Prepared for

Northridge Properties, LLC

15505 Roscoe Boulevard North Hills, California 91343

SOIL ASSESSMENT REPORT

777 NORTH FRONT STREET BURBANK, CALIFORNIA

Prepared by



engineers | scientists | innovators

2100 Main Street, Suite 150 Huntington Beach, California 92648 Telephone: (714) 969-0800 Fax (714) 969-0820 www.geosyntec.com

Project Number HR1305

September 10, 2012

SOIL ASSESSMENT REPORT

777 North Front Street Burbank, California September 2012

Supervision of fieldwork activities related to implementing the approved work plan was performed by the staff of Geosyntec Consultants, Inc., (Geosyntec) under the direction of the licensed professional with sufficient hydrogeologic experience whose signature appears hereon. The Soil Assessment Report was prepared under the supervision of the same. Consistent with applicable professional standards of care, our opinions and recommendations are based, in part, on data furnished by others as noted in this report where applicable. Geosyntec is not able to independently verify data provided by others. Geosyntec services were performed, and this report has been prepared, in accordance with generally accepted professional standards of care applicable to the scope of services authorized by Northridge Properties, LLC, consistent with direction from the Los Angeles Regional Water Quality Control Board, and no other warranty is provided in connection therewith.

Eric Smalstig, P.E.

Principal, Geosyntec Consultants, Inc.

License No. C56128

I, Herbert F. Boeckmann, II, do hereby declare under penalty of perjury under the laws of the State of California that I am a Member of Northridge Properties, LLC, a California limited liability company (the "Company"); that I am authorized to attest to the veracity of the information contained in the report described herein; that the information contained in Geosyntec Consultants, Inc.'s "Soil Assessment Report, 777 North Front Street, Burbank, California," dated September 10, 2012 (the "Report"), is true and correct; that I have no personal knowledge or expertise with respect to the findings and information contained in the Report and I am relying on the professionals who prepared it; that the issuance of the Report and this Declaration is not an admission that the Company was or is a discharger within the meaning of Water Code Section 13267, which the Company expressly denies; and that this Declaration was executed at North Hills, California, on September \$\frac{2}{3}\times, 2012.

Herbert F. Boeckmann, II, Member

2- Beluse

Northridge Properties, LLC



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1. INTRODUCTION

1.1 Project Overview

This Soil Assessment Report (Report) contains a summary of the soil sampling activities performed at the former industrial site located at 777 North Front Street, in Burbank, California (the Site) and an assessment of the analytical results. The Report was prepared by Dr. Rita Kampalath of Geosyntec Consultants, Inc. (Geosyntec), and was reviewed by Dr. Matt Thomas and Mr. Eric Smalstig, P.E. also of Geosyntec, in accordance with the peer review policy of the firm. Geosyntec has prepared this Report on behalf of its client Northridge Properties, LLC, for submission to the Los Angeles Regional Water Quality Control Board (LARWQCB) per the requirements of the approved Work Plan (Appendix A) that was prepared in response to an Order to provide a soil investigation work plan (LARWQCB, 2011b) sent to Northridge Properties, LLC, in a letter dated May 10, 2011 (LARWQCB, 2011a).

Based on the conclusions of this Report presented in Section 5: (1) that the limited number of hexavalent chromium (Cr⁶) detections at the Site are not significant, (2) that the vertical distribution of detections of Cr⁶ are inconsistent with historical releases of Cr⁶ at concentrations that could have impacted groundwater in the past, (3) that Cr⁶ concentrations in Site soils do not pose a threat to groundwater at the Site in the future, (4) that the low concentrations of Cr⁶ and Title 22 metals in the soils at the Site are at levels that are protective of human health, and (5) that arsenic detected in soils at the Site are consistent with naturally occurring background arsenic levels in California, and given their consistency with past soil sampling results as detailed in the LARWQCB approved Work Plan (Appendix A) and summarized in Section 2.3 of this Report, Geosyntec concludes that no further investigations for hexavalent chromium or other metals are warranted and recommends Northridge Properties, LLC, request Site closure from LARWOCB.

Therefore, on behalf of Northridge Properties, LLC, Geosyntec has been asked to respectfully request that LARWQCB issue a closure letter for the above referenced Site. In addition, because the Site reopener was not due to any regulatory concern regarding volatile organic compounds or other contaminants, which were the subject of previous investigations and remedial action and closure, the requested closure should clarify that the Site was not reopened for any purpose other than this soil assessment and that no further action is required.



1.2 Report Organization

The remainder of this Report is organized into the following sections:

- Section 2, *Background*;
- Section 3, Soil Sampling;
- Section 4, Results; and
- Section 5, Conclusions and Recommendations.

References, a table, figures, and appendices are included at the end of the text.

2. BACKGROUND

2.1 **Property Description**

The Site located at 777 North Front Street (LARWQCB File No. 109.6162) consists of an approximately 8-acre lot in the City of Burbank, approximately 13 miles north-northwest of downtown Los Angeles (Figure 1). It is bordered by Interstate 5, Burbank Boulevard, and Front Street (Figure 2).

From 1920 to 1961, the Site was occupied by General Water Heater Company, and then was purchased by Zero Corporation (Zero) for use by a division of the company called Zero Enclosures, whose primary business was fabrication of metal enclosures. In addition to Zero Enclosures' operations, from 1964 to 1973, a part of the Site was leased to Ocean Technology Inc., a subsidiary of Zero, which used the space to manufacture and assemble electronic products.

Zero's manufacturing operations were discontinued in December, 1991. From then until 2002, the Site was used for storage (a 1995 city directory shows the occupant as Western Moving & Storage, Inc.) and later as temporary filming locations for the entertainment industry (Mactech 2005, p. 14; Law/Crandall 1997, p. 1). The Site was sold to the Ford Leasing Development Company in 1998. Since 2002, the Site has been unoccupied, with on-site buildings having been demolished in 2004 leaving concrete pads and foundations currently remaining on the Site.

A parcel of land adjacent to the Site on the southwest was leased by Zero from the Southern Pacific Transportation Company for chemical storage. This parcel is currently owned by the City of Burbank and was used in part for realignment of Front Street and with a portion remaining as a strip between the Site and realigned Front Street.

2.2 Regional Hexavalent Chromium Contamination

The Site is located within the San Fernando Valley Groundwater Basin (SFVGB). In 1980, the California Department of Health Services (DHS) requested all major groundwater users to conduct tests for the presence of certain industrial chemicals in the water they were serving. The results of testing indicated elevated concentrations of a number of volatile organic compounds (VOCs) in groundwater under large portions of the San Fernando Valley, which led to the designation of four separate areas that together comprise the San Fernando Valley Superfund Sites.



During the 1998 United States Environmental Protection Agency (USEPA) Superfund investigation, information provided to LARWQCB from the Upper Los Angeles River Area Watermaster (ULARA) indicated some of the groundwater supply wells in the SFVGB had been contaminated by hexavalent chromium (Cr⁶) (LARWQCB, 2011b). Subsequently, the Regional Board re-evaluated Chemical Use Questionaires (CUQs) provided by each facility during the Superfund investigation and identified 112 sites, presumably the most suspect sites, to conduct further investigation to determine whether Cr⁶ concentrations in the soil at these sites indicated any significant past release that may have contributed to the regional Cr⁶ contamination or that might pose a threat to public drinking water supply wells in the future. It is significant to note that the subject Site was not among the 112 sites identified by the Regional Board at that time.

2.3 Recent Site Regulatory Context

The former responsible party for the Site had been issued a Certificate of Completion by Cal/EPA in 2002 for a remediation effort unrelated to Cr⁶. The Site remained closed until it was reopened by the LARWQCB Order entitled "Requirement To Provide Technical Report – Work Plan" (LARWQCB, 2011b). The primary reasons for issuance of the Order given in the accompanying letter (LARWQCB, 2011a) were: (1) the records of historical use of Cr⁶ at the facility and (2) the results of a California Department of Transportation (Caltrans) soil investigation that indicated there exist a limited number of detections of Cr⁶ at the Site (Ninyo & Moore, 2009) at concentrations that, according to the Regional Board, are in exceedance of normal background concentrations of Cr⁶ in the San Fernando Valley (LARWQCB, 2011a).

A few important results from the Caltrans soil investigation are summarized here. During the investigation 12 soil borings were advanced and samples were collected at 2, 5, 10, and 20 feet below ground surface (bgs) and analyzed for metals (including Cr⁶). The soil boring locations were toward the eastern side of the Site nearer Interstate 5 and away from some of the larger building pads where Cr⁶ was directly handled and/or used in industrial activities. Hexavalent chromium was detected in only four of the 48 samples (~8%), with three of four detections occurring in soils at or lesser than 5 feet bgs. There was a single detection of Cr⁶ at 20 feet bgs at a concentration that was just 0.04 mg/kg above the detection limit. The concentrations of these detections were low, the highest concentration being 0.18 mg/kg, nearly 100 times lower than the California Human Health Screening Levels for Soil (CHHSLs) for residential land use which is more conservative than the commercial/industrial CHSSL (see Table 1). A detailed



summary of the results of the Caltrans Report were provided in the approved Work Plan (Appendix A).

It is important to note that the detections of Cr⁶ reported in the Caltrans Report (Ninyo & Moore, 2009) were not a cause for health or environmental concerns in and of themselves, but they raised the question to LARWQCB as to whether there might be significant Cr⁶ impacts to soils in other locations at the Site where Cr⁶ was directly handled and/or used in industrial activities. In addition, previous investigations in those areas had tested for Title 22 metals, including total chromium, not speciated for Cr⁶, with sampling at shallow depths not exceeding five feet bgs (Law/Crandall 1997); and LARWQCB now questions whether deeper sampling with testing speciated for Cr⁶, and a screening for other Title 22 metals, would reveal evidence for concern.

The aforementioned Order was issued by LARWQCB to Northridge Properties, LLC, on May 10, 2011. Northridge Properties, LLC, worked with LARWQCB to target locations at the Site where impacts, if any, would be anticipated should any unauthorized releases of Cr⁶ have occurred in the past. The five former clarifier locations shown on Figure 2 were selected. On behalf of Northridge Properties, LLC, Geosyntec submitted the Soil Assessment Work Plan – Hexavalent Chromium (Geosyntec, 2011), which was approved by the Regional Board in a letter dated 20 December, 2011. After that time, further negotiations and clarifications with LARWQCB resulted in a requirement to analyze samples collected at 10 and 20 feet bgs from two of the five locations for the suite of Title 22 metals in addition to Cr⁶. These changes were confirmed in a letter sent to the Regional Board on 7 June, 2012. The original work plan submitted (Geosyntec, 2011) and the subsequent confirmation letter of 7 June 2012, constitute the approved Work Plan and are included in Appendix A.

Sampling activities in the approved Work Plan were implemented on 28 June, 2012, and Geosyntec has prepared this Report to present and provide an assessment of the analytical results obtained.

3. SOIL SAMPLING

3.1 General

The Soil Assessment activities described in this Report were conducted in accordance with the Site-specific Health and Safety Plan (HASP) and the approved Work Plan (Appendix A) prepared in accordance with the LARWQCB request.

3.2 Field Work Preparation

Five locations on the Site were chosen for sampling with LARWQCB concurrence. As mentioned previously, these locations were identified as potential areas of concern based on discussions with LARWQCB and review of facility maps, which indicated the former presence of clarifiers (now closed and filled with concrete, with the locations visible on site). It was determined that one boring would be drilled adjacent to each former clarifier to a maximum depth of 20 feet bgs or refusal (see Figure 2 for boring locations). Each clarifier was located in the field and a boring location was marked with white paint on the concrete surface approximately 2.5 feet from the edge of the clarifier in the locations shown on Figure 2.

Underground Service Alert (USA) was notified more than 48 hours prior to beginning drilling activities to identify underground utilities in the vicinity of the proposed borehole locations and to reduce the potential for accidentally encountering buried utility lines (USA ticket number B21730160). Geosyntec also contracted with Goldak Geophysics to conduct a subsurface geophysical survey on June 14, 2012, to identify locations of potential underground utilities. Once all utilities were cleared, concrete coring was scheduled.

Due to uncertainty in the thickness of the concrete surface cover at the Site and uncertainty in the dimensions of the former clarifiers, it was determined that slant drilling was not feasible at the Site. On June 27, 2012, Interphase Environmental, Inc., (Interphase), a drilling and soil sampling subcontractor, cored through the concrete at the marked boring locations prior to drilling activities which began the following day.

3.3 <u>Soil Sampling</u>

On June 28, 2012, under the direction of Geosyntec, Interphase advanced five borings (labeled SS-1 through SS-5; Figure 2) in the cored boring locations identified using a direct push drill rig and a continuous soil core was collected to a depth of approximately 20 feet bgs using a 4-foot sampler lined with acetate sleeves. Borings were visually logged for geologic lithology in accordance with the Unified Soil Classification System (USCS). The first 5 feet of each boring was completed by hand auger to reduce the potential for impairing unidentified underground utilities or pipes. Soil samples were collected from the cores at 5-foot intervals using disposable sampling equipment in order to avoid cross contamination of samples. The first sample was collected at a depth of 5 feet bgs, with subsequent samples collected at depths of 10, 15, and 20 feet bgs in accordance with the approved Work Plan (Appendix A). A total of 20 primary soil samples were collected in this manner and two duplicate soil samples (labeled SS-6-10 and SS-7-20) were collected from two of the sampling locations (SS-3-10 and SS-5-20, respectively), which had been chosen at random. The duplicate samples were submitted to the laboratory blind.

The soil samples were collected in 4-oz. glass jars sealed with Teflon®-lined plastic caps for analysis of Cr⁶ (EPA Methods 3060A and 7199), with samples at 10 and 20 feet bgs from two of the borings (borings SS-2 and SS-3) also analyzed for the suite of Title 22 metals (EPA Methods 3050B and 6010B). Individual soil samples were labeled with unique identifiers, logged on laboratory chain of custody forms, placed in an ice-filled cooler, and transported to Calscience Environmental Laboratories, Inc. (Calscience), a local National Environmental Laboratory Accreditation Conference (NELAC) accredited laboratory. The borings were backfilled with bentonite chips from 20 feet bgs to just below the concrete surface and capped with concrete flush to existing grade. Remaining soil cores were stored in a 55-gallon DOT-approved drum during drilling and sampling activities and were removed from the Site. Upon receipt of laboratory results and waste profiling, the remaining soil cores were properly disposed by the driller as non-hazardous waste.

The non-dedicated soil sampling equipment (e.g., coring bits and hand augers) was washed prior to each sample collection by the "three-bucket-wash" method; sampling equipment was first washed in a solution of Alconox and potable water, then rinsed with potable water, and finally rinsed with distilled water and allowed to air-dry.



3.4 <u>Laboratory Analysis</u>

Samples were transported with proper chain of custody forms to Calscience Environmental Laboratories, Inc. (Calscience), located at 7440 Lincoln Way, in Garden Grove, California. Samples were analyzed for Cr⁶ using EPA Method 3060A for extraction, and EPA Method 7199 for analysis. Samples at 10 and 20 feet bgs from borings SS-2 and SS-3 were additionally analyzed for Title 22 metals using EPA Method 3050B for extraction, and EPA Method 6010B for analysis. The laboratory analytical results for the soil samples are discussed in Section 4. The laboratory analytical report is provided in Appendix B.

4. RESULTS

4.1 Introduction

The laboratory analytical results for the soil samples arranged by boring location and depth are summarized in Table 1. In order to have a basis of comparison, Table 1 also includes the California Human Health Screening Levels for Soil (CHHSLs) for both residential and commercial/industrial land use (OEHHA, 2005, and subsequent revisions to tables). Soil lithology and analytical results are described in the following sections and the laboratory analytical report is included in Appendix B.

4.2 <u>Soil Lithology</u>

The five soil borings (SS-1 through SS-5) advanced at the Site were logged for soil lithology in accordance with the Unified Soil Classification System (USCS) and screened visually for evidence of contamination. The boring logs showing the soil lithology at each boring location are provided in Appendix C.

4.3 Soil Analytical Results

A total of 20 primary soil samples were collected at five-foot intervals from 5 to 20 feet bgs from the five soil boring locations, with all samples analyzed for Cr⁶ using EPA Method 3060A for extraction, and EPA Method 7199 for analysis, and samples collected at 10 and 20 feet bgs from borings SS-2 and SS-3 also analyzed for Title 22 metals using EPA Method 3050B for extraction, and EPA Method 6010B for analysis. Table 1 summarizes the analytical results and provides commercial/industrial CHHSLs (i.e., chemical-specific soil health screening levels for commercial/industrial land use) for comparison. A plan view of boring locations is provided in Figure 3 that includes tables with soil sample depths and concentrations of Cr⁶. Results of these analyses are summarized in the bulleted list below and described in more detail in the sections that follow:

- Cr⁶ was detected in only four of 20 (20%) soil samples collected from locations where impacts, if any, would be anticipated;
- Concentrations of Cr⁶ detected were significantly less than 10 times below the residential CHHSL, which is more conservative than the commercial/industrial CHHSL (see Table 1):

- Three of the four detections of Cr⁶ were in shallow soils (at or lesser than 10 feet bgs);
- The single detection of Cr⁶ at 20 feet bgs was at a concentration that was just 0.01 mg/kg above the detection limit;
- The concentrations of arsenic detected at the Site, while exceeding the commercial/industrial CHHSL, are consistent with naturally occurring background arsenic levels in California (Bradford et. al, 1996; LBNL, 2002);
- With the exception of arsenic and the single detection of cadmium, all Title 22 metals detected at the Site were at concentrations below residential CHHSLs (see Table 1);
- The concentration of the single detection of cadmium at a depth of 20 feet bgs was below the commercial/industrial CHHSL (see Table 1).

4.3.1 Hexavalent Chromium

Hexavalent chromium, which was the primary constituent of concern for this Soil Assessment was detected in only four of the 20 (20%) primary soil samples collected. These detections were in samples collected at depths of 5 and 10 feet bgs in boring SS-2, at 20 feet bgs in boring SS-4 and at 5 feet bgs in boring SS-5. All concentrations were significantly less than 10 times below the residential CHHSL, which is more conservative than the commercial/industrial CHHSL (see Table 1).

4.3.2 Title 22 Metals

Two of the five borings (SS-2 and SS-3) were analyzed for Title 22 metals at depths of 10 and 20 feet bgs, in accordance with the approved Work Plan (Appendix A). These four soil samples had detections of several Title 22 metals.

Arsenic was detected in all four soil samples analyzed at levels that exceeded CHHSLs. However, it has been noted that natural background levels of arsenic in California soils are often found to exceed health-based, direct-exposure goals. The concentrations of



arsenic detected at the Site are consistent with naturally occurring background arsenic levels in California (Bradford et. al, 1996; LBNL, 2002).

Barium, beryllium, total chromium, cobalt, copper, lead, nickel, vanadium and zinc were detected in soil samples collected from borings SS-2 and SS-3, while cadmium was detected in only one soil sample at a depth of 20 feet bgs from boring SS-2. With the exception of naturally occurring arsenic levels and the single detection of cadmium, concentrations of all analytes were below the more conservative residential CHHSLs. The concentration of the single detection of cadmium was below the commercial/industrial CHHSL (see Table 1).

5. CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary

Based on the soil sampling data collected as part of this Soil Assessment as presented in the preceding section of this Report (see Table 1) and the analyses presented in the following sections, several conclusions related to chemical impacts at the Site can be drawn:

- The detections of Cr⁶ in only 20% of the soil samples collected from locations where impacts, if any, would be anticipated and at low concentrations significantly less than 10 times below the more conservative residential CHHSL indicate that the limited number and low concentrations of Cr⁶ detections at the Site are not significant;
- The vertical distribution of detections of Cr⁶, primarily in shallow soil samples (at or lesser than 10 feet bgs) are inconsistent with historical releases of Cr⁶ at concentrations that could have impacted groundwater and do not provide evidence to suggest that historical Site activities contributed to the San Fernando Valley Groundwater Basin (SFVGB) Cr⁶ contamination that is currently under investigation by LARWQCB and USEPA;
- The vertical distribution primarily in shallow soil samples and the concentrations of Cr⁶, orders of magnitude below the TTLC (500 mg/kg) and the more conservative value of 10 times the STLC, demonstrate that Cr⁶ concentrations in Site soils are unlikely to pose a threat to groundwater at the Site in the future;
- The low concentrations of Cr⁶ and Title 22 metals with the exceptions of arsenic and the single detection of cadmium (i.e., below residential CHHSLs other than the single detection of cadmium which was below commercial/industrial CHHSLs and at a depth of 20 feet bgs) and the concentrations of arsenic being consistent with naturally occurring background arsenic levels in California demonstrate that metals concentrations in the soils at the Site are at levels that are protective of human health.



The conclusions summarized above in bulleted format are described in more detail in the following sections.

5.2 Hexavalent Chromium

Hexavalent chromium, the chief focus of the LARWQCB Order (LARWQCB, 2011b) and of this Soil Assessment, was detected in only four of the 20 soil samples collected (20%) from sample locations that were specifically selected for this field program and approved by LARWQCB because they were locations where impacts, if any, would be anticipated (i.e., adjacent to the former clarifiers, now closed and filled with concrete). Furthermore the detections of Cr⁶ were at low concentrations (below the commercial/industrial CHSSL and significantly less than 10 times lower than the more conservative residential CHHSL as shown in Table 1). These results indicate that the limited Cr⁶ detections at the Site are not significant.

In terms of vertical distribution, three of the four detections of Cr⁶ occurred in soils at or fewer than 10 feet bgs. The single detection that occurred at 20 feet bgs was at a low concentration, just 0.01 mg/kg above the detection limit. These results are inconsistent with historical releases of Cr⁶ at concentrations that could have impacted groundwater and do not provide evidence to suggest that historical Site activities contributed to the San Fernando Valley Groundwater Basin (SFVGB) Cr⁶ contamination that is currently under investigation by LARWQCB and USEPA.

The vertical distribution of Cr^6 detections in shallow soils makes it unlikely that the groundwater table would come into contact with these soils. Furthermore, the low concentrations of Cr^6 are orders of magnitude below the Total Threshold Limit Concentration (TTLC = 500 mg/kg) and the more conservative value of 10 times the Soluble Threshold Limit Concentration (STLC; i.e., the threshold value for STLC leachability testing = 50 mg/kg) which is an indication of a contaminant's potential to impact (i.e., leach into and/or migrate downward to) groundwater. These results demonstrate that Cr^6 concentrations in Site soils do not pose a threat to groundwater at the Site in the future.

5.3 <u>Title 22 Metals</u>

Several Title 22 metals, specifically arsenic, barium, beryllium, cadmium, total chromium, cobalt, copper, lead, nickel, vanadium and zinc were detected in soil

samples collected from the Site. These metals are commonly detected in soils within Southern California. With the exception of arsenic and the single detection of cadmium, the concentrations of Title 22 metals were below the more conservative residential CHHSLs. The concentration of the single detection of cadmium was still low, below the commercial/industrial CHHSL (see Table 1), and at a depth of 20 feet bgs, making contact with potential surface receptors highly unlikely. These results together indicate that Site soils do not pose a risk to human health due to these metals.

Although arsenic was found at concentrations above the commercial/industrial CHHSL, it has been well-documented that natural background levels of arsenic in California soils are often found to exceed published health-based, direct-exposure goals. The concentrations of arsenic detected at the Site are consistent with naturally occurring background arsenic levels in California (Bradford et. al, 1996; LBNL, 2002). A study conducted by the California Department of Toxic Substances Control (DTSC) on Los Angeles United School District sites estimated the 95% upper confidence limit of the 99th percentile concentration for arsenic at 6 mg/kg (DTSC, 2005). Another DTSC study determined an upper-bound estimate of 12 mg/kg for naturally occurring arsenic in Southern California soils (DTSC, 2008). The levels of arsenic found at the Site are also consistent with these regionally-specific background levels.

5.4 <u>Recommendations</u>

Given the conclusions of this Soil Assessment and their consistency with past soil sampling results detailed in the approved Work Plan (Appendix A) and summarized in Section 2.3 of this Report, Geosyntec concludes that no further investigations for hexavalent chromium or other metals are warranted and recommends Northridge Properties, LLC, request Site closure from LARWQCB.

Therefore, on behalf of Northridge Properties, LLC, Geosyntec has been asked to respectfully request that LARWQCB issue a closure letter for the Site referenced herein. In addition, because the Site reopener was not due to any regulatory concern regarding volatile organic compounds or other contaminants, which were the subject of previous investigations and remedial action and closure, the requested closure should clarify that the Site was not reopened for any purpose other than this soil assessment and that no further action is required.

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TABLE

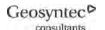


Table 1 **Soil Sample Analytical Results** Soil Assessment 777 North Front Street Burbank, California

			Title 22 Metals																
Analyte Units		Chromium, Hexavalent	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium, Total	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
		(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Residential CHHSL*		17	30	0.07	5,200	16 ⁽²⁾	1.7	100,000 ⁽³⁾	660	3,000	80	18	380	1,600	380	380	5	530	23,000
Commercial/Industrial CHHSL*		37	380	0.24	63,000	190 ⁽²⁾	7.5	100.000 ⁽³⁾	3,200	38,000	320	180	4,800	16,000	4,800	4,800	63	6,700	100,000
SS-1	5	ND<0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	10	ND<0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	15	ND<0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	20	ND<0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	5	1.10	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-
SS-2	10	0.96	ND<0.750	6.23 ⁽⁴⁾	75.7	ND<0.250	ND<0.500	33.0	7.02	244	1.67	ND<0.0835	ND<0.250	10.8	ND<0.750	ND<0.250	ND<0.750	31.1	753
	15	ND<0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	20	ND<0.4	ND<0.750	8.06 ⁽⁴⁾	178	0.699	3.23	20.4	30.6	79.0	2.21	ND<0.0835	ND<0.250	102	ND<0.750	ND<0.250	ND<0.750	42.7	12,100
	5	ND<0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SS-3	10 ⁽¹⁾	ND<0.4/ND<0.4	ND<0.750/ND<0.750	6.83/6.59 ⁽⁴⁾	168/166	0.387/0.337	ND<0.500/ND<0.500	22.6/19.0	14.2/12.5	23.9/21.2	1.89/1.70	ND<0.0835/ND<0.0835	ND<0.250/ND<0.250	17.6/15.1	ND<0.750/ND<0.750	ND<0.250/ND<0.250	ND<0.750/ND<0.750	44.5/37.8	63.8/55.0
33-3	15	ND<0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	20	ND<0.4	ND<0.750	7.78 ⁽⁴⁾	234	0.436	ND<0.500	21.4	14.4	26.9	2.44	ND<0.0835	ND<0.250	17.1	ND<0.750	ND<0.250	ND<0.750	44.5	59.4
SS-4	5	ND<0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	10	ND<0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	15	ND<0.4	-	_	-	-	-	-	-	-	-		-	-	-	-	-	-	-
	20	0.41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	5	1.30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SS-5	10	ND<0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	15	ND<0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	20 ⁽¹⁾	ND<0.4/ND<0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

^{*} California Human Health Screening Levels for Soil (CHHSLs) - Compound not analyzed for this sample

^{168/166} Results are reported as (primary sample results)/(duplicate sample results)

^{6.23} Bold type indicates exceedance of a commercial/industrial CHHSL comparison criteria

⁽¹⁾ Field duplicate samples were collected for these primary samples and were submitted to the laboratory blind. Duplicate for SS-3-10 is SS-6-10 in reports and duplicate for SS-5-20 is SS-7-20 in reports.

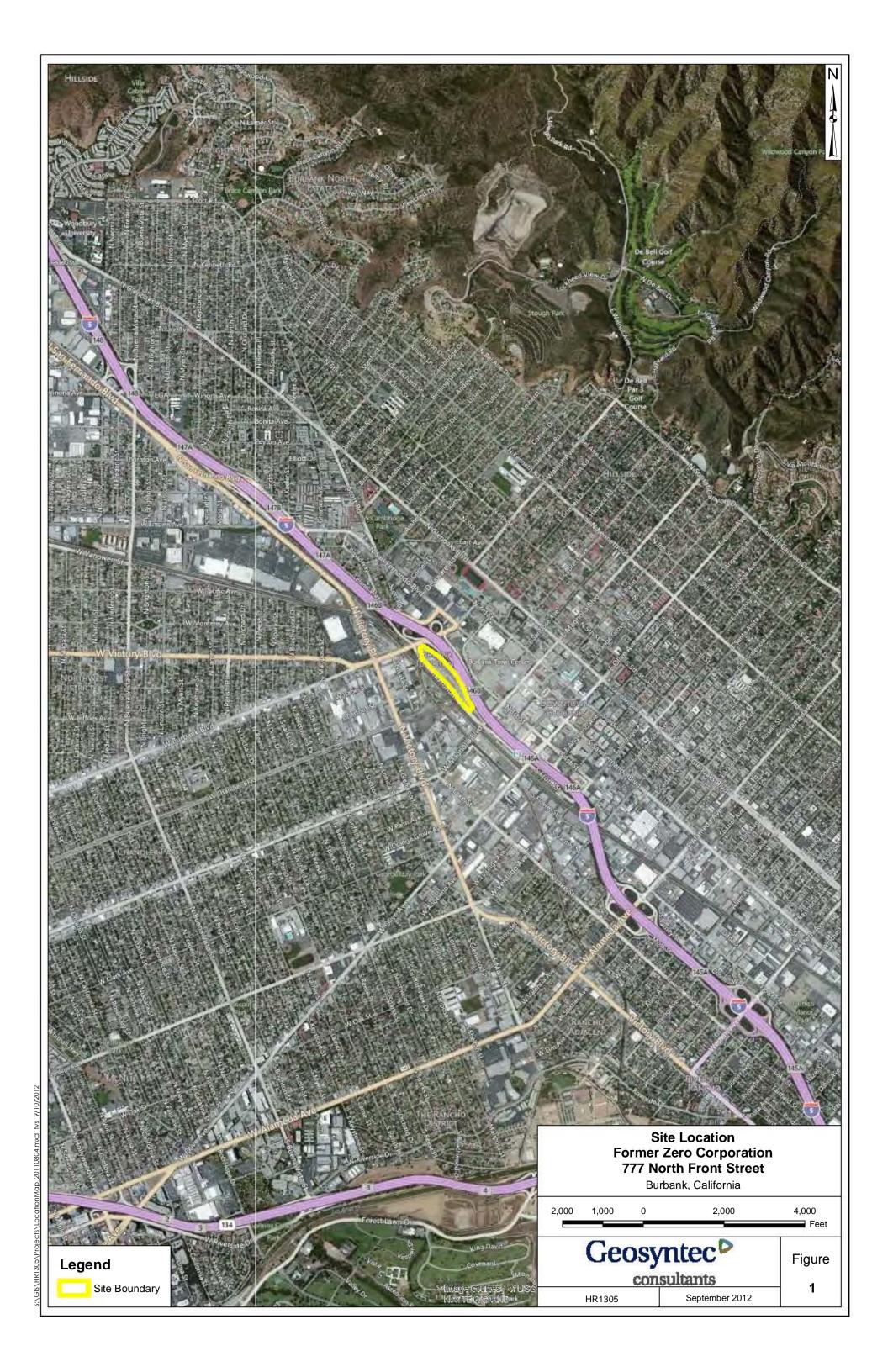
⁽²⁾ CHHSL excludes beryllium oxide and beryllium sulfate

⁽³⁾ Comparison criteria are for Cr(III); there are separate comparison criteria for Cr(VI)

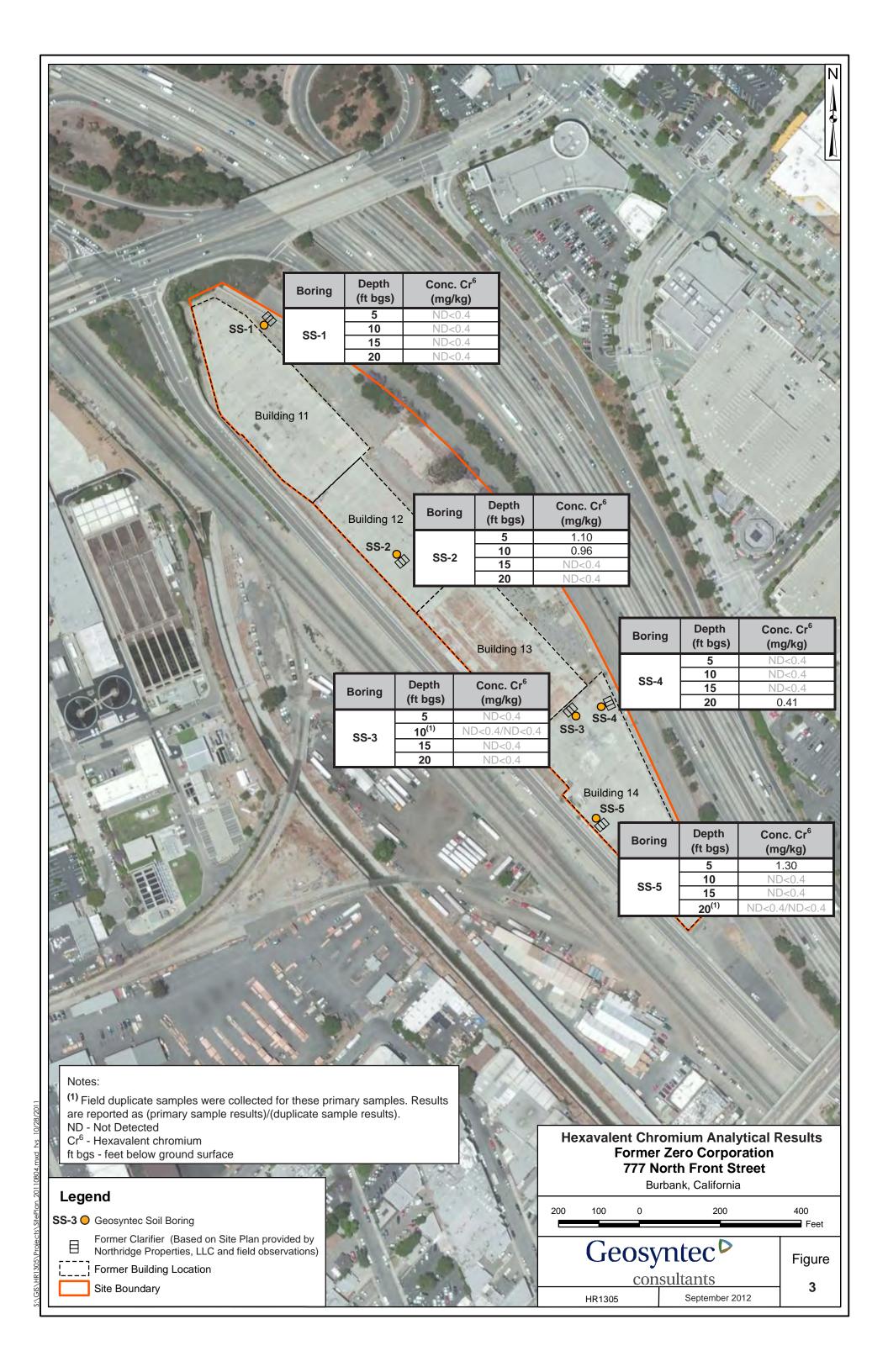
⁽⁴⁾ Natural background concentrations of arsenic in California are often well above the health-based, direct-exposure goals in soil of 0.07 mg/kg for residential land use and 0.24 mg/kg for commercial/industrial land use (e.g., Bradford et. al, 1996; LBNL, 2002).



FIGURES









APPENDIX A APPROVED WORK PLAN



2100 Main Street, Suite 150 Huntington Beach, California 92648 PH 714.969.0800 FAX 714.969.0820 www.geosyntec.com

> August 15, 2011 DRAFT

Samuel Unger Executive Officer Regional Water Quality Control Board, Los Angeles Region 320 West Fourth Street, Suite 200 Los Angeles, CA 90013

Subject: Soil Assessment Work Plan – Hexavalent Chromium

777 North Front Street, Burbank, California

Dear Mr. Unger:

INTRODUCTION

This document consists of a Work Plan for additional soil assessment to be conducted at the 777 North Front Street property, located in Burbank, California (the Site). This Work Plan was prepared by Geosyntec Consultants, Inc. (Geosyntec) at the request of Gilchrist & Rutter Professional Corp. (Gilchrist) on behalf of Northridge Properties, LLC, the owner of the property, for submittal to the Los Angeles Regional Water Quality Control Board (LARWQCB). The soil assessment is being conducted in response to a LARWQCB requirement sent to the Northridge Properties, LLC, in a letter dated May 10, 2011 [LARWQCB, 2011a]. The historical information contained in this Work Plan is based on Geosyntec's review and understanding of previous environmental reports and other reference material prepared by third parties (see Reference section). No warranty of the information provided in the third party reports or referenced materials is expressed or implied. Geosyntec reserves the right to correct any statement that we later find to be inaccurate in any way.

During the 1998 United States Environmental Protection Agency (USEPA) Superfund investigation of the San Fernando region which focused on volatile organic compounds (VOCs), groundwater supply well testing indicated the presence of hexavalent chromium (Cr⁶) at levels significantly higher than expected background concentrations [LARWQCB, 2011a]. Based on this information, the LARWQCB reviewed Chemical Use Questionnaires (CUQs) provided by facilities in the area and identified 112 sites on which to conduct further investigation based on information that may indicate past

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usage of chromium in their industrial activities. Though the Site was not part of the original 112 sites, further evaluation by the LARWQCB and results from an onsite 2009 Caltrans soil investigation of a strip of land along the northeasterly border of the Site led the LARWQCB to request that a soil investigation be conducted focused on Cr⁶ as described in their May 10 letter [LARWQCB, 2011a]. The primary objective of the scope of work described in this work plan is to satisfy the request of the LARWQCB to conduct a soil assessment at the Site for Cr⁶. The remainder of this Work Plan is divided into the following sections:

- Background;
- Sampling and Analysis Plan;
- Data Analysis and Reporting; and
- Closing.

BACKGROUND

Site Description & Operational History

The Site is located on an approximately 8-acre parcel in the City of Burbank, approximately 13 miles north-northwest of downtown Los Angeles. It is bordered to the northeast by old, vacated alignment of Front Street (beyond which is Interstate 5), to the northwest by Burbank Boulevard, to the southwest by a flood control channel and by a strip of land owned by the City of Burbank (beyond which is the new alignment of Front Street, and Front Street, and to the southeast by a parcel of land between old and new Front Street (also owned by the City) (Figure 1).

From 1920 to 1961, the Site was occupied by General Water Heater Company, and then was purchased by Zero Corporation (Zero) for use by a division of the company called Zero Enclosures, whose primary business was fabrication of metal enclosures. Six buildings were constructed at the Site to house historical manufacturing operations (Figure 2). In addition to Zero Enclosures' operations, from 1964 to 1973, a part of the Site was leased to Ocean Technology Inc., a subsidiary of Zero, which used the space to manufacture and assemble electronic products.

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Zero's manufacturing operations were discontinued in December 1991. From that point until 2002, the Site was used for storage (a 1995 city directory shows the occupant as Western Moving & Storage, Inc.) and later as film studios for the entertainment industry [Mactech, 2005; Law/Crandall, 1997]. After that time, the Site was unoccupied, with on-site buildings demolished in 2004. Current aerial photographs show that concrete pads and foundations remain on the Site. The Site was sold in 1998 by Zero to the Ford Leasing Development Company, which sold it to Northridge Properties, LLC, in 2005.

A parcel of land adjacent to the Site on the southwest was leased by Zero from the Southern Pacific Transportation Company for use as chemical storage. This parcel is currently owned by the City of Burbank and was used in part for realignment of Front Street.

Description of Historical Activities

Zero's manufacturing operations included aluminum case drawing and washing, aluminum alodining (a metal coating process), chromate deoxidizing, steel phosphate coating and chromium sealing, painting (the Zero facility contained paint booths, a water-based paint shop and drying booth), aluminum machining, etching, deoxidizing and cleaning, aluminum vapor degreasing, and grinding [Targhee, 1991]. During Zero Enclosure's operations, the Site also contained four clarifiers, two underground storage tanks (USTs), two designated chemical storage areas, two paint storage areas, one oil storage area, one acid storage area, one acid/caustic soda storage area, and one hazardous waste staging area [Targhee, 1991]. The approximate former locations of the four clarifiers are shown in Figure 2. In 1987, the two USTs, which had been used to store unleaded gasoline, were removed from the Site under Los Angeles County Department of Public Works (LACDPW) oversight. A building permit was issued in 1993 for the removal and/or abandonment of clarifiers on the Site [Mactech, 2005].

A review of historical information indicates that an industrial waste permit was issued to Zero in 1967 [Targhee, 1991]. Wastes generated onsite included acetone, ketones, 1,1,1-TCA, waste oil, waste acids and paint sludges [Targhee, 1991]. Hazardous materials used in and/or generated from industrial activities on the Site were stored in the storage areas described above (chemical storage, oil storage, acid storage, acid/caustic soda storage, and hazardous waste staging areas) [Meredith/Boli & Associates, 1997].

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In 1975, Zero was cited by the California Department of Health Services (DHS) and the City of Burbank for disposing excess chromium in a wastewater discharge. After an inspection of the Site and housekeeping activities, no further action was recommended by DHS [Targhee 1991]. A land ban generator inspection report was written in August 1988 by DHS which primarily discussed Site chemical handling and disposal practices. The report did not indicate chemicals had been disposed to the ground nor the presence of observed surface chemical staining [Targhee, 1991].

Site Geologic/Hydrogeologic Setting

The Site is located within the eastern San Fernando Valley. The majority of this area consists of alluvium, lake, playa and terrace deposits, and unconsolidated and semi-consolidated sedimentary deposits, with the area beneath the Site including recent Holocene-age to Pleistocene-age alluvial fan deposits derived from the Verdugo Mountains [Mactech, 2005]. During the most recent drilling activities conducted at a portion of the Site in 2009, soil encountered to depths of approximately 40 feet consisted primarily of sand, silty sand, clayey sand and sandy silt with trace gravel [Ninyo and Moore, 2009].

Based on measurements from on-site monitoring wells (installed after groundwater monitoring was required by LARWQCB as part of Site soil remediation activities described further in the next section) and recent environmental investigations over the period 1992 to 2009, depth to groundwater at the Site has varied between 94 and 126 feet below ground surface. The 1998 Seismic Hazard Evaluation for the Burbank Quadrangle [Mactech, 2005] indicated that the highest historical groundwater in the area was between 20 and 30 feet below ground surface.

Groundwater in the vicinity of the Site generally flows south to southeast toward the Los Angeles River. As a result of local groundwater treatment pumping activities close to the Site, the groundwater gradient and flow direction at the Site has been known to fluctuate in the past [Ninyo & Moore, 2009].

Previous Environmental Investigation and Regulatory History

Following excavation and removal of the USTs from the Site in 1987, samples were taken beneath each tank at a depth of 3 feet. The highest level of Total Petroleum Hydrocarbons detected was 31 parts per million (ppm) in one location. Based on this result, after the tank excavation pit was backfilled and repaved, and the tanks were triple rinsed with rinsate and disposed off-site, the LACDPW signed closure documentation indicating that no further action was required [Targhee, 1991].

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In 1991, as part of its Well Investigation Program, the LARWQCB mandated that an initial subsurface investigation be conducted at the Site to assess VOC concentrations in soils. Based on the results of this initial survey, follow-on studies were conducted which eventually led to remedial activities aimed at addressing elevated levels of several chlorinated hydrocarbons in both shallow and deep soils. These activities (primarily Soil Vapor Extraction) were completed in 2000, with a Certificate of Completion issued by the LARWQCB dated July 1, 2002 [LAWRQCB, 2002]. Waste soils generated by sampling activities were tested for metals including total chromium, which was detected in the one sample analyzed at 33 milligrams per kilogram (mg/kg) (shown on Table 1) [Hydro Geo Chem, 1998].

The soil remediation activities performed by Hydro Geo Chem also included a requirement for onsite groundwater monitoring [Hydro Geo Chem, Trichloroethene (TCE) and tetrachloroethene (PCE) were the primary VOCs detected in groundwater samples, with only TCE detected above the targeted cleanup goal established in the Phase 1 remediation Work Plan during the last two years of remediation activities [Hydro Geo Chem 2000]. Based on comparison to the relatively low VOC levels detected in soil and soil vapor samples it was concluded that the groundwater TCE concentrations could not be entirely attributed to on-site contamination and was probably due to regional VOC issues. Hydro Geo Chem also tested for heavy metals, including chromium, in monitoring well purge water and reported these data in self-monitoring reports submitted to the LARWQCB (analytical results from samples collected between 1999 and 2001 ranged from non-detect to 12ug/L). A request to end groundwater monitoring activities was included with the request for a No Further Action determination for the remediation activities submitted by Hydro Geo Chem [Hydro Geo Chem, 2000]. A Certificate of Completion indicating that "the Site Investigation and Remedial Action at the Site has been satisfactorily completed and a permanent remedy has been accomplished" was issued by LARWQCB on July 1, 2002 [LARWQCB, 2002].

In October 1997, as part of a Site environmental assessment for Galpin Motors, Inc. (at the time, a prospective buyer of the property, but did not purchase it), Law/Crandall collected soil samples from a total of 18 borings for analysis of Title 22 (California Code of Regulations) metals. Twenty (20) soil samples collected from depths between 1 and 5 feet below ground surface (bgs) were analyzed for total chromium; duplicate (split) samples from 12 of the 20 Law/Crandall sampling locations were also analyzed by Hydro Geo Chem. The soil boring locations are included on Figure 2 and a summary of the total chromium soil sample results is included as Table 1. Total

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chromium was detected in each of the 20 soil samples analyzed, up to a maximum concentration of 42.5 mg/kg. In September 1997, Emcon conducted a Site assessment for the City of Burbank along the previous, now vacated, alignment of North Front Street. Six borings were drilled and soil samples were collected from depths between 5 to 20 feet bgs, with one sample collected at 40 feet bgs. Samples were analyzed for eight of the Title 22 metals including: barium, chromium (total), cobalt, copper, lead, nickel, vanadium, and zinc. These soil results were compared to ten times their Soluble Threshold Limit Concentration (10xSTLC) which, if exceeded, would indicate the need for further analysis and a possible classification as hazardous waste. The soil boring locations are included on Figure 2 and the total chromium soil data are presented in Table 1. The results indicated that reported total chromium concentrations were below the 10xSTLC screening level of 50 mg/kg. One sample at 10 ft bgs tested higher than the 10xSTLC for copper (sample concentration was 421 mg/kg). As a follow-up, additional samples were taken in the same boring location at several depths to test for soluble copper using the California Waste Extraction Test (WET) method. Results from this testing were found to be significantly lower than the STLC for copper [Emcon, 1998]. Based on these results, no further investigation or analysis was performed by Emcon.

In 2009, Ninyo & Moore performed an investigation for the California Department of Transportation (Caltrans) in support of a possible acquisition of a portion of the Site along the previous, now vacated, alignment of North Front Street. In addition to data collected to confirm the adequacy of Site closure with respect to VOCs, 20 soil borings were drilled to depths of up to 20 feet bgs and soil samples were analyzed for metals (including total chromium and Cr⁶). The soil boring locations are included on Figure 2 and the total and Cr⁶ soil sample results are included in Table 1. Total chromium was detected in each of the samples at relatively low levels (highest was 54 mg/kg) and Cr⁶ was detected in 4 samples, with the highest concentration reported at 0.18 mg/kg. Results for total chromium were concluded to be significantly below the 10xSTLC level (50 mg/kg), and Cr⁶ concentrations in each of the samples were also significantly lower than the target screening level used in the report, which was the EPA Preliminary Remediation Goal (PRG) for commercial/industrial properties of 200 mg/kg [Ninyo & Moore 2009].

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SAMPLING AND ANALYSIS PLAN

General

To expand on the previous assessments of the Site for evidence of historical chromium releases described in previous sections, soil borings will be drilled in five locations (one boring per location) to a depth of 20 feet bgs in the areas identified in Figure 3. These locations were designated as areas of concern based on conversations with the LARWQCB and review of Zero Enclosures facility maps which indicated the presence of Site features, such as clarifiers and a former pretreatment process area. Locations where previous sampling activities had occurred were also taken into account. Based on the amount of sampling that has taken place at the Site to date, and the geologic materials present at the Site, one boring per Site feature location to 20 feet bgs will be sufficient to characterize these areas for the potential for Cr⁶ impacts. The results from this sampling event will be documented and summarized along with previous assessment results for the LARWQCB to confirm closure of the Cr⁶ question or to develop next steps, as needed.

Fieldwork Preparation and Borehole Installation

Soil borings will be installed using a direct push drill rig. Borings will be drilled to depths of up to 20 feet bgs or until refusal. As the Site is vacant without knowledgeable Site personnel, borehole locations will be cleared of underground utilities by performing a geophysical survey in advance of field work, and notification of Underground Service Alert (USA) prior to commencing field work. Concrete coring will be performed prior to drilling in areas currently covered with a concrete foundation.

Sample Collection

Soil cores will be continuously recovered over the entire borehole depth using a 2-foot sampler lined with acetate sleeves. Boreholes will be visually logged for geologic lithology in accordance with the Unified Soil Classification System (USCS) through evaluation of drill cuttings and soil samples. Soil cores will be visually evaluated for evidence of impacts or odors. Select soil samples will be retained for laboratory analytical testing. Soil samples will be collected at roughly 5-foot intervals, however sample locations may be adjusted based on the results of observations of visual impacts or odors, or the identification of low permeable layers. Soil samples will be stored in a cooler on ice pending shipment to Calscience Laboratories under chain of custody protocol. Samples will be analyzed for Cr⁶ speciation.

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Decontamination and Investigation-Derived Waste Disposal

Boreholes will be abandoned with hydrated bentonite pellets. Augers will be decontaminated with a three-stage rinse between borehole locations. The direct push method does not produce drill significant cuttings; however, some waste cuttings and decontamination water will be generated. Investigation-derived wastes will be stored in drums for off-site disposal.

Quality Assurance/Quality Control

Duplicate samples will be collected from each sample location and approximately 10% of the total sample number will be analyzed. Samples of water used to rinse equipment after decontamination procedures are completed will be collected to evaluate the effectiveness of decontamination protocols. Trip blanks will be stored with analytical samples during transport to the analytical lab.

Quality control procedures of Calscience Laboratories will be included in an appendix to the final report along with lab reports.

DATA ANALYSIS AND REPORTING

A data summary report will be prepared to document field activities and present the findings of the investigation. This report will be submitted to the LARWQCB within six weeks of receipt of the laboratory analytical results. The report will include figures illustrating sampling locations and copies of laboratory analytical data. The investigation analytical results will be evaluated based on a comparison with historical Cr⁶ data, background levels of Cr⁶ in the area, as well as EPA-established screening levels. If appropriate, the report will include recommendations for further analysis or investigation/delineation. Per the requirements of the LARWQCB, boring logs will also be prepared and included in the report.

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CLOSING

We are seeking your concurrence with and approval of this Work Plan. If you have any questions or comments on the contents of this letter, please do not hesitate to contact Eric Smalstig of Geosyntec at 714-969-0800.

Sincerely,

Mike Reardon, P.E. Senior Engineer

Eric Smalstig, P.E.

Principal

Copies to:

Larry Moore, LARWQCB (via electronic mail)

Jeffrey Hu, LARWQCB (via electronic mail)

Alex Lapostol, E2 (via electronic mail)

Don Nanney, Gilchrist & Rutter, PC (via electronic mail)

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Targhee, Inc., 1991. Limited Phase I Environmental Assessment Report. 26 March.



TABLE



Table 1: Summary of Historical Total Chromium Soils Data Former Zero Corporation and Vicinity 777 N. Front Street, Burbank, California

Location	Company	Date Sampled	Total Chromium Conc. (mg/kg)	Hexavalent Chromium Conc. (mg/kg)
BE1@2.5'	Law/Crandall ¹	9/10/1997	7.06/7.7 (HGC) ¹	NA
BE2@2.5'	Law/Crandall ¹	9/15/1997	42.5	NA
BE3@2'	Law/Crandall ¹	9/10/1997	15/2.8 (HGC) ¹	NA
BE4@5'	Law/Crandall ¹	9/15/1997	11.9	NA
BE5@1'	Law/Crandall ¹	9/10/1997	6.03/20 (HGC) ¹	NA
BE6@5'	Law/Crandall ¹	9/10/1997	0.06/27 (HGC) ¹	NA
BE7@5'	Law/Crandall ¹	9/10/1997	19.9/5.4 (HGC) ¹	NA
BE8@1'	Law/Crandall ¹	9/10/1997	18.4/18 (HGC) ¹	NA
BE9@5'	Law/Crandall ¹	9/10/1997	19.6/2.6 (HGC) ¹	NA
BG10@1'	Law/Crandall ¹	9/15/1997	16/19 (HGC) ¹	NA
BG11@1'	Law/Crandall ¹	9/12/1997	12	NA
BG12@1'	Law/Crandall ¹	9/15/1997	16.6	NA
BG12B@1'	Law/Crandall ¹	9/15/1997	16.3	NA
BG13@5'	Law/Crandall ¹	9/12/1997	22.1/27 (HGC) ¹	NA
BG14@1'	Law/Crandall ¹	9/15/1997	3.76	NA
BG15@1'	Law/Crandall ¹	9/12/1997	11.9	NA
BG16@1'	Law/Crandall ¹	9/15/1997	15/26 (HGC) ¹	NA
BG17@1'	Law/Crandall ¹	9/12/1997	12/17 (HGC) ¹	NA
BG18@1'	Law/Crandall ¹	9/15/1997	5.43	NA
BG18@5'	Law/Crandall ¹	9/15/1997	18/26 (HGC) ¹	NA
Waste Soils	Hydro Geo Chem, Inc. ²	1997 or 1998	33	NA
B1@5'	EMCON ³	9/26/1997	22.7	NA
B1@10'	EMCON ³	9/26/1997	21.3	NA
B1@15'	EMCON ³	9/26/1997	16.7	NA
B1@20'	EMCON ³	9/26/1997	15.5	NA
B2@5'	EMCON ³	9/26/1997	10.7	NA
B2@10'	EMCON ³	9/26/1997	11.4	NA
B2@15'	EMCON ³	9/26/1997	16.6	NA
B2@20'	EMCON ³	9/26/1997	8.17	NA
B3@5'	EMCON ³	9/26/1997	24.7	NA
B3@10'	EMCON ³	9/26/1997	21.6	NA
B3@15'	EMCON ³	9/26/1997	21.4	NA

1

8/15/2011



Location	Company	Date Sampled	Total Chromium Conc. (mg/kg)	Hexavalent Chromium Conc. (mg/kg)
B3@20'	EMCON ³	9/26/1997	20.6	NA
B4@5'	EMCON ³	9/26/1997	27.3	NA
B4@10'	EMCON ³	9/26/1997	17.7	NA
B4@15'	EMCON ³	9/26/1997	16.7	NA
B4@20'	EMCON ³	9/26/1997	15	NA
B5@5'	EMCON ³	9/26/1997	10.7	NA
B5@10'	EMCON ³	9/26/1997	9.18	NA
B5@15'	EMCON ³	9/26/1997	6.14	NA
B5@20'	EMCON ³	9/26/1997	13.2	NA
B6@5'	EMCON ³	9/26/1997	12.9	NA
B6@10'	EMCON ³	9/26/1997	16.3	NA
B6@15'	EMCON ³	9/26/1997	8.16	NA
B6@20'	EMCON ³	9/26/1997	11.7	NA
B6@25'	EMCON ³	9/26/1997	11.7	NA
B6@30'	EMCON ³	9/26/1997	13.2	NA
B6@35'	EMCON ³	9/26/1997	11.8	NA
B6@40'	EMCON ³	9/26/1997	12.3	NA
1001-101-2-S	Ninyo & Moore ⁴	4/20/2009	21	<0.10
1001-101-5-S	Ninyo & Moore ⁴	4/20/2009	20	<0.10
1001-101-10-S	Ninyo & Moore ⁴	4/20/2009	14	<0.10
1001-101-20-S	Ninyo & Moore ⁴	4/20/2009	8.5	<0.10
1001-102-2-S	Ninyo & Moore ⁴	4/20/2009	24	<0.10
1001-102-5-S	Ninyo & Moore ⁴	4/20/2009	16	<0.10
1001-102-10-S	Ninyo & Moore ⁴	4/20/2009	17	<0.10
1001-102-20-S	Ninyo & Moore ⁴	4/20/2009	23	<0.10
1001-103-2-S	Ninyo & Moore ⁴	4/20/2009	21	<0.10
1001-103-5-S	Ninyo & Moore ⁴	4/20/2009	17	<0.10
1001-103-10-S	Ninyo & Moore ⁴	4/20/2009	18	<0.10
1001-103-20-S	Ninyo & Moore ⁴	4/20/2009	21	<0.10
1001-104-2-S	Ninyo & Moore ⁴	4/20/2009	24	<0.10
1001-104-5-S	Ninyo & Moore ⁴	4/20/2009	19	<0.10
1001-104-10-S	Ninyo & Moore ⁴	4/20/2009	21	<0.10
1001-104-20-S	Ninyo & Moore ⁴	4/20/2009	19	<0.10
1001-105-2-S	Ninyo & Moore ⁴	4/20/2009	25	<0.10
1001-105-5-S	Ninyo & Moore ⁴	4/20/2009	23	<0.10
1001-105-10-S	Ninyo & Moore ⁴	4/20/2009	25	<0.10
1001-105-20-S	Ninyo & Moore ⁴	4/20/2009	9.5	<0.10
1001-106-2-S	Ninyo & Moore ⁴	4/21/2009	29	<0.10



Location	Company	Date Sampled	Total Chromium Conc. (mg/kg)	Hexavalent Chromium Conc. (mg/kg)
1001-106-5-S	Ninyo & Moore ⁴	4/21/2009	28	0.18
1001-106-10-S	Ninyo & Moore ⁴	4/21/2009	23	<0.10
1001-106-20-S	Ninyo & Moore ⁴	4/21/2009	25	<0.10
1001-106-20D-S	Ninyo & Moore ⁴	4/21/2009	22	<0.10
1001-107-2-S	Ninyo & Moore ⁴	4/21/2009	54	0.12
1001-107-5-S	Ninyo & Moore ⁴	4/21/2009	35	0.10
1001-107-10-S	Ninyo & Moore ⁴	4/21/2009	22	<0.10
1001-107-20-S	Ninyo & Moore ⁴	4/21/2009	19	0.14
1001-108-2-S	Ninyo & Moore ⁴	4/21/2009	26	<0.10
1001-108-5-S	Ninyo & Moore ⁴	4/21/2009	21	<0.10
1001-108-10-S	Ninyo & Moore ⁴	4/21/2009	27	<0.10
1001-108-10D-S	Ninyo & Moore ⁴	4/21/2009	30	<0.10
1001-108-20-S	Ninyo & Moore ⁴	4/21/2009	18	<0.10
1001-109-2-S	Ninyo & Moore ⁴	4/21/2009	19	<0.10
1001-109-5-S	Ninyo & Moore ⁴	4/21/2009	25	<0.10
1001-109-10-S	Ninyo & Moore ⁴	4/21/2009	13	<0.10
1001-109-20-S	Ninyo & Moore ⁴	4/21/2009	15	<0.10
1001-110-2-S	Ninyo & Moore ⁴	4/21/2009	18	<0.10
1001-110-5-S	Ninyo & Moore ⁴	4/21/2009	26	<0.10
1001-110-5D-S	Ninyo & Moore ⁴	4/21/2009	24	<0.10
1001-110-10-S	Ninyo & Moore ⁴	4/21/2009	17	<0.10
1001-110-20-S	Ninyo & Moore ⁴	4/21/2009	9.7	<0.10
1001-111-2-S	Ninyo & Moore ⁴	4/20/2009	20	<0.10
1001-111-2D-S	Ninyo & Moore ⁴	4/20/2009	21	<0.10
1001-111-5-S	Ninyo & Moore ⁴	4/20/2009	25	<0.10
1001-111-10-S	Ninyo & Moore ⁴	4/20/2009	13	<0.10
1001-111-20-S	Ninyo & Moore ⁴	4/20/2009	21	<0.10
1001-111-20D-S	Ninyo & Moore ⁴	4/20/2009	16	<0.10
1001-112-2-S	Ninyo & Moore ⁴	4/20/2009	22	<0.10
1001-112-5-S	Ninyo & Moore ⁴	4/20/2009	16	<0.10
1001-112-10-S	Ninyo & Moore ⁴	4/20/2009	8.5	<0.10
1001-112-20-S	Ninyo & Moore ⁴	4/20/2009	21	<0.10

Notes:

mg/kg - Milligrams per kilogram

NA - Not analyzed as part of the investigation

HGC - Hydro Geo Chem, Inc.



Data From:

1 - Law/Crandall based sampling, splits given to Hydro Geo Chem, Inc. for quality control Law/Crandall, 1997. Report of Environmental Evaluation - 777 North Front Street. 1 October, Table 1.

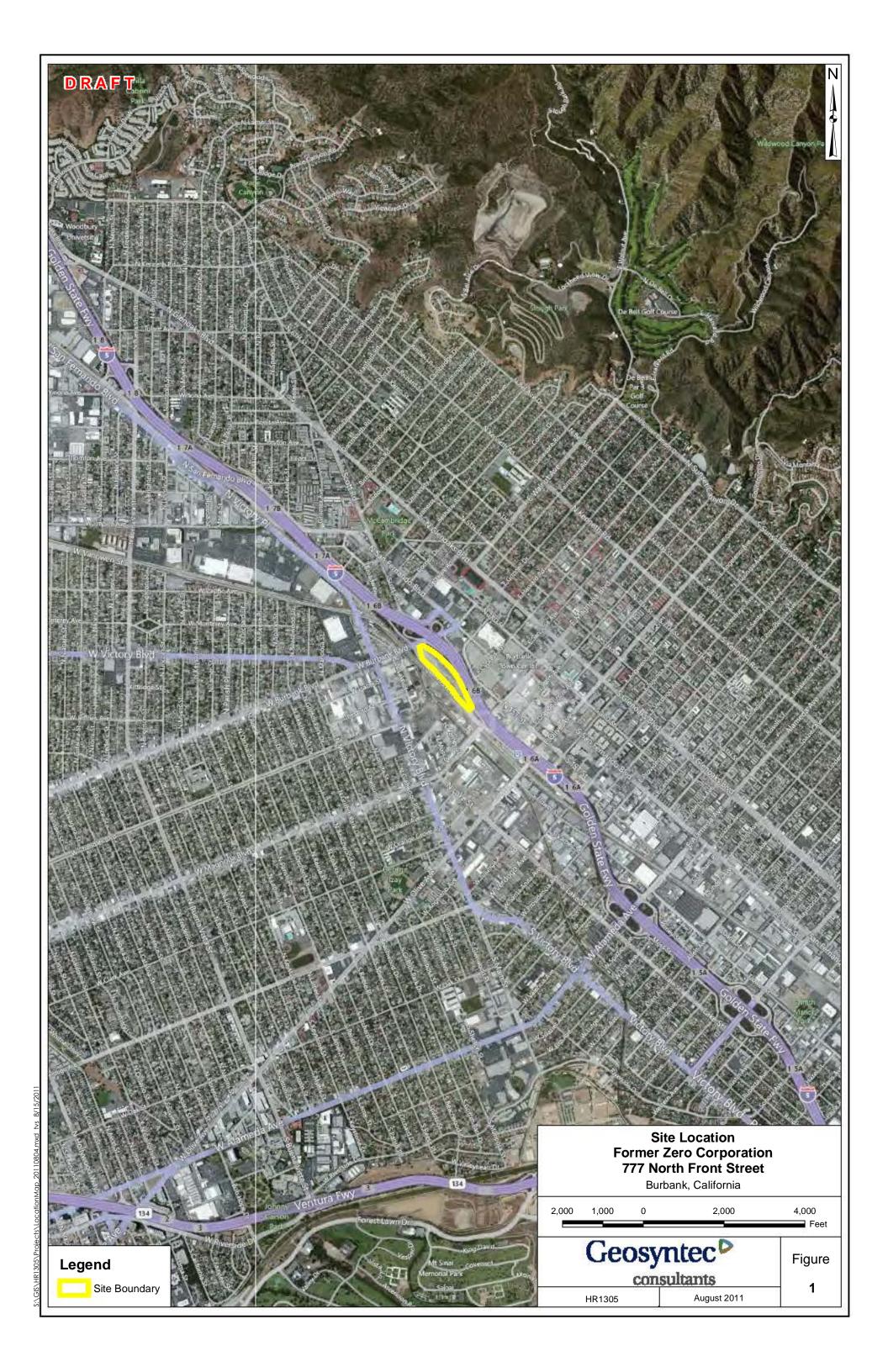
Hydro Geo Chem, Inc., 2000. Work Plan for No Further Action Closure - Former Zero Facility. 28 June, Table 4.

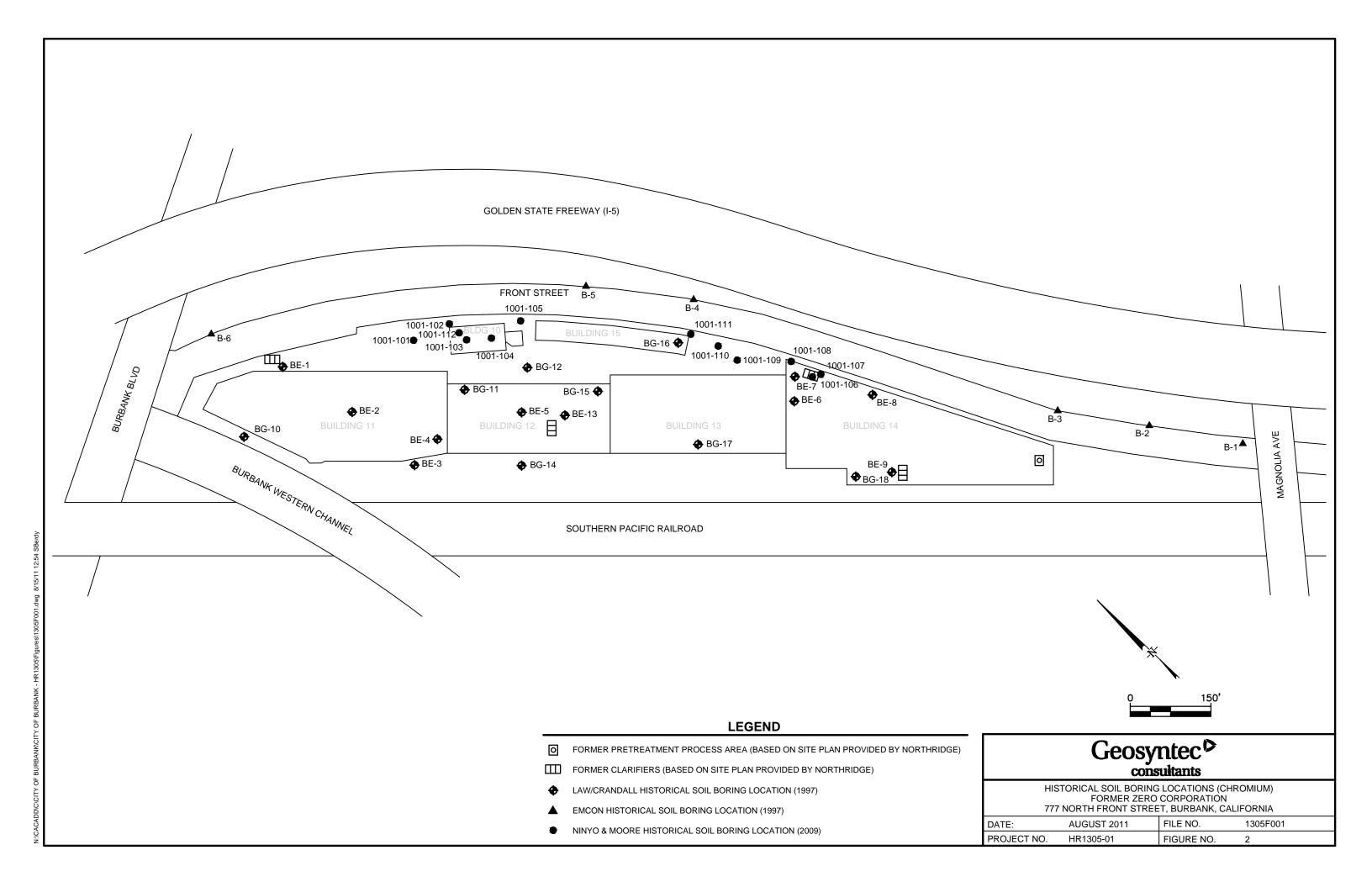
- 2 Hydro Geo Chem, Inc., 1998. Groundwater Monitoring Report January 1997 Through January 1998 Zero Facility. 3 April, Table 5.
- 3 EMCON, 1997. Results of Phase II Environmental Site Assessment North Front Street. 22 October, Appendix C.
- 4 Ninyo & Moore, 2009. Parcel Acquisition Site Investigation 777 North Front Street. 30 June, Table 3.

Total Chromium analyzed using EPA Test Method 6010B Hexavalent Chromium analyzed using EPA Test Method 7196A



FIGURES









2100 Main Street, Suite 150 Huntington Beach, California 92648 PH 714.969.0800 FAX 714.969.0820 www.geosyntec.com

June 7, 2012

Larry Moore Project Manager Regional Water Quality Control Board, Los Angeles Region 320 West Fourth Street, Suite 200 Los Angeles, CA 90013

Subject:

Soil Assessment Confirmation / Metals Testing

Case/File: Former Zero Corporation (File No. 109.6162)

777 North Front Street, Burbank, California

Dear Mr. Moore:

This letter supersedes our letter dated May 24, 2012. The purpose of this letter is to confirm specific provisions of the Regional Water Quality Control Board (Regional Board) approved Work Plan for additional soil assessment to be conducted at the 777 North Front Street property, located in Burbank, California (the Site). The soil assessment is to be conducted in response to a letter and California Water Code Section 13267 Requirement to Provide Technical Report, dated May 10, 2011 [LARWQCB, 2011a], sent by the Regional Board to the owner of the Site, Northridge Properties, LLC. The Soil Assessment Work Plan (Work Plan) proposed analysis of soil samples only for hexavalent chromium (Cr⁶), consistent with the focus of LARWQCB, 2011a. The Work Plan was approved by the Regional Board in a letter dated December 20, 2011, which called for analysis of soil samples for Title 22 metals and Cr⁶. This confirmation letter was prepared by Geosyntec Consultants, Inc. (Geosyntec) at the request of Gilchrist & Rutter Professional Corp. (Gilchrist) on behalf of Northridge Properties, LLC.

Because past studies of soil samples for Title 22 metals have not indicated metals of concern [Law/Crandall, 1997; Hydro Geo Chem, 2000; and Ninyo & Moore, 2009], other than the Regional Board's concern regarding Cr⁶ as stated in LARWQCB, 2011a, and to avoid incurring unwarranted analytical costs, we requested (in our letter of May 24, 2012) confirmation that the soils to be sampled again at identified Site locations in accordance with the approved Work Plan will be analyzed only for speciated chromium



(specifically Cr⁶). Following subsequent discussions, we understand that you have agreed instead to limit the number of soil samples to be analyzed for Title 22 metals. Specifically, two of the five borings will include soil sampling for Title 22 metals analysis at 10 feet and 20 feet (boring termination depth), in addition to speciated Cr⁶. We will work with you to select the two borings for this additional testing. We also understand that the purpose for the testing for Title 22 metals is to obtain additional data to support the issuance of a no further action determination for the Site if indicated by the data.

We are seeking your concurrence with this confirmation letter as to the required scope of work. If you have questions or comments on the contents of this letter, please do not hesitate to contact Eric Smalstig of Geosyntec at 714-969-0800.

Finally, while cooperating with the Section 13267 Requirement to Provide Technical Report, Northridge Properties reserves all its contentions, rights, remedies and defenses in this matter, including but not limited to those stated in Petition No. A-2167 on file with the State Water Resources Control Board.

Sincerely,

Mike Reardon, P.E.

Senior Engineer

Eric Smalstig, P.E.

Principal

Copies to:

Alex Lapostol, E2 (via electronic mail)

Don Nanney, Gilchrist & Rutter, PC (via electronic mail)



APPENDIX B LABORATORY ANALYTICAL REPORT





CALSCIENCE

WORK ORDER NUMBER: 12-06-1919

The difference is service



AIR SOIL WATER MARINE CHEMISTRY

Analytical Report For

Client: Geosyntec Consultants

Client Project Name: HR1305

Attention: Matt Thomas

2100 Main Street, Suite 150

Huntington Beach, CA 92648-2460

pri git for

Approved for release on 07/6/2012 by: Stephen Nowak

Stephen Nowak Project Manager



ResultLink >

Email your PM >

Calscience Environmental Laboratories, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.



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Client Project Name: HR1305 Work Order Number: 12-06-1919

1	Detections Summary	3
2	Client Sample Data	5 5 9
3	Quality Control Sample Data	12 12 17
4	Glossary of Terms and Qualifiers	21
5	Chain of Custody/Sample Receipt Form	22





Client: Geosyntec Consultants

2100 Main Street, Suite 150

Huntington Beach, CA 92648-2460

Attn: Matt Thomas

Work Order: Project name: 12-06-1919

Received:

HR1305 06/28/12 13:05

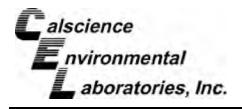
DETECTIONS SUMMARY

	DETE	CTIONS SUI	MMARY			
Client Sample ID			Reporting			
Analyte	Result	Qualifiers	Limit	Units	Method	Extraction
SS-2-5 (12-06-1919-5)						
Chromium, Hexavalent	1100		400	ug/kg	EPA 7199	EPA 3060A
SS-2-10 (12-06-1919-6)						
Arsenic	6.23		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	75.7		0.500	mg/kg	EPA 6010B	EPA 3050B
Chromium	33.0		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	7.02		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	244		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	1.67		0.500	mg/kg	EPA 6010B	EPA 3050B
Nickel	10.8		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	31.1		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	753		1.00	mg/kg	EPA 6010B	EPA 3050B
Chromium, Hexavalent	960		400	ug/kg	EPA 7199	EPA 3060A
SS-2-20 (12-06-1919-8)						
Arsenic	8.06		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	178		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.699		0.250	mg/kg	EPA 6010B	EPA 3050B
Cadmium	3.23		0.500	mg/kg	EPA 6010B	EPA 3050B
Chromium	20.4		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	30.6		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	79.0		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	2.21		0.500	mg/kg	EPA 6010B	EPA 3050B
Nickel	102		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	42.7		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	12100		100	mg/kg	EPA 6010B	EPA 3050B
SS-3-10 (12-06-1919-10)						
Arsenic	6.83		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	168		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.387		0.250	mg/kg	EPA 6010B	EPA 3050B
Chromium	22.6		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	14.2		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	23.9		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	1.89		0.500	mg/kg	EPA 6010B	EPA 3050B
Nickel	17.6		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	44.5		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	63.8		1.00	mg/kg	EPA 6010B	EPA 3050B

*MDL is shown.









Client: Geosyntec Consultants

2100 Main Street, Suite 150

Huntington Beach, CA 92648-2460

Attn: Matt Thomas Work Order:

12-06-1919

Project name: Received:

HR1305 06/28/12 13:05

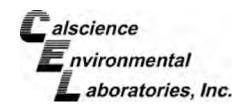
DETECTIONS SUMMARY

DETE	.0110143 301	IALIAIWIY I			
Result	Qualifiers	Reporting Limit	Units	Method	Extraction
7 78		0.750	ma/ka	EPA 6010B	EPA 3050B
					EPA 3050B
			0 0		EPA 3050B
21.4			0 0		EPA 3050B
14.4		0.250		EPA 6010B	EPA 3050B
26.9		0.500		EPA 6010B	EPA 3050B
2.44		0.500	mg/kg	EPA 6010B	EPA 3050B
17.1		0.250	mg/kg	EPA 6010B	EPA 3050B
44.5		0.250	mg/kg	EPA 6010B	EPA 3050B
59.4		1.00	mg/kg	EPA 6010B	EPA 3050B
410		400	ug/kg	EPA 7199	EPA 3060A
1300		400	ug/kg	EPA 7199	EPA 3060A
6.59		0.750	mg/kg	EPA 6010B	EPA 3050B
166		0.500	mg/kg	EPA 6010B	EPA 3050B
0.337		0.250	mg/kg	EPA 6010B	EPA 3050B
19.0		0.250	mg/kg	EPA 6010B	EPA 3050B
12.5		0.250	mg/kg	EPA 6010B	EPA 3050B
21.2		0.500	mg/kg	EPA 6010B	EPA 3050B
1.70		0.500	mg/kg	EPA 6010B	EPA 3050B
15.1		0.250	mg/kg	EPA 6010B	EPA 3050B
37.8		0.250	mg/kg	EPA 6010B	EPA 3050B
55.0		1.00	mg/kg	EPA 6010B	EPA 3050B
	7.78 234 0.436 21.4 14.4 26.9 2.44 17.1 44.5 59.4 410 1300 6.59 166 0.337 19.0 12.5 21.2 1.70 15.1 37.8	7.78 234 0.436 21.4 14.4 26.9 2.44 17.1 44.5 59.4 410 1300 6.59 166 0.337 19.0 12.5 21.2 1.70 15.1 37.8	Result Qualifiers Limit 7.78 0.750 234 0.500 0.436 0.250 21.4 0.250 26.9 0.500 2.44 0.500 17.1 0.250 44.5 0.250 59.4 1.00 410 400 6.59 0.750 166 0.500 0.337 0.250 12.5 0.250 21.2 0.500 1.70 0.500 15.1 0.250 37.8 0.250	Result Qualifiers Reporting Limit Units 7.78 0.750 mg/kg 234 0.500 mg/kg 0.436 0.250 mg/kg 21.4 0.250 mg/kg 14.4 0.250 mg/kg 26.9 0.500 mg/kg 2.44 0.500 mg/kg 17.1 0.250 mg/kg 44.5 0.250 mg/kg 59.4 1.00 mg/kg 410 400 ug/kg 410 400 ug/kg 1300 400 ug/kg 150 mg/kg 0.250 mg/kg 12.5 0.250 mg/kg 12.5 0.250 mg/kg 15.1 0.250 mg/kg 15.1 0.250 mg/kg 37.8 0.250 mg/kg	Result Qualifiers Reporting Limit Units Method 7.78 0.750 mg/kg EPA 6010B 234 0.500 mg/kg EPA 6010B 0.436 0.250 mg/kg EPA 6010B 21.4 0.250 mg/kg EPA 6010B 14.4 0.250 mg/kg EPA 6010B 26.9 0.500 mg/kg EPA 6010B 2.44 0.500 mg/kg EPA 6010B 17.1 0.250 mg/kg EPA 6010B 44.5 0.250 mg/kg EPA 6010B 59.4 1.00 mg/kg EPA 6010B 410 400 ug/kg EPA 7199 1300 400 ug/kg EPA 6010B 166 0.500 mg/kg EPA 6010B 0.337 0.250 mg/kg EPA 6010B 19.0 0.250 mg/kg EPA 6010B 12.5 0.250 mg/kg EPA 6010B 21.2 0.500 mg/kg

Subcontracted analyses, if any, are not included in this summary.

*MDL is shown.



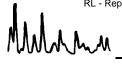




Geosyntec Consultants 2100 Main Street, Suite 150 Huntington Beach, CA 92648-2460 Date Received: Work Order No: Preparation: Method: 06/28/12 12-06-1919 EPA 3060A EPA 7199

Project: HR1305 Page 1 of 4

Client Comple Number		Lab Sample	Date/Time	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Client Sample Number SS-1-5		Number 12-06-1919-1-A	06/28/12 07:30	Solid	IC 12	06/29/12	06/29/12 16:58	120629L01
Comment(s): -The reporti	ng limit is elevated resu	Ilting from matrix interfe	erence.					
Parameter Parameter	Result	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>			
Chromium, Hexavalent	ND	400	10		ug/kg			
SS-1-10		12-06-1919-2-A	06/28/12 07:32	Solid	IC 12	06/29/12	06/30/12 12:12	120630L01
Comment(s): -The reporti	ng limit is elevated resu	Ilting from matrix interfe	erence.					
Parameter Parameter	Result	<u>RL</u>	<u>DF</u>	Qual	<u>Units</u>			
Chromium, Hexavalent	ND	400	10		ug/kg			
SS-1-15		12-06-1919-3-A	06/28/12 07:34	Solid	IC 12	06/29/12	06/29/12 17:43	120629L01
Comment(s): -The reporti	ng limit is elevated resu	Ilting from matrix interfe	erence.					
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	Qual	<u>Units</u>			
Chromium, Hexavalent	ND	400	10		ug/kg			
SS-1-20		12-06-1919-4-A	06/28/12 07:36	Solid	IC 12	06/29/12	06/29/12 17:51	120629L01
Comment(s): -The reporti	ng limit is elevated resu	Ilting from matrix interfe	erence.					
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>			
Chromium, Hexavalent	ND	400	10		ug/kg			
SS-2-5		12-06-1919-5-A	06/28/12 08:00	Solid	IC 12	06/29/12	06/29/12 17:58	120629L01
Parameter	Popult	DI	DE	Ougl	Linita			
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>			
Chromium, Hexavalent	1100	400	10		ug/kg			
SS-2-10		12-06-1919-6-A	06/28/12 08:04	Solid	IC 12	06/29/12	06/29/12 18:06	120629L01
Parameter	Result	RL	<u>DF</u>	<u>Qual</u>	<u>Units</u>			
Chromium, Hexavalent	960	400	10		ug/kg			
Jinomium, Hozavalent	300		. •		~g/g			



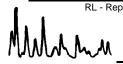




Geosyntec Consultants 2100 Main Street, Suite 150 Huntington Beach, CA 92648-2460 Date Received: Work Order No: Preparation: Method: 06/28/12 12-06-1919 EPA 3060A EPA 7199

Project: HR1305 Page 2 of 4

Client Sample Number			Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-2-15			12-06-1919-7-A	06/28/12 08:08	Solid	IC 12	06/29/12	06/29/12 18:13	120629L01
Comment(s):	-The reporting limit is e	elevated resulting	g from matrix interfer	ence.					
<u>Parameter</u>		Result	<u>RL</u>	<u>DF</u>	Qual	<u>Units</u>			
Chromium, Hexavalent		ND	400	10		ug/kg			
SS-2-20			12-06-1919-8-A	06/28/12 08:12	Solid	IC 12	06/29/12	06/30/12 12:19	120630L01
Comment(s):	-The reporting limit is e	elevated resulting	g from matrix interfer	ence.					
Parameter Parameter		Result	<u>RL</u>	<u>DF</u>	Qual	<u>Units</u>			
Chromium, Hexavalent	İ	ND	400	10		ug/kg			
SS-3-5			12-06-1919-9-A	06/28/12 09:10	Solid	IC 12	06/29/12	06/29/12 18:28	120629L01
Comment(s):	-The reporting limit is e	elevated resulting	g from matrix interfer	ence.					
Parameter Parameter		<u>Result</u>	<u>RL</u>	<u>DF</u>	Qual	<u>Units</u>			
Chromium, Hexavalent	İ	ND	400	10		ug/kg			
SS-3-10			12-06-1919-10-A	06/28/12 09:15	Solid	IC 12	06/29/12	06/29/12 18:44	120629L01
Comment(s):	-The reporting limit is e	elevated resulting	g from matrix interfer	ence.					
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	Qual	<u>Units</u>			
Chromium, Hexavalent	t	ND	400	10		ug/kg			
SS-3-15			12-06-1919-11-A	06/28/12 09:16	Solid	IC 12	06/29/12	06/29/12 19:32	120629L01
Comment(s):	-The reporting limit is e	elevated resulting	g from matrix interfer	ence.					
Parameter Parameter		Result	<u>RL</u>	<u>DF</u>	Qual	<u>Units</u>			
Chromium, Hexavalent		ND	400	10		ug/kg			
SS-3-20			12-06-1919-12-A	06/28/12 09:18	Solid	IC 12	06/29/12	06/29/12 19:40	120629L0 ⁻
Comment(s):	-The reporting limit is e	elevated resulting	g from matrix interfer	ence.					
Parameter Parameter		Result	<u>RL</u>	<u>DF</u>	Qual	<u>Units</u>			
Chromium, Hexavalent	İ	ND	400	10		ug/kg			



DF - Dilution Factor ,

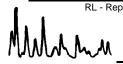


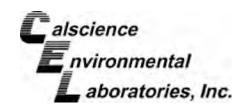


Geosyntec Consultants 2100 Main Street, Suite 150 Huntington Beach, CA 92648-2460 Date Received: Work Order No: Preparation: Method: 06/28/12 12-06-1919 EPA 3060A EPA 7199

Project: HR1305 Page 3 of 4

•								
Client Sample Number		Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch II
SS-4-5		12-06-1919-13-A	06/28/12 08:43	Solid	IC 12	06/29/12	06/29/12 19:47	120629L01
Comment(s): -The	reporting limit is elevated resulting	ng from matrix interfe	rence.					
Parameter Parameter	<u>Result</u>	<u>RL</u>	<u>DF</u>	Qual	<u>Units</u>			
Chromium, Hexavalent	ND	400	10		ug/kg			
SS-4-10		12-06-1919-14-A	06/28/12 08:47	Solid	IC 12	06/29/12	06/29/12 19:55	120629L01
Comment(s): -The	reporting limit is elevated resulting	ng from matrix interfe	rence.					
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	Qual	<u>Units</u>			
Chromium, Hexavalent	ND	400	10		ug/kg			
SS-4-15		12-06-1919-15-A	06/28/12 08:51	Solid	IC 12	06/29/12	06/29/12 20:02	120629L01
Comment(s): -The	reporting limit is elevated resulting	ng from matrix interfe	rence.					
Parameter Parame	Result	<u>RL</u>	<u>DF</u>	Qual	<u>Units</u>			
Chromium, Hexavalent	ND	400	10		ug/kg			
SS-4-20		12-06-1919-16-A	06/28/12 08:55	Solid	IC 12	06/29/12	06/29/12 20:10	120629L01
Parameter	Pocult	DI	DF	Qual	Units			
<u></u>	Result	<u>RL</u>		<u>Qual</u>				
Chromium, Hexavalent	410	400	10		ug/kg			
SS-5-5		12-06-1919-17-A	06/28/12 09:53	Solid	IC 12	06/29/12	06/29/12 20:17	120629L01
Parameter	Result	<u>RL</u>	DF	Qual	Units			
	<u></u>			<u>Quai</u>				
Chromium, Hexavalent	1300	400	10		ug/kg			
SS-5-10		12-06-1919-18-A	06/28/12 09:58	Solid	IC 12	06/29/12	06/29/12 20:25	120629L01
Comment(s): -The	reporting limit is elevated resulting	ng from matrix interfe	rence.					
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>			
Chromium, Hexavalent	ND	400	10		ug/kg			



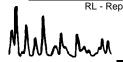




Geosyntec Consultants 2100 Main Street, Suite 150 Huntington Beach, CA 92648-2460 Date Received: Work Order No: Preparation: Method: 06/28/12 12-06-1919 EPA 3060A EPA 7199

Project: HR1305 Page 4 of 4

Client Sample Number		Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-5-15		12-06-1919-19-A	06/28/12 10:02	Solid	IC 12	06/29/12	06/29/12 20:32	120629L01
Comment(s): -The reporti	ng limit is elevated resul	Iting from matrix interfe	rence.					
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>			
Chromium, Hexavalent	ND	400	10		ug/kg			
SS-5-20		12-06-1919-20-A	06/28/12 10:07	Solid	IC 12	06/29/12	06/29/12 20:40	120629L01
Comment(s): -The reporti	ng limit is elevated resul	Iting from matrix interfe	rence.					
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	Qual	<u>Units</u>			
Chromium, Hexavalent	ND	400	10		ug/kg			
SS-6-10		12-06-1919-21-A	06/28/12 09:28	Solid	IC 12	06/29/12	06/30/12 11:27	120630L01
Comment(s): -The reporti	ng limit is elevated resul	Iting from matrix interfe	rence.					
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>			
Chromium, Hexavalent	ND	400	10		ug/kg			
SS-7-20		12-06-1919-24-A	06/28/12 10:30	Solid	IC 12	06/29/12	06/30/12 12:04	120630L01
Comment(s): -The reporti	ng limit is elevated resul	Iting from matrix interfe	rence.					
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>			
Chromium, Hexavalent	ND	400	10		ug/kg			
Method Blank		099-05-125-2,402	N/A	Solid	IC 12	06/29/12	06/29/12 16:27	120629L01
Parameter	Result	RL	DF	Qual	Units			
Chromium, Hexavalent	ND	<u>KE</u> 40	1	Quui	ug/kg			
Method Blank		099-05-125-2,404	N/A	Solid	IC 12	06/29/12	06/30/12 10:30	120630L01
Parameter	Result	<u>RL</u>	DF	Qual	Units			
Chromium, Hexavalent	ND	<u></u> 40	1		ug/kg			
ornormani, riozavaloni		. •	•		~5,9			



DF - Dilution Factor ,

Qual - Qualifiers







Geosyntec Consultants 2100 Main Street, Suite 150 Huntington Beach, CA 92648-2460

 Date Received:
 06/28/12

 Work Order No:
 12-06-1919

 Preparation:
 EPA 3050B / EPA 7471A Total

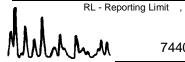
 Method:
 EPA 6010B / EPA 7471A

 Units:
 mg/kg

S. Illy

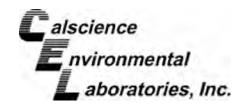
Project: HR1305 Page 1 of 3

Client Sample Nu	mber		Lab Sam Numb	•	Date /Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SS-2-10			12-06-19	919-6-A	06/28/12 08:04	Solid	ICP 7300	06/29/12	06/29/12 19:34	120629L01
Comment(s):	-Mercury analysis wa	as performed on 0	06/29/12 12:	57 with batc	h 120629L02.					
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>
Antimony	ND	0.750	1		Mercury		ND	0.083	5 1	
Arsenic	6.23	0.750	1		Molybdenum	I	ND	0.250	1	
Barium	75.7	0.500	1		Nickel		10.8	0.250	1	
Beryllium	ND	0.250	1		Selenium		ND	0.750	1	
Cadmium	ND	0.500	1		Silver		ND	0.250	1	
Chromium	33.0	0.250	1		Thallium		ND	0.750	1	
Cobalt	7.02	0.250	1		Vanadium		31.1	0.250	1	
Copper	244	0.500	1		Zinc		753	1.00	1	
Lead	1.67	0.500	1							
SS-2-20			12-06-19	919-8-A	06/28/12 08:12	Solid	ICP 7300	06/29/12	06/29/12 19:36	120629L01
Comment(s):	-Mercury analysis wa	as performed on 0	06/29/12 13:	00 with batc	h 120629L02.					
<u>Parameter</u>	Result	<u>RL</u>	DF	Qual	<u>Parameter</u>		Result	<u>RL</u>	DF	<u>Qual</u>
Antimony	ND	0.750	1		Mercury		ND	0.083	5 1	
Arsenic	8.06	0.750	1		Molybdenum	ı	ND	0.250	1	
Barium	178	0.500	1		Nickel		102	0.250	1	
Beryllium	0.699	0.250	1		Selenium		ND	0.750	1	
Cadmium	3.23	0.500	1		Silver		ND	0.250	1	
Chromium	20.4	0.250	1		Thallium		ND	0.750	1	
Cobalt	30.6	0.250	1		Vanadium		42.7	0.250	1	
Copper	79.0	0.500	1		Zinc		12100	100	10	0
Lead	2.21	0.500	1							
SS-3-10			12-06-19	919-10-A	06/28/12 09:15	Solid	ICP 7300	06/29/12	06/29/12 19:37	120629L01
Comment(s):	-Mercury analysis wa	as performed on 0	06/29/12 13:	02 with batc	h 120629L02.					
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	Qual	<u>Parameter</u>		Result	<u>RL</u>	DF	Qual
Antimony	ND	0.750	1		Mercury		ND	0.083	5 1	
Arsenic	6.83	0.750	1		Molybdenum	ı	ND	0.250	1	
Barium	168	0.500	1		Nickel		17.6	0.250	1	
Beryllium	0.387	0.250	1		Selenium		ND	0.750	1	
Cadmium	ND	0.500	1		Silver		ND	0.250	1	
Chromium	22.6	0.250	1		Thallium		ND	0.750	1	
Cobalt	14.2	0.250	1		Vanadium		44.5	0.250	1	
Copper	23.9	0.500	1		Zinc		63.8	1.00	1	
Lead	1.89	0.500	1							



DF - Dilution Factor , Qual - Qualifiers







Geosyntec Consultants 2100 Main Street, Suite 150 Huntington Beach, CA 92648-2460

Project: HR1305

Date Received: 06/28/12 Work Order No: 12-06-1919 Preparation: EPA 3050B / EPA 7471A Total Method: EPA 6010B / EPA 7471A

Units:

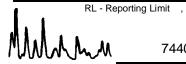
mg/kg

Page 2 of 3

									ı ugc	2 01 0
Client Sample Nu	mber		Lab Sampl Number	e	Date /Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch II
SS-3-20			12-06-1919	9-12-A	06/28/12 09:18	Solid	ICP 7300	06/29/12	06/29/12 19:38	120629L01
Comment(s):	-Mercury analysis wa	as performed on (06/29/12 13:09	with bate	ch 120629L02.					
Parameter Parameter	Result	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Parameter</u>		Result	<u>RL</u>	<u>DF</u>	Qual
Antimony	ND	0.750	1		Mercury		ND	0.083	5 1	
Arsenic	7.78	0.750	1		Molybdenum	1	ND	0.250	1	
Barium	234	0.500	1		Nickel		17.1	0.250	1	
Beryllium	0.436	0.250	1		Selenium		ND	0.750	1	
Cadmium	ND	0.500	1		Silver		ND	0.250	1	
Chromium	21.4	0.250	1		Thallium		ND	0.750	1	
Cobalt	14.4	0.250	1		Vanadium		44.5	0.250	1	
Copper	26.9	0.500	1		Zinc		59.4	1.00	1	
Lead	2.44	0.500	1							
SS-6-10			12-06-1919	9-21-A	06/28/12 09:28	Solid	ICP 7300	06/29/12	06/29/12 19:39	120629L01
Comment(s):	-Mercury analysis wa	as performed on (06/29/12 13:11	with bate	ch 120629L02.					
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	Qual	<u>Parameter</u>		Result	<u>RL</u>	<u>DF</u>	Qual
Antimony	ND	0.750	1		Mercury		ND	0.083	5 1	
Arsenic	6.59	0.750	1		Molybdenum	1	ND	0.250	1	
Barium	166	0.500	1		Nickel		15.1	0.250	1	
Beryllium	0.337	0.250	1		Selenium		ND	0.750	1	
Cadmium	ND	0.500	1		Silver		ND	0.250	1	
Chromium	19.0	0.250	1		Thallium		ND	0.750	1	
Cobalt	12.5	0.250	1		Vanadium		37.8	0.250	1	
Copper	21.2	0.500	1		Zinc		55.0	1.00	1	
_ead	1.70	0.500	1							
Method Blank			099-04-007	7-8,698	N/A	Solid	Mercury	06/29/12	06/29/12 12:46	120629L02

Comment(s): -Preparation/analysis for Mercury was performed by EPA 7471A.

<u>DF</u> <u>Parameter</u> Result RL Qual ND 0.0835 Mercury



DF - Dilution Factor , Qual - Qualifiers

06/28/12

12-06-1919



Analytical Report



Geosyntec Consultants 2100 Main Street, Suite 150 Huntington Beach, CA 92648-2460 Date Received:
Work Order No:
Preparation: EPA 3050B

EPA 3050B / EPA 7471A Total EPA 6010B / EPA 7471A

mg/kg

Project: HR1305 Page 3 of 3

Method:

Units:

Client Sample Number	er		Lab Sam Numbe	•	Date /Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank			097-01-0	002-15,953	N/A	Solid	ICP 7300	06/29/12	06/29/12 18:40	120629L01
Doromotor	Decult	DI	DE	Ouel	Doromotor		Dooult	DI	DE	Ougl
<u>Parameter</u>	Result	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Parameter</u>		Result	<u>RL</u>	<u>DF</u>	Qual
Antimony	ND	0.750	1		Lead		ND	0.500	1	
Arsenic	ND	0.750	1		Molybdenun	า	ND	0.250	1	
Barium	ND	0.500	1		Nickel		ND	0.250	1	
Beryllium	ND	0.250	1		Selenium		ND	0.750	1	
Cadmium	ND	0.500	1		Silver		ND	0.250	1	
Chromium	ND	0.250	1		Thallium		ND	0.750	1	
Cobalt	ND	0.250	1		Vanadium		ND	0.250	1	
Copper	ND	0.500	1		Zinc		ND	1.00	1	







Quality Control - Spike/Spike Duplicate

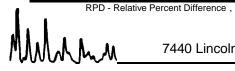


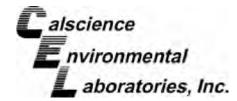
Geosyntec Consultants 2100 Main Street, Suite 150 Huntington Beach, CA 92648-2460

Date Received: Work Order No: Preparation: Method:

06/28/12 12-06-1919 **EPA 3050B EPA 6010B**

Quality Control Sample ID			Matrix	Instru	ıment		ate pared	Date Analyzed		/ISD Batch lumber	
SS-3-10			Solid	ICP 7300		06/29/12		06/29/12	120	120629S01	
<u>Parameter</u>	SAMPLE CONC	SPIKE ADDED	MS CONC	MS %REC	MSD CONC	MSD %REC	%REC CL	<u>RPD</u>	RPD CL	Qualifiers	
Antimony	ND	25.00	4.310	17	3.345	13	50-115	25	0-20	3,4	
Arsenic	6.827	25.00	29.57	91	29.42	90	75-125	1	0-20		
Barium	167.6	25.00	195.1	4X	204.7	4X	75-125	4X	0-20	Q	
Beryllium	0.3873	25.00	23.39	92	23.75	93	75-125	1	0-20		
Cadmium	ND	25.00	22.45	90	22.70	91	75-125	1	0-20		
Chromium	22.62	25.00	45.04	90	45.38	91	75-125	1	0-20		
Cobalt	14.21	25.00	37.21	92	38.20	96	75-125	3	0-20		
Copper	23.90	25.00	48.38	98	50.41	106	75-125	4	0-20		
Lead	1.891	25.00	23.81	88	24.16	89	75-125	1	0-20		
Molybdenum	ND	25.00	21.70	87	22.03	88	75-125	2	0-20		
Nickel	17.64	25.00	40.82	93	41.44	95	75-125	2	0-20		
Selenium	ND	25.00	20.55	82	21.46	86	75-125	4	0-20		
Silver	ND	12.50	11.04	88	11.15	89	75-125	1	0-20		
Thallium	ND	25.00	18.24	73	18.40	74	75-125	1	0-20	3	
Vanadium	44.50	25.00	65.58	84	67.32	91	75-125	3	0-20		
Zinc	63.84	25.00	79.23	62	82.12	73	75-125	4	0-20	3	





Quality Control - PDS / PDSD



Geosyntec Consultants 2100 Main Street, Suite 150 Huntington Beach, CA 92648-2460 Date Received Work Order No: Preparation: Method: 06/28/12 12-06-1919 EPA 3050B EPA 6010B

Quality Control Sample ID		Matr	ix	Instrument		Date Prepared	Date Analyzed		PDS / PDSD Batch Number	
SS-3-10		Sol	id	ICP 7300	06/29/12		06/29/12		120629S01	
<u>Parameter</u>	SAMPLE CONC	<u>SPIKE</u> <u>F</u> ADDED	PDS CONC	PDS %REC	PDSD CONC	PDSD %REC	%REC CL	<u>RPD</u>	RPD CL	Qualifiers
Antimony	ND	25.00	20.80	83	21.66	87	75-125	4	0-20	
Arsenic	6.827	25.00	29.10	89	29.12	89	75-125	0	0-20	
Barium	167.6	25.00	189.6	88	192.9	101	75-125	2	0-20	
Beryllium	0.3873	25.00	22.53	89	23.12	91	75-125	3	0-20	
Cadmium	ND	25.00	21.68	87	21.85	87	75-125	1	0-20	
Chromium	22.62	25.00	43.85	85	45.07	90	75-125	3	0-20	
Cobalt	14.21	25.00	36.79	90	36.92	91	75-125	0	0-20	
Copper	23.90	25.00	47.99	96	48.89	100	75-125	2	0-20	
_ead	1.891	25.00	22.98	84	23.19	85	75-125	1	0-20	
Molybdenum	ND	25.00	22.17	89	22.44	90	75-125	1	0-20	
Nickel	17.64	25.00	39.82	89	39.97	89	75-125	0	0-20	
Selenium	ND	25.00	21.26	85	22.07	88	75-125	4	0-20	
Silver	ND	12.50	10.36	83	10.57	85	75-125	2	0-20	
Γhallium	ND	25.00	17.66	71	17.72	71	75-125	0	0-20	5
Vanadium	44.50	25.00	65.52	84	67.28	91	75-125	3	0-20	
Zinc	63.84	25.00	77.38	54	78.88	60	75-125	2	0-20	5



EPA 7199

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants 2100 Main Street, Suite 150 Huntington Beach, CA 92648-2460 Date Received: Work Order No: Preparation: Method:

Quality Control Sample ID			Matrix	Instru	ument		ate pared	Date Analyzed		ISD Batch umber
SS-1-5			Solid	IC 12		06/2	9/12	06/29/12	120	629S01
<u>Parameter</u>	SAMPLE CONC	SPIKE ADDED	MS CONC	MS %REC	MSD CONC	MSD %REC	%REC CL	<u>RPD</u>	RPD CL	Qualifiers
Chromium, Hexavalent	ND	40000	39000	98	39000	96	75-125	1	0-25	



Quality Control - Spike/Spike Duplicate

Geosyntec Consultants 2100 Main Street, Suite 150 Huntington Beach, CA 92648-2460 Date Received: 06/28/12
Work Order No: 12-06-1919
Preparation: EPA 3060A
Method: EPA 7199

Quality Control Sample ID			Matrix	Instrument			Date Prepared			MSD Batch lumber
SS-6-10			Solid	IC 12	IC 12 06/29/12		06/30/12	120630S01		
<u>Parameter</u>	SAMPLE CONC	SPIKE ADDED	MS CONC	MS %REC	MSD CONC	MSD %REC	%REC CL	<u>RPD</u>	RPD CL	Qualifiers
Chromium, Hexavalent	ND	40000	41000	103	40000	99	75-125	4	0-25	





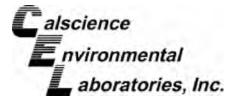
2100 Main Street, Suite 150 Huntington Beach, CA 92648-2460 Work Order No: Preparation: Method:

06/28/12 12-06-1919 EPA 7471A Total **EPA 7471A**

Quality Control Sample ID		Matrix Instrument					ate pared	Date Analyzed		ISD Batch umber
SS-3-10			Solid	Merc	ury	06/2	9/12	06/29/12	120	629S02
<u>Parameter</u>	SAMPLE CONC	SPIKE ADDED	MS CONC	MS %REC	MSD CONC	MSD %REC	%REC CL	<u>RPD</u>	RPD CL	Qualifiers
Mercury	ND	0.8350	0.7471	89	0.6825	82	71-137	9	0-14	







Quality Control - LCS/LCS Duplicate



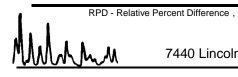
Geosyntec Consultants 2100 Main Street, Suite 150 Huntington Beach, CA 92648-2460 Date Received: Work Order No: Preparation: Method:

N/A 12-06-1919 **EPA 3050B EPA 6010B**

Project: HR1305

Quality Control Sample ID	M	atrix	Instrument	Date ent Prepar			ate llyzed	LCS/LCSD Batch Number		1
097-01-002-15,953	So	lid	ICP 7300		06/29/12	06/29/12 06/29/12		1	20629L01	
<u>Parameter</u>	<u>SPIKE</u> ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	ME CL	RPD	RPD CL	Qualifiers
Antimony	25.00	25.88	104	25.99	104	80-120	73-127	0	0-20	
Arsenic	25.00	24.18	97	24.14	97	80-120	73-127	0	0-20	
Barium	25.00	26.16	105	26.47	106	80-120	73-127	1	0-20	
Beryllium	25.00	24.52	98	24.53	98	80-120	73-127	0	0-20	
Cadmium	25.00	25.56	102	25.77	103	80-120	73-127	1	0-20	
Chromium	25.00	25.38	102	25.67	103	80-120	73-127	1	0-20	
Cobalt	25.00	26.87	107	27.12	108	80-120	73-127	1	0-20	
Copper	25.00	25.95	104	26.17	105	80-120	73-127	1	0-20	
Lead	25.00	25.59	102	25.55	102	80-120	73-127	0	0-20	
Molybdenum	25.00	24.97	100	25.05	100	80-120	73-127	0	0-20	
Nickel	25.00	27.16	109	27.40	110	80-120	73-127	1	0-20	
Selenium	25.00	24.62	98	24.70	99	80-120	73-127	0	0-20	
Silver	12.50	12.55	100	12.70	102	80-120	73-127	1	0-20	
Thallium	25.00	25.85	103	25.91	104	80-120	73-127	0	0-20	
Vanadium	25.00	24.73	99	24.99	100	80-120	73-127	1	0-20	
Zinc	25.00	26.30	105	26.39	106	80-120	73-127	0	0-20	

Total number of LCS compounds: 16 Total number of ME compounds: 0 Total number of ME compounds allowed: LCS ME CL validation result: Pass







nvironmental Quality Control - LCS/LCS Duplicate

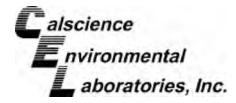


Geosyntec Consultants 2100 Main Street, Suite 150 Huntington Beach, CA 92648-2460 Date Received: Work Order No: Preparation: Method: N/A 12-06-1919 EPA 3060A EPA 7199

Quality Control Sample ID	Matrix	lı	nstrument		ate pared	Date Analyzed	d	LCS/LCSD Batch Number	
099-05-125-2,402	Solid		IC 12	06/2	29/12	06/29/12		120629L01	
<u>Parameter</u>	<u>SPIKE</u> ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	<u>RPD</u>	RPD CL	Qualifiers
Chromium, Hexavalent	20000	20000	99	20000	102	80-120	3	0-20	





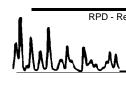


nvironmental Quality Control - LCS/LCS Duplicate

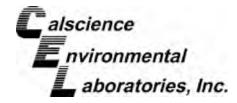


Geosyntec Consultants 2100 Main Street, Suite 150 Huntington Beach, CA 92648-2460 Date Received: Work Order No: Preparation: Method: N/A 12-06-1919 EPA 3060A EPA 7199

Quality Control Sample ID	Matrix	I	nstrument		ate pared	Date Analyzed	i	LCS/LCSD Batch Number	
099-05-125-2,404	Solid		IC 12	06/2	29/12	06/30/12		120630L01	
<u>Parameter</u>	<u>SPIKE</u> ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	<u>RPD</u>	RPD CL	Qualifiers
Chromium, Hexavalent	20000	20000	101	19000	97	80-120	4	0-20	





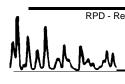


nvironmental Quality Control - LCS/LCS Duplicate



Geosyntec Consultants 2100 Main Street, Suite 150 Huntington Beach, CA 92648-2460 Date Received: Work Order No: Preparation: Method: N/A 12-06-1919 EPA 7471A Total EPA 7471A

Quality Control Sample ID	Matrix	I	nstrument		ate pared	Date Analyzed	t	LCS/LCSD Batch Number	
099-04-007-8,698	Solid		lercury 06/29/12 06/29/12		120629L02				
<u>Parameter</u>	<u>SPIKE</u> ADDED	LCS CONC	LCS %REC	LCSD CONC	LCSD %REC	%REC CL	<u>RPD</u>	RPD CL	Qualifiers
Mercury	0.8350	0.8020	96	0.8008	96	85-121	0	0-10	





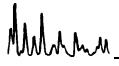
Glossary of Terms and Qualifiers



Work Order Number: 12-06-1919

TOIR GIAGIT	12 00 10 10
Qualifier	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
В	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

MPN - Most Probable Number



7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494 Other CA office locations: Concord and San Luis Obispo For courier service / sample drop off information, contact sales@calscience.com or call us

12-06-1919 WO # / LAB USE ONLY

CHAIN OF CUSTODY RECORD 1681 ರ Page_ Date

Page 22 of 28 1306 Time: Time: SAMPLER(S): (PRINT) REQUESTED ANALYSES Cr(VI) [7196 or 7199 or 218.6] P.O. NO. T22 Metals (6010B/747X) Date: (0YS8) to (01E8) aMJ PCBs (8082) Pesticides (8081) SAOCs (8270) En Core / Terra Core Prep (5035) CLIENT PROJECT NAME / NUMBER: Mett Thomas Oxygenates (8260) AOCs (85e0) アズルの名 PROJECT CONTACT: BTEX / MTBE (8260) or (_ _) H9T Received by: (Signature/Affiliation) Received by: (Signature/Affiliation) Received by: (Signature/Affiliation) TPH (d) or DRO or (C6C36) or (C6-C44) TPH (g) or GRO Field Filtered 648 LOG CODE Preserved Unpreserved CONT. STANDARD S. S. MATRIX J. 3 E-MAIL: 7:32 7:36 7.30 7:81 80.00 00.00 00;8 \$0.00 \$0.00 TIME SAMPLING ☐72 HR 21/82/9 いられる DATE Solkants ☐ 48 HR GLOBAL ID 24 HR SAMPLE ID C080-696-WH Relinquished by: (Signature) 02 - 2 Mais 51-2 85-1-38 01-2-55 SPECIAL INSTRUCTIONS: 8-2-8 51-1-55 プランシンドイグ C. SS-1-10 LABORATORY CLIENT TURNAROUND TIME: 8-1-8 8,14 COELT EDF SAME DAY SS CITY H. B Relind 4 LAB ક ರ

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Return to Contents

01/01/12 Revision

Calscience Environmental Laboratories, Inc. 7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494

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01/01/12 Revision

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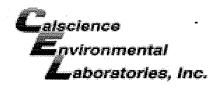


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WORK ORDER #: **12-06-** □ □ □ □

Cooler _/ of _/

CLIENT: GEOSYNTEC CONSULTANTS DATE: U0/28/12
TEMPERATURE: Thermometer ID: SC2 (Criteria: 0.0 °C − 6.0 °C, not frozen) Temperature 3 • C - 0.3 °C (CF) = 3 • 2 °C Blank □ Sample
☐ Sample(s) outside temperature criteria (PM/APM contacted by:).
\square Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.
\Box Received at ambient temperature, placed on ice for transport by Courier.
Ambient Temperature: ☐ Air ☐ Filter Initial:
CUSTODY SEALS INTACT:
□ Cooler □ □ No (Not Intact) ┛ Not Present □ N/A Initial:
□ Sample □ □ No (Not Intact) ☑ Not Present Initial:
CAMBUE CONDITION:
SAMPLE CONDITION: Yes No N/A Chair Of Custody (COC) decument(s) received with complex
Chain-Of-Custody (COC) document(s) received with samples
COC document(s) received complete
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.
Sampler's name indicated on COC
Sample container label(s) consistent with COC
Sample container(s) intact and good condition
Proper containers and sufficient volume for analyses requested
Analyses received within holding time
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours
Proper preservation noted on COC or sample container
☐ Unpreserved vials received for Volatiles analysis
Volatile analysis container(s) free of headspace
Tedlar bag(s) free of condensation □ □ ☑ ☑ CONTAINER TYPE:
Solid: ☑4ozCGJ □8ozCGJ □16ozCGJ □Sleeve () □EnCores® □TerraCores® □
Water: □VOA □VOAh □VOAna₂ □125AGB □125AGBh □125AGBp □1AGB □1AGBna₂ □1AGBs
□500AGB □500AGJ □500AGJs □250AGB □250CGB □250CGBs □1PB □1PB na □500PB
□250PB □250PB n □125PB □125PB znna □100PJ □100PJ na ₂ □ □ □
Air: DTedlar® DSumma® Other: D Trip Blank Lot#: Labeled/Checked by: Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope Reviewed by: Preservative: h: HCL n: HNO3 na2:Na2S2O3 na: NaOH p: H3PO4 s: H2SO4 u: Ultra-pure znna: ZnAc2+NaOH f: Filtered Scanned by:



APPENDIX C

BORING LOGS



2100 Main St Suite 150 Huntington Beach, CA 92648

Tel: (714) 969-0800 Fax: (714) 969-0820 **BORING** SS-1

LOCATION 777 Front St., Burbank

Jun 28, 12 **ELEVATION DATA:** START DRILL DATE FINISH DRILL DATE Jun 28, 12

FORMER ZERO CORP

GROUND SURF. (Ft)

TOP OF CASING (Ft) DATUM **Ground Surface**

SHEET 1 OF 1

PROJECT

	GS FORM: DTECH2 01/04	BOREHO	DLE L	OG				NUM	1BEI	R	HR1305			-			Julia		
						SAMF	PLE						L	ABO	RAT	ORY	RES		S TERBE
DEPTH (ft-bgs) ELEVATION (ft)	1) Soil Name (US 2) Color 3) Moisture 4) Grain Size 5) Percentage	DESCRIPTION SCS) 6) Plasticity 7) Density/Consistency 8) Other (Mineral Content, Discoloration, Odor, etc.		SAMPLE NO.	TYPE	BLOWS PER 6"	N VALUE	RECOVERY (%)	PID READING (ppm)	TIME (00:00)	COMMENTS 1) Rig Behavior 2) Air Monitoring 3) Pocket Pen 4) Tor Vane	DRY DENSITY (pdf)	MAX. DRY DENSITY (pcf)	PERCENT FINES (%)	PERCENT GRAVEL (%)	MOIST. CONTENT (%)	OPT. MOIST. CONTENT (%)		PLASTIC LIMIT
- - -	fine-grained sand	ark grey (75YR 2/1); moist; with trace medium to and and fine gravel; trace silt; (5, 90 i.																	
5	Sand (SP); as about	ove.																	
	Silty sand (SM); v moist; fine-graine	ery dark greyish brown (10YR 3/2); d sand; (25, 75, 0); unconsolidated																	
15	moist; fine-graine	ery dark greyish brown (10YR 3/2); d sand; (20, 80, 0); slightly dense.																	
20	trace fine-grained moderate density Boring terminated	sand and silt (95, 5, 0); low to ; slightly dense.																	
- 25 -	_																		
EQUIF	TRACTOR	E	ORTHIN					NOT 6/28	ES : 3/12		Soil boring logged on 7/26/1	2 from	m ba	igge	d sa	mple	es col	lecte	
DIAME	L MTHD ETER GER Kyle Gadley		OORDIN		316	_IVI .		SEE K	KEY S	SHEE:	T FOR SYMBOLS AND ABBREVIA	TION	S						



GEOTECH2 01/04

2100 Main St Suite 150 Huntington Beach, CA 92648

Tel: (714) 969-0800 Fax: (714) 969-0820

BOREHOLE LOG

BORING SS-2

LOCATION 777 Front St., Burbank

PROJECT FORMER ZERO CORP

Jun 28, 12 START DRILL DATE FINISH DRILL DATE Jun 28, 12

ELEVATION DATA: GROUND SURF. (Ft)

TOP OF CASING (Ft) DATUM **Ground Surface**

SHEET 1 OF 1

NUMBER	HR1305
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					SAMI	PLE						L	ABO	RAT	ORY	RES			=
(£)	DESCRIPTION	90	Ċ.		9		(%)	PID READING (ppm)	()	COMMENTS	J.	(bct)	(%	(%)	(%)	الد (%)		TERBI LIMIT	
DEPIH (π-bgs) ELEVATION (π)	1) Soil Name (USCS) 6) Plasticity 2) Color 7) Density/Cons	istency IIC Content, Odor, etc.)	SAMPLE NO.	TYPE	BLOWS PER 6"	N VALUE	RECOVERY (%)) SNIC	TIME (00:00)	1) Rig Behavior	DRY DENSITY (pd)	NSITY	PERCENT FINES (%)	PERCENT GRAVEL (%)	MOIST. CONTENT (%)	ONTEN	Ш	Ħ	
	3) Moisture 8) Other (Minera	al Content,	AMPI	≿	SMO-	> z	COV	READ	IIME	Air Monitoring Pocket Pen	DENS	RY DE	ENT F	IN G	r. con	IST. C	ыдыр ымп	PLASTIC LIMIT	
	☐ 4) Grain Size Discoloration, ☐ 5) Percentage	Odor, etc.)	o)		B		22	PID		4) Tor Vane	DRY	MAX. DRY DENSITY (pcf)	PERC	PERCE	MOIS	OPT. MOIST. CONTENT (%)	רוסר	PLAS	
	Sand (SP); brown (10YR 4/3); moist; fine to coarse-grained sand with trace fine gravel;																		•
	unconsolidated. (5, 90, 5).																		
1																			
1	-																		
+	-																		
5-	Sand (SP); as above; very dark greenish br	own; gravel																	
+	size increased.																		
+	_																		
-	_																		
-	-																		
o-	Silty Sand (SM); dark greenish brown (10Y)	R 4/3):																	
-	moist; fine-grained sand with trace medium sand; (40, 60, 0); slightly dense.	n-grained																	
-																			
-	_																		
-	_																		
5-																			
	Sand (SP); greyish brown (10YR 5/2); mois medium grained sand with sub-angular roc fragments (less than or equal to 4cm); trac	k liiinii																	
	90, 5); unconsolidated.	e siit, (5,																	
1																			
	Silty Sand (SM); very dark greyish brown (1 moist; fine-grained sand; trace medium-gra																		
0	slightly dense (30, 70, 0).																		
<u> </u>	Boring terminated @20' bgs.																		
5-																			
]																			
1																			
1																			
₀ ⊣ CONT	TRACTOR	NORTHIN	G	•	1		NOT		, ,	Soil boring logged on 7/26/12	fror	n ba	gge	d sa	mple	s co	llect	ed o	-
EQUIF	IPMENT	EASTING COORDIN		√e⊤r	= N4∙		6/28								-				
	.L MTHD METER	COOKDIN	IAIE S	1311	⊏IVI:														
LOGG	GER Kyle Gadley REV	IEWER				بال	SEE K	EY S	SHEE	T FOR SYMBOLS AND ABBREVIAT	IONS	3							



GEOTECH2 01/04

2100 Main St Suite 150 Huntington Beach, CA 92648

Tel: (714) 969-0800 Fax: (714) 969-0820

BOREHOLE LOG

BORING SS-3

LOCATION 777 Front St., Burbank

Jun 28, 12 **ELEVATION DATA:** START DRILL DATE Jun 28, 12 FINISH DRILL DATE

FORMER ZERO CORP

GROUND SURF. (Ft)

TOP OF CASING (Ft) DATUM **Ground Surface**

SHEET 1 OF 1

NUMBER HR1305

PROJECT

				SAMF	LE						L	ABO	RAT	ORY	RES			_		
gs)	Œ	DESCRIPTION	၂ ဗ္ဂ			9		(%	(mdc		COMMENTS		(Jod	(%)	(%)	(%	(%) T		LIMITS	
DEPTH (ft-bgs)	ELEVATION (ft)	1) Soil Name (USCS) 6) Plasticity	GRAPHIC LOG	SAMPLE NO.	핒	BLOWS PER 6"	TUE	RECOVERY (%)	PID READING (ppm)	TIME (00:00)	1) Rig Behavior	DRY DENSITY (pdf)	ISITY (I	PERCENT FINES (%)	AVEL (ENT (9	NTEN	_	ш	
됩	VAT	2) Color 7) Density/Consistency 3) Moisture 8) Other (Mineral Content,	АРН	AMPL	TYPE	OWS	N VALUE	COVE	READI	IME (2) Air Monitoring 3) Pocket Pen	DENSI.	Y DEN	ENT FI	NT GR	CON1	ST. CC	ыдыр ымп	PLASTIC LIMIT	
<u> </u>		4) Grain Size Discoloration, Odor, etc.) 5) Percentage	R.	Ò		, B		2	PIDF	-	4) Tor Vane	DRY	MAX. DRY DENSITY (pcf)	PERCI	PERCENT GRAVEL (%)	MOIST. CONTENT (%)	OPT. MOIST. CONTENT (%)	LIQUI	PLAST	
		Sand (SP); very dark grey (75YR 3/1); moist;							_				2				P			
-		fine-grained sand with trace coarse-grained sand; trace silt; (5, 95, 0); unconsolidated.																		
+	4																			
-	4																			
-	4																			
5-	1		1 1.																	
		Silty Sand (SM); very dark greyish brown (10YR 3/2); moist; fine-grained; (25, 75, 0); unconsolidated.																		
	Ī																			
	1		366																	
1	1																			
0+	1	Sand (SP); very dark greyish brown (10R 3/2); moist; fine-grained sand with trace medium-grained sand; (5,																		
1	1	95, 0); unconsolidated.																		
1	+																			
-	+																			
-	+																			
5-	4																			
-	-																			
-	-																			
+	+	Silty Sand (SM); very dark greyish brown (10 YR 3/2);																		
-		moist; fine-grained sand; slightly dense; (30, 70, 0).																		
0	1																			
		Boring terminated @20' bgs.																		
1	1																			
_ [1																			
5-	٦																			
1	1																			
1	+																			
+	+																			
+	+																			
0_		1000					<u>ر</u>		<u> </u>		<u> </u>		<u> </u>		<u> </u>	<u> </u>		<u> </u>		_
			rthin Sting	G			'	NOT 6/28	ES: 3/12	:. :	Soil boring logged on 7/26/12	tror	n ba	igge	d sa	mple	s co	llect	ed o	ı
DRI	LL N	ITHD CO		ATE SY	STE	M:														
	MET GGF	FER R Kyle Gadley REVIEWER									T FOR SYMBOLS AND ABBREVIA		_							



GEOTECH2 01/04

2100 Main St Suite 150 Huntington Beach, CA 92648

Tel: (714) 969-0800 Fax: (714) 969-0820

BOREHOLE LOG

BORING SS-4

Jun 28, 12 **ELEVATION DATA:** START DRILL DATE FINISH DRILL DATE Jun 28, 12 LOCATION 777 Front St., Burbank

PROJECT

GROUND SURF. (Ft) TOP OF CASING (Ft) DATUM **Ground Surface**

SHEET 1 OF 1

FORMER ZERO CORP NUMBER HR1305

		SAMPL		PLE						L	ABO	RAT	ORY	RES	SULT			
(ff)	DESCRIPTION	90			9		(%)	(mdd	<u></u>	COMMENTS	£						ATT	ERBER
(\$\frac{1}{2}\) NOIL HALD A 1) Soil Name 2) Color 3) Moisture 4) Grain Size 5) Percentage	7) Density/Consistency8) Other (Mineral Content, Discoloration, Odor, etc.)	GRAPHIC LOG	SAMPLE NO.	TYPE	BLOWS PER 6"	N VALUE	RECOVERY (%)	PID READING (ppm)	TIME (00:00)	1) Rig Behavior 2) Air Monitoring 3) Pocket Pen 4) Tor Vane	DRY DENSITY (pd)	MAX. DRY DENSITY (pcf)	PERCENT FINES (%)	PERCENT GRAVEL (%)	MOIST. CONTENT (%)	OPT. MOIST. CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT
moist; fine-gra	ry dark greenish brown (10 YR 3/2); ined sand; (25, 75, 0); slightly dense. ry dark greenish brown (10 YR 3/2); ined sand; trace silt; (5, 95, 0); d.																	
95, 0); loosely	s above; trace medium-grained sand; (5 consolidated. ated @20' bgs.																	
25																		
CONTRACTOR EQUIPMENT DRILL MTHD	EA	ORTHIN ASTING DORDIN		 /STI	EM:		NOT 6/28	 ES : 3/12	 	Soil boring logged on 7/26/12	fror	n ba	gge	d sa	mple	s co	llecte	ed on
DIAMETER LOGGER Kyle Gad	ley REVIEWER						SEE K	EY S	SHEET	T FOR SYMBOLS AND ABBREVIA	FION!	3						



DIAMETER

LOGGER Kyle Gadley

REVIEWER

2100 Main St Suite 150

Huntington Beach, CA 92648

Tel: (714) 969-0800 Fax: (714) 969-0820

BOREHOLE LOG

BORING SS-5

LOCATION 777 Front St., Burbank

HR1305

PROJECT

NUMBER

Jun 28, 12 START DRILL DATE FINISH DRILL DATE Jun 28, 12

FORMER ZERO CORP

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

ELEVATION DATA: GROUND SURF. (Ft)

TOP OF CASING (Ft) Ground Surface DATUM

SHEET 1 OF

GEOTECH2 01/04 SAMPLE LABORATORY RESULTS **DESCRIPTION** COMMENTS 8 (ft-bgs) PID READING (ppm € GRAPHIC LOG MAX. DRY DENSITY (pcf) PERCENT GRAVEL (%) RECOVERY (%) MOIST. CONTENT (%) PERCENT FINES (%) DRY DENSITY (pdf) CONTENT 9 (00:00) **BLOWS PER** ELEVATION 1) Soil Name (USCS) 6) Plasticity 1) Rig Behavior PLASTIC LIMIT 2) Color 7) Density/Consistency 2) Air Monitoring 3) Moisture 8) Other (Mineral Content, MOIST. LIQUID 3) Pocket Pen 4) Grain Size Discoloration, Odor, etc.) 4) Tor Vane 5) Percentage DPT. Sand (SP); brown (10YR 4/3); moist; fine to coarse-grained sand; loosely consolidated; (0, 100, 0). Sand (SP); as above; very dark greenish brown; trace silt; (5, 95, 0). 10 Sand (SP); as above; very dark grey (75YR 3/1). 15 Silty Sand (SM); very dark grey (10YR 3/1); moist; fine-grained sand (40, 60, 0); moderately dense. Silty Sand (SM); As above; dark grey (10 YR 4/1); (30, 20 Boring terminated @20' bgs 8/15/12 25 HR1305.GPJ NOTES: CONTRACTOR **NORTHING** Soil boring logged on 7/26/12 from bagged samples collected on 6/28/12. **EQUIPMENT EASTING DRILL MTHD COORDINATE SYSTEM:**