

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
ALEX BRISCOE, Agency Director

DEPARTMENT OF ENVIRONMENTAL HEALTH
OFFICE OF THE DIRECTOR
1131 HARBOR BAY PARKWAY
ALAMEDA, CA 94502
(510) 567-6777
FAX (510) 337-9135

June 27, 2013

Ms. Amanda Velasquez (*Sent via e-mail to: amanda.l.velasquez@uscg.mil*)
United States Coast Guard
2000 Embarcadero, Suite 200
Oakland, CA 94606-5337

Subject: Case Closure Transmittal for Fuel Leak Case No. RO0002443 and GeoTracker Global ID
T06019779998, USCG Building 44, 44 Spencer Road, Alameda, CA 94501

Dear Ms. Velasquez:

This letter transmits the enclosed underground storage tank (UST) case closure letter in accordance with Chapter 6.75 (Article 4, Section 25299.37[h]). The State Water Resources Control Board adopted this letter on February 20, 1997. As of March 1, 1997, the Alameda County Environmental Health (ACEH) is required to use this case closure letter for all UST leak sites. We are also transmitting to you the enclosed case closure summary. These documents confirm the completion of the investigation and cleanup of the reported release at the subject site. The subject fuel leak case is closed.

SITE INVESTIGATION AND CLEANUP SUMMARY

Please be advised that the following conditions exist at the site:

- Residual pollution up to 190 parts per million total petroleum hydrocarbons as gasoline and 5,000 parts per million total petroleum hydrocarbons as diesel remain in place in soil at 10 feet below ground surface.
- Residual pollution up to 190 parts per billion total petroleum hydrocarbons as gasoline and 100,000 parts per billion total petroleum hydrocarbons as diesel remain in place in groundwater.
- The unauthorized release consisted of bilge water and oily water from USCG ships. Metals (lead and chromium), semi-volatile organic compounds (SVOCs), and polycyclic aromatic hydrocarbons (PAHs) were detected in the soil and/or groundwater at the site.
- Case closure for this fuel leak site is granted for the current industrial land use only. If a change in land use to any commercial, residential, or other conservative land use scenario occurs at this site, Alameda County Environmental Health (ACEH) must be notified as required by Government Code Section 65850.2.2. ACEH will re-evaluate the case upon receipt of approved development/construction plans.
- Excavation or construction activities in areas of residual contamination require planning and implementation of appropriate health and safety procedures by the responsible party prior to and during excavation and construction activities.

Ms. Amanda Velasquez
RO0002443
June 27, 2013, Page 2

If you have any questions, please call Karel Detterman at (510) 567-6708. Thank you.

Sincerely,



Donna L. Drogos, P.E.
Division Chief

Enclosures: 1. Remedial Action Completion Certificate
 2. Case Closure Summary

cc: Cherie McCaulou (w/enc.), SF- Regional Water Quality Control Board, 1515 Clay Street, Suite 1400,
 Oakland, CA 94612, (sent via electronic mail to CMacaulou@waterboards.ca.gov)

 Donna Drogos, (sent via electronic mail to donna.drogos@acgov.org)

 Karel Detterman (sent via electronic mail to karel.detterman@acgov.org)

 Electronic File, GeoTrack

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY

ALEX BRISCOE, Agency Director



DEPARTMENT OF ENVIRONMENTAL HEALTH
OFFICE OF THE DIRECTOR
1131 HARBOR BAY PARKWAY
ALAMEDA, CA 94502
(510) 567-6777
FAX (510) 337-9135

REMEDIAL ACTION COMPLETION CERTIFICATION

June 27, 2013

Ms. Amanda Velasquez (*Sent via e-mail to: amanda.l.velasquez@uscg.mil*)
United States Coast Guard
2000 Embarcadero, Suite 200
Oakland, CA 94606-5337

Subject: Case Closure for Fuel Leak Case No. RO0002443 and GeoTracker Global ID T06019779998,
USCG Building 44, 44 Spencer Road, Alameda, CA 94501

Dear Ms. Velasquez:

This letter confirms the completion of a site investigation and remedial action for the underground storage tank formerly located at the above-described location. Thank you for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning the former underground storage tank(s) are greatly appreciated.

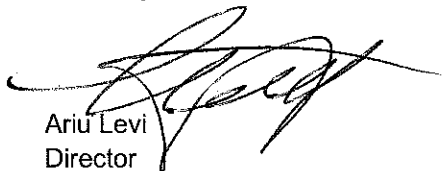
~~Based on information in the above-referenced file and with the provision that the information provided to this agency was accurate and representative of site conditions, this agency finds that the site investigation and corrective action carried out at your underground storage tank(s) site is in compliance with the requirements of subdivisions (a) and (b) of Section 25299.37 of the Health and Safety Code and with corrective action regulations adopted pursuant to Section 25299.77 of the Health and Safety Code and that no further action related to the petroleum release(s) at the site is required.~~

Claims for reimbursement of corrective action costs submitted to the Underground Storage Tank Cleanup Fund more than 365 days after the date of this letter or issuance or activation of the Fund's Letter of Commitment, whichever occurs later, will not be reimbursed unless one of the following exceptions applies:

- Claims are submitted pursuant to Section 25299.57, subdivision (k) (reopened UST case); or
- Submission within the timeframe was beyond the claimant's reasonable control, ongoing work is required for closure that will result in the submission of claims beyond that time period, or that under the circumstances of the case, it would be unreasonable or inequitable to impose the 365-day time period.

This notice is issued pursuant to subdivision (h) of Section 25299.37 of the Health and Safety Code. Please contact our office if you have any questions regarding this matter.

Sincerely,


Ariu Levi
Director

**CASE CLOSURE SUMMARY
LEAKING UNDERGROUND FUEL STORAGE TANK - LOCAL OVERSIGHT PROGRAM**

I. AGENCY INFORMATION

Date: June 27, 2013

Agency Name: Alameda County Environmental Health	Address: 1131 Harbor Bay Parkway
City/State/Zip: Alameda, CA 94502-6577	Phone: (510) 567-6708
Responsible Staff Person: Karel Detterman	Title: Hazardous Materials Specialist

II. CASE INFORMATION

Site Facility Name: USCG Bldg 44		
Site Facility Address: 44 Spencer Road, Alameda, CA 94501 *		
RB Case No.: ---	Local Case No.: ---	LOP Case No.: RO0002443
URF Filing Date: ---	Geotracker ID: T06019779998	APN: 74-960-1
Responsible Parties	Addresses	Phone Numbers
Amanda Velasquez United States Coast Guard	2000 Embarcadero #200 Oakland, CA 94606-5337	(510) 535-7278 (510) 410-8300

* Parcel records list the property as Dennison St., Alameda, CA 94501

Tank I.D. No	Size in Gallons	Contents	Closed In Place/Removed?	Date
1	10,000	Waste oil and bilge water	Removed	11/14/2011
Piping			Removed	11/14/2011

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and Type of Release: UST appeared intact upon removal, however the UST's manhole was secured by one bolt and there was a 2-inch gap between the lid and the manhole.		
Site characterization complete? Yes	Date Approved By Oversight Agency: ----	
Monitoring wells installed? No	Number: 0	Proper screened interval? NA
Highest GW Depth Below Ground Surface: 7.5 feet bgs	Lowest Depth: 11 feet bgs	Flow Direction: Assumed southwest
Most Sensitive Current Use: Potential drinking water source.		

Summary of Production Wells in Vicinity: None identified.	
Are drinking water wells affected? No	Aquifer Name: East Bay Plain
Is surface water affected? No	Nearest SW Name: Oakland Inner Harbor estuary, located approximately 50 ft southwest of site.
Off-Site Beneficial Use Impacts (Addresses/Locations): None identified.	
Reports on file? Yes	Where are reports filed? Alameda County Environmental Health

TREATMENT AND DISPOSAL OF AFFECTED MATERIAL			
Material	Amount (Include Units)	Action (Treatment or Disposal w/Destination)	Date
Tank	10,000-gal	Disposal Forward Landfill, Manteca, CA.	11/15/2001
Piping	Not Reported	Piping reportedly triple high-pressure washed then disposed of with the garbage.	11/15/2001
Free Product	None reported	----	----
Soil (Pea gravel)	Approximately 90 cy	Returned to UST excavation	11/15/2001
Groundwater	----	----	----

MAXIMUM DOCUMENTED CONTAMINANT CONCENTRATIONS BEFORE AND AFTER CLEANUP
 (Please see Attachments 1 through 5 for additional information on contaminant locations and concentrations)

Contaminant	Soil (ppm)		Water (ppb)	
	Before	After	Before ¹	After ¹
TPH (Gas)	290	290	190	190
TPH (Diesel)	5,000	5,000	100,000	100,000
TPH (Motor Oil)	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed
Oil and Grease	4,700	4,700	41,000	41,000
Benzene	< 1.0	< 1.0	0.83	0.83
Toluene	< 1.0	< 1.0	0.61	0.61
Ethylbenzene	< 1.0	< 1.0	0.68	0.68
Xylenes	< 2.0	< 2.0	1.7	1.7
Heavy Metals (Cd, Cr, Pb, Ni, Zn)	290 ²	290 ²	67 ³	67 ³
MTBE	<1.0 ⁴	<1.0 ⁴	0.66 ⁵	0.66 ⁵
Other (8260/8270)	5.1 ppm ⁶	5.1 ppm ⁶	16 ppb ⁷	16 ppb ⁷

¹ Grab groundwater sample

² Cd < 0.53 ppm; Cr = 51 ppm; Pb = 290 ppm; Ni = 68 ppm; Zn = 57 ppm

³ Cd < 2.0 ppb; Cr = 550 ppb; Pb = 67 ppb; Ni = 140 ppb, Zn = 860 ppb

⁴ MTBE, EDB, EDC <1.0 ppm, TBA, TAME, and ETBE < 0.025 ppm; DIPE < 0.05 ppm

⁵ MTBE = 0.66 ppb; EDB, EDC <5.0 ppb, TBA, ETBE, and TAME < 5.0 ppb; DIPE < 10 ppb

⁶ Naphthalene = 5.1 ppm, 1,1,2-Trichloroethane = 6 ppm, 1,2,4-Trimethylbenzene = 10 ppm, Benzo(a)pyrene = <3.0 ppm, 2-Methynaphthalene = 1.8 ppm, Polychlorinated Biphenyls <0.05 ppm

⁷ Naphthalene = 16 ppb; Benzo[b]fluoranthene = 0.56 ppb; Benzo[a]pyrene = 0.66 ppb; Benzo[g,h,i]perylene = 1.1 ppb, Polychlorinated Biphenyls <0.63 ppb

Site History and Description of Corrective Actions:

The site is located within the United States Coast Guard Integrated Support Command (USCG ISC Alameda) on the southwest side of Coast Guard Island and is surrounded on three sides by Coast Guard buildings. The Oakland Estuary is approximately 50 feet southwest of the site.

November 19, 2001 - Underground Storage Tank (UST) removal: A 10,000-gallon double walled fiberglass UST installed in 1985 and used to store oily water and bilge water from USCG ships was removed from the site. The UST was cleaned and approximately 700 gallons of oily water, 200 to 300 gallons of sandy sludge, and 500 gallons of wastewater were removed from the tank and disposed of as hazardous waste. No holes were observed in the UST, but oily spots were observed around the tank manhole. The UST's manhole was secured by one bolt and there was a 2-inch gap between the lid and the manhole. Groundwater was observed at 7.5 feet below ground surface (bgs) in the northeastern portion of the excavation and a black sheen was observed on groundwater in the tank excavation. Pea gravel covering the UST was stockpiled northeast of the UST pit and had an obvious petroleum hydrocarbon odor.

Soil samples were collected from the bottom of the excavation at approximately 8 feet bgs and one water sample was collected from groundwater in the excavation. The floor of the tank excavation appeared to be sandy clay. Soil sample analysis detected up to 290 parts per million (ppm) Total Petroleum Hydrocarbons as gasoline (TPHg), 210 ppm Total Petroleum Hydrocarbons as diesel (TPHd), and 1,800 ppm Total Oil and Grease (TOG). Grab

groundwater sample analysis detected 190 parts per billion (ppb) TPHg, 100,000 ppb TPHd, and 41,000 ppb TOG. Four discrete stockpile samples detected 38 ppm TPHg, 2.5 ppm TPHd, 10 ppm TOG. The UST excavation was not overexcavated and the stockpiled pea gravel was used to backfill the excavation.

A soil and groundwater investigation was performed on February 14 and 15, 2008. Nine soil borings were advanced to depths between 3 and 35 bgs. Six borings were placed at the four sides of the former UST excavation and three step-out borings were placed between the former UST excavation and the Oakland Estuary Twenty soil samples were collected, the shallowest sample at a depth of 10 feet and the deepest sample at 35 feet bgs. Six grab groundwater samples were collected from four temporary monitoring wells located on four sides of the former UST excavation. Soil sample analysis detected concentrations up to 5.3 ppm TPHg, 5,000 ppm TPHd, and 4,700 ppm TOG, 5.1 ppm naphthalene, 5.1 ppm arsenic, and 290 ppm lead. Groundwater sample analysis detected concentrations up to 79 ppb TPHg, 1,200 ppb TPHd, and 1.9 ppb TOG, 550 ppb chromium, and 67 ppb lead.

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? Yes		
Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? Yes		
Does corrective action protect public health for current land use? Alameda County Environmental Health staff does not make specific determinations concerning public health risk. However, based upon the information available in our files to date, it does not appear that the release would present a risk to human health based upon current land use and conditions.		
Site Management Requirements: Case closure for this fuel leak site is granted for the current industrial land use only. If a change in land use to any commercial, residential, or other conservative land use scenario occurs at this site, Alameda County Environmental Health (ACEH) must be notified as required by Government Code Section 65850.2.2. ACEH will re-evaluate the case upon receipt of approved development/construction plans.		
Excavation or construction activities in areas of residual contamination require planning and implementation of appropriate health and safety procedures by the responsible party prior to and during excavation and construction activities.		
Should corrective action be reviewed if land use changes? No		
Was a deed restriction or deed notification filed? No		Date Recorded: ---
Monitoring Wells Decommissioned: N/A	Number Decommissioned: 0	Number Retained: 0
List Enforcement Actions Taken: None		
List Enforcement Actions Rescinded: ----		

V. ADDITIONAL COMMENTS, DATA, ETC.

Considerations and/or Variances:

- The unauthorized release did not consist only of petroleum hydrocarbons, but consisted of bilge water and oily water from USCG ships, which can contain water, oil, urine, detergents, solvents, chemicals, pitch, particles, and other materials. Metals (lead and chromium) and semi-volatile organic compounds (SVOCs) and polycyclic aromatic hydrocarbons (PAHs) naphthalene, 1,1,2-Trichloroethane, 1,2,4-Trimethylbenzene, Benzo(a)pyrene, 2-Methynaphthalene, Benzo[b]fluoranthene, Benzo[g,h,i]perylene were detected in the soil and/or groundwater at the site.
- SVOCs and PAHs exceed Environmental Screening Levels (ESLs) for residential in soil and groundwater;
- No soil samples were analyzed at the 0 – 10 feet bgs depths;
- No vapor sampling has been performed; however residual pollution does not appear to present a risk to the current industrial use as a U.S. Coast Guard oil storage and separation facility;
- The consultant's tidal study determined residual concentrations of SVOC and PAH compounds do not appear to pose a risk to estuary habitat.

Conclusion:

Alameda County Environmental Health staff believe that the levels of residual contamination do not pose a significant threat to water resources, public health and safety, and the environment under the current industrial land use based upon the information available in our files to date. No further investigation or cleanup for the fuel leak case is necessary unless a change in land use to any commercial, residential, or other conservative land use scenario occurs at the site. ACEH staff recommend closure for this site.

VI. LOCAL AGENCY REPRESENTATIVE DATA

Prepared by: Karel Detterman, P.G.	Title: Hazardous Materials Specialist
Signature: <i>Karel Detterman</i>	Date: <i>6/27/13</i>
Approved by: Donna L. Drogos, P.E.	Title: Division Chief
Signature: <i>Donna L. Drogos</i>	Date: <i>6/27/13</i>

This closure approval is based upon the available information and with the provision that the information provided to this agency was accurate and representative of site conditions.

VII. REGIONAL BOARD NOTIFICATION

Regional Board Staff Name: Cherie McCaulou	Title: Engineering Geologist
Notification Date: <i>April 18, 2013</i>	

VIII. MONITORING WELL DECOMMISSIONING

Date Requested by ACEH: -----	Date of Well Decommissioning Report: -----	
All Monitoring Wells Decommissioned: N/A	Number Decommissioned: 0	Number Retained: 0
Reason Wells Retained: No monitoring wells installed		
Additional requirements for submittal of groundwater data from retained wells: None		
ACEH Concurrence - Signature: <i>Karl Detten</i>		Date: <i>6/27/13</i>

Attachments:

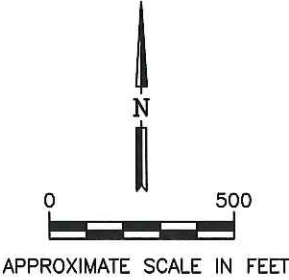
1. Site Vicinity Map (1 pp)
2. Site Plans (4 pp)
3. Soil Analytical Data (39 pp)
4. Groundwater Analytical Data (19 pp)
5. Boring Logs (9 pp)

This document and the related CASE CLOSURE LETTER & REMEDIAL ACTION COMPLETION CERTIFICATE shall be retained by the lead agency as part of the official site file.

ATTACHMENT 1



VICINITY MAP
NOT TO SCALE



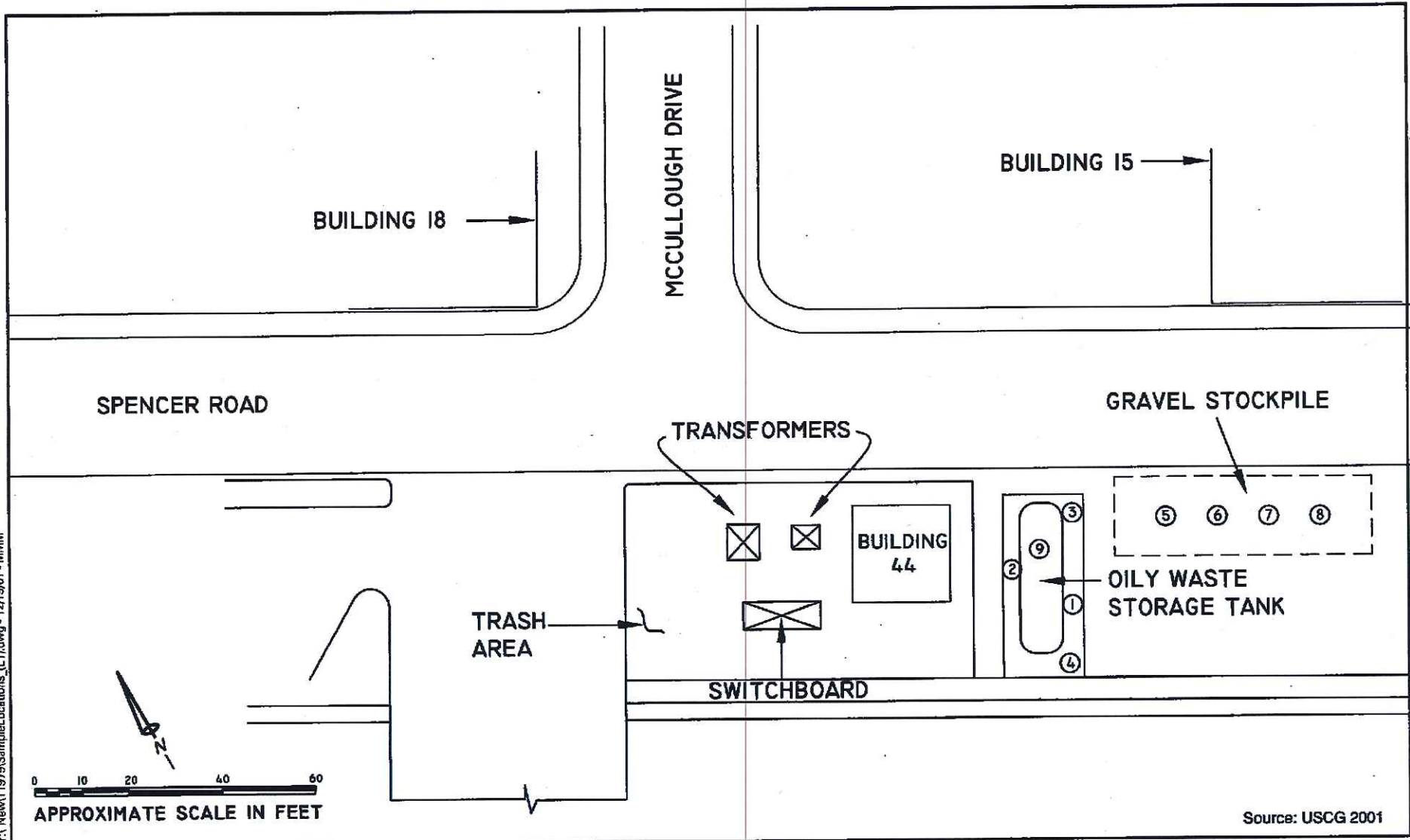
SOURCE: GOOGLE EARTH

P:\2007 Projects\27-167 USCG Alameda USTIN_Maps_Dwg_Site_Location Map.dwg



**Engineering/Remediation
Resources Group, Inc.**
115 Sansome St., Suite 200
San Francisco, California 94104
(415) 395-9974

<p><i>CLIENT:</i> UNITED STATES COAST GUARD</p> <p><i>LOCATION:</i> INTEGRATED SUPPORT COMMAND ALAMEDA ALAMEDA, CALIFORNIA</p>	<p><i>DESIGNED BY:</i> RDB 4/17/08</p> <p><i>CHECKED BY:</i> MAE 4/18/08</p> <p><i>P.E.P.G.:</i> MAE 4/18/08</p>	<h2 style="margin: 0;">SITE LOCATION MAP</h2>				
		ERRG PROJECT NO.	REV. NO.	SHEET	OF	FIG NO.
		27-167	0	1	1	1



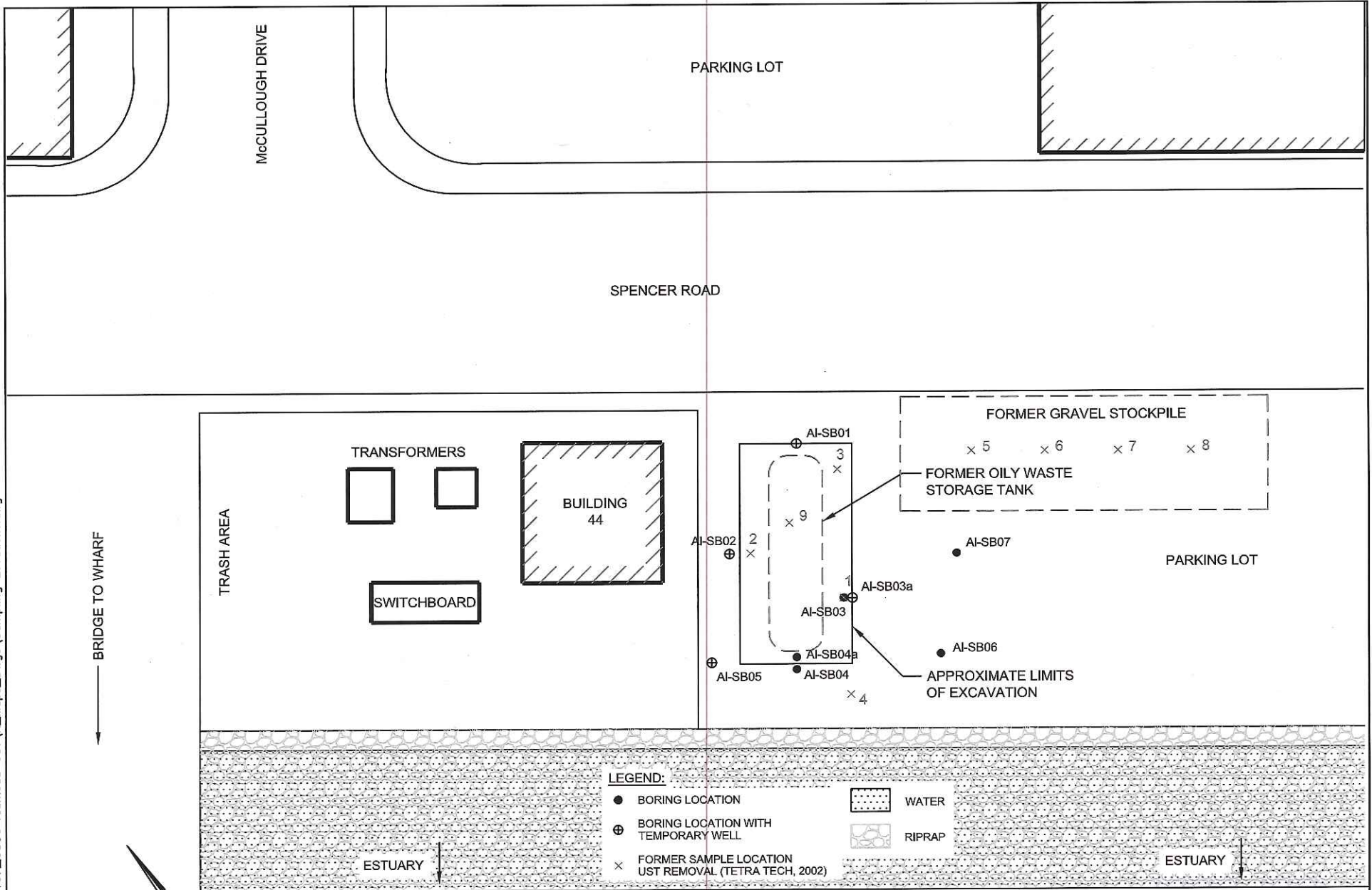
Site Plan with Sample Locations

Building 44 UST Removal
Alameda, California

Figure 2

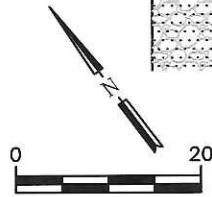
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P:\2007_Projects\27-167_USCG Alameda UST\N_Maps_Dwgs\Sampling Locations.dwg



LEGEND:

- BORING LOCATION
- ⊕ BORING LOCATION WITH TEMPORARY WELL
- × FORMER SAMPLE LOCATION UST REMOVAL (TETRA TECH, 2002)
- [Dotted Pattern] WATER
- [Cross-hatched Pattern] RIPRAP



APPROXIMATE SCALE IN FEET

SOURCE: TETRA TECH, 2002

ERRG Engineering/Remediation Resources Group, Inc.
 115 Sansome Street, Suite 200
 San Francisco, California 94104
 (415) 395-9974

CLIENT: UNITED STATES COAST GUARD

DESIGNED BY: RDB 4-17-08

CHECKED BY: MAE 4-18-08

P.E.P.G.: MAE 4-18-08

LOCATION: INTEGRATED SUPPORT COMMAND ALAMEDA ALAMEDA, CA

SAMPLING LOCATIONS				
ERRG PROJECT NO.	REVISION NO.	SHEET OF	FIG NO.	
27-167	0	1 1	2	

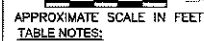
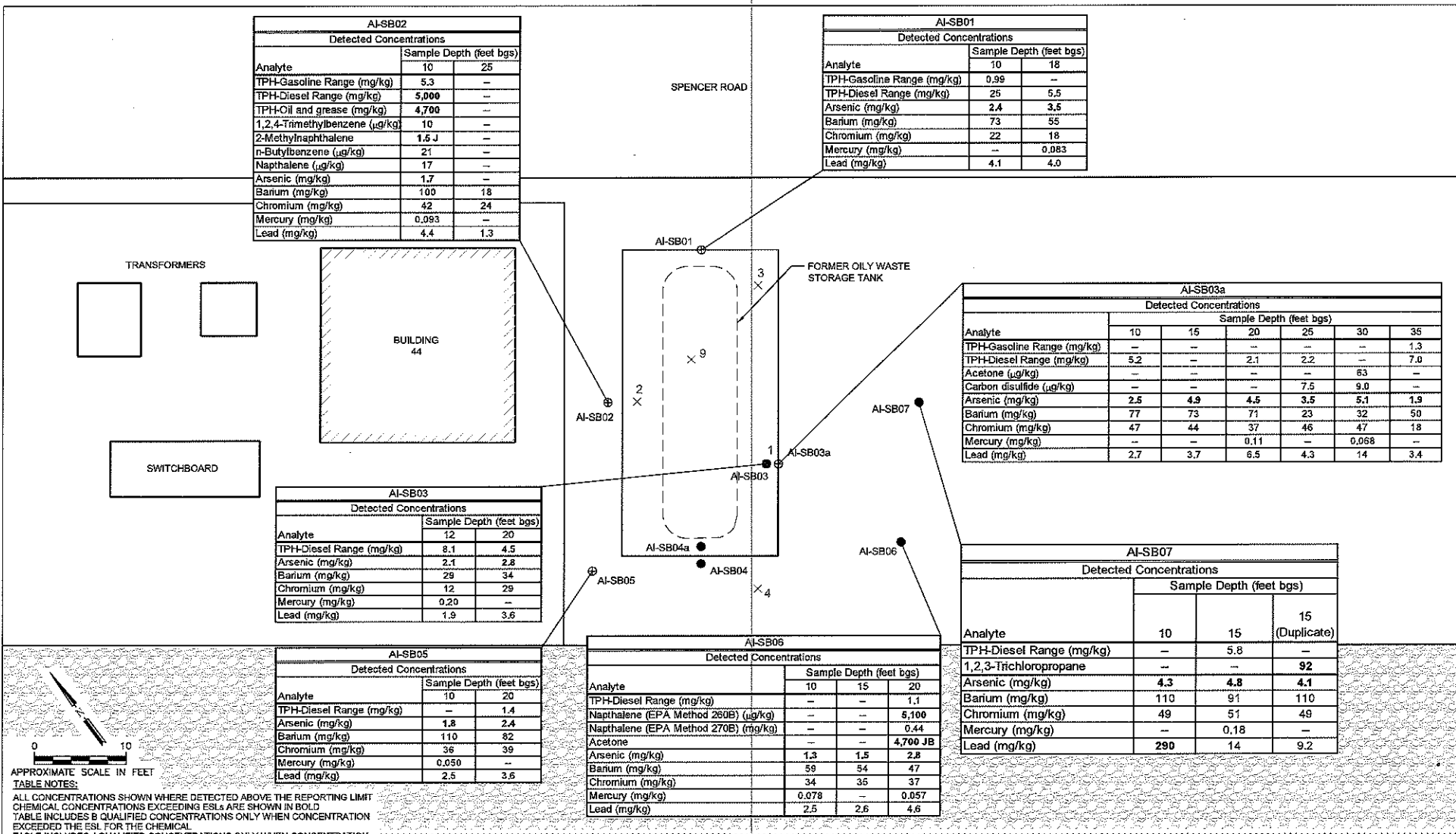
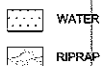


TABLE NOTES:
 ALL CONCENTRATIONS SHOWN WHERE DETECTED ABOVE THE REPORTING LIMIT
 CHEMICAL CONCENTRATIONS EXCEEDING ESLs ARE SHOWN IN BOLD
 TABLE INCLUDES B QUALIFIED CONCENTRATIONS ONLY WHEN CONCENTRATION EXCEEDED THE ESL FOR THE CHEMICAL
 TABLE INCLUDES J QUALIFIED CONCENTRATIONS ONLY WHEN CONCENTRATION EXCEEDED THE ESL FOR THE CHEMICAL
 µg/kg = MICROGRAMS PER KILOGRAM
 B = BLANK DETECTION
 bgs = BELOW GROUND SURFACE
 EPA = ENVIRONMENTAL PROTECTION AGENCY
 J = ESTIMATED DETECTION ABOVE THE MDL BUT BELOW THE REPORTING LIMIT
 mg/kg = MILLIGRAMS PER KILOGRAM
 TPH = TOTAL PETROLEUM HYDROCARBONS
 -- = CHEMICAL NOT DETECTED ABOVE REPORTING LIMITS
 SOURCE: TETRA TECH INC., 2002

LEGEND:
 ● BORING LOCATION
 ⊕ BORING LOCATION WITH TEMPORARY WELL
 × FORMER SAMPLE LOCATION
 UST REMOVAL (TETRA TECH INC., 2002)



Engineering/Remediation Resources Group, Inc. 115 Sansome Street, Suite 200 San Francisco, California 94104 (415) 385-6974	CLIENT: UNITED STATES COAST GUARD	DESIGNED BY: RDB 7-7-08	SOIL SAMPLING RESULTS				
	LOCATION: INTEGRATED SUPPORT COMMAND ALAMEDA ALAMEDA, CA	CHECKED BY: ADS 7-8-08				P.E./P.G.: MAE 7-8-08	ERG PROJECT NO. 27-167

AI-SB02-W		
Analyte	Detected Concentrations	
	W	W (Duplicate)
TPH-Gasoline Range (µg/L)	71	71
TPH-Diesel Range (µg/L)	1200	710
TPH-Oil and Grease (mg/L)	1.5J	0.64J
1,2,4-Trimethylbenzene (µg/L)	0.83	—
Diethyl Phthalate	5.9J	—
Benzoic acid (µg/L)	13	—
Arsenic (mg/L)	0.031	—
Barium (mg/L)	0.98	0.26
Chromium (mg/L)	0.48	0.0059
Mercury (mg/L)	0.00065	—
Lead (mg/L)	0.067	—

AI-SB01-W		
Analyte	Detected Concentrations	
	W	W
TPH-Diesel Range (µg/L)	950	—
TPH-Oil and Grease (mg/L)	1.5J	—
Barium (mg/L)	0.31	—
Chromium (mg/L)	0.026	—
Lead (mg/L)	0.0063	—

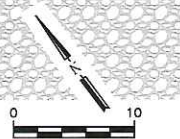
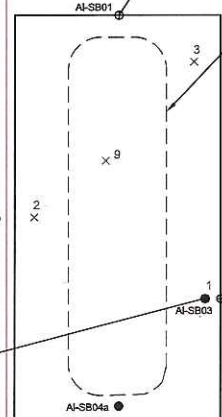
AI-SB07-W		
Analyte	Detected Concentrations	
	W	W
TPH-Diesel Range (µg/L)	130	—
TPH-Oil and Grease (mg/L)	2.7	—
Xylenes, Total (µg/L)	1.7	—
Chrysene (µg/L)	0.3J	—
Benzo[b]fluoranthene (µg/L)	0.56J	—
Benzo[a]pyrene (µg/L)	0.66J	—
Benzo[g,h,i]perylene (µg/L)	1.1J	—
Barium (mg/L)	0.98	—
Chromium (mg/L)	0.020	—

AI-SB06-W		
Analyte	Detected Concentrations	
	W	W
TPH-Diesel Range (µg/L)	470	—
Ethylbenzene (µg/L)	0.68	—
Naphthalene (VOCs) (µg/L)	16	—
Toluene (µg/L)	0.61	—
Xylenes, Total (µg/L)	1.6	—
Arsenic (mg/L)	0.0077	—
Barium (mg/L)	0.81	—
Chromium (mg/L)	0.054	—
Lead (mg/L)	0.029	—
Naphthalene (SVOCs) (µg/L)	11	—

AI-SB03-W		
Analyte	Detected Concentrations	
	W	W
TPH-Gasoline Range (µg/L)	79	—
TPH-Diesel Range (µg/L)	770	—
TPH-Oil and Grease (mg/L)	1.0J	—
Bis(2-ethylhexyl)phthalate (µg/L)	7.7J	—
Barium (mg/L)	0.26	—
Chromium (mg/L)	0.0057	—

AI-SB05-W		
Analyte	Detected Concentrations	
	W	W
TPH-Diesel Range (µg/L)	600	—
TPH-Oil and Grease (mg/L)	1.9J	—
Arsenic (mg/L)	0.038	—
Barium (mg/L)	1.9	—
Chromium (mg/L)	0.55	—
Mercury (mg/L)	0.00077	—
Lead (mg/L)	0.057	—

- LEGEND:
- BORING LOCATION
 - ⊕ BORING LOCATION WITH TEMPORARY WELL
 - × FORMER SAMPLE LOCATION
 - UST REMOVAL (TETRA TECH INC., 2002)
 - WATER
 - RIPRAP



APPROXIMATE SCALE IN FEET

TABLE NOTES:

ALL CONCENTRATIONS SHOWN WERE DETECTED ABOVE THE REPORTING LIMIT

TABLE INCLUDES B QUALIFIED CONCENTRATIONS ONLY WHEN CONCENTRATION EXCEEDED THE ESL FOR THE CHEMICAL

TABLE INCLUDES J QUALIFIED CONCENTRATIONS ONLY WHEN CONCENTRATION EXCEEDED THE ESL FOR THE CHEMICAL

CHEMICAL CONCENTRATIONS EXCEEDING ESLs ARE SHOWN IN BOLD

CHEMICAL CONCENTRATIONS EXCEEDING ESL-ESTUARY ARE SHOWN IN RED

µg/L = MICROGRAMS PER LITER

J = ESTIMATED DETECTION ABOVE THE MDL BUT BELOW THE REPORTING LIMIT

MDL = METHOD DETECTION LIMIT

mg/L = MILLIGRAMS PER LITER

TPH = TOTAL PETROLEUM HYDROCARBONS

W = WATER SAMPLE

-- = CHEMICAL NOT DETECTED ABOVE REPORTING LIMITS

ERRG Engineering/Remediation Resources Group, Inc.
 115 Sansome Street, Suite 200
 San Francisco, California 94104
 (415) 395-9974

CLIENT: UNITED STATES COAST GUARD

DESIGNED BY: RDB 7-7-08

CHECKED BY: ADS 7-8-08

LOCATION: INTEGRATED SUPPORT COMMAND ALAMEDA ALAMEDA, CA

P.E./P.O.: MAE 7-8-08

GROUNDWATER SAMPLING RESULTS

ERRG PROJECT NO. 27-167

REVISION NO. 0

SHEET 1 OF 1

FIG NO. 4

Table 3-2
Summary of Detected Analytes in Soil Samples
Underground Storage Tank Removal at Building 44
US Coast Guard Integrated Support Command
Alameda, California

Sample ID	Location ID	Sample Date	Depth (ft)	TPH results			VOCs						SVOC	Metals				
				TPH-gasoline mg/kg	TPH-diesel mg/kg	Oil & Grease mg/kg	1,2,4-Trimethylbenzene ug/kg	1,1,2-Trichloroethane ug/kg	n-Butylbenzene ug/kg	Naphthalene ug/kg	p-Isopropyltoluene ug/kg	sec-Butylbenzene ug/kg	2-Methylnaphthalene mg/kg	Chromium mg/kg	Lead mg/kg	Nickel mg/kg	Zinc mg/kg	
SAL111501-S	1	11/15/2001	8	290 ^g	140 ^{ndp}	1,800	1,700	6,000	2,300	3,000	960	990	1.8	28	16	21	53	
SAL111501-N	2	11/15/2001	8	11 ^g	210 ^{ndp}	<50	9.4	<5	<5	<10	<5	<5	<0.067	39	20	68	57	
SAL111501-E	3	11/15/2001	8	48 ^g	42 ^{ndp}	130	<250	<250	<250	<250	<250	<250	<0.067	29	11	48	43	
SAL111501-W	4	11/15/2001	8	<0.005	<1	<50	<5	<5	<5	<10	<5	<5	<0.067	21	8.8	22	32	
GAL111501-1	5	11/15/2001	1	<0.005	2.5 ^{ndp}	<50	<5	<5	<5	<10	<5	<5	<0.067	8.2	6.5	15	30	
GAL111501-2	6	11/15/2001	1	<0.005	1.3 ^{ndp}	72	<5	<5	<5	<10	<5	<5	<0.067	10	7.1	16	44	
GAL111501-3	7	11/15/2001	1	38 ^g	1 ^{ndp}	180	<5	<5	<5	<10	<5	<5	<0.067	10	12	19	46	
GAL111501-4	8	11/15/2001	1	<0.005	1.2 ^{ndp}	<50	<5	<5	<5	<10	<5	<5	<0.067	4	<5	26	34	
Analyses				8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Detections				4	7	4	2	1	1	1	1	1	1	8	7	8	8	8

Note: The sample depths were measured from the top of the open excavation and/or from surface of gravel stockpile.
g = Hydrocarbon reported in the gasoline range does not match laboratories gasoline standard.
ndp = Hydrocarbon reported does not match the pattern of laboratories diesel standard.

Submission #: 2001-11-0323

SEVERN
TRENT
SERVICES

Gas/BTEX by 8015M/8021

Tetra Tech Inc SF

Test Method: 8021B
8015M

Attn: Gary Floyd

Prep Method: 5030
5035

STL Chromalab
1220 Quarry Lane
Pleasanton, CA 94566

Tel 925 484 1919
Fax 925 484 1096
www.stl-inc.com
www.chromalab.com

CA DHS ELAP#1094

Sample ID: SAL111501-W	Lab Sample ID: 2001-11-0323-005
Project: 11979-03 Alameda UST Removal	Received: 11/15/2001 14:45
Sampled: 11/15/2001 11:44	Extracted: 11/19/2001 13:30
Matrix: Soil	QC-Batch: 2001/11/19-01.04

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	ND	1.0	mg/Kg	1.00	11/19/2001 13:30	
Benzene	ND	0.0050	mg/Kg	1.00	11/19/2001 13:30	
Toluene	ND	0.0050	mg/Kg	1.00	11/19/2001 13:30	
Ethyl benzene	ND	0.0050	mg/Kg	1.00	11/19/2001 13:30	
Xylene(s)	ND	0.0050	mg/Kg	1.00	11/19/2001 13:30	
<i>Surrogate(s)</i>						
Trifluorotoluene	79.4	53-125	%	1.00	11/19/2001 13:30	
4-Bromofluorobenzene-FID	72.1	58-124	%	1.00	11/19/2001 13:30	

Submission #: 2001-11-0323



Gas/BTEX Compounds (High Level)

Tetra Tech Inc SF

Test Method: 8021B
8015M

Attn: Gary Floyd

Prep Method: 5030

STL Chromalab
1220 Quarry Lane
Pleasanton, CA 94566

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www.stl-inc.com
www.chromalab.com

CA DHS ELAP#1094

Sample ID: SAL111501-S	Lab Sample ID: 2001-11-0323-002
Project: 11979-03 Alameda UST Removal	Received: 11/15/2001 14:45
Sampled: 11/15/2001 11:11	Extracted: 11/16/2001 08:00
Matrix: Soil	QC-Batch: 2001/11/16-05.04

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	290	10	mg/Kg	1.00	11/16/2001 19:03	g
Benzene	ND	0.62	mg/Kg	1.00	11/16/2001 19:03	
Toluene	ND	0.62	mg/Kg	1.00	11/16/2001 19:03	
Ethyl benzene	ND	0.62	mg/Kg	1.00	11/16/2001 19:03	
Xylene(s)	ND	0.62	mg/Kg	1.00	11/16/2001 19:03	
<i>Surrogate(s)</i>						
Trifluorotoluene	63.4	53-125	%	1.00	11/16/2001 19:03	
Trifluorotoluene-FID	109.5	53-125	%	1.00	11/16/2001 19:03	

Submission #: 2001-11-0323



Gas/BTEX Compounds (High Level)

Tetra Tech Inc SF

Test Method: 8021B
8015M

Attn: Gary Floyd

Prep Method: 5030

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www.chromalab.com

CA DHS ELAP#1094

Sample ID: SAL111501-N	Lab Sample ID: 2001-11-0323-003
Project: 11979-03 Alameda UST Removal	Received: 11/15/2001 14:45
Sampled: 11/15/2001 11:22	Extracted: 11/16/2001 08:00
Matrix: Soil	QC-Batch: 2001/11/16-05.04

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	11	10	mg/Kg	1.00	11/20/2001 12:50	9
Benzene	ND	0.62	mg/Kg	1.00	11/20/2001 12:50	
Toluene	ND	0.62	mg/Kg	1.00	11/20/2001 12:50	
Ethyl benzene	ND	0.62	mg/Kg	1.00	11/20/2001 12:50	
Xylene(s)	ND	0.62	mg/Kg	1.00	11/20/2001 12:50	
<i>Surrogate(s)</i>						
Trifluorotoluene	99.1	53-125	%	1.00	11/20/2001 12:50	
4-Bromofluorobenzene-FID	86.4	58-124	%	1.00	11/20/2001 12:50	

Submission #: 2001-11-0323



Gas/BTEX Compounds (High Level)

Tetra Tech Inc SF

Test Method: 8021B
8015M

Attn: Gary Floyd

Prep Method: 5030

STL Chromalab
1220 Quarry Lane
Pleasanton, CA 94566

Sample ID: SAL111501-E	Lab Sample ID: 2001-11-0323-004
Project: 11979-03 Alameda UST Removal	Received: 11/15/2001 14:45
Sampled: 11/15/2001 11:35	Extracted: 11/16/2001 08:00
Matrix: Soil	QC-Batch: 2001/11/16-05.04

Tel 925 484 1918
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www.chromalab.com

CA DHS ELAP#1094

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	48	10	mg/Kg	1.00	11/16/2001 19:55	g
Benzene	ND	0.62	mg/Kg	1.00	11/16/2001 19:55	
Toluene	ND	0.62	mg/Kg	1.00	11/16/2001 19:55	
Ethyl benzene	ND	0.62	mg/Kg	1.00	11/16/2001 19:55	
Xylene(s)	ND	0.62	mg/Kg	1.00	11/16/2001 19:55	
<i>Surrogate(s)</i>						
Trifluorotoluene	63.5	53-125	%	1.00	11/16/2001 19:55	
4-Bromofluorobenzene-FID	79.2	58-124	%	1.00	11/16/2001 19:55	

GeoAnalytical Laboratories, Inc.

1405 Kansas Avenue Modesto, CA 95351 Phone (209) 572-0900 Fax (209) 572-0916

CERTIFICATE OF ANALYSIS

Report # M324-13

Date: 11/21/01

STL ChromaLab
1220 Quarry Lane
Pleasanton CA 94566-4756

Project: 2001-11-0323

PO#

Date Rec'd: 11/20/01
Date Started: 11/20/01
Date Completed: 11/21/01

Date Sampled: 11/15/01
Time:
Sampler:

Sample ID	Lab ID	RL	Method	Analyte	Results	Units
SAL111501-S	M203614	0.5	6010B	Cadmium	ND	mg/Kg
		1.0	6010B	Chromium	28	mg/Kg
		5.0	6010B	Lead	16	mg/Kg
		2.0	6010B	Zinc	53	mg/Kg
		2.0	6010B	Nickel	21	mg/Kg
SAL111501-N	M203615	0.5	6010B	Cadmium	ND	mg/Kg
		1.0	6010B	Chromium	39	mg/Kg
		5.0	6010B	Lead	20	mg/Kg
		2.0	6010B	Zinc	57	mg/Kg
		2.0	6010B	Nickel	68	mg/Kg
SAL111501-E	M203616	0.5	6010B	Cadmium	ND	mg/Kg
		1.0	6010B	Chromium	29	mg/Kg
		5.0	6010B	Lead	11	mg/Kg
		2.0	6010B	Zinc	43	mg/Kg
		2.0	6010B	Nickel	48	mg/Kg
SAL111501-W	M203617	0.5	6010B	Cadmium	ND	mg/Kg
		1.0	6010B	Chromium	21	mg/Kg
		5.0	6010B	Lead	8.8	mg/Kg
		2.0	6010B	Zinc	32	mg/Kg
		2.0	6010B	Nickel	22	mg/Kg
GAL111501-I	M203618	0.5	6010B	Cadmium	ND	mg/Kg
		1.0	6010B	Chromium	8.2	mg/Kg
		5.0	6010B	Lead	6.5	mg/Kg
		2.0	6010B	Zinc	30	mg/Kg
		2.0	6010B	Nickel	15	mg/Kg


Ramiro Salgado
Chemist

Certification # 1157


Donna Keller
Laboratory Director

Submission #: 2001-11-0323

Diesel

SEVERN
TRENT
SERVICES

Tetra Tech Inc SF
Attn: Gary Floyd

Test Method: 8015M
Prep Method: 3510/8015M
3550/8015M

STL Chromalab
1220 Quarry Lane
Pleasanton, CA 94566

Sample ID: SAL111501-S	Lab Sample ID: 2001-11-0323-002
Project: 11979-03 Alameda UST Removal	Received: 11/15/2001 14:45
Sampled: 11/15/2001 11:11	Extracted: 11/16/2001 15:31
Matrix: Soil	QC-Batch: 2001/11/16-08.10

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Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	140	1.0	mg/Kg	1.00	11/19/2001 20:46	ndp
Surrogate(s) o-Terphenyl	91.5	60-130	%	1.00	11/19/2001 20:46	

Submission #: 2001-11-0323



Diesel

Tetra Tech Inc SF

Attn: Gary Floyd

Test Method: 8015M

Prep Method: 3510/8015M

3550/8015M

STL Chromalab
1220 Quarry Lane
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www.chromalab.com

CA DHS ELAP#1094

Sample ID: SAL111501-N	Lab Sample ID: 2001-11-0323-003
Project: 11979-03 Alameda UST Removal	Received: 11/15/2001 14:45
Sampled: 11/15/2001 11:22	Extracted: 11/16/2001 15:31
Matrix: Soil	QC-Batch: 2001/11/16-08.10

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	210	1.0	mg/Kg	1.00	11/19/2001 21:24	ndp
<i>Surrogate(s)</i>						
o-Terphenyl	93.9	60-130	%	1.00	11/19/2001 21:24	

Submission #: 2001-11-0323

Diesel

Tetra Tech Inc SF

Attn: Gary Floyd

Test Method: 8015M

Prep Method: 3510/8015M

3550/8015M

SEVERN

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1220 Quarry Lane
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www.chromalab.com

CA DHS ELAP#1094

Sample ID: SAL111501-E	Lab Sample ID: 2001-11-0323-004
Project: 11979-03 Alameda UST Removal	Received: 11/15/2001 14:45
Sampled: 11/15/2001 11:35	Extracted: 11/16/2001 15:31
Matrix: Soil	QC-Batch: 2001/11/16-08.10

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	42	1.0	mg/Kg	1.00	11/19/2001 22:01	ndp
Surrogate(s) o-Terphenyl	88.1	60-130	%	1.00	11/19/2001 22:01	

Submission #: 2001-11-0323

Diesel

**SEVERN
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Tetra Tech Inc SF
Attn: Gary Floyd

Test Method: 8015M
Prep Method: 3510/8015M
3550/8015M

STL Chromalab
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www.chromalab.com

CA DHS ELAP#1094

Sample ID: SAL111501-W	Lab Sample ID: 2001-11-0323-005
Project: 11979-03 Alameda UST Removal	Received: 11/15/2001 14:45
Sampled: 11/15/2001 11:44	Extracted: 11/16/2001 15:31
Matrix: Soil	QC-Batch: 2001/11/16-08.10

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	ND	1.0	mg/Kg	1.00	11/19/2001 22:39	
Surrogate(s) o-Terphenyl	85.2	60-130	%	1.00	11/19/2001 22:39	

Submission #: 2001-11-0323



Semi-volatile analysis by GC/MS - EPA8270C

Tetra Tech Inc SF
Attn: Gary Floyd

Test Method: 8270C
Prep Method: 3550B/8270C

STL Chromalab
1220 Quarry Lane
Pleasanton, CA 94566

Sample ID: SAL111501-S	Lab Sample ID: 2001-11-0323-002
Project: 11979-03 Alameda UST Removal	Received: 11/15/2001 14:45
Sampled: 11/15/2001 11:11	Extracted: 11/20/2001 14:26
Matrix: Soil	QC-Batch: 2001/11/20-01.11

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www.chromalab.com

CA DHS ELAP#1094

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Phenol	ND	0.34	mg/Kg	5.00	11/26/2001 11:49	
Bis(2-chloroethyl)ether	ND	0.34	mg/Kg	5.00	11/26/2001 11:49	
2-Chlorophenol	ND	0.34	mg/Kg	5.00	11/26/2001 11:49	
1,3-Dichlorobenzene	ND	0.34	mg/Kg	5.00	11/26/2001 11:49	
1,4-Dichlorobenzene	ND	0.34	mg/Kg	5.00	11/26/2001 11:49	
Benzyl alcohol	ND	0.85	mg/Kg	5.00	11/26/2001 11:49	
1,2-Dichlorobenzene	ND	0.34	mg/Kg	5.00	11/26/2001 11:49	
2-Methylphenol	ND	0.34	mg/Kg	5.00	11/26/2001 11:49	
Bis(2-chloroisopropyl) ether	ND	0.34	mg/Kg	5.00	11/26/2001 11:49	
4-Methylphenol	ND	0.34	mg/Kg	5.00	11/26/2001 11:49	
N-Nitroso-di-n-propylamine	ND	0.34	mg/Kg	5.00	11/26/2001 11:49	
Hexachloroethane	ND	0.34	mg/Kg	5.00	11/26/2001 11:49	
Nitrobenzene	ND	0.34	mg/Kg	5.00	11/26/2001 11:49	
Isophorone	ND	0.34	mg/Kg	5.00	11/26/2001 11:49	
2-Nitrophenol	ND	0.34	mg/Kg	5.00	11/26/2001 11:49	
2,4-Dimethylphenol	ND	0.34	mg/Kg	5.00	11/26/2001 11:49	
Bis(2-chloroethoxy) methane	ND	0.85	mg/Kg	5.00	11/26/2001 11:49	
2,4-Dichlorophenol	ND	0.34	mg/Kg	5.00	11/26/2001 11:49	
1,2,4-Trichlorobenzene	ND	0.34	mg/Kg	5.00	11/26/2001 11:49	
Naphthalene	ND	0.34	mg/Kg	5.00	11/26/2001 11:49	
4-Chloroaniline	ND	0.34	mg/Kg	5.00	11/26/2001 11:49	
Hexachlorobutadiene	ND	0.34	mg/Kg	5.00	11/26/2001 11:49	
4-Chloro-3-methylphenol	ND	0.85	mg/Kg	5.00	11/26/2001 11:49	
2-Methylnaphthalene	1.8	0.34	mg/Kg	5.00	11/26/2001 11:49	
Hexachlorocyclopentadiene	ND	0.85	mg/Kg	5.00	11/26/2001 11:49	
2,4,6-Trichlorophenol	ND	0.34	mg/Kg	5.00	11/26/2001 11:49	
2,4,5-Trichlorophenol	ND	0.34	mg/Kg	5.00	11/26/2001 11:49	
2-Chloronaphthalene	ND	0.34	mg/Kg	5.00	11/26/2001 11:49	
2-Nitroaniline	ND	1.7	mg/Kg	5.00	11/26/2001 11:49	
Dimethyl phthalate	ND	0.85	mg/Kg	5.00	11/26/2001 11:49	
Acenaphthylene	ND	0.34	mg/Kg	5.00	11/26/2001 11:49	
3-Nitroaniline	ND	0.34	mg/Kg	5.00	11/26/2001 11:49	
Acenaphthene	ND	0.34	mg/Kg	5.00	11/26/2001 11:49	
2,4-Dinitrophenol	ND	1.7	mg/Kg	5.00	11/26/2001 11:49	
4-Nitrophenol	ND	1.7	mg/Kg	5.00	11/26/2001 11:49	
Dibenzofuran	ND	0.34	mg/Kg	5.00	11/26/2001 11:49	
2,4-Dinitrotoluene	ND	0.34	mg/Kg	5.00	11/26/2001 11:49	
2,6-Dinitrotoluene	ND	0.34	mg/Kg	5.00	11/26/2001 11:49	

Submission #: 2001-11-0323



Semi-volatile analysis by GC/MS - EPA8270C

Tetra Tech Inc SF

Test Method: 8270C

Attn: Gary Floyd

Prep Method: 3550B/8270C

STL Chromalab
1220 Quarry Lane
Pleasanton, CA 94566

Sample ID: SAL111501-S	Lab Sample ID: 2001-11-0323-002
Project: 11979-03 Alameda UST Removal	Received: 11/15/2001 14:45
Sampled: 11/15/2001 11:11	Extracted: 11/20/2001 14:26
Matrix: Soil	QC-Batch: 2001/11/20-01.11

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www.chromalab.com

CA DHS ELAP#1094

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diethyl phthalate	ND	0.85	mg/Kg	5.00	11/26/2001 11:49	
4-Chlorophenyl phenyl ether	ND	0.85	mg/Kg	5.00	11/26/2001 11:49	
Fluorene	ND	0.34	mg/Kg	5.00	11/26/2001 11:49	
4-Nitroaniline	ND	1.7	mg/Kg	5.00	11/26/2001 11:49	
2-Methyl-4,6-dinitrophenol	ND	1.7	mg/Kg	5.00	11/26/2001 11:49	
N-Nitrosodiphenylamine	ND	0.34	mg/Kg	5.00	11/26/2001 11:49	
4-Bromophenyl phenyl ether	ND	0.85	mg/Kg	5.00	11/26/2001 11:49	
Hexachlorobenzene	ND	0.34	mg/Kg	5.00	11/26/2001 11:49	
Pentachlorophenol	ND	1.7	mg/Kg	5.00	11/26/2001 11:49	
Phenanthrene	ND	0.34	mg/Kg	5.00	11/26/2001 11:49	
Anthracene	ND	0.34	mg/Kg	5.00	11/26/2001 11:49	
Di-n-butyl phthalate	ND	0.85	mg/Kg	5.00	11/26/2001 11:49	
Fluoranthene	ND	0.34	mg/Kg	5.00	11/26/2001 11:49	
Pyrene	ND	0.34	mg/Kg	5.00	11/26/2001 11:49	
Butyl benzyl phthalate	ND	0.85	mg/Kg	5.00	11/26/2001 11:49	
3,3-Dichlorobenzidine	ND	0.85	mg/Kg	5.00	11/26/2001 11:49	
Benzo(a)anthracene	ND	0.34	mg/Kg	5.00	11/26/2001 11:49	
bis(2-Ethylhexyl) phthalate	ND	1.7	mg/Kg	5.00	11/26/2001 11:49	
Chrysene	ND	0.34	mg/Kg	5.00	11/26/2001 11:49	
Di-n-octyl phthalate	ND	0.85	mg/Kg	5.00	11/26/2001 11:49	
Benzo(b)fluoranthene	ND	0.34	mg/Kg	5.00	11/26/2001 11:49	
Benzo(k)fluoranthene	ND	0.34	mg/Kg	5.00	11/26/2001 11:49	
Benzo(a)pyrene	ND	0.34	mg/Kg	5.00	11/26/2001 11:49	
Indeno(1,2,3-c,d)pyrene	ND	0.34	mg/Kg	5.00	11/26/2001 11:49	
Dibenzo(a,h)anthracene	ND	0.34	mg/Kg	5.00	11/26/2001 11:49	
Benzo(g,h,i)perylene	ND	0.34	mg/Kg	5.00	11/26/2001 11:49	
Benzoic acid	ND	1.7	mg/Kg	5.00	11/26/2001 11:49	
Surrogate(s)						
Nitrobenzene-d5	ND	23-120	%	5.00	11/26/2001 11:49	sl
2-Fluorobiphenyl	101.6	30-115	%	5.00	11/26/2001 11:49	
p-Terphenyl-d14	95.0	18-137	%	5.00	11/26/2001 11:49	
2-Fluorophenol	56.2	25-121	%	5.00	11/26/2001 11:49	
Phenol-d6	78.6	24-113	%	5.00	11/26/2001 11:49	
2,4,6-Tribromophenol	70.8	19-122	%	5.00	11/26/2001 11:49	

Submission #: 2001-11-0323

**SEVERN
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SERVICES**

Semi-volatile analysis by GC/MS - EPA8270C

Tetra Tech Inc SF

Test Method: 8270C

Attn: Gary Floyd

Prep Method: 3550B/8270C

STL Chromalab
1220 Quarry Lane
Pleasanton, CA 94566

Sample ID: SAL111501-N	Lab Sample ID: 2001-11-0323-003
Project: 11979-03 Alameda UST Removal	Received: 11/15/2001 14:45
	Extracted: 11/20/2001 14:26
Sampled: 11/15/2001 11:22	QC-Batch: 2001/11/20-01.11
Matrix: Soil	

Tel 925 484 1919
Fax 925 484 1096
www.stl-inc.com
www.chromalab.com

CA DHS ELAP#1094

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Phenol	ND	0.067	mg/Kg	1.00	11/22/2001 01:25	
Bis(2-chloroethyl)ether	ND	0.067	mg/Kg	1.00	11/22/2001 01:25	
2-Chlorophenol	ND	0.067	mg/Kg	1.00	11/22/2001 01:25	
1,3-Dichlorobenzene	ND	0.067	mg/Kg	1.00	11/22/2001 01:25	
1,4-Dichlorobenzene	ND	0.067	mg/Kg	1.00	11/22/2001 01:25	
Benzyl alcohol	ND	0.17	mg/Kg	1.00	11/22/2001 01:25	
1,2-Dichlorobenzene	ND	0.067	mg/Kg	1.00	11/22/2001 01:25	
2-Methylphenol	ND	0.067	mg/Kg	1.00	11/22/2001 01:25	
Bis(2-chloroisopropyl) ether	ND	0.067	mg/Kg	1.00	11/22/2001 01:25	
4-Methylphenol	ND	0.067	mg/Kg	1.00	11/22/2001 01:25	
N-Nitroso-di-n-propylamine	ND	0.067	mg/Kg	1.00	11/22/2001 01:25	
Hexachloroethane	ND	0.067	mg/Kg	1.00	11/22/2001 01:25	
Nitrobenzene	ND	0.067	mg/Kg	1.00	11/22/2001 01:25	
isophorone	ND	0.067	mg/Kg	1.00	11/22/2001 01:25	
2-Nitrophenol	ND	0.067	mg/Kg	1.00	11/22/2001 01:25	
2,4-Dimethylphenol	ND	0.067	mg/Kg	1.00	11/22/2001 01:25	
Bis(2-chloroethoxy) methane	ND	0.17	mg/Kg	1.00	11/22/2001 01:25	
2,4-Dichlorophenol	ND	0.067	mg/Kg	1.00	11/22/2001 01:25	
1,2,4-Trichlorobenzene	ND	0.067	mg/Kg	1.00	11/22/2001 01:25	
Naphthalene	ND	0.067	mg/Kg	1.00	11/22/2001 01:25	
4-Chloroaniline	ND	0.067	mg/Kg	1.00	11/22/2001 01:25	
Hexachlorobutadiene	ND	0.067	mg/Kg	1.00	11/22/2001 01:25	
4-Chloro-3-methylphenol	ND	0.17	mg/Kg	1.00	11/22/2001 01:25	
2-Methylnaphthalene	ND	0.067	mg/Kg	1.00	11/22/2001 01:25	
Hexachlorocyclopentadiene	ND	0.17	mg/Kg	1.00	11/22/2001 01:25	
2,4,6-Trichlorophenol	ND	0.067	mg/Kg	1.00	11/22/2001 01:25	
2,4,5-Trichlorophenol	ND	0.067	mg/Kg	1.00	11/22/2001 01:25	
2-Chloronaphthalene	ND	0.067	mg/Kg	1.00	11/22/2001 01:25	
2-Nitroaniline	ND	0.33	mg/Kg	1.00	11/22/2001 01:25	
Dimethyl phthalate	ND	0.17	mg/Kg	1.00	11/22/2001 01:25	
Acenaphthylene	ND	0.067	mg/Kg	1.00	11/22/2001 01:25	
3-Nitroaniline	ND	0.067	mg/Kg	1.00	11/22/2001 01:25	
Acenaphthene	ND	0.067	mg/Kg	1.00	11/22/2001 01:25	
2,4-Dinitrophenol	ND	0.33	mg/Kg	1.00	11/22/2001 01:25	
4-Nitrophenol	ND	0.33	mg/Kg	1.00	11/22/2001 01:25	
Dibenzofuran	ND	0.067	mg/Kg	1.00	11/22/2001 01:25	
2,4-Dinitrotoluene	ND	0.067	mg/Kg	1.00	11/22/2001 01:25	
2,6-Dinitrotoluene	ND	0.067	mg/Kg	1.00	11/22/2001 01:25	

Submission #: 2001-11-0323



Semi-volatile analysis by GC/MS - EPA8270C

Tetra Tech Inc SF
Attn: Gary Floyd

Test Method: 8270C
Prep Method: 3550B/8270C

STL Chromalab
1220 Quarry Lane
Pleasanton, CA 94566

Tel 925 484 1819
Fax 925 484 1096
www.stl-inc.com
www.chromalab.com
CA DHS ELAP#1094

Sample ID: SAL111501-N	Lab Sample ID: 2001-11-0323-003
Project: 11979-03 Alameda UST Removal	Received: 11/15/2001 14:45
Sampled: 11/15/2001 11:22	Extracted: 11/20/2001 14:26
Matrix: Soil	QC-Batch: 2001/11/20-01.11

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diethyl phthalate	ND	0.17	mg/Kg	1.00	11/22/2001 01:25	
4-Chlorophenyl phenyl ether	ND	0.17	mg/Kg	1.00	11/22/2001 01:25	
Fluorene	ND	0.067	mg/Kg	1.00	11/22/2001 01:25	
4-Nitroaniline	ND	0.33	mg/Kg	1.00	11/22/2001 01:25	
2-Methyl-4,6-dinitrophenol	ND	0.33	mg/Kg	1.00	11/22/2001 01:25	
N-Nitrosodiphenylamine	ND	0.067	mg/Kg	1.00	11/22/2001 01:25	
4-Bromophenyl phenyl ether	ND	0.17	mg/Kg	1.00	11/22/2001 01:25	
Hexachlorobenzene	ND	0.067	mg/Kg	1.00	11/22/2001 01:25	
Pentachlorophenol	ND	0.33	mg/Kg	1.00	11/22/2001 01:25	
Phenanthrene	ND	0.067	mg/Kg	1.00	11/22/2001 01:25	
Anthracene	ND	0.067	mg/Kg	1.00	11/22/2001 01:25	
Di-n-butyl phthalate	ND	0.17	mg/Kg	1.00	11/22/2001 01:25	
Fluoranthene	ND	0.067	mg/Kg	1.00	11/22/2001 01:25	
Pyrene	ND	0.067	mg/Kg	1.00	11/22/2001 01:25	
Butyl benzyl phthalate	ND	0.17	mg/Kg	1.00	11/22/2001 01:25	
3,3-Dichlorobenzidine	ND	0.17	mg/Kg	1.00	11/22/2001 01:25	
Benzo(a)anthracene	ND	0.067	mg/Kg	1.00	11/22/2001 01:25	
bis(2-Ethylhexyl) phthalate	ND	0.33	mg/Kg	1.00	11/22/2001 01:25	
Chrysene	ND	0.067	mg/Kg	1.00	11/22/2001 01:25	
Di-n-octyl phthalate	ND	0.17	mg/Kg	1.00	11/22/2001 01:25	
Benzo(b)fluoranthene	ND	0.067	mg/Kg	1.00	11/22/2001 01:25	
Benzo(k)fluoranthene	ND	0.067	mg/Kg	1.00	11/22/2001 01:25	
Benzo(a)pyrene	ND	0.067	mg/Kg	1.00	11/22/2001 01:25	
Indeno(1,2,3-c,d)pyrene	ND	0.067	mg/Kg	1.00	11/22/2001 01:25	
Dibenzo(a,h)anthracene	ND	0.067	mg/Kg	1.00	11/22/2001 01:25	
Benzo(g,h,i)perylene	ND	0.067	mg/Kg	1.00	11/22/2001 01:25	
Benzoic acid	ND	0.33	mg/Kg	1.00	11/22/2001 01:25	
Surrogate(s)						
Nitrobenzene-d5	76.0	23-120	%	1.00	11/22/2001 01:25	
2-Fluorobiphenyl	102.6	30-115	%	1.00	11/22/2001 01:25	
p-Terphenyl-d14	95.6	18-137	%	1.00	11/22/2001 01:25	
2-Fluorophenol	80.6	25-121	%	1.00	11/22/2001 01:25	
Phenol-d6	85.3	24-113	%	1.00	11/22/2001 01:25	
2,4,6-Tribromophenol	118.0	19-122	%	1.00	11/22/2001 01:25	

Submission #: 2001-11-0323



Semi-volatile analysis by GC/MS - EPA8270C

Tetra Tech Inc SF
Attn: Gary Floyd

Test Method: 8270C
Prep Method: 3550B/8270C

STL Chromalab
1220 Quarry Lane
Pleasanton, CA 94566

Tel 925 484 1919
Fax 925 484 1096
www.stl-inc.com
www.chromalab.com

CA DHS ELAP#1094

Sample ID: SAL111501-E	Lab Sample ID: 2001-11-0323-004
Project: 11979-03 Alameda UST Removal	Received: 11/15/2001 14:45
Sampled: 11/15/2001 11:35	Extracted: 11/20/2001 14:26
Matrix: Soil	QC-Batch: 2001/11/20-01.11

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Phenol	ND	0.067	mg/Kg	1.00	11/22/2001 01:54	
Bis(2-chloroethyl)ether	ND	0.067	mg/Kg	1.00	11/22/2001 01:54	
2-Chlorophenol	ND	0.067	mg/Kg	1.00	11/22/2001 01:54	
1,3-Dichlorobenzene	ND	0.067	mg/Kg	1.00	11/22/2001 01:54	
1,4-Dichlorobenzene	ND	0.067	mg/Kg	1.00	11/22/2001 01:54	
Benzyl alcohol	ND	0.17	mg/Kg	1.00	11/22/2001 01:54	
1,2-Dichlorobenzene	ND	0.067	mg/Kg	1.00	11/22/2001 01:54	
2-Methylphenol	ND	0.067	mg/Kg	1.00	11/22/2001 01:54	
Bis(2-chloroisopropyl) ether	ND	0.067	mg/Kg	1.00	11/22/2001 01:54	
4-Methylphenol	ND	0.067	mg/Kg	1.00	11/22/2001 01:54	
N-Nitroso-di-n-propylamine	ND	0.067	mg/Kg	1.00	11/22/2001 01:54	
Hexachloroethane	ND	0.067	mg/Kg	1.00	11/22/2001 01:54	
Nitrobenzene	ND	0.067	mg/Kg	1.00	11/22/2001 01:54	
Isophorone	ND	0.067	mg/Kg	1.00	11/22/2001 01:54	
2-Nitrophenol	ND	0.067	mg/Kg	1.00	11/22/2001 01:54	
2,4-Dimethylphenol	ND	0.067	mg/Kg	1.00	11/22/2001 01:54	
Bis(2-chloroethoxy) methane	ND	0.17	mg/Kg	1.00	11/22/2001 01:54	
2,4-Dichlorophenol	ND	0.067	mg/Kg	1.00	11/22/2001 01:54	
1,2,4-Trichlorobenzene	ND	0.067	mg/Kg	1.00	11/22/2001 01:54	
Naphthalene	ND	0.067	mg/Kg	1.00	11/22/2001 01:54	
4-Chloroaniline	ND	0.067	mg/Kg	1.00	11/22/2001 01:54	
Hexachlorobutadiene	ND	0.067	mg/Kg	1.00	11/22/2001 01:54	
4-Chloro-3-methylphenol	ND	0.17	mg/Kg	1.00	11/22/2001 01:54	
2-Methylnaphthalene	ND	0.067	mg/Kg	1.00	11/22/2001 01:54	
Hexachlorocyclopentadiene	ND	0.17	mg/Kg	1.00	11/22/2001 01:54	
2,4,6-Trichlorophenol	ND	0.067	mg/Kg	1.00	11/22/2001 01:54	
2,4,5-Trichlorophenol	ND	0.067	mg/Kg	1.00	11/22/2001 01:54	
2-Chloronaphthalene	ND	0.067	mg/Kg	1.00	11/22/2001 01:54	
2-Nitroaniline	ND	0.33	mg/Kg	1.00	11/22/2001 01:54	
Dimethyl phthalate	ND	0.17	mg/Kg	1.00	11/22/2001 01:54	
Acanaphthylene	ND	0.067	mg/Kg	1.00	11/22/2001 01:54	
3-Nitroaniline	ND	0.067	mg/Kg	1.00	11/22/2001 01:54	
Acanaphthene	ND	0.067	mg/Kg	1.00	11/22/2001 01:54	
2,4-Dinitrophenol	ND	0.33	mg/Kg	1.00	11/22/2001 01:54	
4-Nitrophenol	ND	0.33	mg/Kg	1.00	11/22/2001 01:54	
Dibenzofuran	ND	0.067	mg/Kg	1.00	11/22/2001 01:54	
2,4-Dinitrotoluene	ND	0.067	mg/Kg	1.00	11/22/2001 01:54	
2,6-Dinitrotoluene	ND	0.067	mg/Kg	1.00	11/22/2001 01:54	

Submission #: 2001-11-0323



Semi-volatile analysis by GC/MS - EPA8270C

Tetra Tech Inc SF
Attn: Gary Floyd

Test Method: 8270C
Prep Method: 3550B/8270C

STL Chromalab
1220 Quarry Lane
Pleasanton, CA 94566

Tel 925 484 1919
Fax 925 484 1096
www.stl-inc.com
www.chromelab.com

CADHS ELAP#1094

Sample ID: SAL111501-E	Lab Sample ID: 2001-11-0323-004
Project: 11979-03 Alameda UST Removal	Received: 11/15/2001 14:45
Sampled: 11/15/2001 11:35	Extracted: 11/20/2001 14:26
Matrix: Soil	QC-Batch: 2001/11/20-01.11

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diethyl phthalate	ND	0.17	mg/Kg	1.00	11/22/2001 01:54	
4-Chlorophenyl phenyl ether	ND	0.17	mg/Kg	1.00	11/22/2001 01:54	
Fluorene	ND	0.067	mg/Kg	1.00	11/22/2001 01:54	
4-Nitroaniline	ND	0.33	mg/Kg	1.00	11/22/2001 01:54	
2-Methyl-4,6-dinitrophenol	ND	0.33	mg/Kg	1.00	11/22/2001 01:54	
N-Nitrosodiphenylamine	ND	0.067	mg/Kg	1.00	11/22/2001 01:54	
4-Bromophenyl phenyl ether	ND	0.17	mg/Kg	1.00	11/22/2001 01:54	
Hexachlorobenzene	ND	0.067	mg/Kg	1.00	11/22/2001 01:54	
Pentachlorophenol	ND	0.33	mg/Kg	1.00	11/22/2001 01:54	
Phenanthrene	ND	0.067	mg/Kg	1.00	11/22/2001 01:54	
Anthracene	ND	0.067	mg/Kg	1.00	11/22/2001 01:54	
Di-n-butyl phthalate	ND	0.17	mg/Kg	1.00	11/22/2001 01:54	
Fluoranthene	ND	0.067	mg/Kg	1.00	11/22/2001 01:54	
Pyrene	ND	0.067	mg/Kg	1.00	11/22/2001 01:54	
Butyl benzyl phthalate	ND	0.17	mg/Kg	1.00	11/22/2001 01:54	
3,3-Dichlorobenzidine	ND	0.17	mg/Kg	1.00	11/22/2001 01:54	
Benzo(a)anthracene	ND	0.067	mg/Kg	1.00	11/22/2001 01:54	
bis(2-Ethylhexyl) phthalate	ND	0.33	mg/Kg	1.00	11/22/2001 01:54	
Chrysene	ND	0.067	mg/Kg	1.00	11/22/2001 01:54	
Di-n-octyl phthalate	ND	0.17	mg/Kg	1.00	11/22/2001 01:54	
Benzo(b)fluoranthene	ND	0.067	mg/Kg	1.00	11/22/2001 01:54	
Benzo(k)fluoranthene	ND	0.067	mg/Kg	1.00	11/22/2001 01:54	
Benzo(a)pyrene	ND	0.067	mg/Kg	1.00	11/22/2001 01:54	
Indeno(1,2,3-c,d)pyrene	ND	0.067	mg/Kg	1.00	11/22/2001 01:54	
Dibenzo(a,h)anthracene	ND	0.067	mg/Kg	1.00	11/22/2001 01:54	
Benzo(g,h,i)perylene	ND	0.067	mg/Kg	1.00	11/22/2001 01:54	
Benzoic acid	ND	0.33	mg/Kg	1.00	11/22/2001 01:54	
Surrogate(s)						
Nitrobenzene-d5	74.2	23-120	%	1.00	11/22/2001 01:54	
2-Fluorobiphenyl	103.5	30-115	%	1.00	11/22/2001 01:54	
p-Terphenyl-d14	92.8	18-137	%	1.00	11/22/2001 01:54	
2-Fluorophenol	79.9	25-121	%	1.00	11/22/2001 01:54	
Phenol-d6	85.8	24-113	%	1.00	11/22/2001 01:54	
2,4,6-Tribromophenol	117.7	19-122	%	1.00	11/22/2001 01:54	

Submission #: 2001-11-0323



Semi-volatile analysis by GC/MS - EPA8270C

Tetra Tech Inc SF

Test Method: 8270C

Attn: Gary Floyd

Prep Method: 3550B/8270C

STL Chromalab
1220 Quarry Lane
Pleasanton, CA 94566

Sample ID: SAL111501-W	Lab Sample ID: 2001-11-0323-005
Project: 11979-03 Alameda UST Removal	Received: 11/15/2001 14:45
Sampled: 11/15/2001 11:44	Extracted: 11/20/2001 14:26
Matrix: Soil	QC-Batch: 2001/11/20-01.11

Tel 925 484 1919
Fax 925 484 1096
www.stl-inc.com
www.chromalab.com

CA DHS ELAP#1094

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Phenol	ND	0.067	mg/Kg	1.00	11/22/2001 02:23	
Bis(2-chloroethyl)ether	ND	0.067	mg/Kg	1.00	11/22/2001 02:23	
2-Chlorophenol	ND	0.067	mg/Kg	1.00	11/22/2001 02:23	
1,3-Dichlorobenzene	ND	0.067	mg/Kg	1.00	11/22/2001 02:23	
1,4-Dichlorobenzene	ND	0.067	mg/Kg	1.00	11/22/2001 02:23	
Benzyl alcohol	ND	0.17	mg/Kg	1.00	11/22/2001 02:23	
1,2-Dichlorobenzene	ND	0.067	mg/Kg	1.00	11/22/2001 02:23	
2-Methylphenol	ND	0.067	mg/Kg	1.00	11/22/2001 02:23	
Bis(2-chloroisopropyl) ether	ND	0.067	mg/Kg	1.00	11/22/2001 02:23	
4-Methylphenol	ND	0.067	mg/Kg	1.00	11/22/2001 02:23	
N-Nitroso-di-n-propylamine	ND	0.067	mg/Kg	1.00	11/22/2001 02:23	
Hexachloroethane	ND	0.067	mg/Kg	1.00	11/22/2001 02:23	
Nitrobenzene	ND	0.067	mg/Kg	1.00	11/22/2001 02:23	
Isophorone	ND	0.067	mg/Kg	1.00	11/22/2001 02:23	
2-Nitrophenol	ND	0.067	mg/Kg	1.00	11/22/2001 02:23	
2,4-Dimethylphenol	ND	0.067	mg/Kg	1.00	11/22/2001 02:23	
Bis(2-chloroethoxy) methane	ND	0.17	mg/Kg	1.00	11/22/2001 02:23	
2,4-Dichlorophenol	ND	0.067	mg/Kg	1.00	11/22/2001 02:23	
1,2,4-Trichlorobenzene	ND	0.067	mg/Kg	1.00	11/22/2001 02:23	
Naphthalene	ND	0.067	mg/Kg	1.00	11/22/2001 02:23	
4-Chloroaniline	ND	0.067	mg/Kg	1.00	11/22/2001 02:23	
Hexachlorobutadiene	ND	0.067	mg/Kg	1.00	11/22/2001 02:23	
4-Chloro-3-methylphenol	ND	0.17	mg/Kg	1.00	11/22/2001 02:23	
2-Methylnaphthalene	ND	0.067	mg/Kg	1.00	11/22/2001 02:23	
Hexachlorocyclopentadiene	ND	0.17	mg/Kg	1.00	11/22/2001 02:23	
2,4,6-Trichlorophenol	ND	0.067	mg/Kg	1.00	11/22/2001 02:23	
2,4,5-Trichlorophenol	ND	0.067	mg/Kg	1.00	11/22/2001 02:23	
2-Chloronaphthalene	ND	0.067	mg/Kg	1.00	11/22/2001 02:23	
2-Nitroaniline	ND	0.33	mg/Kg	1.00	11/22/2001 02:23	
Dimethyl phthalate	ND	0.17	mg/Kg	1.00	11/22/2001 02:23	
Acenaphthylene	ND	0.067	mg/Kg	1.00	11/22/2001 02:23	
3-Nitroaniline	ND	0.067	mg/Kg	1.00	11/22/2001 02:23	
Acenaphthene	ND	0.067	mg/Kg	1.00	11/22/2001 02:23	
2,4-Dinitrophenol	ND	0.33	mg/Kg	1.00	11/22/2001 02:23	
4-Nitrophenol	ND	0.33	mg/Kg	1.00	11/22/2001 02:23	
Dibenzofuran	ND	0.067	mg/Kg	1.00	11/22/2001 02:23	
2,4-Dinitrotoluene	ND	0.067	mg/Kg	1.00	11/22/2001 02:23	
2,6-Dinitrotoluene	ND	0.067	mg/Kg	1.00	11/22/2001 02:23	

Submission #: 2001-11-0323



Semi-volatile analysis by GC/MS - EPA8270C

Tetra Tech Inc SF
Attn: Gary Floyd

Test Method: 8270C
Prep Method: 3550B/8270C

STL Chromalab
1220 Quary Lane
Pleasanton, CA 94566

Sample ID: SAL111501-W	Lab Sample ID: 2001-11-0323-005
Project: 11979-03 Alameda UST Removal	Received: 11/15/2001 14:45
Sampled: 11/15/2001 11:44	Extracted: 11/20/2001 14:26
Matrix: Soil	QC-Batch: 2001/11/20-01.11

Tel 925 484 1919
Fax 925 484 1096
www.stl-inc.com
www.chromalab.com

CA DHS ELAP#1094

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diethyl phthalate	ND	0.17	mg/Kg	1.00	11/22/2001 02:23	
4-Chlorophenyl phenyl ether	ND	0.17	mg/Kg	1.00	11/22/2001 02:23	
Fluorene	ND	0.067	mg/Kg	1.00	11/22/2001 02:23	
4-Nitroaniline	ND	0.33	mg/Kg	1.00	11/22/2001 02:23	
2-Methyl-4,6-dinitrophenol	ND	0.33	mg/Kg	1.00	11/22/2001 02:23	
N-Nitrosodiphenylamine	ND	0.067	mg/Kg	1.00	11/22/2001 02:23	
4-Bromophenyl phenyl ether	ND	0.17	mg/Kg	1.00	11/22/2001 02:23	
Hexachlorobenzene	ND	0.067	mg/Kg	1.00	11/22/2001 02:23	
Pentachlorophenol	ND	0.33	mg/Kg	1.00	11/22/2001 02:23	
Phenanthrene	ND	0.067	mg/Kg	1.00	11/22/2001 02:23	
Anthracene	ND	0.067	mg/Kg	1.00	11/22/2001 02:23	
Di-n-butyl phthalate	ND	0.17	mg/Kg	1.00	11/22/2001 02:23	
Fluoranthene	ND	0.067	mg/Kg	1.00	11/22/2001 02:23	
Pyrene	ND	0.067	mg/Kg	1.00	11/22/2001 02:23	
Butyl benzyl phthalate	ND	0.17	mg/Kg	1.00	11/22/2001 02:23	
3,3-Dichlorobenzidine	ND	0.17	mg/Kg	1.00	11/22/2001 02:23	
Benzo(a)anthracene	ND	0.067	mg/Kg	1.00	11/22/2001 02:23	
bis(2-Ethylhexyl) phthalate	ND	0.33	mg/Kg	1.00	11/22/2001 02:23	
Chrysene	ND	0.067	mg/Kg	1.00	11/22/2001 02:23	
Di-n-octyl phthalate	ND	0.17	mg/Kg	1.00	11/22/2001 02:23	
Benzo(b)fluoranthene	ND	0.067	mg/Kg	1.00	11/22/2001 02:23	
Benzo(k)fluoranthene	ND	0.067	mg/Kg	1.00	11/22/2001 02:23	
Benzo(a)pyrene	ND	0.067	mg/Kg	1.00	11/22/2001 02:23	
Indeno(1,2,3-c,d)pyrene	ND	0.067	mg/Kg	1.00	11/22/2001 02:23	
Dibenzo(a,h)anthracene	ND	0.067	mg/Kg	1.00	11/22/2001 02:23	
Benzo(g,h,i)perylene	ND	0.067	mg/Kg	1.00	11/22/2001 02:23	
Benzoic acid	ND	0.33	mg/Kg	1.00	11/22/2001 02:23	
Surrogate(s)						
Nitrobenzene-d5	68.2	23-120	%	1.00	11/22/2001 02:23	
2-Fluorobiphenyl	81.0	30-115	%	1.00	11/22/2001 02:23	
p-Terphenyl-d14	88.9	18-137	%	1.00	11/22/2001 02:23	
2-Fluorophenol	74.9	25-121	%	1.00	11/22/2001 02:23	
Phenol-d6	78.2	24-113	%	1.00	11/22/2001 02:23	
2,4,6-Tribromophenol	104.8	19-122	%	1.00	11/22/2001 02:23	

Submission #: 2001-11-0323



Fuel Oxygenates by 8260B

Tetra Tech Inc SF
Attn: Gary Floyd

Test Method: 8260B
Prep Method: 5030B

STL Chromalab
1220 Quarry Lane
Pleasanton, CA 94566

Tel 925 484 1919
Fax 925 484 1096
www.stl-inc.com
www.chromalab.com

CA DHS ELAP#1094

Sample ID: SAL111501-N	Lab Sample ID: 2001-11-0323-003
Project: 11979-03 Alameda UST Removal	Received: 11/15/2001 14:45
	Extracted: 11/28/2001 13:59
Sampled: 11/15/2001 11:22	QC-Batch: 2001/11/28-02.27
Matrix: Soil	

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
tert-Butyl alcohol (TBA)	ND	5.0	ug/Kg	1.00	11/28/2001 13:59	
Methyl tert-butyl ether (MTBE)	ND	5.0	ug/Kg	1.00	11/28/2001 13:59	
Di-isopropyl Ether (DIPE)	ND	10	ug/Kg	1.00	11/28/2001 13:59	
Ethyl tert-butyl ether (ETBE)	ND	5.0	ug/Kg	1.00	11/28/2001 13:59	
tert-Amyl methyl ether (TAME)	ND	5.0	ug/Kg	1.00	11/28/2001 13:59	
Surrogate(s)						
1,2-Dichloroethane-d4	116.6	70-121	%	1.00	11/28/2001 13:59	

Submission #: 2001-11-0323

Fuel Oxygenates by 8260B

Tetra Tech Inc SF
Attn: Gary Floyd

Test Method: 8260B
Prep Method: 5030B



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CA DHS ELAP#1094

Sample ID: SAL111501-E	Lab Sample ID: 2001-11-0323-004
Project: 11979-03 Alameda UST Removal	Received: 11/15/2001 14:45
Sampled: 11/15/2001 11:35	Extracted: 11/28/2001 15:08
Matrix: Soil	QC-Batch: 2001/11/28-02.27

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
tert-Butyl alcohol (TBA)	ND	5.0	ug/Kg	1.00	11/28/2001 15:08	
Methyl tert-butyl ether (MTBE)	ND	5.0	ug/Kg	1.00	11/28/2001 15:08	
Di-isopropyl Ether (DIPE)	ND	10	ug/Kg	1.00	11/28/2001 15:08	
Ethyl tert-butyl ether (ETBE)	ND	5.0	ug/Kg	1.00	11/28/2001 15:08	
tert-Amyl methyl ether (TAME)	ND	5.0	ug/Kg	1.00	11/28/2001 15:08	
Surrogate(s)						
1,2-Dichloroethane-d4	106.0	70-121	%	1.00	11/28/2001 15:08	

Submission #: 2001-11-0323

Fuel Oxygenates by 8260B

Tetra Tech Inc SF
Attn: Gary Floyd

Test Method: 8260B
Prep Method: 5030B



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CA DHS ELAP#1094

Sample ID: SAL111501-W	Lab Sample ID: 2001-11-0323-005
Project: 11979-03 Alameda UST Removal	Received: 11/15/2001 14:45
Sampled: 11/15/2001 11:44	Extracted: 11/16/2001 23:20
Matrix: Soil	QC-Batch: 2001/11/16-01.27

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
tert-Butyl alcohol (TBA)	ND	5.0	ug/Kg	1.00	11/16/2001 23:20	
Methyl tert-butyl ether (MTBE)	ND	5.0	ug/Kg	1.00	11/16/2001 23:20	
Di-isopropyl Ether (DIPE)	ND	10	ug/Kg	1.00	11/16/2001 23:20	
Ethyl tert-butyl ether (ETBE)	ND	5.0	ug/Kg	1.00	11/16/2001 23:20	
tert-Amyl methyl ether (TAME)	ND	5.0	ug/Kg	1.00	11/16/2001 23:20	
Surrogate(s)						
1,2-Dichloroethane-d4	113.9	70-121	%	1.00	11/16/2001 23:20	

Submission #: 2001-11-0323

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Fuel Oxygenates by 8260B

Tetra Tech Inc SF
Attn: Gary Floyd

Test Method: 8260B
Prep Method: 5030B

STL Chromalab
1220 Quarry Lane
Pleasanton, CA 94566

Sample ID: SAL111501-S	Lab Sample ID: 2001-11-0323-002
Project: 11979-03 Alameda UST Removal	Received: 11/15/2001 14:45
Sampled: 11/15/2001 11:11	Extracted: 11/28/2001 14:24
Matrix: Soil	QC-Batch: 2001/11/28-02.27
Sample/Analysis Flag: Im (See Legend & Note section)	

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CA DHS ELAP#1094

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
tert-Butyl alcohol (TBA)	ND	25	ug/Kg	5.00	11/28/2001 14:24	
Methyl tert-butyl ether (MTBE)	ND	25	ug/Kg	5.00	11/28/2001 14:24	
Di-isopropyl Ether (DIPE)	ND	50	ug/Kg	5.00	11/28/2001 14:24	
Ethyl tert-butyl ether (ETBE)	ND	25	ug/Kg	5.00	11/28/2001 14:24	
tert-Amyl methyl ether (TAME)	ND	25	ug/Kg	5.00	11/28/2001 14:24	
Surrogate(s)						
1,2-Dichloroethane-d4	110.3	70-121	%	1.00	11/28/2001 14:24	

Submission #: 2001-11-0323



Volatile Organic Compounds by 8260B (High Level)

Tetra Tech Inc SF
Attn: Gary Floyd

Test Method: 8260B
Prep Method: 5035

STL Chromalab
1220 Quarry Lane
Pleasanton, CA 94586

Sample ID: SAL111501-S	Lab Sample ID: 2001-11-0323-002
Project: 11979-03 Alameda UST Removal	Received: 11/15/2001 14:45
Sampled: 11/15/2001 11:11	Extracted: 11/20/2001 17:40
Matrix: Soil	QC-Batch: 2001/11/19-01.07

Tel 925 484 1919
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CA DHS ELAP#1094

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
MTBE	ND	2500	ug/Kg	200.00	11/20/2001 17:40	
Acetone	ND	25000	ug/Kg	200.00	11/20/2001 17:40	
Benzene	ND	250	ug/Kg	200.00	11/20/2001 17:40	
Bromodichloromethane	ND	250	ug/Kg	200.00	11/20/2001 17:40	
Bromoform	ND	250	ug/Kg	200.00	11/20/2001 17:40	
Bromomethane	ND	500	ug/Kg	200.00	11/20/2001 17:40	
Carbon tetrachloride	ND	250	ug/Kg	200.00	11/20/2001 17:40	
Chlorobenzene	ND	250	ug/Kg	200.00	11/20/2001 17:40	
Chloroethane	ND	500	ug/Kg	200.00	11/20/2001 17:40	
2-Butanone(MEK)	ND	25000	ug/Kg	200.00	11/20/2001 17:40	
2-Chloroethylvinyl ether	ND	250	ug/Kg	200.00	11/20/2001 17:40	
Chloroform	ND	250	ug/Kg	200.00	11/20/2001 17:40	
Chloromethane	ND	500	ug/Kg	200.00	11/20/2001 17:40	
Dibromochloromethane	ND	250	ug/Kg	200.00	11/20/2001 17:40	
1,2-Dichlorobenzene	ND	250	ug/Kg	200.00	11/20/2001 17:40	
1,3-Dichlorobenzene	ND	250	ug/Kg	200.00	11/20/2001 17:40	
1,4-Dichlorobenzene	ND	250	ug/Kg	200.00	11/20/2001 17:40	
1,3-Dichloropropane	ND	250	ug/Kg	200.00	11/20/2001 17:40	
2,2-Dichloropropane	ND	250	ug/Kg	200.00	11/20/2001 17:40	
1,1-Dichloropropene	ND	250	ug/Kg	200.00	11/20/2001 17:40	
1,2-Dibromo-3-chloropropane	ND	2500	ug/Kg	200.00	11/20/2001 17:40	
1,2-Dibromoethane	ND	250	ug/Kg	200.00	11/20/2001 17:40	
Dibromomethane	ND	250	ug/Kg	200.00	11/20/2001 17:40	
Dichlorodifluoromethane	ND	250	ug/Kg	200.00	11/20/2001 17:40	
1,1-Dichloroethane	ND	250	ug/Kg	200.00	11/20/2001 17:40	
1,2-Dichloroethane	ND	250	ug/Kg	200.00	11/20/2001 17:40	
1,1-Dichloroethene	ND	250	ug/Kg	200.00	11/20/2001 17:40	
cis-1,2-Dichloroethene	ND	250	ug/Kg	200.00	11/20/2001 17:40	
trans-1,2-Dichloroethene	ND	250	ug/Kg	200.00	11/20/2001 17:40	
1,2-Dichloropropane	ND	250	ug/Kg	200.00	11/20/2001 17:40	
cis-1,3-Dichloropropene	ND	250	ug/Kg	200.00	11/20/2001 17:40	
trans-1,3-Dichloropropene	ND	250	ug/Kg	200.00	11/20/2001 17:40	
Ethylbenzene	ND	250	ug/Kg	200.00	11/20/2001 17:40	
Hexachlorobutadiene	ND	250	ug/Kg	200.00	11/20/2001 17:40	
2-Hexanone	ND	25000	ug/Kg	200.00	11/20/2001 17:40	
Methylene chloride	ND	2500	ug/Kg	200.00	11/20/2001 17:40	
4-Methyl-2-pentanone (MIBK)	ND	25000	ug/Kg	200.00	11/20/2001 17:40	
Naphthalene	3000	250	ug/Kg	200.00	11/20/2001 17:40	

Submission #: 2001-11-0323



Volatile Organic Compounds by 8260B (High Level)

Tetra Tech Inc SF
Attn: Gary Floyd

Test Method: 8260B
Prep Method: 5035

STL Chromalab
1220 Quarry Lane
Pleasanton, CA 94566

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CA DHS ELAP#1094

Sample ID: SAL111501-S	Lab Sample ID: 2001-11-0323-002
Project: 11979-03 Alameda UST Removal	Received: 11/15/2001 14:45
Sampled: 11/15/2001 11:11	Extracted: 11/20/2001 17:40
Matrix: Soil	QC-Batch: 2001/11/19-01.07

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Styrene	ND	250	ug/Kg	200.00	11/20/2001 17:40	
1,1,2,2-Tetrachloroethane	ND	250	ug/Kg	200.00	11/20/2001 17:40	
Tetrachloroethene	ND	250	ug/Kg	200.00	11/20/2001 17:40	
Toluene	ND	250	ug/Kg	200.00	11/20/2001 17:40	
1,1,1-Trichloroethane	ND	250	ug/Kg	200.00	11/20/2001 17:40	
1,1,2-Trichloroethane	6000	250	ug/Kg	200.00	11/20/2001 17:40	
Trichloroethene	ND	250	ug/Kg	200.00	11/20/2001 17:40	
1,1,1,2-Tetrachloroethane	ND	250	ug/Kg	200.00	11/20/2001 17:40	
Vinyl acetate	ND	2500	ug/Kg	200.00	11/20/2001 17:40	
Vinyl chloride	ND	250	ug/Kg	200.00	11/20/2001 17:40	
Total xylenes	ND	500	ug/Kg	200.00	11/20/2001 17:40	
Trichlorotrifluoroethane	ND	250	ug/Kg	200.00	11/20/2001 17:40	
Carbon disulfide	ND	500	ug/Kg	200.00	11/20/2001 17:40	
Isopropylbenzene	ND	250	ug/Kg	200.00	11/20/2001 17:40	
Bromobenzene	ND	250	ug/Kg	200.00	11/20/2001 17:40	
Bromochloromethane	ND	250	ug/Kg	200.00	11/20/2001 17:40	
Trichlorofluoromethane	ND	1000	ug/Kg	200.00	11/20/2001 17:40	
1,2,3-Trichlorobenzene	ND	250	ug/Kg	200.00	11/20/2001 17:40	
1,2,4-Trichlorobenzene	ND	250	ug/Kg	200.00	11/20/2001 17:40	
1,2,4-Trimethylbenzene	1700	250	ug/Kg	200.00	11/20/2001 17:40	
1,3,5-Trimethylbenzene	ND	250	ug/Kg	200.00	11/20/2001 17:40	
2-Chlorotoluene	ND	250	ug/Kg	200.00	11/20/2001 17:40	
4-Chlorotoluene	ND	250	ug/Kg	200.00	11/20/2001 17:40	
n-Butylbenzene	2300	250	ug/Kg	200.00	11/20/2001 17:40	
n-Propylbenzene	ND	250	ug/Kg	200.00	11/20/2001 17:40	
p-Isopropyltoluene	960	250	ug/Kg	200.00	11/20/2001 17:40	
sec-Butylbenzene	990	250	ug/Kg	200.00	11/20/2001 17:40	
tert-Butylbenzene	ND	250	ug/Kg	200.00	11/20/2001 17:40	
Surrogate(s)						
4-Bromofluorobenzene	107.2	74-121	%	200.00	11/20/2001 17:40	
1,2-Dichloroethane-d4	96.5	70-121	%	200.00	11/20/2001 17:40	
Toluene-d8	88.7	81-117	%	200.00	11/20/2001 17:40	

Submission #: 2001-11-0323



Volatile Organic Compounds by 8260B (High Level)

Tetra Tech Inc SF
Attn: Gary Floyd

Test Method: 8260B
Prep Method: 5035

STL Chromalab
1220 Quarry Lane
Pleasanton, CA 94566

Sample ID: SAL111501-E	Lab Sample ID: 2001-11-0323-004
Project: 11979-03 Alameda UST Removal	Received: 11/15/2001 14:45
Sampled: 11/15/2001 11:35	Extracted: 11/20/2001 18:04
Matrix: Soil	QC-Batch: 2001/11/19-01.07
Sample/Analysis Flag: Im (See Legend & Note section)	

Tel 925 484 1919
Fax 925 484 1098
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CA DHS ELAP#1094

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
MTBE	ND	2500	ug/Kg	200.00	11/20/2001 18:04	
Acetone	ND	25000	ug/Kg	200.00	11/20/2001 18:04	
Benzene	ND	250	ug/Kg	200.00	11/20/2001 18:04	
Bromodichloromethane	ND	250	ug/Kg	200.00	11/20/2001 18:04	
Bromoform	ND	250	ug/Kg	200.00	11/20/2001 18:04	
Bromomethane	ND	500	ug/Kg	200.00	11/20/2001 18:04	
Carbon tetrachloride	ND	250	ug/Kg	200.00	11/20/2001 18:04	
Chlorobenzene	ND	250	ug/Kg	200.00	11/20/2001 18:04	
Chloroethane	ND	500	ug/Kg	200.00	11/20/2001 18:04	
2-Butanone(MEK)	ND	25000	ug/Kg	200.00	11/20/2001 18:04	
2-Chloroethylvinyl ether	ND	250	ug/Kg	200.00	11/20/2001 18:04	
Chloroform	ND	250	ug/Kg	200.00	11/20/2001 18:04	
Chloromethane	ND	500	ug/Kg	200.00	11/20/2001 18:04	
Dibromochloromethane	ND	250	ug/Kg	200.00	11/20/2001 18:04	
1,2-Dichlorobenzene	ND	250	ug/Kg	200.00	11/20/2001 18:04	
1,3-Dichlorobenzene	ND	250	ug/Kg	200.00	11/20/2001 18:04	
1,4-Dichlorobenzene	ND	250	ug/Kg	200.00	11/20/2001 18:04	
1,3-Dichloropropane	ND	250	ug/Kg	200.00	11/20/2001 18:04	
2,2-Dichloropropane	ND	250	ug/Kg	200.00	11/20/2001 18:04	
1,1-Dichloropropene	ND	250	ug/Kg	200.00	11/20/2001 18:04	
1,2-Dibromo-3-chloropropane	ND	2500	ug/Kg	200.00	11/20/2001 18:04	
1,2-Dibromoethane	ND	250	ug/Kg	200.00	11/20/2001 18:04	
Dibromomethane	ND	250	ug/Kg	200.00	11/20/2001 18:04	
Dichlorodifluoromethane	ND	250	ug/Kg	200.00	11/20/2001 18:04	
1,1-Dichloroethane	ND	250	ug/Kg	200.00	11/20/2001 18:04	
1,2-Dichloroethane	ND	250	ug/Kg	200.00	11/20/2001 18:04	
1,1-Dichloroethene	ND	250	ug/Kg	200.00	11/20/2001 18:04	
cis-1,2-Dichloroethene	ND	250	ug/Kg	200.00	11/20/2001 18:04	
trans-1,2-Dichloroethene	ND	250	ug/Kg	200.00	11/20/2001 18:04	
1,2-Dichloropropane	ND	250	ug/Kg	200.00	11/20/2001 18:04	
cis-1,3-Dichloropropene	ND	250	ug/Kg	200.00	11/20/2001 18:04	
trans-1,3-Dichloropropene	ND	250	ug/Kg	200.00	11/20/2001 18:04	
Ethylbenzene	ND	250	ug/Kg	200.00	11/20/2001 18:04	
Hexachlorobutadiene	ND	250	ug/Kg	200.00	11/20/2001 18:04	
2-Hexanone	ND	25000	ug/Kg	200.00	11/20/2001 18:04	
Methylene chloride	ND	2500	ug/Kg	200.00	11/20/2001 18:04	
4-Methyl-2-pentanone (MIBK)	ND	25000	ug/Kg	200.00	11/20/2001 18:04	

Submission #: 2001-11-0323



Volatile Organic Compounds by 8260B (High Level)

Tetra Tech Inc SF
Attn: Gary Floyd

Test Method: 8260B
Prep Method: 5035

STL Chromalab
1220 Quarry Lane
Pleasanton, CA 94566

Sample ID: SAL111501-E	Lab Sample ID: 2001-11-0323-004
Project: 11979-03 Alameda UST Removal	Received: 11/15/2001 14:45
Sampled: 11/15/2001 11:35	Extracted: 11/20/2001 18:04
Matrix: Soil	QC-Batch: 2001/11/19-01.07
Sample/Analysis Flag: In (See Legend & Note section)	

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CA DHS ELAP#1094

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Naphthalene	ND	250	ug/Kg	200.00	11/20/2001 18:04	
Styrene	ND	250	ug/Kg	200.00	11/20/2001 18:04	
1,1,2,2-Tetrachloroethane	ND	250	ug/Kg	200.00	11/20/2001 18:04	
Tetrachloroethene	ND	250	ug/Kg	200.00	11/20/2001 18:04	
Toluene	ND	250	ug/Kg	200.00	11/20/2001 18:04	
1,1,1-Trichloroethane	ND	250	ug/Kg	200.00	11/20/2001 18:04	
1,1,2-Trichloroethane	ND	250	ug/Kg	200.00	11/20/2001 18:04	
Trichloroethene	ND	250	ug/Kg	200.00	11/20/2001 18:04	
1,1,1,2-Tetrachloroethane	ND	250	ug/Kg	200.00	11/20/2001 18:04	
Vinyl acetate	ND	2500	ug/Kg	200.00	11/20/2001 18:04	
Vinyl chloride	ND	250	ug/Kg	200.00	11/20/2001 18:04	
Total xylenes	ND	500	ug/Kg	200.00	11/20/2001 18:04	
Trichlorotrifluoroethane	ND	250	ug/Kg	200.00	11/20/2001 18:04	
Carbon disulfide	ND	500	ug/Kg	200.00	11/20/2001 18:04	
Isopropylbenzene	ND	250	ug/Kg	200.00	11/20/2001 18:04	
Bromobenzene	ND	250	ug/Kg	200.00	11/20/2001 18:04	
Bromochloromethane	ND	250	ug/Kg	200.00	11/20/2001 18:04	
Trichlorofluoromethane	ND	1000	ug/Kg	200.00	11/20/2001 18:04	
1,2,3-Trichlorobenzene	ND	250	ug/Kg	200.00	11/20/2001 18:04	
1,2,4-Trichlorobenzene	ND	250	ug/Kg	200.00	11/20/2001 18:04	
1,2,4-Trimethylbenzene	ND	250	ug/Kg	200.00	11/20/2001 18:04	
1,3,5-Trimethylbenzene	ND	250	ug/Kg	200.00	11/20/2001 18:04	
2-Chlorotoluene	ND	250	ug/Kg	200.00	11/20/2001 18:04	
4-Chlorotoluene	ND	250	ug/Kg	200.00	11/20/2001 18:04	
n-Butylbenzene	ND	250	ug/Kg	200.00	11/20/2001 18:04	
n-Propylbenzene	ND	250	ug/Kg	200.00	11/20/2001 18:04	
p-Isopropyltoluene	ND	250	ug/Kg	200.00	11/20/2001 18:04	
sec-Butylbenzene	ND	250	ug/Kg	200.00	11/20/2001 18:04	
tert-Butylbenzene	ND	250	ug/Kg	200.00	11/20/2001 18:04	
<i>Surrogate(s)</i>						
4-Bromofluorobenzene	88.9	74-121	%	200.00	11/20/2001 18:04	
1,2-Dichloroethane-d4	91.2	70-121	%	200.00	11/20/2001 18:04	
Toluene-d8	83.1	81-117	%	200.00	11/20/2001 18:04	

Submission #: 2001-11-0323



Volatile OrganicCompounds by 8260B

Tetra Tech Inc SF
Attn: Gary Floyd

Test Method: 8260B
Prep Method: 5035

STL Chromalab
1220 Quarry Lane
Pleasanton, CA 94566

Sample ID: SAL111501-N	Lab Sample ID: 2001-11-0323-003
Project: 11979-03 Alameda UST Removal	Received: 11/15/2001 14:45
Sampled: 11/15/2001 11:22	Extracted: 11/16/2001 15:46
Matrix: Soil	QC-Batch: 2001/11/16-01.06

Tel 925 484 1919
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www.chromalab.com

CA DHS ELAP#1094

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
MTBE	ND	5.0	ug/Kg	1.00	11/16/2001 15:46	
Acetone	ND	50	ug/Kg	1.00	11/16/2001 15:46	
Benzene	ND	5.0	ug/Kg	1.00	11/16/2001 15:46	
Bromodichloromethane	ND	5.0	ug/Kg	1.00	11/16/2001 15:46	
Bromobenzene	ND	5.0	ug/Kg	1.00	11/16/2001 15:46	
Bromochloromethane	ND	20	ug/Kg	1.00	11/16/2001 15:46	
Bromoform	ND	5.0	ug/Kg	1.00	11/16/2001 15:46	
Bromomethane	ND	10	ug/Kg	1.00	11/16/2001 15:46	
2-Butanone(MEK)	ND	50	ug/Kg	1.00	11/16/2001 15:46	
n-Butylbenzene	ND	5.0	ug/Kg	1.00	11/16/2001 15:46	
sec-Butylbenzene	ND	5.0	ug/Kg	1.00	11/16/2001 15:46	
tert-Butylbenzene	ND	5.0	ug/Kg	1.00	11/16/2001 15:46	
Carbon disulfide	ND	5.0	ug/Kg	1.00	11/16/2001 15:46	
Carbon tetrachloride	ND	5.0	ug/Kg	1.00	11/16/2001 15:46	
Chlorobenzene	ND	5.0	ug/Kg	1.00	11/16/2001 15:46	
Chloroethane	ND	10	ug/Kg	1.00	11/16/2001 15:46	
2-Chloroethylvinyl ether	ND	50	ug/Kg	1.00	11/16/2001 15:46	
Chloroform	ND	5.0	ug/Kg	1.00	11/16/2001 15:46	
Chloromethane	ND	10	ug/Kg	1.00	11/16/2001 15:46	
2-Chlorotoluene	ND	5.0	ug/Kg	1.00	11/16/2001 15:46	
4-Chlorotoluene	ND	5.0	ug/Kg	1.00	11/16/2001 15:46	
Dibromochloromethane	ND	5.0	ug/Kg	1.00	11/16/2001 15:46	
1,2-Dichlorobenzene	ND	5.0	ug/Kg	1.00	11/16/2001 15:46	
1,3-Dichlorobenzene	ND	5.0	ug/Kg	1.00	11/16/2001 15:46	
1,4-Dichlorobenzene	ND	5.0	ug/Kg	1.00	11/16/2001 15:46	
1,3-Dichloropropane	ND	5.0	ug/Kg	1.00	11/16/2001 15:46	
2,2-Dichloropropane	ND	5.0	ug/Kg	1.00	11/16/2001 15:46	
1,1-Dichloropropene	ND	5.0	ug/Kg	1.00	11/16/2001 15:46	
1,2-Dibromo-3-chloropropane	ND	50	ug/Kg	1.00	11/16/2001 15:46	
1,2-Dibromoethane (EDB)	ND	10	ug/Kg	1.00	11/16/2001 15:46	
Dibromomethane	ND	10	ug/Kg	1.00	11/16/2001 15:46	
Dichlorodifluoromethane	ND	10	ug/Kg	1.00	11/16/2001 15:46	
1,1-Dichloroethane	ND	5.0	ug/Kg	1.00	11/16/2001 15:46	
1,2-Dichloroethane	ND	5.0	ug/Kg	1.00	11/16/2001 15:46	
1,1-Dichloroethene	ND	5.0	ug/Kg	1.00	11/16/2001 15:46	
cis-1,2-Dichloroethene	ND	5.0	ug/Kg	1.00	11/16/2001 15:46	
trans-1,2-Dichloroethene	ND	5.0	ug/Kg	1.00	11/16/2001 15:46	
1,2-Dichloropropane	ND	5.0	ug/Kg	1.00	11/16/2001 15:46	

Submission #: 2001-11-0323



Volatile Organic Compounds by 8260B

Tetra Tech Inc SF

Attn: Gary Floyd

Test Method: 8260B

Prep Method: 5035

STL Chromalab
1220 Quarry Lane
Pleasanton, CA 94566

Tel 925 484 1919
Fax 925 484 1096
www.stl-inc.com
www.chromalab.com

CA DHS ELAP#1094

Sample ID: SAL111501-N	Lab Sample ID: 2001-11-0323-003
Project: 11979-03 Alameda UST Removal	Received: 11/15/2001 14:45
Sampled: 11/15/2001 11:22	Extracted: 11/16/2001 15:46
Matrix: Soil	QC-Batch: 2001/11/16-01.06

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
cis-1,3-Dichloropropene	ND	5.0	ug/Kg	1.00	11/16/2001 15:46	
trans-1,3-Dichloropropene	ND	5.0	ug/Kg	1.00	11/16/2001 15:46	
Ethylbenzene	ND	5.0	ug/Kg	1.00	11/16/2001 15:46	
Hexachlorobutadiene	ND	5.0	ug/Kg	1.00	11/16/2001 15:46	
2-Hexanone	ND	50	ug/Kg	1.00	11/16/2001 15:46	
Isopropylbenzene	ND	5.0	ug/Kg	1.00	11/16/2001 15:46	
p-Isopropyltoluene	ND	5.0	ug/Kg	1.00	11/16/2001 15:46	
Methylene chloride	ND	5.0	ug/Kg	1.00	11/16/2001 15:46	
4-Methyl-2-pentanone (MIBK)	ND	50	ug/Kg	1.00	11/16/2001 15:46	
Naphthalene	ND	10	ug/Kg	1.00	11/16/2001 15:46	
n-Propylbenzene	ND	5.0	ug/Kg	1.00	11/16/2001 15:46	
Styrene	ND	5.0	ug/Kg	1.00	11/16/2001 15:46	
1,1,1,2-Tetrachloroethane	ND	5.0	ug/Kg	1.00	11/16/2001 15:46	
1,1,2,2-Tetrachloroethane	ND	5.0	ug/Kg	1.00	11/16/2001 15:46	
Tetrachloroethene	ND	5.0	ug/Kg	1.00	11/16/2001 15:46	
Toluene	ND	5.0	ug/Kg	1.00	11/16/2001 15:46	
1,2,3-Trichlorobenzene	ND	5.0	ug/Kg	1.00	11/16/2001 15:46	
1,2,4-Trichlorobenzene	ND	5.0	ug/Kg	1.00	11/16/2001 15:46	
1,1,1-Trichloroethane	ND	5.0	ug/Kg	1.00	11/16/2001 15:46	
1,1,2-Trichloroethane	ND	5.0	ug/Kg	1.00	11/16/2001 15:46	
Trichloroethene	ND	5.0	ug/Kg	1.00	11/16/2001 15:46	
Trichlorofluoromethane	ND	5.0	ug/Kg	1.00	11/16/2001 15:46	
Trichlorotrifluoroethane	ND	5.0	ug/Kg	1.00	11/16/2001 15:46	
1,2,4-Trimethylbenzene	9.4	5.0	ug/Kg	1.00	11/16/2001 15:46	
1,3,5-Trimethylbenzene	ND	5.0	ug/Kg	1.00	11/16/2001 15:46	
Vinyl acetate	ND	50	ug/Kg	1.00	11/16/2001 15:46	
Vinyl chloride	ND	5.0	ug/Kg	1.00	11/16/2001 15:46	
Total xylenes	ND	5.0	ug/Kg	1.00	11/16/2001 15:46	
Surrogate(s)						
4-Bromofluorobenzene	87.3	74-121	%	1.00	11/16/2001 15:46	
1,2-Dichloroethane-d4	93.2	70-121	%	1.00	11/16/2001 15:46	
Toluene-d8	92.6	81-117	%	1.00	11/16/2001 15:46	

Submission #: 2001-11-0323



Volatile Organic Compounds by 8260B

Tetra Tech Inc SF
Attn: Gary Floyd

Test Method: 8260B
Prep Method: 5035

STL Chromalab
1220 Quarry Lane
Pleasanton, CA 94566

Sample ID: SAL111501-W	Lab Sample ID: 2001-11-0323-005
Project: 11979-03 Alameda UST Removal	Received: 11/15/2001 14:45
Sampled: 11/15/2001 11:44	Extracted: 11/16/2001 14:34
Matrix: Soil	QC-Batch: 2001/11/16-01.06

Tel 925 484 1919
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www.stl-inc.com
www.chromalab.com

CA DHS ELAP#1094

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
MTBE	ND	5.0	ug/Kg	1.00	11/16/2001 14:34	
Acetone	ND	50	ug/Kg	1.00	11/16/2001 14:34	
Benzene	ND	5.0	ug/Kg	1.00	11/16/2001 14:34	
Bromodichloromethane	ND	5.0	ug/Kg	1.00	11/16/2001 14:34	
Bromobenzene	ND	5.0	ug/Kg	1.00	11/16/2001 14:34	
Bromochloromethane	ND	20	ug/Kg	1.00	11/16/2001 14:34	
Bromoform	ND	5.0	ug/Kg	1.00	11/16/2001 14:34	
Bromomethane	ND	10	ug/Kg	1.00	11/16/2001 14:34	
2-Butanone(MEK)	ND	50	ug/Kg	1.00	11/16/2001 14:34	
n-Butylbenzene	ND	5.0	ug/Kg	1.00	11/16/2001 14:34	
sec-Butylbenzene	ND	5.0	ug/Kg	1.00	11/16/2001 14:34	
tert-Butylbenzene	ND	5.0	ug/Kg	1.00	11/16/2001 14:34	
Carbon disulfide	ND	5.0	ug/Kg	1.00	11/16/2001 14:34	
Carbon tetrachloride	ND	5.0	ug/Kg	1.00	11/16/2001 14:34	
Chlorobenzene	ND	5.0	ug/Kg	1.00	11/16/2001 14:34	
Chloroethane	ND	10	ug/Kg	1.00	11/16/2001 14:34	
2-Chloroethylvinyl ether	ND	50	ug/Kg	1.00	11/16/2001 14:34	
Chloroform	ND	5.0	ug/Kg	1.00	11/16/2001 14:34	
Chloromethane	ND	10	ug/Kg	1.00	11/16/2001 14:34	
2-Chlorotoluene	ND	5.0	ug/Kg	1.00	11/16/2001 14:34	
4-Chlorotoluene	ND	5.0	ug/Kg	1.00	11/16/2001 14:34	
Dibromochloromethane	ND	5.0	ug/Kg	1.00	11/16/2001 14:34	
1,2-Dichlorobenzene	ND	5.0	ug/Kg	1.00	11/16/2001 14:34	
1,3-Dichlorobenzene	ND	5.0	ug/Kg	1.00	11/16/2001 14:34	
1,4-Dichlorobenzene	ND	5.0	ug/Kg	1.00	11/16/2001 14:34	
1,3-Dichloropropane	ND	5.0	ug/Kg	1.00	11/16/2001 14:34	
2,2-Dichloropropane	ND	5.0	ug/Kg	1.00	11/16/2001 14:34	
1,1-Dichloropropene	ND	5.0	ug/Kg	1.00	11/16/2001 14:34	
1,2-Dibromo-3-chloropropane	ND	50	ug/Kg	1.00	11/16/2001 14:34	
1,2-Dibromoethane (EDB)	ND	10	ug/Kg	1.00	11/16/2001 14:34	
Dibromomethane	ND	10	ug/Kg	1.00	11/16/2001 14:34	
Dichlorodifluoromethane	ND	10	ug/Kg	1.00	11/16/2001 14:34	
1,1-Dichloroethane	ND	5.0	ug/Kg	1.00	11/16/2001 14:34	
1,2-Dichloroethane	ND	5.0	ug/Kg	1.00	11/16/2001 14:34	
1,1-Dichloroethene	ND	5.0	ug/Kg	1.00	11/16/2001 14:34	
cis-1,2-Dichloroethene	ND	5.0	ug/Kg	1.00	11/16/2001 14:34	
trans-1,2-Dichloroethene	ND	5.0	ug/Kg	1.00	11/16/2001 14:34	
1,2-Dichloropropane	ND	5.0	ug/Kg	1.00	11/16/2001 14:34	

Submission #: 2001-11-0323



Volatile Organic Compounds by 8260B

Tetra Tech Inc SF
Attn: Gary Floyd

Test Method: 8260B
Prep Method: 5035

STL Chromalab
1220 Quarry Lane
Pleasanton, CA 94566

Sample ID: SAL111501-W	Lab Sample ID: 2001-11-0323-005
Project: 11979-03 Alameda UST Removal	Received: 11/15/2001 14:45
Sampled: 11/15/2001 11:44	Extracted: 11/16/2001 14:34
Matrix: Soil	QC-Batch: 2001/11/16-01.06

Tel 925 484 1919
Fax 925 484 1096
www.stl-inc.com
www.chromalab.com

CA DHS ELAP#1094

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
cis-1,3-Dichloropropene	ND	5.0	ug/Kg	1.00	11/16/2001 14:34	
trans-1,3-Dichloropropene	ND	5.0	ug/Kg	1.00	11/16/2001 14:34	
Ethylbenzene	ND	5.0	ug/Kg	1.00	11/16/2001 14:34	
Hexachlorobutadiene	ND	5.0	ug/Kg	1.00	11/16/2001 14:34	
2-Hexanone	ND	50	ug/Kg	1.00	11/16/2001 14:34	
Isopropylbenzene	ND	5.0	ug/Kg	1.00	11/16/2001 14:34	
p-Isopropyltoluene	ND	5.0	ug/Kg	1.00	11/16/2001 14:34	
Methylene chloride	ND	5.0	ug/Kg	1.00	11/16/2001 14:34	
4-Methyl-2-pentanone (MIBK)	ND	50	ug/Kg	1.00	11/16/2001 14:34	
Naphthalene	ND	10	ug/Kg	1.00	11/16/2001 14:34	
n-Propylbenzene	ND	5.0	ug/Kg	1.00	11/16/2001 14:34	
Styrene	ND	5.0	ug/Kg	1.00	11/16/2001 14:34	
1,1,1,2-Tetrachloroethane	ND	5.0	ug/Kg	1.00	11/16/2001 14:34	
1,1,2,2-Tetrachloroethane	ND	5.0	ug/Kg	1.00	11/16/2001 14:34	
Tetrachloroethene	ND	5.0	ug/Kg	1.00	11/16/2001 14:34	
Toluene	ND	5.0	ug/Kg	1.00	11/16/2001 14:34	
1,2,3-Trichlorobenzene	ND	5.0	ug/Kg	1.00	11/16/2001 14:34	
1,2,4-Trichlorobenzene	ND	5.0	ug/Kg	1.00	11/16/2001 14:34	
1,1,1-Trichloroethane	ND	5.0	ug/Kg	1.00	11/16/2001 14:34	
1,1,2-Trichloroethane	ND	5.0	ug/Kg	1.00	11/16/2001 14:34	
Trichloroethene	ND	5.0	ug/Kg	1.00	11/16/2001 14:34	
Trichlorofluoromethane	ND	5.0	ug/Kg	1.00	11/16/2001 14:34	
Trichlorotrifluoroethane	ND	5.0	ug/Kg	1.00	11/16/2001 14:34	
1,2,4-Trimethylbenzene	ND	5.0	ug/Kg	1.00	11/16/2001 14:34	
1,3,5-Trimethylbenzene	ND	5.0	ug/Kg	1.00	11/16/2001 14:34	
Vinyl acetate	ND	50	ug/Kg	1.00	11/16/2001 14:34	
Vinyl chloride	ND	5.0	ug/Kg	1.00	11/16/2001 14:34	
Total xylenes	ND	5.0	ug/Kg	1.00	11/16/2001 14:34	
Surrogate(s)						
4-Bromofluorobenzene	98.7	74-121	%	1.00	11/16/2001 14:34	
1,2-Dichloroethane-d4	94.8	70-121	%	1.00	11/16/2001 14:34	
Toluene-d8	93.0	81-117	%	1.00	11/16/2001 14:34	

Submission #: 2001-11-0323



Oil & Grease (Total) by EPA 1664

Tetra Tech Inc SF
Attn: Gary Floyd

Test Method: 1664
Prep Method: 1664

STL Chromalab
1220 Quarry Lane
Pleasanton, CA 94566

Sample ID: SAL111501-S	Lab Sample ID: 2001-11-0323-002
Project: 11979-03 Alameda UST Removal	Received: 11/15/2001 14:45
Sampled: 11/15/2001 11:11	Extracted: 11/20/2001 08:52
Matrix: Soil	QC-Batch: 2001/11/20-01.23

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www.chromalab.com
CA DHS ELAP#1094

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Oil & Grease (total)	1800	50	mg/Kg	1.00	11/20/2001	

Submission #: 2001-11-0323



Oil & Grease (Total) by EPA 1664

Tetra Tech Inc SF
Attn: Gary Floyd

Test Method: 1664
Prep Method: 1664

STL Chromalab
1220 Quarry Lane
Pleasanton, CA 94566

Sample ID: SAL111501-N	Lab Sample ID: 2001-11-0323-003
Project: 11979-03 Alameda UST Removal	Received: 11/15/2001 14:45
Sampled: 11/15/2001 11:22	Extracted: 11/20/2001 08:52
Matrix: Soil	QC-Batch: 2001/11/20-01.23

Tel 925 484 1919
Fax 925 484 1096
www.stl-inc.com
www.chromalab.com

CA DHS ELAP#1094

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Oil & Grease (total)	ND	50	mg/Kg	1.00	11/20/2001	

Submission #: 2001-11-0323



Oil & Grease (Total) by EPA 1664

Tetra Tech Inc SF

Test Method: 1664

Attn: Gary Floyd

Prep Method: 1664

STL Chromalab
1220 Quarry Lane
Pleasanton, CA 94566

Sample ID: SAL111501-E	Lab Sample ID: 2001-11-0323-004
Project: 11979-03 Alameda UST Removal	Received: 11/15/2001 14:45
Sampled: 11/15/2001 11:35	Extracted: 11/20/2001 08:52
Matrix: Soil	QC-Batch: 2001/11/20-01.23

Tel 925 484 1919
Fax 925 484 1096
www.stl-inc.com
www.chromalab.com

CA DHS ELAP#1094

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Oil & Grease (total)	130	50	mg/Kg	1.00	11/20/2001	

Submission #: 2001-11-0323



Oil & Grease (Total) by EPA 1664

Tetra Tech Inc SF
Attn: Gary Floyd

Test Method: 1664
Prep Method: 1664

STL Chromalab
1220 Quarry Lane
Pleasanton, CA 94566

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www.chromalab.com

CA DHS ELAP#1094

Sample ID:	SAL111501-W	Lab Sample ID:	2001-11-0323-005
Project:	11979-03 Alameda UST Removal	Received:	11/15/2001 14:45
Sampled:	11/15/2001 11:44	Extracted:	11/20/2001 08:52
Matrix:	Soil	QC-Batch:	2001/11/20-01.23

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Oil & Grease (total)	ND	50	mg/Kg	1.00	11/20/2001	

Table 3. Soil Sampling Results (continued)

Sample ID	Sample Depth (feet bgs)	Date Sampled	Polychlorinated Biphenyls (EPA Method 8082) (all concentrations in µg/kg)						
			PCB-1016	PCB-1221	PCB-1232	PCB-1242	PCB-1248	PCB-1254	PCB-1260
AI-SB01-10	10	2/14/2008	<49	<49	<49	<49	<49	<49	<49
AI-SB01-18	18	2/14/2008	<49	<49	<49	<49	<49	<49	<49
AI-SB02-10	10	2/14/2008	<50	<50	<50	<50	<50	<50	<50
AI-SB02-25	25	2/14/2008	<50	<50	<50	<50	<50	<50	<50
AI-SB03-12	12	2/14/2008	<49	<49	<49	<49	<49	<49	<49
AI-SB03-20	20	2/14/2008	<49	<49	<49	<49	<49	<49	<49
AI-SB05-10	10	2/14/2008	<49	<49	<49	<49	<49	<49	<49
AI-SB05-20	20	2/14/2008	<49	<49	<49	<49	<49	<49	<49
AI-SB06-10	10	2/15/2008	<50	<50	<50	<50	<50	<50	<50
AI-SB06-15	15	2/15/2008	<50	<50	<50	<50	<50	<50	<50
AI-SB06-20	20	2/15/2008	<50	<50	<50	<50	<50	<50	<50
AI-SB03a-10	10	2/15/2008	<50	<50	<50	<50	<50	<50	<50
AI-SB03a-15	15	2/15/2008	<50	<50	<50	<50	<50	<50	<50
AI-SB03a-20	20	2/15/2008	<50	<50	<50	<50	<50	<50	<50
AI-SB03a-25	25	2/15/2008	<50	<50	<50	<50	<50	<50	<50
AI-SB03a-30	30	2/15/2008	<50	<50	<50	<50	<50	<50	<50
AI-SB03a-35	35	2/15/2008	<50	<50	<50	<50	<50	<50	<50
AI-SB07-10	10	2/15/2008	<50	<50	<50	<50	<50	<50	<50
AI-SB07-15	15	2/15/2008	<50	<50	<50	<50	<50	<50	<50
AI-SB27-15	15	2/15/2008	<50	<50	<50	<50	<50	<50	<50
Number of Analysis									
Number of Detections			0	0	0	0	0	0	0
Minimum Concentration			0	0	0	0	0	0	0
Maximum Concentration			0	0	0	0	0	0	0
ESL			220	220	220	220	220	220	220
EPA SL			3,900	170	170	220	220	220	220
Exceedances			0	0	0	0	0	0	0

Notes:

All concentrations reported above the reporting limit are highlighted in bold.
 All estimated (J-qualified) concentrations reported above the ESL are highlighted in bold. All other estimated concentrations are not highlighted in bold.

- = Concentration not available*

< = not detected

µg/kg = micrograms per kilogram

B = blank detection

bgs = below ground surface

EPA = (U.S.) Environmental Protection Agency

ESL = environmental screening level (San Francisco Bay Regional Water Quality Control Board, 2008)

J = Estimated concentration above the method detection limit but below the reporting limit

mg/kg = milligrams per kilogram

PCB = polychlorinated biphenyl

SL = "Screening Levels for Chemical Contaminants" (EPA, 2006b)

TPH = total petroleum hydrocarbons

TETRA TECH, INC.

TETRA TECH, INC.
180 Howard Street, Suite 250
San Francisco, CA 94105-1661

CHAIN OF CUSTODY
63131
TT _____

Client Tetra Tech, Inc.	Project Name Alameda UST Removal	Destination Chromolab
Address 180 Howard Street, Suite 250, San Francisco, CA 941	Project Number 11979-03	Address 1220 Quarry Lane
Phone (415) 974-1221 Fax (415) 974-5914	Project Manager Gary Floyd	Tel (925) 484-1919 Fax
Contact Dick Brunner	Field Contact Tatjana Gruner Phone 415.974.1221	Contact Surinder Sidhu (Ba-3p) Vincent (Bq-6p)
Sampler Tatjana Gruner Sampler <i>T. Gruner</i>	Sample date(s) 11/15/2001	Turn Around Time STANDARD RUSH

ANALYTICAL PROCEDURES

Sample Description	Date	Time	Depth (feet)	*Media	# of Containers	Pres.	Field Filtered (y/n)	TPH-D (USEPA 8015 mod)	TPH-G (USEPA 8015 mod)	BTEX (USEPA 8260)	Oil & Grease (USEPA 5520.D&E)	Oxygenates (USEPA 8260)	Chlorinated Hydrocarbons (USEPA 8260)	Semivolatile organic compounds (USEPA 8270)	Metals (Cd, Cr, Pb, Zn, Ni) (USEPA 6010)	8082 PCB	Comments	Lab ID.#
WAL 111501	11/15/01	1030	9	GW	11	Y	-	X	X	X	X	X	X	X	X	X		
SAL 111501 S	11/15/01	1111	8	S	2	-	-	X	X	X	X	X	X	X	X	X		
SAL 111501 N	11/15/01	1122	8	S	2	-	-	X	X	X	X	X	X	X	X	X		
SAL 111501 E	11/15/01	1135	8	S	2	-	-	X	X	X	X	X	X	X	X	X		
SAL 111501 W	11/15/01	1144	8	S	2	-	-	X	X	X	X	X	X	X	X	X		
GAL 111501 1	11/15/01	1245	1	G	1	-	-	X	X	X	X	X	X	X	X	X		
GAL 111501 2	11/15/01	1245	1	G	1	-	-	X	X	X	X	X	X	X	X	X		
GAL 111501 3	11/15/01	1245	1	G	1	-	-	X	X	X	X	X	X	X	X	X		
GAL 111501 4	11/15/01	1245	1	G	1	-	-	X	X	X	X	X	X	X	X	X		
GAL 111501 E	11/15/01	1245	1	G	1	-	-	X	X	X	X	X	X	X	X	X		COMPOSITE OF 4 samples

RUSH

172 HR

TUESDAY

Relinquished by <i>T. Gruner</i>	Date/Time 11/15/01 1445	Received By <i>[Signature]</i>	Date/Time 11/15/01 1445	Condition Received Cold Sealed Intact	*MEDIA CODE Soil S Concrete C
Relinquished by <i>[Signature]</i>	Date/Time	Received By <i>[Signature]</i>	Date/Time 11/15/01 1445	Condition Received Cold Sealed Intact	Wipe F Surface Water SW
Shipping Method	No. of Packages	Shipping Number			Wood WO Ground Water GW
					Sludge SL Compost CO
					Soil Gas SG GRAVEL G

REMARKS

Table 3.5
Summary of Detected Analytes in Water Sample
Underground Storage Tank Removal at Building 44
US Coast Guard Integrated Support Command
Alameda, California

Sample ID	Location ID	Sample Date	Depth (feet)	TPH results			Metals			
				TPH-gasoline ug/l	TPH-diesel ug/l	Oil & Grease mg/l	Chromium mg/l	Lead mg/l	Nickel mg/l	Zinc mg/l
WAL111501	9	11/15/2001	9	190 ^g	100,000 ^{ndp}	41	0.08	<0.01	0.14	0.86
Analyses				1	1	1	1	1	1	1
Detections				1	1	1	1	0	1	1

Note: The sample depth was measured from the top of the open excavation.
g = Hydrocarbon reported in the gasoline range does not match laboratories gasoline standard.
ndp = Hydrocarbon reported does not match the pattern of laboratories diesel standard.

ATTACHMENT 4

Submission #: 2001-11-0323

Diesel



Tetra Tech Inc SF
Attn: Gary Floyd

Test Method: 8015M
Prep Method: 3510/8015M
3550/8015M

STL Chromalab
1220 Quarry Lane
Pleasanton, CA 94566

Tel 925 484 1919
Fax 925 484 1086
www.stl-inc.com
www.chromalab.com

CA DHS ELAP#1094

Sample ID: WAL111501	Lab Sample ID: 2001-11-0323-001
Project: 11979-03 Alameda UST Removal	Received: 11/15/2001 14:45
Sampled: 11/15/2001 10:30	Extracted: 11/16/2001 18:14
Matrix: Water	QC-Batch: 2001/11/16-04.10

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	100000	5000	ug/L	100.00	11/20/2001 11:24	ndp
Surrogate(s) o-Terphenyl	NA	60-130	%	100.00	11/20/2001 11:24	sd

Submission #: 2001-11-0323

Gas/BTEX by 8015M/8021

SEVERN
TRENT
SERVICES

Tetra Tech Inc SF

Test Method: 8021B
8015M

STL Chromalab
1220 Quarry Lane
Pleasanton, CA 94586

Attn: Gary Floyd

Prep Method: 5030
5035

Tel 925 484 1919
Fax 925 484 1096
www.stl-inc.com
www.chromalab.com

CA DHS ELAP#1094

Sample ID: WAL111501	Lab Sample ID: 2001-11-0323-001
Project: 11979-03 Alameda UST Removal	Received: 11/15/2001 14:45
Sampled: 11/15/2001 10:30	Extracted: 11/20/2001 10:45
Matrix: Water	QC-Batch: 2001/11/20-01.01

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	190	50	ug/L	1.00	11/20/2001 10:45	g
Benzene	ND	0.50	ug/L	1.00	11/20/2001 10:45	
Toluene	ND	0.50	ug/L	1.00	11/20/2001 10:45	
Ethyl benzene	ND	0.50	ug/L	1.00	11/20/2001 10:45	
Xylene(s)	ND	0.50	ug/L	1.00	11/20/2001 10:45	
<i>Surrogate(s)</i>						
Trifluorotoluene	92.3	58-124	%	1.00	11/20/2001 10:45	
4-Bromofluorobenzene-FID	68.2	50-150	%	1.00	11/20/2001 10:45	

Submission #: 2001-11-0323



Fuel Oxygenates by 8260B

Tetra Tech Inc SF
Attn: Gary Floyd

Test Method: 8260B
Prep Method: 5030B

STL Chromalab
1220 Quarry Lane
Pleasanton, CA 94566

Tel 925 484 1919
Fax 925 484 1096
www.stl-inc.com
www.chromalab.com

CA DHS ELAP#1094

Sample ID: WAL111501	Lab Sample ID: 2001-11-0323-001
Project: 11979-03 Alameda UST Removal	Received: 11/15/2001 14:45
Sampled: 11/15/2001 10:30	Extracted: 11/19/2001 20:33
Matrix: Water	QC-Batch: 2001/11/19-01.27

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
tert-Butyl alcohol (TBA)	ND	5.0	ug/L	1.00	11/19/2001 20:33	
Methyl tert-butyl ether (MTBE)	ND	5.0	ug/L	1.00	11/19/2001 20:33	
Di-isopropyl Ether (DIPE)	ND	10	ug/L	1.00	11/19/2001 20:33	
Ethyl tert-butyl ether (ETBE)	ND	5.0	ug/L	1.00	11/19/2001 20:33	
tert-Amyl methyl ether (TAME)	ND	5.0	ug/L	1.00	11/19/2001 20:33	
Surrogate(s)						
1,2-Dichloroethane-d4	108.9	76-114	%	1.00	11/19/2001 20:33	

Submission #: 2001-11-0323



Oil & Grease (Total) by EPA 1664

Tetra Tech Inc SF
Attn: Gary Floyd

Test Method: 1664
Prep Method: 1664

STL Chromalab
1220 Quarry Lane
Pleasanton, CA 94566

Tel 925 484 1919
Fax 925 484 1096
www.stl-inc.com
www.chromalab.com

CA DHS ELAP#1094

Sample ID: WAL111501	Lab Sample ID: 2001-11-0323-001
Project: 11979-03 Alameda UST Removal	Received: 11/15/2001 14:45
Sampled: 11/15/2001 10:30	Extracted: 11/20/2001
Matrix: Water	QC-Batch: 2001/11/20-02.23

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Oil & Grease (total)	41	1.0	mg/L	1.00	11/20/2001	

Submission #: 2001-11-0323



Oil & Grease (Total) by EPA 1664

Tetra Tech Inc SF
Attn: Gary Floyd

Test Method: 1664
Prep Method: 1664

STL Chromalab
1220 Quarry Lane
Pleasanton, CA 94566

Sample ID: WAL111501	Lab Sample ID: 2001-11-0323-001
Project: 11979-03 Alameda UST Removal	Received: 11/15/2001 14:45
Sampled: 11/15/2001 10:30	Extracted: 11/20/2001
Matrix: Water	QC-Batch: 2001/11/20-02.23

Tel 925 484 1819
Fax 925 484 1096
www.stl-inc.com
www.chromalab.com
CA DHS ELAP#1094

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Oil & Grease (total)	41	1.0	mg/L	1.00	11/20/2001	

Submission #: 2001-11-0323



Volatile Organic Compounds by 8260B (Low Level)

Tetra Tech Inc SF
Attn: Gary Floyd

Test Method: 8260B
Prep Method: 5030B

STL Chromalab
1220 Quarry Lane
Pleasanton, CA 94566

Tel 925 484 1919
Fax 925 484 1096
www.stl-inc.com
www.chromalab.com

CA DHS ELAP#1094

Sample ID: WAL111501	Lab Sample ID: 2001-11-0323-001
Project: 11979-03 Alameda UST Removal	Received: 11/15/2001 14:45
	Extracted: 11/27/2001 20:00
Sampled: 11/15/2001 10:30	QC-Batch: 2001/11/27-01.09
Matrix: Water	
Sample/Analysis Flag: Im (See Legend & Note section)	

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
MTBE	ND	50	ug/L	10.00	11/27/2001 20:00	
Acetone	ND	500	ug/L	10.00	11/27/2001 20:00	
Benzene	ND	5.0	ug/L	10.00	11/27/2001 20:00	
Bromodichloromethane	ND	5.0	ug/L	10.00	11/27/2001 20:00	
Bromobenzene	ND	10	ug/L	10.00	11/27/2001 20:00	
Bromochloromethane	ND	10	ug/L	10.00	11/27/2001 20:00	
Bromoform	ND	5.0	ug/L	10.00	11/27/2001 20:00	
Bromomethane	ND	10	ug/L	10.00	11/27/2001 20:00	
2-Butanone(MEK)	ND	500	ug/L	10.00	11/27/2001 20:00	
n-Butylbenzene	ND	10	ug/L	10.00	11/27/2001 20:00	
sec-Butylbenzene	ND	10	ug/L	10.00	11/27/2001 20:00	
tert-Butylbenzene	ND	10	ug/L	10.00	11/27/2001 20:00	
Carbon disulfide	ND	50	ug/L	10.00	11/27/2001 20:00	
Carbon tetrachloride	ND	5.0	ug/L	10.00	11/27/2001 20:00	
Chlorobenzene	ND	5.0	ug/L	10.00	11/27/2001 20:00	
Chloroethane	ND	10	ug/L	10.00	11/27/2001 20:00	
2-Chloroethylvinyl ether	ND	50	ug/L	10.00	11/27/2001 20:00	
Chloroform	ND	10	ug/L	10.00	11/27/2001 20:00	
Chloromethane	ND	10	ug/L	10.00	11/27/2001 20:00	
2-Chlorotoluene	ND	5.0	ug/L	10.00	11/27/2001 20:00	
4-Chlorotoluene	ND	5.0	ug/L	10.00	11/27/2001 20:00	
Dibromochloromethane	ND	5.0	ug/L	10.00	11/27/2001 20:00	
1,2-Dichlorobenzene	ND	5.0	ug/L	10.00	11/27/2001 20:00	
1,3-Dichlorobenzene	ND	5.0	ug/L	10.00	11/27/2001 20:00	
1,4-Dichlorobenzene	ND	5.0	ug/L	10.00	11/27/2001 20:00	
1,3-Dichloropropane	ND	10	ug/L	10.00	11/27/2001 20:00	
2,2-Dichloropropane	ND	5.0	ug/L	10.00	11/27/2001 20:00	
1,1-Dichloropropene	ND	5.0	ug/L	10.00	11/27/2001 20:00	
1,2-Dibromo-3-chloropropane	ND	10	ug/L	10.00	11/27/2001 20:00	
1,2-Dibromoethane	ND	5.0	ug/L	10.00	11/27/2001 20:00	
Dibromomethane	ND	5.0	ug/L	10.00	11/27/2001 20:00	
Dichlorodifluoromethane	ND	5.0	ug/L	10.00	11/27/2001 20:00	
1,1-Dichloroethane	ND	5.0	ug/L	10.00	11/27/2001 20:00	
1,2-Dichloroethane	ND	5.0	ug/L	10.00	11/27/2001 20:00	
1,1-Dichloroethene	ND	5.0	ug/L	10.00	11/27/2001 20:00	
cis-1,2-Dichloroethene	ND	5.0	ug/L	10.00	11/27/2001 20:00	
trans-1,2-Dichloroethene	ND	5.0	ug/L	10.00	11/27/2001 20:00	

Submission #: 2001-11-0323

SEVERN
TRENT
SERVICES

Volatile Organic Compounds by 8260B (Low Level)

Tetra Tech Inc SF
Attn: Gary Floyd

Test Method: 8260B
Prep Method: 5030B

STL Chromalab
1220 Quarry Lane
Pleasanton, CA 94566

Sample ID: WAL111501	Lab Sample ID: 2001-11-0323-001
Project: 11979-03 Alameda UST Removal	Received: 11/15/2001 14:45
Sampled: 11/15/2001 10:30	Extracted: 11/27/2001 20:00
Matrix: Water	QC-Batch: 2001/11/27-01.09
Sample/Analysis Flag: Im (See Legend & Note section)	

Tel 925 484 1919
Fax 925 484 1096
www.stl-inc.com
www.chromalab.com

CA DHS ELAP#1094

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
1,2-Dichloropropane	ND	5.0	ug/L	10.00	11/27/2001 20:00	
cis-1,3-Dichloropropene	ND	5.0	ug/L	10.00	11/27/2001 20:00	
trans-1,3-Dichloropropene	ND	5.0	ug/L	10.00	11/27/2001 20:00	
Ethylbenzene	ND	5.0	ug/L	10.00	11/27/2001 20:00	
Hexachlorobutadiene	ND	10	ug/L	10.00	11/27/2001 20:00	
2-Hexanone	ND	500	ug/L	10.00	11/27/2001 20:00	
Isopropylbenzene	ND	5.0	ug/L	10.00	11/27/2001 20:00	
p-Isopropyltoluene	ND	10	ug/L	10.00	11/27/2001 20:00	
Methylene chloride	ND	50	ug/L	10.00	11/27/2001 20:00	
4-Methyl-2-pentanone (MIBK)	ND	500	ug/L	10.00	11/27/2001 20:00	
Naphthalene	ND	10	ug/L	10.00	11/27/2001 20:00	
n-Propylbenzene	ND	10	ug/L	10.00	11/27/2001 20:00	
Styrene	ND	5.0	ug/L	10.00	11/27/2001 20:00	
1,1,1,2-Tetrachloroethane	ND	5.0	ug/L	10.00	11/27/2001 20:00	
1,1,2,2-Tetrachloroethane	ND	5.0	ug/L	10.00	11/27/2001 20:00	
Tetrachloroethene	ND	5.0	ug/L	10.00	11/27/2001 20:00	
Toluene	ND	5.0	ug/L	10.00	11/27/2001 20:00	
1,2,3-Trichlorobenzene	ND	10	ug/L	10.00	11/27/2001 20:00	
1,2,4-Trichlorobenzene	ND	10	ug/L	10.00	11/27/2001 20:00	
1,1,1-Trichloroethane	ND	5.0	ug/L	10.00	11/27/2001 20:00	
1,1,2-Trichloroethane	ND	5.0	ug/L	10.00	11/27/2001 20:00	
Trichloroethene	ND	5.0	ug/L	10.00	11/27/2001 20:00	
Trichlorofluoromethane	ND	10	ug/L	10.00	11/27/2001 20:00	
Trichlorotrifluoroethane	ND	10	ug/L	10.00	11/27/2001 20:00	
1,2,4-Trimethylbenzene	ND	5.0	ug/L	10.00	11/27/2001 20:00	
1,3,5-Trimethylbenzene	ND	5.0	ug/L	10.00	11/27/2001 20:00	
Vinyl acetate	ND	250	ug/L	10.00	11/27/2001 20:00	
Vinyl chloride	ND	5.0	ug/L	10.00	11/27/2001 20:00	
Total xylenes	ND	10	ug/L	10.00	11/27/2001 20:00	
Surrogate(s)						
4-Bromofluorobenzene	96.7	86-115	%	10.00	11/27/2001 20:00	
1,2-Dichloroethane-d4	90.3	76-114	%	10.00	11/27/2001 20:00	
Toluene-d8	100.7	88-110	%	10.00	11/27/2001 20:00	

Submission #: 2001-11-0323



Semi-volatile analysis by GC/MS - EPA8270C

Tetra Tech Inc SF
 Attn: Gary Floyd

Test Method: 8270C
 Prep Method: 3510C/8270C

STL Chromalab
 1220 Quarry Lane
 Pleasanton, CA 94566

Sample ID: WAL111501	Lab Sample ID: 2001-11-0323-001
Project: 11979-03 Alameda UST Removal	Received: 11/15/2001 14:45
Sampled: 11/15/2001 10:30	Extracted: 11/16/2001 15:01
Matrix: Water	QC-Batch: 2001/11/16-02.11

Tel 925 484 1919
 Fax 925 484 1096
 www.stl-inc.com
 www.chromalab.com
 CA DHS ELAP#1094

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Phenol	ND	2.0	ug/L	1.00	11/19/2001 10:53	
Bis(2-chloroethyl)ether	ND	2.0	ug/L	1.00	11/19/2001 10:53	
2-Chlorophenol	ND	2.0	ug/L	1.00	11/19/2001 10:53	
1,3-Dichlorobenzene	ND	2.0	ug/L	1.00	11/19/2001 10:53	
1,4-Dichlorobenzene	ND	2.0	ug/L	1.00	11/19/2001 10:53	
Benzyl alcohol	ND	5.0	ug/L	1.00	11/19/2001 10:53	
1,2-Dichlorobenzene	ND	2.0	ug/L	1.00	11/19/2001 10:53	
2-Methylphenol	ND	2.0	ug/L	1.00	11/19/2001 10:53	
Bis(2-chloroisopropyl) ether	ND	2.0	ug/L	1.00	11/19/2001 10:53	
4-Methylphenol	ND	2.0	ug/L	1.00	11/19/2001 10:53	
N-Nitroso-di-n-propylamine	ND	2.0	ug/L	1.00	11/19/2001 10:53	
Hexachloroethane	ND	2.0	ug/L	1.00	11/19/2001 10:53	
Nitrobenzene	ND	2.0	ug/L	1.00	11/19/2001 10:53	
Isophorone	ND	2.0	ug/L	1.00	11/19/2001 10:53	
2-Nitrophenol	ND	2.0	ug/L	1.00	11/19/2001 10:53	
2,4-Dimethylphenol	ND	2.0	ug/L	1.00	11/19/2001 10:53	
Bis(2-chloroethoxy) methane	ND	5.0	ug/L	1.00	11/19/2001 10:53	
2,4-Dichlorophenol	ND	2.0	ug/L	1.00	11/19/2001 10:53	
1,2,4-Trichlorobenzene	ND	2.0	ug/L	1.00	11/19/2001 10:53	
Naphthalene	ND	2.0	ug/L	1.00	11/19/2001 10:53	
4-Chloroaniline	ND	2.0	ug/L	1.00	11/19/2001 10:53	
Hexachlorobutadiene	ND	2.0	ug/L	1.00	11/19/2001 10:53	
4-Chloro-3-methylphenol	ND	5.0	ug/L	1.00	11/19/2001 10:53	
2-Methylnaphthalene	ND	2.0	ug/L	1.00	11/19/2001 10:53	
Hexachlorocyclopentadiene	ND	5.0	ug/L	1.00	11/19/2001 10:53	
2,4,6-Trichlorophenol	ND	2.0	ug/L	1.00	11/19/2001 10:53	
2,4,5-Trichlorophenol	ND	2.0	ug/L	1.00	11/19/2001 10:53	
2-Chloronaphthalene	ND	2.0	ug/L	1.00	11/19/2001 10:53	
2-Nitroaniline	ND	10	ug/L	1.00	11/19/2001 10:53	
Dimethyl phthalate	ND	5.0	ug/L	1.00	11/19/2001 10:53	
Acenaphthylene	ND	2.0	ug/L	1.00	11/19/2001 10:53	
3-Nitroaniline	ND	2.0	ug/L	1.00	11/19/2001 10:53	
Acenaphthene	ND	2.0	ug/L	1.00	11/19/2001 10:53	
2,4-Dinitrophenol	ND	10	ug/L	1.00	11/19/2001 10:53	
4-Nitrophenol	ND	10	ug/L	1.00	11/19/2001 10:53	
Dibenzofuran	ND	2.0	ug/L	1.00	11/19/2001 10:53	
2,4-Dinitrotoluene	ND	2.0	ug/L	1.00	11/19/2001 10:53	
2,6-Dinitrotoluene	ND	5.0	ug/L	1.00	11/19/2001 10:53	

Submission #: 2001-11-0323



Semi-volatile analysis by GC/MS - EPA8270C

Tetra Tech Inc SF
Attn: Gary Floyd

Test Method: 8270C
Prep Method: 3510C/8270C

STL Chromalab
1220 Quarry Lane
Pleasanton, CA 94566

Tel 925 484 1919
Fax 925 484 1096
www.stl-inc.com
www.chromalab.com

CA DHS ELAP#1094

Sample ID: WAL111501	Lab Sample ID: 2001-11-0323-001
Project: 11979-03 Alameda UST Removal	Received: 11/15/2001 14:45
Sampled: 11/15/2001 10:30	Extracted: 11/16/2001 15:01
Matrix: Water	QC-Batch: 2001/11/16-02.11

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diethyl phthalate	ND	5.0	ug/L	1.00	11/19/2001 10:53	
4-Chlorophenyl phenyl ether	ND	5.0	ug/L	1.00	11/19/2001 10:53	
Fluorene	ND	2.0	ug/L	1.00	11/19/2001 10:53	
4-Nitroaniline	ND	10	ug/L	1.00	11/19/2001 10:53	
2-Methyl-4,6-dinitrophenol	ND	10	ug/L	1.00	11/19/2001 10:53	
N-Nitrosodiphenylamine	ND	2.0	ug/L	1.00	11/19/2001 10:53	
4-Bromophenyl phenyl ether	ND	5.0	ug/L	1.00	11/19/2001 10:53	
Hexachlorobenzene	ND	2.0	ug/L	1.00	11/19/2001 10:53	
Pentachlorophenol	ND	10	ug/L	1.00	11/19/2001 10:53	
Phenanthrene	ND	2.0	ug/L	1.00	11/19/2001 10:53	
Anthracene	ND	2.0	ug/L	1.00	11/19/2001 10:53	
Di-n-butyl phthalate	ND	5.0	ug/L	1.00	11/19/2001 10:53	
Fluoranthene	ND	2.0	ug/L	1.00	11/19/2001 10:53	
Pyrene	ND	2.0	ug/L	1.00	11/19/2001 10:53	
Butyl benzyl phthalate	ND	5.0	ug/L	1.00	11/19/2001 10:53	
3,3-Dichlorobenzidine	ND	5.0	ug/L	1.00	11/19/2001 10:53	
Benzo(a)anthracene	ND	2.0	ug/L	1.00	11/19/2001 10:53	
bis(2-Ethylhexyl) phthalate	ND	10	ug/L	1.00	11/19/2001 10:53	
Chrysene	ND	2.0	ug/L	1.00	11/19/2001 10:53	
Di-n-octyl phthalate	ND	5.0	ug/L	1.00	11/19/2001 10:53	
Benzo(b)fluoranthene	ND	2.0	ug/L	1.00	11/19/2001 10:53	
Benzo(k)fluoranthene	ND	2.0	ug/L	1.00	11/19/2001 10:53	
Benzo(a)pyrene	ND	2.0	ug/L	1.00	11/19/2001 10:53	
Indeno(1,2,3-c,d)pyrene	ND	2.0	ug/L	1.00	11/19/2001 10:53	
Dibenzo(a,h)anthracene	ND	2.0	ug/L	1.00	11/19/2001 10:53	
Benzo(g,h,i)perylene	ND	2.0	ug/L	1.00	11/19/2001 10:53	
Benzoic acid	ND	10	ug/L	1.00	11/19/2001 10:53	
Surrogate(s)						
Nitrobenzene-d5	0.0	35-114	%	1.00	11/19/2001 10:53	sl
2-Fluorobiphenyl	53.1	43-116	%	1.00	11/19/2001 10:53	
p-Terphenyl-d14	70.8	33-141	%	1.00	11/19/2001 10:53	
2-Fluorophenol	25.3	25-100	%	1.00	11/19/2001 10:53	
Phenol-d6	14.6	10-110	%	1.00	11/19/2001 10:53	
2,4,6-Tribromophenol	114.1	10-123	%	1.00	11/19/2001 10:53	

GeoAnalytical Laboratories, Inc.

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CERTIFICATE OF ANALYSIS

Report # M324-13

Date: 11/21/01

STL ChromaLab
1220 Quarry Lane
Pleasanton CA 94566-4756

Project: 2001-11-0323

Date Rec'd: 11/20/01
Date Started: 11/20/01
Date Completed: 11/21/01

PO#

Date Sampled: 11/15/01
Time: 10:30am
Sampler:

Sample ID	Lab ID	RL	Method	Analyte	Results	Units
WAL111501	M311537	0.001	200.7	Cadmium	ND	mg/L
		0.01	200.7	Chromium	0.08	mg/L
		0.01	200.7	Lead	ND	mg/L
		0.05	200.7	Zinc	0.86	mg/L
		0.05	200.7	Nickel	0.14	mg/L
MB	M311538	0.001	200.7	Cadmium	ND	mg/L
		0.01	200.7	Chromium	ND	mg/L
		0.01	200.7	Lead	ND	mg/L
		0.05	200.7	Zinc	0.24	mg/L
		0.05	200.7	Nickel	ND	mg/L
LCS	M311539	0.001	200.7	Cadmium	0.51	mg/L
		0.01	200.7	Chromium	0.52	mg/L
		0.01	200.7	Lead	0.49	mg/L
		0.05	200.7	Zinc	0.65	mg/L
		0.05	200.7	Nickel	0.44	mg/L
LCSD	M311540	0.001	200.7	Cadmium	0.52	mg/L
		0.01	200.7	Chromium	0.53	mg/L
		0.01	200.7	Lead	0.52	mg/L
		0.05	200.7	Zinc	0.69	mg/L
		0.05	200.7	Nickel	0.45	mg/L

Ramiro Saigado
Ramiro Saigado
Chemist

Certification # 1157

Donna Keller
Donna Keller
Laboratory Director

Table 4. Groundwater Sampling Results

Sample ID	Date Sampled	TPH-Gasoline Range (µg/L)	TPH-Diesel Range (µg/L)	TPH-Oil & Grease (mg/L)	Volatile Organic Compounds (EPA Method 8260B) (all concentrations in µg/L)																
					Methyl tert-butyl ether	Acetone	Benzene	Dichlorobromomethane	Bromobenzene	Chlorobromomethane	Bromoform	Bromomethane	2-Butanone (MEK)	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane	
AI-SB01-W	2/14/2008	<50	950	1.5 J	<5.0	<50	<0.50	<0.50	<1.0	<1.0	<1.0	0.24 JB	<50	<1.0	<1.0	<1.0	<5.0	<0.50	<0.50	<1.0	
AI-SB02-W	2/14/2008	71	1200	1.5 J	0.17 J	<50	0.048 J	<0.50	<1.0	<1.0	<1.0	0.2 JB	0.87 JB	0.47 J	0.19 J	<1.0	0.18 J	<0.50	<0.50	<1.0	
AI-SB20-W	2/14/2008	71	710	0.64 J	<5.0	<50	<0.50	<0.50	<1.0	<1.0	<1.0	0.18 JB	<50	0.42 J	0.48 J	0.077 J	<5.0	<0.50	<0.50	<1.0	
AI-SB03-W	2/14/2008	79	770	1 J	<5.0	<50	<0.50	<0.50	<1.0	<1.0	<1.0	0.21 JB	<50	0.54 J	0.59 J	0.092 J	0.081 J	0.081 J	<0.50	<1.0	
AI-SB05-W	2/14/2008	<50	600	1.9 J	0.14 J	9.3 J	<0.50	<0.50	<1.0	<1.0	<1.0	0.19 JB	2.1 JB	<1.0	<1.0	<1.0	0.17 J	<0.50	<0.50	<1.0	
AI-SB06-W	2/15/2008	<50	470	<2.0	0.66 J	<50	0.83 B	<0.50	<1.0	<1.0	<1.0	0.022 JB	<50	0.34 JB	<1.0	<1.0	0.24 J	<0.50	<0.50	<1.0	
AI-SB07-W	2/15/2008	<50	130	2.7	0.22 J	7.6 JB	<0.50	<0.50	<1.0	<1.0	<1.0	0.022 JB	1.8 J	<1.0	<1.0	<1.0	0.12 J	<0.50	<0.50	<1.0	
AI-TB01	2/15/2008	<50	NA	NA	<5.0	<50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<50	<1.0	<1.0	<1.0	0.57 J	<0.50	<0.50	<1.0	
Number of Analysis																					
Number of Detections		3	7	6	0	0	1	0	0	0	0	7	3	4	3	2	6	1	0	0	
Minimum Concentration		71	130	0.640	0	7.6	0.048	0	0	0	0.022	0.87	0.87	0.34	0.19	0.077	0.081	0.081	0	0	
Maximum Concentration		79	1,200	2.7	0.66	9.3	0.83	0	0	0	0.24	2.1	2.1	0.54	0.59	0.092	0.57	0.081	0	0	
ESL		100	100	0.1	5.0	1,500	1.0	100	--	--	100	9.8	4,200	--	--	--	--	0.50	25	12	
Exceedances of ESL		0	7	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ESL-Estuary		210	210	0.21	180	1,500	46	1,100	--	--	360	160	8,400	--	--	--	--	4.4	25	12	
Exceedances of ESL-Estuary		0	6	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Notes:
 All concentrations reported above the reporting limit are highlighted in bold.
 All estimated (J-qualified) concentrations reported above the ESL are highlighted in bold. All other estimated concentrations are not highlighted in bold.

-- = Concentration not available*
 < = not detected
 µg/L = micrograms per liter
 B = blank detection
 bgs = below ground surface
 EPA = (U.S.) Environmental Protection Agency
 ESL = environmental screening level (San Francisco Bay Regional Water Quality Control Board, 2008)
 ESL-Estuary = environmental screening levels for estuarine surface water bodies (San Francisco Bay Regional Water Quality Control Board, 2008)
 J = Estimated concentration above the method detection limit but below the reporting limit
 mg/L = milligrams per liter
 PCB = polychlorinated biphenyl
 SL = "Screening Levels for Chemical Contaminants" (EPA, 2008b)

Table 4. Groundwater Sampling Results (continued)

		Volatile Organic Compounds (EPA Method 8260B) (all concentrations in µg/L) (continued)																					
Sample ID	Date Sampled	Chloroform	Chloromethane	2-Chlorotoluene	4-Chlorotoluene	Chlorodibromomethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,3-Dichloropropane	1,1-Dichloropropane	1,2-Dibromo-3-Chloropropane	Ethylene Dibromide	Dibromomethane	Dichlorodifluoromethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,2-Dichloropropane	cis-1,3-Dichloropropene	trans-1,3-Dichloropropene
AI-SB01-W	2/14/2008	<1.0	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
AI-SB02-W	2/14/2008	<1.0	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
AI-SB20-W	2/14/2008	<1.0	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
AI-SB03-W	2/14/2008	<1.0	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
AI-SB05-W	2/14/2008	<1.0	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
AI-SB06-W	2/15/2008	<1.0	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
AI-SB07-W	2/15/2008	<1.0	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
AI-TB01	2/15/2008	0.13	J <1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Number of Analysis																							
Number of Detections		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration		0.13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maximum Concentration		0.13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ESL		70	41	--	--	100	10	65	5.0	0.5	--	0.20	--	--	--	5.0	0.5	6.0	6.0	10	5.0	--	--
Exceedances of ESL		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ESL-Estuary		470	1,100	--	--	46	10	65	11	--	--	0.2	--	--	--	47	99	3.2	590	260	10	--	--
Exceedances of ESL-Estuary		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Notes:

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All estimated (J-qualified) concentrations reported above the ESL are highlighted in bold. All other estimated concentrations are not highlighted in bold.

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B = blank detection

bgs = below ground surface

EPA = (U.S.) Environmental Protection Agency

ESL= environmental screening level (San Francisco Bay Regional Water Quality Control Board, 2006)

ESL-Estuary = environmental screening levels for estuarine surface water bodies (San Francisco Bay Regional Water Quality Control Board, 2006)

J = Estimated concentration above the method detection limit but below the reporting limit

mg/L = milligrams per liter

PCB = polychlorinated biphenyl

SL = "Screening Levels for Chemical Contaminants" (EPA, 2008b)

Table 4. Groundwater Sampling Results (continued)

		Volatile Organic Compounds (EPA Method 8260B) (all concentrations in µg/L) (continued)																			
Sample ID	Date Sampled	Ethylbenzene	Hexachlorobutadiene	2-Hexanone	Isopropylbenzene	4-Isopropyltoluene	Methylene Chloride	4-Methyl-2-pentanone (MIBK)	Naphthalene	N-Propylbenzene	Styrene	1,1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	Tetrachloroethene	Toluene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	
AI-SB01-W	2/14/2008	0.042 J	<1.0	<50	<0.50	<1.0	<5.0	<50	<1.0	<1.0	<0.50	<0.50	<0.50	0.062 J	0.27 J	<1.0	<1.0	<0.50	<0.50	<0.50	
AI-SB02-W	2/14/2008	0.048 J	<1.0	<50	<0.50	0.26 J	0.058 JB	<50	0.39 J	0.056 J	<0.50	<0.50	<0.50	0.068 J	0.35 J	<1.0	<1.0	<0.50	<0.50	<0.50	
AI-SB20-W	2/14/2008	0.043 J	<1.0	<50	<0.50	<1.0	<5.0	<50	0.21 J	0.062 J	<0.50	<0.50	<0.50	<0.50	0.19 J	<1.0	<1.0	<0.50	<0.50	<0.50	
AI-SB03-W	2/14/2008	0.058 J	<1.0	<50	<0.50	<1.0	<5.0	<50	0.28 J	0.068 J	<0.50	<0.50	<0.50	<0.50	0.22 J	<1.0	<1.0	<0.50	<0.50	<0.50	
AI-SB05-W	2/14/2008	0.078 J	<1.0	<50	<0.50	<1.0	<5.0	<50	<1.0	<1.0	<0.50	<0.50	<0.50	<0.50	0.23 J	<1.0	<1.0	<0.50	<0.50	<0.50	
AI-SB06-W	2/15/2008	0.68	<1.0	<50	0.077 J	<1.0	<5.0	<50	16	<1.0	<0.50	<0.50	<0.50	0.21 JB	0.61	<1.0	<1.0	<0.50	<0.50	<0.50	
AI-SB07-W	2/15/2008	0.37 J	<1.0	<50	<0.50	<1.0	<5.0	<50	0.2 J	<1.0	0.059 J	<0.50	<0.50	0.13 JB	0.4 J	0.2 J	<1.0	<0.50	<0.50	<0.50	
AI-TB01	2/15/2008	<0.50	<1.0	<50	<0.50	<1.0	0.094 JB	<50	<1.0	<1.0	<0.50	<0.50	<0.50	0.1 JB	<0.50	<1.0	0.19 J	<0.50	<0.50	<0.50	
Number of Analysis		7	0	0	1	1	2	0	5	3	1	0	0	5	7	1	1	0	0	0	
Number of Detections		0.042	0	0	0.077	0.26	0.058	0	0.2	0.056	0.059	0	0	0.06	0.19	0.20	0.19	0	0	0	
Minimum Concentration		0.68	0	0	0.077	0.26	0.094	0	16	0.088	0.059	0	0	0.21	0.61	0.2	0.19	0	0	0	
Maximum Concentration		30	0.45	-	-	-	5.0	120	17	-	10	1.3	1.0	5.0	40	-	5.0	62	5.0	5.0	
ESL		0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	0	0	
Exceedances of ESL		30	0.93	-	-	-	1,600	170	21	-	11	930	11	-	40	-	25	62	42	81	
ESL-Estuary		0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	0	0	
Exceedances of ESL-Estuary		0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	0	0	

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J = Estimated concentration above the method detection limit but below the reporting limit

mg/L = milligrams per liter

PCB = polychlorinated biphenyl

SL = "Screening Levels for Chemical Contaminants" (EPA, 2008b)

Table 4. Groundwater Sampling Results (continued)

Sample ID	Date Sampled	Semivolatile Organic Compounds (EPA Method 8270C) (all concentrations in µg/L) (continued)																					
		Isophorone	2-Nitrophenol	2,4-Dimethylphenol	Bis(2-chloroethoxy)methane	2,4-Dichlorophenol	1,2,4-Trichlorobenzene	Naphthalene	4-Chloroaniline	Hexachlorobutadiene	4-Chloro-3-methylphenol	2-Methylnaphthalene	Hexachlorocyclopentadiene	2,4,6-Trichlorophenol	2,4,5-Trichlorophenol	2-Chloronaphthalene	2-Nitroaniline	Dimethyl phthalate	Acenaphthylene	3-Nitroaniline	Acenaphthene	2,4-Dinitrotoluene	4-Nitrophenol
AI-SB01-W	2/14/2008	<2.1	<2.1	<2.1	<5.2	<5.2	<2.1	<2.1	<2.1	<5.2	<2.1	<5.2	<2.1	<2.1	<2.1	<10	<5.2	<2.1	<5.2	<2.1	<10	<10	
AI-SB02-W	2/14/2008	<2.4	<2.4	<2.4	<5.9	<5.9	<2.4	<2.4	<2.4	<5.9	0.39 J	<5.9	<2.4	<2.4	<2.4	<12	<5.9	<2.4	<5.9	<2.4	<12	<12	
AI-SB20-W	2/14/2008	<2.1	<2.1	<2.1	<5.2	<5.2	<2.1	<2.1	<2.1	<5.2	<2.1	<5.2	<2.1	<2.1	<2.1	<10	<5.2	<2.1	<5.2	<2.1	<10	<10	
AI-SB03-W	2/14/2008	<2.1	<2.1	<2.1	<5.2	<5.2	<2.1	<2.1	<2.1	<5.2	<2.1	<5.2	<2.1	<2.1	<2.1	<10	<5.2	<2.1	<5.2	<2.1	<10	<10	
AI-SB05-W	2/14/2008	<2.3	<2.3	<2.3	<5.8	<5.8	<2.3	<2.3	<2.3	<5.8	<2.3	<5.8	<2.3	<2.3	<2.3	<12	<5.8	<2.3	<5.8	<2.3	<12	<12	
AI-SB06-W	2/15/2008	<2.1	<2.1	<2.1	<5.2	<5.2	<2.1	11	<2.1	<2.1	<5.2	<2.1	<5.2	<2.1	<2.1	<10	<5.2	<2.1	<5.2	<2.1	<10	<10	
AI-SB07-W	2/15/2008	<2.5	<2.5	<2.5	<6.3	<6.3	<2.5	<2.5	<2.5	<6.3	<2.5	<6.3	<2.5	<2.5	<2.5	<13	<6.3	<2.5	<6.3	<2.5	<13	<13	
AI-TB01	2/15/2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Number of Analysis																							
Number of Detections		0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	
Minimum Concentration		0	0	0	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Maximum Concentration		0	0	0	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ESL		--	--	100	--	0.3	5	17	--	0.45	--	2.1	--	0.7	11	--	--	1.5	30	--	20	0.051	
Exceedances of ESL		--	--	0	--	0	0	0	--	0	--	0	--	0	0	--	--	0	0	--	0	--	
ESL-Estuary		--	--	110	--	0.3	25	21	--	0.93	--	2.1	--	6.5	11	--	--	1.5	30	--	20	9.1	
Exceedances of ESL-Estuary		--	--	0	--	0	0	0	--	0	--	0	--	0	0	--	--	0	0	--	0	--	

Notes:
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 J = Estimated concentration above the method detection limit but below the reporting limit
 mg/L = milligrams per liter
 PCB = polychlorinated biphenyl
 SL = "Screening Levels for Chemical Contaminants" (EPA, 2008b)

Table 4. Groundwater Sampling Results (continued)

		Semivolatile Organic Compounds (EPA Method 8270C) (all concentrations in µg/L) (continued)																				
Sample ID	Date Sampled	Dibenzofuran	2,4-Dinitrophenol	2,6-Dinitrotoluene	Diethyl phthalate	4-Chlorophenyl phenyl ether	Fluorene	4-Nitroaniline	2-Methyl-4,6-dinitrophenol	N-Nitrosodiphenylamine	4-Bromophenyl phenyl ether	Hexachlorobenzene	Pentachlorophenol	Phenathrene	Anthracene	Di-n-butyl phthalate	Fluoranthene	Pyrene	Butyl benzyl phthalate	3,3'-Dichlorobenzidine	Benzo[a]anthracene	Bis(2-ethylhexyl)phthalate
AI-SB01-W	2/14/2008	<2.1	<2.1	<5.2	1.1 J	<5.2	<2.1	<10	<10	<2.1	<5.2	<2.1	<10	<2.1	<2.1	<5.2	<2.1	<2.1	<5.2	<5.2	<5.2	<10
AI-SB02-W	2/14/2008	<2.4	<2.4	<5.9	5.9 J	<5.9	<2.4	<12	<12	<2.4	<5.9	<2.4	<12	<2.4	<2.4	0.54 J	<2.4	<2.4	<5.9	<5.9	<5.9	<12
AI-SB20-W	2/14/2008	<2.1	<2.1	<5.2	1.1 J	<5.2	<2.1	<10	<10	<2.1	<5.2	<2.1	<10	<2.1	<2.1	<5.2	<2.1	<2.1	<5.2	<5.2	<5.2	<10
AI-SB03-W	2/14/2008	<2.1	<2.1	<5.2	<5.2	<5.2	<2.1	<10	<10	<2.1	<5.2	<2.1	<10	<2.1	<2.1	<5.2	<2.1	<2.1	<5.2	<5.2	<5.2	7.7 J
AI-SB05-W	2/14/2008	<2.3	<2.3	<5.8	<5.8	<5.8	<2.3	<12	<12	<2.3	<5.8	<2.3	<12	<2.3	<2.3	<5.8	<2.3	<2.3	<5.8	<5.8	<5.8	<12
AI-SB06-W	2/15/2008	<2.1	<2.1	<5.2	<5.2	<5.2	<2.1	<10	<10	<2.1	<5.2	<2.1	<10	<2.1	<2.1	<5.2	<2.1	<2.1	<5.2	<5.2	<5.2	<10
AI-SB07-W	2/15/2008	<2.5	<2.5	<6.3	<6.3	<6.3	<2.5	<13	<13	<2.5	<6.3	<2.5	<13	<2.5	<2.5	<6.3	<2.5	1.5 J	<6.3	<6.3	<6.3	<13
AI-TB01	2/15/2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Number of Analysis																						
Number of Detections		0	0	0	3	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1
Minimum Concentration		0	0	0	1.1	0	0	0	0	0	0	0	0	0	0	0.54	0	1.5	0	0	0	7.7
Maximum Concentration		0	0	0	5.9	0	0	0	0	0	0	0	0	0	0	0.54	0	1.5	0	0	0	7.7
ESL		-	15	-	1.5	-	3.9	-	-	-	-	1	1	4.6	0.73	-	8	2	-	0.0290	0.027	4
Exceedances of ESL		-	0	-	1	-	0	-	-	-	-	0	0	0	0	-	0	0	-	0	0	1
ESL-Estuary		-	15	-	1.5	-	3.9	-	-	-	-	0.00077	7.9	4.6	0.73	-	8	2	-	0.077	0.027	5.9
Exceedances of ESL-Estuary		-	0	-	0	-	0	-	-	-	-	0	0	0	0	-	0	0	-	0	0	1

Notes:
 All concentrations reported above the reporting limit are highlighted in bold.
 All estimated (J-qualified) concentrations reported above the ESL are highlighted in bold. All other estimated concentrations are not highlighted in bold.

-- = Concentration not available*
 < = not detected
 µg/L = micrograms per liter
 B = blank detection
 bgs = below ground surface
 EPA = (U.S.) Environmental Protection Agency
 ESL = environmental screening level (San Francisco Bay Regional Water Quality Control Board, 2008)
 ESL-Estuary = environmental screening levels for estuarine surface water bodies (San Francisco Bay Regional Water Quality Control Board, 2008)
 J = Estimated concentration above the method detection limit but below the reporting limit
 mg/L = milligrams per liter
 PCB = polychlorinated biphenyl
 SL = "Screening Levels for Chemical Contaminants" (EPA, 2008b)

Table 4. Groundwater Sampling Results (continued)

Sample ID	Date Sampled	Semivolatile Organic Compounds (EPA Method 8270C) (all concentrations in µg/L) (continued)										Metals (EPA Method 6010) and Mercury (EPA Method 7471) (all concentrations in mg/L)								
		Chrysene	Di-n-octyl phthalate	Benzo[b]fluoranthene	Benzo[a]pyrene	Benzo[k]fluoranthene	Indo[1,2,3-cd]pyrene	Benzo[g,h,i]perylene	Benzoic acid	Azobenzene	Dibenz(a,h)anthracene	Arsenic	Barium	Cadmium	Chromium	Mercury	Lead	Selenium	Silver	
AI-SB01-W	2/14/2008	<2.1	<21	<2.1	<2.1	<2.1	<2.1	<2.1	2.4	J	<2.1	<2.1	<0.0050	0.31	<0.0020	0.026	<0.00020	0.0053	<0.0050	<0.0050
AI-SB02-W	2/14/2008	<2.4	<24	<2.4	<2.4	<2.4	<2.4	<2.4	13		<2.4	<2.4	0.031	0.98	<0.0020	0.48	0.00065	0.067	<0.0050	<0.0050
AI-SB20-W	2/14/2008	<2.1	<21	<2.1	<2.1	<2.1	<2.1	<2.1	1.9	J	<2.1	<2.1	<0.0050	0.26	<0.0020	0.0059	<0.00020	<0.0050	<0.0050	<0.0050
AI-SB03-W	2/14/2008	<2.1	<21	<2.1	<2.1	<2.1	<2.1	<2.1	1.9	J	<2.1	<2.1	<0.0050	0.26	<0.0020	0.0057	<0.00020	<0.0050	<0.0050	<0.0050
AI-SB05-W	2/14/2008	<2.3	<23	<2.3	<2.3	<2.3	<2.3	<2.3	2.3	J	<2.3	<2.3	0.038	1.9	<0.0020	0.55	0.00077	0.057	<0.0050	<0.0050
AI-SB06-W	2/15/2008	<2.1	<21	<2.1	<2.1	<2.1	<2.1	<2.1	<10		<2.1	<2.1	0.0077	0.81	<0.0020	0.054	<0.00020	0.029	<0.0050	<0.0050
AI-SB07-W	2/15/2008	0.3	J	<25	0.56	J	0.66	J	<2.5		<2.5	<2.5	<0.0050	0.98	<0.0020	0.020	<0.00020	<0.0050	<0.0050	<0.0050
AI-TB01	2/15/2008	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Number of Analysis																				
Number of Detections		1	0	1	1	0	0	1	6	0	0	0	3	7	0	7	2	4	0	0
Minimum Concentration		0.3	0	0.56	0.66	0	0	1.1	1.9	0	0	0	0.01	0.26	0	0.0057	0.00065	0.0053	0	0
Maximum Concentration		0.3	0	0.56	0.66	0	0	1.1	13	0	0	0	0.038	1.9	0	0.55	0.00077	0.067	0	0
ESL		0.35	--	0.029	0.014	0.029	0.048	0.1	--	--	0.0048	0	0.036	1	0.00025	0.05	0.000025	0.0025	0.005	0.00019
Exceedances of ESL		0	--	1	1	0	0	1	--	--	0	0	1	1	0	3	2	4	0	0
ESL-Estuary		0.049	--	0.029	0.014	0.049	0.048	0.1	--	--	0.049	0	0.00014	1	0.00025	0.18	0.000025	0.0025	0.005	0.00019
Exceedances of ESL-Estuary		1	--	1	1	0	0	1	--	--	0	0	3	1	0	2	2	4	0	0

Notes:

All concentrations reported above the reporting limit are highlighted in bold.

All estimated (J-qualified) concentrations reported above the ESL are highlighted in bold. All other estimated concentrations are not highlighted in bold.

-- = Concentration not available*

< = not detected

µg/L = micrograms per liter

B = blank detection

bgs = below ground surface

EPA = (U.S.) Environmental Protection Agency

ESL = environmental screening level (San Francisco Bay Regional Water Quality Control Board, 2008)

ESL-Estuary = environmental screening levels for estuarine surface water bodies (San Francisco Bay Regional Water Quality Control Board, 2008)

J = Estimated concentration above the method detection limit but below the reporting limit

mg/L = milligrams per liter

PCB = polychlorinated biphenyl

SL = "Screening Levels for Chemical Contaminants" (EPA, 2008b)

Table 4. Groundwater Sampling Results (continued)

Sample ID	Date Sampled	Polychlorinated Biphenyls (EPA Method 8082) (all concentrations in µg/L)						
		PCB-1016	PCB-1221	PCB-1232	PCB-1242	PCB-1248	PCB-1254	PCB-1260
AI-SB01-W	2/14/2008	<0.52	<0.52	<0.52	<0.52	<0.52	<0.52	<0.52
AI-SB02-W	2/14/2008	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54	<0.54
AI-SB20-W	2/14/2008	<0.51	<0.51	<0.51	<0.51	<0.51	<0.51	<0.51
AI-SB03-W	2/14/2008	<0.52	<0.52	<0.52	<0.52	<0.52	<0.52	<0.52
AI-SB05-W	2/14/2008	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63
AI-SB06-W	2/15/2008	<0.52	<0.52	<0.52	<0.52	<0.52	<0.52	<0.52
AI-SB07-W	2/15/2008	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63
AI-TB01	2/15/2008	NA	NA	NA	NA	NA	NA	NA
Number of Analysis								
Number of Detections		0	0	0	0	0	0	0
Minimum Concentration		0	0	0	0	0	0	0
Maximum Concentration		0	0	0	0	0	0	0
ESL		0.014	0.014	0.014	0.014	0.014	0.014	0.014
Exceedances of ESL		0	0	0	0	0	0	0
ESL-Estuary		0.00017	0.00017	0.00017	0.00017	0.00017	0.00017	0.00017
Exceedances of ESL-Estuary		0	0	0	0	0	0	0

Notes:

All concentrations reported above the reporting limit are highlighted in bold.

All estimated (J-qualified) concentrations reported above the ESL are highlighted in bold. All other estimated concentrations are not highlighted in bold.

-- = Concentration not available*

< = not detected

µg/L = micrograms per liter

B = blank detection

bgs = below ground surface

EPA = (U.S.) Environmental Protection Agency

ESL = environmental screening level (San Francisco Bay Regional Water Quality Control Board, 2008)

ESL-Estuary = environmental screening levels for estuarine surface water bodies (San Francisco Bay Regional Water Quality Control Board, 2008)

J = Estimated concentration above the method detection limit but below the reporting limit

mg/L = milligrams per liter

PCB = polychlorinated biphenyl

SL = "Screening Levels for Chemical Contaminants" (EPA, 2008b)

ATTACHMENT 5

Project: <u>USCG Former UST Investigation</u>		Boring: <u>AI-SB01</u>		Pg. <u>1</u> of <u>1</u>	
Drilling Co: <u>Vironex</u>	Drilling Method: <u>Direct Push</u>	Date Started: <u>2/14/08</u>			
Location: <u>Building 44</u>	Sampler / Wt & Drop: <u>Grab /</u>	Date Completed: <u>2/14/08</u>			
	Logged by: <u>S.C.Knight</u>	Reviewed by: <u>M.Enman</u>			
Water Level ∇ ATD <u>8.5</u>					

DEPTH - FT.	BLOW COUNT	% RECOVERY	FIDIPID (ppm)	SAMPLES GRAPHIC LOG	DESCRIPTION	USCS SYMBOL	ESTIMATED % OF			MOISTURE
							GR	SA	FI	
					ASPHALT	ASPHALT				
1					FILL, hand auger 0.5 to 3.5 ft bgs.	FILL				
2										
3										
4					FILL, light brownish grey (2.5Y 6/2), pea gravel approx 0.5 cm diameter					D
5										
6						FILL	80	5	5	
7										
8										
9					FILL, (2 Gley 3/10BG), clay rich layer within pea gravel, soil staining, petroleum odor	GP-GC	80		20	W
					FILL, light brownish grey, (2.5Y 6/2) pea gravel approx 0.5 cm diameter					
10		75	15.1		AI-SB01-10		90		10	
11										W
12						FILL		90	10	
13										
14										
15		60	1.5		AI-SB01-15					
					FILL, angular gravel approx 1.5 cm diameter					
16						FILL	90	5	5	W
17										
18		75	0.2		CLAY, dark greenish grey (2 Gley 3/10G), plastic, slight petroleum odor	CH	5	30	60	W
					AI-SB01-18					
Bottom of boring at 18 feet										

COAST GUARD ISLAND GFJ 3/21/08



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AI-SB01 Lithologic Log U.S. Coast Guard

Project Location Coast Guard Island, Alameda CA	Project No. 27-167	Fig.
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Project: USCG Former UST Investigation

Boring: AI-SB02

Pg. 1 of 1

Drilling Co: Vironex

Drilling Method: Direct Push

Date Started: 2/14/08

Location: Building 44

Sampler / Wt & Drop: Grab /

Date Completed: 2/14/08

Logged by: S.C.Knight

Reviewed by: M.Enman

Water Level ∇ ATD 11

DEPTH - FT.	BLOW COUNT	% RECOVERY	FID/PID (ppm)	SAMPLES	GRAPHIC LOG	DESCRIPTION	USCS SYMBOL	ESTIMATED % OF			MOISTURE
								GR	SA	FI	
1						ASPHALT FILL, hand auger 0.5 to 5 ft bgs.	ASPHALT				
2											
3							FILL				D
4											
5											
6						SAND with clay lenses, light olive brown (2.5Y 3/10G), medium grained, poorly graded	SW-SC		90	10	M
7											
8											
9			68.5			SAND, fine with minor gravel, color change to dark greenish grey (2 Gley 3/10g) soil staining, strong petroleum odor. Unit grades between sand with clay and clay with sand.	2 SP		90	8	
10		60		X		AI-SB02-10					
11											
12						CLAY with sand	CLS		20	80	W
13											
14						SAND with clay	SP-SC		60	40	
15		60				CLAY with sand	CLS		20	80	
16						SAND with clay			85	15	W
17							SP-SC				
18			0.5			SAND with silt			90	10	
19							SM				
20		75	2.4			SAND with clay			50	50	W
21			0.6						90	10	
22							SP-SC				
23											
24											
25		75	0.5	X		AI-SB02-25					
						Bottom of boring at 25 feet					

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**AI-SB02 Lithologic Log
U.S. Coast Guard**

Project Location

Coast Guard Island, Alameda CA

Project No.

27-167

Fig.

Project: USCG Former UST Investigation

Boring: AI-SB03

Pg. 1 of 1

Drilling Co: **Vironex**

Drilling Method: **Direct Push**

Date Started: **2/14/08**

Location: **Building 44**

Sampler / Wt & Drop: **Grab /**

Date Completed: **2/14/08**

Logged by: **S.C.Knight**

Reviewed by: **M.Enman**

Water Level ∇ ATD **10**

DEPTH - FT.	BLOW COUNT	% RECOVERY	FID/PID (ppm)	SAMPLES	GRAPHIC LOG	DESCRIPTION	USCS SYMBOL	ESTIMATED % OF			MOISTURE
								GR	SA	FI	
1					ASPHALT	FILL, hand auger 0.5 to 4 ft bgs.	ASPHALT				
2							FILL				
3											
4						FILL, pea gravel with minor sand, sub rounded, fill used to backfill former tank excavation		95	5		
5							FILL				
6											
7											
8											
9											
10		50	129			GRAVEL with sand, dark greenish grey (2 GLEY 3/10G) strong petroleum odor.		60	40		W
11											
12						AI-SB03-12					
13							GPS				
14											
15		60				GRAVEL angular, 1.5 cm diameter		90	10		W
16											
17											
18											
19						SAND, with clay	SP-SC		60	40	
20		50				CLAY, with sand AI-SB03-20	CLS		10	90	W
21						GRAVEL slough, very loose, no recovery			90	10	
22											
23											
24											
25		0	1.1			Bottom of boring at 25 feet					

COAST GUARD ISLAND.GPJ 3/21/08



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**AI-SB03 Lithologic Log
U.S. Coast Guard**

Project Location

Coast Guard Island, Alameda CA

Project No.

27-167

Fig.

Project: USCG Former UST Investigation

Boring: AI-SB03a

Pg. 1 of 1

Drilling Co: **Vironex**

Drilling Method: **Direct Push**

Date Started: **2/15/08**

Location: **Building 44**

Sampler / Wt & Drop: **Grab /**

Date Completed: **2/15/08**

Logged by: **S.C.Knight**

Reviewed by: **M.Enman**

Water Level ∇ ATD **10**

DEPTH - FT.	BLOW COUNT	% RECOVERY	FID/ID (ppm)	SAMPLES	GRAPHIC LOG	DESCRIPTION	USCS SYMBOL	ESTIMATED % OF			MOISTURE
								GR	SA	FI	
2						ASPHALT FILL, road base, hand auger 0.5 to 4 ft bgs.	ASPHALT				
4						FILL pea gravel, 0.5 cm diameter subrounded. Fill from former tank excavation.	FILL	80	20		
6	100						FILL			70	30
8						SAND with clay, (7.5 YR 4/3).	SC				M
10		75	257	X		AI-SB03a-10, 2 GLEY 3/10B, strong petroleum odor and soil staining.	SC	60	30	10	
12						GRAVEL with sand, well graded, loose	GWS			60	40
14						SAND with clay, (2 Gley 4/5BG), poorly graded, stiff,					
16	50	0.8		X		AI-SB03a-15					
18							SP-SC				
20						AI-SB03a-20					
22						CLAY (2 Gley 2.5/10B)				100	
24							CH				
26		0.6		X		AI-SB03a-25				70	30
28						SAND with clay, sand size decreasing downwards,					
30							SC			70	30
32						AI-SB03a-30					
34						FILL (1 GLEY 4/10Y), loose, poor recovery, pea gravel sloughing from shallow interval					W
						AI-SB03a-35	GP				
						Bottom of boring at 35 feet					

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AI-SB03a Lithologic Log
U.S. Coast Guard

Project Location	Project No.	Fig.
Coast Guard Island, Alameda CA	27-167	

Project: USCG Former UST Investigation

Boring: AI-SB04

Pg. 1 of 1

Drilling Co: Vironex

Drilling Method: Direct Push

Date Started: 2/14/08

Location: Building 44














Sampler / Wt & Drop: Grab /

Date Completed: 2/14/08

Logged by: S.C.Knight

Reviewed by: M.Enman

Water Level ∇ ATD 10

DEPTH - FT.	BLOW COUNT	% RECOVERY	FID/PID (ppm)	SAMPLES	GRAPHIC LOG	DESCRIPTION	USCS SYMBOL	ESTIMATED % OF			MOISTURE
								GR	SA	FI	
						ASPHALT	ASPHALT				
1						FILL, hand auger through road bed materials.					
2						Concrete pad	FILL				
3											
4											
5		100				FILL, pea gravel, 0.5 cm sub rounded, poor recovery. Fill from former tank excavation.		90	10		
6							FILL				
7											
8											
9						CLAY lense with fine sand, no odor, dark greyish brown (2.5Y 4/2)	CH		55	45	
10		20				FILL, pea gravel, 0.5 cm sub rounded, poor recovery. Fill from former tank excavation.					W
11							FILL				
12											
13						Refusal at 13.5 feet. concrete dust generated by attempts to push sampler. No samples collected at this location.					
						Bottom of boring at 13.5 feet					

COAST GUARD ISLAND.GPJ 3/21/08



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**AI-SB04 Lithologic Log
U.S. Coast Guard**

Project Location

Coast Guard Island, Alameda CA

Project No.

27-167

Fig.

Project: **USCG Former UST Investigation** Boring: **AI-SB04a** Pg. **1** of **1**

Drilling Co: **Vironex** Drilling Method: **Direct Push** Date Started: **2/14/08**

Location: **Building 44** Sampler / Wt & Drop: **Grab /** Date Completed: **2/14/08**

Logged by: **S.C.Knight** Reviewed by: **M.Enman**

Water Level ∇ ATD **10**

DEPTH - FT.	BLOW COUNT	% RECOVERY	FID/PID (ppm)	SAMPLES	GRAPHIC LOG	DESCRIPTION	USCS SYMBOL	ESTIMATED % OF			MOISTURE
								GR	SA	FI	
						ASPHALT					
1					PEA GRAVEL, no recovery.						
2											
3											
4								90		10	
5											
6											
7							FILL				
8											
9											
10											W
11											
12											
13						Refusal at 13.5 feet. Concrete dust generated by attempts to advance sampler.					
						Bottom of boring at 13.5 feet					

COAST GUARD ISLAND GPJ 3/21/08



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AI-SB04a Lithologic Log
U.S. Coast Guard

Project Location Coast Guard Island, Alameda CA	Project No. 27-167	Fig.
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Project: USCG Former UST Investigation

Boring: AI-SB05

Pg. 1 of 1

Drilling Co: Vironex

Drilling Method: Direct Push

Date Started: 2/14/08

Location: Building 44

Sampler / Wt & Drop: Grab /

Date Completed: 2/14/08

Logged by: S.C.Knight

Reviewed by: M.Enman

Water Level ∇ ATD 10.5

DEPTH - FT.	BLOW COUNT	% RECOVERY	FID/PID (ppm)	SAMPLES	GRAPHIC LOG	DESCRIPTION	USCS SYMBOL	ESTIMATED % OF			MOISTURE
								GR	SA	FI	
						ASPHALT	ASPHALT				
1						SAND, very dark greenish brown (10YR 3/2), poorly graded, fine grained					
2											
3							SP				
4								80	20		M
5	100					CLAY lenses within sand unit reddish black (2.5Y 2.5/1)					
6						SAND with clay, light olive brown (2.5Y 5/4), medium grained, increase in amount of clay downwards	SC	70	30		
7						CLAY with sand		30	70		
8							CLS				
9											
10		75		X		AI-SB05-10 SAND with clay	SC	70	30		W
11						SAND with gravel	SPG	10	70	20	
12						CLAY with sand		20	80		
13						Color change to Gley 1 4/10Y	CLS				
14						Clay with minor sand		5	95		
15		75	0.5			SAND with clay, fine to medium grained		90	10		
16								50	50		W
17							SP-SC				
18											
19											
20		50		X		AI-SB05-20					
						Bottom of boring at 20 feet					

COAST GUARD ISLAND, CPJ 3/21/08



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**AI-SB05 Lithologic Log
U.S. Coast Guard**

Project Location Coast Guard Island, Alameda CA	Project No. 27-167	Fig.
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Project: USCG Former UST Investigation

Boring: AI-SB06

Pg. 1 of 1

Drilling Co: Vironex

Drilling Method: Direct Push

Date Started: 2/15/08

Location: Building 44

Sampler / Wt & Drop: Grab /

Date Completed: 2/15/08

Logged by: S.C.Knight

Reviewed by: M.Enman

Water Level ∇ ATD 12

DEPTH - FT.	BLOW COUNT	% RECOVERY	FID/PID (ppm)	SAMPLES	GRAPHIC LOG	DESCRIPTION	USCS SYMBOL	ESTIMATED % OF			MOISTURE
								GR	SA	FI	
						ASPHALT	ASPHALT				
1						SAND hand auger 0.5 to 4 ft bgs.					
2							SP				
3											
4											
5						SAND (10YR 6/4) poorly graded Color change to 10YR 2/1			95	5	
6							SP				
7											
8						SAND with clay, 1 Gley 4/5, poorly graded			60	30	
9							SP-SC				
10		80	0.1	X		AI-SB06-10					
11						SAND, with minor clay			85	15	
12							SP				W
13											
14						SAND with clay			60	30	
15		100		X		AI-SB06-15					
16						SAND poorly graded			90	10	W
17							SP				
18											
19			0.0			CLAY with minor sand and gravel, highly plastic			5	5	90
20				X		AI-SB06-20	CH				
						Bottom of boring at 20 feet					

COAST GUARD ISLAND.GPJ 3/21/08



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**AI-SB06 Lithologic Log
U.S. Coast Guard**

Project Location

Coast Guard Island, Alameda CA

Project No.

27-167

Fig.



ERRC Inc.
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AI-SB07 Lithologic Log
 U.S. Coast Guard

Project Location: Coast Guard Island, Alameda CA
 Project No.: 27-167
 Fig.:

DEPTH - FT.	BLOW COUNT	% RECOVERY	FID/PID (ppm)	SAMPLES	GRAPHIC LOG	DESCRIPTION	USCS SYMBOL	GR SA FI	ESTIMATED % OF	MOISTURE
1					ASPHALT	ASPHALT	ASPHALT			
1-5					FILL hand auger 0.5 to 5 ft bgs.					
5-6					SAND, (10YR 5/4), poorly graded, loosed, with some clay lenses		SP			
6-7					CLAY with sand and minor angular gravel up to 2 cm, stiff		CLS			
7-8					SAND with clay, (1 Gley 4/5Y), poorly graded					
8-10					AI-SB07-10					
10-11							SP-SC			
11-12										
12-14					CLAY		CH			
14-15					SILT with sand, clay and minor gravel		MLS			
15-16					AI-SB07-15 AI-SB27-15(dup)					
16-17					SAND, loose		SP			
17-18					CLAY (1 Gley 4/5GY)					
18-19					Color change (1 Gley 3/N)		CH			
19-20										
Bottom of boring at 20 feet										

Project: USCG Former UST Investigation Boring: AI-SB07 Pg. 1 of 1

Drilling Co: Vironex Drilling Method: Direct Push Date Started: 2/15/08

Location: Building 44 Sampler / Wt & Drop: Grab / S.C.Knight Logged by: S.C.Knight Reviewed by: M.Enman

Date Completed: 2/15/08

Water Level Δ ATD 12