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Summary Report of Assessment of Dichlorobenzene in Soil and Groundwater

Former AAA Equipment Company Property 745 50th Street, Oakland, California (SLIC Case No. RO0002746;

Geotracker Global ID SL0600186350) and Learner Investment Company Property 768 46th Avenue, Oakland, California (SLIC Case No. RO0002478;

Geotracker Global ID SLT20150156)

June 6, 2008 001-09644-00

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June 6, 2008

Mr. Jerry Wickham Alameda County Health Care Services Environmental Health Services 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94502-6577

Subject:

Summary Report of Assessment of Dichlorobenzene in Soil and Groundwater at the Former AAA Equipment Site at 745 50th Street, Oakland, California (SLIC Case No. RO0002746; Geotracker Global ID SL0600186350), and the Flag Lot portion of the Learner Investment Company property, located at 768 46th Avenue, Oakland, California (SLIC Case No. RO0002478; Geotracker Global ID SLT20150156)

Dear Mr. Wickham:

The enclosed Summary Report was prepared by LFR Inc. (LFR) on behalf of Westside Building Materials Corporation for Former AAA Equipment Site at 745 50th Street, Oakland, California (SLIC Case No. RO0002746; Geotracker Global ID SL0600186350), and the Flag Lot portion of the Learner Investment Company property, located at 768 46th Avenue, Oakland, California (SLIC Case No. RO0002478; Geotracker Global ID SLT20150156 ("the Site"). This report presents the findings of additional subsurface investigations conducted during April 2008 by LFR to further characterize the extent of contamination in specific areas of concern (AOCs) at the Site. The scope of work for the investigations conducted was described in a work plan that was submitted to Alameda County Environmental Health (ACEH) on October 30, 2007, and was approved by ACEH on November 30, 2007.

As required, this report will be submitted electronically via the Alameda County Environmental Cleanup Oversight Program FTP website, and via the Regional Water Quality Control Board's Geotracker electronic submittal system.

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report are true and correct to the best of my knowledge. If you have any questions or comments concerning this report, please call me at (714) 385-1644 or Ron Goloubow of LFR at (510) 652-4500.

Sincerely,

Dick Peckham

Westside Building Materials Corporation

Attachment

## **CONTENTS**

CER	RTIFICATION	iii
1.0	INTRODUCTION	1
	1.2 Objectives	2
	1.3 Site Description and Background	2
	1.4 Geology and Hydrogeology	4
2.0	SCOPE OF INVESTIGATION	4
	2.1 Pre-Field Activities	5
	2.1.1 Permitting	5
	2.1.2 Subsurface Utility Clearance	5
	2.1.3 Health and Safety Plan	5
	2.2 Soil Borings, Soil Sampling, and Lithologic Logging	5
	2.2.1 Equipment Decontamination and Borehole Abandonment	6
	2.3 Grab Groundwater Sampling	7
	2.4 Laboratory Analyses	7
	2.4.1 Soil Sample Analyses	7
	2.4.2 Grab Groundwater Sample Analyses	7
	2.4.3 Data Validation Summary	8
3.0	LABORATORY ANALYTICAL RESULTS	9
	3.1 Petroleum Hydrocarbons and BTEX in Soil	9
	3.2 VOCs in Soil	10
	3.3 Metals in Soil	10
	3.4 Petroleum Hydrocarbons and BTEX in Groundwater	10
	3.5 VOCs in Groundwater	11
	3.6 Metals in Groundwater	12
4.0	CHEMICAL CHARACTERIZATION	12
5.0	SHMMARY AND CONCLUSIONS	13

<i>(</i> 0	DEFEDENCE	
6.0	REFERENCES	

#### **TABLES**

- Total Petroleum Hydrocarbons and Benzene, Toluene, Ethylbenzene, and Xylenes in Soil Samples Collected at Westside Building Materials
- 2 Volatile Organic Compounds in Soil Samples Collected at Westside Building Materials
- 3 Metals in Soil Samples Collected at Westside Building Materials
- 4 Total Petroleum Hydrocarbons and Benzene, Toluene, Ethylbenzene, and Xylenes in Groundwater Samples Collected at Westside Building Materials
- 5 Volatile Organic Compounds in Groundwater Samples Collected at Westside Building Materials
- 6 Metals in Groundwater Samples Collected at Westside Building Materials

#### **FIGURES**

- 1 Site Location Map
- 2 Area Overview
- 3 Site Plan with Boring Locations
- 4 Summary of Groundwater Quality in the Vicinity of Former AAA Equipment Property

#### **APPENDICES**

- A Lithologic Soil Boring Logs
- B Approved Drilling Permit
- C Laboratory-Certified Analytical Reports

## **CERTIFICATION**

All hydrogeologic and geologic information, conclusions, and recommendations in this document have been prepared under the supervision of and reviewed by an LFR Inc. Professional Geologist.

Charles H. Pardini Principal Geologist

California Professional Geologist (6444)

#### 1.0 INTRODUCTION

LFR Inc. (LFR) has prepared this report summarizing the assessment of dichlorobenzene (DCB) in soil and groundwater at the former AAA Equipment Company property, located at 745 50<sup>th</sup> Street, Oakland, California (SLIC Case No. RO0002746; Geotracker Global ID SL0600186350), and the Flag Lot portion of the Learner Investment Company property, located at 768 46<sup>th</sup> Avenue, Oakland, California (SLIC Case No. RO0002478; Geotracker Global ID SLT20150156). Both of these properties comprise "the Site" (Figures 1 and 2). The investigation was conducted on behalf of Westside Building Materials Corporation ("Westside"), the current owner of the former AAA Equipment Company property, and the Neu Investment Corporation, the current owner of the former Learner Investment Company property.

LFR understands that the Site and the neighboring properties (Superior Plaster Castings and Pacific Gas and Electric Company [PG&E]) are currently under the oversight of Alameda County Environmental Health (ACEH) with respect to the environmental characterization and remediation of the environmental conditions at these properties. In a letter dated July 11, 2007, ACEH indicated that there is a single plume of DCB-affected groundwater, which reportedly emanates from a source or sources present on each of the four properties, and requested that additional characterization be conducted on the affected properties.

The scope of work for the investigation conducted at the Site was presented in the "Work Plan for Assessment of Dichlorobenzene in Soil and Groundwater, Former AAA Equipment Company Property, 745 50<sup>th</sup> Street, Oakland, California (SLIC Case No. RO0002746; Geotracker Global ID SL0600186350) and Learner Investment Company Property, 768 46<sup>th</sup> Avenue, Oakland, California (SLIC Case No. RO0002478; Geotracker Global ID SLT20150156)," dated October 30, 2007 ("the Work Plan"). The Work Plan was prepared by LFR and approved by ACEH on November 30, 2007. Revisions to the approved work plan were requested by ACEH. The modifications to the original scope of work included advancing additional soil borings, collecting additional samples, and conducting additional analyses.

Several environmental investigations have been conducted on the Site and neighboring properties. Analytical results of soil and groundwater samples collected at these sites have contained detectable concentrations of total petroleum hydrocarbon (TPH) as diesel (TPHd), volatile organic compounds (VOCs), including DCB, chlorobenzene (CB), and polynuclear aromatic hydrocarbons (PAHs). Figure 3 illustrates many of the locations of the soil and grab groundwater samples previously collected at the Site, and Figure 4 presents a summary of analytical results of groundwater samples previously collected at the Site and in the site vicinity.

The scope of this investigation included drilling six soil borings to a total depth of approximately 12 feet below ground surface (bgs). Four of the soil borings (DCB-P1

through DCB-P4 were located on a portion the Learner Investment Company property that has been referred to as the "Flag Lot" (Figures 2 and 3). The other two soil borings (DCB-P5 and DCB-P6) were located on the Westside property.

## 1.2 Objectives

The objective of this investigation is to further characterize the extent of DCB in both soil and groundwater on the Site, and, in conjunction with the other investigations being conducted by other responsible parties at the PG&E and Superior Plaster Castings properties, to obtain data that will further assist in defining the source of the DCBs in groundwater at the Site and site vicinity.

This report presents the methods and results of the recent investigation.

LFR's evaluation of the data collected at the Site includes comparing the concentrations of compounds detected in soil and groundwater samples at the Site to the following human health-based regulatory screening criteria: Environmental Screening Levels (ESLs) for commercial – industrial sites where the groundwater is not a potential source of drinking water.

These ESL screening criteria were established by the Regional Water Quality Control Board (RWQCB). ESLs were developed to address environmental protection. Under most circumstances, the presence of a chemical in soil or groundwater at concentrations below the corresponding ESL can be assumed to not pose a significant threat to human health. ESLs can be obtained from

http://www.waterboards.ca.gov/sanfranciscobay/esl.shtml.

# 1.3 Site Description and Background

The following site description and background information for the Site and site vicinity are based primarily on LFR's review of Sanborn maps, aerial photographs, topographic maps, and a Polk Directory. The Site was vacant in 1925, with the exception of two residences (addressed as 755 and 765 50<sup>th</sup> Street, respectively) located on the southern portion of the property that borders 50<sup>th</sup> Street. By 1939, the Independent Construction Company (ICC) began operation on the northern portion of the property. By 1950, ICC was operating an asphalt batch plant on the property, which included the use of two underground storage tanks (USTs) constructed of steel sides and concrete bottoms. There is no record of who installed the USTs; however, the USTs are illustrated on more than one of the Sanborn maps when ICC was present at the Site. The USTs stored petroleum product that was used to produce asphalt. Based on the location of the USTs, the railroad track, and the former pipelines, it is our understanding that product (oil) was shipped by rail cars on rail tracks located approximately 80 feet to the west of the USTs, and then transferred to the USTs via underground pipelines.

By 1961, Independent Construction Company still occupied the property addressed as 741 50<sup>th</sup> Street; however, the asphalt batch plant was no longer present. The residences addressed as 755 and 765 50<sup>th</sup> Street were no longer present. Between 1961 and 1969, records indicate that ICC's use of the property included equipment storage, sand blasting, and a paint shop with a pipe painting operation. LFR's review of the city directories indicated that the AJ McCosker Company's office and yard was listed at 741 50<sup>th</sup> Street in 1955, and West Coast Painting Contractor was listed at that address in 1962. Based on the information provided on Sanborn maps, it appears that these companies may have been subsidiary companies to ICC or co-located at the property.

By 1967, AAA Equipment Company occupied the property and conducted operations at the Site until 2002, when Westside purchased the property. There is very little information available about the AAA Equipment Company operations other than observations made at the time Westside purchased the property. AAA Equipment Company operated as a "junkyard" and likely acquired automobiles and other machinery for resale of the parts. Many racks of used automobile and machinery parts (most were made of metal) were located across the property in 2002. Several 55-gallon drums that held used machinery parts were also located throughout the property.

At the time Westside purchased the property, AAA Equipment Company had removed all of the parts, racks, and drums from the Site. The USTs described above were removed by Westside in September and October 2003, and a report of the removal activities was prepared by LFR (formerly LFR Levine·Fricke) and submitted to ACEH on April 27, 2004. Closure of the tank removal activities that took place in 2004 is still pending.

Westside has since redeveloped the property, covered the entire property with concrete or asphalt, constructed two new buildings, and refurbished and expanded an existing building. The Site is currently operating as Westside/Alta Building Materials and is primarily used as a building materials supply yard. Building materials are stored there prior to loading onto trucks for delivery to construction sites.

1,4-DCB has been detected in groundwater samples collected in the northern corner of the PG&E property, along the former railroad spur at the former Superior Plaster Castings property, and at the Site (Figure 4). In October 1998, 1,4-DCB was detected at 1,500 micrograms per liter ( $\mu$ g/L) in a groundwater sample collected from well WCC-1A, located at the former Superior Plaster Castings property (ATC 1998). In October 1998, 1,4-DCB was detected at 470  $\mu$ g/L and 68  $\mu$ g/L in groundwater monitoring wells OW-7 and OW-6, which are located at the PG&E property and are closest to the Superior Plaster Castings property. During the April 2007 groundwater sampling event at the PG&E property, 1,4- DCB was detected at 64  $\mu$ g/L, 5.0  $\mu$ g/L, 22  $\mu$ g/L, and 460  $\mu$ g/L in samples collected from wells OW-1, OW-5, OW-6, and OW-7 located at the PG&E property (PG&E 2007). 1,4-DCB has been detected at 8.6  $\mu$ g/L in a grab groundwater sample collected from soil boring B-2, located west of former UST-S on the Site and at 360  $\mu$ g/L in a grab groundwater sample collected from the excavation of former UST-S (LFR 2004, LFR 2007, and PG&E 2007).

## 1.4 Geology and Hydrogeology

The Site is located just north of the San Leandro Bay inlet of San Francisco Bay, and is underlain by Bay Mud and fluvial deposits. According to Geomatrix Consultants, the subsurface sediments consist of a thick sequence of alluvial fan deposits (300 to 700 feet thick) and is characterized by low permeability (PG&E 2007).

Soils encountered during drilling consisted predominantly of fine-grained sediments (clays and silts) with thin intervals of coarser-grained sediments (gravels and sands). Soil cores were reviewed for visible or olfactory indications of the presence of petroleum hydrocarbons, and also were field screened using a portable photoionization detector (PID). Field observations and PID readings are noted on lithologic logs, and intervals selected for collecting soil samples for laboratory analyses were selected in part based on the results of the field screening and observations.

The groundwater quality has been described as brackish and of no practical use. Based on observations recorded during the drilling of the soil borings at the Site in April 2008, the upper 12 feet of soils beneath the Site consist of interbedded layers of gravel, sand, silt, and clay. Based on the results of previous investigations at neighboring properties, groundwater in the site vicinity is encountered between approximately 7 to 8 feet bgs, and the groundwater flow direction reported by PG&E (the PG&E property is located adjacent to the southwestern boundary of the Site) is to the southwest. In addition, groundwater elevations may be influenced by tidal fluctuations in nearby San Francisco Bay. According to observations by on-site representatives of Westside during the period of time in 2003 when the excavations from which the USTs were removed remained open, groundwater in the excavations was observed to fluctuate daily up to approximately 1 foot.

#### 2.0 SCOPE OF INVESTIGATION

To further characterize the extent of DCB in both soil and groundwater on the Site, LFR supervised the drilling of six soil borings (DCB-P1 through DCB-P6; Figure 3). In accordance with the Work Plan and the ACEH letter dated November 30, 2007, soil samples and grab groundwater samples were collected from each of the six soil borings and submitted to Curtis & Tompkins, Ltd. (C&T), a state-certified laboratory located in Berkeley, California, for a variety of analyses.

Although the focus of the investigation was to assess the presence of DCB in soil and groundwater, the presence of TPH, VOCs, and metals was also assessed with respect to their magnitude and extent in soil and groundwater at the Site.

This section describes the pre-field and drilling activities conducted by LFR during this investigation, and presents the rationale for the selected sample locations and laboratory analyses.

#### 2.1 Pre-Field Activities

#### 2.1.1 Permitting

LFR acquired the necessary drilling permit from and paid permit fees to the Alameda County Public Works Agency to advance the soil borings at the Site for the collection of soil and grab groundwater samples. A copy of the approved drilling permit is included in Appendix B.

## 2.1.2 Subsurface Utility Clearance

Prior to beginning drilling work, LFR contacted Underground Service Alert (USA) to notify utility companies or agencies of the drilling project. In addition, LFR subcontracted SubDynamic Locating Services of San Jose, California, to perform subsurface utility locating at the Site to identify possible subsurface obstructions and utilities. All proposed soil boring locations were properly cleared in the presence of the field geologist overseeing the drilling activities.

#### 2.1.3 Health and Safety Plan

A site-specific Health and Safety Plan (HSP) was prepared to document potential hazards to worker health and safety at the Site during the field activities and to specify the appropriate means to mitigate or control hazards. The HSP addressed the potential for exposure to hazardous constituents and described general safety procedures. A health and safety meeting was conducted before fieldwork began, and applicable activities were completed according to the HSP.

# 2.2 Soil Borings, Soil Sampling, and Lithologic Logging

LFR subcontracted Gregg Drilling, Inc., of Martinez, California, a state-licensed drilling subcontractor, to advance the six soil borings using a direct-push Geoprobe™ drilling rig. Drilling and soil and grab groundwater sampling activities were completed on April 2 and 7, 2008. During drilling, continuous soil cores were collected for lithologic evaluation and field screened using a PID to detect the possible presence of volatile organic vapors.

LFR collected depth-discrete soil samples for laboratory analyses from intervals at which field screening and field observations indicated the possible presence of petroleum hydrocarbons or other compounds in the soil. Where no indication of contamination was observed in the soil cores, LFR collected discrete soil samples at depths between approximately 3 and 5 feet bgs.

Field boring logs were prepared by an LFR field geologist for each soil boring location. Lithologic descriptions based on the Unified Soil Classification System

(USCS; American Society for Testing and Materials D2488-00) and field screening observations were recorded on the field boring logs. Soil boring logs were reviewed by a California Professional Geologist, and were transcribed into report-quality graphic logs presented in Appendix A.

Soil samples were collected on a continuous basis during drilling and retained for laboratory analyses at approximately 4 feet bgs and at deeper intervals if organic vapors were detected by the PID. Soil cores and soil samples were reviewed for visible or olfactory indications of the presence of petroleum hydrocarbons, field screened using a PID to assess the presence of hydrocarbons or other VOCs, and results were recorded on the soil boring logs. Soil borings were logged by an LFR field geologist under the supervision of a State of California Professional Geologist. The soil samples were described using the USCS. The lithologic descriptions were recorded on soil boring logs provided in Appendix A.

Depth-discrete soil samples were selected for laboratory analyses based on the potential presence of contaminants, as apparent from field screening using a PID or from visual/olfactory evaluation of the soil cores. Soil samples were obtained by directly pushing the continuous-core barrel lined with acetate sleeves into the soil at each of the six soil borings. Soil samples retained for laboratory analyses were collected in three Encore TM soil sample containers and one soil sample from the acetate core barrel sealed with Teflon TM-lined plastic caps which then were sealed and properly labeled with the boring identification number and depth interval, the time and date of collection, the analysis requested, and the initials of the sampler. All samples were stored in ice-chilled coolers and submitted to the laboratory under strict chain-of-custody protocol.

Soil samples were collected at the Site and retained using the Encore <sup>TM</sup> soil sample containers on April 2, 2008. However, the Encore <sup>TM</sup> soil sample containers do not provide a sufficient volume of soil to allow for the analysis of metals and TPH. Therefore, on April 7, 2008, soil samples for the metals and TPH analyses were collected from soil borings drilled within 5 feet (or less) of the original soil borings that were drilled on April 2, 2008.

## 2.2.1 Equipment Decontamination and Borehole Abandonment

Down-hole drilling and sampling equipment was appropriately cleaned with high-pressure hot water (steam cleaned) before use at each new drilling location. After soil and groundwater samples were collected, each borehole was abandoned by sealing it with a mixture of cement and bentonite ("grout") from the bottom up to the ground surface using a tremie pipe. Waste soil produced during drilling was placed in 5-gallon buckets and will be disposed of within 90 days of its production.

# 2.3 Grab Groundwater Sampling

Each of the six soil borings was advanced to approximately 12 feet bgs, to allow for the collection of a grab groundwater sample. Each soil boring was advanced approximately 4 feet into the first encountered saturated sediments. After drilling was completed, a temporary polyvinyl chloride (PVC) well screen and casing was placed in the soil boring. A grab groundwater sample was collected from each boring using a clean, stainless steel bailer lowered into the PVC casing. The groundwater sample was gently poured from the bailer into the appropriate, clean, laboratory-supplied water sample containers. Sample containers were properly labeled and stored in ice-chilled coolers for daily transport to the analytical laboratory under chain-of-custody protocol.

## 2.4 Laboratory Analyses

Laboratory analyses of soil and grab groundwater samples were conducted by C&T. Soil samples selected for laboratory analyses were submitted for analyses under a "standard" turnaround schedule. Samples not initially selected for analyses were submitted to the laboratory but were placed on hold.

### 2.4.1 Soil Sample Analyses

A total of seven soil samples was submitted to C&T for the following analyses:

- TPHd and TPH as motor oil (TPHmo), using U.S. Environmental Protection Agency (EPA) test method 8015 modified. Soil samples underwent a silica gel cleanup prior to analysis to remove naturally occurring fats or oils that can result in false positive results for TPH components.
- VOCs using EPA test method 8260b.
- California Assessment Manual (CAM) 17 metals using EPA test method 6010b.
- PAHs using EPA test method 8270c.

The soil samples were collected from between approximately 3 and 8 feet bgs, with the majority of the samples collected from approximately 4 feet bgs

## **2.4.2** Grab Groundwater Sample Analyses

A total of six grab groundwater samples was submitted to C&T for the following analyses:

- TPHd and TPHmo, using EPA test method 8015 modified. The groundwater samples underwent a silica gel cleanup prior to analysis to remove naturally occurring fats or oils that can result in false positive results for TPH components.
- VOCs using EPA test method 8260.

• CAM 17 metals using EPA test method 6010b; these samples were filtered and preserved at the C&T laboratory.

The laboratory-certified analytical results are included in Appendix C.

#### 2.4.3 Data Validation Summary

LFR performed a level III data validation evaluation of the analytical data collected during the site investigation. The data validation evaluation was conducted in accordance with the EPA Data Validation Functional Guidelines for Evaluating Environmental Analyses, "U.S. EPA Contract Laboratory Program National Functional Guidelines for Organic Data Review," dated October 1999. The following is a summary of the evaluation of analytical data for soil and groundwater samples collected as part of LFR's investigation. The data were evaluated based on the following parameters:

- data completeness
- holding times
- blanks
- system monitoring compound spike recoveries (surrogates)
- matrix spike/matrix spike duplicate recoveries (MS/MSD)
- laboratory control spike/laboratory control spike duplicate recoveries (LCS/LCSDs)

A review of the quality assurance/quality control (QA/QC) sample analytical results for the groundwater and soil samples did not identify quality issues that would cause the data to be qualified. The sample temperatures, MS/MSD recoveries, LCS/LCSD recoveries, and holding times were all within compliance criteria.

The MS/MSD percent recoveries of barium and lead were below laboratory QA/QC limits and the MS/MSD percent recoveries for chromium and nickel were above the QA/QC range, causing the relative percent differences between the percent recoveries of the MSs and MSDs to exceed the QA/QC range. Lastly, the relative percent difference of the MS and MSD for these samples exceeded the QA/QC range for molybdenum. The analytical result for 1,2,3-trichlorobenzene (1,2,3-TCB) in soil sample DCB-P3-4FT is qualified because the percent recovery of surrogate bromofluorobenzene was above the laboratory's QA/QC range.

#### 3.0 LABORATORY ANALYTICAL RESULTS

Analytical results for soil and grab groundwater samples collected by LFR in April 2008 are summarized in Tables 1 through 3 and Tables 4 through 6, respectively.

For the purposes of evaluating and discussing the analytical results, they were compared with commercial and residential land use ESL values where groundwater is not a source of drinking water.

## 3.1 Petroleum Hydrocarbons and BTEX in Soil

Analytical results for TPHd, TPH as gasoline (TPHg), TPHmo, and benzene, toluene, ethylbenzene, and xylenes (BTEX) in soil samples collected by LFR are summarized in Table 1.

TPHd was detected at concentrations ranging from 110 to 5,000 milligrams per kilogram (mg/kg) in soil samples collected between approximately 3 to 5 feet bgs in each of the six soil borings. All but one of these concentrations exceeded the ESLs for TPHd in soil where groundwater is not a source of drinking water (150 mg/kg). In addition, C&T reported that the chromatographic pattern for TPHd detected in samples that contained less than 400 mg/kg (Table 1) did not resemble the chromatographic standard for TPHd. This indicates that the TPHd detected in these samples is likely associated with a longer-chained hydrocarbon that is consistent with oil (carbon chain length of C24 to C36).

TPHmo was detected at concentrations ranging from 360 to 4,600 mg/kg in soil samples collected between approximately 3 to 8 feet bgs in all six soil borings. TPHmo concentrations in two soil samples collected from soil boring DCB-P4 each exceeded the ESL for TPHmo in soil where groundwater is not considered a current or potential source of drinking water (2,500 mg/kg).

TPHg was detected in two of the soil samples collected from soil boring DCB-P4 at concentrations below the ESL for TPHg. Each of these concentrations was less than the ESL for TPHg in soil where groundwater is not considered a current or potential source of drinking water (450 mg/kg). In addition, C&T reported that the chromatographic pattern for TPHg detected in this sample did not resemble the standard for TPHg. In this case, due to the presence of the elevated concentrations of TPHmo, this note would indicate that the TPHg detected in these samples is likely associated with longer-chained hydrocarbons typically associated with TPHmo.

BTEX compounds were not present above the laboratory reporting limits in the soil samples collected at the Site in April 2008. It should be noted that, due to the elevated concentrations of TPHd (5,000 mg/kg) and TPHmo (4,600 mg/kg) detected in the soil sample collected from 3 feet bgs in soil boring DCB-P4, the reporting limits for the BTEX compounds for that soil sample were elevated to 13,000 micrograms per kilogram ( $\mu$ g/kg). Therefore, it is unknown if benzene was present in this sample at a concentration above its ESL (260  $\mu$ g/kg). The other aromatic hydrocarbons (toluene, ethylbenzene, and the xylenes isomers) have individual ESLs greater than the detection limit of 13,000  $\mu$ g/kg (Table 1). The absence of BTEX compounds is consistent with results obtained during prior sampling events conducted at the Site.

#### 3.2 VOCs in Soil

The chemical analysis results for VOCs (EPA method 8260b) in the six soil samples collected by LFR are summarized in Table 2. The VOCs 1,4-dichlorobenzene (1,4-DCB) and chlorobenzene (CB) were detected at 21,000 and 150,000  $\mu$ g/kg, respectively, in the soil sample collected at approximately 4 feet bgs from soil boring DCB-P4. This soil boring was located in the northwestern portion of the Site along the property boundary with Superior Plaster Castings (Figure 3). During this investigation, 1,2,3-TCB was present in DCB-P3 at 6.7  $\mu$ g/kg and acetone was present in DCB-P5 at 25  $\mu$ g/kg.

#### 3.3 Metals in Soil

The chemical analysis results for metals analyses (EPA method 6010) in the six soil samples collected by LFR are summarized in Table 3. As indicated in Table 3, the concentrations of metals detected in soil samples collected at the Site in April 2008 are within the range of naturally occurring metals concentrations in the San Francisco Bay Area (Lawrence Berkeley National Lab; LBNL 2002). In addition, the only metal to exceed its ESL was arsenic. Concentrations of arsenic ranged from 3.1 to 8.7 mg/kg. While these arsenic concentrations exceed the ESL of 1.5 mg/kg, the concentrations of arsenic are within the range of naturally occurring arsenic concentrations in soil in the San Francisco Bay Area (19.1 mg/kg for arsenic; LBNL 2002).

# 3.4 Petroleum Hydrocarbons and BTEX in Groundwater

Analytical results for TPHd, TPHmo, and BTEX in groundwater samples collected by LFR in April 2008 are summarized in Table 4. TPHd was detected at concentrations ranging from 930  $\mu$ g/L to 170,000  $\mu$ g/L in grab groundwater samples collected between approximately 8 to 12 feet bgs in all six soil borings. The highest concentrations of TPHd and TPHmo were detected in grab groundwater samples collected from soil borings DCB-P3 and DCB-P4, which were located in the northwestern portion of the Site along the property boundary with Superior Plaster Castings (Figure 3). The elevated concentrations of these compounds in groundwater correspond with the elevated concentrations of TPHd and TPHmo detected in soil samples from the same area. The concentrations of TPHd and TPHmo in grab groundwater samples collected from soil borings DCB-P3, DCB-P4, DCB-P5, and DCB-P6 each exceeded the ESLs for TPHd and TPHmo where groundwater is not considered a current or potential source of drinking water (Table 4).

Benzene was present above the laboratory reporting limit in the grab groundwater samples collected from soil borings DCB-P1, DCB-P2, and DCB-P3 at concentrations ranging from 2.9  $\mu$ g/L to 28  $\mu$ g/L. These concentrations are well below the ESL for benzene of 540  $\mu$ g/L where groundwater is not a source of drinking water (Table 4).

Toluene was detected in the grab groundwater sample collected from soil boring DCB-P6 at 0.9  $\mu$ g/L. This concentration is well below the ESL for toluene of 400  $\mu$ g/L where groundwater is not a source of drinking water (Table 4).

Ethylbenzene was not present above the laboratory reporting limits in the six grab groundwater samples.

Xylenes were detected in the grab groundwater samples collected from soil borings DCB-P5 and DCB-P6 at concentrations well below the ESL for xylenes of 5,300  $\mu$ g/L where groundwater is not a source of drinking water (Table 4).

Due to the presence of TPHd and TPHmo detected in soil and groundwater samples collected from soil borings DCB-P3 and DCB-P4, the reporting limits for the BTEX compounds for these samples were somewhat higher than the reporting limits for the other samples, but the reporting limits were still well below the respective ESLs.

#### 3.5 VOCs in Groundwater

VOCs detected in grab groundwater samples collected by LFR in April 2008 are summarized in Table 5. Grab groundwater samples collected from soil borings DCB-P3, DCB-P4, and DCB-P5 contained elevated concentrations of VOCs relative to the other samples collected at the Site. The primary VOCs detected were TCB, DCB, and CB. TCB was not detected above laboratory reporting limits in groundwater samples collected during previous sampling events at other locations at the Site. The highest concentrations of both TCB compounds were detected in the grab groundwater sample from DCB-P3, which is located in the northwestern portion of the Site along the property boundary with Superior Plaster Castings (Figures 3 and 4). The second highest concentration of the TCB compounds, and the highest concentration of all of the DCB compounds, were detected in the grab groundwater sample collected from DCB-P4, which is also located in the northwestern portion of the Site along the property boundary with Superior Plaster Castings (Figure 4).

Concentrations of 1,2,3-TCB were detected in the groundwater sample collected from DCB-P1, DCB-P3, DCB-P4, and DCB-P5 at concentrations ranging from 0.7  $\mu$ g/L to 1,600  $\mu$ g/L. The highest concentration of 1,2,3-TCB was detected in the groundwater samples collected from DCB-P3.

1,2,4-Trichlorobenzene (1,2,4-TCB) was present above laboratory reporting limits in each of the six grab groundwater samples at concentrations ranging from 0.5 to 7,100  $\mu$ g/L. Concentrations exceeding 1,000  $\mu$ g/L were detected in groundwater samples collected from soil borings DCB-P3, DCB-P4, and DCB-P5. The RWQCB has not provided an ESL for the TCB compounds.

The highest concentrations of 1,3-dichlorobenzene (1,3-DCB) and 1,4-DCB were detected in the groundwater sample collected from DCB-P4. Relatively lower

concentrations of 1,3-DCB and 1,4-DCB were detected in samples collected from soil borings DCB-P2, DCB-P3, DCB-P5, and DCB-P6. The concentration of 1,4-DCB detected in the grab groundwater samples collected from soil borings DCB-P3, DCB-P4, DCB-P5, and DCB-P6 exceeded the ESL for 1,4-DCB of 110  $\mu$ g/L where groundwater is not considered a current or potential source of drinking water (Table 5). None of the analytical results for samples collected during this investigation exceeded the ESL for 1,3-DCB of 50,000  $\mu$ g/L where groundwater is not considered a current or potential source of drinking water (Table 5).

Concentrations of CB were detected in the groundwater sample collected from DCB-P4, DCB-P5, and DCB-P6 at concentrations ranging from 39  $\mu$ g/L to 1,000  $\mu$ g/L. The only sample to exceed the ESL for CB where groundwater is not a source of drinking water was DCB-P4 (Table 5).

#### 3.6 Metals in Groundwater

Analytical results for metals analyses (EPA method 6010) in the six grab groundwater samples collected by LFR are summarized in Table 6. As indicated in Table 6, concentrations of arsenic, barium, nickel, and zinc were present above laboratory reporting limits but below the ESLs where groundwater is not considered a current or potential source of drinking water (Table 6).

#### 4.0 CHEMICAL CHARACTERIZATION

Based on the frequency and the magnitude of concentrations detected during this investigation, the primary chemicals of concern in soil and groundwater at the Site are TPHd, TPHmo, 1,2,3-TCB, 1,2,4-TCB, 1,3-DCB, 1,4-DCB, and CB. TPHd, TPHmo, 1,3-DCB, 1,4-DCB, and CB have been detected in soil and/or groundwater samples previously collected at the Site and the adjacent neighboring Superior Plaster Castings and PG&E properties. However, 1,2,3-TCB and 1,2,4-TCB had not been previously detected in soil or groundwater samples collected at the Site and analyzed using the EPA 8260 test method during the removal of the USTs in 2003. In addition, 1,2,3-TCB and 1,2,4-TCB were not detected in the samples collected at the Site by Harding ESE in 2002 and analyzed using EPA test method 8260 (soil borings B-1, B-2, B-3, B-11, or B-12).

The analysis of the soil and/or groundwater samples collected at the Superior Plaster Castings property was conducted using EPA method 8010. The compounds 1,2,3-TCB and 1,2,4-TCB were not included in the method 8010 list of compounds; therefore, it is not known if the TCB compounds were present when the soil and groundwater sampling on the Superior Plaster Castings property was completed. Based on the elevated concentrations of 1,2,3-TCB and 1,2,4-TCB in soil samples collected from soil borings DCB-P3 and DCB-P4, and the elevated concentrations of CB in both soil and groundwater samples collected from DCB-P4 (both borings are located in the

northwestern portion of the Site along the property boundary with Superior Plaster Castings), these chemicals may be present on that property also.

Although the focus of this investigation was on the DCB compounds, the presence of TCB compounds in groundwater samples raises the issue regarding the source of the DCB compounds previously detected in soil and groundwater samples. Based on the presence of TCB, it is possible that the DCB compounds detected in soil and groundwater may be from the degradation of TCB (University of Minnesota 2008).

The source of the TCB and DCB in the soil and groundwater samples collected at the Site is unknown. According to the EPA internet site, <a href="http://www.epa.gov/ogwdw/contaminants/dw\_contamfs/124-tric.html">http://www.epa.gov/ogwdw/contaminants/dw\_contamfs/124-tric.html</a>, 1,2,4-TCB is an aromatic, colorless organic liquid. The greatest use of 1,2,4-TCB was primarily as a dye carrier. It is also used to make herbicides and other organic chemicals, as a solvent, in wood preservatives, and in abrasives. It was once used as a soil treatment for termite control (EPA 2008). Also, according to the internet site Chemical Land 21, <a href="http://chemicalland21.com/specialtychem/finechem/1,2,3-trichlorobenzene.htm">http://chemicalland21.com/specialtychem/finechem/1,2,3-trichlorobenzene.htm</a>, both 1,2,3-TCB and 1,2,4-TCB are used as a "chemical intermediate; heat transfer fluid; high boiling solvent; dielectric fluid, insecticide and fungicide; coolant in electrical installation; glass tempering; dye carrier; transformer oils; and lubricants."

#### 5.0 SUMMARY AND CONCLUSIONS

Groundwater at the Site is encountered at approximately 8 feet bgs. The Site is underlain by Bay Mud and fluvial deposits. The groundwater flow direction has been reported to be to the southeast toward San Francisco Bay at the adjacent PG&E property. It is suspected that the shallow groundwater is affected by tidal fluctuations of San Francisco Bay. The distribution of contaminants dissolved in groundwater at the Site may be influenced by tidal fluctuations and preferential pathways (coarser-grained sediments within the Bay Mud sediments.

Based on the analytical results of the soil and groundwater samples collected at the Site, the chemicals of concern are TPHd, TPHmo, TCB, DCB, and CB. Metals and BTEX compounds are not present at concentrations of environmental concern (ESLs at sites where groundwater is not considered a current or potential source of drinking water).

Based on the chemical analysis results for soil samples collected at the Site in April 2008, soil containing elevated concentrations of TPHd, TPHmo, CB, and DCB is present in soil above the saturated sediments (in the upper 4 feet of soil) near the northwestern portion of the Site along the property boundary with Superior Plaster Castings. The lateral extent of this affected soil on-site has been assessed to the south by soil samples collected from soil boring DCB-P5 (located on the Westside property) and to the northeast by soil samples collected from soil borings DCB-P1 and DCB-P2 (located on the Flag Lot). The lateral extent of TCB-affected soil to the west on the

Superior Plaster Castings property and to the north within the Flag Lot has not yet been assessed. Because soil borings DCB-P3 and DCB-P4 were located less than 10 feet from the property boundary between the Flag Lot and Superior Plaster Castings property, the western and southern extents of affected soil may extend to the Superior Plaster Castings property.

Based on the chemical analysis results for groundwater samples collected at the Site in April 2008, groundwater containing elevated concentrations of TPHd, TPHmo, TCB, DCB, and CB is present near the northwestern property boundary of the Site (soil borings DCB-P3 and DCB-P4). The lateral extent of the affected groundwater on the Site has been assessed to the northeast by the grab groundwater samples collected from soil borings DCB-P1 and DCB-P2 (located on the Flag Lot). The northern extent of affected groundwater on-site and the western and southern extents of affected groundwater on the Superior Plaster Castings property has not yet been assessed.

Soil and groundwater quality data obtained during this investigation have further assessed the extent of DCB compounds at the Site. However, the analytical results have not provided sufficient information to identify a source or a source location of the DCB compounds present in groundwater at the Site and downgradient from the Site. The presence of TCB and DCB in soil and groundwater samples collected near the northwestern portion of the Site along the property boundary with Superior Plaster Castings, in combination with the elevated concentrations of the DCB compounds in soil and groundwater on the Superior Plaster Castings property detected during prior investigations, suggests that there was a historical release of these compounds in the area of the highest detections (ERAS Environmental 2000). This release may be associated with the former railroad spur that is present near the property boundary.

The extent of the distribution of the TCB and DCB compounds is not well defined in either the northern or western direction at the Site. Additional soil and groundwater sampling to the north, east of soil borings DCB-P3 and DCB-P4, and in the western and southern directions, on the Superior Plaster Castings property, is necessary to further assess the distribution and potential source of these compounds.

The primary uses, listed in the literature, of the detected compounds suggest numerous industrial activities that could have resulted in the release of DCB and TCB and thus the source of the release or releases. The listed uses of the TCB compounds are not consistent with the past industrial activities conducted at the Site, including the use of the Site as an asphalt batch plant (EPA 2008). In addition, the distribution of the detected compounds does not suggest that they were associated with the former asphalt batch plant operation. The highest concentrations of TCB and DCB in soil were detected in the soil samples collected from the soil borings located near the northwestern portion of the Site along the property boundary with Superior Plaster Castings. TCB compounds were not detected in the soil samples collected in the vicinity of the USTs. Only low concentrations of DCB compounds were present in the soil samples collected from the borings closest to the former USTs associated with the asphalt batch plant operation.

#### 6.0 REFERENCES

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Table 1
Total Petroleum Hydrocarbons and Benzene, Toluene, Ethylbenzene, and Xylenes in Soil Samples Collected at Westside Building Materials
745 50th Avenue, Oakland, California

Concentrations in micrograms per kilogram (unless otherwise noted)

Sample ID	Date	TPHd (mg/kg)	TPHg (mg/kg)	TPHmo (mg/kg)	Benzene	Toluene	Ethylbenzene	o-Xylene	m,p-Xylenes
DCB-P1-4.0	04/07/2008	170Y	< 1.0	670	NA	NA	NA	NA	NA
DCB-P1-4FT	04/02/2008	NA	NA	NA	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
DCB-P2-4.0	04/07/2008	290Y	< 0.95	890	NA	NA	NA	NA	NA
DCB-P2-4FT	04/02/2008	NA	NA	NA	< 4.4	< 4.4	< 4.4	< 4.4	< 4.4
DCB-P3-4.0	04/07/2008	110Y	< 0.92	360	NA	NA	NA	NA	NA
DCB-P3-4FT	04/02/2008	NA	NA	NA	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
DCB-P4-3.0	04/07/2008	5,000	51YZ	4,600	NA	NA	NA	NA	NA
DCB-P4-4FT	04/02/2008	NA	NA	NA	< 13,000	< 13,000	< 13,000	< 13,000	< 13,000
DCB-P4-8.0	04/07/2008	4,800	15YZ	4,300	NA	NA	NA	NA	NA
DCB-P5-3.0	04/07/2008	190Y	< 0.97	930	NA	NA	NA	NA	NA
DCB-P5-4FT	04/02/2008	NA	NA	NA	< 4.2	< 4.2	< 4.2	< 4.2	< 4.2
DCB-P6-4.5	04/07/2008	350Y	< 0.92	1,100	NA	NA	NA	NA	NA
DCB-P6-5FT	04/02/2008	NA	NA	NA	< 6.3	< 6.3	< 6.3	< 6.3	< 6.3
REGULATORY C	CONCENTRATIONS	(RWQCB ESLs	)						
Shallow soil where considered a source		150	450	2,500	260	29,000	33,000	100,000	100,000

commercial land use

#### Notes:

(Y) the chromatographic pattern for TPHd and TPHg analyses did not resemble the laboratory standard for either TPHd or TPHg.

(Z) sample exhibits unknown single peak or peaks

TPHd = total petroleum hydrocarbons as diesel

TPHg = total petroleum hydrocarbons as gasoline

TPHmo = total petroleum hydrocarbons as motor oil

NA = parameter not analyzed

mg/kg = milligrams per kilogram

Samples analyzed by: Curtis & Tompkins, Ltd.

Table 2
Volatile Organic Compounds in Soil Samples
Collected at Westside Building Materials
745 50th Avenue, Oakland, Californiaa

Concentrations in micrograms per kilogram (unless otherwise noted)

Sample ID	Date	1,2,3-Trichlorobenzene	1,4-Dichlorobenzene	Acetone	Chlorobenzene
DCB-P1-4FT	04/02/2008	< 4.0	< 4.0	< 16	< 4.0
DCB-P2-4FT	04/02/2008	< 4.4	< 4.4	< 18	< 4.4
DCB-P3-4FT	04/02/2008	6.7	< 5.0	< 20	< 5.0
DCB-P4-4FT	04/02/2008	< 13,000	21,000	< 50,000	150,000
DCB-P5-4FT	04/02/2008	< 4.2	< 4.2	25	< 4.2
DCB-P6-5FT	04/02/2008	< 6.3	< 6.3	< 25	< 6.3
REGULATORY CON	ICENTRATIONS (RWQCB ES	Ls)			
9	undwater is not considered a er - commercial land use	NE	2,600	1,700	30,000

#### Notes:

NE = none established

Samples analyzed by: Curtis & Tompkins, Ltd.

Volatile organic compounds not reported in this summary table were not detected above the analytical reporting limits.

Table 3
Metals in Soil Samples Collected at Westside Building Materials
745 50th Avenue, Oakland, California

Concentrations in milligrams per kilogram (unless otherwise noted)

Sample ID	Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	Mercury
DCB-P1-4.0	04/07/2008	< 0.50	5.7	280	0.22	1.3	90	7.7	41	120	12	40	< 0.50	< 0.25	< 0.50	30	210	0.24
DCB-P2-4.0	04/07/2008	2.8	8.7	390	0.29	1.4	88	9.1	52	130	13	40	< 0.50	< 0.25	< 0.50	31	220	0.38
DCB-P3-4.0	04/07/2008	< 0.50	5.4	530	0.23	2.9	44	8.9	76	190	2.0	48	< 0.50	< 0.25	< 0.50	32	590	0.47
DCB-P4-3.0	04/07/2008	< 0.50	4.5	690	0.30	0.83	40	14	26	120	2.8	68	< 0.50	< 0.25	< 0.50	31	150	0.073
DCB-P4-8.0	04/07/2008	< 0.50	3.1	140	0.24	< 0.25	25	8.0	7.2	4.2	< 0.25	20	< 0.50	< 0.25	< 0.50	21	13	0.23
DCB-P5-3.0	04/07/2008	< 0.50	5.1	290	0.22	2.1	36	8.7	49	120	16	30	< 0.50	< 0.25	< 0.50	32	290	0.31
DCB-P6-4.5	04/07/2008	< 0.50	5.8	430	0.26	1.7	28	8.6	61	140	1.2	35	< 0.50	< 0.25	< 0.50	32	350	0.32
REGULATORY CO	ONCENTRATIONS	(RWQCB ESL	s)															
Shallow soil where groundwater is not considered a source of drinking water - commercial land use		40	1.5	1500	8.0	7.4	750	80	230	750	40	150	10	40	15	190	600	10
Background concentrations in soil from Lawrence Berkeley National Laboratory Study - 2002		NE	19.1	323.6	1.0	2.7	99.6	22.2	69.4	16.1	7.4	119.8	5.6	1.8	7.6	74.3	106.1	0.4

## Notes:

NE = none established

Samples analyzed by: Curtis & Tompkins, Ltd.

Table 4
Total Petroleum Hydrocarbons and Benzene, Toluene, Ethylbenzene, and Xylenes in Groundwater Samples Collected at Westside Building Materials
745 50th Avenue, Oakland, California

Concentrations in micrograms per liter (unless otherwise noted)

Sample ID	Date	TPHd (mg/kg)	TPHg (mg/kg)	TPHmo (mg/kg)	Benzene	Toluene	Ethylbenzene	o-Xylene	m,p-Xylenes
DCB-P1	04/02/2008	960Y	NA	3,000	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
DCB-P2	04/02/2008	930Y	NA	2,300	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
DCB-P3	04/02/2008	110,000Y	NA	24,000	< 50	< 50	< 50	< 50	< 50
DCB-P4	04/02/2008	170,000Y	NA	57,000	19J	< 31	< 31	< 31	< 31
DCB-P5	04/02/2008	3,400Y	NA	3,100	28	< 10	< 10	5.5J	15
DCB-P6	04/02/2008	29,000	NA	12,000	2.9	0.9J	< 1.0	3.3	0.8J
REGULATORY	CONCENTRATIONS	S (RWQCB E	SLs)						
	iter is not considered a ig water - commercial	2,500	5,000	2,500	540	400	300	5,300	5,300

## Notes:

(Y) the chromatographic pattern for TPHd and TPHg analyses did not resemble the laboratory standard for either TPHd or TPHg.

TPHd = total petroleum hydrocarbons as diesel

TPHg = total petroleum hydrocarbons as gasoline

TPHmo = total petroleum hydrocarbons as motor oil

NA = parameter not analyzed

mg/kg = milligrams per kilogram

Samples analyzed by: Curtis & Tompkins, Ltd.

# Table 5 Volatile Organic Compounds in Groundwater Samples Collected at Westside Building Materials 745 50th Avenue, Oakland, California

Concentrations in micrograms per liter (unless otherwise noted)

Sample ID	Date	1,2,3-TCB	1,2,4-TCB	1,2,4-TMB	1,2-DCB	1,3,5-TMB	1,3-DCB	1,4-DCB	СВ	IPB	n-Butylbenzene	Naphthalene	Para- Isopropyl Toluene	Propylbenzene	sec-Butylbenzene	TCE	Vinyl Chloride
			· 				<b>1</b> 										
DCB-P1	04/02/2008	0.7	2.6	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 2.0	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
DCB-P2	04/02/2008	< 0.5	0.5J	< 0.5	0.9	< 0.5	4.0	18	< 0.5	< 0.5	< 0.5	< 2.0	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
DCB-P3	04/02/2008	1,600	7,100	< 50	110	< 50	66	210	< 50	< 50	< 50	< 200	< 50	< 50	< 50	< 50	< 50
DCB-P4	04/02/2008	280	3,800	< 31	200	< 31	1,600	1,500	1,000	< 31	< 31	< 130	< 31	< 31	< 31	< 31	< 31
DCB-P5	04/02/2008	42	1,500	8.5J	45	< 10	390	330	71	< 10	< 10	< 40	< 10	< 10	< 10	< 10	< 10
DCB-P6	04/02/2008	< 1.0	32	6.3	7.8	5.8	64	110	39	3.8	3.7	49	1.8	2.7	1.6	5.2	2.5
REGULATO	RY CONCENTE	RATIONS (R	WQCB ESLs)														
Where ground		NE	NE	NE	NE	NE	50,000	110	500	NE	NE	210	NE	NE	NE	530	3.8

considered a source of

drinking water - commercial

land use

#### Notes:

NE = none established

(J) estimated value

1,2,3-TCB = 1,2,3-Trichlorobenzene

1,2,4-TCB = 1,2,4-Trichlorobenzene

1,2,4-TMB = 1,2,4-Trimethylbenzene

1,3,5-TMB = 1,3,5-Trimethylbenzene

1,2-DCB = 1,2-Dichlorobenzene

1,3-DCB = 1,3-Dichlorobenzene

1,4-DCB = 1,4-Dichlorobenzene

CB = Chlorobenzene

IPB = Isopropylbenzene

TCE = Trichloroethene

Samples analyzed by: Curtis & Tompkins, Ltd.

Volatile organic compounds not reported in this summary table were not detected above the analytical reporting limits.

Table 6 Metals in Groundwater Samples Collected at Westside Building Materials 745 50th Avenue, Oakland, California

Concentrations in micrograms per liter (unless otherwise noted)

Sample ID	Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
DCB-P1	04/02/2008	< 10	7.6	190	< 2.0	< 5.0	< 5.0	< 5.0	< 5.0	< 3.4	51	9.6	< 10	< 5.0	< 10	< 5.0	22
DCB-P2	04/02/2008	< 10	35	280	< 2.0	< 5.0	< 5.0	< 5.0	< 5.0	< 3.4	77	29	< 10	< 5.0	< 10	< 5.0	54
DCB-P3	04/02/2008	< 10	< 5.0	360	< 2.0	< 5.0	< 5.0	< 5.0	< 5.0	< 3.4	18	18	< 10	< 5.0	< 10	< 5.0	87
DCB-P4	04/02/2008	< 10	8.3	340	< 2.0	< 5.0	< 5.0	< 5.0	< 5.0	< 3.4	18	< 5.0	< 10	< 5.0	< 10	< 5.0	81
DCB-P5	04/02/2008	< 10	11	400	< 2.0	< 5.0	< 5.0	< 5.0	< 5.0	< 3.4	12	10	< 10	< 5.0	< 10	< 5.0	91
DCB-P6	< 10	< 5.0	320	< 2.0	< 5.0	< 5.0	< 5.0	< 5.0	< 3.4	40	13	< 10	< 5.0	< 10	< 5.0	91	
REGULATORY C	ESLs)																
Where groundwater drinking water - cor	is not considered a source of mmercial land use	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000

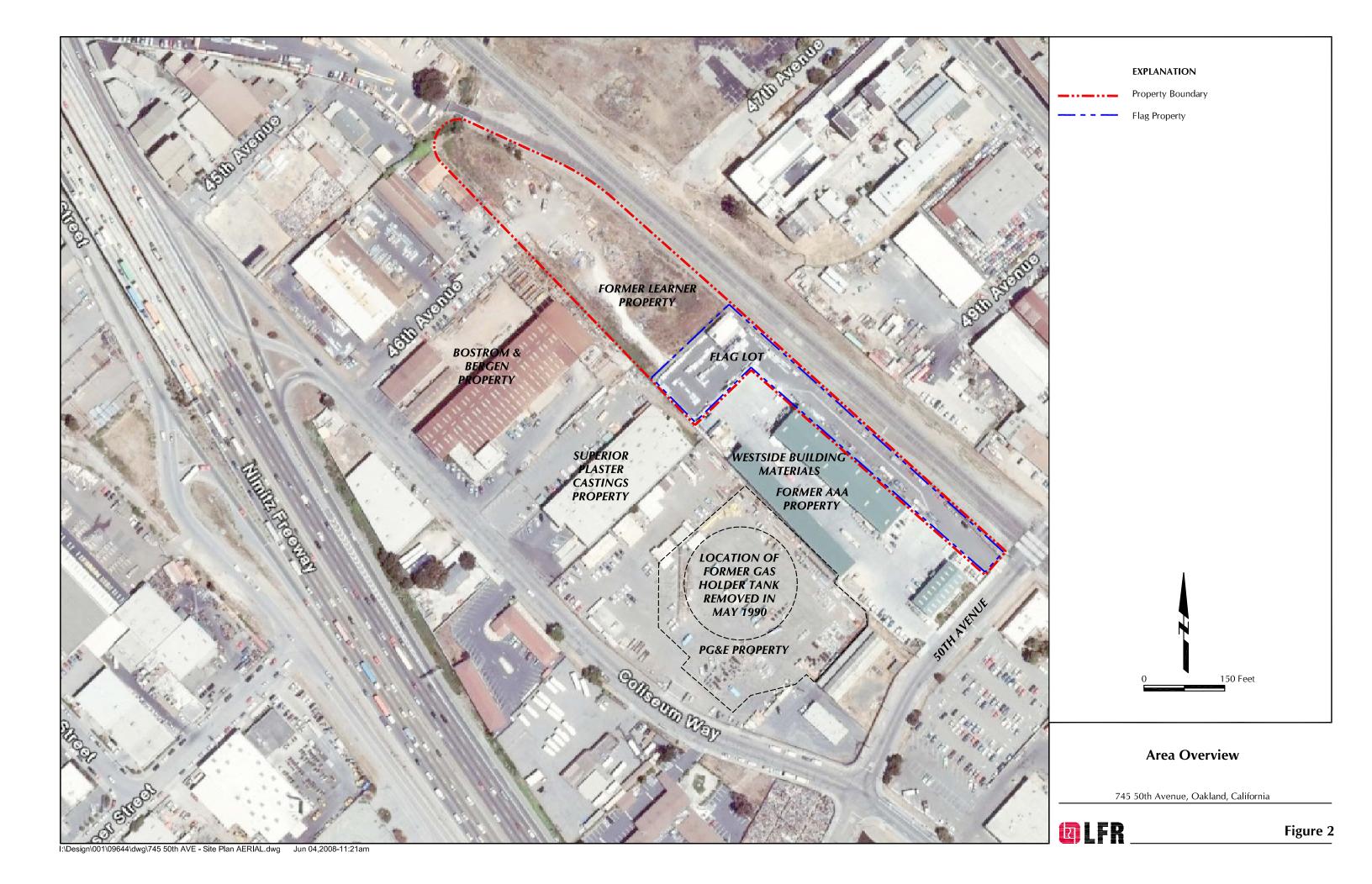
## Notes:

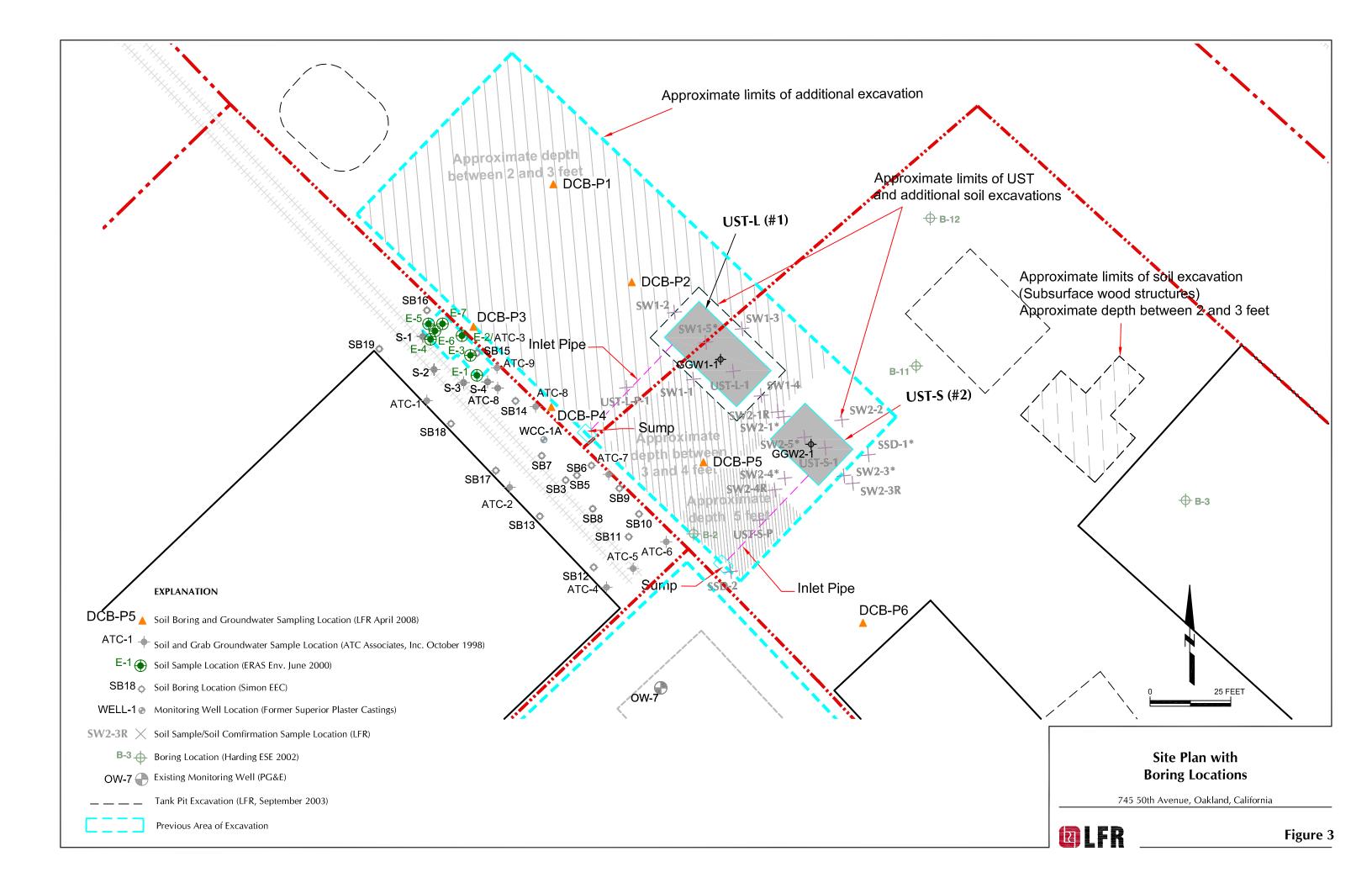
Samples analyzed by: Curtis & Tompkins, Ltd. ESLs = Environmental Screening Levels by San Francisco Bay Regional Water Quality Control Board (RWQCB), November 2007.

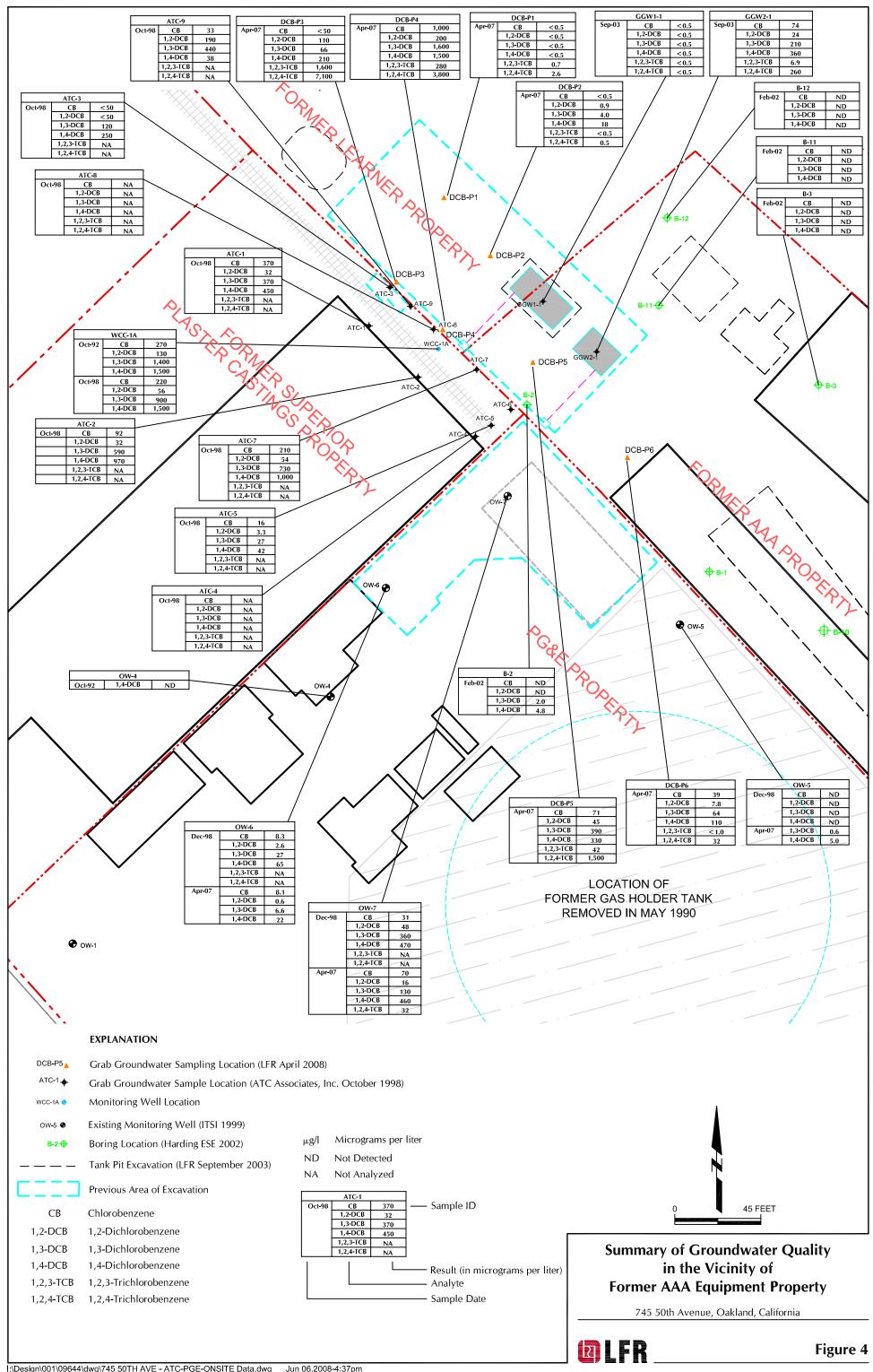
I:\Design\001\09644\745 50th AVE Site Location Map.ai

SOURCE: Thomas Bros 1998 Alameda Co









# **APPENDIX A**

**Soil Boring Logs** 

	ECT NAME_F NT_Alta Prope					- Westside Building Materials g Materials	BORING NUMBE	R DCB	
PROJ	ECT LOCATION	ON_7	45 501	th Aver	nue		DRILLING CONTRACTOR Gregg Drilling		
PROJ	ECT NUMBE	<b>R</b> _001	1-0964	14-00			DRILLING METHOD Direct Push		
LOCA	TION DCB-P	21					STAMP (IF APPLICABLE) AND/OR NOTES		
OVA	EQUIPMENT_	Mini I	Rae 20	000					
GROU	JND ELEVATI	ION				HOLE DIAMETER 4 inches			
						HOLE DEPTH 12.2 ft			
l	RST ENCOUN								
	ABILIZED WA								
l	SED BY Robe				D/	ATE _4/2/08			
						<u> </u>			æ
DEPTH (feet)	SAMPLE TYPE NUMBER	SAMPLE	U.S.C.S.	GRAPHIC LOG	DEPTHS	LIT	HOLOGIC DESCRIPTION .	PID (ppm)	DEPTH (feet)
	0,			*****		SAND (SW), tan gray, dry, loo	ose, 10% fine gravel, well graded.		
			SW		1.5			0	-
					1.5	CLAYEY SAND WITH GRAV	EL (SC), brown gray, moist, moderately dense.	0	ļ
								0.2	
	DCB-P1-4'		sc					0.1	
5		$\ \cdot\ $							5
-								0	-
Ĺ -					7.0▼	∑ SILTY CLAY (CH), dark gray,	Constant Constant		
L _			СН			SILTY CLAY (CH), dark gray,	, wet, firm, medium plasticity.	0	
			SP		8.5 8.7	SAND (SP) lens (2" thick).			
			СН		1	(0/11/2) (0/1/2) (0/10/10/10/10/10/10/10/10/10/10/10/10/10			-
10					10.0	GRAVELLY SILTY CLAY (CL	_), dark gray grades to olive green, moist, firm.	0	10
			CL						
	DCB-P1-12'				12.2			0.6	
				1		Bottom of boring at 12.2 feet	bgs.		
							17	ILF	R
АРР	ROVED BY:_					DATE:			

	NT Alta Prope					Westside Building Materials  Materials  PA	GE 1	
PROJ	ECT LOCATION	ON_74	45 50t	h Aver	nue	DRILLING CONTRACTOR Gregg Drilling		
PROJ	ECT NUMBER	R 001	-0964	4-00		DRILLING METHOD Direct Push		
LOCA	TION DCB-P	2				STAMP (IF APPLICABLE) AND/OR NOTES		
OVA	EQUIPMENT_	Mini R	Rae 20	000				
GROU	JND ELEVATION	ON				HOLE DIAMETER 2 inches		
1						HOLE DEPTH 12.0 ft		
	ABILIZED WA			<u>-</u>				
	SED BY Robe	_			D/	NTE 4/2/08		
						11L 4200		<u> </u>
DEPTH (feet)	SAMPLE TYPE NUMBER	SAMPLE RECOVERY	U.S.C.S.	GRAPHIC LOG	DEPTHS	LITHOLOGIC DESCRIPTION .	PID (ppm)	DEPTH (feet)
				*****	;	GRAVELLY SAND (SW), tan gray, dry, loose, fine gravel, well graded.		
-		/					0	-
<u> </u>		$      \rangle$			:		0	
		$    \rangle$	sw		:	-as above, brown gray, moist.		
		$    \rangle$					0.4	
-	DCB-P2-4'					-as above, orange staining.	0	-
5					5.0	No recovery.	1	5
<u> </u>								_
					0.0			
<u> </u>					8.0	SILTY CLAY (CL), dark gray, damp, firm, medium plasticity, sandy bottom (2").	0	-
-		$    \rangle /$						-
10		$    \rangle$	CL			-as above, olive green, firm to hard, orange staining.	0	10
		$    \rangle$				-as above, onve green, intri to hard, orange staining.		
		$    \rangle \rangle$			12.0		0	
				7////	12.0	Bottom of boring at 12 feet bgs.		
0/9/9								
5.0								
2002								
Υ								
27								
14-00.0								
7980-								
90								
11.								
BOKING+WELL 2006 001-09644-00.GPJ LFK SEF1 Z006.GDT 6/6/08  A	ROVED BY:					DATE:	.F	R

GRAVELLY SAND (SW), light gray, damp, loose, fine gravel, well graded.  O.9 -  DCB-P3-4'  SM  GRAVELLY SAND WITH MINOR CLAY (SM), dark brown/gray, moist, moderately dense, poorly graded.  SILTY CLAY (CL), dark brown, moist, firm, medium plasticity.  CL  SILTY CLAY (CH), dark gray, moist, firm, medium plasticity.  CL  SP  9.0  SAND (SP) lens, dry.		ECT NAME_Foliation  ECT NA						Westside Building Materials  Materials  BORING NUMBER I PA	DCB GE 1	
COCATION DCB-P3  STAMP (IF APPLICABLE) AND/OR NOTES  OVA EQUIPMENT Mini Rae 2000  GROUND ELEVATION HOLE DIAMETER 2 inches  TOP OF CASING ELEVATION HOLE DEPTH 12.0 ft  FIRST ENCOUNTERED WATER 7.0 ft  LOGGED BY Robert Moniz  DATE 4/2/08  LITHOLOGIC DESCRIPTION  GRAVELLY SAND (SW), light gray, damp, loose, fine gravel, well graded.  SW  SW  SW  SW  SW  SW  SW  SW  SW  S	PROJ	ECT LOCATIO	DN_	74	5 50th	n Aven	iue	DRILLING CONTRACTOR Gregg Drilling		
OVA EQUIPMENT Mini Rae 2000  GROUND ELEVATION HOLE DIAMETER 2 inches  TOP OF CASING ELEVATION HOLE DEPTH 12.0 ft  ▼ FIRST ENCOUNTERED WATER 7.0 ft  LOGGED BY Robert Moniz  DATE 4/2/08    Column   Colu	PROJ	ECT NUMBER	<u>0</u>	01-	-0964	4-00		DRILLING METHOD_Direct Push		
OVA EQUIPMENT Mini Rae 2000  GROUND ELEVATION HOLE DIAMETER 2 inches  TOP OF CASING ELEVATION HOLE DEPTH 12.0 ft  ▼ FIRST ENCOUNTERED WATER 7.0 ft  LOGGED BY Robert Moniz  DATE 4/2/08    Column   Colu	LOCA	TION DCB-P3	3					STAMP (IF APPLICABLE) AND/OR NOTES		
TOP OF CASING ELEVATION	OVA I	EQUIPMENT_N	Min	i R	ae 20	00				
FIRST ENCOUNTERED WATER 7.0 ft  LOGGED BY Robert Moniz  DATE 4/2/08    A	GROU	JND ELEVATION	ON					HOLE DIAMETER 2 inches		
TOGGED BY Robert Moniz  DATE 4/2/08  LITHOLOGIC DESCRIPTION  (a) (b) HAD AVEN BY SAND (SW), light gray, damp, loose, fine gravel, well graded.  SW  GRAVELLY SAND WITH MINOR CLAY (SM), dark brown/gray, moist, moderately dense, poorly graded.  SW  SR  GRAVELLY SAND WITH MINOR CLAY (SM), dark brown/gray, moist, moderately dense, poorly graded.  CL  CL  CL  CL  CAY  CLAY (CH), dark gray, moist, firm, medium plasticity.  SC  CLAY (CH), dark gray, moist, firm, medium plasticity.  SC  CLAY (CH), dark gray, moist, moderately dense, poorly graded.  SM  GRAVELLY SAND WITH MINOR CLAY (SM), olive green, moist, dense, poorly graded.  11.0  SM  GRAVELLY SAND WITH MINOR CLAY (SM), olive green, moist, dense, poorly graded.  11.0  SM  GRAVELLY SAND WITH MINOR CLAY (SM), olive green, moist, dense, poorly graded.  11.0  SM  GRAVELLY SAND WITH MINOR CLAY (SM), olive green, moist, dense, poorly graded.  12.0	TOP (	OF CASING EL	E۱	<b>/</b> A1	TION			HOLE DEPTH 12.0 ft		
DCB-P3-12*  DATE 4/2/08  LITHOLOGIC DESCRIPTION  (a) BH AND W S D D DATE 4/2/08  LITHOLOGIC DESCRIPTION  (b) BH AND W S D D DATE 4/2/08  LITHOLOGIC DESCRIPTION  (c) BH AND W S D D DATE 4/2/08  LITHOLOGIC DESCRIPTION  (d) BH AND W S D D DATE 4/2/08  LITHOLOGIC DESCRIPTION  (d) BH AND W S D D DATE 4/2/08  CRAVELLY SAND (SW), light gray, damp, loose, fine gravel, well graded.  (d) BH AND W S D D DATE 4/2/08  CRAVELLY SAND WITH MINOR CLAY (SM), dark brown/gray, moist, moderately dense, poorly graded.  (e) BH AND W S D D DATE 4/2/08  CLAY (CH), dark brown, moist, firm, medium plasticity.  (CL) BH AND W S D DATE 4/2/08  CLAY (CH), dark gray, moist, firm, medium plasticity.  (CL) BH AND W S D DATE 4/2/08  CLAY (CH), dark gray, moist, firm, medium plasticity.  (CL) BH AND W S D DATE 4/2/08  CLAY (CH), dark gray, moist, firm, medium plasticity.  (CLAYEY SAND (SC), orange, moist, moderately dense, poorly graded.  (D) S D DATE 4/2/08  (D) S D D DATE 4/2/08  (D) S D D DATE 4/2/08  (D) S D D D D D D D D D D D D D D D D D D	∑ FIF	ST ENCOUNT	ΓEF	REI	D WA	TER 7	.0 ft			
LITHOLOGIC DESCRIPTION  GRAVELLY SAND (SW), light gray, damp, loose, fine gravel, well graded.  SW  GRAVELLY SAND WITH MINOR CLAY (SM), dark brown/gray, moist, moderately dense, poorly graded.  SM  GRAVELLY SAND WITH MINOR CLAY (SM), dark brown/gray, moist, moderately dense, poorly graded.  CL  CL  GRAVELLY SAND WITH MINOR CLAY (SM), dark brown/gray, moist, moderately dense, poorly graded.  CL  CL  GRAVELLY SAND WITH MINOR CLAY (SM), dark brown/gray, moist, moderately dense, poorly graded.  CL  GRAVELLY SAND WITH MINOR CLAY (SM), dark brown/gray, moist, moderately dense, poorly graded.  SC  CLAY (CH), dark gray, moist, firm, medium plasticity.  SC  CLAY (CH), dark gray, moist, firm, medium plasticity.  SC  GRAVELLY SAND (SC), orange, moist, moderately dense, poorly graded.  110  DCB-P3-12'  DCB-P3-12'  GRAVELLY SAND WITH MINOR CLAY (SM), olive green, moist, dense, poorly graded.  120	▼ ST	ABILIZED WA	TE	R_	7.0 ft					
GRAVELLY SAND (SW), light gray, damp, loose, fine gravel, well graded.  O.9  DCB-P3-4'  SM  GRAVELLY SAND WITH MINOR CLAY (SM), dark brown/gray, moist, moderately dense, poorly graded.  O.6  SILTY CLAY (CL), dark brown, moist, firm, medium plasticity.  CL  SILTY CLAY (CL), dark gray, moist, firm, medium plasticity.  CH  SO  CLAY (CH), dark gray, moist, firm, medium plasticity.  SC  CLAYEY SAND (SC), orange, moist, moderately dense, poorly graded.  SC  SM  GRAVELLY SAND WITH MINOR CLAY (SM), dark prown/gray, moist, dense, poorly graded.  110  DCB-P3-12'  SM  GRAVELLY SAND WITH MINOR CLAY (SM), olive green, moist, dense, poorly graded.  91.2  126	LOGG	ED BY Rober	rt N	/lon	niz		DA	TE <u>4/2/08</u>		
GRAVELLY SAND (SW), light gray, damp, loose, fine gravel, well graded.  O.9  DCB-P3-4'  SM  GRAVELLY SAND WITH MINOR CLAY (SM), dark brown/gray, moist, moderately dense, poorly graded.  O.6  SILTY CLAY (CL), dark brown, moist, firm, medium plasticity.  CL  SILTY CLAY (CL), dark gray, moist, firm, medium plasticity.  CH  SO  CLAY (CH), dark gray, moist, firm, medium plasticity.  SC  CLAYEY SAND (SC), orange, moist, moderately dense, poorly graded.  SC  SM  GRAVELLY SAND WITH MINOR CLAY (SM), dark prown/gray, moist, dense, poorly graded.  110  DCB-P3-12'  SM  GRAVELLY SAND WITH MINOR CLAY (SM), olive green, moist, dense, poorly graded.  91.2  126	et)	В		>						et)
GRAVELLY SAND (SW), light gray, damp, loose, fine gravel, well graded.  O.9  DCB-P3-4'  SM  GRAVELLY SAND WITH MINOR CLAY (SM), dark brown/gray, moist, moderately dense, poorly graded.  O.6  SILTY CLAY (CL), dark brown, moist, firm, medium plasticity.  CL  SILTY CLAY (CL), dark gray, moist, firm, medium plasticity.  CH  SO  CLAY (CH), dark gray, moist, firm, medium plasticity.  SC  CLAYEY SAND (SC), orange, moist, moderately dense, poorly graded.  SC  SM  GRAVELLY SAND WITH MINOR CLAY (SM), dark prown/gray, moist, dense, poorly graded.  110  DCB-P3-12'  SM  GRAVELLY SAND WITH MINOR CLAY (SM), olive green, moist, dense, poorly graded.  91.2  126	DEPTH (fe	SAMPLE TY NUMBER	SAMPLE	RECOVER	U.S.C.S.	GRAPHIC LOG	DEPTHS	LITHOLOGIC DESCRIPTION .	PID (ppm	DEPTH (fee
GRAVELLY SAND WITH MINOR CLAY (SM), dark brown/gray, moist, moderately dense, poorly graded.  SM SILTY CLAY (CL), dark brown, moist, firm, medium plasticity.  CL SULTY CLAY (CH), dark gray, moist, firm, medium plasticity.  CL SP 9.5 SAND (SP) lens, dry.  CLAY (CH), dark gray, moist, moderately dense, poorly graded.  SC GRAVELLY SAND WITH MINOR CLAY (SM), olive green, moist, dense, poorly graded.  91.2 DCB-P3-12'  SM GRAVELLY SAND WITH MINOR CLAY (SM), olive green, moist, dense, poorly graded.			T			*****		GRAVELLY SAND (SW), light gray, damp, loose, fine gravel, well graded.		
GRAVELLY SAND WITH MINOR CLAY (SM), dark brown/gray, moist, moderately dense, poorly graded.  5  SILTY CLAY (CL), dark brown, moist, firm, medium plasticity.  CL  SILTY CLAY (CL), dark brown, moist, firm, medium plasticity.  CL  CLAY (CH), dark gray, moist, firm, medium plasticity.  CH  CLAY (CH), dark gray, moist, firm, medium plasticity.  SP  9.5  SAND (SP) lens, dry.  CLAYEY SAND (SC), orange, moist, moderately dense, poorly graded.  SC  SM  GRAVELLY SAND WITH MINOR CLAY (SM), olive green, moist, dense, poorly graded.  91.2  91.2  126					SW		3.0		0.9	 
SILTY CLAY (CL), dark brown, moist, firm, medium plasticity.  CL  SILTY CLAY (CL), dark brown, moist, firm, medium plasticity.  -as above, moist to wet.  8.0  CH  CLAY (CH), dark gray, moist, firm, medium plasticity.  9.0  SP  9.5  SAND (SP) lens, dry.  CLAYEY SAND (SC), orange, moist, moderately dense, poorly graded.  SC  11.0  SM  GRAVELLY SAND WITH MINOR CLAY (SM), olive green, moist, dense, poorly graded.  91.2  126		DCB-P3-4'			SM				0.6	  5
CL  SP  CLAY (CH), dark gray, moist, firm, medium plasticity.  SP  SP  CLAY (CH), dark gray, moist, firm, medium plasticity.  SP  CLAYEY SAND (SP) lens, dry.  CLAYEY SAND (SC), orange, moist, moderately dense, poorly graded.  SC  SM  GRAVELLY SAND WITH MINOR CLAY (SM), olive green, moist, dense, poorly graded.  91.2  126							5.0	SILTY CLAY (CL), dark brown, moist, firm, medium plasticity.		
DCB-P3-12'  CH  9.0  9.0  SP  9.5  SAND (SP) lens, dry.  CLAYEY SAND (SC), orange, moist, moderately dense, poorly graded.  11.0  SM  GRAVELLY SAND WITH MINOR CLAY (SM), olive green, moist, dense, poorly graded.  126					CL			☑ -as above, moist to wet.	0.3	 
SC SAND (SP) lens, dry.  CLAYEY SAND (SC), orange, moist, moderately dense, poorly graded.  SC SI 11.0  SM GRAVELLY SAND WITH MINOR CLAY (SM), olive green, moist, dense, poorly graded.  126					СН			CLAY (CH), dark gray, moist, firm, medium plasticity.		
DCB-P3-12' SC SC SI SI SC SI					SP			SAND (SP) lens, dry.	2	
DCB-P3-12' GRAVELLY SAND WITH MINOR CLAY (SM), olive green, moist, dense, poorly graded.	10				SC			CLAYEY SAND (SC), orange, moist, moderately dense, poorly graded.		10
DOB-1 3-12				1	SM.		11.0	GRAVELLY SAND WITH MINOR CLAY (SM), olive green, moist, dense, poorly graded.	91.2	-
		DCB-P3-12'	F		OIVI		12.0	Bottom of boring at 12 feet bos.	126	
(a) I ED										

APPROVED BY:\_

BORING+WELL 2006 001-09644-00.GPJ LFR SEPT 2006.GDT 6/6/08

\_\_\_\_\_ DATE: \_\_\_

	ECT NAME_Fo IT_Alta Proper					Westside Building Materials  Materials  PAG	OCB	
PROJ	ECT LOCATIO	N_7	45 50t	h Aver	nue	DRILLING CONTRACTOR Gregg Drilling		
PROJ	ECT NUMBER	001	1-0964	4-00		DRILLING METHOD Direct Push		
LOCA	TION DCB-P4	1				STAMP (IF APPLICABLE) AND/OR NOTES		
OVA E	EQUIPMENT_N	∕lini F	Rae 20	000				
GROU	IND ELEVATION	ON_				HOLE DIAMETER 2 inches		
TOP C	F CASING EL	EVA	NOITA			HOLE DEPTH 12.0 ft		
<b>∑</b> FIR	ST ENCOUNT	ERE	ED WA	TER 7	'.0 ft			
▼ ST	ABILIZED WA	TER	7.0 ft					
LOGG	ED BY Rober	t Mo	niz		DA	TE <u>4/2/08</u>		
DEPTH (feet)	SAMPLE TYPE NUMBER	SAMPLE	U.S.C.S.	GRAPHIC LOG	DEPTHS	LITHOLOGIC DESCRIPTION	PID (ppm)	DEPTH (feet)
				*****		GRAVELLY SAND (SW), tan gray, damp, loose, well graded.		
			sw		2.5		0.2	 
		$\  \ $				GRAVELLY CLAY (CL), dark gray, moist, firm, medium plasticity, with some sand, orange staining.		
	DCB-P4-4'		CL		4.5	SANDY CLAY (CL), dark gray, moist, firm, medium plasticity.	91.1	
5			SP	V/////	4.5 4.8	SAND (SP) lens (3" thick), tan, moist.		5
_			CL		_	V	10.0	
-						ŸSILTY CLAY (CL), dark gray, wet, soft, medium plasticity.		
				<i>\\\\\\\</i>	8.0	SILTY CLAY (CL), olive green/dark gray, moist, hard, medium plasticity.  No recovery.	256	
				/////	9.5			
10		$  \setminus \rangle$	CL				39.5	10
_		$  \   \   \  $	SP		11.0 11.2	SANDY CLAY (CL), dark brown, firm, medium plasticity, 10% fine to medium gravel.  SAND (SP) lens (2" thick), tan, moist.	56.6	
	DCB-P4-12'		CL		12.0	SANDY CLAY (CL), olive green, moist, hard, medium plasticity, 10% fine to medium	220	
						\gravel. Bottom of boring at 12 feet bgs.		
							_	ĸ

BORING+WELL 2006 001-09644-00.GPJ LFR SEPT 2006.GDT 6/6/08

	ECT NAME_F					- Westside Building Materials g Materials	BORING NUMBER I	OCB GE 1 (	
PROJ	ECT LOCATION	ON_7	45 50t	h Aver	nue		DRILLING CONTRACTOR Gregg Drilling		
PROJ	ECT NUMBER	<b>R</b> _00′	1-0964	4-00			DRILLING METHOD Direct Push		
LOCA	TION DCB-P	5					STAMP (IF APPLICABLE) AND/OR NOTES		
OVA E	EQUIPMENT_	Mini I	Rae 20	000					
GROL	JND ELEVATION	ON_				HOLE DIAMETER 4 inches			
тор с	OF CASING EL	_EV <i>A</i>	ATION			HOLE DEPTH 12.0 ft			
∑ FIR	ST ENCOUNT	ΓERE	ED WA	TER 6	.0 ft				
▼ ST	ABILIZED WA	TER	9.0 ft						
LOGG	ED BY Robe	rt Mo	niz		DA	ATE 4/2/08			
DEPTH (feet)	SAMPLE TYPE NUMBER	SAMPLE	U.S.C.S.	GRAPHIC LOG	DEPTHS	LIT	THOLOGIC DESCRIPTION .	PID (ppm)	DEPTH (feet)
						GRAVELLY SAND (SW), dar	k gray, damp, dense, well graded.		
								0	
								0	
			sw			and the same and the same		0.1	
		$\square$				-as above, orange staining.		0.4	
5	DCB-P5-4'							0.4	5
		Ш							- 0
		Ш			6.0∑	SANDY CLAY (CL), dark gray	y, moist, hard, medium plasticity, with some gravel.	0.1	
		Ш							
						-as above, grades to olive gre	een/gray, orange staining from 7 to 8 feet bgs.	0.1	
		Ш	CL		<b>T</b>				
10					_	SANDY CLAY (CL), orange, v	wet, firm, medium to high plasticity.		10
- 10								6.0	- 10
						-as above, grades to green.			
	DCB-P5-12'			<i>\\\\\\</i>	12.0	Bottom of boring at 12 feet bo	as.	12.2	
						Bottom of Boning at 12 100t By	<b>.</b>		
		1							
APPI	ROVED BY:_					DATE:	<b>_</b>	.Fl	ĸ

BORING+WELL 2006 001-09644-00.GPJ LFR SEPT 2006.GDT 6/6/08

	ECT NAME_Fo						Westside Building Materials Materials	BORING NUMBER I	OCB GE 1 (	
PROJ	ECT LOCATIO	N_	74	5 50th	n Aver	nue		DRILLING CONTRACTOR Gregg Drilling		
PROJ	ECT NUMBER	0	01-	-0964	4-00			DRILLING METHOD_Direct Push		
LOCA	TION DCB-P6	6						STAMP (IF APPLICABLE) AND/OR NOTES		
OVA E	EQUIPMENT_N	∕lin	i R	ae 20						
GROL	JND ELEVATION	ON.					HOLE DIAMETER 2 inches			
тор с	OF CASING EL	E۷	/A	TION_			HOLE DEPTH 12.0 ft			
∑ FIR	ST ENCOUNT	EF	REI	D WA	<b>TER</b> 9	.0 ft				
▼ ST.	ABILIZED WA	TE	R_	9.0 ft						
LOGG	ED BY Rober	t M	1on	iiz		DA	TE 4/2/08			
DEPTH (feet)	SAMPLE TYPE NUMBER	SAMPLE	RECOVERY	U.S.C.S.	GRAPHIC LOG	DEPTHS	LITH	HOLOGIC DESCRIPTION	PID (ppm)	DEPTH (feet)
							GRAVELLY CLAY (CL), dark of	gray, moist, firm, medium plasticity.		
									0	
				CL						
			$\ $						0.0	
									0.2	_
5	DCB-P6-5'		$\ $							5
						6.0	SANDY CLAY (CL), orange bro	own, moist, firm, medium plasticity.		
							, ,,			
				CL					1.0	
						9.0▼	7			
						<u> </u>	SILTY SAND (SM), olive greer	n, wet, moderately dense, fine grained, poorly graded.		10
10				SM						10
				0)4/		11.0	GRAVELLY SAND (SW), oran	ge brown, moist, moderately dense, medium grained sand,		
				SW	****	12.0	well graded.  Bottom of boring at 12 feet bgs		4.1	
							Sheen observed on water surfa	ace.		
		_								
APPI	ROVED BY:						DATE:		.F	K

BORING+WELL 2006 001-09644-00.GPJ LFR SEPT 2006.GDT 6/6/08

# **APPENDIX B**

**Approved Drilling Permit** 

## Alameda County Public Works Agency - Water Resources Well Permit



399 Elmhurst Street Hayward, CA 94544-1395 Telephone: (510)670-6633 Fax:(510)782-1939

Application Approved on: 03/28/2008 By vickyh1

Permit Numbers: W2008-0148

Permits Valid from 04/02/2008 to 04/04/2008

Application Id: 1206121152698 City of Project Site:Oakland

Site Location: 745 50th Avenue
Project Start Date: 04/02/2008 Completion Date:04/04/2008

Requested Inspection: 04/02/2008

Scheduled Inspection: 04/02/2008 at (Contact your inspector, at, to confirm.)

Applicant: LFR Inc - Ron Goloubow Phone: 510-652-4500

1900 Powell #1200, Emeryville, CA 94608 **Property Owner:** Jack Krause Westside Alta Building Materials **Phone:** 510-532-2582

Co.

745 50th Ave, Oakland, CA 94601

Client: \*\* same as Property Owner \*\*

**Contact:** Rob Moniz **Phone:** 510-652-4500 **Cell:** 510-409-3831

Total Due: \$200.00
Receipt Number: WR2008-0092 Total Amount Paid: \$200.00

Payer Name : LFR Inc. Paid By: CHECK PAID IN FULL

#### **Works Requesting Permits:**

Borehole(s) for Investigation-Contamination Study - 6 Boreholes

Driller: Gregg Drilling - Lic #: 485165 - Method: DP Work Total: \$200.00

#### **Specifications**

Permit Issued Dt Expire Dt # Hole Diam Max Depth

Number Boreholes

W2008- 03/28/2008 07/01/2008 6 2.00 in. 6.00 ft

0148

#### **Specific Work Permit Conditions**

- 1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site. The containers shall be clearly labeled to the ownership of the container and labeled hazardous or non-hazardous.
- 2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.
- 3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.
- 4. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the

## Alameda County Public Works Agency - Water Resources Well Permit

permits and requirements have been approved or obtained.

- 5. Applicant shall contact Vicky Hamlin for an inspection time at 510-670-5443 or email to vickyh@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.
- 6. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.
- 7. Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.

# **APPENDIX C**

**Laboratory-Certified Analytical Reports** 



# Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

# Laboratory Job Number 202387 ANALYTICAL REPORT

LFR Levine Fricke 1900 Powell Street Emeryville, CA 94608 Project : 00109466-00

Location : AAA Level : II

<u>Sample ID</u>	<u>Lab ID</u>
DCB-P6	202387-001
DCB-P3	202387-002
DCB-P1	202387-003
DCB-P2	202387-004
DCB-P5	202387-005
DCB-P4	202387-006
DCB-P6-5FT	202387-007
DCB-P3-4FT	202387-008
DCB-P3-12FT	202387-009
DCB-P1-4FT	202387-010
DCB-P1-12FT	202387-011
DCB-P2-4FT	202387-012
DCB-P5-4FT	202387-013
DCB-P5-12FT	202387-014
DCB-P4-4FT	202387-015
DCB-P4-12FT	202387-016

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature:

Project Manager

Date: <u>04/22/200</u>8

Signature:

Operations Manager

Date: <u>04/22/2008</u>

NELAP # 01107CA

Page 1 of \_\_\_\_



#### CASE NARRATIVE

Laboratory number: 202387

Client: LFR Levine Fricke

Project: 00109466-00

Location: AAA

Request Date: 04/03/08 Samples Received: 04/03/08

This hardcopy data package contains sample and QC results for six soil samples and six water samples, requested for the above referenced project on 04/03/08. The samples were received cold and intact. All data were e-mailed to Ron Goloubow on 04/16/08.

#### TPH-Extractables by GC (EPA 8015B):

No analytical problems were encountered.

#### Volatile Organics by GC/MS (EPA 8260B) Water:

High response was observed for acetone in the ICV analyzed 02/16/08 02:13; this analyte was not detected at or above the RL in the associated sample, and affected data was qualified with "b". A number of samples had pH greater than 2. No other analytical problems were encountered.

#### Volatile Organics by GC/MS (EPA 8260B) Soil:

5035 samples not analyzed within 48 hours were frozen. High recoveries were observed for trichloroethene in the MS/MSD for batch 136789; the parent sample was not a project sample, the BS/BSD were within limits, the associated RPD was within limits, and this analyte was not detected at or above the RL in the associated samples. Low surrogate recoveries were observed for dibromofluoromethane and 1,2-dichloroethane-d4 in the MS/MSD for batch 136789; the parent sample was not a project sample. High surrogate recovery was observed for bromofluorobenzene in DCB-P3-4FT (lab # 202387-008), due to matrix interference; the high surrogate recovery was confirmed by re-analysis. DCB-P6-5FT (lab # 202387-007) was not diluted; the low sample weight is due to 5035 packaging. No other analytical problems were encountered.

#### Metals (EPA 6010B and EPA 7470A):

No analytical problems were encountered.



	Total Extr	actable Hydrocar	rbons
Lab #:	202387	Location:	AAA
Client:	LFR Levine Fricke	Prep:	EPA 3520C
Project#:	00109466-00	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	04/02/08
Units:	ug/L	Received:	04/03/08
Batch#:	136826	Prepared:	04/07/08

Diln Fac: Analyzed: Field ID: DCB-P6 1.000 Type: SAMPLE 04/13/08 Lab ID: Cleanup Method: EPA 3630C 202387-001

Analyte	Result	RL	
Diesel C10-C24	29,000	50	
Motor Oil C24-C36	12,000	300	

	Surrogate	%REC	Limits
Hexa	kacosane	68	63-130

Diln Fac: Analyzed: Field ID: DCB-P3 20.00 SAMPLE 202387-002 04/15/08 Type: Cleanup Method: EPA 3630C Lab ID:

Analyte	Result	RL	
Diesel C10-C24	110,000 Y	1,000	
Motor Oil C24-C36	24,000	6,000	

DCB-P1 Field ID: Diln Fac: 1.000 Analyzed: SAMPLE 04/13/08 Type: Lab ID: 202387-003 Cleanup Method: EPA 3630C

Analyte	Result	RL	
Diesel C10-C24	960 Y	50	
Motor Oil C24-C36	3,000	300	

Sui	rrogate %R	EC.	Limits
Hexacosane	65		63-130

Diln Fac: Analyzed: Field ID: DCB-P2 1.000 Type: SAMPLE 04/13/08 Cleanup Method: EPA 3630C Lab ID: 202387-004

Analyte	Result	RL	
Diesel C10-C24	930 Y	50	
Motor Oil C24-C36	2,300	300	

Surrogate	%REC	Limits
Hexacosane	96	63-130

Y= Sample exhibits chromatographic pattern which does not resemble standard

DO= Diluted Out ND= Not Detected

RL= Reporting Limit



Total Extractable Hydrocarbons			
Lab #:	202387	Location:	AAA
Client:	LFR Levine Fricke	Prep:	EPA 3520C
Project#:	00109466-00	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	04/02/08
Units:	ug/L	Received:	04/03/08
Batch#:	136826	Prepared:	04/07/08

Field ID: DCB-P5 1.000 Diln Fac: Analyzed: SAMPLE 04/16/08 Type: Lab ID: 202387-005 Cleanup Method: EPA 3630C

Analyte	Result	RL	
Diesel C10-C24	3,400 Y	50	
Motor Oil C24-C36	3,100	300	

Surrogate	%REC	Limits
Hexacosane	122	63-130

50.00 04/15/08 Field ID: DCB-P4 Diln Fac: SAMPLE Type: Analyzed: Lab ID: 202387-006 Cleanup Method: EPA 3630C

Analyte	Result	RL	
Diesel C10-C24	170,000 Y	2,500	
Motor Oil C24-C36	57,000	15,000	

BLANK Type: Analyzed: 04/12/08 Lāb ID: QC436480 1.000 Cleanup Method: EPA 3630C

Diln Fac:

Analyte	Result	RL	
Diesel C10-C24	ND	50	
Motor Oil C24-C36	ND	300	

Y= Sample exhibits chromatographic pattern which does not resemble standard

DO= Diluted Out ND= Not Detected RL= Reporting Limit



	Total Extractable Hydrocarbons			
Lab #:	202387	Location:	AAA	
Client:	LFR Levine Fricke	Prep:	EPA 3520C	
Project#:	00109466-00	Analysis:	EPA 8015B	
Matrix:	Water	Batch#:	136826	
Units:	ug/L	Prepared:	04/07/08	
Diln Fac:	1.000			

Type: BS Analyzed: 04/11/08
Lab ID: QC436481 Cleanup Method: EPA 3630C

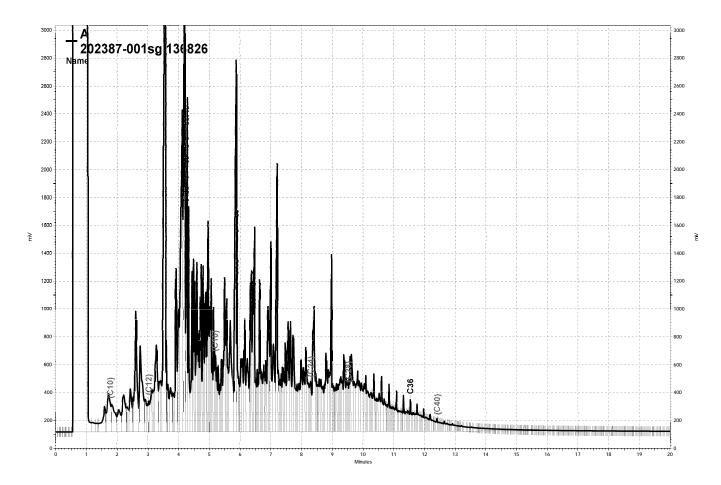
Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	1,899	76	61-120

Surrogate	%REC	Limits
Hexacosane	84	63-130

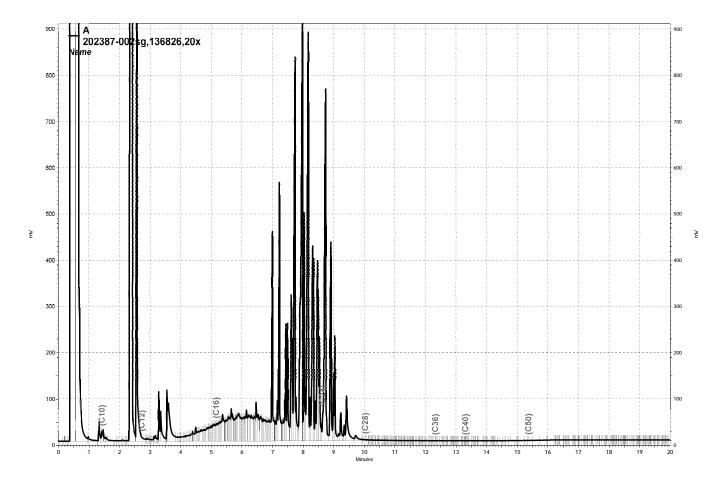
Type: BSD Analyzed: 04/12/08
Lab ID: QC436482 Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	1,948	78	61-120	3	29

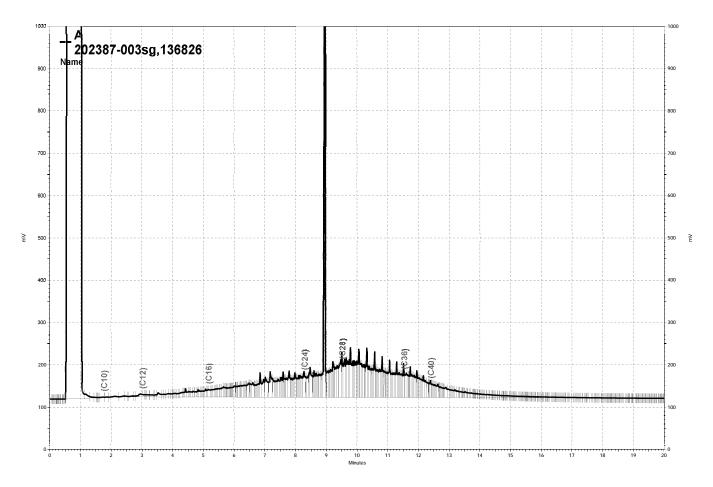
Surrogate	%REC	Limits
Hexacosane	90	63-130



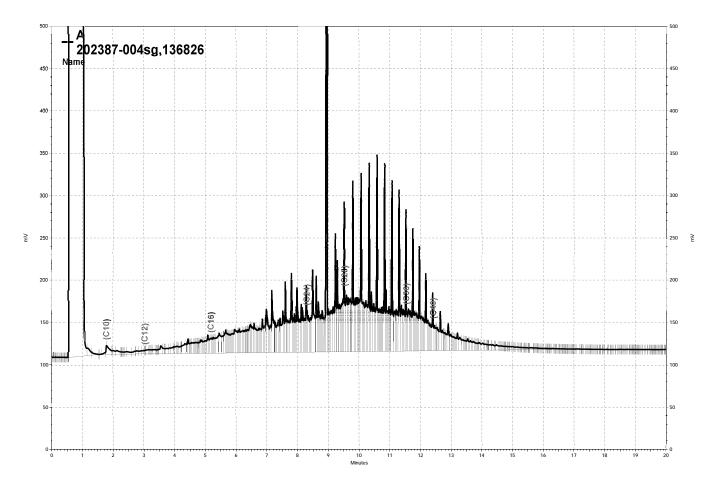
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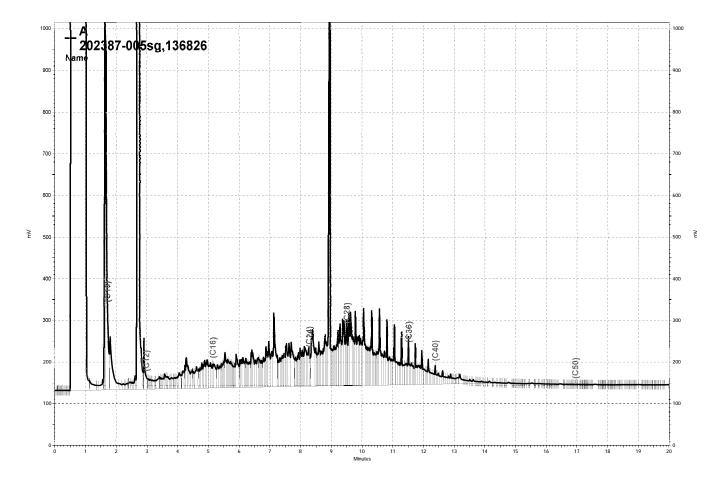
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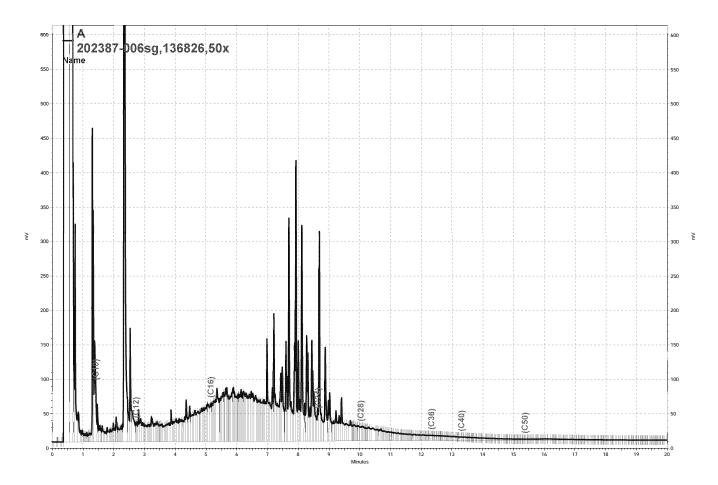
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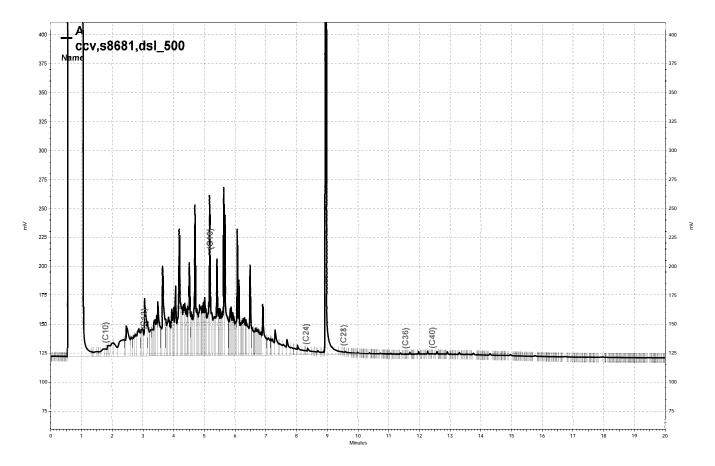
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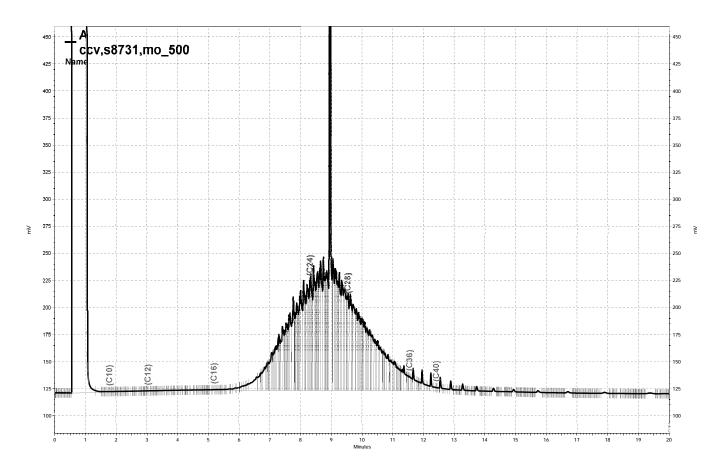
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	Purgeable	Organics by GC/	'MS	
Lab #: Client: Project#:	202387 LFR Levine Fricke 00109466-00	Location: Prep: Analysis:	AAA EPA 5030B EPA 8260B	
Field ID: Lab ID: Matrix: Units:	DCB-P6 202387-001 Water	Diln Fac: Sampled: Received:	2.000 04/02/08 04/03/08	

Analyte	Result	RL	Batch# Analyzed
Freon 12	ND	2.0	136736 04/04/08
Chloromethane	ND	2.0	136736 04/04/08
Vinyl Chloride	2.5	1.0	136736 04/04/08
Bromomethane	ND	2.0	136736 04/04/08
Chloroethane	ND	2.0	136736 04/04/08
Trichlorofluoromethane	ND	2.0	136736 04/04/08
Acetone	12 J b	20	136736 04/04/08
Freon 113	ND	10	136736 04/04/08
1,1-Dichloroethene	ND	1.0	136736 04/04/08
Methylene Chloride	ND	10	136736 04/04/08
Carbon Disulfide	ND	1.0	136736 04/04/08
MTBE	ND	1.0	136736 04/04/08
trans-1,2-Dichloroethene	ND	1.0	136736 04/04/08
Vinyl Acetate	ND	20	136736 04/04/08
1,1-Dichloroethane	ND	1.0	136736 04/04/08
2-Butanone	ND	20	136736 04/04/08
cis-1,2-Dichloroethene	ND	1.0	136736 04/04/08
2,2-Dichloropropane	ND	1.0	136736 04/04/08
Chloroform	ND	1.0	136736 04/04/08
Bromochloromethane	ND	1.0	136736 04/04/08
1,1,1-Trichloroethane	ND	$\frac{1}{1}.0$	136736 04/04/08
1,1-Dichloropropene	ND	1.0	136736 04/04/08
Carbon Tetrachloride	ND	1.0	136736 04/04/08
1,2-Dichloroethane	ND	1.0	136736 04/04/08
Benzene	2.9	$\frac{1}{1}.0$	136736 04/04/08
Trichloroethene	5.2	$\frac{1}{1}.0$	136736 04/04/08
1,2-Dichloropropane	ND	1.0	136736 04/04/08
Bromodichloromethane	ND	1.0	136736 04/04/08
Dibromomethane	ND	1.0	136736 04/04/08
4-Methyl-2-Pentanone	ND	20	136736 04/04/08
cis-1,3-Dichloropropene	ND	1.0	136736 04/04/08
Toluene	0.9 J	1.0	136736 04/04/08
trans-1,3-Dichloropropene	ND	1.0	136736 04/04/08
1,1,2-Trichloroethane	ND	1.0	136736 04/04/08
2-Hexanone	ND	20	136736 04/04/08
1,3-Dichloropropane	ND	1.0	136736 04/04/08
Tetrachloroethene	ND	1.0	136736 04/04/08
Dibromochloromethane	ND	1.0	136736 04/04/08
1,2-Dibromoethane	ND	1.0	136736 04/04/08
Chlorobenzene	39	1.0	136736 04/04/08
1,1,1,2-Tetrachloroethane	ND	1.0	136736 04/04/08
Ethylbenzene	ND	1.0	136736 04/04/08
m,p-Xylenes	0.8 J	1.0	136736 04/04/08
o-Xylene	3.3	1.0	136736 04/04/08
Styrene	ND	1.0	136736 04/04/08
Bromoform	ND	2.0	136736 04/04/08
Isopropylbenzene	3.8	1.0	136736 04/04/08
1,1,2,2-Tetrachloroethane	ND	1.0	136736 04/04/08
1,2,3-Trichloropropane	ND	1.0	136736 04/04/08
Propylbenzene	2.7	1.0	136736 04/04/08
Bromobenzene	ND	1.0	136736 04/04/08
1,3,5-Trimethylbenzene	5.8	1.0	136736 04/04/08
2-Chlorotoluene	ND	1.0	136736 04/04/08

J= Estimated value b= See narrative ND= Not Detected RL= Reporting Limit Page 1 of 2



	Purgeable	Organics by GC/	MS	
Lab #: Client: Project#:	202387 LFR Levine Fricke 00109466-00	Location: Prep: Analysis:	AAA EPA 5030B EPA 8260B	
Field ID: Lab ID: Matrix: Units:	DCB-P6 202387-001 Water ug/L	Diln Fac: Sampled: Received:	2.000 04/02/08 04/03/08	

Analyte	Result	RL	Batch# Analyzed
4-Chlorotoluene	ND	1.0	136736 04/04/08
tert-Butylbenzene	ND	1.0	136736 04/04/08
1,2,4-Trimethylbenzene	6.3	1.0	136736 04/04/08
sec-Butylbenzene	1.6	1.0	136736 04/04/08
para-Isopropyl Toluene	1.8	1.0	136736 04/04/08
1,3-Dichlorobenzene	64	1.0	136736 04/04/08
1,4-Dichlorobenzene	110	1.0	136736 04/04/08
n-Butylbenzene	3.7	1.0	136804 04/07/08
1,2-Dichlorobenzene	7.8	1.0	136736 04/04/08
1,2-Dibromo-3-Chloropropane	ND	4.0	136736 04/04/08
1,2,4-Trichlorobenzene	32	1.0	136736 04/04/08
Hexachlorobutadiene	ND	4.0	136736 04/04/08
Naphthalene	49	4.0	136804 04/07/08
1,2,3-Trichlorobenzene	ND	1.0	136736 04/04/08

Surrogate	%REC	Limits		Analyzed
Dibromofluoromethane	99	80-123	136736	04/04/08
1,2-Dichloroethane-d4	105	76-138	136736	04/04/08
Toluene-d8	101	80-120	136736	04/04/08
Bromofluorobenzene	102	80-120	136736	04/04/08



	Purgeable	e Organics by GC/	'MS	
Lab #:	202387	Location:	AAA	
Client:	LFR Levine Fricke	Prep:	EPA 5030B	
Project#:	00109466-00	Analysis:	EPA 8260B	
Field ID:	DCB-P3	Batch#:	136804	
Lab ID:	202387-002	Sampled:	04/02/08	
Matrix:	Water	Received:	04/03/08	
Units:	ug/L	Analyzed:	04/07/08	
Diln Fac:	100.0			

Analyte	Result	RL	
Freon 12	ND	100	
Chloromethane	ND	100	
Vinyl Chloride	ND	50	
Bromomethane	ND	100	
Chloroethane	ND	100	
Trichlorofluoromethane	ND	100	
Acetone	ND	1,000	
Freon 113	ND	500	
1,1-Dichloroethene	ND	50	
Methylene Chloride	ND	500	
Carbon Disulfide	ND	50	
MTBE	ND	50	
trans-1,2-Dichloroethene	ND	50	
Vinyl Acetate	ND	1,000	
1,1-Dichloroethane	ND	50	
2-Butanone	ND	1,000	
cis-1,2-Dichloroethene	ND	50	
2,2-Dichloropropane	ND	50	
Chloroform	ND	50	
Bromochloromethane	ND	50	
1,1,1-Trichloroethane	ND	50	
1,1-Dichloropropene	ND	50	
Carbon Tetrachloride	ND	50	
1,2-Dichloroethane	ND	50	
Benzene	ND	50	
Trichloroethene	ND	50	
1,2-Dichloropropane	ND	50	
Bromodichloromethane	ND	50	
Dibromomethane	ND	50	
4-Methyl-2-Pentanone	ND	1,000	
cis-1,3-Dichloropropene	ND	50	
Toluene	ND	50	
trans-1,3-Dichloropropene	ND	50	
1,1,2-Trichloroethane	ND	50	
2-Hexanone	ND	1,000	
1,3-Dichloropropane	ND	50	
Tetrachloroethene	ND	50	

ND= Not Detected RL= Reporting Limit



	Purgeable	e Organics by GC/	'MS	
Lab #:	202387	Location:	AAA	
Client:	LFR Levine Fricke	Prep:	EPA 5030B	
Project#:	00109466-00	Analysis:	EPA 8260B	
Field ID:	DCB-P3	Batch#:	136804	
Lab ID:	202387-002	Sampled:	04/02/08	
Matrix:	Water	Received:	04/03/08	
Units:	ug/L	Analyzed:	04/07/08	
Diln Fac:	100.0			

Analyte	Result	RL	
Dibromochloromethane	ND	50	
1,2-Dibromoethane	ND	50	
Chlorobenzene	ND	50	
1,1,1,2-Tetrachloroethane	ND	50	
Ethylbenzene	ND	50	
m,p-Xylenes	ND	50	
o-Xylene	ND	50	
Styrene	ND	50	
Bromoform	ND	100	
Isopropylbenzene	ND	50	
1,1,2,2-Tetrachloroethane	ND	50	
1,2,3-Trichloropropane	ND	50	
Propylbenzene	ND	50	
Bromobenzene	ND	50	
1,3,5-Trimethylbenzene	ND	50	
2-Chlorotoluene	ND	50	
4-Chlorotoluene	ND	50	
tert-Butylbenzene	ND	50	
1,2,4-Trimethylbenzene	ND	50	
sec-Butylbenzene	ND	50	
para-Isopropyl Toluene	ND	50	
1,3-Dichlorobenzene	66	50	
1,4-Dichlorobenzene	210	50	
n-Butylbenzene	ND	50	
1,2-Dichlorobenzene	110	50	
1,2-Dibromo-3-Chloropropane	ND	200	
1,2,4-Trichlorobenzene	7,100	50	
Hexachlorobutadiene	ND	200	
Naphthalene	ND	200	
1,2,3-Trichlorobenzene	1,600	50	

Surrogate	%REC	Limits	
Dibromofluoromethane	104	80-123	
1,2-Dichloroethane-d4	109	76-138	
Toluene-d8	108	80-120	
Bromofluorobenzene	95	80-120	

ND= Not Detected

RL= Reporting Limit



	Purgeable	Organics by GC/	MS	
Lab #:	202387	Location:	AAA	
Client:	LFR Levine Fricke	Prep:	EPA 5030B	
Project#:	00109466-00	Analysis:	EPA 8260B	
Field ID:	DCB-P1	Batch#:	136804	
Lab ID:	202387-003	Sampled:	04/02/08	
Matrix:	Water	Received:	04/03/08	
Units:	ug/L	Analyzed:	04/07/08	
Diln Fac:	1.000	-	·	

Analyte	Result	RL	
Freon 12	ND	1.0	
Chloromethane	ND	1.0	
Vinyl Chloride	ND	0.5	
Bromomethane	ND	1.0	
Chloroethane	ND	1.0	
Trichlorofluoromethane	ND	1.0	
Acetone	ND	10	
Freon 113	ND	5.0	
1,1-Dichloroethene	ND	0.5	
Methylene Chloride	ND	5.0	
Carbon Disulfide	ND	0.5	
MTBE	ND	0.5	
trans-1,2-Dichloroethene	ND	0.5	
Vinyl Acetate	ND	10	
1,1-Dichloroethane	ND	0.5	
2-Butanone	ND	10	
cis-1,2-Dichloroethene	0.4 J	0.5	
2,2-Dichloropropane	ND	0.5	
Chloroform	ND	0.5	
Bromochloromethane	ND	0.5	
1,1,1-Trichloroethane	ND	0.5	
1,1-Dichloropropene	ND	0.5	
Carbon Tetrachloride	ND	0.5	
1,2-Dichloroethane	ND	0.5	
Benzene	ND	0.5	
Trichloroethene	ND	0.5	
1,2-Dichloropropane	ND	0.5	
Bromodichloromethane	ND	0.5	
Dibromomethane	ND	0.5	
4-Methyl-2-Pentanone	ND	10	
cis-1,3-Dichloropropene	ND	0.5	
Toluene	ND	0.5	
trans-1,3-Dichloropropene	ND	0.5	
1,1,2-Trichloroethane	ND	0.5	
2-Hexanone	ND	10	
1,3-Dichloropropane	ND	0.5	
Tetrachloroethene	ND	0.5	
Dibromochloromethane	ND	0.5	
1,2-Dibromoethane	ND	0.5	
Chlorobenzene	ND	0.5	
1,1,1,2-Tetrachloroethane	ND	0.5	
Ethylbenzene	ND	0.5	
m,p-Xylenes	ND	0.5	
o-Xylene	ND	0.5	
Styrene	ND	0.5	
Bromoform	ND	1.0	
Isopropylbenzene	ND	0.5	
1,1,2,2-Tetrachloroethane	ND	0.5	
1,2,3-Trichloropropane	ND	0.5	
Propylbenzene	ND	0.5	
Bromobenzene	ND	0.5	
1,3,5-Trimethylbenzene	ND	0.5	
2-Chlorotoluene	ND	0.5	

J= Estimated value ND= Not Detected RL= Reporting Limit Page 1 of 2



	Purgeable Organics by GC/MS						
Lab #:	202387	Location:	AAA				
Client:	LFR Levine Fricke	Prep:	EPA 5030B				
Project#:	00109466-00	Analysis:	EPA 8260B				
Field ID:	DCB-P1	Batch#:	136804				
Lab ID:	202387-003	Sampled:	04/02/08				
Matrix:	Water	Received:	04/03/08				
Units:	ug/L	Analyzed:	04/07/08				
Diln Fac:	1.000	_					

Analyte	Re	sult	RL	
4-Chlorotoluene	ND		0.5	
tert-Butylbenzene		0.4 J	0.5	
1,2,4-Trimethylbenzene	ND		0.5	
sec-Butylbenzene	ND		0.5	
para-Isopropyl Toluene	ND		0.5	
1,3-Dichlorobenzene	ND		0.5	
1,4-Dichlorobenzene	ND		0.5	
n-Butylbenzene	ND		0.5	
1,2-Dichlorobenzene	ND		0.5	
1,2-Dibromo-3-Chloropropane	ND		2.0	
1,2,4-Trichlorobenzene		2.6	0.5	
Hexachlorobutadiene	ND		2.0	
Naphthalene	ND		2.0	
1,2,3-Trichlorobenzene		0.7	0.5	

Surrogate	%REC	Limits	
Dibromofluoromethane	109	80-123	
1,2-Dichloroethane-d4	112	76-138	
Toluene-d8	106	80-120	
Bromofluorobenzene	101	80-120	



	Purgeable Organics by GC/MS					
Lab #:	202387	Location:	AAA			
Client:	LFR Levine Fricke	Prep:	EPA 5030B			
Project#:	00109466-00	Analysis:	EPA 8260B			
Field ID:	DCB-P2	Batch#:	136886			
Lab ID:	202387-004	Sampled:	04/02/08			
Matrix:	Water	Received:	04/03/08			
Units:	ug/L	Analyzed:	04/09/08			
Diln Fac:	1.000	1				

Ama lurka	Result	RL	
Analyte Freon 12	ND		
Chloromethane		1.0 1.0	
	ND		
Vinyl Chloride	ND	0.5	
Bromomethane	ND	1.0	
Chloroethane	ND	1.0	
Trichlorofluoromethane	ND	1.0	
Acetone	ND	10	
Freon 113	ND	5.0	
1,1-Dichloroethene	ND	0.5	
Methylene Chloride	ND	5.0	
Carbon Disulfide	1.1	0.5	
MTBE	0.4 J	0.5	
trans-1,2-Dichloroethene	ND	0.5	
Vinyl Acetate	ND	10	
1,1-Dichloroethane	ND	0.5	
2-Butanone	ND	10	
cis-1,2-Dichloroethene	ND ND	0.5	
2,2-Dichloropropane	ND	0.5	
Chloroform	ND	0.5	
Bromochloromethane	ND	0.5	
1,1,1-Trichloroethane	ND	0.5	
1,1-Dichloropropene	ND	0.5	
Carbon Tetrachloride	ND	0.5	
1,2-Dichloroethane	ND	0.5	
Benzene	ND	0.5	
Trichloroethene	ND	0.5	
1,2-Dichloropropane	ND	0.5	
Bromodichloromethane	ND	0.5	
Dibromomethane	ND	0.5	
4-Methyl-2-Pentanone	ND	10	
cis-1,3-Dichloropropene	ND	0.5	
Toluene	ND	0.5	
	ND ND	0.5	
trans-1,3-Dichloropropene			
1,1,2-Trichloroethane	ND	0.5	
2-Hexanone	ND	10	
1,3-Dichloropropane	ND	0.5	
Tetrachloroethene	ND	0.5	
Dibromochloromethane	ND	0.5	
1,2-Dibromoethane	ND	0.5	
Chlorobenzene	ND	0.5	
1,1,1,2-Tetrachloroethane	ND	0.5	
Ethylbenzene	ND	0.5	
m,p-Xylenes	ND	0.5	
o-Xylene	ND	0.5	
Styrene	ND	0.5	
Bromoform	ND	1.0	
Isopropylbenzene	ND	0.5	
1,1,2,2-Tetrachloroethane	ND	0.5	
1,2,3-Trichloropropane	ND ND	0.5	
	ND ND	0.5	
Propylbenzene		0.5	
Bromobenzene	ND ND	0.5	
1,3,5-Trimethylbenzene	ND	0.5	
2-Chlorotoluene	ND	0.5	

J= Estimated value ND= Not Detected RL= Reporting Limit Page 1 of 2



Purgeable Organics by GC/MS					
Lab #:	202387	Location:	AAA		
Client:	LFR Levine Fricke	Prep:	EPA 5030B		
Project#:	00109466-00	Analysis:	EPA 8260B		
Field ID:	DCB-P2	Batch#:	136886		
Lab ID:	202387-004	Sampled:	04/02/08		
Matrix:	Water	Received:	04/03/08		
Units:	uq/L	Analyzed:	04/09/08		
Diln Fac:	1.000	-			

Analyte	Result	RL	
4-Chlorotoluene	ND	0.5	
tert-Butylbenzene	0.3 J	0.5	
1,2,4-Trimethylbenzene	ND	0.5	
sec-Butylbenzene	ND	0.5	
para-Isopropyl Toluene	ND	0.5	
1,3-Dichlorobenzene	4.0	0.5	
1,4-Dichlorobenzene	18	0.5	
n-Butylbenzene	ND	0.5	
1,2-Dichlorobenzene	0.9	0.5	
1,2-Dibromo-3-Chloropropane	ND	2.0	
1,2,4-Trichlorobenzene	0.5 J	0.5	
Hexachlorobutadiene	ND	2.0	
Naphthalene	ND	2.0	
1,2,3-Trichlorobenzene	ND	0.5	

Surrogate	%REC	Limits	
Dibromofluoromethane	98	80-123	
1,2-Dichloroethane-d4	101	76-138	
Toluene-d8	101	80-120	
Bromofluorobenzene	88	80-120	



	Purgeable Organics by GC/MS					
Lab #:	202387	Location:	AAA			
Client:	LFR Levine Fricke	Prep:	EPA 5030B			
Project#:	00109466-00	Analysis:	EPA 8260B			
Field ID:	DCB-P5	Batch#:	136886			
Lab ID:	202387-005	Sampled:	04/02/08			
Matrix:	Water	Received:	04/03/08			
Units:	ug/L	Analyzed:	04/10/08			
Diln Fac:	20.00	-				

Analyte	Result	RL
Freon 12	ND	20
Chloromethane	ND	20
Vinyl Chloride	ND	10
Bromomethane	ND	20
Chloroethane	ND	20
Trichlorofluoromethane	ND	20
Acetone	ND	200
Freon 113	ND	100
1,1-Dichloroethene	ND	10
Methylene Chloride	ND	100
Carbon Disulfide	ND	10
MTBE	ND	10
trans-1,2-Dichloroethene	ND	10
Vinyl Acetate	ND	200
1,1-Dichloroethane	ND	10
2-Butanone	ND	200
cis-1,2-Dichloroethene	ND	10
2,2-Dichloropropane	ND	10
Chloroform	ND	10
Bromochloromethane	ND	10
1,1,1-Trichloroethane	ND	10
1,1-Dichloropropene	ND	10
Carbon Tetrachloride	ND	10
1,2-Dichloroethane	ND	10
Benzene	28	10
Trichloroethene	ND	10
1,2-Dichloropropane	ND	10
Bromodichloromethane	ND	10
Dibromomethane	ND	10
4-Methyl-2-Pentanone	ND	200
cis-1,3-Dichloropropene	ND	10
Toluene	ND	10
trans-1,3-Dichloropropene	ND	10
1,1,2-Trichloroethane	ND	10
2-Hexanone	ND	200
1,3-Dichloropropane	ND	10
Tetrachloroethene	ND	10
Dibromochloromethane	ND	10
1,2-Dibromoethane	ND	10
Chlorobenzene	71	10
1,1,1,2-Tetrachloroethane	ND	10
Ethylbenzene	ND	10
m,p-Xylenes	15	10
o-Xylene	5.5 J	10
Styrene	ND	10
Bromoform	ND	20
Isopropylbenzene	ND	10
1,1,2,2-Tetrachloroethane	ND	10
1,2,3-Trichloropropane	ND	10
Propylbenzene	ND	10
Bromobenzene	ND	10
1,3,5-Trimethylbenzene	ND	10
2-Chlorotoluene	ND	10

J= Estimated value ND= Not Detected RL= Reporting Limit Page 1 of 2



	Purgeable Organics by GC/MS					
Lab #:	202387	Location:	AAA			
Client:	LFR Levine Fricke	Prep:	EPA 5030B			
Project#:	00109466-00	Analysis:	EPA 8260B			
Field ID:	DCB-P5	Batch#:	136886			
Lab ID:	202387-005	Sampled:	04/02/08			
Matrix:	Water	Received:	04/03/08			
Units:	ug/L	Analyzed:	04/10/08			
Diln Fac:	20.00	-				

Analyte	Result	RL	
4-Chlorotoluene	ND	10	
tert-Butylbenzene	ND	10	
1,2,4-Trimethylbenzene	8.5 J	10	
sec-Butylbenzene	ND	10	
para-Isopropyl Toluene	ND	10	
1,3-Dichlorobenzene	390	10	
1,4-Dichlorobenzene	330	10	
n-Butylbenzene	ND	10	
1,2-Dichlorobenzene	45	10	
1,2-Dibromo-3-Chloropropane	ND	40	
1,2,4-Trichlorobenzene	1,500	10	
Hexachlorobutadiene	ND	40	
Naphthalene	ND	40	
1,2,3-Trichlorobenzene	42	10	

Surrogate	%REC	Limits
Dibromofluoromethane	104	80-123
1,2-Dichloroethane-d4	105	76-138
Toluene-d8	103	80-120
Bromofluorobenzene	90	80-120



	Purgeable	Organics by GC/	MS	
Lab #:	202387	Location:	AAA	
Client:	LFR Levine Fricke	Prep:	EPA 5030B	
Project#:	00109466-00	Analysis:	EPA 8260B	
Field ID:	DCB-P4	Batch#:	136841	
Lab ID:	202387-006	Sampled:	04/02/08	
Matrix:	Water	Received:	04/03/08	
Units:	ug/L	Analyzed:	04/08/08	
Diln Fac:	62.50	-		

Analyte	Result	RL
Freon 12	ND	63
Chloromethane	ND	63
Vinyl Chloride	ND	31
Bromomethane	ND	63
Chloroethane	ND	63
Trichlorofluoromethane	ND	63
Acetone	ND	630
Freon 113	ND ND	310
1,1-Dichloroethene	ND ND	31
		310
Methylene Chloride	ND	
Carbon Disulfide	50	31
MTBE	ND	31
trans-1,2-Dichloroethene	ND	31
Vinyl Acetate	ND	630
1,1-Dichloroethane	ND	31
2-Butanone	ND	630
cis-1,2-Dichloroethene	ND	31
2,2-Dichloropropane	ND	31
Chloroform	ND	31
Bromochloromethane	ND	31
1,1,1-Trichloroethane	ND	31
1,1-Dichloropropene	ND	31
Carbon Tetrachloride	ND	31
1,2-Dichloroethane	ND	31
Benzene	19 J	31
Trichloroethene	ND	31
1,2-Dichloropropane	ND ND	31
Bromodichloromethane	ND ND	31
Dibromomethane	ND	31
4-Methyl-2-Pentanone	ND	630
cis-1,3-Dichloropropene	ND	31
Toluene	ND	31
trans-1,3-Dichloropropene	ND	31
1,1,2-Trichloroethane	ND	31
2-Hexanone	ND	630
1,3-Dichloropropane	ND	31
Tetrachloroethene	ND	31
Dibromochloromethane	ND	31
1,2-Dibromoethane	ND	31
Chlorobenzene	1,000	31
1,1,1,2-Tetrachloroethane	ND	31
Ethylbenzene	ND	31
m,p-Xylenes	ND	31
o-Xylene	ND	31
Styrene	ND	31
Bromoform	ND	63
Isopropylbenzene	ND	31
1,1,2,2-Tetrachloroethane	ND ND	31
	ND ND	31
1,2,3-Trichloropropane		
Propylbenzene	ND	31
Bromobenzene	ND	31
1,3,5-Trimethylbenzene	ND	31
2-Chlorotoluene	ND	31

J= Estimated value ND= Not Detected RL= Reporting Limit Page 1 of 2



	Purgeable	Organics by GC/	MS	
Lab #:	202387	Location:	AAA	
Client:	LFR Levine Fricke	Prep:	EPA 5030B	
Project#:	00109466-00	Analysis:	EPA 8260B	
Field ID:	DCB-P4	Batch#:	136841	
Lab ID:	202387-006	Sampled:	04/02/08	
Matrix:	Water	Received:	04/03/08	
Units:	ug/L	Analyzed:	04/08/08	
Diln Fac:	62.50	-	•	

Analyte	Result	RL	
4-Chlorotoluene	ND	31	
tert-Butylbenzene	ND	31	
1,2,4-Trimethylbenzene	ND	31	
sec-Butylbenzene	ND	31	
para-Isopropyl Toluene	ND	31	
1,3-Dichlorobenzene	1,600	31	
1,4-Dichlorobenzene	1,500	31	
n-Butylbenzene	ND	31	
1,2-Dichlorobenzene	200	31	
1,2-Dibromo-3-Chloropropane	ND	130	
1,2,4-Trichlorobenzene	3,800	31	
Hexachlorobutadiene	ND	130	
Naphthalene	ND	130	
1,2,3-Trichlorobenzene	280	31	

Surrogate	%REC	Limits
Dibromofluoromethane	113	80-123
1,2-Dichloroethane-d4	116	76-138
Toluene-d8	100	80-120
Bromofluorobenzene	109	80-120



	Purgeable	Organics by GC/	MS	
Lab #:	202387	Location:	AAA	
Client:	LFR Levine Fricke	Prep:	EPA 5030B	
Project#:	00109466-00	Analysis:	EPA 8260B	
Matrix:	Water	Batch#:	136736	
Units:	ug/L	Analyzed:	04/04/08	
Diln Fac:	1.000			

Type: BS Lab ID: QC436111

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	30.44	122	77-132
Benzene	25.00	26.84	107	80-120
Trichloroethene	25.00	26.42	106	80-120
Toluene	25.00	28.15	113	80-121
Chlorobenzene	25.00	26.57	106	80-120

Surrogate	%REC	Limits	
Dibromofluoromethane	98	80-123	
1,2-Dichloroethane-d4	103	76-138	
Toluene-d8	99	80-120	
Bromofluorobenzene	100	80-120	

Type: BSD Lab ID: QC436112

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	25.00	28.43	114	77-132	7	20
Benzene	25.00	25.44	102	80-120	5	20
Trichloroethene	25.00	25.38	102	80-120	4	20
Toluene	25.00	26.80	107	80-121	5	20
Chlorobenzene	25.00	26.24	105	80-120	1	20

Surrogate	%REC	Limits	
Dibromofluoromethane	96	80-123	
1,2-Dichloroethane-d4	100	76-138	
Toluene-d8	97	80-120	
Bromofluorobenzene	99	80-120	



Purgeable Organics by GC/MS						
Lab #:	202387	Location:	AAA			
Client:	LFR Levine Fricke	Prep:	EPA 5030B			
Project#:	00109466-00	Analysis:	EPA 8260B			
Type:	BLANK	Diln Fac:	1.000			
Lab ID:	QC436113	Batch#:	136736			
Matrix:	Water	Analyzed:	04/04/08			
Units:	ug/L					

Analyte	Result	RL	
Freon 12	ND	1.0	
Chloromethane	ND	1.0	
Vinyl Chloride	ND	0.5	
Bromomethane	ND	1.0	
Chloroethane	ND	1.0	
Trichlorofluoromethane	ND	1.0	
Acetone	ND	10	
Freon 113	ND	5.0	
1,1-Dichloroethene	ND	0.5	
Methylene Chloride	ND	5.0	
Carbon Disulfide	ND	0.5	
MTBE	ND	0.5	
trans-1,2-Dichloroethene	ND	0.5	
Vinyl Acetate	ND	10	
1,1-Dichloroethane	ND	0.5	
2-Butanone	ND	10	
cis-1,2-Dichloroethene	ND	0.5	
2,2-Dichloropropane	ND	0.5	
Chloroform	ND	0.5	
Bromochloromethane	ND	0.5	
1,1,1-Trichloroethane	ND	0.5	
1,1-Dichloropropene	ND	0.5	
Carbon Tetrachloride	ND	0.5	
1,2-Dichloroethane	ND	0.5	
Benzene	ND	0.5	
Trichloroethene	ND	0.5	
1,2-Dichloropropane	ND	0.5	
Bromodichloromethane	ND	0.5	
Dibromomethane	ND	0.5	
4-Methyl-2-Pentanone	ND	10	
cis-1,3-Dichloropropene	ND	0.5	
Toluene	ND	0.5	
trans-1,3-Dichloropropene	ND	0.5	
1,1,2-Trichloroethane	ND	0.5	
2-Hexanone	ND	10	
1,3-Dichloropropane	ND	0.5	
Tetrachloroethene	ND	0.5	

ND= Not Detected

RL= Reporting Limit



	Purgeable	e Organics by GC/	'MS	
Lab #:	202387	Location:	AAA	
Client:	LFR Levine Fricke	Prep:	EPA 5030B	
Project#:	00109466-00	Analysis:	EPA 8260B	
Type:	BLANK	Diln Fac:	1.000	
Lab ID:	QC436113	Batch#:	136736	
Matrix:	Water	Analyzed:	04/04/08	
Units:	ug/L			

Analyte	Result	RL	
Dibromochloromethane	ND	0.5	
1,2-Dibromoethane	ND	0.5	
Chlorobenzene	ND	0.5	
1,1,1,2-Tetrachloroethane	ND	0.5	
Ethylbenzene	ND	0.5	
m,p-Xylenes	ND	0.5	
o-Xylene	ND	0.5	
Styrene	ND	0.5	
Bromoform	ND	1.0	
Isopropylbenzene	ND	0.5	
1,1,2,2-Tetrachloroethane	ND	0.5	
1,2,3-Trichloropropane	ND	0.5	
Propylbenzene	ND	0.5	
Bromobenzene	ND	0.5	
1,3,5-Trimethylbenzene	ND	0.5	
2-Chlorotoluene	ND	0.5	
4-Chlorotoluene	ND	0.5	
tert-Butylbenzene	ND	0.5	
1,2,4-Trimethylbenzene	ND	0.5	
sec-Butylbenzene	ND	0.5	
para-Isopropyl Toluene	ND	0.5	
1,3-Dichlorobenzene	ND	0.5	
1,4-Dichlorobenzene	ND	0.5	
n-Butylbenzene	ND	0.5	
1,2-Dichlorobenzene	ND	0.5	
1,2-Dibromo-3-Chloropropane	ND	2.0	
1,2,4-Trichlorobenzene	ND	0.5	
Hexachlorobutadiene	ND	2.0	
Naphthalene	ND	2.0	
1,2,3-Trichlorobenzene	ND	0.5	

Surrogate	%REC	Limits	
Dibromofluoromethane	100	80-123	
1,2-Dichloroethane-d4	107	76-138	
Toluene-d8	99	80-120	
Bromofluorobenzene	107	80-120	

ND= Not Detected

RL= Reporting Limit



	Purgeable	e Organics by GC/	'MS	
Lab #:	202387	Location:	AAA	
Client:	LFR Levine Fricke	Prep:	EPA 5030B	
Project#:	00109466-00	Analysis:	EPA 8260B	
Type:	BLANK	Diln Fac:	1.000	
Lab ID:	QC436383	Batch#:	136804	
Matrix:	Water	Analyzed:	04/07/08	
Units:	ug/L			

Analyte	Result	RL	
Freon 12	ND	1.0	
Chloromethane	ND	1.0	
Vinyl Chloride	ND	0.5	
Bromomethane	ND	1.0	
Chloroethane	ND	1.0	
Trichlorofluoromethane	ND	1.0	
Acetone	ND	10	
Freon 113	ND	5.0	
1,1-Dichloroethene	ND	0.5	
Methylene Chloride	ND	5.0	
Carbon Disulfide	ND	0.5	
MTBE	ND	0.5	
trans-1,2-Dichloroethene	ND	0.5	
Vinyl Acetate	ND	10	
1,1-Dichloroethane	ND	0.5	
2-Butanone	ND	10	
cis-1,2-Dichloroethene	ND	0.5	
2,2-Dichloropropane	ND	0.5	
Chloroform	ND	0.5	
Bromochloromethane	ND	0.5	
1,1,1-Trichloroethane	ND	0.5	
1,1-Dichloropropene	ND	0.5	
Carbon Tetrachloride	ND	0.5	
1,2-Dichloroethane	ND	0.5	
Benzene	ND	0.5	
Trichloroethene	ND	0.5	
1,2-Dichloropropane	ND	0.5	
Bromodichloromethane	ND	0.5	
Dibromomethane	ND	0.5	
4-Methyl-2-Pentanone	ND	10	
cis-1,3-Dichloropropene	ND	0.5	
Toluene	ND	0.5	
trans-1,3-Dichloropropene	ND	0.5	
1,1,2-Trichloroethane	ND	0.5	
2-Hexanone	ND	10	
1,3-Dichloropropane	ND	0.5	
Tetrachloroethene	ND	0.5	

ND= Not Detected

RL= Reporting Limit



	Purgeable	e Organics by GC/	'MS	
Lab #:	202387	Location:	AAA	
Client:	LFR Levine Fricke	Prep:	EPA 5030B	
Project#:	00109466-00	Analysis:	EPA 8260B	
Type:	BLANK	Diln Fac:	1.000	
Lab ID:	QC436383	Batch#:	136804	
Matrix:	Water	Analyzed:	04/07/08	
Units:	ug/L			

Analyte	Result	RL	
Dibromochloromethane	ND	0.5	
1,2-Dibromoethane	ND	0.5	
Chlorobenzene	ND	0.5	
1,1,1,2-Tetrachloroethane	ND	0.5	
Ethylbenzene	ND	0.5	
m,p-Xylenes	ND	0.5	
o-Xylene	ND	0.5	
Styrene	ND	0.5	
Bromoform	ND	1.0	
Isopropylbenzene	ND	0.5	
1,1,2,2-Tetrachloroethane	ND	0.5	
1,2,3-Trichloropropane	ND	0.5	
Propylbenzene	ND	0.5	
Bromobenzene	ND	0.5	
1,3,5-Trimethylbenzene	ND	0.5	
2-Chlorotoluene	ND	0.5	
4-Chlorotoluene	ND	0.5	
tert-Butylbenzene	ND	0.5	
1,2,4-Trimethylbenzene	ND	0.5	
sec-Butylbenzene	ND	0.5	
para-Isopropyl Toluene	ND	0.5	
1,3-Dichlorobenzene	ND	0.5	
1,4-Dichlorobenzene	ND	0.5	
n-Butylbenzene	ND	0.5	
1,2-Dichlorobenzene	ND	0.5	
1,2-Dibromo-3-Chloropropane	ND	2.0	
1,2,4-Trichlorobenzene	ND	0.5	
Hexachlorobutadiene	ND	2.0	
Naphthalene	ND	2.0	
1,2,3-Trichlorobenzene	ND	0.5	

Surrogate	%REC	Limits
Dibromofluoromethane 1	104	80-123
1,2-Dichloroethane-d4	110	76-138
Toluene-d8	105	80-120
Bromofluorobenzene	99	80-120

ND= Not Detected

RL= Reporting Limit



Purgeable Organics by GC/MS					
Lab #:	202387	Location:	AAA		
Client:	LFR Levine Fricke	Prep:	EPA 5030B		
Project#:	00109466-00	Analysis:	EPA 8260B		
Type:	LCS	Diln Fac:	1.000		
Lab ID:	QC436385	Batch#:	136804		
Matrix:	Water	Analyzed:	04/07/08		
Units:	ug/L				

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	30.14	121	77-132
Benzene	25.00	26.67	107	80-120
Trichloroethene	25.00	27.99	112	80-120
Toluene	25.00	27.08	108	80-121
Chlorobenzene	25.00	24.83	99	80-120

Surrogate	%REC	Limits	
Dibromofluoromethane	101	80-123	
1,2-Dichloroethane-d4	108	76-138	
Toluene-d8	105	80-120	
Bromofluorobenzene	96	80-120	

Page 1 of 1 21.0



Purgeable Organics by GC/MS					
Lab #:	202387	Location:	AAA		
Client:	LFR Levine Fricke	Prep:	EPA 5030B		
Project#:	00109466-00	Analysis:	EPA 8260B		
Field ID:	ZZZZZZZZZZ	Batch#:	136804		
MSS Lab ID:	202326-002	Sampled:	03/31/08		
Matrix:	Water	Received:	04/01/08		
Units:	ug/L	Analyzed:	04/07/08		
Diln Fac:	1.000				

Type: MS Lab ID: QC436435

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<0.1000	25.00	29.64	119	80-135
Benzene	<0.1000	25.00	26.88	108	80-122
Trichloroethene	109.9 >LR	25.00	127.4 >LR	70 NM	75-128
Toluene	<0.1000	25.00	27.33	109	80-120
Chlorobenzene	<0.1000	25.00	24.77	99	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	105	80-123
1,2-Dichloroethane-d4	109	76-138
Toluene-d8	106	80-120
Bromofluorobenzene	96	80-120

Type: MSD Lab ID: QC436436

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	25.00	30.95	124	80-135	4	20
Benzene	25.00	27.90	112	80-122	4	20
Trichloroethene	25.00	130.2 >LR	81 NM	75-128	NC	20
Toluene	25.00	28.44	114	80-120	4	20
Chlorobenzene	25.00	25.35	101	80-120	2	20

Surrogate	%REC	imits	
Dibromofluoromethane	104	0-123	
1,2-Dichloroethane-d4	109	6-138	
Toluene-d8	106	0-120	
Bromofluorobenzene	96	0-120	

NC= Not Calculated

NM= Not Meaningful: Sample concentration > 4X spike concentration

>LR= Response exceeds instrument's linear range

RPD= Relative Percent Difference

Page 1 of 1 22.0



Purgeable Organics by GC/MS					
Lab #:	202387	Location:	AAA		
Client:	LFR Levine Fricke	Prep:	EPA 5030B		
Project#:	00109466-00	Analysis:	EPA 8260B		
Matrix:	Water	Batch#:	136841		
Units:	ug/L	Analyzed:	04/08/08		
Diln Fac:	1.000				

Type: BS Lab ID: QC436540

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	20.00	24.35	122	77-132
Benzene	20.00	20.72	104	80-120
Trichloroethene	20.00	19.80	99	80-120
Toluene	20.00	19.81	99	80-121
Chlorobenzene	20.00	19.30	97	80-120

Surrogate	%REC	Limits	
Dibromofluoromethane	109	80-123	
1,2-Dichloroethane-d4	112	76-138	
Toluene-d8	100	80-120	
Bromofluorobenzene	108	80-120	

Type: BSD Lab ID: QC436541

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	20.00	21.76	109	77-132	11	20
Benzene	20.00	19.25	96	80-120	7	20
Trichloroethene	20.00	18.16	91	80-120	9	20
Toluene	20.00	18.59	93	80-121	6	20
Chlorobenzene	20.00	17.87	89	80-120	8	20

Surrogate	%REC	Limits	
Dibromofluoromethane	108	80-123	
1,2-Dichloroethane-d4	111	76-138	
Toluene-d8	100	80-120	
Bromofluorobenzene	107	80-120	

Page 1 of 1 23.0



Purgeable Organics by GC/MS							
Lab #:	202387	Location:	AAA				
Client:	LFR Levine Fricke	Prep:	EPA 5030B				
Project#:	00109466-00	Analysis:	EPA 8260B				
Type:	BLANK	Diln Fac:	1.000				
Lab ID:	QC436542	Batch#:	136841				
Matrix:	Water	Analyzed:	04/08/08				
Units:	ug/L						

Analyte	Result	RL	
Freon 12	ND	1.0	
Chloromethane	ND	1.0	
Vinyl Chloride	ND	0.5	
Bromomethane	ND	1.0	
Chloroethane	ND	1.0	
Trichlorofluoromethane	ND	1.0	
Acetone	ND	10	
Freon 113	ND	5.0	
1,1-Dichloroethene	ND	0.5	
Methylene Chloride	ND	5.0	
Carbon Disulfide	ND	0.5	
MTBE	ND	0.5	
trans-1,2-Dichloroethene	ND	0.5	
Vinyl Acetate	ND	10	
1,1-Dichloroethane	ND	0.5	
2-Butanone	ND	10	
cis-1,2-Dichloroethene	ND	0.5	
2,2-Dichloropropane	ND	0.5	
Chloroform	ND	0.5	
Bromochloromethane	ND	0.5	
1,1,1-Trichloroethane	ND	0.5	
1,1-Dichloropropene	ND	0.5	
Carbon Tetrachloride	ND	0.5	
1,2-Dichloroethane	ND	0.5	
Benzene	ND	0.5	
Trichloroethene	ND	0.5	
1,2-Dichloropropane	ND	0.5	
Bromodichloromethane	ND	0.5	
Dibromomethane	ND	0.5	
4-Methyl-2-Pentanone	ND	10	
cis-1,3-Dichloropropene	ND	0.5	
Toluene	ND	0.5	
trans-1,3-Dichloropropene	ND	0.5	
1,1,2-Trichloroethane	ND	0.5	
2-Hexanone	ND	10	
1,3-Dichloropropane	ND	0.5	
Tetrachloroethene	ND	0.5	

ND= Not Detected

RL= Reporting Limit



Purgeable Organics by GC/MS							
Lab #:	202387	Location:	AAA				
Client:	LFR Levine Fricke	Prep:	EPA 5030B				
Project#:	00109466-00	Analysis:	EPA 8260B				
Type:	BLANK	Diln Fac:	1.000				
Lab ID:	QC436542	Batch#:	136841				
Matrix:	Water	Analyzed:	04/08/08				
Units:	ug/L						

Analyte	Result	RL
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate %RI	EC	Limits
Dibromofluoromethane 108	}	80-123
1,2-Dichloroethane-d4 113	}	76-138
Toluene-d8 100	)	80-120
Bromofluorobenzene 119	)	80-120

ND= Not Detected

RL= Reporting Limit



Purgeable Organics by GC/MS							
Lab #:	202387	Location:	AAA				
Client:	LFR Levine Fricke	Prep:	EPA 5030B				
Project#:	00109466-00	Analysis:	EPA 8260B				
Matrix:	Water	Batch#:	136886				
Units:	ug/L	Analyzed:	04/09/08				
Diln Fac:	1.000						

Type: BS Lab ID: QC436717

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	22.04	88	77-132
Benzene	25.00	23.51	94	80-120
Trichloroethene	25.00	25.04	100	80-120
Toluene	25.00	23.78	95	80-121
Chlorobenzene	25.00	24.17	97	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	99	80-123
1,2-Dichloroethane-d4	94	76-138
Toluene-d8	98	80-120
Bromofluorobenzene	87	80-120

Type: BSD Lab ID: QC436718

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	25.00	22.26	89	77-132	1	20
Benzene	25.00	23.17	93	80-120	1	20
Trichloroethene	25.00	24.59	98	80-120	2	20
Toluene	25.00	23.83	95	80-121	0	20
Chlorobenzene	25.00	24.08	96	80-120	0	20

Surrogate	%REC	Limits	
Dibromofluoromethane	101	80-123	
1,2-Dichloroethane-d4	96	76-138	
Toluene-d8	100	80-120	
Bromofluorobenzene	87	80-120	



Purgeable Organics by GC/MS							
Lab #:	202387	Location:	AAA				
Client:	LFR Levine Fricke	Prep:	EPA 5030B				
Project#:	00109466-00	Analysis:	EPA 8260B				
Type:	BLANK	Diln Fac:	1.000				
Lab ID:	QC436720	Batch#:	136886				
Matrix:	Water	Analyzed:	04/09/08				
Units:	ug/L						

Analyte	Result	RL	
Freon 12	ND	1.0	
Chloromethane	ND	1.0	
Vinyl Chloride	ND	0.5	
Bromomethane	ND	1.0	
Chloroethane	ND	1.0	
Trichlorofluoromethane	ND	1.0	
Acetone	ND	10	
Freon 113	ND	5.0	
1,1-Dichloroethene	ND	0.5	
Methylene Chloride	ND	5.0	
Carbon Disulfide	ND	0.5	
MTBE	ND	0.5	
trans-1,2-Dichloroethene	ND	0.5	
Vinyl Acetate	ND	10	
1,1-Dichloroethane	ND	0.5	
2-Butanone	ND	10	
cis-1,2-Dichloroethene	ND	0.5	
2,2-Dichloropropane	ND	0.5	
Chloroform	ND	0.5	
Bromochloromethane	ND	0.5	
1,1,1-Trichloroethane	ND	0.5	
1,1-Dichloropropene	ND	0.5	
Carbon Tetrachloride	ND	0.5	
1,2-Dichloroethane	ND	0.5	
Benzene	ND	0.5	
Trichloroethene	ND	0.5	
1,2-Dichloropropane	ND	0.5	
Bromodichloromethane	ND	0.5	
Dibromomethane	ND	0.5	
4-Methyl-2-Pentanone	ND	10	
cis-1,3-Dichloropropene	ND	0.5	
Toluene	ND	0.5	
trans-1,3-Dichloropropene	ND	0.5	
1,1,2-Trichloroethane	ND	0.5	
2-Hexanone	ND	10	
1,3-Dichloropropane	ND	0.5	
Tetrachloroethene	ND	0.5	

ND= Not Detected

RL= Reporting Limit



Purgeable Organics by GC/MS					
Lab #:	202387	Location:	AAA		
Client:	LFR Levine Fricke	Prep:	EPA 5030B		
Project#:	00109466-00	Analysis:	EPA 8260B		
Type:	BLANK	Diln Fac:	1.000		
Lab ID:	QC436720	Batch#:	136886		
Matrix:	Water	Analyzed:	04/09/08		
Units:	ug/L				

Analyte	Result	RL	
Dibromochloromethane	ND	0.5	
1,2-Dibromoethane	ND	0.5	
Chlorobenzene	ND	0.5	
1,1,1,2-Tetrachloroethane	ND	0.5	
Ethylbenzene	ND	0.5	
m,p-Xylenes	ND	0.5	
o-Xylene	ND	0.5	
Styrene	ND	0.5	
Bromoform	ND	1.0	
Isopropylbenzene	ND	0.5	
1,1,2,2-Tetrachloroethane	ND	0.5	
1,2,3-Trichloropropane	ND	0.5	
Propylbenzene	ND	0.5	
Bromobenzene	ND	0.5	
1,3,5-Trimethylbenzene	ND	0.5	
2-Chlorotoluene	ND	0.5	
4-Chlorotoluene	ND	0.5	
tert-Butylbenzene	ND	0.5	
1,2,4-Trimethylbenzene	ND	0.5	
sec-Butylbenzene	ND	0.5	
para-Isopropyl Toluene	ND	0.5	
1,3-Dichlorobenzene	ND	0.5	
1,4-Dichlorobenzene	ND	0.5	
n-Butylbenzene	ND	0.5	
1,2-Dichlorobenzene	ND	0.5	
1,2-Dibromo-3-Chloropropane	ND	2.0	
1,2,4-Trichlorobenzene	ND	0.5	
Hexachlorobutadiene	ND	2.0	
Naphthalene	ND	2.0	
1,2,3-Trichlorobenzene	ND	0.5	

Surrogate %RE	C I	Limits
Dibromofluoromethane 94	8	80-123
1,2-Dichloroethane-d4 100	-	76-138
Toluene-d8 100	8	80-120
Bromofluorobenzene 88	8	80-120

ND= Not Detected

RL= Reporting Limit



Purgeable Organics by GC/MS					
Lab #:	202387	Location:	AAA		
Client:	LFR Levine Fricke	Prep:	EPA 5035		
Project#:	00109466-00	Analysis:	EPA 8260B		
Field ID:	DCB-P6-5FT	Diln Fac:	1.250		
Lab ID:	202387-007	Batch#:	136789		
Matrix:	Soil	Sampled:	04/02/08		
Units:	ug/Kg	Received:	04/03/08		
Basis:	as received	Analyzed:	04/07/08		

Analyte	Result	RL	
Freon 12	ND	13	
Chloromethane	ND	13	
Vinyl Chloride	ND	13	
Bromomethane	ND	13	
Chloroethane	ND	13	
Trichlorofluoromethane	ND	6.3	
Acetone	ND	25	
Freon 113	ND	6.3	
1,1-Dichloroethene	ND	6.3	
Methylene Chloride	ND	25	
Carbon Disulfide	ND	6.3	
MTBE	ND	6.3	
trans-1,2-Dichloroethene	ND	6.3	
Vinyl Acetate	ND	63	
1,1-Dichloroethane	ND	6.3	
2-Butanone	ND	13	
cis-1,2-Dichloroethene	ND	6.3	
2,2-Dichloropropane	ND	6.3	
Chloroform	ND	6.3	
Bromochloromethane	ND	6.3	
1,1,1-Trichloroethane	ND	6.3	
1,1-Dichloropropene	ND	6.3	
Carbon Tetrachloride	ND	6.3	
1,2-Dichloroethane	ND	6.3	
Benzene	ND	6.3	
Trichloroethene	ND	6.3	
1,2-Dichloropropane	ND	6.3	
Bromodichloromethane	ND	6.3	
Dibromomethane	ND	6.3	
4-Methyl-2-Pentanone	ND	13	
cis-1,3-Dichloropropene	ND	6.3	
Toluene	ND	6.3	
trans-1,3-Dichloropropene	ND	6.3	
1,1,2-Trichloroethane	ND	6.3	
2-Hexanone	ND	13	
1,3-Dichloropropane	ND	6.3	
Tetrachloroethene	ND	6.3	

RL= Reporting Limit



	Purgeable	e Organics by GC/	'MS	
Lab #:	202387	Location:	AAA	
Client:	LFR Levine Fricke	Prep:	EPA 5035	
Project#:	00109466-00	Analysis:	EPA 8260B	
Field ID:	DCB-P6-5FT	Diln Fac:	1.250	
Lab ID:	202387-007	Batch#:	136789	
Matrix:	Soil	Sampled:	04/02/08	
Units:	ug/Kg	Received:	04/03/08	
Basis:	as received	Analyzed:	04/07/08	

Analyte	Result	RL	
Dibromochloromethane	ND	6.3	
1,2-Dibromoethane	ND	6.3	
Chlorobenzene	ND	6.3	
1,1,1,2-Tetrachloroethane	ND	6.3	
Ethylbenzene	ND	6.3	
m,p-Xylenes	ND	6.3	
o-Xylene	ND	6.3	
Styrene	ND	6.3	
Bromoform	ND	6.3	
Isopropylbenzene	ND	6.3	
1,1,2,2-Tetrachloroethane	ND	6.3	
1,2,3-Trichloropropane	ND	6.3	
Propylbenzene	ND	6.3	
Bromobenzene	ND	6.3	
1,3,5-Trimethylbenzene	ND	6.3	
2-Chlorotoluene	ND	6.3	
4-Chlorotoluene	ND	6.3	
tert-Butylbenzene	ND	6.3	
1,2,4-Trimethylbenzene	ND	6.3	
sec-Butylbenzene	ND	6.3	
para-Isopropyl Toluene	ND	6.3	
1,3-Dichlorobenzene	ND	6.3	
1,4-Dichlorobenzene	ND	6.3	
n-Butylbenzene	ND	6.3	
1,2-Dichlorobenzene	ND	6.3	
1,2-Dibromo-3-Chloropropane	ND	6.3	
1,2,4-Trichlorobenzene	ND	6.3	
Hexachlorobutadiene	ND	6.3	
Naphthalene	ND	6.3	
1,2,3-Trichlorobenzene	ND	6.3	

Surrogate	%REC	Limits	
Dibromofluoromethane	103	78-126	
1,2-Dichloroethane-d4	88	76-137	
Toluene-d8	99	80-120	
Bromofluorobenzene	102	80-121	

RL= Reporting Limit



Purgeable Organics by GC/MS					
Lab #:	202387	Location:	AAA		
Client:	LFR Levine Fricke	Prep:	EPA 5035		
Project#:	00109466-00	Analysis:	EPA 8260B		
Field ID:	DCB-P3-4FT	Diln Fac:	1.000		
Lab ID:	202387-008	Batch#:	136789		
Matrix:	Soil	Sampled:	04/02/08		
Units:	ug/Kg	Received:	04/03/08		
Basis:	as received	Analyzed:	04/07/08		

Analyte Freon 12	Result	
F1 COII 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0

<sup>\*=</sup> Value outside of QC limits; see narrative ND= Not Detected RL= Reporting Limit Page 1 of 2



Purgeable Organics by GC/MS					
Lab #:	202387	Location:	AAA		
Client:	LFR Levine Fricke	Prep:	EPA 5035		
Project#:	00109466-00	Analysis:	EPA 8260B		
Field ID:	DCB-P3-4FT	Diln Fac:	1.000		
Lab ID:	202387-008	Batch#:	136789		
Matrix:	Soil	Sampled:	04/02/08		
Units:	uq/Kq	Received:	04/03/08		
Basis:	as received	Analyzed:	04/07/08		

Analyte	Result	RL	
4-Chlorotoluene	ND	5.0	
tert-Butylbenzene	ND	5.0	
1,2,4-Trimethylbenzene	ND	5.0	
sec-Butylbenzene	ND	5.0	
para-Isopropyl Toluene	ND	5.0	
1,3-Dichlorobenzene	ND	5.0	
1,4-Dichlorobenzene	ND	5.0	
n-Butylbenzene	ND	5.0	
1,2-Dichlorobenzene	ND	5.0	
1,2-Dibromo-3-Chloropropane	ND	5.0	
1,2,4-Trichlorobenzene	ND	5.0	
Hexachlorobutadiene	ND	5.0	
Naphthalene	ND	5.0	
1,2,3-Trichlorobenzene	6.7	5.0	

Surrogate	%REC	Limits	
Dibromofluoromethane	109	78-126	
1,2-Dichloroethane-d4	90	76-137	
Toluene-d8	93	80-120	
Bromofluorobenzene	147 *	80-121	

<sup>\*=</sup> Value outside of QC limits; see narrative ND= Not Detected RL= Reporting Limit Page 2 of 2



	Purgeable	organics by GC/	'MS	
Lab #:	202387	Location:	AAA	
Client:	LFR Levine Fricke	Prep:	EPA 5035	
Project#:	00109466-00	Analysis:	EPA 8260B	
Field ID:	DCB-P1-4FT	Diln Fac:	0.8065	
Lab ID:	202387-010	Batch#:	136789	
Matrix:	Soil	Sampled:	04/02/08	
Units:	ug/Kg	Received:	04/03/08	
Basis:	as received	Analyzed:	04/07/08	

Analyte	Result	RL	
Freon 12	ND	8.1	
Chloromethane	ND	8.1	
Vinyl Chloride	ND	8.1	
Bromomethane	ND	8.1	
Chloroethane	ND	8.1	
Trichlorofluoromethane	ND	4.0	
Acetone	ND	16	
Freon 113	ND	4.0	
1,1-Dichloroethene	ND	4.0	
Methylene Chloride	ND	16	
Carbon Disulfide	ND	4.0	
MTBE	ND	4.0	
trans-1,2-Dichloroethene	ND	4.0	
Vinyl Acetate	ND	40	
1,1-Dichloroethane	ND	4.0	
2-Butanone	ND	8.1	
cis-1,2-Dichloroethene	ND	4.0	
2,2-Dichloropropane	ND	4.0	
Chloroform	ND	4.0	
Bromochloromethane	ND	4.0	
1,1,1-Trichloroethane	ND	4.0	
1,1-Dichloropropene	ND	4.0	
Carbon Tetrachloride	ND	4.0	
1,2-Dichloroethane	ND	4.0	
Benzene	ND	4.0	
Trichloroethene	ND	4.0	
1,2-Dichloropropane	ND	4.0	
Bromodichloromethane	ND	4.0	
Dibromomethane	ND	4.0	
4-Methyl-2-Pentanone	ND	8.1	
cis-1,3-Dichloropropene	ND	4.0	
Toluene	ND	4.0	
trans-1,3-Dichloropropene	ND	4.0	
1,1,2-Trichloroethane	ND	4.0	
2-Hexanone	ND	8.1	
1,3-Dichloropropane	ND	4.0	
Tetrachloroethene	ND	4.0	

RL= Reporting Limit



	Purgeable	e Organics by GC/	MS	
Lab #:	202387	Location:	AAA	
Client:	LFR Levine Fricke	Prep:	EPA 5035	
Project#:	00109466-00	Analysis:	EPA 8260B	
Field ID:	DCB-P1-4FT	Diln Fac:	0.8065	
Lab ID:	202387-010	Batch#:	136789	
Matrix:	Soil	Sampled:	04/02/08	
Units:	ug/Kg	Received:	04/03/08	
Basis:	as received	Analyzed:	04/07/08	

Analyte	Result	RL	
Dibromochloromethane	ND	4.0	
1,2-Dibromoethane	ND	4.0	
Chlorobenzene	ND	4.0	
1,1,1,2-Tetrachloroethane	ND	4.0	
Ethylbenzene	ND	4.0	
m,p-Xylenes	ND	4.0	
o-Xylene	ND	4.0	
Styrene	ND	4.0	
Bromoform	ND	4.0	
Isopropylbenzene	ND	4.0	
1,1,2,2-Tetrachloroethane	ND	4.0	
1,2,3-Trichloropropane	ND	4.0	
Propylbenzene	ND	4.0	
Bromobenzene	ND	4.0	
1,3,5-Trimethylbenzene	ND	4.0	
2-Chlorotoluene	ND	4.0	
4-Chlorotoluene	ND	4.0	
tert-Butylbenzene	ND	4.0	
1,2,4-Trimethylbenzene	ND	4.0	
sec-Butylbenzene	ND	4.0	
para-Isopropyl Toluene	ND	4.0	
1,3-Dichlorobenzene	ND	4.0	
1,4-Dichlorobenzene	ND	4.0	
n-Butylbenzene	ND	4.0	
1,2-Dichlorobenzene	ND	4.0	
1,2-Dibromo-3-Chloropropane	ND	4.0	
1,2,4-Trichlorobenzene	ND	4.0	
Hexachlorobutadiene	ND	4.0	
Naphthalene	ND	4.0	
1,2,3-Trichlorobenzene	ND	4.0	

Surrogate	%REC	Limits	
Dibromofluoromethane	104	78-126	
1,2-Dichloroethane-d4	91	76-137	
Toluene-d8	98	80-120	
Bromofluorobenzene	119	80-121	

RL= Reporting Limit



	Purgeable	e Organics by GC/	MS	
Lab #:	202387	Location:	AAA	
Client:	LFR Levine Fricke	Prep:	EPA 5035	
Project#:	00109466-00	Analysis:	EPA 8260B	
Field ID:	DCB-P2-4FT	Diln Fac:	0.8772	
Lab ID:	202387-012	Batch#:	136789	
Matrix:	Soil	Sampled:	04/02/08	
Units:	ug/Kg	Received:	04/03/08	
Basis:	as received	Analyzed:	04/07/08	

Analyte	Result	RL	
Freon 12	ND	8.8	
Chloromethane	ND	8.8	
Vinyl Chloride	ND	8.8	
Bromomethane	ND	8.8	
Chloroethane	ND	8.8	
Trichlorofluoromethane	ND	4.4	
Acetone	ND	18	
Freon 113	ND	4.4	
1,1-Dichloroethene	ND	4.4	
Methylene Chloride	ND	18	
Carbon Disulfide	ND	4.4	
MTBE	ND	4.4	
trans-1,2-Dichloroethene	ND	4.4	
Vinyl Acetate	ND	44	
1,1-Dichloroethane	ND	4.4	
2-Butanone	ND	8.8	
cis-1,2-Dichloroethene	ND	4.4	
2,2-Dichloropropane	ND	4.4	
Chloroform	ND	4.4	
Bromochloromethane	ND	4.4	
1,1,1-Trichloroethane	ND	4.4	
1,1-Dichloropropene	ND	4.4	
Carbon Tetrachloride	ND	4.4	
1,2-Dichloroethane	ND	4.4	
Benzene	ND	4.4	
Trichloroethene	ND	4.4	
1,2-Dichloropropane	ND	4.4	
Bromodichloromethane	ND	4.4	
Dibromomethane	ND	4.4	
4-Methyl-2-Pentanone	ND	8.8	
cis-1,3-Dichloropropene	ND	4.4	
Toluene	ND	4.4	
trans-1,3-Dichloropropene	ND	4.4	
1,1,2-Trichloroethane	ND	4.4	
2-Hexanone	ND	8.8	
1,3-Dichloropropane	ND	4.4	
Tetrachloroethene	ND	4.4	

RL= Reporting Limit



	Purgeable	organics by GC/	'MS	
Lab #:	202387	Location:	AAA	
Client:	LFR Levine Fricke	Prep:	EPA 5035	
Project#:	00109466-00	Analysis:	EPA 8260B	
Field ID:	DCB-P2-4FT	Diln Fac:	0.8772	
Lab ID:	202387-012	Batch#:	136789	
Matrix:	Soil	Sampled:	04/02/08	
Units:	ug/Kg	Received:	04/03/08	
Basis:	as received	Analyzed:	04/07/08	

Analyte	Result	RL	
Dibromochloromethane	ND	4.4	
1,2-Dibromoethane	ND	4.4	
Chlorobenzene	ND	4.4	
1,1,1,2-Tetrachloroethane	ND	4.4	
Ethylbenzene	ND	4.4	
m,p-Xylenes	ND	4.4	
o-Xylene	ND	4.4	
Styrene	ND	4.4	
Bromoform	ND	4.4	
Isopropylbenzene	ND	4.4	
1,1,2,2-Tetrachloroethane	ND	4.4	
1,2,3-Trichloropropane	ND	4.4	
Propylbenzene	ND	4.4	
Bromobenzene	ND	4.4	
1,3,5-Trimethylbenzene	ND	4.4	
2-Chlorotoluene	ND	4.4	
4-Chlorotoluene	ND	4.4	
tert-Butylbenzene	ND	4.4	
1,2,4-Trimethylbenzene	ND	4.4	
sec-Butylbenzene	ND	4.4	
para-Isopropyl Toluene	ND	4.4	
1,3-Dichlorobenzene	ND	4.4	
1,4-Dichlorobenzene	ND	4.4	
n-Butylbenzene	ND	4.4	
1,2-Dichlorobenzene	ND	4.4	
1,2-Dibromo-3-Chloropropane	ND	4.4	
1,2,4-Trichlorobenzene	ND	4.4	
Hexachlorobutadiene	ND	4.4	
Naphthalene	ND	4.4	
1,2,3-Trichlorobenzene	ND	4.4	

Surrogate %RE	EC	Limits
Dibromofluoromethane 105		78-126
1,2-Dichloroethane-d4 91		76-137
Toluene-d8 98		80-120
Bromofluorobenzene 120		80-121

RL= Reporting Limit



	Purgeable	organics by GC/	'MS	
Lab #:	202387	Location:	AAA	
Client:	LFR Levine Fricke	Prep:	EPA 5035	
Project#:	00109466-00	Analysis:	EPA 8260B	
Field ID:	DCB-P5-4FT	Diln Fac:	0.8333	
Lab ID:	202387-013	Batch#:	136789	
Matrix:	Soil	Sampled:	04/02/08	
Units:	ug/Kg	Received:	04/03/08	
Basis:	as received	Analyzed:	04/07/08	

Analyte	Result	RL	
Freon 12	ND	8.3	
Chloromethane	ND	8.3	
Vinyl Chloride	ND	8.3	
Bromomethane	ND	8.3	
Chloroethane	ND	8.3	
Trichlorofluoromethane	ND	4.2	
Acetone	25	17	
Freon 113	ND	4.2	
1,1-Dichloroethene	ND	4.2	
Methylene Chloride	ND	17	
Carbon Disulfide	ND	4.2	
MTBE	ND	4.2	
trans-1,2-Dichloroethene	ND	4.2	
Vinyl Acetate	ND	42	
1,1-Dichloroethane	ND	4.2	
2-Butanone	ND	8.3	
cis-1,2-Dichloroethene	ND	4.2	
2,2-Dichloropropane	ND	4.2	
Chloroform	ND	4.2	
Bromochloromethane	ND	4.2	
1,1,1-Trichloroethane	ND	4.2	
1,1-Dichloropropene	ND	4.2	
Carbon Tetrachloride	ND	4.2	
1,2-Dichloroethane	ND	4.2	
Benzene	ND	4.2	
Trichloroethene	ND	4.2	
1,2-Dichloropropane	ND	4.2	
Bromodichloromethane	ND	4.2	
Dibromomethane	ND	4.2	
4-Methyl-2-Pentanone	ND	8.3	
cis-1,3-Dichloropropene	ND	4.2	
Toluene	ND	4.2	
trans-1,3-Dichloropropene	ND	4.2	
1,1,2-Trichloroethane	ND	4.2	
2-Hexanone	ND	8.3	
1,3-Dichloropropane	ND	4.2	
Tetrachloroethene	ND	4.2	

RL= Reporting Limit



	Purgeable	e Organics by GC/	'MS	
Lab #:	202387	Location:	AAA	
Client:	LFR Levine Fricke	Prep:	EPA 5035	
Project#:	00109466-00	Analysis:	EPA 8260B	
Field ID:	DCB-P5-4FT	Diln Fac:	0.8333	
Lab ID:	202387-013	Batch#:	136789	
Matrix:	Soil	Sampled:	04/02/08	
Units:	ug/Kg	Received:	04/03/08	
Basis:	as received	Analyzed:	04/07/08	

Analyte	Result	RL	
Dibromochloromethane	ND	4.2	
1,2-Dibromoethane	ND	4.2	
Chlorobenzene	ND	4.2	
1,1,1,2-Tetrachloroethane	ND	4.2	
Ethylbenzene	ND	4.2	
m,p-Xylenes	ND	4.2	
o-Xylene	ND	4.2	
Styrene	ND	4.2	
Bromoform	ND	4.2	
Isopropylbenzene	ND	4.2	
1,1,2,2-Tetrachloroethane	ND	4.2	
1,2,3-Trichloropropane	ND	4.2	
Propylbenzene	ND	4.2	
Bromobenzene	ND	4.2	
1,3,5-Trimethylbenzene	ND	4.2	
2-Chlorotoluene	ND	4.2	
4-Chlorotoluene	ND	4.2	
tert-Butylbenzene	ND	4.2	
1,2,4-Trimethylbenzene	ND	4.2	
sec-Butylbenzene	ND	4.2	
para-Isopropyl Toluene	ND	4.2	
1,3-Dichlorobenzene	ND	4.2	
1,4-Dichlorobenzene	ND	4.2	
n-Butylbenzene	ND	4.2	
1,2-Dichlorobenzene	ND	4.2	
1,2-Dibromo-3-Chloropropane	ND	4.2	
1,2,4-Trichlorobenzene	ND	4.2	
Hexachlorobutadiene	ND	4.2	
Naphthalene	ND	4.2	
1,2,3-Trichlorobenzene	ND	4.2	

Surrogate	%REC	Limits	
Dibromofluoromethane	105	78-126	
1,2-Dichloroethane-d4	90	76-137	
Toluene-d8	96	80-120	
Bromofluorobenzene	118	80-121	

RL= Reporting Limit



	Purgeable Organics by GC/MS					
Lab #:	202387	Location:	AAA			
Client:	LFR Levine Fricke	Prep:	EPA 5035			
Project#:	00109466-00	Analysis:	EPA 8260B			
Field ID:	DCB-P4-4FT	Diln Fac:	2,500			
Lab ID:	202387-015	Batch#:	136956			
Matrix:	Soil	Sampled:	04/02/08			
Units:	ug/Kg	Received:	04/03/08			
Basis:	as received	Analyzed:	04/11/08			

Analyte	Result	RL	
Freon 12	ND	25,000	
Chloromethane	ND	25,000	
Vinyl Chloride	ND	25,000	
Bromomethane	ND	25,000	
Chloroethane	ND	25,000	
Trichlorofluoromethane	ND	13,000	
Acetone	ND	50,000	
Freon 113	ND	13,000	
1,1-Dichloroethene	ND	13,000	
Methylene Chloride	ND	50,000	
Carbon Disulfide	ND	13,000	
MTBE	ND	13,000	
trans-1,2-Dichloroethene	ND	13,000	
Vinyl Acetate	ND	130,000	
1,1-Dichloroethane	ND	13,000	
2-Butanone	ND	25,000	
cis-1,2-Dichloroethene	ND	13,000	
2,2-Dichloropropane	ND	13,000	
Chloroform	ND	13,000	
Bromochloromethane	ND	13,000	
1,1,1-Trichloroethane	ND	13,000	
1,1-Dichloropropene	ND	13,000	
Carbon Tetrachloride	ND	13,000	
1,2-Dichloroethane	ND	13,000	
Benzene	ND	13,000	
Trichloroethene	ND	13,000	
1,2-Dichloropropane	ND	13,000	
Bromodichloromethane	ND	13,000	
Dibromomethane	ND	13,000	
4-Methyl-2-Pentanone	ND	25,000	
cis-1,3-Dichloropropene	ND	13,000	
Toluene	ND	13,000	
trans-1,3-Dichloropropene	ND	13,000	
1,1,2-Trichloroethane	ND	13,000	
2-Hexanone	ND	25,000	
1,3-Dichloropropane	ND	13,000	
Tetrachloroethene	ND	13,000	
Dibromochloromethane	ND	13,000	
1,2-Dibromoethane	ND	13,000	
Chlorobenzene	150,000	13,000	
1,1,1,2-Tetrachloroethane	ND	13,000	
Ethylbenzene	ND	13,000	
m,p-Xylenes	ND	13,000	
o-Xylene	ND	13,000	
Styrene	ND	13,000	
Bromoform	ND	13,000	
Isopropylbenzene	ND	13,000	
1,1,2,2-Tetrachloroethane	ND	13,000	
1,2,3-Trichloropropane	ND	13,000	
Propylbenzene	ND	13,000	
Bromobenzene	ND	13,000	
1,3,5-Trimethylbenzene	ND	13,000	
2-Chlorotoluene	ND	13,000	
z-ciiiorotoiuene	מא	13,000	

DO= Diluted Out ND= Not Detected RL= Reporting Limit Page 1 of 2



	Purgeable Organics by GC/MS					
Lab #:	202387	Location:	AAA			
Client:	LFR Levine Fricke	Prep:	EPA 5035			
Project#:	00109466-00	Analysis:	EPA 8260B			
Field ID:	DCB-P4-4FT	Diln Fac:	2,500			
Lab ID:	202387-015	Batch#:	136956			
Matrix:	Soil	Sampled:	04/02/08			
Units:	ug/Kg	Received:	04/03/08			
Basis:	as received	Analyzed:	04/11/08			

Analyte	Result	RL	
4-Chlorotoluene	ND	13,000	
tert-Butylbenzene	ND	13,000	
1,2,4-Trimethylbenzene	ND	13,000	
sec-Butylbenzene	ND	13,000	
para-Isopropyl Toluene	ND	13,000	
1,3-Dichlorobenzene	ND	13,000	
1,4-Dichlorobenzene	21,000	13,000	
n-Butylbenzene	ND	13,000	
1,2-Dichlorobenzene	ND	13,000	
1,2-Dibromo-3-Chloropropane	ND	13,000	
1,2,4-Trichlorobenzene	ND	13,000	
Hexachlorobutadiene	ND	13,000	
Naphthalene	ND	13,000	
1,2,3-Trichlorobenzene	ND	13,000	

Surrogate	%REC	Limits	
Dibromofluoromethane	105	78-126	
1,2-Dichloroethane-d4	113	76-137	
Toluene-d8	107	80-120	
Bromofluorobenzene	104	80-121	
Trifluorotoluene (MeOH)	DO	52-145	

DO= Diluted Out ND= Not Detected RL= Reporting Limit Page 2 of 2

e 2 of 2



Purgeable Organics by GC/MS					
Lab #:	202387	Location:	AAA		
Client:	LFR Levine Fricke	Prep:	EPA 5035		
Project#:	00109466-00	Analysis:	EPA 8260B		
Matrix:	Soil	Diln Fac:	1.000		
Units:	ug/Kg	Batch#:	136789		
Basis:	as received	Analyzed:	04/07/08		

Type: BS Lab ID: QC436324

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	27.56	110	71-133
Benzene	25.00	27.94	112	79-123
Trichloroethene	25.00	27.07	108	79-124
Toluene	25.00	27.28	109	80-123
Chlorobenzene	25.00	27.89	112	80-120

Surrogate	%REC	Limits	
Dibromofluoromethane	99	78-126	
1,2-Dichloroethane-d4	82	76-137	
Toluene-d8	96	80-120	
Bromofluorobenzene	98	80-121	

Type: BSD Lab ID: QC436325

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	25.00	27.11	108	71-133	2	20
Benzene	25.00	27.71	111	79-123	1	20
Trichloroethene	25.00	25.90	104	79-124	4	20
Toluene	25.00	27.14	109	80-123	1	20
Chlorobenzene	25.00	27.64	111	80-120	1	20

Surrogate	%REC	Limits	
Dibromofluoromethane	103	78-126	
1,2-Dichloroethane-d4	83	76-137	
Toluene-d8	96	80-120	
Bromofluorobenzene	102	80-121	



	Purgeable	Organics by GC/	'MS	
Lab #:	202387	Location:	AAA	
Client:	LFR Levine Fricke	Prep:	EPA 5035	
Project#:	00109466-00	Analysis:	EPA 8260B	
Type:	BLANK	Basis:	as received	
Lab ID:	QC436326	Diln Fac:	1.000	
Matrix:	Soil	Batch#:	136789	
Units:	ug/Kg	Analyzed:	04/07/08	

Analyte	Result	RL	
Freon 12	ND	10	
Chloromethane	ND	10	
Vinyl Chloride	ND	10	
Bromomethane	ND	10	
Chloroethane	ND	10	
Trichlorofluoromethane	ND	5.0	
Acetone	ND	20	
Freon 113	ND	5.0	
1,1-Dichloroethene	ND	5.0	
Methylene Chloride	ND	20	
Carbon Disulfide	ND	5.0	
MTBE	ND	5.0	
trans-1,2-Dichloroethene	ND	5.0	
Vinyl Acetate	ND	50	
1,1-Dichloroethane	ND	5.0	
2-Butanone	ND	10	
cis-1,2-Dichloroethene	ND	5.0	
2,2-Dichloropropane	ND	5.0	
Chloroform	ND	5.0	
Bromochloromethane	ND	5.0	
1,1,1-Trichloroethane	ND	5.0	
1,1-Dichloropropene	ND	5.0	
Carbon Tetrachloride	ND	5.0	
1,2-Dichloroethane	ND	5.0	
Benzene	ND	5.0	
Trichloroethene	ND	5.0	
1,2-Dichloropropane	ND	5.0	
Bromodichloromethane	ND	5.0	
Dibromomethane	ND	5.0	
4-Methyl-2-Pentanone	ND	10	
cis-1,3-Dichloropropene	ND	5.0	
Toluene	ND	5.0	
trans-1,3-Dichloropropene	ND	5.0	
1,1,2-Trichloroethane	ND	5.0	
2-Hexanone	ND	10	
1,3-Dichloropropane	ND	5.0	
Tetrachloroethene	ND	5.0	

ND= Not Detected

RL= Reporting Limit



	Purgeable	e Organics by GC/	'MS	
Lab #:	202387	Location:	AAA	
Client:	LFR Levine Fricke	Prep:	EPA 5035	
Project#:	00109466-00	Analysis:	EPA 8260B	
Type:	BLANK	Basis:	as received	
Lab ID:	QC436326	Diln Fac:	1.000	
Matrix:	Soil	Batch#:	136789	
Units:	ug/Kg	Analyzed:	04/07/08	

Analyte	Result	RL	
Dibromochloromethane	ND	5.0	
1,2-Dibromoethane	ND	5.0	
Chlorobenzene	ND	5.0	
1,1,1,2-Tetrachloroethane	ND	5.0	
Ethylbenzene	ND	5.0	
m,p-Xylenes	ND	5.0	
o-Xylene	ND	5.0	
Styrene	ND	5.0	
Bromoform	ND	5.0	
Isopropylbenzene	ND	5.0	
1,1,2,2-Tetrachloroethane	ND	5.0	
1,2,3-Trichloropropane	ND	5.0	
Propylbenzene	ND	5.0	
Bromobenzene	ND	5.0	
1,3,5-Trimethylbenzene	ND	5.0	
2-Chlorotoluene	ND	5.0	
4-Chlorotoluene	ND	5.0	
tert-Butylbenzene	ND	5.0	
1,2,4-Trimethylbenzene	ND	5.0	
sec-Butylbenzene	ND	5.0	
para-Isopropyl Toluene	ND	5.0	
1,3-Dichlorobenzene	ND	5.0	
1,4-Dichlorobenzene	ND	5.0	
n-Butylbenzene	ND	5.0	
1,2-Dichlorobenzene	ND	5.0	
1,2-Dibromo-3-Chloropropane	ND	5.0	
1,2,4-Trichlorobenzene	ND	5.0	
Hexachlorobutadiene	ND	5.0	
Naphthalene	ND	5.0	
1,2,3-Trichlorobenzene	ND	5.0	

Surrogate	%REC	Limits	
Dibromofluoromethane	98	78-126	
1,2-Dichloroethane-d4	88	76-137	
Toluene-d8	102	80-120	
Bromofluorobenzene	99	80-121	



	Purgeable On	rganics by GC/1	4S
Lab #:	202387	Location:	AAA
Client:	LFR Levine Fricke	Prep:	EPA 5035
Project#:	00109466-00	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZ	Diln Fac:	0.9259
MSS Lab ID:	202431-009	Batch#:	136789
Matrix:	Soil	Sampled:	03/26/08
Units:	ug/Kg	Received:	04/04/08
Basis:	as received	Analyzed:	04/07/08

Type: MS Lab ID: QC436401

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<0.4483	46.30	43.77	95	55-139
Benzene	<0.6561	46.30	42.32	91	55-120
Trichloroethene	<0.6888	46.30	70.94	153 *	47-140
Toluene	<0.4839	46.30	42.88	93	52-121
Chlorobenzene	8.103	46.30	45.47	81	47-120

Surrogate	%REC	Limits
Dibromofluoromethane	66 *	78-126
1,2-Dichloroethane-d4	75 *	76-137
Toluene-d8	96	80-120
Bromofluorobenzene	100	80-121

Type: MSD Lab ID: QC436402

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	46.30	47.97	104	55-139	9	29
Benzene	46.30	39.72	86	55-120	6	26
Trichloroethene	46.30	65.26	141 *	47-140	8	28
Toluene	46.30	39.55	85	52-121	8	29
Chlorobenzene	46.30	41.24	72	47-120	10	29

Surrogate	%REC	Limits	
Dibromofluoromethane	55 *	78-126	
1,2-Dichloroethane-d4	72 *	76-137	
Toluene-d8	95	80-120	
Bromofluorobenzene	95	80-121	

Page 1 of 1 37.0

<sup>\*=</sup> Value outside of QC limits; see narrative RPD= Relative Percent Difference



	Purgeable	e Organics by GC/	'MS	
Lab #:	202387	Location:	AAA	
Client:	LFR Levine Fricke	Prep:	EPA 5035	
Project#:	00109466-00	Analysis:	EPA 8260B	
Type:	BLANK	Basis:	as received	
Lab ID:	QC437021	Diln Fac:	1.000	
Matrix:	Soil	Batch#:	136956	
Units:	ug/Kg	Analyzed:	04/11/08	

Analyte	Result	RL	
Freon 12	ND	10	
Chloromethane	ND	10	
Vinyl Chloride	ND	10	
Bromomethane	ND	10	
Chloroethane	ND	10	
Trichlorofluoromethane	ND	5.0	
Acetone	ND	20	
Freon 113	ND	5.0	
1,1-Dichloroethene	ND	5.0	
Methylene Chloride	ND	20	
Carbon Disulfide	ND	5.0	
MTBE	ND	5.0	
trans-1,2-Dichloroethene	ND	5.0	
Vinyl Acetate	ND	50	
1,1-Dichloroethane	ND	5.0	
2-Butanone	ND	10	
cis-1,2-Dichloroethene	ND	5.0	
2,2-Dichloropropane	ND	5.0	
Chloroform	ND	5.0	
Bromochloromethane	ND	5.0	
1,1,1-Trichloroethane	ND	5.0	
1,1-Dichloropropene	ND	5.0	
Carbon Tetrachloride	ND	5.0	
1,2-Dichloroethane	ND	5.0	
Benzene	ND	5.0	
Trichloroethene	ND	5.0	
1,2-Dichloropropane	ND	5.0	
Bromodichloromethane	ND	5.0	
Dibromomethane	ND	5.0	
4-Methyl-2-Pentanone	ND	10	
cis-1,3-Dichloropropene	ND	5.0	
Toluene	ND	5.0	
trans-1,3-Dichloropropene	ND	5.0	
1,1,2-Trichloroethane	ND	5.0	
2-Hexanone	ND	10	
1,3-Dichloropropane	ND	5.0	
Tetrachloroethene	ND	5.0	

ND= Not Detected

RL= Reporting Limit



	Purgeable	e Organics by GC/	'MS	
Lab #:	202387	Location:	AAA	
Client:	LFR Levine Fricke	Prep:	EPA 5035	
Project#:	00109466-00	Analysis:	EPA 8260B	
Type:	BLANK	Basis:	as received	
Lab ID:	QC437021	Diln Fac:	1.000	
Matrix:	Soil	Batch#:	136956	
Units:	ug/Kg	Analyzed:	04/11/08	

Analyte	Result	RL	
Dibromochloromethane	ND	5.0	
1,2-Dibromoethane	ND	5.0	
Chlorobenzene	ND	5.0	
1,1,1,2-Tetrachloroethane	ND	5.0	
Ethylbenzene	ND	5.0	
m,p-Xylenes	ND	5.0	
o-Xylene	ND	5.0	
Styrene	ND	5.0	
Bromoform	ND	5.0	
Isopropylbenzene	ND	5.0	
1,1,2,2-Tetrachloroethane	ND	5.0	
1,2,3-Trichloropropane	ND	5.0	
Propylbenzene	ND	5.0	
Bromobenzene	ND	5.0	
1,3,5-Trimethylbenzene	ND	5.0	
2-Chlorotoluene	ND	5.0	
4-Chlorotoluene	ND	5.0	
tert-Butylbenzene	ND	5.0	
1,2,4-Trimethylbenzene	ND	5.0	
sec-Butylbenzene	ND	5.0	
para-Isopropyl Toluene	ND	5.0	
1,3-Dichlorobenzene	ND	5.0	
1,4-Dichlorobenzene	ND	5.0	
n-Butylbenzene	ND	5.0	
1,2-Dichlorobenzene	ND	5.0	
1,2-Dibromo-3-Chloropropane	ND	5.0	
1,2,4-Trichlorobenzene	ND	5.0	
Hexachlorobutadiene	ND	5.0	
Naphthalene	ND	5.0	
1,2,3-Trichlorobenzene	ND	5.0	

Surrogate	%REC	Limits	
Dibromofluoromethane	97	78-126	
1,2-Dichloroethane-d4	107	76-137	
Toluene-d8	109	80-120	
Bromofluorobenzene	101	80-121	

ND= Not Detected

RL= Reporting Limit



	Purgeable	e Organics by GC/	MS	
Lab #:	202387	Location:	AAA	
Client:	LFR Levine Fricke	Prep:	EPA 5035	
Project#:	00109466-00	Analysis:	EPA 8260B	
Matrix:	Soil	Diln Fac:	1.000	
Units:	ug/Kg	Batch#:	136956	
Basis:	as received	Analyzed:	04/11/08	

Type: BS Lab ID: QC437022

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	25.10	100	71-133
Benzene	25.00	25.91	104	79-123
Trichloroethene	25.00	25.39	102	79-124
Toluene	25.00	26.34	105	80-123
Chlorobenzene	25.00	26.29	105	80-120

Surrogate	%REC	imits	
Dibromofluoromethane	104	8-126	
1,2-Dichloroethane-d4	113	6-137	
Toluene-d8	107	0-120	
Bromofluorobenzene	98	0-121	

Type: BSD Lab ID: QC437023

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	25.00	24.19	97	71-133	4	20
Benzene	25.00	25.19	101	79-123	3	20
Trichloroethene	25.00	24.77	99	79-124	2	20
Toluene	25.00	26.43	106	80-123	0	20
Chlorobenzene	25.00	26.07	104	80-120	1	20

Surrogate	%REC	Limits	
Dibromofluoromethane	99	78-126	
1,2-Dichloroethane-d4	109	76-137	
Toluene-d8	110	80-120	
Bromofluorobenzene	98	80-121	



Purgeable Organics by GC/MS				
Lab #:	202387	Location:	AAA	
Client:	LFR Levine Fricke	Prep:	EPA 5035	
Project#:	00109466-00	Analysis:	EPA 8260B	
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000	
MSS Lab ID:	202535-002	Batch#:	136956	
Matrix:	Soil	Sampled:	04/09/08	
Units:	ug/Kg	Received:	04/10/08	
Basis:	as received	Analyzed:	04/11/08	

Type: MS Lab ID: QC437148

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<0.4372	50.00	47.89	96	55-139
Benzene	<0.3048	50.00	44.00	88	55-120
Trichloroethene	<0.4304	50.00	42.96	86	47-140
Toluene	<0.4130	50.00	43.03	86	52-121
Chlorobenzene	<0.2792	50.00	40.66	81	47-120

Surrogate	%REC	Limits
Dibromofluoromethane	102	78-126
1,2-Dichloroethane-d4	105	76-137
Toluene-d8	109	80-120
Bromofluorobenzene	97	80-121

Type: MSD Lab ID: QC437149

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	50.00	43.22	86	55-139	10	29
Benzene	50.00	39.34	79	55-120	11	26
Trichloroethene	50.00	39.32	79	47-140	9	28
Toluene	50.00	38.61	77	52-121	11	29
Chlorobenzene	50.00	37.24	74	47-120	9	29

Surrogate	%REC	Limits	
Dibromofluoromethane	100	78-126	
1,2-Dichloroethane-d4	97	76-137	
Toluene-d8	107	80-120	
Bromofluorobenzene	96	80-121	



	Dissolved Cal	lifornia Title 26	5 Metals	
Lab #:	202387	Project#:	00109466-00	
Client:	LFR Levine Fricke	Location:	AAA	
Field ID:	DCB-P6	Diln Fac:	1.000	
Lab ID:	202387-001	Sampled:	04/02/08	
Matrix:	Filtrate	Received:	04/03/08	
Units:	ug/L			

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	10	136740	04/04/08	04/04/08	EPA 3010A	EPA 6010B
Arsenic	ND	5.0	136740	04/04/08	04/04/08	EPA 3010A	EPA 6010B
Barium	320	5.0	136740	04/04/08	04/04/08	EPA 3010A	EPA 6010B
Beryllium	ND	2.0	136740	04/04/08	04/04/08	EPA 3010A	EPA 6010B
Cadmium	ND	5.0	136740	04/04/08	04/04/08	EPA 3010A	EPA 6010B
Chromium	ND	5.0	136740	04/04/08	04/04/08	EPA 3010A	EPA 6010B
Cobalt	ND	5.0	136740	04/04/08	04/04/08	EPA 3010A	EPA 6010B
Copper	ND	5.0	136740	04/04/08	04/04/08	EPA 3010A	EPA 6010B
Lead	ND	3.4	136740	04/04/08	04/04/08	EPA 3010A	EPA 6010B
Mercury	ND	0.20	136810	04/07/08	04/07/08	METHOD	EPA 7470A
Molybdenum	40	5.0	136740	04/04/08	04/04/08	EPA 3010A	EPA 6010B
Nickel	13	5.0	136740	04/04/08	04/04/08	EPA 3010A	EPA 6010B
Selenium	ND	10	136740	04/04/08	04/04/08	EPA 3010A	EPA 6010B
Silver	ND	5.0	136740	04/04/08	04/04/08	EPA 3010A	EPA 6010B
Thallium	ND	10	136740	04/04/08	04/04/08	EPA 3010A	EPA 6010B
Vanadium	ND	5.0	136740	04/04/08	04/04/08	EPA 3010A	EPA 6010B
Zinc	91	20	136740	04/04/08	04/04/08	EPA 3010A	EPA 6010B

Page 1 of 1 2.1



	Dissolved Cal	ifornia Title 26	Metals	
Lab #:	202387	Project#:	00109466-00	
Client:	LFR Levine Fricke	Location:	AAA	
Field ID:	DCB-P3	Diln Fac:	1.000	
Lab ID:	202387-002	Sampled:	04/02/08	
Matrix:	Filtrate	Received:	04/03/08	
Units:	ug/L			

Analyte	Result	RL	Batch#	Prepared	Analyzed		Prep	Aı	nalysis
Antimony	ND	10	136740	04/04/08	04/04/08	EPA	3010A	EPA	6010B
Arsenic	ND	5.0	136740	04/04/08	04/04/08	EPA	3010A	EPA	6010B
Barium	360	5.0	136740	04/04/08	04/04/08	EPA	3010A	EPA	6010B
Beryllium	ND	2.0	136740	04/04/08	04/04/08	EPA	3010A	EPA	6010B
Cadmium	ND	5.0	136740	04/04/08	04/04/08	EPA	3010A	EPA	6010B
Chromium	ND	5.0	136740	04/04/08	04/04/08	EPA	3010A	EPA	6010B
Cobalt	ND	5.0	136740	04/04/08	04/04/08	EPA	3010A	EPA	6010B
Copper	ND	5.0	136740	04/04/08	04/04/08	EPA	3010A	EPA	6010B
Lead	ND	3.4	136740	04/04/08	04/04/08	EPA	3010A	EPA	6010B
Mercury	ND	0.20	136810	04/07/08	04/07/08	METH	IOD	EPA	7470A
Molybdenum	18	5.0	136740	04/04/08	04/04/08	EPA	3010A	EPA	6010B
Nickel	18	5.0	136740	04/04/08	04/04/08	EPA	3010A	EPA	6010B
Selenium	ND	10	136740	04/04/08	04/04/08	EPA	3010A	EPA	6010B
Silver	ND	5.0	136740	04/04/08	04/04/08	EPA	3010A	EPA	6010B
Thallium	ND	10	136740	04/04/08	04/04/08	EPA	3010A	EPA	6010B
Vanadium	ND	5.0	136740	04/04/08	04/04/08	EPA	3010A	EPA	6010B
Zinc	87	20	136740	04/04/08	04/04/08	EPA	3010A	EPA	6010B

Page 1 of 1 3.1



	Dissolved Cal	ifornia Title 26	5 Metals	
Lab #:	202387	Project#:	00109466-00	
Client:	LFR Levine Fricke	Location:	AAA	
Field ID:	DCB-P1	Diln Fac:	1.000	
Lab ID:	202387-003	Sampled:	04/02/08	
Matrix:	Filtrate	Received:	04/03/08	
Units:	ug/L			

Analyte	Result	RL	Batch#	Prepared	Analyzed		Prep	Aı	nalysis
Antimony	ND	10	136740	04/04/08	04/04/08	EPA	3010A	EPA	6010B
Arsenic	7.6	5.0	136740	04/04/08	04/04/08	EPA	3010A	EPA	6010B
Barium	190	5.0	136740	04/04/08	04/04/08	EPA	3010A	EPA	6010B
Beryllium	ND	2.0	136740	04/04/08	04/04/08	EPA	3010A	EPA	6010B
Cadmium	ND	5.0	136740	04/04/08	04/04/08	EPA	3010A	EPA	6010B
Chromium	ND	5.0	136740	04/04/08	04/04/08	EPA	3010A	EPA	6010B
Cobalt	ND	5.0	136740	04/04/08	04/04/08	EPA	3010A	EPA	6010B
Copper	ND	5.0	136740	04/04/08	04/04/08	EPA	3010A	EPA	6010B
Lead	ND	3.4	136740	04/04/08	04/04/08	EPA	3010A	EPA	6010B
Mercury	ND	0.20	136810	04/07/08	04/07/08	METH	HOD	EPA	7470A
Molybdenum	51	5.0	136740	04/04/08	04/04/08	EPA	3010A	EPA	6010B
Nickel	9.6	5.0	136740	04/04/08	04/04/08	EPA	3010A	EPA	6010B
Selenium	ND	10	136740	04/04/08	04/04/08	EPA	3010A	EPA	6010B
Silver	ND	5.0	136740	04/04/08	04/04/08	EPA	3010A	EPA	6010B
Thallium	ND	10	136740	04/04/08	04/04/08	EPA	3010A	EPA	6010B
Vanadium	ND	5.0	136740	04/04/08	04/04/08	EPA	3010A	EPA	6010B
Zinc	22	20	136740	04/04/08	04/04/08	EPA	3010A	EPA	6010B

Page 1 of 1 4.1



	Dissolved Cal	lifornia Title 26	5 Metals	
Lab #:	202387	Project#:	00109466-00	
Client:	LFR Levine Fricke	Location:	AAA	
Field ID:	DCB-P2	Diln Fac:	1.000	
Lab ID:	202387-004	Sampled:	04/02/08	
Matrix:	Filtrate	Received:	04/03/08	
Units:	ug/L			

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	10	136740	04/04/08	04/04/08 E	PA 3010A	EPA 6010B
Arsenic	35	5.0	136740	04/04/08	04/04/08 E	PA 3010A	EPA 6010B
Barium	280	5.0	136740	04/04/08	04/04/08 E	PA 3010A	EPA 6010B
Beryllium	ND	2.0	136740	04/04/08	04/04/08 E	PA 3010A	EPA 6010B
Cadmium	ND	5.0	136740	04/04/08	04/04/08 E	PA 3010A	EPA 6010B
Chromium	ND	5.0	136740	04/04/08	04/04/08 E	PA 3010A	EPA 6010B
Cobalt	ND	5.0	136740	04/04/08	04/04/08 E	PA 3010A	EPA 6010B
Copper	ND	5.0	136740	04/04/08	04/04/08 E	PA 3010A	EPA 6010B
Lead	ND	3.4	136740	04/04/08	04/04/08 E	PA 3010A	EPA 6010B
Mercury	ND	0.20	136810	04/07/08	04/07/08 M	IETHOD	EPA 7470A
Molybdenum	77	5.0	136740	04/04/08	04/04/08 E	PA 3010A	EPA 6010B
Nickel	29	5.0	136740	04/04/08	04/04/08 E	PA 3010A	EPA 6010B
Selenium	ND	10	136740	04/04/08	04/04/08 E	PA 3010A	EPA 6010B
Silver	ND	5.0	136740	04/04/08	04/04/08 E	PA 3010A	EPA 6010B
Thallium	ND	10	136740	04/04/08	04/04/08 E	PA 3010A	EPA 6010B
Vanadium	ND	5.0	136740	04/04/08	04/04/08 E	PA 3010A	EPA 6010B
Zinc	54	20	136740	04/04/08	04/04/08 E	PA 3010A	EPA 6010B

Page 1 of 1 5.1



Dissolved California Title 26 Metals							
Lab #:	202387	Project#:	00109466-00				
Client:	LFR Levine Fricke	Location:	AAA				
Field ID:	DCB-P5	Diln Fac:	1.000				
Lab ID:	202387-005	Sampled:	04/02/08				
Matrix:	Filtrate	Received:	04/03/08				
Units:	ug/L						

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	10	136740	04/04/08	04/04/08	EPA 3010A	EPA 6010B
Arsenic	11	5.0	136740	04/04/08	04/04/08	EPA 3010A	EPA 6010B
Barium	400	5.0	136740	04/04/08	04/04/08	EPA 3010A	EPA 6010B
Beryllium	ND	2.0	136740	04/04/08	04/04/08	EPA 3010A	EPA 6010B
Cadmium	ND	5.0	136740	04/04/08	04/04/08	EPA 3010A	EPA 6010B
Chromium	ND	5.0	136740	04/04/08	04/04/08	EPA 3010A	EPA 6010B
Cobalt	ND	5.0	136740	04/04/08	04/04/08	EPA 3010A	EPA 6010B
Copper	ND	5.0	136740	04/04/08	04/04/08	EPA 3010A	EPA 6010B
Lead	ND	3.4	136740	04/04/08	04/04/08	EPA 3010A	EPA 6010B
Mercury	ND	0.20	136810	04/07/08	04/07/08	METHOD	EPA 7470A
Molybdenum	12	5.0	136740	04/04/08	04/04/08	EPA 3010A	EPA 6010B
Nickel	10	5.0	136740	04/04/08	04/04/08	EPA 3010A	EPA 6010B
Selenium	ND	10	136740	04/04/08	04/04/08	EPA 3010A	EPA 6010B
Silver	ND	5.0	136740	04/04/08	04/04/08	EPA 3010A	EPA 6010B
Thallium	ND	10	136740	04/04/08	04/04/08	EPA 3010A	EPA 6010B
Vanadium	ND	5.0	136740	04/04/08	04/04/08	EPA 3010A	EPA 6010B
Zinc	91	20	136740	04/04/08	04/04/08	EPA 3010A	EPA 6010B

Page 1 of 1 6.1



Dissolved California Title 26 Metals							
Lab #:	202387	Project#:	00109466-00				
Client:	LFR Levine Fricke	Location:	AAA				
Field ID:	DCB-P4	Diln Fac:	1.000				
Lab ID:	202387-006	Sampled:	04/02/08				
Matrix:	Filtrate	Received:	04/03/08				
Units:	ug/L						

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	10	136740	04/04/08	04/04/08 E	EPA 3010A	EPA 6010B
Arsenic	8.3	5.0	136740	04/04/08	04/04/08 B	EPA 3010A	EPA 6010B
Barium	340	5.0	136740	04/04/08	04/04/08 H	EPA 3010A	EPA 6010B
Beryllium	ND	2.0	136740	04/04/08	04/04/08 H	EPA 3010A	EPA 6010B
Cadmium	ND	5.0	136740	04/04/08	04/04/08 H	EPA 3010A	EPA 6010B
Chromium	ND	5.0	136740	04/04/08	04/04/08 H	EPA 3010A	EPA 6010B
Cobalt	ND	5.0	136740	04/04/08	04/04/08 H	EPA 3010A	EPA 6010B
Copper	ND	5.0	136740	04/04/08	04/04/08 H	EPA 3010A	EPA 6010B
Lead	ND	3.4	136740	04/04/08	04/04/08 H	EPA 3010A	EPA 6010B
Mercury	ND	0.20	136810	04/07/08	04/07/08 N	METHOD	EPA 7470A
Molybdenum	18	5.0	136740	04/04/08	04/04/08 H	EPA 3010A	EPA 6010B
Nickel	ND	5.0	136740	04/04/08	04/04/08 H	EPA 3010A	EPA 6010B
Selenium	ND	10	136740	04/04/08	04/04/08 H	EPA 3010A	EPA 6010B
Silver	ND	5.0	136740	04/04/08	04/04/08 H	EPA 3010A	EPA 6010B
Thallium	ND	10	136740	04/04/08	04/04/08 H	EPA 3010A	EPA 6010B
Vanadium	ND	5.0	136740	04/04/08	04/04/08 H	EPA 3010A	EPA 6010B
Zinc	81	20	136740	04/04/08	04/04/08 B	EPA 3010A	EPA 6010B

Page 1 of 1 7.1



Dissolved California Title 26 Metals						
Lab #:	202387	Location:	AAA			
Client:	LFR Levine Fricke	Prep:	EPA 3010A			
Project#:	00109466-00	Analysis:	EPA 6010B			
Type:	BLANK	Diln Fac:	1.000			
Lab ID:	QC436126	Batch#:	136740			
Matrix:	Filtrate	Prepared:	04/04/08			
Units:	ug/L	Analyzed:	04/04/08			

Analyte	Result	RL	
Antimony	ND	10	
Arsenic	ND	5.0	
Barium	ND	5.0	
Beryllium	ND	2.0	
Cadmium	ND	5.0	
Chromium	ND	5.0	
Cobalt	ND	5.0	
Copper	ND	5.0	
Lead	ND	3.4	
Molybdenum	ND	5.0	
Nickel	ND	5.0	
Selenium	ND	10	
Silver	ND	5.0	
Thallium	ND	10	
Vanadium	ND	5.0	
Zinc	ND	20	

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Dissolved California Title 26 Metals							
Lab #:	202387	Location:	AAA				
Client:	LFR Levine Fricke	Prep:	EPA 3010A				
Project#:	00109466-00	Analysis:	EPA 6010B				
Matrix:	Filtrate	Batch#:	136740				
Units:	ug/L	Prepared:	04/04/08				
Diln Fac:	1.000	Analyzed:	04/04/08				

Type: BS Lab ID: QC436127

Analyte	Spiked	Result	%REC	Limits
Antimony	500.0	440.1	88	80-120
Arsenic	100.0	96.94	97	80-120
Barium	2,000	1,978	99	80-120
Beryllium	50.00	50.41	101	80-120
Cadmium	50.00	49.79	100	80-120
Chromium	200.0	188.9	94	80-120
Cobalt	500.0	474.8	95	80-120
Copper	250.0	239.8	96	80-120
Lead	100.0	94.40	94	80-120
Molybdenum	400.0	385.9	96	80-120
Nickel	500.0	476.9	95	80-120
Selenium	100.0	92.29	92	80-120
Silver	50.00	46.39	93	80-120
Thallium	100.0	98.42	98	80-120
Vanadium	500.0	468.2	94	80-120
Zinc	500.0	486.2	97	80-120

Type: BSD Lab ID: QC436128

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	500.0	433.4	87	80-120	2	20
Arsenic	100.0	93.69	94	80-120	3	20
Barium	2,000	1,926	96	80-120	3	20
Beryllium	50.00	49.33	99	80-120	2	20
Cadmium	50.00	48.22	96	80-120	3	20
Chromium	200.0	185.0	92	80-120	2	20
Cobalt	500.0	463.0	93	80-120	3	20
Copper	250.0	233.9	94	80-120	2	20
Lead	100.0	91.59	92	80-120	3	20
Molybdenum	400.0	375.4	94	80-120	3	20
Nickel	500.0	466.0	93	80-120	2	20
Selenium	100.0	89.89	90	80-120	3	20
Silver	50.00	44.81	90	80-120	3	20
Thallium	100.0	95.29	95	80-120	3	20
Vanadium	500.0	459.7	92	80-120	2	20
Zinc	500.0	476.1	95	80-120	2	20



	Dissolved (	California Title 26	Metals	
Lab #:	202387	Location:	AAA	
Client:	LFR Levine Fricke	Prep:	EPA 3010A	
Project#:	00109466-00	Analysis:	EPA 6010B	
Field ID:	ZZZZZZZZZ	Batch#:	136740	
MSS Lab ID:	202184-008	Sampled:	03/25/08	
Matrix:	Filtrate	Received:	03/25/08	
Units:	uq/L	Prepared:	04/04/08	
Diln Fac:	1.000	Analyzed:	04/04/08	

Type: MS Lab ID: QC436129

Analyte	MSS Result	Spiked	Result	%REC	Limits
Antimony	<0.9637	500.0	416.6	83	78-120
Arsenic	<1.387	100.0	98.49	98	80-126
Barium	325.0	2,000	2,186	93	80-120
Beryllium	<0.1170	50.00	49.74	99	80-120
Cadmium	<0.3555	50.00	45.95	92	80-120
Chromium	3.416	200.0	181.3	89	80-120
Cobalt	3.046	500.0	430.9	86	80-120
Copper	<1.577	250.0	235.2	94	80-120
Lead	<1.150	100.0	80.68	81	77-120
Molybdenum	<1.384	400.0	365.6	91	80-120
Nickel	1.104	500.0	435.8	87	79-120
Selenium	<1.986	100.0	88.27	88	80-125
Silver	<0.7500	50.00	47.79	96	72-120
Thallium	3.025	100.0	90.92	88	77-120
Vanadium	2.537	500.0	464.6	92	80-120
Zinc	<3.056	500.0	457.4	91	78-122

Type: MSD Lab ID: QC436130

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	500.0	419.9	84	78-120	1	20
Arsenic	100.0	98.62	99	80-126	0	20
Barium	2,000	2,175	92	80-120	1	20
Beryllium	50.00	49.00	98	80-120	1	20
Cadmium	50.00	47.23	94	80-120	3	20
Chromium	200.0	184.7	91	80-120	2	20
Cobalt	500.0	441.2	88	80-120	2	20
Copper	250.0	232.9	93	80-120	1	20
Lead	100.0	85.58	86	77-120	6	20
Molybdenum	400.0	376.5	94	80-120	3	20
Nickel	500.0	445.2	89	79-120	2	20
Selenium	100.0	81.64	82	80-125	8	20
Silver	50.00	47.80	96	72-120	0	20
Thallium	100.0	87.10	84	77-120	4	20
Vanadium	500.0	463.0	92	80-120	0	20
Zinc	500.0	464.9	93	78-122	2	20



Dissolved California Title 26 Metals				
Lab #:	202387	Location:	AAA	
Client:	LFR Levine Fricke	Prep:	METHOD	
Project#:	00109466-00	Analysis:	EPA 7470A	
Analyte:	Mercury	Diln Fac:	1.000	
Type:	BLANK	Batch#:	136810	
Lab ID:	QC436419	Prepared:	04/07/08	
Matrix:	Water	Analyzed:	04/07/08	
Units:	ug/L			

Result	RL	
ND	0.20	

Page 1 of 1



Dissolved California Title 26 Metals				
Lab #:	202387	Location:	AAA	
Client:	LFR Levine Fricke	Prep:	METHOD	
Project#:	00109466-00	Analysis:	EPA 7470A	
Analyte:	Mercury	Batch#:	136810	
Matrix:	Water	Prepared:	04/07/08	
Units:	ug/L	Analyzed:	04/07/08	
Diln Fac:	1.000			

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC436420	5.000	5.080	102	80-120		
BSD	QC436421	5.000	5.100	102	80-120	0	20



Dissolved California Title 26 Metals				
Lab #:	202387	Location:	AAA	
Client:	LFR Levine Fricke	Prep:	METHOD	
Project#:	00109466-00	Analysis:	EPA 7470A	
Analyte:	Mercury	Batch#:	136810	
Field ID:	ZZZZZZZZZZ	Sampled:	04/04/08	
MSS Lab ID:	202445-001	Received:	04/04/08	
Matrix:	Filtrate	Prepared:	04/07/08	
Units:	ug/L	Analyzed:	04/07/08	
Diln Fac:	1.000			

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
MS	QC436423	<0.04502	5.000	5.170	103	77-126		
MSD	QC436424		5.000	5.160	103	77-126	0	20

CHAIN OF CUSTODY / ANALYSES REQUEST FORM PROJECT NO.: 001 09466-00 SECTION NO.: DATE: 4-2-08 SAMPLER'S INITIALS: SERIAL NO .: 1900 Powell Street, 12th Floor PROJECT NAME: AAA Emeryville, California 94608 Nº 203269 SAMPLER (Signature): (510) 652-4500 Fax: (510) 652-2246 **SAMPLE** REMARKS **ANALYSES** Bret kernenneen We'ds Est Est Brown **TYPE** TAHTO EPABOSAN No. of Containers TAT TRHS Ear so san \*VOCs: \*\*Metals: 8260 List R CAM17 Standard RUSH. 8240 List 🔲 RCRA HOLD . Water SAMPLE ID. DATE TIME ☐ 8010 List ☐ LUFT ☐ 624 List DCB-16 4.2-08 1125 5 X X DCB -P3 1240 5 × DCB - PI 1330 5 X 5 DCB - P2 1230 X 1620 5 X 4-2-08 1700 *L* 1 DCB-P6-5A 4-2-08 1110 3 DCB-P3-4A4 1255 3 X DCB-P3-laft 1300 X 3 1400 X 1405 1575 3 X 1610 3 χ DCB - P5 - 1244 1615 3 1710 3 X 42.08 1715 3 X METHOD OF SHIPMENT: Hand delivered RELINQUISHED BY
(SIGNATURE)

LED MOY SAMPLE RECEIPT: Cooler Temp: RELINQUISHED BY: 2 RELINQUISHED BY: 4-3-08 **⊠**Cold (DATE) AB REPORT NO.: (SIGNATURE) (DATE) (SIGNATURE) (DATE) Ambient eb Montz (TIME) (PRINTED NAME) FAX COC CONFIRMATION TO: (PRINTED NAME) (TIME) (PRINTED NAME) (TIME) COMPANY) **Preservative Correct?** Fon Goloubow Yes No NA (COMPANY) (COMPANY) RECEIVED BY ANALYTICAL LABORATORY: FAX RESULTS TO: RECEIVED BY: RECEIVED BY (LABORATORY): 4-3-08 1 . SIGNATURE) (DATE) SEND HARDCOPY TO: (SIGNATURE) (DATE) (SIGNATURE) (DATE) C 4T Faith Nichols (PRINTED NAME) (TIME) (PRINTED NAME) (TIME) SEND EDD TO: (PRINTED NAME) (TIME) **EMV.LABEDDS.COM** (COMPANY) (COMPANY) (COMPANY) Shipping Copy (White) CHAIN of CUSTODY - ANALYSES FORM.CDR 5/2003 File Copy (Yellow) Field Copy (Pink)

# **COOLER RECEIPT CHECKLIST**



Login # 202387 Date Received 74-3-08 Number of coolers \ Client LFR Project AAA	
Date Opened 4-3-08 By (print) F Nichols (sign)  Date Logged in 4-3-08 By (print) F Nichols (sign)	
1. Did cooler come with a shipping slip (airbill, etc)?	
2A. Were custody seals present? XYES (circle) on cooler on samples  How many   OVEY   ID   Name   Occordoble   Date 4-3-08  2B. Were custody seals intact upon arrival? YES NO N/A  3. Were custody papers dry and intact when received? YES NO N/A  4. Were custody papers filled out properly (ink, signed, etc)? YES NO	
5. Is the project identifiable from custody papers? (If so fill out top of form)	
Bubble Wrap Foam blocks Bags   None	
Bubble Wrap    Foam blocks   Bags   None   Cloth material   Cardboard   Styrofoam   Paper towels   Foam blocks   Paper towels   Foam blocks   Samples should be < or = 6°C   YES   NO N/A	
Type of ice used: WET BLUE NONE Temp(°C) No temp blank	All Cold
SAMPLES RECEIVED ON ICE DIRECTLY FROM FIELD. COOLING PROCESS HAD BEGUN.	
8. Were soil Encore sampling devices present?	
10. Are samples in the appropriate containers for indicated tests?	
11. Are sample labels present, in good condition and complete?	
12. Do the sample labels agree with custody papers?  NO  NO	
13. Was sufficient amount of sample sent for tests requested?  NO  NO  NO  NO  NO  NO  NO  NO  NO  N	
14. Are the samples appropriately preserved?  15. Are bubbles absent in VOA samples?  YES NO N/A	
If YES, Who was called? By Date:	
COMMENTS	

SOP Volume: Client Services

Section: 1.1.2 Page 1 of 1 Rev: 4 Number 1 of 3 Effective: 06 March 2008

F:\qc\forms\checklists\Cooler Receipt Checklist\_rv4.doc



# Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

### Laboratory Job Number 202462 ANALYTICAL REPORT

LFR Levine Fricke 1900 Powell Street Emeryville, CA 94608

Project : 001-09466-01

Location : Learner

Level : II

<u>Sample ID</u>	<u>Lab ID</u>
LP-1-4.0	202462-001
LP-1-8.0	202462-002
DCB-P3-4.0	202462-003
DCB-P3-6.0	202462-004
DCB-P1-4.0	202462-005
DCB-P1-6.0	202462-006
DCB-P2-4.0	202462-007
DCB-P2-8.0	202462-008
DCB-P4-3.0	202462-009
DCB-P4-8.0	202462-010
DCB-P5-3.0	202462-011
DCB-P5-8.0	202462-012
DCB-P6-4.5	202462-013
DCB-P6-7.5	202462-014
DCB-P5-6.5	202462-015
DCB-P3-8.0	202462-016

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature:

Project Manager

Tunk Morrison

Date: <u>04/18/2008</u>

Signature:

Quality Assurance Director

Date: <u>04/21/2008</u>

NELAP # 01107CA

Page 1 of \_\_\_\_



#### CASE NARRATIVE

Laboratory number: 202462

Client: LFR Levine Fricke

Project: 001-09466-01

Location: Learner
Request Date: 04/07/08
Samples Received: 04/07/08

This hardcopy data package contains sample and QC results for eight soil samples, requested for the above referenced project on 04/07/08. The samples were received cold and intact. All data were e-mailed to Ron Goloubow on 04/18/08.

#### TPH-Purgeables and/or BTXE by GC (EPA 8015B):

High surrogate recovery was observed for trifluorotoluene (FID) in the LCS for batch 136952. High surrogate recoveries were observed for bromofluorobenzene (FID) in DCB-P4-3.0 (lab # 202462-009) and the LCS for batch 136952. No other analytical problems were encountered.

#### TPH-Extractables by GC (EPA 8015B):

Many samples were diluted due to the dark and viscous nature of the sample extracts. No other analytical problems were encountered.

#### Semivolatile Organics by GC/MS (EPA 8270C):

Many samples were diluted due to the dark and viscous nature of the sample extracts. DCB-P3-4.0 (lab # 202462-003) and DCB-P4-3.0 (lab # 202462-009) were diluted due to high non-target analytes. No other analytical problems were encountered.

#### Metals (EPA 6010B and EPA 7471A):

Low recoveries were observed for barium and lead in the MS of LP-1-4.0 (lab # 202462-001); the BS/BSD were within limits, and the associated RPDs were within limits. High recoveries were observed for chromium and nickel in the MSD of LP-1-4.0 (lab # 202462-001); the BS/BSD were within limits. High RPD was observed for chromium, molybdenum, and nickel in the MS/MSD of LP-1-4.0 (lab # 202462-001); the RPD was acceptable in the BS/BSD. No other analytical problems were encountered.



Total Volatile Hydrocarbons Lab #: 202462 Location: Learner EPA 5030B Client: LFR Levine Fricke Prep: 001-09466-01 Analysis: Diln Fac: EPA 8015B Project#: 1.000 04/07/08 Matrix: Soil Sampled: Units: mg/Kg Basis: as received Received: 04/07/08

Field ID: LP-1-4.0 Batch#: 137041 Type: SAMPLE Analyzed: 04/15/08

Lab ID: 202462-001

Analyte	Result	RL	
Gasoline C7-C12	ND	0.96	_

Surrogate	%REC	Limits
Trifluorotoluene (FID)	110	66-139
Bromofluorobenzene (FID)	108	67-149

Field ID: DCB-P3-4.0 Batch#: 136952
Type: SAMPLE Analyzed: 04/11/08
Lab ID: 202462-003

Analyte Result RL
Gasoline C7-C12 ND 0.92

Surrogate	%REC	Limits
Trifluorotoluene (FID)	100	66-139
Bromofluorobenzene (FID)	119	67-149

Field ID: DCB-P1-4.0 Batch#: 136952
Type: SAMPLE Analyzed: 04/10/08

Lab ID: 202462-005

Ana	lyte Resul	t RL	
Gasoline C7-C1	2 ND	1.0	

Surrogate	%REC	Limits
Trifluorotoluene (FID	) 110	66-139
Bromofluorobenzene (F	ID) 130	67-149

Field ID: DCB-P2-4.0 Batch#: 136982 Type: SAMPLE Analyzed: 04/12/08

Lab ID: 202462-007

Gasoline C7-C12 ND 0.95	Analyte	Result	RL
	1 (+asoline ('/-(')/	ND	() 95

Surrogate	%REC	Limits	
Trifluorotoluene (FID)	96	66-139	
Bromofluorobenzene (FID)	100	67-149	

<sup>\*=</sup> Value outside of QC limits; see narrative

Page 1 of 3

Y= Sample exhibits chromatographic pattern which does not resemble standard

Z= Sample exhibits unknown single peak or peaks

ND= Not Detected

RL= Reporting Limit



Total Volatile Hydrocarbons 202462 Lab #: Location: Learner EPA 5030B Client: LFR Levine Fricke Prep: Analysis: Diln Fac: Project#: 001-09466-01 EPA 8015B Matrix: Soil 1.000 04/07/08 Units: mg/Kg Sampled: Basis: as received Received: 04/07/08

Field ID: DCB-P4-3.0 Batch#: 136982
Type: SAMPLE Analyzed: 04/12/08

Lab ID: 202462-009

Analyte	Result	RL	
Gasoline C7-C12	51 Y Z	1.0	

Surrogate	%REC	Limits	
Trifluorotoluene (FID)	89	66-139	
Bromofluorobenzene (FID)	172 *	67-149	

Field ID: DCB-P4-8.0 Batch#: 136982
Type: SAMPLE Analyzed: 04/12/08
Lab ID: 202462-010

 Analyte
 Result
 RL

 Gasoline C7-C12
 15 Y Z
 0.99

Surrogate	%REC	Limits
Trifluorotoluene (FID)	96	66-139
Bromofluorobenzene (FID)	124	67-149

Field ID: DCB-P5-3.0 Batch#: 136982
Type: SAMPLE Analyzed: 04/12/08

Lab ID: 202462-011

Analyte	Result	RL	
Gasoline C7-C12	ND	0.97	

Surrogate	%REC	Limits
Trifluorotoluene (FID)	88	66-139
Bromofluorobenzene (FID)	92	67-149

Field ID: DCB-P6-4.5 Batch#: 136982
Type: SAMPLE Analyzed: 04/12/08
Lab ID: 202462-013

λnalv+o	Pagul+	DT.	
Analyte	Kepuic	KL	
Gasoline C7-C12	ND	0.92	

Surrogate	%REC	Limits	
Trifluorotoluene (FID)	94	66-139	
Bromofluorobenzene (FID)	99	67-149	

<sup>\*=</sup> Value outside of QC limits; see narrative

Y= Sample exhibits chromatographic pattern which does not resemble standard

Z= Sample exhibits unknown single peak or peaks

ND= Not Detected

RL= Reporting Limit



Total Volatile Hydrocarbons Lab #: 202462 Location: Learner Client: EPA 5030B LFR Levine Fricke Prep: Analysis: Diln Fac: Project#: 001-09466-01 EPA 8015B Soil 1.000 Matrix: 04/07/08 Units: mg/Kg Sampled: Basis: as received Received: 04/07/08

Type: BLANK Batch#: 136952 Lab ID: QC437007 Analyzed: 04/10/08

Analyte Result RL Gasoline C7-C12 ND 0.20

Surrogate	%REC	Limits
	**************************************	CC 13
Trifluorotoluene (FID)	TT./	66-139
Bromofluorobenzene (FID)	134	67-149

Type: Lab ID: BLANK Batch#: 136982 QC437143 Analyzed: 04/11/08

Analyte Result RLGasoline C7-C12 ND 0.20

Surrogate	%REC	Limits
Trifluorotoluene (FID)	96	66-139
TITITUOLOCOTUELLE (FID)	70	00 137
Bromofluorobenzene (FID)	96	67-149
BIOMOTIMOTODEMZEME (FID)	96	0/-142

Type: BLANK Batch#: 137041 Lab ID: QC437390 Analyzed: 04/15/08

Analyte	Result	RL	
Gasoline C7-C12	ND	1.0	

Surrogate	%REC	Limits
Trifluorotoluene (FID)	106	66-139
Bromofluorobenzene (FID)	105	67-149

<sup>\*=</sup> Value outside of QC limits; see narrative

Y= Sample exhibits chromatographic pattern which does not resemble standard

Z= Sample exhibits unknown single peak or peaks

ND= Not Detected

RL= Reporting Limit



	Total Vol	atile Hydrocarbo	ons	
Lab #:	202462	Location:	Learner	
Client:	LFR Levine Fricke	Prep:	EPA 5030B	
Project#:	001-09466-01	Analysis:	EPA 8015B	
Type:	LCS	Basis:	as received	
Lab ID:	QC437008	Diln Fac:	1.000	
Matrix:	Soil	Batch#:	136952	
Units:	mg/Kg	Analyzed:	04/10/08	

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	15.00	14.00	93	80-120

Surrogate	%REC	Limits	
Trifluorotoluene (FID)	145 *	66-139	
Bromofluorobenzene (FID)	153 *	67-149	

28.0



	Total Volatile Hydrocarbons						
Lab #:	202462	Location:	Learner				
Client:	LFR Levine Fricke	Prep:	EPA 5030B				
Project#:	001-09466-01	Analysis:	EPA 8015B				
Field ID:	ZZZZZZZZZ	Diln Fac:	1.000				
MSS Lab ID:	202437-001	Batch#:	136952				
Matrix:	Soil	Sampled:	04/04/08				
Units:	mg/Kg	Received:	04/04/08				
Basis:	as received	Analyzed:	04/11/08	ļ			

Type: MS Lab ID: QC437009

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	0.1973	9.804	6.766	67	45-120

	Surrogate	%REC	Limits
Tri	fluorotoluene (FID)	112	66-139
Bro	mofluorobenzene (FID)	131	67-149

Type: MSD Lab ID: QC437010

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	10.20	6.577	63	45-120	7	24

Surrogate	%REC	Limits
Trifluorotoluene (FID)	114	66-139
Bromofluorobenzene (FID)	127	67-149



	Total Vol	latile Hydrocarbo	ons	
Lab #:	202462	Location:	Learner	
Client:	LFR Levine Fricke	Prep:	EPA 5030B	
Project#:	001-09466-01	Analysis:	EPA 8015B	
Type:	LCS	Basis:	as received	
Lab ID:	QC437163	Diln Fac:	1.000	
Matrix:	Soil	Batch#:	136982	
Units:	mg/Kg	Analyzed:	04/11/08	

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	5.000	4.367	87	80-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	110	66-139
Bromofluorobenzene (FID)	94	67-149

Page 1 of 1 30.0



	Total Vol	atile Hydrocarbo	ons	
Lab #:	202462	Location:	Learner	
Client:	LFR Levine Fricke	Prep:	EPA 5030B	
Project#:	001-09466-01	Analysis:	EPA 8015B	
Field ID:	ZZZZZZZZZZ	Diln Fac:	5.000	
MSS Lab ID:	202285-003	Batch#:	136982	
Matrix:	Soil	Sampled:	03/28/08	
Units:	mg/Kg	Received:	03/28/08	
Basis:	as received	Analyzed:	04/12/08	

Type: MS Lab ID: QC437164

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	0.6585	50.00	42.35	83	45-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	127	66-139
Bromofluorobenzene (FID)	103	67-149

Type: MSD Lab ID: QC437165

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	50.00	42.92	85	45-120	1	24

Surrogate	%REC	Limits
Trifluorotoluene (FID)	130	66-139
Bromofluorobenzene (FID)	118	67-149



	Total Vol	atile Hydrocarbo	ons	
Lab #:	202462	Location:	Learner	
Client:	LFR Levine Fricke	Prep:	EPA 5030B	
Project#:	001-09466-01	Analysis:	EPA 8015B	
Field ID:	ZZZZZZZZZZ	Diln Fac:	5.000	
MSS Lab ID:	202285-010	Batch#:	136982	
Matrix:	Soil	Sampled:	03/28/08	
Units:	mg/Kg	Received:	03/28/08	
Basis:	as received	Analyzed:	04/12/08	

Type: MS Lab ID: QC437166

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	0.6334	50.00	41.44	82	45-120

Surrogate	%REC	Limits	
Trifluorotoluene (FID)	124	66-139	
Bromofluorobenzene (FID)	99	67-149	

Type: MSD Lab ID: QC437167

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	50.00	40.65	80	45-120	2	24

Surrogate	%REC	Limits
Trifluorotoluene (FID)	125	66-139
Bromofluorobenzene (FID)	100	67-149



Total Volatile Hydrocarbons					
Lab #:	202462	Location:	Learner		
Client:	LFR Levine Fricke	Prep:	EPA 5030B		
Project#:	001-09466-01	Analysis:	EPA 8015B		
Type:	LCS	Basis:	as received		
Lab ID:	QC437391	Diln Fac:	1.000		
Matrix:	Soil	Batch#:	137041		
Units:	mg/Kg	Analyzed:	04/15/08		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	5.000	5.111	102	80-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	128	66-139
Bromofluorobenzene (FID)	114	67-149

Page 1 of 1 33.0



	Total Volatile Hydrocarbons					
Lab #:	202462	Location:	Learner			
Client:	LFR Levine Fricke	Prep:	EPA 5030B			
Project#:	001-09466-01	Analysis:	EPA 8015B			
Field ID:	ZZZZZZZZZ	Diln Fac:	1.000			
MSS Lab ID:	202555-003	Batch#:	137041			
Matrix:	Soil	Sampled:	04/10/08			
Units:	mg/Kg	Received:	04/11/08			
Basis:	as received	Analyzed:	04/15/08			

Type: MS Lab ID: QC437392

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	0.9549	9.615	7.664	70	45-120

Surrogate	%REC	Limits	
Trifluorotoluene (FID)	132	66-139	
Bromofluorobenzene (FID)	115	67-149	

Type: MSD Lab ID: QC437393

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	9.434	7.028	64	45-120	7	24

Surrogate	%REC	Limits
Trifluorotoluene (FID)	123	66-139
Bromofluorobenzene (FID)	111	67-149

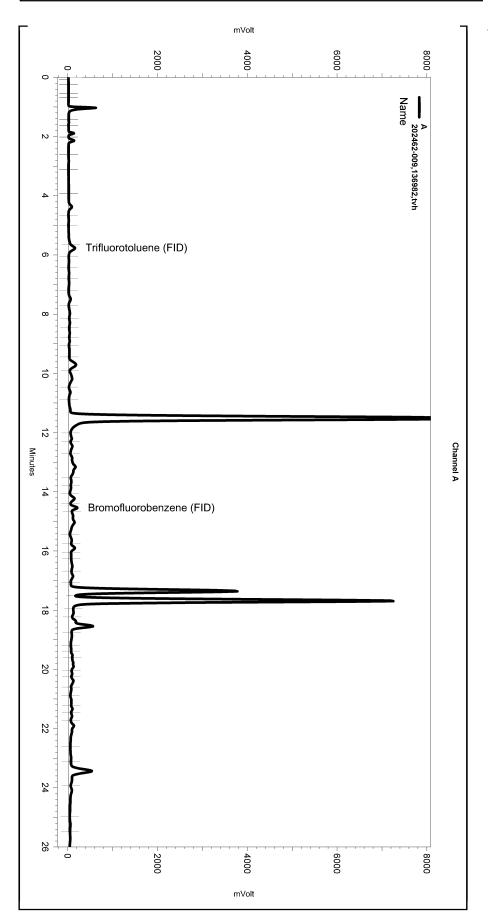
Sequence File: \\Lims\\gdrive\ezchrom\\Projects\\GC04\\Sequence\102.seq

Sample Name: 202462-009,136982,tvh

Data File: \\\Lims\\gdrive\ezchrom\Projects\\GC04\Data\102\_034 \\
Instrument: GC04 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2) \\
Method Name: \\Lims\\gdrive\ezchrom\Projects\GC04\Method\tvhbtxe055.met

Software Version 3.1.7 Run Date: 4/12/2008 9:20:45 AM Analysis Date: 4/12/2008 3:33:04 PM Sample Amount: 0.96 Multiplier: 0.96

Vial & pH or Core ID: a



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Integrati	on Events					
Enable	ed Event Type	Start			linutes)	Value
Yes Yes	Width Threshold		0	0	0.2 50	
Manual	Integration Fixes					
Data F	File: \\Lims\gdrive\	ezchrom\F Start			\Data\10	2_034
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Yes Yes	Lowest Point Ho Split Peak	rizontal B	 aseli 5.648	0.64 0	25.74: 0	3 0

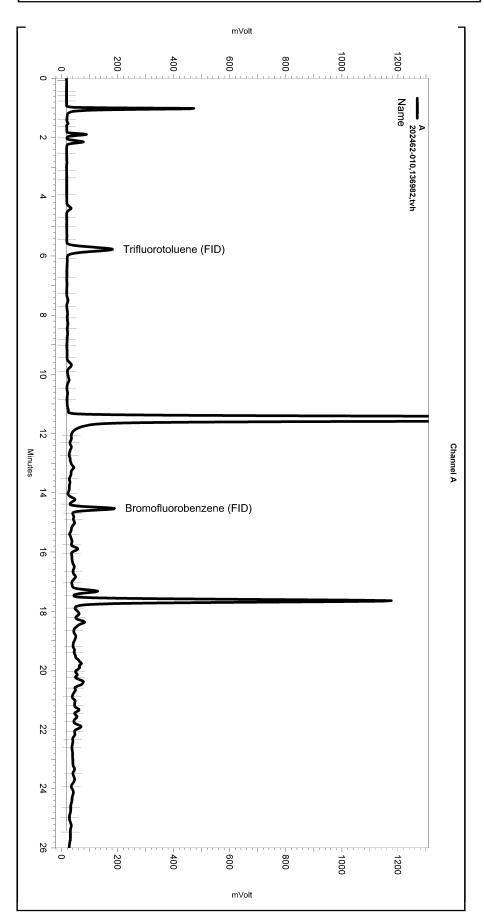
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Sample Name: 202462-010,136982,tvh

Data File: \\\Lims\\gdrive\ezchrom\Projects\\GC04\Data\102\_035 \\
Instrument: GC04 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2) \\
Method Name: \\Lims\\gdrive\ezchrom\Projects\GC04\Method\tvhbtxe055.met

Software Version 3.1.7 Run Date: 4/12/2008 9:58:20 AM Analysis Date: 4/12/2008 3:33:41 PM Sample Amount: 1.01 Multiplier: 1.01

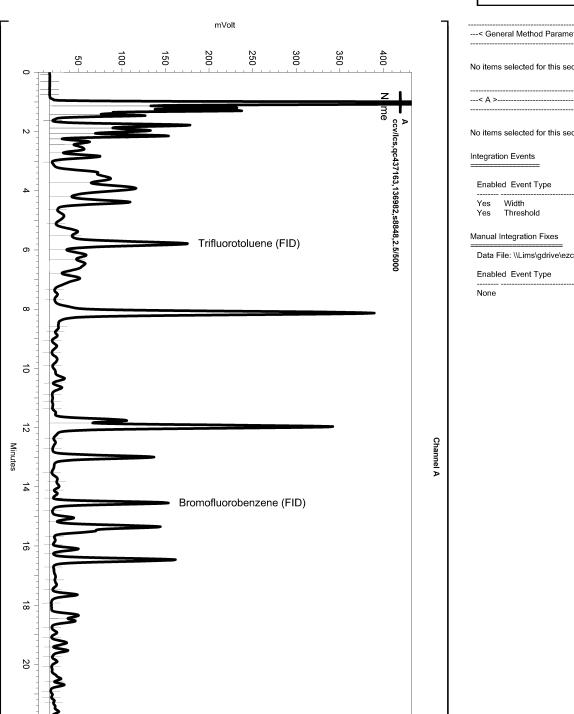
Vial & pH or Core ID: a



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Integrati	ion Events					
Enable	ed Event Type	Start	Sto (Minut		linutes)	Value
	Width Threshold		0	0	0.2 50	
Manual	Integration Fixes					
Data F	File: \\Lims\gdrive\e	zchrom\F Start	Projects Sto		\Data\10	2_035
Enable	ed Event Type	Start			linutes)	Value
Yes	Lowest Point Hori	zontal Ra	aseli	0.421	25.57	<b>7</b> 9 (

Sequence File: \\Lims\\gdrive\ezchrom\\Projects\\GC04\\Sequence\102.seq Sample Name: ccv/lcs,qc437163,136982,s8848,2.5/5000

Software Version 3.1.7 Run Date: 4/11/2008 10:55:00 AM Analysis Date: 4/12/2008 7:43:03 AM Sample Amount: 1 Multiplier: 1 Vial & pH or Core ID: {Data Description}



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ntegration Events	
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Manual Integration Fixes	
Data File: \\Lims\gdrive\ezchrom\\	
Enabled Event Type	(Minutes) (Minutes) Value
None	

150

200

mVolt

250

300

350

400

22

24

26

50

100



Total Extractable Hydrocarbons Lab #: 202462 Location: Learner Client: LFR Levine Fricke Prep: SHAKER TABLE 001-09466-01 Project#: Analysis: EPA 8015B 04/07/08 Matrix: Soil Sampled: 04/07/08 Units: mq/Kq Received: Basis: as received 04/09/08 Prepared: Batch#: 136880

Field ID: LP-1-4.0 Diln Fac: 10.00 04/17/08 SAMPLE Analyzed: Type: Lab ID: 202462-001 Cleanup Method: EPA 3630C

Analyte Result Diesel C10-C24 210 Y 10 Motor Oil C24-C36 650

Surrogate %REC Limits Hexacosane DQ48-128

5.000 DCB-P3-4.0 Field ID: Diln Fac: 04/17/08 Type: SAMPLE Analyzed: Lab ID: 202462-003 Cleanup Method: EPA 3630C

Analyte Result Diesel C10-C24 110 Y 5.0 Motor Oil C24-C36 360

%REC Surrogate Limits 48-128 Hexacosane

Field ID: DCB-P1-4.0 Diln Fac: 10.00 SAMPLE Analyzed: 04/17/08 Type: Lab ID: 202462-005 Cleanup Method: EPA 3630C

Analyte Result Diesel C10-C24 170 Y 10 Motor Oil C24-C36 670

%REC Limits Surrogate Hexacosane DΩ 48-128

Field ID: DCB-P2-4.0 Diln Fac: 10.00 04/17/08 SAMPLE Type: Analyzed: Lab ID: 202462-007 Cleanup Method: EPA 3630C

Analyte Result Diesel C10-C24 290 Y 9.9 Motor Oil C24-C36 890

Surrogate %REC Limits Hexacosane DO48-128

Y= Sample exhibits chromatographic pattern which does not resemble standard

DO= Diluted Out ND= Not Detected

RL= Reporting Limit

Page 1 of 3



Total Extractable Hydrocarbons 202462 Lab #: Location: Learner SHAKER TABLE Client: LFR Levine Fricke Prep: Analysis: Sampled: EPA 8015B 04/07/08 Project#: 001-09466-01 Matrix: Soil Received: 04/07/08 Units: mg/Kg Basis: as received Prepared: 04/09/08 Batch#: 136880

DCB-P4-3.0 Field ID: Diln Fac: 50.00 Type: SAMPLE Analyzed: 04/16/08 Lab ID: 202462-009 Cleanup Method: EPA 3630C

Analyte	Result	RL	
Diesel C10-C24	5,000	50	
Motor Oil C24-C36	4,600	250	

Field ID: DCB-P4-8.0 Diln Fac: 50.00 Type: SAMPLE Analyzed: 04/17/08 Lab ID: 202462-010 Cleanup Method: EPA 3630C

Analyte	Result	RL	
Diesel C10-C24	4,800	50	
Motor Oil C24-C36	4,300	250	

Surrogate	%REC	Limits	
Tions		10 100	
Hexacosane	DO	48-128	

Field ID: DCB-P5-3.0 Diln Fac: 10.00 04/14/08 Type: SAMPLE Analyzed: Lab ID: 202462-011 Cleanup Method: EPA 3630C

Analyte	Result	RL	
Diesel C10-C24	190 Y	9.9	
Motor Oil C24-C36	930	50	

Surrogate %REC Limits
ne DO 48-12

Field ID: DCB-P6-4.5 Diln Fac: 25.00 04/16/08 Type: SAMPLE Analyzed: Lab ID: 202462-013 Cleanup Method: EPA 3630C

Analyte	Result	RL	
Diesel C10-C24	350 Y	25	
Motor Oil C24-C36	1,100	120	

Surrogate	%REC	Limits	
Hexacosane	DO	48-128	

Y= Sample exhibits chromatographic pattern which does not resemble standard

DO= Diluted Out ND= Not Detected RL= Reporting Limit

Page 2 of 3 36.0



	Total Extr	actable Hydrocar	rbons	
Lab #: Client: Project#:	202462 LFR Levine Fricke 001-09466-01	Location: Prep: Analysis:	Learner SHAKER TABLE EPA 8015B	
Matrix: Units: Basis: Batch#:	Soil mg/Kg as received 136880	Sampled: Received: Prepared:	04/07/08 04/07/08 04/09/08	

Type: Lab ID: Diln Fac: BLANK QC436695 1.000 Analyzed: 04/13/08 Cleanup Method: EPA 3630C

Analyte	Result	RL	
Diesel C10-C24	ND	1.0	
Motor Oil C24-C36	ND	5.0	

Surrogate	%REC	Limits
Hexacosane	93	48-128

Page 3 of 3

36.0



Total Extractable Hydrocarbons					
Lab #:	202462	Location:	Learner		
Client:	LFR Levine Fricke	Prep:	SHAKER TABLE		
Project#:	001-09466-01	Analysis:	EPA 8015B		
Type:	LCS	Diln Fac:	1.000		
Lab ID:	QC436696	Batch#:	136880		
Matrix:	Soil	Prepared:	04/09/08		
Units:	mg/Kg	Analyzed:	04/13/08		
Basis:	as received				

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	49.77	46.00	92	54-126

Surrogate %F		Limits
Hexacosane	88	48-128

Page 1 of 1 37.0



Total Extractable Hydrocarbons					
Lab #:	202462	Location:	Learner		
Client:	LFR Levine Fricke	Prep:	SHAKER TABLE		
Project#:	001-09466-01	Analysis:	EPA 8015B		
Field ID:	LP-8-2FT	Batch#:	136880		
MSS Lab ID:	202453-011	Sampled:	04/04/08		
Matrix:	Soil	Received:	04/04/08		
Units:	mg/Kg	Prepared:	04/09/08		
Basis:	as received	Analyzed:	04/15/08		
Diln Fac:	5.000				

Type: MS Cleanup Method: EPA 3630C

Lab ID: QC436697

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	162.9	49.74	196.6	68	34-144

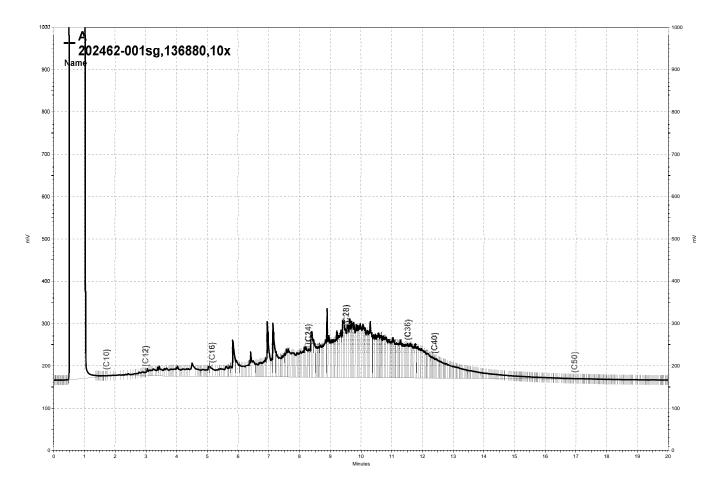
Surrogate	%REC	Limits
Hexacosane	83	48-128

Type: MSD Cleanup Method: EPA 3630C

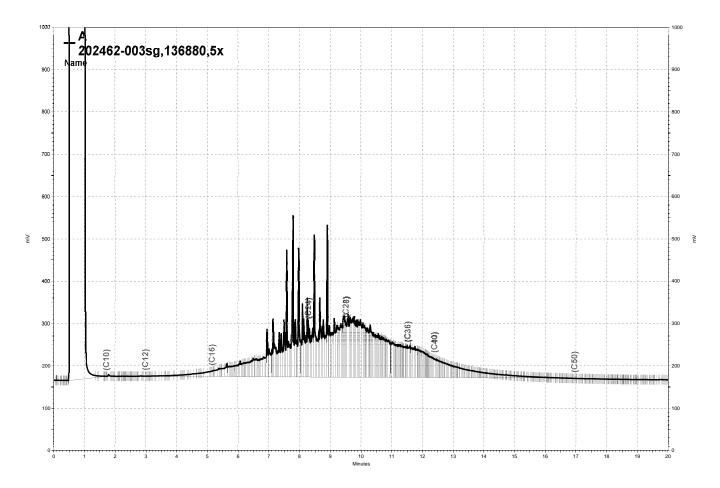
Lab ID: QC436698

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	49.71	232.8	141	34-144	17	47

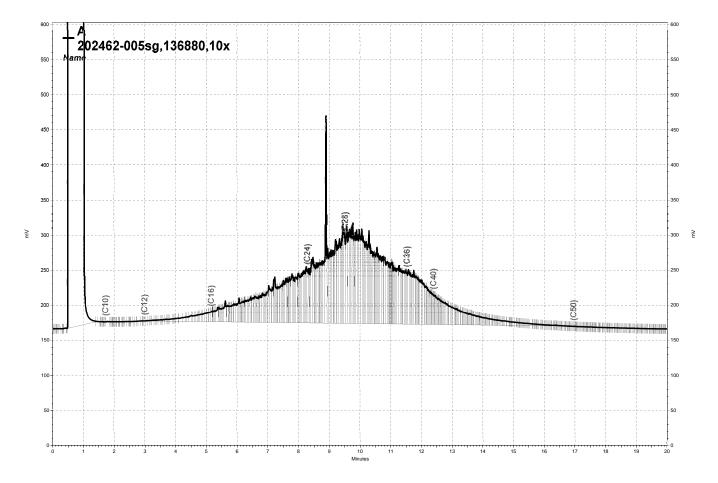
Surrogate	%REC	Limits
Hexacosane	86	48-128



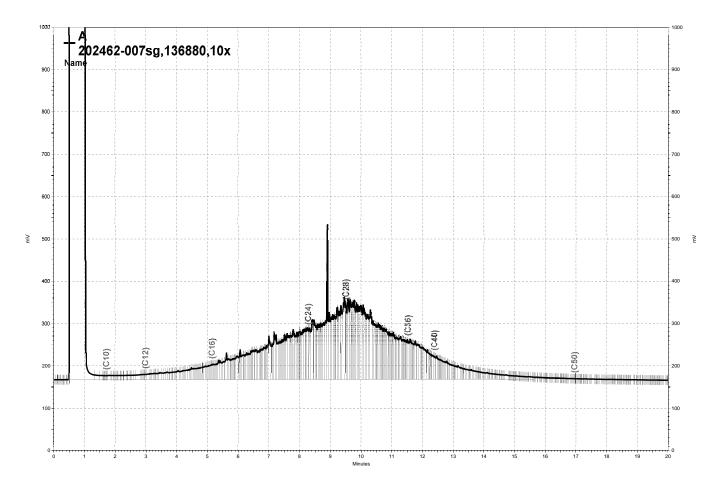
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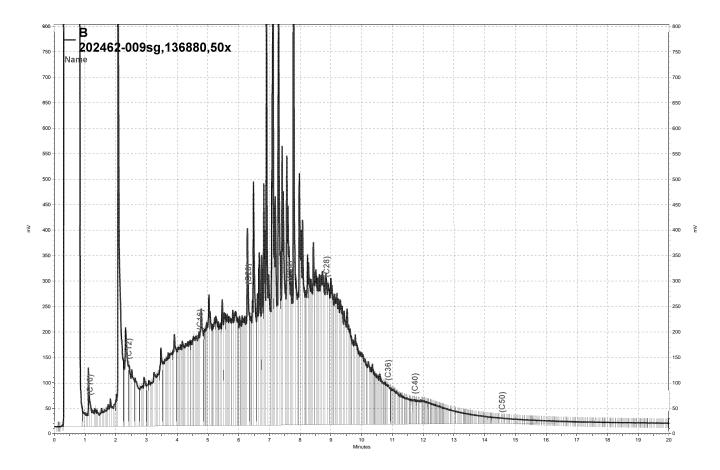
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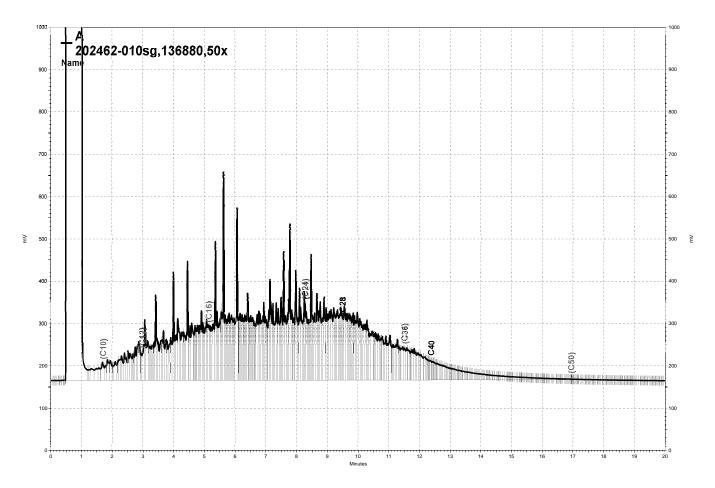
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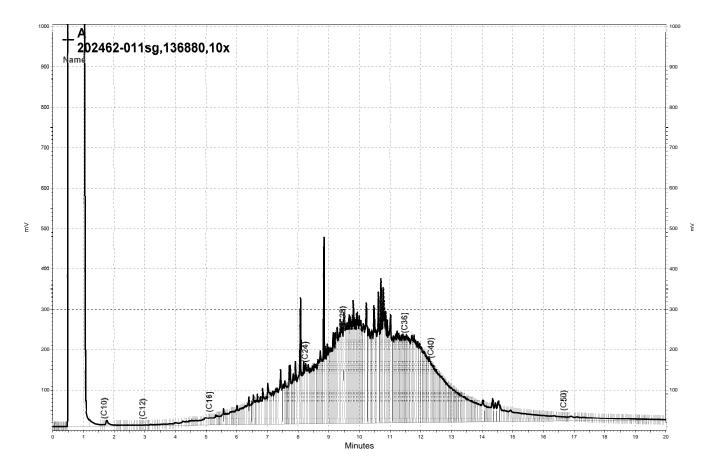
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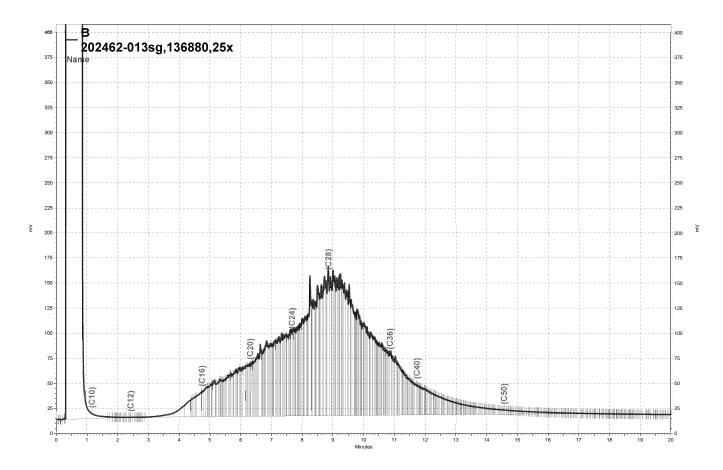
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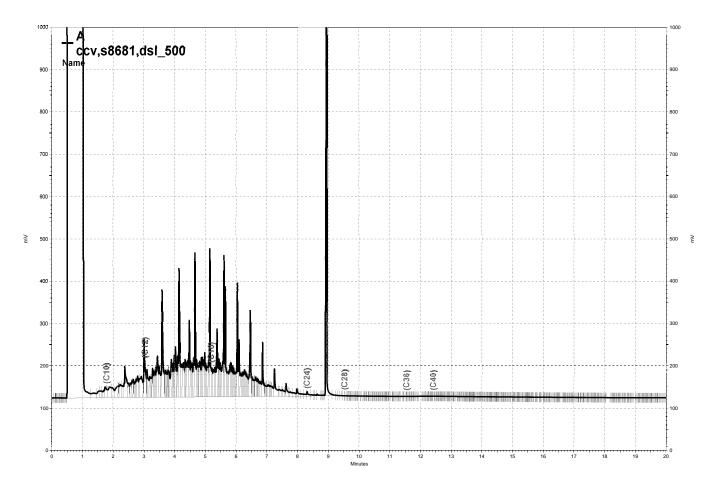
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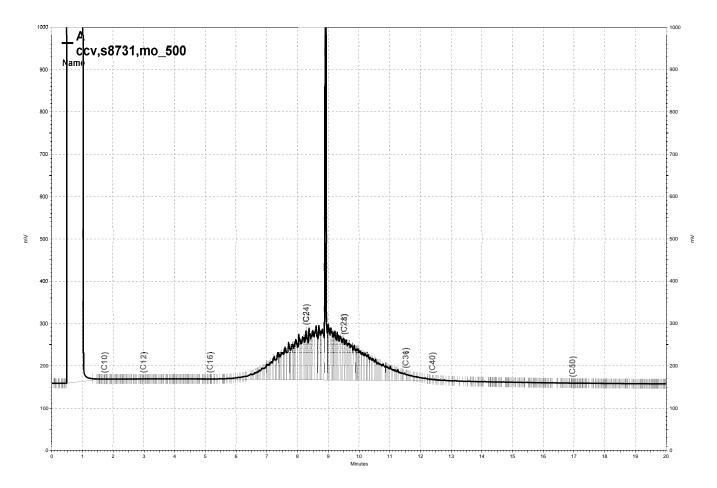
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	Polynuclear Aromatics by GC/MS				
Lab #:	202462	Location:	Learner		
Client:	LFR Levine Fricke	Prep:	EPA 3550B		
Project#:	001-09466-01	Analysis:	EPA 8270C		
Field ID:	LP-1-4.0	Batch#:	136844		
Lab ID:	202462-001	Sampled:	04/07/08		
Matrix:	Soil	Received:	04/07/08		
Units:	ug/Kg	Prepared:	04/08/08		
Basis:	as received	Analyzed:	04/08/08		
Diln Fac:	10.00				

Analyte	Result	RL	
Naphthalene	ND	3,300	
Acenaphthylene	ND	3,300	
Acenaphthene	ND	3,300	
Fluorene	ND	3,300	
Phenanthrene	ND	3,300	
Anthracene	ND	3,300	
Fluoranthene	ND	3,300	
Pyrene	ND	3,300	
Benzo(a)anthracene	ND	3,300	
Chrysene	ND	3,300	
Benzo(b)fluoranthene	ND	3,300	
Benzo(k)fluoranthene	ND	3,300	
Benzo(a)pyrene	ND	3,300	
Indeno(1,2,3-cd)pyrene	ND	3,300	
Dibenz(a,h)anthracene	ND	3,300	
Benzo(g,h,i)perylene	ND	3,300	

Surrogate	%REC	Limits	
Nitrobenzene-d5	DO	41-120	
2-Fluorobiphenyl	DO	46-120	
Terphenyl-d14	DO	44-120	

DO= Diluted Out
ND= Not Detected
RL= Reporting Limit

Page 1 of 1 2.0



	Polynuclear Aromatics by GC/MS				
Lab #:	202462	Location:	Learner		
Client:	LFR Levine Fricke	Prep:	EPA 3550B		
Project#:	001-09466-01	Analysis:	EPA 8270C		
Field ID:	DCB-P3-4.0	Batch#:	136844		
Lab ID:	202462-003	Sampled:	04/07/08		
Matrix:	Soil	Received:	04/07/08		
Units:	ug/Kg	Prepared:	04/08/08		
Basis:	as received	Analyzed:	04/08/08		
Diln Fac:	50.00				

Analyte	Result	RL	
Naphthalene	ND	17,000	
Acenaphthylene	ND	17,000	
Acenaphthene	ND	17,000	
Fluorene	ND	17,000	
Phenanthrene	ND	17,000	
Anthracene	ND	17,000	
Fluoranthene	ND	17,000	
Pyrene	ND	17,000	
Benzo(a)anthracene	ND	17,000	
Chrysene	ND	17,000	
Benzo(b)fluoranthene	ND	17,000	
Benzo(k)fluoranthene	ND	17,000	
Benzo(a)pyrene	ND	17,000	
Indeno(1,2,3-cd)pyrene	ND	17,000	
Dibenz(a,h)anthracene	ND	17,000	
Benzo(g,h,i)perylene	ND	17,000	

Surrogate	%REC	Limits	
Nitrobenzene-d5	DO	41-120	
2-Fluorobiphenyl	DO	46-120	
Terphenyl-d14	DO	44-120	

RL= Reporting Limit

Page 1 of 1 3.0



	Polynuclear Aromatics by GC/MS				
Lab #:	202462	Location:	Learner		
Client:	LFR Levine Fricke	Prep:	EPA 3550B		
Project#:	001-09466-01	Analysis:	EPA 8270C		
Field ID:	DCB-P1-4.0	Batch#:	136844		
Lab ID:	202462-005	Sampled:	04/07/08		
Matrix:	Soil	Received:	04/07/08		
Units:	ug/Kg	Prepared:	04/08/08		
Basis:	as received	Analyzed:	04/08/08		
Diln Fac:	20.00				

Analyte	Result	RL	
Naphthalene	ND	6,600	
Acenaphthylene	ND	6,600	
Acenaphthene	ND	6,600	
Fluorene	ND	6,600	
Phenanthrene	ND	6,600	
Anthracene	ND	6,600	
Fluoranthene	ND	6,600	
Pyrene	ND	6,600	
Benzo(a)anthracene	ND	6,600	
Chrysene	ND	6,600	
Benzo(b)fluoranthene	ND	6,600	
Benzo(k)fluoranthene	ND	6,600	
Benzo(a)pyrene	ND	6,600	
Indeno(1,2,3-cd)pyrene	ND	6,600	
Dibenz(a,h)anthracene	ND	6,600	
Benzo(g,h,i)perylene	ND	6,600	

Surrogate	%REC	Limits	
Nitrobenzene-d5	DO	41-120	
2-Fluorobiphenyl	DO	46-120	
Terphenyl-d14	DO	44-120	

DO= Diluted Out
ND= Not Detected
RL= Reporting Limit



	Polynuclear Aromatics by GC/MS				
Lab #:	202462	Location:	Learner		
Client:	LFR Levine Fricke	Prep:	EPA 3550B		
Project#:	001-09466-01	Analysis:	EPA 8270C		
Field ID:	DCB-P2-4.0	Batch#:	136844		
Lab ID:	202462-007	Sampled:	04/07/08		
Matrix:	Soil	Received:	04/07/08		
Units:	ug/Kg	Prepared:	04/08/08		
Basis:	as received	Analyzed:	04/08/08		
Diln Fac:	20.00				

Analyte	Result	RL	
Naphthalene	ND	3,300	
Acenaphthylene	ND	3,300	
Acenaphthene	ND	3,300	
Fluorene	ND	3,300	
Phenanthrene	ND	3,300	
Anthracene	ND	3,300	
Fluoranthene	ND	3,300	
Pyrene	ND	3,300	
Benzo(a)anthracene	ND	3,300	
Chrysene	ND	3,300	
Benzo(b)fluoranthene	ND	3,300	
Benzo(k)fluoranthene	ND	3,300	
Benzo(a)pyrene	ND	3,300	
Indeno(1,2,3-cd)pyrene	ND	3,300	
Dibenz(a,h)anthracene	ND	3,300	
Benzo(g,h,i)perylene	ND	3,300	

Surrogate	%REC	Limits	
Nitrobenzene-d5	DO	41-120	
2-Fluorobiphenyl	DO	46-120	
Terphenyl-d14	DO	44-120	

RL= Reporting Limit

Page 1 of 1 5.0



	Polynuclear Aromatics by GC/MS					
Lab #:	202462	Location:	Learner			
Client:	LFR Levine Fricke	Prep:	EPA 3550B			
Project#:	001-09466-01	Analysis:	EPA 8270C			
Field ID:	DCB-P4-3.0	Batch#:	136844			
Lab ID:	202462-009	Sampled:	04/07/08			
Matrix:	Soil	Received:	04/07/08			
Units:	ug/Kg	Prepared:	04/08/08			
Basis:	as received	Analyzed:	04/08/08			
Diln Fac:	100.0					

Analyte	Result	RL	
Naphthalene	ND	33,000	
Acenaphthylene	ND	33,000	
Acenaphthene	ND	33,000	
Fluorene	ND	33,000	
Phenanthrene	ND	33,000	
Anthracene	ND	33,000	
Fluoranthene	ND	33,000	
Pyrene	ND	33,000	
Benzo(a)anthracene	ND	33,000	
Chrysene	ND	33,000	
Benzo(b)fluoranthene	ND	33,000	
Benzo(k)fluoranthene	ND	33,000	
Benzo(a)pyrene	ND	33,000	
Indeno(1,2,3-cd)pyrene	ND	33,000	
Dibenz(a,h)anthracene	ND	33,000	
Benzo(g,h,i)perylene	ND	33,000	

Surrogate	%REC	Limits	
Nitrobenzene-d5	DO	41-120	
2-Fluorobiphenyl	DO	46-120	
Terphenyl-d14	DO	44-120	

RL= Reporting Limit

Page 1 of 1 6.0



	Polynuclear Aromatics by GC/MS					
Lab #:	202462	Location:	Learner			
Client:	LFR Levine Fricke	Prep:	EPA 3550B			
Project#:	001-09466-01	Analysis:	EPA 8270C			
Field ID:	DCB-P4-8.0	Batch#:	136844			
Lab ID:	202462-010	Sampled:	04/07/08			
Matrix:	Soil	Received:	04/07/08			
Units:	ug/Kg	Prepared:	04/08/08			
Basis:	as received	Analyzed:	04/08/08			
Diln Fac:	25.00					

Analyte	Result	RL	
Naphthalene	ND	3,300	
Acenaphthylene	ND	3,300	
Acenaphthene	ND	3,300	
Fluorene	ND	3,300	
Phenanthrene	ND	3,300	
Anthracene	ND	3,300	
Fluoranthene	ND	3,300	
Pyrene	ND	3,300	
Benzo(a)anthracene	ND	3,300	
Chrysene	ND	3,300	
Benzo(b)fluoranthene	ND	3,300	
Benzo(k)fluoranthene	ND	3,300	
Benzo(a)pyrene	ND	3,300	
Indeno(1,2,3-cd)pyrene	ND	3,300	
Dibenz(a,h)anthracene	ND	3,300	
Benzo(g,h,i)perylene	ND	3,300	

Surrogate	%REC	Limits	
Nitrobenzene-d5	DO	41-120	
2-Fluorobiphenyl	DO	46-120	
Terphenyl-d14	DO	44-120	

RL= Reporting Limit

Page 1 of 1 7.0



	Polynuclear Aromatics by GC/MS					
Lab #:	202462	Location:	Learner			
Client:	LFR Levine Fricke	Prep:	EPA 3550B			
Project#:	001-09466-01	Analysis:	EPA 8270C			
Field ID:	DCB-P5-3.0	Batch#:	136844			
Lab ID:	202462-011	Sampled:	04/07/08			
Matrix:	Soil	Received:	04/07/08			
Units:	ug/Kg	Prepared:	04/08/08			
Basis:	as received	Analyzed:	04/08/08			
Diln Fac:	25.00					

Analyte	Result	RL	
Naphthalene	ND	3,300	
Acenaphthylene	ND	3,300	
Acenaphthene	ND	3,300	
Fluorene	ND	3,300	
Phenanthrene	ND	3,300	
Anthracene	ND	3,300	
Fluoranthene	ND	3,300	
Pyrene	ND	3,300	
Benzo(a)anthracene	ND	3,300	
Chrysene	ND	3,300	
Benzo(b)fluoranthene	ND	3,300	
Benzo(k)fluoranthene	ND	3,300	
Benzo(a)pyrene	ND	3,300	
Indeno(1,2,3-cd)pyrene	ND	3,300	
Dibenz(a,h)anthracene	ND	3,300	
Benzo(g,h,i)perylene	ND	3,300	

Surrogate	%REC	Limits	
Nitrobenzene-d5	DO	41-120	
2-Fluorobiphenyl	DO	46-120	
Terphenyl-d14	DO	44-120	

DO= Diluted Out
ND= Not Detected
DI= Depositing Limi

RL= Reporting Limit

Page 1 of 1 8.0



	Polynuclear Aromatics by GC/MS					
Lab #:	202462	Location:	Learner			
Client:	LFR Levine Fricke	Prep:	EPA 3550B			
Project#:	001-09466-01	Analysis:	EPA 8270C			
Field ID:	DCB-P6-4.5	Batch#:	136844			
Lab ID:	202462-013	Sampled:	04/07/08			
Matrix:	Soil	Received:	04/07/08			
Units:	ug/Kg	Prepared:	04/08/08			
Basis:	as received	Analyzed:	04/08/08			
Diln Fac:	50.00					

Analyte	Result	RL	
Naphthalene	ND	6,600	
Acenaphthylene	ND	6,600	
Acenaphthene	ND	6,600	
Fluorene	ND	6,600	
Phenanthrene	ND	6,600	
Anthracene	ND	6,600	
Fluoranthene	ND	6,600	
Pyrene	ND	6,600	
Benzo(a)anthracene	ND	6,600	
Chrysene	ND	6,600	
Benzo(b)fluoranthene	ND	6,600	
Benzo(k)fluoranthene	ND	6,600	
Benzo(a)pyrene	ND	6,600	
Indeno(1,2,3-cd)pyrene	ND	6,600	
Dibenz(a,h)anthracene	ND	6,600	
Benzo(g,h,i)perylene	ND	6,600	

Surrogate	%REC	Limits	
Nitrobenzene-d5	DO	41-120	
2-Fluorobiphenyl	DO	46-120	
Terphenyl-d14	DO	44-120	

DO= Diluted Out
ND= Not Detected
RL= Reporting Limit

Page 1 of 1 9.0



Polynuclear Aromatics by GC/MS						
Lab #:	202462	Location:	Learner			
Client:	LFR Levine Fricke	Prep:	EPA 3550B			
Project#:	001-09466-01	Analysis:	EPA 8270C			
Type:	BLANK	Diln Fac:	1.000			
Lab ID:	QC436550	Batch#:	136844			
Matrix:	Soil	Prepared:	04/08/08			
Units:	ug/Kg	Analyzed:	04/08/08			
Basis:	as received					

Analyte	Result	RL	
Naphthalene	ND	67	
Acenaphthylene	ND	67	
Acenaphthene	ND	67	
Fluorene	ND	67	
Phenanthrene	ND	67	
Anthracene	ND	67	
Fluoranthene	ND	67	
Pyrene	ND	67	
Benzo(a)anthracene	ND	67	
Chrysene	ND	67	
Benzo(b)fluoranthene	ND	67	
Benzo(k)fluoranthene	ND	67	
Benzo(a)pyrene	ND	67	
Indeno(1,2,3-cd)pyrene	ND	67	
Dibenz(a,h)anthracene	ND	67	
Benzo(g,h,i)perylene	ND	67	

	Surrogate	%REC	Limits
1	Nitrobenzene-d5	111	41-120
2	2-Fluorobiphenyl	111	46-120
7	Terphenyl-d14	109	44-120



Polynuclear Aromatics by GC/MS						
Lab #:	202462	Location:	Learner			
Client:	LFR Levine Fricke	Prep:	EPA 3550B			
Project#:	001-09466-01	Analysis:	EPA 8270C			
Type:	LCS	Diln Fac:	1.000			
Lab ID:	QC436551	Batch#:	136844			
Matrix:	Soil	Prepared:	04/08/08			
Units:	ug/Kg	Analyzed:	04/08/08			
Basis:	as received					

Analyte	Spiked	Result	%REC	Limits
Naphthalene	1,332	1,138	85	48-120
Acenaphthylene	1,332	1,074	81	48-120
Acenaphthene	1,332	1,086	82	47-120
Fluorene	1,332	1,140	86	48-120
Phenanthrene	1,332	1,107	83	47-120
Anthracene	1,332	1,162	87	48-120
Fluoranthene	1,332	1,174	88	48-120
Pyrene	1,332	1,062	80	44-120
Benzo(a)anthracene	1,332	1,195	90	46-120
Chrysene	1,332	1,161	87	46-120
Benzo(b)fluoranthene	1,332	1,043	78	41-120
Benzo(k)fluoranthene	1,332	1,077	81	42-120
Benzo(a)pyrene	1,332	1,115	84	45-120
Indeno(1,2,3-cd)pyrene	1,332	1,173	88	39-120
Dibenz(a,h)anthracene	1,332	1,155	87	46-120
Benzo(g,h,i)perylene	1,332	1,126	85	41-124

Surrogate	%REC	Limits	
Nitrobenzene-d5	101	41-120	
2-Fluorobiphenyl	88	46-120	
Terphenyl-d14	94	44-120	



Polynuclear Aromatics by GC/MS						
Lab #:	202462	Location:	Learner			
Client:	LFR Levine Fricke	Prep:	EPA 3550B			
Project#:	001-09466-01	Analysis:	EPA 8270C			
Field ID:	ZZZZZZZZZZ	Diln Fac:	3.000			
MSS Lab ID:	202437-001	Batch#:	136844			
Matrix:	Soil	Sampled:	04/04/08			
Units:	ug/Kg	Received:	04/04/08			
Basis:	as received	Prepared:	04/08/08			

Analyzed: 04/08/08

MS QC436552 Type: Lab ID:

Analyte	MSS Result	Spiked	Result	%REC	Limits
Naphthalene	<53.88	1,328	1,496	113	50-120
Acenaphthylene	<54.88	1,328	1,405	106	50-120
Acenaphthene	<49.03	1,328	1,403	106	50-120
Fluorene	<57.83	1,328	1,454	110	50-120
Phenanthrene	112.3	1,328	1,521	106	49-120
Anthracene	<56.47	1,328	1,503	113	51-120
Fluoranthene	<59.79	1,328	1,541	116	44-120
Pyrene	<62.78	1,328	1,386	104	45-120
Benzo(a)anthracene	<52.16	1,328	1,444	109	49-120
Chrysene	<69.91	1,328	1,438	108	47-120
Benzo(b)fluoranthene	<60.99	1,328	1,280	96	43-120
Benzo(k)fluoranthene	<64.84	1,328	1,444	109	42-120
Benzo(a)pyrene	<57.55	1,328	1,283	97	46-120
Indeno(1,2,3-cd)pyrene	<63.21	1,328	820.3	62	23-120
Dibenz(a,h)anthracene	<60.27	1,328	872.1	66	28-120
Benzo(q,h,i)pervlene	<64.74	1,328	724.4	55	21-120

Surrogate	%REC	Limits	
Nitrobenzene-d5	120	41-120	
2-Fluorobiphenyl	116	46-120	
Terphenyl-d14	117	44-120	

Type: Lab ID: MSD QC436553 Analyzed: 04/09/08

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Naphthalene	1,327	1,397	105	50-120	7	30
Acenaphthylene	1,327	1,325	100	50-120	6	27
Acenaphthene	1,327	1,336	101	50-120	5	28
Fluorene	1,327	1,377	104	50-120	5	28
Phenanthrene	1,327	1,425	99	49-120	6	30
Anthracene	1,327	1,412	106	51-120	6	29
Fluoranthene	1,327	1,443	109	44-120	7	31
Pyrene	1,327	1,335	101	45-120	4	32
Benzo(a)anthracene	1,327	1,370	103	49-120	5	30
Chrysene	1,327	1,355	102	47-120	6	31
Benzo(b)fluoranthene	1,327	1,245	94	43-120	3	32
Benzo(k)fluoranthene	1,327	1,377	104	42-120	5	33
Benzo(a)pyrene	1,327	1,215	92	46-120	5	30
Indeno(1,2,3-cd)pyrene	1,327	745.2	56	23-120	10	35
Dibenz(a,h)anthracene	1,327	769.9	58	28-120	12	34
Benzo(g,h,i)perylene	1,327	636.1	48	21-120	13	36

Surrogate	%REC	Limits
Nitrobenzene-d5	112	41-120
2-Fluorobiphenyl	110	46-120
Terphenyl-d14	113	44-120



California Title 26 Metals					
Lab #:	202462	Project#:	001-09466-01		
Client:	LFR Levine Fricke	Location:	Learner		
Field ID:	LP-1-4.0	Basis:	as received		
Lab ID:	202462-001	Sampled:	04/07/08		
Matrix:	Soil	Received:	04/07/08		
Units:	mg/Kg				

Analyte	Result	RL	Diln Fac	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	0.50	1.000	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Arsenic	4.9	0.29	1.000	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Barium	320	0.25	1.000	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Beryllium	0.27	0.10	1.000	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Cadmium	1.9	0.25	1.000	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Chromium	36	0.25	1.000	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Cobalt	8.5	0.25	1.000	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Copper	48	0.29	1.000	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Lead	130	0.25	1.000	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Mercury	0.46	0.020	1.000	136937	04/10/08	04/10/08	METHOD	EPA 7471A
Molybdenum	0.53	0.25	1.000	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Nickel	43	0.25	1.000	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Selenium	ND	0.50	1.000	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Silver	ND	0.25	1.000	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Thallium	ND	0.50	1.000	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Vanadium	32	0.25	1.000	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Zinc	750	9.9	10.00	136835	04/07/08	04/09/08	EPA 3050B	EPA 6010B



	Californ	nia Title 26 Meta	als	
Lab #:	202462	Project#:	001-09466-01	
Client:	LFR Levine Fricke	Location:	Learner	
Field ID:	DCB-P3-4.0	Basis:	as received	
Lab ID:	202462-003	Sampled:	04/07/08	
Matrix:	Soil	Received:	04/07/08	
Units:	mg/Kg			

Analyte	Result	RL	Diln Fac	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	0.50	1.000	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Arsenic	5.4	0.27	1.000	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Barium	530	2.3	10.00	136835	04/07/08	04/09/08	EPA 3050B	EPA 6010B
Beryllium	0.23	0.10	1.000	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Cadmium	2.9	0.25	1.000	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Chromium	44	0.25	1.000	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Cobalt	8.9	0.25	1.000	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Copper	76	0.27	1.000	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Lead	190	0.25	1.000	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Mercury	0.47	0.020	1.000	136937	04/10/08	04/10/08	METHOD	EPA 7471A
Molybdenum	2.0	0.25	1.000	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Nickel	48	0.25	1.000	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Selenium	ND	0.50	1.000	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Silver	ND	0.25	1.000	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Thallium	ND	0.50	1.000	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Vanadium	32	0.25	1.000	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Zinc	590	9.3	10.00	136835	04/07/08	04/09/08	EPA 3050B	EPA 6010B



	Californ	nia Title 26 Meta	ıls	
Lab #:	202462	Project#:	001-09466-01	
Client:	LFR Levine Fricke	Location:	Learner	
Field ID:	DCB-P1-4.0	Basis:	as received	
Lab ID:	202462-005	Diln Fac:	1.000	
Matrix:	Soil	Sampled:	04/07/08	
Units:	mg/Kg	Received:	04/07/08	

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	0.50	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Arsenic	5.7	0.26	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Barium	280	0.25	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Beryllium	0.22	0.10	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Cadmium	1.3	0.25	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Chromium	90	0.25	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Cobalt	7.7	0.25	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Copper	41	0.26	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Lead	120	0.25	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Mercury	0.24	0.020	136937	04/10/08	04/10/08	METHOD	EPA 7471A
Molybdenum	12	0.25	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Nickel	40	0.25	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Selenium	ND	0.50	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Silver	ND	0.25	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Thallium	ND	0.50	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Vanadium	30	0.25	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Zinc	210	1.0	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B

Page 1 of 1 15.0



	Californ	nia Title 26 Meta	ıls	
Lab #:	202462	Project#:	001-09466-01	
Client:	LFR Levine Fricke	Location:	Learner	
Field ID:	DCB-P2-4.0	Basis:	as received	
Lab ID:	202462-007	Diln Fac:	1.000	
Matrix:	Soil	Sampled:	04/07/08	
Units:	mg/Kg	Received:	04/07/08	

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	2.8	0.50	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Arsenic	8.7	0.27	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Barium	390	0.25	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Beryllium	0.29	0.10	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Cadmium	1.4	0.25	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Chromium	88	0.25	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Cobalt	9.1	0.25	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Copper	52	0.27	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Lead	130	0.25	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Mercury	0.38	0.021	136937	04/10/08	04/10/08	METHOD	EPA 7471A
Molybdenum	13	0.25	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Nickel	40	0.25	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Selenium	ND	0.50	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Silver	ND	0.25	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Thallium	ND	0.50	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Vanadium	31	0.25	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Zinc	220	1.0	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B



	Californ	nia Title 26 Meta	als	
Lab #:	202462	Project#:	001-09466-01	
Client:	LFR Levine Fricke	Location:	Learner	
Field ID:	DCB-P4-3.0	Basis:	as received	
Lab ID:	202462-009	Sampled:	04/07/08	
Matrix:	Soil	Received:	04/07/08	
Units:	mg/Kg			

Analyte	Result	RL	Diln Fac	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	0.50	1.000	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Arsenic	4.5	0.28	1.000	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Barium	690	2.4	10.00	136835	04/07/08	04/09/08	EPA 3050B	EPA 6010B
Beryllium	0.30	0.10	1.000	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Cadmium	0.83	0.25	1.000	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Chromium	40	0.25	1.000	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Cobalt	14	0.25	1.000	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Copper	26	0.28	1.000	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Lead	120	0.25	1.000	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Mercury	0.073	0.020	1.000	136937	04/10/08	04/10/08	METHOD	EPA 7471A
Molybdenum	2.8	0.25	1.000	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Nickel	68	0.25	1.000	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Selenium	ND	0.50	1.000	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Silver	ND	0.25	1.000	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Thallium	ND	0.50	1.000	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Vanadium	31	0.25	1.000	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Zinc	150	1.0	1.000	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B



	Californ	nia Title 26 Meta	ıls	
Lab #:	202462	Project#:	001-09466-01	
Client:	LFR Levine Fricke	Location:	Learner	
Field ID:	DCB-P4-8.0	Basis:	as received	
Lab ID:	202462-010	Diln Fac:	1.000	
Matrix:	Soil	Sampled:	04/07/08	
Units:	mg/Kg	Received:	04/07/08	

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	0.50	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Arsenic	3.1	0.28	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Barium	140	0.25	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Beryllium	0.24	0.10	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Cadmium	ND	0.25	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Chromium	25	0.25	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Cobalt	8.0	0.25	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Copper	7.2	0.28	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Lead	4.2	0.25	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Mercury	0.23	0.020	136937	04/10/08	04/10/08	METHOD	EPA 7471A
Molybdenum	ND	0.25	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Nickel	20	0.25	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Selenium	ND	0.50	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Silver	ND	0.25	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Thallium	ND	0.50	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Vanadium	21	0.25	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Zinc	13	1.0	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B



	Californ	nia Title 26 Meta	ıls	
Lab #:	202462	Project#:	001-09466-01	
Client:	LFR Levine Fricke	Location:	Learner	
Field ID:	DCB-P5-3.0	Basis:	as received	
Lab ID:	202462-011	Diln Fac:	1.000	
Matrix:	Soil	Sampled:	04/07/08	
Units:	mg/Kg	Received:	04/07/08	

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	0.50	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Arsenic	5.1	0.27	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Barium	290	0.25	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Beryllium	0.22	0.10	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Cadmium	2.1	0.25	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Chromium	36	0.25	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Cobalt	8.7	0.25	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Copper	49	0.27	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Lead	120	0.25	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Mercury	0.31	0.020	136937	04/10/08	04/10/08	METHOD	EPA 7471A
Molybdenum	16	0.25	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Nickel	30	0.25	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Selenium	ND	0.50	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Silver	ND	0.25	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Thallium	ND	0.50	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Vanadium	32	0.25	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Zinc	290	1.0	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B



California Title 26 Metals						
Lab #:	202462	Project#:	001-09466-01			
Client:	LFR Levine Fricke	Location:	Learner			
Field ID:	DCB-P6-4.5	Basis:	as received			
Lab ID:	202462-013	Diln Fac:	1.000			
Matrix:	Soil	Sampled:	04/07/08			
Units:	mg/Kg	Received:	04/07/08			

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	0.50	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Arsenic	5.8	0.27	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Barium	430	0.25	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Beryllium	0.26	0.10	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Cadmium	1.7	0.25	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Chromium	28	0.25	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Cobalt	8.6	0.25	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Copper	61	0.27	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Lead	140	0.25	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Mercury	0.32	0.020	136937	04/10/08	04/10/08	METHOD	EPA 7471A
Molybdenum	1.2	0.25	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Nickel	35	0.25	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Selenium	ND	0.50	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Silver	ND	0.25	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Thallium	ND	0.50	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Vanadium	32	0.25	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B
Zinc	350	1.0	136835	04/07/08	04/08/08	EPA 3050B	EPA 6010B

Page 1 of 1 20.0



	Californ	nia Title 26 Meta	ıls	
Lab #:	202462	Location:	Learner	
Client:	LFR Levine Fricke	Prep:	EPA 3050B	
Project#:	001-09466-01	Analysis:	EPA 6010B	
Type:	BLANK	Diln Fac:	1.000	
Lab ID:	QC436517	Batch#:	136835	
Matrix:	Soil	Prepared:	04/07/08	
Units:	mg/Kg	Analyzed:	04/08/08	
Basis:	as received			

Analyte	Result	RL	
Antimony	ND	0.50	
Arsenic	ND	0.29	
Barium	ND	0.25	
Beryllium	ND	0.10	
Cadmium	ND	0.25	
Chromium	ND	0.25	
Cobalt	ND	0.25	
Copper	ND	0.29	
Lead	ND	0.25	
Molybdenum	ND	0.25	
Nickel	ND	0.25	
Selenium	ND	0.50	
Silver	ND	0.25	
Thallium	ND	0.50	
Vanadium	ND	0.25	
Zinc	ND	1.0	



California Title 26 Metals					
Lab #: Client:	202462 LFR Levine Fricke	Location: Prep:	Learner EPA 3050B		
Project#:	001-09466-01	Analysis:	EPA 6010B		
Matrix:	Soil	Batch#:	136835		
Units:	mg/Kg	Prepared:	04/07/08		
Basis: Diln Fac:	as received 1.000	Analyzed:	04/08/08		

Type: BS Lab ID: QC436518

Analyte	Spiked	Result	%REC	Limits
Antimony	100.0	87.11	87	80-120
Arsenic	50.00	45.58	91	80-120
Barium	100.0	91.89	92	80-120
Beryllium	2.500	2.297	92	80-120
Cadmium	10.00	9.206	92	80-120
Chromium	100.0	90.94	91	80-120
Cobalt	25.00	21.83	87	80-120
Copper	12.50	11.15	89	80-120
Lead	100.0	88.38	88	80-120
Molybdenum	20.00	18.71	94	80-120
Nickel	25.00	21.98	88	80-120
Selenium	50.00	44.34	89	80-120
Silver	10.00	8.282	83	80-120
Thallium	50.00	44.25	88	80-120
Vanadium	25.00	22.58	90	80-120
Zinc	25.00	22.88	92	80-120

Type: BSD Lab ID: QC436519

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	100.0	87.53	88	80-120	0	20
Arsenic	50.00	44.50	89	80-120	2	20
Barium	100.0	91.86	92	80-120	0	20
Beryllium	2.500	2.297	92	80-120	0	20
Cadmium	10.00	9.193	92	80-120	0	20
Chromium	100.0	90.90	91	80-120	0	20
Cobalt	25.00	21.74	87	80-120	0	20
Copper	12.50	11.18	89	80-120	0	20
Lead	100.0	87.46	87	80-120	1	20
Molybdenum	20.00	18.64	93	80-120	0	20
Nickel	25.00	21.86	87	80-120	1	20
Selenium	50.00	43.86	88	80-120	1	20
Silver	10.00	8.255	83	80-120	0	20
Thallium	50.00	44.00	88	80-120	1	20
Vanadium	25.00	22.53	90	80-120	0	20
Zinc	25.00	22.84	91	80-120	0	20
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California Title 26 Metals					
Lab #:	202462	Location:	Learner		
Client:	LFR Levine Fricke	Prep:	EPA 3050B		
Project#:	001-09466-01	Analysis:	EPA 6010B		
Field ID:	LP-1-4.0	Batch#:	136835		
MSS Lab ID:	202462-001	Sampled:	04/07/08		
Matrix:	Soil	Received:	04/07/08		
Units:	mg/Kg	Prepared:	04/07/08		
Basis:	as received	Analyzed:	04/08/08		
Diln Fac:	1.000	_			

Type: MS Lab ID: QC436520

Analyte	MSS Result	Spiked	Result	%REC	Limits
Antimony	0.2711	94.34	45.87	48	3-120
Arsenic	4.940	47.17	44.03	83	71-120
Barium	324.1	94.34	365.8	44 *	50-135
Beryllium	0.2680	2.358	2.304	86	79-120
Cadmium	1.944	9.434	9.053	75	71-120
Chromium	36.39	94.34	115.6	84	65-120
Cobalt	8.508	23.58	26.76	77	60-120
Copper	48.09	11.79	48.69	5 NM	42-152
Lead	133.6	94.34	172.8	42 *	53-124
Molybdenum	0.5306	18.87	15.85	81	66-120
Nickel	42.56	23.58	57.73	64	44-139
Selenium	<0.04667	47.17	37.17	79	69-120
Silver	0.06069	9.434	7.521	79	70-120
Thallium	0.08533	47.17	36.25	77	61-120
Vanadium	31.66	23.58	48.69	72	51-137
Zinc	752.3	23.58	967.9 >LR	914 NM	36-150

Type: MSD Lab ID: QC436521

Analyte	Spiked	Result	%REC	Limits RPD	Lim
Antimony	99.01	45.34	46	3-120 6	33
Arsenic	49.50	47.62	86	71-120 3	20
Barium	99.01	373.7	50	50-135 1	24
Beryllium	2.475	2.381	85	79-120 1	20
Cadmium	9.901	9.338	75	71-120 1	20
Chromium	99.01	166.1	131 *	65-120 32 *	20
Cobalt	24.75	27.46	77	60-120 1	23
Copper	12.38	55.79	62	42-152 13	23
Lead	99.01	203.5	71	53-124 14	28
Molybdenum	19.80	23.65	117	66-120 35 *	20
Nickel	24.75	93.49	206 *	44-139 46 *	26
Selenium	49.50	38.60	78	69-120 1	20
Silver	9.901	8.010	80	70-120 1	20
Thallium	49.50	37.11	75	61-120 2	20
Vanadium	24.75	50.94	78	51-137 2	20
Zinc	24.75	597.9 >LR	-624 NM	1 36-150 NC	30

Page 1 of 1 24.0

<sup>\*=</sup> Value outside of QC limits; see narrative NC= Not Calculated NM= Not Meaningful: Sample concentration > 4X spike concentration >LR= Response exceeds instrument's linear range RPD= Relative Percent Difference



California Title 26 Metals					
Lab #:	202462	Location:	Learner		
Client:	LFR Levine Fricke	Prep:	METHOD		
Project#:	001-09466-01	Analysis:	EPA 7471A		
Analyte:	Mercury	Basis:	as received		
Type:	BLANK	Diln Fac:	1.000		
Lab ID:	QC436937	Batch#:	136937		
Matrix:	Soil	Prepared:	04/10/08		
Units:	mg/Kg	Analyzed:	04/10/08		

Result	RL	
ND	0.020	



California Title 26 Metals									
Lab #:	202462	Location:	Learner						
Client:	LFR Levine Fricke	Prep:	METHOD						
Project#:	001-09466-01	Analysis:	EPA 7471A						
Analyte:	Mercury	Diln Fac:	1.000						
Matrix:	Soil	Batch#:	136937						
Units:	mg/Kg	Prepared:	04/10/08						
Basis:	as received	Analyzed:	04/10/08						

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC436938	0.5000	0.4830	97	80-120		
BSD	QC436939	0.5000	0.4860	97	80-120	1	20



	Californ	nia Title 26 Meta	als	
Lab #:	202462	Location:	Learner	
Client:	LFR Levine Fricke	Prep:	METHOD	
Project#:	001-09466-01	Analysis:	EPA 7471A	
Analyte:	Mercury	Diln Fac:	1.000	
Field ID:	ZZZZZZZZZ	Batch#:	136937	
MSS Lab ID:	202496-009	Sampled:	04/08/08	
Matrix:	Soil	Received:	04/08/08	
Units:	mg/Kg	Prepared:	04/10/08	
Basis:	as received	Analyzed:	04/10/08	

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
MS	QC436941	0.1444	0.4902	0.6520	104	68-140		
MSD	QC436942		0.4808	0.6135	98	68-140	5	24

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SAMPLE RECEIPT: Cooler Temp: METHOD OF SHIPMENT: RELIGIOUS FEW Y X Y X HOLD X X X X X X X X X X X X X X X X X X X	3						<b>x</b>		X	X			X	X							Υ			ĺ			
SAMPLE RECEIPT: Cooler Temp: METHOD OF SHIPMENT: RELIXOUSSERSY WAY X HO D X X X X X X X X X X X X X X X X X X	4	TY.B-P6-75		1125			×		人	¥		,	χ .	x		H	اكر						X				
SAMPLE RECEIPT: Cooler Temp: METHOD OF SHIPMENT: RELINGUISHED BY: 2 RELINQUISHED BY: 3  Intact Cold Cooler No: LAB REPORT NO: (SIGNATURE) (DATE) (SIGNATURE) (DATE)  On Ice Ambient Preservative Correct? FAX COC CONFIRMATION TO: (PRINTED NAME) (TIME) (PRINTED NAME) (TIME)  Yes No	5	DCB-05-65		1105			X		_				У	Х		#	י ס					)	×				
SAMPLE RECEIPT:   Cooler Temp:   METHOD OF SHIPMENT:   RELINDUSTERSY   1/7/08   RECENQUISHED BY:   2 RELINQUISHED BY:   3   Intact   Cold   Cooler No:   LAB REPORT NO.:   (SIGNATURE)   (DATE)   (DATE)	6		0																				$\overline{X}$				
Intact Cold Cooler No: LAB REPORT NO.: (SIGNATURE) (DATE) (SIGNATURE) (DATE)  Preservative Correct?  Preservative Correct?  PAX COC CONFIRMATION TO: (PRINTED NAME) (TIME) (PRINTED NAME) (TIME)  ANALYTICAL LABORATORY:  FAX RESULTS TO: RECEIVED BY: 1 RECEIVED BY: 2 RECEIVED BY (LABORATORY): 3  SEND HARDCOPY TO: (SIGNATURE) (DATE) (SIGNATURE) (DATE) (DA		100 10 x 8												//									Ì				
Intact Cold Cooler No: LAB REPORT NO.: (SIGNATURE) (DATE) (SIGNATURE) (DATE)  Preservative Correct?  Preservative Correct?  PAX COC CONFIRMATION TO: (PRINTED NAME) (TIME) (PRINTED NAME) (TIME)  ANALYTICAL LABORATORY:  FAX RESULTS TO: RECEIVED BY: 1 RECEIVED BY: 2 RECEIVED BY (LABORATORY): 3  SEND HARDCOPY TO: (SIGNATURE) (DATE) (SIGNATURE) (DATE) (DA		· · ·				=	=				1	77	,		$\supset$							Ī				. 1.1	<del></del>
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Preservative Correct?  Yes No N/A  ANALYTICAL LABORATORY:  FAX COC CONFIRMATION TO: (PRINTED NAME) (TIME) (PRINTED NAME) (TIME) (PRINTED NAME) (TIME)  (COMPANY)  FAX RESULTS TO: (SIGNATURE) (SIGNATURE)  (COMPANY)  SEND HARDCOPY TO: (SIGNATURE) (SIGNATURE) (DATE)  SEND EDD TO: (PRINTED NAME) (TIME) (PRINTED NAME) (TIME) (PRINTED NAME) (TIME)  (COMPANY)  (LABORATORY)	ı	· · · · · · · · · · · · · · · · · · ·	METHOD OF	SHIPMEN	T:	RELING	YSI	BY:	1111		16	1216	7	RECH	QUISI	IED BY	<b>/</b> :	<u> </u>	l		2 R	RELING	QUIS	SRED BY:			3
Preservative Correct?  Yes No N/A  ANALYTICAL LABORATORY:  FAX COC CONFIRMATION TO: (PRINTED NAME) (TIME) (PRINTED NAME) (TIME) (PRINTED NAME) (TIME)  (COMPANY)  FAX RESULTS TO: (SIGNATURE) (SIGNATURE)  (COMPANY)  SEND HARDCOPY TO: (SIGNATURE) (SIGNATURE) (DATE)  SEND EDD TO: (PRINTED NAME) (TIME) (PRINTED NAME) (TIME) (PRINTED NAME) (TIME)  (COMPANY)  (LABORATORY)		Intact Cold Cooler No:	LAB REPORT	NO.:		(SIGNAT	URE)		115		4/	(DATE)	2	(SIGN/	ATURE)					(DATE)	(5	SIGNA	TUR	E)			(DATE)
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## **COOLER RECEIPT CHECKLIST**



Login # $202462$ Date Received $4-7-08$ Number of coolers 1
Client LFR Project Learner
Date Opened 4-7-08 By (print) F Nichols (sign)  Date Logged in 4-7-08 By (print) F Nichols (sign)
1. Did cooler come with a shipping slip (airbill, etc)?
2A. Were custody seals present?  \[ YES \( (circle) \) on cooler on samples \[ NO \) Name \[ 2B. Were custody seals intact upon arrival? \[ YES \( NO \) N/A \]
2B. Were custody seals intact upon arrival? YES NO N/A  3. Were custody papers dry and intact when received? NO  4. Were custody papers filled out properly (ink, signed, etc)? NO  5. Is the project identifiable from custody papers? (If so fill out top of form) YES NO  6. Indicate the packing in cooler: (if other, describe)
☐ Bubble Wrap ☐ Foam blocks ☐ Bags None
Cloth material Cardboard Styrofoam Paper towels  7. If required, was sufficient ice used? Samples should be < or = 6°CYES NO N/A
Type of ice used: WET BLUE NONE Temp(°C) No temp blank, Col
☐ SAMPLES RECEIVED ON ICE DIRECTLY FROM FIELD. COOLING PROCESS HAD BEGUN.
8. Were soil Encore sampling devices present?  If YES, what time were they transferred to freezer?  9. Did all bottles arrive unbroken/unopened?  10. Are samples in the appropriate containers for indicated tests?  11. Are sample labels present, in good condition and complete?  12. Do the sample labels agree with custody papers?  13. Was sufficient amount of sample sent for tests requested?  14. Are the samples appropriately preserved?  15. Are bubbles absent in VOA samples?  16. Was the client contacted concerning this sample delivery?  17. If YES, Who was called?  18. Date:  COMMENTS

SOP Volume: Client Services

Section: 1.1.2 Page 1 of 1 Rev: 4 Number 1 of 3 Effective: 06 March 2008

F:\qc\forms\checklists\Cooler Receipt Checklist\_rv4.doc