

**FOR CONTRACT NO.: 04-2594A4**

# **INFORMATION HANDOUT**

## **MATERIALS INFORMATION**

**SOIL STOCKPILE AND PRELIMINARY  
SITE INVESTIGATION SAMPLING REPORT  
(SR-29-PM R20.4/R20.8 NAPA COUNTY, CA)**

**BAY AREA RECYCLED WATER  
(COMMERCIAL TRUCK FILL FACILITIES LOCATION GUIDE)**

**MAXIMUM APPLIED WATER ALLOWANCE (MAWA) CALCULATIONS  
(04-2594A-NAP-29)**

**ROUTE: 04-Nap-29-R20.4/R20.8**

# SOIL STOCKPILE AND PRELIMINARY SITE INVESTIGATION SAMPLING REPORT

SR-29, PM R20.4 TO PM R20.8  
NAPA COUNTY, CALIFORNIA

**PREPARED FOR:**

CALIFORNIA DEPARTMENT OF TRANSPORTATION  
DISTRICT 4  
OFFICE OF ENVIRONMENTAL ENGINEERING  
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GEOCON PROJECT NO. E8721-02-40  
CALTRANS EA 04-2594A1  
CALTRANS PROJECT # 04-1200-0642

JANUARY 2016

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## REPORT LIMITATIONS

This report has been prepared exclusively for the State of California Department of Transportation (Caltrans) District 4. The information contained herein is only valid as of the date of the report and will require an update to reflect additional information obtained.

This report is not a comprehensive site characterization and should not be construed as such. The findings as presented in this report are predicated on the results of the limited sampling and laboratory testing performed. In addition, the information obtained is not intended to address potential impacts related to sources other than those specified herein. Therefore, the report should be deemed conclusive with respect to only the information obtained. We make no warranty, express or implied, with respect to the content of this report or any subsequent reports, correspondence or consultation. Geocon Consultants, Inc. strived to perform the services summarized herein in accordance with the local standard of care in the geographic region at the time the services were rendered.

The contents of this report reflect the views of the author who is responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the State of California or the Federal Highway Administration. This report does not constitute a standard, specification, or regulation.

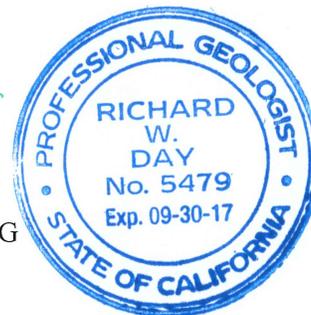
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# SOIL STOCKPILE AND PRELIMINARY SITE INVESTIGATION SAMPLING REPORT

## 1.0 INTRODUCTION

This Soil Stockpile and Preliminary Site Investigation Sampling Report for State Route 29 (SR-29) between Post Mile (PM) R20.4 and PM R20.8 in Napa County, California was prepared by Geocon Consultants, Inc. (Geocon) under California Department of Transportation (Caltrans) Contract No. 04A4336 and Task Order No. 40 (TO-40), EA 04-2594A1.

### 1.1 Project Description and Proposed Improvements

A traffic congestion relief project completed earlier along SR-29 north of Yountville, California, required the removal of native trees. Caltrans now proposes to replace the native trees; however, a soil stockpile of unknown origin has been placed within the Caltrans right-of-way in the project area. The purpose of this investigation was to: 1) assess the approximately 421-foot-long by 17-foot-wide by 4-foot-tall berm prior to removal, and 2) assess existing soil in the area proposed for planting the native trees. The project location is depicted on the attached Vicinity Map, Figure 1.

### 1.2 General Objectives

The purpose of the site investigation was to evaluate concentrations of California Assessment Manual 17 (CAM 17) metals, total petroleum hydrocarbons as diesel (TPHd), as motor oil (TPHmo), and as gasoline (TPHg), benzene, toluene, ethylbenzene and total xylenes (BTEX), and (MTBE) in soil.

The information obtained from this investigation will be used by Caltrans to evaluate soil handling practices, worker health and safety, and soil reuse and disposal options.

## 2.0 BACKGROUND

### 2.1 Hazardous Waste Determination Criteria

Regulatory criteria to classify a waste as California hazardous for handling and disposal purposes are contained in the CCR, Title 22, Division 4.5, Chapter 11, Article 3, §66261.24. Criteria to classify a waste as Resource, Conservation, and Recovery Act (RCRA) hazardous are contained in Chapter 40 of the Code of Federal Regulations (40 CFR), Section 261.

For waste containing metals, the waste is classified as California hazardous when: 1) the representative total metal content equals or exceeds the respective Total Threshold Limit Concentration (TTLC); or 2) the representative soluble metal content equals or exceeds the respective Soluble Threshold Limit

Concentration (STLC) based on the standard Waste Extraction Test (WET). A waste has the potential of exceeding the STLC when the waste's total metal content is greater than or equal to 10 times the respective STLC value since the WET uses a 1:10 dilution ratio. Hence, when a total metal is detected at a concentration greater than or equal to 10 times the respective STLC, and assuming that 100 percent of the total metals are soluble, soluble metal analysis is required. A material is classified as RCRA hazardous, or Federal hazardous, when the representative soluble metal content equals or exceeds the Federal regulatory level based on the Toxicity Characteristic Leaching Procedure (TCLP).

The regulatory criteria noted above are based on chemical concentrations. Wastes may also be classified as hazardous based on other criteria such as ignitability and corrosivity; however, for the purposes of this investigation, toxicity (i.e., representative lead concentrations) is the primary factor considered for waste classification since waste generated during the construction activities would not likely warrant testing for ignitability or other criteria. Waste that is classified as either California hazardous or RCRA hazardous requires management as a hazardous waste.

## **2.2 California Human Health Screening Levels**

The California Environmental Protection Agency (Cal/EPA) has prepared technical reports entitled *Use of California Human Health Screening Levels (CHHSLs) in Evaluation of Contaminated Properties* (Cal/EPA, January 2005) and *Revised California Human Health Screening Levels for Beryllium* (Cal/EPA, March 2009) and *Lead* (Cal/EPA, September 2009), which present CHHSLs for soil, shallow soil gas, and indoor air to assist in evaluating sites impacted by releases of hazardous chemicals.

The CHHSLs are concentrations of 54 hazardous chemicals including Title 22 metals that Cal/EPA considers to be below thresholds of concern for risks to human health. The CHHSLs were developed by the Office of Environmental Health Hazard Assessment (OEHHA) on behalf of Cal/EPA. The thresholds of concern used to develop the CHHSLs are an excess lifetime cancer risk of one in a million and a hazard quotient or 1.0 for non-cancer effects. Under most circumstances, the presence of a chemical at concentrations below its respective CHHSL can be assumed to not pose a significant risk. The presence of a chemical at concentrations above a CHHSL does not indicate that adverse impacts to human health are occurring or will occur but suggests that further evaluation is warranted (Cal/EPA, January 2005).

The CHHSLs for residential and industrial/commercial land use were used for comparison on Table 3.

## 2.3 Environmental Screening Levels

The San Francisco Bay Regional Water Quality Control Board (SFRWQCB) has prepared a technical report entitled *User's Guide: Derivation and Application of Environmental Screening Levels, Interim Final 2013* (updated December 2013), which presents Environmental Screening Levels (ESLs) for over 100 commonly found contaminants in soil, groundwater, soil gas, and surface water, to assist in evaluating sites impacted by releases of hazardous chemicals. "The ESLs are considered to be protective for typical bay area sites. Under most circumstances, ...the presence of a chemical in soil, soil gas, or groundwater at concentrations below the corresponding ESL can be assumed to not pose a significant threat to human health, water resources, or the environment." (SFRWQCB, December 2013). ESLs are risk assessment tools and are "not intended to serve as a rule to determine if a waste is hazardous under the state or federal regulations."

Residential and commercial/industrial land use ESLs are commonly used by contractors, soil trucking companies, and private and commercial land owners as default acceptance criteria to evaluate suitability of import soil material. The following ESL tables were used for this characterization:

- Table A. Shallow Soil ( $\leq 3$ m bgs), Groundwater is a Current or Potential Source of Drinking Water
- Table K-3. Direct Exposure Soil Screening Levels, Construction/Trench Worker Exposure Scenario

The respective ESLs are listed at the end of Tables 3 and 4 for comparative purposes.

## 3.0 SCOPE OF SERVICES

The scope of services performed under TO-40, EA 04-2594A1 included the following:

### 3.1 Pre-field Activities

- Prepared a *Preliminary Site Investigation Workplan* and *Health and Safety Plan*, dated September 2015.
- Retained the services of Torrent Laboratories (Torrent), Milpitas, California, a Caltrans-approved and California-certified analytical laboratory, to perform the chemical analyses of soil samples.

### **3.2 Field Activities**

An initial field investigation was performed on September 21, 2015, by Geocon staff. As outlined in the original Task Order, four soil borings (SP1 to SP4) were advanced into the stockpile at the project location using hand-auger drilling techniques to a maximum depth of 3.5 feet. Subsequent to this initial sampling, the landscaping plans were altered and planned tree locations were moved to the roadside shoulder. On January 5, 2016, eight additional soil borings (B1 to B8) were advanced in the new planting area using a hand-auger to a maximum depth of 2.5 feet.

All samples were transported to a California-certified environmental laboratory for analysis under standard chain-of-custody (COC) documentation.

## **4.0 INVESTIGATIVE METHODS**

### **4.1 Sampling Procedure**

Soil samples were collected using a hand-auger and transferred from the hand-auger bucket into stainless steel tubes and sealed with Teflon tape and plastic lids prior to being stored in a chest cooled with ice. Stockpile soil samples were collected from four borings locations at multiple depths determined by the Task Order Manager. The samples were composited in the laboratory prior to analyses as described in the Task Order. Soil borings B1 to B8 were advanced to a maximum depth of 2.5 feet. Approximate sampling locations are shown on the Site Plan, Figure 2.

Sample containers were labeled and transported to a Caltrans-approved, certified environmental laboratory using standard COC documentation. Soil borings were backfilled to surface with soil cuttings.

Geocon provided QA/QC procedures during the field activities. These procedures included washing the sampling equipment with a Liqui-Nox® solution followed by a double rinse with deionized water. An equipment rinse blank was collected by pouring deionized water over the cleaned sampling equipment and collecting it into a sample container for laboratory analysis. Decontamination water was disposed of to the ground surface within Caltrans right-of-way in a manner not to create runoff, and away from drain inlets or potential water bodies.

### **4.2 Laboratory Analyses**

Laboratory analyses were performed by Torrent under standard turnaround-time (TAT). The laboratory reports and COC documentation are included in Appendix A.

The four composite stockpile samples were analyzed for:

- CAM 17 metals according to EPA Test Methods 6010 ICAP and 7471.
- WET chromium [total chromium concentrations exceeded 50 mg/kg (i.e., greater than ten times the STLC of 5.0 mg/l)]; therefore, samples were further analyzed for WET chromium.
- TPHd/mo using EPA Test Method 8015B.
- TPHg, BTEX, and MTBE using EPA Test Method 8260B.

The soil boring samples were analyzed as follows:

- 3 samples for CAM 17 metals according to EPA Test Methods 6010 ICAP and 7471.
- 16 samples for total lead using EPA Test Method 6010 ICAP.
- 6 samples for TPHd/mo using EPA Test Method 8015B.
- 2 samples were further analyzed for WET lead [total lead concentrations exceeded 50 mg/kg (i.e., greater than ten times the STLC of 5.0 mg/l)]; therefore, two samples were further analyzed for WET lead.

Two equipment rinse blank samples were analyzed for total lead using EPA Test Method 6010 ICAP.

### **4.3 Laboratory QA/QC**

QA/QC procedures were performed for each method of analysis with specificity for each analyte listed in the test method's QA/QC. The laboratory QA/QC procedures included the following:

- One method blank for every ten samples, batch of samples or type of matrix, whichever was more frequent.
- One sample analyzed in duplicate for every ten samples, batch of samples or type of matrix, whichever was more frequent.
- One spiked sample for every ten samples, batch of samples or type of matrix; whichever was more frequent, with spike made at ten times the detection limit or at the analyte level.

Prior to submitting the samples to the laboratory, the COC documentation was reviewed for accuracy and completeness.

## **5.0 INVESTIGATIVE RESULTS**

### **5.1 Soil Description**

The stockpile measured approximately 421 feet long by 17 feet wide by 4 feet tall. Stockpile soil consisted primarily of dry, light brown, loose sandy soil with occasional gravel and cobbles. Soil in the

area of borings B1 to B8 consisted of dense, dark to light gray sandy silt mixed with gravel and cobbles. Several borings were met with refusal. Groundwater was not encountered.

## 5.2 Laboratory Analytical Results

The analytical results are summarized in Tables 2 to 4 and are summarized below:

- The following metals were not detected above their respective laboratory reporting limits: antimony, beryllium, cadmium, mercury, molybdenum, selenium, silver, and thallium.
- Total chromium was reported at concentrations ranging from 12 to 120 mg/kg.
- WET chromium was reported at concentrations ranging from 0.32 to 0.44 mg/l.
- Total lead was reported at concentrations ranging from 3.6 to 90 mg/kg.
- WET lead was reported at concentrations of 1.5 and 4.4 mg/l.
- Remaining CAM 17 metals were reported in the samples at total concentrations below ten times their respective STLCs.
- TPHg was not detected at or above the laboratory detection limit of 0.10 mg/kg.
- TPHd was reported at concentrations ranging from not detected (laboratory reporting limit of 2.0 mg/kg) to 14 mg/kg.
- TPHmo was reported at concentrations of 13 to 2,500 mg/kg.
- BTEX compounds were not detected at or above the reporting limits.
- MTBE was not detected at or above the laboratory reporting limit.

Total lead was not detected in the rinse blank samples at or above the reporting limits.

## 5.3 Laboratory Quality Assurance/Quality Control

We reviewed the QA/QC results provided with the laboratory analytical reports. The data indicate non-detect results for the method blanks at or above reporting limits. The diesel results for the four composite samples were noted as being within the diesel-quantified range due to the over-lapping of oil-range organics. The Matrix Spike/Matrix Spike Duplicate (MS/MSD) was outside of recovery limits for some analytes due to heterogeneity of sample; however, the associated laboratory control samples were within acceptable limits. Remaining samples and internal laboratory QA/QC samples showed acceptable recoveries and relative percent differences (RPDs). Based on this limited data review, no additional qualifications of the soil data are necessary, and the data are of sufficient quality for the purposes of this report.

## 6.0 CONCLUSIONS

### 6.1 CAM 17 Metals in Soil

With the exception of chromium and lead, CAM 17 metals were reported in the samples at total concentrations below ten times their respective STLCS.

WET chromium was reported at concentrations ranging from 0.32 mg/l to 0.44 mg/l, below the STLC. WET lead was reported at concentrations of 1.5 mg/l and 4.4 mg/l, below the STLC of 5.0 mg/l. Therefore, soil would not be classified as hazardous based on total or soluble metal concentrations.

The CAM 17 metals concentrations in site soil were compared to CHHSLs and ESLs. Arsenic and lead were reported at concentrations greater than one or more CHHSL or ESL value. Because concentrations of arsenic and lead exceeded one or more CHHSL or ESL, statistical methods were used to calculate the upper confidence limit (UCL) of the arithmetic mean of the total arsenic and lead concentrations. The upper one-sided 95% UCL of the arithmetic mean is defined as the value that, when calculated repeatedly for randomly drawn subsets of site data, equals or exceeds the true mean 95% of the time. The UCL of the arithmetic mean concentration is used as the mean concentration because it is not possible to know the true mean due to the essentially infinite number of soil samples that could be collected from a site. The 95% UCL, therefore, accounts for uncertainties due to limited sampling data. As data become less limited at a site, uncertainties decrease and the UCL moves closer to the true mean.

Non-parametric bootstrap techniques were used to calculate the 95% UCLs. The bootstrap test results are included in Appendix B. CHHSLs, ESLs, UCLs, and published background concentrations for arsenic and lead are summarized in the following table.

<b>Metal</b>	<b>95% UCL</b>	<b>Maximum</b>	<b>Shallow Soil Residential CHHSL/ESL</b>	<b>Shallow Soil Commercial/ Industrial CHHSL/ESL</b>	<b>Worker Direct Exposure ESL</b>	<b>Published Background Mean <sup>1</sup></b>	<b>Published Background Range <sup>1</sup></b>
Arsenic	5.47	7.1	0.07/0.39	0.24/1.6	10	3.5	0.6 to 11.0
Lead	29.1	90	150/80	3,500/320	320	23.9	12.4 to 97.1

Concentrations reported in mg/kg

<sup>1</sup> Kearney Foundation of Soil Science, March 1996

The 95% total arsenic concentration is greater than the residential and commercial land use CHHSLs and ESLs; however, it is less than the construction exposure ESL and within the published background range. The SFRWQCB *November 2007 Update to Environmental Screening Levels (ESLs) Technical*

*Document* states that ambient background concentrations of arsenic typically exceed risk-based screening levels. In such instances, it may be more appropriate to compare site data to regionally specific established background levels.

The 95% total lead concentration is less than the residential and commercial land use CHHSLs and ESLs, the construction exposure ESL, and is within the published background range.

Based on the reported results for arsenic and lead, reuse or disposal of excavated soil may be restricted depending on proposed use.

Metals results for soil samples are summarized in Table 3.

## **6.2 Organic Compounds**

TPHg, BTEX, or MTBE were not detected at or above the laboratory reporting limits.

TPHd was reported at concentrations ranging from not detected (laboratory reporting limit of 2.0 mg/kg) to 14 mg/kg, below the ESLs (SFRWQCB, December 2013, Tables A and K-3).

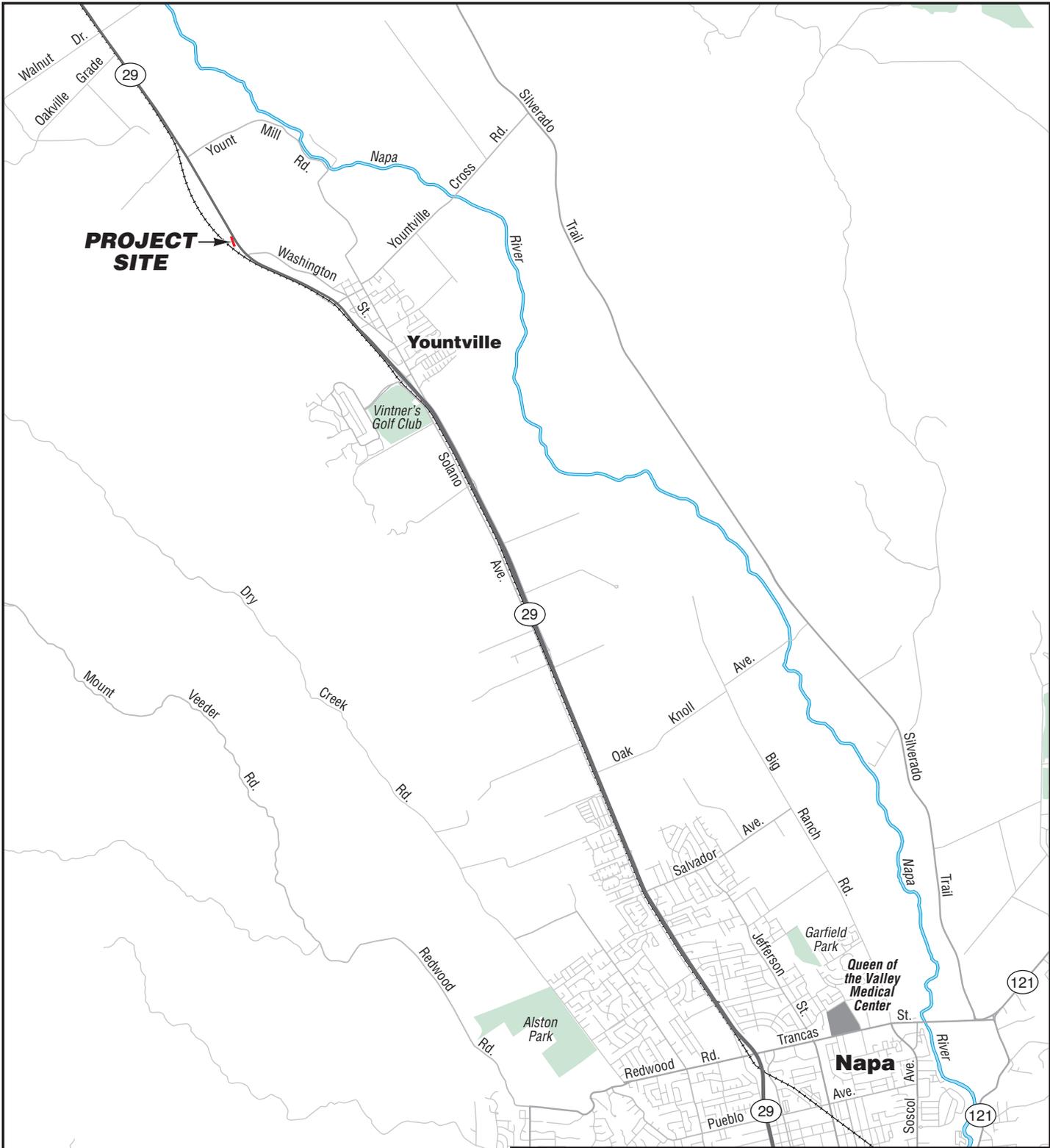
TPHmo was reported at concentrations ranging from 13 to 2,500 mg/kg, above the residential land use ESL of 100 mg/kg and the commercial/industrial land use ESL of 500 mg/kg, but below the construction exposure ESL of 28,000 mg/kg. TPHmo has a 95% UCL of 990 mg/kg.

A summary of organic compound concentrations in stockpile soil is presented in Table 4.

Based on reported TPHmo, reuse or disposal may be restricted.

## **6.3 Worker Protection**

The contractor(s) should prepare a project-specific health and safety plan to prevent or minimize worker exposure to metals and petroleum hydrocarbons in soil. The plan should include protocols for environmental and personnel monitoring, requirements for personal protective equipment, and other health and safety protocols and procedures for the handling of soil.



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SR-29, PM R20.4 to PM R20.8

Napa County, California

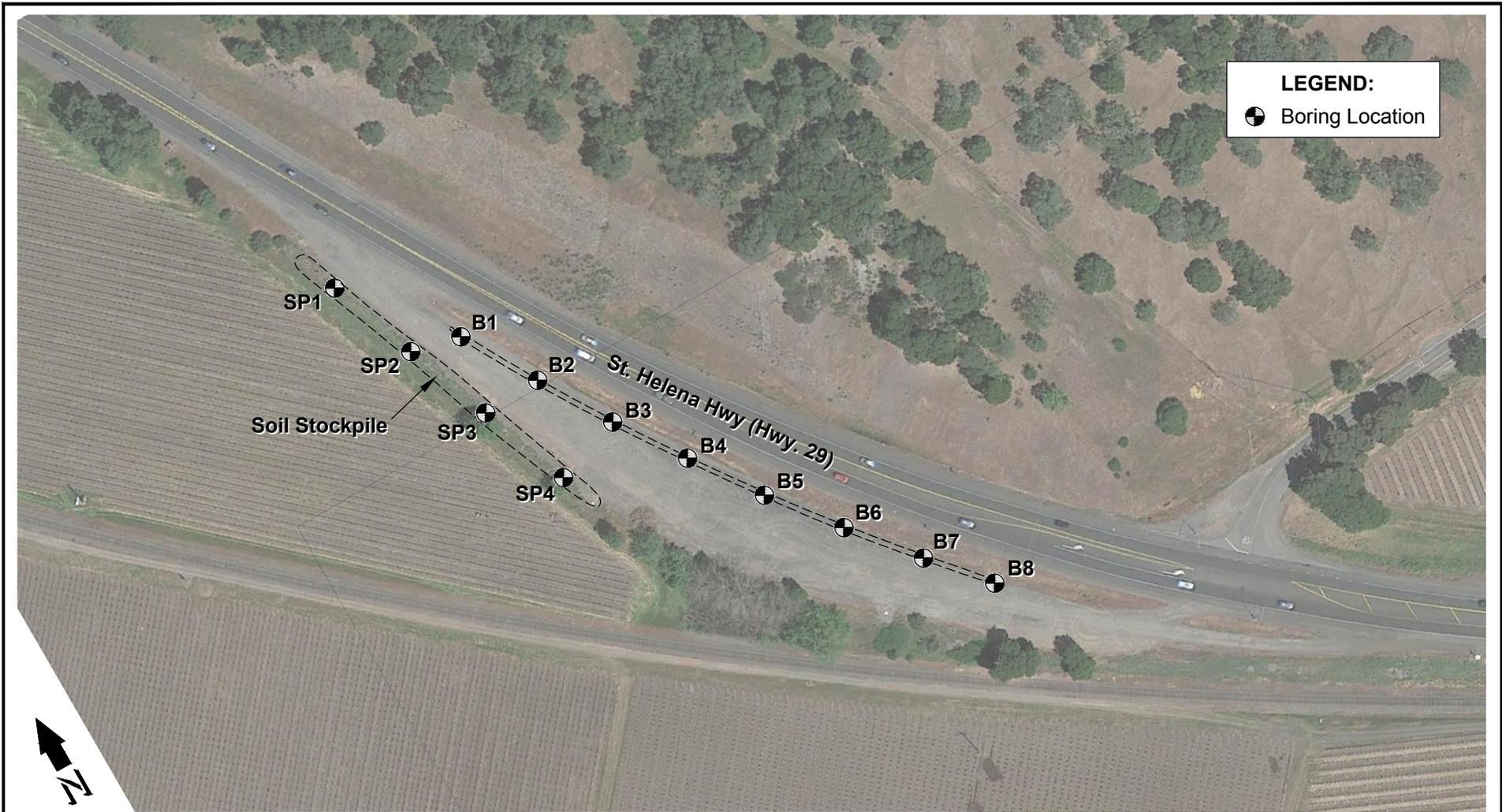
**VICINITY MAP**

GEOCON Proj. No. E8721-02-40

Task Order No. 40

January 2016

Figure 1



**LEGEND:**  
 Boring Location



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**SR-29 Stockpile**

SR-29 PM R20.4 to R20.8  
 Napa County, California

**SITE PLAN**

GEOCON Proj. No. E8721-02-40

EA No. 04-2594A1

January 2016

Figure 2

**TABLE 1**  
**Boring Coordinates**  
**SR-29, PM R20.4 to PM R20.8**  
**Napa County, California**

<b>Boring</b>	<b>Easting</b>	<b>Northing</b>
B1	6,451,762.261	1,912,549.677
B2	6,451,791.744	1,912,478.704
B3	6,451,842.960	1,912,401.463
B4	6,451,885.940	1,912,321.393
B5	6,451,939.439	1,912,249.225
B6	6,451,987.448	1,912,178.075
B7	6,452,034.862	1,912,101.253
B8	6,452,091.451	1,912,040.876

NAD 83, Zone 2

**TABLE 2**  
**Summary of Lead Results**  
**SR-29, PM R20.4 to PM R20.8**  
**Napa County, California**

Sample ID	Sample Depth (feet)	Total Lead (mg/kg)	WET Lead (mg/l)
B1-0	0 to 0.5	27	---
B1-0.5	0.5 to 1	16	---
B2-0	0 to 0.5	19	---
B2-1	1 to 1.5	6.8	---
B2-1.5	1.5 to 2	6.8	---
B3-0	0 to 0.5	12	---
B3-1	1 to 1.5	29	---
B4-0	0 to 0.5	9.0	---
B5-0	0 to 0.5	90	4.4
B5-1	1 to 1.5	10	---
B6-0	0 to 0.5	27	---
B6-1	1 to 1.5	3.6	---
B6-1.5	1.5 to 2	4.8	---
B7-0	0 to 0.5	61	1.5
B7-1	1 to 1.5	49	---
B7-2	2 to 2.5	26	---
B8-0	0 to 0.5	44	---
B8-1	1 to 1.5	11	---
B8-2	2 to 2.5	4.5	---
SP1 (A,B,C)	0 to 3.5	11	---
SP2 (A,B,C)	0 to 3.5	11	---
SP3 (A,B,C)	0 to 3.5	12	---
SP4 (A,B,C)	0 to 3.5	11	---
Rinse Blank 1		<0.0050 mg/l	
Rinse Blank 2		<0.015 mg/l	
<b>Hazardous Waste Criteria</b>			
	TTLC (mg/kg)	1,000	---
	STLC (mg/l)	---	5.0

**Notes:**

mg/kg = Milligrams per kilogram

mg/l = Milligrams per liter

WET = Waste Extraction Test using citric acid as the extraction fluid

TTLC = Total Threshold Limit Concentration

STLC = Soluble Threshold Limit Concentration

**TABLE 3**  
**Summary of CAM 17 Metals Results**  
**SR-29, PM R20.4 to PM R20.8**  
**Napa County, California**

Sample ID	Sample Depth (ft)	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	
B1-0.5	0.5 to 1	<5.0	2.2	120	<2.0	<1.0	24	9.7	15	16	<0.50	<5.0	13	<5.0	<5.0	<7.5	19	29	
B3-0	0 to 0.5	<5.0	4.3	24	<2.0	<1.0	12	6.3	14	12	<0.50	<5.0	12	<5.0	<5.0	<7.5	38	33	
B5-1	1 to 1.5	<5.0	<1.7	69	<2.0	<1.0	22	7.2	13	10	<0.50	<5.0	13	<5.0	<5.0	<7.5	21	26	
SP1 (A,B,C)	0 to 3.5	<5.0	6.6	140	<2.0	<1.0	78 <i>0.32</i>	16	31	11	<0.50	<5.0	110	<5.0	<5.0	<7.5	60	69	
SP2 (A,B,C)	0 to 3.5	<5.0	7.1	130	<2.0	<1.0	76 <i>0.36</i>	17	28	11	<0.50	<5.0	110	<5.0	<5.0	<7.5	69	63	
SP3 (A,B,C)	0 to 3.5	<5.0	5.8	140	<2.0	<1.0	120 <i>0.43</i>	17	27	12	<0.50	<5.0	140	<5.0	<5.0	<7.5	53	67	
SP4 (A,B,C)	0 to 3.5	<5.0	5.9	140	<2.0	<1.0	110 <i>0.44</i>	20	30	11	<0.50	<5.0	140	<5.0	<5.0	<7.5	58	63	
<b>Hazardous Waste Criteria</b>																			
	TTLIC (mg/kg)	500	500	10,000	75	100	2,500	8,000	2,500	1,000	20	3,500	2,000	100	500	700	2,400	5,000	
	STLC (mg/l)	15	5.0	100	0.75	1.0	5.0	80	25	5.0	0.2	350	20	1.0	5.0	7.0	24	250	
	TCLP (mg/l)	---	5.0	100	---	1.0	6.0	---	---	5.0	0.2	---	---	1.0	5.0	---	---	---	
<b>CHHSLs</b>																			
	Residential Land Use	30	0.07	5,200	150	1.7	100,000	660	3,000	150	18	380	1,600	380	380	5.0	530	23,000	
	Commercial/Industrial Land Use	380	0.24	63,000	1,700	7.5	100,000	3,200	38,000	3,500	180	4,800	16,000	4,800	4,800	63	6,700	100,000	
<b>ESLs</b>																			
	Residential Land Use	20	0.39	750	4.0	12	1,000	23	230	80	6.7	40	150	10	20	0.78	200	600	
	Commercial/Industrial Land Use	40	1.6	1,500	8.0	12	2,500	80	230	320	10	40	150	10	40	10	200	600	
	Construction Worker Exposure	120	10	61,000	180	110	460,000 <sup>(1)</sup>	49	12,000	320	27	1,500	6,100	1,500	1,500	3.1	1,500	93,000	
<b>Background Concentrations<sup>(2)</sup></b>																			
	Minimum	0.15	0.6	133	0.25	0.05	23	2.7	9.1	12.4	0.10	0.1	9.0	0.015	0.10	0.17	39	88	
	Mean	0.60	3.5	509	1.28	0.36	122	14.9	28.7	23.9	0.26	1.3	57	0.058	0.80	0.56	112	149	
	Maximum	1.95	11	1,400	2.70	1.70	1,579	46.9	96.4	97.1	0.90	9.6	509	0.430	8.30	1.10	288	236	
<b>Notes:</b>																			
Results are shown in milligrams per kilogram (mg/kg) unless otherwise noted																			
milligrams per liter (mg/l)																			
< = not detected at or above the stated laboratory reporting limit																			
TTLIC = Total Threshold Limit Concentration																			
STLC = Soluble Threshold Limit Concentration																			
TCLP = Toxicity Characteristic Leaching Procedure																			
CHHSLs = California Human Health Screening Levels, Table 1, California EPA, January 2005																			
ESLs = Environmental Screening Levels, Tables A and K-3, SFRWQCB, December 2013.																			
<sup>(1)</sup> = Value listed is for Chromium III, as there is no construction exposure standard for total chromium.																			
<sup>(2)</sup> = Background Concentrations of Trace and Major Elements in California Soils (Kearney Foundation of Soil Science, Division of Agricultural and Natural Resources, University of California, March 1996)																			
<i>Values listed in italics are results of WET analysis in milligrams per liter (mg/l)</i>																			

**TABLE 4**  
**Summary of Organic Compounds Results**  
**SR-29, PM R20.4 to PM R20.8**  
**Napa County, California**

Sample ID	Sample Depth (ft)	TPHd (mg/kg)	TPHmo (mg/kg)	TPHg (mg/kg)	BTEX (µg/kg)	MTBE (µg/kg)
B1-0.5	0.5 to 1	<8.0	200	---	---	---
B2-1	1 to 1.5	<2.0	13	---	---	---
B3-0	0 to 0.5	<100	2,500	---	---	---
B4-0	0 to 0.5	<100	2,100	---	---	---
B5-1	1 to 1.5	4.7	63	---	---	---
B7-0	0 to 0.5	14	170	---	---	---
SP1 (A,B,C)	0 to 3.5	11	120	<0.10	ND	<10
SP2 (A,B,C)	0 to 3.5	10	100	<0.10	ND	<10
SP3 (A,B,C)	0 to 3.5	10	65	<0.10	ND	<10
SP4 (A,B,C)	0 to 3.5	8.1	45	<0.10	ND	<10
<b>ESLs</b>						
	Residential	100	100	100	---	---
	Commercial/Industrial	110	500	500	---	---
	Construction Exposure	900	28,000	2,700	---	---

**Notes:**

- mg/kg = milligrams per kilogram
- µg/kg = micrograms per kilogram
- TPHd = Total petroleum hydrocarbons as diesel
- TPHmo = Total petroleum hydrocarbons as motor oil
- TPHg = Total petroleum hydrocarbons as gasoline
- BTEX = Benzene, toluene, ethylbenzene and total xylenes
- MTBE = methyl tert-butyl ether
- ND = Not Detected
- = Not analyzed or no standard exists
- < = Not detected above the stated laboratory reporting limit
- ESLs = Environmental Screening Levels, Tables A and K-3, SFRWQCB, December 2013.

APPENDIX

A



Geocon Consultants, Inc.  
6671 Brisa Street  
Livermore, California 94550  
Tel: 925-371-5900  
RE: Napa County, CA

Work Order No.: 1509136

Dear Luann Beadle:

Torrent Laboratory, Inc. received 13 sample(s) on September 22, 2015 for the analyses presented in the following Report.

12 SP samples were received as discrete samples. Per Chain of Custody instructions, these samples were used to prepare four 3:1 point composites for analysis. The other water sample was tested as a discrete sample.

All data for associated QC met EPA or laboratory specification(s) except where noted in the case narrative.

Torrent Laboratory, Inc. is certified by the State of California, ELAP #1991. If you have any questions regarding these test results, please feel free to contact the Project Management Team at (408)263-5258; ext 204.

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Patti Sandrock  
QA Officer

September 29, 2015

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Date



**Date:** 9/29/2015

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**Client:** Geocon Consultants, Inc.

**Project:** Napa County, CA

**Work Order:** 1509136

### **CASE NARRATIVE**

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No issues encountered with the receiving, preparation, analysis or reporting of the results associated with this work order.

Unless otherwise indicated in the following narrative, no results have been method and/or field blank corrected.

Reported results relate only to the items/samples tested by the laboratory.

This report shall not be reproduced, except in full, without the written approval of Torrent Analytical, Inc.



## Sample Result Summary

Report prepared for: Luann Beadle  
Geocon Consultants, Inc.

Date Received: 09/22/15

Date Reported: 09/29/15

**Composite SP1 (A,B,C)**

1509136-001

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.25	1.7	6.6	mg/Kg
Barium	SW6010B	1	0.07	5.0	140	mg/Kg
Chromium	SW6010B	1	0.0500	5.0	78	mg/Kg
Cobalt	SW6010B	1	0.055	5.0	16	mg/Kg
Copper	SW6010B	1	0.650	5.0	31	mg/Kg
Lead	SW6010B	1	0.14	1.0	11	mg/Kg
Nickel	SW6010B	1	0.0500	5.0	110	mg/Kg
Vanadium	SW6010B	1	0.18	5.0	60	mg/Kg
Zinc	SW6010B	1	0.25	5.0	69	mg/Kg
TPH as Diesel	SW8015B(M)	1	1.00	4.0	11	mg/Kg
TPH as Motor Oil	SW8015B(M)	1	2.00	21	120	mg/Kg

**Composite SP2 (A,B,C)**

1509136-002

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.25	1.7	7.1	mg/Kg
Barium	SW6010B	1	0.07	5.0	130	mg/Kg
Chromium	SW6010B	1	0.0500	5.0	76	mg/Kg
Cobalt	SW6010B	1	0.055	5.0	17	mg/Kg
Copper	SW6010B	1	0.650	5.0	28	mg/Kg
Lead	SW6010B	1	0.14	1.0	11	mg/Kg
Nickel	SW6010B	1	0.0500	5.0	110	mg/Kg
Vanadium	SW6010B	1	0.18	5.0	69	mg/Kg
Zinc	SW6010B	1	0.25	5.0	63	mg/Kg
TPH as Diesel	SW8015B(M)	1	1.00	4.0	10	mg/Kg
TPH as Motor Oil	SW8015B(M)	1	2.00	21	100	mg/Kg



## Sample Result Summary

Report prepared for: Luann Beadle  
Geocon Consultants, Inc.

Date Received: 09/22/15

Date Reported: 09/29/15

**Composite SP3 (A,B,C)**

1509136-003

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.25	1.7	5.8	mg/Kg
Barium	SW6010B	1	0.07	5.0	140	mg/Kg
Chromium	SW6010B	1	0.0500	5.0	120	mg/Kg
Cobalt	SW6010B	1	0.055	5.0	17	mg/Kg
Copper	SW6010B	1	0.650	5.0	27	mg/Kg
Lead	SW6010B	1	0.14	1.0	12	mg/Kg
Nickel	SW6010B	1	0.0500	5.0	140	mg/Kg
Vanadium	SW6010B	1	0.18	5.0	53	mg/Kg
Zinc	SW6010B	1	0.25	5.0	67	mg/Kg
TPH as Diesel	SW8015B(M)	1	0.500	2.0	10	mg/Kg
TPH as Motor Oil	SW8015B(M)	1	1.00	10	65	mg/Kg

**Composite SP4 (A,B,C)**

1509136-004

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.25	1.7	5.9	mg/Kg
Barium	SW6010B	1	0.07	5.0	140	mg/Kg
Chromium	SW6010B	1	0.0500	5.0	110	mg/Kg
Cobalt	SW6010B	1	0.055	5.0	20	mg/Kg
Copper	SW6010B	1	0.650	5.0	30	mg/Kg
Lead	SW6010B	1	0.14	1.0	11	mg/Kg
Nickel	SW6010B	1	0.0500	5.0	140	mg/Kg
Vanadium	SW6010B	1	0.18	5.0	58	mg/Kg
Zinc	SW6010B	1	0.25	5.0	63	mg/Kg
TPH as Diesel	SW8015B(M)	1	0.500	2.0	8.1	mg/Kg
TPH as Motor Oil	SW8015B(M)	1	1.00	10	45	mg/Kg



## Sample Result Summary

Report prepared for: Luann Beadle  
Geocon Consultants, Inc.

Date Received: 09/22/15  
Date Reported: 09/29/15  
1509136-005

RB

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<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
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All compounds were non-detectable for this sample.



## SAMPLE RESULTS

**Report prepared for:** Luann Beadle  
Geocon Consultants, Inc.

**Date Received:** 09/22/15  
**Date Reported:** 09/29/15

<b>Client Sample ID:</b>	Composite SP1 (A,B,C)	<b>Lab Sample ID:</b>	1509136-001A
<b>Project Name/Location:</b>	Napa County, CA	<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	E8721-02-40		
<b>Date/Time Sampled:</b>	09/21/15 /		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Antimony	SW6010B	9/24/15	09/25/15	1	0.20	5.0	ND		mg/Kg	427083	15380
Arsenic	SW6010B	9/24/15	09/25/15	1	0.25	1.7	6.6		mg/Kg	427083	15380
Barium	SW6010B	9/24/15	09/25/15	1	0.07	5.0	140		mg/Kg	427083	15380
Beryllium	SW6010B	9/24/15	09/25/15	1	0.0800	2.0	ND		mg/Kg	427083	15380
Cadmium	SW6010B	9/24/15	09/25/15	1	0.0550	1.0	ND		mg/Kg	427083	15380
Chromium	SW6010B	9/24/15	09/25/15	1	0.0500	5.0	78		mg/Kg	427083	15380
Cobalt	SW6010B	9/24/15	09/25/15	1	0.055	5.0	16		mg/Kg	427083	15380
Copper	SW6010B	9/24/15	09/25/15	1	0.650	5.0	31		mg/Kg	427083	15380
Lead	SW6010B	9/24/15	09/25/15	1	0.14	1.0	11		mg/Kg	427083	15380
Molybdenum	SW6010B	9/24/15	09/25/15	1	0.120	5.0	ND		mg/Kg	427083	15380
Nickel	SW6010B	9/24/15	09/25/15	1	0.0500	5.0	110		mg/Kg	427083	15380
Selenium	SW6010B	9/24/15	09/25/15	1	0.42	5.0	ND		mg/Kg	427083	15380
Silver	SW6010B	9/24/15	09/25/15	1	0.37	5.0	ND		mg/Kg	427083	15380
Thallium	SW6010B	9/24/15	09/25/15	1	0.49	7.5	ND		mg/Kg	427083	15380
Vanadium	SW6010B	9/24/15	09/25/15	1	0.18	5.0	60		mg/Kg	427083	15380
Zinc	SW6010B	9/24/15	09/25/15	1	0.25	5.0	69		mg/Kg	427101	15380

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Mercury	SW7471A	9/24/15	09/25/15	1	0.2	0.50	ND		mg/Kg	427081	15378

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
MTBE	SW8260B	NA	09/24/15	1	2.6	10	ND		ug/Kg	427093	NA
Benzene	SW8260B	NA	09/24/15	1	1.5	10	ND		ug/Kg	427093	NA
Toluene	SW8260B	NA	09/24/15	1	0.98	10	ND		ug/Kg	427093	NA
Ethyl Benzene	SW8260B	NA	09/24/15	1	0.86	10	ND		ug/Kg	427093	NA
m,p-Xylene	SW8260B	NA	09/24/15	1	1.9	10	ND		ug/Kg	427093	NA
o-Xylene	SW8260B	NA	09/24/15	1	0.66	5.0	ND		ug/Kg	427093	NA
(S) Dibromofluoromethane	SW8260B	NA	09/24/15	1	59.8	148	102		%	427093	NA
(S) Toluene-d8	SW8260B	NA	09/24/15	1	55.2	133	92.8		%	427093	NA
(S) 4-Bromofluorobenzene	SW8260B	NA	09/24/15	1	55.8	141	112		%	427093	NA



## SAMPLE RESULTS

**Report prepared for:** Luann Beadle  
Geocon Consultants, Inc.

**Date Received:** 09/22/15  
**Date Reported:** 09/29/15

<b>Client Sample ID:</b>	Composite SP1 (A,B,C)	<b>Lab Sample ID:</b>	1509136-001A
<b>Project Name/Location:</b>	Napa County, CA	<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	E8721-02-40		
<b>Date/Time Sampled:</b>	09/21/15 /		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Gasoline	8260TPH	9/24/15	09/24/15	1	30	100	ND		ug/Kg	427093	15386
(S) 4-Bromofluorobenzene	8260TPH	9/24/15	09/24/15	1	43.9	127	77.0		%	427093	15386

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Diesel	SW8015B(M)	9/22/15	09/24/15	1	1.00	4.0	11	x	mg/Kg	427090	15348
TPH as Motor Oil	SW8015B(M)	9/22/15	09/24/15	1	2.00	21	120		mg/Kg	427090	15348
Pentacosane (S)	SW8015B(M)	9/22/15	09/24/15	1	57.9	129	63.1		%	427090	15348

**NOTE:** x- Diesel result due to over-lapping of oil range organics within diesel quantified range



## SAMPLE RESULTS

**Report prepared for:** Luann Beadle  
Geocon Consultants, Inc.

**Date Received:** 09/22/15  
**Date Reported:** 09/29/15

<b>Client Sample ID:</b>	Composite SP2 (A,B,C)	<b>Lab Sample ID:</b>	1509136-002A
<b>Project Name/Location:</b>	Napa County, CA	<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	E8721-02-40		
<b>Date/Time Sampled:</b>	09/21/15 /		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Antimony	SW6010B	9/24/15	09/25/15	1	0.20	5.0	ND		mg/Kg	427083	15380
Arsenic	SW6010B	9/24/15	09/25/15	1	0.25	1.7	7.1		mg/Kg	427083	15380
Barium	SW6010B	9/24/15	09/25/15	1	0.07	5.0	130		mg/Kg	427083	15380
Beryllium	SW6010B	9/24/15	09/25/15	1	0.0800	2.0	ND		mg/Kg	427083	15380
Cadmium	SW6010B	9/24/15	09/25/15	1	0.0550	1.0	ND		mg/Kg	427083	15380
Chromium	SW6010B	9/24/15	09/25/15	1	0.0500	5.0	76		mg/Kg	427083	15380
Cobalt	SW6010B	9/24/15	09/25/15	1	0.055	5.0	17		mg/Kg	427083	15380
Copper	SW6010B	9/24/15	09/25/15	1	0.650	5.0	28		mg/Kg	427083	15380
Lead	SW6010B	9/24/15	09/25/15	1	0.14	1.0	11		mg/Kg	427083	15380
Molybdenum	SW6010B	9/24/15	09/25/15	1	0.120	5.0	ND		mg/Kg	427083	15380
Nickel	SW6010B	9/24/15	09/25/15	1	0.0500	5.0	110		mg/Kg	427083	15380
Selenium	SW6010B	9/24/15	09/25/15	1	0.42	5.0	ND		mg/Kg	427083	15380
Silver	SW6010B	9/24/15	09/25/15	1	0.37	5.0	ND		mg/Kg	427083	15380
Thallium	SW6010B	9/24/15	09/25/15	1	0.49	7.5	ND		mg/Kg	427083	15380
Vanadium	SW6010B	9/24/15	09/25/15	1	0.18	5.0	69		mg/Kg	427083	15380
Zinc	SW6010B	9/24/15	09/25/15	1	0.25	5.0	63		mg/Kg	427101	15380

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Mercury	SW7471A	9/24/15	09/25/15	1	0.2	0.50	ND		mg/Kg	427081	15378

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
MTBE	SW8260B	NA	09/25/15	1	2.6	10	ND		ug/Kg	427095	NA
Benzene	SW8260B	NA	09/25/15	1	1.5	10	ND		ug/Kg	427095	NA
Toluene	SW8260B	NA	09/25/15	1	0.98	10	ND		ug/Kg	427095	NA
Ethyl Benzene	SW8260B	NA	09/25/15	1	0.86	10	ND		ug/Kg	427095	NA
m,p-Xylene	SW8260B	NA	09/25/15	1	1.9	10	ND		ug/Kg	427095	NA
o-Xylene	SW8260B	NA	09/25/15	1	0.66	5.0	ND		ug/Kg	427095	NA
(S) Dibromofluoromethane	SW8260B	NA	09/25/15	1	59.8	148	100		%	427095	NA
(S) Toluene-d8	SW8260B	NA	09/25/15	1	55.2	133	103		%	427095	NA
(S) 4-Bromofluorobenzene	SW8260B	NA	09/25/15	1	55.8	141	111		%	427095	NA



## SAMPLE RESULTS

**Report prepared for:** Luann Beadle  
Geocon Consultants, Inc.

**Date Received:** 09/22/15  
**Date Reported:** 09/29/15

<b>Client Sample ID:</b>	Composite SP2 (A,B,C)	<b>Lab Sample ID:</b>	1509136-002A
<b>Project Name/Location:</b>	Napa County, CA	<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	E8721-02-40		
<b>Date/Time Sampled:</b>	09/21/15 /		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Gasoline	8260TPH	9/24/15	09/24/15	1	30	100	ND		ug/Kg	427093	15386
(S) 4-Bromofluorobenzene	8260TPH	9/24/15	09/24/15	1	43.9	127	56.5		%	427093	15386

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Diesel	SW8015B(M)	9/22/15	09/24/15	1	1.00	4.0	10	x	mg/Kg	427090	15348
TPH as Motor Oil	SW8015B(M)	9/22/15	09/24/15	1	2.00	21	100		mg/Kg	427090	15348
Pentacosane (S)	SW8015B(M)	9/22/15	09/24/15	1	57.9	129	68.1		%	427090	15348

**NOTE:** x- Diesel result due to over-lapping of oil range organics within diesel quantified range



## SAMPLE RESULTS

**Report prepared for:** Luann Beadle  
Geocon Consultants, Inc.

**Date Received:** 09/22/15  
**Date Reported:** 09/29/15

<b>Client Sample ID:</b>	Composite SP3 (A,B,C)	<b>Lab Sample ID:</b>	1509136-003A
<b>Project Name/Location:</b>	Napa County, CA	<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	E8721-02-40		
<b>Date/Time Sampled:</b>	09/21/15 /		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Antimony	SW6010B	9/24/15	09/25/15	1	0.20	5.0	ND		mg/Kg	427083	15380
Arsenic	SW6010B	9/24/15	09/25/15	1	0.25	1.7	5.8		mg/Kg	427083	15380
Barium	SW6010B	9/24/15	09/25/15	1	0.07	5.0	140		mg/Kg	427083	15380
Beryllium	SW6010B	9/24/15	09/25/15	1	0.0800	2.0	ND		mg/Kg	427083	15380
Cadmium	SW6010B	9/24/15	09/25/15	1	0.0550	1.0	ND		mg/Kg	427083	15380
Chromium	SW6010B	9/24/15	09/25/15	1	0.0500	5.0	120		mg/Kg	427083	15380
Cobalt	SW6010B	9/24/15	09/25/15	1	0.055	5.0	17		mg/Kg	427083	15380
Copper	SW6010B	9/24/15	09/25/15	1	0.650	5.0	27		mg/Kg	427083	15380
Lead	SW6010B	9/24/15	09/25/15	1	0.14	1.0	12		mg/Kg	427083	15380
Molybdenum	SW6010B	9/24/15	09/25/15	1	0.120	5.0	ND		mg/Kg	427083	15380
Nickel	SW6010B	9/24/15	09/25/15	1	0.0500	5.0	140		mg/Kg	427083	15380
Selenium	SW6010B	9/24/15	09/25/15	1	0.42	5.0	ND		mg/Kg	427083	15380
Silver	SW6010B	9/24/15	09/25/15	1	0.37	5.0	ND		mg/Kg	427083	15380
Thallium	SW6010B	9/24/15	09/25/15	1	0.49	7.5	ND		mg/Kg	427083	15380
Vanadium	SW6010B	9/24/15	09/25/15	1	0.18	5.0	53		mg/Kg	427083	15380
Zinc	SW6010B	9/24/15	09/25/15	1	0.25	5.0	67		mg/Kg	427101	15380

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Mercury	SW7471A	9/24/15	09/25/15	1	0.2	0.50	ND		mg/Kg	427081	15378

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
MTBE	SW8260B	NA	09/25/15	1	2.6	10	ND		ug/Kg	427095	NA
Benzene	SW8260B	NA	09/25/15	1	1.5	10	ND		ug/Kg	427095	NA
Toluene	SW8260B	NA	09/25/15	1	0.98	10	ND		ug/Kg	427095	NA
Ethyl Benzene	SW8260B	NA	09/25/15	1	0.86	10	ND		ug/Kg	427095	NA
m,p-Xylene	SW8260B	NA	09/25/15	1	1.9	10	ND		ug/Kg	427095	NA
o-Xylene	SW8260B	NA	09/25/15	1	0.66	5.0	ND		ug/Kg	427095	NA
(S) Dibromofluoromethane	SW8260B	NA	09/25/15	1	59.8	148	98.1		%	427095	NA
(S) Toluene-d8	SW8260B	NA	09/25/15	1	55.2	133	103		%	427095	NA
(S) 4-Bromofluorobenzene	SW8260B	NA	09/25/15	1	55.8	141	111		%	427095	NA



## SAMPLE RESULTS

**Report prepared for:** Luann Beadle  
Geocon Consultants, Inc.

**Date Received:** 09/22/15  
**Date Reported:** 09/29/15

<b>Client Sample ID:</b>	Composite SP3 (A,B,C)	<b>Lab Sample ID:</b>	1509136-003A
<b>Project Name/Location:</b>	Napa County, CA	<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	E8721-02-40		
<b>Date/Time Sampled:</b>	09/21/15 /		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Gasoline	8260TPH	9/24/15	09/24/15	1	30	100	ND		ug/Kg	427093	15386
(S) 4-Bromofluorobenzene	8260TPH	9/24/15	09/24/15	1	43.9	127	62.0		%	427093	15386

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Diesel	SW8015B(M)	9/22/15	09/24/15	1	0.500	2.0	10	x	mg/Kg	427090	15348
TPH as Motor Oil	SW8015B(M)	9/22/15	09/24/15	1	1.00	10	65		mg/Kg	427090	15348
Pentacosane (S)	SW8015B(M)	9/22/15	09/24/15	1	57.9	129	80.6		%	427090	15348

**NOTE:** x- Diesel result due to over-lapping of oil range organics within diesel quantified range



## SAMPLE RESULTS

**Report prepared for:** Luann Beadle  
Geocon Consultants, Inc.

**Date Received:** 09/22/15  
**Date Reported:** 09/29/15

<b>Client Sample ID:</b>	Composite SP4 (A,B,C)	<b>Lab Sample ID:</b>	1509136-004A
<b>Project Name/Location:</b>	Napa County, CA	<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	E8721-02-40		
<b>Date/Time Sampled:</b>	09/21/15 /		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Antimony	SW6010B	9/24/15	09/25/15	1	0.20	5.0	ND		mg/Kg	427083	15380
Arsenic	SW6010B	9/24/15	09/25/15	1	0.25	1.7	5.9		mg/Kg	427083	15380
Barium	SW6010B	9/24/15	09/25/15	1	0.07	5.0	140		mg/Kg	427083	15380
Beryllium	SW6010B	9/24/15	09/25/15	1	0.0800	2.0	ND		mg/Kg	427083	15380
Cadmium	SW6010B	9/24/15	09/25/15	1	0.0550	1.0	ND		mg/Kg	427083	15380
Chromium	SW6010B	9/24/15	09/25/15	1	0.0500	5.0	110		mg/Kg	427083	15380
Cobalt	SW6010B	9/24/15	09/25/15	1	0.055	5.0	20		mg/Kg	427083	15380
Copper	SW6010B	9/24/15	09/25/15	1	0.650	5.0	30		mg/Kg	427083	15380
Lead	SW6010B	9/24/15	09/25/15	1	0.14	1.0	11		mg/Kg	427083	15380
Molybdenum	SW6010B	9/24/15	09/25/15	1	0.120	5.0	ND		mg/Kg	427083	15380
Nickel	SW6010B	9/24/15	09/25/15	1	0.0500	5.0	140		mg/Kg	427083	15380
Selenium	SW6010B	9/24/15	09/25/15	1	0.42	5.0	ND		mg/Kg	427083	15380
Silver	SW6010B	9/24/15	09/25/15	1	0.37	5.0	ND		mg/Kg	427083	15380
Thallium	SW6010B	9/24/15	09/25/15	1	0.49	7.5	ND		mg/Kg	427083	15380
Vanadium	SW6010B	9/24/15	09/25/15	1	0.18	5.0	58		mg/Kg	427083	15380
Zinc	SW6010B	9/24/15	09/25/15	1	0.25	5.0	63		mg/Kg	427101	15380

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Mercury	SW7471A	9/24/15	09/25/15	1	0.2	0.50	ND		mg/Kg	427081	15378

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
MTBE	SW8260B	NA	09/24/15	1	2.6	10	ND		ug/Kg	427093	NA
Benzene	SW8260B	NA	09/24/15	1	1.5	10	ND		ug/Kg	427093	NA
Toluene	SW8260B	NA	09/24/15	1	0.98	10	ND		ug/Kg	427093	NA
Ethyl Benzene	SW8260B	NA	09/24/15	1	0.86	10	ND		ug/Kg	427093	NA
m,p-Xylene	SW8260B	NA	09/24/15	1	1.9	10	ND		ug/Kg	427093	NA
o-Xylene	SW8260B	NA	09/24/15	1	0.66	5.0	ND		ug/Kg	427093	NA
(S) Dibromofluoromethane	SW8260B	NA	09/24/15	1	59.8	148	102		%	427093	NA
(S) Toluene-d8	SW8260B	NA	09/24/15	1	55.2	133	93.8		%	427093	NA
(S) 4-Bromofluorobenzene	SW8260B	NA	09/24/15	1	55.8	141	113		%	427093	NA



## SAMPLE RESULTS

**Report prepared for:** Luann Beadle  
Geocon Consultants, Inc.

**Date Received:** 09/22/15  
**Date Reported:** 09/29/15

<b>Client Sample ID:</b>	Composite SP4 (A,B,C)	<b>Lab Sample ID:</b>	1509136-004A
<b>Project Name/Location:</b>	Napa County, CA	<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	E8721-02-40		
<b>Date/Time Sampled:</b>	09/21/15 /		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Gasoline	8260TPH	9/24/15	09/24/15	1	30	100	ND		ug/Kg	427093	15386
(S) 4-Bromofluorobenzene	8260TPH	9/24/15	09/24/15	1	43.9	127	60.9		%	427093	15386

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Diesel	SW8015B(M)	9/24/15	09/24/15	1	0.500	2.0	8.1	x	mg/Kg	427090	15375
TPH as Motor Oil	SW8015B(M)	9/24/15	09/24/15	1	1.00	10	45		mg/Kg	427090	15375
Pentacosane (S)	SW8015B(M)	9/24/15	09/24/15	1	57.9	129	74.0		%	427090	15375

**NOTE:** x- Diesel result due to over-lapping of oil range organics within diesel quantified range



### SAMPLE RESULTS

**Report prepared for:** Luann Beadle  
Geocon Consultants, Inc.

**Date Received:** 09/22/15  
**Date Reported:** 09/29/15

<b>Client Sample ID:</b>	RB	<b>Lab Sample ID:</b>	1509136-005A
<b>Project Name/Location:</b>	Napa County, CA	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	E8721-02-40		
<b>Date/Time Sampled:</b>	09/21/15 / 12:19		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Lead	E200.7	9/22/15	09/24/15	1	0.0050	0.015	ND		mg/L	427072	15369



### MB Summary Report

<b>Work Order:</b>	1509136	<b>Prep Method:</b>	3546_TPHSG	<b>Prep Date:</b>	09/22/15	<b>Prep Batch:</b>	15348
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW8015B(M)	<b>Analyzed Date:</b>	09/22/15	<b>Analytical Batch:</b>	427057
<b>Units:</b>	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
TPH as Diesel (SG)	0.66	2.0	ND	
TPH as Motor Oil (SG)	1.0	10	ND	
Pentacosane (S)			100	

<b>Work Order:</b>	1509136	<b>Prep Method:</b>	200.7	<b>Prep Date:</b>	09/22/15	<b>Prep Batch:</b>	15369
<b>Matrix:</b>	Water	<b>Analytical Method:</b>	E200.7	<b>Analyzed Date:</b>	09/24/15	<b>Analytical Batch:</b>	427072
<b>Units:</b>	mg/L						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Antimony	0.004	0.010	ND	
Arsenic	0.005	0.010	0.0075	
Barium	0.002	0.010	ND	
Beryllium	0.002	0.005	ND	
Cadmium	0.001	0.005	ND	
Chromium	0.002	0.005	ND	
Cobalt	0.002	0.005	0.0024	
Copper	0.003	0.010	ND	
Lead	0.005	0.015	ND	
Molybdenum	0.002	0.010	ND	
Nickel	0.002	0.010	ND	
Selenium	0.004	0.020	ND	
Silver	0.002	0.005	0.0036	
Thallium	0.004	0.010	ND	
Vanadium	0.004	0.010	ND	
Zinc	0.002	0.010	ND	

<b>Work Order:</b>	1509136	<b>Prep Method:</b>	3546_TPH	<b>Prep Date:</b>	09/24/15	<b>Prep Batch:</b>	15375
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW8015B	<b>Analyzed Date:</b>	09/24/15	<b>Analytical Batch:</b>	427090
<b>Units:</b>	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
TPH as Diesel	0.575	2.0	1.3	
TPH as Heating Oil	2.50	2.0	ND	
TPH as Motor Oil	1.4	10	ND	
Pentacosane (S)			73.5	



### MB Summary Report

<b>Work Order:</b>	1509136	<b>Prep Method:</b>	7471	<b>Prep Date:</b>	09/24/15	<b>Prep Batch:</b>	15378
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW7471A	<b>Analyzed Date:</b>	09/25/15	<b>Analytical Batch:</b>	427081
<b>Units:</b>	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
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Mercury 0.2 0.50 ND

<b>Work Order:</b>	1509136	<b>Prep Method:</b>	3050	<b>Prep Date:</b>	09/24/15	<b>Prep Batch:</b>	15380
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW6010B	<b>Analyzed Date:</b>	09/25/15	<b>Analytical Batch:</b>	427083
<b>Units:</b>	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
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Antimony 0.20 5.0 0.28  
 Arsenic 0.25 1.7 ND  
 Barium 0.07 5.0 0.41  
 Beryllium 0.0800 2.0 ND  
 Cadmium 0.055 1.0 ND  
 Chromium 0.050 5.0 0.14  
 Cobalt 0.055 5.0 ND  
 Copper 0.65 5.0 ND  
 Lead 0.14 1.0 0.31  
 Molybdenum 0.12 5.0 ND  
 Nickel 0.050 5.0 ND  
 Selenium 0.42 5.0 ND  
 Silver 0.37 5.0 ND  
 Thallium 0.49 5.0 ND  
 Vanadium 0.18 5.0 ND

<b>Work Order:</b>	1509136	<b>Prep Method:</b>	5035	<b>Prep Date:</b>	09/25/15	<b>Prep Batch:</b>	15385
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	8260TPH	<b>Analyzed Date:</b>	09/25/15	<b>Analytical Batch:</b>	427095
<b>Units:</b>	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
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TPH as Gasoline 30 100 38  
 (S) 4-Bromofluorobenzene 105



### MB Summary Report

<b>Work Order:</b>	1509136	<b>Prep Method:</b>	5035	<b>Prep Date:</b>	09/24/15	<b>Prep Batch:</b>	15386
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	8260TPH	<b>Analyzed Date:</b>	09/24/15	<b>Analytical Batch:</b>	427093
<b>Units:</b>	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
TPH as Gasoline	30	100	44	
(S) 4-Bromofluorobenzene			104	



## MB Summary Report

<b>Work Order:</b>	1509136	<b>Prep Method:</b>	NA	<b>Prep Date:</b>	NA	<b>Prep Batch:</b>	NA
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW8260B	<b>Analyzed Date:</b>	09/24/15	<b>Analytical Batch:</b>	427093
<b>Units:</b>	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
Dichlorodifluoromethane	4.4	10	ND		
Isopropyl Alcohol	4.6	10	ND		
Vinyl Chloride	2.6	10	ND		
Bromomethane	4.7	10	ND		
Trichlorofluoromethane	2.9	10	ND		
1,1-Dichloroethene	1.5	10	ND		
Freon 113	3.7	10	ND		
Methylene Chloride	2.0	50	ND		
trans-1,2-Dichloroethene	1.1	10	ND		
MTBE	2.6	10	ND		
tert-Butanol	21	50	ND		
Diisopropyl ether (DIPE)	2.2	10	ND		
1,1-Dichloroethane	1.3	10	ND		
ETBE	2.4	10	ND		
cis-1,2-Dichloroethene	1.8	10	ND		
2,2-Dichloropropane	1.2	10	ND		
Bromochloromethane	2.3	10	ND		
Chloroform	1.2	10	ND		
Carbon Tetrachloride	1.6	10	ND		
1,1,1-Trichloroethane	1.2	10	ND		
1,1-Dichloropropene	1.4	10	ND		
Benzene	1.5	10	ND		
TAME	2.1	10	ND		
1,2-Dichloroethane	1.9	10	ND		
Trichloroethylene	3.9	10	ND		
Dibromomethane	2.2	10	ND		
1,2-Dichloropropane	1.3	10	ND		
Bromodichloromethane	1.1	10	ND		
cis-1,3-Dichloropropene	1.4	10	ND		
Toluene	0.98	10	ND		
Tetrachloroethylene	1.8	10	ND		
trans-1,3-Dichloropropene	1.2	10	ND		
1,1,2-Trichloroethane	1.8	10	ND		
Dibromochloromethane	1.1	10	ND		
1,3-Dichloropropane	2.1	10	ND		
1,2-Dibromoethane	1.7	10	ND		
Ethyl Benzene	0.86	10	ND		
Chlorobenzene	4.2	10	ND		
1,1,1,2-Tetrachloroethane	0.86	10	ND		
m,p-Xylene	1.9	10	ND		
o-Xylene	0.66	5.0	ND		



## MB Summary Report

<b>Work Order:</b>	1509136	<b>Prep Method:</b>	NA	<b>Prep Date:</b>	NA	<b>Prep Batch:</b>	NA
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW8260B	<b>Analyzed Date:</b>	09/24/15	<b>Analytical Batch:</b>	427093
<b>Units:</b>	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
Styrene	0.77	10	ND		
Bromoform	1.9	10	ND		
Isopropyl Benzene	1.2	10	ND		
n-Propylbenzene	1.4	10	ND		
Bromobenzene	1.2	10	ND		
1,1,2,2-Tetrachloroethane	3.0	10	ND		
1,3,5-Trimethylbenzene	1.1	10	ND		
1,2,3-Trichloropropane	3.3	10	ND		
4-Chlorotoluene	1.6	10	ND		
2-Chlorotoluene	1.6	10	ND		
tert-Butylbenzene	1.4	10	ND		
1,2,4-Trimethylbenzene	1.1	10	ND		
sec-Butyl Benzene	1.6	10	ND		
p-Isopropyltoluene	1.5	10	ND		
1,3-Dichlorobenzene	1.8	10	ND		
1,4-Dichlorobenzene	1.5	10	ND		
n-Butylbenzene	2.2	10	ND		
1,2-Dichlorobenzene	1.3	10	ND		
1,2-Dibromo-3-Chloropropane	4.2	10	ND		
Hexachlorobutadiene	2.6	10	ND		
1,2,4-Trichlorobenzene	2.1	10	ND		
Naphthalene	2.8	10	ND		
1,2,3-Trichlorobenzene	2.9	10	ND		
Ethanol	5.0	20	ND	TIC	
(S) Dibromofluoromethane			94.1		
(S) Toluene-d8			89.0		
(S) 4-Bromofluorobenzene			93.6		



## MB Summary Report

<b>Work Order:</b>	1509136	<b>Prep Method:</b>	NA	<b>Prep Date:</b>	NA	<b>Prep Batch:</b>	NA
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW8260B	<b>Analyzed Date:</b>	09/25/15	<b>Analytical Batch:</b>	427095
<b>Units:</b>	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
Dichlorodifluoromethane	4.4	10	ND		
Isopropyl Alcohol	4.6	10	ND		
Vinyl Chloride	2.6	10	ND		
Bromomethane	4.7	10	ND		
Trichlorofluoromethane	2.9	10	ND		
1,1-Dichloroethene	1.5	10	ND		
Freon 113	3.7	10	ND		
Methylene Chloride	2.0	50	ND		
trans-1,2-Dichloroethene	1.1	10	ND		
MTBE	2.6	10	ND		
tert-Butanol	21	50	ND		
Diisopropyl ether (DIPE)	2.2	10	ND		
1,1-Dichloroethane	1.3	10	ND		
ETBE	2.4	10	ND		
cis-1,2-Dichloroethene	1.8	10	ND		
2,2-Dichloropropane	1.2	10	ND		
Bromochloromethane	2.3	10	ND		
Chloroform	1.2	10	ND		
Carbon Tetrachloride	1.6	10	ND		
1,1,1-Trichloroethane	1.2	10	ND		
1,1-Dichloropropene	1.4	10	ND		
Benzene	1.5	10	ND		
TAME	2.1	10	ND		
1,2-Dichloroethane	1.9	10	ND		
Trichloroethylene	3.9	10	ND		
Dibromomethane	2.2	10	ND		
1,2-Dichloropropane	1.3	10	ND		
Bromodichloromethane	1.1	10	ND		
cis-1,3-Dichloropropene	1.4	10	ND		
Toluene	0.98	10	ND		
Tetrachloroethylene	1.8	10	ND		
trans-1,3-Dichloropropene	1.2	10	ND		
1,1,2-Trichloroethane	1.8	10	ND		
Dibromochloromethane	1.1	10	ND		
1,3-Dichloropropane	2.1	10	ND		
1,2-Dibromoethane	1.7	10	ND		
Ethyl Benzene	0.86	10	ND		
Chlorobenzene	4.2	10	ND		
1,1,1,2-Tetrachloroethane	0.86	10	ND		
m,p-Xylene	1.9	10	ND		
o-Xylene	0.66	5.0	ND		



## MB Summary Report

<b>Work Order:</b>	1509136	<b>Prep Method:</b>	NA	<b>Prep Date:</b>	NA	<b>Prep Batch:</b>	NA
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW8260B	<b>Analyzed Date:</b>	09/25/15	<b>Analytical Batch:</b>	427095
<b>Units:</b>	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
Styrene	0.77	10	ND		
Bromoform	1.9	10	ND		
Isopropyl Benzene	1.2	10	ND		
n-Propylbenzene	1.4	10	ND		
Bromobenzene	1.2	10	ND		
1,1,2,2-Tetrachloroethane	3.0	10	ND		
1,3,5-Trimethylbenzene	1.1	10	ND		
1,2,3-Trichloropropane	3.3	10	ND		
4-Chlorotoluene	1.6	10	ND		
2-Chlorotoluene	1.6	10	ND		
tert-Butylbenzene	1.4	10	ND		
1,2,4-Trimethylbenzene	1.1	10	ND		
sec-Butyl Benzene	1.6	10	ND		
p-Isopropyltoluene	1.5	10	ND		
1,3-Dichlorobenzene	1.8	10	ND		
1,4-Dichlorobenzene	1.5	10	ND		
n-Butylbenzene	2.2	10	ND		
1,2-Dichlorobenzene	1.3	10	ND		
1,2-Dibromo-3-Chloropropane	4.2	10	ND		
Hexachlorobutadiene	2.6	10	ND		
1,2,4-Trichlorobenzene	2.1	10	ND		
Naphthalene	2.8	10	ND		
1,2,3-Trichlorobenzene	2.9	10	ND		
Ethanol	5.0	20	ND	TIC	
(S) Dibromofluoromethane			83.8		
(S) Toluene-d8			88.1		
(S) 4-Bromofluorobenzene			82.6		

<b>Work Order:</b>	1509136	<b>Prep Method:</b>	NA	<b>Prep Date:</b>	NA	<b>Prep Batch:</b>	NA
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW6010B	<b>Analyzed Date:</b>	09/25/15	<b>Analytical Batch:</b>	427101
<b>Units:</b>	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
Barium	0.07	5.0	0.40		
Lead	0.14	1.0	ND		
Zinc	0.25	5.0	0.25		



## LCS/LCSD Summary Report

*Raw values are used in quality control assessment.*

<b>Work Order:</b>	1509136	<b>Prep Method:</b>	3546_TPHSG	<b>Prep Date:</b>	09/22/15	<b>Prep Batch:</b>	15348
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW8015B(M)	<b>Analyzed Date:</b>	09/22/15	<b>Analytical Batch:</b>	427057
<b>Units:</b>	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Diesel (SG)	0.66	2.0	ND	25	80.8	94.7	15.8	50.8 - 111	30	
Pentacosane (S)			ND	200	121	130		49.9 - 144		

<b>Work Order:</b>	1509136	<b>Prep Method:</b>	200.7	<b>Prep Date:</b>	09/22/15	<b>Prep Batch:</b>	15369
<b>Matrix:</b>	Water	<b>Analytical Method:</b>	E200.7	<b>Analyzed Date:</b>	09/24/15	<b>Analytical Batch:</b>	427072
<b>Units:</b>	mg/L						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Antimony	0.004	0.010	ND	1	101	99.1	2.08	75 - 125	30	
Arsenic	0.005	0.010	0.0075	1	98.2	97.9	0.316	75 - 125	30	
Barium	0.002	0.010	ND	1	105	98.6	1.41	75 - 125	30	
Beryllium	0.002	0.005	ND	1	109	104	5.51	75 - 125	30	
Cadmium	0.001	0.005	ND	1	101	99.3	1.48	80 - 120	30	
Chromium	0.002	0.005	ND	1	101	97.9	3.35	80 - 120	30	
Cobalt	0.002	0.005	0.0024	1	102	99.0	2.65	80 - 120	30	
Copper	0.003	0.010	ND	1	107	100	6.56	80 - 120	30	
Lead	0.005	0.015	ND	1	101	98.3	2.63	80 - 120	30	
Molybdenum	0.002	0.010	ND	1	101	98.0	3.10	80 - 120	30	
Nickel	0.002	0.010	ND	1	102	98.8	3.62	80 - 120	30	
Selenium	0.004	0.020	ND	1	98.0	95.3	2.72	80 - 120	30	
Silver	0.002	0.005	0.0036	1	105	99.0	6.05	80 - 120	30	
Thallium	0.004	0.010	ND	1	99.4	97.9	1.49	80 - 120	30	
Vanadium	0.004	0.010	ND	1	104	98.1	5.82	80 - 120	30	
Zinc	0.002	0.010	ND	1	101	99.3	2.02	80 - 120	30	

<b>Work Order:</b>	1509136	<b>Prep Method:</b>	3546_TPH	<b>Prep Date:</b>	09/24/15	<b>Prep Batch:</b>	15375
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW8015B	<b>Analyzed Date:</b>	09/24/15	<b>Analytical Batch:</b>	427090
<b>Units:</b>	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Diesel	0.57	2.0	ND	25	73.4	66.2	10.3	50.8 - 111	30	
Pentacosane (S)			ND	200	82.9	75.6		61.5 - 133		



## LCS/LCSD Summary Report

*Raw values are used in quality control assessment.*

<b>Work Order:</b>	1509136	<b>Prep Method:</b>	7471	<b>Prep Date:</b>	09/24/15	<b>Prep Batch:</b>	15378
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW7471A	<b>Analyzed Date:</b>	09/25/15	<b>Analytical Batch:</b>	427081
<b>Units:</b>	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Mercury	0.2	0.50	ND	1.25	106	97.3	8.08	80.5 - 133	30	

<b>Work Order:</b>	1509136	<b>Prep Method:</b>	3050	<b>Prep Date:</b>	09/24/15	<b>Prep Batch:</b>	15380
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW6010B	<b>Analyzed Date:</b>	09/25/15	<b>Analytical Batch:</b>	427083
<b>Units:</b>	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Antimony	0.20	5.0	0.28	50	103	102	0.878	30.7 - 130	30	
Arsenic	0.25	1.7	ND	50	108	106	1.96	71 - 121	30	
Barium	0.07	5.0	0.41	50	105	104	0.861	70.2 - 130	30	
Beryllium	0.0800	2.0	ND	50	99.1	96.0	3.23	73.3 - 115	30	
Cadmium	0.055	1.0	ND	50	108	107	1.02	68.7 - 110	30	
Chromium	0.050	5.0	0.14	50	106	105	1.33	76 - 116	30	
Cobalt	0.055	5.0	ND	50	110	109	0.822	57.4 - 122	30	
Copper	0.65	5.0	ND	50	107	105	2.08	74.8 - 119	30	
Lead	0.14	1.0	0.31	50	108	105	3.01	67.9 - 118	30	
Molybdenum	0.12	5.0	ND	50	106	106	0.189	62.9 - 123	30	
Nickel	0.050	5.0	ND	50	104	103	1.36	61.5 - 122	30	
Selenium	0.42	5.0	ND	50	105	104	0.573	62 - 111	30	
Silver	0.37	5.0	ND	50	101	98.9	2.09	81.1 - 109	30	
Thallium	0.49	5.0	ND	50	106	107	1.13	39.2 - 125	30	
Vanadium	0.18	5.0	ND	50	105	104	0.765	65.8 - 122	30	

<b>Work Order:</b>	1509136	<b>Prep Method:</b>	5035	<b>Prep Date:</b>	09/25/15	<b>Prep Batch:</b>	15385
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	8260TPH	<b>Analyzed Date:</b>	09/25/15	<b>Analytical Batch:</b>	427095
<b>Units:</b>	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Gasoline	30	100	38	1000	80.3	101	22.9	64.0 - 133.2	30	
(S) 4-Bromofluorobenzene			105	50	98.1	93.4		43.9 - 127		



## LCS/LCSD Summary Report

*Raw values are used in quality control assessment.*

<b>Work Order:</b>	1509136	<b>Prep Method:</b>	5035	<b>Prep Date:</b>	09/24/15	<b>Prep Batch:</b>	15386
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	8260TPH	<b>Analyzed Date:</b>	09/24/15	<b>Analytical Batch:</b>	427093
<b>Units:</b>	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Gasoline	30	100	44	1000	95.5	89.0	6.99	64.0 - 133.2	30	
(S) 4-Bromofluorobenzene			104	50	102	90.6		43.9 - 127		

<b>Work Order:</b>	1509136	<b>Prep Method:</b>	NA	<b>Prep Date:</b>	NA	<b>Prep Batch:</b>	NA
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW8260B	<b>Analyzed Date:</b>	09/24/15	<b>Analytical Batch:</b>	427093
<b>Units:</b>	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	1.5	10	ND	50	102	112	9.49	53.7 - 139	30	
Benzene	1.5	10	ND	50	96.3	104	8.06	66.5 - 135	30	
Trichloroethylene	3.9	10	ND	50	99.4	105	5.31	57.5 - 150	30	
Toluene	0.98	10	ND	50	92.6	101	8.92	56.8 - 134	30	
Chlorobenzene	4.2	10	ND	50	94.8	101	5.89	57.4 - 134	30	
(S) Dibromofluoromethane			ND	50	80.5	85.7		59.8 - 148		
(S) Toluene-d8			ND	50	74.8	77.6		55.2 - 133		
(S) 4-Bromofluorobenzene			ND	50	73.8	77.0		55.8 - 141		

<b>Work Order:</b>	1509136	<b>Prep Method:</b>	NA	<b>Prep Date:</b>	NA	<b>Prep Batch:</b>	NA
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW8260B	<b>Analyzed Date:</b>	09/25/15	<b>Analytical Batch:</b>	427095
<b>Units:</b>	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	1.5	10	ND	50	90.2	85.0	5.89	53.7 - 139	30	
Benzene	1.5	10	ND	50	91.2	87.1	4.55	66.5 - 135	30	
Trichloroethylene	3.9	10	ND	50	89.8	83.8	6.96	57.5 - 150	30	
Toluene	0.98	10	ND	50	94.0	86.9	7.90	56.8 - 134	30	
Chlorobenzene	4.2	10	ND	50	91.8	85.7	6.85	57.4 - 134	30	
(S) Dibromofluoromethane			ND	50	92.6	86.8		59.8 - 148		
(S) Toluene-d8			ND	50	93.0	85.0		55.2 - 133		
(S) 4-Bromofluorobenzene			ND	50	92.2	82.5		55.8 - 141		



## LCS/LCSD Summary Report

*Raw values are used in quality control assessment.*

<b>Work Order:</b>	1509136	<b>Prep Method:</b>	NA	<b>Prep Date:</b>	NA	<b>Prep Batch:</b>	NA
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW6010B	<b>Analyzed Date:</b>	09/25/15	<b>Analytical Batch:</b>	427101
<b>Units:</b>	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Barium	0.07	5.0	0.40	50	99.6	102	2.58	70.2 - 130	30	
Lead	0.14	1.0	ND	50	98.2	101	2.41	67.9 - 118	30	
Zinc	0.25	5.0	0.25	50	98.0	99.3	1.32	59.9 - 122	30	



## MS/MSD Summary Report

*Raw values are used in quality control assessment.*

<b>Work Order:</b>	1509136	<b>Prep Method:</b>	3546_TPH	<b>Prep Date:</b>	09/24/15	<b>Prep Batch:</b>	15375
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW8015B(M)	<b>Analyzed Date:</b>	09/24/15	<b>Analytical Batch:</b>	427090
<b>Spiked Sample:</b>	1509136-004A						
<b>Units:</b>	mg/Kg						

Parameters	MDL	PQL	Sample Conc.	Spike Conc.	MS % Recovery	MSD % Recovery	MS/MSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Diesel	0.50	2.0	322.679	25	74.6	78.6	3.72	50.3 - 115	30	
Pentacosane (S)				200	79.6	91.7		57.9 - 129		

<b>Work Order:</b>	1509136	<b>Prep Method:</b>	NA	<b>Prep Date:</b>	NA	<b>Prep Batch:</b>	NA
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW8260B	<b>Analyzed Date:</b>	09/24/15	<b>Analytical Batch:</b>	427093
<b>Spiked Sample:</b>	1509136-004A						
<b>Units:</b>	ug/Kg						

Parameters	MDL	PQL	Sample Conc.	Spike Conc.	MS % Recovery	MSD % Recovery	MS/MSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Benzene	1.5	10	0	50	98.9	103	4.35	66.5 - 135	30	
Toluene	0.98	10	0	50	101	98.2	3.04	56.8 - 134	30	
(S) Dibromofluoromethane				50	102	108		59.8 - 148		
(S) Toluene-d8				50	98.7	95.0		55.2 - 133		
(S) 4-Bromofluorobenzene				50	115	114		55.8 - 141		



## Laboratory Qualifiers and Definitions

### DEFINITIONS:

<b>Accuracy/Bias (% Recovery)</b> - The closeness of agreement between an observed value and an accepted reference value.
<b>Blank (Method/Preparation Blank)</b> -MB/PB - An analyte-free matrix to which all reagents are added in the same volumes/proportions as used in sample processing. The method blank is used to document contamination resulting from the analytical process.
<b>Duplicate</b> - a field sample and/or laboratory QC sample prepared in duplicate following all of the same processes and procedures used on the original sample (sample duplicate, LCSD, MSD)
<b>Laboratory Control Sample (LCS ad LCSD)</b> - A known matrix spiked with compounds representative of the target analyte(s). This is used to document laboratory performance.
<b>Matrix</b> - the component or substrate that contains the analyte of interest (e.g., - groundwater, sediment, soil, waste water, etc)
<b>Matrix Spike (MS/MSD)</b> - Client sample spiked with identical concentrations of target analyte (s). The spiking occurs prior to the sample preparation and analysis. They are used to document the precision and bias of a method in a given sample matrix.
<b>Method Detection Limit (MDL)</b> - the minimum concentration of a substance that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero
<b>Practical Quantitation Limit (PQL)</b> - a laboratory determined value at 2 to 5 times above the MDL that can be reproduced in a manner that results in a 99% confidence level that the result is both accurate and precise. PQLs reflect all preparation factors and/or dilution factors that have been applied to the sample during the preparation and/or analytical processes.
<b>Precision (%RPD)</b> - The agreement among a set of replicate/duplicate measurements without regard to known value of the replicates
<b>Surrogate (S) or (Surr)</b> - An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. Surrogates are used in most organic analysis to demonstrate matrix compatibility with the chosen method of analysis
<b>Tentatively Identified Compound (TIC)</b> - A compound not contained within the analytical calibration standards but present in the GCMS library of defined compounds. When the library is searched for an unknown compound, it can frequently give a tentative identification to the compound based on retention time and primary and secondary ion match. TICs are reported as estimates and are candidates for further investigation.
<b>Units:</b> the unit of measure used to express the reported result - <b>mg/L</b> and <b>mg/Kg</b> (equivalent to PPM - parts per million in <b>liquid</b> and <b>solid</b> ), <b>ug/L</b> and <b>ug/Kg</b> (equivalent to PPB - parts per billion in <b>liquid</b> and <b>solid</b> ), <b>ug/m<sup>3</sup></b> , <b>mg.m<sup>3</sup></b> , <b>ppbv</b> and <b>ppmv</b> (all units of measure for reporting concentrations in air), % (equivalent to 10000 ppm or 1,000,000 ppb), <b>ug/Wipe</b> ( concentration found on the surface of a single Wipe usually taken over a 100cm <sup>2</sup> surface)

### LABORATORY QUALIFIERS:

<p><b>B</b> - Indicates when the analyte is found in the associated method or preparation blank</p> <p><b>D</b> - Surrogate is not recoverable due to the necessary dilution of the sample</p> <p><b>E</b> - Indicates the reportable value is outside of the calibration range of the instrument but within the linear range of the instrument (unless otherwise noted) Values reported with an E qualifier should be considered as estimated.</p> <p><b>H</b>- Indicates that the recommended holding time for the analyte or compound has been exceeded</p> <p><b>J</b>- Indicates a value between the method MDL and PQL and that the reported concentration should be considered as estimated rather the quantitative</p> <p><b>NA</b> - Not Analyzed</p> <p><b>N/A</b> - Not Applicable</p> <p><b>NR</b> - Not recoverable - a matrix spike concentration is not recoverable due to a concentration within the original sample that is greater than four times the spike concentration added</p> <p><b>R</b>- The % RPD between a duplicate set of samples is outside of the absolute values established by laboratory control charts</p> <p><b>S</b>- Spike recovery is outside of established method and/or laboratory control limits. Further explanation of the use of this qualifier should be included within a case narrative</p> <p><b>X</b> -Used to indicate that a value based on pattern identification is within the pattern range but not typical of the pattern found in standards. Further explanation may or may not be provided within the sample footnote and/or the case narrative.</p>
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## Sample Receipt Checklist

Client Name: Geocon Consultants, Inc.

Date and Time Received: 9/22/2015 10:00

Project Name: Napa County, CA

Received By: ng

Work Order No.: 1509136

Physically Logged By: ldi

Checklist Completed By: ldi

Carrier Name: First Courier

### Chain of Custody (COC) Information

Chain of custody present? Yes  
Chain of custody signed when relinquished and received? Yes  
Chain of custody agrees with sample labels? Yes  
Custody seals intact on sample bottles? Not Present

### Sample Receipt Information

Custody seals intact on shipping container/cooler? Not Present  
Shipping Container/Cooler In Good Condition? Yes  
Samples in proper container/bottle? Yes  
Samples containers intact? Yes  
Sufficient sample volume for indicated test? Yes

### Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes  
Container/Temp Blank temperature in compliance? Yes Temperature: 6 °C  
Water-VOA vials have zero headspace? No VOA vials submitted  
Water-pH acceptable upon receipt? N/A  
pH Checked by: ldi pH Adjusted by: n/a



## Login Summary Report

**Client ID:** TL5648      Geocon Consultants, Inc.  
**Project Name:** Napa County, CA  
**Project # :** E8721-02-40  
**Report Due Date:** 9/29/2015

**QC Level:**  
**TAT Requested:** 5+ day:0  
**Date Received:** 9/22/2015  
**Time Received:** 10:00

**Comments:**

**Work Order # :** 1509136

<u>WO Sample ID</u>	<u>Client Sample ID</u>	<u>Collection Date/Time</u>	<u>Matrix</u>	<u>Scheduled Disposal</u>	<u>Sample On Hold</u>	<u>Test On Hold</u>	<u>Requested Tests</u>	<u>Subbed</u>
1509136-001A	Composite SP1 (A,B,C)	09/21/15	Soil	03/20/16			S_7471BHG S_6010BCAM17 S_GCMS-GRO S_TPHDO S_8260MBTEX	
1509136-001B	SP1A	09/21/15	Soil	03/20/16			Composite	
1509136-001C	SP1B	09/21/15	Soil	03/20/16			Composite	
1509136-001D	SP1C	09/21/15	Soil	03/20/16			Composite	
1509136-002A	Composite SP2 (A,B,C)	09/21/15	Soil	03/20/16			S_7471BHG S_TPHDO S_6010BCAM17 S_8260MBTEX S_GCMS-GRO	
1509136-002B	SP2A	09/21/15	Soil	03/20/16			Composite	
1509136-002C	SP2B	09/21/15	Soil	03/20/16			Composite	
1509136-002D	SP2C	09/21/15	Soil	03/20/16			Composite	
1509136-003A	Composite SP3 (A,B,C)	09/21/15	Soil	03/20/16			S_7471BHG S_6010BCAM17 S_TPHDO S_GCMS-GRO S_8260MBTEX	
1509136-003B	SP3A	09/21/15	Soil	03/20/16			Composite	
1509136-003C	SP3B	09/21/15	Soil	03/20/16			Composite	
1509136-003D	SP3C	09/21/15	Soil	03/20/16			Composite	
1509136-004A	Composite SP4 (A,B,C)	09/21/15	Soil	03/20/16				



## Login Summary Report

**Client ID:** TL5648      Geocon Consultants, Inc.  
**Project Name:** Napa County, CA  
**Project # :** E8721-02-40  
**Report Due Date:** 9/29/2015

**QC Level:**  
**TAT Requested:** 5+ day:0  
**Date Received:** 9/22/2015  
**Time Received:** 10:00

**Comments:**

**Work Order # :** 1509136

<u>WO Sample ID</u>	<u>Client Sample ID</u>	<u>Collection Date/Time</u>	<u>Matrix</u>	<u>Scheduled Disposal</u>	<u>Sample On Hold</u>	<u>Test On Hold</u>	<u>Requested Tests</u>	<u>Subbed</u>
1509136-004B	SP4A	09/21/15	Soil	03/20/16			S_7471BHG S_6010BCAM17 S_TPHDO S_GCMS-GRO S_8260MBTEX	
1509136-004C	SP4B	09/21/15	Soil	03/20/16			Composite	
1509136-004D	SP4C	09/21/15	Soil	03/20/16			Composite	
1509136-005A	RB	09/21/15 12:19	Water	03/20/16			Composite W_200.7_CAM17	

**Sample Note:** Pb only



483 Sinclair Frontage Road  
Milpitas, CA 95035  
Phone: 408.263.5258  
FAX: 408.263.8293  
www.torrentlab.com

RESET

# CHAIN OF CUSTODY

• NOTE: SHADED AREAS ARE FOR TORRENT LAB USE ONLY •

LAB WORK ORDER NO  
**1509136**

Company Name: <b>GEOCON</b>			Location of Sampling: <b>NAPA COUNTY, CA</b>		
Address: <b>6671 BRISA ST</b>			Purpose: <b>SHOCKPILE CHARACTERIZATION</b>		
City: <b>LIVERMORE</b>	State: <b>CA</b>	Zip Code: <b>94550</b>	Special Instructions / Comments: <b>E8721-02-40</b>		
Telephone: <b>925-371-5900</b>		FAX: <b>925-371-5915</b>			
REPORT TO: <b>L. BEADLE</b>		SAMPLER: <b>D. WATTS</b>		P.O. #: <b>CT # 0444336</b> EMAIL: <b>BEADLE@GEOCONINC.COM</b>	

**TURNAROUND TIME:**

- 10 Work Days    3 Work Days    Noon - Nxt Day  
 7 Work Days    2 Work Days    2 - 8 Hours  
 5 Work Days    1 Work Day    Other

**SAMPLE TYPE:**

- Storm Water    Air  
 Waste Water    Other  
 Ground Water  
 Soil

**REPORT FORMAT:**

- QC Level IV  
 EDF  
 Excel / EDD  
 CALTRANS

ANALYSIS REQUESTED

LAB ID	CLIENT'S SAMPLE I.D.	DATE / TIME SAMPLED	MATRIX	# OF CONT	CONT TYPE	CAM 17	TPHD/mo	TPH g/STEX/mo	Total Pb	REMARKS
001A	SP1-A, B, C	9/21/15 - VAC	SOIL	3	SS TUBES	X	X	X		LAB MUST COMPOSITE
002A	SP2-									"
003A	SP3-									"
004A	SP4-									"
005A	RB	9/21/15 12:19	WATER	1	JAR				X	RINSE BLANK
										Temp 6°C

1	Relinquished By: <i>[Signature]</i> Print: <b>D. WATTS</b>	Date: <b>9/22/15</b>	Time: <b>1000</b>	Received By: <i>[Signature]</i> Print: <b>NAVIN G</b>	Date: <b>9-22-15</b>	Time: <b>12:15 P.M</b>
2	Relinquished By: <i>[Signature]</i> Print: <b>[Name]</b>	Date: <b>9-22-15</b>	Time: <b>12:15 P.M</b>	Received By: <i>[Signature]</i> Print: <b>[Name]</b>	Date: <b>9-22-15</b>	Time: <b>10:00</b>

Were Samples Received in Good Condition?  Yes  NO   Samples on Ice?  Yes  NO   Method of Shipment: **FCS**   Sample seals intact?  Yes  NO  N/A

NOTE: Samples are discarded by the laboratory 30 days from date of receipt unless other arrangements are made.

Page **1** of **1**

Log In By: \_\_\_\_\_ Date: \_\_\_\_\_   Log In Reviewed By: \_\_\_\_\_ Date: \_\_\_\_\_



Geocon Consultants, Inc.  
6671 Brisa Street  
Livermore, California 94550  
Tel: 925-371-5900  
RE: Napa County, CA

Work Order No.: 1509136 Rev: 1

Dear Luann Beadle:

Torrent Laboratory, Inc. received 13 sample(s) on September 22, 2015 for the analyses presented in the following Report.

12 SP samples were received as discrete samples. Per Chain of Custody instructions, these samples were used to prepare four 3:1 point composites for analysis. The other water sample was tested as a discrete sample.

All data for associated QC met EPA or laboratory specification(s) except where noted in the case narrative.

Torrent Laboratory, Inc. is certified by the State of California, ELAP #1991. If you have any questions regarding these test results, please feel free to contact the Project Management Team at (408)263-5258; ext 204.

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Patti Sandrock  
QA Officer

September 29, 2015

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Date



**Date:** 9/29/2015

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**Client:** Geocon Consultants, Inc.

**Project:** Napa County, CA

**Work Order:** 1509136

### **CASE NARRATIVE**

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No issues encountered with the receiving, preparation, analysis or reporting of the results associated with this work order.

Unless otherwise indicated in the following narrative, no results have been method and/or field blank corrected.

Reported results relate only to the items/samples tested by the laboratory.

This report shall not be reproduced, except in full, without the written approval of Torrent Analytical, Inc.

#### **REVISIONS**

Per client request, report revised to include STLC Chromium data for all soil samples.

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#### **STLC**

Note: Extraction of 50 g sample / 500g 0.2M Sodium Citrate Solution was performed according to wet extraction procedure (WET) which was rotated in a rotary shaker for 48 hours (+/- 4 hours).

Date Prepared: 10/3/15 at 10:30 AM to 10/5/15 at 9:10 AM.

Rev. 1 (10/7/15)



## Sample Result Summary

Report prepared for: Luann Beadle  
Geocon Consultants, Inc.

Date Received: 09/22/15  
Date Reported: 09/29/15  
1509136-001

**Composite SP1 (A,B,C)**

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.25	1.7	6.6	mg/Kg
Barium	SW6010B	1	0.07	5.0	140	mg/Kg
Chromium	SW6010B	1	0.0500	5.0	78	mg/Kg
Cobalt	SW6010B	1	0.055	5.0	16	mg/Kg
Copper	SW6010B	1	0.650	5.0	31	mg/Kg
Lead	SW6010B	1	0.14	1.0	11	mg/Kg
Nickel	SW6010B	1	0.0500	5.0	110	mg/Kg
Vanadium	SW6010B	1	0.18	5.0	60	mg/Kg
Zinc	SW6010B	1	0.25	5.0	69	mg/Kg
TPH as Diesel	SW8015B(M)	1	1.00	4.0	11	mg/Kg
TPH as Motor Oil	SW8015B(M)	1	2.00	21	120	mg/Kg
Chromium (STLC)	SW6010B	1	0.0200	0.10	0.32	mg/L



## Sample Result Summary

Report prepared for: Luann Beadle  
Geocon Consultants, Inc.

Date Received: 09/22/15  
Date Reported: 09/29/15  
1509136-002

**Composite SP2 (A,B,C)**

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.25	1.7	7.1	mg/Kg
Barium	SW6010B	1	0.07	5.0	130	mg/Kg
Chromium	SW6010B	1	0.0500	5.0	76	mg/Kg
Cobalt	SW6010B	1	0.055	5.0	17	mg/Kg
Copper	SW6010B	1	0.650	5.0	28	mg/Kg
Lead	SW6010B	1	0.14	1.0	11	mg/Kg
Nickel	SW6010B	1	0.0500	5.0	110	mg/Kg
Vanadium	SW6010B	1	0.18	5.0	69	mg/Kg
Zinc	SW6010B	1	0.25	5.0	63	mg/Kg
TPH as Diesel	SW8015B(M)	1	1.00	4.0	10	mg/Kg
TPH as Motor Oil	SW8015B(M)	1	2.00	21	100	mg/Kg
Chromium (STLC)	SW6010B	1	0.0200	0.10	0.36	mg/L



## Sample Result Summary

Report prepared for: Luann Beadle  
Geocon Consultants, Inc.

Date Received: 09/22/15  
Date Reported: 09/29/15  
1509136-003

**Composite SP3 (A,B,C)**

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.25	1.7	5.8	mg/Kg
Barium	SW6010B	1	0.07	5.0	140	mg/Kg
Chromium	SW6010B	1	0.0500	5.0	120	mg/Kg
Cobalt	SW6010B	1	0.055	5.0	17	mg/Kg
Copper	SW6010B	1	0.650	5.0	27	mg/Kg
Lead	SW6010B	1	0.14	1.0	12	mg/Kg
Nickel	SW6010B	1	0.0500	5.0	140	mg/Kg
Vanadium	SW6010B	1	0.18	5.0	53	mg/Kg
Zinc	SW6010B	1	0.25	5.0	67	mg/Kg
TPH as Diesel	SW8015B(M)	1	0.500	2.0	10	mg/Kg
TPH as Motor Oil	SW8015B(M)	1	1.00	10	65	mg/Kg
Chromium (STLC)	SW6010B	1	0.0200	0.10	0.43	mg/L



### Sample Result Summary

Report prepared for: Luann Beadle  
Geocon Consultants, Inc.

Date Received: 09/22/15  
Date Reported: 09/29/15  
1509136-004

**Composite SP4 (A,B,C)**

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.25	1.7	5.9	mg/Kg
Barium	SW6010B	1	0.07	5.0	140	mg/Kg
Chromium	SW6010B	1	0.0500	5.0	110	mg/Kg
Cobalt	SW6010B	1	0.055	5.0	20	mg/Kg
Copper	SW6010B	1	0.650	5.0	30	mg/Kg
Lead	SW6010B	1	0.14	1.0	11	mg/Kg
Nickel	SW6010B	1	0.0500	5.0	140	mg/Kg
Vanadium	SW6010B	1	0.18	5.0	58	mg/Kg
Zinc	SW6010B	1	0.25	5.0	63	mg/Kg
TPH as Diesel	SW8015B(M)	1	0.500	2.0	8.1	mg/Kg
TPH as Motor Oil	SW8015B(M)	1	1.00	10	45	mg/Kg
Chromium (STLC)	SW6010B	1	0.0200	0.10	0.44	mg/L

**RB**

1509136-005

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
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All compounds were non-detectable for this sample.



## SAMPLE RESULTS

**Report prepared for:** Luann Beadle  
Geocon Consultants, Inc.

**Date Received:** 09/22/15  
**Date Reported:** 09/29/15

<b>Client Sample ID:</b>	Composite SP1 (A,B,C)	<b>Lab Sample ID:</b>	1509136-001A
<b>Project Name/Location:</b>	Napa County, CA	<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	E8721-02-40		
<b>Date/Time Sampled:</b>	09/21/15 /		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Chromium (STLC)	SW6010B	10/5/15	10/05/15	1	0.0200	0.10	0.32		mg/L	427207	15435

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Antimony	SW6010B	9/24/15	09/25/15	1	0.20	5.0	ND		mg/Kg	427083	15380
Arsenic	SW6010B	9/24/15	09/25/15	1	0.25	1.7	6.6		mg/Kg	427083	15380
Barium	SW6010B	9/24/15	09/25/15	1	0.07	5.0	140		mg/Kg	427083	15380
Beryllium	SW6010B	9/24/15	09/25/15	1	0.0800	2.0	ND		mg/Kg	427083	15380
Cadmium	SW6010B	9/24/15	09/25/15	1	0.0550	1.0	ND		mg/Kg	427083	15380
Chromium	SW6010B	9/24/15	09/25/15	1	0.0500	5.0	78		mg/Kg	427083	15380
Cobalt	SW6010B	9/24/15	09/25/15	1	0.055	5.0	16		mg/Kg	427083	15380
Copper	SW6010B	9/24/15	09/25/15	1	0.650	5.0	31		mg/Kg	427083	15380
Lead	SW6010B	9/24/15	09/25/15	1	0.14	1.0	11		mg/Kg	427083	15380
Molybdenum	SW6010B	9/24/15	09/25/15	1	0.120	5.0	ND		mg/Kg	427083	15380
Nickel	SW6010B	9/24/15	09/25/15	1	0.0500	5.0	110		mg/Kg	427083	15380
Selenium	SW6010B	9/24/15	09/25/15	1	0.42	5.0	ND		mg/Kg	427083	15380
Silver	SW6010B	9/24/15	09/25/15	1	0.37	5.0	ND		mg/Kg	427083	15380
Thallium	SW6010B	9/24/15	09/25/15	1	0.49	7.5	ND		mg/Kg	427083	15380
Vanadium	SW6010B	9/24/15	09/25/15	1	0.18	5.0	60		mg/Kg	427083	15380
Zinc	SW6010B	9/24/15	09/25/15	1	0.25	5.0	69		mg/Kg	427101	15380

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Mercury	SW7471A	9/24/15	09/25/15	1	0.2	0.50	ND		mg/Kg	427081	15378



## SAMPLE RESULTS

**Report prepared for:** Luann Beadle  
Geocon Consultants, Inc.

**Date Received:** 09/22/15  
**Date Reported:** 09/29/15

<b>Client Sample ID:</b>	Composite SP1 (A,B,C)	<b>Lab Sample ID:</b>	1509136-001A
<b>Project Name/Location:</b>	Napa County, CA	<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	E8721-02-40		
<b>Date/Time Sampled:</b>	09/21/15 /		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
MTBE	SW8260B	NA	09/24/15	1	2.6	10	ND		ug/Kg	427093	NA
Benzene	SW8260B	NA	09/24/15	1	1.5	10	ND		ug/Kg	427093	NA
Toluene	SW8260B	NA	09/24/15	1	0.98	10	ND		ug/Kg	427093	NA
Ethyl Benzene	SW8260B	NA	09/24/15	1	0.86	10	ND		ug/Kg	427093	NA
m,p-Xylene	SW8260B	NA	09/24/15	1	1.9	10	ND		ug/Kg	427093	NA
o-Xylene	SW8260B	NA	09/24/15	1	0.66	5.0	ND		ug/Kg	427093	NA
(S) Dibromofluoromethane	SW8260B	NA	09/24/15	1	59.8	148	102		%	427093	NA
(S) Toluene-d8	SW8260B	NA	09/24/15	1	55.2	133	92.8		%	427093	NA
(S) 4-Bromofluorobenzene	SW8260B	NA	09/24/15	1	55.8	141	112		%	427093	NA

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Gasoline	8260TPH	9/24/15	09/24/15	1	30	100	ND		ug/Kg	427093	15386
(S) 4-Bromofluorobenzene	8260TPH	9/24/15	09/24/15	1	43.9	127	77.0		%	427093	15386

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Diesel	SW8015B(M)	9/22/15	09/24/15	1	1.00	4.0	11	x	mg/Kg	427090	15348
TPH as Motor Oil	SW8015B(M)	9/22/15	09/24/15	1	2.00	21	120		mg/Kg	427090	15348
Pentacosane (S)	SW8015B(M)	9/22/15	09/24/15	1	57.9	129	63.1		%	427090	15348

**NOTE:** x- Diesel result due to over-lapping of oil range organics within diesel quantified range



## SAMPLE RESULTS

**Report prepared for:** Luann Beadle  
Geocon Consultants, Inc.

**Date Received:** 09/22/15  
**Date Reported:** 09/29/15

<b>Client Sample ID:</b>	Composite SP2 (A,B,C)	<b>Lab Sample ID:</b>	1509136-002A
<b>Project Name/Location:</b>	Napa County, CA	<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	E8721-02-40		
<b>Date/Time Sampled:</b>	09/21/15 /		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Chromium (STLC)	SW6010B	10/5/15	10/05/15	1	0.0200	0.10	0.36		mg/L	427207	15435

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Antimony	SW6010B	9/24/15	09/25/15	1	0.20	5.0	ND		mg/Kg	427083	15380
Arsenic	SW6010B	9/24/15	09/25/15	1	0.25	1.7	7.1		mg/Kg	427083	15380
Barium	SW6010B	9/24/15	09/25/15	1	0.07	5.0	130		mg/Kg	427083	15380
Beryllium	SW6010B	9/24/15	09/25/15	1	0.0800	2.0	ND		mg/Kg	427083	15380
Cadmium	SW6010B	9/24/15	09/25/15	1	0.0550	1.0	ND		mg/Kg	427083	15380
Chromium	SW6010B	9/24/15	09/25/15	1	0.0500	5.0	76		mg/Kg	427083	15380
Cobalt	SW6010B	9/24/15	09/25/15	1	0.055	5.0	17		mg/Kg	427083	15380
Copper	SW6010B	9/24/15	09/25/15	1	0.650	5.0	28		mg/Kg	427083	15380
Lead	SW6010B	9/24/15	09/25/15	1	0.14	1.0	11		mg/Kg	427083	15380
Molybdenum	SW6010B	9/24/15	09/25/15	1	0.120	5.0	ND		mg/Kg	427083	15380
Nickel	SW6010B	9/24/15	09/25/15	1	0.0500	5.0	110		mg/Kg	427083	15380
Selenium	SW6010B	9/24/15	09/25/15	1	0.42	5.0	ND		mg/Kg	427083	15380
Silver	SW6010B	9/24/15	09/25/15	1	0.37	5.0	ND		mg/Kg	427083	15380
Thallium	SW6010B	9/24/15	09/25/15	1	0.49	7.5	ND		mg/Kg	427083	15380
Vanadium	SW6010B	9/24/15	09/25/15	1	0.18	5.0	69		mg/Kg	427083	15380
Zinc	SW6010B	9/24/15	09/25/15	1	0.25	5.0	63		mg/Kg	427101	15380

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Mercury	SW7471A	9/24/15	09/25/15	1	0.2	0.50	ND		mg/Kg	427081	15378



## SAMPLE RESULTS

**Report prepared for:** Luann Beadle  
Geocon Consultants, Inc.

**Date Received:** 09/22/15  
**Date Reported:** 09/29/15

<b>Client Sample ID:</b>	Composite SP2 (A,B,C)	<b>Lab Sample ID:</b>	1509136-002A
<b>Project Name/Location:</b>	Napa County, CA	<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	E8721-02-40		
<b>Date/Time Sampled:</b>	09/21/15 /		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
MTBE	SW8260B	NA	09/25/15	1	2.6	10	ND		ug/Kg	427095	NA
Benzene	SW8260B	NA	09/25/15	1	1.5	10	ND		ug/Kg	427095	NA
Toluene	SW8260B	NA	09/25/15	1	0.98	10	ND		ug/Kg	427095	NA
Ethyl Benzene	SW8260B	NA	09/25/15	1	0.86	10	ND		ug/Kg	427095	NA
m,p-Xylene	SW8260B	NA	09/25/15	1	1.9	10	ND		ug/Kg	427095	NA
o-Xylene	SW8260B	NA	09/25/15	1	0.66	5.0	ND		ug/Kg	427095	NA
(S) Dibromofluoromethane	SW8260B	NA	09/25/15	1	59.8	148	100		%	427095	NA
(S) Toluene-d8	SW8260B	NA	09/25/15	1	55.2	133	103		%	427095	NA
(S) 4-Bromofluorobenzene	SW8260B	NA	09/25/15	1	55.8	141	111		%	427095	NA

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Gasoline	8260TPH	9/24/15	09/24/15	1	30	100	ND		ug/Kg	427093	15386
(S) 4-Bromofluorobenzene	8260TPH	9/24/15	09/24/15	1	43.9	127	56.5		%	427093	15386

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Diesel	SW8015B(M)	9/22/15	09/24/15	1	1.00	4.0	10	x	mg/Kg	427090	15348
TPH as Motor Oil	SW8015B(M)	9/22/15	09/24/15	1	2.00	21	100		mg/Kg	427090	15348
Pentacosane (S)	SW8015B(M)	9/22/15	09/24/15	1	57.9	129	68.1		%	427090	15348

**NOTE:** x- Diesel result due to over-lapping of oil range organics within diesel quantified range



## SAMPLE RESULTS

**Report prepared for:** Luann Beadle  
Geocon Consultants, Inc.

**Date Received:** 09/22/15  
**Date Reported:** 09/29/15

<b>Client Sample ID:</b>	Composite SP3 (A,B,C)	<b>Lab Sample ID:</b>	1509136-003A
<b>Project Name/Location:</b>	Napa County, CA	<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	E8721-02-40		
<b>Date/Time Sampled:</b>	09/21/15 /		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Chromium (STLC)	SW6010B	10/5/15	10/05/15	1	0.0200	0.10	0.43		mg/L	427207	15435

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Antimony	SW6010B	9/24/15	09/25/15	1	0.20	5.0	ND		mg/Kg	427083	15380
Arsenic	SW6010B	9/24/15	09/25/15	1	0.25	1.7	5.8		mg/Kg	427083	15380
Barium	SW6010B	9/24/15	09/25/15	1	0.07	5.0	140		mg/Kg	427083	15380
Beryllium	SW6010B	9/24/15	09/25/15	1	0.0800	2.0	ND		mg/Kg	427083	15380
Cadmium	SW6010B	9/24/15	09/25/15	1	0.0550	1.0	ND		mg/Kg	427083	15380
Chromium	SW6010B	9/24/15	09/25/15	1	0.0500	5.0	120		mg/Kg	427083	15380
Cobalt	SW6010B	9/24/15	09/25/15	1	0.055	5.0	17		mg/Kg	427083	15380
Copper	SW6010B	9/24/15	09/25/15	1	0.650	5.0	27		mg/Kg	427083	15380
Lead	SW6010B	9/24/15	09/25/15	1	0.14	1.0	12		mg/Kg	427083	15380
Molybdenum	SW6010B	9/24/15	09/25/15	1	0.120	5.0	ND		mg/Kg	427083	15380
Nickel	SW6010B	9/24/15	09/25/15	1	0.0500	5.0	140		mg/Kg	427083	15380
Selenium	SW6010B	9/24/15	09/25/15	1	0.42	5.0	ND		mg/Kg	427083	15380
Silver	SW6010B	9/24/15	09/25/15	1	0.37	5.0	ND		mg/Kg	427083	15380
Thallium	SW6010B	9/24/15	09/25/15	1	0.49	7.5	ND		mg/Kg	427083	15380
Vanadium	SW6010B	9/24/15	09/25/15	1	0.18	5.0	53		mg/Kg	427083	15380
Zinc	SW6010B	9/24/15	09/25/15	1	0.25	5.0	67		mg/Kg	427101	15380

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Mercury	SW7471A	9/24/15	09/25/15	1	0.2	0.50	ND		mg/Kg	427081	15378



## SAMPLE RESULTS

**Report prepared for:** Luann Beadle  
Geocon Consultants, Inc.

**Date Received:** 09/22/15  
**Date Reported:** 09/29/15

<b>Client Sample ID:</b>	Composite SP3 (A,B,C)	<b>Lab Sample ID:</b>	1509136-003A
<b>Project Name/Location:</b>	Napa County, CA	<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	E8721-02-40		
<b>Date/Time Sampled:</b>	09/21/15 /		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
MTBE	SW8260B	NA	09/25/15	1	2.6	10	ND		ug/Kg	427095	NA
Benzene	SW8260B	NA	09/25/15	1	1.5	10	ND		ug/Kg	427095	NA
Toluene	SW8260B	NA	09/25/15	1	0.98	10	ND		ug/Kg	427095	NA
Ethyl Benzene	SW8260B	NA	09/25/15	1	0.86	10	ND		ug/Kg	427095	NA
m,p-Xylene	SW8260B	NA	09/25/15	1	1.9	10	ND		ug/Kg	427095	NA
o-Xylene	SW8260B	NA	09/25/15	1	0.66	5.0	ND		ug/Kg	427095	NA
(S) Dibromofluoromethane	SW8260B	NA	09/25/15	1	59.8	148	98.1		%	427095	NA
(S) Toluene-d8	SW8260B	NA	09/25/15	1	55.2	133	103		%	427095	NA
(S) 4-Bromofluorobenzene	SW8260B	NA	09/25/15	1	55.8	141	111		%	427095	NA

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Gasoline	8260TPH	9/24/15	09/24/15	1	30	100	ND		ug/Kg	427093	15386
(S) 4-Bromofluorobenzene	8260TPH	9/24/15	09/24/15	1	43.9	127	62.0		%	427093	15386

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Diesel	SW8015B(M)	9/22/15	09/24/15	1	0.500	2.0	10	x	mg/Kg	427090	15348
TPH as Motor Oil	SW8015B(M)	9/22/15	09/24/15	1	1.00	10	65		mg/Kg	427090	15348
Pentacosane (S)	SW8015B(M)	9/22/15	09/24/15	1	57.9	129	80.6		%	427090	15348

**NOTE:** x- Diesel result due to over-lapping of oil range organics within diesel quantified range



## SAMPLE RESULTS

**Report prepared for:** Luann Beadle  
Geocon Consultants, Inc.

**Date Received:** 09/22/15  
**Date Reported:** 09/29/15

<b>Client Sample ID:</b>	Composite SP4 (A,B,C)	<b>Lab Sample ID:</b>	1509136-004A
<b>Project Name/Location:</b>	Napa County, CA	<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	E8721-02-40		
<b>Date/Time Sampled:</b>	09/21/15 /		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Chromium (STLC)	SW6010B	10/5/15	10/05/15	1	0.0200	0.10	0.44		mg/L	427207	15435

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Antimony	SW6010B	9/24/15	09/25/15	1	0.20	5.0	ND		mg/Kg	427083	15380
Arsenic	SW6010B	9/24/15	09/25/15	1	0.25	1.7	5.9		mg/Kg	427083	15380
Barium	SW6010B	9/24/15	09/25/15	1	0.07	5.0	140		mg/Kg	427083	15380
Beryllium	SW6010B	9/24/15	09/25/15	1	0.0800	2.0	ND		mg/Kg	427083	15380
Cadmium	SW6010B	9/24/15	09/25/15	1	0.0550	1.0	ND		mg/Kg	427083	15380
Chromium	SW6010B	9/24/15	09/25/15	1	0.0500	5.0	110		mg/Kg	427083	15380
Cobalt	SW6010B	9/24/15	09/25/15	1	0.055	5.0	20		mg/Kg	427083	15380
Copper	SW6010B	9/24/15	09/25/15	1	0.650	5.0	30		mg/Kg	427083	15380
Lead	SW6010B	9/24/15	09/25/15	1	0.14	1.0	11		mg/Kg	427083	15380
Molybdenum	SW6010B	9/24/15	09/25/15	1	0.120	5.0	ND		mg/Kg	427083	15380
Nickel	SW6010B	9/24/15	09/25/15	1	0.0500	5.0	140		mg/Kg	427083	15380
Selenium	SW6010B	9/24/15	09/25/15	1	0.42	5.0	ND		mg/Kg	427083	15380
Silver	SW6010B	9/24/15	09/25/15	1	0.37	5.0	ND		mg/Kg	427083	15380
Thallium	SW6010B	9/24/15	09/25/15	1	0.49	7.5	ND		mg/Kg	427083	15380
Vanadium	SW6010B	9/24/15	09/25/15	1	0.18	5.0	58		mg/Kg	427083	15380
Zinc	SW6010B	9/24/15	09/25/15	1	0.25	5.0	63		mg/Kg	427101	15380

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Mercury	SW7471A	9/24/15	09/25/15	1	0.2	0.50	ND		mg/Kg	427081	15378



## SAMPLE RESULTS

**Report prepared for:** Luann Beadle  
Geocon Consultants, Inc.

**Date Received:** 09/22/15  
**Date Reported:** 09/29/15

<b>Client Sample ID:</b>	Composite SP4 (A,B,C)	<b>Lab Sample ID:</b>	1509136-004A
<b>Project Name/Location:</b>	Napa County, CA	<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	E8721-02-40		
<b>Date/Time Sampled:</b>	09/21/15 /		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
MTBE	SW8260B	NA	09/24/15	1	2.6	10	ND		ug/Kg	427093	NA
Benzene	SW8260B	NA	09/24/15	1	1.5	10	ND		ug/Kg	427093	NA
Toluene	SW8260B	NA	09/24/15	1	0.98	10	ND		ug/Kg	427093	NA
Ethyl Benzene	SW8260B	NA	09/24/15	1	0.86	10	ND		ug/Kg	427093	NA
m,p-Xylene	SW8260B	NA	09/24/15	1	1.9	10	ND		ug/Kg	427093	NA
o-Xylene	SW8260B	NA	09/24/15	1	0.66	5.0	ND		ug/Kg	427093	NA
(S) Dibromofluoromethane	SW8260B	NA	09/24/15	1	59.8	148	102		%	427093	NA
(S) Toluene-d8	SW8260B	NA	09/24/15	1	55.2	133	93.8		%	427093	NA
(S) 4-Bromofluorobenzene	SW8260B	NA	09/24/15	1	55.8	141	113		%	427093	NA

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Gasoline	8260TPH	9/24/15	09/24/15	1	30	100	ND		ug/Kg	427093	15386
(S) 4-Bromofluorobenzene	8260TPH	9/24/15	09/24/15	1	43.9	127	60.9		%	427093	15386

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Diesel	SW8015B(M)	9/24/15	09/24/15	1	0.500	2.0	8.1	x	mg/Kg	427090	15375
TPH as Motor Oil	SW8015B(M)	9/24/15	09/24/15	1	1.00	10	45		mg/Kg	427090	15375
Pentacosane (S)	SW8015B(M)	9/24/15	09/24/15	1	57.9	129	74.0		%	427090	15375

**NOTE:** x- Diesel result due to over-lapping of oil range organics within diesel quantified range



## SAMPLE RESULTS

**Report prepared for:** Luann Beadle  
Geocon Consultants, Inc.

**Date Received:** 09/22/15  
**Date Reported:** 09/29/15

<b>Client Sample ID:</b>	RB	<b>Lab Sample ID:</b>	1509136-005A
<b>Project Name/Location:</b>	Napa County, CA	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	E8721-02-40		
<b>Date/Time Sampled:</b>	09/21/15 / 12:19		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Lead	E200.7	9/22/15	09/24/15	1	0.0050	0.015	ND		mg/L	427072	15369



### MB Summary Report

<b>Work Order:</b>	1509136	<b>Prep Method:</b>	3546_TPHSG	<b>Prep Date:</b>	09/22/15	<b>Prep Batch:</b>	15348
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW8015B(M)	<b>Analyzed Date:</b>	09/22/15	<b>Analytical Batch:</b>	427057
<b>Units:</b>	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
TPH as Diesel (SG)	0.66	2.0	ND	
TPH as Motor Oil (SG)	1.0	10	ND	
Pentacosane (S)			100	

<b>Work Order:</b>	1509136	<b>Prep Method:</b>	200.7	<b>Prep Date:</b>	09/22/15	<b>Prep Batch:</b>	15369
<b>Matrix:</b>	Water	<b>Analytical Method:</b>	E200.7	<b>Analyzed Date:</b>	09/24/15	<b>Analytical Batch:</b>	427072
<b>Units:</b>	mg/L						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Antimony	0.004	0.010	ND	
Arsenic	0.005	0.010	0.0075	
Barium	0.002	0.010	ND	
Beryllium	0.002	0.005	ND	
Cadmium	0.001	0.005	ND	
Chromium	0.002	0.005	ND	
Cobalt	0.002	0.005	0.0024	
Copper	0.003	0.010	ND	
Lead	0.005	0.015	ND	
Molybdenum	0.002	0.010	ND	
Nickel	0.002	0.010	ND	
Selenium	0.004	0.020	ND	
Silver	0.002	0.005	0.0036	
Thallium	0.004	0.010	ND	
Vanadium	0.004	0.010	ND	
Zinc	0.002	0.010	ND	

<b>Work Order:</b>	1509136	<b>Prep Method:</b>	3546_TPH	<b>Prep Date:</b>	09/24/15	<b>Prep Batch:</b>	15375
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW8015B	<b>Analyzed Date:</b>	09/24/15	<b>Analytical Batch:</b>	427090
<b>Units:</b>	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
TPH as Diesel	0.575	2.0	1.3	
TPH as Heating Oil	2.50	2.0	ND	
TPH as Motor Oil	1.4	10	ND	
Pentacosane (S)			73.5	



### MB Summary Report

<b>Work Order:</b>	1509136	<b>Prep Method:</b>	7471	<b>Prep Date:</b>	09/24/15	<b>Prep Batch:</b>	15378
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW7471A	<b>Analyzed Date:</b>	09/25/15	<b>Analytical Batch:</b>	427081
<b>Units:</b>	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
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Mercury 0.2 0.50 ND

<b>Work Order:</b>	1509136	<b>Prep Method:</b>	3050	<b>Prep Date:</b>	09/24/15	<b>Prep Batch:</b>	15380
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW6010B	<b>Analyzed Date:</b>	09/25/15	<b>Analytical Batch:</b>	427083
<b>Units:</b>	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
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Antimony 0.20 5.0 0.28  
 Arsenic 0.25 1.7 ND  
 Barium 0.07 5.0 0.41  
 Beryllium 0.0800 2.0 ND  
 Cadmium 0.055 1.0 ND  
 Chromium 0.050 5.0 0.14  
 Cobalt 0.055 5.0 ND  
 Copper 0.65 5.0 ND  
 Lead 0.14 1.0 0.31  
 Molybdenum 0.12 5.0 ND  
 Nickel 0.050 5.0 ND  
 Selenium 0.42 5.0 ND  
 Silver 0.37 5.0 ND  
 Thallium 0.49 5.0 ND  
 Vanadium 0.18 5.0 ND

<b>Work Order:</b>	1509136	<b>Prep Method:</b>	5035	<b>Prep Date:</b>	09/25/15	<b>Prep Batch:</b>	15385
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	8260TPH	<b>Analyzed Date:</b>	09/25/15	<b>Analytical Batch:</b>	427095
<b>Units:</b>	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
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TPH as Gasoline 30 100 38  
 (S) 4-Bromofluorobenzene 105



### MB Summary Report

<b>Work Order:</b>	1509136	<b>Prep Method:</b>	5035	<b>Prep Date:</b>	09/24/15	<b>Prep Batch:</b>	15386
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	8260TPH	<b>Analyzed Date:</b>	09/24/15	<b>Analytical Batch:</b>	427093
<b>Units:</b>	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
TPH as Gasoline	30	100	44	
(S) 4-Bromofluorobenzene			104	

<b>Work Order:</b>	1509136	<b>Prep Method:</b>	WET/3010B	<b>Prep Date:</b>	10/05/15	<b>Prep Batch:</b>	15435
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW6010B	<b>Analyzed Date:</b>	10/05/15	<b>Analytical Batch:</b>	427207
<b>Units:</b>	mg/L						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Chromium (STLC)	0.0200	0.10	ND	
Lead (STLC)	0.0500	0.10	ND	
Nickel (STLC)	0.0200	0.10	ND	



## MB Summary Report

<b>Work Order:</b>	1509136	<b>Prep Method:</b>	NA	<b>Prep Date:</b>	NA	<b>Prep Batch:</b>	NA
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW8260B	<b>Analyzed Date:</b>	09/24/15	<b>Analytical Batch:</b>	427093
<b>Units:</b>	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
Dichlorodifluoromethane	4.4	10	ND		
Isopropyl Alcohol	4.6	10	ND		
Vinyl Chloride	2.6	10	ND		
Bromomethane	4.7	10	ND		
Trichlorofluoromethane	2.9	10	ND		
1,1-Dichloroethene	1.5	10	ND		
Freon 113	3.7	10	ND		
Methylene Chloride	2.0	50	ND		
trans-1,2-Dichloroethene	1.1	10	ND		
MTBE	2.6	10	ND		
tert-Butanol	21	50	ND		
Diisopropyl ether (DIPE)	2.2	10	ND		
1,1-Dichloroethane	1.3	10	ND		
ETBE	2.4	10	ND		
cis-1,2-Dichloroethene	1.8	10	ND		
2,2-Dichloropropane	1.2	10	ND		
Bromochloromethane	2.3	10	ND		
Chloroform	1.2	10	ND		
Carbon Tetrachloride	1.6	10	ND		
1,1,1-Trichloroethane	1.2	10	ND		
1,1-Dichloropropene	1.4	10	ND		
Benzene	1.5	10	ND		
TAME	2.1	10	ND		
1,2-Dichloroethane	1.9	10	ND		
Trichloroethylene	3.9	10	ND		
Dibromomethane	2.2	10	ND		
1,2-Dichloropropane	1.3	10	ND		
Bromodichloromethane	1.1	10	ND		
cis-1,3-Dichloropropene	1.4	10	ND		
Toluene	0.98	10	ND		
Tetrachloroethylene	1.8	10	ND		
trans-1,3-Dichloropropene	1.2	10	ND		
1,1,2-Trichloroethane	1.8	10	ND		
Dibromochloromethane	1.1	10	ND		
1,3-Dichloropropane	2.1	10	ND		
1,2-Dibromoethane	1.7	10	ND		
Ethyl Benzene	0.86	10	ND		
Chlorobenzene	4.2	10	ND		
1,1,1,2-Tetrachloroethane	0.86	10	ND		
m,p-Xylene	1.9	10	ND		
o-Xylene	0.66	5.0	ND		



## MB Summary Report

<b>Work Order:</b>	1509136	<b>Prep Method:</b>	NA	<b>Prep Date:</b>	NA	<b>Prep Batch:</b>	NA
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW8260B	<b>Analyzed Date:</b>	09/24/15	<b>Analytical Batch:</b>	427093
<b>Units:</b>	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
Styrene	0.77	10	ND		
Bromoform	1.9	10	ND		
Isopropyl Benzene	1.2	10	ND		
n-Propylbenzene	1.4	10	ND		
Bromobenzene	1.2	10	ND		
1,1,2,2-Tetrachloroethane	3.0	10	ND		
1,3,5-Trimethylbenzene	1.1	10	ND		
1,2,3-Trichloropropane	3.3	10	ND		
4-Chlorotoluene	1.6	10	ND		
2-Chlorotoluene	1.6	10	ND		
tert-Butylbenzene	1.4	10	ND		
1,2,4-Trimethylbenzene	1.1	10	ND		
sec-Butyl Benzene	1.6	10	ND		
p-Isopropyltoluene	1.5	10	ND		
1,3-Dichlorobenzene	1.8	10	ND		
1,4-Dichlorobenzene	1.5	10	ND		
n-Butylbenzene	2.2	10	ND		
1,2-Dichlorobenzene	1.3	10	ND		
1,2-Dibromo-3-Chloropropane	4.2	10	ND		
Hexachlorobutadiene	2.6	10	ND		
1,2,4-Trichlorobenzene	2.1	10	ND		
Naphthalene	2.8	10	ND		
1,2,3-Trichlorobenzene	2.9	10	ND		
Ethanol	5.0	20	ND	TIC	
(S) Dibromofluoromethane			94.1		
(S) Toluene-d8			89.0		
(S) 4-Bromofluorobenzene			93.6		



## MB Summary Report

<b>Work Order:</b>	1509136	<b>Prep Method:</b>	NA	<b>Prep Date:</b>	NA	<b>Prep Batch:</b>	NA
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW8260B	<b>Analyzed Date:</b>	09/25/15	<b>Analytical Batch:</b>	427095
<b>Units:</b>	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
Dichlorodifluoromethane	4.4	10	ND		
Isopropyl Alcohol	4.6	10	ND		
Vinyl Chloride	2.6	10	ND		
Bromomethane	4.7	10	ND		
Trichlorofluoromethane	2.9	10	ND		
1,1-Dichloroethene	1.5	10	ND		
Freon 113	3.7	10	ND		
Methylene Chloride	2.0	50	ND		
trans-1,2-Dichloroethene	1.1	10	ND		
MTBE	2.6	10	ND		
tert-Butanol	21	50	ND		
Diisopropyl ether (DIPE)	2.2	10	ND		
1,1-Dichloroethane	1.3	10	ND		
ETBE	2.4	10	ND		
cis-1,2-Dichloroethene	1.8	10	ND		
2,2-Dichloropropane	1.2	10	ND		
Bromochloromethane	2.3	10	ND		
Chloroform	1.2	10	ND		
Carbon Tetrachloride	1.6	10	ND		
1,1,1-Trichloroethane	1.2	10	ND		
1,1-Dichloropropene	1.4	10	ND		
Benzene	1.5	10	ND		
TAME	2.1	10	ND		
1,2-Dichloroethane	1.9	10	ND		
Trichloroethylene	3.9	10	ND		
Dibromomethane	2.2	10	ND		
1,2-Dichloropropane	1.3	10	ND		
Bromodichloromethane	1.1	10	ND		
cis-1,3-Dichloropropene	1.4	10	ND		
Toluene	0.98	10	ND		
Tetrachloroethylene	1.8	10	ND		
trans-1,3-Dichloropropene	1.2	10	ND		
1,1,2-Trichloroethane	1.8	10	ND		
Dibromochloromethane	1.1	10	ND		
1,3-Dichloropropane	2.1	10	ND		
1,2-Dibromoethane	1.7	10	ND		
Ethyl Benzene	0.86	10	ND		
Chlorobenzene	4.2	10	ND		
1,1,1,2-Tetrachloroethane	0.86	10	ND		
m,p-Xylene	1.9	10	ND		
o-Xylene	0.66	5.0	ND		



## MB Summary Report

<b>Work Order:</b>	1509136	<b>Prep Method:</b>	NA	<b>Prep Date:</b>	NA	<b>Prep Batch:</b>	NA
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW8260B	<b>Analyzed Date:</b>	09/25/15	<b>Analytical Batch:</b>	427095
<b>Units:</b>	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
Styrene	0.77	10	ND		
Bromoform	1.9	10	ND		
Isopropyl Benzene	1.2	10	ND		
n-Propylbenzene	1.4	10	ND		
Bromobenzene	1.2	10	ND		
1,1,2,2-Tetrachloroethane	3.0	10	ND		
1,3,5-Trimethylbenzene	1.1	10	ND		
1,2,3-Trichloropropane	3.3	10	ND		
4-Chlorotoluene	1.6	10	ND		
2-Chlorotoluene	1.6	10	ND		
tert-Butylbenzene	1.4	10	ND		
1,2,4-Trimethylbenzene	1.1	10	ND		
sec-Butyl Benzene	1.6	10	ND		
p-Isopropyltoluene	1.5	10	ND		
1,3-Dichlorobenzene	1.8	10	ND		
1,4-Dichlorobenzene	1.5	10	ND		
n-Butylbenzene	2.2	10	ND		
1,2-Dichlorobenzene	1.3	10	ND		
1,2-Dibromo-3-Chloropropane	4.2	10	ND		
Hexachlorobutadiene	2.6	10	ND		
1,2,4-Trichlorobenzene	2.1	10	ND		
Naphthalene	2.8	10	ND		
1,2,3-Trichlorobenzene	2.9	10	ND		
Ethanol	5.0	20	ND	TIC	
(S) Dibromofluoromethane			83.8		
(S) Toluene-d8			88.1		
(S) 4-Bromofluorobenzene			82.6		

<b>Work Order:</b>	1509136	<b>Prep Method:</b>	NA	<b>Prep Date:</b>	NA	<b>Prep Batch:</b>	NA
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW6010B	<b>Analyzed Date:</b>	09/25/15	<b>Analytical Batch:</b>	427101
<b>Units:</b>	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
Barium	0.07	5.0	0.40		
Lead	0.14	1.0	ND		
Zinc	0.25	5.0	0.25		



## LCS/LCSD Summary Report

*Raw values are used in quality control assessment.*

<b>Work Order:</b>	1509136	<b>Prep Method:</b>	3546_TPHSG	<b>Prep Date:</b>	09/22/15	<b>Prep Batch:</b>	15348
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW8015B(M)	<b>Analyzed Date:</b>	09/22/15	<b>Analytical Batch:</b>	427057
<b>Units:</b>	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Diesel (SG)	0.66	2.0	ND	25	80.8	94.7	15.8	50.8 - 111	30	
Pentacosane (S)			ND	200	121	130		49.9 - 144		

<b>Work Order:</b>	1509136	<b>Prep Method:</b>	200.7	<b>Prep Date:</b>	09/22/15	<b>Prep Batch:</b>	15369
<b>Matrix:</b>	Water	<b>Analytical Method:</b>	E200.7	<b>Analyzed Date:</b>	09/24/15	<b>Analytical Batch:</b>	427072
<b>Units:</b>	mg/L						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Antimony	0.004	0.010	ND	1	101	99.1	2.08	75 - 125	30	
Arsenic	0.005	0.010	0.0075	1	98.2	97.9	0.316	75 - 125	30	
Barium	0.002	0.010	ND	1	105	98.6	1.41	75 - 125	30	
Beryllium	0.002	0.005	ND	1	109	104	5.51	75 - 125	30	
Cadmium	0.001	0.005	ND	1	101	99.3	1.48	80 - 120	30	
Chromium	0.002	0.005	ND	1	101	97.9	3.35	80 - 120	30	
Cobalt	0.002	0.005	0.0024	1	102	99.0	2.65	80 - 120	30	
Copper	0.003	0.010	ND	1	107	100	6.56	80 - 120	30	
Lead	0.005	0.015	ND	1	101	98.3	2.63	80 - 120	30	
Molybdenum	0.002	0.010	ND	1	101	98.0	3.10	80 - 120	30	
Nickel	0.002	0.010	ND	1	102	98.8	3.62	80 - 120	30	
Selenium	0.004	0.020	ND	1	98.0	95.3	2.72	80 - 120	30	
Silver	0.002	0.005	0.0036	1	105	99.0	6.05	80 - 120	30	
Thallium	0.004	0.010	ND	1	99.4	97.9	1.49	80 - 120	30	
Vanadium	0.004	0.010	ND	1	104	98.1	5.82	80 - 120	30	
Zinc	0.002	0.010	ND	1	101	99.3	2.02	80 - 120	30	

<b>Work Order:</b>	1509136	<b>Prep Method:</b>	3546_TPH	<b>Prep Date:</b>	09/24/15	<b>Prep Batch:</b>	15375
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW8015B	<b>Analyzed Date:</b>	09/24/15	<b>Analytical Batch:</b>	427090
<b>Units:</b>	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Diesel	0.57	2.0	ND	25	73.4	66.2	10.3	50.8 - 111	30	
Pentacosane (S)			ND	200	82.9	75.6		61.5 - 133		



## LCS/LCSD Summary Report

*Raw values are used in quality control assessment.*

<b>Work Order:</b>	1509136	<b>Prep Method:</b>	7471	<b>Prep Date:</b>	09/24/15	<b>Prep Batch:</b>	15378
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW7471A	<b>Analyzed Date:</b>	09/25/15	<b>Analytical Batch:</b>	427081
<b>Units:</b>	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Mercury	0.2	0.50	ND	1.25	106	97.3	8.08	80.5 - 133	30	

<b>Work Order:</b>	1509136	<b>Prep Method:</b>	3050	<b>Prep Date:</b>	09/24/15	<b>Prep Batch:</b>	15380
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW6010B	<b>Analyzed Date:</b>	09/25/15	<b>Analytical Batch:</b>	427083
<b>Units:</b>	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Antimony	0.20	5.0	0.28	50	103	102	0.878	30.7 - 130	30	
Arsenic	0.25	1.7	ND	50	108	106	1.96	71 - 121	30	
Barium	0.07	5.0	0.41	50	105	104	0.861	70.2 - 130	30	
Beryllium	0.0800	2.0	ND	50	99.1	96.0	3.23	73.3 - 115	30	
Cadmium	0.055	1.0	ND	50	108	107	1.02	68.7 - 110	30	
Chromium	0.050	5.0	0.14	50	106	105	1.33	76 - 116	30	
Cobalt	0.055	5.0	ND	50	110	109	0.822	57.4 - 122	30	
Copper	0.65	5.0	ND	50	107	105	2.08	74.8 - 119	30	
Lead	0.14	1.0	0.31	50	108	105	3.01	67.9 - 118	30	
Molybdenum	0.12	5.0	ND	50	106	106	0.189	62.9 - 123	30	
Nickel	0.050	5.0	ND	50	104	103	1.36	61.5 - 122	30	
Selenium	0.42	5.0	ND	50	105	104	0.573	62 - 111	30	
Silver	0.37	5.0	ND	50	101	98.9	2.09	81.1 - 109	30	
Thallium	0.49	5.0	ND	50	106	107	1.13	39.2 - 125	30	
Vanadium	0.18	5.0	ND	50	105	104	0.765	65.8 - 122	30	

<b>Work Order:</b>	1509136	<b>Prep Method:</b>	5035	<b>Prep Date:</b>	09/25/15	<b>Prep Batch:</b>	15385
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	8260TPH	<b>Analyzed Date:</b>	09/25/15	<b>Analytical Batch:</b>	427095
<b>Units:</b>	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Gasoline	30	100	38	1000	80.3	101	22.9	64.0 - 133.2	30	
(S) 4-Bromofluorobenzene			105	50	98.1	93.4		43.9 - 127		



## LCS/LCSD Summary Report

*Raw values are used in quality control assessment.*

<b>Work Order:</b>	1509136	<b>Prep Method:</b>	5035	<b>Prep Date:</b>	09/24/15	<b>Prep Batch:</b>	15386
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	8260TPH	<b>Analyzed Date:</b>	09/24/15	<b>Analytical Batch:</b>	427093
<b>Units:</b>	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Gasoline	30	100	44	1000	95.5	89.0	6.99	64.0 - 133.2	30	
(S) 4-Bromofluorobenzene			104	50	102	90.6		43.9 - 127		

<b>Work Order:</b>	1509136	<b>Prep Method:</b>	WET/3010B	<b>Prep Date:</b>	10/05/15	<b>Prep Batch:</b>	15435
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW6010B	<b>Analyzed Date:</b>	10/05/15	<b>Analytical Batch:</b>	427207
<b>Units:</b>	mg/L						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Chromium (STLC)	0.0200	0.10	ND	10	88.9	88.5	0.451	80 - 120	20	
Lead (STLC)	0.0500	0.10	ND	10	84.7	83.5	1.44	80 - 120	20	
Nickel (STLC)	0.0200	0.10	ND	10	86.5	86.9	0.404	80 - 120	20	

<b>Work Order:</b>	1509136	<b>Prep Method:</b>	NA	<b>Prep Date:</b>	NA	<b>Prep Batch:</b>	NA
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW8260B	<b>Analyzed Date:</b>	09/24/15	<b>Analytical Batch:</b>	427093
<b>Units:</b>	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	1.5	10	ND	50	102	112	9.49	53.7 - 139	30	
Benzene	1.5	10	ND	50	96.3	104	8.06	66.5 - 135	30	
Trichloroethylene	3.9	10	ND	50	99.4	105	5.31	57.5 - 150	30	
Toluene	0.98	10	ND	50	92.6	101	8.92	56.8 - 134	30	
Chlorobenzene	4.2	10	ND	50	94.8	101	5.89	57.4 - 134	30	
(S) Dibromofluoromethane			ND	50	80.5	85.7		59.8 - 148		
(S) Toluene-d8			ND	50	74.8	77.6		55.2 - 133		
(S) 4-Bromofluorobenzene			ND	50	73.8	77.0		55.8 - 141		



## LCS/LCSD Summary Report

*Raw values are used in quality control assessment.*

<b>Work Order:</b>	1509136	<b>Prep Method:</b>	NA	<b>Prep Date:</b>	NA	<b>Prep Batch:</b>	NA
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW8260B	<b>Analyzed Date:</b>	09/25/15	<b>Analytical Batch:</b>	427095
<b>Units:</b>	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	1.5	10	ND	50	90.2	85.0	5.89	53.7 - 139	30	
Benzene	1.5	10	ND	50	91.2	87.1	4.55	66.5 - 135	30	
Trichloroethylene	3.9	10	ND	50	89.8	83.8	6.96	57.5 - 150	30	
Toluene	0.98	10	ND	50	94.0	86.9	7.90	56.8 - 134	30	
Chlorobenzene	4.2	10	ND	50	91.8	85.7	6.85	57.4 - 134	30	
(S) Dibromofluoromethane			ND	50	92.6	86.8		59.8 - 148		
(S) Toluene-d8			ND	50	93.0	85.0		55.2 - 133		
(S) 4-Bromofluorobenzene			ND	50	92.2	82.5		55.8 - 141		

<b>Work Order:</b>	1509136	<b>Prep Method:</b>	NA	<b>Prep Date:</b>	NA	<b>Prep Batch:</b>	NA
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW6010B	<b>Analyzed Date:</b>	09/25/15	<b>Analytical Batch:</b>	427101
<b>Units:</b>	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Barium	0.07	5.0	0.40	50	99.6	102	2.58	70.2 - 130	30	
Lead	0.14	1.0	ND	50	98.2	101	2.41	67.9 - 118	30	
Zinc	0.25	5.0	0.25	50	98.0	99.3	1.32	59.9 - 122	30	



## MS/MSD Summary Report

*Raw values are used in quality control assessment.*

<b>Work Order:</b>	1509136	<b>Prep Method:</b>	3546_TPH	<b>Prep Date:</b>	09/24/15	<b>Prep Batch:</b>	15375
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW8015B(M)	<b>Analyzed Date:</b>	09/24/15	<b>Analytical Batch:</b>	427090
<b>Spiked Sample:</b>	1509136-004A						
<b>Units:</b>	mg/Kg						

Parameters	MDL	PQL	Sample Conc.	Spike Conc.	MS % Recovery	MSD % Recovery	MS/MSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Diesel	0.50	2.0	322.679	25	74.6	78.6	3.72	50.3 - 115	30	
Pentacosane (S)				200	79.6	91.7		57.9 - 129		

<b>Work Order:</b>	1509136	<b>Prep Method:</b>	NA	<b>Prep Date:</b>	NA	<b>Prep Batch:</b>	NA
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW8260B	<b>Analyzed Date:</b>	09/24/15	<b>Analytical Batch:</b>	427093
<b>Spiked Sample:</b>	1509136-004A						
<b>Units:</b>	ug/Kg						

Parameters	MDL	PQL	Sample Conc.	Spike Conc.	MS % Recovery	MSD % Recovery	MS/MSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Benzene	1.5	10	0	50	98.9	103	4.35	66.5 - 135	30	
Toluene	0.98	10	0	50	101	98.2	3.04	56.8 - 134	30	
(S) Dibromofluoromethane				50	102	108		59.8 - 148		
(S) Toluene-d8				50	98.7	95.0		55.2 - 133		
(S) 4-Bromofluorobenzene				50	115	114		55.8 - 141		



## Laboratory Qualifiers and Definitions

### DEFINITIONS:

<b>Accuracy/Bias (% Recovery)</b> - The closeness of agreement between an observed value and an accepted reference value.
<b>Blank (Method/Preparation Blank)</b> -MB/PB - An analyte-free matrix to which all reagents are added in the same volumes/proportions as used in sample processing. The method blank is used to document contamination resulting from the analytical process.
<b>Duplicate</b> - a field sample and/or laboratory QC sample prepared in duplicate following all of the same processes and procedures used on the original sample (sample duplicate, LCSD, MSD)
<b>Laboratory Control Sample (LCS ad LCSD)</b> - A known matrix spiked with compounds representative of the target analyte(s). This is used to document laboratory performance.
<b>Matrix</b> - the component or substrate that contains the analyte of interest (e.g., - groundwater, sediment, soil, waste water, etc)
<b>Matrix Spike (MS/MSD)</b> - Client sample spiked with identical concentrations of target analyte (s). The spiking occurs prior to the sample preparation and analysis. They are used to document the precision and bias of a method in a given sample matrix.
<b>Method Detection Limit (MDL)</b> - the minimum concentration of a substance that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero
<b>Practical Quantitation Limit (PQL)</b> - a laboratory determined value at 2 to 5 times above the MDL that can be reproduced in a manner that results in a 99% confidence level that the result is both accurate and precise. PQLs reflect all preparation factors and/or dilution factors that have been applied to the sample during the preparation and/or analytical processes.
<b>Precision (%RPD)</b> - The agreement among a set of replicate/duplicate measurements without regard to known value of the replicates
<b>Surrogate (S) or (Surr)</b> - An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. Surrogates are used in most organic analysis to demonstrate matrix compatibility with the chosen method of analysis
<b>Tentatively Identified Compound (TIC)</b> - A compound not contained within the analytical calibration standards but present in the GCMS library of defined compounds. When the library is searched for an unknown compound, it can frequently give a tentative identification to the compound based on retention time and primary and secondary ion match. TICs are reported as estimates and are candidates for further investigation.
<b>Units:</b> the unit of measure used to express the reported result - <b>mg/L</b> and <b>mg/Kg</b> (equivalent to PPM - parts per million in <b>liquid</b> and <b>solid</b> ), <b>ug/L</b> and <b>ug/Kg</b> (equivalent to PPB - parts per billion in <b>liquid</b> and <b>solid</b> ), <b>ug/m<sup>3</sup></b> , <b>mg.m<sup>3</sup></b> , <b>ppbv</b> and <b>ppmv</b> (all units of measure for reporting concentrations in air), % (equivalent to 10000 ppm or 1,000,000 ppb), <b>ug/Wipe</b> ( concentration found on the surface of a single Wipe usually taken over a 100cm <sup>2</sup> surface)

### LABORATORY QUALIFIERS:

<p><b>B</b> - Indicates when the analyte is found in the associated method or preparation blank</p> <p><b>D</b> - Surrogate is not recoverable due to the necessary dilution of the sample</p> <p><b>E</b> - Indicates the reportable value is outside of the calibration range of the instrument but within the linear range of the instrument (unless otherwise noted) Values reported with an E qualifier should be considered as estimated.</p> <p><b>H</b>- Indicates that the recommended holding time for the analyte or compound has been exceeded</p> <p><b>J</b>- Indicates a value between the method MDL and PQL and that the reported concentration should be considered as estimated rather the quantitative</p> <p><b>NA</b> - Not Analyzed</p> <p><b>N/A</b> - Not Applicable</p> <p><b>NR</b> - Not recoverable - a matrix spike concentration is not recoverable due to a concentration within the original sample that is greater than four times the spike concentration added</p> <p><b>R</b>- The % RPD between a duplicate set of samples is outside of the absolute values established by laboratory control charts</p> <p><b>S</b>- Spike recovery is outside of established method and/or laboratory control limits. Further explanation of the use of this qualifier should be included within a case narrative</p> <p><b>X</b> -Used to indicate that a value based on pattern identification is within the pattern range but not typical of the pattern found in standards. Further explanation may or may not be provided within the sample footnote and/or the case narrative.</p>
---



## Sample Receipt Checklist

Client Name: Geocon Consultants, Inc.

Date and Time Received: 9/22/2015 10:00

Project Name: Napa County, CA

Received By: ng

Work Order No.: 1509136

Physically Logged By: ldi

Checklist Completed By: ldi

Carrier Name: First Courier

### Chain of Custody (COC) Information

Chain of custody present? Yes  
Chain of custody signed when relinquished and received? Yes  
Chain of custody agrees with sample labels? Yes  
Custody seals intact on sample bottles? Not Present

### Sample Receipt Information

Custody seals intact on shipping container/cooler? Not Present  
Shipping Container/Cooler In Good Condition? Yes  
Samples in proper container/bottle? Yes  
Samples containers intact? Yes  
Sufficient sample volume for indicated test? Yes

### Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes  
Container/Temp Blank temperature in compliance? Yes Temperature: 6 °C  
Water-VOA vials have zero headspace? No VOA vials submitted  
Water-pH acceptable upon receipt? N/A  
pH Checked by: ldi pH Adjusted by: n/a



## Login Summary Report

**Client ID:** TL5648      Geocon Consultants, Inc.  
**Project Name:** Napa County, CA  
**Project # :** E8721-02-40  
**Report Due Date:** 10/9/2015

**QC Level:**  
**TAT Requested:** 5+ day:0  
**Date Received:** 9/22/2015  
**Time Received:** 10:00

**Comments:**

**Work Order # :** 1509136

<u>WO Sample ID</u>	<u>Client Sample ID</u>	<u>Collection Date/Time</u>	<u>Matrix</u>	<u>Scheduled Disposal</u>	<u>Sample On Hold</u>	<u>Test On Hold</u>	<u>Requested Tests</u>	<u>Subbed</u>
1509136-001A	Composite SP1 (A,B,C)	09/21/15	Soil	03/20/16			S_6010B(STLC) S_7471BHG S_6010BCAM17 S_8260MBTEX S_TPHDO S_GCMS-GRO	
1509136-001B	SP1A	09/21/15	Soil	03/20/16			Composite	
1509136-001C	SP1B	09/21/15	Soil	03/20/16			Composite	
1509136-001D	SP1C	09/21/15	Soil	03/20/16			Composite	
1509136-002A	Composite SP2 (A,B,C)	09/21/15	Soil	03/20/16			S_6010B(STLC) S_7471BHG S_TPHDO S_8260MBTEX S_GCMS-GRO S_6010BCAM17	
1509136-002B	SP2A	09/21/15	Soil	03/20/16			Composite	
1509136-002C	SP2B	09/21/15	Soil	03/20/16			Composite	
1509136-002D	SP2C	09/21/15	Soil	03/20/16			Composite	
1509136-003A	Composite SP3 (A,B,C)	09/21/15	Soil	03/20/16			S_6010B(STLC) S_7471BHG S_GCMS-GRO S_TPHDO S_8260MBTEX S_6010BCAM17	
1509136-003B	SP3A	09/21/15	Soil	03/20/16			Composite	
1509136-003C	SP3B	09/21/15	Soil	03/20/16			Composite	



## Login Summary Report

**Client ID:** TL5648      Geocon Consultants, Inc.  
**Project Name:** Napa County, CA  
**Project # :** E8721-02-40  
**Report Due Date:** 10/9/2015

**QC Level:**  
**TAT Requested:** 5+ day:0  
**Date Received:** 9/22/2015  
**Time Received:** 10:00

**Comments:**

**Work Order # :** 1509136

<u>WO Sample ID</u>	<u>Client Sample ID</u>	<u>Collection Date/Time</u>	<u>Matrix</u>	<u>Scheduled Disposal</u>	<u>Sample On Hold</u>	<u>Test On Hold</u>	<u>Requested Tests</u>	<u>Subbed</u>
1509136-003D	SP3C	09/21/15	Soil	03/20/16			Composite	
1509136-004A	Composite SP4 (A,B,C)	09/21/15	Soil	03/20/16			S_6010B(STLC) S_7471BHG S_TPHDO S_GCMS-GRO S_8260MBTEX S_6010BCAM17	
1509136-004B	SP4A	09/21/15	Soil	03/20/16			Composite	
1509136-004C	SP4B	09/21/15	Soil	03/20/16			Composite	
1509136-004D	SP4C	09/21/15	Soil	03/20/16			Composite	
1509136-005A	RB	09/21/15 12:19	Water	03/20/16			W_200.7_CAM17	
<b><u>Sample Note:</u></b>	Pb only							



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FAX: 408.263.8293  
www.torrentlab.com

RESET

# CHAIN OF CUSTODY

• NOTE: SHADED AREAS ARE FOR TORRENT LAB USE ONLY •

LAB WORK ORDER NO  
**1509136**

Company Name: <b>GEOCON</b>			Location of Sampling: <b>NAPA COUNTY, CA</b>		
Address: <b>6671 BRISA ST</b>			Purpose: <b>SHOCKPILE CHARACTERIZATION</b>		
City: <b>LIVERMORE</b>	State: <b>CA</b>	Zip Code: <b>94550</b>	Special Instructions / Comments: <b>E8721-02-40</b>		
Telephone: <b>925-371-5900</b>		FAX: <b>925-371-5915</b>			
REPORT TO: <b>L. BEADLE</b>		SAMPLER: <b>D. WATTS</b>		P.O. #: <b>CT # 0444336</b> EMAIL: <b>BEADLE@GEOCONINC.COM</b>	

TURNAROUND TIME:		SAMPLE TYPE:		REPORT FORMAT:		ANALYSIS REQUESTED
<input type="checkbox"/> 10 Work Days	<input type="checkbox"/> 3 Work Days	<input type="checkbox"/> Storm Water	<input type="checkbox"/> Air	<input type="checkbox"/> QC Level IV		
<input type="checkbox"/> 7 Work Days	<input type="checkbox"/> 2 Work Days	<input type="checkbox"/> Waste Water	<input checked="" type="checkbox"/> Other	<input type="checkbox"/> EDF		
<input checked="" type="checkbox"/> 5 Work Days	<input type="checkbox"/> 1 Work Day	<input type="checkbox"/> Ground Water	<input checked="" type="checkbox"/> Soil	<input checked="" type="checkbox"/> Excel / EDD		
		<b>RINSEATE</b>		<b>CALTRANS</b>		

LAB ID	CLIENT'S SAMPLE I.D.	DATE / TIME SAMPLED	MATRIX	# OF CONT	CONT TYPE	CAM 17	TPHd/mo	TPH g/STEX/mo	Total Pb	REMARKS
001A	SP1-A, B, C	9/21/15 - VAC	SOIL	3	SS TUBES	X	X	X		LAB MUST COMPOSITE
002A	SP2-									"
003A	SP3-									"
004A	SP4-									"
005A	RB	9/21/15 12/9	WATER	1	JAR				X	RINSE BLANK
										Temp 6°C

1	Relinquished By: <i>[Signature]</i>	Print: <b>D. WATTS</b>	Date: <b>9/22/15</b>	Time: <b>1000</b>	Received By: <i>[Signature]</i>	Print: <b>NAVIN G</b>	Date: <b>9-22-15</b>	Time: <b>12:15 P.M</b>
2	Relinquished By: <i>[Signature]</i>	Print:	Date: <b>9-22-15</b>	Time: <b>12:15 P.M</b>	Received By: <i>[Signature]</i>	Print:	Date: <b>9-22-15</b>	Time: <b>10:00</b>

Were Samples Received in Good Condition?  Yes  NO Samples on Ice?  Yes  NO Method of Shipment: **FCS** Sample seals intact?  Yes  NO  N/A

NOTE: Samples are discarded by the laboratory 30 days from date of receipt unless other arrangements are made.

Log In By: \_\_\_\_\_ Date: \_\_\_\_\_ Log In Reviewed By: \_\_\_\_\_ Date: \_\_\_\_\_

Page **1** of **1**



**Change Order**

**Work Order:** 1509136

**Serial #:** CO15-0247

**Print Date:** 10/2/2015

**Project Name:** Napa County, CA

**Client:** Geocon Consultants, Inc.

**Requested By:** Kimberlina Gomez

	<u>Requested Date</u>	<u>Requested Time</u>	<u>Extended Price</u>
Additional Test-STLC for Cr for samples 001A, 002A, 003A, 004A; STD TAT	10/2/2015	10:45:00AM	



483 Sinclair Frontage Road  
 Milpitas, CA 95035  
 Phone: 408.263.5258  
 FAX: 408.263.8293  
 www.torrentlab.com

# CHAIN OF CUSTODY

• NOTE: SHADED AREAS ARE FOR TORRENT LAB USE ONLY.

LAB WORK ORDER NO  
 1509136

Company Name: Geocon Location of Sampling: NAPA COUNTY, CA  
 Address: 6671 BRISA ST Purpose: SHOCKLE CHARACTERIZATION  
 City: LIVERMORE State: CA Zip Code: 94550  
 Telephone: 925-371-5900 FAX: 925-371-5915 Special Instructions / Comments: E8721-02-40  
 REPORT TO: L. BEADLE SAMPLER: D. WARTS P.O. #: CT # 0444336 EMAIL: BEADLE@GEOCONINC.COM

TURNAROUND TIME:  
 10 Work Days  3 Work Days  Noon - Nxt Day  
 7 Work Days  2 Work Days  2 - 8 Hours  
 5 Work Days  1 Work Day  Other

SAMPLE TYPE:  
 Storm Water  Air  QC Level IV  
 Waste Water  Other  EDF  
 Ground Water  Soil  Rinseate  Excel / EDD  
 CALTRANS

LAB ID	CLIENT'S SAMPLE I.D.	DATE / TIME SAMPLED	MATRIX	REPORT FORMAT:		ANALYSIS REQUESTED
				# OF CONT	CONT TYPE	
-001A	SP1-1A, B, C	9/21/15 - VAR	SOIL	3	55 TUBE	LAB MESH Composite
-002A	SP2-	↓	↓	↓	↓	"
-003A	SP3-	↓	↓	↓	↓	"
-004A	SP4-	↓	↓	↓	↓	"
-005A	RB	9/21/15 12/9	WATER	1	JAR	RINSE Blank
						Temp 6°C

1 Relinquished By: [Signature] Date: 9/22/15 Time: 1000 Received By: NAVAN G Date: 9-22-15 Time: 12:15 P.M.  
 2 Relinquished By: [Signature] Date: 9-22-15 Time: 12:15 PM Received By: [Signature] Date: 9-22-15 Time: 10:00

Were Samples Received in Good Condition?  Yes  NO Samples on Ice?  Yes  NO Method of Shipment: FCS Sample seals intact?  Yes  NO  N/A  
 NOTE: Samples are discarded by the laboratory 30 days from date of receipt unless other arrangements are made.  
 Log In By: \_\_\_\_\_ Date: \_\_\_\_\_ Log In Reviewed By: \_\_\_\_\_ Date: \_\_\_\_\_ Page 1 of 1



Geocon Consultants, Inc.  
6671 Brisa Street  
Livermore, California 94550  
Tel: 925-371-5900  
RE: Yountville, CA

Work Order No.: 1601027 Rev: 1

Dear Luann Beadle:

Torrent Laboratory, Inc. received 20 sample(s) on January 06, 2016 for the analyses presented in the following Report.

All data for associated QC met EPA or laboratory specification(s) except where noted in the case narrative.

Torrent Laboratory, Inc. is certified by the State of California, ELAP #1991. If you have any questions regarding these test results, please feel free to contact the Project Management Team at (408)263-5258; ext 204.

---

Patti Sandrock  
QA Officer

January 21, 2016  

---

Date

**Date:** 1/21/2016

---

**Client:** Geocon Consultants, Inc.

**Project:** Yountville, CA

**Work Order:** 1601027

## CASE NARRATIVE

---

No issues encountered with the receiving, preparation, analysis or reporting of the results associated with this work order.

Unless otherwise indicated in the following narrative, no results have been method and/or field blank corrected.

Reported results relate only to the items/samples tested by the laboratory.

This report shall not be reproduced, except in full, without the written approval of Torrent Analytical, Inc.

Analytical Comments for method S\_6010BCAM17, 1601027-010A MS/MSD, Note: Barium, Cobalt and Vanadium are outside of laboratory control limits. A post digestion spike was analyzed and recovered within control limits indicating a heterogeneity issue rather than matrix interference. The associated LCS/LCSD is within both % Recovery and %RPD limits. No corrective action required.

### REVISIONS

Report revised to include STLC Lead data for samples B7-0 and B5-0 (009 and 014).

### STLC

Note: Extraction of 50 g sample / 500g 0.2M Sodium Citrate Solution was performed according to wet extraction procedure (WET) which was rotated in a rotary shaker for 48 hours (+/- 4 hours).

Date Prepared: 1/18/16 at 12:15 PM to 1/20/16 at 10:30AM

Rev. 1 (1-21-16)



## Sample Result Summary

Report prepared for: Luann Beadle  
Geocon Consultants, Inc.

Date Received: 01/06/16

Date Reported: 01/21/16

**B1-0**

1601027-001

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Lead	SW6010B	1	0.13	1.0	27	mg/Kg

**B1-0.5**

1601027-002

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.25	1.7	2.2	mg/Kg
Barium	SW6010B	1	0.07	5.0	120	mg/Kg
Chromium	SW6010B	1	0.0500	5.0	24	mg/Kg
Cobalt	SW6010B	1	0.055	5.0	9.7	mg/Kg
Copper	SW6010B	1	0.650	5.0	15	mg/Kg
Lead	SW6010B	1	0.14	1.0	16	mg/Kg
Nickel	SW6010B	1	0.0500	5.0	13	mg/Kg
Vanadium	SW6010B	1	0.18	5.0	19	mg/Kg
Zinc	SW6010B	1	0.25	5.0	29	mg/Kg
TPH as Motor Oil	SW8015B(M)	1	4.00	41	200	mg/Kg

**B2-0**

1601027-003

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Lead	SW6010B	1	0.13	1.0	19	mg/Kg

**B2-1**

1601027-004

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Lead	SW6010B	1	0.13	1.0	6.8	mg/Kg
TPH as Motor Oil	SW8015B(M)	1	1.00	10	13	mg/Kg

**B2-1.5**

1601027-005

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Lead	SW6010B	1	0.13	1.0	6.8	mg/Kg



### Sample Result Summary

Report prepared for: Luann Beadle  
Geocon Consultants, Inc.

Date Received: 01/06/16

Date Reported: 01/21/16

**B3-0**

1601027-006

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Arsenic	SW6010B	1	0.25	1.7	4.3	mg/Kg
Barium	SW6010B	1	0.07	5.0	24	mg/Kg
Chromium	SW6010B	1	0.0500	5.0	12	mg/Kg
Cobalt	SW6010B	1	0.055	5.0	6.3	mg/Kg
Copper	SW6010B	1	0.650	5.0	14	mg/Kg
Lead	SW6010B	1	0.14	1.0	12	mg/Kg
Nickel	SW6010B	1	0.0500	5.0	12	mg/Kg
Vanadium	SW6010B	1	0.18	5.0	38	mg/Kg
Zinc	SW6010B	1	0.25	5.0	33	mg/Kg
TPH as Motor Oil	SW8015B(M)	5	50.0	520	2500	mg/Kg

**B3-1**

1601027-007

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Lead	SW6010B	1	0.13	1.0	29	mg/Kg

**B4-0**

1601027-008

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Lead	SW6010B	1	0.13	1.0	9.0	mg/Kg
TPH as Motor Oil	SW8015B(M)	5	50.0	520	2100	mg/Kg

**B5-0**

1601027-009

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Lead	SW6010B	1	0.13	1.0	90	mg/Kg
Lead (STLC)	SW6010B	1	0.0500	0.10	4.4	mg/L



## Sample Result Summary

Report prepared for: Luann Beadle  
Geocon Consultants, Inc.

Date Received: 01/06/16  
Date Reported: 01/21/16  
1601027-010

**B5-1**

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Barium	SW6010B	1	0.07	5.0	69	mg/Kg
Chromium	SW6010B	1	0.0500	5.0	22	mg/Kg
Cobalt	SW6010B	1	0.055	5.0	7.2	mg/Kg
Copper	SW6010B	1	0.650	5.0	13	mg/Kg
Lead	SW6010B	1	0.14	1.0	10	mg/Kg
Nickel	SW6010B	1	0.0500	5.0	13	mg/Kg
Vanadium	SW6010B	1	0.18	5.0	21	mg/Kg
Zinc	SW6010B	1	0.25	5.0	26	mg/Kg
TPH as Diesel	SW8015B(M)	1	1.00	4.0	4.7	mg/Kg
TPH as Motor Oil	SW8015B(M)	1	2.00	21	63	mg/Kg

**B6-0**

1601027-011

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Lead	SW6010B	1	0.13	1.0	27	mg/Kg

**B6-1**

1601027-012

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Lead	SW6010B	1	0.13	1.0	3.6	mg/Kg

**B6-1.5**

1601027-013

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Lead	SW6010B	1	0.13	1.0	4.8	mg/Kg



### Sample Result Summary

Report prepared for: Luann Beadle  
Geocon Consultants, Inc.

Date Received: 01/06/16

Date Reported: 01/21/16

**B7-0**

1601027-014

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Lead	SW6010B	1	0.13	1.0	61	mg/Kg
TPH as Diesel	SW8015B(M)	1	1.00	4.0	14	mg/Kg
TPH as Motor Oil	SW8015B(M)	1	2.00	21	170	mg/Kg
Lead (STLC)	SW6010B	1	0.0500	0.10	1.5	mg/L

**B7-1**

1601027-015

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Lead	SW6010B	1	0.13	1.0	49	mg/Kg

**B7-2**

1601027-016

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Lead	SW6010B	1	0.13	1.0	26	mg/Kg

**B8-0**

1601027-017

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Lead	SW6010B	1	0.13	1.0	44	mg/Kg

**B8-1**

1601027-018

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Lead	SW6010B	1	0.13	1.0	11	mg/Kg

**B8-2**

1601027-019

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
Lead	SW6010B	1	0.13	1.0	4.5	mg/Kg



## Sample Result Summary

Report prepared for: Luann Beadle  
Geocon Consultants, Inc.

Date Received: 01/06/16

Date Reported: 01/21/16  
1601027-020

Rinse Blank

---

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
--------------------	------------------------	-----------	------------	------------	----------------	-------------

All compounds were non-detectable for this sample.



## SAMPLE RESULTS

**Report prepared for:** Luann Beadle  
Geocon Consultants, Inc.

**Date Received:** 01/06/16  
**Date Reported:** 01/21/16

<b>Client Sample ID:</b>	B1-0	<b>Lab Sample ID:</b>	1601027-001A
<b>Project Name/Location:</b>	Yountville, CA	<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	04A4336		
<b>Date/Time Sampled:</b>	01/05/16 / 12:00		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Lead	SW6010B	1/7/16	01/07/16	1	0.13	1.0	27		mg/Kg	428394	16103



## SAMPLE RESULTS

**Report prepared for:** Luann Beadle  
Geocon Consultants, Inc.

**Date Received:** 01/06/16  
**Date Reported:** 01/21/16

<b>Client Sample ID:</b>	B1-0.5	<b>Lab Sample ID:</b>	1601027-002A
<b>Project Name/Location:</b>	Yountville, CA	<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	04A4336		
<b>Date/Time Sampled:</b>	01/05/16 / 12:25		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Antimony	SW6010B	1/8/16	01/11/16	1	0.20	5.0	ND		mg/Kg	428424	16118
Arsenic	SW6010B	1/8/16	01/11/16	1	0.25	1.7	2.2		mg/Kg	428424	16118
Barium	SW6010B	1/8/16	01/11/16	1	0.07	5.0	120		mg/Kg	428424	16118
Beryllium	SW6010B	1/8/16	01/11/16	1	0.0800	2.0	ND		mg/Kg	428424	16118
Cadmium	SW6010B	1/8/16	01/11/16	1	0.0550	1.0	ND		mg/Kg	428424	16118
Chromium	SW6010B	1/8/16	01/11/16	1	0.0500	5.0	24		mg/Kg	428424	16118
Cobalt	SW6010B	1/8/16	01/11/16	1	0.055	5.0	9.7		mg/Kg	428424	16118
Copper	SW6010B	1/8/16	01/11/16	1	0.650	5.0	15		mg/Kg	428424	16118
Lead	SW6010B	1/8/16	01/11/16	1	0.14	1.0	16		mg/Kg	428424	16118
Molybdenum	SW6010B	1/8/16	01/11/16	1	0.120	5.0	ND		mg/Kg	428424	16118
Nickel	SW6010B	1/8/16	01/11/16	1	0.0500	5.0	13		mg/Kg	428424	16118
Selenium	SW6010B	1/8/16	01/11/16	1	0.42	5.0	ND		mg/Kg	428424	16118
Silver	SW6010B	1/8/16	01/11/16	1	0.37	5.0	ND		mg/Kg	428424	16118
Thallium	SW6010B	1/8/16	01/11/16	1	0.49	7.5	ND		mg/Kg	428424	16118
Vanadium	SW6010B	1/8/16	01/11/16	1	0.18	5.0	19		mg/Kg	428424	16118
Zinc	SW6010B	1/8/16	01/11/16	1	0.25	5.0	29		mg/Kg	428424	16118

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Mercury	SW7471A	1/11/16	01/11/16	1	0.2	0.50	ND		mg/Kg	428412	16116

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Diesel	SW8015B(M)	1/7/16	01/07/16	1	2.00	8.0	ND		mg/Kg	428403	16096
TPH as Motor Oil	SW8015B(M)	1/7/16	01/07/16	1	4.00	41	200		mg/Kg	428403	16096
Pentacosane (S)	SW8015B(M)	1/7/16	01/07/16	1	57.9	129	93.3		%	428403	16096



## SAMPLE RESULTS

**Report prepared for:** Luann Beadle  
Geocon Consultants, Inc.

**Date Received:** 01/06/16  
**Date Reported:** 01/21/16

<b>Client Sample ID:</b>	B2-0	<b>Lab Sample ID:</b>	1601027-003A
<b>Project Name/Location:</b>	Yountville, CA	<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	04A4336		
<b>Date/Time Sampled:</b>	01/05/16 / 11:15		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Lead	SW6010B	1/7/16	01/07/16	1	0.13	1.0	19		mg/Kg	428394	16103



## SAMPLE RESULTS

**Report prepared for:** Luann Beadle  
Geocon Consultants, Inc.

**Date Received:** 01/06/16  
**Date Reported:** 01/21/16

<b>Client Sample ID:</b>	B2-1	<b>Lab Sample ID:</b>	1601027-004A
<b>Project Name/Location:</b>	Yountville, CA	<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	04A4336		
<b>Date/Time Sampled:</b>	01/05/16 / 11:30		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Lead	SW6010B	1/7/16	01/07/16	1	0.13	1.0	6.8		mg/Kg	428394	16103

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Diesel	SW8015B(M)	1/7/16	01/07/16	1	0.500	2.0	ND		mg/Kg	428403	16096
TPH as Motor Oil	SW8015B(M)	1/7/16	01/07/16	1	1.00	10	13		mg/Kg	428403	16096
Pentacosane (S)	SW8015B(M)	1/7/16	01/07/16	1	57.9	129	75.5		%	428403	16096



### SAMPLE RESULTS

**Report prepared for:** Luann Beadle  
Geocon Consultants, Inc.

**Date Received:** 01/06/16  
**Date Reported:** 01/21/16

<b>Client Sample ID:</b>	B2-1.5	<b>Lab Sample ID:</b>	1601027-005A
<b>Project Name/Location:</b>	Yountville, CA	<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	04A4336		
<b>Date/Time Sampled:</b>	01/05/16 / 11:45		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Lead	SW6010B	1/7/16	01/07/16	1	0.13	1.0	6.8		mg/Kg	428394	16103



## SAMPLE RESULTS

**Report prepared for:** Luann Beadle  
Geocon Consultants, Inc.

**Date Received:** 01/06/16  
**Date Reported:** 01/21/16

<b>Client Sample ID:</b>	B3-0	<b>Lab Sample ID:</b>	1601027-006A
<b>Project Name/Location:</b>	Yountville, CA	<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	04A4336		
<b>Date/Time Sampled:</b>	01/05/16 / 11:10		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Antimony	SW6010B	1/8/16	01/11/16	1	0.20	5.0	ND		mg/Kg	428424	16118
Arsenic	SW6010B	1/8/16	01/11/16	1	0.25	1.7	4.3		mg/Kg	428424	16118
Barium	SW6010B	1/8/16	01/11/16	1	0.07	5.0	24		mg/Kg	428424	16118
Beryllium	SW6010B	1/8/16	01/11/16	1	0.0800	2.0	ND		mg/Kg	428424	16118
Cadmium	SW6010B	1/8/16	01/11/16	1	0.0550	1.0	ND		mg/Kg	428424	16118
Chromium	SW6010B	1/8/16	01/11/16	1	0.0500	5.0	12		mg/Kg	428424	16118
Cobalt	SW6010B	1/8/16	01/11/16	1	0.055	5.0	6.3		mg/Kg	428424	16118
Copper	SW6010B	1/8/16	01/11/16	1	0.650	5.0	14		mg/Kg	428424	16118
Lead	SW6010B	1/8/16	01/11/16	1	0.14	1.0	12		mg/Kg	428424	16118
Molybdenum	SW6010B	1/8/16	01/11/16	1	0.120	5.0	ND		mg/Kg	428424	16118
Nickel	SW6010B	1/8/16	01/11/16	1	0.0500	5.0	12		mg/Kg	428424	16118
Selenium	SW6010B	1/8/16	01/11/16	1	0.42	5.0	ND		mg/Kg	428424	16118
Silver	SW6010B	1/8/16	01/11/16	1	0.37	5.0	ND		mg/Kg	428424	16118
Thallium	SW6010B	1/8/16	01/11/16	1	0.49	7.5	ND		mg/Kg	428424	16118
Vanadium	SW6010B	1/8/16	01/11/16	1	0.18	5.0	38		mg/Kg	428424	16118
Zinc	SW6010B	1/8/16	01/11/16	1	0.25	5.0	33		mg/Kg	428424	16118

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Mercury	SW7471A	1/11/16	01/11/16	1	0.2	0.50	ND		mg/Kg	428412	16116

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Diesel	SW8015B(M)	1/7/16	01/07/16	5	25.0	100	ND		mg/Kg	428403	16096
TPH as Motor Oil	SW8015B(M)	1/7/16	01/07/16	5	50.0	520	2500		mg/Kg	428403	16096
Pentacosane (S)	SW8015B(M)	1/7/16	01/07/16	5	57.9	129	0.000	D	%	428403	16096



## SAMPLE RESULTS

**Report prepared for:** Luann Beadle  
Geocon Consultants, Inc.

**Date Received:** 01/06/16  
**Date Reported:** 01/21/16

<b>Client Sample ID:</b>	B3-1	<b>Lab Sample ID:</b>	1601027-007A
<b>Project Name/Location:</b>	Yountville, CA	<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	04A4336		
<b>Date/Time Sampled:</b>	01/05/16 / 11:35		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Lead	SW6010B	1/7/16	01/07/16	1	0.13	1.0	29		mg/Kg	428394	16103



## SAMPLE RESULTS

**Report prepared for:** Luann Beadle  
Geocon Consultants, Inc.

**Date Received:** 01/06/16  
**Date Reported:** 01/21/16

<b>Client Sample ID:</b>	B4-0	<b>Lab Sample ID:</b>	1601027-008A
<b>Project Name/Location:</b>	Yountville, CA	<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	04A4336		
<b>Date/Time Sampled:</b>	01/05/16 / 10:00		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Lead	SW6010B	1/7/16	01/07/16	1	0.13	1.0	9.0		mg/Kg	428394	16103

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Diesel	SW8015B(M)	1/7/16	01/07/16	5	25.0	100	ND		mg/Kg	428403	16096
TPH as Motor Oil	SW8015B(M)	1/7/16	01/07/16	5	50.0	520	2100		mg/Kg	428403	16096
Pentacosane (S)	SW8015B(M)	1/7/16	01/07/16	5	57.9	129	0.000	D	%	428403	16096



## SAMPLE RESULTS

**Report prepared for:** Luann Beadle  
Geocon Consultants, Inc.

**Date Received:** 01/06/16  
**Date Reported:** 01/21/16

<b>Client Sample ID:</b>	B5-0	<b>Lab Sample ID:</b>	1601027-009A
<b>Project Name/Location:</b>	Yountville, CA	<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	04A4336		
<b>Date/Time Sampled:</b>	01/05/16 / 9:55		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Lead (STLC)	SW6010B	1/20/16	01/20/16	1	0.0500	0.10	4.4		mg/L	428555	16187

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Lead	SW6010B	1/7/16	01/07/16	1	0.13	1.0	90		mg/Kg	428394	16103



## SAMPLE RESULTS

**Report prepared for:** Luann Beadle  
Geocon Consultants, Inc.

**Date Received:** 01/06/16  
**Date Reported:** 01/21/16

<b>Client Sample ID:</b>	B5-1	<b>Lab Sample ID:</b>	1601027-010A
<b>Project Name/Location:</b>	Yountville, CA	<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	04A4336		
<b>Date/Time Sampled:</b>	01/05/16 / 10:30		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Antimony	SW6010B	1/8/16	01/11/16	1	0.20	5.0	ND		mg/Kg	428424	16118
Arsenic	SW6010B	1/8/16	01/11/16	1	0.25	1.7	ND		mg/Kg	428424	16118
Barium	SW6010B	1/8/16	01/11/16	1	0.07	5.0	69		mg/Kg	428424	16118
Beryllium	SW6010B	1/8/16	01/11/16	1	0.0800	2.0	ND		mg/Kg	428424	16118
Cadmium	SW6010B	1/8/16	01/11/16	1	0.0550	1.0	ND		mg/Kg	428424	16118
Chromium	SW6010B	1/8/16	01/11/16	1	0.0500	5.0	22		mg/Kg	428424	16118
Cobalt	SW6010B	1/8/16	01/11/16	1	0.055	5.0	7.2		mg/Kg	428424	16118
Copper	SW6010B	1/8/16	01/11/16	1	0.650	5.0	13		mg/Kg	428424	16118
Lead	SW6010B	1/8/16	01/11/16	1	0.14	1.0	10		mg/Kg	428424	16118
Molybdenum	SW6010B	1/8/16	01/11/16	1	0.120	5.0	ND		mg/Kg	428424	16118
Nickel	SW6010B	1/8/16	01/11/16	1	0.0500	5.0	13		mg/Kg	428424	16118
Selenium	SW6010B	1/8/16	01/11/16	1	0.42	5.0	ND		mg/Kg	428424	16118
Silver	SW6010B	1/8/16	01/11/16	1	0.37	5.0	ND		mg/Kg	428424	16118
Thallium	SW6010B	1/8/16	01/11/16	1	0.49	7.5	ND		mg/Kg	428424	16118
Vanadium	SW6010B	1/8/16	01/11/16	1	0.18	5.0	21		mg/Kg	428424	16118
Zinc	SW6010B	1/8/16	01/11/16	1	0.25	5.0	26		mg/Kg	428424	16118

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Mercury	SW7471A	1/11/16	01/11/16	1	0.2	0.50	ND		mg/Kg	428412	16116

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Diesel	SW8015B(M)	1/7/16	01/11/16	1	1.00	4.0	4.7	x	mg/Kg	428425	16096
TPH as Motor Oil	SW8015B(M)	1/7/16	01/11/16	1	2.00	21	63		mg/Kg	428425	16096
Pentacosane (S)	SW8015B(M)	1/7/16	01/11/16	1	57.9	129	95.4		%	428425	16096

**NOTE:** x- Diesel result due to over-lapping of oil range organics within diesel quantified range



## SAMPLE RESULTS

**Report prepared for:** Luann Beadle  
Geocon Consultants, Inc.

**Date Received:** 01/06/16  
**Date Reported:** 01/21/16

<b>Client Sample ID:</b>	B6-0	<b>Lab Sample ID:</b>	1601027-011A
<b>Project Name/Location:</b>	Yountville, CA	<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	04A4336		
<b>Date/Time Sampled:</b>	01/05/16 / 9:55		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Lead	SW6010B	1/7/16	01/07/16	1	0.13	1.0	27		mg/Kg	428394	16103



## SAMPLE RESULTS

**Report prepared for:** Luann Beadle  
Geocon Consultants, Inc.

**Date Received:** 01/06/16  
**Date Reported:** 01/21/16

<b>Client Sample ID:</b>	B6-1	<b>Lab Sample ID:</b>	1601027-012A
<b>Project Name/Location:</b>	Yountville, CA	<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	04A4336		
<b>Date/Time Sampled:</b>	01/05/16 / 10:10		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Lead	SW6010B	1/7/16	01/07/16	1	0.13	1.0	3.6		mg/Kg	428394	16103



## SAMPLE RESULTS

**Report prepared for:** Luann Beadle  
Geocon Consultants, Inc.

**Date Received:** 01/06/16  
**Date Reported:** 01/21/16

<b>Client Sample ID:</b>	B6-1.5	<b>Lab Sample ID:</b>	1601027-013A
<b>Project Name/Location:</b>	Yountville, CA	<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	04A4336		
<b>Date/Time Sampled:</b>	01/05/16 / 10:40		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Lead	SW6010B	1/7/16	01/07/16	1	0.13	1.0	4.8		mg/Kg	428394	16103



## SAMPLE RESULTS

**Report prepared for:** Luann Beadle  
Geocon Consultants, Inc.

**Date Received:** 01/06/16  
**Date Reported:** 01/21/16

<b>Client Sample ID:</b>	B7-0	<b>Lab Sample ID:</b>	1601027-014A
<b>Project Name/Location:</b>	Yountville, CA	<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	04A4336		
<b>Date/Time Sampled:</b>	01/05/16 / 9:10		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Lead (STLC)	SW6010B	1/20/16	01/20/16	1	0.0500	0.10	1.5		mg/L	428555	16187

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Lead	SW6010B	1/7/16	01/07/16	1	0.13	1.0	61		mg/Kg	428394	16103

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Diesel	SW8015B(M)	1/7/16	01/11/16	1	1.00	4.0	14	x	mg/Kg	428425	16096
TPH as Motor Oil	SW8015B(M)	1/7/16	01/11/16	1	2.00	21	170		mg/Kg	428425	16096
Pentacosane (S)	SW8015B(M)	1/7/16	01/11/16	1	57.9	129	98.3		%	428425	16096

**NOTE:** x- Diesel result due to over-lapping of oil range organics within diesel quantified range



## SAMPLE RESULTS

**Report prepared for:** Luann Beadle  
Geocon Consultants, Inc.

**Date Received:** 01/06/16  
**Date Reported:** 01/21/16

<b>Client Sample ID:</b>	B7-1	<b>Lab Sample ID:</b>	1601027-015A
<b>Project Name/Location:</b>	Yountville, CA	<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	04A4336		
<b>Date/Time Sampled:</b>	01/05/16 / 9:20		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Lead	SW6010B	1/8/16	01/08/16	1	0.13	1.0	49		mg/Kg	428401	16105



## SAMPLE RESULTS

**Report prepared for:** Luann Beadle  
Geocon Consultants, Inc.

**Date Received:** 01/06/16  
**Date Reported:** 01/21/16

<b>Client Sample ID:</b>	B7-2	<b>Lab Sample ID:</b>	1601027-016A
<b>Project Name/Location:</b>	Yountville, CA	<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	04A4336		
<b>Date/Time Sampled:</b>	01/05/16 / 9:40		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Lead	SW6010B	1/8/16	01/08/16	1	0.13	1.0	26		mg/Kg	428401	16105



## SAMPLE RESULTS

**Report prepared for:** Luann Beadle  
Geocon Consultants, Inc.

**Date Received:** 01/06/16  
**Date Reported:** 01/21/16

<b>Client Sample ID:</b>	B8-0	<b>Lab Sample ID:</b>	1601027-017A
<b>Project Name/Location:</b>	Yountville, CA	<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	04A4336		
<b>Date/Time Sampled:</b>	01/05/16 / 9:10		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Lead	SW6010B	1/8/16	01/08/16	1	0.13	1.0	44		mg/Kg	428401	16105



## SAMPLE RESULTS

**Report prepared for:** Luann Beadle  
Geocon Consultants, Inc.

**Date Received:** 01/06/16  
**Date Reported:** 01/21/16

<b>Client Sample ID:</b>	B8-1	<b>Lab Sample ID:</b>	1601027-018A
<b>Project Name/Location:</b>	Yountville, CA	<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	04A4336		
<b>Date/Time Sampled:</b>	01/05/16 / 9:40		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Lead	SW6010B	1/8/16	01/08/16	1	0.13	1.0	11		mg/Kg	428401	16105



## SAMPLE RESULTS

**Report prepared for:** Luann Beadle  
Geocon Consultants, Inc.

**Date Received:** 01/06/16  
**Date Reported:** 01/21/16

<b>Client Sample ID:</b>	B8-2	<b>Lab Sample ID:</b>	1601027-019A
<b>Project Name/Location:</b>	Yountville, CA	<b>Sample Matrix:</b>	Soil
<b>Project Number:</b>	04A4336		
<b>Date/Time Sampled:</b>	01/05/16 / 9:45		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Lead	SW6010B	1/8/16	01/08/16	1	0.13	1.0	4.5		mg/Kg	428401	16105



### SAMPLE RESULTS

**Report prepared for:** Luann Beadle  
Geocon Consultants, Inc.

**Date Received:** 01/06/16  
**Date Reported:** 01/21/16

<b>Client Sample ID:</b>	Rinse Blank	<b>Lab Sample ID:</b>	1601027-020A
<b>Project Name/Location:</b>	Yountville, CA	<b>Sample Matrix:</b>	Water
<b>Project Number:</b>	04A4336		
<b>Date/Time Sampled:</b>	01/05/16 / 16:00		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Lead	SW6010B	1/8/16	01/08/16	1	0.0050	0.015	ND		mg/L	428406	16110



### MB Summary Report

<b>Work Order:</b>	1601027	<b>Prep Method:</b>	3546_TPHSG	<b>Prep Date:</b>	01/07/16	<b>Prep Batch:</b>	16096
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW8015B(M)	<b>Analyzed Date:</b>	01/07/16	<b>Analytical Batch:</b>	428403
<b>Units:</b>	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
TPH as Diesel (SG)	0.66	2.0	ND	
TPH as Motor Oil (SG)	1.0	10	ND	
Pentacosane (S)			78.1	

<b>Work Order:</b>	1601027	<b>Prep Method:</b>	3050	<b>Prep Date:</b>	01/07/16	<b>Prep Batch:</b>	16103
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW6010B	<b>Analyzed Date:</b>	01/07/16	<b>Analytical Batch:</b>	428394
<b>Units:</b>	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Lead	0.14	1.0	ND	

<b>Work Order:</b>	1601027	<b>Prep Method:</b>	3050	<b>Prep Date:</b>	01/08/16	<b>Prep Batch:</b>	16105
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW6010B	<b>Analyzed Date:</b>	01/08/16	<b>Analytical Batch:</b>	428401
<b>Units:</b>	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Arsenic	0.25	1.3	ND	
Lead	0.14	1.0	ND	



### MB Summary Report

<b>Work Order:</b>	1601027	<b>Prep Method:</b>	3010B	<b>Prep Date:</b>	01/08/16	<b>Prep Batch:</b>	16110
<b>Matrix:</b>	Water	<b>Analytical Method:</b>	SW6010B	<b>Analyzed Date:</b>	01/08/16	<b>Analytical Batch:</b>	428406
<b>Units:</b>	mg/L						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
Iron	0.002	0.30	ND		
Antimony	0.004	0.010	ND		
Arsenic	0.005	0.010	ND		
Barium	0.002	0.010	ND		
Beryllium	0.002	0.005	ND		
Cadmium	0.001	0.005	0.0011		
Chromium	0.002	0.005	ND		
Cobalt	0.002	0.005	ND		
Copper	0.003	0.010	ND		
Lead	0.005	0.015	ND		
Molybdenum	0.002	0.010	ND		
Nickel	0.002	0.010	ND		
Selenium	0.004	0.020	0.0044		
Silver	0.002	0.005	ND		
Thallium	0.004	0.010	0.0046		
Vanadium	0.004	0.010	ND		
Zinc	0.002	0.010	ND		

<b>Work Order:</b>	1601027	<b>Prep Method:</b>	7471	<b>Prep Date:</b>	01/11/16	<b>Prep Batch:</b>	16116
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW7471A	<b>Analyzed Date:</b>	01/11/16	<b>Analytical Batch:</b>	428412
<b>Units:</b>	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
Mercury	0.2	0.50	ND		



### MB Summary Report

<b>Work Order:</b>	1601027	<b>Prep Method:</b>	3050	<b>Prep Date:</b>	01/08/16	<b>Prep Batch:</b>	16118
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW6010B	<b>Analyzed Date:</b>	01/11/16	<b>Analytical Batch:</b>	428424
<b>Units:</b>	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Antimony	0.20	5.0	0.35	
Arsenic	0.25	1.7	ND	
Barium	0.07	5.0	0.085	
Beryllium	0.0800	2.0	ND	
Cadmium	0.055	1.0	0.060	
Chromium	0.050	5.0	ND	
Cobalt	0.055	5.0	ND	
Copper	0.65	5.0	ND	
Lead	0.14	1.0	0.52	
Molybdenum	0.12	5.0	ND	
Nickel	0.050	5.0	0.065	
Selenium	0.42	5.0	ND	
Silver	0.37	5.0	ND	
Thallium	0.49	5.0	ND	
Vanadium	0.18	5.0	ND	
Zinc	0.25	5.0	ND	

<b>Work Order:</b>	1601027	<b>Prep Method:</b>	WET/3010B	<b>Prep Date:</b>	01/20/16	<b>Prep Batch:</b>	16187
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW6010B	<b>Analyzed Date:</b>	01/20/16	<b>Analytical Batch:</b>	428555
<b>Units:</b>	mg/L						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Chromium (STLC)	0.0200	0.10	ND	
Cobalt (STLC)	0.0200	0.10	ND	
Lead (STLC)	0.0500	0.10	ND	
Nickel (STLC)	0.0200	0.10	0.0260	



## LCS/LCSD Summary Report

*Raw values are used in quality control assessment.*

<b>Work Order:</b>	1601027	<b>Prep Method:</b>	3546_TPHSG	<b>Prep Date:</b>	01/07/16	<b>Prep Batch:</b>	16096
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW8015B(M)	<b>Analyzed Date:</b>	01/07/16	<b>Analytical Batch:</b>	428403
<b>Units:</b>	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Diesel (SG)	0.66	2.0	ND	25	92.5	76.8	18.6	50.8 - 111	30	
Pentacosane (S)			ND	200	110	84.4		49.9 - 144		

<b>Work Order:</b>	1601027	<b>Prep Method:</b>	3050	<b>Prep Date:</b>	01/07/16	<b>Prep Batch:</b>	16103
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW6010B	<b>Analyzed Date:</b>	01/07/16	<b>Analytical Batch:</b>	428394
<b>Units:</b>	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Lead	0.14	1.0	ND	50	101	102	0.592	67.9 - 118	30	

<b>Work Order:</b>	1601027	<b>Prep Method:</b>	3050	<b>Prep Date:</b>	01/08/16	<b>Prep Batch:</b>	16105
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW6010B	<b>Analyzed Date:</b>	01/08/16	<b>Analytical Batch:</b>	428401
<b>Units:</b>	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Arsenic	0.25	1.3	ND	50	106	108	2.15	71 - 121	30	
Lead	0.14	1.0	ND	50	99.0	99.9	0.935	67.9 - 118	30	



## LCS/LCSD Summary Report

*Raw values are used in quality control assessment.*

<b>Work Order:</b>	1601027	<b>Prep Method:</b>	3010B	<b>Prep Date:</b>	01/08/16	<b>Prep Batch:</b>	16110
<b>Matrix:</b>	Water	<b>Analytical Method:</b>	SW6010B	<b>Analyzed Date:</b>	01/08/16	<b>Analytical Batch:</b>	428406
<b>Units:</b>	mg/L						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Iron	0.002	0.30	ND	10	105	104	0.859	80 - 120	30	
Antimony	0.004	0.010	ND	1	95.8	93.0	3.05	80 - 120	30	
Arsenic	0.005	0.010	ND	1	109	103	6.04	80 - 120	30	
Barium	0.002	0.010	ND	1	102	101	1.38	80 - 120	30	
Beryllium	0.002	0.005	ND	1	103	105	1.54	80 - 120	30	
Cadmium	0.001	0.005	0.0011	1	104	102	2.33	80 - 120	30	
Chromium	0.002	0.005	ND	1	103	102	1.27	80 - 120	30	
Cobalt	0.002	0.005	ND	1	104	102	2.04	80 - 120	30	
Copper	0.003	0.010	ND	1	102	102	0.295	80 - 120	30	
Lead	0.005	0.015	ND	1	102	100	1.38	80 - 120	30	
Molybdenum	0.002	0.010	ND	1	104	102	1.66	80 - 120	30	
Nickel	0.002	0.010	ND	1	103	101	1.86	80 - 120	30	
Selenium	0.004	0.020	0.0044	1	104	102	2.13	80 - 120	30	
Silver	0.002	0.005	ND	1	102	101	0.982	80 - 120	30	
Thallium	0.004	0.010	0.0046	1	109	103	5.74	80 - 120	30	
Vanadium	0.004	0.010	ND	1	102	101	0.690	80 - 120	30	
Zinc	0.002	0.010	ND	1	103	102	1.07	80 - 120	30	

<b>Work Order:</b>	1601027	<b>Prep Method:</b>	7471	<b>Prep Date:</b>	01/11/16	<b>Prep Batch:</b>	16116
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW7471A	<b>Analyzed Date:</b>	01/11/16	<b>Analytical Batch:</b>	428412
<b>Units:</b>	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Mercury	0.2	0.50	ND	1.25	85.3	85.6	0.312	80.5 - 133	30	



## LCS/LCSD Summary Report

*Raw values are used in quality control assessment.*

<b>Work Order:</b>	1601027	<b>Prep Method:</b>	3050	<b>Prep Date:</b>	01/08/16	<b>Prep Batch:</b>	16118
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW6010B	<b>Analyzed Date:</b>	01/11/16	<b>Analytical Batch:</b>	428424
<b>Units:</b>	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Antimony	0.20	5.0	0.35	50	87.7	88.5	0.885	30.7 - 130	30	
Arsenic	0.25	1.7	ND	50	98.7	97.5	1.22	71 - 121	30	
Barium	0.07	5.0	0.085	50	102	101	1.28	70.2 - 130	30	
Beryllium	0.0800	2.0	ND	50	93.8	94.4	0.585	73.3 - 115	30	
Cadmium	0.055	1.0	0.060	50	95.9	94.4	1.53	68.7 - 110	30	
Chromium	0.050	5.0	ND	50	99.6	97.8	1.80	76 - 116	30	
Cobalt	0.055	5.0	ND	50	98.2	96.3	1.93	57.4 - 122	30	
Copper	0.65	5.0	ND	50	100	101	0.995	74.8 - 119	30	
Lead	0.14	1.0	0.52	50	98.5	96.5	2.09	67.9 - 118	30	
Molybdenum	0.12	5.0	ND	50	99.5	98.3	1.20	62.9 - 123	30	
Nickel	0.050	5.0	0.065	50	98.4	96.6	1.87	61.5 - 122	30	
Selenium	0.42	5.0	ND	50	93.9	88.3	6.17	62 - 111	30	
Silver	0.37	5.0	ND	50	97.8	98.7	0.916	81.1 - 109	30	
Thallium	0.49	5.0	ND	50	95.3	96.1	0.867	39.2 - 125	30	
Vanadium	0.18	5.0	ND	50	101	101	0.297	65.8 - 122	30	
Zinc	0.25	5.0	ND	50	96.2	94.6	1.63	59.9 - 122	30	

<b>Work Order:</b>	1601027	<b>Prep Method:</b>	WET/3010B	<b>Prep Date:</b>	01/20/16	<b>Prep Batch:</b>	16187
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW6010B	<b>Analyzed Date:</b>	01/20/16	<b>Analytical Batch:</b>	428555
<b>Units:</b>	mg/L						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Chromium (STLC)	0.0200	0.10	ND	10	90.4	90.8	0.397	80 - 120	20	
Cobalt (STLC)	0.0200	0.10	ND	10	88.6	88.5	0.102	80 - 120	20	
Lead (STLC)	0.0500	0.10	ND	10	89.1	89.1	0.0337	80 - 120	20	
Nickel (STLC)	0.0200	0.10	0.0260	10	88.3	88.5	0.226	80 - 120	20	



## MS/MSD Summary Report

*Raw values are used in quality control assessment.*

<b>Work Order:</b>	1601027	<b>Prep Method:</b>	3050	<b>Prep Date:</b>	01/08/16	<b>Prep Batch:</b>	16105
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW6010B	<b>Analyzed Date:</b>	01/08/16	<b>Analytical Batch:</b>	428401
<b>Spiked Sample:</b>	1601027-017A						
<b>Units:</b>	mg/Kg						

Parameters	MDL	PQL	Sample Conc.	Spike Conc.	MS % Recovery	MSD % Recovery	MS/MSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Lead	0.14	1.0	0.89	50	80.1	85.1	2.97	67.9 - 118	30	

<b>Work Order:</b>	1601027	<b>Prep Method:</b>	7471	<b>Prep Date:</b>	01/11/16	<b>Prep Batch:</b>	16116
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW7471A	<b>Analyzed Date:</b>	01/11/16	<b>Analytical Batch:</b>	428412
<b>Spiked Sample:</b>	1601027-010A						
<b>Units:</b>	mg/Kg						

Parameters	MDL	PQL	Sample Conc.	Spike Conc.	MS % Recovery	MSD % Recovery	MS/MSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Mercury	0.2	0.50	0.00035	1.25	73.9	77.0	4.03	60 - 140	30	

<b>Work Order:</b>	1601027	<b>Prep Method:</b>	3050	<b>Prep Date:</b>	01/08/16	<b>Prep Batch:</b>	16118
<b>Matrix:</b>	Soil	<b>Analytical Method:</b>	SW6010B	<b>Analyzed Date:</b>	01/11/16	<b>Analytical Batch:</b>	428424
<b>Spiked Sample:</b>	1601027-010A						
<b>Units:</b>	mg/Kg						

Parameters	MDL	PQL	Sample Conc.	Spike Conc.	MS % Recovery	MSD % Recovery	MS/MSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Antimony	0.20	5.0	0.00	50	76.8	73.4	4.50	30.7 - 130	30	
Arsenic	0.25	1.7	0.00	50	96.9	97.9	1.05	71 - 121	30	
Barium	0.07	5.0	1.4	50	503	73.1	100	70.2 - 130	30	S,R
Beryllium	0.0800	2.0	0.00	50	93.2	93.6	0.407	73.3 - 115	30	
Cadmium	0.055	1.0	0.00	50	91.6	92.2	0.642	68.7 - 110	30	
Chromium	0.050	5.0	0.45	50	90.0	86.4	2.70	76 - 116	30	
Cobalt	0.055	5.0	0.14	50	133	88.9	35.3	57.4 - 122	30	S,R
Copper	0.65	5.0	0.27	50	105	100	3.63	74.8 - 119	30	
Lead	0.14	1.0	0.20	50	94.6	85.5	8.62	67.9 - 118	30	
Molybdenum	0.12	5.0	0.00	50	88.4	89.0	0.721	62.9 - 123	30	
Nickel	0.050	5.0	0.25	50	105	91.5	11.0	61.5 - 122	30	
Selenium	0.42	5.0	0.00	50	88.2	86.2	2.31	62 - 111	30	
Silver	0.37	5.0	0.00	50	85.8	89.4	4.05	81.1 - 109	30	
Thallium	0.49	5.0	0.00	50	92.2	81.4	12.5	39.2 - 125	30	
Vanadium	0.18	5.0	0.42	50	123	94.4	19.0	65.8 - 122	30	S
Zinc	0.25	5.0	0.52	50	99.2	89.6	6.43	59.9 - 122	30	



## Laboratory Qualifiers and Definitions

### DEFINITIONS:

<b>Accuracy/Bias (% Recovery)</b> - The closeness of agreement between an observed value and an accepted reference value.
<b>Blank (Method/Preparation Blank)</b> -MB/PB - An analyte-free matrix to which all reagents are added in the same volumes/proportions as used in sample processing. The method blank is used to document contamination resulting from the analytical process.
<b>Duplicate</b> - a field sample and/or laboratory QC sample prepared in duplicate following all of the same processes and procedures used on the original sample (sample duplicate, LCSD, MSD)
<b>Laboratory Control Sample (LCS ad LCSD)</b> - A known matrix spiked with compounds representative of the target analyte(s). This is used to document laboratory performance.
<b>Matrix</b> - the component or substrate that contains the analyte of interest (e.g., - groundwater, sediment, soil, waste water, etc)
<b>Matrix Spike (MS/MSD)</b> - Client sample spiked with identical concentrations of target analyte (s). The spiking occurs prior to the sample preparation and analysis. They are used to document the precision and bias of a method in a given sample matrix.
<b>Method Detection Limit (MDL)</b> - the minimum concentration of a substance that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero
<b>Practical Quantitation Limit (PQL)</b> - a laboratory determined value at 2 to 5 times above the MDL that can be reproduced in a manner that results in a 99% confidence level that the result is both accurate and precise. PQLs reflect all preparation factors and/or dilution factors that have been applied to the sample during the preparation and/or analytical processes.
<b>Precision (%RPD)</b> - The agreement among a set of replicate/duplicate measurements without regard to known value of the replicates
<b>Surrogate (S) or (Surr)</b> - An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. Surrogates are used in most organic analysis to demonstrate matrix compatibility with the chosen method of analysis
<b>Tentatively Identified Compound (TIC)</b> - A compound not contained within the analytical calibration standards but present in the GCMS library of defined compounds. When the library is searched for an unknown compound, it can frequently give a tentative identification to the compound based on retention time and primary and secondary ion match. TICs are reported as estimates and are candidates for further investigation.
<b>Units:</b> the unit of measure used to express the reported result - <b>mg/L</b> and <b>mg/Kg</b> (equivalent to PPM - parts per million in <b>liquid</b> and <b>solid</b> ), <b>ug/L</b> and <b>ug/Kg</b> (equivalent to PPB - parts per billion in <b>liquid</b> and <b>solid</b> ), <b>ug/m<sup>3</sup></b> , <b>mg.m<sup>3</sup></b> , <b>ppbv</b> and <b>ppmv</b> (all units of measure for reporting concentrations in air), % (equivalent to 10000 ppm or 1,000,000 ppb), <b>ug/Wipe</b> ( concentration found on the surface of a single Wipe usually taken over a 100cm <sup>2</sup> surface)

### LABORATORY QUALIFIERS:

<p><b>B</b> - Indicates when the analyte is found in the associated method or preparation blank</p> <p><b>D</b> - Surrogate is not recoverable due to the necessary dilution of the sample</p> <p><b>E</b> - Indicates the reportable value is outside of the calibration range of the instrument but within the linear range of the instrument (unless otherwise noted) Values reported with an E qualifier should be considered as estimated.</p> <p><b>H</b>- Indicates that the recommended holding time for the analyte or compound has been exceeded</p> <p><b>J</b>- Indicates a value between the method MDL and PQL and that the reported concentration should be considered as estimated rather the quantitative</p> <p><b>NA</b> - Not Analyzed</p> <p><b>N/A</b> - Not Applicable</p> <p><b>NR</b> - Not recoverable - a matrix spike concentration is not recoverable due to a concentration within the original sample that is greater than four times the spike concentration added</p> <p><b>R</b>- The % RPD between a duplicate set of samples is outside of the absolute values established by laboratory control charts</p> <p><b>S</b>- Spike recovery is outside of established method and/or laboratory control limits. Further explanation of the use of this qualifier should be included within a case narrative</p> <p><b>X</b> -Used to indicate that a value based on pattern identification is within the pattern range but not typical of the pattern found in standards. Further explanation may or may not be provided within the sample footnote and/or the case narrative.</p>
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## Sample Receipt Checklist

Client Name: Geocon Consultants, Inc.

Date and Time Received: 1/6/2016 10:15

Project Name: Yountville, CA

Received By: ng

Work Order No.: 1601027

Physically Logged By: ng

Checklist Completed By: ng

Carrier Name: First Courier

### Chain of Custody (COC) Information

Chain of custody present? Yes  
Chain of custody signed when relinquished and received? Yes  
Chain of custody agrees with sample labels? Yes  
Custody seals intact on sample bottles? Not Present

### Sample Receipt Information

Custody seals intact on shipping container/cooler? Not Present  
Shipping Container/Cooler In Good Condition? Yes  
Samples in proper container/bottle? Yes  
Samples containers intact? Yes  
Sufficient sample volume for indicated test? Yes

### Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes  
Container/Temp Blank temperature in compliance? Yes Temperature: 4 °C  
Water-VOA vials have zero headspace? No VOA vials submitted  
Water-pH acceptable upon receipt? N/A  
pH Checked by: na pH Adjusted by: na



## Login Summary Report

**Client ID:** TL5648      Geocon Consultants, Inc.  
**Project Name:** Yountville, CA  
**Project # :** 04A4336  
**Report Due Date:** 1/21/2016

**QC Level:**  
**TAT Requested:** 5+ day:0  
**Date Received:** 1/6/2016  
**Time Received:** 10:15

**Comments:**

**Work Order # :** 1601027

<u>WO Sample ID</u>	<u>Client Sample ID</u>	<u>Collection Date/Time</u>	<u>Matrix</u>	<u>Scheduled Disposal</u>	<u>Sample On Hold</u>	<u>Test On Hold</u>	<u>Requested Tests</u>	<u>Subbed</u>
1601027-001A	B1-0	01/05/16 12:00	Soil	07/04/16			S_6010BAs/Pb EDD	
<b>Sample Note:</b> Pb.								
1601027-002A	B1-0.5	01/05/16 12:25	Soil	07/04/16			S_7471BHG S_TPHDO S_6010BCAM17	
<b>Sample Note:</b> TPHd, mo, CAM 17 metals.								
1601027-003A	B2-0	01/05/16 11:15	Soil	07/04/16			S_6010BAs/Pb	
1601027-004A	B2-1	01/05/16 11:30	Soil	07/04/16			S_6010BAs/Pb S_TPHDO	
1601027-005A	B2-1.5	01/05/16 11:45	Soil	07/04/16			S_6010BAs/Pb	
1601027-006A	B3-0	01/05/16 11:10	Soil	07/04/16			S_7471BHG S_TPHDO S_6010BCAM17	
1601027-007A	B3-1	01/05/16 11:35	Soil	07/04/16			S_6010BAs/Pb	
1601027-008A	B4-0	01/05/16 10:00	Soil	07/04/16			S_6010BAs/Pb S_TPHDO	
1601027-009A	B5-0	01/05/16 9:55	Soil	07/04/16			S_6010B(STLC) S_6010BAs/Pb	
1601027-010A	B5-1	01/05/16 10:30	Soil	07/04/16			S_7471BHG S_TPHDO S_6010BCAM17	
1601027-011A	B6-0	01/05/16 9:55	Soil	07/04/16			S_6010BAs/Pb	
1601027-012A	B6-1	01/05/16 10:10	Soil	07/04/16			S_6010BAs/Pb	



## Login Summary Report

**Client ID:** TL5648      Geocon Consultants, Inc.  
**Project Name:** Yountville, CA  
**Project # :** 04A4336  
**Report Due Date:** 1/21/2016

**QC Level:**  
**TAT Requested:** 5+ day:0  
**Date Received:** 1/6/2016  
**Time Received:** 10:15

**Comments:**

**Work Order # :** 1601027

<u>WO Sample ID</u>	<u>Client Sample ID</u>	<u>Collection Date/Time</u>	<u>Matrix</u>	<u>Scheduled Disposal</u>	<u>Sample On Hold</u>	<u>Test On Hold</u>	<u>Requested Tests</u>	<u>Subbed</u>
1601027-013A	B6-1.5	01/05/16 10:40	Soil	07/04/16			S_6010BAs/Pb	
1601027-014A	B7-0	01/05/16 9:10	Soil	07/04/16			S_6010B(STLC) S_TPHDO S_6010BAs/Pb	
1601027-015A	B7-1	01/05/16 9:20	Soil	07/04/16			S_6010BAs/Pb	
1601027-016A	B7-2	01/05/16 9:40	Soil	07/04/16			S_6010BAs/Pb	
1601027-017A	B8-0	01/05/16 9:10	Soil	07/04/16			S_6010BAs/Pb	
1601027-018A	B8-1	01/05/16 9:40	Soil	07/04/16			S_6010BAs/Pb	
1601027-019A	B8-2	01/05/16 9:45	Soil	07/04/16			S_6010BAs/Pb	
1601027-020A	Rinse Blank	01/05/16 16:00	Water	07/04/16			S_6010BAs/Pb W_6010BCAM17	

**Sample Note:** Pb.



483 Sinclair Frontage Road  
 Milpitas, CA 95035  
 Phone: 408.263.5258  
 FAX: 408.263.8293  
 www.torrentlab.com

### CHAIN OF CUSTODY

LAB WORK ORDER NO  
**1601027**

• NOTE: SHADED AREAS ARE FOR TORRENT LAB USE ONLY •

Company Name: <b>Geocon Consultants, Inc.</b>			Location of Sampling: <b>Yontville, CA</b>		
Address: <b>6671 Brisa Street</b>			Purpose:		
City: <b>Livermore</b>	State: <b>CA</b>	Zip Code: <b>94550</b>	Special Instructions / Comments:		
Telephone: <b>925-371-5900 x403</b> FAX:			<b>CALTRANS CONTRACT OYA 4336</b>		
REPORT TO: <b>Luann Beadle</b>		SAMPLER: <b>CG/CM</b>	P.O. #: <b>E8721-02-40 (Caltrans)</b>	EMAIL: <b>Beadle@Geoconinc.com</b>	

TURNAROUND TIME:			SAMPLE TYPE:		REPORT FORMAT:	
<input type="checkbox"/> 10 Work Days	<input type="checkbox"/> 3 Work Days	<input type="checkbox"/> Noon - Nxt Day	<input type="checkbox"/> Storm Water	<input type="checkbox"/> Air	<input type="checkbox"/> QC Level IV	ANALYSIS REQUESTED
<input type="checkbox"/> 7 Work Days	<input type="checkbox"/> 2 Work Days	<input type="checkbox"/> 2 - 8 Hours	<input type="checkbox"/> Waste Water	<input type="checkbox"/> Other	<input type="checkbox"/> EDF	
<input checked="" type="checkbox"/> 5 Work Days	<input type="checkbox"/> 1 Work Day	<input type="checkbox"/> Other	<input type="checkbox"/> Ground Water	<input checked="" type="checkbox"/> Excel / EDD	<input checked="" type="checkbox"/> CALTRANS	
			<input checked="" type="checkbox"/> Soil			

LAB ID	CLIENT'S SAMPLE I.D.	DATE / TIME SAMPLED	MATRIX	# OF CONT	CONT TYPE	Total Lead	TPH Diesel	TPH Motor Oil	CAM 17 Metals	REMARKS
001A	B1-0	1/5/16 1200	Soil	1	PB	X				
002A	B1-0.5	1225			SST		X	X	X	
003A	B2-0	1115			PB	X				
004A	B2-1	1130			SST	X	X	X		
005A	B2-1.5	1145			PB	X				
006A	B3-0	1110			SST		X	X	X	T #1
007A	B3-1	1135			PB	X				Temp 4°C
008A	B4-0	1000			SST	X	X	X		
009A	B5-0	0925			PB	X				3 DAY STANDARD
010A	B5-1	1030			SST		X	X	X	

1 Relinquished By: <i>[Signature]</i> Print: <b>CGWINSTON</b> Date: <b>1/6/16</b> Time: <b>9:27</b>	Received By: <i>[Signature]</i> Print: <b>Albert Oina</b> Date: <b>1-6-16</b> Time: <b>9:27</b>
2 Relinquished By: <i>[Signature]</i> Print: <b>ALBERT OINA</b> Date: <b>1/6/16</b> Time: <b>10:15</b>	Received By: <i>[Signature]</i> Print: <b>Albert Oina</b> Date: <b>1-6-16</b> Time: <b>9:27</b>

Were Samples Received in Good Condition?  Yes  NO Samples on Ice?  Yes  NO Method of Shipment FC Sample seals intact?  Yes  NO  N/A

NOTE: Samples are discarded by the laboratory 30 days from date of receipt unless other arrangements are made. Page 1 of 2

Log In By: \_\_\_\_\_ Date: \_\_\_\_\_ Log In Reviewed By: \_\_\_\_\_ Date: \_\_\_\_\_

REC Ne Li Me Lbl Ve LIR Received by: *[Signature]* NAVIN G 1-6-16 10:15 AM



483 Sinclair Frontage Road  
 Milpitas, CA 95035  
 Phone: 408.263.5258  
 FAX: 408.263.8293  
 www.torrentlab.com

RESET

### CHAIN OF CUSTODY

LAB WORK ORDER NO

1601027

• NOTE: SHADED AREAS ARE FOR TORRENT LAB USE ONLY •

Company Name: <b>Geocon Consultants, Inc.</b>			Location of Sampling: <b>Yontville, CA</b>		
Address: <b>6671 Brisa Street</b>			Purpose:		
City: <b>Livermore</b>	State: <b>CA</b>	Zip Code: <b>94550</b>	Special Instructions / Comments:		
Telephone: <b>925-371-5900 x403</b> FAX:			<b>CALTRANS CONTRACT 04A4336</b>		
REPORT TO: <b>Luann Beadle</b>		SAMPLER: <b>CG/CM</b>	P.O. #: <b>E8721-02-40 (Caltrans)</b>	EMAIL: <b>Beadle@Geoconinc.com</b>	

TURNAROUND TIME:			SAMPLE TYPE:		REPORT FORMAT:	
<input type="checkbox"/> 10 Work Days	<input type="checkbox"/> 3 Work Days	<input type="checkbox"/> Noon - Nxt Day	<input type="checkbox"/> Storm Water	<input type="checkbox"/> Air	<input type="checkbox"/> QC Level IV	
<input type="checkbox"/> 7 Work Days	<input type="checkbox"/> 2 Work Days	<input type="checkbox"/> 2 - 8 Hours	<input type="checkbox"/> Waste Water	<input checked="" type="checkbox"/> Other	<input type="checkbox"/> EDF	
<input checked="" type="checkbox"/> 5 Work Days	<input type="checkbox"/> 1 Work Day	<input type="checkbox"/> Other	<input type="checkbox"/> Ground Water	<input checked="" type="checkbox"/> Excel / EDD		
			<input checked="" type="checkbox"/> Soil	<b>WATER RINSE BLANK CALTRANS</b>		

ANALYSIS REQUESTED

LAB ID	CLIENT'S SAMPLE I.D.	DATE / TIME SAMPLED	MATRIX	# OF CONT	CONT TYPE	Total Lead	TPH Diesel	TPH Motor Oil	CAM 17 Metals	REMARKS
011A	B6-0	1/5/16 0955	Soil	1	PB	X				
012A	B6-1	1010			PB	X				
013A	B6-1.5	1040			PB	X				
014A	B7-0	0910			SST	X	X	X		
015A	B7-1	0920			PB	X				
016A	B7-2	0940			PB	X				
017A	B8-0	0910			PB	X				T #1
018A	B8-1	0940			PB	X				Temp: °C
019A	B8-2	0945			PB	X				3-DAY
020A	RINSE BLANK	1/5/16 1600	WATER	1	PBOT.	X				STANDARD

1 Relinquished By: <i>[Signature]</i> Print: <b>AGUIRRE</b> Date: <b>1/6/16</b> Time: <b>9:27</b>	Received By: <i>[Signature]</i> Print: <b>ALBERT OJEDA</b> Date: <b>1-6-16</b> Time: <b>9:27</b>
2 Relinquished By: <i>[Signature]</i> Print: <b>ALBERT OJEDA</b> Date: <b>1/6/16</b> Time: <b>10:15</b>	Received By: <i>[Signature]</i> Print: <b>ALBERT OJEDA</b> Date: <b>1-6-16</b> Time: <b>9:27</b>

Were Samples Received in Good Condition?  Yes  NO Samples on Ice?  Yes  NO Method of Shipment **FC** Sample seals intact?  Yes  NO  N/A

NOTE: Samples are discarded by the laboratory 30 days from date of receipt unless other arrangements are made. Page **2** of **2**

Log In By: \_\_\_\_\_ Date: \_\_\_\_\_ Log In Reviewed By: \_\_\_\_\_ Date: \_\_\_\_\_

REC'D LI NGLBL'NG LIR

Received by *[Signature]* NAVIN R. 1-6-16 10:15 AM



**Change Order**

**Work Order:** 1601027

**Serial #:** CO16-0012

**Print Date:** 1/14/2016

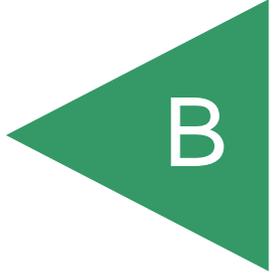
**Project Name:** Yountville, CA

**Client:** Geocon Consultants, Inc.

**Requested By:** Luann Beadle

	<u>Requested Date</u>	<u>Requested Time</u>	<u>Extended Price</u>
Additional Test-STLC Pb for samples 009 & 014; STD 3 day TAT	1/14/2016	10:00:00AM	

APPENDIX



**As**

Total Number of Observations	10
Number of Distinct Observations	8
Number of Missing Observations	31
Mean	4.19
Median	5.05
Std. Error of Mean	0.842
Skewness	-0.27
SD of logged Data	0.895
Minimum	0.85
Maximum	7.1
SD	2.661
Coefficient of Variation	0.636
Mean of logged Data	1.142
<b>95% Standard Bootstrap UCL</b>	<b>5.47</b>

**Pb**

Total Number of Observations	23
Number of Distinct Observations	17
Number of Missing Observations	0
Mean	21.8
Median	12
Std. Error of Mean	4.427
Skewness	1.953
SD of logged Data	0.857
Minimum	3.6
Maximum	90
SD	21.23
Coefficient of Variation	0.974
Mean of logged Data	2.716
<b>95% Standard Bootstrap UCL</b>	<b>29.1</b>

**TPHmo**

Total Number of Observations	10
Number of Distinct Observations	10
Number of Missing Observations	0
Mean	538
Median	110
Std. Error of Mean	295.8
Skewness	1.808
SD of logged Data	1.636
Minimum	13
Maximum	2500
SD	935.3
Coefficient of Variation	1.74
Mean of logged Data	4.999
<b>95% Standard Bootstrap UCL</b>	<b>990</b>

# ***BAY AREA RECYCLED WATER***



## **Commercial Truck Fill Facilities Location Guide**

JUNE 2015

## **Background**

This Guide was prepared by Whitley Burchett & Associates under contract with the Bay Area Clean Water Agencies and under the direction of the BACWA Recycled Water Committee. The Guide was prepared in response to inquiries of commercial recycled water truck fill facilities in the Bay Area. It is the Recycled Water Committee's intention to update this Guide annually. If you see any information that should be updated, have a facility to add to this Guide, or have any questions please email [Info@bacwa.org](mailto:Info@bacwa.org).

## **Disclaimer**

The intent of this Guide is to provide prospective water haulers with general information regarding the location of Bay Area recycled water commercial truck fill facilities, permit requirements, and associated fees for recycled water. Information in this Guide represents data collected in the fall of 2014 and updated in June 2015. Please contact agencies directly for current information.

## **Cover Photos**

Top row: East Bay Municipal Utility District  
Bottom row from left to right: City of Palo Alto, City of Santa Rosa

## **Acknowledgements**

This Guide was prepared in conjunction with the BACWA agencies. The time spent by agencies providing program information and review of this document is greatly appreciated.

## **Electronic Version**

The BACWA Truck Fill Guide is available on the BACWA website at <http://bacwa.org>.

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# Bay Area Commercial Recycled Water Truck Fill Facilities Location Map



\* Indicates the general location of a truck fill facility.

**List of Agencies with Recycled Water Commercial Truck Fill Facilities  
Sorted by County/City**

COUNTY/CITY	AGENCY	PAGE NO.
<b>ALAMEDA COUNTY</b>		
Dublin	Dublin San Ramon Services District	3
Livermore	City of Livermore	5
Oakland	East Bay Municipal Utility District	4
Pleasanton	Dublin San Ramon Services District	3
San Lorenzo	Oro Loma Sanitary District/East Bay Dischargers Authority	10
<b>CONTRA COSTA COUNTY</b>		
Concord	Central Contra Costa Sanitary District	2
Martinez	Central Contra Costa Sanitary District	2
Richmond	East Bay Municipal Utility District	4
San Ramon	Dublin San Ramon Services District	3
<b>MARIN COUNTY</b>		
Novato	North Marin Water District	9
San Rafael	Marin Municipal Water District	6
<b>NAPA COUNTY</b>		
Calistoga	City of Calistoga	1
Napa	Napa Sanitation District	8
Yountville	Town of Yountville	20
<b>SAN FRANCISCO</b>		
San Francisco	City and County of San Francisco/SFPUC	14
<b>SAN MATEO COUNTY</b>		
San Francisco	San Francisco International Airport	15
Redwood City	City of Redwood City	13
<b>SANTA CLARA COUNTY</b>		
Milpitas	City of Milpitas/South Bay Water Recycling	7
Palo Alto	City of Palo Alto	11
San Jose	City of San Jose/South Bay Water Recycling	16
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<b>SONOMA COUNTY</b>		
Petaluma	City of Petaluma	12
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***SECTION 1***

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**Recycled Water Commercial Truck Fill Facilities Information**

<b>CITY OF CALISTOGA</b>	
707.942.2782 <a href="http://www.ci.calistoga.ca.us">www.ci.calistoga.ca.us</a>	
Recycled Water Fill Facilities: Treatment Plant Yes	Distribution System No Can water be used outside of this agency's service area? Yes
<b>Hydrant Fill Facilities</b>	
Location: None Number of Fill Facilities: Quality: Quantity Limitations per Trip: Other Restrictions: Additional Access Information:	Connection Device: Truck Size Limits: Truck Weight Limits:
<b>Fill Facilities at Treatment Plant</b>	
Location: Dunaweal Wastewater Treatment Plant (call for address) Quality: Disinfected Tertiary Quantity Limitations per Trip: No Minimum Maximum up to truck limit Quantity Limitations per Day: No Minimum Maximum 50,000 gal Additional Access Information:	Type of Connection: Side Hours: Mon-Fri 7 a.m. - 3:30 p.m. Appointment Required: No Truck Size Limits: None Truck Weight Limits: None
<b>Training</b>	
Required: No Who: Schedule:	Duration: Frequency: Location: Length of time to become authorized truck hauler: 1 business day
<b>Signage</b>	
Area Use Signage Required: No Signs Provided by Water Agency: N/A	Vehicle Signage Required: Yes Signs Provided by Water Agency: Yes
<b>Vehicle Inspection</b>	
Required: No Duration: How to schedule:	Inspection Location: Re-inspection Required:
<b>Fees</b>	
Water: No Charge Connection Device: No Charge Vehicle Signage: No Charge Other:	Training: No Charge Permit: No Charge Use Area Signage: N/A



<b>DUBLIN SAN RAMON SERVICES DISTRICT</b>	
<b>925.875.2334</b> <a href="http://www.dsrds.com">www.dsrds.com</a>	
<b>Recycled Water Fill Facilities:</b> Treatment Plant Yes	Distribution System Yes Can water be used outside of this agency's service area? Yes
<b>Hydrant Fill Facilities</b>	
Location: Dublin and San Ramon, CA - see website for locations Number of Fill Facilities: 18 Quality: Disinfected Tertiary Quantity Limitations per Trip: No Minimum Maximum up to truck limit Other Restrictions: Permit plus \$1,000 refundable deposit for meter required. Additional Access Information: Obtain permit and meter at 7051 Dublin Blvd, Dublin.	
<b>Fill Facilities at Treatment Plant</b>	
Location: DSRSD Wastewater Treatment Plant 7399 Johnson Drive, Pleasanton Quality: Disinfected Tertiary Quantity Limitations per Trip: No Minimum Maximum up to truck limit Quantity Limitations per Day: No Minimum No Maximum Additional Access Information: *After business hours truck drivers must use special gate access code to enter the plant. The access code is valid only during hours specified in the permit.	
<b>Training</b>	
Required: Yes Who: Truck Owner and Driver Schedule: By Appointment Duration: 15 min Frequency: Once Location: Recycled Water Plant Length of time to become authorized truck hauler: 1 business day	
<b>Signage</b>	
Area Use Signage Required: No Signs Provided by Water Agency: N/A Vehicle Signage Required: Yes Signs Provided by Water Agency: Yes	
<b>Vehicle Inspection</b>	
Required: No Duration: How to schedule: Inspection Location: Re-inspection Required:	
<b>Fees</b>	
Water: Hydrant- check with DSRSD for current fee; Plant- \$10/truck load Connection Device: Hydrant access- \$1,000 deposit for construction meter; Treatment Plant- No connection device charge Vehicle Signage: No Charge Other: Training: No Charge Permit: Hydrant- No permit fee; Treatment Plant- \$73/year Use Area Signage: N/A	

<b>EAST BAY MUNICIPAL UTILITY DISTRICT</b> <b>510.287.1346</b> <a href="http://www.ebmud.com">www.ebmud.com</a>	
Recycled Water Fill Facilities: Treatment Plant Yes	Distribution System No Can water be used outside of this agency's service area? Check with EBMUD
<b>Hydrant Fill Facilities</b>	
Location: None Number of Fill Facilities: Quality: Quantity Limitations per Trip: Other Restrictions: Additional Access Information:	Connection Device: Truck Size Limits: Truck Weight Limits:
<b>Fill Facilities at Treatment Plant</b>	
Locations: 1) EBMUD Wastewater Treatment Plant, Oakland 2) North Richmond Water Recycling Plant, Richmond (*No recycled water available in 2015. All recycled water from this location has been allocated for 2015.)	
Quality: Disinfected Tertiary Quantity Limitations per Trip: No Minimum Maximum up to truck limit Quantity Limitations per Day: No Minimum No Maximum Additional Access Information: 1) EBMUD Wastewater Treatment Plant - enter through the main security gate at the plant to obtain access to the fill hydrant. 2) North Richmond Plant - hydrant is located outside of the plant gate and is accessible with a hydrant key. For more information, visit <a href="http://www.ebmud.com">www.ebmud.com</a> , search "Recycled Water Truck	Type of Connection: Hydrant Hours: 24 hrs/day, 7 days/wk Appointment Required: Only for first visit Truck Size Limits: None Truck Weight Limits: None
<b>Training</b>	
Required: Yes Who: Truck Driver Schedule: By Appointment	Duration: 15 minutes Frequency: Once Location: Recycled Water Plant Length of time to become authorized truck hauler: 5 business days
<b>Signage</b>	
Area Use Signage Required: No Signs Provided by Water Agency: N/A	Vehicle Signage Required: Yes Signs Provided by Water Agency: Yes
<b>Vehicle Inspection</b>	
Required: Yes Duration: Less than 1 hour How to schedule: To be conducted at time of training	Inspection Location: Recycled Water Plant Re-inspection Required: No
<b>Fees</b>	
Water: No Charge Connection Device: No Charge Vehicle Signage: No Charge Other:	Training: No Charge Permit: No Charge Use Area Signage: N/A

<b>CITY OF LIVERMORE</b>	
<b>925.960.8138</b>	
Recycled Water Fill Facilities: Treatment Plant	No Distribution System Yes Can water be used outside of this agency's service area? No
<b>Hydrant Fill Facilities</b>	
Location: Call for address Number of Fill Facilities: 10+	Connection Device: Construction meter and Hydrant Key Truck Size Limits: No limit Truck Weight Limits: No limit
Quality: Disinfected Tertiary Quantity Limitations per Trip: No Minimum Maximum up to truck limit	
Other Restrictions: Additional Access Information:	
<b>Fill Facilities at Treatment Plant</b>	
Location: None Quality: Quantity Limitations per Trip:	Type of Connection: Hours: Appointment Required: Truck Size Limits: Truck Weight Limits:
Quantity Limitations per Day: Additional Access Information:	
<b>Training</b>	
Required: Yes Who: Truck Driver Schedule: At time of hydrant meter deposit	Duration: 2 hours or less Frequency: Once Location: Administration Building Length of time to become authorized truck hauler: 1 business day
<b>Signage</b>	
Area Use Signage Required: Yes Signs Provided by Water Agency: Yes	Vehicle Signage Required: Yes Signs Provided by Water Agency: Yes
<b>Vehicle Inspection</b>	
Required: No Duration: How to schedule:	Inspection Location: Re-inspection Required:
<b>Fees</b>	
Water: \$2.50 per CCF Connection Device: \$1,000 Vehicle Signage: Varies Other: Monthly service charge of \$195.30	Training: No Charge Permit: No Charge Use Area Signage: No Charge



<b>CITY OF MILPITAS/SOUTH BAY WATER RECYCLING</b> 408.586.3355 <a href="http://www.ci.milpitas.ca.gov">www.ci.milpitas.ca.gov</a>	
Recycled Water Fill Facilities: Treatment Plant No	Distribution System Yes Can water be used outside of this agency's service area? Check with City
<b>Hydrant Fill Facilities</b>	
Location: Call for locations Number of Fill Facilities: 5 Quality: Disinfected Tertiary Quantity Limitations per Trip: No Minimum Maximum up to truck limit Other Restrictions: M-F: 7 a.m. to 7 p.m. Additional Access Information: Secure access. Gate key to be provided at training.	Connection Device: Hydrant key and Construction meter Truck Size Limits: check with City Truck Weight Limits: check with City
<b>Fill Facilities at Treatment Plant</b>	
Location: None Quality: Quantity Limitations per Trip: Quantity Limitations per Day: Additional Access Information:	Type of Connection: Hours: Appointment Required: Truck Size Limits: Truck Weight Limits:
<b>Training</b>	
Required: Yes Who: Truck Owner, Truck Driver, and Customer Schedule: By Appointment and Semi-Annually Length of time to become authorized truck hauler: 2 business days	Duration: 1 hour Frequency: Once Location: Administration Building or Hydrant fill facility
<b>Signage</b>	
Area Use Signage Required: Yes Signs Provided by Water Agency: No	Vehicle Signage Required: Yes Signs Provided by Water Agency: Yes
<b>Vehicle Inspection</b>	
Required: Yes Duration: 1 hour or less How to schedule: Appointment	Inspection Location: Administration Building or Hydrant fill facility Re-inspection Required: Annually
<b>Fees</b>	
Water: \$2.65 per CCF Connection Device: \$2,000 Vehicle Signage: No charge Other: Monthly fee of \$75	Training: No Charge Permit: No Charge Use Area Signage: No charge



<b>NORTH MARIN WATER DISTRICT</b>	
<b>415.761.8912</b> <a href="http://www.nmwd.com">www.nmwd.com</a>	
Recycled Water Fill Facilities:	
Treatment Plant	No
Distribution System	Yes
Can water be used outside of this agency's service area? No	
<b>Hydrant Fill Facilities</b>	
Location: Novato, CA (Call for address)	
Number of Fill Facilities:	10+
Quality:	Disinfected Tertiary
Quantity Limitations per Trip:	No Minimum Maximum up to truck limit
Other Restrictions:	
Additional Access Information: Obtain permit at District Office (999 Rush Creek Place, Novato)	
<b>Fill Facilities at Treatment Plant</b>	
Location: None	
Quality:	
Quantity Limitations per Trip:	
Quantity Limitations per Day:	
Additional Access Information:	
<b>Training</b>	
Required: Yes	
Who: Truck Driver	
Schedule: By appointment	
Duration: 15 Min	
Frequency: Once	
Location: District Office	
Length of time to become authorized truck hauler: 1 business day	
<b>Signage</b>	
Area Use Signage Required: No	
Vehicle Signage Required: Yes	
Signs Provided by Water Agency: N/A	
Signs Provided by Water Agency: Yes	
<b>Vehicle Inspection</b>	
Required: No	
Duration:	
How to schedule:	
Inspection Location:	
Re-inspection Required:	
<b>Fees</b>	
Water: \$5.00 per load; no max.	
Connection Device: No Charge	
Vehicle Signage: No Charge	
Other:	
Training: N/A	
Permit: No Charge	
Use Area Signage: N/A	













<b>CITY OF SAN JOSE/SOUTH BAY WATER RECYCLING</b>	
<b>408.277.3671</b>	
<b>Recycled Water Fill Facilities:</b>	
Treatment Plant: Yes	Distribution System: Yes
Can water be used outside of this agency's service area? No	
<b>Hydrant Fill Facilities</b>	
Location: Maps provided at driver and truck certification	
Number of Fill Facilities: 7	Connection Device: Hydrant Key and Construction Meter
Quality: Disinfected Tertiary	Truck Size Limits: TBD during inspection
Quantity Limitations per Trip: No Minimum	Truck Weight Limits: TBD during inspection
Maximum up to truck limit	
Other Restrictions: Commercial users only - must show proof of commercial liability insurance	
Additional Access Information: Locked hydrants. Hydrant keys provided by City at time of meter pick up.	
<b>Fill Facility - Hydrant at Treatment Plant</b>	
Location: San Jose/Santa Clara Regional Wastewater Facility (RWF) 700 Los Esteros Rd., San Jose	
Quality: Disinfected Tertiary	Type of Connection: Hydrant
Quantity Limitations per Trip: No Minimum	Hours: Mon-Fri 7 a.m. - 4 p.m.
Maximum up to truck limit	
Quantity Limitations per Day: No Minimum	Appointment Required: No
No Maximum	
Truck Size Limits: None	
Truck Weight Limits: None	
Additional Access Information: Secured access. Gates open during operating hours. Hydrant keys provided by City.	
<b>Training</b>	
Required: Yes	Duration: 2 hours or less
Who: Truck Owner, Truck Driver, and Customer using water	Frequency: Once
Schedule: Wednesday mornings at 9am	Location: Access point at RWF 700 Los Esteros Rd., San Jose
Length of time to become authorized truck hauler: 1 business day	
<b>Signage</b>	
Area Use Signage Required: Yes	Vehicle Signage Required: Yes
Signs Provided by Water Agency: Yes	Signs Provided by Water Agency: Yes
<b>Vehicle Inspection</b>	
Required: Yes	Inspection Location: RWF
Duration: 1 hour or less	Re-inspection Required: Annually
How to schedule: Wednesday mornings at 9am	
<b>Fees</b>	
Water: Check with City	Training: No charge
Connection Device: Check with City	Permit: No charge
Vehicle Signage: No charge	Use Area Signage: No charge
Other: Check with City	

<b>CITY OF SANTA ROSA</b>	
<b>707.543.3938</b>	
Recycled Water Fill Facilities:	
Treatment Plant: Yes	Distribution System: No
Can water be used outside of this agency's service area? Yes	
<b>Hydrant Fill Facilities</b>	
Location: Utilities Field Operations-35 Stony Point Road, Santa Rosa	
Number of Fill Facilities: 1	Connection Device: Hydrant
Quality: Disinfected Tertiary	Truck Size Limits: None
Quantity Limitations per Trip: Maximum up to truck limit	Truck Weight Limits: None
Other Restrictions: Due to limited available recycled water supply, truck fill use is restricted to dust control only.	
Additional Access Information: Must get an access key from Santa Rosa Water	
<b>Fill Facilities at Treatment Plant</b>	
Location: Santa Rosa Subregional Water Reuse Plant	
Quality: Disinfected Tertiary	Type of Connection: Hydrant
Quantity Limitations per Trip: No Minimum	Hours: Mon-Fri 8 a.m. - 5:30 p.m.
Maximum up to truck limit	Appointment Required: No
Quantity Limitations per Day: No Minimum	Truck Size Limits: None
No Maximum	Truck Weight Limits: None
Additional Access Information: Must get an access key from Santa Rosa Water	
Other Restrictions: Due to limited available recycled water supply, truck fill use is restricted to dust control only.	
<b>Training</b>	
Required: No	Duration:
Who:	Frequency:
Schedule:	Location:
Length of time to become authorized truck hauler: 1 business day	
<b>Signage</b>	
Area Use Signage Required: No	Vehicle Signage Required: Yes
Signs Provided by Water Agency: N/A	Signs Provided by Water Agency: No
<b>Vehicle Inspection</b>	
Required: No	Inspection Location:
Duration:	Re-inspection Required:
How to schedule:	
<b>Fees</b>	
Water: \$5.09 per 1,000 gal	Training: No Charge
Connection Device: No Charge	Permit: \$15.00 per year
Vehicle Signage: N/A	Use Area Signage: No Charge
Other:	

<b>SONOMA COUNTY WATER AGENCY</b>	
707.521.1865 <a href="http://www.scwa.ca.gov">www.scwa.ca.gov</a>	
Recycled Water Fill Facilities: Treatment Plant Yes	Distribution System No Can water be used outside of this agency's service area? Yes
<b>Hydrant Fill Facilities</b>	
Location: None Number of Fill Facilities: Quality: Quantity Limitations per Trip: Other Restrictions: Additional Access Information:	Connection Device: Truck Size Limits: Truck Weight Limits:
<b>Fill Facilities at Treatment Plant</b>	
Locations: Sonoma Valley County Sanitation District, Sonoma CA (call for address)	
Quality: Disinfected Tertiary Quantity Limitations per Trip: No Minimum Maximum up to truck limit Quantity Limitations per Day: No Minimum No Maximum	Type of Connection: Side Hours: Mon-Fri 8 a.m. - 4 p.m.; with permission could be 24/7 Appointment Required: No Truck Size Limits: None Truck Weight Limits: None
Additional Access Information: Contact treatment plant for site access outside of business hours	
<b>Training</b>	
Required: Yes Who: Truck Driver Schedule: By Appointment	Duration: 2 hours or less Frequency: With each new application Location: Recycled Water Plant Length of time to become authorized truck hauler: 5 business days
<b>Signage</b>	
Area Use Signage Required: No Signs Provided by Water Agency: N/A	Vehicle Signage Required: Yes Signs Provided by Water Agency: Yes
<b>Vehicle Inspection</b>	
Required: Yes Duration: 1 hour or less How to schedule: Appointment	Inspection Location: Recycled Water Plant Re-inspection Required: With each new application
<b>Fees</b>	
Water: \$5.00 per 1,000 gal Connection Device: \$100 deposit Vehicle Signage: First set free Other:	Training: No Charge Permit: \$300 Use Area Signage: N/A

<b>CITY OF SUNNYVALE</b>	
<b>408.760.7560</b>	
Recycled Water Fill Facilities: Treatment Plant: Yes	Distribution System: No Can water be used outside of this agency's service area?: No
<b>Hydrant Fill Facilities</b>	
Location: None	
Number of Fill Facilities:	Connection Device:
Quality:	Truck Size Limits:
Quantity Limitations per Trip:	Truck Weight Limits:
Other Restrictions:	
Additional Access Information:	
<b>Fill Facilities at Treatment Plant</b>	
Location: Sunnyvale Water Pollution Control Plant (call for address)	
Quality: Disinfected Tertiary	Type of Connection: Hydrant
Quantity Limitations per Trip: No Minimum	Hours: Mon-Fri 7 a.m. - 4 p.m.
Maximum up to truck limit	Appointment Required: No
Quantity Limitations per Day: No Minimum	Truck Size Limits: None
No Maximum	Truck Weight Limits: None
Additional Access Information: Required to check in and check out.	
<b>Training</b>	
Required: Yes	Duration: 2 hours or less
Who: Truck Owner, Truck Driver, and Customer using water	Frequency: Annually
Schedule: By Appointment	Location: Agency Corp Yard
Length of time to become authorized truck hauler: 30 business days	
<b>Signage</b>	
Area Use Signage Required: Yes	Vehicle Signage Required: Yes
Signs Provided by Water Agency: No	Signs Provided by Water Agency: No
<b>Vehicle Inspection</b>	
Required: Yes	Inspection Location: Corp Yard
Duration: 1 hour or less	Re-inspection Required: Annually
How to schedule: Appointment	
<b>Fees</b>	
Water: \$5.23 per CCF	Training: No Charge
Connection Device: No Charge	Permit: \$125 annually
Vehicle Signage: User provides	Use Area Signage: User provides
Other:	

<b>TOWN OF YOUNTVILLE</b> <b>707.944.2988</b> <a href="http://townofyountville.com">townofyountville.com</a>	
Recycled Water Fill Facilities: Treatment Plant: Yes	Distribution System: No Can water be used outside of this agency's service area? No, not without authorization
<b>Hydrant Fill Facilities</b>	
Location: None Number of Fill Facilities: Quality: Quantity Limitations per Trip: Other Restrictions: Additional Access Information:	Connection Device: Truck Size Limits: Truck Weight Limits:
<b>Fill Facilities at Treatment Plant</b>	
Location: Town of Yountville Wastewater Reclamation Facility 7501 Solano Avenue, Yountville, CA 94599 Quality: Disinfected Tertiary and Disinfected Secondary-2.2 Quantity Limitations per Trip: No Minimum Maximum 5,000 gal Quantity Limitations per Day: No Minimum Maximum 25,000 gal per day Additional Access Information:	Type of Connection: Hydrant and Side Hours: Mon-Fri 8 a.m. - 3:30 p.m. Appointment Required: Yes, for initial fill-up and training Truck Size Limits: None Truck Weight Limits: None
<b>Training</b>	
Required: Yes Who: Truck Owner, Truck Driver, and Customer using water Schedule: By Appointment	Duration: 2 hours or less Frequency: Annually Location: Wastewater Reclamation Facility Length of time to become authorized truck hauler: 3 business days
<b>Signage</b>	
Area Use Signage Required: Yes Signs Provided by Water Agency: No	Vehicle Signage Required: No Signs Provided by Water Agency: N/A
<b>Vehicle Inspection</b>	
Required: No Duration: How to schedule:	Inspection Location: Re-inspection Required:
<b>Fees</b>	
Water: \$1,041.60 for first 100,000 gal Connection Device: No Charge Vehicle Signage: N/A Other:	Training: No Charge Permit: \$350 Use Area Signage: User provides

***SECTION 2***

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**Additional Commercial Truck Fill Facilities Anticipated in 2015**

## Commercial Fill Facilities Planned to be Operational in 2015

COUNTY/CITY	AGENCY
<b>SAN MATEO COUNTY</b>	
Pacifica	North Coast County Water District (contact for availability) Contact: <a href="http://www.nccwd.com">www.nccwd.com</a>
<b>MARIN COUNTY</b>	
San Rafael	Marin Municipal Water District (anticipated Jul/Aug 2015) Contact: (415) 945-1557
<b>SONOMA COUNTY</b>	
Windsor	Town of Windsor (anticipated late 2015) Contact: (707) 838-5343

***SECTION 3***

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**Potential Future Commercial Truck Fill Facilities**

## Agencies That May Consider Commerical Fill Facilities in the Future

At the time this Guide was prepared, the agencies below indicated they may consider development of commercial fill facilities, in particular if the drought continues.

COUNTY/CITY	AGENCY
<b>ALAMEDA COUNTY</b>	
Piedmont Union City	City of Piedmont Union Sanitary District
<b>CONTRA COSTA COUNTY</b>	
Antioch Brentwood	Delta Diablo Sanitation District (in planning phase) City of Brentwood
<b>MARIN COUNTY</b>	
San Rafael	Ross Valley Sanitary District
<b>SAN FRANCISCO</b>	
South San Francisco	South San Francisco
<b>SAN MATEO COUNTY</b>	
Menlo Park San Mateo	West Bay Sanitary District (in planning phase) City of San Mateo
<b>SOLANO COUNTY</b>	
Benicia	City of Benicia
<b>SONOMA COUNTY</b>	
Guerneville	Sonoma County Water Agency

***SECTION 4***

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**Existing and Planned Residential Fill Facilities**

## Existing Residential Fill Facilities

COUNTY/CITY	AGENCY
<b>ALAMEDA COUNTY</b>	
Dublin Livermore	Dublin San Ramon Services District City of Livermore
<b>CONTRA COSTA COUNTY</b>	
Concord	Central Contra Costa Sanitary District
<b>SAN MATEO COUNTY</b>	
Palo Alto	City of Palo Alto (Residents may obtain a residential use permit from the City and contract with a City-authorized commercial water hauler to deliver recycled water. The City does not have a residential truck fill station.)
Redwood City	City of Redwood City

## Planned Residential Fill Facilities

COUNTY/CITY	AGENCY
<b>ALAMEDA COUNTY</b>	
Oakland	East Bay Municipal Utility District (anticipated July 2015)
<b>MARIN COUNTY</b>	
Novato San Rafael	North Marin Water District (anticipated July 2015) Marin Municipal Water District (anticipated Fall 2015)

***SECTION 5***

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**Recycled Water Uses Allowed in California**

# Recycled Water Uses Allowed<sup>1</sup> in California

Use of Recycled Water	Treatment Level			
	Disinfected Tertiary Recycled Water	Disinfected Secondary – 2.2 Recycled Water	Disinfected Secondary – 23 Recycled Water	Undisinfected Secondary Recycled Water
<b><i>Irrigation of:</i></b>				
Food crops where recycled water contacts the edible portion of the crop, including all root crops	<b>Allowed</b>	Not Allowed	Not Allowed	Not Allowed
Parks and playgrounds	<b>Allowed</b>	Not Allowed	Not Allowed	Not Allowed
School yards	<b>Allowed</b>	Not Allowed	Not Allowed	Not Allowed
Residential landscaping	<b>Allowed</b>	Not Allowed	Not Allowed	Not Allowed
Unrestricted-access golf courses	<b>Allowed</b>	Not Allowed	Not Allowed	Not Allowed
Any other irrigation uses not prohibited by other provisions of the California Code of Regulations	<b>Allowed</b>	Not Allowed	Not Allowed	Not Allowed
Food crops, surface-irrigated, above-ground edible portion, and not contacted by recycled water	<b>Allowed</b>	<b>Allowed</b>	Not Allowed	Not Allowed
Cemeteries	<b>Allowed</b>	<b>Allowed</b>	<b>Allowed</b>	Not Allowed
Freeway landscaping	<b>Allowed</b>	<b>Allowed</b>	<b>Allowed</b>	Not Allowed
Restricted-access golf courses	<b>Allowed</b>	<b>Allowed</b>	<b>Allowed</b>	Not Allowed
Ornamental nursery stock and sod farms with unrestricted public access	<b>Allowed</b>	<b>Allowed</b>	<b>Allowed</b>	Not Allowed
Pasture for milk animals for human consumption	<b>Allowed</b>	<b>Allowed</b>	<b>Allowed</b>	Not Allowed
Non-edible vegetation with access control to prevent use as a park, playground or school yard	<b>Allowed</b>	<b>Allowed</b>	<b>Allowed</b>	Not Allowed
Orchards with no contact between edible portion and recycled water	<b>Allowed</b>	<b>Allowed</b>	Not Allowed <sup>2</sup>	Not Allowed <sup>2</sup>
Vineyards with no contact between edible portion and recycled water	<b>Allowed</b>	<b>Allowed</b>	Not Allowed <sup>2</sup>	Not Allowed <sup>2</sup>
Non food-bearing trees, including Christmas trees not irrigated less than 14 days before harvest	<b>Allowed</b>	<b>Allowed</b>	<b>Allowed</b>	<b>Allowed</b>
Fodder and fiber crops and pasture for animals not producing milk for human consumption	<b>Allowed</b>	<b>Allowed</b>	<b>Allowed</b>	<b>Allowed</b>
Seed crops not eaten by humans	<b>Allowed</b>	<b>Allowed</b>	<b>Allowed</b>	<b>Allowed</b>
Food crops undergoing commercial pathogen-destroying processing before consumption by humans	<b>Allowed</b>	<b>Allowed</b>	<b>Allowed</b>	<b>Allowed</b>
Ornamental nursery stock, sod farms not irrigated less than 14 day before harvest	<b>Allowed</b>	<b>Allowed</b>	<b>Allowed</b>	<b>Allowed</b>
<b><i>Supply for impoundment:</i></b>				
Non-restricted recreational impoundments, with supplemental monitoring for pathogenic organisms	<b>Allowed<sup>3</sup></b>	Not Allowed	Not Allowed	Not Allowed
Restricted recreational impoundments and publicly-accessible fish hatcheries	<b>Allowed</b>	<b>Allowed</b>	Not Allowed	Not Allowed
Landscape impoundments without decorative fountains	<b>Allowed</b>	<b>Allowed</b>	<b>Allowed</b>	Not Allowed
<b><i>Supply for cooling or air conditioning:</i></b>				
Industrial or commercial cooling or air conditioning involving cooling tower, evaporative condenser, or spraying that creates a mist	<b>Allowed<sup>4</sup></b>	Not Allowed	Not Allowed	Not Allowed
Industrial or commercial cooling or air conditioning not involving cooling tower, evaporative condenser, or spraying that creates a mist	<b>Allowed</b>	<b>Allowed</b>	<b>Allowed</b>	Not Allowed

# Recycled Water Uses Allowed<sup>1</sup> in California

(continued)

Use of Recycled Water	Treatment Level			
	Disinfected Tertiary Recycled Water	Disinfected Secondary – 2.2 Recycled Water	Disinfected Secondary – 23 Recycled Water	Undisinfected Secondary Recycled Water
<i>Other uses:</i>				
Groundwater recharge	<b>Allowed</b> under special case-by-case permits by RWQCBs <sup>5</sup>			
Flushing toilets and urinals	<b>Allowed</b>	Not Allowed	Not Allowed	Not Allowed
Priming drain traps	<b>Allowed</b>	Not Allowed	Not Allowed	Not Allowed
Industrial process water that may contact workers	<b>Allowed</b>	Not Allowed	Not Allowed	Not Allowed
Structural fire fighting	<b>Allowed</b>	Not Allowed	Not Allowed	Not Allowed
Decorative fountains	<b>Allowed</b>	Not Allowed	Not Allowed	Not Allowed
Commercial laundries	<b>Allowed</b>	Not Allowed	Not Allowed	Not Allowed
Consolidation of backfill material around potable water pipelines	<b>Allowed</b>	Not Allowed	Not Allowed	Not Allowed
Artificial snow making for commercial outdoor uses	<b>Allowed</b>	Not Allowed	Not Allowed	Not Allowed
Commercial car washes, not heating the water, excluding the general public from washing process	<b>Allowed</b>	Not Allowed	Not Allowed	Not Allowed
Industrial process water that will not come into contact with workers	<b>Allowed</b>	<b>Allowed</b>	<b>Allowed</b>	Not Allowed
Industrial boiler feedwater	<b>Allowed</b>	<b>Allowed</b>	<b>Allowed</b>	Not Allowed
Non-structural fire fighting	<b>Allowed</b>	<b>Allowed</b>	<b>Allowed</b>	Not Allowed
Backfill consolidation around non-potable piping	<b>Allowed</b>	<b>Allowed</b>	<b>Allowed</b>	Not Allowed
Soil compaction	<b>Allowed</b>	<b>Allowed</b>	<b>Allowed</b>	Not Allowed
Mixing concrete	<b>Allowed</b>	<b>Allowed</b>	<b>Allowed</b>	Not Allowed
Dust control on roads and streets	<b>Allowed</b>	<b>Allowed</b>	<b>Allowed</b>	Not Allowed
Cleaning roads, sidewalks, and outdoor work areas	<b>Allowed</b>	<b>Allowed</b>	<b>Allowed</b>	Not Allowed
Flushing sanitary sewers	<b>Allowed</b>	<b>Allowed</b>	<b>Allowed</b>	<b>Allowed</b>

This summary is prepared from the December 2, 2000-adopted Title 22 Water Recycling Criteria and supersedes all earlier versions. Prepared by Bahman Sheikh and edited by EBMUD Office of Water Recycling, who acknowledge this is a summary and not the formal version of the regulations referenced above.

<sup>1</sup> Refer to the full text of the December 2, 2000 version of Title 22: California Code of Regulations, Chapter 3 Water Recycling Criteria. This chart is only an informal summary of the uses allowed in this version, with the exception of orchards and vineyards noted as "Not Allowed<sup>2</sup>" on page 1 and explained below.

<sup>2</sup> Per California Department of Public Health letter of January 8, 2003 to California Regional Water Quality Control Boards.

<sup>3</sup> Allowed with "conventional tertiary treatment." Additional monitoring for two years or more is necessary with direct filtration.

<sup>4</sup> Drift eliminators and/or biocides are required if public or employees can be exposed to mist.

<sup>5</sup> Refer to Groundwater Recharge Guidelines, available from the California Department of Public Health.

SPECIAL LANDSCAPE AREA [AREAS IRR W/RECYCLED WATER]

TOTAL PROJECT AREA 14,810 SQFT

**MAWA Traditional Equation for 100% Recycled Water Systems DATED 4/2015****MAWA = (ETo) X (0.62) X (1.0 X LA)****406,771 = (44.3) X (0.62) X (1.0 X 14,810)****HYDROZONES**

A1 VALVE AREA 1 SB PERIMETER  
 A2 VALVE AREA 2 SB CENTRAL PERIMETER  
 B1 VALVE AREA 4 NB WASHINGTON ST INTERSECTION  
 C1 VALVE AREA 5 SB NORTH PERIMETER  
 D1 VALVE AREA 3 SB [TO STA 390+30] EXCAVATION AREA  
 D2 VALVE AREA 3 SB [FRP, STA 390+30] EXCAVATION AREA

**AREA 1SB SOUTH PERIMETER**

PP1 6514 SQFT 6514 SQFT

**A1 VALVE 1 ½" 23.5 GPM 47 BUBBLERS****AREA 2SB CENTRAL PERIMETER**

PP1 768 SQFT

PP1 415 SQFT

PP2 802 SQFT 1985 SQFT

**A2 VALVE 1" 7 GPM 14 BUBBLERS****AREA 3 SB EXCAVATION AREA**

PP1 172 SQFT

PP2 2369 SQFT  
PP3 1760 SQFT 4301 SQFT  
D1 VALVE 1 ¼" 15 GPM 30 BUBBLERS [1897 SQFT]  
D2 VALVE 1 ¼" 15 GPM 30 BUBBLERS [2404 SQFT]

**AREA 4 NB WASHINGTON STREET INTERSECTION**

PP1 1016 SQFT 1016 SQFT  
B1 VALVE 1" 4.5 GPM 9 BUBBLERS

**AREA 5 SB NORTH PERIMETER**

PP2 994 SQFT 994 SQFT  
C1 VALVE ¾" 3 GPM 6 BUBBLERS

**TOTAL AREA 14,810 SQFT**

**.34 ACRE**