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November 12, 1999

REPORT *Nov 1999*  
of  
SOIL AND GROUNDWATER ASSESSMENT  
ASE JOB NO. 3406  
at  
Former Olympic Service Station  
1436 Grant Avenue  
San Lorenzo, California

Submitted by:  
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## 1.0 INTRODUCTION

This report presents the methods and findings of Aqua Science Engineers, Inc. (ASE)'s soil and groundwater assessment at the former Olympic Service Station located at 1436 Grant Avenue in San Lorenzo, California (Figure 1). The site assessment activities were initiated by the property owner, Mr. George Jaber, as required in a letter from the Alameda County Health Care Services Agency (ACHCSA) dated October 21, 1998 (Appendix A).

## 2.0 SITE HISTORY

### 2.1 Underground Storage Tank Removal Project

In July 1998, Reese Construction removed one 10,000 gallon gasoline underground storage tank (UST), one 8,000 gallon gasoline UST, one 5,000 gallon diesel UST, one 250 gallon waste-oil UST and six dispensers from the subject site. At the time of the UST removal, groundwater was present in the fuel UST pit; no water was present in the waste-oil UST pit. Soil samples collected from the excavation sidewalls, excavation bottoms and stockpiled soil contained elevated levels of petroleum hydrocarbons, solvents and lead. The highest concentrations were as follows: total petroleum hydrocarbons as gasoline (TPH-G) at 5,700 parts per million (ppm), total petroleum hydrocarbons as diesel (TPH-D) at 1,300 ppm, oil and grease (O&G) at 4,300 ppm, benzene at 30 ppm, toluene at 180 ppm, ethyl benzene at 93 ppm, total xylenes at 430 ppm, methyl tertiary butyl ether (MTBE) at 27 ppm, and lead at 1,900 ppm. The waste-oil UST excavation also contained 26 parts per billion (ppb) 1,1-dichloroethane (1,1-DCA), 100 ppb cis-1,2-dichloroethene (cis-1,2-DCE), and 1,200 ppb tetrachloroethene (PCE). See the Reese Construction UST Removal letter dated September 14, 1998 for further information on the UST removal.

### 2.2 Stockpiled Soil Sampling

On November 11, 1998, ASE collected soil samples from the stockpiled soil which previously surrounded the gasoline and diesel-fuel USTs. The sampling event was performed to identify if the stockpiled soil was suitable for re-use as backfill material. Four composited soil samples were collected from the two fuel UST stockpiles and were analyzed by Chromalab, Inc. of Pleasanton, California (ELAP # 1094) for TPH-G by EPA Method 8015M, TPH-D by EPA Method 8015M, benzene, toluene, ethyl benzene and total xylenes (collectively known as BTEX) and MTBE by EPA Method 8020, and total lead by EPA Method 6010. The soil samples

contained no detectable concentrations of TPH-G, up to 280 ppm TPH-D, no detectable concentrations of benzene, up to 0.055 ppm toluene, 0.026 ppm ethylbenzene, 0.066 ppm total xylenes, 0.012 ppm MTBE and 110 ppm total lead. These results were reported in an ASE letter report dated November 24, 1998 to Mr. Scott Seery of the Alameda County Health Care Services Agency (ACHCSA). Soon after his receipt of the stockpile sampling report, Mr. Seery gave ASE verbal approval to re-use the stockpiled soil for backfill in the fuel UST excavation. The fuel UST excavation was subsequently backfilled and compacted by a company subcontracted directly by Mr. Jaber.

### 2.3 Waste-Oil UST Overexcavation

Due to the presence of elevated concentrations of petroleum hydrocarbons, oil and grease, volatile organic compounds (VOCs) and total lead at the bottom of the waste-oil UST excavation, ASE recommended overexcavation of the area followed by confirmation soil sampling. On December 18, 1998, ASE witnessed the overexcavation of the waste-oil UST pit. The excavation activities continued to a depth of 12-feet below ground surface (bgs) using a backhoe. Deeper excavation was not feasible due to the presence of the excavation in relation to the adjacent building wall. The excavated spoils were stockpiled with the spoils generated during the UST removal.

A confirmation soil sample collected from the bottom of the excavation contained 940 ppm total petroleum hydrocarbons as motor oil (TPH-MO), 250 ppm TPH-D, 570 ppm O&G and 996 ppm total lead. TPH-G, BTEX, MTBE, cadmium, chromium, nickel, zinc, VOCs, and semi-volatile organic compounds (SVOCs) had concentrations below action levels. The TPH concentrations of the soil sample collected from 12-feet bgs are significantly lower than the concentrations within the soil sample collected just below the UST after it removal. The most obvious concern relates to the lead concentration which is only slightly below the US EPA Region IX Preliminary Remedial Goal (PRG) for industrial soil. This current total lead concentration is roughly half of the concentration of the soil sample collected just below the UST after it removal.

A four-point composite soil sample collected from the stockpiled soil was analyzed by Chromalab for TPH-G, TPH-D, TPH-MO, BTEX, MTBE, O&G, LUFT 5 metals, VOCs, SVOCs, soluble lead using the waste extraction test (WET) and the toxicity characteristic leaching procedure (TCLP). The stockpiled soil sample contained 2,100 ppm TPH-MO, 550 ppm TPH-D, 1,300 ppm O&G and 54 ppm WET lead. The TCLP lead result was less than

the detection limit of 1 ppm. The remaining compounds had concentrations below action levels. This volume of stockpiled soil will require disposal at a hazardous landfill.

The waste-oil UST excavation was subsequently backfilled completely with import material. The 15.3 tons of stockpiled soil was transported from the site by Lutrell Trucking to Chemical Waste Management in Kettleman City, California for disposal on September 24, 1999.

#### 2.4 Dispenser Area

On December 18, 1998, ASE collected a confirmation soil sample following overexcavation of soil in the area of one of the former dispensers which contained 5,700 ppm TPH-G in a soil sample at the time of the removal of one of the dispensers. This confirmation soil sample was analyzed for TPH-G, TPH-D, BTEX, MTBE and total lead. TPH-G, TPH-D, BTEX and MTBE were not detected above detection limits. The total lead concentration was 6.3 ppm.

### 3.0 SCOPE OF WORK

Based on the requirements of the ACHCSA as directed in their letter dated October 21, 1998 (Appendix A), ASE's scope of work was as follows:

- 1) Prepare a workplan and a health and safety plan for approval by the ACHCSA.
- 2) Obtain a drilling permit from the Alameda County Public Works Agency (ACPWA).
- 3) Drill three (3) soil borings to approximately 25-feet bgs at the site.
- 4) Analyze at least one soil sample from each boring at a CAL-EPA certified analytical laboratory for TPH-G by modified EPA Method 5030/8015, TPH-D by modified EPA Method 3550/8015, BTEX and MTBE by EPA Method 8020, and total lead by EPA Method 6010. The soil sample collected from the boring drilled near the former waste-oil UST was also analyzed for TPH-MO by EPA Method 3550/8015M, O&G by Standard Method 5520 E&F, LUFT 5 metals by EPA Method 6010, VOCs by EPA Method 8010, and SVOCs by EPA Method 8270.
- 5) Install 2-inch diameter groundwater monitoring wells in each boring described in task 3.

- 6) Develop the monitoring wells.
- 7) Collect groundwater samples from each monitoring well for analyses.
- 8) Analyze the groundwater samples at a CAL-EPA certified analytical laboratory for TPH-G, TPH-D, BTEX and MTBE. The groundwater sample collected from the boring drilled near the former waste-oil UST were also analyzed for TPH-MO, O&G, VOCs, and SVOCs.
- 9) Survey the top of casing elevation of each well, and determine the groundwater flow direction and gradient beneath the site.
- 10) Prepare a report detailing the methods and findings of this assessment.

Details of this assessment follow.

#### 4.0 DRILLING SOIL BORINGS AND COLLECTING SAMPLES

##### 4.1 Drilling and Collection of Soil Samples

Prior to drilling, ASE obtained an Alameda County Public Works Agency (ACPWA) drilling permit (Appendix B). ASE also notified Underground Service Alert (USA) to have underground public utilities in the vicinity of the site marked prior to drilling.

~~On September 24, 1999, West Hazmat Drilling of Newark, California drilled soil borings MW-1, MW-2 and MW-3~~ at the site using a Mobile B-61 drill rig equipped with 8-inch diameter hollow-stem augers (Figure 2). Groundwater monitoring wells MW-1, MW-2 and MW-3 were subsequently constructed in these borings. The drilling was directed by ASE senior geologist Robert E. Kitay, R.G.

Undisturbed soil samples were collected at 5-foot intervals as drilling progressed for lithologic and hydrogeologic description and for possible chemical analyses. The samples were collected by driving a split-barrel drive sampler lined with 2-inch diameter brass tubes ahead of the auger tip with successive blows from a 140-lb. hammer dropped 30-inches. One tube from each sampling interval was immediately trimmed, sealed with Teflon tape, plastic end caps and duct tape, labeled, sealed in a plastic bag and stored on ice for transport to Chromalab, Inc. of Pleasanton, California (ELAP #1094) under chain of custody. Soil from the remaining tubes was described by an ASE geologist using the Unified Soil

Classification System and was screened for volatile compounds with an Organic Vapor Meter (OVM). The soil was screened by emptying soil from one of the sample tubes into a plastic bag. The bag was then sealed and placed in the sun for approximately 10 minutes. After the hydrocarbons were allowed to volatilize, the OVM measured the vapor in the bag through a small hole punched in the bag. OVM readings are used as a screening tool only, since the procedures are not as rigorous as those used in the laboratory.

Drilling equipment was steam-cleaned prior to use and between borings, and sampling equipment was washed with a TSP solution between sampling intervals to prevent cross-contamination. Steam cleaning rinsate and drill cuttings were contained in sealed and labeled 55-gallon steel drums and left on-site for temporary storage until off-site disposal can be arranged.

#### 4.2 Site Specific Geology

Sediments encountered during drilling generally consisted of gravelly sand/silty sand from beneath the asphalt surface to 4-feet bgs, sandy silt from 4-feet bgs to 7-feet bgs, clayey silt from 7-feet bgs to 13-feet bgs, sandy silt from 13-feet bgs to 17-feet bgs and silty sand from 17-feet bgs to the total depth explored of 26.5-feet bgs. **Groundwater** was encountered at approximately 11-feet bgs. The boring log and well construction details are included as Appendix C.

### **5.0 ANALYTICAL RESULTS FOR SOIL**

One soil sample collected from between 10 and 11-feet bgs in each boring was submitted to Chromalab, Inc. for analysis. Each sample was analyzed for TPH-G by modified EPA Method 5030/8015, TPH-D by modified EPA Method 3550/8015, BTEX and MTBE by EPA Method 8020, and total lead by EPA Method 6010. The soil sample collected from the boring MW-2, drilled near the former waste-oil UST, was also analyzed for TPH-MO by EPA Method 3550/8015M, O&G by Standard Method 5520 E&F, LUFT 5 metals by EPA Method 6010, VOCs by EPA Method 8010 and SVOCs by EPA Method 8270. The analytical results are tabulated in Tables One and Two, and a copy of the certified analytical report and chain of custody form are included in Appendix D.

**TABLE ONE**  
**Summary of Chemical Analysis of SOIL Samples**  
**TPH-G, TPH-D, BTEX, MTBE and Total Lead**  
**All results are in parts per million**

Boring	Depth Sampled	TPH Gasoline	TPH Diesel	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE	Total Lead
MW-1	10.5'	<b>6.5*</b>	<b>250**</b>	<b>0.42</b>	<b>0.18</b>	<b>0.065</b>	<b>0.027</b>	<b>1.7</b>	<b>8.8</b>
MW-2	10.0'	<b>2.9*</b>	<b>1,000**</b>	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	7.4
MW-3	10.0'	<b>11</b>	<b>26**</b>	<b>0.63</b>	<b>0.18</b>	<b>0.31</b>	<b>1.1</b>	< 0.0050	---
PRG		NE	NE	0.62	520	230	210	NE	130

Notes:

Detectable concentrations are in **bold**.

Non-detectable concentrations are noted by the less than symbol (<) followed by the detection limit.

PRG is the United States Environmental Protection Agency preliminary remediation goal for residential soil.

NE = PRG is not established.

\* = Hydrocarbons not typical of gasoline pattern.

\*\* = Hydrocarbons not typical of diesel pattern.

--- = Not analyzed

**TABLE TWO**  
**Summary of Chemical Analysis of SOIL Samples**  
**TPH-MO, O&G, VOCs, SVOCs, Cd, Cr, Ni, Zn**  
**All results are in parts per million**

Boring	Depth Sampled	TPH Motor Oil	Oil & Grease	VOCs	SVOCs	Cd	Cr	Ni	Zn
MW-2	<b>10.0'</b>	<b>2,400</b>	<b>700</b>	ND	ND	< 0.50	<b>28</b>	<b>37</b>	<b>46</b>
PRG		NE	NE	Varies	Varies	9.0	210	150	22,000

Notes:

Detectable concentrations are in **bold**.

Non-detectable concentrations are noted by the less than symbol (<) followed by the detection limit.

PRG is the United States Environmental Protection Agency preliminary remediation goal for residential soil.

NE = PRG is not established.

ND = No compounds detected at various detection limits.

*76?*

The only hydrocarbon concentration in soil that exceeded the US EPA PRG for residential soil was the benzene concentration of 0.63 ppm in the soil sample collected from 10.0-foot bgs in boring MW-3. The US EPA PRG for residential soil is 0.62 ppm. None of the concentrations detected exceeded US EPA PRGs for industrial soil.

## **6.0 MONITORING WELL CONSTRUCTION, DEVELOPMENT AND SAMPLING**

### **6.1 Monitoring Well Construction**

Groundwater monitoring wells MW-1, MW-2 and MW-3 were constructed in borings MW-1, MW-2 and MW-3, respectively. The wells are constructed with 2-inch diameter, 0.020-inch factory slotted, flush-threaded, schedule 40 PVC well screen and blank casing. The wells are screened between 5-foot bgs and the total depth of each well (25-foot bgs in monitoring well MW-1, 20-foot bgs in monitoring well MW-2 and 21-foot bgs in boring MW-3). Lonestar #3 Monterey sand occupies the annular space between the borehole and the casing from the bottom of the boring to approximately 1.5-feet above the well screen. A 0.5-foot thick hydrated bentonite layer separates the sand from the overlying cement surface seal. The wellhead is secured with a locking wellplug beneath an at-grade, traffic-rated vault.

### **6.2 Monitoring Well Development**

On October 4, 1999, ASE associate geologist Ian Reed developed the three monitoring wells using multiple episodes of surge-block agitation and bailer and pump evacuation. Over ten well casing volumes of water were removed from each well during development, and evacuation continued until the water was relatively clear. Well development purge water was contained in sealed and labeled 55-gallon steel drums and left on-site for temporary storage until off-site disposal can be arranged. No free-floating hydrocarbons or sheen were present on the surface of groundwater during well development.

### **6.3 Monitoring Well Sampling**

On October 6, 1999, ASE associate geologist Ian Reed collected groundwater samples from all three site monitoring wells for analysis. No free-floating hydrocarbons or sheen were present on the surface of groundwater in any of the monitoring wells. However, a slight hydrocarbon odor was present in water purged from monitoring well

MW-2. Prior to sampling, the wells were purged of four well casing volumes of groundwater. The pH, temperature and conductivity of the purge water were monitored during evacuation, and samples were not collected until these parameters stabilized. Samples were collected from each well using new, unused polyethylene bailers. The groundwater samples to be analyzed for volatile compounds (TPH-G, BTEX, MTBE and VOCs) were decanted from the bailers into 40-ml volatile organic analysis (VOA) vials, preserved with hydrochloric acid, and sealed without headspace. All other samples were contained in 1-liter amber glass containers. All of the samples were labeled and stored on ice for transport to Chromalab, Inc. of Pleasanton, California under chain of custody. Well sampling purge water was contained in sealed and labeled 55-gallon steel drums and left on-site for temporary storage until off-site disposal can be arranged. See Appendix E for a copy of the Field Logs.

## 7.0 GROUNDWATER ELEVATIONS

On October 15, 1999, ASE surveyed the top of casing elevation of each site monitoring well relative to a site datum. The top of casing elevation of monitoring well MW-1 was set to 15.00-feet based on data interpolated from the USGS San Leandro Quadrangle, 7.5 minute series, topographic map.

The depth to groundwater was measured in each site well prior to sampling on October 6, 1999 with an electric water level sounder. Top of casing elevations, depth to groundwater measurements and groundwater elevations are presented in Table Three, and groundwater elevation (potentiometric surface) contours are plotted on Figure 2. Groundwater appeared to flow to the northwest beneath the site at a gradient of approximately 0.0025-feet/foot.

**TABLE THREE**  
Groundwater Elevation Data

Well I.D.	Date of Measurement	Top of Casing Elevation (relative to project datum)	Depth to Water (feet)	Groundwater Elevation (project data)
MW-1	10-06-99	15.00	8.35	6.65
MW-2	10-06-99	14.46	7.87	6.59
MW-3	10-06-99	14.41	7.90	6.51

## 8.0 ANALYTICAL RESULTS FOR GROUNDWATER

The groundwater samples were analyzed by Chromalab for TPH-G by modified EPA Method 5030/8015, TPH-D by modified EPA Method 3510/8015, and BTEX and MTBE by EPA Method 8020. Groundwater samples collected from monitoring well MW-2, near the former waste-oil UST, were also analyzed for TPH-MO by modified EPA Method 3510/8015, O&G by Standard Method 5520, VOCs by EPA Method 8010, and SVOCs by EPA Method 8270. The analytical results are tabulated in Tables Four and Five, and copies of the certified analytical report and chain of custody form are included in Appendix F.

**TABLE FOUR**  
Summary of Chemical Analysis of **GROUNDWATER** Samples  
TPH-G, TPH-D, BTEX, MTBE and Total Lead  
All results are in **parts per billion**

Boring	TPH Gasoline	TPH Diesel	TPH Motor Oil	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE	Oil & Grease
MW-1	<b>3,900*</b>	<b>84**</b>	---	< 25	< 25	< 25	< 25	<b>3,500</b>	---
MW-2	<b>70*</b>	< 50	< 500	< 0.50	< 0.50	< 0.50	< 0.50	<b>1.1</b>	< 1,000
MW-3	<b>3,900</b>	<b>300**</b>	---	<b>900</b>	<b>89</b>	<b>160</b>	<b>560</b>	<b>390</b>	---
MCL	NE	NE	NE	1.0	150	700	1,750	13	NE

**Notes:**

Detectable concentrations are in **bold**.

Non-detectable concentrations are noted by the less than symbol (<) followed by the detection limit.

MCL is the California Department of Health Services maximum contaminant level for drinking water.

NE = MCL is not established.

\* = Hydrocarbons not typical of gasoline pattern.

\*\* = Hydrocarbons not typical of diesel pattern.

--- = Not analyzed

**TABLE FOUR**  
**Summary of Chemical Analysis of GROUNDWATER Samples**  
**VOCs and SVOCs**

All results are in parts per billion

Well	HVOCs	SVOCs
-----	-----	-----
MW-2	ND	ND

Notes:

ND = No compounds detected at various detection limits.

TPH-G, TPH-D and MTBE were detected in the groundwater sample collected from monitoring well MW-1 at 3,900 ppb, 87 ppb and 3,500 ppb, respectively. TPH-G and MTBE were detected in the groundwater sample collected from monitoring well MW-2 at 70 ppb and 11 ppb, respectively. No BTEX was detected in either of these groundwater samples. The chromatogram patterns from all of these TPH concentrations did not resemble gasoline or diesel.

The groundwater sample collected from monitoring well MW-3 contained 3,900 ppb TPH-G, 300 ppb TPH-D, 900 ppb benzene, 89 ppb toluene, 160 ppb ethyl benzene, 560 ppb total xylenes, and 790 ppb MTBE. The chromatogram pattern from the TPH-D concentration did not resemble diesel.

No TPH-MO, O&G, VOCs or SVOCs were detected in the groundwater samples collected from monitoring well MW-2.

The benzene and MTBE concentrations in groundwater samples collected from monitoring well MW-3, and the MTBE concentration in groundwater samples collected from monitoring well MW-1, exceeded California Department of Health Services (DHS) maximum contaminant levels (MCLs) for drinking water.

## 9.0 CONCLUSIONS

The only hydrocarbon concentration in soil that exceeded US EPA PRGs for residential soil was the benzene concentration of 0.63 ppm in the soil sample collected from 10.0-foot bgs in boring MW-3. The US EPA PRG for residential soil is 0.62 ppm. None of the concentrations detected exceeded US EPA PRGs for industrial soil.

Groundwater appeared to flow to the northwest beneath the site at a gradient of approximately 0.0025-feet/foot.

TPH-G, TPH-D and MTBE were detected in the groundwater sample collected from monitoring well MW-1 at 3,900 ppb, 87 ppb and 3,500 ppb, respectively. TPH-G and MTBE were detected in the groundwater sample collected from monitoring well MW-2 at 70 ppb and 11 ppb, respectively. The chromatogram patterns from all of these TPH concentrations did not resemble gasoline or diesel. No BTEX was detected in either of these groundwater samples. No TPH-MO, O&G, VOCs or SVOCs were detected in the groundwater samples collected from monitoring well MW-2, next to the former waste oil UST.

The groundwater sample collected from monitoring well MW-3 contained 3,900 ppb TPH-G, 300 ppb TPH-D, 900 ppb benzene, 89 ppb toluene, 160 ppb ethyl benzene, 560 ppb total xylenes, and 790 ppb MTBE. The chromatogram pattern from the TPH-D concentration did not resemble diesel.

The benzene and MTBE concentrations in groundwater samples collected from monitoring well MW-3, and the MTBE concentration in groundwater samples collected from monitoring well MW-1, exceeded DHS MCLs for drinking water.

## **10.0 RECOMMENDATIONS**

ASE recommends that this site be placed on a quarterly groundwater monitoring program. Based on this sampling schedule, the next sampling is scheduled for January 2000.

## **11.0 REPORT LIMITATIONS**

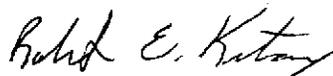
The results of this assessment represent conditions at the time of the soil and groundwater sampling, at the specific locations where the samples were collected, and for the specific parameters analyzed by the laboratory.

It does not fully characterize the site for contamination resulting from unknown sources, or for parameters not analyzed by the laboratory. All of the laboratory work cited in this report was prepared under the direction of an independent CAL-EPA certified laboratory. The independent laboratory is solely responsible for the contents and conclusions of the chemical analysis data.

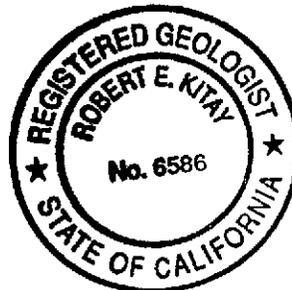
Aqua Science Engineers appreciates the opportunity to provide environmental consulting services for this project. Should you have any questions or comments, please feel free to call us at (925) 820-9391.

Respectfully submitted,

AQUA SCIENCE ENGINEERS, INC.



Robert E. Kitay, R.G., R.E.A.  
Senior Geologist

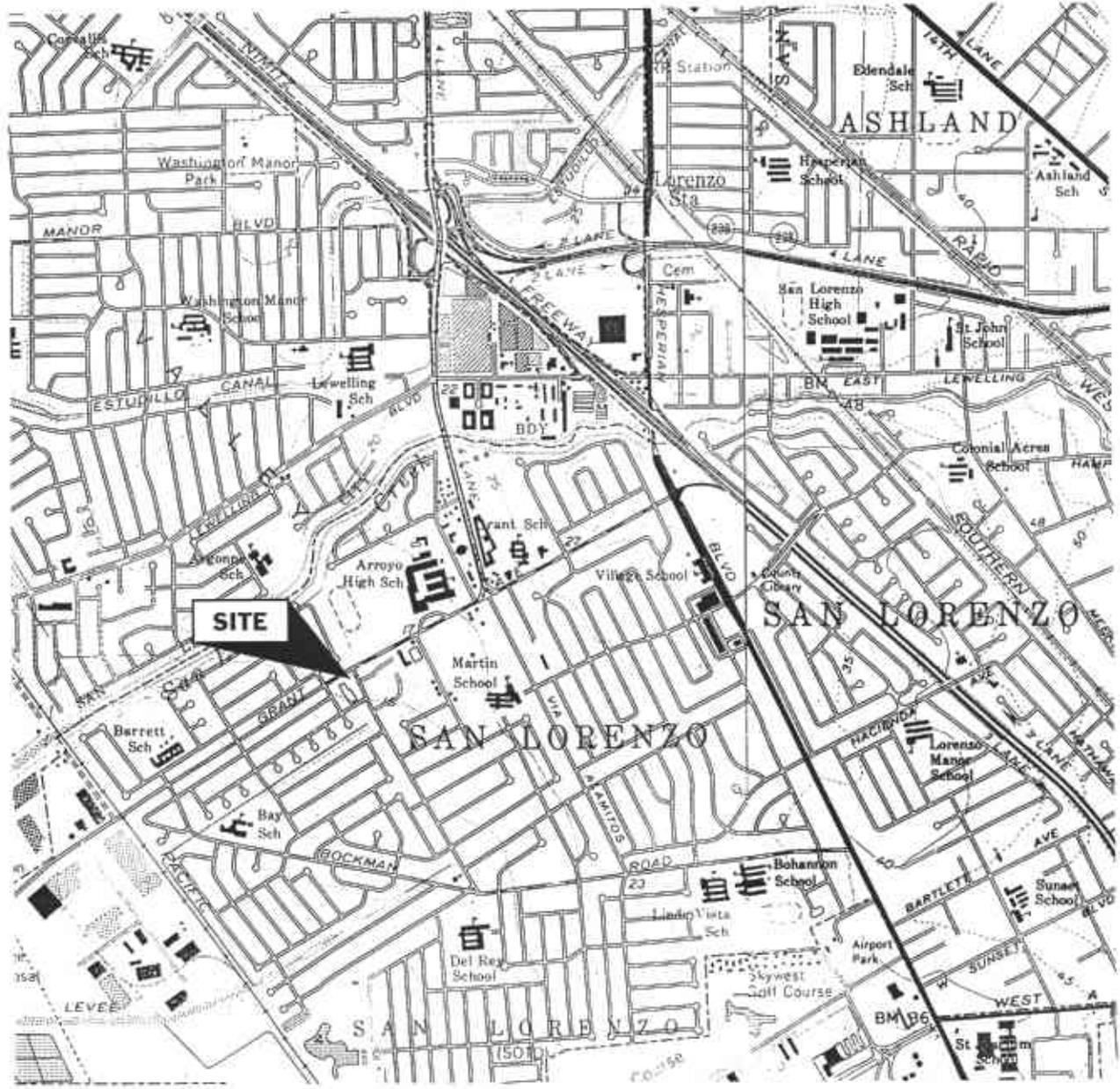


Attachments: Figures 1 and 2  
Appendices A through F

cc: Mr. George Jaber  
Mr. Amir Gholami, Alameda County Health Care Services Agency  
Mr. Chuck Headlee, California Regional Water Quality Control Board



NORTH



# LOCATION MAP

Olympic Service Station  
 1436 Grant Avenue  
 San Lorenzo, California

AQUA SCIENCE ENGINEERS, INC.

Figure 1

# GRANT AVENUE

SIDEWALK

PLANTER

MW-3  
(6.51')



FORMER DISPENSERS

6.55'

6.60'

Estimated  
Groundwater  
Flow Direction

OFFICE  
AND  
GARAGE

6.65'

FORMER  
GAS & DIESEL-FUEL  
TANK  
EXCAVATION

MW-1  
(6.65')

MW-2  
(6.59')



FORMER WASTE-OIL UST  
EXCAVATION

PLANTER

SIDEWALK

CHANNEL STREET



NORTH  
SCALE  
1" = 20'

## LEGEND



MW-1  
(6.65')

Monitoring well with  
groundwater elevation

6.65'

Groundwater elevation  
contour

POTENTIOMETRIC SURFACE  
MAP - OCTOBER 6, 1999

Former Olympic Service Station  
1436 Grant Avenue  
San Lorenzo, California

AQUA SCIENCE ENGINEERS, INC.

Figure 2

**APPENDIX A**

ACHCSA Letter Dated  
October 21, 1998

ALAMEDA COUNTY  
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director

October 21, 1998

STID 1791

Mr. George Jaber  
2801 Encinal Avenue  
Alameda, CA 94501

## ENVIRONMENTAL HEALTH SERVICES

1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-8577  
(510) 567-8700  
(510) 337-9335 (FAX)

RE: Olympic Service Station, 1436 Grant Avenue, San Lorenzo – Request for  
Stockpile Management and Site Restoration Plan, and Preliminary Site  
Assessment Work Plan

Dear Mr. Jaber:

We are in receipt and have completed review of the September 14, 1998 Reese Construction final report documenting the July 8 – 10, 1998 closure of three (3) fuel and one waste oil underground storage tanks (UST) at the subject site. One 10,000-gallon gasoline, one 8000-gallon gasoline, one 5000-gallon diesel, and one 250-gallon waste oil USTs were removed during the course of this project. All fuel USTs were comprised of tar-wrapped steel; the waste oil UST was comprised of bare steel. All tanks were of single-wall construction.

Evidence of an unauthorized release was observed during the course of the tank closures. Such evidence included the presence of stained and odorous soil within both UST excavations, as well as the appearance of apparent product sheen on groundwater which entered the fuel UST excavation. The waste oil tank also exhibited several throughgoing holes.

Review of laboratory data presented in the cited Reese Construction report indicates up to 3800 parts per million (ppm) total petroleum hydrocarbons as gasoline (TPH-G) and 30 ppm benzene, among other fuel compounds, were detected in soil samples collected from the fuel tank excavation. Up to 5700 ppm TPH-G, among other fuel compounds, was identified in a sample collected beneath one of the dispenser islands. In addition, 1900 ppm inorganic lead (Pb), 4300 ppm oil & grease, 200 ppm TPH-G, 1300 ppm TPH as diesel (TPH-D), and various halogenated volatile organic compounds (HVOC) and semi-volatile organic compounds (SVOC), among others detected, were identified in the sample collected beneath the waste oil tank. The Pb concentration alone constitutes a hazardous waste level in California.

Soil stockpiles are currently poorly secured and arranged around the periphery of the site. Portions of one stockpile encroach on the adjoining shopping center parking lot. Stockpiles are only partially covered with plastic sheeting. The tank pits remain open.

Mr. George Jaber  
RE: 1438 Grant Ave., San Lorenzo  
October 21, 1998  
Page 2 of 3

At this time you are to submit the following documents:

1. *Stockpile Management and Site Restoration Plan (SMSRP)*
2. *Preliminary Site Assessment (PSA) work plan*

The SMSRP is to describe necessary tasks for the appropriate management of the reported 200-yds<sup>3</sup> soil stockpile and restoration of the UST excavations at the site. The SMSRP will include i) a stockpile sampling, management, treatment, transport, disposal and/or reuse elements; and ii) a proposal to restore the UST excavations to grade. These two elements are intimately intertwined, as it is conceivable that some of the stockpile material may be acceptable for placement back into the excavations, often a much less expensive alternative to hauling the material to a licensed landfill. It is anticipated that additional testing *and treatment* of the stockpile will be necessary to facilitate this option. Clean, imported fill will nonetheless be necessary to restore the excavations completely, whether some portion is filled with (treated) stockpile soil or not.

The SMSRP must also include plans to address the *hazardous waste* levels of Pb within the waste oil UST excavations. This Pb-impacted material must be excavated to levels that do not exceed hazardous waste concentrations. Management of the stockpile associated with the waste oil UST will not include the potential for its reuse as fill for the UST excavations. This material will require removal to an acceptable landfill. The SMSRP will need to address this.

And finally, consistent with provisions of Article 11, *Corrective Action Requirements*, Section 2720 et seq., Title 23, California Code of Regulations (CCR), a PSA must be conducted to assess the extent of the UST release at the site. The PSA work plan will present the scope of work necessary to complete this initial phase of the assessment process. This task will typically involve the installation of several soil borings and construction of an array of monitoring wells strategically located to track contaminant location. General guidance for the elements of a PSA work plan is presented in the attached Appendix A.

Both the SMSRP and PSA work plan require that you hire a California-licensed or registered engineer or geologist with the appropriate experience in conducting such environmental projects. Such licensing and registration is by provision of the Business and Professions Code.

The SMSRP is due within 30 days of the date of this letter. The PSA work plan is due within 60 days of the date of this letter.

Please be advised that the SMSRP must be implemented before the onset of the rainy season.

Mr. George Jaber  
RE: 1436 Grant Ave., San Lorenzo  
October 21, 1998  
Page 3 of 3

Please call me at (510) 567-6783 should you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Scott O. Seery". The signature is stylized with a large, sweeping loop at the end.

Scott O. Seery, CHMM  
Hazardous Materials Specialist

Enclosure

cc: Mee Ling Tung, Director, Environmental Health  
Chuck Headlee, RWQCB

**APPENDIX B**

Drilling Permit



## **APPENDIX C**

Boring Logs and Well Construction Details

**SOIL BORING LOG AND MONITORING WELL COMPLETION DETAILS**

MONITORING WELL: MW-1

Project Name: Olympic Station

Project Location: 1436 Grant Ave., San Lorenzo, CA

Page 1 of 1

Driller: West Hazmat Drilling

Type of Rig: Hollow-Stem Auger

Size of Drill: 8.0" Diameter

Logged By: Robert Kitay

Date Drilled: September 24, 1999

Checked By: Robert E. Kitay, R.G.

**WATER AND WELL DATA**

Depth of Water First Encountered: 16.5'

Total Depth of Well Completed: 26.5'

Well Screen Type and Diameter: 0.020" slotted, 2" sch. PVC

Static Depth of Water in Well: 8.35'

Well Screen Slot Size: 0.020"

Total Depth of Boring: 26.5'

Type and Size of Soil Sampler: 2.0" I.D. Split Barrell

Depth in Feet	BORING DETAIL	Description	SOIL/ROCK SAMPLE DATA				Graphic Log	Depth in Feet	DESCRIPTION OF LITHOLOGY
			Interval	Blow Counts	OVM (ppmv)	Water Level			
0		Street Box Locking Well Cap					0	Asphalt	
0		Bentonite Seal					0	Silty SAND (SM); yellow brown; medium dense; damp; 60% fine sand; 35% silt; 5% subrounded gravel to 1" diameter; non-plastic; medium estimated K; no odor	
5		Portland Cement	7	9	83		5	Clayey SILT (MH); black; medium stiff; damp; 85% silt; 15% clay; medium plasticity; low estimated K; moderate hydrocarbon odor	
10		2" ID Blank Sch 40 PVC	8	12			10		
10		2" ID Blank Sch 40 PVC	10	10	24		15	Sandy SILT (ML); yellow brown; medium stiff; moist; 50% silt; 35% fine to medium sand; 15% clay; medium plasticity; low estimated K; no odor wet at 16.5'	
15		2" ID 0.020" Slotted Sch. 40 PVC	10	10			15		
15		2" ID 0.020" Slotted Sch. 40 PVC	10	13			20	Silty SAND (SM); gray; medium dense; wet; 90% fine to medium sand; 10% silt; non-plastic; high estimated K; no odor	
20		#3 Sand	6	9	11		20		
25							25		
30							30	End of boring at 26.5'	

**SOIL BORING LOG AND MONITORING WELL COMPLETION DETAILS**

**MONITORING WELL**

Project Name: Olympic Station	Project Location: 1436 Grant Ave., San Lorenzo, CA	Page 1 of 1
Driller: West Hazmat Drilling	Type of Rig: Hollow-Stem Auger	Size of Drill: 8.0" Diameter
Logged By: Robert Kitay	Date Drilled: September 24, 1999	Checked By: Robert E. Kitay, R.G.

**WATER AND WELL DATA**

Depth of Water First Encountered: 10.5'

Total Depth of Well Completed: 20.0'

Well Screen Type and Diameter: 0.020" slotted, 2" sch. PVC

Static Depth of Water in Well: 7.87'

Well Screen Slot Size: 0.020"

Total Depth of Boring: 21.5'

Type and Size of Soil Sampler: 2.0" I.D. Split Barrell

Depth in Feet	BORING DETAIL	Description	SOIL/ROCK SAMPLE DATA				Depth in Feet	DESCRIPTION OF LITHOLOGY standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.
			Interval	Blow Counts	OVM (ppmv)	Water Level		
0							Asphalt	
0							Gravelly SAND (SM); green; loose; damp; 75% fine to medium sand; 15% subrounded to rounded gravel to 0.5" diameter; 10% silt; non-plastic; high estimated K; slight gasoline-like odor	
5			3 5 8	3.6			Sandy GRAVEL (GW); yellow brown; medium dense; damp; 55% subrounded to rounded gravel to 0.6" diameter; 35% fine to medium sand; 10% silt; non-plastic; high estimated K; slight hydrocarbon odor	
10			6 8 9	0			Sandy SILT (ML); black; medium stiff; damp; 65% silt; 20% fine sand; 15% clay; medium plasticity; low estimated K; slight hydrocarbon odor	
15			9 8 13	0			Silty CLAY (CH); brown; stiff; damp; 90% clay; 10% silt; high plasticity; very low estimated K; no odor wet at 10.5'	
20			S10 10 9	0			Sandy SILT (ML); yellow brown; medium stiff; damp; 60% silt; 25% fine to medium sand; 15% clay; medium plasticity; low estimated K; no odor	
20		#3 Sand					Silty SAND (SM); yellow brown; medium dense; wet; 90% sand; 10% silt; non-plastic; high estimated K; no odor	
21.5							End of boring at 21.5'	

**SOIL BORING LOG AND MONITORING WELL COMPLETION DETAILS**

MONITORING WELL: **113**

Project Name: Olympic Station	Project Location: 1436 Grant Ave., San Lorenzo, CA	Page 1 of 1
Driller: West Hazmat Drilling	Type of Rig: Hollow-Stem Auger	Size of Drill: 8.0" Diameter
Logged By: Robert Kitay	Date Drilled: September 24, 1999	Checked By: Robert E. Kitay, R.G.

**WATER AND WELL DATA**

Depth of Water First Encountered: 16.5'

Total Depth of Well Completed: 21.0'

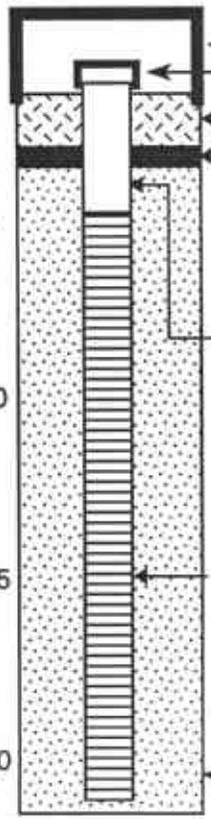
Well Screen Type and Diameter: 0.020" slotted, 2" sch. PVC

Static Depth of Water in Well: 7.90'

Well Screen Slot Size: 0.020"

Total Depth of Boring: 21.5'

Type and Size of Soil Sampler: 2.0" I.D. Split Barrell

Depth in Feet	BORING DETAIL	Description	SOIL/ROCK SAMPLE DATA				Depth in Feet	DESCRIPTION OF LITHOLOGY  standard classification, texture, relative moisture, density, stiffness, odor-staining, USCS designation.
			Interval	Blow Counts	OVM (ppmv)	Water Level		
0		Street Box Locking Well Cap					0	Asphalt
0		Bentonite Seal					0	Gravelly SAND (SM); yellow brown; loose; damp; 60% fine to medium sand; 30% subrounded to rounded gravel to 0.5" diameter; 10% silt; non-plastic; high estimated K moderate gasoline-like odor
5		Portland Cement					5	Sandy SILT (ML); olive black; medium stiff; damp; 65% silt; 20% fine sand; 15% clay; medium plasticity; low estimated K; moderate gasoline-like odor
10		40 PVC	7 11 15				10	Clayey SILT (MH); yellow brown; stiff; damp; 70% silt; 30% clay; high plasticity; very low estimated K; gasoline-like odor
15		2" ID Blank Sch. 40 PVC	5 8 11				15	Sandy SILT (ML); yellow brown; medium stiff; damp; 60% silt; 25% fine to medium sand; 15% clay; medium plasticity; low estimated K; no odor
20		2" ID 0.020" Slotted Sch. 40 PVC	8 9 10		89		20	Silty SAND (SP); yellow brown; medium dense; wet; 90% fine to medium sand; 10% silt; non-plastic; high estimated K; no odor
21.5		#3 Sand	10 10 11				21.5	End of boring at 21.5'

**APPENDIX D**

Analytical Report and Chain of Custody Form  
For Soil Samples

Total Lead

<b>Aqua Science Engineers, Inc.</b>	☒ 208 West El Pintado Road Danville, CA 94526
Attn: Robert Kitay	Phone: (925) 820-9310 Fax: (925) 837-4853
Project #:	Project: Olympic Service Station
Site: 1436 Grant Avenue	

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
MW-1 10.5'	Soil	09/24/1999 10:11	2

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-09-0489

To: Aqua Science Engineers, Inc.

Test Method: 6010B

Attn.: Robert Kitay

Prep Method: 3050B

Total Lead

Sample ID: <b>MW-1 10.5'</b>	Lab Sample ID: <b>1999-09-0489-002</b>
Project: <b>Olympic Service Station</b>	Received: <b>09/28/1999 16:55</b>
Site: <b>1436 Grant Avenue</b>	Extracted: <b>09/30/1999 17:58</b>
Sampled: <b>09/24/1999 10:11</b>	QC-Batch: <b>1999/09/30-05.15</b>
Matrix: <b>Soil</b>	

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Lead	8.8	5.0	mg/Kg	1.00	09/30/1999 23:57	

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-09-0489

To: Aqua Science Engineers, Inc.  
Attn.: Robert Kitay

Test Method: 6010B  
Prep Method: 3050B

## Batch QC Report Total Lead

Method Blank	Soil	QC Batch # 1999/09/30-05.15
MB: 1999/09/30-05.15-046		Date Extracted: 09/30/1999 17:58

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Lead	ND	1.0	mg/Kg	09/30/1999 21:52	

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

To: Aqua Science Engineers, Inc.

Test Method: 6010B

Attn: Robert Kitay

Prep Method: 3050B

### Batch QC Report

#### Total Lead

Laboratory Control Spike (LCS/LCSD)	Soil	QC Batch # 1999/09/30-05.15
LCS: 1999/09/30-05.15-047	Extracted: 09/30/1999 17:58	Analyzed: 09/30/1999 21:57
LCSD: 1999/09/30-05.15-048	Extracted: 09/30/1999 17:58	Analyzed: 09/30/1999 22:01

Compound	Conc. [ mg/Kg ]		Exp. Conc. [ mg/Kg ]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Lead	96.9	100	100.0	100.0	96.9	100.0	3.1	80-120	20		

Total Oil & Grease

<b>Aqua Science Engineers, Inc.</b>	☐ 208 West El Pintado Road Danville, CA 94526
Attn: Robert Kitay	Phone: (925) 820-9310 Fax: (925) 837-4853
Project #:	Project: Olympic Service Station
Site: 1436 Grant Avenue	

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
MW-2 10.0'	Soil	09/24/1999 12:38	5

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-09-0489

To: Aqua Science Engineers, Inc.

Test Method: 5520 E

Attn.: Robert Kitay

Prep Method: 5520 E

## Total Oil & Grease

Sample ID: MW-2 10.0'	Lab Sample ID: 1999-09-0489-005
Project: Olympic Service Station	Received: 09/28/1999 16:55
Site: 1436 Grant Avenue	Extracted: 10/01/1999
Sampled: 09/24/1999 12:38	QC-Batch: 1999/10/01-01.23
Matrix: Soil	

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Oil & Grease (total)	700	50	mg/Kg	1.00	10/04/1999	

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-09-0489

To: Aqua Science Engineers, Inc.  
Attn.: Robert Kitay

Test Method: 5520 E  
Prep Method: 5520 E

## Batch QC Report Total Oil & Grease

Method Blank	Soil	QC Batch # 1999/10/01-01.23
MB: 1999/10/01-01.23-001		Date Extracted: 10/01/1999

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Oil & Grease (total)	ND	50	mg/Kg	10/04/1999	

To: **Aqua Science Engineers, Inc.**

Test Method: 5520 E

Attn: Robert Kitay

Prep Method: 5520 E

**Batch QC Report**

Total Oil & Grease

Laboratory Control Spike (LCS/LCSD)	Soil	QC Batch # 1999/10/01-01.23
LCS: 1999/10/01-01.23-002	Extracted: 10/01/1999	Analyzed: 10/04/1999
LCSD: 1999/10/01-01.23-003	Extracted: 10/01/1999	Analyzed: 10/04/1999

Compound	Conc. [ mg/Kg ]		Exp. Conc. [ mg/Kg ]		Recovery [%]			RPD		Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	RPD	Recovery	RPD	LCS	LCSD		
Oil & Grease (total)	400	410	400	400	100.0	102.5	2.5	80-120	20				

Halogenated Volatile Organics Compounds

<b>Aqua Science Engineers, Inc.</b>	☒ 208 West El Pintado Road Danville, CA 94526
Attn: Robert Kitay	Phone: (925) 820-9310 Fax: (925) 837-4853
Project #:	Project: Olympic Service Station
Site: 1436 Grant Avenue	

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
MW-2 10.0'	Soil	09/24/1999 12:38	5

To: Aqua Science Engineers, Inc.

Test Method: 8260A

Attn.: Robert Kitay

Prep Method: 5030

Halogenated Volatile Organics Compounds

Sample ID: MW-2 10.0'	Lab Sample ID: 1999-09-0489-005
Project: Olympic Service Station	Received: 09/28/1999 16:55
Site: 1436 Grant Avenue	Extracted: 09/29/1999 15:39
Sampled: 09/24/1999 12:38	QC-Batch: 1999/09/29-01.06
Matrix: Soil	

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Dichlorodifluoromethane	ND	10	ug/Kg	1.00	09/29/1999 15:39	
Vinyl chloride	ND	5.0	ug/Kg	1.00	09/29/1999 15:39	
Chloroethane	ND	5.0	ug/Kg	1.00	09/29/1999 15:39	
Trichlorofluoromethane	ND	5.0	ug/Kg	1.00	09/29/1999 15:39	
1,1-Dichloroethene	ND	5.0	ug/Kg	1.00	09/29/1999 15:39	
Methylene chloride	ND	5.0	ug/Kg	1.00	09/29/1999 15:39	
trans-1,2-Dichloroethene	ND	5.0	ug/Kg	1.00	09/29/1999 15:39	
cis-1,2-Dichloroethene	ND	5.0	ug/Kg	1.00	09/29/1999 15:39	
1,1-Dichloroethane	ND	5.0	ug/Kg	1.00	09/29/1999 15:39	
Chloroform	ND	5.0	ug/Kg	1.00	09/29/1999 15:39	
1,1,1-Trichloroethane	ND	5.0	ug/Kg	1.00	09/29/1999 15:39	
Carbon tetrachloride	ND	5.0	ug/Kg	1.00	09/29/1999 15:39	
1,2-Dichloroethane	ND	5.0	mg/Kg	1.00	09/29/1999 15:39	
Trichloroethene	ND	5.0	ug/Kg	1.00	09/29/1999 15:39	
1,2-Dichloropropane	ND	5.0	ug/Kg	1.00	09/29/1999 15:39	
Bromodichloromethane	ND	5.0	ug/Kg	1.00	09/29/1999 15:39	
2-Chloroethylvinyl ether	ND	5.0	ug/Kg	1.00	09/29/1999 15:39	
trans-1,3-Dichloropropene	ND	5.0	ug/Kg	1.00	09/29/1999 15:39	
cis-1,3-Dichloropropene	ND	5.0	ug/Kg	1.00	09/29/1999 15:39	
1,1,2-Trichloroethane	ND	5.0	ug/Kg	1.00	09/29/1999 15:39	
Tetrachloroethene	ND	5.0	ug/Kg	1.00	09/29/1999 15:39	
Dibromochloromethane	ND	5.0	ug/Kg	1.00	09/29/1999 15:39	
Chlorobenzene	ND	5.0	ug/Kg	1.00	09/29/1999 15:39	
Bromoform	ND	5.0	ug/Kg	1.00	09/29/1999 15:39	
1,1,2,2-Tetrachloroethane	ND	5.0	ug/Kg	1.00	09/29/1999 15:39	
1,3-Dichlorobenzene	ND	5.0	ug/Kg	1.00	09/29/1999 15:39	
1,4-Dichlorobenzene	ND	5.0	ug/Kg	1.00	09/29/1999 15:39	
1,2-Dichlorobenzene	ND	5.0	ug/Kg	1.00	09/29/1999 15:39	
Trichlorotrifluoroethane	ND	5.0	ug/Kg	1.00	09/29/1999 15:39	
Chloromethane	ND	5.0	ug/Kg	1.00	09/29/1999 15:39	
Bromomethane	ND	5.0	ug/Kg	1.00	09/29/1999 15:39	
<i>Surrogate(s)</i>						
4-Bromofluorobenzene	107.2	74-121	%	1.00	09/29/1999 15:39	
1,2-Dichloroethane-d4	104.5	70-121	%	1.00	09/29/1999 15:39	
Toluene-d8	100.9	81-117	%	1.00	09/29/1999 15:39	

To: Aqua Science Engineers, Inc.

Test Method: 8260A

Attn.: Robert Kitay

Prep Method: 5030

### Batch QC Report

### Halogenated Volatile Organics Compounds

<b>Method Blank</b>	<b>Soil</b>	<b>QC Batch # 1999/09/29-01.06</b>
MB: 1999/09/29-01.06-001		Date Extracted: 09/29/1999 12:38

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Bromodichloromethane	ND	5.0	ug/Kg	09/29/1999 12:38	
Bromoform	ND	5.0	ug/Kg	09/29/1999 12:38	
Bromomethane	ND	10.0	ug/Kg	09/29/1999 12:38	
Carbon tetrachloride	ND	5.0	ug/Kg	09/29/1999 12:38	
Chlorobenzene	ND	5.0	ug/Kg	09/29/1999 12:38	
Chloroethane	ND	10	ug/Kg	09/29/1999 12:38	
2-Chloroethylvinyl ether	ND	50	ug/Kg	09/29/1999 12:38	
Chloroform	ND	5.0	ug/Kg	09/29/1999 12:38	
Chloromethane	ND	10	ug/Kg	09/29/1999 12:38	
Dibromochloromethane	ND	5.0	ug/Kg	09/29/1999 12:38	
1,2-Dichlorobenzene	ND	5.0	ug/Kg	09/29/1999 12:38	
1,3-Dichlorobenzene	ND	5.0	ug/Kg	09/29/1999 12:38	
1,4-Dichlorobenzene	ND	5.0	ug/Kg	09/29/1999 12:38	
Dichlorodifluoromethane	ND	10	ug/Kg	09/29/1999 12:38	
1,1-Dichloroethane	ND	5.0	ug/Kg	09/29/1999 12:38	
1,2-Dichloroethane	ND	5.0	ug/Kg	09/29/1999 12:38	
1,1-Dichloroethene	ND	5.0	ug/Kg	09/29/1999 12:38	
cis-1,2-Dichloroethene	ND	5.0	ug/Kg	09/29/1999 12:38	
trans-1,2-Dichloroethene	ND	5.0	ug/Kg	09/29/1999 12:38	
1,2-Dichloropropane	ND	5.0	ug/Kg	09/29/1999 12:38	
cis-1,3-Dichloropropene	ND	5.0	ug/Kg	09/29/1999 12:38	
trans-1,3-Dichloropropene	ND	5.0	ug/Kg	09/29/1999 12:38	
Methylene chloride	ND	5.0	ug/Kg	09/29/1999 12:38	
1,1,2,2-Tetrachloroethane	ND	5.0	ug/Kg	09/29/1999 12:38	
Tetrachloroethene	ND	5.0	ug/Kg	09/29/1999 12:38	
1,1,1-Trichloroethane	ND	5.0	ug/Kg	09/29/1999 12:38	
1,1,2-Trichloroethane	ND	5.0	ug/Kg	09/29/1999 12:38	
Trichloroethene	ND	5.0	ug/Kg	09/29/1999 12:38	
Vinyl chloride	ND	5.0	ug/Kg	09/29/1999 12:38	
Trichlorotrifluoroethane	ND	5.0	ug/Kg	09/29/1999 12:38	
Trichlorofluoromethane	ND	5.0	ug/Kg	09/29/1999 12:38	
<b>Surrogate(s)</b>					
4-Bromofluorobenzene	113.8	74-121	%	09/29/1999 12:38	
1,2-Dichloroethane-d4	102.2	70-121	%	09/29/1999 12:38	
Toluene-d8	99.6	81-117	%	09/29/1999 12:38	

To: Aqua Science Engineers, Inc.

Test Method: 8260A

Attn: Robert Kitay

Prep Method: 5030

## Batch QC Report

### Halogenated Volatile Organics Compounds

Laboratory Control Spike (LCS/LCSD)	Soil	QC Batch # 1999/09/29-01.06
LCS: 1999/09/29-01.06-002	Extracted: 09/29/1999 11:17	Analyzed: 09/29/1999 11:17
LCSD: 1999/09/29-01.06-003	Extracted: 09/29/1999 11:58	Analyzed: 09/29/1999 11:58

Compound	Conc. [ ug/Kg ]		Exp.Conc. [ ug/Kg ]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Chlorobenzene	110	109	100.0	100.0	110.0	109.0	0.9	61-121	20		
1,1-Dichloroethene	111	108	100.0	100.0	111.0	108.0	2.7	65-125	20		
Trichloroethene	119	118	100.0	100.0	119.0	118.0	0.8	74-134	20		
<b>Surrogate(s)</b>											
4-Bromofluorobenzene	559	580	500	500	111.8	116.0		74-121			
1,2-Dichloroethane-d4	457	485	500	500	91.4	97.0		70-121			
Toluene-d8	458	476	500	500	91.6	95.2		81-117			

To: Aqua Science Engineers, Inc.

Test Method: 8260A

Attn.: Robert Kitay

Prep Method: 5030

## Batch QC Report

### Halogenated Volatile Organics Compounds

Matrix Spike ( MS / MSD )

Soil

QC Batch # 1999/09/29-01.06

Sample ID: MW-2 10.0

Lab Sample ID: 1999-09-0489-005

MS: 1999/09/29-01.06-004 Extracted: 09/29/1999 16:20 Analyzed: 09/29/1999 16:20 Dilution: 1.0

MSD: 1999/09/29-01.06-005 Extracted: 09/29/1999 17:01 Analyzed: 09/29/1999 17:01 Dilution: 1.0

Compound	Conc [ ug/Kg ]			Exp. Conc. [ ug/Kg ]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	MS	MSD	Sample	MS	MSD	MS	MSD		Recovery	RPD	MS	MSD
1,1-Dichloroethene	106	107	ND	94.2	97.1	112.5	110.2	2.1	65-125	20		
Trichloroethene	108	111	ND	94.2	97.1	114.6	114.3	0.3	74-134	20		
Chlorobenzene	95.4	97.1	ND	94.2	97.1	101.3	100.0	1.3	61-121	20		
<b>Surrogate(s)</b>												
4-Bromofluorobenzene	553	528		500	500	110.6	105.6		74-121			
1,2-Dichloroethane-d4	536	520		500	500	107.2	104.0		70-121			
Toluene-d8	499	475		500	500	99.8	95.0		81-117			

## Semi-volatile Organic Compounds

<b>Aqua Science Engineers, Inc.</b>	☒ 208 West El Pintado Road Danville, CA 94526
Attn: Robert Kitay	Phone: (925) 820-9310 Fax: (925) 837-4853
Project #:	Project: Olympic Service Station
Site: 1436 Grant Avenue	

### Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
MW-2 10.0'	Soil	09/24/1999 12:38	5

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-09-0489

To: Aqua Science Engineers, Inc.

Test Method: 8270A

Attn.: Robert Kitay

Prep Method: 3550/8270A

## Semi-volatile Organic Compounds

Sample ID: MW-2 10.0	Lab Sample ID: 1999-09-0489-005
Project: Olympic Service Station	Received: 09/28/1999 16:55
Site: 1436 Grant Avenue	Extracted: 10/04/1999 14:40
Sampled: 09/24/1999 12:38	QC-Batch: 1999/10/04-01.11
Matrix: Soil	

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Phenol	ND	0.10	mg/Kg	1.00	10/04/1999 23:05	
Bis(2-chloroethyl)ether	ND	0.10	mg/Kg	1.00	10/04/1999 23:05	
2-Chlorophenol	ND	0.10	mg/Kg	1.00	10/04/1999 23:05	
1,3-Dichlorobenzene	ND	0.10	mg/Kg	1.00	10/04/1999 23:05	
1,4-Dichlorobenzene	ND	0.10	mg/Kg	1.00	10/04/1999 23:05	
Benzyl alcohol	ND	0.20	mg/Kg	1.00	10/04/1999 23:05	
1,2-Dichlorobenzene	ND	0.10	mg/Kg	1.00	10/04/1999 23:05	
2-Methylphenol	ND	0.10	mg/Kg	1.00	10/04/1999 23:05	
Bis(2-chloroisopropyl) ether	ND	0.10	mg/Kg	1.00	10/04/1999 23:05	
4-Methylphenol	ND	0.20	mg/Kg	1.00	10/04/1999 23:05	
N-Nitroso-di-n-propylamine	ND	0.10	mg/Kg	1.00	10/04/1999 23:05	
Hexachloroethane	ND	0.10	mg/Kg	1.00	10/04/1999 23:05	
Nitrobenzene	ND	0.10	mg/Kg	1.00	10/04/1999 23:05	
Isophorone	ND	0.10	mg/Kg	1.00	10/04/1999 23:05	
2-Nitrophenol	ND	0.10	mg/Kg	1.00	10/04/1999 23:05	
2,4-Dimethylphenol	ND	0.10	mg/Kg	1.00	10/04/1999 23:05	
Bis(2-chloroethoxy) methane	ND	0.10	mg/Kg	1.00	10/04/1999 23:05	
2,4-Dichlorophenol	ND	0.10	mg/Kg	1.00	10/04/1999 23:05	
1,2,4-Trichlorobenzene	ND	0.10	mg/Kg	1.00	10/04/1999 23:05	
Naphthalene	ND	0.10	mg/Kg	1.00	10/04/1999 23:05	
4-Chloroaniline	ND	0.20	mg/Kg	1.00	10/04/1999 23:05	
Hexachlorobutadiene	ND	0.10	mg/Kg	1.00	10/04/1999 23:05	
4-Chloro-3-methylphenol	ND	0.20	mg/Kg	1.00	10/04/1999 23:05	
2-Methylnaphthalene	ND	0.10	mg/Kg	1.00	10/04/1999 23:05	
Hexachlorocyclopentadiene	ND	0.10	mg/Kg	1.00	10/04/1999 23:05	
2,4,6-Trichlorophenol	ND	0.10	mg/Kg	1.00	10/04/1999 23:05	
2,4,5-Trichlorophenol	ND	0.10	mg/Kg	1.00	10/04/1999 23:05	
2-Chloronaphthalene	ND	0.10	mg/Kg	1.00	10/04/1999 23:05	
2-Nitroaniline	ND	0.50	mg/Kg	1.00	10/04/1999 23:05	
Dimethyl phthalate	ND	0.50	mg/Kg	1.00	10/04/1999 23:05	
Acenaphthylene	ND	0.10	mg/Kg	1.00	10/04/1999 23:05	
3-Nitroaniline	ND	0.10	mg/Kg	1.00	10/04/1999 23:05	
Acenaphthene	ND	0.10	mg/Kg	1.00	10/04/1999 23:05	
2,4-Dinitrophenol	ND	0.50	mg/Kg	1.00	10/04/1999 23:05	
4-Nitrophenol	ND	0.50	mg/Kg	1.00	10/04/1999 23:05	

1220 Quarry Lane \* Pleasanton, CA 94566-4756

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# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-09-0489

To: Aqua Science Engineers, Inc.

Test Method: 8270A

Attn.: Robert Kitay

Prep Method: 3550/8270A

## Semi-volatile Organic Compounds

Sample ID: MW-2 10.0	Lab Sample ID: 1999-09-0489-005
Project: Olympic Service Station	Received: 09/28/1999 16:55
Site: 1436 Grant Avenue	Extracted: 10/04/1999 14:40
Sampled: 09/24/1999 12:38	QC-Batch: 1999/10/04-01.11
Matrix: Soil	

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Dibenzofuran	ND	0.10	mg/Kg	1.00	10/04/1999 23:05	
2,4-Dinitrotoluene	ND	0.10	mg/Kg	1.00	10/04/1999 23:05	
2,6-Dinitrotoluene	ND	0.20	mg/Kg	1.00	10/04/1999 23:05	
Diethyl phthalate	ND	0.50	mg/Kg	1.00	10/04/1999 23:05	
4-Chlorophenyl phenyl ether	ND	0.10	mg/Kg	1.00	10/04/1999 23:05	
Fluorene	ND	0.10	mg/Kg	1.00	10/04/1999 23:05	
4-Nitroaniline	ND	0.50	mg/Kg	1.00	10/04/1999 23:05	
2-Methyl-4,6-dinitrophenol	ND	0.50	mg/Kg	1.00	10/04/1999 23:05	
N-Nitrosodiphenylamine	ND	0.10	mg/Kg	1.00	10/04/1999 23:05	
4-Bromophenyl phenyl ether	ND	0.10	mg/Kg	1.00	10/04/1999 23:05	
Hexachlorobenzene	ND	0.10	mg/Kg	1.00	10/04/1999 23:05	
Pentachlorophenol	ND	0.50	mg/Kg	1.00	10/04/1999 23:05	
Phenanthrene	ND	0.10	mg/Kg	1.00	10/04/1999 23:05	
Anthracene	ND	0.10	mg/Kg	1.00	10/04/1999 23:05	
Di-n-butyl phthalate	ND	2.0	mg/Kg	1.00	10/04/1999 23:05	
Fluoranthene	ND	0.10	mg/Kg	1.00	10/04/1999 23:05	
Pyrene	ND	0.10	mg/Kg	1.00	10/04/1999 23:05	
Butyl benzyl phthalate	ND	0.50	mg/Kg	1.00	10/04/1999 23:05	
3,3-Dichlorobenzidine	ND	0.20	mg/Kg	1.00	10/04/1999 23:05	
Benzo(a)anthracene	ND	0.10	mg/Kg	1.00	10/04/1999 23:05	
bis(2-Ethylhexyl) phthalate	ND	0.50	mg/Kg	1.00	10/04/1999 23:05	
Chrysene	ND	0.10	mg/Kg	1.00	10/04/1999 23:05	
Di-n-octyl phthalate	ND	0.50	mg/Kg	1.00	10/04/1999 23:05	
Benzo(b)fluoranthene	ND	0.10	mg/Kg	1.00	10/04/1999 23:05	
Benzo(k)fluoranthene	ND	0.20	mg/Kg	1.00	10/04/1999 23:05	
Benzo(a)pyrene	ND	0.020	mg/Kg	1.00	10/04/1999 23:05	
Indeno(1,2,3-c,d)pyrene	ND	0.20	mg/Kg	1.00	10/04/1999 23:05	
Dibenzo(a,h)anthracene	ND	0.20	mg/Kg	1.00	10/04/1999 23:05	
Benzo(g,h,i)perylene	ND	0.20	mg/Kg	1.00	10/04/1999 23:05	
Benzoic acid	ND	0.50	mg/Kg	1.00	10/04/1999 23:05	
<b>Surrogate(s)</b>						
Nitrobenzene-d5	71.3	23-120	%	1.00	10/04/1999 23:05	
2-Fluorobiphenyl	86.0	30-115	%	1.00	10/04/1999 23:05	
p-Terphenyl-d14	102.9	18-137	%	1.00	10/04/1999 23:05	
Phenol-d5	64.3	24-113	%	1.00	10/04/1999 23:05	

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# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-09-0489

To: Aqua Science Engineers, Inc.

Test Method: 8270A

Attn.: Robert Kitay

Prep Method: 3550/8270A

## Semi-volatile Organic Compounds

Sample ID: MW-2 10.0'	Lab Sample ID: 1999-09-0489-005
Project: Olympic Service Station	Received: 09/28/1999 16:55
Site: 1436 Grant Avenue	Extracted: 10/04/1999 14:40
Sampled: 09/24/1999 12:38	QC-Batch: 1999/10/04-01.11
Matrix: Soil	

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
<i>Surrogate(s)</i>						
2-Fluorophenol	61.0	25-121	%	1.00	10/04/1999 23:05	
2,4,6-Tribromophenol	113.9	19-122	%	1.00	10/04/1999 23:05	

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

To: Aqua Science Engineers, Inc.  
Attn.: Robert Kitay

Test Method: 8270A  
Prep Method: 3550/8270A

**Batch QC Report**  
Semi-volatile Organic Compounds

<b>Method Blank</b>	<b>Soil</b>	<b>QC Batch # 1999/10/04-01.11</b>
MB: 1999/10/04-01.11-001		Date Extracted: 10/04/1999

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Phenol	ND	0.10	mg/Kg	10/04/1999 12:36	
Bis(2-chloroethyl)ether	ND	0.10	mg/Kg	10/04/1999 12:36	
2-Chlorophenol	ND	0.10	mg/Kg	10/04/1999 12:36	
1,3-Dichlorobenzene	ND	0.10	mg/Kg	10/04/1999 12:36	
1,4-Dichlorobenzene	ND	0.10	mg/Kg	10/04/1999 12:36	
Benzyl alcohol	ND	0.20	mg/Kg	10/04/1999 12:36	
1,2-Dichlorobenzene	ND	0.10	mg/Kg	10/04/1999 12:36	
2-Methylphenol	ND	0.10	mg/Kg	10/04/1999 12:36	
Bis(2-chloroisopropyl) ether	ND	0.10	mg/Kg	10/04/1999 12:36	
4-Methylphenol	ND	0.20	mg/Kg	10/04/1999 12:36	
N-Nitroso-di-n-propylamine	ND	0.10	mg/Kg	10/04/1999 12:36	
Hexachloroethane	ND	0.10	mg/Kg	10/04/1999 12:36	
Nitrobenzene	ND	0.10	mg/Kg	10/04/1999 12:36	
Isophorone	ND	0.10	mg/Kg	10/04/1999 12:36	
2-Nitrophenol	ND	0.10	mg/Kg	10/04/1999 12:36	
2,4-Dimethylphenol	ND	0.10	mg/Kg	10/04/1999 12:36	
Bis(2-chloroethoxy) methane	ND	0.10	mg/Kg	10/04/1999 12:36	
2,4-Dichlorophenol	ND	0.10	mg/Kg	10/04/1999 12:36	
1,2,4-Trichlorobenzene	ND	0.10	mg/Kg	10/04/1999 12:36	
Naphthalene	ND	0.10	mg/Kg	10/04/1999 12:36	
4-Chloroaniline	ND	0.20	mg/Kg	10/04/1999 12:36	
Hexachlorobutadiene	ND	0.10	mg/Kg	10/04/1999 12:36	
4-Chloro-3-methylphenol	ND	0.20	mg/Kg	10/04/1999 12:36	
2-Methylnaphthalene	ND	0.10	mg/Kg	10/04/1999 12:36	
Hexachlorocyclopentadiene	ND	0.10	mg/Kg	10/04/1999 12:36	
2,4,6-Trichlorophenol	ND	0.10	mg/Kg	10/04/1999 12:36	
2,4,5-Trichlorophenol	ND	0.10	mg/Kg	10/04/1999 12:36	
2-Chloronaphthalene	ND	0.10	mg/Kg	10/04/1999 12:36	
2-Nitroaniline	ND	0.50	mg/Kg	10/04/1999 12:36	
Dimethyl phthalate	ND	0.50	mg/Kg	10/04/1999 12:36	
Acenaphthylene	ND	0.10	mg/Kg	10/04/1999 12:36	
3-Nitroaniline	ND	0.10	mg/Kg	10/04/1999 12:36	
Acenaphthene	ND	0.10	mg/Kg	10/04/1999 12:36	
2,4-Dinitrophenol	ND	0.50	mg/Kg	10/04/1999 12:36	
4-Nitrophenol	ND	0.50	mg/Kg	10/04/1999 12:36	
Dibenzofuran	ND	0.10	mg/Kg	10/04/1999 12:36	
2,4-Dinitrotoluene	ND	0.10	mg/Kg	10/04/1999 12:36	
2,6-Dinitrotoluene	ND	0.20	mg/Kg	10/04/1999 12:36	
Diethyl phthalate	ND	0.50	mg/Kg	10/04/1999 12:36	
4-Chlorophenyl phenyl ether	ND	0.10	mg/Kg	10/04/1999 12:36	

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

To: Aqua Science Engineers, Inc.  
Attn: Robert Kitay

Test Method: 8270A  
Prep Method: 3550/8270A

**Batch QC Report**  
Semi-volatile Organic Compounds

<b>Method Blank</b>	<b>Soil</b>	<b>QC Batch # 1999/10/04-01.11</b>
MB: 1999/10/04-01.11-001		Date Extracted: 10/04/1999

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Fluorene	ND	0.10	mg/Kg	10/04/1999 12:36	
4-Nitroaniline	ND	0.50	mg/Kg	10/04/1999 12:36	
2-Methyl-4,6-dinitrophenol	ND	0.50	mg/Kg	10/04/1999 12:36	
N-Nitrosodiphenylamine	ND	0.10	mg/Kg	10/04/1999 12:36	
4-Bromophenyl phenyl ether	ND	0.10	mg/Kg	10/04/1999 12:36	
Hexachlorobenzene	ND	0.10	mg/Kg	10/04/1999 12:36	
Pentachlorophenol	ND	0.50	mg/Kg	10/04/1999 12:36	
Phenanthrene	ND	0.10	mg/Kg	10/04/1999 12:36	
Anthracene	ND	0.10	mg/Kg	10/04/1999 12:36	
Di-n-butyl phthalate	ND	2.0	mg/Kg	10/04/1999 12:36	
Fluoranthene	ND	0.10	mg/Kg	10/04/1999 12:36	
Pyrene	ND	0.10	mg/Kg	10/04/1999 12:36	
Butyl benzyl phthalate	ND	0.50	mg/Kg	10/04/1999 12:36	
3,3-Dichlorobenzidine	ND	0.20	mg/Kg	10/04/1999 12:36	
Benzo(a)anthracene	ND	0.10	mg/Kg	10/04/1999 12:36	
bis(2-Ethylhexyl) phthalate	ND	0.50	mg/Kg	10/04/1999 12:36	
Chrysene	ND	0.10	mg/Kg	10/04/1999 12:36	
Di-n-octyl phthalate	ND	0.50	mg/Kg	10/04/1999 12:36	
Benzo(b)fluoranthene	ND	0.10	mg/Kg	10/04/1999 12:36	
Benzo(k)fluoranthene	ND	0.20	mg/Kg	10/04/1999 12:36	
Benzo(a)pyrene	ND	0.02	mg/Kg	10/04/1999 12:36	
Indeno(1,2,3-c,d)pyrene	ND	0.20	mg/Kg	10/04/1999 12:36	
Dibenzo(a,h)anthracene	ND	0.20	mg/Kg	10/04/1999 12:36	
Benzo(g,h,i)perylene	ND	0.20	mg/Kg	10/04/1999 12:36	
Benzoic acid	ND	0.50	mg/Kg	10/04/1999 12:36	
<b>Surrogate(s)</b>					
Nitrobenzene-d5	51.6	23-120	%	10/04/1999 12:36	
2-Fluorobiphenyl	66.8	30-115	%	10/04/1999 12:36	
p-Terphenyl-d14	96.4	18-137	%	10/04/1999 12:36	
Phenol-d5	52.0	24-113	%	10/04/1999 12:36	
2-Fluorophenol	46.4	25-121	%	10/04/1999 12:36	
2,4,6-Tribromophenol	70.4	19-122	%	10/04/1999 12:36	

To: Aqua Science Engineers, Inc.

Test Method: 8270A

Attn: Robert Kitay

Prep Method: 3550/8270A

## Batch QC Report

### Semi-volatile Organic Compounds

<b>Laboratory Control Spike (LCS/LCSD)</b>		<b>Soil</b>		<b>QC Batch # 1999/10/04-01.11</b>	
LCS:	1999/10/04-01.11-002	Extracted:	10/04/1999	Analyzed:	10/04/1999 13:21
LCSD:	1999/10/04-01.11-003	Extracted:	10/04/1999	Analyzed:	10/04/1999 14:14

Compound	Conc. [ mg/Kg ]		Exp. Conc. [ mg/Kg ]		Recovery [%] RPD			Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	RPD [%]	Recovery	RPD	LCS	LCSD
Phenol	1.20	1.27	2.00	2.00	60.0	63.5	5.7	20-90	35		
2-Chlorophenol	1.34	1.42	2.00	2.00	67.0	71.0	5.8	27-123	35		
1,4-Dichlorobenzene	0.700	0.730	1.000	1.000	70.0	73.0	4.2	28-104	30		
N-Nitroso-di-n-propylamin	0.660	0.700	1.000	1.000	66.0	70.0	5.9	25-114	39		
1,2,4-Trichlorobenzene	0.740	0.790	1.000	1.000	74.0	79.0	6.5	38-107	35		
4-Chloro-3-methylphenol	1.63	1.69	2.00	2.00	81.5	84.5	3.6	26-103	33		
Acenaphthene	0.730	0.770	1.000	1.000	73.0	77.0	5.3	49-102	30		
4-Nitrophenol	1.11	1.08	2.00	2.00	55.5	54.0	2.7	17-109	35		
2,4-Dinitrotoluene	0.690	0.730	1.000	1.000	69.0	73.0	5.6	28-89	38		
Pentachlorophenol	1.44	1.47	2.00	2.00	72.0	73.5	2.1	11-114	35		
Pyrene	0.910	1.04	1.000	1.000	91.0	104.0	13.3	25-117	35		
<b>Surrogate(s)</b>											
Nitrobenzene-d5	14.2	15.6	25	25	56.8	62.4		23-120			
2-Fluorobiphenyl	18.6	20.4	25	25	74.4	81.6		30-115			
p-Terphenyl-d14	25.6	28.1	25	25	102.4	112.4		18-137			
Phenol-d5	29.9	31.9	50	50	59.8	63.8		24-113			
2-Fluorophenol	25.3	26.6	50	50	50.6	53.2		25-121			
2,4,6-Tribromophenol	41.9	44.1	50	50	83.8	88.2		19-122			

Total Extractable Petroleum Hydrocarbons (TEPH)

<b>Aqua Science Engineers, Inc.</b>	☒ 208 West El Pintado Road Danville, CA 94526
Attn: Robert Kitay	Phone: (925) 820-9310 Fax: (925) 837-4853
Project #:	Project: Olympic Service Station
Site: 1436 Grant Avenue	

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
MW-2 10.0'	Soil	09/24/1999 12:38	5

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-09-0489

To: Aqua Science Engineers, Inc.

Test Method: 8015M

Attn.: Robert Kitay

Prep Method: 3550/8015M

## Total Extractable Petroleum Hydrocarbons (TEPH)

Sample ID: MW-2 10.0'	Lab Sample ID: 1999-09-0489-005
Project: Olympic Service Station	Received: 09/28/1999 16:55
Site: 1436 Grant Avenue	Extracted: 10/01/1999 09:00
Sampled: 09/24/1999 12:38	QC-Batch: 1999/10/01-02.10
Matrix: Soil	
Sample/Analysis Flag: shc ( See Legend & Note section )	

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	1000	20	mg/Kg	20.00	10/02/1999 12:21	ndp
Motor Oil	2400	1000	mg/Kg	20.00	10/02/1999 12:21	
<i>Surrogate(s)</i> o-Terphenyl	407.1	60-130	%	20.00	10/02/1999 12:21	

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# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-09-0489

To: Aqua Science Engineers, Inc.

Test Method: 8015M

Attn.: Robert Kitay

Prep Method: 3550/8015M

## Batch QC Report

Total Extractable Petroleum Hydrocarbons (TEPH)

<b>Method Blank</b>	<b>Soil</b>	<b>QC Batch # 1999/10/01-02.10</b>
MB: 1999/10/01-02.10-001		Date Extracted: 10/01/1999 09:00

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Diesel	ND	1	mg/Kg	10/01/1999 21:16	
Motor Oil	ND	50	mg/Kg	10/01/1999 21:16	
<i>Surrogate(s)</i> o-Terphenyl	90.0	60-130	%	10/01/1999 21:16	

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

To: Aqua Science Engineers, Inc.

Test Method: 8015M

Attn: Robert Kitay

Prep Method: 3550/8015M

## Batch QC Report

### Total Extractable Petroleum Hydrocarbons (TEPH)

Laboratory Control Spike (LCS/LCSD)	Soil	QC Batch # 1999/10/01-02.10
LCS: 1999/10/01-02.10-002	Extracted: 10/01/1999 09:00	Analyzed: 10/01/1999 21:52
LCSD: 1999/10/01-02.10-003	Extracted: 10/01/1999 09:00	Analyzed: 10/01/1999 22:28

Compound	Conc. [ mg/Kg ]		Exp. Conc. [ mg/Kg ]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Diesel	29.6	29.2	41.7	41.7	71.0	70.0	1.4	60-130	25		
<b>Surrogate(s)</b> o-Terphenyl	20.9	21.4	20.0	20.0	104.5	107.0		60-130			

To: Aqua Science Engineers, Inc.

Attn: Robert Kitay

Test Method: 8015M

Prep Method: 3550/8015M

## Legend & Notes

### Total Extractable Petroleum Hydrocarbons (TEPH)

#### Analysis Flags

shc

Surrogate recoveries biased high due to hydrocarbon co-elution

#### Analyte Flags

ndp

Hydrocarbon reported does not match the pattern of our Diesel standard

Diesel

<b>Aqua Science Engineers, Inc.</b>	☒ 208 West El Pintado Road Danville, CA 94526
Attn: Robert Kitay	Phone: (925) 820-9310 Fax: (925) 837-4853
Project #:	Project: Olympic Service Station
Site: 1436 Grant Avenue	

### Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
MW-1 10.5'	Soil	09/24/1999 10:11	2
MW-3 10.0'	Soil	09/24/1999 14:24	8

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-09-0489

To: Aqua Science Engineers, Inc.

Test Method: 8015m

Attn.: Robert Kitay

Prep Method: 3550/8015M

Diesel

Sample ID: MW-1 10.5'	Lab Sample ID: 1999-09-0489-002
Project: Olympic Service Station	Received: 09/28/1999 16:55
Site: 1436 Grant Avenue	Extracted: 10/01/1999 09:00
Sampled: 09/24/1999 10:11	QC-Batch: 1999/10/01-02.10
Matrix: Soil	

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	250	1.0	mg/Kg	1.00	10/02/1999 05:42	ndp
Surrogate(s) o-Terphenyl	118.5	60-130	%	1.00	10/02/1999 05:42	

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-09-0489

To: Aqua Science Engineers, Inc.

Test Method: 8015m

Attn.: Robert Kitay

Prep Method: 3550/8015M

Diesel

Sample ID: MW-3 10.0'	Lab Sample ID: 1999-09-0489-008
Project: Olympic Service Station	Received: 09/28/1999 16:55
Site: 1436 Grant Avenue	Extracted: 10/01/1999 09:00
Sampled: 09/24/1999 14:24	QC-Batch: 1999/10/01-02.10
Matrix: Soil	

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	26	1.0	mg/Kg	1.00	10/02/1999 03:54	ndp
Surrogate(s) o-Terphenyl	85.5	60-130	%	1.00	10/02/1999 03:54	

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-09-0489

To: Aqua Science Engineers, Inc.

Test Method: 8015m

Attn.: Robert Kitay

Prep Method: 3550/8015M

## Batch QC Report

Diesel

<b>Method Blank</b>	<b>Soil</b>	<b>QC Batch # 1999/10/01-02.10</b>
MB: 1999/10/01-02.10-001		Date Extracted: 10/01/1999 09:00

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Diesel	ND	1	mg/Kg	10/01/1999 21:16	
<i>Surrogate(s)</i> o-Terphenyl	90.0	60-130	%	10/01/1999 21:16	

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

To: Aqua Science Engineers, Inc.

Test Method: 8015m

Attn: Robert Kitay

Prep Method: 3550/8015M

## Batch QC Report

Diesel

<b>Laboratory Control Spike (LCS/LCSD)</b>	<b>Soil</b>	<b>QC Batch # 1999/10/01-02.10</b>
LCS: 1999/10/01-02.10-002	Extracted: 10/01/1999 09:00	Analyzed: 10/01/1999 21:52
LCSD: 1999/10/01-02.10-003	Extracted: 10/01/1999 09:00	Analyzed: 10/01/1999 22:28

Compound	Conc. [mg/Kg]		Exp. Conc. [mg/Kg]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Diesel	29.6	29.2	41.7	41.7	71.0	70.0	1.4	60-130	25		
<i>Surrogate(s)</i> o-Terphenyl	20.9	21.4	20.0	20.0	104.5	107.0		60-130			

To: Aqua Science Engineers, Inc.  
Attn: Robert Kitay

Test Method: 8015m  
Prep Method: 3550/8015M

**Legend & Notes**

Diesel

**Analyte Flags**

ndp

Hydrocarbon reported does not match the pattern of our Diesel standard

Metals

<b>Aqua Science Engineers, Inc.</b>	☒ 208 West El Pintado Road Danville, CA 94526
Attn: Robert Kitay	Phone: (925) 820-9310 Fax: (925) 837-4853
Project #:	Project: Olympic Service Station
Site: 1436 Grant Avenue	

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
MW-2 10.0'	Soil	09/24/1999 12:38	5

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-09-0489

To: Aqua Science Engineers, Inc.  
Attn.: Robert Kitay

Test Method: 6010B  
Prep Method: 3050B

## Metals

Sample ID: MW-2 10.0'	Lab Sample ID: 1999-09-0489-005
Project: Olympic Service Station	Received: 09/28/1999 16:55
Site: 1436 Grant Avenue	Extracted: 10/05/1999 08:17
Sampled: 09/24/1999 12:38	QC-Batch: 1999/10/05-02.15
Matrix: Soil	

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Cadmium	ND	0.50	mg/Kg	1.00	10/05/1999 14:09	
Chromium	28	1.0	mg/Kg	1.00	10/05/1999 14:09	
Lead	7.4	1.0	mg/Kg	1.00	10/05/1999 14:09	
Nickel	37	1.0	mg/Kg	1.00	10/05/1999 14:09	
Zinc	46	1.0	mg/Kg	1.00	10/05/1999 14:09	

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-09-0489

To: Aqua Science Engineers, Inc.

Test Method: 6010B

Attn: Robert Kitay

Prep Method: 3050B

## Batch QC Report Metals

Method Blank	Soil	QC Batch # 1999/10/05-02.15
MB: 1999/10/05-02.15-035		Date Extracted: 10/05/1999 08:17

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Cadmium	ND	0.50	mg/Kg	10/05/1999 11:58	
Chromium	ND	1.0	mg/Kg	10/05/1999 11:58	
Lead	ND	1.0	mg/Kg	10/05/1999 11:58	
Nickel	ND	1.0	mg/Kg	10/05/1999 11:58	
Zinc	ND	1.0	mg/Kg	10/05/1999 11:58	

To: Aqua Science Engineers, Inc.

Test Method: 6010B

Attn: Robert Kitay

Prep Method: 3050B

## Batch QC Report

### Metals

Laboratory Control Spike (LCS/LCSD)	Soil	QC Batch # 1999/10/05-02.15
LCS: 1999/10/05-02.15-036	Extracted: 10/05/1999 08:17	Analyzed: 10/05/1999 12:02
LCSD: 1999/10/05-02.15-037	Extracted: 10/05/1999 08:17	Analyzed: 10/05/1999 12:06

Compound	Conc. [mg/Kg]		Exp. Conc. [mg/Kg]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Cadmium	98.9	97.3	100.0	100.0	98.9	97.3	1.6	80-120	20		
Chromium	102	99.5	100.0	100.0	102.0	99.5	2.5	80-120	20		
Lead	98.8	97.2	100.0	100.0	98.8	97.2	1.6	80-120	20		
Nickel	98.2	97.0	100.0	100.0	98.2	97.0	1.2	80-120	20		
Zinc	97.7	96.9	100.0	100.0	97.7	96.9	0.8	80-120	20		

Gas/BTEX and MTBE

<b>Aqua Science Engineers, Inc.</b>	☒ 208 West El Pintado Road Danville, CA 94526
Attn: Robert Kitay	Phone: (925) 820-9310 Fax: (925) 837-4853
Project #:	Project: Olympic Service Station
Site: 1436 Grant Avenue	

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
MW-1 10.5'	Soil	09/24/1999 10:11	2
MW-2 10.0'	Soil	09/24/1999 12:38	5
MW-3 10.0'	Soil	09/24/1999 14:24	8

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-09-0489

To: Aqua Science Engineers, Inc.

Test Method: 8020  
8015M

Attn.: Robert Kitay

Prep Method: 5030

Gas/BTEX and MTBE

Sample ID: MW-1 10.5'	Lab Sample ID: 1999-09-0489-002
Project: Olympic Service Station	Received: 09/28/1999 16:55
Site: 1436 Grant Avenue	Extracted: 10/05/1999 14:11
Sampled: 09/24/1999 10:11	QC-Batch: 1999/10/05-01.01
Matrix: Soil	

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	6.5	1.0	mg/Kg	1.00	10/05/1999 14:11	g
Benzene	0.42	0.0050	mg/Kg	1.00	10/05/1999 14:11	
Toluene	0.18	0.0050	mg/Kg	1.00	10/05/1999 14:11	
Ethyl benzene	0.065	0.0050	mg/Kg	1.00	10/05/1999 14:11	
Xylene(s)	0.027	0.0050	mg/Kg	1.00	10/05/1999 14:11	
MTBE	1.7	0.0050	mg/Kg	1.00	10/05/1999 14:11	
<b>Surrogate(s)</b>						
4-Bromofluorobenzene	105.4	58-124	%	1.00	10/05/1999 14:11	
4-Bromofluorobenzene-FID	99.5	58-124	%	1.00	10/05/1999 14:11	

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-09-0489

To: Aqua Science Engineers, Inc.

Test Method: 8020  
8015M

Attn.: Robert Kitay

Prep Method: 5030

Gas/BTEX and MTBE

Sample ID: MW-2 10.0'	Lab Sample ID: 1999-09-0489-005
Project: Olympic Service Station	Received: 09/28/1999 16:55
Site: 1436 Grant Avenue	Extracted: 10/05/1999 15:36
Sampled: 09/24/1999 12:38	QC-Batch: 1999/10/05-01.01
Matrix: Soil	

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	2.9	1.0	mg/Kg	1.00	10/05/1999 15:36	g
Benzene	ND	0.0050	mg/Kg	1.00	10/05/1999 15:36	
Toluene	ND	0.0050	mg/Kg	1.00	10/05/1999 15:36	
Ethyl benzene	ND	0.0050	mg/Kg	1.00	10/05/1999 15:36	
Xylene(s)	ND	0.0050	mg/Kg	1.00	10/05/1999 15:36	
MTBE	ND	0.0050	mg/Kg	1.00	10/05/1999 15:36	
<b>Surrogate(s)</b>						
Trifluorotoluene	62.1	53-125	%	1.00	10/05/1999 15:36	
4-Bromofluorobenzene-FID	66.1	58-124	%	1.00	10/05/1999 15:36	

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-09-0489

To: Aqua Science Engineers, Inc.

Test Method: 8020  
8015M

Attn.: Robert Kitay

Prep Method: 5030

Gas/BTEX and MTBE

Sample ID: <b>MW-3 10.0`</b>	Lab Sample ID: <b>1999-09-0489-008</b>
Project: Olympic Service Station	Received: 09/28/1999 16:55
Site: 1436 Grant Avenue	Extracted: 10/05/1999 14:40
Sampled: 09/24/1999 14:24	QC-Batch: 1999/10/05-01.01
Matrix: Soil	

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	11	1.0	mg/Kg	1.00	10/05/1999 14:40	
Benzene	0.63	0.0050	mg/Kg	1.00	10/05/1999 14:40	
Toluene	0.18	0.0050	mg/Kg	1.00	10/05/1999 14:40	
Ethyl benzene	0.31	0.0050	mg/Kg	1.00	10/05/1999 14:40	
Xylene(s)	1.1	0.0050	mg/Kg	1.00	10/05/1999 14:40	
MTBE	ND	0.0050	mg/Kg	1.00	10/05/1999 14:40	
<b>Surrogate(s)</b>						
4-Bromofluorobenzene	103.3	58-124	%	1.00	10/05/1999 14:40	
4-Bromofluorobenzene-FID	122.1	58-124	%	1.00	10/05/1999 14:40	

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-09-0489

To: Aqua Science Engineers, Inc.

Test Method: 8020  
8015M

Attn.: Robert Kitay

Prep Method: 5030

**Batch QC Report**  
Gas/BTEX and MTBE

<b>Method Blank</b>	<b>Soil</b>	<b>QC Batch # 1999/10/05-01.01</b>
MB: 1999/10/05-01.01-001		Date Extracted: 10/05/1999 09:20

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Gasoline	ND	1.0	mg/Kg	10/05/1999 09:20	
Benzene	ND	0.0050	mg/Kg	10/05/1999 09:20	
Toluene	ND	0.0050	mg/Kg	10/05/1999 09:20	
Ethyl benzene	ND	0.0050	mg/Kg	10/05/1999 09:20	
Xylene(s)	ND	0.0050	mg/Kg	10/05/1999 09:20	
MTBE	ND	0.0050	mg/Kg	10/05/1999 09:20	
<b>Surrogate(s)</b>					
Trifluorotoluene	84.2	53-125	%	10/05/1999 09:20	

To: Aqua Science Engineers, Inc.

Test Method: 8020  
8015M

Attn: Robert Kitay

Prep Method: 5030

## Batch QC Report

### Gas/BTEX and MTBE

Laboratory Control Spike (LCS/LCSD)	Soil	QC Batch # 1999/10/05-01.01
LCS: 1999/10/05-01.01-002	Extracted: 10/05/1999 07:30	Analyzed: 10/05/1999 07:30
LCSD: 1999/10/05-01.01-003	Extracted: 10/05/1999 10:05	Analyzed: 10/05/1999 10:05

Compound	Conc. [mg/Kg]		Exp. Conc. [mg/Kg]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Gasoline	0.446	0.460	0.500	0.500	89.2	92.0	3.1	75-125	35		
Benzene	0.106	0.104	0.1000	0.1000	106.0	104.0	1.9	77-123	35		
Toluene	0.107	0.108	0.1000	0.1000	107.0	108.0	0.9	78-122	35		
Ethyl benzene	0.101	0.102	0.1000	0.1000	101.0	102.0	1.0	70-130	35		
Xylene(s)	0.308	0.308	0.300	0.300	102.7	102.7	0.0	75-125	35		
<b>Surrogate(s)</b>											
Trifluorotoluene	527	494	500	500	105.4	98.8		53-125			
4-Bromofluorobenzene-FI	433		500		86.6			58-124			

To: Aqua Science Engineers, Inc.

Test Method: 8015M  
8020

Attn: Robert Kitay

Prep Method: 5030

### Legend & Notes

Gas/BTEX and MTBE

### Analyte Flags

g

Hydrocarbon reported in the gasoline range does not match our gasoline standard.

99-09-0489

48222

Aqua Science Engineers, Inc.  
208 W. El Pintado Road  
Danville, CA 94526  
(925) 820-9391  
FAX (925) 837-4853

# Chain of Custody

PAGE 1 OF 1

SAMPLER (SIGNATURE) Robert E. Kitay (PHONE NO.) (925) 820-9391

PROJECT NAME Olympic Service Station JOB NO. \_\_\_\_\_  
ADDRESS 1436 Grant Avenue DATE 9-24-99

## ANALYSIS REQUEST

SPECIAL INSTRUCTIONS:

SAMPLE ID.	DATE	TIME	MATRIX	NO. OF SAMPLES	TPH-GAS / MTBE & BTEX (EPA 5030/8015-8020)	TPH-GASOLINE (EPA 5030/8015)	TPH-DIESEL (EPA 3510/8015)	PURGEABLE HALOCARBONS (EPA 6010/8010)	PURGEABLE AROMATICS (EPA 602/8020)	VOLATILE ORGANICS (EPA 624/8240)	SEMI-VOLATILE ORGANICS (EPA 625/8270)	OIL & GREASE (EPA 5520)	LUFT METALS (5) (EPA 6010+7000)	CAM 17 METALS (EPA 6010+7000)	PCBs & PESTICIDES (EPA 603/8080)	ORGANOPHOSPHORUS PESTICIDES (EPA 8140) (EPA 608/8080)	ORGANOCHLORINE HERBICIDES (EPA 8150)	FUEL OXYGENATES (EPA 8260)	HOLD	Total Pb	TPH-D + MO	COMPOSITE
					MW-1 5.0'	9/24	10:05	Soil	1													
MW-1 10.5'		10:11			X		X														X	
MW-1 16.0'		10:19																		X		
MW-2 6.0'		12:28			X															X		
MW-2 10.0'		12:38			X			X			X	X	X							X		X
MW-2 15.0'		12:47																		X		
MW-3 6.0'		14:19																		X		
MW-3 10.0'		14:24			X		X															
MW-3 16.0'	✓	14:32	✓	✓																X		

RELINQUISHED BY: Robert E. Kitay (signature) (time) 9:28

RECEIVED BY: [Signature] (signature) (time) 10:07

RELINQUISHED BY: [Signature] (signature) (time) 10:55

RECEIVED BY LABORATORY: Demic Harrington (signature) (time) 1655

COMMENTS: 5-DAY T.A.T.

Robert E. Kitay (printed name) (date) \_\_\_\_\_

B Morrison (printed name) (date) 9-28-99

B Morrison (printed name) (date) 9-28-99

D. Harrington (printed name) (date) \_\_\_\_\_

Company- ASE

Company- Chronalab

Company- Chronalab

Company- Chronalab 9/28/99

**APPENDIX E**

Well Sampling Field Logs



# WELL SAMPLING FIELD LOG

Project Name and Address: Jabor  
 Job #: \_\_\_\_\_ Date of sampling: 10-6-99  
 Well Name: MW-1 Sampled by: ITR  
 Total depth of well (feet): 24.2 Well diameter (inches): 2"  
 Depth to water before sampling (feet): 8.35  
 Thickness of floating product if any: -  
 Depth of well casing in water (feet): 15.85  
 Number of gallons per well casing volume (gallons): 2.7  
 Number of well casing volumes to be removed: 4  
 Req'd volume of groundwater to be purged before sampling (gallons): 10.8  
 Equipment used to purge the well: dedicated bailer  
 Time Evacuation Began: 1250 Time Evacuation Finished: 1305  
 Approximate volume of groundwater purged: 11  
 Did the well go dry?: No After how many gallons: -  
 Time samples were collected: 1310  
 Depth to water at time of sampling: 8.37  
 Percent recovery at time of sampling: 99%  
 Samples collected with: dedicated bailer  
 Sample color: yellow-gray Odor: none  
 Description of sediment in sample: silt

## CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
<u>1</u>	<u>70.4</u>	<u>6.67</u>	<u>714</u>
<u>2</u>	<u>71.9</u>	<u>6.92</u>	<u>691</u>
<u>3</u>	<u>71.6</u>	<u>6.84</u>	<u>714</u>
<u>4</u>	<u>71.4</u>	<u>6.81</u>	<u>708</u>

## SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
<u>MW-1</u>	<u>5</u>	<u>40-ml VOA</u>	<u>✓</u>	<u>✓</u>	<u>MTBE/TPH-G/BTEX oil/grease</u>
<u>MW-1</u>	<u>7</u>	<u>1-liter Amber</u>		<u>✓</u>	<u><del>TPH</del> /TPH-D</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____



# WELL SAMPLING FIELD LOG

Project Name and Address: Labor  
 Job #: \_\_\_\_\_ Date of sampling: 10-6-99  
 Well Name: MW-2 Sampled by: TR  
 Total depth of well (feet): 19.40' Well diameter (inches): 2"  
 Depth to water before sampling (feet): 7.87  
 Thickness of floating product if any: -  
 Depth of well casing in water (feet): 11.53  
 Number of gallons per well casing volume (gallons): 2.0  
 Number of well casing volumes to be removed: 4  
 Req'd volume of groundwater to be purged before sampling (gallons): 8  
 Equipment used to purge the well: dedicated bailer  
 Time Evacuation Began: 1120 Time Evacuation Finished: 1135  
 Approximate volume of groundwater purged: 8  
 Did the well go dry?: No After how many gallons: -  
 Time samples were collected: 1140  
 Depth to water at time of sampling: 7.89  
 Percent recovery at time of sampling: 99%  
 Samples collected with: dedicated bailer  
 Sample color: yellow-clear Odor: None  
 Description of sediment in sample: silt

## CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
<u>1</u>	<u>72.0</u>	<u>7.83</u>	<u>810</u>
<u>2</u>	<u>72.9</u>	<u>7.18</u>	<u>859</u>
<u>3</u>	<u>72.1</u>	<u>7.24</u>	<u>831</u>
<u>4</u>	<u>71.9</u>	<u>6.99</u>	<u>900</u>

## SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
<u>MW-2</u>	<u>5</u>	<u>40-ML VOA</u>	<u>✓</u>	<u>✓</u>	<u>TPH-GHABE/BTEX</u>
<u>MW-2</u>	<u>7</u>	<u>1-Liter Amber</u>		<u>✓</u>	<u>TPH-D Oil/grease TPH-MO</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____



# WELL SAMPLING FIELD LOG

Project Name and Address: Jabor  
 Job #: \_\_\_\_\_ Date of sampling: 10-6-99  
 Well Name: MW-3 Sampled by: ITR  
 Total depth of well (feet): 18.90' Well diameter (inches): 2'  
 Depth to water before sampling (feet): 7.90  
 Thickness of floating product if any: -  
 Depth of well casing in water (feet): 11.0  
 Number of gallons per well casing volume (gallons): 1.9  
 Number of well casing volumes to be removed: 4  
 Req'd volume of groundwater to be purged before sampling (gallons): 7.6  
 Equipment used to purge the well: dedicated bailer  
 Time Evacuation Began: 1215 Time Evacuation Finished: 1230  
 Approximate volume of groundwater purged: 8  
 Did the well go dry?: NO After how many gallons: -  
 Time samples were collected: 1235  
 Depth to water at time of sampling: 7.92  
 Percent recovery at time of sampling: 99%  
 Samples collected with: dedicated bailer  
 Sample color: yellow-gray Odor: None  
 Description of sediment in sample: silt

## CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
<u>1</u>	<u>72.3</u>	<u>5.74</u>	<u>1100</u>
<u>2</u>	<u>72.9</u>	<u>5.81</u>	<u>1171</u>
<u>3</u>	<u>73.0</u>	<u>5.92</u>	<u>1108</u>
<u>4</u>	<u>72.8</u>	<u>5.85</u>	<u>1154</u>

## SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
<u>MW-3</u>	<u>5</u>	<u>40-ml VOA</u>	<u>✓</u>	<u>✓</u>	<u>TPH-G/MTBE/BTEX</u>
<u>MW-3</u>	<u>7</u>	<u>1-liter Amber</u>		<u>✓</u>	<u>TPH-D oil/Grow</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

**APPENDIX F**

Analytical Report and Chain of Custody Form  
For Groundwater Samples

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-10-0207

Date: October 19, 1999

Aqua Science Engineers, Inc.  
208 West El Pintado Road  
Danville, CA 94526

Attn.: Mr. Ian T. Reed

Project: 3406  
Jabor

Site: 1436 Grant Ave.  
San Lorenzo

Dear Mr. Reed,

Attached is our report for your samples received on Tuesday October 12, 1999. This report has been reviewed and approved for release. Reproduction of this report is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after November 11, 1999 unless you have requested otherwise. We appreciate the opportunity to be of service to you. If you have any questions, please call me at (925) 484-1919.

Sincerely,

  
Pierre Monette

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

Printed on: 10/19/1999 16:27

Page 1 of 1

## Halogenated Volatile Organic Compounds

**Aqua Science Engineers, Inc.**

☒ 208 West El Pintado Road  
Danville, CA 94526

Attn: Ian T. Reed

Phone: (925) 820-9391 Fax: (925) 837-4853

Project #: 3406

Project: Jabor

Site: 1436 Grant Ave.  
San Lorenzo

### Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
MW-2	Water	10/06/1999 11:40	2

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-10-0207

To: Aqua Science Engineers, Inc.

Test Method: 8010

Attn.: Ian T. Reed

Prep Method: 5030

## Halogenated Volatile Organic Compounds

Sample ID: MW-2	Lab Sample ID: 1999-10-0207-002
Project: 3406 Jabor	Received: 10/12/1999 17:08
Site: 1436 Grant Ave. San Lorenzo	Extracted: 10/14/1999 15:02
Sampled: 10/06/1999 11:40	QC-Batch: 1999/10/14-01.25
Matrix: Water	

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Dichlorodifluoromethane	ND	1.0	ug/L	1.00	10/14/1999 15:02	
Vinyl chloride	ND	0.50	ug/L	1.00	10/14/1999 15:02	
Chloroethane	ND	0.50	ug/L	1.00	10/14/1999 15:02	
Trichlorofluoromethane	ND	0.50	ug/L	1.00	10/14/1999 15:02	
1,1-Dichloroethene	ND	0.50	ug/L	1.00	10/14/1999 15:02	
Methylene chloride	ND	5.0	ug/L	1.00	10/14/1999 15:02	
trans-1,2-Dichloroethene	ND	0.50	ug/L	1.00	10/14/1999 15:02	
cis-1,2-Dichloroethene	ND	0.50	ug/L	1.00	10/14/1999 15:02	
1,1-Dichloroethane	ND	0.50	ug/L	1.00	10/14/1999 15:02	
Chloroform	ND	3.0	ug/L	1.00	10/14/1999 15:02	
1,1,1-Trichloroethane	ND	0.50	ug/L	1.00	10/14/1999 15:02	
Carbon tetrachloride	ND	0.50	ug/L	1.00	10/14/1999 15:02	
1,2-Dichloroethane	ND	0.50	ug/L	1.00	10/14/1999 15:02	
Trichloroethene	ND	0.50	ug/L	1.00	10/14/1999 15:02	
1,2-Dichloropropane	ND	0.50	ug/L	1.00	10/14/1999 15:02	
Bromodichloromethane	ND	0.50	ug/L	1.00	10/14/1999 15:02	
2-Chloroethylvinyl ether	ND	0.50	ug/L	1.00	10/14/1999 15:02	
trans-1,3-Dichloropropene	ND	0.50	ug/L	1.00	10/14/1999 15:02	
cis-1,3-Dichloropropene	ND	0.50	ug/L	1.00	10/14/1999 15:02	
1,1,2-Trichloroethane	ND	0.50	ug/L	1.00	10/14/1999 15:02	
Tetrachloroethene	ND	0.50	ug/L	1.00	10/14/1999 15:02	
Dibromochloromethane	ND	0.50	ug/L	1.00	10/14/1999 15:02	
Chlorobenzene	ND	0.50	ug/L	1.00	10/14/1999 15:02	
Bromoform	ND	2.0	ug/L	1.00	10/14/1999 15:02	
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1.00	10/14/1999 15:02	
1,3-Dichlorobenzene	ND	0.50	ug/L	1.00	10/14/1999 15:02	
1,4-Dichlorobenzene	ND	0.50	ug/L	1.00	10/14/1999 15:02	
1,2-Dichlorobenzene	ND	0.50	ug/L	1.00	10/14/1999 15:02	
Trichlorotrifluoroethane	ND	2.0	ug/L	1.00	10/14/1999 15:02	
Chloromethane	ND	1.0	ug/L	1.00	10/14/1999 15:02	
Bromomethane	ND	1.0	ug/L	1.00	10/14/1999 15:02	
<b>Surrogate(s)</b>						
1-Chloro-2-fluorobenzene	77.2	50-150	%	1.00	10/14/1999 15:02	

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

To: Aqua Science Engineers, Inc.  
Attn.: Ian T. Reed

Test Method: 8010  
Prep Method: 5030

**Batch QC Report**  
Halogenated Volatile Organic Compounds

<b>Method Blank</b>	<b>Water</b>	<b>QC Batch # 1999/10/14-01.25</b>
MB: 1999/10/14-01.25-001		Date Extracted: 10/14/1999 09:54

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Dichlorodifluoromethane	ND	1.0	ug/L	10/14/1999 09:54	
Vinyl chloride	ND	0.5	ug/L	10/14/1999 09:54	
Chloroethane	ND	0.5	ug/L	10/14/1999 09:54	
Trichlorofluoromethane	ND	0.5	ug/L	10/14/1999 09:54	
1,1-Dichloroethene	ND	0.5	ug/L	10/14/1999 09:54	
Methylene chloride	ND	5.0	ug/L	10/14/1999 09:54	
trans-1,2-Dichloroethene	ND	0.5	ug/L	10/14/1999 09:54	
cis-1,2-Dichloroethene	ND	0.5	ug/L	10/14/1999 09:54	
1,1-Dichloroethane	ND	0.5	ug/L	10/14/1999 09:54	
Chloroform	ND	3.0	ug/L	10/14/1999 09:54	
1,1,1-Trichloroethane	ND	0.5	ug/L	10/14/1999 09:54	
Carbon tetrachloride	ND	0.5	ug/L	10/14/1999 09:54	
1,2-Dichloroethane	ND	0.5	ug/L	10/14/1999 09:54	
Trichloroethene	ND	0.5	ug/L	10/14/1999 09:54	
1,2-Dichloropropane	ND	0.5	ug/L	10/14/1999 09:54	
Bromodichloromethane	ND	0.5	ug/L	10/14/1999 09:54	
2-Chloroethylvinyl ether	ND	0.5	ug/L	10/14/1999 09:54	
trans-1,3-Dichloropropene	ND	0.5	ug/L	10/14/1999 09:54	
cis-1,3-Dichloropropene	ND	0.5	ug/L	10/14/1999 09:54	
1,1,2-Trichloroethane	ND	0.5	ug/L	10/14/1999 09:54	
Tetrachloroethene	ND	0.5	ug/L	10/14/1999 09:54	
Dibromochloromethane	ND	0.5	ug/L	10/14/1999 09:54	
Chlorobenzene	ND	0.5	ug/L	10/14/1999 09:54	
Bromoform	ND	2.0	ug/L	10/14/1999 09:54	
1,1,2,2-Tetrachloroethane	ND	0.5	ug/L	10/14/1999 09:54	
1,3-Dichlorobenzene	ND	0.5	ug/L	10/14/1999 09:54	
1,4-Dichlorobenzene	ND	0.5	ug/L	10/14/1999 09:54	
1,2-Dichlorobenzene	ND	0.5	ug/L	10/14/1999 09:54	
Trichlorotrifluoroethane	ND	2.0	ug/L	10/14/1999 09:54	
Chloromethane	ND	1.0	ug/L	10/14/1999 09:54	
Bromomethane	ND	1.0	ug/L	10/14/1999 09:54	
<b>Surrogate(s)</b>					
1-Chloro-2-fluorobenzene	82.5	50-150	%	10/14/1999 09:54	

To: Aqua Science Engineers, Inc.

Test Method: 8010

Attn: Ian T. Reed

Prep Method: 5030

## Batch QC Report

### Halogenated Volatile Organic Compounds

Laboratory Control Spike (LCS/LCSD)	Water	QC Batch # 1999/10/14-01.25
LCS: 1999/10/14-01.25-002	Extracted: 10/14/1999 10:45	Analyzed: 10/14/1999 10:45
LCSD: 1999/10/14-01.25-003	Extracted: 10/14/1999 11:37	Analyzed: 10/14/1999 11:37

Compound	Conc. [ ug/L ]		Exp. Conc. [ ug/L ]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
1,1-Dichloroethene	20.5	21.3	20.0	20.0	102.5	106.5	3.8	50-140	20		
Trichloroethene	19.9	20.8	20.0	20.0	99.5	104.0	4.4	50-150	20		
Chlorobenzene	20.0	20.9	20.0	20.0	100.0	104.5	4.4	50-150	20		
<b>Surrogate(s)</b>											
1-Chloro-2-fluorobenzen	18.2	18.4	20	20	91.0	92.0		50-150			

To: Aqua Science Engineers, Inc.  
Attn.: Ian T. Reed

Test Method: 8010  
Prep Method: 5030

**Batch QC Report**

Halogenated Volatile Organic Compounds

Matrix Spike ( MS / MSD )

Water

QC Batch # 1999/10/14-01.25

Sample ID: MW-2

Lab Sample ID: 1999-10-0207-002

MS: 1999/10/14-01.25-004 Extracted: 10/14/1999 15:53 Analyzed: 10/14/1999 15:53 Dilution: 1.0

MSD: 1999/10/14-01.25-005 Extracted: 10/14/1999 16:45 Analyzed: 10/14/1999 16:45 Dilution: 1.0

Compound	Conc [ ug/L ]			Exp. Conc. [ ug/L ]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	MS	MSD	Sample	MS	MSD	MS	MSD		Recovery	RPD	MS	MSD
1,1-Dichloroethene	22.0	21.9	ND	20.0	20.0	110.0	109.5	0.5	50-140	20		
Trichloroethene	21.4	21.4	ND	20.0	20.0	107.0	107.0	0.0	50-150	20		
Chlorobenzene	21.9	21.7	ND	20.0	20.0	109.5	108.5	0.9	50-150	20		
<b>Surrogate(s)</b>												
1-Chloro-2-fluorobenzen	19.8	19.3		20	20	99.0	96.5		50-150			

Gas/BTEX and MTBE

<b>Aqua Science Engineers, Inc.</b>	☐ 208 West El Pintado Road Danville, CA 94526
Attn: Ian T. Reed	Phone: (925) 820-9391 Fax: (925) 837-4853
Project #: 3406	Project: Jabor
Site: 1436 Grant Ave. San Lorenzo	

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
MW-1	Water	10/06/1999 13:10	1
MW-2	Water	10/06/1999 11:40	2
MW-3	Water	10/06/1999 12:35	3

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-10-0207

To: Aqua Science Engineers, Inc.

Test Method: 8020  
8015M

Attn.: Ian T. Reed

Prep Method: 5030

Gas/BTEX and MTBE

Sample ID: MW-1	Lab Sample ID: 1999-10-0207-001
Project: 3406 Jabor	Received: 10/12/1999 17:08
Site: 1436 Grant Ave. San Lorenzo	Extracted: 10/15/1999 20:04
Sampled: 10/06/1999 13:10	QC-Batch: 1999/10/15-01.01
Matrix: Water	

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	3900	2500	ug/L	50.00	10/15/1999 20:04	g
Benzene	ND	25	ug/L	50.00	10/15/1999 20:04	
Toluene	ND	25	ug/L	50.00	10/15/1999 20:04	
Ethyl benzene	ND	25	ug/L	50.00	10/15/1999 20:04	
Xylene(s)	ND	25	ug/L	50.00	10/15/1999 20:04	
MTBE	3500	250	ug/L	50.00	10/15/1999 20:04	
<i>Surrogate(s)</i>						
Trifluorotoluene	92.9	58-124	%	1.00	10/15/1999 20:04	
4-Bromofluorobenzene-FID	87.2	50-150	%	1.00	10/15/1999 20:04	

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-10-0207

To: Aqua Science Engineers, Inc.

Test Method: 8020  
8015M

Attn.: Ian T. Reed

Prep Method: 5030

Gas/BTEX and MTBE

Sample ID: MW-2	Lab Sample ID: 1999-10-0207-002
Project: 3406 Jabor	Received: 10/12/1999 17:08
Site: 1436 Grant Ave. San Lorenzo	Extracted: 10/14/1999 09:45
Sampled: 10/06/1999 11:40	QC-Batch: 1999/10/14-01.01
Matrix: Water	

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	70	50	ug/L	1.00	10/14/1999 09:45	g
Benzene	ND	0.50	ug/L	1.00	10/14/1999 09:45	
Toluene	ND	0.50	ug/L	1.00	10/14/1999 09:45	
Ethyl benzene	ND	0.50	ug/L	1.00	10/14/1999 09:45	
Xylene(s)	ND	0.50	ug/L	1.00	10/14/1999 09:45	
MTBE	11	5.0	ug/L	1.00	10/14/1999 09:45	
<i>Surrogate(s)</i>						
Trifluorotoluene	98.2	58-124	%	1.00	10/14/1999 09:45	
4-Bromofluorobenzene-FID	80.0	50-150	%	1.00	10/14/1999 09:45	

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-10-0207

To: Aqua Science Engineers, Inc.

Test Method: 8020  
8015M

Attn.: Ian T. Reed

Prep Method: 5030

Gas/BTEX and MTBE

Sample ID: MW-3	Lab Sample ID: 1999-10-0207-003
Project: 3406 Jabor	Received: 10/12/1999 17:08
Site: 1436 Grant Ave. San Lorenzo	Extracted: 10/14/1999 11:18
Sampled: 10/06/1999 12:35	QC-Batch: 1999/10/14-01.01
Matrix: Water	

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	3900	250	ug/L	5.00	10/14/1999 11:18	
Benzene	900	2.5	ug/L	5.00	10/14/1999 11:18	
Toluene	89	2.5	ug/L	5.00	10/14/1999 11:18	
Ethyl benzene	160	2.5	ug/L	5.00	10/14/1999 11:18	
Xylene(s)	560	2.5	ug/L	5.00	10/14/1999 11:18	
MTBE	790	25	ug/L	5.00	10/14/1999 11:18	
<i>Surrogate(s)</i>						
Trifluorotoluene	102.8	58-124	%	1.00	10/14/1999 11:18	
4-Bromofluorobenzene-FID	86.9	50-150	%	1.00	10/14/1999 11:18	

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-10-0207

To: Aqua Science Engineers, Inc.

Test Method: 8020  
8015M

Attn.: Ian T. Reed

Prep Method: 5030

## Batch QC Report Gas/BTEX and MTBE

Method Blank	Water	QC Batch # 1999/10/14-01.01
MB: 1999/10/14-01.01-001		Date Extracted: 10/14/1999 07:28

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Gasoline	ND	50	ug/L	10/14/1999 07:28	
Benzene	ND	0.5	ug/L	10/14/1999 07:28	
Toluene	ND	0.5	ug/L	10/14/1999 07:28	
Ethyl benzene	ND	0.5	ug/L	10/14/1999 07:28	
Xylene(s)	ND	0.5	ug/L	10/14/1999 07:28	
MTBE	ND	5.0	ug/L	10/14/1999 07:28	
<b>Surrogate(s)</b>					
Trifluorotoluene	100.8	58-124	%	10/14/1999 07:28	
4-Bromofluorobenzene-FID	75.6	50-150	%	10/14/1999 07:28	

To: Aqua Science Engineers, Inc.

Test Method: 8020  
8015M

Attn: Ian T. Reed

Prep Method: 5030

### Batch QC Report

Gas/BTEX and MTBE

<b>Laboratory Control Spike (LCS/LCSD)</b>	<b>Water</b>	<b>QC Batch # 1999/10/14-01.01</b>
LCS: 1999/10/14-01.01-002	Extracted: 10/14/1999 05:11	Analyzed: 10/14/1999 05:11
LCSD: 1999/10/14-01.01-003	Extracted: 10/14/1999 06:06	Analyzed: 10/14/1999 06:06

Compound	Conc. [ ug/L ]		Exp. Conc. [ ug/L ]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Gasoline	474	469	500	500	94.8	93.8	1.1	75-125	20		
Benzene	105	112	100.0	100.0	105.0	112.0	6.5	77-123	20		
Toluene	104	114	100.0	100.0	104.0	114.0	9.2	78-122	20		
Ethyl benzene	101	115	100.0	100.0	101.0	115.0	13.0	70-130	20		
Xylene(s)	303	344	300	300	101.0	114.7	12.7	75-125	20		
<b>Surrogate(s)</b>											
Trifluorotoluene	511	516	500	500	102.2	103.2		58-124			
4-Bromofluorobenzene-Fl	465	464	500	500	93.0	92.8		50-150			

To: Aqua Science Engineers, Inc.

Test Method: 8015M  
8020

Attn: Ian T. Reed

Prep Method: 5030

**Legend & Notes**

Gas/BTEX and MTBE

**Analyte Flags**

g

Hydrocarbon reported in the gasoline range does not match our gasoline standard.

Total Oil & Grease

<b>Aqua Science Engineers, Inc.</b>	<input checked="" type="checkbox"/> 208 West El Pintado Road Danville, CA 94526
Attn: Ian T. Reed	Phone: (925) 820-9391 Fax: (925) 837-4853
Project #: 3406	Project: Jabor
Site: 1436 Grant Ave. San Lorenzo	

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
MW-2	Water	10/06/1999 11:40	2

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-10-0207

To: Aqua Science Engineers, Inc.

Attn.: Ian T. Reed

Test Method: 5520 B

Prep Method: 5520 B

## Total Oil & Grease

Sample ID: MW-2	Lab Sample ID: 1999-10-0207-002
Project: 3406 Jabor	Received: 10/12/1999 17:08
Site: 1436 Grant Ave. San Lorenzo	Extracted: 10/14/1999
Sampled: 10/06/1999 11:40	QC-Batch: 1999/10/14-02.23
Matrix: Water	

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Oil & Grease (total)	ND	1.0	mg/L	1.00	10/15/1999	

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-10-0207

To: Aqua Science Engineers, Inc.

Test Method: 5520 B

Attn.: Ian T. Reed

Prep Method: 5520 B

## Batch QC Report

Total Oil & Grease

Method Blank	Water	QC Batch # 1999/10/14-02.23
MB: 1999/10/14-02.23-001		Date Extracted: 10/14/1999

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Oil & Grease (total)	ND	1	mg/L	10/15/1999	

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-10-0207

To: Aqua Science Engineers, Inc.

Test Method: 5520 B

Attn: Ian T. Reed

Prep Method: 5520 B

## Batch QC Report

### Total Oil & Grease

Laboratory Control Spike (LCS/LCSD)	Water	QC Batch # 1999/10/14-02.23
LCS: 1999/10/14-02.23-002	Extracted: 10/14/1999	Analyzed: 10/15/1999
LCSD: 1999/10/14-02.23-003	Extracted: 10/14/1999	Analyzed: 10/15/1999

Compound	Conc. [ mg/L ]		Exp. Conc. [ mg/L ]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		[%]	Recovery	RPD	LCS
Oil & Grease (total)	20.2	20.8	20.0	20.0	101.0	104.0	2.9	80-120	20		

Diesel

Aqua Science Engineers, Inc.

☒ 208 West El Pintado Road  
Danville, CA 94526

Attn: Ian T. Reed

Phone: (925) 820-9391 Fax: (925) 837-4853

Project #: 3406

Project: Jabor

Site: 1436 Grant Ave.  
San Lorenzo

### Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
MW-1	Water	10/06/1999 13:10	1
MW-3	Water	10/06/1999 12:35	3

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-10-0207

To: Aqua Science Engineers, Inc.  
Attn.: Ian T. Reed

Test Method: 8015m  
Prep Method: 3510/8015M

Diesel

Sample ID:	MW-1	Lab Sample ID:	1999-10-0207-001
Project:	3406 Jabor	Received:	10/12/1999 17:08
Site:	1436 Grant Ave. San Lorenzo	Extracted:	10/14/1999 09:00
Sampled:	10/06/1999 13:10	QC-Batch:	1999/10/14-02.10
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	84	50	ug/L	1.00	10/14/1999 21:04	ed
<i>Surrogate(s)</i> o-Terphenyl	91.9	60-130	%	1.00	10/14/1999 21:04	

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-10-0207

To: Aqua Science Engineers, Inc.

Attn.: Ian T. Reed

Test Method: 8015m

Prep Method: 3510/8015M

Diesel

Sample ID: MW-3	Lab Sample ID: 1999-10-0207-003
Project: 3406 Jabor	Received: 10/12/1999 17:08
Site: 1436 Grant Ave. San Lorenzo	Extracted: 10/14/1999 09:00
Sampled: 10/06/1999 12:35	QC-Batch: 1999/10/14-02.10
Matrix: Water	

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	300	50	ug/L	1.00	10/14/1999 21:04	ed
Surrogate(s) o-Terphenyl	88.6	60-130	%	1.00	10/14/1999 21:04	

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-10-0207

To: Aqua Science Engineers, Inc.  
Attn.: Ian T. Reed

Test Method: 8015m  
Prep Method: 3510/8015M

## Batch QC Report Diesel

Method Blank	Water	QC Batch # 1999/10/14-02.10
MB: 1999/10/14-02.10-001		Date Extracted: 10/14/1999 08:00

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Diesel	ND	50	ug/L	10/14/1999 15:57	
Surrogate(s) o-Terphenyl	95.0	60-130	%	10/14/1999 15:57	

To: Aqua Science Engineers, Inc.

Test Method: 8015m

Attn: Ian T. Reed

Prep Method: 3510/8015M

## Batch QC Report

Diesel

### Laboratory Control Spike (LCS/LCSD)

Water

QC Batch # 1999/10/14-02.10

LCS: 1999/10/14-02.10-002

Extracted: 10/14/1999 08:00

Analyzed: 10/14/1999 16:08

LCSD: 1999/10/14-02.10-003

Extracted: 10/14/1999 08:00

Analyzed: 10/14/1999 16:54

Compound	Conc. [ ug/L ]		Exp. Conc. [ ug/L ]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Diesel	1040	1010	1250	1250	83.2	80.8	2.9	60-130	25		
<b>Surrogate(s)</b> o-Terphenyl	20.7	22.0	20.0	20.0	103.5	110.0		60-130			

To: Aqua Science Engineers, Inc.

Attn: Ian T. Reed

Test Method: 8015m

Prep Method: 3510/8015M

## Legend & Notes

Diesel

## Analyte Flags

ed

Hydrocarbon reported is in the early Diesel range, and does not match our Diesel standard

## Semi-volatile Organic Compounds

<b>Aqua Science Engineers, Inc.</b>	☒ 208 West El Pintado Road Danville, CA 94526
Attn: Ian T. Reed	Phone: (925) 820-9391 Fax: (925) 837-4853
Project #: 3406	Project: Jabor
Site: 1436 Grant Ave. San Lorenzo	

### Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
MW-2	Water	10/06/1999 11:40	2

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-10-0207

To: Aqua Science Engineers, Inc.

Test Method: 8270A

Attn.: Ian T. Reed

Prep Method: 3510/8270A

## Semi-volatile Organic Compounds

Sample ID: MW-2	Lab Sample ID: 1999-10-0207-002
Project: 3406 Jabor	Received: 10/12/1999 17:08
Site: 1436 Grant Ave. San Lorenzo	Extracted: 10/13/1999 14:17
Sampled: 10/06/1999 11:40	QC-Batch: 1999/10/13-01.11
Matrix: Water	

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Phenol	ND	2.0	ug/L	1.00	10/15/1999 17:05	
Bis(2-chloroethyl)ether	ND	2.0	ug/L	1.00	10/15/1999 17:05	
2-Chlorophenol	ND	2.0	ug/L	1.00	10/15/1999 17:05	
1,3-Dichlorobenzene	ND	2.0	ug/L	1.00	10/15/1999 17:05	
1,4-Dichlorobenzene	ND	2.0	ug/L	1.00	10/15/1999 17:05	
Benzyl alcohol	ND	5.0	ug/L	1.00	10/15/1999 17:05	
1,2-Dichlorobenzene	ND	2.0	ug/L	1.00	10/15/1999 17:05	
2-Methylphenol	ND	2.0	ug/L	1.00	10/15/1999 17:05	
Bis(2-chloroisopropyl) ether	ND	2.0	ug/L	1.00	10/15/1999 17:05	
4-Methylphenol	ND	2.0	ug/L	1.00	10/15/1999 17:05	
N-Nitroso-di-n-propylamine	ND	2.0	ug/L	1.00	10/15/1999 17:05	
Hexachloroethane	ND	2.0	ug/L	1.00	10/15/1999 17:05	
Nitrobenzene	ND	2.0	ug/L	1.00	10/15/1999 17:05	
Isophorone	ND	2.0	ug/L	1.00	10/15/1999 17:05	
2-Nitrophenol	ND	2.0	ug/L	1.00	10/15/1999 17:05	
2,4-Dimethylphenol	ND	2.0	ug/L	1.00	10/15/1999 17:05	
Bis(2-chloroethoxy) methane	ND	5.0	ug/L	1.00	10/15/1999 17:05	
2,4-Dichlorophenol	ND	2.0	ug/L	1.00	10/15/1999 17:05	
1,2,4-Trichlorobenzene	ND	2.0	ug/L	1.00	10/15/1999 17:05	
Naphthalene	ND	2.0	ug/L	1.00	10/15/1999 17:05	
4-Chloroaniline	ND	2.0	ug/L	1.00	10/15/1999 17:05	
Hexachlorobutadiene	ND	2.0	ug/L	1.00	10/15/1999 17:05	
4-Chloro-3-methylphenol	ND	5.0	ug/L	1.00	10/15/1999 17:05	
2-Methylnaphthalene	ND	2.0	ug/L	1.00	10/15/1999 17:05	
Hexachlorocyclopentadiene	ND	2.0	ug/L	1.00	10/15/1999 17:05	
2,4,6-Trichlorophenol	ND	2.0	ug/L	1.00	10/15/1999 17:05	
2,4,5-Trichlorophenol	ND	2.0	ug/L	1.00	10/15/1999 17:05	
2-Chloronaphthalene	ND	2.0	ug/L	1.00	10/15/1999 17:05	
2-Nitroaniline	ND	10	ug/L	1.00	10/15/1999 17:05	
Dimethyl phthalate	ND	5.0	ug/L	1.00	10/15/1999 17:05	
Acenaphthylene	ND	2.0	ug/L	1.00	10/15/1999 17:05	
3-Nitroaniline	ND	10	ug/L	1.00	10/15/1999 17:05	
Acenaphthene	ND	2.0	ug/L	1.00	10/15/1999 17:05	
2,4-Dinitrophenol	ND	10	ug/L	1.00	10/15/1999 17:05	

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-10-0207

To: Aqua Science Engineers, Inc.

Test Method: 8270A

Attn.: Ian T. Reed

Prep Method: 3510/8270A

## Semi-volatile Organic Compounds

Sample ID: MW-2	Lab Sample ID: 1999-10-0207-002
Project: 3406 Jabor	Received: 10/12/1999 17:08
Site: 1436 Grant Ave. San Lorenzo	Extracted: 10/13/1999 14:17
Sampled: 10/06/1999 11:40	QC-Batch: 1999/10/13-01.11
Matrix: Water	

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
4-Nitrophenol	ND	10	ug/L	1.00	10/15/1999 17:05	
Dibenzofuran	ND	2.0	ug/L	1.00	10/15/1999 17:05	
2,4-Dinitrotoluene	ND	2.0	ug/L	1.00	10/15/1999 17:05	
2,6-Dinitrotoluene	ND	5.0	ug/L	1.00	10/15/1999 17:05	
Diethyl phthalate	ND	5.0	ug/L	1.00	10/15/1999 17:05	
4-Chlorophenyl phenyl ether	ND	2.0	ug/L	1.00	10/15/1999 17:05	
Fluorene	ND	5.0	ug/L	1.00	10/15/1999 17:05	
4-Nitroaniline	ND	10	ug/L	1.00	10/15/1999 17:05	
2-Methyl-4,6-dinitrophenol	ND	10	ug/L	1.00	10/15/1999 17:05	
N-Nitrosodiphenylamine	ND	2.0	ug/L	1.00	10/15/1999 17:05	
4-Bromophenyl phenyl ether	ND	5.0	ug/L	1.00	10/15/1999 17:05	
Hexachlorobenzene	ND	2.0	ug/L	1.00	10/15/1999 17:05	
Pentachlorophenol	ND	10	ug/L	1.00	10/15/1999 17:05	
Phenanthrene	ND	2.0	ug/L	1.00	10/15/1999 17:05	
Anthracene	ND	2.0	ug/L	1.00	10/15/1999 17:05	
Di-n-butyl phthalate	ND	5.0	ug/L	1.00	10/15/1999 17:05	
Fluoranthene	ND	2.0	ug/L	1.00	10/15/1999 17:05	
Pyrene	ND	2.0	ug/L	1.00	10/15/1999 17:05	
Butyl benzyl phthalate	ND	5.0	ug/L	1.00	10/15/1999 17:05	
3,3-Dichlorobenzidine	ND	5.0	ug/L	1.00	10/15/1999 17:05	
Benzo(a)anthracene	ND	2.0	ug/L	1.00	10/15/1999 17:05	
bis(2-Ethylhexyl) phthalate	ND	5.0	ug/L	1.00	10/15/1999 17:05	
Chrysene	ND	2.0	ug/L	1.00	10/15/1999 17:05	
Di-n-octyl phthalate	ND	5.0	ug/L	1.00	10/15/1999 17:05	
Benzo(b)fluoranthene	ND	2.0	ug/L	1.00	10/15/1999 17:05	
Benzo(k)fluoranthene	ND	2.0	ug/L	1.00	10/15/1999 17:05	
Benzo(a)pyrene	ND	2.0	ug/L	1.00	10/15/1999 17:05	
Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1.00	10/15/1999 17:05	
Dibenzo(a,h)anthracene	ND	2.0	ug/L	1.00	10/15/1999 17:05	
Benzo(g,h,i)perylene	ND	2.0	ug/L	1.00	10/15/1999 17:05	
Benzoic acid	ND	10	ug/L	1.00	10/15/1999 17:05	
<b>Surrogate(s)</b>						
Nitrobenzene-d5	76.9	35-114	%	1.00	10/15/1999 17:05	
2-Fluorobiphenyl	77.3	43-116	%	1.00	10/15/1999 17:05	

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-10-0207

To: Aqua Science Engineers, Inc.

Test Method: 8270A

Attn.: Ian T. Reed

Prep Method: 3510/8270A

## Semi-volatile Organic Compounds

Sample ID: MW-2	Lab Sample ID: 1999-10-0207-002
Project: 3406 Jabor	Received: 10/12/1999 17:08
Site: 1436 Grant Ave. San Lorenzo	Extracted: 10/13/1999 14:17
Sampled: 10/06/1999 11:40	QC-Batch: 1999/10/13-01.11
Matrix: Water	

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
<b>Surrogate(s)</b>						
p-Terphenyl-d14	99.9	33-141	%	1.00	10/15/1999 17:05	
Phenol-d5	29.9	10-110	%	1.00	10/15/1999 17:05	
2-Fluorophenol	45.7	25-100	%	1.00	10/15/1999 17:05	
2,4,6-Tribromophenol	67.6	10-123	%	1.00	10/15/1999 17:05	

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-10-0207

To: Aqua Science Engineers, Inc.

Test Method: 8270A

Attn.: Ian T. Reed

Prep Method: 3510/8270A

## Batch QC Report Semi-volatile Organic Compounds

Method Blank	Water	QC Batch # 1999/10/13-01.11
MB: 1999/10/13-01.11-001		Date Extracted: 10/13/1999

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Phenol	ND	2.0	ug/L	10/15/1999 14:02	
Bis(2-chloroethyl)ether	ND	2.0	ug/L	10/15/1999 14:02	
2-Chlorophenol	ND	2.0	ug/L	10/15/1999 14:02	
1,3-Dichlorobenzene	ND	2.0	ug/L	10/15/1999 14:02	
1,4-Dichlorobenzene	ND	2.0	ug/L	10/15/1999 14:02	
Benzyl alcohol	ND	5.0	ug/L	10/15/1999 14:02	
1,2-Dichlorobenzene	ND	2.0	ug/L	10/15/1999 14:02	
2-Methylphenol	ND	2.0	ug/L	10/15/1999 14:02	
Bis(2-chloroisopropyl) ether	ND	2.0	ug/L	10/15/1999 14:02	
4-Methylphenol	ND	2.0	ug/L	10/15/1999 14:02	
N-Nitroso-di-n-propylamine	ND	2.0	ug/L	10/15/1999 14:02	
Hexachloroethane	ND	2.0	ug/L	10/15/1999 14:02	
Nitrobenzene	ND	2.0	ug/L	10/15/1999 14:02	
Isophorone	ND	2.0	ug/L	10/15/1999 14:02	
2-Nitrophenol	ND	2.0	ug/L	10/15/1999 14:02	
2,4-Dimethylphenol	ND	2.0	ug/L	10/15/1999 14:02	
Bis(2-chloroethoxy) methane	ND	5.0	ug/L	10/15/1999 14:02	
2,4-Dichlorophenol	ND	2.0	ug/L	10/15/1999 14:02	
1,2,4-Trichlorobenzene	ND	2.0	ug/L	10/15/1999 14:02	
Naphthalene	ND	2.0	ug/L	10/15/1999 14:02	
4-Chloroaniline	ND	2.0	ug/L	10/15/1999 14:02	
Hexachlorobutadiene	ND	2.0	ug/L	10/15/1999 14:02	
4-Chloro-3-methylphenol	ND	5.0	ug/L	10/15/1999 14:02	
2-Methylnaphthalene	ND	2.0	ug/L	10/15/1999 14:02	
Hexachlorocyclopentadiene	ND	2.0	ug/L	10/15/1999 14:02	
2,4,6-Trichlorophenol	ND	2.0	ug/L	10/15/1999 14:02	
2,4,5-Trichlorophenol	ND	2.0	ug/L	10/15/1999 14:02	
2-Chloronaphthalene	ND	2.0	ug/L	10/15/1999 14:02	
2-Nitroaniline	ND	10	ug/L	10/15/1999 14:02	
Dimethyl phthalate	ND	5.0	ug/L	10/15/1999 14:02	
Acenaphthylene	ND	2.0	ug/L	10/15/1999 14:02	
3-Nitroaniline	ND	10	ug/L	10/15/1999 14:02	
Acenaphthene	ND	2.0	ug/L	10/15/1999 14:02	
2,4-Dinitrophenol	ND	10	ug/L	10/15/1999 14:02	
4-Nitrophenol	ND	10	ug/L	10/15/1999 14:02	
Dibenzofuran	ND	2.0	ug/L	10/15/1999 14:02	
2,4-Dinitrotoluene	ND	2.0	ug/L	10/15/1999 14:02	
2,6-Dinitrotoluene	ND	5.0	ug/L	10/15/1999 14:02	
Diethyl phthalate	ND	5.0	ug/L	10/15/1999 14:02	
4-Chlorophenyl phenyl ether	ND	2.0	ug/L	10/15/1999 14:02	

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

To: Aqua Science Engineers, Inc.  
Attn.: Ian T. Reed

Test Method: 8270A  
Prep Method: 3510/8270A

Batch QC Report  
Semi-volatile Organic Compounds

Method Blank	Water	QC Batch # 1999/10/13-01.11
MB: 1999/10/13-01.11-001		Date Extracted: 10/13/1999

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Fluorene	ND	5.0	ug/L	10/15/1999 14:02	
4-Nitroaniline	ND	10	ug/L	10/15/1999 14:02	
2-Methyl-4,6-dinitrophenol	ND	10	ug/L	10/15/1999 14:02	
N-Nitrosodiphenylamine	ND	2.0	ug/L	10/15/1999 14:02	
4-Bromophenyl phenyl ether	ND	5.0	ug/L	10/15/1999 14:02	
Hexachlorobenzene	ND	2.0	ug/L	10/15/1999 14:02	
Pentachlorophenol	ND	10	ug/L	10/15/1999 14:02	
Phenanthrene	ND	2.0	ug/L	10/15/1999 14:02	
Anthracene	ND	2.0	ug/L	10/15/1999 14:02	
Di-n-butyl phthalate	ND	5.0	ug/L	10/15/1999 14:02	
Fluoranthene	ND	2.0	ug/L	10/15/1999 14:02	
Pyrene	ND	2.0	ug/L	10/15/1999 14:02	
Butyl benzyl phthalate	ND	5.0	ug/L	10/15/1999 14:02	
3,3-Dichlorobenzidine	ND	5.0	ug/L	10/15/1999 14:02	
Benzo(a)anthracene	ND	2.0	ug/L	10/15/1999 14:02	
bis(2-Ethylhexyl) phthalate	ND	5.0	ug/L	10/15/1999 14:02	
Chrysene	ND	2.0	ug/L	10/15/1999 14:02	
Di-n-octyl phthalate	ND	5.0	ug/L	10/15/1999 14:02	
Benzo(b)fluoranthene	ND	2.0	ug/L	10/15/1999 14:02	
Benzo(k)fluoranthene	ND	2.0	ug/L	10/15/1999 14:02	
Benzo(a)pyrene	ND	2.0	ug/L	10/15/1999 14:02	
Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	10/15/1999 14:02	
Dibenzo(a,h)anthracene	ND	2.0	ug/L	10/15/1999 14:02	
Benzo(g,h,i)perylene	ND	2.0	ug/L	10/15/1999 14:02	
Benzoic acid	ND	10	ug/L	10/15/1999 14:02	
<b>Surrogate(s)</b>					
Nitrobenzene-d5	74.8	35-114	%	10/15/1999 14:02	
2-Fluorobiphenyl	74.0	43-116	%	10/15/1999 14:02	
p-Terphenyl-d14	96.4	33-141	%	10/15/1999 14:02	
Phenol-d5	28.2	10-110	%	10/15/1999 14:02	
2-Fluorophenol	40.6	25-100	%	10/15/1999 14:02	
2,4,6-Tribromophenol	53.8	10-123	%	10/15/1999 14:02	

To: Aqua Science Engineers, Inc.

Test Method: 8270A

Attn: Ian T. Reed

Prep Method: 3510/8270A

## Batch QC Report

### Semi-volatile Organic Compounds

<b>Laboratory Control Spike (LCS/LCSD)</b>	<b>Water</b>	<b>QC Batch # 1999/10/13-01.11</b>
LCS: 1999/10/13-01.11-002	Extracted: 10/13/1999	Analyzed: 10/15/1999 14:48
LCSD: 1999/10/13-01.11-003	Extracted: 10/13/1999	Analyzed: 10/15/1999 15:33

Compound	Conc. [ ug/L ]		Exp. Conc. [ ug/L ]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Phenol	18.7	17.5	60.0	60.0	31.2	29.2	6.6	12-89	35		
2-Chlorophenol	39.5	37.4	60.0	60.0	65.8	62.3	5.5	23-134	25		
1,4-Dichlorobenzene	20.9	20.1	30.0	30.0	69.7	67.0	4.0	36-97	30		
N-Nitroso-di-n-propylamin	23.2	22.8	30.0	30.0	77.3	76.0	1.7	10-130	34		
1,2,4-Trichlorobenzene	20.0	19.5	30.0	30.0	66.7	65.0	2.6	44-142	35		
4-Chloro-3-methylphenol	45.4	44.6	60.0	60.0	75.7	74.3	1.9	22-147	31		
Acenaphthene	23.0	22.5	30.0	30.0	76.7	75.0	2.2	56-118	30		
4-Nitrophenol	12.0	12.3	60.0	60.0	20.0	20.5	2.5	1-51	35		
2,4-Dinitrotoluene	20.3	20.4	30.0	30.0	67.7	68.0	0.4	39-139	35		
Pentachlorophenol	47.5	47.9	60.0	60.0	79.2	79.8	0.8	45-125	35		
Pyrene	31.7	30.5	30.0	30.0	105.7	101.7	3.9	52-115	35		
<b>Surrogate(s)</b>											
Nitrobenzene-d5	18.5	17.4	25	25	74.0	69.6		35-114			
2-Fluorobiphenyl	19.1	18.0	25	25	76.4	72.0		43-116			
p-Terphenyl-d14	25.9	24.5	25	25	103.6	98.0		33-141			
Phenol-d5	14.7	13.2	50	50	29.4	26.4		10-110			
2-Fluorophenol	21.8	19.3	50	50	43.6	38.6		25-100			
2,4,6-Tribromophenol	30.9	29.5	50	50	61.8	59.0		10-123			

Total Extractable Petroleum Hydrocarbons (TEPH)

<b>Aqua Science Engineers, Inc.</b>	☒ 208 West El Pintado Road Danville, CA 94526
Attn: Ian T. Reed	Phone: (925) 820-9391 Fax: (925) 837-4853
Project #: 3406	Project: Jabor
Site: 1436 Grant Ave. San Lorenzo	

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
MW-2	Water	10/06/1999 11:40	2

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-10-0207

To: Aqua Science Engineers, Inc.

Test Method: 8015m

Attn.: Ian T. Reed

Prep Method: 3510/8015M

## Total Extractable Petroleum Hydrocarbons (TEPH)

Sample ID:	MW-2	Lab Sample ID:	1999-10-0207-002
Project:	3406 Jabor	Received:	10/12/1999 17:08
Site:	1436 Grant Ave. San Lorenzo	Extracted:	10/14/1999 09:00
Sampled:	10/06/1999 11:40	QC-Batch:	1999/10/14-02.10
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	ND	50	ug/L	1.00	10/14/1999 21:48	
Motor Oil	ND	500	ug/L	1.00	10/14/1999 21:48	
<i>Surrogate(s)</i> o-Terphenyl	94.2	60-130	%	1.00	10/14/1999 21:48	

To: Aqua Science Engineers, Inc.

Test Method: 8015m

Attn.: Ian T. Reed

Prep Method: 3510/8015M

**Batch QC Report**  
Total Extractable Petroleum Hydrocarbons (TEPH)

<b>Method Blank</b>	<b>Water</b>	<b>QC Batch # 1999/10/14-02.10</b>
MB: 1999/10/14-02.10-001		Date Extracted: 10/14/1999 08:00

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Diesel	ND	50	ug/L	10/14/1999 15:57	
Motor Oil	ND	500	ug/L	10/14/1999 15:57	
<b>Surrogate(s)</b> o-Terphenyl	95.0	60-130	%	10/14/1999 15:57	

To: Aqua Science Engineers, Inc.

Test Method: 8015m

Attn: Ian T. Reed

Prep Method: 3510/8015M

## Batch QC Report

### Total Extractable Petroleum Hydrocarbons (TEPH)

Laboratory Control Spike (LCS/LCSD)	Water	QC Batch # 1999/10/14-02.10
LCS: 1999/10/14-02.10-002	Extracted: 10/14/1999 08:00	Analyzed: 10/14/1999 16:08
LCSD: 1999/10/14-02.10-003	Extracted: 10/14/1999 08:00	Analyzed: 10/14/1999 16:54

Compound	Conc. [ ug/L ]		Exp. Conc. [ ug/L ]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Diesel	1040	1010	1250	1250	83.2	80.8	2.9	60-130	25		
<b>Surrogate(s)</b>											
o-Terphenyl	20.7	22.0	20.0	20.0	103.5	110.0		60-130			

## Total Extractable Petroleum Hydrocarbons (TEPH)

**Aqua Science Engineers, Inc.**

☐ 208 West El Pintado Road  
Danville, CA 94526

Attn: Ian T. Reed

Phone: (925) 820-9391 Fax: (925) 837-4853

Project #: 3406

Project: Jabor

Site: 1436 Grant Ave.  
San Lorenzo

### Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
MW-2	Water	10/06/1999 11:40	2

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-10-0207

To: Aqua Science Engineers, Inc.

Test Method: 8015m

Attn.: Ian T. Reed

Prep Method: 3510/8015M

## Total Extractable Petroleum Hydrocarbons (TEPH)

Sample ID: MW-2	Lab Sample ID: 1999-10-0207-002
Project: 3406 Jabor	Received: 10/12/1999 17:08
Site: 1436 Grant Ave. San Lorenzo	Extracted: 10/14/1999 09:00
Sampled: 10/06/1999 11:40	QC-Batch: 1999/10/14-02.10
Matrix: Water	

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	ND	50	ug/L	1.00	10/14/1999 21:48	
Motor Oil	ND	500	ug/L	1.00	10/14/1999 21:48	
<i>Surrogate(s)</i> o-Terphenyl	94.2	60-130	%	1.00	10/14/1999 21:48	

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

To: Aqua Science Engineers, Inc.  
Attn.: Ian T. Reed

Test Method: 8015m  
Prep Method: 3510/8015M

**Batch QC Report**  
Total Extractable Petroleum Hydrocarbons (TEPH)

<b>Method Blank</b>	<b>Water</b>	<b>QC Batch # 1999/10/14-02.10</b>
MB: 1999/10/14-02.10-001		Date Extracted: 10/14/1999 08:00

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Diesel	ND	50	ug/L	10/14/1999 15:57	
Motor Oil	ND	500	ug/L	10/14/1999 15:57	
<b>Surrogate(s)</b> o-Terphenyl	95.0	60-130	%	10/14/1999 15:57	

To: Aqua Science Engineers, Inc.

Test Method: 8015m

Attn: Ian T. Reed

Prep Method: 3510/8015M

## Batch QC Report

### Total Extractable Petroleum Hydrocarbons (TEPH)

Laboratory Control Spike (LCS/LCSD)	Water	QC Batch # 1999/10/14-02.10
LCS: 1999/10/14-02.10-002	Extracted: 10/14/1999 08:00	Analyzed: 10/14/1999 16:08
LCSD: 1999/10/14-02.10-003	Extracted: 10/14/1999 08:00	Analyzed: 10/14/1999 16:54

Compound	Conc. [ ug/L ]		Exp. Conc. [ ug/L ]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Diesel	1040	1010	1250	1250	83.2	80.8	2.9	60-130	25		
<b>Surrogate(s)</b> o-Terphenyl	20.7	22.0	20.0	20.0	103.5	110.0		60-130			

99-10-0207

48483

Aqua Science Engineers, Inc.  
208 W. El Pintado Road  
Danville, CA 94526  
(925) 820-9391  
FAX (925) 837-4853

# Chain of Custody

PAGE 1 OF 1

SAMPLER (SIGNATURE) *Jan T Reed* (PHONE NO.) (925) 820-9391

PROJECT NAME Jaber  
ADDRESS 1436 Grant Ave. San Lorenzo

JOB NO. 3406  
DATE 10-12-99

## ANALYSIS REQUEST

SPECIAL INSTRUCTIONS:

5-day TAT.

SAMPLE ID.	DATE	TIME	MATRIX	NO. OF SAMPLES	TPH-GAS / MTBE & BTEX (EPA 5030/8015-8020)	TPH-GASOLINE (EPA 5030/8015)	TPH-DIESEL (EPA 3510/8015)	PURGEABLE HALOCARBONS (EPA 601/8010)	PURGEABLE AROMATICS (EPA 602/8020)	VOLATILE ORGANICS (EPA 624/8240)	SEMI-VOLATILE ORGANICS (EPA 625/8270)	OIL & GREASE (EPA 5520)	LUFT METALS (5) (EPA 6010+7000)	CAM 17 METALS (EPA 6010+7000)	PCBs & PESTICIDES (EPA 608/8080)	ORGANOPHOSPHORUS PESTICIDES (EPA 8140) (EPA 608/8080)	ORGANOCHLORINE HERBICIDES (EPA 8150)	FUEL OXYGENATES (EPA 8260)	TPH-MO / TPH-D	COMPOSITE
MW-1	10-6-99	1310	water	12	X		X													
MW-2	10-6-99	1140	water	12	X			X			X	X							X	
MW-3	10-6-99	1235	water	12	X		X													

RELINQUISHED BY: *Jan T Reed* 750  
(signature) (time)

RECEIVED BY: (signature) (time)

RELINQUISHED BY: (signature) (time)

RECEIVED BY LABORATORY: *Dennis Harrington*  
(signature) (time)

COMMENTS:

*Jan T Reed* 10/12/99  
(printed name) (date)

(printed name) (date)

(printed name) (date)

*D. Harrington*  
(printed name) (date)

5 day TAT

Company- ASE

Company-

Company-

Company- *Chromalab* 10/12/99 1708

*Jan T Reed 1705*