

SOIL BORING INVESTIGATION REPORT ADDENDUM

August 17, 1999

Maintenance Service Center 2040 Grand Avenue Alameda, California

> Prepared For: Mr. Pete Carrai City of Alameda

ACC Project No 99-6209-013.00

OAKLAND = SACRAMENTO SEATTLE = LOS ANGELES PROTECTION

99 AUG 18 PM 2: 25



August 17, 1999

Mr. Pete Carrai City of Alameda Maintenance Service Center 1616 Fortmann Way Alameda, California 94501

RE: Boring Investigation Report Addendum

Maintenance Service Center

2040 Grand Avenue, Alameda, California

ACC Project No. 99-6209-013.00

Dear Mr. Carrai:

ACC Environmental Consultants, Inc., (ACC) has prepared this Boring Investigation Report Addendum for work performed at 2040 Grand Avenue, Alameda, California (Figure 1). An additional boring (B-3) was advanced at this site at the request of Alameda County Health Care Services Agency (ACHCSA). The goal of this investigation was to determine whether an impact to subsurface soils had occurred due to the presence of an underground storage tank (UST) that was formerly located at the subject property.

The work performed included advancing one soil boring to a depth of 12 feet below ground surface (bgs) in a presumed downgradient location relative to the former UST, and collecting soil and groundwater samples from the boring to verify subsurface conditions.

BACKGROUND

On February 18, 1998, Scott Co. of California removed one 500-gallon UST formerly used to store waste oil from an area adjacent to the Maintenance Service Center at 2040 Grand Avenue. Soil in the vicinity of the former remote fill location was sampled and found to contain elevated concentrations of total extractable petroleum hydrocarbons (TEPH), total petroleum hydrocarbons as diesel (TPHd), and five metals. Overexcavation was performed in the area to remove impacted soil, but soil removal was limited due to proximity to the building wall and footing. Additional analysis indicated reductions in levels of constituents of concern, however, concentrations above regulatory action levels remained in the soil.

After reviewing the results of the UST removal, the Alameda County Health Care Services Agency (ACHCSA) requested in their letter dated June 23, 1998, that a grab groundwater sample be collected near the former remote fill location to verify the impact to groundwater from the previous underground storage of waste oil. ACHCSA also requested that a site plan be submitted identifying the sample locations and limits of overexcavation

Mr. Pete Carrai August 17, 1999 Page 2

FIELD PROCEDURES

Prior to fieldwork, permit number 99WR151 was acquired from the Alameda County Public Works Agency, Water Resources Division. In addition, a site-specific health and safety plan was prepared for the subject property. On April 21, 1999, one boring (B-1) was advanced in an area located between the former UST and the remote fill port (see Figure 2) to an approximate depth of 12 feet bgs using a truck-mounted Geoprobe[®] drill rig. A second boring (B-2) was advanced in a presumed downgradient location to an approximate depth of 16 feet bgs. Soil samples were not collected. Groundwater in boring B-1 was initially encountered at approximately 12 feet bgs; however, after the probe was removed, the groundwater level rose to approximately 5 feet bgs. Groundwater in boring B-2 was located at approximately 16 feet bgs. One groundwater sample was collected from each boring location. The boring locations are illustrated on Figure 2.

On July 28, 1999, boring B-3 was advanced in the presumed downgradient position approximately 8 feet south of the former fill port (Figure 2.0). The boring was advanced to a depth of 12 feet bgs using a truck-mounted Geoprobe[®] drill rig. Soil and groundwater samples were collected. Subsurface soil conditions in the boring consist of fill material, coarse gravel and sand with gravels to an approximate depth of four feet bgs. From approximately 4 to 8 feet bgs, the soil consisted of sandy materials with gravels, sandy silt and sandy clay transitioning to clayey sands. From 8 feet bgs to the bottom of the boring, subsurface soils consisted of clayey sands grading to fat clay (Bay Mud). Groundwater was initially encountered at approximately 7 feet bgs. Due to the clays present at the site, recharge in this boring was extremely poor. In order to obtain the volume of water necessary to perform the required analyticals, the borehole was sampled on two consecutive days.

Soil samples were collected in capped acetate liners. Water samples were collected in VOA vials, 250 ml poly bottles, and liter jars. ACC ensured that no air bubbles were trapped in any of the VOA vials. All samples were properly identified with labels and stored in a pre-chilled, insulated container to be transported following chain of custody protocol to Chromalab, Inc., a state certified analytical laboratory. The samples from boring B-3 were analyzed for total petroleum hydrocarbons as gasoline (TPHg), benzene, toluene, ethylbenzene, and total xylenes (BTEX), and methyl tertiary butyl ether (MTBE) by EPA Method 5030/8015/8020, oil and grease by EPA Method 5520, total petroleum hydrocarbons as diesel (TPHd) by EPA Method 8015M, cadmium, chromium, lead, nickel and zinc by EPA Method 8080M, creosote and PNAs by EPA Method 8270, and chlorinated hydrocarbons by EPA Method 8010.

ANALYTICAL RESULTS

Analytical results are summarized in Tables 1 and 2. Appendix A A copy of the analytical results and chain of custody record is attached.

Mr. Pete Carrai August 17, 1999 Page 3

DISCUSSION

In February 1998, a 500-gallon waste oil UST was removed from the site. In addition, an unknown quantity of hydrocarbon impacted soil was removed from the remote fill area. Analytical results of soil samples collected during overexcavation activities indicated detectable concentrations of total petroleum hydrocarbons as gasoline (TPHg) in the remote fill pit at 170 ppm. No laboratory detectable concentrations of benzene were reported. Soil samples collected from the remote fill pit were not analyzed for TPHd. In March 1999, ACC oversaw the advancement of two borings at the subject site. In July 1999, a third boring was advanced at the subject site. The third boring were advanced in a presumed downgradient position approximately eight feet south of the former fill port. Results of the previous boring invesitgation indicated that groundwater in the area of B-1 contains minor concentrations of diesel; however this concentration does not match the laboratory standard for diesel. No other petroleum hydrocarbon constituents were detected in boring B-1 or in boring B-2.

Analytical results from the recent boring investigation conducted in July 1999 did not report concentrations of TPHg, BTEX, MTBE, PCBs, halogenated volatile organic compounds, and semi-volatile organic compounds (with the exception of 0.89 ppm phenol in soil), and oil and grease in both soil and groundwater. Soil and groundwater results for TPHd were 16 ppm and 870 ppb respectively. Metals analysis indicated the presence of chromium, lead, nickel, and zinc at low concentrations in both soil and groundwater.

CONCLUSIONS

Based on previous work performed at the site and based on sample analytical results, ACC concludes:

- Source removal has been performed to the extent feasible;
- Analytical results from the groundwater sample taken in the presumed downgradient position does not indicate that an impact to groundwater has occurred at the subject property; and
- Low concentrations of TPHd observed in boring B-1 and B-3 are expected to degrade over time.

RECOMMENDATIONS

- ACC does not believe that any additional subsurface investigation at the subject site is warranted;
 and
- ACC recommends that this site be evaluated for site closure by ACHCSA.

Mr. Pete Carrai August 17, 1999 Page 4

LIMITATIONS

The service performed by ACC has been conducted in a manner consistent with the levels of care and skill ordinarily exercised by members of our profession currently practicing under similar conditions in the area. No other warranty, expressed or implied, is made.

The conclusions presented in this report are professional opinions based on the indicated data described in this report and applicable regulations and guidelines currently in place. They are intended only for the purpose, site, and project indicated. Opinions and recommendations presented herein apply to site conditions existing at the time of our study.

ACC has included analytical results from a state-certified laboratory, which performs analyses according to procedures suggested by the U.S. Environmental Protection Agency and the State of California. ACC is not responsible for laboratory errors in procedure or result reporting.

Thank you for choosing ACC to assist you with this project. If you have any questions, please contact me at (510) 638-8400.

Sincerely,

Stephen Southern X 198 Senior Environmental Assessor

David R. DeMent, RG Senior Geologist

/dds:sps

Enclosures

cc: Ms. Susan Bayne Churchill, President, ACC

Mr. Larry Seto, ACHCSA

Table 1: Soil Analytical Results for Boring 3

Alameda Service Center 2040 Grand Ave. Alameda, California

ACC Project #99-6209-013.00

7

Compound:	Result:	Rep. Limit:	Units:					
Gasoline	ND	1.0	mg/Kg					
Benzene	ND	0.0050	mg/Kg					
Toluene	ND	0.0050	mg/Kg					
Ethyl Benzene	ND	0.0050	mg/Kg					
Xylenes	ND	0.0050	mg/Kg					
Diesel	16	1.0	mg/Kg					
MTBE	ND	50	μg/Kg					
Oil & Grease	ND	50	mg/Kg					
Cadmium	ND	0.50	mg/Kg					
Chromium	42	1.0	mg/Kg					
Lead	7.3	1.0	mg/Kg					
Nickel	41	1.0	mg/Kg					
Zinc	39	1.0	mg/Kg					
Phenol	0.89	0.10	mg/Kg					
other SVOC	ND	0.10 - 2.0	mg/Kg					
PCBs	ND	0.050	mg/Kg					
Hal VOCs	ND	5.0 - 10	μg/Kg					

Table 2: Water Analytical Results for Boring 3

Alameda Service Center 2040 Grand Ave. Alameda, California

ACC Project #99-6209-013.00

Compound:	Result:	Rep. Limit:	Units:
Gasoline	ND	50	μg/L
Benzene	ND	0.50	μg/L
Toluene	ND	0.50	μg/L
Ethyl Benzene	ND	0.50	μg/L
Xylenes	ND	0.50	μg/L
Diesel	870	250	μg/L
МТВЕ	ND	5.0	μg/L
Oil & Grease	ND	9.3	mg/L
Cadmium	ND	0.0020	mg/L
Chromium	0.43	0.0050	mg/L
Lead	0.17	0.0050	mg/L
Nickel	0.63	0.0050	mg/L
Zinc	0.75	0.010	mg/L
semiVOC	ND	2.9 - 14	μg/L
PCBs	ND	5.0	μg/L
Hal VOCs	ND	0 50 - 5.0	μg/L

Environmental Services (SDB)

ACC Environmental Consultants To:

Test Method:

8015M

8020

Submission #: 1999-07-0482

Attn.: Stephen Southern

Prep Method:

5030

Gas/BTEX

Sample ID:

B-3 Soil

Lab Sample ID: 1999-07-0482-001

Project:

99-6209-013.00

Received:

07/29/1999 17:25

Alameda Service Ctr.

Extracted:

08/02/1999 11:46

Sampled:

07/28/1999 13:30

QC-Batch:

1999/08/02-01.01

Matrix:

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	- ND	1.0	mg/Kg	1.00	08/02/1999 11:46	· · · · · ·
Benzene	, ND	0.0050	mg/Kg	1.00	08/02/1999 11:46	
Toluene	ND	0.0050	mg/Kg	1.00	08/02/1999 11:46	
Ethyl benzene	ND	0.0050	mg/Kg	1.00	08/02/1999 11:46	
Xylene(s)	ND	0.0050	mg/Kg	1.00	08/02/1999 11:46	
Surrogate(s)						
Trifluorotoluene	49.3	53-125	%	1.00	08/02/1999 11:46	si
Trifluorotoluene-FID	53.1	53-125	%	1.00	08/02/1999 11:46	

Environmental Services (SDB)

To: **ACC Environmental Consultants**

Attn.: Stephen Southern

Test Method:

8015m

Submission #: 1999-07-0482

Prep Method:

3510/8015M

3550/8015M

Diesel

Sample ID:

B-3 Soil

Lab Sample ID: 1999-07-0482-001

Project:

Received:

07/29/1999 17:25

99-6209-013.00 Alameda Service Ctr.

Extracted:

08/03/1999 09:00

Sampled:

07/28/1999 13:30

QC-Batch:

1999/08/03-02.10

Matrix:

Soil

Sample/Analysis Flag: is (See Legend & Note section)

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	16	1.0	mg/Kg	1.00	08/03/1999 17:21	nhc
Surrogate(s) o-Terphenyl	46.7	60-130	%	1.00	08/03/1999 17:21	

Printed on: 08/06/1999 17 38

Environmental Services (SDB)

ACC Environmental Consultants

Test Method:

8260A

Submission #: 1999-07-0482

Attn.: Stephen Southern

Prep Method:

5030

MTBE - Volatile Organics by GC/MS

Sample ID:

B-3 Soil

Lab Sample ID: 1999-07-0482-001

Project:

To:

99-6209-013.00

Received:

07/29/1999 17:25

Alameda Service Ctr.

Sampled:

07/28/1999 13:30

Extracted:

08/03/1999 18:03

Matrix:

Soil

QC-Batch:

1999/08/03-01.07

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
MTBE	ND	50	ug/Kg	1.00	08/03/1999 18:03	
Surrogate(s) 1,2-Dichloroethane-d4	100.2	70-121	%	1.00	08/03/1999 18:03	

Submission #: 1999-07-0482

Environmental Services (SDB)

ACC Environmental Consultants To:

Test Method:

5520 B

5520 E

Attn.: Stephen Southern

Prep Method:

5520 B

5520 E

Total Oil & Grease

Sample ID:

B-3 Soil

Lab Sample ID: 1999-07-0482-001

Project:

99-6209-013.00

Received:

07/29/1999 17:25

Alameda Service Ctr.

Extracted:

08/03/1999

Sampled:

07/28/1999 13:30

QC-Batch:

1999/08/03-01.23

Matrix:

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Oil & Grease (total)	ND	50	mg/Kg	1.00	08/04/1999	

Submission #: 1999-07-0482

Environmental Services (SDB)

ACC Environmental Consultants To:

Test Method:

6010A

6010B

Attn.: Stephen Southern

Prep Method:

3010A 3050B

Metals

Sample ID:

B-3 Soil

Lab Sample ID: 1999-07-0482-001

Project:

99-6209-013.00

Received:

07/29/1999 17:25

Alameda Service Ctr.

Sampled:

07/28/1999 13:30

Extracted:

07/30/1999 07:17

Matrix:

Soil

QC-Batch:

1999/07/30-01.15

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Cadmium	ND	0.50	mg/Kg	1.00	07/30/1999 12:05	
Chromium	42	1.0	mg/Kg	1.00	07/30/1999 12:05	
Lead	7.3	1.0	mg/Kg	1.00	07/30/1999 12:05	
Nickel	41	1.0	mg/Kg	1.00	07/30/1999 12:05	
Zinc	39	1.0	mg/Kg	1.00	07/30/1999 12:05	

Environmental Services (SDB)

To: ACC Environmental Consultants

Attn.: Stephen Southern

Test Method: 8

8270A

Lab Sample ID: 1999-07-0482-001

Submission #: 1999-07-0482

Prep Method:

3510/8270A

3550/8270A

Semi-volatile Organic Compounds

Sample ID:

Project:

B-3 Soil

99-6209-013.00

Alameda Service Ctr.

Received:

07/29/1999 17:25

Alameda Service Cu.

Extracted:

07/30/1999 15:29

Sampled:

07/28/1999 13:30

QC-Batch:

1999/07/30-02.11

Matrix:

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Phenol	0.89	0.10	mg/Kg	1.00	08/02/1999 20:54	
Bis(2-chloroethyl)ether	ND	0.10	mg/Kg	1.00	08/02/1999 20:54	
2-Chlorophenol	ND	0.10	mg/Kg	1.00	08/02/1999 20:54	
1,3-Dichlorobenzene	ND	0.10	mg/Kg	1.00	08/02/1999 20:54	
1,4-Dichlorobenzene	ND	0.10	mg/Kg	1.00	08/02/1999 20:54	
Benzyl alcohol	ND	0.20	mg/Kg	1.00	08/02/1999 20:54	Į
1,2-Dichlorobenzene	ND	0.10	mg/Kg	1.00	08/02/1999 20:54	
2-Methylphenol	ND	0.10	mg/Kg	1.00	08/02/1999 20:54	
Bis(2-chloroisopropyl) ether	ND	0.10	mg/Kg	1.00	08/02/1999 20:54	
4-Methylphenol	ND	0.20	mg/Kg	1.00	08/02/1999 20:54	
N-Nitroso-di-n-propylamine	ND	0.10	mg/Kg	1.00	08/02/1999 20:54	
Hexachloroethane	ND	0.10	mg/Kg	1.00	08/02/1999 20:54	
Nitrobenzene	ND	0.10	mg/Kg	1.00	08/02/1999 20:54	
Isophorone	ND	0.10	mg/Kg	1.00	08/02/1999 20:54	
2-Nitrophenol	ND	0.10	mg/Kg	1.00	08/02/1999 20:54	
2,4-Dimethylphenol	ND	0.10	mg/Kg	1.00	08/02/1999 20:54	
Bis(2-chloroethoxy) methane	ND	0.10	mg/Kg	1.00	08/02/1999 20:54	
2,4-Dichlorophenol	ND	0.10	mg/Kg	1.00	08/02/1999 20:54	
1,2,4-Trichlorobenzene	ND	0.10	mg/Kg	1.00	08/02/1999 20:54	
Naphthalene	ND	0.10	mg/Kg	1.00	08/02/1999 20:54	
4-Chloroaniline	ND	0.20	mg/Kg	1.00	08/02/1999 20:54	
Hexachlorobutadiene	ND	0.10	mg/Kg	1.00	08/02/1999 20:54	
4-Chioro-3-methylphenol	ND	0.20	mg/Kg	1.00	08/02/1999 20:54	
2-Methylnaphthalene	ND	0.10	mg/Kg	1.00	08/02/1999 20:54	
Hexachlorocyclopentadiene	ND	0.10	mg/Kg	1.00	08/02/1999 20:54	
2,4,6-Trichlorophenol	ND	0.10	mg/Kg	1.00	[00:02/1999 20:54]	
2,4,5-Trichlorophenol	ND	0.10	mg/Kg	1.00	08/02/1999 20:54	
2-Chloronaphthalene	ND	0.10	mg/Kg	1.00	08/02/1999 20:54	
2-Nitroanılıne	ND	0 50	mg/Kg	1.00	08/02/1999 20:54	
Dimethyl phthalate	ND	0 50	mg/Kg	1.00	,08/02/1999 20.54	İ
Acenaphthylene	ND	0 10	mg/Kg	1 00	08/02/1999 20.54.	
3-Nitroaniline	ND	0.10	mg/Kg	1 00	08/02/1999 20 54	
Acenaphthene	ND	0.10	mg/Kg	1 00	108/02/1999 20 54	
2,4-Dinitrophenol	ND	0 50	mg/Kg	1 00	08/02/1999 20:54	
4-Nitrophenol	ND	0 50	mg/Kg	1 00	08/02/1999 20:54	

Environmental Services (SDB)

To: **ACC Environmental Consultants**

Attn.: Stephen Southern

Test Method:

8270A

Submission #: 1999-07-0482

Prep Method:

3510/8270A

3550/8270A

Semi-volatile Organic Compounds

Sample ID:

B-3 Soil

Lab Sample ID: 1999-07-0482-001

Project:

99-6209-013.00

Received:

07/29/1999 17:25

Alamedá Service Ctr.

Extracted:

07/30/1999 15:29

Sampled:

07/28/1999 13:30

QC-Batch:

1999/07/30-02.11

Matrix:

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Dibenzofuran	ND	0.10	mg/Kg	1.00	08/02/1999 20:54	
2,4-Dinitrotoluene	ND	0.10	mg/Kg	1.00	08/02/1999 20:54	
2,6-Dinitrotoluene	ND	0.20	mg/Kg	1.00	08/02/1999 20:54	
Diethyl phthalate	ND	0.50	mg/Kg	1.00	08/02/1999 20:54	
4-Chlorophenyl phenyl ether	ND	0.10	mg/Kg	1.00	08/02/1999 20:54	
Fluorene	ND	0.10	mg/Kg	1.00	08/02/1999 20:54	
4-Nitroaniline	ND	0.50	mg/Kg	1.00	08/02/1999 20:54	
2-Methyl-4,6-dinitrophenol	ND	0.50	mg/Kg	1.00	08/02/1999 20:54	
N-Nitrosodiphenylamine	ND	0.10	mg/Kg	1.00	08/02/1999 20:54	
4-Bromophenyl phenyl ether	ND	0.10	mg/Kg	1.00	08/02/1999 20:54	
Hexachlorobenzene	ND	0.10	mg/Kg	1.00	08/02/1999 20:54	
Pentachiorophenol	ND	0.50	mg/Kg	1.00	08/02/1999 20:54	
Phenanthrene	ND	0.10	mg/Kg	1.00	08/02/1999 20:54	
Anthracene	ND	0.10	mg/Kg	1.00	08/02/1999 20:54	
Di-n-butyl phthalate	ND	2.0	mg/Kg	1.00	08/02/1999 20:54	
Fluoranthene	ND	0.10	mg/Kg	1.00	08/02/1999 20:54	
Pyrene	ND	0.10	mg/Kg	1.00	08/02/1999 20:54	
Butyl benzyl phthalate	ND	0.50	mg/Kg	1.00	08/02/1999 20:54	
3,3-Dichlorobenzidine	ND	0.20	mg/Kg	1.00	08/02/1999 20:54	
Benzo(a)anthracene	ND	0.10	mg/Kg	1.00	08/02/1999 20:54	
bis(2-Ethylhexyl) phthalate	ND	0.50	mg/Kg	1.00	08/02/1999 20:54	
Chrysene	ND	0.10	mg/Kg	1.00	08/02/1999 20:54	
Di-n-octyl phthalate	ND	0.50	mg/Kg	1.00	08/02/1999 20:54	
Benzo(b)fluoranthene	ND	0.10	mg/Kg	1.00	08/02/1999 20:54	
Benzo(k)fluoranthene	ND	0.20	mg/Kg	1.00	08/02/1999 20:54	
Benzo(a)pyrene	ND	0.020	mg/Kg	1.00/	08/02/1999 20:54	
Indeno(1,2,3-c,d)pyrene	ND	0.20	mg/Kg	1.00	08/02/1999 20:54	
Dibenzo(a,h)anthracene	i ND	0.20	mg/Kg	1.00	08/02/1999 20:54	
Benzo(g,h,i)perylene	ND	0 20	mg/Kg	1.00	08/02/1999 20:54	
Benzoic acid	ND	0 50	mg/Kg	1.00	08/02/1999 20:54	
Surrogate(s)		00.400	0/	4.00	100/00/1000 00 71	
Nitrobenzene-d5	41.1	23-120	%	1 00	08/02/1999 20.54	
2-Fluorobiphenyl	36 2	30-115	%	1.00	08/02/1999 20:54	
p-Terphenyl-d14	54 3	18-137	%	1 00	08/02/1999 20:54	

Submission #: 1999-07-0482

Environmental Services (SDB)

ACC Environmental Consultants To:

Attn.: Stephen Southern

Test Method:

8270A

Lab Sample ID: 1999-07-0482-001

Prep Method:

3510/8270A

3550/8270A

Semi-volatile Organic Compounds

Sample ID:

Project:

B-3 Soil

99-6209-013.00

Alameda Service Ctr.

Received:

07/29/1999 17:25

Extracted:

07/30/1999 15:29

07/28/1999 13:30

QC-Batch:

1999/07/30-02.11

Matrix:

Sampled:

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Surrogate(s)	-					
Phenol-d5	33.7	24-113	%	1.00	08/02/1999 20:54	
2-Fluorophenol	33.9	25-121	%	1.00	08/02/1999 20:54	
2,4,6-Tribromophenol	45.6	19-122	%	1.00	08/02/1999 20:54	

Submission #: 1999-07-0482

Environmental Services (SDB)

ACC Environmental Consultants To:

Attn.: Stephen Southern

Test Method:

A0808

Prep Method:

3510/8080

3550/8080A

PCBs

Sample ID:

B-3 Soil

Lab Sample ID: 1999-07-0482-001

Project:

Received:

07/29/1999 17:25

99-6209-013.00 Alameda Service Ctr.

Extracted:

07/30/1999

Sampled:

07/28/1999 13:30

QC-Batch:

1999/07/30-02.14

Matrix:

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Aroclor 1016	ND	0.050	mg/Kg	1.00	08/02/1999 21:38	
Arocior 1221	ND	0.050	mg/Kg	1.00	08/02/1999 21:38	
Aroclor 1232	ND	0.050	mg/Kg	1.00	08/02/1999 21:38	
Aroclor 1242	ND	0.050	mg/Kg	1.00	08/02/1999 21:38	
Aroclor 1248	ND	0.050	mg/Kg	1.00	08/02/1999 21:38	
Aroclor 1254	ND	0.050	mg/Kg	1.00	08/02/1999 21:38	
Aroclor 1260	ND	0.050	mg/Kg	1.00	08/02/1999 21:38	
Surrogate(s)						
2,4,5,6-Tetrachloro-m-xylene	59.8	50-125	%	1.00	08/02/1999 21:38	
Decachiorobiphenyl	49.6	46-142	%	1.00	08/02/1999 21:38	

Environmental Services (SDB)

ACC Environmental Consultants To:

Test Method:

8260A

Attn.: Stephen Southern

Prep Method:

5030

Halogenated Volatile Organics Compounds

Sample ID:

B-3 Soil

Lab Sample ID: 1999-07-0482-001

Project:

99-6209-013.00

Received:

07/29/1999 17:25

Alameda Service Ctr.

Extracted:

08/03/1999 18:03

Sampled:

07/28/1999 13:30

QC-Batch:

1999/08/03-01.07

Matrix:

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Dichlorodifluoromethane	ND	10	ug/Kg	1.00	08/03/1999 18:03	
Vinyl chloride	ND.	5.0	ug/Kg	1.00	08/03/1999 18:03	
Chloroethane	ND	5.0	ug/Kg	1.00	08/03/1999 18:03	
Trichlorofluoromethane	ND	5.0	ug/Kg	1.00	08/03/1999 18:03	
1,1-Dichloroethene	ND	5.0	ug/Kg	1.00	08/03/1999 18:03	
Methylene chloride	ND	5.0	ug/Kg	1.00	08/03/1999 18:03	
trans-1,2-Dichloroethene	ND	5.0	ug/Kg	1.00	08/03/1999 18:03	
cis-1,2-Dichloroethene	ND	5.0	ug/Kg	1.00	08/03/1999 18:03	
1,1-Dichloroethane	ND	5.0	ug/Kg	1.00	08/03/1999 18:03	
Chloroform	ND	5.0	ug/Kg	1.00	08/03/1999 18:03	
1,1,1-Trichloroethane	ND	5.0	ug/Kg	1.00	08/03/1999 18:03	
Carbon tetrachloride	ND	5.0	ug/Kg	1.00	08/03/1999 18:03	
1,2-Dichloroethane	ND	5.0	mg/Kg	1.00	08/03/1999 18:03	
Trichloroethene	ND	5.0	ug/Kg	1.00	08/03/1999 18:03	
1,2-Dichloropropane	ND	5.0	ug/Kg	1.00	08/03/1999 18:03	
Bromodichloromethane	ND	5.0	ug/Kg	1.00	08/03/1999 18:03	
2-Chloroethylvinyl ether	ND	5.0	ug/Kg	1.00	08/03/1999 18:03	
trans-1,3-Dichloropropene	ND	5.0	ug/Kg	1.00	08/03/1999 18:03	
cis-1,3-Dichloropropene	ND	5.0	ug/Kg	1.00	08/03/1999 18:03	
1,1,2-Trichloroethane	ND	5.0	ug/Kg	1.00	08/03/1999 18:03	
Tetrachloroethene	ND	5.0	ug/Kg	1.00	08/03/1999 18:03	
Dibromochloromethane	ND	5.0	ug/Kg	1.00	08/03/1999 18:03	
Chlorobenzene	ND	5.0	ug/Kg	1.00	08/03/1999 18:03	
Bromoform	ND	5.0	ug/Kg	1.00	08/03/1999 18:03	
1,1,2,2-Tetrachloroethane	ND	5.0	ug/Kg	1.00	08/03/1999 18:03	
1,3-Dichlorobenzene	ND	5.0	ug/Kg	1.00	08/03/1999 18:03	
1,4-Dichlorobenzene	ND	5.0	ug/Kg	1.00	08/03/1999 18:03	
1,2-Dichlorobenzene	ND	5.0	ug/Kg	1.00	08/03/1999 18:03	
Trichlorotrifluoroethane	ND	50	ug/Kg	1.00	08/03/1999 18:03	
Chloromethane	ND	5 0	ug/Kg	1.00	08/03/1999 18:03	
Bromomethane	ND	50	ug/Kg	1.00	08/03/1999 18:03	
Surrogate(s)	1			l 	'	
4-Bromofluorobenzene	100.4	74-121	. %	1.00	08/03/1999 18 03	
1,2-Dichloroethane-d4	100.2	70-121	%	1.00	08/03/1999 18 03	
Toluene-d8	104.0	81-117	%	1.00	08/03/1999 18:03	

Submission #: 1999-07-0482

Environmental Services (SDB)

ACC Environmental Consultants To:

Test Method:

8015M

8020

Attn.: Stephen Southern

Prep Method:

5030

Gas/BTEX

Sample ID:

B-3 Water

Lab Sample ID: 1999-07-0482-002

Project:

99-6209-013.00

Received:

07/29/1999 17:25

Alameda Service Ctr.

Extracted:

08/02/1999 18:13

Sampled:

07/29/1999 10:15

QC-Batch:

1999/08/02-01.03

Matrix:

Water

Compound	Resuit	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline -	ND	50	ug/L	1.00	08/02/1999 18:13	
Benzene	ND	0.50	ug/L	1.00	08/02/1999 18:13	
Toluene	ND	0.50	ug/L	1.00	08/02/1999 18:13	
Ethyl benzene	ND	0.50	ug/L	1.00	08/02/1999 18:13	
Xylene(s)	ND	0.50	ug/L	1.00	08/02/1999 18:13	
Surrogate(s)						
Trifluorotoluene	107.7	58-124	%	1.00	08/02/1999 18:13	
4-Bromofluorobenzene-FID	101.1	50-150	%	1.00	08/02/1999 18:13	

Submission #: 1999-07-0482

Environmental Services (SDB)

To: ACC Environmental Consultants

Attn.: Stephen Southern

Test Method:

8015m

Prep Method:

3510/8015M

3550/8015M

Diesel

Sample ID:

Project:

B-3 Water

99-6209-013.00

Alameda Service Ctr.

Received:

Lab Sample ID: 1999-07-0482-002

Received

07/29/1999 17:25

Extracted:

08/02/1999 09:00

QC-Batch:

1999/08/02-01.10

Sampled: Matrix:

07/29/1999 10:15 Water

iallix. Vvalei

Sample/Analysis Flag: rl (See Legend & Note section)

Compound	. [1	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel		870	250	ug/L	5.00	08/02/1999 20:29	ld
Surrogate(s) o-Terphenyl		88.8	60-130	%	5.00	08/02/1999 20:29	

Submission #: 1999-07-0482

Environmental Services (SDB)

ACC Environmental Consultants To:

Test Method:

8260A

Attn.: Stephen Southern

Prep Method:

5030

MTBE - Volatile Organics by GC/MS

Rep.Limit

5.0

76-114

%

Sample ID:

B-3 Water

Lab Sample ID: 1999-07-0482-002

Project:

99-6209-013.00

Received:

07/29/1999 17:25

Alameda Service Ctr.

Result

100.5

ND

Extracted:

08/03/1999 15:57

Sampled:

07/29/1999 10:15

QC-Batch:

1.00

1999/08/03-01.09

Matrix:

Compound

Surrogate(s)

1,2-Dichloroethane-d4

MTBE

Water

Units	Dilution	Analyzed	Flag
ug/L	1.00	08/03/1999 15:57	

08/03/1999 15:57

Submission #: 1999-07-0482

Environmental Services (SDB)

ACC Environmental Consultants To:

Test Method:

5520 B

5520 E

Attn.: Stephen Southern

Prep Method:

5520 B

5520 E

Total Oil & Grease

Sample ID:

B-3 Water

Lab Sample ID: 1999-07-0482-002

Project:

99-6209-013.00

Received:

07/29/1999 17:25

Alameda Service Ctr.

Extracted:

08/03/1999

Sampled:

07/29/1999 10:15

QC-Batch:

1999/08/03-03.23

Matrix:

Water

Sample/Analysis Flag: rl (See Legend & Note section)

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Oil & Grease (total)	ND	9.3	mg/L	9.26	08/05/1999	<u> </u>

Submission #: 1999-07-0482

Environmental Services (SDB)

To: **ACC Environmental Consultants** Test Method:

6010A

6010B

Attn.: Stephen Southern

Prep Method:

3010A

3050B

Metals

Sample ID:

B-3 Water

Lab Sample ID: 1999-07-0482-002

Project:

99-6209-013.00

Received:

07/29/1999 17:25

Alameda Service Ctr.

Sampled:

Extracted:

07/30/1999 07:59

07/29/1999 10:15

QC-Batch:

1999/07/30-02.15

Matrix:

Water

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Cadmium	ND	0.0020	mg/L	1.00	07/30/1999 13:23	
Chromium	0.43	0.0050	mg/L	1.00	07/30/1999 13:23	
Lead	0.17	0.0050	mg/L	1.00	07/30/1999 13:23	
Nickel	0.63	0.0050	mg/L	1.00	07/30/1999 13:23	
Zinc	0.75	0.010	mg/L	1.00	07/30/1999 13:23	

Submission #: 1999-07-0482

Environmental Services (SDB)

ACC Environmental Consultants To:

Attn.: Stephen Southern

Test Method:

A0808

Prep Method:

3510/8080

3550/8080A

PCBs

Sample ID:

Project:

B-3 Water

99-6209-013.00

Alameda Service Ctr.

Lab Sample ID: 1999-07-0482-002

Received:

07/29/1999 17:25

Extracted:

08/02/1999

QC-Batch:

1999/08/02-01.14

Sampled:

07/29/1999 10:15

Matrix:

Water

Sample/Analysis Flag: rl (See Legend & Note section)

Compound :	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Aroclor 1016	ND	5.0	ug/L	5.00	08/02/1999 21:08	
Arocior 1221	ND	5.0	ug/L	5.00	08/02/1999 21:08	
Aroclor 1232	ND	5.0	ug/L	5.00	08/02/1999 21:08	
Aroclor 1242	ND	5.0	ug/L	5.00	08/02/1999 21:08	
Aroclor 1248	ND	5.0	ug/L	5.00	08/02/1999 21:08	
Aroclor 1254	ND	5.0	ug/L	5.00	08/02/1999 21:08	
Aroclor 1260	ND	5.0	ug/L	5.00	08/02/1999 21:08	
Surrogate(s)					-	
2,4,5,6-Tetrachloro-m-xylene	88.8	62-123	%	5.00	08/02/1999 21:08	
Decachlorobiphenyl	87.7	56-136	%	5.00	08/02/1999 21:08	

Submission #: 1999-07-0482

Environmental Services (SDB)

ACC Environmental Consultants To:

Test Method:

8010

Attn.: Stephen Southern

Prep Method:

5030

Halogenated Volatile Organic Compounds

Sample ID:

B-3 Water

Lab Sample ID: 1999-07-0482-002

Project:

99-6209-013.00

Received:

07/29/1999 17:25

Alameda Service Ctr.

Extracted:

08/03/1999 12:18

Sampled:

07/29/1999 10:15

QC-Batch:

1999/08/03-01.25

Matrix:

Water

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Dichlorodifluoromethane	ND	1.0	ug/L	1.00	08/03/1999 12:18	
Vinyl chloride	ND	0.50	ug/L	1.00	08/03/1999 12:18	
Chloroethane	ND	0.50	ug/L	1.00	08/03/1999 12:18	
Trichlorofluoromethane	ND	0.50	ug/L	1.00	08/03/1999 12:18	
1,1-Dichloroethene	ND	0.50	ug/L	1.00	08/03/1999 12:18	
Methylene chloride	ND	5.0	ug/L	1.00	08/03/1999 12:18	
trans-1,2-Dichloroethene	ND	0.50	ug/L	1.00	08/03/1999 12:18	
cis-1,2-Dichloroethene	ND	0.50	ug/L	1.00	08/03/1999 12:18	
1,1-Dichloroethane	ND	0.50	ug/L	1.00	08/03/1999 12:18	
Chloroform	ND	3.0	ug/L	1.00	08/03/1999 12:18	
1,1,1-Trichloroethane	ND	0.50	ug/L	1.00	08/03/1999 12:18	
Carbon tetrachloride	ND	0.50	ug/L	1.00	08/03/1999 12:18	
1,2-Dichloroethane	ND	0.50	ug/L	1.00	08/03/1999 12:18	
Trichloroethene	ND	0.50	ug/L	1.00	08/03/1999 12:18	
1,2-Dichloropropane	ND	0.50	ug/L	1.00	08/03/1999 12:18	
Bromodichloromethane	ND	0.50	ug/L	1.00	08/03/1999 12:18	
2-Chloroethylvinyl ether	ND	0.50	ug/L	1.00	08/03/1999 12:18	
trans-1,3-Dichloropropene	ND	0.50	ug/L	1.00	08/03/1999 12:18	
cis-1,3-Dichloropropene	ND	0.50	ug/L	1.00	08/03/1999 12:18	
1,1,2-Trichloroethane	ND	0.50	ug/L	1.00	08/03/1999 12:18	
Tetrachloroethene	ND	0.50	ug/L	1.00	08/03/1999 12:18	
Dibromochloromethane	ND	0.50	ug/L	1.00	08/03/1999 12:18	
Chlorobenzene	ND	0.50	ug/L	1.00	08/03/1999 12:18	
Bromoform	ND	2.0	ug/L	1.00	08/03/1999 12:18	
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1.00	08/03/1999 12:18	
1,3-Dichlorobenzene	ND	0.50	ug/L	1.00	08/03/1999 12:18	
1,4-Dichlorobenzene	ND	0.50	ug/L	1.00	08/03/1999 12:18	
1,2-Dichlorobenzene	ND	0.50	ug/L	1.00	08/03/1999 12:18	
Trichlorotriffuoroethane	ND	12.0	ug/L	1.00	08/03/1999 12:18	
Chloromethane	ND	1 0	ug/L	1.00	08/03/1999 12:18	
Bromomethane	ND	1 0	ug/L	1.00	08/03/1999 12:18	
Surrogate(s) 1-Chloro-2-fluorobenzene	67 3	50-150	%	1.00	08/03/1999 12:18	<u> </u>

Environmental Services (SDB)

ACC Environmental Consultants To:

Attn.: Stephen Southern

Test Method:

8270A

Submission #: 1999-07-0482

Prep Method:

3510/8270A

3550/8270A

Semi-volatile Organic Compounds

Sample ID:

B-3 Water

Project:

99-6209-013.00

Alameda Service Ctr.

Lab Sample ID: 1999-07-0482-002

Received:

07/29/1999 17:25

Extracted:

07/30/1999 15:03

QC-Batch:

1999/07/30-01.11

Sampled: Matrix:

07/29/1999 10:15

Water

Sample/Analysis Flag: rl (See Legend & Note section)

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Nitrobenzene-d5	28.4	35-114	%	1.43	07/30/1999 20:01	sl
2-Fluorobiphenyl	22.6	43-116	%	1.43	07/30/1999 20:01	sl
p-Terphenyl-d14	17.4	33-141	. %	1.43	07/30/1999 20:01	si
Phenol-d5	7.0	10-110	%	1.43	07/30/1999 20:01	sl
2-Fluorophenol	10.6	25-100	%	1.43	07/30/1999 20:01	sl
2,4,6-Tribromophenol	14.5	10-123	%	1.43	07/30/1999 20:01	