

June 3, 2011

Mr. Mark E. Detterman, PG, CEG
Hazardous Materials Specialist
Alameda County Health Care Services Agency
County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

RECEIVED

11:13 am, Jun 08, 2011

Alameda County
Environmental Health

Subject: Fuel Leak Case No. RO0000079 (Geotracker ID#T0600101659)
Former One National Engravers (ONE)
1001 42nd Street, Oakland, CA 94608

Dear Mr. Detterman:

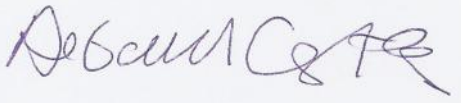
Attached please find the following document prepared by AMEC Geomatrix, Inc.

- Groundwater Monitoring Report, dated June 3, 2011

With respect to the document transmitted herewith I state the following:

"I declare, under penalty of perjury, that the information and recommendations contained in the attached documents are true and correct to the best of my knowledge."

Sincerely,



Deborah M. Castles
Vice President

\\oad-fs1\doc_safe\13000s\13310.000\4000 regulatory\gwm rpt_060311\01_text\client cover letter.doc

Enclosures

cc: Robert Cheung, AMEC Geomatrix, Inc.



GROUNDWATER MONITORING REPORT

1001 42nd Street
Oakland, California 94608

Prepared for:

1001 42nd Street LLC

Prepared by:

AMEC Geomatrix, Inc., Oakland, California

June 2011

Project 0133100000.00009.****

AMEC Geomatrix

June 3, 2011

Project 0133100000.00009.****

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Hazardous Materials Specialist
Alameda County Health Care Services Agency
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1131 Harbor Bay Parkway, Suite 250
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Fuel Leak Case No. RO0000079 (Geotracker ID#T0600101659)
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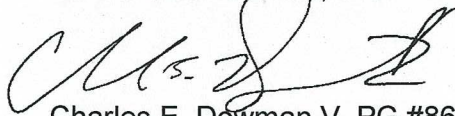
Dear Mr. Detterman:

On behalf of 1001 42nd Street, LLC, AMEC Geomatrix, Inc. ("AMEC"), is submitting this Groundwater Monitoring Report in response to the Alameda County Environmental Health (ACEH) directive letter dated March 2, 2011 for the subject property, and your May 4, 2011 electronic mail approval to extend the report submittal deadline to June 3, 2011.

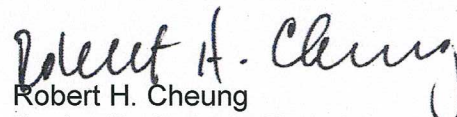
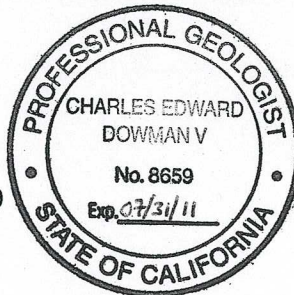
This report was prepared by the Geologist and/or Toxicologist whose signatures appear herein. The findings, specifications, or professional opinions are presented within the limits described by the client, after being prepared in accordance with generally accepted professional engineering and geologic practice. No warranty is expressed or implied.

If you have any questions, please contact the undersigned at (510) 663-4100.

Sincerely yours,
AMEC GEOMATRIX, INC.



Charles E. Dowman V, PG #8659
Project Hydrogeologist



Robert H. Cheung
Senior Toxicologist/Risk Assessor

RHC/CED/ kwg
\\oad-fs1\doc_safe\13000s\13310.000\4000 REGULATORY\GWM Rpt_060311\01_Text\Cover-Ltr.docx

Enclosure

cc: Ms. Deborah Castles, 1001 42nd Street LLC

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AMEC Geomatrix

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GROUNDWATER MONITORING REPORT
Former One National Engravers
1001 42nd Street
Oakland, California

1.0 INTRODUCTION

AMEC Geomatrix, Inc. (AMEC) has prepared this Groundwater Monitoring Report on behalf of 1001 42nd Street, LLC for the former One National Engravers site located at 1001 42nd Street Oakland, California (the site, Figure 1). In response to a March 2, 2011, directive letter from the Alameda County Health Care Services Agency, Alameda County of Environmental Health (ACEH), the lead oversight agency for the site, a groundwater monitoring event was initiated. The monitoring event consisted of groundwater gauging, collecting groundwater samples from on- and off-site monitoring wells, and analyzing for the presence of petroleum-related constituents. The objectives of this Groundwater Monitoring Report are to comply with the ACEH's directive and to collect contemporaneous groundwater quality information in the vicinity of the site.

2.0 SITE BACKGROUND

The site is bounded by 42nd Street to the north, 41st Street to the south, Linden Street, to the east, and various residential properties and Adeline Street to the west (Figure 1). Previous tenants were Oakland National Engravers Color Communications, Inc., Rockridge Antiques, and Boysen Paint Company. Storage tanks historically present on the site include ten above ground storage tanks (size unknown) and three underground storage tanks (USTs). The USTs were reportedly used to store mineral spirits and the capacities were 300, 8,000, and 10,000 gallons. The ASTs and the 10,000-gallon UST were removed in 1987. The 300 and 8,000-gallon USTs were abandoned in place in 1993 and 1996, respectively. ACEH issued a No Further Action letter in April 1996 for the 300-gallon UST. In addition, two steel-lined concrete sumps were filled with concrete and closed in place in November 1995.

Five on-site groundwater monitoring wells were installed by various consultants between 1990 and 1994. Monitoring well MW-B1 was installed on the southwest side of the 8,000-gallon UST beneath the sidewalk on 41st Street in May 1990. Monitoring wells MW-B2, MW-B3, and MW-B4 were installed on 41st Street in May 1993. Monitoring well BES-1 was installed adjacent to the sumps in April 1994. The previous groundwater monitoring program was last completed in March 2006 (Aqua Science Engineers, Inc., 2006).

Clayton Group Services Inc., (Clayton) installed three off-site groundwater monitoring wells on Adeline Street southwest of the site in October 2003 as part of groundwater investigations for the former Dunne Quality Paints property, located across 41st Street. These three off-site wells were last sampled in September 2004 (Clayton, 2004).

Well construction details for the on and off-site wells are presented in Table 1. Historical groundwater analytical results are presented in Appendix A.

3.0 FIELD PREPARATION

The activities described in this section were performed in preparation for the April 18, 2011 groundwater monitoring event.

3.1 RELOCATING MW-B1

Between April and July 2005, monitoring well MW-B1 was covered with a new concrete sidewalk installed by the developer of the property south of the site as part of that site's development as multifamily lofts. On April 11, 2011, AMEC retained Subtronic Corporation to utilize ground penetrating radar to identify the approximate location of monitoring MW-B1 beneath the sidewalk. On April 14, 2011, PeneCore Drilling, retained by AMEC, uncovered well MW-B1 by breaking the concrete with a jack hammer. Well MW-B1 was found unobstructed with a locking well cap still in place. A new, flush-mounted, watertight, traffic-rated well box was added to MW-B1 and the sidewalk surrounding well MW-B1 was repaired.

3.2 MONITORING WELL REDEVELOPMENT

Because the groundwater monitoring wells have not been sampled in 5 to 7 years, the monitoring wells were redeveloped prior to groundwater sampling to remove fines and sediment that may have accumulated in the wells and allow for collection of a groundwater sample from these wells. AMEC contracted with Blaine Tech Services Inc. (Blaine Tech) of San Jose, California, for well development and groundwater well sampling.

On April 15, 2011, Blaine Tech redeveloped the groundwater monitoring wells. Prior to redevelopment, Blaine Tech measured the depth to groundwater below the top of casing with an interface probe. If separate-phase, light non-aqueous-phase-liquids (LNAPL) were present, Blaine Tech did not redevelop the groundwater monitoring well. LNAPL was present in groundwater monitoring wells MW-B1, MW-B2, and BES-1. Groundwater monitoring wells MW-3B, MW-4B, and CW-1 through CW-3 were redeveloped with a 2-inch surge block and purged with a peristaltic pump fitted with disposable tubing. Water quality parameters such as pH, specific conductance, turbidity, and temperature were monitored and recorded every three

minutes. At least ten casing volumes of water were removed from each well. Purging stopped when parameters were relatively stable. Well redevelopment water quality log sheets are included in Blaine Tech's field records in Appendix B.

4.0 GROUNDWATER MONITORING

This section presents a summary of the sampling and analytical program, quality assurance/quality control procedures, and the results of the sampling program. Field Records are presented in Appendix B

4.1 SAMPLING AND ANALYTICAL PROGRAM

4.1.1 Water Level Measurements

On April 18, 2011, Blaine Tech measured groundwater levels in monitoring well MW-B1 through MW-B4, BES-1, CW-1 through CW-3 prior to purging and sampling. A summary of the groundwater levels and groundwater elevations are presented in Table 2 and Figure 2. Because LNAPL was present in wells MW-B1, MW-B2, and BES-1, groundwater samples for chemical analyses were not collected from these wells. Groundwater samples were collected for chemical analyses from monitoring wells MW-B3, MW-B4, and CW-1 through CW-3.

4.1.2 Groundwater Sampling Methods

Blaine Tech technicians purged and sampled monitoring wells MW-B3, MW-B4, CW-1, CW-2, and CW-3 using a peristaltic pump and micro-purge methodology. New disposable polyethylene tubing was used in each well. The tubing was placed in the approximate middle of the well screen prior to purging. Groundwater samples were obtained through the pump tubing after water quality measurements (i.e., pH, temperature, specific conductance, and turbidity) were determined to have stabilized. A duplicate sample (DUP-1) from monitoring well CW-3 was collected for quality control purposes. After transferring the collected samples to appropriate containers, sample bottles were labeled, placed in resealable bags, and stored in an ice-chilled cooler. The filled containers were transported to TestAmerica Laboratories of Pleasanton, California (TestAmerica- San Francisco), a state certified analytical laboratory located in Pleasanton, California, under Blaine Tech chain-of-custody procedures.

Purge water was transferred to 55-gallon drums, which were sealed, labeled, and placed temporarily at the site pending the results of the analytical testing.

4.1.3 Analytical Methods

The chemical analytical program included the following U.S. Environmental Protection Agency (EPA) methods:

- Benzene, ethylbenzene, toluene, and xylenes (BTEXs) using EPA Method 8260B; and
- Total Petroleum Hydrocarbons quantified as Mineral Spirits (TPHms) using EPA Method 8015 with silica gel preparation.

Groundwater samples containers were refrigerated for 48 hours and were allowed to settle in a separatory funnel. An aliquot was decanted from the groundwater sample and prepared for chemical analysis by TestAmerica– San Francisco.

4.1.4 Analytical Results

Laboratory analytical results for compounds detected in at least one sample are presented in Table 3. Copies of the laboratory reports and chains of custody are included in Appendix C.

4.1.5 Quality Assurance/Quality Control Procedures

Quality assurance/quality control (QA/QC) procedures included the analysis of one laboratory-provided trip blank, one blind field duplicate sample collected from well CW-3 (labeled as DUP-1), laboratory method blank samples, laboratory matrix spike and matrix spike duplicate (MS/MSD) samples, and laboratory quality control samples. Data verification was performed consistent with the U.S. EPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (National Functional Guidelines; USEPA, 2008). A summary of the data quality review is presented below and a more detailed review is presented in Appendix D.

No compounds were detected in the trip blank (TB) at concentrations equal to or greater than the laboratory reporting limits (RL) (Appendix C).

No compounds were detected in primary sample CW-3 or the blind duplicate collected at CW-3 (DUP-1). The samples results of the primary and duplicate sample were within acceptance criteria.

The result for one surrogate, 4-bromofluorobenzene, was outside of control limits for groundwater sample MW-B4. TestAmerica– San Francisco indicated that evidence of matrix interference was present. As a result and following the recommendations of the National Functional Guidelines, the benzene result from sample MW-B4 was rejected and qualified (“R”). All other quality assurance data met their respective acceptance criteria. Overall, with the exception of the benzene result for MW-B4, the results of the quality assurance assessment indicate that the test results are valid and useable.

5.0 OCCURRENCE AND MOVEMENT OF GROUNDWATER

The depth to groundwater measured in the project monitoring wells ranged from approximately 4.93 (MW-B3) to 6.92 (CW-2) feet bgs (Figure 2) on April 18, 2011.

Measurable LNAPL was reported in monitoring wells BES-1, MW-B1 and MW-B2. The product thickness ranged from 0.41 (BES-1) to 0.05 (MW-B2). Groundwater levels were depressed at these three monitoring wells, and subsequently not used in calculating the hydraulic gradient. The groundwater elevations indicate that the approximate lateral groundwater flow direction in the site vicinity was towards the east-southeast at the time of sampling, which is generally consistent with regional flow towards San Francisco Bay. The hydraulic gradient of approximately 0.017 foot per foot (ft/ft) was calculated from MW-B4 to CW-2.

6.0 DISCUSSION OF ANALYTICAL RESULTS

The reported chemical analytical results for the groundwater samples collected for this monitoring event were generally consistent with previous analytical data (Table D-1). California Regional Water Quality Control Board, San Francisco Region's Environmental Screening Levels (ESLs; 2008) are presented in Tables 3 and D-1. The analytical results indicate that BTEX were not detected in groundwater at concentrations exceeding their respective ESLs. Although the result for benzene in well MW-B4 was flagged as a rejected data point, historical sampling results indicate that benzene has not been detected. TPHms was detected in groundwater from upgradient well MW-B4 at 470 µg/L at concentrations exceeding its ESL (210 microgram per liter [µg/L]). This concentration is consistent with previous analytical results. No other monitoring wells located on the property (MW-B3) or off-site (CW-1, CW-2 or CW-3) which appear to be down-gradient to the site area, had TPHms or BTEX concentrations in groundwater.

7.0 PLANNED GROUNDWATER MONITORING

As recommended by ACEH, future sampling events will be conducted on a quarterly basis for at least one year. The schedule for upcoming monitoring events and reporting due dates is summarized in the table below.

Description	Field Program	Report Submittal Date
Third Quarter 2011	August 2011	October 31, 2011
Fourth Quarter 2011	November 2011	January 31, 2012
First Quarter 2012	February 2012	April 30, 2012

8.0 REFERENCES

Aqua Science Engineers, Inc., (ASE), 2006, Semi-Annual Groundwater Monitoring Report March 2006 Groundwater Sampling, Kozel Property 1001 42nd Street, Oakland, California, May 7.

California Regional Water Quality Control Board, San Francisco Bay Region, 2008, Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Interim Final, May.

Clayton Group Services, 2004, Third Quarter 2004 Groundwater Monitoring Results, Former Dunne Paint Facility, 1007 41st Street, Oakland, California, November 22

U.S. EPA, 2008, USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (OSWER 9240.1-48, U.S. EPA 540-R-08-01), June.

TABLES

TABLE 1

MONITORING WELL CONSTRUCTION DETAILS

Former One National Engravers
1001 42nd Street
Oakland, California

Well No.	Date Installed	Total Boring Depth (ft bgs)	Total Well Depth (ft bgs)	Well Diameter (inches)	Top of Casing Elevation ^{1,2,3} (ft msl)	Screened Interval (ft bgs)	Screen Slot Size (inches)	Filter Pack Interval (ft bgs)	Bentonite Seal Interval (ft bgs)	Surface Seal Interval (ft bgs)
BES-1	4/14/1994	30.0	30.00	2	56.24	10.0 - 30.0	0.020	5.0 - 30.0	4.0 - 5.0	0.5 - 4.0
MW-B1	5/15/1990	21.5	20.00	2	52.34	15.0 - 20.0	0.010	14.0 - 21.5	12.0 - 14.0	0.5 - 12.0
MW-B2	5/24/1993	25.0	25.00	2	53.20	5.0 - 25.0	0.020	4.0 - 25.0	3.5 - 4.0	0.5 - 4.0
MW-B3	5/24/1993	25.0	25.00	2	51.38	5.0 - 25.0	0.020	4.0 - 25.0	3.5 - 4.0	0.5 - 4.0
MW-B4	5/24/1993	25.0	25.00	2	52.10	5.0 - 25.0	0.020	4.0 - 25.0	3.5 - 4.0	0.5 - 4.0
CW-1	10/31/2003	25.0	25.00	2	49.91	5.0 - 25.0	0.020	3.75 - 25.0	2.75 - 3.75	1.0 - 2.75
CW-2	10/31/2003	25.0	25.00	2	49.95	5.0 - 25.0	0.020	3.75 - 25.0	2.75 - 3.75	1.0 - 2.75
CW-3	10/31/2003	25.0	25.00	2	48.75	5.0 - 25.0	0.020	3.75 - 25.0	2.75 - 3.75	1.0 - 2.75

Notes

1. Elevation based on the North American Vertical Datum of 1988. A Geoid 09 derived elevation at Base 1 was established using CGPS on 41st Street in the City of Oakland. The Base 1 elevation 57.572 feet.
2. MW-B4 elevation based on the National Geodetic Vertical Datum of 1929 and Benchmark: Top of well casing of MW-2 at the corner of Linden Street in the City of Oakland (elevation 54.06). The elevation was converted in North American Vertical Datum of 1988 by an increase of 2.363 feet.
3. CW-1, CW-2 and CW-3 elevations based on the National Geodetic Vertical Datum of 1929 and Benchmark: City of Oakland, located on at 35th Street and Market Street (elevation 37.71).

Abbreviations

ft bgs = feet below ground surface
ft msl = feet mean sea level

TABLE 2

SUMMARY OF WATER LEVEL ELEVATIONS

Former One National Engravers
1001 42nd Street
Oakland, California

Well ID	Date	Top of Casing Elevation ^{1,2,3} (feet)	Measured Depth to Bottom of Well (feet)	Depth to Liquid (feet)	Thickness of Immiscible Liquid (feet)	Depth to Water (feet)	Water Level Elevation (msl)
BES-1	4/15/2011	56.24	NM	8.33	0.53	8.86	46.96
	4/18/2011		NM	8.76	0.41	9.17	46.74
MW-B1	4/15/2011	52.34	NM	4.23	0.02	4.25	48.07
	4/18/2011		NM	4.31	0.10	4.41	47.85
MW-B2	4/15/2011	53.2	NM	5.5	0.05	5.55	47.61
	4/18/2011		NM	5.56	0.05	5.61	47.55
MW-B3	4/15/2011	51.38	24.32	--	--	4.3	47.08
	4/18/2011		24.25	--	--	4.93	46.45
MW-B4	4/15/2011	52.10	24.21	--	--	4.65	47.45
	4/18/2011		24.12	--	--	5.24	46.86
CW-1	4/15/2011	49.91	24.75	--	--	6.25	43.66
	4/18/2011		24.4	--	--	6.45	43.46
CW-2	4/15/2011	49.95	24.85	--	--	6.8	43.15
	4/18/2011		24.67	--	--	6.92	43.03
CW-3	4/15/2011	48.75	24.71	--	--	6.15	42.60
	4/18/2011		24.6	--	--	6.33	42.42

Notes

1. Elevation based on the North American Vertical Datum of 1988. A Geoid 09 derived elevation at Base 1 was established using CGPS on 41st Street in the City of Oakland. The Base 1 elevation 57.572 feet.
2. MW-B4 elevation based on the National Geodetic Vertical Datum of 1929 and Benchmark: Top of well casing of MW-2 at the corner of Linden Street in the City of Oakland (elevation 54.06). The elevation was converted in North American Vertical Datum of 1988 by an increase of 2.363 feet.
3. CW-1, CW-2 and CW-3 elevations based on the National Geodetic Vertical Datum of 1929 and Benchmark: City of Oakland, located on at 35th Street and Market Street (elevation 37.71).

Abbreviations

NM = not measured.
msl = mean sea level.

TABLE 3

**SUMMARY OF ANALYTICAL RESULTS FOR GROUNDWATER –
VOLATILE ORGANIC COMPOUNDS ¹**

Former One National Engravers
1001 42nd Street
Oakland, California

Results reported in micrograms per liter (µg/L)

Well ID	Sample Date	Benzene	Ethyl-benzene	Toluene	Xylenes (total)	TPHms (C9-C13)
BES-1	4/18/2011	-- ²	--	--	--	--
MW-B1	4/18/2011	--	--	--	--	--
MW-B2	4/18/2011	--	--	--	--	--
MW-B3	4/18/2011	<0.5 ³	<0.5	<0.5	<1.0	<50
MW-B4	4/18/2011	<0.5R ⁴	<0.5	<0.5	<1.0	470 ⁵
CW-1	4/18/2011	<0.5	<0.5	<0.5	<1.0	<50
CW-2	4/18/2011	<0.5	<0.5	<0.5	<1.0	<50
CW-3/DUP	4/18/2011	<0.5/<0.5 ⁶	<0.5/<0.5	<0.5/<0.5	<1.0/<1.0	<50/<50
ESLs ⁷		46	43	130	100	210

Notes

1. Analyzed by U.S. EPA Method 8260B and U.S. EPA Method 8015B with silica gel preparation.
2. -- indicates not sampled due to presence of product in the well casing.
3. "<" indicates compound not detected at or greater than the laboratory limit shown.
4. R indicates analytic results are rejected due to surrogate recovery issues.
5. Bold indicates analyte detected.
6. Duplicate groundwater sample indicated as value after the "/".
7. Groundwater Screening Levels (Table F-1b; groundwater is not a current or potential drinking water source), California Regional Water Quality Control Board, May 2008.



Abbreviations

- DUP = duplicate
ESLs = environmental screening levels

FIGURES



Digital orthophoto from USGS dated March 2006.

-  Explanation
-  Monitoring wells
- 46.86** Groundwater levels measured on April 18, 2011
- (46.74)*** Free product observed in well casing

**MONITORING WELLS LOCATIONS
AND GROUNDWATER SAMPLING**
1001 42nd Street
Oakland, California

By: CD	Date: 6/3/2011	Project No. 13310.000
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APPENDIX A

Summary of Historical Groundwater Analytical Results

APPENDIX A



Summary of Analytical Results for Ground Water Samples
1001 42nd Street (Former One National Engravers)
Emeryville/Oakland, California

Boring or Well ID	Date Sampled	TPH Diesel (mg/L)	TPH Gasoline (mg/L)	TPH Motor Oil (mg/L)	TPH Mineral Spirits (mg/L)	TEPH (Non-Diesel) (mg/L)	TPPH (Non-Gasoline) (mg/L)	Kerosene (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl Benzene (µg/L)	Total Xylenes (µg/L)	Acetone (µg/L)	n-Butyl Benzene (µg/L)	sec-Butyl Benzene (µg/L)	tert-Butyl Benzene (µg/L)	Chloro-methane (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Freon 11 (µg/L)	Freon 12 (µg/L)	p-Isopropyl toluene (µg/L)	MEK (µg/L)	Naphthalene (µg/L)	n-Propyl benzene (µg/L)	PCE (µg/L)	1,1,1-TCA (µg/L)	TCE (µg/L)	1,2,4-TMB (µg/L)	Vinyl Chloride (µg/L)		
ESL	4/21/1994	18	na	na	12	na	na	na	ND	ND	ND	ND	DU	ND	ND	ND	DU	DU	ND	ND	ND	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU
BES-1	12/10/1998	< 1	na	na	78	na	na	< 1	< 100	< 100	< 100	< 100	< 2500	na	na	na	< 250	< 150	< 100	na	na	na	na	na	na	< 5000	na	na	< 100	< 100	< 100	na	< 250	
	12/14/1999	na	na	na	72	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	
	5/28/2003	19	84	na	60	na	na	na	DU	< 0.5	< 0.5	< 0.5	DU	< 0.5	< 0.5	4.4	DU	DU	1.5	17	2.1	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	20	
	6/18/2003	DU	DU	DU	120	DU	DU	na	na	< 0.5	< 0.5	< 0.5	DU	< 0.5	< 0.5	< 0.5	DU	DU	< 0.5	14	< 0.5	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	18	
	6/15/2004	Not Sampled Due to Free Product																																
	9/14/2004	Not Sampled Due to Free Product																																
	12/16/2004	Not Sampled Due to Free Product																																
	3/30/2005	Not Sampled Due to Free Product																																
6/27/2005	Not Sampled Due to Free Product																																	
CW-1	11/12/2003	na	na	na	0.085	na	na	na	DU	< 5	< 5	< 5	DU	< 5	< 5	< 5	DU	DU	< 5	< 5	< 5	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	< 10	
	3/12/2004	na	na	na	< 0.05	na	na	na	DU	< 5	< 5	< 5	DU	< 5	< 5	< 5	DU	DU	< 5	< 5	< 5	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	< 10	
	6/15/2004	na	na	na	< 0.05	na	na	na	DU	< 5	< 5	< 5	DU	< 5	< 5	< 5	DU	DU	< 5	< 5	< 5	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	< 10	
	9/14/2004	na	na	na	< 0.05	na	na	na	DU	< 5	< 5	< 10	DU	< 5	< 5	< 5	DU	DU	< 5	< 5	< 5	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	< 0.05	
CW-2	11/12/2003	na	na	na	< 0.05	na	na	na	DU	< 5	< 5	< 5	DU	< 5	< 5	< 5	DU	DU	< 5	< 5	< 5	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	< 10	
	3/12/2004	na	na	na	< 0.05	na	na	na	DU	< 5	< 5	< 5	DU	< 5	< 5	< 5	DU	DU	< 5	< 5	< 5	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	< 10	
	6/15/2004	na	na	na	< 0.05	na	na	na	DU	< 5	< 5	< 5	DU	< 5	< 5	< 5	DU	DU	< 5	< 5	< 5	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	< 10	
	9/14/2004	na	na	na	< 0.05	na	na	na	DU	< 5	< 5	< 10	DU	< 5	< 5	< 5	DU	DU	< 5	< 5	< 5	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	< 0.05	
CW-3	11/12/2003	na	na	na	< 0.05	na	na	na	DU	< 5	< 5	< 5	DU	< 5	< 5	< 5	DU	DU	< 5	< 5	< 5	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	< 10	
	3/12/2004	na	na	na	< 0.05	na	na	na	DU	< 5	< 5	< 5	DU	< 5	< 5	< 5	DU	DU	< 5	< 5	< 5	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	5.1	< 10
	6/17/2004	na	na	na	< 0.05	na	na	na	DU	< 5	< 5	< 5	DU	< 5	< 5	< 5	DU	DU	< 5	< 5	< 5	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	< 10	
	9/14/2004	na	na	na	< 0.05	na	na	na	DU	< 5	< 5	< 10	DU	< 5	< 5	< 5	DU	DU	< 5	< 5	< 5	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	< 0.05	
MW-B1	9/30/1991	< 0.05	18	na	na	na	na	29	5	6	250	980	DU	ND	ND	ND	DU	DU	ND	ND	ND	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	ND	
	6/10/1993	na	na	na	na	27	57	na	ND	ND	ND	ND	DU	ND	ND	ND	DU	DU	ND	ND	ND	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	ND	
	9/29/1993	na	na	na	43	na	na	na	ND	ND	ND	ND	DU	ND	ND	ND	DU	DU	ND	ND	ND	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	ND	
	5/28/2003	1100	37	na	26	na	na	na	DU	< 2.5	< 2.5	< 2.5	DU	< 2.5	< 2.5	23	DU	DU	< 2.5	< 2.5	na	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	< 2.5	
	6/15/2004	Not Sampled Due to Free Product																																
	9/14/2004	Not Sampled Due to Free Product																																
	12/16/2004	Not Sampled Due to Free Product																																
3/30/2005	Not Sampled Due to Free Product (0.04-feet)																																	
6/27/2005	Not Sampled Due to Concrete Sidewalk Poured Over Well																																	
MW-B2	6/10/1993	na	na	na	na	3.8	1.4	na	ND	ND	ND	ND	DU	ND	ND	ND	DU	DU	ND	ND	ND	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	ND	
	9/29/1993	na	na	na	290	na	na	na	ND	ND	ND	ND	DU	ND	ND	ND	DU	DU	ND	ND	ND	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	ND	
	12/10/1998	< 1	< 0.05	na	150	na	2.4	< 1	< 100	< 100	< 100	< 100	< 2500	na	na	na	< 250	< 150	< 100	na	na	na	na	na	na	< 5000	na	na	< 100	< 100	< 100	na	< 250	
	12/14/1999	na	na	na	0.63	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	
	5/28/2003	22	1.6	na	1.1	na	na	na	DU	< 0.5	< 0.5	< 0.5	DU	< 0.5	3.2	3.2	DU	DU	< 0.5	< 0.5	na	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	< 0.5	
	6/15/2004	na	na	na	3	na	na	na	< 5	< 5	< 5	< 10	< 500	33	< 10	< 10	< 10	< 10	< 5	< 5	< 5	< 10	< 5	< 10	< 500	< 10	< 10	< 5	< 5	< 5	< 5	< 5		
	9/14/2004	na	na	na	0.41	na	na	na	< 5	< 5	< 5	< 10	< 500	< 10	< 10	< 10	< 10	< 10	< 5	< 5	< 5	< 10	< 5	< 10	< 500	< 10	< 10	< 5	< 5	< 5	< 5	< 5		
	12/16/2004	na	na	na	0.48	na	na	na	< 0.5	< 0.5	< 0.5	< 1	< 50	< 1	1.4	1.8	< 1	< 1	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1	< 50	< 1	< 1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5		
	3/30/2005	na	na	na	14	na	na	na	< 0.5	< 0.5	< 0.5	< 1	< 50	< 1	4.1	5.8	< 1	< 1	< 0.5	0.6	< 0.5	< 1	< 0.5	< 1	< 50	< 1	< 1	< 0.5	< 0.5	< 0.5	< 0.5	2.2		
	6/27/2005	na	na	na	4.3	na	na	na	< 0.5	< 0.5	< 0.5	< 1	< 50	< 1	4.7	5.9	< 1	< 1	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1	< 50	< 1	< 1	< 0.5	< 0.5	< 0.5	< 0.5	2.2		
3/2/2006	na	na	na	9.2	na	na	na	< 0.5	< 0.5	< 0.5	< 1	< 50	< 1	1.8	1.8	< 1	< 1	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1	< 50	< 1	< 1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5			
MW-B3	6/10/1993	na	na	na	na	1.7	0.51	DU	ND	ND	ND	ND	DU	ND	ND	ND	DU	DU	ND	ND	ND	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	ND	
	9/29/1993	na	na	na	2.4	na	na	na	ND	ND	ND	ND	DU	ND	ND	ND	DU	DU	ND	ND	ND	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	ND	
	12/10/1998	< 0.05	< 0.05	na	0.12	na	0.83	< 0.05	< 2.0	< 2.0	< 2.0	< 2.0	< 50.0	na	na	na	< 5.0	< 3.0	< 2.0	na	na	na	na	na	< 100.0	na	na	< 2.0	< 2.0	< 2.0	na	< 5.0		
	12/14/1999	na	na	na	< 0.05	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	
	5/28/2003	na	na	na	ND	na	na	na	DU	< 0.5	< 0.5	< 0.5	DU	< 0.5	< 0.5	< 0.5	DU	DU	< 0.5	< 0.5	na	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	< 0.5	
	6/15/2004	na	na	na	< 0.05	na	na	na	< 0.5	< 0.5	< 0.5	< 1	< 50	< 1	< 1	< 1	< 1	< 1	< 1	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1	< 50	< 1	< 1	< 0.5	< 0.5	< 0.5	< 0.5		
	9/14/2004	na	na	na	< 0.05	na	na	na	< 0.5	< 0.5	< 0.5	< 1	< 50	< 1	< 1	< 1	< 1	< 1	< 1	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1	< 50	< 1	< 1						

APPENDIX A



Summary of Analytical Results for Ground Water Samples
1001 42nd Street (Former One National Engravers)
Emeryville/Oakland, California

Boring or Well ID	Date Sampled	TPH Diesel (mg/L)	TPH Gasoline (mg/L)	TPH Motor Oil (mg/L)	TPH Mineral Spirits (mg/L)	TEPH (Non-Diesel) (mg/L)	TPPH (Non-Gasoline) (mg/L)	Kerosene (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl Benzene (µg/L)	Total Xylenes (µg/L)	Acetone (µg/L)	n-Butyl Benzene (µg/L)	sec-Butyl Benzene (µg/L)	tert-Butyl Benzene (µg/L)	Chloro-methane (µg/L)	Chloroform (µg/L)	1,1-DCA (µg/L)	cis-1,2-DCE (µg/L)	trans-1,2-DCE (µg/L)	Freon 11 (µg/L)	Freon 12 (µg/L)	p-Isopropyl toluene (µg/L)	MEK (µg/L)	Naphthalene (µg/L)	n-Propyl benzene (µg/L)	PCE (µg/L)	1,1,1-TCA (µg/L)	TCE (µg/L)	1,2,4-TMB (µg/L)	Vinyl Chloride (µg/L)	
ESL ¹		0.21 ²	0.21 ²	0.21 ²	0.21 ²	0.21 ²	0.21 ²	NE	46	130	43	100	1,500	NE	NE	NE	NE	330	47	590	590	NE	NE	NE	14,000	24	NE	120	62	360	NE	3.8	
MW-D1	8/26/1988	na	na	na	1	na	na	na	na	na	na	na	DU	na	na	na	DU	DU	na	na	na	DU	DU	DU	DU	DU	DU	DU	DU	na	na	DU	na
	1/18/1989	na	na	na	< 1	na	na	na	na	2	ND	1.8	DU	na	na	na	DU	DU	na	na	na	DU	DU	DU	DU	DU	DU	DU	DU	na	na	DU	na
	4/24/1989	na	na	na	< 1	na	na	na	na	ND	ND	1.1	DU	na	na	na	DU	DU	na	na	na	DU	DU	DU	DU	DU	DU	DU	DU	na	na	DU	na
	2/21/1990	na	na	na	< 0.1	na	na	ND	na	ND	0.4	1.3	DU	na	na	na	DU	DU	na	na	na	DU	DU	DU	DU	DU	DU	DU	DU	na	na	DU	na
	6/10/1992	na	na	na	< 0.05	na	na	ND	na	ND	ND	ND	DU	na	na	na	DU	DU	na	na	na	DU	DU	DU	DU	DU	DU	DU	DU	na	na	DU	na
	6/10/1993	na	na	na	na	0.22	0.23	na	na	ND	ND	ND	DU	na	na	na	DU	DU	na	na	na	DU	DU	DU	DU	DU	DU	DU	DU	na	na	DU	na
	9/24/1993	na	na	na	< 0.05	na	na	na	na	ND	ND	ND	DU	na	na	na	DU	DU	na	na	na	DU	DU	DU	DU	DU	DU	DU	DU	na	na	DU	na
	9/29/1993	na	na	na	0.11	na	na	na	na	ND	ND	ND	DU	na	na	na	DU	DU	na	na	na	DU	DU	DU	DU	DU	DU	DU	DU	na	na	DU	na
	12/14/1999	na	na	na	< 0.05	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na
	11/12/2003	na	na	na	0.085	na	na	na	DU	< 5	< 5	< 5	DU	< 5	< 5	< 5	DU	DU	< 5	< 5	< 5	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	< 10
	3/12/2004	na	na	na	0.26	na	na	na	DU	< 5	< 5	< 5	DU	< 5	< 5	< 5	DU	DU	< 5	< 5	< 5	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	< 10
	6/15/2004	na	na	na	0.1	na	na	na	DU	< 5	< 5	< 5	DU	< 5	< 5	< 5	DU	DU	< 5	< 5	< 5	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	< 10
	9/14/2004	na	na	na	< 0.05	na	na	na	DU	< 5	< 5	< 10	DU	< 5	< 5	< 5	DU	DU	< 5	< 5	< 5	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	< 5
MW-D2	8/26/1988	na	na	na	1.6	na	na	na	na	na	na	na	DU	na	na	na	DU	DU	na	na	na	DU	DU	DU	DU	DU	DU	DU	DU	na	na	DU	na
	1/18/1989	na	na	na	< 1	na	na	na	na	6.3	ND	12	DU	na	na	na	DU	DU	na	na	na	DU	DU	DU	DU	DU	DU	DU	DU	na	na	DU	na
	4/24/1989	na	na	na	< 1	na	na	na	na	ND	ND	7.7	DU	na	na	na	DU	DU	na	na	na	DU	DU	DU	DU	DU	DU	DU	DU	na	na	DU	na
	2/21/1990	na	na	na	0.3	na	na	na	na	ND	0.3	1.5	DU	na	na	na	DU	DU	na	na	na	DU	DU	DU	DU	DU	DU	DU	DU	na	na	DU	na
	6/10/1992	na	na	na	0.076	na	na	na	na	ND	ND	ND	DU	na	na	na	DU	DU	na	na	na	DU	DU	DU	DU	DU	DU	DU	DU	na	na	DU	na
	6/10/1993	na	na	na	na	9.1	6.2	na	na	ND	ND	ND	DU	na	na	na	DU	DU	na	na	na	DU	DU	DU	DU	DU	DU	DU	DU	na	na	DU	na
	9/24/1993	na	na	na	< 0.05	na	na	na	na	ND	ND	ND	DU	na	na	na	DU	DU	na	na	na	DU	DU	DU	DU	DU	DU	DU	DU	na	na	DU	na
	9/29/1993	na	na	na	0.22	na	na	na	na	ND	ND	ND	DU	na	na	na	DU	DU	na	na	na	DU	DU	DU	DU	DU	DU	DU	DU	na	na	DU	na
	12/10/1998	< 0.05	< 0.05	na	0.18	na	0.1	< 0.05	< 2	< 2	< 2	< 2	< 50.0	na	na	na	< 5.0	< 3.0	< 2.0	na	na	na	na	na	na	< 100	na	na	< 2.0	< 2.0	< 2.0	na	< 5.0
	12/14/1999	na	na	na	0.1	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na
	11/12/2003	na	na	na	1.4	na	na	na	DU	< 5	< 5	< 5	DU	< 5	< 5	< 5	DU	DU	< 5	< 5	< 5	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	< 10
	3/12/2004	na	na	na	0.33	na	na	na	DU	< 5	< 5	< 5	DU	< 5	< 5	< 5	DU	DU	< 5	< 5	< 5	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	< 10
	6/15/2004	na	na	na	< 0.05	na	na	na	DU	< 5	< 5	< 5	DU	< 5	< 5	< 5	DU	DU	< 5	< 5	< 5	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	< 10
9/14/2004	na	na	na	< 0.05	na	na	na	DU	< 5	< 5	< 10	DU	< 5	< 5	< 5	DU	DU	< 5	< 5	< 5	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	< 5	
MW-LD4	9/30/1991	na	na	na	na	na	na	na	2	3.1	9	24	DU	na	na	na	DU	DU	na	na	na	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	na
	6/10/1993	na	na	na	na	21	1.1	na	na	ND	ND	ND	DU	na	na	na	DU	DU	na	na	na	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	DU	na
	9/29/1993	na	na	na	0.7	na	na	na	na	ND	ND	ND	DU	na	na	na	DU	DU	na	na	na	DU	DU	DU	DU	DU	DU	DU	DU	na	na	DU	na
	12/10/1998	0.17	< 0.05	na	0.13	na	0.08	< 0.05	< 2.0	< 2.0	< 2.0	< 2.0	< 50	na	na	na	< 5.0	< 3.0	< 2.0	na	na	na	na	na	< 100	na	na	< 2.0	< 2.0	< 2.0	na	< 5.0	
	12/14/1999	na	na	na	440	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na
	1/13/2000*	na	na	na	630	na	na	na	na	na	na	na	DU	na	na	na	DU	DU	na	na	na	DU	DU	DU	DU	DU	DU	DU	DU	na	na	DU	na
6/15/2004	Abandoned																																

Notes

¹ Regional Water Quality Control Board, San Francisco Bay Region, 2008, Update to Environmental Screening Levels for Sites with Impacted Soil and Groundwater, Table F-1b, Groundwater Screening Levels (groundwater is not a current or potential drinking water resource), M;

² ESL for TPH (gasoline), TPH (middle distillates), and TPH (residual fuels).

Abbreviations

- DCA = Dichloroethane
- DCE = Dichloroethene
- MEK = Methyl Ethyl Ketone
- PCE = Tetrachloroethylene
- TCA = Trichloroethane
- TCE = Trichloroethene
- TEPH = Total Extractable Petroleum Hydrocarbons
- TMB = Trimethylbenzene
- TPH = Total Petroleum Hydrocarbons
- TPPH = Total Purgeable Petroleum Hydrocarbons
- < = Non-detections noted by the less than sign (<) followed by the laboratory reporting limit;
- DU = data unavailable per ASE Environmental.
- ESL = the Environmental Screening Levels for areas where groundwater is not a current or potential source of drinking water; California Regional Water Quality Control, San Francisco Bay Region - Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater (May 2008).
- IW = the boring contained insufficient water to sample, so no analysis was performed.
- mg/L = milligrams per liter (ppm)
- µg/L = micrograms per liter (ppb)
- na = not analyzed
- ND = Not Detected in cases where data not available and the detection limit was unknown, the results are summarized as ND.
- NE = No ESL or Federal Drinking Water Standard Established



APPENDIX B

Field Records – Blaine Tech Services, Inc.

WELL GAUGING DATA

Project # 110415-PC1

Date 4/15/11

Client AMEC

Site 1001 42nd st, Emeryville

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or <u>TOC</u>	Notes
CW-3	0802	2					6.15	24.65	↓	
CW-2	0808	2				6.80	24.71			
CW-1	0810	2				6.25	24.62 15.05*			
BES-1	~	2						↳ root destruction		
BES-1		2		8.33	0.53	-	8.86	-		
MW-B1		2		4.23	0.02	-	4.25	-		
MW-B2		2		5.50	0.05	-	5.55	-		
MW-B3		2					4.30	24.04		
MW-B4		2					4.65	22.72		

WELL MONITORING DATA SHEET

Project #: 110415-PC1	Client: AMES
Sampler: JP	Date: 4/15/11
Well I.D.: BES-1	Well Diameter: ② 3 4 6 8
Total Well Depth: —	Depth to Water Pre: 8.86 Post: —
Depth to Free Product: 8.33	Thickness of Free Product (feet): 0.53
Referenced to: <u>PVC</u> Grade	Flow Cell Type: —

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Flow Rate: _____ Pump Depth: _____

Time	Temp. (°C or °F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Observations
								SPH DETECTED. WELL NOT DEVELOPED

Did well dewater? Yes No	Amount actually evacuated:
Sampling Time:	Sampling Date:
Sample I.D.:	Laboratory:
Analyzed for: TPH-G BTEX MTBE TPH-D Other:	
Equipment Blank I.D.: @ Time	Duplicate I.D.:

WELL MONITORING DATA SHEET

Project #: 110415-PL1	Client: AMEC
Sampler: JP	Date: 4/15/11
Well I.D.: MW-B2	Well Diameter: (2) 3 4 6 8
Total Well Depth: —	Depth to Water Pre: 5.55 Post:
Depth to Free Product: 5.50	Thickness of Free Product (feet):
Referenced to: PVC Grade	Flow Cell Type:

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Flow Rate: _____ Pump Depth: _____

Time	Temp. (°C or °F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Observations
								SPT IN WELL NOT DEVELOPED

Did well dewater? Yes No	Amount actually evacuated:
Sampling Time:	Sampling Date:
Sample I.D.:	Laboratory:
Analyzed for: TPH-G BTEX MTBE TPH-D	Other:
Equipment Blank I.D.:	Duplicate I.D.:

WELL DEVELOPMENT DATA SHEET

Project #: _____	Client: <u>AMEC</u>
Developer: <u>JR</u>	Date Developed: <u>4/15/11</u>
Well I.D. <u>MW-83</u>	Well Diameter: (circle one) <u>(2)</u> 3 4 6
Total Well Depth: Before <u>24.04</u> After <u>24.32</u>	Depth to Water: Before <u>4.30</u> After <u>8.42</u>
Reason not developed: _____	If Free Product, thickness: _____
Additional Notations: <u>SURGED WELL 15 MINS PRIOR TO PURGE</u>	

Volume Conversion Factor (VCF):
 $\{12 \times (d^2/4) \times \pi\} / 231$
 where
 12 = in / foot
 d = diameter (in.)
 $\pi = 3.1416$
 231 = in 3/gal

Well dia.	VCF
2" =	0.16
3" =	0.37
4" =	0.65
6" =	1.47
10" =	4.08
12" =	6.87

<u>3.2</u>	X	<u>10</u>	=	<u>32</u>
1 Case Volume		Specified Volumes		gallons

- Purging Device: Bailer Electric Submersible
 Suction Pump Positive Air Displacement

Type of Installed Pump NONE
 Other equipment used 2" SURGE BLOCK

TIME	TEMP (F)	pH	Cond. (mS or μ S)	TURBIDITY (NTUs)	VOLUME REMOVED:	NOTATIONS:
<u>0844</u>	<u>61.7</u>	<u>7.51</u>	<u>816</u>	<u>>1000</u>	<u>3.2</u>	<u>SILTY, BRN.</u>
<u>0847</u>	<u>61.5</u>	<u>7.29</u>	<u>777</u>	<u>>1000</u>	<u>6.4</u>	<u>" "</u>
<u>0850</u>	<u>61.7</u>	<u>6.96</u>	<u>740</u>	<u>>1000</u>	<u>9.6</u>	<u>" "</u>
<u>0853</u>	<u>61.8</u>	<u>6.93</u>	<u>721</u>	<u>>1000</u>	<u>12.8</u>	<u>CLOUDY, BRN.</u>
<u>0856</u>	<u>61.6</u>	<u>6.92</u>	<u>687</u>	<u>>1000</u>	<u>16.0</u>	<u>" "</u>
<u>0859</u>	<u>61.5</u>	<u>6.95</u>	<u>647</u>	<u>658</u>	<u>19.2</u>	<u>" "</u>
<u>0903</u>	<u>60.7</u>	<u>6.93</u>	<u>630</u>	<u>509</u>	<u>22.4</u>	<u>CLEARING</u>
<u>0906</u>	<u>61.5</u>	<u>6.90</u>	<u>609</u>	<u>327</u>	<u>25.6</u>	<u>" "</u>
<u>0909</u>	<u>61.5</u>	<u>6.86</u>	<u>610</u>	<u>330</u>	<u>28.8</u>	<u>" "</u>
<u>0912</u>	<u>61.6</u>	<u>6.88</u>	<u>620</u>	<u>317</u>	<u>32.0</u>	<u>" "</u>
<u>0915</u>	<u>61.5</u>	<u>6.91</u>	<u>635</u>	<u>360</u>	<u>35.2</u>	<u>SLIGHTLY CLOUDY</u>
<u>0918</u>	<u>61.5</u>	<u>6.96</u>	<u>621</u>	<u>334</u>	<u>38.4</u>	<u>" "</u>
<u>STOPPED PER PHONE CONVERSATION WITH CHARLES @ AMEC.</u>						

Did Well Dewater? <u>NO</u>	If yes, note above. <u>-</u>	Gallons Actually Evacuated: <u>40.0</u>
-----------------------------	------------------------------	---

WELL DEVELOPMENT DATA SHEET

Project #: 110415-PC1	Client: AMEC
Developer: JP	Date Developed: 4/15/11
Well I.D. MW-B4	Well Diameter: (circle one) ② 3 4 6
Total Well Depth: Before 22.72 After 24.21	Depth to Water: Before 4.65 After 5.59
Reason not developed: —	If Free Product, thickness: —
Additional Notations: SURGED WELL FOR 15 MINS PRIOR TO PURGING	

Volume Conversion Factor (VCF): {12 x (d ² /4) x π} / 231	Well dia.	VCF
where	2" =	0.16
12 = in / foot	3" =	0.37
d = diameter (in.)	4" =	0.65
π = 3.1416	6" =	1.47
231 = in ³ /gal	10" =	4.08
	12" =	6.87

<u>2.9</u>	X	<u>10</u>	=	<u>29</u>	gallons
1 Case Volume		Specified Volumes			

Purging Device: Bailer Electric Submersible
 Suction Pump Positive Air Displacement

Type of Installed Pump NONE
 Other equipment used 2" SURGE PUMP

TIME	TEMP (F)	pH	Cond. (mS or μ S)	TURBIDITY (NTUs)	VOLUME REMOVED:	NOTATIONS:
1035	67.8	7.00	813	>1000	2.9	LARGE QUANTITY OF DARK GREY SILT REMOVED
1038	66.3	6.91	800	>1000	5.8	GREY, CLOUDY
1041	65.1	6.85	794	>1000	8.7	" "
1044	65.1	6.87	794	>1000	19.6	" "
1047	65.3	6.83	783	618	14.5	CLEARING
1052	64.6	6.96	776	191	17.4	"
1055	64.2	6.81	772	160	20.3	"
1058	64.4	6.79	771	124	23.2	"
1102	64.9	6.78	770	135	26.1	"
1105	64.7	6.79	765	112	29.0	"
1108	64.9	6.80	757	98	31.9	"
1111	65.0	6.78	761	83	34.8	"
1112	66.0	6.77	763	49	37.7	"

Did Well Dewater?	If yes, note above.	Gallons Actually Evacuated:
-------------------	---------------------	-----------------------------

WELL GAUGING DATA

Project # 110418-JP1 Date 4/18/11 Client AMEC

Site 1001 42nd st. Emeryville, CA

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or <u>TOC</u>	Notes	
BES-1	0950	2		8.76	0.41	-	9.17	-			
MW-B2	0935	2		5.56	0.05	-	5.61	-			
MW-B3	0925	2					4.93	24.25			
MW-B4	0930	2					5.24	24.12			
MW-B1	0940	2		4.31	.10	-	4.41	-			
CW-1	0920	2					6.45	24.40			
CW-2	0915	2					6.92	24.67			
CW-3	0910	2					6.33	24.60		└	

LOW FLOW WELL MONITORING DATA SHEET

Project #: 110418-JP1	Client: AMEZ
Sampler: JP	Start Date: 4/18/11
Well I.D.: BSS 1	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth: ____	Depth to Water Pre: 9.17 Post: ____
Depth to Free Product: 8.76	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	Flow Cell Type: ____

Purge Method: ~~2" Grundfos Pump~~ ~~Peristaltic Pump~~ ~~Bladder Pump~~
 Sampling Method: ~~Dedicated Tubing~~ ~~New Tubing~~ ~~Other~~ ____
 Flow Rate: ____ Pump Depth: ____

Time	Temp. (°C or °F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Observations	
		SPH	DETECTED. NO SAMPLE						

Did well dewater? Yes No	Amount actually evacuated: ____
Sampling Time: ____	Sampling Date: ____
Sample I.D.: ____	Laboratory: ____
Analyzed for: TPH-G BTEX MTBE TPH-D Other: ____	
Equipment Blank I.D.: ____ @ ____ Time	Duplicate I.D.: ____

LOW FLOW WELL MONITORING DATA SHEET

Project #: 110418-JPI	Client: AMEC
Sampler: JP	Start Date: 4/18/11
Well I.D.: MW-B1	Well Diameter: (2) 3 4 6 8 _____
Total Well Depth: _____	Depth to Water Pre: 4.41 Post: _____
Depth to Free Product: 4.31	Thickness of Free Product (feet): 0.10
Referenced to: (PVC) Grade	Flow Cell Type: _____

Purge Method: ~~2" Grundfos Pump~~ ~~Peristaltic Pump~~ ~~Bladder Pump~~
 Sampling Method: ~~Dedicated Tubing~~ ~~New Tubing~~ ~~Other~~
 Flow Rate: _____ Pump Depth: _____

Time	Temp. (°C or °F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Observations
		SPH DETECTED, NO			SAMPLE			

Did well dewater? Yes No	Amount actually evacuated: _____
Sampling Time: _____	Sampling Date: _____
Sample I.D.: _____	Laboratory: _____
Analyzed for: TPH-G BTEX MTBE TPH-D Other: _____	
Equipment Blank I.D.: _____ @ _____ Time	Duplicate I.D.: _____

LOW FLOW WELL MONITORING DATA SHEET

Project #: 110418-JPI	Client: AMEZ
Sampler: X	Start Date: 4/18/11
Well I.D.: MW-B2	Well Diameter: (2) 3 4 6 8
Total Well Depth: —	Depth to Water Pre: 5.61 Post:
Depth to Free Product: 5.56	Thickness of Free Product (feet): 0.05
Referenced to: PVC Grade	Flow Cell Type: —

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Flow Rate: _____ Pump Depth: _____

Time	Temp. (°C or °F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Observations
SFA DETECTED. NO SAMPLE								

Did well dewater? Yes No	Amount actually evacuated:
Sampling Time:	Sampling Date:
Sample I.D.:	Laboratory:
Analyzed for: TPH-G BTEX MTBE TPH-D Other:	
Equipment Blank I.D.:	Duplicate I.D.:

LOW FLOW WELL MONITORING DATA SHEET

Project #: 110418-JPI	Client: AMEZ
Sampler: JP	Start Date: 4/18/11
Well I.D.: MW-B3	Well Diameter: (2) 3 4 6 8
Total Well Depth: 24.25	Depth to Water Pre: 4.93 Post: 4.96
Depth to Free Product: _____	Thickness of Free Product (feet): _____
Referenced to: PVC Grade	Flow Cell Type: 1/2" P20 PWS

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Flow Rate: 200 uL/MIN Pump Depth: 15'

Time	Temp. (°C or °F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Observations
1435	16.4	7.01	680	92	0.29	19.7	NITIN	4.95
1438	16.4	6.81	677	52	0.13	22.2	600	4.96
1441	16.5	7.11	670	45	0.10	31.2	1200	4.96
1444	16.6	7.09	669	44	0.09	31.4	1800	4.96
1447	16.7	7.04	664	47	0.09	33.1	2400	4.96

Did well dewater? Yes No Amount actually evacuated: _____

Sampling Time: 1450 Sampling Date: 4/18/11

Sample I.D.: MW-B3 Laboratory: TA/SF

Analyzed for: TPH-G BTEX MTBE TPH-D Other: SEE COL

Equipment Blank I.D.: @ Time Duplicate I.D.:

LOW FLOW WELL MONITORING DATA SHEET

Project #: 110418-JP1	Client: AMEZ
Sampler: JP	Start Date: 4/18/11
Well I.D.: MW-B4	Well Diameter: (2) 3 4 6 8
Total Well Depth: 24.12	Depth to Water Pre: 5.24 Post: 5.29
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	Flow Cell Type: VS PRO PLUS

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other
 Flow Rate: 200 ml/min Pump Depth: 15'

Time	Temp. (°C or °F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Observations
1507	16.9	7.39	823	83	0.43	-154.3	INITIAL	5.28
1510	16.8	7.29	826	77	0.23	-163.4	600	5.29
1513	16.7	7.19	827	68	0.18	-164.8	1200	5.29
1516	16.8	7.05	827	65	0.16	-165.9	1800	5.29
1519	16.8	7.05	828	59	0.17	-166.1	2400	5.29

Did well dewater? Yes <input type="radio"/> No <input checked="" type="radio"/>	Amount actually evacuated: 2400 ml
Sampling Time: 1525	Sampling Date: 4/18/11
Sample I.D.: MW-B4	Laboratory: TA/SF
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: SEE CO2
Equipment Blank I.D.: @ Time	Duplicate I.D.:

LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>110418-JPI</u>	Client: <u>AMEZ</u>
Sampler: <u>JP</u>	Start Date: <u>4/18/11</u>
Well I.D.: <u>CW-1</u>	Well Diameter: <u>(2)</u> 3 4 6 8 _____
Total Well Depth: <u>24.40</u>	Depth to Water Pre: <u>6.45</u> Post: <u>6.53</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>(PVC)</u> Grade	Flow Cell Type: <u>Ysi Pro Plus</u>

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Flow Rate: 200ml/min Pump Depth: 15'

Time	Temp. (°C or °F)	pH	Cond. (mS or μ S)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Observations
<u>1359</u>	<u>15.5</u>	<u>7.48</u>	<u>504</u>	<u>52</u>	<u>0.47</u>	<u>-8.7</u>	<u>INITIAL</u>	<u>6.51</u>
<u>1402</u>	<u>15.4</u>	<u>7.40</u>	<u>504</u>	<u>49</u>	<u>0.22</u>	<u>-25.0</u>	<u>600</u>	<u>6.52</u>
<u>1405</u>	<u>15.4</u>	<u>7.37</u>	<u>503</u>	<u>64</u>	<u>0.16</u>	<u>-39.0</u>	<u>1200</u>	<u>6.52</u>
<u>1408</u>	<u>15.4</u>	<u>7.38</u>	<u>503</u>	<u>57</u>	<u>0.14</u>	<u>-41.3</u>	<u>1800</u>	<u>6.53</u>
<u>1411</u>	<u>15.4</u>	<u>7.35</u>	<u>502</u>	<u>54</u>	<u>0.13</u>	<u>-41.6</u>	<u>2400</u>	<u>6.53</u>

Did well dewater? Yes <input type="radio"/> No <input checked="" type="radio"/>	Amount actually evacuated: <u>2000ml</u>
Sampling Time: <u>1415</u>	Sampling Date: <u>4/18/11</u>
Sample I.D.: <u>CW-1</u>	Laboratory: <u>TA/SF</u>
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: <u>SEE COC</u>
Equipment Blank I.D.: _____ @ _____ Time	Duplicate I.D.: _____

LOW FLOW WELL MONITORING DATA SHEET

Project #: 110418-JP1	Client: AMEZ
Sampler: SP	Start Date: 4/18/11
Well I.D.: CW-2	Well Diameter: (2) 3 4 6 8
Total Well Depth: 24.67	Depth to Water Pre: 6.92 Post: 7.01
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	Flow Cell Type: 1/4" PTFE

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other
 Flow Rate: 200 ml/min Pump Depth: 15'

Time	Temp. (°C or °F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Observations
1315	18.0	7.69	495	18	0.31	57.1	INITIAL	7.00
1318	17.9	7.47	491	12	0.16	48.0	600	7.00
1321	17.9	7.36	490	9	0.13	46.8	1200	7.01
1324	17.9	7.34	489	9	0.11	43.7	1800	7.01
1327	17.9	7.31	490	11	0.12	41.0	2400	7.01

Did well dewater? Yes <input type="radio"/> No <input checked="" type="radio"/>	Amount actually evacuated: 2400 ml
Sampling Time: 1330	Sampling Date: 4/18/11
Sample I.D.: CW-2	Laboratory: TA/SF
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: SEE COL
Equipment Blank I.D.: @	Duplicate I.D.:

LOW FLOW WELL MONITORING DATA SHEET

Project #: 110418-JP1	Client: AMEZ
Sampler: X	Start Date: 4/18/11
Well I.D.: CW-3	Well Diameter: (2) 3 4 6 8
Total Well Depth: 2460	Depth to Water Pre: 6.33 Post: 6.36
Depth to Free Product: _____	Thickness of Free Product (feet): _____
Referenced to: (PVC) Grade	Flow Cell Type: 1/2 Pro Plus

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Flow Rate: 200ml/min Pump Depth: 15'

Time	Temp. (°C or °F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or ml)	Observations
1226	16.8	6.34	1051	26	2.89	189.9	INITIAL	6.36
1229	16.9	7.18	841	19	2.74	52.4	600	6.36
1232	16.9	7.09	820	8	2.67	51.9	1200	6.36
1235	16.9	7.05	837	9	2.65	52.0	1800	6.36
1238	16.8	7.03	836	9	2.61	55.8	2400	6.36

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Amount actually evacuated: 2400ml
Sampling Time: 1240	Sampling Date: 4/18/11
Sample I.D.: CW-3	Laboratory: TA/SF
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: SEE COC
Equipment Blank I.D.: @ _____	Duplicate I.D.: DUP-1

BLAINE

TECH SERVICES, INC.

1680 ROGERS AVENUE
 SAN JOSE, CALIFORNIA 95112-1105
 FAX (408) 573-7771
 PHONE (408) 573-0555

CONDUCT ANALYSIS TO DETECT

LAB

TA-SF

DHC

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND

- EPA
- LIA
- OTHER

RWQCB REGION _____

SPECIAL INSTRUCTIONS

***NOTE - Use a separatory funnel. Let settle in refrigerator for 48 hours. If visible product please photograph, sample the water portion in the funnel, and then run sample for analyses. Contact Charles Dowman with questions (415) 515.2624 charles.dowman@amec.com

Invoice and report to AMEC Geomatrix: Attn Charles Dowman

CHAIN OF CUSTODY

BTS # 110418JPI

CLIENT AMEC Geomatrix

SITE One National Engravers

1001 42nd St.

Emeryville, CA

C = COMPOSITE ALL CONTAINERS

TPH-ms (8015M with Silica Gel Clean Up) ***

BTEX (8260B)

SAMPLE I.D.	DATE	TIME	MATRIX S=SOIL W=H ₂ O	CONTAINERS TOTAL	VOA H ₁₁	C	TPH-ms (8015M with Silica Gel Clean Up) ***	BTEX (8260B)										ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #	
TB	4/18/11	0800	W	2	VOA H ₁₁			X														
CW-3		1240		5	MIXED			X	X													
DUAL		-		5	MIXED			X	X													
CW-2		1330		5	MIXED			X	X													
CW-1		1415		5	MIXED			X	X													
MW-B3		1450		5	MIXED			X	X													
MW-B4		1525		5	MIXED			X	X													

SAMPLING COMPLETED 4/18/11 DATE 4/18/11 TIME 1525 SAMPLING PERFORMED BY J. Packer RESULTS NEEDED NO LATER THAN Standard TAT

RELEASED BY [Signature] DATE 4/18/11 TIME 1715 RECEIVED BY [Signature] DATE 4/18/11 TIME 1715

RELEASED BY _____ DATE _____ TIME _____ RECEIVED BY _____ DATE _____ TIME _____

SHIPPED VIA _____ DATE SENT _____ TIME SENT _____ COOLER # _____

APPENDIX C

Quality Assurance/Quality Control Review Summary

APPENDIX C

QUALITY ASSURANCE/QUALITY CONTROL REVIEW

Former One National Engravers
1001 42nd Street
Oakland, California

This section presents an evaluation of quality assurance/quality control (QA/QC) procedures applied to analysis of groundwater samples collected during the April 2011 sampling event. A data quality review was performed consistent with the U.S. Environmental Protection Agency (U.S. EPA) Contract Laboratory Program National Functional Guidelines for Organic Data Review.¹ The results of the data quality review are presented below and reflected in applicable tables.

QA/QC procedures applied to groundwater samples included the analysis of hold times, method blanks, trip blank, duplicate sample, surrogate recoveries, and laboratory quality control samples.

- **Hold Times:** All samples were analyzed within their respective hold times.
- **Method Blanks:** No constituents were detected in laboratory method blanks.
- **Trip Blanks:** No constituents were detected in trip blank sample analyzed.

Duplicate Sample: The relative percent difference (RPD) between the duplicates is calculated when both the primary and duplicate sample values are greater than or equal to two times (organics) the respective analytical reporting limits (RLs). When the detections in a primary and duplicate sample are less than two times the reporting limit, RPD is not applicable. Instead the absolute difference is calculated between the primary and duplicate samples. The difference is considered acceptable when the absolute difference is less than the respective RL. No constituents were detected in primary sample CW-3 or blind duplicate collected at CW-3 (DUP-1).

- **Spike Samples:** The laboratory analyzed laboratory control samples and associated duplicates (LCS/LCSD). All LCS/LCSD results were within laboratory control limits.
- **Surrogate Recoveries:** All Surrogates were recovered within laboratory control limits, except the analytes listed below:

¹ U.S. EPA, 2008, Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (OSWER 9240.1-48, U.S. EPA 540/R-08-01; June 2008).

- p-Terphenyl, in which case the percent recovery was outside of control limits for sample CW-2. Total petroleum hydrocarbons as mineral spirits (TPHms) was not detected above the RL in sample CW-2. In accordance with the National Functional Guidelines, no action was required.
- 4-Bromofluorobenzene (BFB), in which case the percent recovery was outside of control limits for sample MW-B3. TPHms was not detected above the RL in sample MW-B3. No action was required.
- BFB, in which case the percent recovery was outside control limits for sample MW-B4. TestAmerica – San Francisco indicated that matrix interference masked the recovery of BFB. TestAmerica – San Francisco diluted the sample by a factor of 10, and was able to recover all surrogates including BFB, suggesting that matrix interference was the issue. Benzene was not detected above the RL in sample MW-B4; in accordance with the National Functional Guidelines, the benzene result is qualified with a “R” and the sample result is rejected. Historical analytical results show that benzene has not been detected from this well, and it not a chemical of concern for the site. The qualified result does not change the results of the monitoring program.
- Surrogates, 1,2-dichloroethane-d4 and toluene-d8, were within percent recovery for all samples. The associated target compounds for toluene-d8 surrogate include toluene, ethylbenzene, o-xylene, and m,p-xylene. The target analytical compounds toluene, ethylbenzene, and total xylenes from sample MW-B4 are acceptable and require no action.



APPENDIX D

Laboratory Analytical Report

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

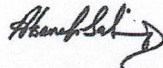
ANALYTICAL REPORT

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

TestAmerica Job ID: 720-34643-1
Client Project/Site: One National Engravers

For:
AMEC Geomatrix Inc.
2101 Webster Street, 12th Floor
Oakland, California 94612

Attn: Charles Dowman



Authorized for release by:
04/25/2011 04:44:36 PM

Afsaneh Salimpour
Project Manager I
afsaneh.salimpour@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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Qualifier Definition/Glossary

Client: AMEC Geomatrix Inc.
Project/Site: One National Engravers

TestAmerica Job ID: 720-34643-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits

GC Semi VOA

Qualifier	Qualifier Description
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.
EPA	United States Environmental Protection Agency
ND	Not Detected above the reporting level.
MDL	Method Detection Limit
RL	Reporting Limit
RE, RE1 (etc.)	Indicates a Re-extraction or Reanalysis of the sample.
%R	Percent Recovery
RPD	Relative Percent Difference, a measure of the relative difference between two points.

Case Narrative

Client: AMEC Geomatrix Inc.
Project/Site: One National Engravers

TestAmerica Job ID: 720-34643-1

Job ID: 720-34643-1

Laboratory: TestAmerica San Francisco

Narrative

Job Narrative 720-34643-1

Comments

No additional comments.

Receipt

All samples were received in good condition within temperature requirements.

GC/MS VOA

Method(s) 8260B: Surrogate recovery for the following sample 720-34643-6, 7 was outside control limits: MW-B3 (720-34643-6), MW-B4 (720-34643-7). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No other analytical or quality issues were noted.

GC Semi VOA

Method(s) 8015B: Surrogate recovery for the following sample(s) was outside the upper control limit: CW-2 (720-34643-4). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

No other analytical or quality issues were noted.

Metals

No analytical or quality issues were noted.

Organic Prep

No analytical or quality issues were noted.

Detection Summary

Client: AMEC Geomatrix Inc.
 Project/Site: One National Engravers

TestAmerica Job ID: 720-34643-1

Client Sample ID: TB

Lab Sample ID: 720-34643-1

No Detections.

Client Sample ID: CW-3

Lab Sample ID: 720-34643-2

No Detections.

Client Sample ID: DUP-1

Lab Sample ID: 720-34643-3

No Detections.

Client Sample ID: CW-2

Lab Sample ID: 720-34643-4

No Detections.

Client Sample ID: CW-1

Lab Sample ID: 720-34643-5

No Detections.

Client Sample ID: MW-B3

Lab Sample ID: 720-34643-6

No Detections.

Client Sample ID: MW-B4

Lab Sample ID: 720-34643-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mineral Spirit Range Organics [C9-C13]	470		54		ug/L	1		8015B	Total/NA

Analytical Data

Client: AMEC Geomatrix Inc.
Project/Site: One National Engravers

TestAmerica Job ID: 720-34643-1

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

Client Sample ID: TB

Date Collected: 04/18/11 08:00

Date Received: 04/18/11 18:30

Lab Sample ID: 720-34643-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50		ug/L			04/19/11 22:41	1
Ethylbenzene	ND		0.50		ug/L			04/19/11 22:41	1
Toluene	ND		0.50		ug/L			04/19/11 22:41	1
Xylenes, Total	ND		1.0		ug/L			04/19/11 22:41	1

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	104		67 - 130		04/19/11 22:41	1
1,2-Dichloroethane-d4 (Surr)	106		67 - 130		04/19/11 22:41	1
Toluene-d8 (Surr)	95		70 - 130		04/19/11 22:41	1

Client Sample ID: CW-3

Date Collected: 04/18/11 12:40

Date Received: 04/18/11 18:30

Lab Sample ID: 720-34643-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50		ug/L			04/19/11 23:04	1
Ethylbenzene	ND		0.50		ug/L			04/19/11 23:04	1
Toluene	ND		0.50		ug/L			04/19/11 23:04	1
Xylenes, Total	ND		1.0		ug/L			04/19/11 23:04	1

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	91		67 - 130		04/19/11 23:04	1
1,2-Dichloroethane-d4 (Surr)	100		67 - 130		04/19/11 23:04	1
Toluene-d8 (Surr)	93		70 - 130		04/19/11 23:04	1

Client Sample ID: DUP-1

Date Collected: 04/18/11 00:00

Date Received: 04/18/11 18:30

Lab Sample ID: 720-34643-3

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50		ug/L			04/19/11 23:28	1
Ethylbenzene	ND		0.50		ug/L			04/19/11 23:28	1
Toluene	ND		0.50		ug/L			04/19/11 23:28	1
Xylenes, Total	ND		1.0		ug/L			04/19/11 23:28	1

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100		67 - 130		04/19/11 23:28	1
1,2-Dichloroethane-d4 (Surr)	104		67 - 130		04/19/11 23:28	1
Toluene-d8 (Surr)	94		70 - 130		04/19/11 23:28	1

Client Sample ID: CW-2

Date Collected: 04/18/11 13:30

Date Received: 04/18/11 18:30

Lab Sample ID: 720-34643-4

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50		ug/L			04/19/11 23:51	1
Ethylbenzene	ND		0.50		ug/L			04/19/11 23:51	1
Toluene	ND		0.50		ug/L			04/19/11 23:51	1
Xylenes, Total	ND		1.0		ug/L			04/19/11 23:51	1

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	106		67 - 130		04/19/11 23:51	1
1,2-Dichloroethane-d4 (Surr)	105		67 - 130		04/19/11 23:51	1
Toluene-d8 (Surr)	92		70 - 130		04/19/11 23:51	1

Analytical Data

Client: AMEC Geomatrix Inc.
Project/Site: One National Engravers

TestAmerica Job ID: 720-34643-1

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

Client Sample ID: CW-1
Date Collected: 04/18/11 14:15
Date Received: 04/18/11 18:30

Lab Sample ID: 720-34643-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50		ug/L			04/20/11 00:15	1
Ethylbenzene	ND		0.50		ug/L			04/20/11 00:15	1
Toluene	ND		0.50		ug/L			04/20/11 00:15	1
Xylenes, Total	ND		1.0		ug/L			04/20/11 00:15	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	105		67 - 130					04/20/11 00:15	1
1,2-Dichloroethane-d4 (Surr)	108		67 - 130					04/20/11 00:15	1
Toluene-d8 (Surr)	92		70 - 130					04/20/11 00:15	1

Client Sample ID: MW-B3
Date Collected: 04/18/11 14:50
Date Received: 04/18/11 18:30

Lab Sample ID: 720-34643-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50		ug/L			04/20/11 00:38	1
Ethylbenzene	ND		0.50		ug/L			04/20/11 00:38	1
Toluene	ND		0.50		ug/L			04/20/11 00:38	1
Xylenes, Total	ND		1.0		ug/L			04/20/11 00:38	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	180	X	67 - 130					04/20/11 00:38	1
1,2-Dichloroethane-d4 (Surr)	100		67 - 130					04/20/11 00:38	1
Toluene-d8 (Surr)	95		70 - 130					04/20/11 00:38	1

Client Sample ID: MW-B4
Date Collected: 04/18/11 15:05
Date Received: 04/18/11 18:30

Lab Sample ID: 720-34643-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND	R	0.50		ug/L			04/20/11 01:02	1
Ethylbenzene	ND		0.50		ug/L			04/20/11 01:02	1
Toluene	ND		0.50		ug/L			04/20/11 01:02	1
Xylenes, Total	ND		1.0		ug/L			04/20/11 01:02	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	0	X	67 - 130					04/20/11 01:02	1
1,2-Dichloroethane-d4 (Surr)	100		67 - 130					04/20/11 01:02	1
Toluene-d8 (Surr)	96		70 - 130					04/20/11 01:02	1

Analytical Data

Client: AMEC Geomatrix Inc.
Project/Site: One National Engravers

TestAmerica Job ID: 720-34643-1

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

Client Sample ID: CW-3
Date Collected: 04/18/11 12:40
Date Received: 04/18/11 18:30

Lab Sample ID: 720-34643-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mineral Spirit Range Organics [C9-C13]	ND		50		ug/L		04/21/11 13:12	04/22/11 17:50	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.2		0 - 5				04/21/11 13:12	04/22/11 17:50	1
p-Terphenyl	98		31 - 150				04/21/11 13:12	04/22/11 17:50	1

Client Sample ID: DUP-1
Date Collected: 04/18/11 00:00
Date Received: 04/18/11 18:30

Lab Sample ID: 720-34643-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mineral Spirit Range Organics [C9-C13]	ND		50		ug/L		04/21/11 13:12	04/22/11 18:14	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.3		0 - 5				04/21/11 13:12	04/22/11 18:14	1
p-Terphenyl	99		31 - 150				04/21/11 13:12	04/22/11 18:14	1

Client Sample ID: CW-2
Date Collected: 04/18/11 13:30
Date Received: 04/18/11 18:30

Lab Sample ID: 720-34643-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mineral Spirit Range Organics [C9-C13]	ND		50		ug/L		04/21/11 13:12	04/22/11 18:39	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.2		0 - 5				04/21/11 13:12	04/22/11 18:39	1
p-Terphenyl	203	X	31 - 150				04/21/11 13:12	04/22/11 18:39	1

Client Sample ID: CW-1
Date Collected: 04/18/11 14:15
Date Received: 04/18/11 18:30

Lab Sample ID: 720-34643-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mineral Spirit Range Organics [C9-C13]	ND		55		ug/L		04/21/11 13:12	04/22/11 19:03	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.1		0 - 5				04/21/11 13:12	04/22/11 19:03	1
p-Terphenyl	104		31 - 150				04/21/11 13:12	04/22/11 19:03	1

Client Sample ID: MW-B3
Date Collected: 04/18/11 14:50
Date Received: 04/18/11 18:30

Lab Sample ID: 720-34643-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mineral Spirit Range Organics [C9-C13]	ND		56		ug/L		04/21/11 13:12	04/22/11 19:27	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	0.1		0 - 5				04/21/11 13:12	04/22/11 19:27	1
p-Terphenyl	102		31 - 150				04/21/11 13:12	04/22/11 19:27	1

Analytical Data

Client: AMEC Geomatrix Inc.
 Project/Site: One National Engravers

TestAmerica Job ID: 720-34643-1

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

Client Sample ID: MW-B4
 Date Collected: 04/18/11 15:05
 Date Received: 04/18/11 18:30

Lab Sample ID: 720-34643-7
 Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mineral Spirit Range Organics [C9-C13]	470		54		ug/L		04/21/11 13:13	04/22/11 19:52	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Capric Acid (Surr)	1		0 - 5				04/21/11 13:13	04/22/11 19:52	1
p-Terphenyl	101		31 - 150				04/21/11 13:13	04/22/11 19:52	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene (DCB)	97		100		ug/L		04/21/11 13:13	04/22/11 19:52	1
Toluene (TOL)	101		100		ug/L		04/21/11 13:13	04/22/11 19:52	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene (1,2,4-TCB)	100		100		ug/L		04/21/11 13:13	04/22/11 19:52	1
1,2,4-Trichlorobenzene (1,2,4-TCB)	100		100		ug/L		04/21/11 13:13	04/22/11 19:52	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene (1,2,4-TCB)	100		100		ug/L		04/21/11 13:13	04/22/11 19:52	1
1,2,4-Trichlorobenzene (1,2,4-TCB)	100		100		ug/L		04/21/11 13:13	04/22/11 19:52	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene (1,2,4-TCB)	100		100		ug/L		04/21/11 13:13	04/22/11 19:52	1
1,2,4-Trichlorobenzene (1,2,4-TCB)	100		100		ug/L		04/21/11 13:13	04/22/11 19:52	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene (1,2,4-TCB)	100		100		ug/L		04/21/11 13:13	04/22/11 19:52	1
1,2,4-Trichlorobenzene (1,2,4-TCB)	100		100		ug/L		04/21/11 13:13	04/22/11 19:52	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene (1,2,4-TCB)	100		100		ug/L		04/21/11 13:13	04/22/11 19:52	1
1,2,4-Trichlorobenzene (1,2,4-TCB)	100		100		ug/L		04/21/11 13:13	04/22/11 19:52	1

Quality Control Data

Client: AMEC Geomatrix Inc.
Project/Site: One National Engravers

TestAmerica Job ID: 720-34643-1

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

Lab Sample ID: MB 720-89926/5

Matrix: Water

Analysis Batch: 89926

Client Sample ID: MB 720-89926/5

Prep Type: Total/NA

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	ND		0.50		ug/L			04/19/11 16:35	1
Ethylbenzene	ND		0.50		ug/L			04/19/11 16:35	1
Toluene	ND		0.50		ug/L			04/19/11 16:35	1
m-Xylene & p-Xylene	ND		1.0		ug/L			04/19/11 16:35	1
o-Xylene	ND		0.50		ug/L			04/19/11 16:35	1
Xylenes, Total	ND		1.0		ug/L			04/19/11 16:35	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	% Recovery	Qualifier				
4-Bromofluorobenzene	93		67 - 130		04/19/11 16:35	1
1,2-Dichloroethane-d4 (Surr)	100		67 - 130		04/19/11 16:35	1
Toluene-d8 (Surr)	101		70 - 130		04/19/11 16:35	1

Lab Sample ID: LCS 720-89926/6

Matrix: Water

Analysis Batch: 89926

Client Sample ID: LCS 720-89926/6

Prep Type: Total/NA

Analyte	Spike Added	LCS LCS		Unit	D	% Rec	% Rec. Limits
		Result	Qualifier				
Benzene	20.0	21.2		ug/L		106	82 - 127
Ethylbenzene	20.0	19.5		ug/L		98	86 - 135
Toluene	20.0	18.9		ug/L		95	83 - 129
m-Xylene & p-Xylene	40.0	41.6		ug/L		104	70 - 142
o-Xylene	20.0	20.0		ug/L		100	89 - 136

Surrogate	LCS LCS		Limits
	% Recovery	Qualifier	
4-Bromofluorobenzene	104		67 - 130
1,2-Dichloroethane-d4 (Surr)	102		67 - 130
Toluene-d8 (Surr)	98		70 - 130

Lab Sample ID: LCSD 720-89926/7

Matrix: Water

Analysis Batch: 89926

Client Sample ID: LCSD 720-89926/7

Prep Type: Total/NA

Analyte	Spike Added	LCSD LCSD		Unit	D	% Rec	% Rec. Limits	RPD	
		Result	Qualifier					RPD	Limit
Benzene	20.0	21.1		ug/L		105	82 - 127	0	20
Ethylbenzene	20.0	19.3		ug/L		96	86 - 135	1	20
Toluene	20.0	19.8		ug/L		99	83 - 129	4	20
m-Xylene & p-Xylene	40.0	42.6		ug/L		106	70 - 142	2	20
o-Xylene	20.0	20.4		ug/L		102	89 - 136	2	20

Surrogate	LCSD LCSD		Limits
	% Recovery	Qualifier	
4-Bromofluorobenzene	105		67 - 130
1,2-Dichloroethane-d4 (Surr)	100		67 - 130
Toluene-d8 (Surr)	99		70 - 130

Quality Control Data

Client: AMEC Geomatrix Inc.
Project/Site: One National Engravers

TestAmerica Job ID: 720-34643-1

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

Lab Sample ID: 720-34623-A-2 MS
Matrix: Water
Analysis Batch: 89926

Client Sample ID: 720-34623-A-2 MS
Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	% Rec	% Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier					
Benzene	ND		20.0	20.2		ug/L		101		60 - 140
Ethylbenzene	ND		20.0	19.0		ug/L		94		60 - 140
Toluene	ND		20.0	19.8		ug/L		99		60 - 140
m-Xylene & p-Xylene	ND		40.0	41.9		ug/L		105		60 - 140
o-Xylene	ND		20.0	20.6		ug/L		103		60 - 140
MS MS										
Surrogate	% Recovery	Qualifier	Limits							
4-Bromofluorobenzene	106		67 - 130							
1,2-Dichloroethane-d4 (Surr)	98		67 - 130							
Toluene-d8 (Surr)	94		70 - 130							

Lab Sample ID: 720-34623-A-2 MSD
Matrix: Water
Analysis Batch: 89926

Client Sample ID: 720-34623-A-2 MSD
Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	% Rec	% Rec.	Limits	RPD	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier								
Benzene	ND		20.0	21.2		ug/L		106		60 - 140	5		20
Ethylbenzene	ND		20.0	19.2		ug/L		95		60 - 140	1		20
Toluene	ND		20.0	19.0		ug/L		95		60 - 140	4		20
m-Xylene & p-Xylene	ND		40.0	40.9		ug/L		102		60 - 140	2		20
o-Xylene	ND		20.0	19.9		ug/L		99		60 - 140	4		20
MSD MSD													
Surrogate	% Recovery	Qualifier	Limits										
4-Bromofluorobenzene	101		67 - 130										
1,2-Dichloroethane-d4 (Surr)	100		67 - 130										
Toluene-d8 (Surr)	95		70 - 130										

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

Lab Sample ID: MB 720-90115/1-A
Matrix: Water
Analysis Batch: 90155

Client Sample ID: MB 720-90115/1-A
Prep Type: Silica Gel Cleanup
Prep Batch: 90115

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Diesel Range Organics [C10-C28]	ND		50		ug/L		04/21/11 13:12	04/22/11 21:05	1
Mineral Spirit Range Organics [C9-C13]	ND		50		ug/L		04/21/11 13:12	04/22/11 21:05	1
MB MB									
Surrogate	% Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
Capric Acid (Surr)	0.2		0 - 5			04/21/11 13:12	04/22/11 21:05	1	
p-Terphenyl	94		31 - 150			04/21/11 13:12	04/22/11 21:05	1	

Lab Sample ID: LCS 720-90115/3-A
Matrix: Water
Analysis Batch: 90155

Client Sample ID: LCS 720-90115/3-A
Prep Type: Silica Gel Cleanup
Prep Batch: 90115

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec.	Limits

Quality Control Data

Client: AMEC Geomatrix Inc.
 Project/Site: One National Engravers

TestAmerica Job ID: 720-34643-1

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

Lab Sample ID: LCS 720-90115/3-A
Matrix: Water
Analysis Batch: 90155

Client Sample ID: LCS 720-90115/3-A
Prep Type: Silica Gel Cleanup
Prep Batch: 90115

Surrogate	LCS		Limits
	% Recovery	Qualifier	
p-Terphenyl	102		31 - 150

Lab Sample ID: LCSD 720-90115/4-A
Matrix: Water
Analysis Batch: 90155

Client Sample ID: LCSD 720-90115/4-A
Prep Type: Silica Gel Cleanup
Prep Batch: 90115

Analyte	Spike Added	LCSD		Unit	D	% Rec	% Rec.		RPD	
		Result	Qualifier				Limits	RPD	Limit	
Diesel Range Organics [C10-C28]	2500	1690		ug/L		68	32 - 119	2		35

Surrogate	LCSD		Limits
	% Recovery	Qualifier	
p-Terphenyl	104		31 - 150

QC Association Summary

Client: AMEC Geomatrix Inc.
Project/Site: One National Engravers

TestAmerica Job ID: 720-34643-1

GC/MS VOA

Analysis Batch: 89926

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-34623-A-2 MS	720-34623-A-2 MS	Total/NA	Water	8260B/CA_LUF TMS	
720-34623-A-2 MSD	720-34623-A-2 MSD	Total/NA	Water	8260B/CA_LUF TMS	
720-34643-1	TB	Total/NA	Water	8260B/CA_LUF TMS	
720-34643-2	CW-3	Total/NA	Water	8260B/CA_LUF TMS	
720-34643-3	DUP-1	Total/NA	Water	8260B/CA_LUF TMS	
720-34643-4	CW-2	Total/NA	Water	8260B/CA_LUF TMS	
720-34643-5	CW-1	Total/NA	Water	8260B/CA_LUF TMS	
720-34643-6	MW-B3	Total/NA	Water	8260B/CA_LUF TMS	
720-34643-7	MW-B4	Total/NA	Water	8260B/CA_LUF TMS	
MB 720-89926/5	MB 720-89926/5	Total/NA	Water	8260B/CA_LUF TMS	
LCS 720-89926/6	LCS 720-89926/6	Total/NA	Water	8260B/CA_LUF TMS	
LCSD 720-89926/7	LCSD 720-89926/7	Total/NA	Water	8260B/CA_LUF TMS	

GC Semi VOA

Prep Batch: 90115

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 720-90115/1-A	MB 720-90115/1-A	Silica Gel Cleanup	Water	3510C SGC	
720-34643-7	MW-B4	Total/NA	Water	3510C SGC	
LCS 720-90115/3-A	LCS 720-90115/3-A	Silica Gel Cleanup	Water	3510C SGC	
LCSD 720-90115/4-A	LCSD 720-90115/4-A	Silica Gel Cleanup	Water	3510C SGC	
720-34643-2	CW-3	Total/NA	Water	3510C SGC	
720-34643-3	DUP-1	Total/NA	Water	3510C SGC	
720-34643-4	CW-2	Total/NA	Water	3510C SGC	
720-34643-5	CW-1	Total/NA	Water	3510C SGC	
720-34643-6	MW-B3	Total/NA	Water	3510C SGC	

Analysis Batch: 90155

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-34643-2	CW-3	Total/NA	Water	8015B	90115
720-34643-3	DUP-1	Total/NA	Water	8015B	90115
720-34643-4	CW-2	Total/NA	Water	8015B	90115
720-34643-5	CW-1	Total/NA	Water	8015B	90115
720-34643-6	MW-B3	Total/NA	Water	8015B	90115
720-34643-7	MW-B4	Total/NA	Water	8015B	90115
LCS 720-90115/3-A	LCS 720-90115/3-A	Silica Gel Cleanup	Water	8015B	90115
LCSD 720-90115/4-A	LCSD 720-90115/4-A	Silica Gel Cleanup	Water	8015B	90115
MB 720-90115/1-A	MB 720-90115/1-A	Silica Gel Cleanup	Water	8015B	90115

Lab Chronicle

Client: AMEC Geomatrix Inc.
Project/Site: One National Engravers

TestAmerica Job ID: 720-34643-1

Client Sample ID: TB

Date Collected: 04/18/11 08:00

Date Received: 04/18/11 18:30

Lab Sample ID: 720-34643-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUF TMS		1	89926	04/19/11 22:41	LL	TestAmerica San Francisco

Client Sample ID: CW-3

Date Collected: 04/18/11 12:40

Date Received: 04/18/11 18:30

Lab Sample ID: 720-34643-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUF TMS		1	89926	04/19/11 23:04	LL	TestAmerica San Francisco
Total/NA	Prep	3510C SGC			90115	04/21/11 13:12	NP	TestAmerica San Francisco
Total/NA	Analysis	8015B		1	90155	04/22/11 17:50	WR	TestAmerica San Francisco

Client Sample ID: DUP-1

Date Collected: 04/18/11 00:00

Date Received: 04/18/11 18:30

Lab Sample ID: 720-34643-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUF TMS		1	89926	04/19/11 23:28	LL	TestAmerica San Francisco
Total/NA	Prep	3510C SGC			90115	04/21/11 13:12	NP	TestAmerica San Francisco
Total/NA	Analysis	8015B		1	90155	04/22/11 18:14	WR	TestAmerica San Francisco

Client Sample ID: CW-2

Date Collected: 04/18/11 13:30

Date Received: 04/18/11 18:30

Lab Sample ID: 720-34643-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUF TMS		1	89926	04/19/11 23:51	LL	TestAmerica San Francisco
Total/NA	Prep	3510C SGC			90115	04/21/11 13:12	NP	TestAmerica San Francisco
Total/NA	Analysis	8015B		1	90155	04/22/11 18:39	WR	TestAmerica San Francisco

Client Sample ID: CW-1

Date Collected: 04/18/11 14:15

Date Received: 04/18/11 18:30

Lab Sample ID: 720-34643-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUF TMS		1	89926	04/20/11 00:15	LL	TestAmerica San Francisco
Total/NA	Prep	3510C SGC			90115	04/21/11 13:12	NP	TestAmerica San Francisco
Total/NA	Analysis	8015B		1	90155	04/22/11 19:03	WR	TestAmerica San Francisco

Lab Chronicle

Client: AMEC Geomatrix Inc.
 Project/Site: One National Engravers

TestAmerica Job ID: 720-34643-1

Client Sample ID: MW-B3

Date Collected: 04/18/11 14:50

Date Received: 04/18/11 18:30

Lab Sample ID: 720-34643-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUF TMS		1	89926	04/20/11 00:38	LL	TestAmerica San Francisco
Total/NA	Prep	3510C SGC			90115	04/21/11 13:12	NP	TestAmerica San Francisco
Total/NA	Analysis	8015B		1	90155	04/22/11 19:27	WR	TestAmerica San Francisco

Client Sample ID: MW-B4

Date Collected: 04/18/11 15:05

Date Received: 04/18/11 18:30

Lab Sample ID: 720-34643-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUF TMS		1	89926	04/20/11 01:02	LL	TestAmerica San Francisco
Total/NA	Prep	3510C SGC			90115	04/21/11 13:13	NP	TestAmerica San Francisco
Total/NA	Analysis	8015B		1	90155	04/22/11 19:52	WR	TestAmerica San Francisco

Certification Summary

Client: AMEC Geomatrix Inc.
Project/Site: One National Engravers

TestAmerica Job ID: 720-34643-1

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 Geomatrix Inc.
Project/Site: One National Engravers

TestAmerica Job ID: 720-34643-1

Method	Method Description	Protocol	Laboratory
8260B/CA_LUFT MS	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 Geomatrix Inc.
Project/Site: One National Engravers

TestAmerica Job ID: 720-34643-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-34643-1	TB	Water	04/18/11 08:00	04/18/11 18:30
720-34643-2	CW-3	Water	04/18/11 12:40	04/18/11 18:30
720-34643-3	DUP-1	Water	04/18/11 00:00	04/18/11 18:30
720-34643-4	CW-2	Water	04/18/11 13:30	04/18/11 18:30
720-34643-5	CW-1	Water	04/18/11 14:15	04/18/11 18:30
720-34643-6	MW-B3	Water	04/18/11 14:50	04/18/11 18:30
720-34643-7	MW-B4	Water	04/18/11 15:05	04/18/11 18:30

1

720-34643

1 of 1 130925

BLAINE

TECH SERVICES, INC.

1680 ROGERS AVENUE
SAN JOSE, CALIFORNIA 95112-1105
FAX (408) 573-7771
PHONE (408) 573-0555

CONDUCT ANALYSIS TO DETECT

LAB TA-SF

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND

- EPA
- LIA
- OTHER
- RWQCB REGION _____

SPECIAL INSTRUCTIONS

***NOTE - Use a separatory funnel. Let settle in refrigerator for 48 hours. If visible product please photograph, sample the water portion in the funnel, and then run sample for analyses. Contact Charles Dowman with questions (415) 515.2624 charles.dowman@amec.com

Invoice and report to AMEC Geomatrix: Attn Charles Dowman

CHAIN OF CUSTODY
BTS # 110418-JPI

CLIENT AMEC Geomatrix

SITE One National Engravers
1001 42nd St.
Emeryville, CA

C = COMPOSITE ALL CONTAINERS

TPH-ms (8015M with Silica Gel Clean Up) ***

BTEX (8260B)

1
2
3
4
5
6
7

SAMPLE I.D.	DATE	TIME	MATRIX S= SOIL W=H ₂ O	CONTAINERS TOTAL	VOA H ₁₁	TPH-ms	BTEX	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
TB	4/18/11	0800	W	2	VOA H ₁₁		X				
CW-3		1240	1	5	MIXED	X	X				
DUP1		-	1	5	MIXED	X	X				
CW-2		1330	1	5	MIXED	X	X				
CW-1		1415	1	5	MIXED	X	X				
MW-B3		1450	1	5	MIXED	X	X				
MW-B1		1525	1	5	MIXED	X	X				

SAMPLING COMPLETED	DATE 4/18/11	TIME 1525	SAMPLING PERFORMED BY J. DOWMAN	RESULTS NEEDED NO LATER THAN Standard TAT
RELEASED BY [Signature]	DATE 4/18/11	TIME 1715	RECEIVED BY [Signature]	DATE 4/18/11 TIME 1715
RELEASED BY [Signature] (Safety Custodian)	DATE 4/18/11	TIME 1730	RECEIVED BY [Signature] TASSR	DATE 4/18/11 TIME 1730
RELEASED BY [Signature]	DATE 04/18/11	TIME 1830	RECEIVED BY [Signature] TASSR	DATE 4/18/11 TIME 1830
SHIPPED VIA	DATE SENT	TIME SENT	COOLER #	

B.8/42/C

Login Sample Receipt Checklist

Client: AMEC Geomatrix Inc.

Job Number: 720-34643-1

Login Number: 34643

List Source: TestAmerica San Francisco

List Number: 1

Creator: Hoang, Julie

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.	True	
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	