



January 7, 1999

**REPORT DETAILING FORMER WASTE-OIL UST
OVEREXCAVATION ACTIVITIES**

December 18, 1998
Olympic Service Station
1436 Grant Avenue
San Lorenzo, California

Prepared for:
Mr. George Jaber
2801 Encinal Avenue
Alameda CA 94501

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



David M. Schultz



January 7, 1999

Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Second Floor
Alameda, California 94502

ATTENTION: Mr. Scott Seery

SUBJECT: **WASTE-OIL UST OVEREXCAVATION SAMPLING RESULTS**
Olympic Service Station
1436 Grant Avenue
San Lorenzo, California

Dear Mr. Seery:

On December 18, 1998 Aqua Science Engineers, Inc. (ASE), witnessed overexcavation activities relating to the former waste-oil UST at the subject site (Figure 1). The excavation activities were performed by an excavation company subcontracted by the property owner, Mr. Jaber.

The waste-oil UST excavation was excavated to a depth of 12-feet below ground surface on December 18, 1998. Approximately 8 cubic yards of soil were removed to get to the 12-foot bgs depth. The excavated spoils were stockpiled and covered along with the previous spoils generated during the UST removal. Although there still existed evidence of soil contamination at the 12-foot bgs depth (based on odors and staining), the excavation was halted due to the direct proximity of the building in relation to this deep excavation.

Using the backhoe, soil sample WO-OEX-12' was collected from the bottom of the excavation. ASE then collected a four-point composite soil sample from the stockpiled soil, sample id. WO-STKP (A-D). These soil samples were stored in brass sample containers, covered on both ends with Teflon tap and plastic end caps. The samples were discretely labeled and stored within an ice chest containing wet ice prior to delivery to the laboratory under chain of custody procedures. Both of the soil samples were analyzed by Chromalab, Inc. of Pleasanton, California (ELAP # 1094) for total petroleum hydrocarbons as gasoline (TPH-G) by EPA Method 8015M, TPH as diesel-fuel and motor oil (TPH-D/MO) by EPA Method 8015M, benzene, toluene, ethylbenzene and total xylenes (BTEX) and methyl-tertiary butyl ether (MTBE) by EPA Method 8020, oil & grease by Standard Method 5520 E&F, the LUFT 5 metals, by EPA Method 6010, volatile organic compounds (VOCs) by EPA Method 8010, and for semi-volatile organic compounds (SVOCs) by EPA Method 8270. Sample WO-STKP (A-D) was also analyzed for lead using the waste extraction test (WET) and the toxicity characteristic leaching procedure (TCLP). See Tables

One through Six and Appendix A for the analytical report and chain of custody documentation.

ANALYTICAL RESULTS

Bottom of Excavation

The bottom of excavation soil sample contains the following elevated concentrations of TPH-MO at 940 parts per million (ppm), TPH-D at 250 ppm, oil & grease at 570 ppm, and total lead at 996 ppm. The remaining compounds have concentrations below action levels. The TPH concentrations of the 12-foot bgs soil sample are significantly lower than the concentrations within the soil sample collected just below the UST after its removal. The most obvious concern relates to the lead concentration which is only slightly less than 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 its removal.

Stockpiled Soil

The stockpiled soil sample contains elevated concentrations of TPH-MO at 2,100 ppm, TPH-D at 550 ppm, oil & grease at 1,300 ppm, and WET lead at 54 ppm. The TCLP lead result was less than the detection limit of 1 ppm. The remaining compounds have concentrations below action levels. This volume of stockpiled soil will require disposal at a hazardous landfill.

Dispenser Area

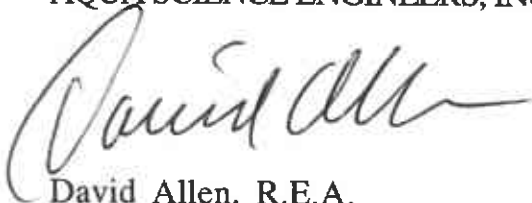
Not previously mentioned above, ASE also collected a soil sample after overexcavation activities in the area of one of the former dispensers, see Figure 2. This was performed in an attempt to eliminate the source of soil contamination that caused a soil sample collected during the dispenser removal operation to contain 5,700 ppm TPH-G. Soil sample D1G-OEX-3.5' was collected and analyzed for TPH-G, MBTEX, TPH-D, and total lead. The sample contained less than detection limit concentrations for TPH-G, TPH-D, and MBTEX. The total lead concentration was 6.3 ppm.

RECOMMENDATIONS

Based on these analytical results, it is the opinion of ASE that further overexcavation activities do not appear warranted at this time. ASE recommends restoration of the site, followed by a soil and groundwater assessment to define the lateral and vertical extent of contaminants in soil and groundwater, if any, downgradient of the previously identified sources. We look forward to hearing from you in the very near future. If you have any questions or comments, please feel free to give us a call at (925) 820-9391.

Respectfully submitted,

AQUA SCIENCE ENGINEERS, INC.



David Allen, R.E.A.
Senior Project Manager

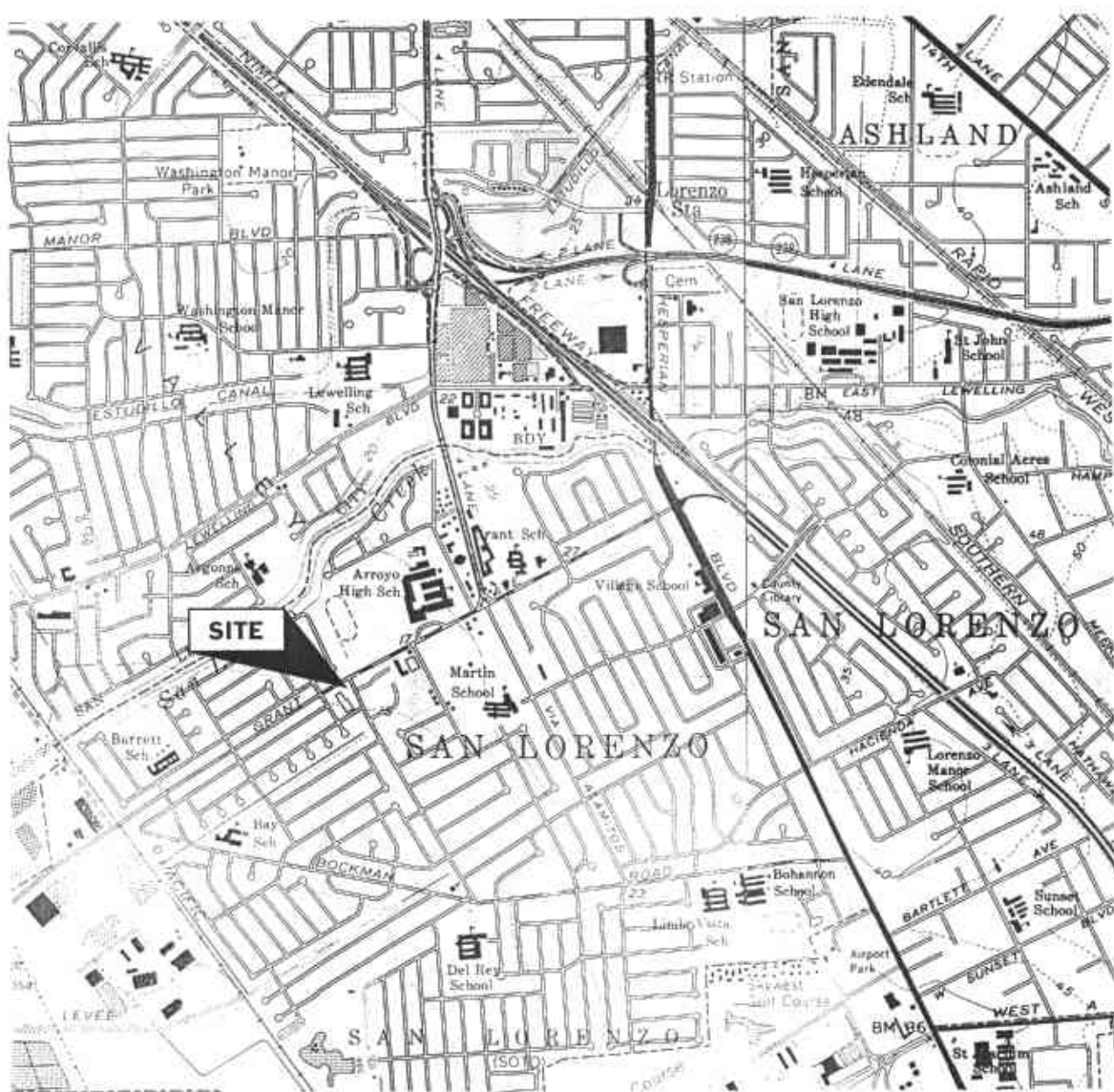


Enclosures

Cc: Mr. George Jaber, property owner



NORTH



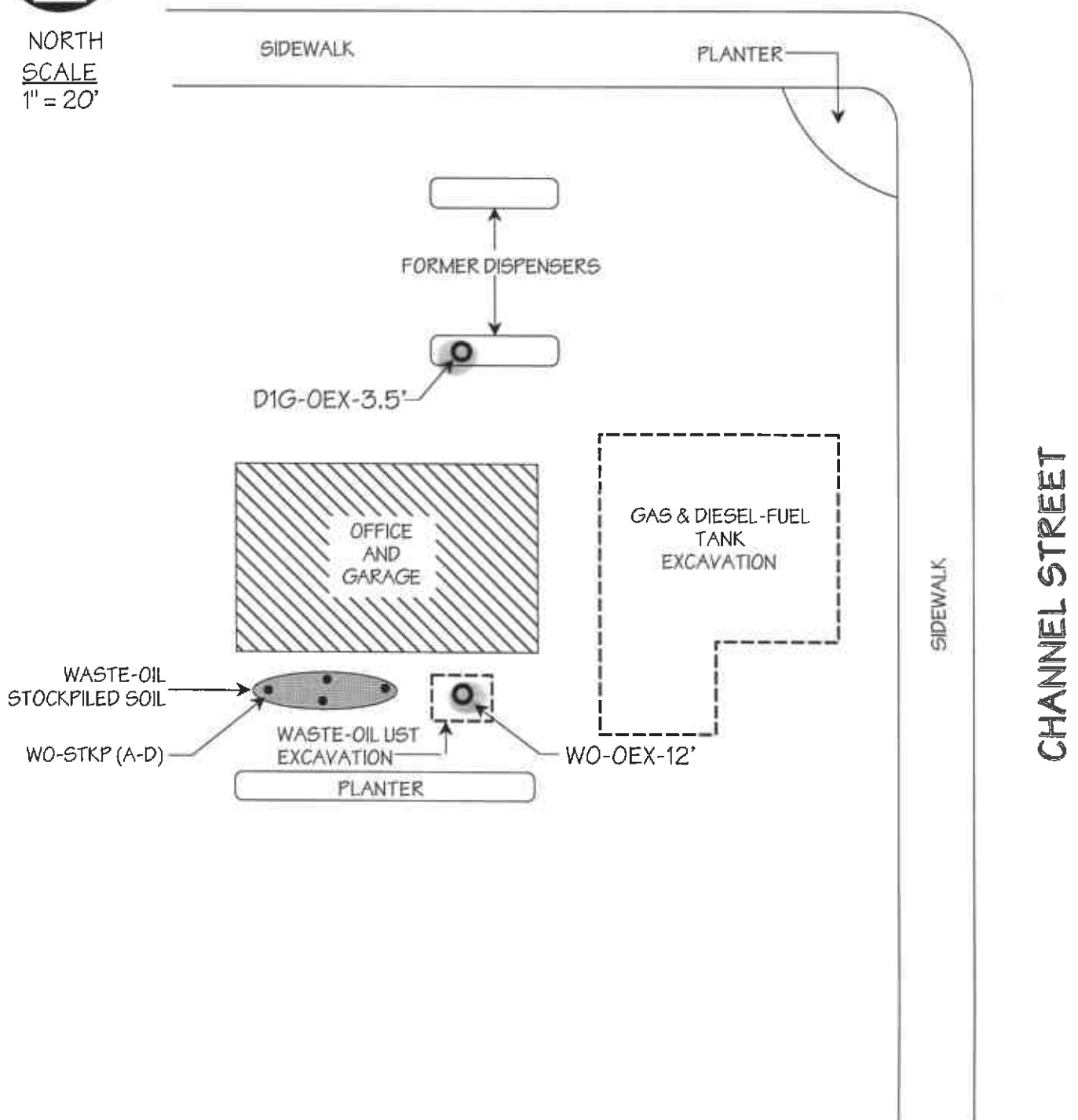
SITE

LOCATION MAP	
Olympic Service Station 1436 Grant Avenue San Lorenzo, California	
AQUA SCIENCE ENGINEERS, INC.	Figure 1



NORTH
SCALE
1" = 20'

GRANT AVENUE



SAMPLING MAP

Olympic Service Station
1436 Grant Avenue
San Lorenzo, California

TABLE ONE

Waste-Oil UST Excavation
 Summary of Chemical Analysis of **Soil** Samples
 TPH-G, BTEX, and MTBE
 All results are in **parts per million**

SAMPLE NAME, DEPTH	TPH GAS	BENZENE	TOLUENE	ETHYL-BENZENE	TOTAL XYLENES	MTBE
<u>Bottom of Excavation</u>						
WO-OEX-12'	<1.3	0.005	0.024	0.057	0.24	<0.005
<u>Stockpiled Soil</u>						
WO-STKP (A-D)	<1.3	<0.005	0.011	0.016	0.16	<0.005
EPA METHOD	8015M	8020	8020	8020	8020	8020

NOTES:

Detectable concentrations are in **bold**.

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

TABLE TWO

Waste-Oil UST Excavation
 Summary of Chemical Analysis of **Soil Samples**
 Semi-Volatile Organic Compounds
 All results are in **parts per billion**

SAMPLE NAME AND DEPTH	PCE	VINYL CHLORIDE	REMAINING VOCs
Bottom Of Excavation			
WO-OEX-12'	< 5.0	8.7	< 5 - < 50
Stockpiled Soil			
WO-STKP (A-D)	6.9	< 5.0	< 5 - < 50
EPA METHOD	8010	8010	8010

NOTES:

Detectable concentrations are in **bold**.

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

TABLE THREE

Waste-Oil UST Excavation
 Summary of Chemical Analysis of **Soil Samples**
 Semi-Volatile Organic Compounds
 All results are in **parts per million**

SAMPLE NAME AND DEPTH	NAPHTHALENE	2-METHYL NAPHTHALENE	PHENANTHRENE	PYRENE	REMAINING SVOCs
Bottom Of Excavation					
WO-OEX-12'	0.56	0.89	0.15	0.12	< 0.10 - < 2.5
Stockpiled Soil					
WO-STKP (A-D)	0.54	0.86	< 0.50	< 0.50	< 0.10 - < 2.5
EPA METHOD	8270	8270	8270	8270	8270

NOTES:

Detectable concentrations are in **bold**.

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

TABLE FOUR

Waste-Oil UST Excavation
Summary of Chemical Analysis of **Soil Samples**
TPH-Motor Oil, TPH- Diesel and Oil & Grease
All results are in **parts per million**

SAMPLE NAME & DEPTH	TPH MOTOR OIL	TPH DIESEL	OIL & GREASE
<u>Bottom Of Excavation</u>			
WO-OEX-12'	940	250	570
<u>Stockpiled Soil</u>			
WO-STKP (A-D)	2,100	550	1,300
EPA METHOD	8015M	8015M	5520 E&F

NOTES:

Detectable concentrations are in **bold**.

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

TABLE FIVE

Waste-Oil UST Excavation Summary of Chemical Analysis of **Soil Samples**

LUFT 5 Metals

All results are in **parts per million**

SAMPLE NAME, DEPTH	CADMIUM	CHROMIUM	LEAD	NICKEL	ZINC
<u>Bottom Of Excavation</u>					
WO-OEX-12'	1.2	30	330	34	200
<u>Stockpiled Soil</u>					
WO-STKP (A-D)	1.4	40	46	48	49
EPA METHOD	6010A	6010A	6010A	6010A	6010A

NOTES:

Detectable concentrations are in **bold**.

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

TABLE SIX

Summary of Chemical Analysis of Soil Samples

Waste-Oil UST Excavation

STLC and TCLP Lead

All results are in **parts per million**

SAMPLE NAME & DEPTH	STLC LEAD	TCLP LEAD
Stockpiled Soil		
WO-STKP (A-D)	54	<1.0
EPA METHOD	7420A	7420A

NOTES:

Detectable concentrations are in **bold**.

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

APPENDIX A
ANALYTICAL REPORT

CHROMALAB, INC.

Environmental Services (SDB)

December 28, 1998

Submission #: 9812339

AQUA SCIENCE ENGINEERS, INC

Atten: Dave Allen

Project: JABER
Received: December 18, 1998

Project#: 3406

re: One sample for Gasoline BTEX MTBE analysis.
Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: W0-STKP(A-D)

Spl#: 222304

Matrix: SOIL


Sampled: December 18, 1998


Run#:16711

Analyzed: December 28, 1998

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	N.D.	1.3	N.D.	90	1
MTBE	N.D.	0.0050	N.D.	91	1
BENZENE	N.D.	0.0050	N.D.	100	1
TOLUENE	0.011	0.0050	N.D.	100	1
ETHYL BENZENE	0.016	0.0050	N.D.	104	1
XYLENES	0.16	0.0050	N.D.	106	1

Note: Hydrocarbon found in Gasoline Range is uncharacteristic of Gasoline Profile. If quantified using Gasoline's response factor, concentration would equal 2.8mg/Kg.


Vincent Vancil
Analyst


Michael Verona
Operations Manager

CHROMALAB, INC.

Environmental Services (SDB)

December 28, 1998

Submission #: 9812339

AQUA SCIENCE ENGINEERS, INC

Atten: Dave Allen

Project: JABER
Received: December 18, 1998

Project#: 3406

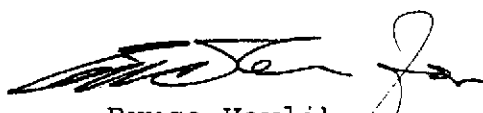
re: 1 sample for TEPH analysis.
Method: EPA 8015M

Matrix: SOIL
Sampled: December 18, 1998 Run#: 16653

Extracted: December 22, 1998
Analyzed: December 25, 1998

<u>Spl#</u>	<u>CLIENT SPL ID</u>	<u>Diesel</u> <u>(mg/Kg)</u>	<u>Motor Oil</u> <u>(mg/Kg)</u>
222304	W0-STKP(A-D)	550	2100
<i>Note: Hydrocarbon reported does not match the pattern of our Diesel Standard. Surrogate Recoveries biased high due to Hydrocarbon co-elution.</i>			
Reporting Limits		5.0	100
Blank Result		N.D.	
Blank Spike Result (%)		85.5	--


Carolyn House
Analyst


Bruce Havlik
Analyst

CHROMALAB, INC.

Environmental Services (SDB)

December 23, 1998

Submission #: 9812339

AQUA SCIENCE ENGINEERS, INC

Atten: Dave Allen

Project: JABER

Project#: 3406

Received: December 18, 1998

re: One sample for Halogenated Volatile Organics by GC/MS analysis.

Method: 8010 Compounds by Method 8240A Nov 1990

Client Sample ID: W0-STKP (A-D)

Spl#: 222304

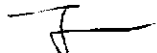
Matrix: SOIL

Sampled: December 18, 1998

Run#: 16655

Analyzed: December 22, 1998

ANALYTE	RESULT (ug/Kg)	REPORTING LIMIT (ug/Kg)	BLANK RESULT (ug/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
BROMODICHLOROMETHANE	N.D.	5.0	N.D.	--	1
BROMOFORM	N.D.	5.0	N.D.	--	1
BROMOMETHANE	N.D.	10	N.D.	--	1
CARBON TETRACHLORIDE	N.D.	5.0	N.D.	--	1
CHLORO BENZENE	N.D.	5.0	N.D.	92.0	1
CHLOROETHANE	N.D.	10	N.D.	--	1
2-CHLOROETHYL VINYLETHER	N.D.	50	N.D.	--	1
CHLOROFORM	N.D.	5.0	N.D.	--	1
CHLOROMETHANE	N.D.	10	N.D.	--	1
DIBROMOCHLOROMETHANE	N.D.	5.0	N.D.	--	1
1,2-DICHLOROBENZENE	N.D.	5.0	N.D.	--	1
1,3-DICHLOROBENZENE	N.D.	5.0	N.D.	--	1
1,4-DICHLOROBENZENE	N.D.	5.0	N.D.	--	1
1,1-DICHLOROETHANE	N.D.	5.0	N.D.	--	1
1,2-DICHLOROETHANE	N.D.	5.0	N.D.	--	1
1,1-DICHLOROETHENE	N.D.	5.0	N.D.	115	1
1,2-DICHLOROETHENE (CIS)	N.D.	5.0	N.D.	--	1
1,2-DICHLOROETHENE (TRANS)	N.D.	5.0	N.D.	--	1
1,2-DICHLOROPROPANE	N.D.	5.0	N.D.	--	1
CIS-1,3-DICHLOROPROPENE	N.D.	5.0	N.D.	--	1
TRANS-1,3-DICHLOROPROPENE	N.D.	5.0	N.D.	--	1
METHYLENE CHLORIDE	N.D.	5.0	N.D.	--	1
1,1,2,2-TETRACHLOROETHANE	N.D.	5.0	N.D.	--	1
TETRACHLOROETHENE	6.9	5.0	N.D.	--	1
1,1,1-TRICHLOROETHANE	N.D.	5.0	N.D.	--	1
1,1,2-TRICHLOROETHANE	N.D.	5.0	N.D.	--	1
TRICHLOROETHENE	N.D.	5.0	N.D.	84.4	1
VINYL CHLORIDE	N.D.	5.0	N.D.	--	1
TRICHLOROTRIFLUOROETHANE	N.D.	5.0	N.D.	--	1
TRICHLOROFLUOROMETHANE	N.D.	5.0	N.D.	--	1


June Zhao
Analyst


Michael Verona
Operations Manager

CHROMALAB, INC.

Environmental Services (SDB)

December 23, 1998

Submission #: 9812339

AQUA SCIENCE ENGINEERS, INC

Atten: Dave Allen

Project: JABER
Received: December 18, 1998

Project#: 3406

re: One sample for Semivolatile Organics (B/NAs) analysis.
Method: SW846 Method 8270A Nov 1990

Client Sample ID: W0-STKP (A-D)

Spl#: 222304

Matrix: SOIL

Extracted: December 21, 1998

Sampled: December 18, 1998

Run#: 16617

Analyzed: December 22, 1998

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE FACTOR (%)	DILUTION FACTOR
PHENOL	N.D.	0.50	N.D.	56.0	5
BIS(2-CHLOROETHYL) ETHER	N.D.	0.50	N.D.	--	5
2-CHLOROPHENOL	N.D.	0.50	N.D.	72.0	5
1,3-DICHLOROBENZENE	N.D.	0.50	N.D.	--	5
1,4-DICHLOROBENZENE	N.D.	0.50	N.D.	75.3	5
BENZYL ALCOHOL	N.D.	1.0	N.D.	--	5
1,2-DICHLOROBENZENE	N.D.	0.50	N.D.	--	5
2-METHYLPHENOL	N.D.	0.50	N.D.	--	5
BIS(2-CHLOROISOPROPYL) ETHER	N.D.	0.50	N.D.	--	5
4-METHYLPHENOL	N.D.	1.0	N.D.	--	5
N-NITROSO-DI-N-PROPYLAMINE	N.D.	0.50	N.D.	62.4	5
HEXACHLOROETHANE	N.D.	0.50	N.D.	--	5
NITROBENZENE	N.D.	0.50	N.D.	--	5
ISOPHORONE	N.D.	0.50	N.D.	--	5
2-NITROPHENOL	N.D.	0.50	N.D.	--	5
2,4-DIMETHYLPHENOL	N.D.	0.50	N.D.	--	5
BIS(2-CHLOROETHOXY) METHANE	N.D.	0.50	N.D.	--	5
2,4-DICHLOROPHENOL	N.D.	0.50	N.D.	--	5
1,2,4-TRICHLOROBENZENE	N.D.	0.50	N.D.	71.0	5
NAPHTHALENE	0.54	0.50	N.D.	--	5
4-CHLOROANILINE	N.D.	1.0	N.D.	--	5
HEXACHLOROBUTADIENE	N.D.	0.50	N.D.	--	5
4-CHLORO-3-METHYLPHENOL	N.D.	1.0	N.D.	79.5	5
2-METHYLNAPHTHALENE	0.86	0.50	N.D.	--	5
HEXACHLOROCYCLOPENTADIENE	N.D.	0.50	N.D.	--	5
2,4,6-TRICHLOROPHENOL	N.D.	0.50	N.D.	--	5
2,4,5-TRICHLOROPHENOL	N.D.	0.50	N.D.	--	5
2-CHLORONAPHTHALENE	N.D.	0.50	N.D.	--	5
2-NITROANILINE	N.D.	2.5	N.D.	--	5
DIMETHYL PHTHALATE	N.D.	2.5	N.D.	--	5
ACENAPHTHYLENE	N.D.	0.50	N.D.	--	5
3-NITROANILINE	N.D.	0.50	N.D.	--	5
ACENAPHTHENE	N.D.	0.50	N.D.	84.5	5
2,4-DINITROPHENOL	N.D.	2.5	N.D.	--	5
4-NITROPHENOL	N.D.	2.5	N.D.	69.0	5
DIBENZOFURAN	N.D.	0.50	N.D.	--	5
2,4-DINITROTOLUENE	N.D.	0.50	N.D.	63.1	5
2,6-DINITROTOLUENE	N.D.	1.0	N.D.	--	5
DIETHYL PHTHALATE	N.D.	2.5	N.D.	--	5
4-CHLOROPHENYL PHENYL ETHER	N.D.	0.50	N.D.	--	5

CHROMALAB, INC.

Environmental Services (SDB)

December 23, 1998

Submission #: 9812339
page 2

AQUA SCIENCE ENGINEERS, INC

Atten: Dave Allen

Project: JABER
Received: December 18, 1998

Project#: 3406

re: One sample for Semivolatile Organics (B/NAs) analysis, continued.
Method: SW846 Method 8270A Nov 1990

Client Sample ID: W0-STKP(A-D)

Spl#: 222304

Matrix: SOIL

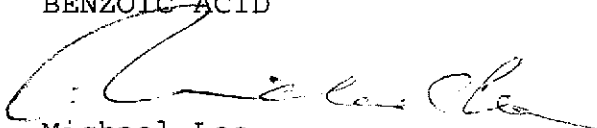
Extracted: December 21, 1998

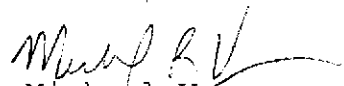
Sampled: December 18, 1998

Run#: 16617

Analyzed: December 22, 1998

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
FLUORENE	N.D.	0.50	N.D.	--	5
4-NITROANILINE	N.D.	2.5	N.D.	--	5
2-METHYL-4,6-DINITROPHENOL	N.D.	2.5	N.D.	--	5
n-NITROSODIPHENYLAMINE	N.D.	0.50	N.D.	--	5
4-BROMOPHENYL PHENYL ETHER	N.D.	0.50	N.D.	--	5
HEXACHLOROBENZENE	N.D.	0.50	N.D.	--	5
PENTACHLOROPHENOL	N.D.	2.5	N.D.	78.0	5
PHENANTHRENE	N.D.	0.50	N.D.	--	5
ANTHRACENE	N.D.	0.50	N.D.	--	5
DI-N-BUTYL PHTHALATE	N.D.	10	N.D.	--	5
FLUORANTHENE	N.D.	0.50	N.D.	--	5
PYRENE	N.D.	0.50	N.D.	83.7	5
BUTYL BENZYL PHTHALATE	N.D.	2.5	N.D.	--	5
3,3'-DICHLOROBENZIDINE	N.D.	1.0	N.D.	--	5
BENZO (A) ANTHRACENE	N.D.	0.50	N.D.	--	5
BIS (2-ETHYLHEXYL) PHTHALATE	N.D.	2.5	N.D.	--	5
CHRYSENE	N.D.	0.50	N.D.	--	5
DI-N-OCTYL PHTHALATE	N.D.	2.5	N.D.	--	5
BENZO (B) FLUORANTHENE	N.D.	0.50	N.D.	--	5
BENZO (K) FLUORANTHENE	N.D.	1.0	N.D.	--	5
BENZO (A) PYRENE	N.D.	0.25	N.D.	--	5
INDENO (1,2,3 C,D) PYRENE	N.D.	1.0	N.D.	--	5
DIBENZO (A,H) ANTHRACENE	N.D.	1.0	N.D.	--	5
BENZO (G,H,I) PERYLENE	N.D.	1.0	N.D.	--	5
BENZOIC ACID	N.D.	2.5	N.D.	--	5


Michael Lee
Analyst


Michael Verona
Operations Manager

CHROMALAB, INC.

Environmental Services (SDB)

December 28, 1998

Submission #: 9812339

AQUA SCIENCE ENGINEERS, INC

Atten: Dave Allen

Project: JABER
Received: December 18, 1998

Project#: 3406

re: 2 samples for Hydrocarbon Oil and Grease analysis.
Method: 5520 E&F

Matrix: SOIL
Sampled: December 18, 1998 Run#: 16622
Extracted: December 21, 1998
Analyzed: December 21, 1998

Spl#	CLIENT SPL ID	OIL & GREASE (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
222304	W0-STKP (A-D)	1300	50	N.D.	96.5	1
222305	W0-OEX-12'	570	50	N.D.	96.5	1

Lulu Frazier
Lulu Frazier
Analyst

Jean Mulken for:
Michael Verona
Operations Manager

CHROMALAB, INC.

Environmental Services (SDB)

December 28, 1998

Submission #: 9812339

AQUA SCIENCE ENGINEERS, INC

Atten: Dave Allen

Project: JABER
Received: December 18, 1998

Project#: 3406

re: One sample for Miscellaneous Metals analysis.
Method: EPA 3010A/3050A/6010A Nov 1990

Client Sample ID: WO-STKP (A-D)

Spl#: 222304

Matrix: SOIL


Extracted: December 24, 1998

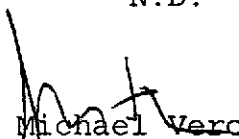
Sampled: December 18, 1998

Run#: 16690

Analyzed: December 24, 1998

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
CADMIUM	1.4	0.50	N.D.	96.7	1
CHROMIUM	40	1.0	N.D.	97.9	1
LEAD	46	1.0	N.D.	101	1
NICKEL	48	1.0	N.D.	98.4	1
ZINC	49	1.0	N.D.	97.6	1


Shafi Barekzai
Analyst


Michael Verona
Operations Manager

CHROMALAB, INC.

Environmental Services (SDB)

December 28, 1998

Submission #: 9812339

AQUA SCIENCE ENGINEERS, INC

Atten: Dave Allen

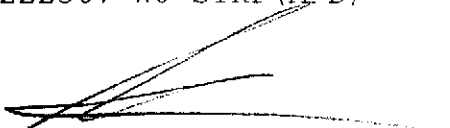
Project: JABER
Received: December 18, 1998

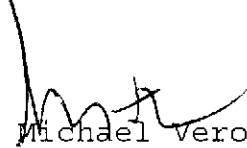
Project#: 3406

re: 1 sample for STLC Lead analysis.
Method: CA WET3005A/7420A

Matrix: SOIL Extracted: December 28, 1998
Sampled: December 18, 1998 Run#: 16698 Analyzed: December 28, 1998

Spl#	CLIENT SPL ID	LEAD (mg/L)	REPORTING LIMIT (mg/L)	BLANK RESULT (mg/L)	BLANK SPIKE (%)	DILUTION FACTOR
222307	W0-STKP (A-D)	54	1.0	N.D.	99.2	1


Christopher Arndt
Analyst


Michael Verona
Operations Manager

CHROMALAB, INC.

Environmental Services (SDB)

December 28, 1998

Submission #: 9812339

AQUA SCIENCE ENGINEERS, INC

Atten: Dave Allen


Project: JABER
Received: December 18, 1998

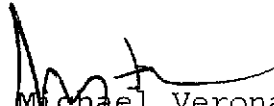
Project#: 3406

re: 1 sample for TCLP Lead analysis.
Method: EPA 3010A/7420A

Matrix: SOIL Extracted: December 24, 1998
Sampled: December 18, 1998 Run#: 16689 Analyzed: December 24, 1998

Spl#	CLIENT SPL ID	LEAD (mg/L)	REPORTING LIMIT (mg/L)	BLANK RESULT (mg/L)	BLANK SPIKE (%)	DILUTION FACTOR
222308	W0-STKP (A-D)	N.D.	1.0	N.D.	108	1


Shafi Barekzai
Analyst


Michael Verona
Operations Manager

CHROMALAB, INC.

Environmental Services (SDB)

December 28, 1998

Submission #: 9812339

AQUA SCIENCE ENGINEERS, INC

Atten: Dave Allen

Project: JABER
Received: December 18, 1998

Project#: 3406

re: One sample for Gasoline BTEX MTBE analysis.
Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: W0-OEX-12'

Spl#: 222305

Matrix: SOIL

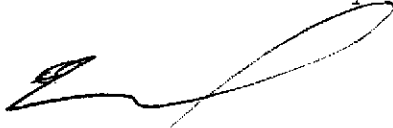
Sampled: December 18, 1998


Run#:16711

Analyzed: December 28, 1998

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	N.D.	1.3	N.D.	90	1
MTBE	N.D.	0.0050	N.D.	91	1
BENZENE	0.0050	0.0050	N.D.	100	1
TOLUENE	0.024	0.0050	N.D.	100	1
ETHYL BENZENE	0.057	0.0050	N.D.	104	1
XYLENES	0.24	0.0050	N.D.	106	1

Note: Hydrocarbon found in Gasoline Range is uncharacteristic of Gasoline Profile. If quantified using Gasoline's response factor, concentration would equal 7.2mg/Kg.


Vincent Vancil
Analyst


Michael Verona
Operations Manager

CHROMALAB, INC.

Environmental Services (SDB)

December 28, 1998

Submission #: 9812339

AQUA SCIENCE ENGINEERS, INC

Atten: Dave Allen

Project: JABER
Received: December 18, 1998

Project#: 3406

re: 1 sample for TEPH analysis.
Method: EPA 8015M


Matrix: SOIL Extracted: December 22, 1998
Sampled: December 18, 1998 Run#: 16653 Analyzed: December 28, 1998

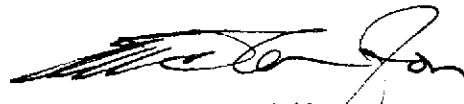
<u>Spl#</u>	<u>CLIENT SPL ID</u>	<u>Diesel</u> <u>(mg/Kg)</u>	<u>Motor Oil</u> <u>(mg/Kg)</u>
222305	W0-OEX-12'	250	940

Note: Hydrocarbon reported does not match the pattern of our Diesel Standard.
Surrogate Recoveries biased high due to Hydrocarbon co-elution.

Reporting Limits
Blank Result
Blank Spike Result (%)

10 200
N.D.
85.5 --


Carolyn House
Analyst


Bruce Havlik
Analyst

CHROMALAB, INC.

Environmental Services (SDB)

December 23, 1998

Submission #: 9812339

AQUA SCIENCE ENGINEERS, INC

Atten: Dave Allen

Project: JABER

Project#: 3406

Received: December 18, 1998

re: One sample for Halogenated Volatile Organics by GC/MS analysis.

Method: 8010 Compounds by Method 8240A Nov 1990

Client Sample ID: W0-OEX-12'

Spl#: 222305

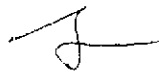
Matrix: SOIL

Sampled: December 18, 1998

Run#: 16655

Analyzed: December 22, 1998

ANALYTE	RESULT (ug/Kg)	REPORTING LIMIT (ug/Kg)	BLANK RESULT (ug/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
BROMODICHLOROMETHANE	N.D.	5.0	N.D.	--	1
BROMOFORM	N.D.	5.0	N.D.	--	1
BROMOMETHANE	N.D.	10	N.D.	--	1
CARBON TETRACHLORIDE	N.D.	5.0	N.D.	--	1
CHLOROENZENE	N.D.	5.0	N.D.	92.0	1
CHLOROETHANE	N.D.	10	N.D.	--	1
2-CHLOROETHYLVINYLETHER	N.D.	50	N.D.	--	1
CHLOROFORM	N.D.	5.0	N.D.	--	1
CHLOROMETHANE	N.D.	10	N.D.	--	1
DIBROMOCHLOROMETHANE	N.D.	5.0	N.D.	--	1
1,2-DICHLOROBENZENE	N.D.	5.0	N.D.	--	1
1,3-DICHLOROBENZENE	N.D.	5.0	N.D.	--	1
1,4-DICHLOROBENZENE	N.D.	5.0	N.D.	--	1
1,1-DICHLOROETHANE	N.D.	5.0	N.D.	--	1
1,2-DICHLOROETHANE	N.D.	5.0	N.D.	--	1
1,1-DICHLOROETHENE	N.D.	5.0	N.D.	115	1
1,2-DICHLOROETHENE (CIS)	N.D.	5.0	N.D.	--	1
1,2-DICHLOROETHENE (TRANS)	N.D.	5.0	N.D.	--	1
1,2-DICHLOROPROPANE	N.D.	5.0	N.D.	--	1
CIS-1,3-DICHLOROPROPENE	N.D.	5.0	N.D.	--	1
TRANS-1,3-DICHLOROPROPENE	N.D.	5.0	N.D.	--	1
METHYLENE CHLORIDE	N.D.	5.0	N.D.	--	1
1,1,2,2-TETRACHLOROETHANE	N.D.	5.0	N.D.	--	1
TETRACHLOROETHENE	N.D.	5.0	N.D.	--	1
1,1,1-TRICHLOROETHANE	N.D.	5.0	N.D.	--	1
1,1,2-TRICHLOROETHANE	N.D.	5.0	N.D.	--	1
TRICHLOROETHENE	N.D.	5.0	N.D.	84.4	1
VINYL CHLORIDE	8.7	5.0	N.D.	--	1
TRICHLOROTRIFLUOROETHANE	N.D.	5.0	N.D.	--	1
TRICHLOROFLUOROMETHANE	N.D.	5.0	N.D.	--	1


June Zhao
Analyst


Michael Veronah
Operations Manager

CHROMALAB, INC.

Environmental Services (SDB)

December 23, 1998

Submission #: 9812339

AQUA SCIENCE ENGINEERS, INC

Atten: Dave Allen

Project: JABER
Received: December 18, 1998

Project#: 3406

re: One sample for Semivolatile Organics (B/NAs) analysis.
Method: SW846 Method 8270A Nov 1990

Client Sample ID: W0-OEX-12'

Spl#: 222305

Matrix: SOIL

Extracted: December 21, 1998

Sampled: December 18, 1998

Run#: 16617

Analyzed: December 21, 1998

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
PHENOL	N.D.	0.10	N.D.	56.0	1
BIS(2-CHLOROETHYL) ETHER	N.D.	0.10	N.D.	--	1
2-CHLOROPHENOL	N.D.	0.10	N.D.	72.0	1
1,3-DICHLOROBENZENE	N.D.	0.10	N.D.	--	1
1,4-DICHLOROBENZENE	N.D.	0.10	N.D.	75.3	1
BENZYL ALCOHOL	N.D.	0.20	N.D.	--	1
1,2-DICHLOROBENZENE	N.D.	0.10	N.D.	--	1
2-METHYLPHENOL	N.D.	0.10	N.D.	--	1
BIS(2-CHLOROISOPROPYL) ETHER	N.D.	0.10	N.D.	--	1
4-METHYLPHENOL	N.D.	0.20	N.D.	--	1
N-NITROSO-DI-N-PROPYLAMINE	N.D.	0.10	N.D.	62.4	1
HEXACHLOROETHANE	N.D.	0.10	N.D.	--	1
NITROBENZENE	N.D.	0.10	N.D.	--	1
ISOPHORONE	N.D.	0.10	N.D.	--	1
2-NITROPHENOL	N.D.	0.10	N.D.	--	1
2,4-DIMETHYLPHENOL	N.D.	0.10	N.D.	--	1
BIS(2-CHLOROETHOXY) METHANE	N.D.	0.10	N.D.	--	1
2,4-DICHLOROPHENOL	N.D.	0.10	N.D.	--	1
1,2,4-TRICHLOROBENZENE	N.D.	0.10	N.D.	71.0	1
NAPHTHALENE	0.56	0.10	N.D.	--	1
4-CHLOROANILINE	N.D.	0.20	N.D.	--	1
HEXACHLOROBUTADIENE	N.D.	0.10	N.D.	--	1
4-CHLORO-3-METHYLPHENOL	N.D.	0.20	N.D.	79.5	1
2-METHYLNAPHTHALENE	0.89	0.10	N.D.	--	1
HEXACHLOROCYCLOPENTADIENE	N.D.	0.10	N.D.	--	1
2,4,6-TRICHLOROPHENOL	N.D.	0.10	N.D.	--	1
2,4,5-TRICHLOROPHENOL	N.D.	0.10	N.D.	--	1
2-CHLORONAPHTHALENE	N.D.	0.10	N.D.	--	1
2-NITROANILINE	N.D.	0.50	N.D.	--	1
DIMETHYL PHTHALATE	N.D.	0.50	N.D.	--	1
ACENAPHTHYLENE	N.D.	0.10	N.D.	--	1
3-NITROANILINE	N.D.	0.10	N.D.	--	1
ACENAPHTHENE	N.D.	0.10	N.D.	84.5	1
2,4-DINITROPHENOL	N.D.	0.50	N.D.	--	1
4-NITROPHENOL	N.D.	0.50	N.D.	69.0	1
DIBENZOFURAN	N.D.	0.10	N.D.	--	1
2,4-DINITROTOLUENE	N.D.	0.10	N.D.	63.1	1
2,6-DINITROTOLUENE	N.D.	0.20	N.D.	--	1
DIETHYL PHTHALATE	N.D.	0.50	N.D.	--	1
4-CHLOROPHENYL PHENYL ETHER	N.D.	0.10	N.D.	--	1

925-837-4853 PM 12/28

1220 Quarry Lane • Pleasanton, California 94566-4756
(925) 484-1919 • Facsimile (925) 484-1096
Federal ID #68-0140157

S101 0:000405 MIKELEE 16:50

CHROMALAB, INC.

Environmental Services (SDB)

December 23, 1998

Submission #: 9812339
page 2

AQUA SCIENCE ENGINEERS, INC

Atten: Dave Allen

Project: JABER
Received: December 18, 1998

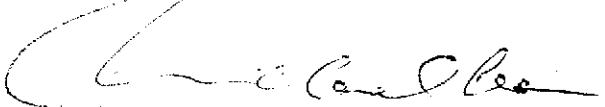
Project#: 3406


re: One sample for Semivolatle Organics (B/NAs) analysis, continued.
Method: SW846 Method 8270A Nov 1990

Client Sample ID: W0-OEX-12'

Spl#: 222305 Matrix: SOIL Extracted: December 21, 1998
Sampled: December 18, 1998 Run#: 16617 Analyzed: December 21, 1998

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
FLUORENE	N.D.	0.10	N.D.	--	1
4-NITROANILINE	N.D.	0.50	N.D.	--	1
2-METHYL-4,6-DINITROPHENOL	N.D.	0.50	N.D.	--	1
n-NITROSODIPHENYLAMINE	N.D.	0.10	N.D.	--	1
4-BROMOPHENYL PHENYL ETHER	N.D.	0.10	N.D.	--	1
HEXACHLOROBENZENE	N.D.	0.10	N.D.	--	1
PENTACHLOROPHENOL	N.D.	0.50	N.D.	78.0	1
PHENANTHRENE	0.15	0.10	N.D.	--	1
ANTHRACENE	N.D.	0.10	N.D.	--	1
DI-N-BUTYL PHTHALATE	N.D.	2.0	N.D.	--	1
FLUORANTHENE	N.D.	0.10	N.D.	--	1
PYRENE	0.12	0.10	N.D.	83.7	1
BUTYL BENZYL PHTHALATE	N.D.	0.50	N.D.	--	1
3,3'-DICHLOROBENZIDINE	N.D.	0.20	N.D.	--	1
BENZO (A) ANTHRACENE	N.D.	0.10	N.D.	--	1
BIS (2-ETHYLHEXYL) PHTHALATE	N.D.	0.50	N.D.	--	1
CHRYSENE	N.D.	0.10	N.D.	--	1
DI-N-OCTYL PHTHALATE	N.D.	0.50	N.D.	--	1
BENZO (B) FLUORANTHENE	N.D.	0.10	N.D.	--	1
BENZO (K) FLUORANTHENE	N.D.	0.20	N.D.	--	1
BENZO (A) PYRENE	N.D.	0.050	N.D.	--	1
INDENO (1,2,3 C,D) PYRENE	N.D.	0.20	N.D.	--	1
DIBENZO (A,H) ANTHRACENE	N.D.	0.20	N.D.	--	1
BENZO (G,H,I) PERYLENE	N.D.	0.20	N.D.	--	1
BENZOIC ACID	N.D.	0.50	N.D.	--	1


Michael Lee
Analyst


Michael Verona
Operations Manager

CHROMALAB, INC.

Environmental Services (SDB)

December 28, 1998

Submission #: 9812339

AQUA SCIENCE ENGINEERS, INC

Atten: Dave Allen

Project: JABER
Received: December 18, 1998

Project#: 3406

re: One sample for Miscellaneous Metals analysis.
Method: EPA 3010A/3050A/6010A Nov 1990

Client Sample ID: W0-OEX-12'

Spl#: 222305

Matrix: SOIL


Extracted: December 24, 1998

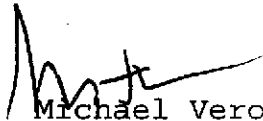
Sampled: December 18, 1998

Run#: 16690

Analyzed: December 24, 1998

<u>ANALYTE</u>	<u>RESULT</u> <u>(mg/Kg)</u>	<u>REPORTING</u> <u>LIMIT</u> <u>(mg/Kg)</u>	<u>BLANK</u> <u>RESULT</u> <u>(mg/Kg)</u>	<u>BLANK</u> <u>SPIKE</u> <u>(%)</u>	<u>DILUTION</u> <u>FACTOR</u>
CADMIUM	1.2	0.50	N.D.	96.7	1
CHROMIUM	30	1.0	N.D.	97.9	1
LEAD	996	1.0	N.D.	101	1
NICKEL	34	1.0	N.D.	98.4	1
ZINC	200	1.0	N.D.	97.6	1


Shafi Barekzai
Analyst


Michael Verona
Operations Manager

CHROMALAB, INC.

Environmental Services (SDB)

December 28, 1998

Submission #: 9812339

AQUA SCIENCE ENGINEERS, INC

Atten: Dave Allen

Project: JABER
Received: December 18, 1998

Project#: 3406

re: One sample for Miscellaneous Metals analysis.
Method: EPA 3010A/3050A/6010A Nov 1990

Client Sample ID: DIG-OEX-3.5'

Spl#: 222306

Matrix: SOIL

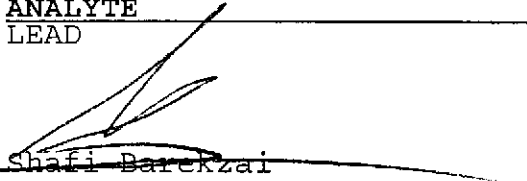
Extracted: December 24, 1998

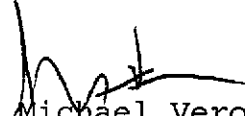
Sampled: December 18, 1998

Run#: 16690

Analyzed: December 24, 1998

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE SPIKE (%)	DILUTION FACTOR
LEAD	6.3	1.0	N.D.	101	1


Shafi Barekzai
Analyst


Michael Verona
Operations Manager

CHROMALAB, INC.

Environmental Services (SDB)

December 28, 1998

Submission #: 9812339

AQUA SCIENCE ENGINEERS, INC

Atten: Dave Allen

Project: JABER
Received: December 18, 1998


Project#: 3406

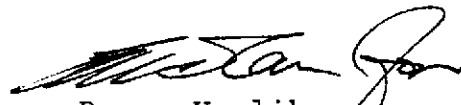
re: 1 sample for TEPH analysis.
Method: EPA 8015M

Matrix: SOIL
Sampled: December 18, 1998 Run#: 16653

Extracted: December 22, 1998
Analyzed: December 25, 1998

<u>Spl#</u>	<u>CLIENT SPL ID</u>	<u>Diesel (mg/Kg)</u>	<u>Motor Oil (mg/Kg)</u>
222306	DIG-OEX-3.5'	N.D.	N.D.
Reporting Limits		1.0	50
Blank Result		N.D.	
Blank Spike Result (%)		85.5	--


Carolyn House
Analyst


Bruce Havlik
Analyst

CHROMALAB, INC.

Environmental Services (SDB)

December 28, 1998

Submission #: 9812339

AQUA SCIENCE ENGINEERS, INC

Atten: Dave Allen

Project: JABER
Received: December 18, 1998

Project#: 3406

re: One sample for Gasoline BTEX MTBE analysis.
Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: DIG-OEX-3.5'

Spl#: 222306


Matrix: SOIL

Sampled: December 18, 1998

Run#:16710

Analyzed: December 28, 1998

<u>ANALYTE</u>	<u>RESULT</u> (mg/Kg)	<u>REPORTING</u> <u>LIMIT</u> (mg/Kg)	<u>BLANK</u> <u>RESULT</u> (mg/Kg)	<u>BLANK</u> <u>SPIKE</u> (%)	<u>DILUTION</u> <u>FACTOR</u>
GASOLINE	N.D.	1.0	N.D.	107	1
MTBE	N.D.	0.0050	N.D.	98	1
BENZENE	N.D.	0.0050	N.D.	85	1
TOLUENE	N.D.	0.0050	N.D.	83	1
ETHYL BENZENE	N.D.	0.0050	N.D.	79	1
XYLENES	N.D.	0.0050	N.D.	83	1


Vincent Vancil
Analyst


Michael Verona
Operations Manager

925-837-4853

1220 Quarry Lane • Pleasanton, California 94566-4756
(925) 484-1919 • Facsimile (925) 484-1096
Federal ID #68-0140157

PM V132 O: BTEXQC022
VINCE 16:5

9812339/22331-09


CHROMALAB, INC.

Environmental Services (SDB) (DOHS 1094)

QUIN # : 9812339 REP: FM
 CLIENT: ASE
 DUE: 12/28/98
 REF: 8:4747

Reference #: 43747
Chain of Custody
 DATE 12/18/98 PAGE 1 OF 1

PROJ MGR D. ALLEN
 COMPANY ASE
 ADDRESS DANVILLE

SAMPLES (SIGNATURE)  (PHONE NO.) 925.820.1391
 (FAX NO.)

ANALYSIS REPORT

SAMPLE ID.	DATE	TIME	MATRIX	PRESERV.	TPH (EPA 8015, 8020) <input checked="" type="checkbox"/> Gas w/ <input checked="" type="checkbox"/> BTEX <input checked="" type="checkbox"/> DMBTEX	PURGEABLE AROMATICS BTEX (EPA 8020)	TPH-Diesel (EPA 8015M) <u>MOTOR OIL</u>	TEPH (EPA 8015M) Dibenz, Dibenz, DMLO.	PURGEABLE HALOCARBONS, (HYOCS) (EPA 8010)	VOLATILE ORGANICS (VOCs) (EPA 8260)	SEMIVOLATILES (EPA 8270)	TOTAL OIL AND GREASE (SM 5520 B+F, E+F)	<input type="checkbox"/> PESTICIDES (EPA 8080) <input type="checkbox"/> PCB'S (EPA 8080)	PNA's by <input type="checkbox"/> 8270 <input type="checkbox"/> 8310	<input type="checkbox"/> Spec. Cond. <input type="checkbox"/> TSS <input type="checkbox"/> TDS	LUFT METALS: Cd, Cr, Pb, Ni, Zn	CAM 17 METALS (EPA 6010/7470/7471)	TOTAL LEAD	ANAL. (STLO LEAD) <u>ATCLP</u>	<input type="checkbox"/> Equivalent Chromium <input type="checkbox"/> pH (24 hr hold time for H2O)					COMPOSITE #1	NUMBER OF CONTAINERS	
WO-STKP (A-D)	12/18	15:10	SOIL	-	X		X		X		X	X				X			X							X	4
WO-OEX-12'	"	14:50	SOIL	-	X		X		X		X	X				X											-
DIG-OEX-3.5'	"	15:20	SOIL	-	X		X											X								-	

PROJECT INFORMATION

PROJECT NAME JABEE
 PROJECT NUMBER 3406
 P.O. #

SAMPLE RECEIPT

TOTAL NO. OF CONTAINERS
 HEAD SPACE
 TEMPERATURE
 CONFORMS TO RECORD

TAT STANDARD 5-DAY 24 48 72 OTHER

Report: Routine Level 2 Level 3 Level 4 Electronic Report

SPECIAL INSTRUCTIONS/COMMENTS:
S-9
6 jar

RELINQUISHED BY 1. D. Allen 17:02
 (SIGNATURE) (TIME)
D. Allen 12/18/98
 (PRINTED NAME) (DATE)
ASE Inc.
 (COMPANY)

RELINQUISHED BY 2. _____
 (SIGNATURE) (TIME)
 (PRINTED NAME) (DATE)
 (COMPANY)

RELINQUISHED BY 3. _____
 (SIGNATURE) (TIME)
 (PRINTED NAME) (DATE)
 (COMPANY)

RECEIVED BY 1. A. Sanchez 17:10
 (SIGNATURE) (TIME)
A. Sanchez 12/18/98
 (PRINTED NAME) (DATE)
 (COMPANY)

RECEIVED BY 2. _____
 (SIGNATURE) (TIME)
 (PRINTED NAME) (DATE)
 (COMPANY)

RECEIVED BY (LABORATORY) 3. _____
 (SIGNATURE) (TIME)
 (PRINTED NAME) (DATE)
 (LAB)