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Alameda County Environmental Health

Groundwater Monitoring Report for the Period from April 1 through June 30, 2009 Former Pacific Electric Motors Site 1009 66th Avenue, Oakland, California (Fuel Leak Case Number RO0000411)

> August 14, 2009 003-09155-04

Prepared for: Aspire Public Schools 1001 22<sup>nd</sup> Avenue Suite 100 Oakland, California 94606



August 14, 2009

Mr. Paresh Khatri Alameda County Environmental Health Services 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94502-6577

Subject:

Groundwater Monitoring Report for the Period from April 1 through June 30, 2009,

Former Pacific Electric Motors Site, 1009 66th Avenue, Oakland, California (Fuel Leak

Case Number RO0000411)

Dear Mr. Khatri:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who managed the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

If you have any questions or comments, please call me at 925-698-1118 or Alan Gibbs at 916-786-8129 or Ron Goloubow at 510-596-9550 of LFR Inc.

Sincerely,

For Aspire Public Schools

Charles P. Robitaille

Senior Project Manager

Pacific Charter School Development



August 14, 2009 003-09155-04

Mr. Paresh Khatri Alameda County Environmental Health Services 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94502-6577

Subject: Groundwater Monitoring Report for the Period from April 1 through June 30, 2009,

Former Pacific Electric Motors Site, 1009 66th Avenue, Oakland, California (Fuel

Leak Case Number RO0000411)

Dear Mr. Khatri:

LFR Inc. (LFR) has prepared this groundwater monitoring report, on behalf of Aspire Public Schools, to summarize the activities conducted during the monitoring period from April 1 through June 30, 2009 at the former Pacific Electric Motors site located at 1009 66th Avenue, Oakland, California ("the Site").

In preparation for the start-up of the air sparging and soil-vapor extraction system at the Site, the periodic groundwater monitoring was performed with slight modifications relative to the Groundwater Monitoring Plan prepared for the Site and submitted to Alameda County Environmental Health on March 4, 2009. The purpose of the periodic groundwater monitoring and reporting is to provide data that will assess the groundwater quality over time and the effectiveness of the groundwater remediation that is proposed to take place at the Site.

If you have any questions or comments, please contact me at (510) 652-4500 or Alan Gibbs at (916) 786-8129.

Sincerely,

Ron Goloubow, P.G.

Senior Associate Geologist

Attachment

cc: Mr. Charles P. Robitaille - Aspire Public Schools

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#### **CERTIFICATION**

All hydrogeologic and geologic information, conclusions, and recommendations in this document have been prepared under the supervision of and reviewed by an LFR Inc. California Professional Geologist.\*

Ron Goloubow, P.G.

Senior Associate Geologist

California Professional Geologist (8655)

RONALD GOVERNMENT OF CALIFORNIA

Expires Nov. 30, 2009

August 14, 2009

Date

\* A professional geologist's certification of conditions comprises a declaration of his or her professional judgment. It does not constitute a warranty or guarantee, expressed or implied, nor does it relieve any other party of its responsibility to abide by contract documents, applicable codes, standards, regulations, and ordinances.

#### 1.0 INTRODUCTION

### 1.1 Purpose of the Report

LFR Inc. (LFR) has prepared this periodic groundwater monitoring report on behalf of Aspire Public Schools ("Aspire") to summarize the activities conducted during the monitoring period from April 1, 2009 through June 30, 2009 ("the reporting quarter") at the former Pacific Electric Motors (PEM) site located at 1009 66th Avenue, Oakland, California ("the Site"; Alameda County Environmental Health [ACEH] Fuel Leak Case Number RO0000411).

In preparation for the start-up of the air sparging and soil-vapor extraction (AS/SVE) system at the Site, the periodic groundwater monitoring was performed with slight modifications relative to the Groundwater Monitoring Plan (GMP) prepared for the Site that was submitted to ACEH on March 4, 2009. The GMP was approved by ACEH in an e-mail message transmitted to Mr. Ron Goloubow of LFR on March 10, 2009. Groundwater samples were not collected from all of the wells listed in the GMP during the reporting quarter because additional groundwater samples are to be collected to provide "baseline" and "start-up" data prior to and one month after the start-up of the AS/SVE system that is scheduled for the beginning of August 2009. The purpose of the periodic groundwater monitoring and reporting is to provide data that will assess the groundwater quality over time and the effectiveness of the groundwater remediation that is proposed to take place at the Site.

As presented in previous reports, chemicals of concern (COC) at the Site include total petroleum hydrocarbons (TPH) as gasoline (TPHg), benzene, toluene, ethylbenzene, and total xylenes (BTEX), methyl tertiary-butyl ether (MTBE), tertiary butyl alcohol (TBA), polychlorinated biphenyls (PCBs), lead, arsenic, and polynuclear aromatic hydrocarbons (PAHs). The GMP for the Site does not attempt to address all of these COCs, but focuses on the fuel-related compounds (TPHg, BTEX, MTBE, and TBA).

# 1.2 Background

The Site is located on the northwestern side of 66<sup>th</sup> Avenue between East 14<sup>th</sup> Street and San Leandro Street (Figures 1 and 2). The area around the Site is developed with a mixture of commercial, industrial, government, and multi-family residential buildings. The Site is currently owned by Aspire.

Additional historical land use information for the Site was presented in LFR's report entitled "Revised Corrective Action Plan, Proposed Aspire School Site, 1009 66th Avenue, Oakland, California," dated July 17, 2009 ("the Revised CAP"; LFR 2009b).

The first industrial development of the property was in about 1948 when the two buildings currently present on the Site were constructed by PEM. PEM occupied the

Site from 1948 to 2001. Activities conducted at the Site by PEM included manufacturing specialty magnets, power supplies, and components; and repairing motors, generators, transformers, and magnets. A 2,000-gallon gasoline underground storage tank (UST) was reportedly installed at the Site by PEM in 1975. In addition, the gasoline shed in the fueling area may have stored vehicle lubricants and oil for vehicle maintenance.

The on-site buildings were occupied by Bay Area Powder Coatings in 2001. Bay Area Powder Coatings declared bankruptcy and ceased operations at the Site; however, some equipment belonging to this company was still present on the Site in 2005. No details are available as to the specific processes of Bay Area Powder Coatings.

Landeros Iron Works ("Landeros"), which subleased the property from Bay Area Powder Coatings, conducted its operations in and around the warehouse until December 2008. Landeros' operation was primarily welding and metal structure fabrication. Landeros moved off site in June 2009.

### **1.3** Previous Investigations

Several phases of investigation have been completed at the Site. According to descriptions of soil samples collected during the drilling of soil borings for groundwater monitoring wells installed at the Site, three groundwater-bearing zones designated as the "shallow zone," "intermediate zone," and "deep zone" have been identified at the Site (LFR 2008b). The sediments from the ground surface to approximately 8 feet below ground surface (bgs) consist of an interval of fine-grained sediment (silt and clay) with relatively thin intervals of coarser grained sediments (sand, less than 1 foot thick). These coarser grained sediments represent the interval of "shallow zone." This is the interval in which the soil-vapor system is to be operated. Groundwater has been observed in this interval during the winter months of any year that has normal or above normal rainfall. The presence of groundwater in this interval may impede the operation of the SVE system during the months of November through February.

Discontinuous intervals of relatively thin, more permeable fine- to coarse-grained sand and gravels have generally been encountered between approximately 12 and 17 feet bgs. This interval of sediments contains the first groundwater at the Site, and represents the interval of "intermediate-zone" groundwater at the Site.

An interval of poorly graded, coarser grained sediments comprised of fine sand and gravel was consistently encountered from approximately 21 to 34 feet bgs. This interval of coarser grained sediments contains groundwater and represents the "deep zone."

The investigations conducted at the Site have also included the following:

- Collection of approximately 280 soil samples throughout the Site. The majority of these samples were collected from 0.5 or 5 feet bgs and analyzed for petroleum hydrocarbons, semivolatile organic compounds (SVOCs), PCBs, and/or metals.
- Installation and monitoring of four shallow groundwater monitoring wells (MW-1 through MW-4) and three shallow/intermediate/deep monitoring well clusters (nested wells NW-1 through NW-3), and collection of grab groundwater samples from 20 soil borings. Monitoring of wells MW-1 through MW-4 has been performed intermittently since 1997.
- Completion of two investigations to assess soil-gas quality at the Site in March and August 2008. The results of these investigations were presented in the Revised CAP (LFR 2009b).
- Completion of an AS/SVE pilot test at the Site in accordance with LFR's "Work Plan to Conduct an Air Injection and Soil-Vapor Extraction Pilot Test," dated September 23, 2008 (LFR 2008a).

### 1.4 Groundwater Monitoring Wells

The current groundwater monitoring well network at the Site includes 21 groundwater monitoring wells (Figure 2).

- Three shallow-zone groundwater monitoring wells (NW-1S, NW-2S, and NW-3S; part of the triple-nested groundwater monitoring wells) are completed with screens at approximately 3 to 5 feet bgs.
- Four intermediate-zone groundwater monitoring wells (ASMW-2I through ASMW-4I) are screened from approximately 10 to 17 feet bgs.
- Three intermediate-zone groundwater monitoring wells (NW-1I, NW-2I, and NW-3I; part of the triple-nested groundwater monitoring wells) are screened from approximately 15 to 18 feet bgs.
- Four groundwater monitoring wells (MW-1 through MW-4) are screened from approximately 5 to 20 feet bgs.
- Three deep-zone groundwater monitoring wells (NW-1D, NW-2D and NW-3D; part of the triple-nested groundwater monitoring wells) are completed with screens at approximately 25 to 30 feet bgs.
- Four deep-zone groundwater monitoring wells (ASMW-2D, ASMW-3D, ASMW-4D, and ASMW-5D) are screened from approximately 19 to 27 feet bgs.

#### 2.0 GROUNDWATER MONITORING REPORT

The following activities were performed during this reporting quarter:

• Conducted groundwater monitoring on May 26, 2009.

- Prepared and distributed the Revised CAP for the Site (July 17, 2009).
- Obtained the Bay Area Air Quality Management District air discharge permit associated with the AS/SVE system that is proposed to be installed at the Site.

### 2.1 Groundwater Elevation and Gradient

Depth to groundwater was measured in shallow-zone, intermediate-zone, and deep-zone groundwater monitoring wells on May 26, 2009 (Table 1). The groundwater elevation in each well was calculated using the surveyed top-of-casing elevation; results are summarized in Table 1. Groundwater elevation data and contours for the intermediate and deep zones are presented on Figures 3 and 4, respectively. The depth to groundwater in the wells measured on May 26, 2009 ranged from 2.98 at well NW-3S to 4.35 feet bgs at well AS-2D (Table 1).

The groundwater elevation contours indicate that the groundwater flow direction in the intermediate zone was toward the west-southwest on May 26, 2009, with a horizontal groundwater gradient of approximately 0.001 foot per foot measured between wells NW-1I and ASMW-4I.

The groundwater elevation contours indicate that the groundwater flow direction in the deep zone was toward the west–northwest on May 26, 2009, with a horizontal groundwater gradient of approximately 0.002 foot per foot measured between wells NW-1D and MW-3.

These gradients and flow directions are relatively flat and generally consistent with the historical gradient and flow direction previously observed at the Site by LFR and previous consultants (LFR 2009a). The gradients and flow directions will be further assessed during future monitoring events.

# 2.2 Groundwater Sampling

Groundwater samples were collected from five groundwater monitoring wells on May 26, 2009, using low-flow groundwater sampling techniques. The intake of the low-flow pump was placed in the middle of the screened interval and purged continuously until the basic groundwater parameters stabilized, or until the well had been purged for approximately 30 minutes or of two gallons.

Groundwater samples were collected directly from the hose of the pump and conveyed into laboratory-supplied sample containers. The containers were labeled with the well identification number, the time and date of collection, the analysis requested, and the initials of the sampler. The samples were stored in an ice-chilled cooler and maintained under strict chain-of-custody protocols as they were submitted to the analytical laboratory.

The groundwater samples were submitted to Curtis & Tompkins, Ltd., a state-certified laboratory located in Berkeley, California, and analyzed for TPHg and TPH as diesel (TPHd) using U.S. Environmental Protection Agency (EPA) test method 8015, modified. The samples were also analyzed for BTEX and fuel oxygenates using EPA test method 8260B. Analytical results of groundwater samples are presented in Table 2 and Figure 5, and copies of the laboratory data sheets and chain-of-custody documents are presented in Appendix A.

### 2.2.1 Analytical Results for Groundwater Samples – Shallow Zone

One sample was collected from shallow-zone well NW-3S. The sample collected from shallow-zone well NW-1S did not contain concentrations of TPHg, TBA, or BTEX above laboratory reporting limits. MTBE was detected in the sample collected from well NW-3S at 2.6 micrograms per liter ( $\mu$ g/l).

### 2.2.2 Analytical Results for Groundwater Samples – Intermediate Zone

Samples were collected from two intermediate-zone sparge wells (AS-6I and AS-7I). The sample collected from well AS-7I did not contain concentrations of TPHg or BTEX above laboratory reporting limits. MTBE and TBA were detected in the sample collected from well AS-7I at 2.5  $\mu$ g/l and 35  $\mu$ g/l, respectively.

Elevated concentrations of TPHg, MTBE, benzene, toluene, and total xylenes were detected in samples collected from well AS-6I (Figure 5 and Table 2). The concentrations of fuel-related compounds detected in the samples collected from well AS-6I, located near the former UST, are consistent with some of the highest concentrations of fuel-related compounds detected in groundwater samples collected at the Site.

### 2.2.3 Analytical Results for Groundwater Samples – Deep Zone

Samples were collected from two deep-zone wells (MW-1 and MW-2). The samples collected from deep-zone groundwater monitoring well MW-1 only contained 0.670  $\mu$ g/l of toluene (in the sample from well MW-1). Samples collected from well MW-2 only contained 3.5  $\mu$ g/l of MTBE; the other compounds were not detected above laboratory reporting limits in these wells.

The concentrations of these compounds will be further assessed during future groundwater monitoring events. It is anticipated that the concentrations of the fuel-related compounds will be reduced with the air (and ozone) injection and that SVE systems will start operation.

#### 3.0 SUMMARY AND SCHEDULE

The intermediate-zone groundwater flows toward the west-southwest and the deep-zone groundwater flows toward the west-northwest. The groundwater gradient in both zones is relatively flat.

Based on the analytical results of the groundwater samples collected at the Site to date, the highest concentrations of COCs have been detected in samples collected from wells constructed in the intermediate zone that are located closest to the former UST (see Figure 5; LFR 2009a). The start-up and operation of the AS/SVE system is intended to reduce these concentrations. Analytical results for the groundwater samples collected from deep-zone groundwater monitoring wells indicate that groundwater in the deep zone is less affected relative to the intermediate zone (see Table 2 and Figure 5).

The AS/SVE system is scheduled to start operation on August 11, 2009. In conjunction with the start-up of the AS/SVE system, monthly groundwater sampling and system monitoring will take place in August and September as described in the "Air Sparging and Soil-Vapor Extraction Pilot Test Completion Report" (LFR 2008b). The analytical data collected during start-up of the AS/SVE system will represent the time interval from July through September 2009. The report for that monitoring event will be submitted on or before November 16, 2009.

#### 4.0 LIMITATIONS

The opinions and recommendations presented in this report are based upon the scope of services, information obtained through the performance of the services, and the schedule as agreed upon by LFR and the party for whom this report was originally prepared. This report is an instrument of professional service and was prepared in accordance with the generally accepted standards and level of skill and care under similar conditions and circumstances established by the environmental consulting industry. No representation, warranty, or guarantee, expressed or implied, is intended or given. To the extent that LFR relied upon any information prepared by other parties not under contract to LFR, LFR makes no representation as to the accuracy or completeness of such information. This report is expressly for the sole and exclusive use of the party for whom this report was originally prepared for a particular purpose. Only the party for whom this report was originally prepared and/or other specifically named parties have the right to make use of and rely upon this report. Reuse of this report or any portion thereof for other than its intended purpose, or if modified, or if used by third parties, shall be at the user's sole risk.

Results of any investigations or testing and any findings presented in this report apply solely to conditions existing at the time when LFR's investigative work was performed. It must be recognized that any such investigative or testing activities are inherently limited and do not represent a conclusive or complete characterization. Conditions in

other parts of the Site may vary from those at the locations where data were collected. LFR's ability to interpret investigation results is related to the availability of the data and the extent of the investigation activities. As such, 100 percent confidence in environmental investigation conclusions cannot reasonably be achieved.

LFR, therefore, does not provide any guarantees, certifications, or warranties regarding any conclusions regarding environmental contamination of any such property. Furthermore, nothing contained in this document shall relieve any other party of its responsibility to abide by contract documents and applicable laws, codes, regulations, or standards.

#### 5.0 REFERENCES

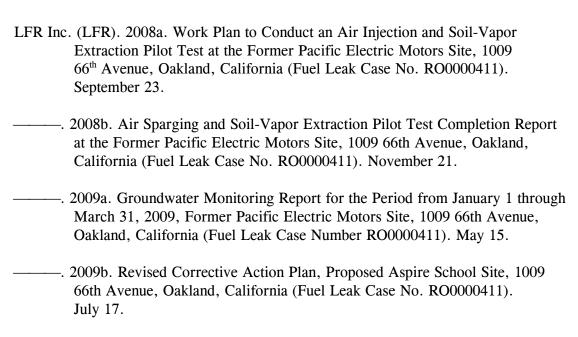


Table 1
Groundwater Elevations
Former Pacific Electric Motors Facility
1009 66th Avenue, Oakland, California

Location ID	Date Collected	Top-of-Casing	Depth to	Groundwater
Location ID	Date Collected	Elevation (1)	Groundwater (2)	Elevation (1)
Shallow-Zone	Groundwater Mon	nitoring Wells		
NW-1S	11-Mar-09	13.88	2.15	11.73
	26-May-09		3.53	10.35
NW-2S	11-Mar-09	13.77	3.77	10.00
1000 25	26-May-09	13.77	3.63	10.14
NIW 2C	11 M 00	12.10	NIM	NIM
NW-3S	11-Mar-09	13.19	NM	NM
	26-May-09		2.98	10.21
Intermediate-2	Zone Groundwater	Monitoring Wells <sup>1</sup>		
$NW-1I^1$	11-Mar-09	13.83	2.40	11.43
	26-May-09		3.71	10.12
NW-2I <sup>1</sup>	11-Mar-09	13.80	5.86	7.94
	26-May-09		4.08	9.72
NW-3I <sup>1</sup>	11 M 00	12 11	NIM	NIM
NW-31	11-Mar-09 26-May-09	13.11	NM 3.27	NM 9.84
	·		-	
ASMW-2I	11-Mar-09	13.90	2.67	11.23
	26-May-09		4.02	9.88
ASMW-3I	11-Mar-09	13.73	2.72	11.01
	26-May-09		3.88	9.85
ASMW-4I	11-Mar-09	13.09	2.06	11.03
	26-May-09		3.22	9.87
ASMW-5I	11-Mar-09	13.16	2.14	11.02
1101/17/ 01	26-May-09	15.10	3.26	9.90
AS-2I	26-May-09	14.09	4.20	9.89
AS-21 AS-3I	26-May-09	14.10	4.07	10.03
AS-4I	26-May-09	13.52	3.68	9.84
AS-5I	26-May-09	13.63	3.84	9.79
AS-6I	26-May-09	13.10	3.14	9.96
AS-7I	26-May-09	13.44	3.56	9.88
AS-8I	26-May-09	13.45	3.56	9.89
	·			

Table 1
Groundwater Elevations
Former Pacific Electric Motors Facility
1009 66th Avenue, Oakland, California

Location ID	Date Collected	Top-of-Casing	Depth to	Groundwater
		Elevation (1)	Groundwater (2)	Elevation (1)
Deep-Zone Gr	oundwater Monito	ring Wells		
MW-1	11-Mar-09	14.19	2.25	11.94
	26-May-09		3.82	10.37
MW-2	11-Mar-09	13.31	2.13	11.18
	26-May-09		3.45	9.86
MW-3	11-Mar-09	13.43	2.32	11.11
	26-May-09		3.62	9.81
MW-4	11-Mar-09	13.78	2.63	11.15
	26-May-09		3.91	9.87
NW-1D	11-Mar-09	13.84	2.81	11.03
	26-May-09		3.65	10.19
NW-2D	11-Mar-09	13.79	2.68	11.11
	26-May-09		3.97	9.82
NW-3D	11-Mar-09	13.16	NM	NM
	26-May-09		3.32	9.84
ASMW-2D	11-Mar-09	13.90	3.06	10.84
	26-May-09		4.15	9.75
ASMW-3D	11-Mar-09	13.94	2.98	10.96
	26-May-09		4.32	9.62
ASMW-4D	11-Mar-09	13.07	1.93	11.14
	26-May-09		3.22	9.85
ASMW-5D	11-Mar-09	13.01	1.88	11.13
	26-May-09		3.16	9.85
AS-2D	26-May-09	14.16	4.35	9.81
AS-3D	26-May-09	13.79	3.96	9.83
AS-4D	26-May-09	13.70	3.88	9.82
AS-5D	26-May-09	14.06	4.26	9.80
AS-6D	26-May-09	13.25	NM	NM
AS-7D	26-May-09	13.67	3.82	9.85
AS-8D	26-May-09	13.35	3.55	9.80

#### **Notes:**

NM = water level not measured

1 = top-of-casing elevation surveyed by Tronoff & Associates licensed land surveyor number 6415; top-of-casing and groundwater elevations are in North American vertical datum 1988 (feet)

2 = in feet below the top of well casing

Table 2
Analytical Results for Volatile Organic Compound Analyses in Groundwater Samples
Former Pacific Electric Motors Facility
1009 66th Avenue, Oakland, California

concentrations in micrograms per liter

Sample	Date	Depth						Ethyl-	m,p-	
Location	Collected	feet bgs	TPHg	TBA	MTBE	Benzene	Toluene	benzene	Xylenes	o-Xylenes
	ie Groundwa		ring Wells						11/101100	
NW-1S	13-Mar-09	5.50	< 50	< 10	0.55	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
NW-2S	13-Mar-09	5.42	1,800	1,900	130	520	< 4.2	120	20	< 4.2
NW-3 S	26-May-09	5.86	< 50	< 10	2.6	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Intermediat	e-Zone Groui	ndwater M	onitorina V	Volle						
ASMW-2I	13-Mar-09	16.93	49,000	3,200	1,100	18,000	17,000	1,600	5,100	3,100
ASMW-3I	11-Mar-09	14.15	< 50	< 10	1.4	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
ASMW-4I	11-Mar-09	12.63	9,200	< 130	< 6.3	38	< 6.3	570	1,800	230
ASMW-5I	11-Mar-09	12.37	72,000	<1,400	76	11,000	3,600	3,800	13,000	5,400
AS-6I	26-May-09	13.22	42,000	<1,000	170	11,000	780	2,400	7,300	2,900
AS-7I	26-May-09	13.59	< 50	35	2.5	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
	•			33	2.5	<b>\0.50</b>	₹0.50	<b>\0.50</b>	₹0.50	₹0.50
-	Groundwater		_	1 000	1 200	. 10	. 10	. 10	. 10	.10
ASMW-2D	11-Mar-09	26.77	<1,300	1,900	1,300	<13	<13	< 13	<13	<13
ASMW-3D	11-Mar-09	29.78	< 50	34	91	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
ASMW-4D	11-Mar-09	22.81	< 50	< 10	1.4	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
ASMW-5D	11-Mar-09	26.98	87	1,700	< 0.50	84	< 0.50	5.2	5.9	1.5
NW-1D	13-Mar-09	27.79	<50	< 10	1.4	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
NW-2D	13-Mar-09	30.03	<250	17,000	310	120	< 2.5	< 2.5	< 2.5	< 2.5
MW-1	19-Jun-97	24.95	18,000	NA	4,900	3,300	200	1,100	< 250	NA
	29-Sep-97		29,000	NA	3,500	4,800	< 25	2,000	< 250	NA
	16-Dec-97		< 0.050	NA	0.7	1.3	< 0.5	0.6	< 5.0	NA
	10-Mar-98		190	NA	1.7	2	< 0.5	5.7	< 5.0	NA
	19-Jan-99		100	NA	68	40	< 0.5	18	8.3	NA
	15-Apr-99		< 0.050	NA	0.87	0.92	0.9	0.7	< 5.0	NA
	30-Jul-99		1,400	NA	120	60	< 0.5	63	13	NA
	15-Nov-99		3,600	NA	620	120	< 0.5	150	< 5.0	NA
	24-Mar-00		< 0.050	NA	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	NA
	18-May-00		1,300	NA	130	10	1.2	38	8.6	NA
	26-Jul-00		6,400	NA	680	100	7.4	260	< 5.0	NA
	30-Oct-00		600	NA	950	130	14	330	< 100	NA
	24-Jul-01		1,200	NA	39	13	< 0.5	70	13	NA
	28-Nov-01		1,800	NA	160	27	0.93	72	< 5.0	NA
	18-Feb-02		2,400	NA	200	18	< 2.5	89	< 25	NA
	11-Dec-02		8,400	NA	640	83	9.2	320	< 0.5	NA
	26-Feb-03		8,300	NA	720	12	< 10	240	< 10	NA
	16-May-03		5,600	NA	490	22	< 5.0	240	< 5.0	NA
	8-Mar-05		230	NA	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	NA
	13-Mar-09		< 50	< 10	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
	26-May-09		< 50	< 10	< 0.50	< 0.50	0.67	< 0.50	< 0.50	< 0.50
duplicate	26-May-09		< 50	< 10	< 0.50	< 0.50	0.62	< 0.50	< 0.50	< 0.50
MW-2	19-Jun-97	25.02	< 50	NA	< 5.0	< 0.5	< 0.5	< 0.5	< 0.5	NA
	29-Sep-97			NA	< 5.0	< 0.5	< 0.5	< 0.5	< 0.5	NA
	16-Dec-97			NA	< 5.0	< 0.5	< 0.5	< 0.5	< 0.5	NA
	10-Mar-98		< 50	NA	< 5.0	< 0.5	< 0.5	< 0.5	< 0.5	NA

Table 2
Analytical Results for Volatile Organic Compound Analyses in Groundwater Samples
Former Pacific Electric Motors Facility
1009 66th Avenue, Oakland, California

concentrations in micrograms per liter

Sample	Date	Depth				l_		Ethyl-	m,p-	
Location	Collected	feet bgs	TPHg	TBA	MTBE	Benzene	Toluene	benzene	Xylenes	o-Xylenes
	19-Jan-99		< 50	NA	< 5.0	< 0.5	< 0.5	< 0.5	< 0.5	NA
	15-Apr-99		< 50	NA	< 5.0	0.75	0.64	< 0.5	0.74	NA
	30-Jul-99		< 50	NA	< 5.0	< 0.5	< 0.5	< 0.5	< 0.5	NA
	15-Nov-99		< 50	NA	< 5.0	< 0.5	< 0.5	< 0.5	< 0.5	NA
	24-Mar-00		< 50	NA	< 5.0	< 0.5	< 0.5	< 0.5	< 0.5	NA
	18-May-00		< 50	NA	< 5.0	< 0.5	< 0.5	< 0.5	< 0.5	NA
	26-Jul-00		< 50	NA	< 5.0	< 0.5	< 0.5	< 0.5	< 0.5	NA
	30-Oct-00		< 50	NA	< 5.0	< 0.5	< 0.5	< 0.5	< 0.5	NA
	24-Jul-01		< 50	NA	7.6	< 0.5	< 0.5	< 0.5	< 0.5	NA
	28-Nov-01		< 50	NA	< 5.0	< 0.5	< 0.5	< 0.5	< 0.5	NA
	18-Feb-02		< 50	NA	< 5.0	< 0.5	< 0.5	< 0.5	< 0.5	NA
	11-Dec-02		< 50	NA	5.8	< 0.5	< 0.5	< 0.5	< 1.0	NA
	26-Feb-03		< 50	NA	10	< 0.5	< 0.5	< 0.5	< 1.0	NA
	16-May-03		< 50	NA	16	< 0.5	< 0.5	< 0.5	< 1.0	NA
	9-Mar-05		< 50	NA	15	< 0.5	< 0.5	< 0.5	< 0.5	NA
	15-Feb-06		< 50	NA	19	< 0.5	< 0.5	< 0.5	< 0.5	NA
	15-Feb-06		< 50	NA	6.8	< 0.5	< 0.5	< 0.5	< 0.5	NA
	16-Feb-06		< 50	NA	5.6	< 0.5	< 0.5	< 0.5	< 0.5	NA
	13-Mar-09		< 50	< 10	2.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
	26-May-09		< 50	< 10	3.5	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
MW-3	19-Jun-97	24.85	< 50	NA	< 5.0	< 0.5	< 0.5	< 0.5	< 0.5	NA
	29-Sep-97		< 50	NA	< 5.0	< 0.5	< 0.5	< 0.5	< 0.5	NA
	16-Dec-97		< 50	NA	< 5.0	< 0.5	< 0.5	< 0.5	< 0.5	NA
	10-Mar-98		< 50	NA	< 5.0	< 0.5	< 0.5	< 0.5	< 0.5	NA
	19-Jan-99		< 50	NA	8.7	0.78	< 0.5	< 0.5	< 0.5	NA
	15-Apr-99		< 50	NA	23	5.4	3.9	1.7	5.6	NA
	30-Jul-99		< 50	NA	< 5.0	< 0.5	< 0.5	< 0.5	< 0.5	NA
	15-Nov-99		< 50	NA	< 5.0	< 0.5	< 0.5	< 0.5	< 0.5	NA
	24-Mar-00		< 50	NA	< 5.0	< 0.5	< 0.5	< 0.5	< 0.5	NA
	18-May-00		< 50	NA	< 5.0	< 0.5	< 0.5	< 0.5	< 0.5	NA
	26-Jul-00		< 50	NA	< 5.0	< 0.5	< 0.5	< 0.5	< 0.5	NA
	30-Oct-00		< 50	NA	< 5.0	< 0.5	< 0.5	< 0.5	< 0.5	NA
	24-Jul-01		< 50	NA	< 5.0	< 0.5	< 0.5	< 0.5	< 0.5	NA
	28-Nov-01		< 50	NA	< 5.0	< 0.5	< 0.5	< 0.5	< 0.5	NA
	18-Feb-02		< 50	NA	< 5.0	< 0.5	< 0.5	< 0.5	< 0.5	NA
	11-Dec-02		< 50	NA	0.78	< 0.5	< 0.5	< 0.5	< 1.0	NA
	26-Feb-03		< 50	NA	< 0.5	< 0.5	< 0.5	< 0.5	< 1.0	NA
	16-May-03		< 50	NA	2.6	< 0.5	< 0.5	< 0.5	< 1.0	NA
	8-Mar-05		< 50	NA	< 2	< 0.5	< 0.5	< 0.5	< 0.5	NA
	13-Mar-09		< 50	< 10	< 0.50	< 0.50	< 0.50	< 0.50	0.97	< 0.50
MW-4	15-Sep-98	24.65	170,000	NA	26,000	26,000	32,000	2,900	18,000	NA
	19-Jan-99		2,600	NA	13,000	1,700	3.8	25	29	NA
	15-Apr-99		210,000	NA	52,000	28,000	15,000	3,700	19,000	NA
	30-Jul-99		91,000	NA	68,000	16,000	7,500	2,300	8,500	NA

Table 2
Analytical Results for Volatile Organic Compound Analyses
in Groundwater Samples
Former Pacific Electric Motors Facility
1009 66th Avenue, Oakland, California

concentrations in micrograms per liter

Sample	Date	Depth	TDLLa	TBA	MTBE	Danzona	Toluene	Ethyl-	m,p-	a Vulanas
Location	Collected	feet bgs	TPHg	IDA	MIDE	Benzene	Toluene	benzene	<b>Xylenes</b>	o-Xylenes
	15-Nov-99		63,000	NA	57,000	8,500	2,400	1,400	4,000	NA
	24-Mar-00		95,000	NA	44,000	16,000	13,000	2,500	12,000	NA
	18-May-00		91,000	NA	64,000	15,000	10,000	2,200	9,600	NA
	26-Jul-00		130,000	NA	80,000	11,000	6,400	1,700	6,500	NA
	30-Oct-00		59,000	NA	68,000	6,700	2,200	750	3,100	NA
	24-Jul-01		180,000	NA	44,000	25,000	23,000	3,500	20,000	NA
	28-Nov-01		67,000	NA	57,000	8,100	3,300	1,400	5,600	NA
	18-Feb-02		98,000	NA	47,000	20,000	12,000	2,300	15,000	NA
	11-Dec-02		200,000	NA	17,000	340	< 5.00	590	1,000	NA
	26-Feb-03		63,000	NA	30,000	8,100	4,400	1,900	8,200	NA
	16-May-03		530,000	NA	42,000	24,000	20,000	12,000	63,000	NA
	9-Mar-05		152,237	NA	5,841	22,053	17,310	3,981	13,969	NA
	9-Mar-05		162,863	NA	6,026	21,536	16,547	3,900	13,786	NA
	13-Mar-09		55,000	< 1,400	950	19,000	7,200	2,300	8,500	3,500

#### **Notes:**

feet bgs = feet below ground surface

NA = not analyzed

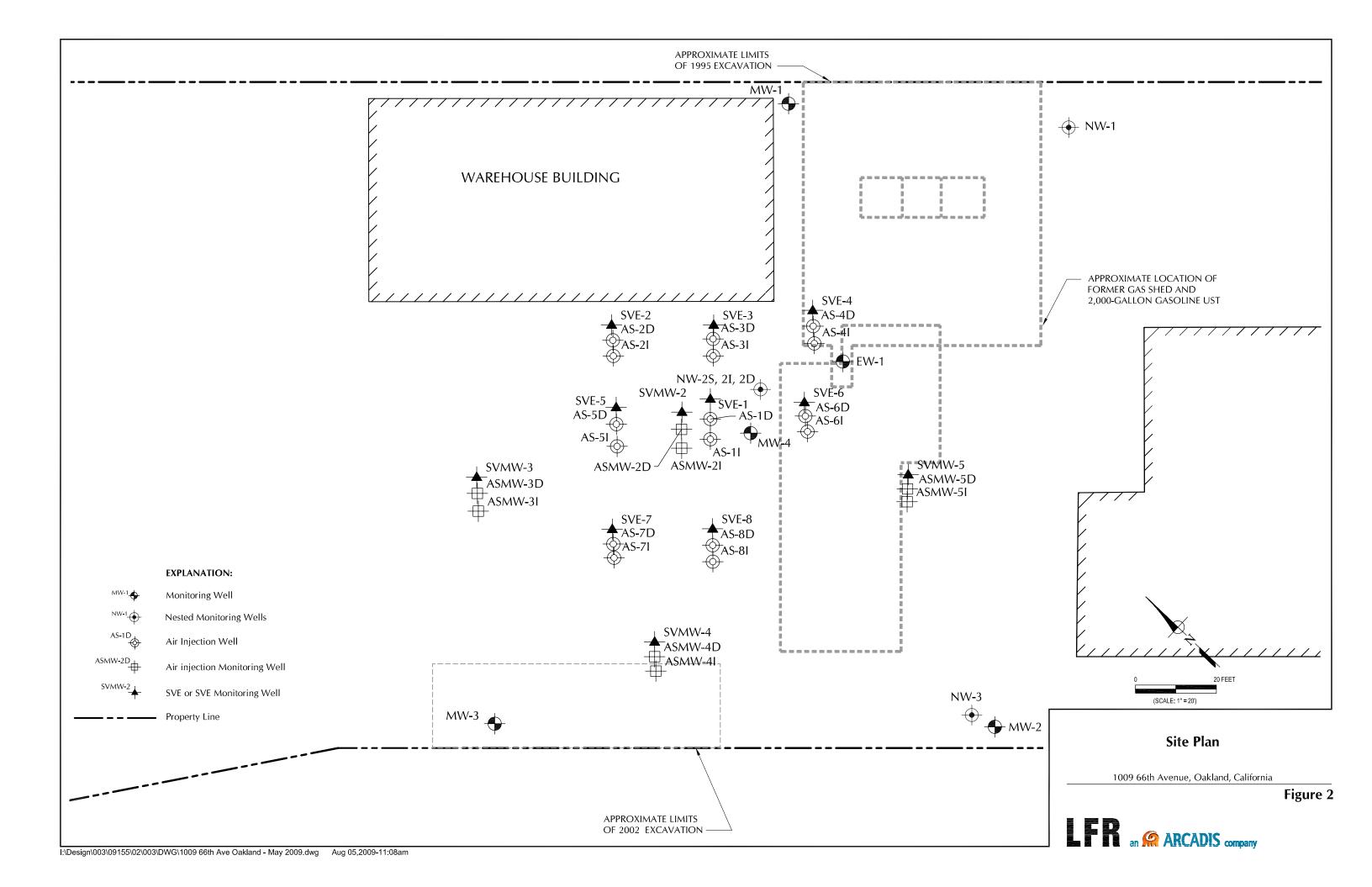
TPHg = total petroleum hydrocarbons as gasoline

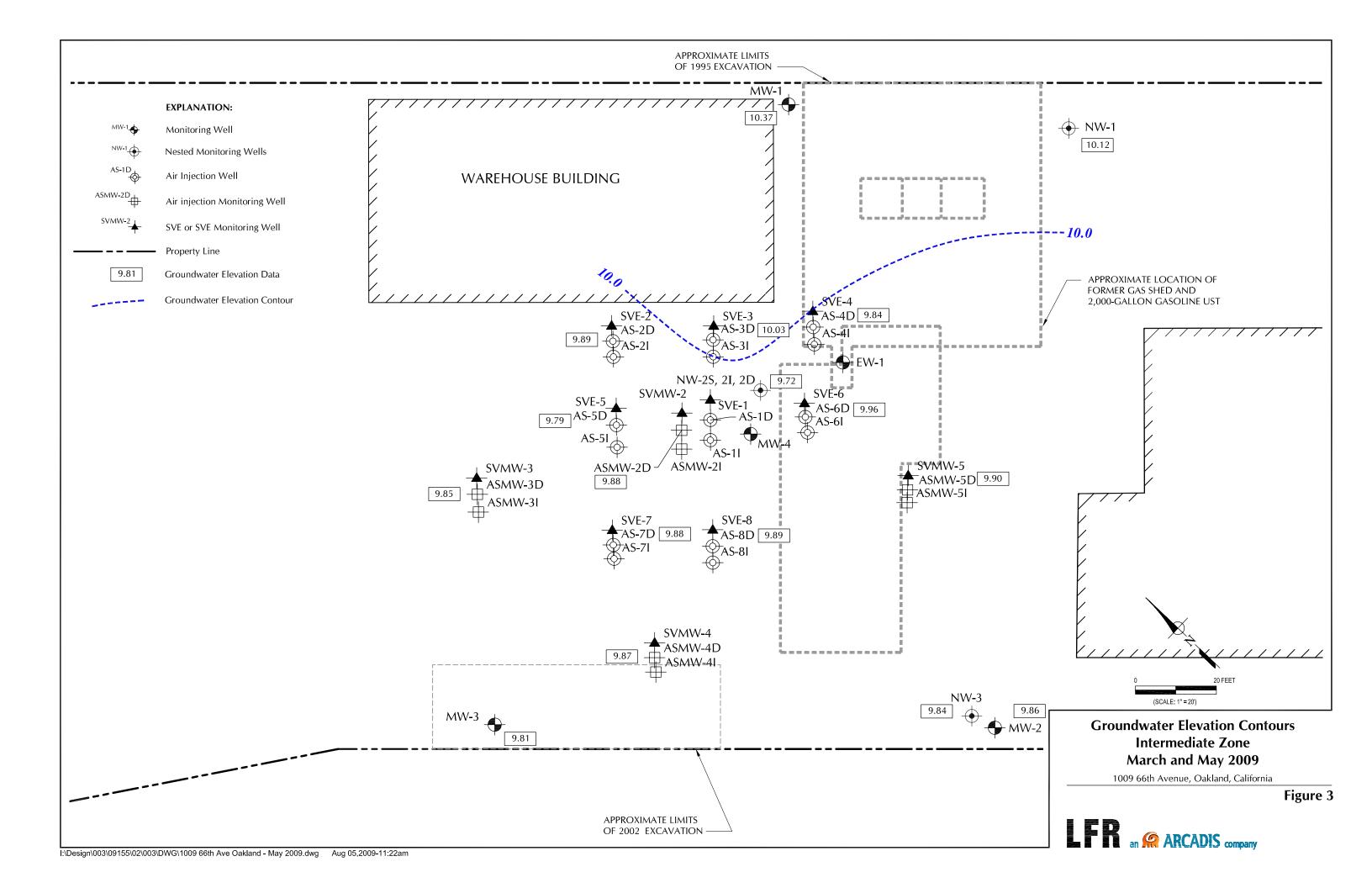
TBA = tertiary butyl alcohol

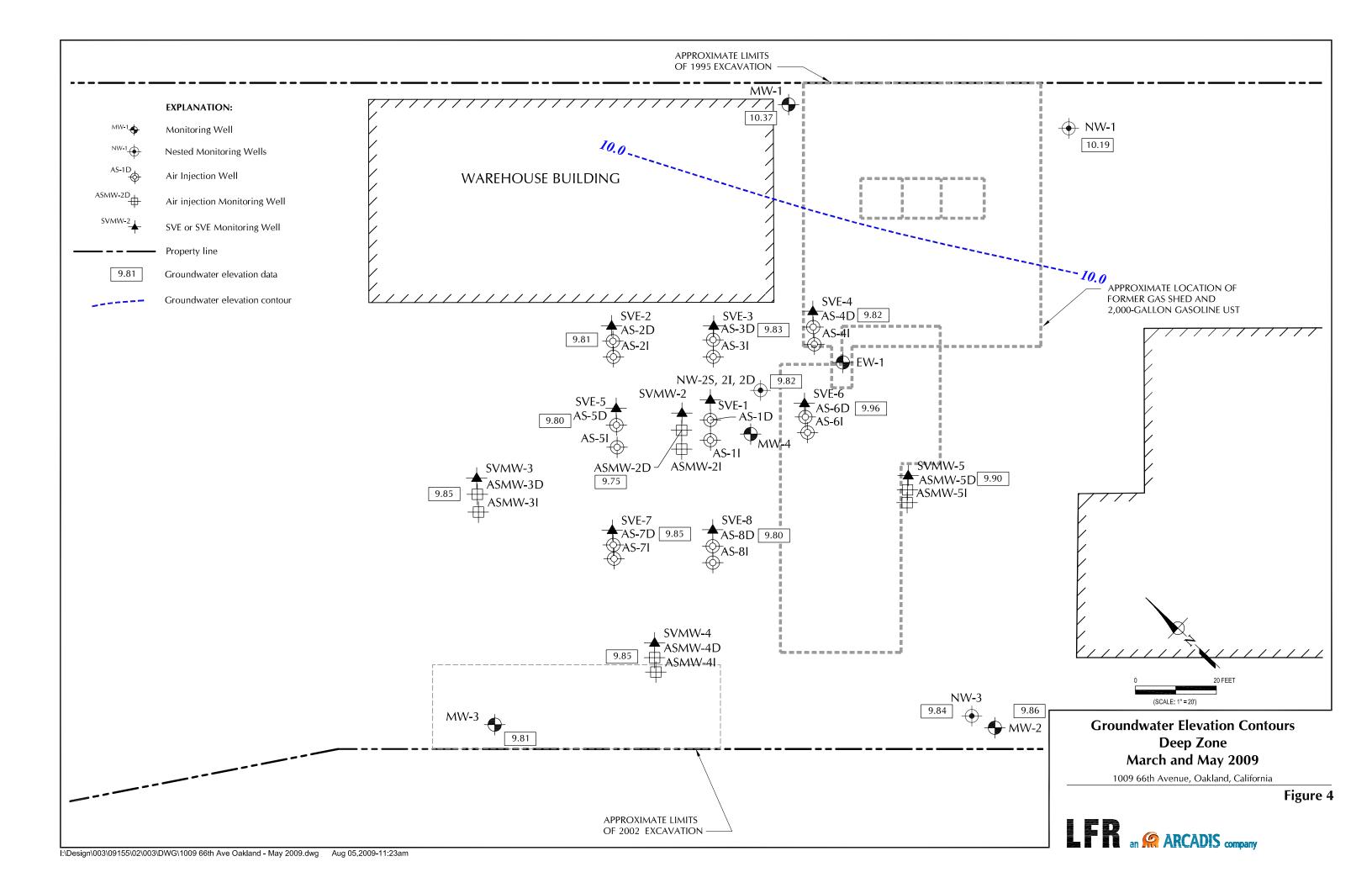
MTBE = methyl tertiary-butyl ether

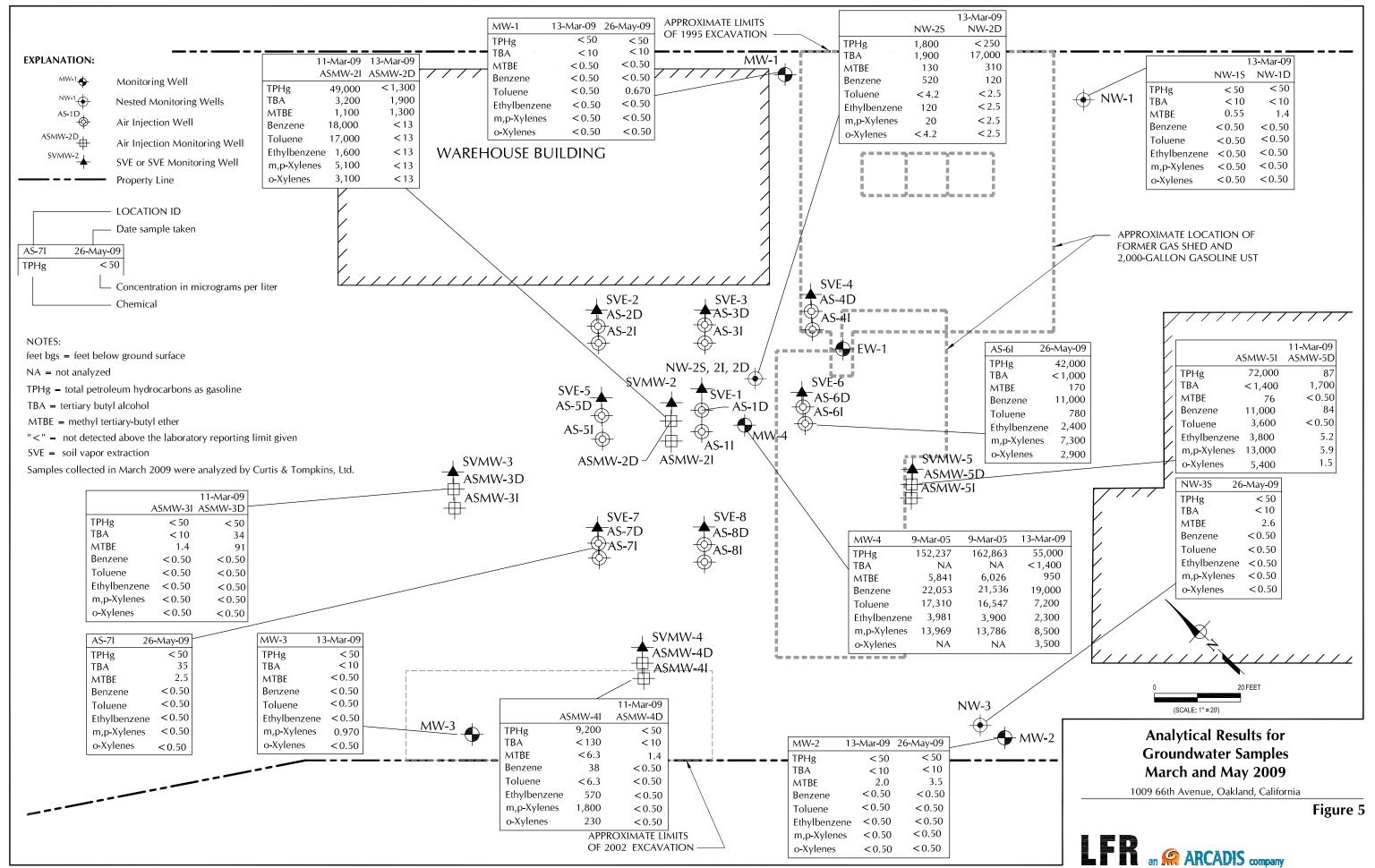
"<" = not detected above the laboratory reporting limit given

Samples collected in March 2009 were analyzed by Curtis & Tompkins, Ltd.









# **APPENDIX A**

**Laboratory Analytical Reports** 



# Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

#### Laboratory Job Number 212388 ANALYTICAL REPORT

LFR Levine Fricke 1900 Powell Street Emeryville, CA 94608 Project : 003-09155-04 Location : Aspire Schools

Level : II

Sample ID	<u>Lab ID</u>
AS-6I	212388-001
AS-7I	212388-002
MW-1	212388-003
MW-2	212388-004
NW-3S	212388-005
DUP-1	212388-006

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature:

Date: <u>06/03/2009</u>

Signature:

Senior Program Manager

Date: <u>06/04/2009</u>

NELAP # 01107CA



#### CASE NARRATIVE

Laboratory number: 212388

Client: LFR Levine Fricke

Project: 003-09155-04
Location: Aspire Schools

Request Date: 05/26/09 Samples Received: 05/26/09

This data package contains sample and QC results for six water samples, requested for the above referenced project on 05/26/09. The samples were received cold and intact. All data were e-mailed to Ron Goloubow on 06/03/09.

#### Volatile Organics by GC/MS (EPA 8260B):

AS-6I (lab # 212388-001) was analyzed with more than 1 mL of headspace in the VOA vial. No other analytical problems were encountered.

212384

**CHAIN OF CUSTODY / ANALYSES REQUEST FORM** SAMPLER'S INITIALS: 5/26/09 **SERIAL** PROJECT NO.: SECTION NO.: DATE: **SAMPLE COLLECTOR:** W 003-09155-04 5150 El Camino Real, Suite D-21 Los Altos, California 94022 (650) 469-7230 Fax: (650) 469-7235 Nº 5013 SAMPLER (Signature): PROJECT NAME: ASPIRE SCHOOLS REMARKS **ANALYSES** SAMPLE THI CALL SOLE & Weigs flat et aluman. TAT JOG- Err Healert **TYPE** Pres fir far far field NO. of Containers Ritho fer seight \*VOCs: \*\*Metals: Total Bushing 8260 List □ CAM17 sjandard / austi. ☐ 8240 List ☐ RCRA HOLD Water ☐ 8010 List ☐ LUFT TIME SAMPLE ID. DATE ☐ 624 List THASIL USE FOLLOWING CONTROT FOR BILLING REPORTING: 5 26 09 1700 AS-6I 3 X X ४ AS-7I X 1755 RON. GOLOVBOW @ LAR. COM X X 3 MW-1. 1425 × × RON GOLDUBOW
1900 POWELLST 12THFL.
ENERYVILLE, CA 3 X X X MW-2 1505 X 3 X X X NW-35 1600 X X × 3 X DUP-1 2 RELINQUISHED BY: METHOD OF SHIPMENT: RELINQUISHED BY: RELINQUISAED BY: Cooler Temp: SAMPLE RECEIPT: SIGNATURE ☐Intact ☐Cold (DATE) (SIGNATURE) (SIGNATURE) (DATE) LAB REPORT NO.: On Ice Ambient Cooler No: MORCAN JONES (TIME) (PRINTED NAME) (PRINTED NAME) (TIME) (PRINTED NAME) FAX COC CONFIRMATION TO: LFR INC RON, GOLOUBOW@LFR Preservative Correct? COM (COMPANY) (COMPANY) ☐Yes ☐No ☐N/A RECEIVED BY (LABORATORY): RECEIVED BY: ANALYTICAL LABORATORY: FAX RESULTS TO: RECEIVED BY: CURTIS & TOMPKINS (DATE) (SIGNATURE) (DATE) (SIGNATURE) SEND HARDCOPY TO: 1900 POWELL ST, 1274 FLOW SEND EDD TO: EMV. (PRINTED NAME) (TIME) (PRINTED NAME) (TIME) (PRINTED NAME) SEND EDD TO: EMV.LABEDDS.COM (COMPANY) RON, GOLDUBOW @LFR CONTCOMPANY) (COMPANY) CHAIN of CUSTODY - ANALYSES FORM.CDR 5/2003 Field Copy (Pink) File Copy (Yellow)

 $\omega$ 9

Shipping Copy (White)

# **COOLER RECEIPT CHECKLIST**



Client LAC	Date Received 5/26/09 Project ASPIR	Number of coole ESCHOOLS	rs
Date Opened 5/20/09 By (prin Date Logged in 5/27/9 By (prin	nt) M VILLAPUEVA (sign	MA /	ili
1. Did cooler come with a shipping Shipping info		YES	S Ø90
2A. Were custody seals present?  How many  2B. Were custody seals intact upor  3. Were custody papers dry and int  4. Were custody papers filled out p	Name n arrival? tact when received? properly (ink, signed, etc)?	Date YES	□ (So) S NO (SO) S NO S NO
<ul><li>5. Is the project identifiable from 6</li><li>6. Indicate the packing in cooler: (</li></ul>	custody papers? (If so fill out to fift other, describe)	op of form)YES	NO
Bubble Wrap Fo Catherial Catherial Catherial 7. Temperature documentation:	am blocks ☐ Bags rdboard ☐ Styrofoam	☐ None ☐ Paper to	wels
Type of ice used: Wet	☐ Blue/Gel ☐ None	Temp(°C)	
Samples Received on ice	e & cold without a temperature	blank	
☐ Samples received on ice	directly from the field. Coolin	g process had begur	n
8. Were Method 5035 sampling co	ntainers present?	Y	YES 👩
9. Did all bottles arrive unbroken/u	y transferred to freezer?		OF NO
10. Are samples in the appropriate	containers for indicated tests?		YES NO
11. Are sample labels present, in go	ood condition and complete?		MES NO
12. Do the sample labels agree with	cuctody nanora?		
12 W CC	custody papers?		YES NO
13. Was sufficient amount of sample	le sent for tests requested?		<del></del>
<ol> <li>Was sufficient amount of sample</li> <li>Are the samples appropriately p</li> </ol>	le sent for tests requested?	Val	ES NO NO N/A
<ul><li>13. Was sufficient amount of sample</li><li>14. Are the samples appropriately p</li><li>15. Are bubbles &gt; 6mm absent in V</li></ul>	le sent for tests requested? preserved? OA samples?		ES NO NO N/A NO N/A
<ul> <li>13. Was sufficient amount of sample</li> <li>14. Are the samples appropriately p</li> <li>15. Are bubbles &gt; 6mm absent in V</li> <li>16. Was the client contacted concer</li> </ul>	le sent for tests requested?	Y S	ES NO NO N/A
<ul> <li>13. Was sufficient amount of sample</li> <li>14. Are the samples appropriately p</li> <li>15. Are bubbles &gt; 6mm absent in V</li> <li>16. Was the client contacted concer</li> </ul>	le sent for tests requested? preserved? OA samples?	Y S	ES NO NO N/A NO N/A
<ul> <li>13. Was sufficient amount of sample</li> <li>14. Are the samples appropriately p</li> <li>15. Are bubbles &gt; 6mm absent in V</li> <li>16. Was the client contacted concer</li> <li>If YES, Who was called?</li> </ul>	le sent for tests requested?	Y S	ES NO NO N/A NO N/A
<ul> <li>13. Was sufficient amount of sample</li> <li>14. Are the samples appropriately p</li> <li>15. Are bubbles &gt; 6mm absent in V</li> <li>16. Was the client contacted concer</li> <li>If YES, Who was called?</li> </ul>	le sent for tests requested?	Y S	ES NO NO N/A NO N/A
<ul> <li>13. Was sufficient amount of sample</li> <li>14. Are the samples appropriately p</li> <li>15. Are bubbles &gt; 6mm absent in V</li> <li>16. Was the client contacted concer</li> <li>If YES, Who was called?</li> </ul>	le sent for tests requested?	Y S	ES NO NO N/A NO N/A
<ul> <li>13. Was sufficient amount of sample</li> <li>14. Are the samples appropriately p</li> <li>15. Are bubbles &gt; 6mm absent in V</li> <li>16. Was the client contacted concer</li> <li>If YES, Who was called?</li> </ul>	le sent for tests requested? oreserved? OA samples? ming this sample delivery? By	Date:	ES NO NO N/A NO N/A
<ul> <li>13. Was sufficient amount of sample</li> <li>14. Are the samples appropriately p</li> <li>15. Are bubbles &gt; 6mm absent in V</li> <li>16. Was the client contacted concer</li> <li>If YES, Who was called?</li> </ul>	le sent for tests requested?	Date:	ES NO NO N/A NO N/A

SOP Volume:

Client Services

Section:

1.1.2

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Rev. 6 Number 1 of 3 Effective: 23 July 2008

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	Ga	soline by GC/MS		
Lab #:	212388	Location:	Aspire Schools	
Client:	LFR Levine Fricke	Prep:	EPA 5030B	
Project#:	003-09155-04	Analysis:	EPA 8260B	
Field ID:	AS-6I	Sampled:	05/26/09	
Lab ID:	212388-001	Received:	05/26/09	
Matrix:	Water	Analyzed:	06/02/09	
Units:	ug/L			

Analyte	Result	RL	Diln Fac	Batch#
Gasoline C7-C12	42,000	5,000	100.0	151542
tert-Butyl Alcohol (TBA)	ND	1,000	100.0	151542
Isopropyl Ether (DIPE)	ND	50	100.0	151542
Ethyl tert-Butyl Ether (ETBE)	ND	50	100.0	151542
Methyl tert-Amyl Ether (TAME)	ND	50	100.0	151542
MTBE	170	50	100.0	151542
1,2-Dichloroethane	ND	50	100.0	151542
Benzene	11,000	100	200.0	151583
Toluene	780	50	100.0	151542
1,2-Dibromoethane	ND	50	100.0	151542
Ethylbenzene	2,400	50	100.0	151542
m,p-Xylenes	7,300	50	100.0	151542
o-Xylene	2,900	50	100.0	151542

Surrogate	%REC	Limits	Diln Fac	Batch#
Dibromofluoromethane	97	80-122	100.0	151542
1,2-Dichloroethane-d4	81	77-137	100.0	151542
Toluene-d8	102	80-120	100.0	151542
Bromofluorobenzene	113	80-125	100.0	151542



	Gasc	oline by GC/MS		
Lab #:	212388	Location:	Aspire Schools	
Client:	LFR Levine Fricke	Prep:	EPA 5030B	
Project#:	003-09155-04	Analysis:	EPA 8260B	
Field ID:	AS-7I	Batch#:	151475	
Lab ID:	212388-002	Sampled:	05/26/09	
Matrix:	Water	Received:	05/26/09	
Units:	ug/L	Analyzed:	05/29/09	
Diln Fac:	1.000	_		

Analyte	Result	RL	
Gasoline C7-C12	ND	50	
tert-Butyl Alcohol (TBA)	35	10	
Isopropyl Ether (DIPE)	ND	0.50	
Ethyl tert-Butyl Ether (ETBE)	ND	0.50	
Methyl tert-Amyl Ether (TAME)	ND	0.50	
MTBE	2.5	0.50	
1,2-Dichloroethane	ND	0.50	
Benzene	ND	0.50	
Toluene	ND	0.50	
1,2-Dibromoethane	ND	0.50	
Ethylbenzene	ND	0.50	
m,p-Xylenes	ND	0.50	
o-Xylene	ND	0.50	

Surrogate	%REC	Limits
Dibromofluoromethane 9	99	80-122
1,2-Dichloroethane-d4 9	95	77-137
Toluene-d8 1	100	80-120
Bromofluorobenzene 1	111	80-125



Gasoline by GC/MS					
Lab #:	212388	Location:	Aspire Schools		
Client:	LFR Levine Fricke	Prep:	EPA 5030B		
Project#:	003-09155-04	Analysis:	EPA 8260B		
Field ID:	MW-1	Batch#:	151439		
Lab ID:	212388-003	Sampled:	05/26/09		
Matrix:	Water	Received:	05/26/09		
Units:	ug/L	Analyzed:	05/29/09		
Diln Fac:	1.000				

Analyte	Resul	RL
Gasoline C7-C12	ND	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
MTBE	ND	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
Toluene	0	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	102	80-122
1,2-Dichloroethane-d4	93	77-137
Toluene-d8	99	80-120
Bromofluorobenzene	114	80-125

ND= Not Detected RL= Reporting Limit

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Gasoline by GC/MS						
Lab #:	212388	Location:	Aspire Schools			
Client:	LFR Levine Fricke	Prep:	EPA 5030B			
Project#:	003-09155-04	Analysis:	EPA 8260B			
Field ID:	MW-2	Batch#:	151439			
Lab ID:	212388-004	Sampled:	05/26/09			
Matrix:	Water	Received:	05/26/09			
Units:	ug/L	Analyzed:	05/29/09			
Diln Fac:	1.000	_				

Analyte	Result	RL	
Gasoline C7-C12	ND	50	
tert-Butyl Alcohol (TBA)	ND	10	
Isopropyl Ether (DIPE)	ND	0.50	
Ethyl tert-Butyl Ether (ETBE)	ND	0.50	
Methyl tert-Amyl Ether (TAME)	ND	0.50	
MTBE	3.5	0.50	
1,2-Dichloroethane	ND	0.50	
Benzene	ND	0.50	
Toluene	ND	0.50	
1,2-Dibromoethane	ND	0.50	
Ethylbenzene	ND	0.50	
m,p-Xylenes	ND	0.50	
o-Xylene	ND	0.50	

Surrogate	%REC	Limits
Dibromofluoromethane	102	80-122
1,2-Dichloroethane-d4	95	77-137
Toluene-d8	100	80-120
Bromofluorobenzene	109	80-125

Page 1 of 1



	Gasc	oline by GC/MS		
Lab #:	212388	Location:	Aspire Schools	
Client:	LFR Levine Fricke	Prep:	EPA 5030B	
Project#:	003-09155-04	Analysis:	EPA 8260B	
Field ID:	NW-3S	Batch#:	151475	
Lab ID:	212388-005	Sampled:	05/26/09	
Matrix:	Water	Received:	05/26/09	
Units:	ug/L	Analyzed:	05/29/09	
Diln Fac:	1.000			

Analyte	Result	RL	
Gasoline C7-C12	ND	50	
tert-Butyl Alcohol (TBA)	ND	10	
Isopropyl Ether (DIPE)	ND	0.50	
Ethyl tert-Butyl Ether (ETBE)	ND	0.50	
Methyl tert-Amyl Ether (TAME)	ND	0.50	
MTBE	2.6	0.50	
1,2-Dichloroethane	ND	0.50	
Benzene	ND	0.50	
Toluene	ND	0.50	
1,2-Dibromoethane	ND	0.50	
Ethylbenzene	ND	0.50	
m,p-Xylenes	ND	0.50	
o-Xylene	ND	0.50	

Surrogate	%REC	Limits
Dibromofluoromethane	99	80-122
1,2-Dichloroethane-d4	94	77-137
Toluene-d8	101	80-120
Bromofluorobenzene	110	80-125

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	Gaso	oline by GC/MS		
Lab #:	212388	Location:	Aspire Schools	
Client:	LFR Levine Fricke	Prep:	EPA 5030B	
Project#:	003-09155-04	Analysis:	EPA 8260B	
Field ID:	DUP-1	Batch#:	151475	
Lab ID:	212388-006	Sampled:	05/26/09	
Matrix:	Water	Received:	05/26/09	
Units:	ug/L	Analyzed:	05/29/09	
Diln Fac:	1.000	_		

Analyte	Resul	t RL	
Gasoline C7-C12	ND	50	
tert-Butyl Alcohol (TBA)	ND	10	
Isopropyl Ether (DIPE)	ND	0.50	
Ethyl tert-Butyl Ether (ETBE)	ND	0.50	
Methyl tert-Amyl Ether (TAME)	ND	0.50	
MTBE	ND	0.50	
1,2-Dichloroethane	ND	0.50	
Benzene	ND	0.50	
Toluene	0	0.50	
1,2-Dibromoethane	ND	0.50	
Ethylbenzene	ND	0.50	
m,p-Xylenes	ND	0.50	
o-Xylene	ND	0.50	

Surrogate %	%REC	Limits
Dibromofluoromethane 97	7	80-122
1,2-Dichloroethane-d4 92	2	77-137
Toluene-d8 10	02	80-120
Bromofluorobenzene 11	11	80-125



# Batch QC Report

	Ga	soline by GC/MS		
Lab #:	212388	Location:	Aspire Schools	
Client:	LFR Levine Fricke	Prep:	EPA 5030B	
Project#:	003-09155-04	Analysis:	EPA 8260B	
Type:	BLANK	Diln Fac:	1.000	
Lab ID:	QC497761	Batch#:	151439	
Matrix:	Water	Analyzed:	05/28/09	
Units:	ug/L			

Analyte	Result	RL	
Gasoline C7-C12	ND	50	
tert-Butyl Alcohol (TBA)	ND	10	
Isopropyl Ether (DIPE)	ND	0.50	
Ethyl tert-Butyl Ether (ETBE)	ND	0.50	
Methyl tert-Amyl Ether (TAME)	ND	0.50	
MTBE	ND	0.50	
1,2-Dichloroethane	ND	0.50	
Benzene	ND	0.50	
Toluene	ND	0.50	
1,2-Dibromoethane	ND	0.50	
Ethylbenzene	ND	0.50	
m,p-Xylenes	ND	0.50	
o-Xylene	ND	0.50	

Surrogate	%REC	Limits
Dibromofluoromethane	97	80-122
1,2-Dichloroethane-d4	91	77-137
Toluene-d8	100	80-120
Bromofluorobenzene	109	80-125

ND= Not Detected RL= Reporting Limit

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Batch QC Report

	Gas	soline by GC/MS		
Lab #: Client: Project#:	212388 LFR Levine Fricke 003-09155-04	Location: Prep: Analysis:	Aspire Schools EPA 5030B EPA 8260B	
Matrix: Units: Diln Fac:	Water ug/L 1.000	Batch#: Analyzed:	151439 05/28/09	

Type: BS Lab ID: QC497762

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	112.5	107.3	95	55-151
Isopropyl Ether (DIPE)	22.50	25.71	114	65-131
Ethyl tert-Butyl Ether (ETBE)	22.50	23.75	106	75-128
Methyl tert-Amyl Ether (TAME)	22.50	21.51	96	80-121
MTBE	22.50	22.53	100	73-122
1,2-Dichloroethane	22.50	21.39	95	73-141
Benzene	22.50	24.80	110	80-120
Toluene	22.50	24.63	109	80-120
1,2-Dibromoethane	22.50	23.37	104	80-120
Ethylbenzene	22.50	25.63	114	80-121
m,p-Xylenes	45.00	50.98	113	80-122
o-Xylene	22.50	25.23	112	80-120

Surrogate	%REC	Limits	
Dibromofluoromethane	95	80-122	
1,2-Dichloroethane-d4	90	77-137	
Toluene-d8	100	80-120	
Bromofluorobenzene	105	80-125	

Type: BSD Lab ID: QC497763

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	112.5	100.5	89	55-151	7	21
Isopropyl Ether (DIPE)	22.50	24.74	110	65-131	4	20
Ethyl tert-Butyl Ether (ETBE)	22.50	23.49	104	75-128	1	20
Methyl tert-Amyl Ether (TAME)	22.50	21.40	95	80-121	0	20
MTBE	22.50	21.81	97	73-122	3	20
1,2-Dichloroethane	22.50	20.62	92	73-141	4	20
Benzene	22.50	24.31	108	80-120	2	20
Toluene	22.50	23.74	106	80-120	4	20
1,2-Dibromoethane	22.50	22.91	102	80-120	2	20
Ethylbenzene	22.50	24.16	107	80-121	6	20
m,p-Xylenes	45.00	49.17	109	80-122	4	20
o-Xylene	22.50	24.29	108	80-120	4	20

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-122
1,2-Dichloroethane-d4	91	77-137
Toluene-d8	101	80-120
Bromofluorobenzene	106	80-125



Gasoline by GC/MS						
Lab #:	212388	Location:	Aspire Schools			
Client:	LFR Levine Fricke	Prep:	EPA 5030B			
Project#:	003-09155-04	Analysis:	EPA 8260B			
Matrix:	Water	Batch#:	151439			
Units:	ug/L	Analyzed:	05/28/09			
Diln Fac:	1.000					

Type: BS Lab ID: QC497764

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	800.0	805.0	101	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-122
1,2-Dichloroethane-d4	92	77-137
Toluene-d8	100	80-120
Bromofluorobenzene	110	80-125

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	800.0	767.8	96	80-120	5	20

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-122
1,2-Dichloroethane-d4	92	77-137
Toluene-d8	97	80-120
Bromofluorobenzene	113	80-125



	C	Gasoline by GC/MS	
Lab #:	212388	Location:	Aspire Schools
Client:	LFR Levine Fricke	Prep:	EPA 5030B
Project#:	003-09155-04	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC497888	Batch#:	151475
Matrix:	Water	Analyzed:	05/29/09
Units:	ug/L		

Analyte	Result	RL	
Gasoline C7-C12	ND	50	
tert-Butyl Alcohol (TBA)	ND	10	
Isopropyl Ether (DIPE)	ND	0.50	
Ethyl tert-Butyl Ether (ETBE)	ND	0.50	
Methyl tert-Amyl Ether (TAME)	ND	0.50	
MTBE	ND	0.50	
1,2-Dichloroethane	ND	0.50	
Benzene	ND	0.50	
Toluene	ND	0.50	
1,2-Dibromoethane	ND	0.50	
Ethylbenzene	ND	0.50	
m,p-Xylenes	ND	0.50	
o-Xylene	ND	0.50	

Surrogate	%REC	Limits
Dibromofluoromethane	97	80-122
1,2-Dichloroethane-d4	91	77-137
Toluene-d8	100	80-120
Bromofluorobenzene	110	80-125

ND= Not Detected RL= Reporting Limit

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	Gas	soline by GC/MS		
Lab #: Client: Project#:	212388 LFR Levine Fricke 003-09155-04	Location: Prep: Analysis:	Aspire Schools EPA 5030B EPA 8260B	
Matrix: Units: Diln Fac:	Water ug/L 1.000	Batch#: Analyzed:	151475 05/29/09	

Type: BS Lab ID: QC497889

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	118.8	116.3	98	55-151
Isopropyl Ether (DIPE)	23.75	26.09	110	65-131
Ethyl tert-Butyl Ether (ETBE)	23.75	25.53	108	75-128
Methyl tert-Amyl Ether (TAME)	23.75	22.85	96	80-121
MTBE	23.75	24.07	101	73-122
1,2-Dichloroethane	23.75	21.26	90	73-141
Benzene	23.75	25.26	106	80-120
Toluene	23.75	25.40	107	80-120
1,2-Dibromoethane	23.75	24.09	101	80-120
Ethylbenzene	23.75	26.35	111	80-121
m,p-Xylenes	47.50	53.00	112	80-122
o-Xylene	23.75	26.00	109	80-120

Surrogate	%REC	Limits	
Dibromofluoromethane	100	80-122	
1,2-Dichloroethane-d4	87	77-137	
Toluene-d8	99	80-120	
Bromofluorobenzene	110	80-125	

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	118.8	121.7	102	55-151	5	21
Isopropyl Ether (DIPE)	23.75	27.11	114	65-131	4	20
Ethyl tert-Butyl Ether (ETBE)	23.75	25.67	108	75-128	1	20
Methyl tert-Amyl Ether (TAME)	23.75	23.21	98	80-121	2	20
MTBE	23.75	24.15	102	73-122	0	20
1,2-Dichloroethane	23.75	20.93	88	73-141	2	20
Benzene	23.75	26.14	110	80-120	3	20
Toluene	23.75	25.56	108	80-120	1	20
1,2-Dibromoethane	23.75	24.49	103	80-120	2	20
Ethylbenzene	23.75	27.86	117	80-121	6	20
m,p-Xylenes	47.50	55.21	116	80-122	4	20
o-Xylene	23.75	26.96	114	80-120	4	20

Surrogate	%REC	Limits	
Dibromofluoromethane	99	80-122	
1,2-Dichloroethane-d4	87	77-137	
Toluene-d8	101	80-120	
Bromofluorobenzene	109	80-125	



	Gasoline by GC/MS						
Lab #:	212388	Location:	Aspire Schools				
Client:	LFR Levine Fricke	Prep:	EPA 5030B				
Project#:	003-09155-04	Analysis:	EPA 8260B				
Matrix:	Water	Batch#:	151475				
Units:	ug/L	Analyzed:	05/29/09				
Diln Fac:	1.000						

Type: BS Lab ID: QC497891

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	900.0	921.1	102	80-120

Surrogate %F	REC	Limits
Dibromofluoromethane 98		80-122
1,2-Dichloroethane-d4 89		77-137
Toluene-d8 100	0	80-120
Bromofluorobenzene 109	9	80-125

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	900.0	865.1	96	80-120	6	20

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-122
1,2-Dichloroethane-d4	90	77-137
Toluene-d8	99	80-120
Bromofluorobenzene	110	80-125



	Ga	asoline by GC/MS		
Lab #:	212388	Location:	Aspire Schools	
Client:	LFR Levine Fricke	Prep:	EPA 5030B	
Project#:	003-09155-04	Analysis:	EPA 8260B	
Type:	BLANK	Diln Fac:	1.000	
Lab ID:	QC498175	Batch#:	151542	
Matrix:	Water	Analyzed:	06/01/09	
Units:	ug/L			

Analyte	Result	RL	
Gasoline C7-C12	ND	50	
tert-Butyl Alcohol (TBA)	ND	10	
Isopropyl Ether (DIPE)	ND	0.50	
Ethyl tert-Butyl Ether (ETBE)	ND	0.50	
Methyl tert-Amyl Ether (TAME)	ND	0.50	
MTBE	ND	0.50	
1,2-Dichloroethane	ND	0.50	
Benzene	ND	0.50	
Toluene	ND	0.50	
1,2-Dibromoethane	ND	0.50	
Ethylbenzene	ND	0.50	
m,p-Xylenes	ND	0.50	
o-Xylene	ND	0.50	

Surrogate	%REC	Limits
Dibromofluoromethane	99	80-122
1,2-Dichloroethane-d4	90	77-137
Toluene-d8	99	80-120
Bromofluorobenzene	112	80-125

ND= Not Detected RL= Reporting Limit Page 1 of 1

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Gasoline by GC/MS						
Lab #: Client: Project#:	212388 LFR Levine Fricke 003-09155-04	Location: Prep: Analysis:	Aspire Schools EPA 5030B EPA 8260B			
Matrix: Units: Diln Fac:	Water ug/L 1.000	Batch#: Analyzed:	151542 06/01/09			

Type: BS Lab ID: QC498176

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	100.0	86.40	86	55-151
Isopropyl Ether (DIPE)	20.00	21.85	109	65-131
Ethyl tert-Butyl Ether (ETBE)	20.00	21.02	105	75-128
Methyl tert-Amyl Ether (TAME)	20.00	18.93	95	80-121
MTBE	20.00	18.99	95	73-122
1,2-Dichloroethane	20.00	17.74	89	73-141
Benzene	20.00	21.51	108	80-120
Toluene	20.00	21.50	108	80-120
1,2-Dibromoethane	20.00	20.52	103	80-120
Ethylbenzene	20.00	22.53	113	80-121
m,p-Xylenes	40.00	45.09	113	80-122
o-Xylene	20.00	22.57	113	80-120

Surrogate	%REC	Limits	
Dibromofluoromethane	98	80-122	
1,2-Dichloroethane-d4	88	77-137	
Toluene-d8	100	80-120	
Bromofluorobenzene	108	80-125	

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	100.0	92.09	92	55-151	6	21
Isopropyl Ether (DIPE)	20.00	21.41	107	65-131	2	20
Ethyl tert-Butyl Ether (ETBE)	20.00	19.83	99	75-128	6	20
Methyl tert-Amyl Ether (TAME)	20.00	18.64	93	80-121	2	20
MTBE	20.00	18.96	95	73-122	0	20
1,2-Dichloroethane	20.00	17.53	88	73-141	1	20
Benzene	20.00	21.68	108	80-120	1	20
Toluene	20.00	21.28	106	80-120	1	20
1,2-Dibromoethane	20.00	20.46	102	80-120	0	20
Ethylbenzene	20.00	22.40	112	80-121	1	20
m,p-Xylenes	40.00	44.90	112	80-122	0	20
o-Xylene	20.00	22.36	112	80-120	1	20

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-122
1,2-Dichloroethane-d4	89	77-137
Toluene-d8	100	80-120
Bromofluorobenzene	110	80-125



	Gas	oline by GC/MS		
Lab #:	212388	Location:	Aspire Schools	
Client:	LFR Levine Fricke	Prep:	EPA 5030B	
Project#:	003-09155-04	Analysis:	EPA 8260B	
Matrix:	Water	Batch#:	151542	
Units:	ug/L	Analyzed:	06/01/09	
Diln Fac:	1.000			

Type: BS Lab ID: QC498178

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	700.0	772.6	110	80-120

Surrogate	%REC	Limits
Dibromofluoromethane 9	16	80-122
1,2-Dichloroethane-d4 9	0	77-137
Toluene-d8 9	8	80-120
Bromofluorobenzene 1:	.12	80-125

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	700.0	739.6	106	80-120	4	20

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Surrogate	%REC	Limits
Dibromofluoromethane	97	80-122
1,2-Dichloroethane-d4	92	77-137
Toluene-d8	99	80-120
Bromofluorobenzene	109	80-125



Gasoline by GC/MS							
Lab #:	212388	Location:	Aspire Schools				
Client:	LFR Levine Fricke	Prep:	EPA 5030B				
Project#:	003-09155-04	Analysis:	EPA 8260B				
Type:	BLANK	Diln Fac:	1.000				
Lab ID:	QC498323	Batch#:	151583				
Matrix:	Water	Analyzed:	06/02/09				
Units:	ug/L						

Analyte	Result	RL	
Gasoline C7-C12	ND	50	
tert-Butyl Alcohol (TBA)	ND	10	
Isopropyl Ether (DIPE)	ND	0.50	
Ethyl tert-Butyl Ether (ETBE)	ND	0.50	
Methyl tert-Amyl Ether (TAME)	ND	0.50	
MTBE	ND	0.50	
1,2-Dichloroethane	ND	0.50	
Benzene	ND	0.50	
Toluene	ND	0.50	
1,2-Dibromoethane	ND	0.50	
Ethylbenzene	ND	0.50	
m,p-Xylenes	ND	0.50	
o-Xylene	ND	0.50	

Surrogate	%REC	Limits
Dibromofluoromethane	99	80-122
1,2-Dichloroethane-d4	91	77-137
Toluene-d8	102	80-120
Bromofluorobenzene	110	80-125

ND= Not Detected RL= Reporting Limit Page 1 of 1

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17.0



	Gas	oline by GC/MS		
Lab #: Client: Project#:	212388 LFR Levine Fricke 003-09155-04	Location: Prep: Analysis:	Aspire Schools EPA 5030B EPA 8260B	
Matrix: Units: Diln Fac:	Water ug/L 1.000	Batch#: Analyzed:	151583 06/02/09	

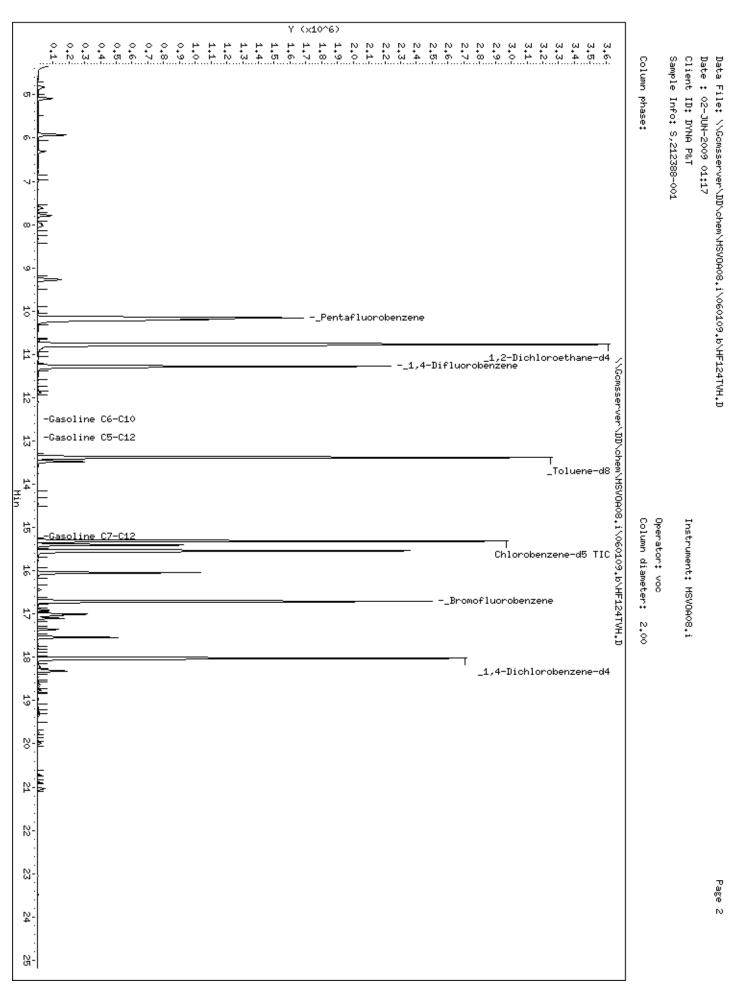
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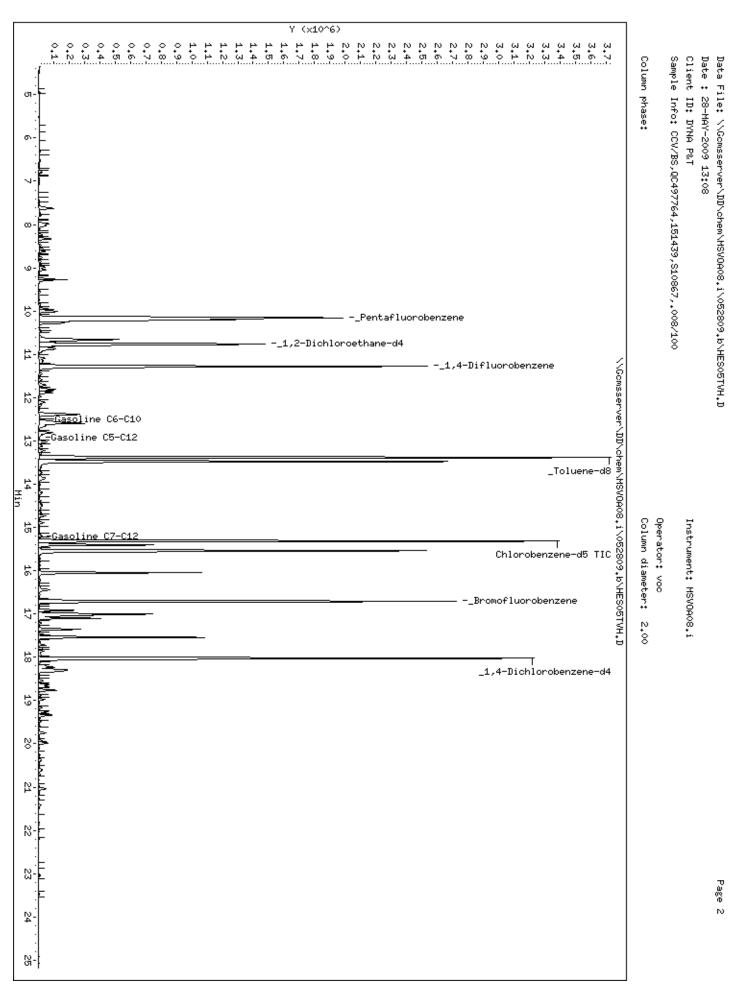
Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	106.3	105.3	99	55-151
Isopropyl Ether (DIPE)	21.25	23.34	110	65-131
Ethyl tert-Butyl Ether (ETBE)	21.25	22.17	104	75-128
Methyl tert-Amyl Ether (TAME)	21.25	20.34	96	80-121
MTBE	21.25	20.80	98	73-122
1,2-Dichloroethane	21.25	18.57	87	73-141
Benzene	21.25	22.85	108	80-120
Toluene	21.25	22.82	107	80-120
1,2-Dibromoethane	21.25	21.59	102	80-120
Ethylbenzene	21.25	23.98	113	80-121
m,p-Xylenes	42.50	48.40	114	80-122
o-Xylene	21.25	23.85	112	80-120

Surrogate	%REC	Limits	
Dibromofluoromethane	99	80-122	
1,2-Dichloroethane-d4	89	77-137	
Toluene-d8	99	80-120	
Bromofluorobenzene	110	80-125	

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	106.3	103.7	98	55-151	2	21
Isopropyl Ether (DIPE)	21.25	23.14	109	65-131	1	20
Ethyl tert-Butyl Ether (ETBE)	21.25	22.20	104	75-128	0	20
Methyl tert-Amyl Ether (TAME)	21.25	20.03	94	80-121	2	20
MTBE	21.25	20.89	98	73-122	0	20
1,2-Dichloroethane	21.25	18.62	88	73-141	0	20
Benzene	21.25	22.14	104	80-120	3	20
Toluene	21.25	21.94	103	80-120	4	20
1,2-Dibromoethane	21.25	22.02	104	80-120	2	20
Ethylbenzene	21.25	23.22	109	80-121	3	20
m,p-Xylenes	42.50	46.91	110	80-122	3	20
o-Xylene	21.25	23.23	109	80-120	3	20

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-122
1,2-Dichloroethane-d4	89	77-137
Toluene-d8	98	80-120
Bromofluorobenzene	111	80-125







Project No. 003-69155-00 Client Name: ASPIRE SCHOOL			Well I.D.: <u>AS - 6.T</u>
Location: Loca 6674 AVE		Vhat QA Samples?:	
Date Purged: _ 5 75 তিন	Start (2400hr): 16	22 End (2400hr)	1708
			Other
Casing Diameter: Casing Volume: (gallons per foot)	2"	5" 6" (1.02) (1.50)	8"
Total depth (feet) =	_O_7 Calcula	ng Volume (gal) = ated Purge (gal) = stual Purge (gal) =	(3 casing vols.)
	FIELD MEASU	IREMENTS	
Time Volume (2400hr) (gal)  5/26/09 1630 ~6.2  11 1636 ~0.4  11 1639 ~  11 1645 ~0.5  11 1645 ~0.5  11 1645 ~0.5  11 1700 SAMPI  PURGING EQU	Temp. (degrees C) (umhos/cm) 21-60 1533 21-62 1531 21.55 1529 2147 1527 71.39 1526 21.31 1525 WPG-E ALLOWED TO	pH Color (units) (visual) 7-29 CCBAR 7-28 11 7-28 11 7-29 4 7-29 4 7-27 11 7-27 11 CECLARES	-145.9 0.52 3.72 -147.0 0.46 3.76 -146.9 0.37 3.81
Well Wizard Bladder Pump Active Extraction Well Pump Submersible Pump Peristaltic Pump Other: (ml/min)	Bailer (disposable) Bailer (PVC) Bailer (Stainless Steel) X Dedicated NGING- FLOW RASE SET TO MINIMUM	WW Bladder Pump Sample Port Submersible Pump Yeristaltic Pump Other:	Bailer (disposable) Bailer (PVC) Bailer (Stainless Steel) Dedicated: 10 SMC
Analyses: TRY-CA3, BTEA, OXYS BY 8260 B  Sample Vessel / Preservative: 3 Vofts which Odor: Nove my Purce water HAS Sour Obor:			
Well Integrity: OK _ Remarks: INSCREED TUBING (20 \$4 )			
Signature:			Page 1 of <u></u>

File: GW Field data sheet Low Flow sampling (rev Apr09).doc





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Project No. 003-67(55-04 Purged By: 10.00005 Well I.D.: A5-7I  Client Name: Asvice Schools Sampled By: 11 Sample I.D.: A5-7I  Location: 1009 674 AVA SAKUAND, CA What QA Samples?:	
Date Purged:       5 26 09       Start (2400hr):       1723       End (2400hr):       1800         Date Sampled:       17       Sample Time (2400hr):       1753	
Casing Diameter: 2"	
Total depth (feet) = Casing Volume (gal) = (3 casing vols.)  Depth to water (feet) = (3 casing vols.)  Water column height (feet) = Actual Purge (gal) = (7)	
FIELD MEASUREMENTS  Time Volume Temp. Conductivity pH Color ORP DO DTW (2400hr) (gal) (degrees C) (umhos/cm) (units) (visual) (mV) (mg/l) (ft bgs)  5/2/101 1734 - 0-3 20-66 2311 7.27 CL542 - 3.5 0.69 3.84  1737 - 20.58 2329 7.25 11 -1.5 0.54 3.86  1740 -0.4 20.56 2327 7.24 11 -1.8 0.44 3.88  1748 -0.5 20.47 2318 7.24 11 -1.8 0.44 3.88  1779 - 20.35 2327 7.23 11 20.33 3.90  1755 SAMPLE - 0.1 20.33 2330 7.23 11 3.4 0.27 3.12	1 <b>3</b> .9
DUDOING FOLUDATAT	-
PURGING EQUIPMENT SAMPLING EQUIPMENT	
Well Wizard Bladder Pump Bailer (disposable)  Active Extraction Well Pump Bailer (PVC) Submersible Pump Bailer (Stainless Steel)  Yeristaltic Pump Dedicated TIBING Other:  Pumping Rate:(mi/min)  Bailer (disposable) Sample Port Bailer (PVC) Submersible Pump Bailer (Gisposable) Sample Port Pumping Rater Pump Bailer (disposable)  Yeristaltic Pump Dedicated: TUBING Other:  Other:	
Analyses: TPH-GAS BTXX, 0x45 BY 8260 Sample Vessel / Preservative: 3 VDAS W/HCL Odor: Nove	
Well Integrity: OK,  Remarks: NSGVED 7VB/WC	
Signature: Page 1 of (	



Project No. 003 - 09155-04 Purged By: M. Johns Well I.D.: MW-1  Client Name: ASPIRE SCHOOLS Sampled By: C. Sample I.D.: MW-1  Location: [009 66 TH AVE, OMKCAND, CA What QA Samples?: DVP-1						
Date Purged:       5 26 09       Start (2400hr):       \$\hat{1353}\$       End (2400hr):       \$\hat{1436}\$         Date Sampled:       14 36       \$\hat{1436}\$       \$\hat{1436}\$						
	Other					
	5" 6" 8" (1.02) (1.50) (2.60) ( )					
Total depth (feet) = Casing Volume (gal) = (3 casing vols.)  Depth to water (feet) = Calculated Purge (gal) = (3 casing vols.)  Water column height (feet) = Actual Purge (gal) =						
FIELD MEASU	IREMENTS					
Time   Volume   Temp.   Conductivity	pH					
Submersible Pump Submer	Peristaltic Pump Dedicated: NRINIC  Other:					
Analyses: TPH-CAS BIEN, OXYS BI BZ60B Sample Vessel / Preservative: 3 VaAs W/MCL 4 DUP Odor: Navy						
Well Integrity: 0 ←						
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ONOONDWATEN SAME	LETTELD DATA OFFICE	
Project No. DCZ - 59155 - 0 4 Purged By: No. Client Name: ASPIRE SCHOOLS Sampled By:		
Location: 1009 66 TH AVE, DAKLAND, CA	What QA Samples?:	
Date Purged:         5         26         Start (2400hr):         14           Date Sampled:         14         Sample Time (2400hr):         156	43 End (2400hr): 15	14
Coolea Diameter, 2º (7 2º 4º	52 O2 O4	Other
Casing Diameter: 2" 3" 4" 4" Casing Volume: (gallons per foot) (0.17) (0.38) (0.67)	(1.02) (1.50) (2.60)	( )
	ng Volume (gal) =ated Purge (gal) =	(3 casing vols.)
Water column height (feet) ≈ Ac	ctual Purge (gal) = 0 7	NOPOLIPRIA MI
FIELD MEASU	JREMENTS	
Time Volume Temp. Conductivity Date (2400hr) (gal) (degrees C) (umhos/cm)  \$\frac{126}{26} \text{ 145.5} \times 0.3  18.41  116.6  145.5  0.5  18.31  116.5  145.5  0.5  18.31  116.4  150.5  5AMP(6)	7.33 CLEAR 46 7.33 10 -0.6 7.32 11 -2.6	(mg/l) (ft bgs)  0.64 3.59  0.42 3.60  0.35 3.61
	<b>A</b>	
PURGING EQUIPMENT SAMPLING EQUIPMENT		
Well Wizard Bladder Pump	WW Bladder Pump Bailer (disposable) Sample Port Bailer (PVC) Submersible Pump Bailer (Stainless Steel)  ★ Peristaltic Pump Dedicated:	
Analyses: TPH-GAS BTEX, SXYS Sample Vessel / Preservative: 3 VDAS WHUL		
Well Integrity: OK - BOLTS STRIPPED (1/2")  Remarks:		
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GROUNDWATER SAME		-		
Project No. 103-0955-04 Purged By: M.S. Client Name: Affire SCHOOLS Sampled By: 1	Sample Sample	H.D.: <u>NW -3 S</u> H.D.: <u>NW -3 S</u>		
Location: 1039 6174 AVE, OMKLAND, CA	What QA Samples?:			
Date Purged: 5 25 5 Start (2400hr): 15	28 End (2400hr): _	1406		
Casing Diameter: 2" 3" 4" Casing Volume: (gallons per foot) ( 0.17) (0.38) (0.67)		Other  2.60) ( )		
Depth to water (feet) = 2.9.7 Calcu	ing Volume (gal) = lated Purge (gal) = ctual Purge (gal) =	(3 casing vols.)		
FIELD MEAS	UREMENTS			
Time Volume Temp. Conductivity (2400hr) (gal) (degrees C) (umhos/cm)  5/26/09 1536 ~ 6.3 20.14 579  11 1545 ~ 0.6 20.25 514  12 1545 ~ 0.6 70.26 499  11 1548 ~ 0.7 70.26 491		ORP DO DTW (mV) (mg/l) (ft bgs)  33.0 0.9/ 3.38  34.5 0.55 3.51  33.6 0.52 3.60  32.5 0.50 3-65		
PURGING EQUIPMENT	SAMPLING EQUIPMENT			
Well Wizard Bladder Pump  Active Extraction Well Pump  Submersible Pump  Peristaltic Pump  Other: Bailer (disposable)  Bailer (PVC)  Bailer (Stainless Steel)  X Dedicated X\\(\text{Strict}\)  \(\text{Continuous}\)	WW Bladder Pump Sample Port Submersible Pump Peristaltic Pump Other:	Bailer (disposable) Bailer (PVC) Bailer (Stainless Steel) Dedicated: TUBING		
Pumping Rate: 105 (ml/min)				
Analyses: TPN-CAS, BTEX, CXI Sample Vessel / Preservative: 3 VOAs W/HCL				
Well Integrity: OK,  Remarks: VENY POOR RECHARCE MINIMAR  REPORCED T	WATER PEROVERY E	S MINS AFTER PURCHING		
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