January 30, 2012

RECEIVED

9:52 am, Feb 01, 2012

Alameda County
Environmental Health

Project 4096114864 02

Ms. Karel Detterman
Hazardous Materials Specialist
Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, California 94502

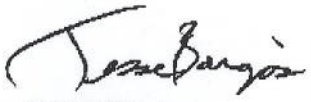
Subject: **Soil and Groundwater Investigation**
Alameda Police Department – Fuel Leak Case No. RO0003024 and
Geo Tracker Global ID T0600100045
1555 Oak Street
Alameda, California

Dear Ms. Detterman:

AMEC Environment & Infrastructure, Inc. (AMEC) is providing the *Soil and Groundwater Investigation* for your review. This report was prepared to fulfill the requirements of the Alameda County Department of Environmental Health request, dated November 10, 2011.

I declare, under penalty of perjury, that the information and/or recommendations contained in the work plan are true and correct to the best of my knowledge.

Sincerely yours,



Jesse Barajas
City of Alameda
Public Works Department

January 30, 2012

Project 4096114864 02

Ms. Karel Detterman
Hazardous Materials Specialist
Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, California 94502

Subject: **Soil and Groundwater Investigation**
Alameda Police Department – Fuel Leak Case No. RO0003024 and
Geo Tracker Global ID T0600100045
1555 Oak Street
Alameda, California

Dear Ms. Detterman:

On behalf of the City of Alameda Public Works Department (the City), AMEC Environment & Infrastructure, Inc. (AMEC) is pleased to submit this report detailing the results of the Soil and Groundwater Investigation performed at the Alameda Police Department located at 1555 Oak Street, in Alameda, California (the Site). This investigation was conducted in response to the Alameda County Health Care Services Agency (the County) letter to the City dated June 30, 2011 and was performed as described in AMEC's October 3, 2011 *Site Investigation Work Plan* and the Alameda County Health Care Services Agency (the County) November 10, 2011 *Approval of Work Plan with Modifications.*

The purpose of this field work was to define the extent of soil and groundwater contamination at the Site as a result of a documented release from the 6,000-gallon underground storage tank (UST).

BACKGROUND

Based on the June 30, 2011 letter from the County, a 6,000-gallon UST was installed at the site in 1978. A July 2, 1986 report entitled *Fuel Tank Monitoring Well Installation Project Report* (Well Report), prepared by Aqua Science Engineers, Inc. documents the installation of one compliance well adjacent to the UST; however, no records were available stating whether the UST was removed or is still in place. Based on records provided from the City in October 2010, a newer 6,000 gallon UST is still in use at the site. The newer tank was reportedly installed at the same location as the previous tank.

SCOPE OF WORK

Our scope of included the following:

- Completion of a geophysical survey to identify subsurface utilities in the site vicinity, prior to initiating intrusive work

AMEC Environment & Infrastructure, Inc.
1465 North McDowell Boulevard, Suite 200
Petaluma, California 94954
USA
Tel (707) 793-3800
Fax (707) 793-3900
amec.com

- Installation of three soil boring and collection of soil and groundwater samples from each of the boring
- Development and sampling of the existing historical monitoring well (compliance well)
- Evaluating the results of the investigation activities and preparing this report

INVESTIGATION ACTIVITES

Soil Boring Installation

On December 28, 2011 AMEC oversaw the installation of three direct-push soil borings (B-1, B-2, and B-3) in the parking lot of the Alameda Police Department, in the estimated vicinity of the former UST. In addition to the three soil borings, the pre-existing monitoring well at the site was re-developed and groundwater sample was collected for analysis. The location of the monitoring well and soil borings is included on Figure 1, Site Map.

Prior to conducting field activities, AMEC obtained a soil boring permit from the Alameda County Public Works Agency. Copies of the permits are included in Attachment A. AMEC also contacted Underground Service Alert (USA), and a private utility locator to identify subsurface utilities in the site vicinity, prior to initiating intrusive work. The utility survey was conducted using a combination of electromagnetic (EM) metal detection and Radio Frequency (RF) pipe location.

The borings were advanced using a Geoprobe 6620DT track-mounted rig operated by Cascade Drilling, L.P. of Rancho Cordova, California. The Geoprobe drill rig uses a combination of hydraulic and vibratory down-force to advance a 1.5-inch diameter steel drive rod into the subsurface. Within the drill rod is a 48-inch sampling tube lined with clear butyrate tubing that is used for continuous sample collection. These tubes are then removed and cut to the desired length to provide soil samples for the laboratory analysis. The selected soil sections were capped off with Teflon tape and plastic endcaps and labeled with unique sample designations to record the location and depth sampled.

The borings were advanced to approximately 20 feet below ground surface (bgs) and were continuously sampled to allow for detailed characterization of the sub-surface. The borings were screened for the presence of volatile organic compounds (VOCs) using an organic vapor meter (OVM), and select soil samples were collected from at or just above the soil-water interface and from the bottom of the boring, and prepared for laboratory analysis. Soil lithology and sample recovery, were recorded in the field logs which are included in Attachment B. All drive rods were washed in an alconox and water solution between boreholes to avoid any potential cross contamination issues.

No elevated VOC readings were obtained during OVM monitoring and no staining or odors were noted in the soil removed from the borings. Therefore, as requested in the November 10, 2011 letter from the County, AMEC submitted the soil samples from at or just above the soil-water interface and from the bottom of the boring.

After allowing time for the borehole to recharge, grab groundwater samples were collected from the three borings by installing a temporary well screen and pumping the water using a peristaltic pump. Clean (new) tubing was used for each location.

Samples were analyzed by TestAmerica of Pleasanton, California. TestAmerica is a state certified hazardous materials testing laboratory for the analyses requested and certified by the California Department of Health Services through the Environmental Laboratory Accreditation Program (ELAP).

The soil and grab groundwater samples from each boring location were analyzed for Diesel Range Organics (DRO) using EPA Test Method 8015m with silica gel strip (EPA Test Method 3630C) to remove naturally occurring polar hydrocarbon compounds. In addition, the VOCs benzene, toluene, ethylbenzene, and total xylenes (BTEX), ethylene dibromide (EDB), ethylene dichloride (EDC), Methyl Tertiary-Butyl Ether (MTBE), Tert-amyl-methyl ether (TAME), Ethyl tert-butyl ether (ETBE), Di-isopropyl ether (DIPE) and t-Butyl alcohol (TBA) were analyzed using EPA Test Method 8260 modified. Soil and groundwater analytical results are listed on Tables 1 and 2, and the laboratory analytical reports are included in Attachment C.

Upon completion of the drilling and sampling, soil cuttings were placed in Department of Transportation (DOT) approved drums for temporary storage pending analysis and proper disposal at a licensed California Landfill. The boreholes were filled with portland cement slurry to the surface. Rinsate water generated during decontamination procedures was mixed with soil cuttings.

Well Development and Sampling

The existing groundwater monitoring well was re-developed using a combination of surging, bailing, and pumping on December 28, 2011. AMEC removed approximately 80 well volumes (90 gallons) of water from the well, until collected readings (for pH, conductivity, and temperature) had stabilized and the removed groundwater exhibited a significant reduction in turbidity. Turbidity was greater than 1,000 NTUs at the start of the development and decreased to less than 10 NTUs when complete). Static groundwater water level was 9.08 feet below the top-of-casing (TOC).

Upon completion of well development a groundwater sample was collected from the well and analyzed for DRO using EPA Test Method 8015m with silica gel strip and the VOCs BTEX, EDB, EDC, MTBE, TAME, ETBE, DIPE, and TBA using EPA Test Method 8260 modified. Analytical results are listed on Table 2, and the laboratory analytical reports are included in Attachment C.

Development water was placed in DOT approved drums for temporary storage pending analysis and proper disposal at a licensed California Landfill.

RESULTS DISCUSSION

Site Lithology and hydrogeology

Observations during the drilling indicated that soils encountered during this investigation consisted entirely of sands with five to fifteen percent fines, except for a 6-inch thick interval containing approximately 30% clay present in soil boring B-2. As discussed above, elevated VOC readings were not detected during OVM monitoring of the soils and no staining or odors were noted in the soil. Groundwater was encountered at approximately 12 feet bgs at all the locations. Boring logs and field notes are included in Attachment B.

Soil Analysis

Table 1 presents the laboratory analytical results for the soil samples collected from soil borings B-1, B-2, and B-3. There were no reported detections above the laboratory reporting limits for DRO or any of the selected VOCs analyzed in the soil samples collected during this investigation. The laboratory analytical reports are included in Attachment C.

Grab Groundwater Analyses

Table 2 presents the laboratory analytical results for the grab groundwater samples collected from soil borings B-1, B-2, and B-3. DRO was reported at 270 micrograms per liter (µg/l) in the groundwater sample collected from B-2. DRO was not detected above the laboratory reporting limits in the samples collected from B-1 or B-3, and there were no reported detections above the laboratory reporting limits for any of the selected VOCs analyzed in the groundwater samples collected during this investigation. The laboratory analytical reports are included in Attachment

Groundwater Monitoring Well Sampling Analysis

Table 2 presents the laboratory analytical results for the groundwater sample collected from the monitoring well. There were no reported detections above the laboratory reporting limits for DRO or any of the selected VOCs analyzed in the groundwater sample collected from the monitoring well during this investigation. The laboratory analytical reports are included in Attachment C.

CONCLUSIONS AND RECOMMENDATIONS

AMEC completed investigation activities at the Alameda Police Department on December 28, 2011. Activities included the installation of three soil borings and the collection of soil and grab groundwater samples for laboratory analysis and the development and sampling of the existing groundwater monitoring well.

The sample analytical results for the drilling investigation indicated the following:

- DRO and the requested VOCs were not detected in any of collected soil samples
- With the exception of DRO, detected at a concentration of 270 µg/l in the groundwater sample collected from boring B-2, DRO was not detected above the laboratory reporting

limits in groundwater samples and there were no reported detections above the laboratory reporting limits for any of the selected VOCs.

The sample analytical results for the groundwater sample collected from the monitoring well reported no detections above the laboratory reporting limits for DRO or any of the selected VOCs analyzed.

Based on the results of the investigation conducted to date, it appears that residual low concentrations of DRO are present in groundwater in the immediate vicinity of the former UST. Sampling results indicate groundwater from boring B-2, located just northeast of the former UST detected DRO at a concentration of 270 µg/L. Based on AMEC's interpretation of the local groundwater gradient, the B-2 location is up- to crossgradient of the former UST. DRO or VOCs were not detected in remaining groundwater samples collected from the borings or the existing groundwater monitoring well.

Based on analysis of these results, it is AMEC's opinion that no further work is warranted to characterize soil and groundwater at the Site. Although elevated levels of DRO were detected in the one grab groundwater sample in the immediate vicinity of the former UST, DRO was not detected in groundwater samples from the other borings which are cross- to downgradient of the former UST or the existing groundwater monitoring well which is in the assumed upgradient direction of the former UST.

In closing, there are no promulgated cleanup goals for petroleum hydrocarbons in groundwater. Comparison of the soil boring groundwater results to Regional Water Quality Control Board (Water Board) screening levels indicate that the DRO results are just above environmental screening level (ESL) toxicity limits of 210 µg/L for total extractable petroleum hydrocarbons (TEPH). Because no other petroleum based hydrocarbon compounds or breakdown products have been detected in groundwater during this investigation and DRO is the only compound of potential concern, we are requesting closure for this site based on the current use of this site and the limited mobility and low toxicity level of diesel.

If you have any questions or concerns, please contact Gary Lieberman at (707) 793-3858.

Sincerely yours,
AMEC Environment & Infrastructure, Inc.

Gary A. Lieberman
Project Manager

Bethany P. Flynn, PG
Principal Geologist

GAL/BPF:sac
p:\secretarial\2010 bay area - pet ca\ac alameda county\ac64133_soil and gw investigation.doc

Attachments: Table 1 Soil Sample Analytical Results
Table 2 Groundwater Sample Analytical Results

Figure 1 Site Map

Appendix A Soil Boring Permit
Appendix B Boring Logs and Field Notes
Appendix C Laboratory Analytical Reports

References:

Alameda County Health Care Services (Alameda County), 2011. *Case File Review for Fuel Leak Case No. RO0003024 and GeoTracker Global ID T0600100045, Alameda Police Department, 1555 Oak Street, Alameda, CA 94501*. June 30.

_____, 2011. *Approval for Work Plan with Modifications, Fuel Leak Case No. RO0003024 (Global ID T0600100045), Alameda Police Department, 1555 Oak Street, Alameda, CA 94501*. November 10.

AMEC Environment & Infrastructure, Inc. (AMEC), 2011. *Site Investigation Workplan, Alameda Police Department – Fuel Leak Case No. RO0003024 and Geo Tracker Global ID T0600100045, 1555 Oak Street, Alameda, California*. October 3.

TABLES

Table 1. Soil Sample Ananlytical Results

Soil and Groundwater Investigation
Alameda Police Department, 1555 Oak Street
Alameda, California

Sample Location	Sample ID	Sample Depth	Date Collected	Reported Concentrations											
				TPHd	Benzene	Toluene	Ethyl-benzene	Total Xylenes	EDB	EDC	MTBE	TAME	ETBE	DIPE	TBA
		(feet bgs)		(mg/kg)	<…………………………………					µg/kg…………					……………………………………>
B-1	S-B1-11.5	11.5	12/28/2011	ND(1.0)	ND(3.9)	ND(3.9)	ND(3.9)	ND(7.7)	ND(3.9)	ND(3.9)	ND(3.9)	ND(3.9)	ND(3.9)	ND(3.9)	ND(7.7)
B-1	S-B1-19.5	19.5	12/28/2011	ND(0.99)	ND(7.9)	ND(7.9)	ND(7.9)	ND(16)	ND(7.9)	ND(7.9)	ND(7.9)	ND(7.9)	ND(7.9)	ND(7.9)	ND(16)
B-2	S-B2-11.5	11.5	12/28/2011	ND(1.0)	ND(3.7)	ND(3.7)	ND(3.7)	ND(7.5)	ND(3.7)	ND(3.7)	ND(3.7)	ND(3.7)	ND(3.7)	ND(3.7)	ND(7.5)
B-2	S-B2-19.5	19.5	12/28/2011	ND(1.0)	ND(3.6)	ND(3.6)	ND(3.6)	ND(7.3)	ND(3.6)	ND(3.6)	ND(3.6)	ND(3.6)	ND(3.6)	ND(3.6)	ND(7.3)
B-3	S-B3-11	11	12/28/2011	ND(1.0)	ND(4.0)	ND(4.0)	ND(4.0)	ND(8.0)	ND(4.0)	ND(4.0)	ND(4.0)	ND(4.0)	ND(4.0)	ND(4.0)	ND(8.0)
B-3	S-B3-19.5	19.5	12/28/2011	ND(0.99)	ND(3.7)	ND(3.7)	ND(3.7)	ND(7.5)	ND(3.7)	ND(3.7)	ND(3.7)	ND(3.7)	ND(3.7)	ND(3.7)	ND(7.5)

Notes:

bgs	= below ground surface
DIPE	= di-isopropyl ether analyzed using EPA method 8260B.
EDB	= ethylene dibromide analyzed using EPA method 8260B.
EDC	= ethylene dichloride (1,2-Dichloroethane) analyzed using EPA method 8260B.
ETBE	= ethyl tert-butyl ether analyzed using EPA method 8260B.
mg/kg	= milligrams per kilogram
MTBE	= methyl tertiary-butyl ether analyzed using EPA method 8260B.
ND( )	= Not detected above the laboratory reporting limits (reporting limit in paranthesis).
TAME	= tert-amyl-methyl ether analyzed using EPA method 8260B.
TBA	= t-butyl alcohol analyzed using EPA method 8260B.
TPHd	= Total Petroleum Hydrocarbons, diesel range (C10-C28), analyzed using EPA method 8015M, with silica gel strip (EPA method 3630C).
µg/kg	= micrograms per kilogram

Benzene, toluene, ethylbenzene, and total xylenes (BTEX) analyzed using EPA method 8260B.

Table 2. Groundwater Sample Analysis Results

Soil and Groundwater Investigation

Alameda Police Department, 1555 Oak Street
Alameda, California

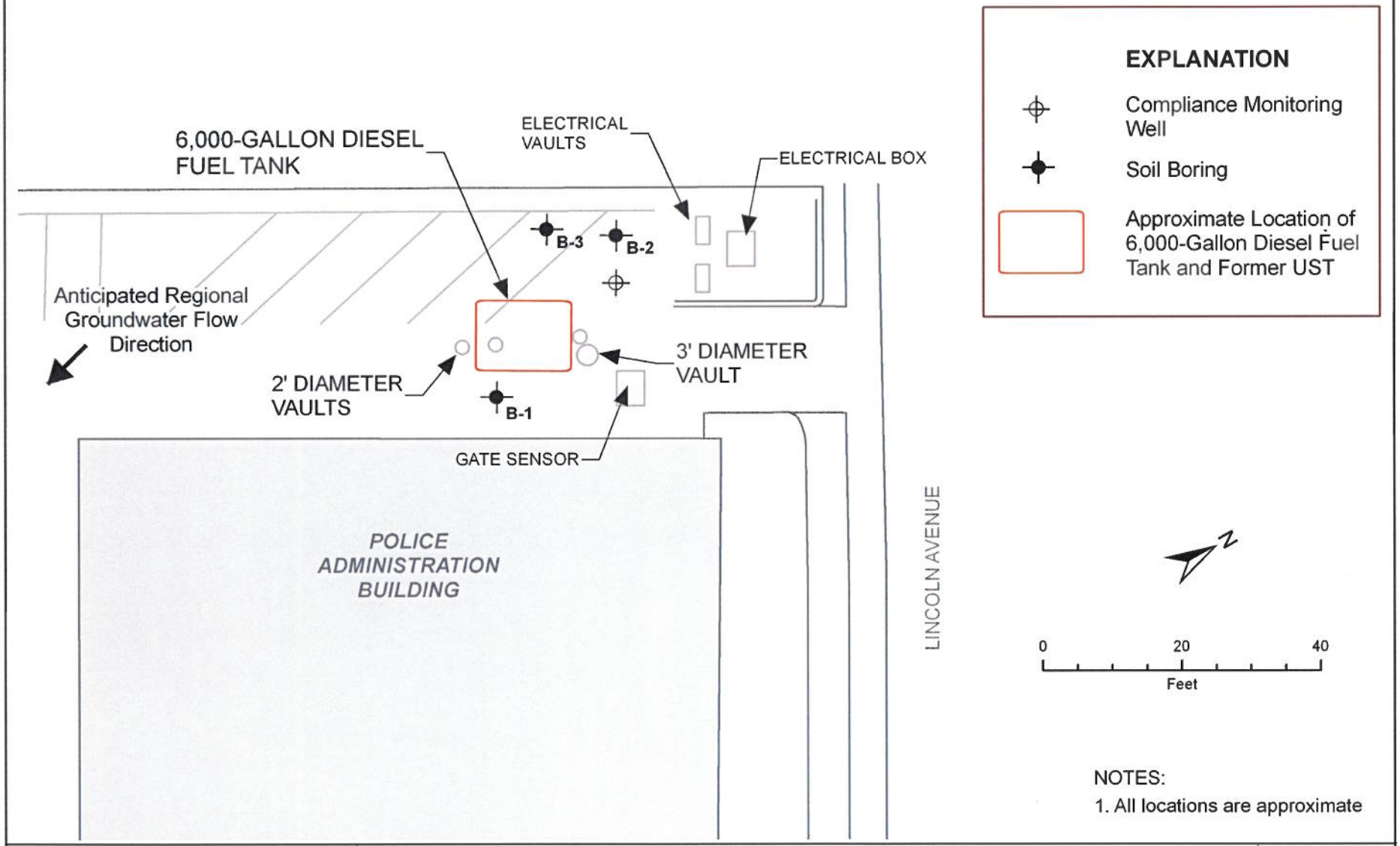
Sample Location	Date Collected	Reported Concentrations											
		TPHd	Benzene	Toluene	Ethyl-benzene	Total Xylenes	EDB	EDC	MTBE	TAME	ETBE	DIPE	TBA
		µg/l											
B-1	12/28/2011	ND(55)	ND(0.50)	ND(0.50)	ND(0.50)	ND(1.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(4.0)
B-2	12/28/2011	**270**	ND(0.50)	ND(0.50)	ND(0.50)	ND(1.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(4.0)
B-3	12/28/2011	ND(58)	ND(0.50)	ND(0.50)	ND(0.50)	ND(1.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(4.0)
MW-1	12/28/2011	ND(53)	ND(0.50)	ND(0.50)	ND(0.50)	ND(1.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(4.0)

Notes:

bgs = below ground surface
DIPE = di-isopropyl ether analyzed using EPA method 8260B.
EDB = ethylene dibromide analyzed using EPA method 8260B.
EDC = ethylene dichloride (1,2-Dichloroethane) analyzed using EPA method 8260B.
ETBE = ethyl tert-butyl ether analyzed using EPA method 8260B.
MTBE = methyl tertiary-butyl ether analyzed using EPA method 8260B.
ND( ) = Not detected above the laboratory reporting limits (reporting limit in paranthesis).
TAME = tert-amyl-methyl ether analyzed using EPA method 8260B.
TBA = t-butyl alcohol analyzed using EPA method 8260B.
TPHd = Total Petroleum Hydrocarbons, diesel range (C10-C28), analyzed using EPA method 8015M, with silica gel strip (EPA method 3630C).
µg/l = micrograms per liter

Benzene, toluene, ethylbenzene, and total xylenes (BTEX) analyzed using EPA method 8260B.

FIGURES



Site Map
Site Investigation Work Plan
Alameda Police Department
Alameda, CA

FIGURE
1

DRAWN	JOB NUMBER	CHECKED	CHECKED DATE	APPROVED	APPROVED DATE
TJH	4096114864 01	GAL	1/2012	BPF	1/2012

January 30, 2012 1:47:45 PM
P:\4096\114861_Alemeda_PD\GIS\projects\Figure1_SiteMap.mxd

APPENDIX A

Soil Boring Permit

Alameda County Public Works Agency - Water Resources Well Permit

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

Application Approved on: 12/21/2011 By jamesy

Permit Numbers: W2011-0783
Permits Valid from 12/28/2011 to 12/28/2011

Application Id: 1324494046907
City of Project Site: Alameda
Site Location: 1555 Oak St, Alameda, CA
Project Start Date: 12/28/2011
Completion Date: 12/28/2011
Assigned Inspector: Contact Steve Miller at (510) 670-5517 or stevem@acpwa.org

Applicant: AMEC - Gary Lieberman
1465 N McDowell Blvd, Ste 200, Petaluma, CA 94954
Phone: 707-793-3858

Property Owner: City of Alameda Police Dept.
2263 Santa Clara Ave., Alameda, CA 94501
Phone: --

Client: City of Alameda PWA
2263 Santa Clara Ave, Alameda, CA 94501
Phone: 510-846-5139

Total Due: $265.00
Receipt Number: WR2011-0382 **Total Amount Paid:** $265.00
Payer Name : MACTEC Paid By: CHECK **PAID IN FULL**

Works Requesting Permits:

Borehole(s) for Investigation-Geotechnical Study/CPT's - 3 Boreholes
Driller: Cascade - Lic #: 938110 - Method: other **Work Total: $265.00**

Specifications

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2011-0783	12/21/2011	03/27/2012	3	2.00 in.	25.00 ft

Specific Work Permit Conditions

1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site.

2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.

3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.

4. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

5. Applicant shall contact Steve Miller for an inspection time at (510) 670-5517 or email to stevem@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24

hours prior to drilling.

6. Permittee, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.

7. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of $500.00.

8. Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.

APPENDIX B

Boring Logs and Field Notes

MACTEC
Log of Well Boring

Well ID	B-1	Project	409611/4664	Sheet	1 of 1
Location		Task	01	Job	
Drilling Method	Direct Push	By	Scott Graham	Date	12/28/11
Driller	RSE	Checked By		Date	

CaCO3	Depth (ft)	Stratigraphic Column (Cl Z S G P C)	Clast Max (in) (0 2 4 6)	Description
			PID	Top 9"-asphalt + roadbase
				Brown (7.5YR4/4) Clayey Sand, loose, moist, 80% fine sand, 20% fines, trace rounded gravel to 1/4" SC
	2.5		1.2	approx 5% fines @ 3' Poorly graded sand ~~with clay~~ trace gravel to 1/2", 95% fine sand SP
	5		0.7	~~approx~~
	7.5		0.9	
	10		0.8	Brown (7.5YR5/4) Silty Sand, loose, moist 85% fine sand, 15% fines SM
		1025 S-B1-11.5		
	12.5		1.3	Wet @ 12'
	15		1.0	
	17.5			
		1030 S-B1-19.5		
	20		1.6	Boring terminated @ 20' @ 1030
				Water sample W-B1 @ 1100

Cl Z S G P C 0 2 4 6

MACTEC
Log of Well Boring

Well ID	B-2	Project	409611466.4	Sheet	1 of 1
Location		Task	01	Job	
Drilling Method	Direct Push	By	Scott Graham	Date	12/28/11
Driller	RST	Checked By		Date	

$CaCO_3$	Depth (ft)	Stratigraphic Column	Clast Max (in)	Description
		Cl Z S G P C	0 2 4 6	
			PID	8" Asphalt + road base
	2.5		1.3	SM Brown (7.5YR4/3) Silty Sand, Loose, moist, 85% fine sand, 15% fines, + trace round gravel to ~~base~~ 1"
			1.4	Color change to Brown (7.5YR5/4)
	5		1.1	
	7.5		1.2	6" thick SC Brown (7.5YR5/4) Clayey Sand, ~~sat~~ mediens moist, 30% fines, 70% fine sand
			2.0	SM Silty Sand (as above)
	10			
		1145 S-B2-11.5	1.7	Wet at 12'
	12.5			
			1.8	
	15		2.0	
	17.5		1.7	
		1150 S-B2-19.5	1.5	
	20			Boring terminated @ 20' @ 1150 Water sample W-B2 collected @ 1250
		Cl Z S G P C	0 2 4 6	

MACTEC
Log of Well Boring

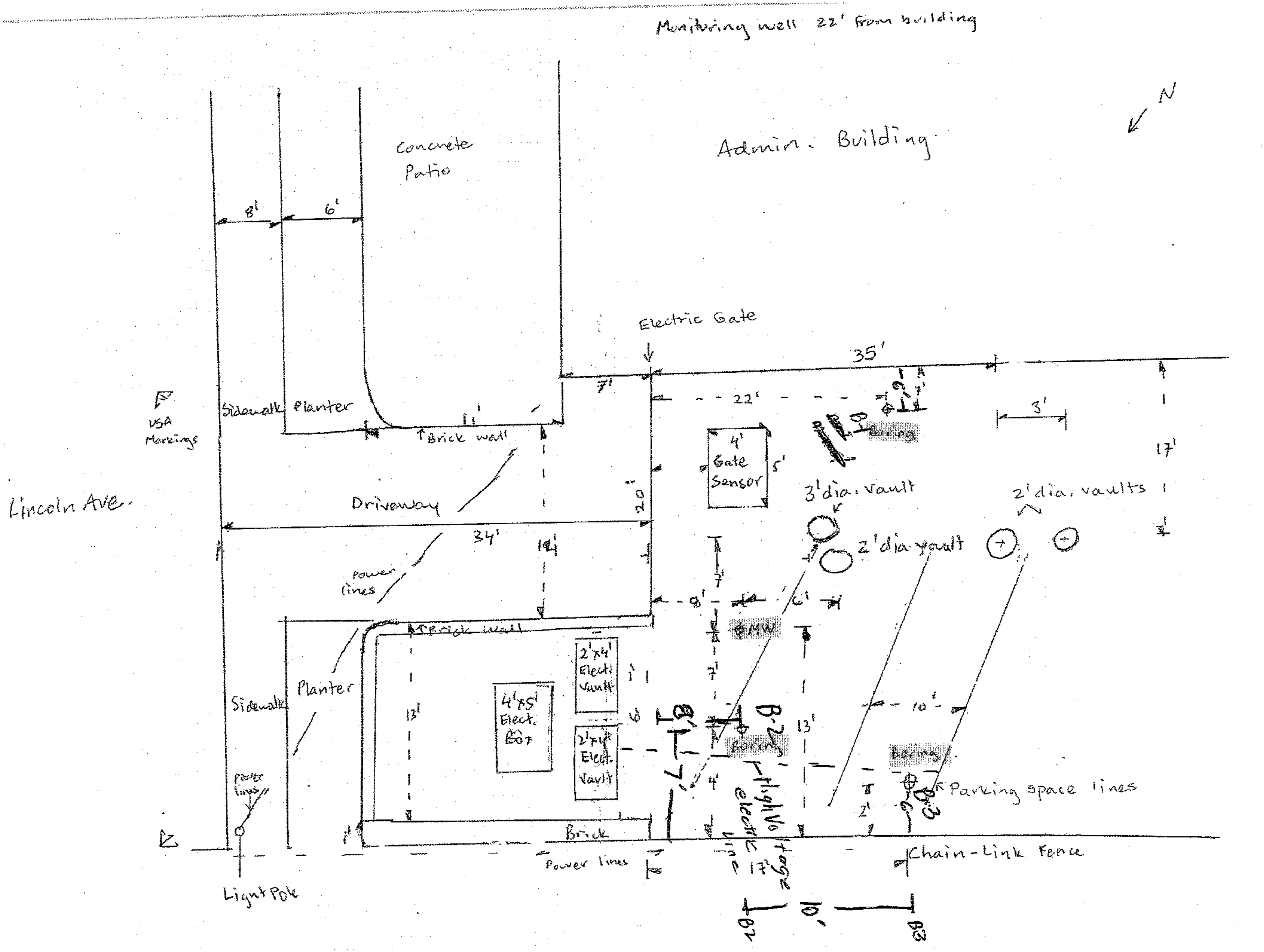
Well ID	B-3	Project	409611[illegible]64	Sheet	1 of 1
Location		Task	01	Job	
Drilling Method	Direct Push	By	Scott Graham	Date	12/28/11
Driller	RST	Checked By		Date	

$CaCO_3$	Depth (ft)	Stratigraphic Column (Cl Z S G P C)	Clast Max (in) (0 2 4 6)	Description
			PID	8" Asphalt & Roadbase
			2.0	SM Brown (7.5YR5/4) Silty Sand, Loose, moist 85% fine sand, 15% fines, Trace gravel to ¼"
	2.5			
			1.2	Color change to Brown (7.5YR4/4)
	5		1.9	
	7.5		1.2	
	10		1.8	
		B3-11		
		1340 S-	1.7	Wet @ 11.5
	12.5		1.4	
	15		1.8	
	17.5		1.7	
		B3-19.5		
	20	1350 S-	1.8	Boring Terminated @ 1350 @ 20' collect water sample @ 1400

12/28/11 – Scott Graham

Alameda Police Dept, Job# 409611464.01

720 - Onsite, discuss job with Max Arbios (Pub Works) & Rob Frankland (Alameda police)
730 - Cruz onsite
800 - Chad & RSI onsite, Rig Geoprobe 6620 DT
845 - attend daily safety tailgate
905 - Cruz completes utility locate
Set up track mounted Direct-push rig @ B-1, hand auger to 5' due to closeness of utilities
915 - Break asphalt & begin ~~drilling~~ handaugering - encountered a PVC Line, 930: move boring over & try again
1000 - Start advancing B-1
~~Water @~~ DTW ≈ 9' in well
1030 - finish B1 (TD = 20'), collect water sample @ 1100
1110 - Break asphalt @ B2, moved SE to avoid High Voltage Electric Line
- Hand auger to 5' bgs
1130 Begin Drilling B-2, reach 20' @ 1150
- collect water sample @ 1250
1310 - Break asphalt @ B-3 & hand auger to 5', reach TD of 20' @ 1350
- collect water sample @ 1400
1420 - Steve (County Inspector) onsite
1430 - Grout up holes, cap with concrete (at Max Arbios' Request)
Leave 2 drums onsite - One purge water, One soil/Purge & decon water
1500 - Inspector departs
RSI Departs 1515


Monitoring well 22' from building
N
Admin. Building
Concrete Patio
8'
6'
Electric Gate
35'
7'
22'
3'
17'
USA Markings
Sidewalk
Planter
Brick wall
Driveway
34'
20'
4'
Gate Sensor
5'
3' dia. vault
2' dia. vaults
2' dia. vault
Lincoln Ave.
Power lines
9'
6'
MW
Brick wall
2'x4' Elect. Vault
4'x5' Elect. Box
2'x4' Elect. Vault
13'
Sidewalk
Planter
B-1
B-2
Boring
10'
Boring
Parking space lines
B-3
High Voltage electric line
Brick
Power lines
Chain-Link Fence
Light Pole
17'
10'
B2
B3

City of Alameda California

919-9326

Max Arbios
Public Works Supervisor

Maintenance Services
1616 Fortmann Way
Alameda, California 94501-1274
510.747.7922
Fax: 510.521.8762/ TTY 510.522.7538
marbios@ci.alameda.ca.us

"In Partnership with Our Community"

ROB FRANKLAND
LIEUTENANT

C-590-1542

1555 Oak Street
Alameda, CA 94501
(510) 337-8340

(510) 337-8343
Fax: (510) 523-5322
Rfrankla@ci.alameda.ca.us

MACTEC

5341 Old Redwood Highway
Suite 300
Petaluma, CA 94954
(707) 793-3800

CHAIN OF CUSTODY FORM

Seq. No.: № 1754

Samplers: Scott Graham

Lab:

Job Number: 409611406401

Name/Location: Alameda Police Department, Oak Street

Project Manager: Gary Lieberman Recorder: (Signature Required)

MATRIX			# CONTAINERS & PRESERV.				SAMPLE NUMBER	DATE				STATION DESCRIPTION		ANALYSIS REQUESTED: TPHd 8015 w/ TU, 8260 8260-BTEX, EDB EDC, MTBE, TAME ETBE, DIPE, TBA
Water	Soil	Air	Unpres.	H2SO4	HNO3	HCL	YR SEQ	YR	MO	DAY	TIME		DEPTH	
	X		3			1	S-B1-11.5	11	12	28	1025			XX
	X		3			1	S-B1-19.5	11	12	28	1030			XX
X			2			3	W-B1	11	12	28	1100			XX
	X		3			1	S-B2-11.5	11	12	28	1145			XX
	X		3			1	S-B2-19.5	11	12	28	1150			XX
X			2			3	W-B2	11	12	28	1250			XX
	X		3			1	S-B3-11	11	12	28	1340			XX
	X		3			1	S-B3-19.5	11	12	28	1350			XX
X			2			3	MW-1	11	12	28	1345			XX
X			2			3	W-B3	11	12	28	1400			XX

ADDITIONAL INFORMATION

SAMPLE NUMBER YR	SEQ	TURNAROUND TIME/ REMARKS
		10 day

CHAIN OF CUSTODY RECORD

12/29/11

Scott Graham AMEC

	(Print Name)	(Company)	Date/Time
Relinquished By (Signature)			
Received By (Signature)			
Relinquished By (Signature)			
Received By (Signature)			
Relinquished By (Signature)			
Received By (Signature)			

Method of Shipment:

Laboratory Copy Project Office Copy Field or Office Copy

DESIGN MEMORANDUM (METRIC)

Client: Alameda Police Dept. Sheet 1 Of 2

Project: Date: 12/29/11

Data For: Work Order:

Prepared By: Checked By: File No:

Note: This form must be used for project calculations and original filed in project files

0600 Depart Petaluma to Alameda Police Dept.
0715 on site, w/ Scott Graham, Drilling and locating companies.
0730 located MW-1, will need to keep away of location until locator is complete for underground utilities.
0800 MW-1 = 2" PVC well. WL = 9.08' TD = 15.83' has Soft Bottom.
0815 constructed PVC w/ check valve to make surge block.
0900 started surge, check valve got stuck w/ sand. will try to pump. Check valve stuck w/ sand/mud. pumping well dry / 1" PVC pipe place at bottom during train pump.
0925 Start pump. well went dry after 3 gallons.
0930 pulled pipe to check WL to see Recharge
0937 WL: 9.59, will try low flow pump around 14.00'. Started pump. Well went dry after additional 5 gal.
0941 WL = 13.20. Total Vol. Purged = 8 gallons. well let recharge.
0944 WL = 11.00 still waiting for recharge.
0947 WL = 10.35
0952 WL = 9.75
0953 Start pump again
0955 Dry after 3 more gallons purged. 11 gallons total. Turbidity still over 1,000 NTU's.
1005 ~~to 1010~~ Start pump again. lowered pump 3" to Bottom.
~~to 1010~~ TD is increasing w/ sand being removed.
1007 well Dry w/ 4 more gallons. 15 gallons total removed an additional few inches of sands.
1015 Noticed well is recharging 60-85% after 5-10 minutes after being Purged dry. Will continue doing this until parameters stabilize.
1020 15.98 new TD as of now. Removed 0.15' of sand.
1022 Started pump again moving it up and down 2-3' to ~~at~~ surge the screen. Seemt to be cleaning up But still over 1,000 NTU turbidity. Removed more sand.
1042 Reached 29-30 gallons purged. Turbidity still over 1,000 NTU's and still removing sands while surging well w/ pump. Thinking the surging is creating the sands to enter through the screen cause well seems to be at Total Depth w/ Hard bottom. Will try to just purge well w/o surge to see if cleans up.

NEXT page →

DESIGN MEMORANDUM (METRIC)

Client: Mamed Police Dept. Sheet 2 Of 2

Project: _____ Date: 12/28/11

Data For: _____ Work Order: _____

Prepared By: _____ Checked By: _____ File No: _____

Note: This form must be used for project calculations and original filed in project files

1052 One purge of another 4 gallons at 33 total gallons. First time to NOT surge well and water clearing up and the sand removal went down. Not much sand removed. Seems as surging well makes sand enter through screen.

1055 Stop work, pack up to move vehicle so drillers can get behind my location.

1122 42 total gallons purged so far. After 30 gallons I stopped surging well and has started to clear up. At 204 NTU's now.

1304 well continueing to slowly drop NTU's now at 50 Turbidity. Will purge a few more well vol's to see, if it will clear up any more.

1340 Turbidity and all parameters are stable

1345 Sampled well MW-1 for 8260 and 8015.

1350 Hauled our samples to Scott. going on his COC.

1355 Cleaned up / packed up. left 1/2" Dedicated tubing in well,

1430 off site.

MACTEC

GROUNDWATER SAMPLING FORM

1 of 3

Well Number: MW-1

Well Type: [X] Monitor [ ] Extraction [ ] Other ___
[X] PVC [ ] St. Steel [ ] Other ___

Job Name: Alameda Police Dept.

Job Number: 40881148640 01

Recorded By: CW (Signature)

Date: 12/28/11

Sampled By: CS (Initials)

WELL PURGING

PURGE VOLUME

Casing Diameter (D in inches): 2"
Total Depth of Casing (TD in ft BTOC): 15.83'
Water Level Depth (WL in ft BTOC): 9.08'
No. of Well Volumes to be purged (# V): 10

PURGE METHOD

[ ] Bailer - Type:
[X] Submersible - Type: 12 volt geosquirt
[ ] Other - Type:

PUMP INTAKE SETTING

[X] Near Bottom [ ] Near Top
[ ] Other
Depth in feet (BTOC):
Screen Interval in feet (BTOC): from ___ to ___

PURGE VOLUME CALCULATION

(_____ - _____) X ___ ² X ▮ X 0.0408 = 1.10 gals

TD (feet) WL (Feet) D (inches) # V Calculated Purge Volume

Field Parameter Measurement

991 Minutes	pH	Conductivity (µS)	[✓] °C [ ] °F Temp.	Turbidity (NTU)
Initial	7.46	257.1	16.3	>1,000
3	7.39	390	15.6	>1,000
5	7.16	288.6	18.3	>1,000
10	7.25	296.8	18.3	>1,000
15	7.39	274.0	17.7	>1,000
20	7.19	287.0	18.7	>1,000
25	7.25	280.3	18.7	>1,000
29	7.13	275.1	18.2	>1,000
33	7.12	277	18.2	405
Meter S/N				

PURGE TIME

Purge Start: 0925
Purge Stop: _____
Elapsed: _____

PURGE RATE

GPM: _____
GPM: _____

PURGE VOLUME

Volume: _____ gallons

Observations During Purging (Well Condition, Color, Odor):
lots of fine sands and clay/mud. low Hydrocarbon odor. No Sheen.

Discharge Water Disposal: [ ] Sanitary Sewer [ ] Storm Sewer [ ] Other

WELL SAMPLING

[ ] Bailer - Type: _____ Sample Time: _____

Sample No.	Volume/Cont.	Analysis Requested	Preservatives	Lab	Comments

QUALITY CONTROL SAMPLES

Duplicate Samples

Original Sample No.	Dupl. Sample No.

Blank Samples

Type	Sample No.

Other Samples

Type	Sample No.

gallons

29

1042

MACTEC

GROUNDWATER SAMPLING FORM

Job Name: Alameda Police Dept
Job Number: 40661142641 01
Recorded By: CS (Signature)

Well Number: MW-1
Well Type: [X] Monitor [ ] Extraction [ ] Other ___ [X] PVC [ ] St. Steel [ ] Other ___
Date: 12/28/11
Sampled By: CS (Initials)

WELL PURGING

PURGE VOLUME

Casing Diameter (D in inches): ____
Total Depth of Casing (TD in ft BTOC): ____
Water Level Depth (WL in ft BTOC): ____
No. of Well Volumes to be purged (# V): ____

PURGE METHOD

[ ] Bailer - Type:
[X] Submersible - Type: 12 volt geoSquirt
[ ] Other - Type:

PUMP INTAKE SETTING

[ ] Near Bottom [ ] Near Top
[X] Other 2' off bottom
Depth in feet (BTOC): ____
Screen Interval in feet (BTOC): from ____ to ____

PURGE VOLUME CALCULATION

(____ - ____) X ____ ² X 3 X 0.0408 = ____ gals
TD (feet) WL (Feet) D (inches) # V Calculated Purge Volume

Field Parameter Measurement

gal. Minutes	pH	Conductivity (µS)	[ ] °C Temp. [ ] °F	Turbidity (NTU)
38 ~~Initial~~	7.26	271.5	17.9	390
42	7.19	278.8	18.4	204
47	7.16	279	18.5	117
52	7.20	281	18.6	326
57	7.27	279	18.4	171
61	7.20	278.1	19.0	109
65	7.08	279.2	19.0	73.8
70	7.13	279.4	18.7	55.2
74	7.15	278.1	18.9	50.2
Meter S/N				

PURGE TIME

Purge Start: ____
Purge Stop: ____
Elapsed: ____

PURGE RATE

GPM: ____
GPM: ____

PURGE VOLUME

Volume: ____ gallons

Observations During Purging (Well Condition, Color, Odor):
less sands after 30 gal. purged. Clearing up.

Discharge Water Disposal: [ ] Sanitary Sewer [ ] Storm Sewer [ ] Other

WELL SAMPLING

[ ] Bailer - Type: ____
Sample Time: ____

Sample No.	Volume/Cont.	Analysis Requested	Preservatives	Lab	Comments

QUALITY CONTROL SAMPLES

Duplicate Samples

Original Sample No.	Dupl. Sample No.

Blank Samples

Type	Sample No.

Other Samples

Type	Sample No.

MACTEC

GROUNDWATER SAMPLING FORM

Well Number: MW-1

Well Type: [X] Monitor [ ] Extraction [ ] Other ___ [X] PVC [ ] St. Steel [ ] Other ___

Job Name: Alameda Police Dept

Job Number: 40881147664.01

Date: 12/28/11

Recorded By: CS (Signature)

Sampled By: CS (Initials)

WELL PURGING

PURGE VOLUME

Casing Diameter (D in inches): ____

Total Depth of Casing (TD in ft BTOC): ____

Water Level Depth (WL in ft BTOC): ____

No. of Well Volumes to be purged (# V): ____

PURGE METHOD

[ ] Bailer - Type:

[X] Submersible - Type: 12 Volt pump

[ ] Other - Type:

PUMP INTAKE SETTING

[ ] Near Bottom [ ] Near Top

[X] Other 4' off bottom

Depth in feet (BTOC): ____

Screen Interval in feet (BTOC): from ____ to ____

PURGE VOLUME CALCULATION

(____ - ____) X ____ ² X 3 X 0.0408 = ____ gals

TD (feet) WL (Feet) D (Inches) # V Calculated Purge Volume

Field Parameter Measurement

Minutes	pH	Conductivity (µS)	Temp. [ ] °C [ ] °F	Turbidity (NTU)
~~Initial~~ 78	7.15	279.6	18.8	61.3
82	7.17	278.9	18.9	18.3
86	7.15	279.3	18.8	14.6
88	7.16	279.9	18.8	11.2
90 Gal.	7.17	278.9	18.9	8.6
Meter S/N				

PURGE TIME

Purge Start: ____

Purge Stop: ____

Elapsed: ____

PURGE RATE

GPM: ____

GPM: ____

PURGE VOLUME

Volume: 74.5 well vol. Total. gallons

or 82 gallons to get

Observations During Purging (Well Condition, Color, Odor):

Turb low. Ended at 90 gallons. Turb under 10

Discharge Water Disposal: [ ] Sanitary Sewer [ ] Storm Sewer [ ] Other

WELL SAMPLING

[ ] Bailer - Type: 12 Volt pump w/ Dedicated tubing

Sample Time: 1345

Sample No.	Volume/Cont.	Analysis Requested	Preservatives	Lab	Comments
MW-1	3-40ML	8260B	HCL		
	2-1L AG	8015M	N/A		

QUALITY CONTROL SAMPLES

Duplicate Samples	
Original Sample No.	Dupl. Sample No.

Blank Samples	
Type	Sample No.

Other Samples	
Type	Sample No.

* left 1/2" Dedicated sample tubing in well.

APPENDIX C

Laboratory Analytical Reports

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

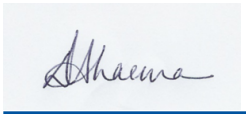
ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica San Francisco
1220 Quarry Lane
Pleasanton, CA 94566
Tel: (925)484-1919

TestAmerica Job ID: 720-39507-1
Client Project/Site: City of Alameda
Revision: 1

For:
AMEC E&I, Inc
1465 North McDowell Blvd
Suite 200
Petaluma, California 94954

Attn: Mr. Gary Lieberman



Authorized for release by:
1/6/2012 3:55:48 PM

Dimple Sharma
Project Manager I
dimple.sharma@testamericainc.com

Table of Contents

Definitions/Glossary

Client: AMEC E&I, Inc
Project/Site: City of Alameda

TestAmerica Job ID: 720-39507-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
F	MS or MSD exceeds the control limits
F	RPD of the MS and MSD exceeds the control limits
X	Surrogate is outside control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client: AMEC E&I, Inc
Project/Site: City of Alameda

TestAmerica Job ID: 720-39507-1

Job ID: 720-39507-1

Laboratory: TestAmerica San Francisco

Narrative

Job Narrative
720-39507-1

Comments
No additional comments.

Receipt
Received 4 trip blank vials not listed on coc. Logged on hold.

All other samples were received in good condition within temperature requirements.

GC/MS VOA
Method 8260B: Internal standard responses were outside of acceptance limits for the following sample 39507-2: S-B1-19.5 (720-39507-2). The sample shows evidence of matrix interference.

Method 8260B: Due to the high concentration of Ethylbenzene, Benzene, Xylenes the matrix spike / matrix spike duplicate (MS/MSD) for batch 105377 could not be
No other analytical or quality issues were noted.

GC Semi VOA
Method 8015B: Surrogate recovery for the following sample was outside the upper control limit: S-B2-19.5 (720-39507-5), S-B3-11 (720-39507-7), S-B3-19.5 (720-39507-8). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

Method 8015B: The matrix spike duplicate (MSD) recoveries for batch 105342 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

No other analytical or quality issues were noted.

Organic Prep
No other analytical or quality issues were noted.

Detection Summary

Client: AMEC E&I, Inc
Project/Site: City of Alameda

TestAmerica Job ID: 720-39507-1

Client Sample ID: S-B1-11.5 — Lab Sample ID: 720-39507-1

No Detections

Client Sample ID: S-B1-19.5 — Lab Sample ID: 720-39507-2

No Detections

Client Sample ID: W-B1 — Lab Sample ID: 720-39507-3

No Detections

Client Sample ID: S-B2-11.5 — Lab Sample ID: 720-39507-4

No Detections

Client Sample ID: S-B2-19.5 — Lab Sample ID: 720-39507-5

No Detections

Client Sample ID: W-B2 — Lab Sample ID: 720-39507-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	270		65		ug/L	1		8015B	Silica Gel Clean

Client Sample ID: S-B3-11 — Lab Sample ID: 720-39507-7

No Detections

Client Sample ID: S-B3-19.5 — Lab Sample ID: 720-39507-8

No Detections

Client Sample ID: MW-1 — Lab Sample ID: 720-39507-9

No Detections

Client Sample ID: W-B3 — Lab Sample ID: 720-39507-10

No Detections

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Client Sample ID: S-B1-11.5
Date Collected: 12/28/11 10:25
Date Received: 12/29/11 13:10

Lab Sample ID: 720-39507-1
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	ND		3.9		ug/Kg		12/29/11 18:00	12/30/11 12:52	1
Benzene	ND		3.9		ug/Kg		12/29/11 18:00	12/30/11 12:52	1
Ethylbenzene	ND		3.9		ug/Kg		12/29/11 18:00	12/30/11 12:52	1
Toluene	ND		3.9		ug/Kg		12/29/11 18:00	12/30/11 12:52	1
Xylenes, Total	ND		7.7		ug/Kg		12/29/11 18:00	12/30/11 12:52	1
TBA	ND		7.7		ug/Kg		12/29/11 18:00	12/30/11 12:52	1
DIPE	ND		3.9		ug/Kg		12/29/11 18:00	12/30/11 12:52	1
TAME	ND		3.9		ug/Kg		12/29/11 18:00	12/30/11 12:52	1
Ethyl t-butyl ether	ND		3.9		ug/Kg		12/29/11 18:00	12/30/11 12:52	1
Ethylene Dibromide	ND		3.9		ug/Kg		12/29/11 18:00	12/30/11 12:52	1
1,2-Dichloroethane	ND		3.9		ug/Kg		12/29/11 18:00	12/30/11 12:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*45 - 131*	*12/29/11 18:00*	*12/30/11 12:52*	*1*
1,2-Dichloroethane-d4 (Surr)	*92*		*60 - 140*	*12/29/11 18:00*	*12/30/11 12:52*	*1*
Toluene-d8 (Surr)	*93*		*58 - 140*	*12/29/11 18:00*	*12/30/11 12:52*	*1*

Client Sample ID: S-B1-19.5
Date Collected: 12/28/11 10:30
Date Received: 12/29/11 13:10

Lab Sample ID: 720-39507-2
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	ND		7.9		ug/Kg		12/29/11 18:00	12/30/11 13:21	1
Benzene	ND		7.9		ug/Kg		12/29/11 18:00	12/30/11 13:21	1
Ethylbenzene	ND		7.9		ug/Kg		12/29/11 18:00	12/30/11 13:21	1
Toluene	ND		7.9		ug/Kg		12/29/11 18:00	12/30/11 13:21	1
Xylenes, Total	ND		16		ug/Kg		12/29/11 18:00	12/30/11 13:21	1
TBA	ND		16		ug/Kg		12/29/11 18:00	12/30/11 13:21	1
DIPE	ND		7.9		ug/Kg		12/29/11 18:00	12/30/11 13:21	1
TAME	ND		7.9		ug/Kg		12/29/11 18:00	12/30/11 13:21	1
Ethyl t-butyl ether	ND		7.9		ug/Kg		12/29/11 18:00	12/30/11 13:21	1
Ethylene Dibromide	ND		7.9		ug/Kg		12/29/11 18:00	12/30/11 13:21	1
1,2-Dichloroethane	ND		7.9		ug/Kg		12/29/11 18:00	12/30/11 13:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*79*		*45 - 131*	*12/29/11 18:00*	*12/30/11 13:21*	*1*
1,2-Dichloroethane-d4 (Surr)	*66*		*60 - 140*	*12/29/11 18:00*	*12/30/11 13:21*	*1*
Toluene-d8 (Surr)	*90*		*58 - 140*	*12/29/11 18:00*	*12/30/11 13:21*	*1*

Client Sample ID: W-B1
Date Collected: 12/28/11 11:00
Date Received: 12/29/11 13:10

Lab Sample ID: 720-39507-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			12/30/11 19:22	1
Benzene	ND		0.50		ug/L			12/30/11 19:22	1
Ethylbenzene	ND		0.50		ug/L			12/30/11 19:22	1
Toluene	ND		0.50		ug/L			12/30/11 19:22	1
Xylenes, Total	ND		1.0		ug/L			12/30/11 19:22	1
TBA	ND		4.0		ug/L			12/30/11 19:22	1

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS (Continued)

Client Sample ID: W-B1
Date Collected: 12/28/11 11:00
Date Received: 12/29/11 13:10

Lab Sample ID: 720-39507-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DIPE	ND		0.50		ug/L			12/30/11 19:22	1
TAME	ND		0.50		ug/L			12/30/11 19:22	1
Ethyl t-butyl ether	ND		0.50		ug/L			12/30/11 19:22	1
1,2-Dichloroethane	ND		0.50		ug/L			12/30/11 19:22	1
Ethylene Dibromide	ND		0.50		ug/L			12/30/11 19:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*67 - 130*		*12/30/11 19:22*	*1*
1,2-Dichloroethane-d4 (Surr)	*104*		*75 - 138*		*12/30/11 19:22*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*		*12/30/11 19:22*	*1*

Client Sample ID: S-B2-11.5
Date Collected: 12/28/11 11:45
Date Received: 12/29/11 13:10

Lab Sample ID: 720-39507-4
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	ND		3.7		ug/Kg		12/29/11 18:00	12/30/11 13:50	1
Benzene	ND		3.7		ug/Kg		12/29/11 18:00	12/30/11 13:50	1
Ethylbenzene	ND		3.7		ug/Kg		12/29/11 18:00	12/30/11 13:50	1
Toluene	ND		3.7		ug/Kg		12/29/11 18:00	12/30/11 13:50	1
Xylenes, Total	ND		7.5		ug/Kg		12/29/11 18:00	12/30/11 13:50	1
TBA	ND		7.5		ug/Kg		12/29/11 18:00	12/30/11 13:50	1
DIPE	ND		3.7		ug/Kg		12/29/11 18:00	12/30/11 13:50	1
TAME	ND		3.7		ug/Kg		12/29/11 18:00	12/30/11 13:50	1
Ethyl t-butyl ether	ND		3.7		ug/Kg		12/29/11 18:00	12/30/11 13:50	1
Ethylene Dibromide	ND		3.7		ug/Kg		12/29/11 18:00	12/30/11 13:50	1
1,2-Dichloroethane	ND		3.7		ug/Kg		12/29/11 18:00	12/30/11 13:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*91*		*45 - 131*	*12/29/11 18:00*	*12/30/11 13:50*	*1*
1,2-Dichloroethane-d4 (Surr)	*93*		*60 - 140*	*12/29/11 18:00*	*12/30/11 13:50*	*1*
Toluene-d8 (Surr)	*92*		*58 - 140*	*12/29/11 18:00*	*12/30/11 13:50*	*1*

Client Sample ID: S-B2-19.5
Date Collected: 12/28/11 11:50
Date Received: 12/29/11 13:10

Lab Sample ID: 720-39507-5
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	ND		3.6		ug/Kg		12/29/11 18:00	12/30/11 14:19	1
Benzene	ND		3.6		ug/Kg		12/29/11 18:00	12/30/11 14:19	1
Ethylbenzene	ND		3.6		ug/Kg		12/29/11 18:00	12/30/11 14:19	1
Toluene	ND		3.6		ug/Kg		12/29/11 18:00	12/30/11 14:19	1
Xylenes, Total	ND		7.3		ug/Kg		12/29/11 18:00	12/30/11 14:19	1
TBA	ND		7.3		ug/Kg		12/29/11 18:00	12/30/11 14:19	1
DIPE	ND		3.6		ug/Kg		12/29/11 18:00	12/30/11 14:19	1
TAME	ND		3.6		ug/Kg		12/29/11 18:00	12/30/11 14:19	1
Ethyl t-butyl ether	ND		3.6		ug/Kg		12/29/11 18:00	12/30/11 14:19	1
Ethylene Dibromide	ND		3.6		ug/Kg		12/29/11 18:00	12/30/11 14:19	1
1,2-Dichloroethane	ND		3.6		ug/Kg		12/29/11 18:00	12/30/11 14:19	1

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	*90*		*45 - 131*	*12/29/11 18:00*	*12/30/11 14:19*	*1*
1,2-Dichloroethane-d4 (Surr)	*90*		*60 - 140*	*12/29/11 18:00*	*12/30/11 14:19*	*1*
Toluene-d8 (Surr)	*91*		*58 - 140*	*12/29/11 18:00*	*12/30/11 14:19*	*1*

Client Sample ID: W-B2
Date Collected: 12/28/11 12:50
Date Received: 12/29/11 13:10

Lab Sample ID: 720-39507-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			12/30/11 19:51	1
Benzene	ND		0.50		ug/L			12/30/11 19:51	1
Ethylbenzene	ND		0.50		ug/L			12/30/11 19:51	1
Toluene	ND		0.50		ug/L			12/30/11 19:51	1
Xylenes, Total	ND		1.0		ug/L			12/30/11 19:51	1
TBA	ND		4.0		ug/L			12/30/11 19:51	1
DIPE	ND		0.50		ug/L			12/30/11 19:51	1
TAME	ND		0.50		ug/L			12/30/11 19:51	1
Ethyl t-butyl ether	ND		0.50		ug/L			12/30/11 19:51	1
1,2-Dichloroethane	ND		0.50		ug/L			12/30/11 19:51	1
Ethylene Dibromide	ND		0.50		ug/L			12/30/11 19:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	*96*		*67 - 130*		*12/30/11 19:51*	*1*
1,2-Dichloroethane-d4 (Surr)	*106*		*75 - 138*		*12/30/11 19:51*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*12/30/11 19:51*	*1*

Client Sample ID: S-B3-11
Date Collected: 12/28/11 13:40
Date Received: 12/29/11 13:10

Lab Sample ID: 720-39507-7
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	ND		4.0		ug/Kg		12/29/11 18:00	12/30/11 14:48	1
Benzene	ND		4.0		ug/Kg		12/29/11 18:00	12/30/11 14:48	1
Ethylbenzene	ND		4.0		ug/Kg		12/29/11 18:00	12/30/11 14:48	1
Toluene	ND		4.0		ug/Kg		12/29/11 18:00	12/30/11 14:48	1
Xylenes, Total	ND		8.0		ug/Kg		12/29/11 18:00	12/30/11 14:48	1
TBA	ND		8.0		ug/Kg		12/29/11 18:00	12/30/11 14:48	1
DIPE	ND		4.0		ug/Kg		12/29/11 18:00	12/30/11 14:48	1
TAME	ND		4.0		ug/Kg		12/29/11 18:00	12/30/11 14:48	1
Ethyl t-butyl ether	ND		4.0		ug/Kg		12/29/11 18:00	12/30/11 14:48	1
Ethylene Dibromide	ND		4.0		ug/Kg		12/29/11 18:00	12/30/11 14:48	1
1,2-Dichloroethane	ND		4.0		ug/Kg		12/29/11 18:00	12/30/11 14:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	*90*		*45 - 131*	*12/29/11 18:00*	*12/30/11 14:48*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*60 - 140*	*12/29/11 18:00*	*12/30/11 14:48*	*1*
Toluene-d8 (Surr)	*91*		*58 - 140*	*12/29/11 18:00*	*12/30/11 14:48*	*1*

Client Sample ID: S-B3-19.5
Date Collected: 12/28/11 13:50
Date Received: 12/29/11 13:10

Lab Sample ID: 720-39507-8
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	ND		3.7		ug/Kg		12/29/11 18:00	12/30/11 15:17	1

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS (Continued)

Client Sample ID: S-B3-19.5
Date Collected: 12/28/11 13:50
Date Received: 12/29/11 13:10

Lab Sample ID: 720-39507-8
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		3.7		ug/Kg		12/29/11 18:00	12/30/11 15:17	1
Ethylbenzene	ND		3.7		ug/Kg		12/29/11 18:00	12/30/11 15:17	1
Toluene	ND		3.7		ug/Kg		12/29/11 18:00	12/30/11 15:17	1
Xylenes, Total	ND		7.5		ug/Kg		12/29/11 18:00	12/30/11 15:17	1
TBA	ND		7.5		ug/Kg		12/29/11 18:00	12/30/11 15:17	1
DIPE	ND		3.7		ug/Kg		12/29/11 18:00	12/30/11 15:17	1
TAME	ND		3.7		ug/Kg		12/29/11 18:00	12/30/11 15:17	1
Ethyl t-butyl ether	ND		3.7		ug/Kg		12/29/11 18:00	12/30/11 15:17	1
Ethylene Dibromide	ND		3.7		ug/Kg		12/29/11 18:00	12/30/11 15:17	1
1,2-Dichloroethane	ND		3.7		ug/Kg		12/29/11 18:00	12/30/11 15:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*89*		*45 - 131*	*12/29/11 18:00*	*12/30/11 15:17*	*1*
1,2-Dichloroethane-d4 (Surr)	*96*		*60 - 140*	*12/29/11 18:00*	*12/30/11 15:17*	*1*
Toluene-d8 (Surr)	*91*		*58 - 140*	*12/29/11 18:00*	*12/30/11 15:17*	*1*

Client Sample ID: MW-1
Date Collected: 12/28/11 13:45
Date Received: 12/29/11 13:10

Lab Sample ID: 720-39507-9
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			12/30/11 20:20	1
Benzene	ND		0.50		ug/L			12/30/11 20:20	1
Ethylbenzene	ND		0.50		ug/L			12/30/11 20:20	1
Toluene	ND		0.50		ug/L			12/30/11 20:20	1
Xylenes, Total	ND		1.0		ug/L			12/30/11 20:20	1
TBA	ND		4.0		ug/L			12/30/11 20:20	1
DIPE	ND		0.50		ug/L			12/30/11 20:20	1
TAME	ND		0.50		ug/L			12/30/11 20:20	1
Ethyl t-butyl ether	ND		0.50		ug/L			12/30/11 20:20	1
1,2-Dichloroethane	ND		0.50		ug/L			12/30/11 20:20	1
Ethylene Dibromide	ND		0.50		ug/L			12/30/11 20:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*67 - 130*		*12/30/11 20:20*	*1*
1,2-Dichloroethane-d4 (Surr)	*107*		*75 - 138*		*12/30/11 20:20*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*12/30/11 20:20*	*1*

Client Sample ID: W-B3
Date Collected: 12/28/11 14:00
Date Received: 12/29/11 13:10

Lab Sample ID: 720-39507-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			01/03/12 15:10	1
Benzene	ND		0.50		ug/L			01/03/12 15:10	1
Ethylbenzene	ND		0.50		ug/L			01/03/12 15:10	1
Toluene	ND		0.50		ug/L			01/03/12 15:10	1
Xylenes, Total	ND		1.0		ug/L			01/03/12 15:10	1
TBA	ND		4.0		ug/L			01/03/12 15:10	1
DIPE	ND		0.50		ug/L			01/03/12 15:10	1

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS (Continued)

Client Sample ID: W-B3
Date Collected: 12/28/11 14:00
Date Received: 12/29/11 13:10

Lab Sample ID: 720-39507-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TAME	ND		0.50		ug/L			01/03/12 15:10	1
Ethyl t-butyl ether	ND		0.50		ug/L			01/03/12 15:10	1
1,2-Dichloroethane	ND		0.50		ug/L			01/03/12 15:10	1
Ethylene Dibromide	ND		0.50		ug/L			01/03/12 15:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*103*		*67 - 130*		*01/03/12 15:10*	*1*
1,2-Dichloroethane-d4 (Surr)	*105*		*75 - 138*		*01/03/12 15:10*	*1*
Toluene-d8 (Surr)	*102*		*70 - 130*		*01/03/12 15:10*	*1*

Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

Client Sample ID: S-B1-11.5
Date Collected: 12/28/11 10:25
Date Received: 12/29/11 13:10

Lab Sample ID: 720-39507-1
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		1.0		mg/Kg		12/30/11 08:36	01/03/12 12:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Capric Acid (Surr)	*0.0002*		*0 - 1*	*12/30/11 08:36*	*01/03/12 12:28*	*1*
p-Terphenyl	*74*		*38 - 148*	*12/30/11 08:36*	*01/03/12 12:28*	*1*

Client Sample ID: S-B1-19.5
Date Collected: 12/28/11 10:30
Date Received: 12/29/11 13:10

Lab Sample ID: 720-39507-2
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		0.99		mg/Kg		12/30/11 08:36	01/03/12 16:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Capric Acid (Surr)	*0.009*		*0 - 1*	*12/30/11 08:36*	*01/03/12 16:09*	*1*
p-Terphenyl	*87*		*38 - 148*	*12/30/11 08:36*	*01/03/12 16:09*	*1*

Client Sample ID: W-B1
Date Collected: 12/28/11 11:00
Date Received: 12/29/11 13:10

Lab Sample ID: 720-39507-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		55		ug/L		01/03/12 14:06	01/04/12 16:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Capric Acid (Surr)	*0.004*		*0 - 5*	*01/03/12 14:06*	*01/04/12 16:34*	*1*
p-Terphenyl	*83*		*31 - 150*	*01/03/12 14:06*	*01/04/12 16:34*	*1*

Client Sample ID: S-B2-11.5
Date Collected: 12/28/11 11:45
Date Received: 12/29/11 13:10

Lab Sample ID: 720-39507-4
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		1.0		mg/Kg		12/30/11 08:36	01/03/12 16:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Capric Acid (Surr)	*0*		*0 - 1*	*12/30/11 08:36*	*01/03/12 16:33*	*1*
p-Terphenyl	*87*		*38 - 148*	*12/30/11 08:36*	*01/03/12 16:33*	*1*

Client Sample ID: S-B2-19.5
Date Collected: 12/28/11 11:50
Date Received: 12/29/11 13:10

Lab Sample ID: 720-39507-5
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		1.0		mg/Kg		12/30/11 08:36	01/03/12 16:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Capric Acid (Surr)	*0.01*		*0 - 1*	*12/30/11 08:36*	*01/03/12 16:57*	*1*
p-Terphenyl	*171*	*X*	*38 - 148*	*12/30/11 08:36*	*01/03/12 16:57*	*1*

Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

Client Sample ID: W-B2
Date Collected: 12/28/11 12:50
Date Received: 12/29/11 13:10

Lab Sample ID: 720-39507-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	270		65		ug/L		01/03/12 14:06	01/05/12 13:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Capric Acid (Surr)	*0.06*		*0 - 5*	*01/03/12 14:06*	*01/05/12 13:28*	*1*
p-Terphenyl	*37*		*31 - 150*	*01/03/12 14:06*	*01/05/12 13:28*	*1*

Client Sample ID: S-B3-11
Date Collected: 12/28/11 13:40
Date Received: 12/29/11 13:10

Lab Sample ID: 720-39507-7
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		1.0		mg/Kg		12/30/11 08:36	01/03/12 17:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Capric Acid (Surr)	*0.01*		*0 - 1*	*12/30/11 08:36*	*01/03/12 17:22*	*1*
p-Terphenyl	*168*	*X*	*38 - 148*	*12/30/11 08:36*	*01/03/12 17:22*	*1*

Client Sample ID: S-B3-19.5
Date Collected: 12/28/11 13:50
Date Received: 12/29/11 13:10

Lab Sample ID: 720-39507-8
Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		0.99		mg/Kg		12/30/11 08:36	01/03/12 17:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Capric Acid (Surr)	*0.02*		*0 - 1*	*12/30/11 08:36*	*01/03/12 17:46*	*1*
p-Terphenyl	*181*	*X*	*38 - 148*	*12/30/11 08:36*	*01/03/12 17:46*	*1*

Client Sample ID: MW-1
Date Collected: 12/28/11 13:45
Date Received: 12/29/11 13:10

Lab Sample ID: 720-39507-9
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		53		ug/L		01/03/12 14:06	01/04/12 16:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Capric Acid (Surr)	*0.01*		*0 - 5*	*01/03/12 14:06*	*01/04/12 16:58*	*1*
p-Terphenyl	*89*		*31 - 150*	*01/03/12 14:06*	*01/04/12 16:58*	*1*

Client Sample ID: W-B3
Date Collected: 12/28/11 14:00
Date Received: 12/29/11 13:10

Lab Sample ID: 720-39507-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		58		ug/L		01/03/12 14:06	01/04/12 17:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Capric Acid (Surr)	*0.02*		*0 - 5*	*01/03/12 14:06*	*01/04/12 17:23*	*1*
p-Terphenyl	*99*		*31 - 150*	*01/03/12 14:06*	*01/04/12 17:23*	*1*

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Lab Sample ID: MB 720-105341/4
Matrix: Water
Analysis Batch: 105341

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			12/30/11 10:15	1
Benzene	ND		0.50		ug/L			12/30/11 10:15	1
Ethylbenzene	ND		0.50		ug/L			12/30/11 10:15	1
Toluene	ND		0.50		ug/L			12/30/11 10:15	1
Xylenes, Total	ND		1.0		ug/L			12/30/11 10:15	1
TBA	ND		4.0		ug/L			12/30/11 10:15	1
DIPE	ND		0.50		ug/L			12/30/11 10:15	1
TAME	ND		0.50		ug/L			12/30/11 10:15	1
Ethyl t-butyl ether	ND		0.50		ug/L			12/30/11 10:15	1
Ethylene Dibromide	ND		0.50		ug/L			12/30/11 10:15	1
1,2-Dichloroethane	ND		0.50		ug/L			12/30/11 10:15	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*93*		*67 - 130*		*12/30/11 10:15*	*1*
1,2-Dichloroethane-d4 (Surr)	*105*		*75 - 138*		*12/30/11 10:15*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*12/30/11 10:15*	*1*

Lab Sample ID: LCS 720-105341/5
Matrix: Water
Analysis Batch: 105341

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	25.0	24.3		ug/L		97	62 - 130
Benzene	25.0	23.6		ug/L		94	79 - 120
Ethylbenzene	25.0	24.2		ug/L		97	84 - 120
Toluene	25.0	23.5		ug/L		94	78 - 118
m-Xylene & p-Xylene	50.0	47.2		ug/L		94	70 - 142
o-Xylene	25.0	24.6		ug/L		98	85 - 127
TBA	500	503		ug/L		101	82 - 116
DIPE	25.0	22.1		ug/L		88	69 - 134
TAME	25.0	24.3		ug/L		97	79 - 129
Ethyl t-butyl ether	25.0	22.4		ug/L		90	70 - 130
Ethylene Dibromide	25.0	25.5		ug/L		102	70 - 130
1,2-Dichloroethane	25.0	23.9		ug/L		96	70 - 126

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*97*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*99*		*75 - 138*
Toluene-d8 (Surr)	*101*		*70 - 130*

Lab Sample ID: LCSD 720-105341/6
Matrix: Water
Analysis Batch: 105341

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methyl tert-butyl ether	25.0	25.7		ug/L		103	62 - 130	6	20
Benzene	25.0	24.0		ug/L		96	79 - 120	2	20
Ethylbenzene	25.0	24.1		ug/L		96	84 - 120	0	20
Toluene	25.0	23.5		ug/L		94	78 - 118	0	20

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: LCSD 720-105341/6
Matrix: Water
Analysis Batch: 105341

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
m-Xylene & p-Xylene	50.0	46.8		ug/L		94	70 - 142	1	20
o-Xylene	25.0	24.6		ug/L		98	85 - 127	0	20
TBA	500	484		ug/L		97	82 - 116	4	20
DIPE	25.0	23.0		ug/L		92	69 - 134	4	20
TAME	25.0	25.6		ug/L		102	79 - 129	5	20
Ethyl t-butyl ether	25.0	23.6		ug/L		94	70 - 130	5	20
Ethylene Dibromide	25.0	26.5		ug/L		106	70 - 130	4	20
1,2-Dichloroethane	25.0	24.5		ug/L		98	70 - 126	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*96*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*99*		*75 - 138*
Toluene-d8 (Surr)	*102*		*70 - 130*

Lab Sample ID: MB 720-105350/1-A
Matrix: Solid
Analysis Batch: 105343

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 105350

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MTBE	ND		5.0		ug/Kg		12/30/11 08:00	12/30/11 10:12	1
Benzene	ND		5.0		ug/Kg		12/30/11 08:00	12/30/11 10:12	1
Ethylbenzene	ND		5.0		ug/Kg		12/30/11 08:00	12/30/11 10:12	1
Toluene	ND		5.0		ug/Kg		12/30/11 08:00	12/30/11 10:12	1
Xylenes, Total	ND		9.9		ug/Kg		12/30/11 08:00	12/30/11 10:12	1
TBA	ND		9.9		ug/Kg		12/30/11 08:00	12/30/11 10:12	1
DIPE	ND		5.0		ug/Kg		12/30/11 08:00	12/30/11 10:12	1
TAME	ND		5.0		ug/Kg		12/30/11 08:00	12/30/11 10:12	1
Ethyl t-butyl ether	ND		5.0		ug/Kg		12/30/11 08:00	12/30/11 10:12	1
Ethylene Dibromide	ND		5.0		ug/Kg		12/30/11 08:00	12/30/11 10:12	1
1,2-Dichloroethane	ND		5.0		ug/Kg		12/30/11 08:00	12/30/11 10:12	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*45 - 131*	*12/30/11 08:00*	*12/30/11 10:12*	*1*
1,2-Dichloroethane-d4 (Surr)	*98*		*60 - 140*	*12/30/11 08:00*	*12/30/11 10:12*	*1*
Toluene-d8 (Surr)	*95*		*58 - 140*	*12/30/11 08:00*	*12/30/11 10:12*	*1*

Lab Sample ID: LCS 720-105350/2-A
Matrix: Solid
Analysis Batch: 105343

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 105350

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
MTBE	49.9	51.7		ug/Kg		104	71 - 144
Benzene	49.9	46.7		ug/Kg		94	77 - 113
Ethylbenzene	49.9	49.5		ug/Kg		99	80 - 137
Toluene	49.9	47.1		ug/Kg		94	68 - 121
m-Xylene & p-Xylene	99.8	96.2		ug/Kg		96	79 - 146
o-Xylene	49.9	49.7		ug/Kg		100	84 - 140
TBA	998	945		ug/Kg		95	63 - 119
DIPE	49.9	45.9		ug/Kg		92	83 - 131

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: LCS 720-105350/2-A
Matrix: Solid
Analysis Batch: 105343

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 105350

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
TAME			49.9	56.7		ug/Kg		114	74 - 140		
Ethyl t-butyl ether			49.9	48.3		ug/Kg		97	76 - 129		
Ethylene Dibromide			49.9	52.5		ug/Kg		105	79 - 140		
1,2-Dichloroethane			49.9	42.5		ug/Kg		85	72 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*99*		*45 - 131*
1,2-Dichloroethane-d4 (Surr)	*87*		*60 - 140*
Toluene-d8 (Surr)	*98*		*58 - 140*

Lab Sample ID: LCSD 720-105350/3-A
Matrix: Solid
Analysis Batch: 105343

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 105350

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
MTBE			49.9	54.7		ug/Kg		110	71 - 144	6	20
Benzene			49.9	46.7		ug/Kg		94	77 - 113	0	20
Ethylbenzene			49.9	48.7		ug/Kg		98	80 - 137	2	20
Toluene			49.9	46.3		ug/Kg		93	68 - 121	2	20
m-Xylene & p-Xylene			99.8	95.2		ug/Kg		95	79 - 146	1	20
o-Xylene			49.9	49.3		ug/Kg		99	84 - 140	1	20
TBA			998	939		ug/Kg		94	63 - 119	1	20
DIPE			49.9	46.9		ug/Kg		94	83 - 131	2	20
TAME			49.9	56.7		ug/Kg		114	74 - 140	0	20
Ethyl t-butyl ether			49.9	50.5		ug/Kg		101	76 - 129	4	20
Ethylene Dibromide			49.9	55.9		ug/Kg		112	79 - 140	6	20
1,2-Dichloroethane			49.9	43.7		ug/Kg		88	72 - 130	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*97*		*45 - 131*
1,2-Dichloroethane-d4 (Surr)	*91*		*60 - 140*
Toluene-d8 (Surr)	*98*		*58 - 140*

Lab Sample ID: MB 720-105377/5
Matrix: Water
Analysis Batch: 105377

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			01/03/12 11:04	1
Benzene	ND		0.50		ug/L			01/03/12 11:04	1
Ethylbenzene	ND		0.50		ug/L			01/03/12 11:04	1
Toluene	ND		0.50		ug/L			01/03/12 11:04	1
Xylenes, Total	ND		1.0		ug/L			01/03/12 11:04	1
TBA	ND		4.0		ug/L			01/03/12 11:04	1
DIPE	ND		0.50		ug/L			01/03/12 11:04	1
TAME	ND		0.50		ug/L			01/03/12 11:04	1
Ethyl t-butyl ether	ND		0.50		ug/L			01/03/12 11:04	1
Ethylene Dibromide	ND		0.50		ug/L			01/03/12 11:04	1
1,2-Dichloroethane	ND		0.50		ug/L			01/03/12 11:04	1

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: MB 720-105377/5
Matrix: Water
Analysis Batch: 105377

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	99		67 - 130		01/03/12 11:04	1
1,2-Dichloroethane-d4 (Surr)	100		75 - 138		01/03/12 11:04	1
Toluene-d8 (Surr)	100		70 - 130		01/03/12 11:04	1

Lab Sample ID: LCS 720-105377/6
Matrix: Water
Analysis Batch: 105377

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	25.0	27.5		ug/L		110	62 - 130
Benzene	25.0	25.8		ug/L		103	79 - 120
Ethylbenzene	25.0	27.6		ug/L		110	84 - 120
Toluene	25.0	27.0		ug/L		108	78 - 118
m-Xylene & p-Xylene	50.0	56.3		ug/L		113	70 - 142
o-Xylene	25.0	28.0		ug/L		112	85 - 127
TBA	500	500		ug/L		100	82 - 116
DIPE	25.0	25.5		ug/L		102	69 - 134
TAME	25.0	27.6		ug/L		110	79 - 129
Ethyl t-butyl ether	25.0	25.0		ug/L		100	70 - 130
Ethylene Dibromide	25.0	28.6		ug/L		114	70 - 130
1,2-Dichloroethane	25.0	25.6		ug/L		102	70 - 126

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	104		67 - 130
1,2-Dichloroethane-d4 (Surr)	101		75 - 138
Toluene-d8 (Surr)	102		70 - 130

Lab Sample ID: LCSD 720-105377/7
Matrix: Water
Analysis Batch: 105377

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methyl tert-butyl ether	25.0	27.4		ug/L		110	62 - 130	0	20
Benzene	25.0	25.6		ug/L		102	79 - 120	1	20
Ethylbenzene	25.0	28.1		ug/L		112	84 - 120	2	20
Toluene	25.0	27.5		ug/L		110	78 - 118	2	20
m-Xylene & p-Xylene	50.0	57.1		ug/L		114	70 - 142	1	20
o-Xylene	25.0	28.5		ug/L		114	85 - 127	2	20
TBA	500	497		ug/L		99	82 - 116	1	20
DIPE	25.0	25.1		ug/L		100	69 - 134	2	20
TAME	25.0	27.2		ug/L		109	79 - 129	1	20
Ethyl t-butyl ether	25.0	24.6		ug/L		98	70 - 130	2	20
Ethylene Dibromide	25.0	28.6		ug/L		114	70 - 130	0	20
1,2-Dichloroethane	25.0	25.2		ug/L		101	70 - 126	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	104		67 - 130
1,2-Dichloroethane-d4 (Surr)	100		75 - 138
Toluene-d8 (Surr)	100		70 - 130

Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 720-105342/1-A
Matrix: Solid
Analysis Batch: 105380

Client Sample ID: Method Blank
Prep Type: Silica Gel Cleanup
Prep Batch: 105342

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		1.0		mg/Kg		12/30/11 08:36	01/03/12 12:03	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Capric Acid (Surr)	*0.0007*		*0 - 1*	*12/30/11 08:36*	*01/03/12 12:03*	*1*
p-Terphenyl	*96*		*38 - 148*	*12/30/11 08:36*	*01/03/12 12:03*	*1*

Lab Sample ID: LCS 720-105342/2-A
Matrix: Solid
Analysis Batch: 105380

Client Sample ID: Lab Control Sample
Prep Type: Silica Gel Cleanup
Prep Batch: 105342

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	83.3	50.4		mg/Kg		61	36 - 112

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
p-Terphenyl	*89*		*38 - 148*

Lab Sample ID: LCSD 720-105342/3-A
Matrix: Solid
Analysis Batch: 105380

Client Sample ID: Lab Control Sample Dup
Prep Type: Silica Gel Cleanup
Prep Batch: 105342

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	83.1	56.2		mg/Kg		68	36 - 112	11	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
p-Terphenyl	*92*		*38 - 148*

Lab Sample ID: 720-39507-1 MS
Matrix: Solid
Analysis Batch: 105381

Client Sample ID: S-B1-11.5
Prep Type: Silica Gel Cleanup
Prep Batch: 105342

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	ND		83.3	54.9		mg/Kg		65	50 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
p-Terphenyl	*77*		*38 - 148*

Lab Sample ID: 720-39507-1 MSD
Matrix: Solid
Analysis Batch: 105381

Client Sample ID: S-B1-11.5
Prep Type: Silica Gel Cleanup
Prep Batch: 105342

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	ND		83.3	40.7	F	mg/Kg		48	50 - 150	30	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
p-Terphenyl	*69*		*38 - 148*

Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 720-105406/1-A
Matrix: Water
Analysis Batch: 105432

Client Sample ID: Method Blank
Prep Type: Silica Gel Cleanup
Prep Batch: 105406

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		50		ug/L		01/03/12 14:06	01/04/12 21:02	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Capric Acid (Surr)	*0.002*		*0 - 5*	*01/03/12 14:06*	*01/04/12 21:02*	*1*
p-Terphenyl	*80*		*31 - 150*	*01/03/12 14:06*	*01/04/12 21:02*	*1*

Lab Sample ID: LCS 720-105406/2-A
Matrix: Water
Analysis Batch: 105432

Client Sample ID: Lab Control Sample
Prep Type: Silica Gel Cleanup
Prep Batch: 105406

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Diesel Range Organics [C10-C28]			2500	1180		ug/L		47	32 - 119		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
p-Terphenyl	*75*		*31 - 150*

Lab Sample ID: LCSD 720-105406/3-A
Matrix: Water
Analysis Batch: 105432

Client Sample ID: Lab Control Sample Dup
Prep Type: Silica Gel Cleanup
Prep Batch: 105406

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]			2500	1210		ug/L		48	32 - 119	2	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
p-Terphenyl	*66*		*31 - 150*

GC/MS VOA

Analysis Batch: 105341

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-39507-3	W-B1	Total/NA	Water	8260B/CA_LUFT MS	
720-39507-6	W-B2	Total/NA	Water	8260B/CA_LUFT MS	
720-39507-9	MW-1	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-105341/5	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-105341/6	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
MB 720-105341/4	Method Blank	Total/NA	Water	8260B/CA_LUFT MS	

Analysis Batch: 105343

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-39507-1	S-B1-11.5	Total/NA	Solid	8260B/CA_LUFT MS	105350
720-39507-2	S-B1-19.5	Total/NA	Solid	8260B/CA_LUFT MS	105350
720-39507-4	S-B2-11.5	Total/NA	Solid	8260B/CA_LUFT MS	105350
720-39507-5	S-B2-19.5	Total/NA	Solid	8260B/CA_LUFT MS	105350
720-39507-7	S-B3-11	Total/NA	Solid	8260B/CA_LUFT MS	105350
720-39507-8	S-B3-19.5	Total/NA	Solid	8260B/CA_LUFT MS	105350
LCS 720-105350/2-A	Lab Control Sample	Total/NA	Solid	8260B/CA_LUFT MS	105350
LCSD 720-105350/3-A	Lab Control Sample Dup	Total/NA	Solid	8260B/CA_LUFT MS	105350
MB 720-105350/1-A	Method Blank	Total/NA	Solid	8260B/CA_LUFT MS	105350

Prep Batch: 105350

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-39507-1	S-B1-11.5	Total/NA	Solid	5035	
720-39507-2	S-B1-19.5	Total/NA	Solid	5035	
720-39507-4	S-B2-11.5	Total/NA	Solid	5035	
720-39507-5	S-B2-19.5	Total/NA	Solid	5035	
720-39507-7	S-B3-11	Total/NA	Solid	5035	
720-39507-8	S-B3-19.5	Total/NA	Solid	5035	
LCS 720-105350/2-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 720-105350/3-A	Lab Control Sample Dup	Total/NA	Solid	5035	
MB 720-105350/1-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 105377

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-39507-10	W-B3	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-105377/6	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-105377/7	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
MB 720-105377/5	Method Blank	Total/NA	Water	8260B/CA_LUFT MS	

GC Semi VOA

Prep Batch: 105342

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-39507-1	S-B1-11.5	Silica Gel Cleanup	Solid	3546	
720-39507-1 MS	S-B1-11.5	Silica Gel Cleanup	Solid	3546	
720-39507-1 MSD	S-B1-11.5	Silica Gel Cleanup	Solid	3546	
720-39507-2	S-B1-19.5	Silica Gel Cleanup	Solid	3546	
720-39507-4	S-B2-11.5	Silica Gel Cleanup	Solid	3546	
720-39507-5	S-B2-19.5	Silica Gel Cleanup	Solid	3546	
720-39507-7	S-B3-11	Silica Gel Cleanup	Solid	3546	
720-39507-8	S-B3-19.5	Silica Gel Cleanup	Solid	3546	
LCS 720-105342/2-A	Lab Control Sample	Silica Gel Cleanup	Solid	3546	
LCSD 720-105342/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Solid	3546	
MB 720-105342/1-A	Method Blank	Silica Gel Cleanup	Solid	3546	

Analysis Batch: 105380

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-39507-1	S-B1-11.5	Silica Gel Cleanup	Solid	8015B	105342
LCS 720-105342/2-A	Lab Control Sample	Silica Gel Cleanup	Solid	8015B	105342
LCSD 720-105342/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Solid	8015B	105342
MB 720-105342/1-A	Method Blank	Silica Gel Cleanup	Solid	8015B	105342

Analysis Batch: 105381

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-39507-1 MS	S-B1-11.5	Silica Gel Cleanup	Solid	8015B	105342
720-39507-1 MSD	S-B1-11.5	Silica Gel Cleanup	Solid	8015B	105342
720-39507-2	S-B1-19.5	Silica Gel Cleanup	Solid	8015B	105342
720-39507-4	S-B2-11.5	Silica Gel Cleanup	Solid	8015B	105342
720-39507-5	S-B2-19.5	Silica Gel Cleanup	Solid	8015B	105342
720-39507-7	S-B3-11	Silica Gel Cleanup	Solid	8015B	105342
720-39507-8	S-B3-19.5	Silica Gel Cleanup	Solid	8015B	105342

Prep Batch: 105406

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-39507-3	W-B1	Silica Gel Cleanup	Water	3510C SGC	
720-39507-6	W-B2	Silica Gel Cleanup	Water	3510C SGC	
720-39507-9	MW-1	Silica Gel Cleanup	Water	3510C SGC	
720-39507-10	W-B3	Silica Gel Cleanup	Water	3510C SGC	
LCS 720-105406/2-A	Lab Control Sample	Silica Gel Cleanup	Water	3510C SGC	
LCSD 720-105406/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Water	3510C SGC	
MB 720-105406/1-A	Method Blank	Silica Gel Cleanup	Water	3510C SGC	

Analysis Batch: 105432

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-39507-3	W-B1	Silica Gel Cleanup	Water	8015B	105406
720-39507-9	MW-1	Silica Gel Cleanup	Water	8015B	105406
720-39507-10	W-B3	Silica Gel Cleanup	Water	8015B	105406
LCS 720-105406/2-A	Lab Control Sample	Silica Gel Cleanup	Water	8015B	105406
LCSD 720-105406/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Water	8015B	105406
MB 720-105406/1-A	Method Blank	Silica Gel Cleanup	Water	8015B	105406

Analysis Batch: 105505

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-39507-6	W-B2	Silica Gel Cleanup	Water	8015B	105406

Lab Chronicle

Client: AMEC E&I, Inc
Project/Site: City of Alameda

TestAmerica Job ID: 720-39507-1

Client Sample ID: S-B1-11.5

Lab Sample ID: 720-39507-1

Date Collected: 12/28/11 10:25

Matrix: Solid

Date Received: 12/29/11 13:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			105350	12/29/11 18:00	AC	TAL SF
Total/NA	Analysis	8260B/CA_LUFTMS		1	105343	12/30/11 12:52	AC	TAL SF
Silica Gel Cleanup	Prep	3546			105342	12/30/11 08:36	AM	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	105380	01/03/12 12:28	DH	TAL SF

Client Sample ID: S-B1-19.5

Lab Sample ID: 720-39507-2

Date Collected: 12/28/11 10:30

Matrix: Solid

Date Received: 12/29/11 13:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			105350	12/29/11 18:00	AC	TAL SF
Total/NA	Analysis	8260B/CA_LUFTMS		1	105343	12/30/11 13:21	AC	TAL SF
Silica Gel Cleanup	Prep	3546			105342	12/30/11 08:36	AM	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	105381	01/03/12 16:09	DH	TAL SF

Client Sample ID: W-B1

Lab Sample ID: 720-39507-3

Date Collected: 12/28/11 11:00

Matrix: Water

Date Received: 12/29/11 13:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	105341	12/30/11 19:22	AC	TAL SF
Silica Gel Cleanup	Prep	3510C SGC			105406	01/03/12 14:06	RU	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	105432	01/04/12 16:34	DH	TAL SF

Client Sample ID: S-B2-11.5

Lab Sample ID: 720-39507-4

Date Collected: 12/28/11 11:45

Matrix: Solid

Date Received: 12/29/11 13:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			105350	12/29/11 18:00	AC	TAL SF
Total/NA	Analysis	8260B/CA_LUFTMS		1	105343	12/30/11 13:50	AC	TAL SF
Silica Gel Cleanup	Prep	3546			105342	12/30/11 08:36	AM	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	105381	01/03/12 16:33	DH	TAL SF

Client Sample ID: S-B2-19.5

Lab Sample ID: 720-39507-5

Date Collected: 12/28/11 11:50

Matrix: Solid

Date Received: 12/29/11 13:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			105350	12/29/11 18:00	AC	TAL SF
Total/NA	Analysis	8260B/CA_LUFTMS		1	105343	12/30/11 14:19	AC	TAL SF
Silica Gel Cleanup	Prep	3546			105342	12/30/11 08:36	AM	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	105381	01/03/12 16:57	DH	TAL SF

Client Sample ID: W-B2

Lab Sample ID: 720-39507-6

Date Collected: 12/28/11 12:50

Matrix: Water

Date Received: 12/29/11 13:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	105341	12/30/11 19:51	AC	TAL SF
Silica Gel Cleanup	Prep	3510C SGC			105406	01/03/12 14:06	RU	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	105505	01/05/12 13:28	DH	TAL SF

Client Sample ID: S-B3-11

Lab Sample ID: 720-39507-7

Date Collected: 12/28/11 13:40

Matrix: Solid

Date Received: 12/29/11 13:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			105350	12/29/11 18:00	AC	TAL SF
Total/NA	Analysis	8260B/CA_LUFTMS		1	105343	12/30/11 14:48	AC	TAL SF
Silica Gel Cleanup	Prep	3546			105342	12/30/11 08:36	AM	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	105381	01/03/12 17:22	DH	TAL SF

Client Sample ID: S-B3-19.5

Lab Sample ID: 720-39507-8

Date Collected: 12/28/11 13:50

Matrix: Solid

Date Received: 12/29/11 13:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			105350	12/29/11 18:00	AC	TAL SF
Total/NA	Analysis	8260B/CA_LUFTMS		1	105343	12/30/11 15:17	AC	TAL SF
Silica Gel Cleanup	Prep	3546			105342	12/30/11 08:36	AM	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	105381	01/03/12 17:46	DH	TAL SF

Client Sample ID: MW-1

Lab Sample ID: 720-39507-9

Date Collected: 12/28/11 13:45

Matrix: Water

Date Received: 12/29/11 13:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	105341	12/30/11 20:20	AC	TAL SF
Silica Gel Cleanup	Prep	3510C SGC			105406	01/03/12 14:06	RU	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	105432	01/04/12 16:58	DH	TAL SF

Client Sample ID: W-B3

Lab Sample ID: 720-39507-10

Date Collected: 12/28/11 14:00

Matrix: Water

Date Received: 12/29/11 13:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	105377	01/03/12 15:10	YB	TAL SF
Silica Gel Cleanup	Prep	3510C SGC			105406	01/03/12 14:06	RU	TAL SF
Silica Gel Cleanup	Analysis	8015B		1	105432	01/04/12 17:23	DH	TAL SF

Laboratory References:

TAL SF = TestAmerica San Francisco, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Certification Summary

Client: AMEC E&I, Inc
Project/Site: City of Alameda

TestAmerica Job ID: 720-39507-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica San Francisco	California	State Program	9	2496

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Method Summary

Client: AMEC E&I, Inc
Project/Site: City of Alameda

TestAmerica Job ID: 720-39507-1

Method	Method Description	Protocol	Laboratory
8260B/CA_LUFTMS	8260B / CA LUFT MS	SW846	TAL SF
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL SF

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SF = TestAmerica San Francisco, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Sample Summary

Client: AMEC E&I, Inc
Project/Site: City of Alameda

TestAmerica Job ID: 720-39507-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-39507-1	S-B1-11.5	Solid	12/28/11 10:25	12/29/11 13:10
720-39507-2	S-B1-19.5	Solid	12/28/11 10:30	12/29/11 13:10
720-39507-3	W-B1	Water	12/28/11 11:00	12/29/11 13:10
720-39507-4	S-B2-11.5	Solid	12/28/11 11:45	12/29/11 13:10
720-39507-5	S-B2-19.5	Solid	12/28/11 11:50	12/29/11 13:10
720-39507-6	W-B2	Water	12/28/11 12:50	12/29/11 13:10
720-39507-7	S-B3-11	Solid	12/28/11 13:40	12/29/11 13:10
720-39507-8	S-B3-19.5	Solid	12/28/11 13:50	12/29/11 13:10
720-39507-9	MW-1	Water	12/28/11 13:45	12/29/11 13:10
720-39507-10	W-B3	Water	12/28/11 14:00	12/29/11 13:10

MACTEC 5341 Old Redwood Highway
Suite 300
Petaluma, CA 94954
(707) 793-3800

CHAIN OF CUSTODY FORM

Seq. No.: № 1754

temp. 3.4°C

1/6/2012

Samplers: Scott Graham

Lab: 135699

Job Number: 4096114064.01 720-39507

Name/Location: Alameda Police Department, Oak Street

Project Manager: Gary Lieberman Recorder: [signature] (Signature Required)

MATRIX: Water	Soil	Air	# CONTAINERS & PRESERV.: Unpres.	H2SO4	HNO3	HCL	SAMPLE NUMBER: YR	SEQ	DATE: YR	MO	DAY	TIME	STATION DESCRIPTION	DEPTH	ANALYSIS REQUESTED: TPHd 8015 with 3630C	8260-BTEX, EDB, EDC, MTBE, TAME, ETBE, DIPE, TBA
	X		3			1	S-	B1-11.5	11	12	28	1025			X	X
	X		3			1	S-	B1-19.5	11	12	28	1030			X	X
X			2			3	W-	B1	11	12	28	1100			X	X
	X		3			1	S-	B2-11.5	11	12	28	1145			X	X
	X		3			1	S-	B2-19.5	11	12	28	1150			X	X
X			2			3	W-	B2	11	12	28	1250			X	X
	X		3			1	S-	B3-11	11	12	28	1340			X	X
	X		3			1	S-	B3-19.5	11	12	28	1350			X	X
X			2			3	MW-	1	11	12	28	1345			X	X
X			2			3	W-	B3	11	12	23	1400			X	X

ADDITIONAL INFORMATION

SAMPLE NUMBER: YR	SEQ	TURNAROUND TIME/ REMARKS
		10 day

CHAIN OF CUSTODY RECORD

Signature	Print Name	Company	Date/Time
Relinquished By (Signature): [signature]	Scott Graham	AMEC	12/29/11 945
Received By (Signature): [signature]	T. Stitt	TASF	12-29-11 945
Relinquished By (Signature): [signature]	T. Stitt	TASF	12-29-11 1310
Received By (Signature): [signature]	Mullen	[signature]	12-29-11 1310
Relinquished By (Signature)	(Print Name)	(Company)	Date/Time
Received By (Signature)	(Print Name)	(Company)	Date/Time

Method of Shipment:

F1008-B (5/04)

Laboratory Copy *White* Project Office Copy *Yellow* Field or Office Copy *Pink*

Login Sample Receipt Checklist

Client: AMEC E&I, Inc

Job Number: 720-39507-1

Login Number: 39507

List Source: TestAmerica San Francisco

List Number: 1

Creator: Mullen, Joan

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	False	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	