory Setting

A number of statutes, regulations, plans, and policies have been adopted which address noise and vibration concerns. Detailed below is a discussion of the relevant regulatory setting and noise and vibration regulations, plans, and policies.

2.1 Federal

The Program EIR uses the FTA's guidance, 2006 Transit Noise and Vibration Impact Assessment, to evaluate vibration levels resulting from Project construction activities on human annoyance and structural damage. Based on this guidance, the vibration standards are presented in **Table 4** *Ground-Borne Vibration Criteria: Human Annoyance* and **Table 5** *Ground-Borne Vibration Criteria: Architectural Damage*.

TABLE 4
GROUND-BORNE VIBRATION CRITERIA: HUMAN ANNOYANCE

Land Use Category	Max Lv (VdB)	Description
Workshop	90	Distinctly felt vibration. Appropriate to workshops and nonsensitive areas.
Office	84	Felt vibration. Appropriate to offices and nonsensitive areas.
Residential – Daytime	78	Barely felt vibration. Adequate for computer equipment.
Residential – Nighttime	72	Vibration not felt, but groundborne noise may be audible inside quiet rooms.

NOTE: Max Lv (VdB): Lv is the velocity level in decibels, as measured in 1/3-octave bands of frequency over the frequency ranges of 8 to 80 Hz.

SOURCE: FTA, 2006; PEIR 2014.

[26] FTA, 2006. Transit Noise and Vibration Impact Assessment. May 2006.

TABLE 5
GROUND-BORNE VIBRATION CRITERIA: ARCHITECTURAL DAMAGE

Building Category	PPV (in/sec)
I. Reinforced-concrete, steel or timber (no plaster)	0.5
II. Engineered concrete and masonry (no plaster)	0.3
III. Non-engineered timber and masonry buildings	0.2
IV. Buildings extremely susceptible to vibration damage	0.12

NOTE: Lv (VdB): Lv is the velocity level in decibels, as measured in 1/3-octave bands of frequency over the frequency ranges of 8 to 80 Hz.

SOURCE: FTA 2006; PEIR, 2014

2.2 State

Under California Code of Regulations (CCR) Title 5,[27] the California Department of Education (CDE) regulations require the school district to consider noise in the site selection process. As recommended by CDE guidance, if a school district is considering a potential school site near a freeway, or other source of noise, it should hire an acoustical engineer to determine the level of sound that the site is exposed to and to assist in designing the school should that site be chosen.

CCR Title 24 establishes the California Building Code (CBC). The most recent building standard adopted by the legislature and used throughout the state is the 2016 version, which took effect on January 1, 2017. The State of California's noise insulation standards are codified in the CBC (Title 24, Part 2, Chapter 12). These noise standards are for new construction in California for the purposes of interior compatibility with exterior noise sources. The regulations specify that acoustical studies must be prepared when noise-sensitive structures, such as residential, schools, or hospitals, are near major transportation noises, and where such noise sources create an exterior noise level of 60 dBA CNEL, or higher. Acoustical studies that accompany building plans must demonstrate that the structure has been designed to limit interior noise in habitable rooms to acceptable noise levels. For new residential buildings, schools, and hospitals, the acceptable interior noise limit for new construction is 45 dBA CNEL.

2.3 Local

While LAUSD is exempt from local jurisdictional municipal codes, the District typically considers local plans and policies for the communities surrounding its facilities. The proposed Project is located within the City of Los Angeles. Applicable City of Los Angeles and LAUSD noise standards and policies are described below.

[27] California Code of Regulations, Title 5. Education, Division 1. California Department of Education, Chapter 13. School Facilities and Equipment, Subchapter 1. School Housing, Article 2. School Sites, 14010. Standards for School Site Selection. Available: https://govt.westlaw.com/calregs/Document/I8037DA60D48011DEBC02831C6D6C108E?viewType=FullText&originationContext=documenttoc&transitionType=CategoryPageItem&contextData=(sc.Default). Accessed September 2017.

2.3.1 City of Los Angeles Municipal Code

Chapter XI, Noise Regulation, of the Los Angeles Municipal Code (LAMC) establishes acceptable ambient sound levels to regulate intrusive noises (e.g., stationary mechanical equipment and vehicles other than those traveling on public streets) within specific land use zones and provides procedures and criteria for the measurement of the sound level of noise sources. These procedures recognize and account for differences in the perceived level of different types of noise and/or noise sources. In accordance with the Noise Regulations, a noise level increase from certain regulated noise sources of 5 dBA L_{eq} over the existing, or presumed, ambient noise level at an adjacent property line is considered a violation of the Noise Regulations. The 5 dBA L_{eq} increase above ambient is applicable to City-regulated noise sources (e.g., mechanical equipment), and it is applicable any time of the day.[28]

To account for people's increased tolerance for short-duration noise events, the Noise Regulations provide a 5 dBA L_{eq} allowance for noise occurring more than 5 but less than 15 minutes in any 1-hour period and an additional 5 dBA L_{eq} allowance (total of 10 dBA L_{eq}) for noise occurring 5 minutes, or less, in any 1-hour period.[29]

Section 41.40 of the LAMC prohibits any construction, or repair work, of any kind between the hours of 9:00 p.m. and 7:00 a.m. of the following day. It also prohibits construction activities before 8:00 a.m., or after 6:00 p.m. on any Saturday, or national holiday, or at any time on any Sunday.

Section 112.05 of the LAMC defines the maximum noise level of powered equipment, or powered hand tools. The noise level is limited to 75 dBA at 50 feet for construction, industrial, and agricultural machinery including crawler-tractors, dozers, rotary drills and augers, loaders, power shovels, cranes, derricks, motor graders, paving machines, off-highway trucks, ditchers, trenchers, compactors, scrapers, wagons, pavement breakers, compressors and pneumatic, or other powered equipment, between the hours of 7:00 a.m. and 10:00 p.m., in any residential zone of the City, or within 500 feet. However, noise limitations shall not apply where compliance is technically infeasible, which means that noise limitations cannot be complied with despite the use of mufflers, shields, sound barriers and/or other noise reduction device, or techniques, during the operation of the equipment.

2.3.2 City of Los Angeles Guidelines for Noise-Compatible Land Uses

The City has adopted local guidelines based, in part, on the community noise compatibility guidelines established by the State Department of Health Services for use in assessing the compatibility of various land use types with a range of noise levels. These guidelines are set forth in the City of LA CEQA Thresholds Guide in terms of the CNEL. CNEL guidelines for specific land uses are classified into four categories: (1) "normally acceptable," (2) "conditionally acceptable," (3) "normally unacceptable," and (4) "clearly unacceptable." As shown in **Table 6**

[28] City of Los Angeles, Municipal Code, Chapter XI, Noise Regulation, Section 112.02.

[29] City of Los Angeles Municipal Code, Chapter XI, Noise Regulation, Article I, Section 111.02-(b).

City of Los Angeles Land Use Compatibility for Community Noise, a CNEL value of 70 dBA is the upper limit of what is considered a "conditionally acceptable" noise environment for hotel uses, although the upper limit of what is considered "normally acceptable" for hotel uses is set at 65 dBA CNEL.[30]

TABLE 6
CITY OF LOS ANGELES LAND USE COMPATIBILITY FOR COMMUNITY NOISE

	Community Noise Exposure CNEL (dBA)			
Land Use	**Normally Acceptable**	**Conditionally Acceptable**	**Normally Unacceptable**	**Clearly Unacceptable**
Single-Family, Duplex, Mobile Homes	50 to 60	55 to 70	70 to 75	Above 70
Multi-Family Homes	50 to 65	60 to 70	70 to 75	Above 70
Schools, Libraries, Churches, Hospitals, Nursing Homes	50 to 70	60 to 70	70 to 80	Above 80
Transient Lodging—Motels, Hotels	50 to 65	60 to 70	70 to 80	Above 80
Auditoriums, Concert Halls, Amphitheaters	—	50 to 70	—	Above 65
Sports Arena, Outdoor Spectator Sports	—	50 to 75	—	Above 70
Playgrounds, Neighborhood Parks	50 to 70	—	67 to 75	Above 72
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50 to 75	—	70 to 80	Above 80
Office Buildings, Business and Professional Commercial	50 to 70	67 to 77	Above 75	—
Industrial, Manufacturing, Utilities, Agriculture	50 to 75	70 to 80	Above 75	—

Normally Acceptable: Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.
Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.
Normally Unacceptable: New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.
Clearly Unacceptable: New construction or development should generally not be undertaken.

SOURCE: City of Los Angeles, LA CEQA Thresholds Guide, 2006.

[30] City of Los Angeles, 2006 LA CEQA Thresholds Guide: Your Resource for Preparing CEQA Analyses in Los Angeles, Section I.2, 2006.

2.3.3 Los Angeles Unified School District Program EIR

The Program EIR for School Upgrade Program[31] establishes Standard Conditions (SCs) for reducing impacts on noise and vibration in areas where future projects would be implemented under the SUP. Applicable SCs related to noise impacts associated with the proposed Project are provided in **Table 7** *Noise Standard Conditions of Approval*.

As shown in Table 1, projects implemented under the Program EIR are anticipated to result in potentially significant and unavoidable impacts related to construction noise and vibration and impacts related to increases in traffic noise and exposure to airport noise are anticipated to be less-than-significant. The Project-specific analysis provided below determined that noise and vibration impacts related to implementation of the proposed Project would be less than significant with incorporation of SCs N-1 through N-9 and Mitigation Measures NOISE-1 and NOISE-2.

[31] The Standard Conditions of Approval have been updated since the adoption of the 2015 version in order to incorporate and reflect changes in the recent laws, regulations, and the Los Angeles Unified School District's standard policies, practices, and specifications.

TABLE 7
NOISE STANDARD CONDITIONS OF APPROVAL

Reference Number	Topic	Trigger for Compliance	Implementation Phase	Standard Conditions
SC-N-1	Exterior Campus Noise	On-campus exterior noise levels would be greater than 67 dBA L_{eq}	During Project design (Planning)	LAUSD shall design new buildings and other noise-generating sources to include features such as sound walls, building configuration, and other design features that attenuate exterior noise levels on a school campus to less than 67 dBA L_{eq}.
SC-N-2	Interior Classroom Noise	Interior classroom noise levels would be greater than 45 dBA L_{eq}	During Project design (Planning)	LAUSD shall analyze the acoustical environment of the site (such as traffic) and the characteristics of planned building components (such as Heating, Ventilation, and Air Conditioning [HVAC]), and designs shall achieve interior classroom noise levels of less than 45 dBA L_{eq} with a target of 40 dBA Leq (unoccupied), and a reverberation time of 0.6 seconds. Noise reduction methods shall include, but are not limited to, sound walls, building and/or classroom insulation, HVAC modifications, double-paned windows, and other design features. • New construction should achieve classroom acoustical quality consistent with the current School Design Guide and CHPS (California High Performance Schools) standard of 45 dBA L_{eq}. • New HVAC installations should be designed to achieve the lowest possible noise level consistent with the current School Design Guide. HVAC systems shall be designed so that noise from the system does not cause the ambient noise in a classroom to exceed the current School Design Guide and CHPS standard of 45 dBA L_{eq}. • Modernization of existing facilities and/or HVAC replacement projects should improve the sound performance of the HVAC system over the existing system. • The District's purchase of new units should give preference to HVAC manufacturers that sell the lowest noise level units at the lowest cost. • Existing HVAC units operating in excess of 45 dBA L_{eq} inside classrooms should be modified.
SC-N-3	Operational Noise	Operational noise levels from new source exceeds local noise standards, policies, or ordinances at adjacent noise-sensitive land uses	During Project design and construction (Planning, Construction)	LAUSD shall incorporate long-term permanent noise attenuation measures between new playgrounds, stadiums, and other noise-generating facilities and adjacent noise-sensitive land uses, to reduce noise levels to meet jurisdictional standards or an increase of 3 dB or less over ambient. Operational noise attenuation measures include, but are not limited to: • Buffer zones; • Berms; • Sound barriers; • Buildings • Masonry walls; • Enclosed bleacher foot wells; and/or • Other site-specific project design features.

Reference Number	Topic	Trigger for Compliance	Implementation Phase	Standard Conditions
SC-N-4	Construction Noise and Vibration (Annoyance)	Construction on an existing school campus	Prior to and during construction (Construction)	LAUSD or its Construction Contractor shall consult and coordinate with the school principal or site administrator, and other nearby noise sensitive land uses prior to construction to schedule high noise or vibration producing activities to minimize disruption. Coordination between the school, nearby land uses and the Construction Contractor shall continue on an as-needed basis throughout the construction phase of the project to reduce school and other noise sensitive land use disruptions.
SC-N-5	Vibration (Structural Damage)	Rock blasting	During construction (Construction)	LAUSD shall require the Construction Contractor to minimize blasting for all demolition activities, where feasible.
SC-N-6	Vibration (Structural Damage)	Pile driving or heavy vibration activities	During construction (Construction)	For projects where pile driving activities are required within 150 feet of a structure, a detailed vibration assessment shall be provided by an acoustical engineer to analyze potential impacts related to vibration to nearby structures and to determine feasible mitigation measures to eliminate potential risk of architectural damage.
SC-N-7	Vibration (Structural Damage)	Vibration intensive activities are planned within 25 feet of a historic building or structure	Prior to and during construction (Construction)	LAUSD shall meet with the Construction Contractor to discuss alternative methods of demolition and construction for activities within 25 feet of a historic building to reduce vibration impacts. During the preconstruction meeting, the Construction Contractor shall identify demolition methods not involving vibration-intensive construction equipment or activities. For example: sawing into sections that can be loaded onto trucks results in lower vibration levels than demolition by hydraulic hammers. • Prior to construction activities, the Construction Contractor shall inspect and report on the current foundation and structural condition of the historic building. • The construction contractor shall implement alternative methods identified in the preconstruction meeting during demolition, excavation, and construction, such as mechanical methods using hydraulic crushers or deconstruction techniques. • The Construction Contractor shall avoid use of vibratory rollers and packers adjacent to the building. • During demolition the Construction Contractor shall not phase any ground-impacting operations near the building to occur at the same time as any ground impacting operation associated with demolition and construction. During demolition and construction, if any vibration levels cause cosmetic or structural damage to the building or structure, a “stop-work” order shall be issued to the Construction Contractor immediately to prevent further damage. Work shall not restart until the building is stabilized and/or preventive measures to relieve further damage to the building are implemented.
SC-N-8	Construction Noise	Use of large, heavy or noisy construction equipment within 500 feet of a non-LAUSD sensitive receptor	During construction (Construction)	Projects within 500 feet of a non-LAUSD sensitive receptor, such as a residence, shall be reviewed by OEHS to determine what, if any, feasible project specific noise reduction measures are needed. The Construction Contractor shall implement project specific noise reduction measures identified by OEHS. Noise reduction measures may include, but are not limited to, the following: <u>Source Controls</u> • Time Constraints – prohibiting work during sensitive nighttime hours

Reference Number	Topic	Trigger for Compliance	Implementation Phase	Standard Conditions
				• Scheduling – performing noisy work during less sensitive time periods (on operating campus: delay the loudest noise generation until class instruction at the nearest classrooms has ended; residential: only between 7:00 AM and 7:00 PM). • Equipment Restrictions – restricting the type of equipment used. • Substitute Methods – using quieter methods and/or equipment. • Exhaust Mufflers – ensuring equipment has quality mufflers installed. • Lubrication & Maintenance – well maintained equipment is quieter. • Reduced Power Operation – use only necessary size and power. • Limit Equipment On-Site – only have necessary equipment on-site. • Noise Compliance Monitoring – technician on site to ensure compliance. • Quieter Backup Alarms – manually-adjustable or ambient sensitive types. <u>Path Controls</u> • Noise Barriers – semi-permanent or portable wooden or concrete barriers. • Noise Curtains – flexible intervening curtain systems hung from supports. • Enclosures – encasing localized and stationary noise sources. • Increased Distance – perform noisy activities farther away from receptors, including operation of portable equipment, storage and maintenance of equipment. <u>Receptor Controls</u> • Window Treatments – reinforcing the building's noise reduction ability. • Community Participation – open dialog to involve affected residents. • Noise Complaint Process – ability to log and respond to noise complaints. Advance notice of the start of construction shall be delivered to all noise sensitive receptors adjacent to the project area. The notice shall state specifically where and when construction activities will occur, and provide contact information for filing noise complaints with the Construction Contractor and the District. In the event of noise complaints noise shall be monitored from the construction activity to ensure that construction noise is not obtrusive.
SC-N-9	Construction Noise	Use of large, heavy or noisy construction equipment on an operating LAUSD campus	During construction (Construction)	Construction Contractor shall ensure that LAUSD interior classroom noise and exterior noise standard are met to the maximum extent feasible, or that construction noise is not disruptive to the school environment, through implementation of noise control measures, as necessary.[1] Noise construction measures may include, but are not limited to: <u>Path Controls</u>

Reference Number	Topic	Trigger for Compliance	Implementation Phase	Standard Conditions
				• Noise Attenuation Barriers[2] – Temporary noise attenuation barriers installed blocking the line of sight between the noise source and the receiver. Intervening barriers already present, such as berms or buildings, may provide sufficient noise attenuation, eliminating the need for installing noise attenuation barriers. <u>Source Controls</u> • Scheduling – performing noisy work during less sensitive time periods (on operating campus: delay the loudest noise generation until class instruction at the nearest classrooms has ended; residential areas: only between 7:00 AM and 7:00 PM). • Substitute Methods – using quieter methods and/or equipment. • Exhaust Mufflers - ensuring equipment has quality mufflers installed. • Lubrication & Maintenance – well maintained equipment is quieter. • Reduced Power Operation – use only necessary size and power. • Limit Equipment On-Site – only have necessary equipment on-site. • Quieter Backup Alarms – manually-adjustable or ambient sensitive types. If OEHS determines that the above noise reduction measures will not reduce construction noise to below the levels permitted by LAUSD's noise standards LAUSD shall mandate that construction bid contracts include the following receptor controls: <u>Receptor Controls</u> • Temporary Window Treatments – temporarily reinforcing the building's noise reduction ability. Temporary Relocation – in extreme otherwise unmitigable cases, students shall be moved to temporary classrooms / facilities away from the construction activity.

SOURCE: LAUSD 2019

1 The need for noise control measures depends on the type and quantity of equipment being used, the work being performed, and the proximity of the construction activity to active exterior use areas (e.g., playgrounds, athletic fields, etc.) or classrooms. For example, the need for noise control measures may be required if a major construction project (e.g. demolition of a building and/or construction of a new building) takes place on an active LAUSD campus.

2 While the height and Sound Transmission Class (STC) rating of the Noise Attenuation Barrier needed will depend on the project specific conditions, an example of the specifications for a Noise Attenuation Barrier would be: Noise Attenuation Barriers shall be a minimum height of 12 feet and have a minimum Sound Transmission Class rating of 25 (STC-25).

3. Significance Thresholds

Pursuant to Appendix G of the State *CEQA Guidelines*, the Project would result in a significant impact related to noise and vibration if it would:

- Expose people to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- Expose people to or generate excessive groundborne vibration or groundborne noise levels;
- Result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project;
- Result in a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project;
- Expose people residing or working in the Project area to excessive noise levels for a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport; or
- Expose people residing or working in the Project area to excessive noise levels for a Project within the vicinity of a private airstrip.

3.1 City of Los Angeles

3.1.1 Operational Traffic Noise

A project would have a long-term operational noise impact if noise levels from project operations cause the ambient noise levels at the property line of affected uses to increase by 3 dBA CNEL, and noise levels reach, or are within the "normally unacceptable," or "clearly unacceptable" category, or increase by 5 dBA CNEL, or greater.

3.1.2 Operational Stationary Noise

Stationary noise sources are prohibited from causing the ambient noise level to increase by more than 5 dBA L_{eq}.

3.1.3 Construction Noise

Project construction-related activities would result in a significant noise impact at nearby sensitive uses if:

- Construction-related noise levels exceed 75 dBA L_{eq} measured at a distance of 50 feet from equipment when construction activities are located within 500 feet of a residential area unless technically feasible mitigation measures are incorporated;
- Construction activities lasting more than 1 day would exceed existing ambient exterior noise levels by 10 dBA L_{eq} or more, at a noise sensitive use;
- Construction activities lasting more than 10 days in a 3-month period would exceed existing ambient exterior noise levels by 5 dBA L_{eq}, or more, at a noise sensitive use; or

- Construction activities would exceed the ambient noise level by 5 dBA L_{eq} at a noise sensitive use between the hours of 9:00 p.m. and 7:00 a.m. Monday through Friday, before 8:00 a.m., or after 6:00 p.m., on Saturday, or on a national holiday, or at any time on Sunday.

3.2 Los Angeles Unified School District

The Program EIR outlines the following LAUSD noise level thresholds for school sites according to Education Code Section 17215. The Project would result in a significant long-term noise impact if:

- Exterior noise levels exceed 67 dBA L_{eq};
- Interior classroom noise levels exceed 45 dBA L_{eq}; or
- Permanent increase noise levels at nearby noise-sensitive land uses exceed 3 dBA CNEL

3.3 Vibration Criteria

The *CEQA Guidelines* do not define the levels at which groundborne vibration or groundborne noises are considered "excessive." The City of Los Angeles currently does not have a significance threshold to assess vibration impacts during construction. However, the FTA has provided guidance for the analysis of vibration from transportation and construction-induced vibration sources. The Project is not subject to FTA, or Caltrans regulations; nonetheless, the FTA guidance serve as a useful tool to evaluate vibration impacts. For the purpose of this analysis, the vibration criteria for human annoyance and structural damage established by the FTA, which are shown previously in Table 4 and Table 5, respectively, are used to evaluate the potential vibration impacts of the Project on nearby sensitive receptors.

4. Methodology

4.1 Construction Noise Levels

4.1.1 Onsite Construction Noise Levels

Project construction noise levels were estimated using the FHWA's Roadway Construction Noise Model (RCNM) and construction equipment information provided by the LAUSD. Predicted noise levels were identified for the nearest sensitive receptors, as well as for classrooms on campus, based on their respective distances from the construction equipment. To present a conservative impact analysis, the estimated noise levels were calculated for a scenario in which the loudest equipment were assumed to be located at the construction area boundary closest to sensitive receptors. The remaining construction equipment were assumed to be located at the approximate mid-point within the construction area boundary and at the furthest point within the construction area boundary relative to the sensitive receptor. These assumptions represent a reasonable worst-case noise scenario since the loudest construction equipment were assumed to be located closest to sensitive receptors. In reality, construction equipment operates throughout a construction area, and the loudest construction equipment would not always be located at the nearest distance to sensitive receptors, but would typically be active throughout the Project site,

and would routinely be located further away from the affected sensitive receptors. The construction noise levels were calculated, in terms of maximum hourly L_{eq}, for sensitive receptor locations based on the standard point source noise-distance attenuation factor of 6.0 dBA for each doubling of distance. The estimated noise levels at the affected receptors were then analyzed against the construction noise standards established in Section 3.0. Detailed noise calculations are provided in **Appendix B**.

4.1.2 Offsite Construction Traffic Noise Levels

Roadway noise impacts were evaluated using the Caltrans Technical Noise Supplement (TeNS) method based on the estimated maximum number of on-road haul trucks. This method allows for the definition of roadway configurations, barrier information (if any), and receiver locations. Roadway noise attributable to Project development was calculated and compared to baseline noise levels shown in Table 3.

4.2 Operational Noise Levels

4.2.1 Onsite Stationary Source Noise Levels

During operation of the Project, noise levels would be generated on-site by stationary noise sources, such as generators and air conditioning units, and student activities. The noise levels generated by the stationary noise sources are not assessed because the locations and specifications of equipment would not be available at this stage of the proposed Project. Instead, a qualitative assessment is used and the applicable SCs from the Program EIR are incorporated.

4.3 Groundborne Vibration Levels

Groundborne vibration levels resulting from construction activities at the Project site were estimated using data in the FTA *Transit Noise and Vibration Impact Assessment* guidance document.[32] Potential vibration levels resulting from construction of the Project are identified for offsite locations that are sensitive to vibration (i.e., existing residential buildings) based on their distance from construction activities, as well as classrooms on campus.

5. Environmental Impacts

5.1 Noise Levels in Excess of Standards

Impact 1: The Project would not result in the exposure of persons to, or generation of, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. (Less than Significant Impact)

[32] FTA, *Transit Noise and Vibration Impact Assessment*. May 2006.

5.1.1 Construction Noise

Onsite Construction

Construction of the proposed Project would occur over a 4.5-year construction phasing schedule. The construction schedule includes limited overlap between phases with the most intensive activity occurring during summer break when school is not in session. All construction would occur during daytime hours, specifically 7:00 a.m. to 7:00 p.m. Monday through Friday. Construction is anticipated to begin in August 2020 and to be completed in the first quarter of 2025.

Construction activities occurring during each of these phases would require the use of heavy equipment (e.g., excavators, backhoes, loaders, tractors, etc.) along with the use of smaller power tools, generators, and other sources of noise. During each construction phase there would be a different mix of equipment operating and noise levels would vary based on the amount of equipment in operation and the location of each activity. As such, construction activity noise levels during each phase would fluctuate depending on the particular type, number, and duration of use of the various pieces of construction equipment.

Table 8 *Construction Equipment Usage and Noise Levels*, lists the type, maximum noise level, quantity, usage factor, and estimated noise levels of construction equipment to be used for each phase of construction. It should be noted that maximum noise levels associated with construction equipment would only be generated when the equipment is operated at full power. Typically, the operating cycle for a piece of construction equipment would involve one, or two, minutes of full power operation followed by three, or four, minutes at lower power settings. As such, the maximum noise levels shown in Table 8 would occur occasionally throughout the construction day.

As discussed previously, noise-sensitive receptors to the east, south, west, and north of the Project site consist of residential uses, located approximately 5 feet, 100 feet, 75 feet, and 70 feet from the nearest construction activity, respectively. To present a conservative impact analysis, the estimated noise levels were calculated for a scenario in which the loudest equipment were assumed to be located at the construction area boundary closest to sensitive receptors. The remaining construction equipment were assumed to be located at the approximate mid-point within the construction area boundary and at the furthest point within the construction area boundary relative to the sensitive receptor.

TABLE 8
CONSTRUCTION EQUIPMENT USAGE AND NOISE LEVELS

Activity and Equipment	Maximum Noise Level at 50 feet (dBA) [b]	Equipment Quantity (per Phase)	Usage Factor [b]
Demolition			
Excavator	85	1	40%
Other Construction Equipment	85	1	50%
Rubber Tired Dozer	85	1	40%
Crushing Equipment	87	1	20%
Concrete Saw	90	1	20%
Grading/Modernization			
Graders	85	1	40%
Tractors/Loaders/Backhoes	85	1	50%
Rubber Tired Dozer	85	1	40%
Construction			
Forklift	85	1	50%
Crane	85	1	16%
Generator Sets	82	1	50%
Tractors/Loaders/Backhoes	85	1	20%
Welder	73	1	40%
Architectural Coating			
Air Compressor	78	1	50%
Paving			
Paver	85	2	50%
Roller	85	2	20%
Paving Equipment	85	2	50%

a Maximum Noise Levels and Usage Factor are derived from Federal Highway Administration's (FHWA) Roadway Construction Noise Model User's Guide. Noise levels for those equipment not included in this User's Guide are estimated based on similar equipment.

SOURCE: LAUSD 2016, ESA 2018

Distances between the closest construction site and the receptors with estimated noise levels per construction phase are presented in **Table 9** *Estimated Construction Noise Levels at Sensitive Receptors*. Calculated noise levels take into consideration noise shielding provided by existing buildings. However, any noise shielding provided by existing screening walls, or landscaping (such as trees), has not been considered. Vegetation can achieve reductions in noise if it is high enough, wide enough, and dense enough so that it cannot be seen over, or through (FHWA, 2017). Although trees currently line the boundaries of the school site, the height, width, and density of the vegetation is not sufficient to block the line-of-sight between the Campus and the public right-of-way. Therefore, it is assumed that existing vegetation would not provide any noise shielding from onsite construction activity.

TABLE 9
ESTIMATED CONSTRUCTION NOISE LEVELS AT SENSITIVE RECEPTORS

Receptor	Estimated Closest Distance (feet) [1]	Existing Ambient Noise Level (dBA L_{eq}) [2]	Threshold (dBA L_{eq}) [3]	Estimated Hourly Noise Levels (dBA L_{eq})	Reduced Hourly Noise Levels (dBA L_{eq}) [4]	Exceeds Threshold?
R1	5	55.4	60.4	105	82	Yes
R2	100	72.8	77.8	83	60	No
R3	75	61.9	66.9	84	61	No
R4	70	73.2	78.2	85	62	No
Onsite Classrooms	5	--	67	106	83	Yes

NOTE: See Appendix B for detailed construction noise calculations.

1 Distances shown represent the distance of the nearest construction activity to each receptor. Noise modeling accounted for equipment placed at the approximated closest, midpoint, and furthest points of the phase area.
2 Threshold for residential receptors +5 dBA over measured existing ambient noise level (see Table 3). Exterior Threshold for Burroughs Middle School 67 dBA as established in the LAUSD SUP PEIR per Education Code Section 17215.
3 Assumes implementation of noise control measures: exhaust mufflers (- 3dBA) and sound barrier (-20 dBA).

SOURCE: ESA, 2019

Noise impacts are considered potentially significant when construction noise levels exceed ambient noise levels by 5 dBA, or more (see Table 3). Pursuant to Education Code Section 17215 and the LAUSD SUP Program EIR, the exterior noise significance threshold for school sites is 67 dBA. As shown in Table 9, estimated construction noise levels would potentially exceed the applicable significance thresholds at all studied residential receptors and onsite classrooms. Therefore, the impact would be considered potentially significant before implementation of Program EIR SCs.

The proposed Project requires compliance with the Program EIR SCs, as shown in Table 7. SC-N-8 and SC-N-9 requires site-specific noise control measures to be implemented during construction. Such measures include installation of exhaust mufflers, proper maintenance of construction equipment, and the use of noise barriers. Absorptive noise mufflers are commercially available and can feasibly reduce noise emitted by heavy-duty construction equipment.[33] The City of Los Angeles recognizes that the use of mufflers can achieve noise reductions of up to 3 dBA.[34] In addition, installation of a temporary 15-foot high noise barrier with acoustical blankets with a minimum sound transmission class (STC) of 25 and noise reduction coefficient (NRC) of 0.75 can reduce noise levels by up to 20 dBA. Therefore, it is estimated that implementation of the Program EIR SCs would reduce Project-related construction noise by a total of 23 dBA.

As shown in Table 9, construction noise levels would be reduced to acceptable levels after implementation of the SCs identified above for receptors R2, R3, and R4. Therefore, impacts would be less than significant with respect to noise levels at receptors located to the south, west,

33 United Muffler Corp, https://www.unitedmuffler.com/; Auto-jet Muffler Corp, http://mandrelbending-tubefabrication.com/index.php; AP Exhaust Technologies, http://www.apexhaust.com/.

34 City of Los Angeles, L.A. CEQA Thresholds Guide, Your Resource for Preparing CEQA Analyses in Los Angeles, Exhibit I.1-2, (2006).

and north of the Project site. For receptor R1 (located to the east of the Project site) and on-site classrooms, impacts would not be sufficiently reduced and would be potentially significant.

Offsite Construction Traffic Noise

Construction-related vehicular traffic including hauling activities would generate higher noise levels to the receptors along the access routes (i.e., Wilshire Boulevard, McCadden Place, and West 6th Street). The maximum number of haul trucks accessing the Project site each day for the Soil Removal Phase would be 50 trucks, a total of 100 one-way trips. Assuming that 10 percent of daily trips would occur during the peak hour, 10 truck trips would occur during the peak hour.

Table 10 *On-Road Construction Traffic Noise Levels* summarizes anticipated construction traffic noise levels during the soil removal phase of construction. As shown in Table 10, noise level increases by truck trips would be below the significance threshold of a 5 dBA increase over existing ambient levels. Therefore, noise impacts would be less than significant with respect to offsite construction traffic.

TABLE 10
ON-ROAD CONSTRUCTION TRAFFIC NOISE LEVELS

				Leq (dBA)	
Roadway Segment (Receptor)	**Modeled Distance (feet)[1]**	**Existing Ambient[2]**	**Threshold[3]**	**Project Haul Truck Noise**	**Exceed Threshold?**
Wilshire Boulevard (R2)	65	72.8	77.8	54	No
McCadden Place (R3)	35	61.9	66.9	57	No
West 6th Street (R4)	35	73.2	78.2	57	No

See Appendix A.

1 Calculated distance for each roadway segment is based on the distance of the nearest receptor property line to the roadway centerline.
2 See Table 3.
3 Existing Ambient +5 dBA

SOURCE: ESA, 2018.

Mitigation Measures

The following mitigation measure is proposed to reduce construction noise impacts for on-site classrooms:

> **NOISE-1:** In order to ensure that construction noise does not exceed 67 dBA Leq at the exterior of any occupied classroom (i.e., when class is in session), the use of motorized construction equipment shall be prohibited within 80 feet of any occupied classroom. All construction work requiring the use of motorized construction equipment within 80 feet of a classroom shall occur after regular school hours.

Significance after Mitigation

After implementation of Mitigation Measure NOISE-1 and SC-N-8, maximum hourly construction noise at on-site classrooms while class is in session would reach 66 dBA Leq, which is below the 67 dBA Leq on-campus standard established by the Education Code. Impacts to on-site classrooms would be reduced to less than significant levels.

With regard to the adjacent residential uses located to the east of the Project site (R1), after implementation of mufflers and sound barriers, construction noise levels would continue to exceed the applicable threshold. Other construction noise reduction techniques required to be considered by SC-N-8 and SC-N-9 include the implementation of window treatments, noise barriers, and equipment maintenance and restrictions. Although potentially feasible, these conditions would require resident consent to implement noise-control devices on private property and resident willingness to relocate during the proposed construction period and would require further coordination between LAUSD and affected residents. Therefore, for purposes of this analysis, on-site construction activity would result in significant and unavoidable impacts with regard to the adjacent residential uses to the east of the Project site.

5.1.2 Operational Noise

The Project would result in potentially significant impacts if there is a permanent increase of over 3 dBA in ambient noise levels within the Project vicinity above existing levels without the Project. To increase the future ambient noise by 3 dBA, in general, it would be necessary to double the number of students, double the school activities over existing conditions, or double the traffic volumes. Project implementation would not provide for an increase in the number of students attending the school, staff required to operate the school, or traffic volumes.

New structures would include stationary noise sources, such as a generator or air conditioning units. Although the Project would result in the installation of new mechanical equipment, the operation of older mechanical equipment currently occurs on the campus. Therefore, no change in sources of stationary noise would occur due to the Project. Further, the proposed Project would comply with SC-N-2, which requires the purchase of the lowest noise-producing HVAC units emitting noise levels no greater than 50 dBA and SC-N-3, which requires that noise attenuation measures be incorporated to minimize permanent increases in ambient noise to less than 3 dBA, impacts would be less than significant. In addition, it is not anticipated that any increase or change in on-site activity at the new sports field verses the existing sports field would occur. Permanent increases in ambient noise due to on-site activity would not occur. Impacts would be less than significant.

Permanent Increase in Ambient Noise Levels

The proposed Project would not result in a 3 dBA increase in noise over existing ambient conditions. Therefore, impacts would be less than significant with respect to permanent increases in ambient noise levels.

5.2 Ground-Borne Vibration

Impact 2: Would the project Generate excessive groundborne vibration or groundborne noise levels? (Less than Significant Impact with Mitigation)

Ground-borne vibration would be generated from the operation of heavy construction equipment at the Project site, which could potentially affect the existing sensitive land uses surrounding the site, as well as the students on campus.

Construction equipment could be close to the residential structures in the Project vicinity. However, it should be noted that the existing structures on campus would be closer than those residential structures. The construction equipment could be as close as 10 feet from existing onsite structures.

Ground-borne vibration levels resulting from construction activities at the Project site were estimated using data published by the Federal Transit Administration (FTA) in its Transit Noise and Vibration Impact Assessment (2006) document. The Program EIR has adopted vibration standards that are used to evaluate potential human annoyance and architectural damage impacts related to construction activities, which are shown in Table 4 and Table 5, respectively.

The various PPV and VdB levels for the general construction equipment that would operate during the construction of the proposed Project are identified in **Table 11**. Note that pile driving would not be required for the proposed Project.

TABLE 11
VIBRATION SOURCE LEVELS FOR CONSTRUCTION EQUIPMENT

Equipment	Approximate PPV (in/sec) at 25 feet	Approximate RMS (VdB) at 25 feet
Large Bulldozer	0.089	87
Loaded Trucks	0.076	86
Jackhammer	0.035	79
Small Bulldozer	0.003	58

SOURCE: FTA, 2006.

Structural Damage

Construction activities associated with the proposed Project would have the potential to impact the existing school buildings and surrounding offsite structures. For existing school buildings, the construction equipment could be located within 15 feet of structures, which would result in a significant impact. Although the proposed Project would require compliance with SC-N-4 through SC-N-7, impacts would not be reduced to less than significant. Therefore, impacts would be potentially significant and mitigation would be required.

The offsite structures are considered to be non-engineered timber structures. The vibration impact threshold for the offsite structures would be 0.2 in/sec PPV. The PPV level of a large bulldozer at

25 feet would be 0.089 in/sec PPV. In order to exceed 0.2 in/sec PPV, a large bulldozer needs to be as close as 15 feet from the offsite structures. The closest offsite structure to the Project site is located approximately 25 feet away. Therefore, Project-related vibration levels of 0.2 in/sec PPV, or greater, would not be experienced at offsite structures and impacts would be less than significant.

Human Annoyance

Construction-related vibration could annoy people within a nearby building. The vibration impact threshold for human annoyance at a residential structure is 78 VdB. In order to exceed 78 VdB, a large bulldozer would need to be located as close as 50 feet from the structures. As stated above, the nearest residential structures are located approximately 25 feet from the Project site. Therefore, Project-related vibration levels of 78 VdB, or greater, could be experienced at offsite structures. Although the proposed Project would require compliance with SC-N-4 and SC-N-7, impacts would not be reduced to less-than-significant levels and mitigation would be required.

Construction-related vibration could cause annoyance to onsite students while class is in session. The vibration impact threshold for human annoyance within classrooms is 84 VdB, considering the sensitivity would be similar to an office environment as presented in Table 4. In order to exceed 84 VdB, a large bulldozer would need to be located as close as 30 feet from classrooms. Given the configuration of the Project site, it would be possible for construction equipment to be within 30 feet from classrooms, therefore this impact would be considered potentially significant. Although the proposed Project would require compliance with SC-N-4 and SC-N-7, impacts would not be reduced to less-than-significant levels and mitigation would be required.

Operation

Once construction activities have been completed, there would be no sources of vibration at the Project site. Therefore, no impact would occur.

Mitigation Measures

The following mitigation measure is proposed to reduce impacts related to structural damage during construction:

> **NOISE-2:** To avoid structural damage, when the construction equipment is within 15 feet of existing school buildings, large construction equipment (greater than 300 horsepower), such as large bulldozer and loaded trucks, should be replaced with smaller equipment (less than 300 horsepower) when feasible.

The following mitigation measure is proposed to reduce impacts related to human annoyance:

> **NOISE-3**: In the event that construction activity would occur within 30 feet of occupied classrooms or residences, large construction equipment (greater than 300 horsepower), such as large bulldozer and loaded trucks, should be replaced with smaller equipment (less than 300 horsepower) when feasible.

Significance after Mitigation

After implementation of Mitigation Measure NOISE-2, impacts related to structural damage by vibration would be less than significant. This is because vibrational energy from smaller construction equipment (less than 300 horsepower) at distances within 15 feet would be below the threshold of 0.2 in/sec.

After implementation of Mitigation Measure NOISE-3, impacts related to human annoyance from vibration would be reduced. This is because smaller construction equipment (less than 300 horsepower), at distances within 30 feet of occupied classrooms and/or residences, would generate vibrational velocity levels that would not trigger human annoyance. For instance, a small bulldozer, at a distance of 25 feet, would generate vibration velocity levels of approximately 58 (VdB), which is below the ground-borne vibration criteria regarding human annoyance of 84 (VdB). Therefore, impacts would be less than significant with respect to human annoyance from vibration.

5.3 Permanent Increase in Ambient Noise Levels

Impact 3: The Project would not result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project. (Less than Significant)

As previously described in the discussion for Impact 1, during operation, the proposed Project would not result in a 3 dBA increase in noise over existing ambient conditions. This impact would be less than significant, and no mitigation, or further study, is required.

5.4 Temporary Increase in Ambient Noise Levels

Impact 4: The Project would not result in a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project. (Less than Significant)

The proposed Project would be expected to result in temporary increases in ambient noise levels during construction. However, implementation of SC-N-8 and SC-N-9 would reduce noise levels at neighboring residential receptors R2, R3, and R4, not exceeding a 5 dBA increase over ambient levels. With implementation of SC-N-8 and Mitigation Measure NOISE-1, construction noise would not exceed the on-campus exterior noise threshold for on-site classrooms while class is in session. With respect to receptor R1, on-site construction noise would result in an ambient noise increase greater than 5 dBA. Therefore, impacts would be significant and unavoidable with respect to temporary increases in ambient noise levels at adjacent sensitive uses located to the east of the Project site.

5.5 Airport-related Excessive Noise Levels

Impact 5: The Project is not located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, thus, the Project would not expose people residing or working in the Project area to excessive noise levels. (No Impact)

The nearest airport to the project area is the Santa Monica Airport, located approximately 6.8 miles southwest of Burroughs MS. The proposed Project is not located within an airport land use plan, within 2 miles of a public airport or public use airport, or within the vicinity of a private airstrip. Therefore, no airport land use plan-related impacts would occur. No mitigation or further study is required.

6. Cumulative Impacts

As an active school campus, Burroughs Middle School is anticipated to have ongoing maintenance activities that will occur throughout the Campus. However, subsequent projects on the Campus would not have the same scope, or scale, associated with this Project and would generate little or no construction noise. In addition, the District has more than 22 comprehensive modernization, upgrade, or new development projects planned for campuses located within the District's boundaries but none of these would occur within one mile of the Campus. No other construction activities would occur on the Campus, other than activities described and analyzed herein, that would contribute to a cumulative construction noise environment. The Project site is located within the Wilshire Community Plan Area. There are several mixed-use developments, residential developments, retail developments, and the LACMA renovation project within approximately 2 miles of the Project site. However, there are no ongoing or reasonably foreseeable projects located within 500 feet of the Project site. Therefore, because the 2006 City of Los Angeles CEQA Thresholds Guide (LA CEQA Thresholds Guide) establishes the screening criterion of 500 feet for noise sensitive uses, the cumulative construction and operational noise and vibration impacts would be less than significant.

7. Summary of Results

On-site construction noise levels would not exceed the significance threshold at on-site receptors or R2, R3, or R4 with implementation of mitigation measures as well as complying with the Program EIR Standard Conditions. However, construction noise would exceed the significance thresholds at receptor R1 and impacts would be significant and unavoidable.

Construction vibration levels associated with the Project would not exceed the significance threshold at the off-site and on-site sensitive receptors with the implementation of mitigation measures as well as complying with the Program EIR Standard Conditions. Therefore, construction noise and vibration impacts would be less than significant.

Operation of the Project would not expose persons to, or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other

agencies with the compliance of the Program EIR Standard Conditions. Therefore, operation noise impacts would be less than significant.

As discussed above, Project construction would not result in a substantial temporary or permanent increase in ambient noise at on-site receptors or receptors R2, R3, or R4. However, Project construction would result in significant temporary increases of ambient noise at receptor R1, resulting in a significant and unavoidable impact.

The Project would not result in significant permanent increases in ambient noise and impacts would be less than significant.

8. References

California Code of Regulations, Title 5. Education, Division 1. California Department of Education, Chapter 13. School Facilities and Equipment, Subchapter 1. School Housing, Article 2. School Sites, 14010. Standards for School Site Selection. Available: https://govt.westlaw.com/calregs/Document/I8037DA60D48011DEBC02831C6D6C108E?viewType=FullText&originationContext=documenttoc&transitionType=CategoryPageItem&contextData=(sc.Default). Accessed September 2017.

California Code of Regulations, Title 14, Section 15168(c).

California Department of Transportation (Caltrans), *Technical Noise Supplement* (TeNS). September, 2013.

City of Los Angeles, 2006 LA CEQA Thresholds Guide: Your Resource for Preparing CEQA Analyses in Los Angeles, Section I.2, 2006

City of Los Angeles Municipal Code, Chapter XI, Noise Regulation, Article I, Section 111.02-(b).

City of Los Angeles, Municipal Code, Chapter XI, Noise Regulation, Section 112.02

Federal Highway Administration, Roadway Construction Noise Model User's Guide, 2006.

FTA, 2006. Transit Noise and Vibration Impact Assessment. May 2006.

Los Angeles Unified School District. July 28, 2015. Character-Defining Features Memorandum (CDFM) for San Pedro High School, 1319 East 41st Street, Los Angeles, California 90011. Los Angeles, CA.

Los Angeles Unified School District, Board of Education. Regular Board Meeting -November 10, 2015. http://laschoolboard.org/11-10-15RegBd.

Los Angeles Unified School District. January 2015. Los Angeles Unified School District Design Guidelines and Treatment Approaches for Historic Schools. Los Angeles, CA.

Los Angeles Unified School District. 2015. School Upgrade Program Final Environmental Impact Report, http://achieve.lausd.net/ceqa. Adopted by the Board of Education on November 10, 2015.

USEPA, *EPA Identifies Noise Levels Affecting Health and Welfare*. April 1974.

Appendix A
Noise Measurements

Summary

File Name on Meter	LxT_Data.062
File Name on PC	SLM_0004983_LxT_Data_062.00.ldbin
Serial Number	0004983
Model	SoundTrack LxT®
Firmware Version	2.302
User	
Location	R1
Job Description	
Note	

Measurement

Description	
Start	2018-08-16 08:10:52
Stop	2018-08-16 08:25:52
Duration	00:15:00.0
Run Time	00:15:00.0
Pause	00:00:00.0
Pre Calibration	2018-08-16 08:10:16
Post Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamp	PRMLxT1
Microphone Correction	Off
Integration Method	Exponential
Overload	144.6 dB

	A	C	Z
Under Range Peak	**100.8**	97.8	102.8 dB
Under Range Limit	**49.8**	47.8	55.8 dB
Noise Floor	36.7	37.3	45.0 dB

Results

L_{ASeq}	55.4 dB	
LASE	85.0 dB	
EAS	34.900 µPa²h	
EAS8	1.117 mPa²h	
EAS40	5.584 mPa²h	
$L_{ASpeak\ (max)}$	2018-08-16 08:10:55	95.1 dB
L_{ASmax}	2018-08-16 08:25:44	69.8 dB
L_{ASmin}	2018-08-16 08:21:06	47.4 dB
SEA	-99.9 dB	

LAS > 85.0 dB (Exceedance Counts / Duration)	0	0.0 s
LAS > 115.0 dB (Exceedance Counts / Duration)	0	0.0 s
L_{ASpeak} > 135.0 dB (Exceedance Counts / Duration)	0	0.0 s
L_{ASpeak} > 137.0 dB (Exceedance Counts / Duration)	0	0.0 s
L_{ASpeak} > 140.0 dB (Exceedance Counts / Duration)	0	0.0 s

L_{CSeq}	68.5 dB
L_{ASeq}	55.4 dB
L_{CSeq} - L_{ASeq}	13.0 dB
L_{AIeq}	59.2 dB
L_{Aeq}	55.4 dB
L_{AIeq} - L_{Aeq}	3.8 dB

	A		C		Z	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
L_{eq}	55.4					
$L_{S(max)}$	69.8	2018/08/16 8:25:44				
$L_{S(min)}$	47.4	2018/08/16 8:21:06				
$L_{Peak(max)}$	95.1	2018/08/16 8:10:55				

# Overloads	0

Overload Duration	0.0	s

Dose Settings

Dose Name	OSHA-1	OSHA-2	
Exchange Rate	5	5	dB
Threshold	90	80	dB
Criterion Level	90	90	dB
Criterion Duration	8	8	h

Results

Dose	-99.9	-99.9	%
Projected Dose	-99.9	-99.9	%
TWA (Projected)	-99.9	-99.9	dB
TWA (t)	-99.9	-99.9	dB
Lep (t)	40.4	40.4	dB

Statistics

LAS5.00	58.6	dB
LAS10.00	57.5	dB
LAS33.30	55.2	dB
LAS50.00	54.3	dB
LAS66.60	53.4	dB
LAS90.00	51.4	dB

Calibration History

Preamp	**Date**	**dB re. 1V/Pa**	**6.3**	**8.0**	**10.0**
PRMLxT1	2018-08-16 08:10:15	-50.9	56.2	61.5	57.7
PRMLxT1	2018-08-16 08:10:00	-50.9	53.1	55.3	63.8
PRMLxT1	2018-08-15 08:19:10	-50.6	67.1	74.0	64.3
PRMLxT1	2018-08-15 08:18:54	-50.6	67.4	71.8	68.9
PRMLxT1	2018-08-14 07:46:47	-50.6	60.5	68.3	61.3
PRMLxT1	2018-08-14 07:46:31	-50.6	66.2	68.8	59.5
PRMLxT1	2018-08-09 09:08:43	-50.5	64.8	61.8	58.4
PRMLxT1	2018-08-01 17:38:40	-50.6	66.2	67.9	74.3
PRMLxT1	2018-07-26 08:51:59	-50.5	50.3	46.9	49.3
PRMLxT1	2018-07-26 08:50:52	-50.5	55.4	54.2	83.1
PRMLxT1	2018-07-26 08:50:07	-50.5	49.1	43.6	42.4

Summary

File Name on Meter	LxT_Data.065
File Name on PC	SLM_0004983_LxT_Data_065.00.ldbin
Serial Number	0004983
Model	SoundTrack LxT®
Firmware Version	2.302
User	
Location	R2
Job Description	
Note	

Measurement

Description	
Start	2018-08-16 09:13:26
Stop	2018-08-16 09:28:26
Duration	00:15:00.0
Run Time	00:15:00.0
Pause	00:00:00.0
Pre Calibration	2018-08-16 08:10:15
Post Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamp	PRMLxT1
Microphone Correction	Off
Integration Method	Exponential
Overload	144.6 dB

	A	**C**	**Z**
Under Range Peak	**100.8**	97.8	102.8 dB
Under Range Limit	**49.8**	47.8	55.8 dB
Noise Floor	36.7	37.3	45.0 dB

Results

L_{ASeq}	72.8 dB	
LASE	102.3 dB	
EAS	1.899 mPa²h	
EAS8	60.755 mPa²h	
EAS40	303.774 mPa²h	
$L_{ASpeak\ (max)}$	2018-08-16 09:19:20	107.4 dB
L_{ASmax}	2018-08-16 09:19:20	87.4 dB
L_{ASmin}	2018-08-16 09:27:07	47.9 dB
SEA	-99.9 dB	

LAS > 85.0 dB (Exceedance Counts / Duration)	1	2.1 s
LAS > 115.0 dB (Exceedance Counts / Duration)	0	0.0 s
L_{ASpeak} > 135.0 dB (Exceedance Counts / Duration)	0	0.0 s
L_{ASpeak} > 137.0 dB (Exceedance Counts / Duration)	0	0.0 s
L_{ASpeak} > 140.0 dB (Exceedance Counts / Duration)	0	0.0 s

L_{CSeq}	78.6 dB
L_{ASeq}	72.8 dB
L_{CSeq} - L_{ASeq}	5.8 dB
L_{AIeq}	74.5 dB
L_{Aeq}	72.8 dB
L_{AIeq} - L_{Aeq}	1.7 dB

	A		**C**		**Z**	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
L_{eq}	72.8					
$L_{S(max)}$	87.4	2018/08/16 9:19:20				
$L_{S(min)}$	47.9	2018/08/16 9:27:07				
$L_{Peak(max)}$	107.4	2018/08/16 9:19:20				

# Overloads	0

Overload Duration	0.0 s

Dose Settings			
Dose Name	OSHA-1	OSHA-2	
Exchange Rate	5	5	dB
Threshold	90	80	dB
Criterion Level	90	90	dB
Criterion Duration	8	8	h

Results			
Dose	-99.9	0.01	%
Projected Dose	-99.9	0.36	%
TWA (Projected)	-99.9	49.5	dB
TWA (t)	-99.9	24.5	dB
Lep (t)	57.7	57.7	dB

Statistics		
LAS5.00	78.0	dB
LAS10.00	76.5	dB
LAS33.30	72.7	dB
LAS50.00	70.4	dB
LAS66.60	68.1	dB
LAS90.00	61.4	dB

Calibration History

Preamp	**Date**	**dB re. 1V/Pa**	**6.3**	**8.0**	**10.0**
PRMLxT1	2018-08-16 08:10:15	-50.9	56.2	61.5	57.7
PRMLxT1	2018-08-16 08:10:00	-50.9	53.1	55.3	63.8
PRMLxT1	2018-08-15 08:19:10	-50.6	67.1	74.0	64.3
PRMLxT1	2018-08-15 08:18:54	-50.6	67.4	71.8	68.9
PRMLxT1	2018-08-14 07:46:47	-50.6	60.5	68.3	61.3
PRMLxT1	2018-08-14 07:46:31	-50.6	66.2	68.8	59.5
PRMLxT1	2018-08-09 09:08:43	-50.5	64.8	61.8	58.4
PRMLxT1	2018-08-01 17:38:40	-50.6	66.2	67.9	74.3
PRMLxT1	2018-07-26 08:51:59	-50.5	50.3	46.9	49.3
PRMLxT1	2018-07-26 08:50:52	-50.5	55.4	54.2	83.1
PRMLxT1	2018-07-26 08:50:07	-50.5	49.1	43.6	42.4

Summary

File Name on Meter	LxT_Data.063
File Name on PC	SLM_0004983_LxT_Data_063.00.ldbin
Serial Number	0004983
Model	SoundTrack LxT®
Firmware Version	2.302
User	
Location	R3
Job Description	
Note	

Measurement

Description	
Start	2018-08-16 08:33:04
Stop	2018-08-16 08:48:04
Duration	00:15:00.0
Run Time	00:15:00.0
Pause	00:00:00.0
Pre Calibration	2018-08-16 08:10:15
Post Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamp	PRMLxT1
Microphone Correction	Off
Integration Method	Exponential
Overload	144.6 dB

	A	C	Z
Under Range Peak	**100.8**	97.8	102.8 dB
Under Range Limit	**49.8**	47.8	55.8 dB
Noise Floor	36.7	37.3	45.0 dB

Results

LA_{Seq}	61.8 dB	
LASE	91.4 dB	
EAS	152.289 µPa²h	
EAS8	4.873 mPa²h	
EAS40	24.366 mPa²h	
$LA_{Speak\ (max)}$	2018-08-16 08:33:41	95.8 dB
LAS_{max}	2018-08-16 08:48:04	76.0 dB
LAS_{min}	2018-08-16 08:46:11	44.3 dB
SEA	-99.9 dB	

LAS > 85.0 dB (Exceedance Counts / Duration)	0	0.0 s
LAS > 115.0 dB (Exceedance Counts / Duration)	0	0.0 s
LA_{Speak} > 135.0 dB (Exceedance Counts / Duration)	0	0.0 s
LA_{Speak} > 137.0 dB (Exceedance Counts / Duration)	0	0.0 s
LA_{Speak} > 140.0 dB (Exceedance Counts / Duration)	0	0.0 s

LC_{Seq}	71.1 dB
LA_{Seq}	61.8 dB
LC_{Seq} - LA_{Seq}	9.3 dB
LAI_{eq}	65.3 dB
LA_{eq}	61.9 dB
LAI_{eq} - LA_{eq}	3.4 dB

	A		C		Z	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
L_{eq}	61.9					
$L_{S(max)}$	76.0	2018/08/16 8:48:04				
$L_{S(min)}$	44.3	2018/08/16 8:46:11				
$L_{Peak(max)}$	95.8	2018/08/16 8:33:41				

# Overloads	0

Overload Duration	0.0	s

Dose Settings

Dose Name	OSHA-1	OSHA-2	
Exchange Rate	5	5	dB
Threshold	90	80	dB
Criterion Level	90	90	dB
Criterion Duration	8	8	h

Results

Dose	-99.9	-99.9	%
Projected Dose	-99.9	-99.9	%
TWA (Projected)	-99.9	-99.9	dB
TWA (t)	-99.9	-99.9	dB
Lep (t)	46.8	46.8	dB

Statistics

LAS5.00	69.5	dB
LAS10.00	66.9	dB
LAS33.30	55.2	dB
LAS50.00	52.2	dB
LAS66.60	50.5	dB
LAS90.00	47.0	dB

Calibration History

Preamp	**Date**	**dB re. 1V/Pa**	**6.3**	**8.0**	**10.0**
PRMLxT1	2018-08-16 08:10:15	-50.9	56.2	61.5	57.7
PRMLxT1	2018-08-16 08:10:00	-50.9	53.1	55.3	63.8
PRMLxT1	2018-08-15 08:19:10	-50.6	67.1	74.0	64.3
PRMLxT1	2018-08-15 08:18:54	-50.6	67.4	71.8	68.9
PRMLxT1	2018-08-14 07:46:47	-50.6	60.5	68.3	61.3
PRMLxT1	2018-08-14 07:46:31	-50.6	66.2	68.8	59.5
PRMLxT1	2018-08-09 09:08:43	-50.5	64.8	61.8	58.4
PRMLxT1	2018-08-01 17:38:40	-50.6	66.2	67.9	74.3
PRMLxT1	2018-07-26 08:51:59	-50.5	50.3	46.9	49.3
PRMLxT1	2018-07-26 08:50:52	-50.5	55.4	54.2	83.1
PRMLxT1	2018-07-26 08:50:07	-50.5	49.1	43.6	42.4

Summary

File Name on Meter	LxT_Data.064
File Name on PC	SLM_0004983_LxT_Data_064.00.ldbin
Serial Number	0004983
Model	SoundTrack LxT®
Firmware Version	2.302
User	
Location	R4
Job Description	
Note	

Measurement

Description	
Start	2018-08-16 08:51:19
Stop	2018-08-16 09:06:19
Duration	00:15:00.0
Run Time	00:15:00.0
Pause	00:00:00.0
Pre Calibration	2018-08-16 08:10:15
Post Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamp	PRMLxT1
Microphone Correction	Off
Integration Method	Exponential
Overload	144.6 dB

	A	C	Z
Under Range Peak	**100.8**	97.8	102.8 dB
Under Range Limit	**49.8**	47.8	55.8 dB
Noise Floor	36.7	37.3	45.0 dB

Results

LA_{Seq}	73.2 dB	
LASE	102.8 dB	
EAS	2.106 mPa^2h	
EAS8	67.385 mPa^2h	
EAS40	336.925 mPa^2h	
$LA_{Speak\ (max)}$	2018-08-16 08:54:40	99.2 dB
LAS_{max}	2018-08-16 08:55:46	81.9 dB
LAS_{min}	2018-08-16 09:02:10	52.7 dB
SEA	-99.9 dB	
LAS > 85.0 dB (Exceedance Counts / Duration)	0	0.0 s
LAS > 115.0 dB (Exceedance Counts / Duration)	0	0.0 s
LA_{Speak} > 135.0 dB (Exceedance Counts / Duration)	0	0.0 s
LA_{Speak} > 137.0 dB (Exceedance Counts / Duration)	0	0.0 s
LA_{Speak} > 140.0 dB (Exceedance Counts / Duration)	0	0.0 s
LC_{Seq}	77.7 dB	
LA_{Seq}	73.2 dB	
LC_{Seq} - LA_{Seq}	4.5 dB	
LA_{Ieq}	75.0 dB	
LA_{eq}	73.2 dB	
LA_{Ieq} - LA_{eq}	1.8 dB	

	A		C		Z	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
L_{eq}	73.2					
$L_{S(max)}$	81.9	2018/08/16 8:55:46				
$L_{S(min)}$	52.7	2018/08/16 9:02:10				
$L_{Peak(max)}$	99.2	2018/08/16 8:54:40				

# Overloads	0

Overload Duration	0.0	s

Dose Settings

Dose Name	OSHA-1	OSHA-2	
Exchange Rate	5	5	dB
Threshold	90	80	dB
Criterion Level	90	90	dB
Criterion Duration	8	8	h

Results

Dose	-99.9	0.01	%
Projected Dose	-99.9	0.23	%
TWA (Projected)	-99.9	46.2	dB
TWA (t)	-99.9	21.2	dB
Lep (t)	58.2	58.2	dB

Statistics

LAS5.00	78.4	dB
LAS10.00	77.4	dB
LAS33.30	73.9	dB
LAS50.00	70.8	dB
LAS66.60	67.2	dB
LAS90.00	58.2	dB

Calibration History

Preamp	**Date**	**dB re. 1V/Pa**	**6.3**	**8.0**	**10.0**
PRMLxT1	2018-08-16 08:10:15	-50.9	56.2	61.5	57.7
PRMLxT1	2018-08-16 08:10:00	-50.9	53.1	55.3	63.8
PRMLxT1	2018-08-15 08:19:10	-50.6	67.1	74.0	64.3
PRMLxT1	2018-08-15 08:18:54	-50.6	67.4	71.8	68.9
PRMLxT1	2018-08-14 07:46:47	-50.6	60.5	68.3	61.3
PRMLxT1	2018-08-14 07:46:31	-50.6	66.2	68.8	59.5
PRMLxT1	2018-08-09 09:08:43	-50.5	64.8	61.8	58.4
PRMLxT1	2018-08-01 17:38:40	-50.6	66.2	67.9	74.3
PRMLxT1	2018-07-26 08:51:59	-50.5	50.3	46.9	49.3
PRMLxT1	2018-07-26 08:50:52	-50.5	55.4	54.2	83.1
PRMLxT1	2018-07-26 08:50:07	-50.5	49.1	43.6	42.4

Appendix B
Noise Calculation Worksheets

Project: LAUSD Burroughs Middle School Comprehensive Modernization Project

Construction Noise Impact on Sensitive Receptors

Parameters

Construction Hours:	8	Daytime hours (7 am to 7 pm)
	0	Evening hours (7 pm to 10 pm)
	0	Nighttime hours (10 pm to 7 am)
Leq to L10 factor	3	

				R1				R2				R3			
Phase 1															
Construction Phase **Equipment Type**	**No. of Equip.**	**Reference Noise Level at 50ft, Lmax**	**Acoustical Usage Factor**	**Distance (ft)**	**Lmax**	**Leq**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**Estimated Noise Shielding, dBA**
1A Paving					***108***	***105***			***84***	***81***			***86***	***83***	
Paving Equipment	2	85	50%	5	108	105	0	100	82	79	0	75	84	81	0
Roller	2	85	20%	55	87	80	0	150	78	71	0	125	80	73	0
Paver	2	85	50%	105	82	79	0	200	76	73	0	175	77	74	0
1A Building Construction					***87***	***82***			***56***	***51***			***56***	***51***	
Cranes	1	85	16%	40	82	74	5	880	50	42	10	880	50	42	10
Tractor/Loader/Backhoe	1	85	20%	40	82	75	5	880	50	43	10	880	50	43	10
Forklift	1	85	50%	40	82	79	5	880	50	47	10	880	50	47	10
Generator Sets	1	82	50%	40	79	76	5	880	47	44	10	880	47	44	10
Welders	1	73	40%	40	70	66	5	880	38	34	10	880	38	34	10
1B Demolition					***91***	***85***			***59***	***54***			***59***	***54***	
Concrete Saw	1	90	20%	40	87	80	5	880	55	48	10	880	55	48	10
Crushing/Proc. Equipment	1	87	20%	40	84	77	5	880	52	45	10	880	52	45	10
Other Construction Equipment	1	85	50%	40	82	79	5	880	50	47	10	880	50	47	10
Rubber Tired Dozers	1	85	40%	40	82	78	5	880	50	46	10	880	50	46	10
Excavator	1	85	40%	40	82	78	5	880	50	46	10	880	50	46	10
1C Electrical and LV Trench					***105***	***98***			***74***	***68***			***75***	***69***	
Concrete Saw	1	90	20%	5	105	98	5	450	71	64	0	220	72	65	5
Crushing/Proc. Equipment	1	87	20%	55	81	74	5	500	67	60	0	270	67	60	5
Other Construction Equipment	1	85	50%	105	74	71	5	550	64	61	0	320	64	61	5
Rubber Tired Dozers	1	85	40%	105	74	70	5	550	64	60	0	320	64	60	5
Excavator	1	85	40%	105	74	70	5	550	64	60	0	320	64	60	5
1D Paving					***103***	***100***			***84***	***81***			***86***	***83***	
Paving Equipment	2	85	50%	5	103	100	5	100	82	79	0	75	84	81	0
Roller	2	85	20%	55	82	75	5	150	78	71	0	125	80	73	0
Paver	2	85	50%	105	77	74	5	200	76	73	0	175	77	74	0
1D Building Construction					***100***	***92***			***82***	***75***			***84***	***77***	
Cranes	1	85	16%	5	100	92	5	100	79	71	0	75	81	74	0
Tractor/Loader/Backhoe	1	85	20%	55	79	72	5	150	75	68	0	125	77	70	0
Forklift	1	85	20%	105	74	67	5	200	73	66	0	175	74	67	0
Generator Sets	1	82	50%	105	71	68	5	200	70	67	0	175	71	68	0
Welders	1	73	40%	105	62	58	5	200	61	57	0	175	62	58	0

Project: LAUSD Burroughs Middle School Comprehensiv

Construction Noise Impact on Sensitive Receptors

Parameters

Construction Hours:	8	Daytime hours (7 am to 7 pm)
	0	Evening hours (7 pm to 10 pm)
	0	Nighttime hours (10 pm to 7 am)
Leq to L10 factor	3	

				R4				On-Site Classrooms			
Phase 1											
Construction Phase **Equipment Type**	**No. of Equip.**	**Reference Noise Level at 50ft, Lmax**	**Acoustical Usage Factor**	**Distance (ft)**	**Lmax**	**Leq**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**Estimated Noise Shielding, dBA**
1A Paving					***59***	***55***			***91***	***88***	
Paving Equipment	2	85	50%	750	54	51	10	40	90	87	0
Roller	2	85	20%	800	54	47	10	90	83	76	0
Paver	2	85	50%	850	53	50	10	140	79	76	0
1A Building Construction					***67***	***62***			***98***	***94***	
Cranes	1	85	16%	240	61	53	10	20	93	85	0
Tractor/Loader/Backhoe	1	85	20%	240	61	54	10	20	93	86	0
Forklift	1	85	50%	240	61	58	10	20	93	90	0
Generator Sets	1	82	50%	240	58	55	10	20	90	87	0
Welders	1	73	40%	240	49	45	10	20	81	77	0
1B Demolition					***70***	***65***			***102***	***96***	
Concrete Saw	1	90	20%	240	66	59	10	20	98	91	0
Crushing/Proc. Equipment	1	87	20%	240	63	56	10	20	95	88	0
Other Construction Equipment	1	85	50%	240	61	58	10	20	93	90	0
Rubber Tired Dozers	1	85	40%	240	61	57	10	20	93	89	0
Excavator	1	85	40%	240	61	57	10	20	93	89	0
1C Electrical and LV Trench					***76***	***70***			***104***	***97***	
Concrete Saw	1	90	20%	180	74	67	5	10	104	97	0
Crushing/Proc. Equipment	1	87	20%	230	69	62	5	60	85	78	0
Other Construction Equipment	1	85	50%	280	65	62	5	110	78	75	0
Rubber Tired Dozers	1	85	40%	280	65	61	5	110	78	74	0
Excavator	1	85	40%	280	65	61	5	110	78	74	0
1D Paving					***60***	***56***			***102***	***99***	
Paving Equipment	2	85	50%	680	55	52	10	10	102	99	0
Roller	2	85	20%	730	55	48	10	60	86	79	0
Paver	2	85	50%	780	54	51	10	110	81	78	0
1D Building Construction					***57***	***51***			***99***	***91***	
Cranes	1	85	16%	680	52	44	10	10	99	91	0
Tractor/Loader/Backhoe	1	85	20%	730	52	45	10	60	83	76	0
Forklift	1	85	20%	780	51	44	10	110	78	71	0
Generator Sets	1	82	50%	780	48	45	10	110	75	72	0
Welders	1	73	40%	780	39	35	10	110	66	62	0

Project: LAUSD Burroughs Middle School Comprehensive Modernization Project

Construction Noise Impact on Sensitive Receptors

Phase 2				R1				R2				R3			
Construction Phase **Equipment Type**	**No. of Equip.**	**Reference Noise Level at 50ft, Lmax**	**Acoustical Usage Factor**	**Distance (ft)**	**Lmax**	**Leq**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**Estimated Noise Shielding, dBA**
2A Grading/Modernization					***64***	***60***			***56***	***53***			***81***	***77***	
Graders	1	85	40%	275	60	56	10	685	52	48	10	100	79	75	0
Rubber Tired Dozer	1	85	40%	325	59	55	10	735	52	48	10	150	75	71	0
Tractor/Loader/Backhoe	1	85	50%	375	57	54	10	785	51	48	10	200	73	70	0
2B Demolition					***103***	***98***			***64***	***59***			***64***	***58***	
Concrete Saw	1	90	20%	10	99	92	5	430	61	54	10	475	60	53	10
Crushing/Proc. Equipment	1	87	20%	10	96	89	5	480	57	50	10	525	57	50	10
Other Construction Equipment	1	85	50%	10	94	91	5	530	54	51	10	575	54	51	10
Rubber Tired Dozers	1	85	40%	10	94	90	5	530	54	51	10	575	54	50	10
Excavator	1	85	40%	10	94	90	5	530	54	51	10	575	54	50	10
2B Building Construction					***78***	***71***			***61***	***54***			***60***	***54***	
Cranes	1	85	16%	80	76	68	5	440	56	48	10	450	56	48	10
Tractor/Loader/Backhoe	1	85	20%	130	72	65	5	490	55	48	10	500	55	48	10
Forklift	1	85	20%	180	69	62	5	540	54	47	10	550	54	47	10
Generator Sets	1	82	50%	180	66	63	5	540	51	48	10	550	51	48	10
Welders	1	73	40%	180	57	53	5	540	42	38	10	550	42	38	10
2B Architectural Coating					***69***	***66***			***59***	***56***			***59***	***56***	
Air Compressor	1	78	50%	80	69	66	5	440	59	56		450	59	56	
2C Grading/Modernization					***94***	***90***			***54***	***50***			***64***	***61***	
Graders	1	85	40%	10	94	90	5	950	49	45	10	250	61	57	10
Rubber Tired Dozer	1	85	40%	60	78	74	5	1000	49	45	10	300	59	55	10
Tractor/Loader/Backhoe	1	85	50%	110	73	70	5	1050	49	46	10	350	58	55	10
2D Grading/Modernization					***84***	***80***			***84***	***80***			***72***	***68***	
Graders	1	85	40%	100	79	75	0	100	79	75	0	220	67	63	5
Rubber Tired Dozer	1	85	40%	100	79	75	0	100	79	75	0	220	67	63	5
Tractor/Loader/Backhoe	1	85	50%	100	79	76	0	100	79	76	0	220	67	64	5
2E Grading/Modernization					***91***	***87***			***55***	***52***			***60***	***56***	
Graders	1	85	40%	15	90	86	5	800	51	47	10	450	56	52	10
Rubber Tired Dozer	1	85	40%	65	78	74	5	850	50	46	10	500	55	51	10
Tractor/Loader/Backhoe	1	85	50%	115	73	70	5	900	50	47	10	550	54	51	10
2F Demolition					***76***	***69***			***59***	***54***			***70***	***64***	
Concrete Saw	1	90	20%	100	74	67	10	800	56	49	10	220	67	60	10
Crushing/Proc. Equipment	1	87	20%	150	67	60	10	850	52	45	10	270	62	55	10
Other Construction Equipment	1	85	50%	200	63	60	10	900	50	47	10	320	59	56	10
Rubber Tired Dozers	1	85	40%	200	63	59	10	900	50	46	10	320	59	55	10
Excavator	1	85	40%	200	63	59	10	900	50	46	10	320	59	55	10
2F Building Construction					***72***	***65***			***56***	***49***			***66***	***59***	
Cranes	1	85	16%	100	69	61	10	800	51	43	10	220	62	54	10
Tractor/Loader/Backhoe	1	85	20%	150	65	58	10	850	50	43	10	270	60	53	10
Forklift	1	85	20%	200	63	56	10	900	50	43	10	320	59	52	10
Generator Sets	1	82	50%	200	60	57	10	900	47	44	10	320	56	53	10
Welders	1	73	40%	200	51	47	10	900	38	34	10	320	47	43	10
2F Architectural Coating					***62***	***59***			***54***	***51***			***65***	***62***	
Air Compressor	1	78	50%	100	62	59	10	800	54	51		220	65	62	
2G Grading/Modernization					***94***	***90***			***58***	***54***			***60***	***56***	
Graders	1	85	40%	10	94	90	5	600	53	49	10	440	56	52	10
Rubber Tired Dozer	1	85	40%	60	78	74	5	650	53	49	10	490	55	51	10
Tractor/Loader/Backhoe	1	85	50%	110	73	70	5	700	52	49	10	540	54	51	10
2H Grading/Modernization					***100***	***96***			***81***	***77***			***83***	***80***	
Graders	1	85	40%	5	100	96	5	100	79	75	0	75	81	77	0
Rubber Tired Dozer	1	85	40%	55	79	75	5	150	75	71	0	125	77	73	0
Tractor/Loader/Backhoe	1	85	50%	105	74	71	5	200	73	70	0	175	74	71	0
2I Paving					***103***	***100***			***84***	***81***			***86***	***83***	
Paving Equipment	2	85	50%	5	103	100	5	100	82	79	0	75	84	81	0
Roller	2	85	20%	55	82	75	5	150	78	71	0	125	80	73	0
Paver	2	85	50%	105	77	74	5	200	76	73	0	175	77	74	0

Project: LAUSD Burroughs Middle School Comprehensiv

Construction Noise Impact on Sensitive Receptors

Phase 2				R4				On-Site Classrooms			
Construction Phase **Equipment Type**	**No. of Equip.**	**Reference Noise Level at 50ft, Lmax**	**Acoustical Usage Factor**	**Distance (ft)**	**Lmax**	**Leq**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**Estimated Noise Shielding, dBA**
2A Grading/Modernization					***81***	***77***			***104***	***100***	
Graders	1	85	40%	100	79	75	0	10	99	95	0
Rubber Tired Dozer	1	85	40%	150	75	71	0	10	99	95	0
Tractor/Loader/Backhoe	1	85	50%	200	73	70	0	10	99	96	0
2B Demolition					***88***	***81***			***104***	***97***	
Concrete Saw	1	90	20%	75	86	79	0	10	104	97	0
Crushing/Proc. Equipment	1	87	20%	125	79	72	0	60	85	78	0
Other Construction Equipment	1	85	50%	175	74	71	0	110	78	75	0
Rubber Tired Dozers	1	85	40%	175	74	70	0	110	78	74	0
Excavator	1	85	40%	175	74	70	0	110	78	74	0
2B Building Construction					***84***	***77***			***99***	***91***	
Cranes	1	85	16%	75	81	74	0	10	99	91	0
Tractor/Loader/Backhoe	1	85	20%	125	77	70	0	60	83	76	0
Forklift	1	85	20%	175	74	67	0	110	78	71	0
Generator Sets	1	82	50%	175	71	68	0	110	75	72	0
Welders	1	73	40%	175	62	58	0	110	66	62	0
2B Architectural Coating					***74***	***71***			***92***	***89***	
Air Compressor	1	78	50%	75	74	71		10	92	89	
2C Grading/Modernization					***83***	***79***			***104***	***100***	
Graders	1	85	40%	80	81	77	0	10	99	95	0
Rubber Tired Dozer	1	85	40%	130	77	73	0	10	99	95	0
Tractor/Loader/Backhoe	1	85	50%	180	74	71	0	10	99	96	0
2D Grading/Modernization					***74***	***70***			***99***	***95***	
Graders	1	85	40%	180	69	65	5	10	99	95	0
Rubber Tired Dozer	1	85	40%	180	69	65	5	60	83	79	0
Tractor/Loader/Backhoe	1	85	50%	180	69	66	5	110	78	75	0
2E Grading/Modernization					***72***	***68***			***99***	***95***	
Graders	1	85	40%	190	68	64	5	10	99	95	0
Rubber Tired Dozer	1	85	40%	240	66	62	5	60	83	79	0
Tractor/Loader/Backhoe	1	85	50%	290	65	62	5	110	78	75	0
2F Demolition					***71***	***65***			***104***	***97***	
Concrete Saw	1	90	20%	180	69	62	10	10	104	97	0
Crushing/Proc. Equipment	1	87	20%	230	64	57	10	60	85	78	0
Other Construction Equipment	1	85	50%	280	60	57	10	110	78	75	0
Rubber Tired Dozers	1	85	40%	280	60	56	10	110	78	74	0
Excavator	1	85	40%	280	60	56	10	110	78	74	0
2F Building Construction					***67***	***61***			***99***	***91***	
Cranes	1	85	16%	180	64	56	10	10	99	91	0
Tractor/Loader/Backhoe	1	85	20%	230	62	55	10	60	83	76	0
Forklift	1	85	20%	280	60	53	10	110	78	71	0
Generator Sets	1	82	50%	280	57	54	10	110	75	72	0
Welders	1	73	40%	280	48	44	10	110	66	62	0
2F Architectural Coating					***67***	***64***			***92***	***89***	
Air Compressor	1	78	50%	180	67	64		10	92	89	
2G Grading/Modernization					***74***	***70***			***104***	***100***	
Graders	1	85	40%	180	69	65	5	10	99	95	0
Rubber Tired Dozer	1	85	40%	180	69	65	5	10	99	95	0
Tractor/Loader/Backhoe	1	85	50%	180	69	66	5	10	99	96	0
2H Grading/Modernization					***57***	***53***			***99***	***95***	
Graders	1	85	40%	680	52	48	10	10	99	95	0
Rubber Tired Dozer	1	85	40%	730	52	48	10	60	83	79	0
Tractor/Loader/Backhoe	1	85	50%	780	51	48	10	110	78	75	0
2I Paving					***57***	***53***			***92***	***89***	
Paving Equipment	2	85	50%	900	53	50	10	35	91	88	0
Roller	2	85	20%	950	52	45	10	85	83	76	0
Paver	2	85	50%	1000	52	49	10	135	79	76	0

Project: LAUSD Burroughs Middle School Comprehensive Modernization Project

Construction Noise Impact on Sensitive Receptors

Phase 3				R1				R2				R3			
Construction Phase **Equipment Type**	**No. of Equip.**	**Reference Noise Level at 50ft, Lmax**	**Acoustical Usage Factor**	**Distance (ft)**	**Lmax**	**Leq**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**Estimated Noise Shielding, dBA**
3A Demolition					***86***	***79***			***80***	***74***			**86**	***81***	
Concrete Saw	1	90	20%	50	85	78	5	200	78	71	0	75	86	79	0
Crushing/Proc. Equipment	1	87	20%	100	76	69	5	250	73	66	0	125	79	72	0
Other Construction Equipment	1	85	50%	150	70	67	5	300	69	66	0	175	74	71	0
Rubber Tired Dozers	1	85	40%	150	70	66	5	300	69	65	0	175	74	70	0
Excavator	1	85	40%	150	70	66	5	300	69	65	0	175	74	70	0
3B Grading/Modernization					***81***	***77***			***76***	***72***			**81**	***80***	
Graders	1	85	40%	50	80	76	5	200	73	69	0	75	81	77	0
Rubber Tired Dozer	1	85	40%	150	70	66	5	250	71	67	0	125	77	73	0
Tractor/Loader/Backhoe	1	85	50%	200	68	65	5	300	69	66	0	175	74	71	0
3C Paving					***103***	***100***			***57***	***53***			**59**	***59***	
Paving Equipment	2	85	50%	5	103	100	5	950	52	49	10	430	59	56	10
Roller	2	85	20%	55	82	75	5	1000	52	45	10	480	58	51	10
Paver	2	85	50%	105	77	74	5	1050	52	49	10	530	58	54	10

Project: LAUSD Burroughs Middle School Comprehensiv

Construction Noise Impact on Sensitive Receptors

Phase 3				R4				On-Site Classrooms			
Construction Phase **Equipment Type**	**No. of Equip.**	**Reference Noise Level at 50ft, Lmax**	**Acoustical Usage Factor**	**Distance (ft)**	**Lmax**	**Leq**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**Estimated Noise Shielding, dBA**
3A Demolition					***59***	***53***			***98***	***91***	
Concrete Saw	1	90	20%	900	55	48	10	20	98	91	0
Crushing/Proc. Equipment	1	87	20%	950	51	44	10	70	84	77	0
Other Construction Equipment	1	85	50%	950	49	46	10	120	77	74	0
Rubber Tired Dozers	1	85	40%	950	49	45	10	120	77	73	0
Excavator	1	85	40%	950	49	45	10	120	77	73	0
3B Grading/Modernization					***54***	***51***			***93***	***89***	
Graders	1	85	40%	900	50	46	10	20	93	89	0
Rubber Tired Dozer	1	85	40%	950	49	45	10	70	82	78	0
Tractor/Loader/Backhoe	1	85	50%	1000	49	46	10	120	77	74	0
3C Paving					***87***	***83***			***96***	***93***	
Paving Equipment	2	85	50%	70	85	82	0	20	96	93	0
Roller	2	85	20%	120	80	73	0	70	85	78	0
Paver	2	85	50%	170	77	74	0	120	80	77	0

Project: LAUSD Burroughs Middle School Comprehensive Modernization Project

Construction Noise Impact on Sensitive Receptors

Overlapping Phases	**R1** **Leq**	**R2** **Leq**	**R3** **Leq**
1D Construction, 2A Seismic Modification, 2B Demolition, 2B Construction, 2C Seismic Modification	***99***	***75***	***80***
2A Building Construction, 2B Construction, 2B Architectural Coating, 2C Seismic Modification	***90***	***60***	***78***
2C Seismic Modification, 2D Seismic Modification, 2E Seismic Modification, 2F Demolition, 2F Construction, 2F Architectural Coating, 2G Seismic Modification, 2I Paving	***101***	***83***	***83***
2F Construction, 2F Architectural Coating 3A Demolition, 3B Grading, 3C Demolition	***100***	***77***	***84***
3A Demolition, 3B Grading, 3C Paving	***100***	***77***	***84***
Maximum Noise Level	***105.0***	***83.4***	***83.6***
Reduction: exhaust mufflers (-3 dBA) and sound barrier (-20 dBA)	82.0	60.4	60.6
Threshold (Ambient +5 dBA)	60.4	77.8	66.9
Exceeds Threshold?	**Yes**	No	No

Source for Ref. Noise Levels: FHWA RCNM, 2005

Project: LAUSD Burroughs Middle School Comprehensiv

Construction Noise Impact on Sensitive Receptors

Overlapping Phases	**R4** **Leq**	**On-Site Classrooms** **Leq**
1D Construction, 2A Seismic Modification, 2B Demolition, 2B Construction, 2C Seismic Modification	***85***	***105***
2A Building Construction, 2B Construction, 2B Architectural Coating, 2C Seismic Modification	***83***	***104***
2C Seismic Modification, 2D Seismic Modification, 2E Seismic Modification, 2F Demolition, 2F Construction, 2F Architectural Coating, 2G Seismic Modification, 2I Paving	***81***	***105***
2F Construction, 2F Architectural Coating 3A Demolition, 3B Grading, 3C Demolition	***83***	***98***
3A Demolition, 3B Grading, 3C Paving	***83***	***96***
Maximum Noise Level	***85.0***	***105.5***
Reduction: exhaust mufflers (-3 dBA) and sound barrier (-20 dBA)	62.0	82.5
Threshold (Ambient +5 dBA)	78.2	67.0
Exceeds Threshold?	No	**Yes**

Source for Ref. Noise Levels: FHWA RCNM, 2005

Project: LAUSD Burroughs Middle School Comprehensive Modernization Project

Construction Noise Impact on Sensitive Receptors

Parameters

Construction Hours:	8	Daytime hours (7 am to 7 pm)
	0	Evening hours (7 pm to 10 pm)
	0	Nighttime hours (10 pm to 7 am)
Leq to L10 factor	3	

Phase 1				**On-Site Classrooms**			
Construction Phase **Equipment Type**	**No. of Equip.**	**Reference Noise Level at 50ft, Lmax**	**Acoustical Usage Factor**	**Distance (ft)**	**Lmax**	**Leq**	**Estimated Noise Shielding, dBA**
1A Paving					***86***	***82***	
Paving Equipment	2	85	50%	80	84	81	0
Roller	2	85	20%	130	80	73	0
Paver	2	85	50%	180	77	74	0
1A Building Construction					***86***	***81***	
Cranes	1	85	16%	80	81	73	0
Tractor/Loader/Backhoe	1	85	20%	80	81	74	0
Forklift	1	85	50%	80	81	78	0
Generator Sets	1	82	50%	80	78	75	0
Welders	1	73	40%	80	69	65	0
1B Demolition					***90***	***84***	
Concrete Saw	1	90	20%	80	86	79	0
Crushing/Proc. Equipment	1	87	20%	80	83	76	0
Other Construction Equipment	1	85	50%	80	81	78	0
Rubber Tired Dozers	1	85	40%	80	81	77	0
Excavator	1	85	40%	80	81	77	0
1C Electrical and LV Trench					***87***	***81***	
Concrete Saw	1	90	20%	80	86	79	0
Crushing/Proc. Equipment	1	87	20%	130	79	72	0
Other Construction Equipment	1	85	50%	180	74	71	0
Rubber Tired Dozers	1	85	40%	180	74	70	0
Excavator	1	85	40%	180	74	70	0
1D Paving					***86***	***82***	
Paving Equipment	2	85	50%	80	84	81	0
Roller	2	85	20%	130	80	73	0
Paver	2	85	50%	180	77	74	0
1D Building Construction					***83***	***76***	
Cranes	1	85	16%	80	81	73	0
Tractor/Loader/Backhoe	1	85	20%	130	77	70	0
Forklift	1	85	20%	180	74	67	0
Generator Sets	1	82	50%	180	71	68	0
Welders	1	73	40%	180	62	58	0

Project: LAUSD Burroughs Middle School Comprehensive Modernization Project

Construction Noise Impact on Sensitive Receptors

Phase 2				On-Site Classrooms			
Construction Phase **Equipment Type**	**No. of Equip.**	**Reference Noise Level at 50ft, Lmax**	**Acoustical Usage Factor**	**Distance (ft)**	**Lmax**	**Leq**	**Estimated Noise Shielding, dBA**
2A Grading/Modernization					***86***	***82***	
Graders	1	85	40%	80	81	77	0
Rubber Tired Dozer	1	85	40%	80	81	77	0
Tractor/Loader/Backhoe	1	85	50%	80	81	78	0
2B Demolition					***87***	***81***	
Concrete Saw	1	90	20%	80	86	79	0
Crushing/Proc. Equipment	1	87	20%	130	79	72	0
Other Construction Equipment	1	85	50%	180	74	71	0
Rubber Tired Dozers	1	85	40%	180	74	70	0
Excavator	1	85	40%	180	74	70	0
2B Building Construction					***83***	***76***	
Cranes	1	85	16%	80	81	73	0
Tractor/Loader/Backhoe	1	85	20%	130	77	70	0
Forklift	1	85	20%	180	74	67	0
Generator Sets	1	82	50%	180	71	68	0
Welders	1	73	40%	180	62	58	0
2B Architectural Coating					***74***	***71***	
Air Compressor	1	78	50%	80	74	71	
2C Grading/Modernization					***86***	***82***	
Graders	1	85	40%	80	81	77	0
Rubber Tired Dozer	1	85	40%	80	81	77	0
Tractor/Loader/Backhoe	1	85	50%	80	81	78	0
2D Grading/Modernization					***83***	***79***	
Graders	1	85	40%	80	81	77	0
Rubber Tired Dozer	1	85	40%	130	77	73	0
Tractor/Loader/Backhoe	1	85	50%	180	74	71	0
2E Grading/Modernization					***83***	***79***	
Graders	1	85	40%	80	81	77	0
Rubber Tired Dozer	1	85	40%	130	77	73	0
Tractor/Loader/Backhoe	1	85	50%	180	74	71	0
2F Demolition					***87***	***81***	
Concrete Saw	1	90	20%	80	86	79	0
Crushing/Proc. Equipment	1	87	20%	130	79	72	0
Other Construction Equipment	1	85	50%	180	74	71	0
Rubber Tired Dozers	1	85	40%	180	74	70	0
Excavator	1	85	40%	180	74	70	0
2F Building Construction					***83***	***76***	
Cranes	1	85	16%	80	81	73	0
Tractor/Loader/Backhoe	1	85	20%	130	77	70	0
Forklift	1	85	20%	180	74	67	0
Generator Sets	1	82	50%	180	71	68	0
Welders	1	73	40%	180	62	58	0
2F Architectural Coating					***74***	***71***	
Air Compressor	1	78	50%	80	74	71	
2G Grading/Modernization					***86***	***82***	
Graders	1	85	40%	80	81	77	0
Rubber Tired Dozer	1	85	40%	80	81	77	0
Tractor/Loader/Backhoe	1	85	50%	80	81	78	0
2H Grading/Modernization					***83***	***79***	
Graders	1	85	40%	80	81	77	0
Rubber Tired Dozer	1	85	40%	130	77	73	0
Tractor/Loader/Backhoe	1	85	50%	180	74	71	0
2I Paving					***86***	***82***	
Paving Equipment	2	85	50%	80	84	81	0
Roller	2	85	20%	130	80	73	0
Paver	2	85	50%	180	77	74	0

Project: LAUSD Burroughs Middle School Comprehensive Modernization Project

Construction Noise Impact on Sensitive Receptors

Phase 3				On-Site Classrooms			
Construction Phase **Equipment Type**	**No. of Equip.**	**Reference Noise Level at 50ft, Lmax**	**Acoustical Usage Factor**	**Distance (ft)**	**Lmax**	**Leq**	**Estimated Noise Shielding, dBA**
3A Demolition					***87***	***81***	
Concrete Saw	1	90	20%	80	86	79	0
Crushing/Proc. Equipment	1	87	20%	130	79	72	0
Other Construction Equipment	1	85	50%	180	74	71	0
Rubber Tired Dozers	1	85	40%	180	74	70	0
Excavator	1	85	40%	180	74	70	0
3B Grading/Modernization					***83***	***79***	
Graders	1	85	40%	80	81	77	0
Rubber Tired Dozer	1	85	40%	130	77	73	0
Tractor/Loader/Backhoe	1	85	50%	180	74	71	0
3C Paving					***86***	***82***	
Paving Equipment	2	85	50%	80	84	81	0
Roller	2	85	20%	130	80	73	0
Paver	2	85	50%	180	77	74	0

Project: LAUSD Burroughs Middle School Comprehensive Modernization Project

Construction Noise Impact on Sensitive Receptors

Overlapping Phases	On-Site Classrooms Leq
1D Construction, 2A Seismic Modification, 2B Demolition, 2B Construction, 2C Seismic Modification	***87***
2A Building Construction, 2B Construction, 2B Architectural Coating, 2C Seismic Modification	***86***
2C Seismic Modification, 2D Seismic Modification, 2E Seismic Modification, 2F Demolition, 2F Construction, 2F Architectural Coating, 2G Seismic Modification, 2I Paving	***89***
2F Construction, 2F Architectural Coating 3A Demolition, 3B Grading, 3C Demolition	***86***
3A Demolition, 3B Grading, 3C Paving	***86***
Maximum Noise Level	***89.2***
Reduction: exhaust mufflers (-3 dBA) and sound barrier (-20 dBA)	66.2
Threshold (Ambient +5 dBA)	67.0
Exceeds Threshold?	No

Source for Ref. Noise Levels: FHWA RCNM, 2005

TRAFFIC NOISE ANALYSIS TOOL

Project Name: Burroughs Middle School
Project Number: D211085.33
Analysis Scenario: Construction Traffic
Source of Traffic Volumes: Worst case construction traffic

	Roadway Segment	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)
				Auto	MT	HT	Auto	MT	HT	
R2	Wilshire Boulevard	Hard	65	0	0	25	0	0	10	54
R3	McCadden Place	Hard	35	0	0	25	0	0	10	57
R4	West 6th Street	Hard	35	0	0	25	0	0	10	57

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
CNEL levels were obtained based on Figure 2-19, on page 2-58 Caltran's TeNS 2013.

Summary

File Name on Meter	LxT_Data.062
File Name on PC	SLM_0004983_LxT_Data_062.00.ldbin
Serial Number	0004983
Model	SoundTrack LxT®
Firmware Version	2.302
User	
Location	R1
Job Description	
Note	

Measurement

Description	
Start	2018-08-16 08:10:52
Stop	2018-08-16 08:25:52
Duration	00:15:00.0
Run Time	00:15:00.0
Pause	00:00:00.0
Pre Calibration	2018-08-16 08:10:16
Post Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamp	PRMLxT1
Microphone Correction	Off
Integration Method	Exponential
Overload	144.6 dB

	A	C	Z
Under Range Peak	**100.8**	97.8	102.8 dB
Under Range Limit	**49.8**	47.8	55.8 dB
Noise Floor	36.7	37.3	45.0 dB

Results

L_{ASeq}	55.4 dB	
LASE	85.0 dB	
EAS	34.900 µPa²h	
EAS8	1.117 mPa²h	
EAS40	5.584 mPa²h	
$L_{ASpeak\ (max)}$	2018-08-16 08:10:55	95.1 dB
L_{ASmax}	2018-08-16 08:25:44	69.8 dB
L_{ASmin}	2018-08-16 08:21:06	47.4 dB
SEA	-99.9 dB	

LAS > 85.0 dB (Exceedance Counts / Duration)	0	0.0 s
LAS > 115.0 dB (Exceedance Counts / Duration)	0	0.0 s
L_{ASpeak} > 135.0 dB (Exceedance Counts / Duration)	0	0.0 s
L_{ASpeak} > 137.0 dB (Exceedance Counts / Duration)	0	0.0 s
L_{ASpeak} > 140.0 dB (Exceedance Counts / Duration)	0	0.0 s

L_{CSeq}	68.5 dB
L_{ASeq}	55.4 dB
L_{CSeq} - L_{ASeq}	13.0 dB
L_{AIeq}	59.2 dB
L_{Aeq}	55.4 dB
L_{AIeq} - L_{Aeq}	3.8 dB

	A		C		Z	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
L_{eq}	55.4					
$L_{S(max)}$	69.8	2018/08/16 8:25:44				
$L_{S(min)}$	47.4	2018/08/16 8:21:06				
$L_{Peak(max)}$	95.1	2018/08/16 8:10:55				

# Overloads	0

Overload Duration	0.0	s

Dose Settings

Dose Name	OSHA-1	OSHA-2	
Exchange Rate	5	5	dB
Threshold	90	80	dB
Criterion Level	90	90	dB
Criterion Duration	8	8	h

Results

Dose	-99.9	-99.9	%
Projected Dose	-99.9	-99.9	%
TWA (Projected)	-99.9	-99.9	dB
TWA (t)	-99.9	-99.9	dB
Lep (t)	40.4	40.4	dB

Statistics

LAS5.00	58.6	dB
LAS10.00	57.5	dB
LAS33.30	55.2	dB
LAS50.00	54.3	dB
LAS66.60	53.4	dB
LAS90.00	51.4	dB

Calibration History

Preamp	**Date**	**dB re. 1V/Pa**	**6.3**	**8.0**	**10.0**
PRMLxT1	2018-08-16 08:10:15	-50.9	56.2	61.5	57.7
PRMLxT1	2018-08-16 08:10:00	-50.9	53.1	55.3	63.8
PRMLxT1	2018-08-15 08:19:10	-50.6	67.1	74.0	64.3
PRMLxT1	2018-08-15 08:18:54	-50.6	67.4	71.8	68.9
PRMLxT1	2018-08-14 07:46:47	-50.6	60.5	68.3	61.3
PRMLxT1	2018-08-14 07:46:31	-50.6	66.2	68.8	59.5
PRMLxT1	2018-08-09 09:08:43	-50.5	64.8	61.8	58.4
PRMLxT1	2018-08-01 17:38:40	-50.6	66.2	67.9	74.3
PRMLxT1	2018-07-26 08:51:59	-50.5	50.3	46.9	49.3
PRMLxT1	2018-07-26 08:50:52	-50.5	55.4	54.2	83.1
PRMLxT1	2018-07-26 08:50:07	-50.5	49.1	43.6	42.4

Summary

File Name on Meter	LxT_Data.065
File Name on PC	SLM_0004983_LxT_Data_065.00.ldbin
Serial Number	0004983
Model	SoundTrack LxT®
Firmware Version	2.302
User	
Location	R2
Job Description	
Note	

Measurement

Description	
Start	2018-08-16 09:13:26
Stop	2018-08-16 09:28:26
Duration	00:15:00.0
Run Time	00:15:00.0
Pause	00:00:00.0
Pre Calibration	2018-08-16 08:10:15
Post Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamp	PRMLxT1
Microphone Correction	Off
Integration Method	Exponential
Overload	144.6 dB

	A	**C**	**Z**
Under Range Peak	**100.8**	97.8	102.8 dB
Under Range Limit	**49.8**	47.8	55.8 dB
Noise Floor	36.7	37.3	45.0 dB

Results

L_{ASeq}	72.8 dB	
LASE	102.3 dB	
EAS	1.899 mPa²h	
EAS8	60.755 mPa²h	
EAS40	303.774 mPa²h	
$L_{ASpeak\ (max)}$	2018-08-16 09:19:20	107.4 dB
L_{ASmax}	2018-08-16 09:19:20	87.4 dB
L_{ASmin}	2018-08-16 09:27:07	47.9 dB
SEA	-99.9 dB	

LAS > 85.0 dB (Exceedance Counts / Duration)	1	2.1 s
LAS > 115.0 dB (Exceedance Counts / Duration)	0	0.0 s
L_{ASpeak} > 135.0 dB (Exceedance Counts / Duration)	0	0.0 s
L_{ASpeak} > 137.0 dB (Exceedance Counts / Duration)	0	0.0 s
L_{ASpeak} > 140.0 dB (Exceedance Counts / Duration)	0	0.0 s

L_{CSeq}	78.6 dB
L_{ASeq}	72.8 dB
L_{CSeq} - L_{ASeq}	5.8 dB
L_{AIeq}	74.5 dB
L_{Aeq}	72.8 dB
L_{AIeq} - L_{Aeq}	1.7 dB

	A		**C**		**Z**	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
L_{eq}	72.8					
$L_{S(max)}$	87.4	2018/08/16 9:19:20				
$L_{S(min)}$	47.9	2018/08/16 9:27:07				
$L_{Peak(max)}$	107.4	2018/08/16 9:19:20				

# Overloads	0

Overload Duration	0.0 s

Dose Settings			
Dose Name	OSHA-1	OSHA-2	
Exchange Rate	5	5	dB
Threshold	90	80	dB
Criterion Level	90	90	dB
Criterion Duration	8	8	h

Results			
Dose	-99.9	0.01	%
Projected Dose	-99.9	0.36	%
TWA (Projected)	-99.9	49.5	dB
TWA (t)	-99.9	24.5	dB
Lep (t)	57.7	57.7	dB

Statistics		
LAS5.00	78.0	dB
LAS10.00	76.5	dB
LAS33.30	72.7	dB
LAS50.00	70.4	dB
LAS66.60	68.1	dB
LAS90.00	61.4	dB

Calibration History

Preamp	**Date**	**dB re. 1V/Pa**	**6.3**	**8.0**	**10.0**
PRMLxT1	2018-08-16 08:10:15	-50.9	56.2	61.5	57.7
PRMLxT1	2018-08-16 08:10:00	-50.9	53.1	55.3	63.8
PRMLxT1	2018-08-15 08:19:10	-50.6	67.1	74.0	64.3
PRMLxT1	2018-08-15 08:18:54	-50.6	67.4	71.8	68.9
PRMLxT1	2018-08-14 07:46:47	-50.6	60.5	68.3	61.3
PRMLxT1	2018-08-14 07:46:31	-50.6	66.2	68.8	59.5
PRMLxT1	2018-08-09 09:08:43	-50.5	64.8	61.8	58.4
PRMLxT1	2018-08-01 17:38:40	-50.6	66.2	67.9	74.3
PRMLxT1	2018-07-26 08:51:59	-50.5	50.3	46.9	49.3
PRMLxT1	2018-07-26 08:50:52	-50.5	55.4	54.2	83.1
PRMLxT1	2018-07-26 08:50:07	-50.5	49.1	43.6	42.4

Summary

File Name on Meter	LxT_Data.063
File Name on PC	SLM_0004983_LxT_Data_063.00.ldbin
Serial Number	0004983
Model	SoundTrack LxT®
Firmware Version	2.302
User	
Location	R3
Job Description	
Note	

Measurement

Description	
Start	2018-08-16 08:33:04
Stop	2018-08-16 08:48:04
Duration	00:15:00.0
Run Time	00:15:00.0
Pause	00:00:00.0
Pre Calibration	2018-08-16 08:10:15
Post Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamp	PRMLxT1
Microphone Correction	Off
Integration Method	Exponential
Overload	144.6 dB

	A	C	Z
Under Range Peak	**100.8**	97.8	102.8 dB
Under Range Limit	**49.8**	47.8	55.8 dB
Noise Floor	36.7	37.3	45.0 dB

Results

LA_{Seq}	61.8 dB	
LASE	91.4 dB	
EAS	152.289 µPa²h	
EAS8	4.873 mPa²h	
EAS40	24.366 mPa²h	
$LA_{Speak\ (max)}$	2018-08-16 08:33:41	95.8 dB
LAS_{max}	2018-08-16 08:48:04	76.0 dB
LAS_{min}	2018-08-16 08:46:11	44.3 dB
SEA	-99.9 dB	

LAS > 85.0 dB (Exceedance Counts / Duration)	0	0.0 s
LAS > 115.0 dB (Exceedance Counts / Duration)	0	0.0 s
LA_{Speak} > 135.0 dB (Exceedance Counts / Duration)	0	0.0 s
LA_{Speak} > 137.0 dB (Exceedance Counts / Duration)	0	0.0 s
LA_{Speak} > 140.0 dB (Exceedance Counts / Duration)	0	0.0 s

LC_{Seq}	71.1 dB
LA_{Seq}	61.8 dB
LC_{Seq} - LA_{Seq}	9.3 dB
LAI_{eq}	65.3 dB
LA_{eq}	61.9 dB
LAI_{eq} - LA_{eq}	3.4 dB

	A		C		Z	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
L_{eq}	61.9					
$L_{S(max)}$	76.0	2018/08/16 8:48:04				
$L_{S(min)}$	44.3	2018/08/16 8:46:11				
$L_{Peak(max)}$	95.8	2018/08/16 8:33:41				

# Overloads	0

Overload Duration	0.0	s

Dose Settings

Dose Name	OSHA-1	OSHA-2	
Exchange Rate	5	5	dB
Threshold	90	80	dB
Criterion Level	90	90	dB
Criterion Duration	8	8	h

Results

Dose	-99.9	-99.9	%
Projected Dose	-99.9	-99.9	%
TWA (Projected)	-99.9	-99.9	dB
TWA (t)	-99.9	-99.9	dB
Lep (t)	46.8	46.8	dB

Statistics

LAS5.00	69.5	dB
LAS10.00	66.9	dB
LAS33.30	55.2	dB
LAS50.00	52.2	dB
LAS66.60	50.5	dB
LAS90.00	47.0	dB

Calibration History

Preamp	**Date**	**dB re. 1V/Pa**	**6.3**	**8.0**	**10.0**
PRMLxT1	2018-08-16 08:10:15	-50.9	56.2	61.5	57.7
PRMLxT1	2018-08-16 08:10:00	-50.9	53.1	55.3	63.8
PRMLxT1	2018-08-15 08:19:10	-50.6	67.1	74.0	64.3
PRMLxT1	2018-08-15 08:18:54	-50.6	67.4	71.8	68.9
PRMLxT1	2018-08-14 07:46:47	-50.6	60.5	68.3	61.3
PRMLxT1	2018-08-14 07:46:31	-50.6	66.2	68.8	59.5
PRMLxT1	2018-08-09 09:08:43	-50.5	64.8	61.8	58.4
PRMLxT1	2018-08-01 17:38:40	-50.6	66.2	67.9	74.3
PRMLxT1	2018-07-26 08:51:59	-50.5	50.3	46.9	49.3
PRMLxT1	2018-07-26 08:50:52	-50.5	55.4	54.2	83.1
PRMLxT1	2018-07-26 08:50:07	-50.5	49.1	43.6	42.4

Summary

File Name on Meter	LxT_Data.064
File Name on PC	SLM_0004983_LxT_Data_064.00.ldbin
Serial Number	0004983
Model	SoundTrack LxT®
Firmware Version	2.302
User	
Location	R4
Job Description	
Note	

Measurement

Description	
Start	2018-08-16 08:51:19
Stop	2018-08-16 09:06:19
Duration	00:15:00.0
Run Time	00:15:00.0
Pause	00:00:00.0
Pre Calibration	2018-08-16 08:10:15
Post Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamp	PRMLxT1
Microphone Correction	Off
Integration Method	Exponential
Overload	144.6 dB

	A	C	Z
Under Range Peak	**100.8**	97.8	102.8 dB
Under Range Limit	**49.8**	47.8	55.8 dB
Noise Floor	36.7	37.3	45.0 dB

Results

LA_{Seq}	73.2 dB	
LASE	102.8 dB	
EAS	2.106 mPa^2h	
EAS8	67.385 mPa^2h	
EAS40	336.925 mPa^2h	
$LA_{Speak\ (max)}$	2018-08-16 08:54:40	99.2 dB
LAS_{max}	2018-08-16 08:55:46	81.9 dB
LAS_{min}	2018-08-16 09:02:10	52.7 dB
SEA	-99.9 dB	
LAS > 85.0 dB (Exceedance Counts / Duration)	0	0.0 s
LAS > 115.0 dB (Exceedance Counts / Duration)	0	0.0 s
LA_{Speak} > 135.0 dB (Exceedance Counts / Duration)	0	0.0 s
LA_{Speak} > 137.0 dB (Exceedance Counts / Duration)	0	0.0 s
LA_{Speak} > 140.0 dB (Exceedance Counts / Duration)	0	0.0 s
LC_{Seq}	77.7 dB	
LA_{Seq}	73.2 dB	
LC_{Seq} - LA_{Seq}	4.5 dB	
LA_{Ieq}	75.0 dB	
LA_{eq}	73.2 dB	
LA_{Ieq} - LA_{eq}	1.8 dB	

	A		C		Z	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
L_{eq}	73.2					
$L_{S(max)}$	81.9	2018/08/16 8:55:46				
$L_{S(min)}$	52.7	2018/08/16 9:02:10				
$L_{Peak(max)}$	99.2	2018/08/16 8:54:40				

# Overloads	0

Overload Duration	0.0	s

Dose Settings

Dose Name	OSHA-1	OSHA-2	
Exchange Rate	5	5	dB
Threshold	90	80	dB
Criterion Level	90	90	dB
Criterion Duration	8	8	h

Results

Dose	-99.9	0.01	%
Projected Dose	-99.9	0.23	%
TWA (Projected)	-99.9	46.2	dB
TWA (t)	-99.9	21.2	dB
Lep (t)	58.2	58.2	dB

Statistics

LAS5.00	78.4	dB
LAS10.00	77.4	dB
LAS33.30	73.9	dB
LAS50.00	70.8	dB
LAS66.60	67.2	dB
LAS90.00	58.2	dB

Calibration History

Preamp	**Date**	**dB re. 1V/Pa**	**6.3**	**8.0**	**10.0**
PRMLxT1	2018-08-16 08:10:15	-50.9	56.2	61.5	57.7
PRMLxT1	2018-08-16 08:10:00	-50.9	53.1	55.3	63.8
PRMLxT1	2018-08-15 08:19:10	-50.6	67.1	74.0	64.3
PRMLxT1	2018-08-15 08:18:54	-50.6	67.4	71.8	68.9
PRMLxT1	2018-08-14 07:46:47	-50.6	60.5	68.3	61.3
PRMLxT1	2018-08-14 07:46:31	-50.6	66.2	68.8	59.5
PRMLxT1	2018-08-09 09:08:43	-50.5	64.8	61.8	58.4
PRMLxT1	2018-08-01 17:38:40	-50.6	66.2	67.9	74.3
PRMLxT1	2018-07-26 08:51:59	-50.5	50.3	46.9	49.3
PRMLxT1	2018-07-26 08:50:52	-50.5	55.4	54.2	83.1
PRMLxT1	2018-07-26 08:50:07	-50.5	49.1	43.6	42.4

Project: LAUSD Burroughs Middle School Comprehensive Modernization Project

Construction Noise Impact on Sensitive Receptors

Parameters

Construction Hours:	8	Daytime hours (7 am to 7 pm)
	0	Evening hours (7 pm to 10 pm)
	0	Nighttime hours (10 pm to 7 am)
Leq to L10 factor	3	

				R1				R2				R3			
Phase 1															
Construction Phase **Equipment Type**	**No. of Equip.**	**Reference Noise Level at 50ft, Lmax**	**Acoustical Usage Factor**	**Distance (ft)**	**Lmax**	**Leq**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**Estimated Noise Shielding, dBA**
1A Paving					***108***	***105***			***84***	***81***			***86***	***83***	
Paving Equipment	2	85	50%	5	108	105	0	100	82	79	0	75	84	81	0
Roller	2	85	20%	55	87	80	0	150	78	71	0	125	80	73	0
Paver	2	85	50%	105	82	79	0	200	76	73	0	175	77	74	0
1A Building Construction					***87***	***82***			***56***	***51***			***56***	***51***	
Cranes	1	85	16%	40	82	74	5	880	50	42	10	880	50	42	10
Tractor/Loader/Backhoe	1	85	20%	40	82	75	5	880	50	43	10	880	50	43	10
Forklift	1	85	50%	40	82	79	5	880	50	47	10	880	50	47	10
Generator Sets	1	82	50%	40	79	76	5	880	47	44	10	880	47	44	10
Welders	1	73	40%	40	70	66	5	880	38	34	10	880	38	34	10
1B Demolition					***91***	***85***			***59***	***54***			***59***	***54***	
Concrete Saw	1	90	20%	40	87	80	5	880	55	48	10	880	55	48	10
Crushing/Proc. Equipment	1	87	20%	40	84	77	5	880	52	45	10	880	52	45	10
Other Construction Equipment	1	85	50%	40	82	79	5	880	50	47	10	880	50	47	10
Rubber Tired Dozers	1	85	40%	40	82	78	5	880	50	46	10	880	50	46	10
Excavator	1	85	40%	40	82	78	5	880	50	46	10	880	50	46	10
1C Electrical and LV Trench					***105***	***98***			***74***	***68***			***75***	***69***	
Concrete Saw	1	90	20%	5	105	98	5	450	71	64	0	220	72	65	5
Crushing/Proc. Equipment	1	87	20%	55	81	74	5	500	67	60	0	270	67	60	5
Other Construction Equipment	1	85	50%	105	74	71	5	550	64	61	0	320	64	61	5
Rubber Tired Dozers	1	85	40%	105	74	70	5	550	64	60	0	320	64	60	5
Excavator	1	85	40%	105	74	70	5	550	64	60	0	320	64	60	5
1D Paving					***103***	***100***			***84***	***81***			***86***	***83***	
Paving Equipment	2	85	50%	5	103	100	5	100	82	79	0	75	84	81	0
Roller	2	85	20%	55	82	75	5	150	78	71	0	125	80	73	0
Paver	2	85	50%	105	77	74	5	200	76	73	0	175	77	74	0
1D Building Construction					***100***	***92***			***82***	***75***			***84***	***77***	
Cranes	1	85	16%	5	100	92	5	100	79	71	0	75	81	74	0
Tractor/Loader/Backhoe	1	85	20%	55	79	72	5	150	75	68	0	125	77	70	0
Forklift	1	85	20%	105	74	67	5	200	73	66	0	175	74	67	0
Generator Sets	1	82	50%	105	71	68	5	200	70	67	0	175	71	68	0
Welders	1	73	40%	105	62	58	5	200	61	57	0	175	62	58	0

Project: LAUSD Burroughs Middle School Comprehensiv

Construction Noise Impact on Sensitive Receptors

Parameters

Construction Hours:	8	Daytime hours (7 am to 7 pm)
	0	Evening hours (7 pm to 10 pm)
	0	Nighttime hours (10 pm to 7 am)
Leq to L10 factor	3	

				R4				On-Site Classrooms			
Phase 1											
Construction Phase **Equipment Type**	**No. of Equip.**	**Reference Noise Level at 50ft, Lmax**	**Acoustical Usage Factor**	**Distance (ft)**	**Lmax**	**Leq**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**Estimated Noise Shielding, dBA**
1A Paving					***59***	***55***			***91***	***88***	
Paving Equipment	2	85	50%	750	54	51	10	40	90	87	0
Roller	2	85	20%	800	54	47	10	90	83	76	0
Paver	2	85	50%	850	53	50	10	140	79	76	0
1A Building Construction					***67***	***62***			***98***	***94***	
Cranes	1	85	16%	240	61	53	10	20	93	85	0
Tractor/Loader/Backhoe	1	85	20%	240	61	54	10	20	93	86	0
Forklift	1	85	50%	240	61	58	10	20	93	90	0
Generator Sets	1	82	50%	240	58	55	10	20	90	87	0
Welders	1	73	40%	240	49	45	10	20	81	77	0
1B Demolition					***70***	***65***			***102***	***96***	
Concrete Saw	1	90	20%	240	66	59	10	20	98	91	0
Crushing/Proc. Equipment	1	87	20%	240	63	56	10	20	95	88	0
Other Construction Equipment	1	85	50%	240	61	58	10	20	93	90	0
Rubber Tired Dozers	1	85	40%	240	61	57	10	20	93	89	0
Excavator	1	85	40%	240	61	57	10	20	93	89	0
1C Electrical and LV Trench					***76***	***70***			***104***	***97***	
Concrete Saw	1	90	20%	180	74	67	5	10	104	97	0
Crushing/Proc. Equipment	1	87	20%	230	69	62	5	60	85	78	0
Other Construction Equipment	1	85	50%	280	65	62	5	110	78	75	0
Rubber Tired Dozers	1	85	40%	280	65	61	5	110	78	74	0
Excavator	1	85	40%	280	65	61	5	110	78	74	0
1D Paving					***60***	***56***			***102***	***99***	
Paving Equipment	2	85	50%	680	55	52	10	10	102	99	0
Roller	2	85	20%	730	55	48	10	60	86	79	0
Paver	2	85	50%	780	54	51	10	110	81	78	0
1D Building Construction					***57***	***51***			***99***	***91***	
Cranes	1	85	16%	680	52	44	10	10	99	91	0
Tractor/Loader/Backhoe	1	85	20%	730	52	45	10	60	83	76	0
Forklift	1	85	20%	780	51	44	10	110	78	71	0
Generator Sets	1	82	50%	780	48	45	10	110	75	72	0
Welders	1	73	40%	780	39	35	10	110	66	62	0

Project: LAUSD Burroughs Middle School Comprehensive Modernization Project

Construction Noise Impact on Sensitive Receptors

Phase 2				R1				R2				R3			
Construction Phase **Equipment Type**	**No. of Equip.**	**Reference Noise Level at 50ft, Lmax**	**Acoustical Usage Factor**	**Distance (ft)**	**Lmax**	**Leq**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**Estimated Noise Shielding, dBA**
2A Grading/Modernization					***64***	***60***			***56***	***53***			***81***	***77***	
Graders	1	85	40%	275	60	56	10	685	52	48	10	100	79	75	0
Rubber Tired Dozer	1	85	40%	325	59	55	10	735	52	48	10	150	75	71	0
Tractor/Loader/Backhoe	1	85	50%	375	57	54	10	785	51	48	10	200	73	70	0
2B Demolition					***103***	***98***			***64***	***59***			***64***	***58***	
Concrete Saw	1	90	20%	10	99	92	5	430	61	54	10	475	60	53	10
Crushing/Proc. Equipment	1	87	20%	10	96	89	5	480	57	50	10	525	57	50	10
Other Construction Equipment	1	85	50%	10	94	91	5	530	54	51	10	575	54	51	10
Rubber Tired Dozers	1	85	40%	10	94	90	5	530	54	51	10	575	54	50	10
Excavator	1	85	40%	10	94	90	5	530	54	51	10	575	54	50	10
2B Building Construction					***78***	***71***			***61***	***54***			***60***	***54***	
Cranes	1	85	16%	80	76	68	5	440	56	48	10	450	56	48	10
Tractor/Loader/Backhoe	1	85	20%	130	72	65	5	490	55	48	10	500	55	48	10
Forklift	1	85	20%	180	69	62	5	540	54	47	10	550	54	47	10
Generator Sets	1	82	50%	180	66	63	5	540	51	48	10	550	51	48	10
Welders	1	73	40%	180	57	53	5	540	42	38	10	550	42	38	10
2B Architectural Coating					***69***	***66***			***59***	***56***			***59***	***56***	
Air Compressor	1	78	50%	80	69	66	5	440	59	56		450	59	56	
2C Grading/Modernization					***94***	***90***			***54***	***50***			***64***	***61***	
Graders	1	85	40%	10	94	90	5	950	49	45	10	250	61	57	10
Rubber Tired Dozer	1	85	40%	60	78	74	5	1000	49	45	10	300	59	55	10
Tractor/Loader/Backhoe	1	85	50%	110	73	70	5	1050	49	46	10	350	58	55	10
2D Grading/Modernization					***84***	***80***			***84***	***80***			***72***	***68***	
Graders	1	85	40%	100	79	75	0	100	79	75	0	220	67	63	5
Rubber Tired Dozer	1	85	40%	100	79	75	0	100	79	75	0	220	67	63	5
Tractor/Loader/Backhoe	1	85	50%	100	79	76	0	100	79	76	0	220	67	64	5
2E Grading/Modernization					***91***	***87***			***55***	***52***			***60***	***56***	
Graders	1	85	40%	15	90	86	5	800	51	47	10	450	56	52	10
Rubber Tired Dozer	1	85	40%	65	78	74	5	850	50	46	10	500	55	51	10
Tractor/Loader/Backhoe	1	85	50%	115	73	70	5	900	50	47	10	550	54	51	10
2F Demolition					***76***	***69***			***59***	***54***			***70***	***64***	
Concrete Saw	1	90	20%	100	74	67	10	800	56	49	10	220	67	60	10
Crushing/Proc. Equipment	1	87	20%	150	67	60	10	850	52	45	10	270	62	55	10
Other Construction Equipment	1	85	50%	200	63	60	10	900	50	47	10	320	59	56	10
Rubber Tired Dozers	1	85	40%	200	63	59	10	900	50	46	10	320	59	55	10
Excavator	1	85	40%	200	63	59	10	900	50	46	10	320	59	55	10
2F Building Construction					***72***	***65***			***56***	***49***			***66***	***59***	
Cranes	1	85	16%	100	69	61	10	800	51	43	10	220	62	54	10
Tractor/Loader/Backhoe	1	85	20%	150	65	58	10	850	50	43	10	270	60	53	10
Forklift	1	85	20%	200	63	56	10	900	50	43	10	320	59	52	10
Generator Sets	1	82	50%	200	60	57	10	900	47	44	10	320	56	53	10
Welders	1	73	40%	200	51	47	10	900	38	34	10	320	47	43	10
2F Architectural Coating					***62***	***59***			***54***	***51***			***65***	***62***	
Air Compressor	1	78	50%	100	62	59	10	800	54	51		220	65	62	
2G Grading/Modernization					***94***	***90***			***58***	***54***			***60***	***56***	
Graders	1	85	40%	10	94	90	5	600	53	49	10	440	56	52	10
Rubber Tired Dozer	1	85	40%	60	78	74	5	650	53	49	10	490	55	51	10
Tractor/Loader/Backhoe	1	85	50%	110	73	70	5	700	52	49	10	540	54	51	10
2H Grading/Modernization					***100***	***96***			***81***	***77***			***83***	***80***	
Graders	1	85	40%	5	100	96	5	100	79	75	0	75	81	77	0
Rubber Tired Dozer	1	85	40%	55	79	75	5	150	75	71	0	125	77	73	0
Tractor/Loader/Backhoe	1	85	50%	105	74	71	5	200	73	70	0	175	74	71	0
2I Paving					***103***	***100***			***84***	***81***			***86***	***83***	
Paving Equipment	2	85	50%	5	103	100	5	100	82	79	0	75	84	81	0
Roller	2	85	20%	55	82	75	5	150	78	71	0	125	80	73	0
Paver	2	85	50%	105	77	74	5	200	76	73	0	175	77	74	0

Project: LAUSD Burroughs Middle School Comprehensiv

Construction Noise Impact on Sensitive Receptors

Phase 2				R4				On-Site Classrooms			
Construction Phase **Equipment Type**	**No. of Equip.**	**Reference Noise Level at 50ft, Lmax**	**Acoustical Usage Factor**	**Distance (ft)**	**Lmax**	**Leq**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**Estimated Noise Shielding, dBA**
2A Grading/Modernization					***81***	***77***			***104***	***100***	
Graders	1	85	40%	100	79	75	0	10	99	95	0
Rubber Tired Dozer	1	85	40%	150	75	71	0	10	99	95	0
Tractor/Loader/Backhoe	1	85	50%	200	73	70	0	10	99	96	0
2B Demolition					***88***	***81***			***104***	***97***	
Concrete Saw	1	90	20%	75	86	79	0	10	104	97	0
Crushing/Proc. Equipment	1	87	20%	125	79	72	0	60	85	78	0
Other Construction Equipment	1	85	50%	175	74	71	0	110	78	75	0
Rubber Tired Dozers	1	85	40%	175	74	70	0	110	78	74	0
Excavator	1	85	40%	175	74	70	0	110	78	74	0
2B Building Construction					***84***	***77***			***99***	***91***	
Cranes	1	85	16%	75	81	74	0	10	99	91	0
Tractor/Loader/Backhoe	1	85	20%	125	77	70	0	60	83	76	0
Forklift	1	85	20%	175	74	67	0	110	78	71	0
Generator Sets	1	82	50%	175	71	68	0	110	75	72	0
Welders	1	73	40%	175	62	58	0	110	66	62	0
2B Architectural Coating					***74***	***71***			***92***	***89***	
Air Compressor	1	78	50%	75	74	71		10	92	89	
2C Grading/Modernization					***83***	***79***			***104***	***100***	
Graders	1	85	40%	80	81	77	0	10	99	95	0
Rubber Tired Dozer	1	85	40%	130	77	73	0	10	99	95	0
Tractor/Loader/Backhoe	1	85	50%	180	74	71	0	10	99	96	0
2D Grading/Modernization					***74***	***70***			***99***	***95***	
Graders	1	85	40%	180	69	65	5	10	99	95	0
Rubber Tired Dozer	1	85	40%	180	69	65	5	60	83	79	0
Tractor/Loader/Backhoe	1	85	50%	180	69	66	5	110	78	75	0
2E Grading/Modernization					***72***	***68***			***99***	***95***	
Graders	1	85	40%	190	68	64	5	10	99	95	0
Rubber Tired Dozer	1	85	40%	240	66	62	5	60	83	79	0
Tractor/Loader/Backhoe	1	85	50%	290	65	62	5	110	78	75	0
2F Demolition					***71***	***65***			***104***	***97***	
Concrete Saw	1	90	20%	180	69	62	10	10	104	97	0
Crushing/Proc. Equipment	1	87	20%	230	64	57	10	60	85	78	0
Other Construction Equipment	1	85	50%	280	60	57	10	110	78	75	0
Rubber Tired Dozers	1	85	40%	280	60	56	10	110	78	74	0
Excavator	1	85	40%	280	60	56	10	110	78	74	0
2F Building Construction					***67***	***61***			***99***	***91***	
Cranes	1	85	16%	180	64	56	10	10	99	91	0
Tractor/Loader/Backhoe	1	85	20%	230	62	55	10	60	83	76	0
Forklift	1	85	20%	280	60	53	10	110	78	71	0
Generator Sets	1	82	50%	280	57	54	10	110	75	72	0
Welders	1	73	40%	280	48	44	10	110	66	62	0
2F Architectural Coating					***67***	***64***			***92***	***89***	
Air Compressor	1	78	50%	180	67	64		10	92	89	
2G Grading/Modernization					***74***	***70***			***104***	***100***	
Graders	1	85	40%	180	69	65	5	10	99	95	0
Rubber Tired Dozer	1	85	40%	180	69	65	5	10	99	95	0
Tractor/Loader/Backhoe	1	85	50%	180	69	66	5	10	99	96	0
2H Grading/Modernization					***57***	***53***			***99***	***95***	
Graders	1	85	40%	680	52	48	10	10	99	95	0
Rubber Tired Dozer	1	85	40%	730	52	48	10	60	83	79	0
Tractor/Loader/Backhoe	1	85	50%	780	51	48	10	110	78	75	0
2I Paving					***57***	***53***			***92***	***89***	
Paving Equipment	2	85	50%	900	53	50	10	35	91	88	0
Roller	2	85	20%	950	52	45	10	85	83	76	0
Paver	2	85	50%	1000	52	49	10	135	79	76	0

Project: LAUSD Burroughs Middle School Comprehensive Modernization Project

Construction Noise Impact on Sensitive Receptors

Phase 3				R1				R2				R3			
Construction Phase **Equipment Type**	**No. of Equip.**	**Reference Noise Level at 50ft, Lmax**	**Acoustical Usage Factor**	**Distance (ft)**	**Lmax**	**Leq**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**Estimated Noise Shielding, dBA**
3A Demolition					***86***	***79***			***80***	***74***			**86**	***81***	
Concrete Saw	1	90	20%	50	85	78	5	200	78	71	0	75	86	79	0
Crushing/Proc. Equipment	1	87	20%	100	76	69	5	250	73	66	0	125	79	72	0
Other Construction Equipment	1	85	50%	150	70	67	5	300	69	66	0	175	74	71	0
Rubber Tired Dozers	1	85	40%	150	70	66	5	300	69	65	0	175	74	70	0
Excavator	1	85	40%	150	70	66	5	300	69	65	0	175	74	70	0
3B Grading/Modernization					***81***	***77***			***76***	***72***			**81**	***80***	
Graders	1	85	40%	50	80	76	5	200	73	69	0	75	81	77	0
Rubber Tired Dozer	1	85	40%	150	70	66	5	250	71	67	0	125	77	73	0
Tractor/Loader/Backhoe	1	85	50%	200	68	65	5	300	69	66	0	175	74	71	0
3C Paving					***103***	***100***			***57***	***53***			**59**	***59***	
Paving Equipment	2	85	50%	5	103	100	5	950	52	49	10	430	59	56	10
Roller	2	85	20%	55	82	75	5	1000	52	45	10	480	58	51	10
Paver	2	85	50%	105	77	74	5	1050	52	49	10	530	58	54	10

Project: LAUSD Burroughs Middle School Comprehensiv

Construction Noise Impact on Sensitive Receptors

Phase 3				R4				On-Site Classrooms			
Construction Phase **Equipment Type**	**No. of Equip.**	**Reference Noise Level at 50ft, Lmax**	**Acoustical Usage Factor**	**Distance (ft)**	**Lmax**	**Leq**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**Estimated Noise Shielding, dBA**
3A Demolition					***59***	***53***			***98***	***91***	
Concrete Saw	1	90	20%	900	55	48	10	20	98	91	0
Crushing/Proc. Equipment	1	87	20%	950	51	44	10	70	84	77	0
Other Construction Equipment	1	85	50%	950	49	46	10	120	77	74	0
Rubber Tired Dozers	1	85	40%	950	49	45	10	120	77	73	0
Excavator	1	85	40%	950	49	45	10	120	77	73	0
3B Grading/Modernization					***54***	***51***			***93***	***89***	
Graders	1	85	40%	900	50	46	10	20	93	89	0
Rubber Tired Dozer	1	85	40%	950	49	45	10	70	82	78	0
Tractor/Loader/Backhoe	1	85	50%	1000	49	46	10	120	77	74	0
3C Paving					***87***	***83***			***96***	***93***	
Paving Equipment	2	85	50%	70	85	82	0	20	96	93	0
Roller	2	85	20%	120	80	73	0	70	85	78	0
Paver	2	85	50%	170	77	74	0	120	80	77	0

Project: LAUSD Burroughs Middle School Comprehensive Modernization Project

Construction Noise Impact on Sensitive Receptors

Overlapping Phases	**R1** **Leq**	**R2** **Leq**	**R3** **Leq**
1D Construction, 2A Seismic Modification, 2B Demolition, 2B Construction, 2C Seismic Modification	***99***	***75***	***80***
2A Building Construction, 2B Construction, 2B Architectural Coating, 2C Seismic Modification	***90***	***60***	***78***
2C Seismic Modification, 2D Seismic Modification, 2E Seismic Modification, 2F Demolition, 2F Construction, 2F Architectural Coating, 2G Seismic Modification, 2I Paving	***101***	***83***	***83***
2F Construction, 2F Architectural Coating 3A Demolition, 3B Grading, 3C Demolition	***100***	***77***	***84***
3A Demolition, 3B Grading, 3C Paving	***100***	***77***	***84***
Maximum Noise Level	***105.0***	***83.4***	***83.6***
Reduction: exhaust mufflers (-3 dBA) and sound barrier (-20 dBA)	82.0	60.4	60.6
Threshold (Ambient +5 dBA)	60.4	77.8	66.9
Exceeds Threshold?	**Yes**	No	No

Source for Ref. Noise Levels: FHWA RCNM, 2005

Project: LAUSD Burroughs Middle School Comprehensiv

Construction Noise Impact on Sensitive Receptors

Overlapping Phases	**R4** **Leq**	**On-Site Classrooms** **Leq**
1D Construction, 2A Seismic Modification, 2B Demolition, 2B Construction, 2C Seismic Modification	***85***	***105***
2A Building Construction, 2B Construction, 2B Architectural Coating, 2C Seismic Modification	***83***	***104***
2C Seismic Modification, 2D Seismic Modification, 2E Seismic Modification, 2F Demolition, 2F Construction, 2F Architectural Coating, 2G Seismic Modification, 2I Paving	***81***	***105***
2F Construction, 2F Architectural Coating 3A Demolition, 3B Grading, 3C Demolition	***83***	***98***
3A Demolition, 3B Grading, 3C Paving	***83***	***96***
Maximum Noise Level	***85.0***	***105.5***
Reduction: exhaust mufflers (-3 dBA) and sound barrier (-20 dBA)	62.0	82.5
Threshold (Ambient +5 dBA)	78.2	67.0
Exceeds Threshold?	No	**Yes**

Source for Ref. Noise Levels: FHWA RCNM, 2005

Project: LAUSD Burroughs Middle School Comprehensive Modernization Project

Construction Noise Impact on Sensitive Receptors

Parameters

Construction Hours:	8	Daytime hours (7 am to 7 pm)
	0	Evening hours (7 pm to 10 pm)
	0	Nighttime hours (10 pm to 7 am)
Leq to L10 factor	3	

Phase 1				**On-Site Classrooms**			
Construction Phase **Equipment Type**	**No. of Equip.**	**Reference Noise Level at 50ft, Lmax**	**Acoustical Usage Factor**	**Distance (ft)**	**Lmax**	**Leq**	**Estimated Noise Shielding, dBA**
1A Paving					***86***	***82***	
Paving Equipment	2	85	50%	80	84	81	0
Roller	2	85	20%	130	80	73	0
Paver	2	85	50%	180	77	74	0
1A Building Construction					***86***	***81***	
Cranes	1	85	16%	80	81	73	0
Tractor/Loader/Backhoe	1	85	20%	80	81	74	0
Forklift	1	85	50%	80	81	78	0
Generator Sets	1	82	50%	80	78	75	0
Welders	1	73	40%	80	69	65	0
1B Demolition					***90***	***84***	
Concrete Saw	1	90	20%	80	86	79	0
Crushing/Proc. Equipment	1	87	20%	80	83	76	0
Other Construction Equipment	1	85	50%	80	81	78	0
Rubber Tired Dozers	1	85	40%	80	81	77	0
Excavator	1	85	40%	80	81	77	0
1C Electrical and LV Trench					***87***	***81***	
Concrete Saw	1	90	20%	80	86	79	0
Crushing/Proc. Equipment	1	87	20%	130	79	72	0
Other Construction Equipment	1	85	50%	180	74	71	0
Rubber Tired Dozers	1	85	40%	180	74	70	0
Excavator	1	85	40%	180	74	70	0
1D Paving					***86***	***82***	
Paving Equipment	2	85	50%	80	84	81	0
Roller	2	85	20%	130	80	73	0
Paver	2	85	50%	180	77	74	0
1D Building Construction					***83***	***76***	
Cranes	1	85	16%	80	81	73	0
Tractor/Loader/Backhoe	1	85	20%	130	77	70	0
Forklift	1	85	20%	180	74	67	0
Generator Sets	1	82	50%	180	71	68	0
Welders	1	73	40%	180	62	58	0

Project: LAUSD Burroughs Middle School Comprehensive Modernization Project

Construction Noise Impact on Sensitive Receptors

Phase 2				On-Site Classrooms			
Construction Phase **Equipment Type**	**No. of Equip.**	**Reference Noise Level at 50ft, Lmax**	**Acoustical Usage Factor**	**Distance (ft)**	**Lmax**	**Leq**	**Estimated Noise Shielding, dBA**
2A Grading/Modernization					***86***	***82***	
Graders	1	85	40%	80	81	77	0
Rubber Tired Dozer	1	85	40%	80	81	77	0
Tractor/Loader/Backhoe	1	85	50%	80	81	78	0
2B Demolition					***87***	***81***	
Concrete Saw	1	90	20%	80	86	79	0
Crushing/Proc. Equipment	1	87	20%	130	79	72	0
Other Construction Equipment	1	85	50%	180	74	71	0
Rubber Tired Dozers	1	85	40%	180	74	70	0
Excavator	1	85	40%	180	74	70	0
2B Building Construction					***83***	***76***	
Cranes	1	85	16%	80	81	73	0
Tractor/Loader/Backhoe	1	85	20%	130	77	70	0
Forklift	1	85	20%	180	74	67	0
Generator Sets	1	82	50%	180	71	68	0
Welders	1	73	40%	180	62	58	0
2B Architectural Coating					***74***	***71***	
Air Compressor	1	78	50%	80	74	71	
2C Grading/Modernization					***86***	***82***	
Graders	1	85	40%	80	81	77	0
Rubber Tired Dozer	1	85	40%	80	81	77	0
Tractor/Loader/Backhoe	1	85	50%	80	81	78	0
2D Grading/Modernization					***83***	***79***	
Graders	1	85	40%	80	81	77	0
Rubber Tired Dozer	1	85	40%	130	77	73	0
Tractor/Loader/Backhoe	1	85	50%	180	74	71	0
2E Grading/Modernization					***83***	***79***	
Graders	1	85	40%	80	81	77	0
Rubber Tired Dozer	1	85	40%	130	77	73	0
Tractor/Loader/Backhoe	1	85	50%	180	74	71	0
2F Demolition					***87***	***81***	
Concrete Saw	1	90	20%	80	86	79	0
Crushing/Proc. Equipment	1	87	20%	130	79	72	0
Other Construction Equipment	1	85	50%	180	74	71	0
Rubber Tired Dozers	1	85	40%	180	74	70	0
Excavator	1	85	40%	180	74	70	0
2F Building Construction					***83***	***76***	
Cranes	1	85	16%	80	81	73	0
Tractor/Loader/Backhoe	1	85	20%	130	77	70	0
Forklift	1	85	20%	180	74	67	0
Generator Sets	1	82	50%	180	71	68	0
Welders	1	73	40%	180	62	58	0
2F Architectural Coating					***74***	***71***	
Air Compressor	1	78	50%	80	74	71	
2G Grading/Modernization					***86***	***82***	
Graders	1	85	40%	80	81	77	0
Rubber Tired Dozer	1	85	40%	80	81	77	0
Tractor/Loader/Backhoe	1	85	50%	80	81	78	0
2H Grading/Modernization					***83***	***79***	
Graders	1	85	40%	80	81	77	0
Rubber Tired Dozer	1	85	40%	130	77	73	0
Tractor/Loader/Backhoe	1	85	50%	180	74	71	0
2I Paving					***86***	***82***	
Paving Equipment	2	85	50%	80	84	81	0
Roller	2	85	20%	130	80	73	0
Paver	2	85	50%	180	77	74	0

Project: LAUSD Burroughs Middle School Comprehensive Modernization Project

Construction Noise Impact on Sensitive Receptors

Phase 3				On-Site Classrooms			
Construction Phase **Equipment Type**	**No. of Equip.**	**Reference Noise Level at 50ft, Lmax**	**Acoustical Usage Factor**	**Distance (ft)**	**Lmax**	**Leq**	**Estimated Noise Shielding, dBA**
3A Demolition					***87***	***81***	
Concrete Saw	1	90	20%	80	86	79	0
Crushing/Proc. Equipment	1	87	20%	130	79	72	0
Other Construction Equipment	1	85	50%	180	74	71	0
Rubber Tired Dozers	1	85	40%	180	74	70	0
Excavator	1	85	40%	180	74	70	0
3B Grading/Modernization					***83***	***79***	
Graders	1	85	40%	80	81	77	0
Rubber Tired Dozer	1	85	40%	130	77	73	0
Tractor/Loader/Backhoe	1	85	50%	180	74	71	0
3C Paving					***86***	***82***	
Paving Equipment	2	85	50%	80	84	81	0
Roller	2	85	20%	130	80	73	0
Paver	2	85	50%	180	77	74	0

Project: LAUSD Burroughs Middle School Comprehensive Modernization Project

Construction Noise Impact on Sensitive Receptors

Overlapping Phases	On-Site Classrooms Leq
1D Construction, 2A Seismic Modification, 2B Demolition, 2B Construction, 2C Seismic Modification	***87***
2A Building Construction, 2B Construction, 2B Architectural Coating, 2C Seismic Modification	***86***
2C Seismic Modification, 2D Seismic Modification, 2E Seismic Modification, 2F Demolition, 2F Construction, 2F Architectural Coating, 2G Seismic Modification, 2I Paving	***89***
2F Construction, 2F Architectural Coating 3A Demolition, 3B Grading, 3C Demolition	***86***
3A Demolition, 3B Grading, 3C Paving	***86***
Maximum Noise Level	***89.2***
Reduction: exhaust mufflers (-3 dBA) and sound barrier (-20 dBA)	66.2
Threshold (Ambient +5 dBA)	67.0
Exceeds Threshold?	No

Source for Ref. Noise Levels: FHWA RCNM, 2005

TRAFFIC NOISE ANALYSIS TOOL

Project Name: Burroughs Middle School
Project Number: D211085.33
Analysis Scenario: Construction Traffic
Source of Traffic Volumes: Worst case construction traffic

	Roadway Segment	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)
				Auto	MT	HT	Auto	MT	HT	
R2	Wilshire Boulevard	Hard	65	0	0	25	0	0	10	54
R3	McCadden Place	Hard	35	0	0	25	0	0	10	57
R4	West 6th Street	Hard	35	0	0	25	0	0	10	57

Model Notes:
The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).
The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.
Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.
Noise propagation greater than 50 feet is based on the following assumptions:
For hard ground, the propagation rate is 3 dB per doubling the distance.
For soft ground, the propagation rate is 4.5 dB per doubling the distance.
Vehicles are assumed to be on a long straight roadway with cruise speed.
Roadway grade is less than 1.5%.
CNEL levels were obtained based on Figure 2-19, on page 2-58 Caltran's TeNS 2013.

Appendix J

John Burroughs Middle School Comprehensive Modernization Traffic and Pedestrian Safety Analysis

ESA

ESA

626 Wilshire Boulevard
Suite 1100
Los Angeles, CA 90017
213.599.4300 phone
213.599.4301 fax

www.esassoc.com

memorandum

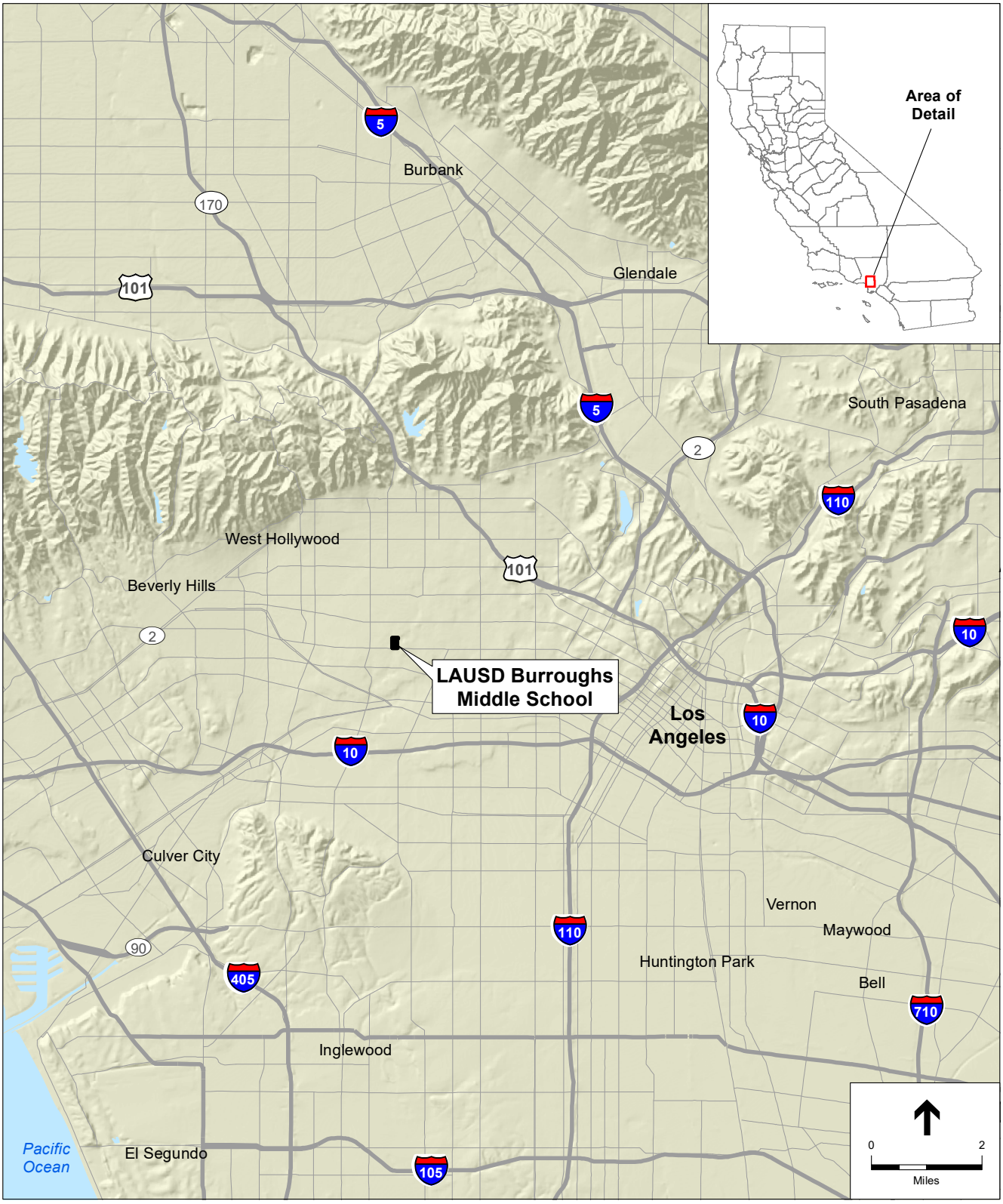
date	July 30, 2018
to	Edward Paek, CEQA Project Manager, LAUSD
cc	Arabesque Abdelwahed
from	Shadde Rosenblum, Olivia Chan
subject	**John Burroughs Middle School Comprehensive Modernization Traffic and Pedestrian Safety Analysis**

This memorandum evaluates the potential traffic and pedestrian safety effects of the proposed John Burroughs Middle School Comprehensive Modernization Project (proposed Project). The proposed Project is a site-specific school upgrade and modernization project being completed by the Los Angeles Unified School District (LAUSD) under the School Upgrade Program (SUP). The John Burroughs Middle School campus (Campus) is an existing 10.4-acre site located at 600 South McCadden Place, within the southeast portion of the City of Los Angeles. **Figure 1** illustrates the project site location. The Campus is bounded by West 6th Street to the north, South McCadden Place to the west, Wilshire Boulevard to the south, and single-family residences and a three-story office building that front South June Street to the east (**Figure 2**). Project implementation will not occur across the entire school Campus, but on selected areas undergoing renovation.

Project Background

This Project is a part of the LAUSD SUP that seeks to improve and modernize aging existing LAUSD schools. The proposed Project would include the demolition and removal and modernization of existing buildings, and construction of new facilities at the John Burroughs Middle School. Project implementation would not increase the number of students attending the school or staff required to operate the school, and therefore would not generate new (permanent) traffic to the study area.

The proposed Project is designed to improve site circulation, access (including the path of travel), and parking at the campus. As part of the Project, school bus access for student loading and unloading would be relocated from the existing location along McCadden Place to a location within the proposed expanded southern parking lot. The main public and student access (walk-in) point to the school would continue to be off McCadden Place. The project would increase the number of combined onsite parking spaces from 98 to 146 in two surface parking lots.



SOURCE: Los Angeles County GIS.

LAUSD Burroughs Middle School Comprehensive Modernization Project . 211085.33

Figure 1
Project Vicinity

SOURCE: Los Angeles County GIS.

LAUSD Burroughs Middle School Comprehensive Modernization Project . 211085.33

Figure 2
Project Location

Analysis Methodology

It is anticipated that campus operations would be more efficient or would be otherwise improved following implementation of the proposed Project, which would result in new and upgraded facilities, and would not result in substantive changes to the existing operation of the school. Project implementation would not provide for an increase in the number of students attending the school or staff required to operate the school. As such, operational activities associated with the proposed Project are not additive to those operations analyzed in the Program EIR and would not result in substantial changes that have not previously been identified in the Program EIR. Specifically related to the traffic analysis presented herein, there would be no permanent increase in traffic generated by the school. In addition, the project's provision of additional onsite parking spaces and a designated bus loading/unloading area within the expanded southern parking lot would ease traffic congestion in the surrounding neighborhood by reducing the need to find on-street parking spaces and eliminating school bus parking along McCadden Place. Therefore, this analysis focuses on potential impacts associated with temporary increases in traffic associated with Project construction activities.

The methodology for the analysis was as follows:

1. Establish the existing baseline traffic conditions (traffic volumes and volume-to-capacity [v/c] ratios) on roadways that provide immediate access to the campus and those that are expected to be used by construction workers and trucks to travel to and from the Project site.

2. Estimate construction trip generation using forecasts of construction workers and trucks provided by LAUSD.

3. Evaluate Existing with Project traffic conditions (traffic volumes and v/c ratios) on study roadways.

4. Evaluate Existing with Project pedestrian safety conditions.

5. Provide a summary of the findings and make recommendations regarding the proposed project, if warranted.

    a. As a matter of course, LAUSD would adhere to Standard Condition of Approval SC-T-4 for the construction phase of the proposed project.

SC-T-4	LAUSD shall require its contractors to submit a construction worksite traffic control plan to the local City or County jurisdiction for review prior to construction. The plan shall show the location of any haul routes, hours of operation, protective devices, warning signs, and access to abutting properties. LAUSD shall encourage its contractor to limit construction-related trucks to off-peak commute periods. As required by Caltrans, applicable transportation related safety measures shall be implemented during construction.

Changes to Project Access Points

Vehicular and pedestrian access to John Burroughs Middle School is currently provided via McCadden Place and West 6th Street. The school's main public entrance for vehicular traffic is the existing southern parking lot at the

northeast corner of McCadden Place and Wilshire Boulevard, which is accessed by one 25-foot-wide driveway off of McCadden Place approximately 250 feet north of Wilshire Boulevard. The main student entrance is located on McCadden Place. Student drop-off / pick-up currently occurs along the east (school) side of McCadden Place. The proposed project would not change the school entrances or parent drop-off/pick-up zone. However, as noted previously, the southern parking lot would be expanded to include a relocated school bus loading and unloading area, eliminating existing school bus loading and unloading along McCadden. The Project would increase the number of onsite parking spaces and would add two right-in/right-out only driveways along Wilshire Boulevard to provide access to the expanded southern parking lot. Additionally, the Project would relocate the existing driveway on McCadden Place closer to Wilshire Boulevard, which would allow the existing loading and unloading zone for parent drop-off/pick up along McCadden Place to be extended south by approximately 150 feet.

Existing Conditions Summary

This section describes existing (without Project) conditions within the identified study area. Characteristics are provided for the roadway network, traffic volumes, traffic operations, non-motorized facilities, and public transit.

Vehicular access for the Project site is provided by a series of local and regional roads. The roads that would be used by Project-related traffic (construction workers and trucks) are anticipated to be Wilshire Boulevard and West 6th Street (four-lane arterial roads), McCadden Place (a two-lane local street), and Interstates 10 and 110 (regional freeways, located approximately two miles south of, and four miles east of, the Project site, respectively). The street intersections on the expected haul routes where Project truck traffic would turn generally are controlled by traffic signals (the exception being the side-street stop-controlled intersection of Wilshire Boulevard and McCadden Place). Characteristics of the existing roadway system in the project vicinity are shown in **Table 1**.

Table 1
Study Area Roadway System

Roadway	Type	Number of Travel Lanes	Sidewalks	Bicycle Lanes
McCadden Place	Local	2	Yes	No
Wilshire Boulevard	Arterial	4	Yes	No
West 6th Street	Arterial	4	Yes	No

Existing traffic counts were obtained by Wiltec USA (see Attachment A) in December 2016 for McCadden Place. Data available from LADOT was used to determine the daily traffic volumes on Wilshire Boulevard and West 6th Street:

- McCadden Place = 3,851 vehicles per day
- Wilshire Boulevard = 33,873 vehicles per day
- West 6th Street = 21,712 vehicles per day

Although roadway and traffic characteristics (e.g., parking, traffic signals) affect the carrying capacity of roadways, for transportation planning purposes, two-lane roadways (like McCadden Place) have the capacity to accommodate about 15,000 vehicles per day; and the carrying capacity of four-lane arterials (like Wilshire Boulevard and West

6th Street) ranges up to 40,000 vehicles per day. As such, the volume-to-capacity (v/c) ratios of the above-cited area roads are as follows:

- McCadden Place = 0.257 (3,851 / 15,000)
- Wilshire Boulevard = 0.847 (33,873 / 40,000)
- West 6th Street = 0.543 (21,712 / 40,000)

Students, faculty and staff can currently travel to school using public transit routes, bicycles, and by walking. There are sidewalks on all streets surrounding the school. In addition, LAUSD encourages ride-sharing programs for students and teachers, as well as riding bicycles to school. Transit service to the project site is provided by Metro, which operates Bus Line 20 on Wilshire Boulevard (nearest stop on the corner of Wilshire Boulevard and McCadden Place). Metro buses operating on Wilshire Boulevard, including Metro Rapid 720 that does not stop in front of John Burroughs Middle School, travel in exclusive bus-only curb lanes.

Existing with Project Summary

Construction

This section documents Project-generated traffic impacts during the peak construction phase on the surrounding transportation system. The additional traffic generated by the construction activities would be temporary, and would last through the phases of the conservatively estimated 5.5-year construction period.

Construction Phasing

Construction activities are anticipated to be initiated in the second quarter of 2019 and to be completed in the first quarter of 2025. The Lead Agency for the project is LAUSD. The Los Angeles Department of Transportation (LADOT) is one of the reviewing agencies, and would consider how Project-related construction traffic would affect their facilities.

Construction of the proposed project would include on-site demolition, excavation, and grading activities. In addition, trucks would be intermittently delivering building materials to the site. The proposed Project would include the following activities, with limited-to-no overlap between phases.

- **Phase 1.1 (8 months)**: During this phase, construction site access would be constructed along Wilshire Boulevard, storage shacks would be demolished, and new utility would be constructed.

- **Phase 1.2 (7 months)**: During this phase, the campus would be cut over onto new power service, the existing baseball field would be paved to accommodate interim housing installation (13 bungalows) and south parking lot.

- **Phase 2.1 (3 months):** During this phase, 15 existing buildings would be demolished.

- **Phase 2.2 (22 months):** During this phase, a new three-story building and a new two-story building would be constructed, the expanded north parking lot would be paved, and three existing buildings would be under construction and modernized. During the summer months, new basketball courts would be constructed.

- **Phase 2.3 (20 months):** During this phase one interim housing unit would be removed and three units would be moved. Additionally, the expanded south parking lot along Wilshire Boulevard would be completed.

- **Phase 3 (19 months):** During this phase, three existing buildings would undergo seismic retrofit and modernization.

- **Phase 4 (6 months):** During this phase, interim housing units would be removed and a new sports field would be constructed.

Trip Generation

Based on information provided by LAUSD, the proposed Project would require a maximum of 50 workers onsite on a school day and a maximum of 150 workers onsite on a summer day, generating a maximum of 125 one-way trips per school day and a maximum of 375 one-way trips on a summer day.[1] The maximum number of daily truck trips during the summer would be 100 one-way trips per day during soil removal activity. Maximum one-way truck trips during the school day would range from 2 to 20. It is anticipated that truck trips would be spread over the daily work hours. Conservatively assuming that the up to 395 one-way vehicle trips (375 worker trips plus 20 truck trips) would travel on all of the study roads during the school year, the resulting v/c ratios under Existing with Project conditions would be as follows:

- McCadden Place = 0.283 (4,246 / 15,000)
- Wilshire Boulevard = 0.857 (34,268 / 40,000)
- West 6th Street = 0.553 (22,107 / 40,000)

As shown, all of the study roadways would continue to operate with a volume-to-capacity (v/c) ratio of less than 0.900 on a daily basis under the Existing plus Project conditions. **Table 2** summarizes the allowable Project-related increases in v/c ratio and **Table 3** summaries the Project-related increases in v/c ratio. For all study roadways, the Project-caused increase in v/c ratio on the study area roadways would not exceed the thresholds of significance established by LADOT. Therefore, there would be no significant traffic impacts at the study area roadways with the addition of Project construction traffic (the roadways would continue to accommodate traffic within the roadways' carrying capacity).

Table 2
Allowable Project-Related Increases in V/C Ratio

Level of Service	Final V/C Ratio	Project-Related Increase in V/C
C	> 0.701 – 0.800	Equal to or greater than 0.040
D	> 0.801 – 0.900	Equal to or greater than 0.020
E	> 0.901 – 1.000	Equal to or greater than 0.010
F	Greater than 1.00	Equal to or greater than 0.010

Source: Los Angeles Department of Transportation. Transportation Impact Study Guidelines. December 2016

[1] Daily trips by construction workers would consist of inbound and outbound commute trips (conservatively assumed to be each worker in their own vehicle), plus midday trips (lunch or other errands) by about 25% of the workers.

Table 3
Project-Related Increases in V/C Ratio

Roadway	Existing V/C	Existing Plus Project V/C	Project-Related Increase in V/C	Significant?
McCadden Place	0.257	0.283	0.026	No
Wilshire Boulevard	0.847	0.857	0.010	No
West 6th Street	0.543	0.553	0.010	No

LAUSD requires its contractors to submit a construction worksite traffic control plan to LADOT for review prior to construction, as required by SC-T-4. Elements of the traffic control plan would include, but not limited to, restricting construction-related trucks to off-peak commute periods, and provision of flaggers to assist or direct traffic flows to and from the local streets. A "haul route permit" may be required and obtained from LADOT. Therefore, the Project would not cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system. As such, impacts would be less than significant.

Regarding Congestion Management Program considerations, level of service standards established by jurisdictions (such as Los Angeles County) are intended to regulate long-term (permanent) traffic increases associated with new development and do not apply to short-term (temporary) traffic increases that occur during construction. As stated above, school enrollment and staff levels would remain the same at John Burroughs Middle School following completion of the proposed Project, and there would be no permanent increase in traffic generated by the Project. Potential impacts associated with the proposed Project would be limited to construction activity, and the temporary increased vehicle trips would cease when construction is complete, and implementation of the proposed Project would not result in any long-term, ongoing effects related to traffic and congestion.

Pedestrian access to and from the school during construction would be minimally altered, and any temporary changes to pedestrian access during construction would be completed as outlined in a worksite traffic control plan for the proposed project (per SC-T-4). The modified parking lots would be designed per the requirements of LAUSD and LADOT. Construction vehicles accessing the campus would avoid drop-off and deliveries during the start and end of the school day. Further construction-related access and traffic specifics would be coordinated with the campus administrators, LAUSD's Transportation Branch, and Office of Environmental Health and Safety and will be detailed in the worksite traffic control plan.

In general, adopted policies, plans, and programs pertaining to public transit, bicycle, and pedestrian travel are intended to be used for long-term planning purposes and do not apply to construction activities. The proposed Project would not directly or indirectly eliminate alternative modes of transportation, transportation corridors, or facilities (e.g., bus stops). Further, the proposed Project would not prevent the use of any roads on which public transit routes operate during construction activities. There would be no impacts related to conflicts with policies, plans, or programs related to transit, bicycle, or pedestrian travel during construction.

Operations

The Campus is bounded by Wilshire Boulevard to the south, McCadden Place to the west, and West 6th Street to the north, and pedestrian access and circulation is provided on sidewalks on those streets. The West 6th Street / McCadden Place intersection is controlled by a traffic signal with school crosswalk pavement markings on the north, west, and south approaches to the intersection. The McCadden Place / Wilshire Boulevard intersection is controlled by a side-street stop sign on the McCadden Place approach; Wilshire Boulevard traffic is uncontrolled at the intersection.

The proposed Project would not increase the existing number of students or staff, and therefore it would not generate new (permanent) traffic to the study area. The proposed project would not include changes to existing roadways, and would be designed to enhance path of travel, accessibility, and other pedestrian travel throughout the campus. The Project would increase the number of onsite parking spaces and would alter the location of access driveways for the onsite parking spaces. Accommodation for Americans with Disabilities Act (ADA)-compliant access for student pick-up/drop-off would be provided in the improved northern parking lot.

The Project includes two new vehicular access driveways along Wilshire Boulevard that would permit right-in/right-out access from Wilshire Boulevard, and a relocated driveway on McCadden Place from approximately 250 feet north of Wilshire Boulevard to approximately 100 feet north of Wilshire Boulevard. The design of the Project (e.g., access for the expanded on-campus parking lots) would include the use of standard engineering practices, such as standard driveway widths and turning radii and the provision of adequate line of sight to avoid design elements that could result in hazards. In addition, projects are required to provide emergency vehicle access for the City of Los Angeles Fire Department (LAFD). Conformance to District policies and local ordinances would ensure that adequate access would be maintained. In addition, LAUSD has contacted LADOT regarding the addition of two right-in/right-out access driveways on Wilshire Boulevard. LADOT has provided preliminary approval of the location of the proposed driveways, provided that they remain right-in/right-out only (see Attachment B).

School bus loading would be prohibited along the McCadden Place frontage of the school and relocated to the expanded southern parking lot. School buses would access the site from the eastern driveway on Wilshire Boulevard and exit back onto Wilshire Boulevard via the western driveway on Wilshire Boulevard. School buses would not be allowed to exit the south parking lot via the driveway on McCadden Place. Although school buses would be allowed to turn onto McCadden place from Wilshire, buses would not be allowed to stop for loading/unloading. With the elimination of school bus loading on McCadden Place, more curb space would be allocated to passenger vehicle loading and unloading, alleviating existing loading conflicts, double-parking along McCadden Place, and potential safety hazards. The loading area within the southern parking lot would be of sufficient length to accommodate all school buses and would not result in internal queuing that would spillover onto Wilshire Boulevard or block access to the parking lot stalls. The addition of two ingress/egress points on Wilshire Boulevard and the relocation of school bus loading to the southern parking lot would improve circulation and safety in the immediate vicinity of the site.

The westbound LA Metro Line 20 has bus stop shelters on either side of John Burroughs Middle School at the northeast corner of Wilshire Boulevard / McCadden Place (westbound) and the northwest corner of Wilshire Boulevard / Keniston. The introduction of two new driveways on Wilshire Boulevard would not require the removal or relocation of the bus stops. However, the new driveways on Wilshire Boulevard may conflict with buses operating in the exclusive bus-only lane along the Wilshire Boulevard frontage of the project site. Vehicles

(e.g., school buses and passenger vehicles) accessing the Project site would primarily do so before and after school instruction hours. Potential sight distance obstructions may occur for motorists seeking to exit the project site onto Wilshire Boulevard when a bus is loading at either of the two stops. However, the proposed driveways would be limited to right-in/right-out access which would limit potential conflicts leading to collisions[2] and would limit the delays that would occur if left-turns out of the site were allowed. Metro bus operators are trained on proper stop spacing and maneuvering potential conflicts with intersections and driveways. Therefore, the proposed Project would not substantially increase vehicular safety hazards. As such, project impacts to safety would be less than significant.

[2] U.S. Department of Transportation Federal Highway Administration. Access Management in the Vicinity of Intersections. https://safety.fhwa.dot.gov/intersection/other_topics/fhwasa10002/#s11. Accessed July 2018

ESA

626 Wilshire Boulevard
Suite 1100
Los Angeles, CA 90017
213.599.4300 phone
213.599.4301 fax

www.esassoc.com

Edward Paek, CEQA Project Manager
LAUSD Office of Environmental Health & Safety
333 South Beaudry Avenue, 21st Floor
Los Angeles, CA 90017

SUBJECT: LETTER OF NO IMPACT FOR JOHN BURROUGHS MIDDLE SCHOOL COMPREHENSIVE MODERNIZATION PROJECT

Dear Mr. Paek:

Per our July 26, 2018 *John Burroughs Middle School Comprehensive Modernization Traffic and Pedestrian Safety Analysis*, we have made the following findings:

- The peak construction phase of the proposed Project would generate a maximum of 395 daily vehicle trips. Worker trips would consist of about 150 trips inbound to the project site at the start of the work day, 150 trips outbound from the Project site at the end of the work day, and 75 trips during midday hours. Truck trips would be spread over the course of the work day.

- For all study roadways, the Project-added increase in volume to capacity (v/c) ratio would not exceed the thresholds of significance established by LADOT. Therefore, there would be no significant traffic impacts at the study area roadways with the addition of Project construction traffic.

- The addition of two right-in/right-out driveways on Wilshire Boulevard would not result in increased hazards related to pedestrian or vehicular safety and has received preliminary approval from the Los Angeles Department of Transportation.

- Although the proposed Project would not result in significant traffic impacts, LAUSD would incorporate Standard Condition of Approval SC-T-4 into the proposed project.

SC-T-4 LAUSD shall require its contractors to submit a construction worksite traffic control plan to the LADOT for review prior to construction. The plan will show the location of any haul routes, hours of operation, protective devices, warning signs, and access to abutting properties LAUSD shall encourage its contractor to limit construction-related trucks to off-peak commute periods. As required by Caltrans, applicable transportation related safety measures shall be implemented during construction.

The worksite traffic control plan will be completed in accordance with the applicable standards and guidelines provided in the California Vehicle Code, or by LAUSD and the LADOT and all related and applicable traffic related standards and guidelines. The worksite traffic control plan shall be submitted to LADOT. With the implementation of SC-T-4, temporary construction-related traffic impacts to the study area roadways, and vehicular and pedestrian access points would be less than significant. Therefore, no impacts to the surrounding street, pedestrian, and bicycle networks would be created by the proposed Project.

Sincerely,

Shadde Rosenblum
Senior Transportation Planner

Attachment A
Traffic Counts

ESA

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

24-HOUR ADT COUNT SUMMARY

CLIENT: ESA
PROJECT: MCCADDEN PLACE
LOCATION: SOUTH MCCADDEN PLACE
BETWEEN WILSHIRE BLVD AND 6TH STREET
DATE: THURSDAY DECEMBER 1, 2016

Start of Day = 7:49 AM (7:15 - 8:15)
End of Day = 2:49 PM (2:45 - 3:45)

DIRECTION:	NB				
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	0	0	0	0	0
1:00	0	0	0	1	1
2:00	0	0	0	1	1
3:00	0	1	0	0	1
4:00	0	0	0	0	0
5:00	0	0	1	2	3
6:00	2	6	11	31	50
7:00	87	149	131	136	503
8:00	43	20	14	20	97
9:00	22	14	14	19	69
10:00	26	18	8	14	66
11:00	16	7	8	10	41
12:00	22	12	8	14	56
13:00	20	10	11	14	55
14:00	20	28	14	43	105
15:00	94	72	50	66	282
16:00	64	50	52	39	205
17:00	84	62	56	48	250
18:00	48	28	15	38	129
19:00	30	39	15	9	93
20:00	10	7	6	2	25
21:00	4	4	5	3	16
22:00	2	2	3	0	7
23:00	3	4	1	0	8
				TOTAL	2063

AM PEAK HOUR	0700-0800
VOLUME	503
PM PEAK HOUR	1500-1600
VOLUME	282

DIRECTION:	SB				
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	1	0	1	0	2
1:00	0	1	0	0	1
2:00	0	0	1	0	1
3:00	0	1	0	0	1
4:00	0	0	0	0	0
5:00	1	2	0	4	7
6:00	0	4	6	20	30
7:00	40	41	74	72	227
8:00	36	40	39	37	152
9:00	32	21	37	24	114
10:00	19	19	22	21	81
11:00	18	14	13	20	65
12:00	12	12	11	13	48
13:00	17	16	20	13	66
14:00	20	34	33	22	109
15:00	46	45	42	45	178
16:00	62	42	38	36	178
17:00	67	49	70	66	252
18:00	51	38	37	34	160
19:00	19	19	10	11	59
20:00	4	4	6	8	22
21:00	8	4	4	2	18
22:00	5	3	3	0	11
23:00	1	2	1	2	6
				TOTAL	1788

AM PEAK HOUR	0700-0800
VOLUME	227
PM PEAK HOUR	1700-1800
VOLUME	252

DIRECTION:	TOTAL TWO-WAY				
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	1	0	1	0	2
1:00	0	1	0	1	2
2:00	0	0	1	1	2
3:00	0	2	0	0	2
4:00	0	0	0	0	0
5:00	1	2	1	6	10
6:00	2	10	17	51	80
7:00	127	190	205	208	**730**
8:00	79	60	53	57	249
9:00	54	35	51	43	183
10:00	45	37	30	35	147
11:00	34	21	21	30	106
12:00	34	24	19	27	104
13:00	37	26	31	27	121
14:00	40	62	47	65	214
15:00	140	117	92	111	460
16:00	126	92	90	75	383
17:00	151	111	126	114	**502**
18:00	99	66	52	72	289
19:00	49	58	25	20	152
20:00	14	11	12	10	47
21:00	12	8	9	5	34
22:00	7	5	6	0	18
23:00	4	6	2	2	14
				TOTAL	3851

AM PEAK HOUR	0700-0800
VOLUME	730
PM PEAK HOUR	1700-1800
VOLUME	502

TOTAL BI-DIRECTIONAL VOLUME	3851

Attachment B
Preliminary LADOT Approval

ESA

CITY OF LOS ANGELES
DEPARTMENT OF TRANSPORTATION

APPROVED FOR: PRELIMINARY APPROVAL
FOR DRIVEWAY ON
WILSHIRE BL AS SHOWN ON
PLAN. DRIVEWAY SHALL
BE RIGHT-TURN IN/OUT ONLY
CASE 2 W=30'
3-16-17

APPROVAL MAY NOT BE VALID IF APPROVED PRIOR TO ACTION
DATE OF ANY PUBLIC HEARING INVOLVING THE SUBJECT
PROPERTY. THE PROJECT, ANY PREVIOUSLY APPROVED CONDITIONS
OR RECOMMENDATIONS IMPOSED ON THE PROPERTY, APPROVED
CONDITIONS, THE DEPARTMENT OF TRANSPORTATION'S
BE PRESENTED TO THE DEPARTMENT PRIOR TO THIS APPROVAL

NEW DRIVEWAY

33'-6"

327'-6"

150'-0"

WILSHIRE BLVD

S. MCCADDEN PLACE

132 SPACES

288'-1"

ATHLETICS / OPEN
SPACE/TRACK
(STANDARD)