RECEIVED
By Alameda County Environmental Health at 2:23 pm, Dec 20, 2013

Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502-6577

Re: ARC Document Solutions (Formerly City Blue Print)
RWQCB Case#01-0210
1700 Jefferson St
Oakland CA, 94612

ARC had directed AWR Corporation to provide, on our behalf, professional environmental consulting services to the best of their ability. To the best of my knowledge the information in this report is accurate and all local Agency and/or Regional Water Quality Control Board regulations and guidelines have been followed.

This report was prepared by AWR Corporation and ARC has relied on their advice and assistance. I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Sincerely,

Authorized Representative
Attachment: Report

APPLIED WATER RESOURCES
CORPORATION

1600 Riviera Avenue, Suite 310, Walnut Creek, California 94596
925 426 1112

November 27, 2013

Rosalia Goddard
ARC Document Solutions
945 Bryant Street
San Francisco, CA 94103

RE: Semi-Annual Ground Water Monitoring Report
1700 Jefferson Street, Oakland, California
Fuel Leak Case No. RO 151

Dear Ms. Goddard:

Applied Water Resources (AWR) encloses herein one copy of the Semi-Annual Ground Water Monitoring Report for 1700 Jefferson Street, Oakland, California. AWR will also upload the Report along with monitor well sampling and analytical data to the Regional Water Quality Control Board's GeoTracker database.

If you have any questions regarding this report or the findings of the work, please contact me at (925) 426-1112 or email me at tfulmer@awrcorp.net

Sincerely,

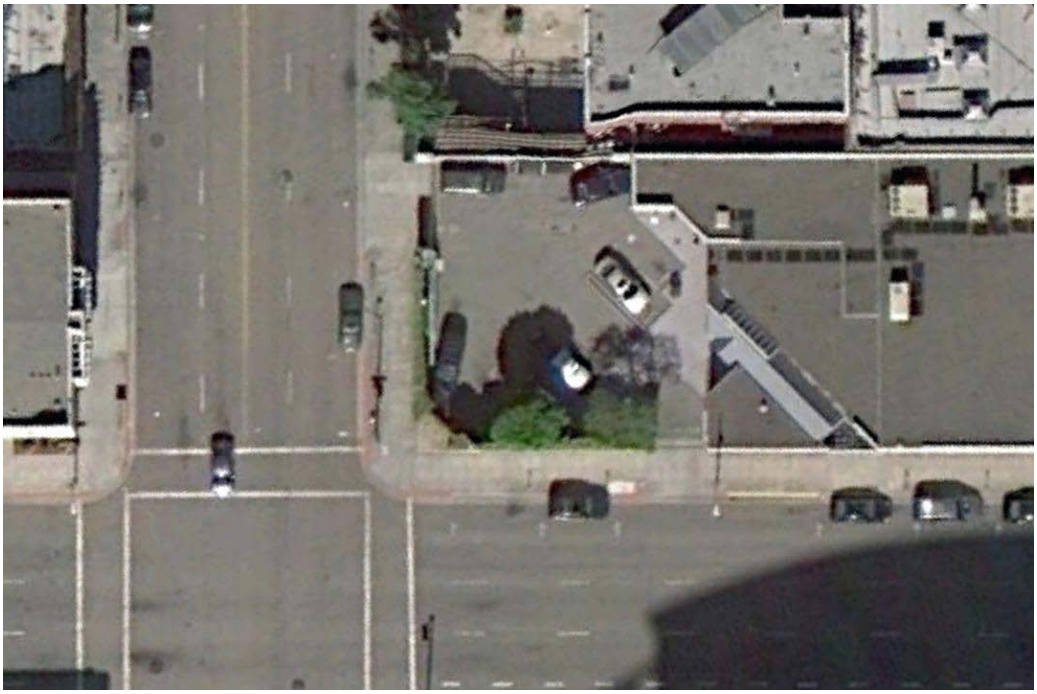
Tyson Fulmer, PG
Project Geologist

cc: Ms. Dilan Roe, Alameda County Department of Environmental Health

SEMI-ANNUAL GROUND WATER MONITORING REPORT

1700 Jefferson, Oakland, CA

December 2013



APPLIED WATER RESOURCES

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SEMI-ANNUAL

GROUND WATER MONITORING REPORT

November 2013

1700 Jefferson Street

Oakland, California

Prepared for:

ARC Document Solutions
945 Bryant Street
San Francisco, CA 94103

Prepared by:
Applied Water Resources Corporation
Walnut Creek, California

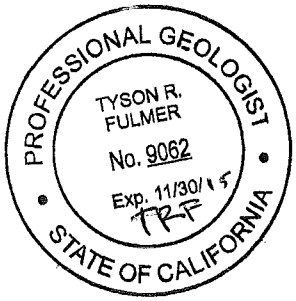
December 2013

Prepared By:

Yola Bayram
Staff Geologist

Reviewed By:

Tyson Fulmer, PG
Project Geologist



1.0 INTRODUCTION

This Semi-Annual Ground Water Monitoring Report was prepared by Applied Water Resources Corporation (AWR) on behalf of ARC Document Solutions. This Report describes ground water monitoring work performed at 1700 Jefferson Street, Oakland, California (Site). The project objectives were to sample and analyze ground water from five existing monitor wells, measure the depth to ground water in all existing wells to calculate ground water gradient magnitude and direction, evaluate analytical results, and report the findings.

2.0 BACKGROUND AND SITE HISTORY

The Site is located on the northeast corner of the intersection of Jefferson Street and 17th Street in Oakland, California. The Site is a former gas station that had two 1,000 gallon gasoline underground storage tanks (USTs) and one 550 gallon waste oil UST. On February 20, 1987, three borings (Borings 1 through 3) were advanced for a geotechnical investigation. Two additional borings (Borings 4 and 5) were advanced near the former USTs. On June 16, 1987, three gasoline USTs, product lines and dispensers were removed, overexcavated, and backfilled without confirmation sampling. Soil was excavated to approximately 9.5 feet, which was the maximum reach of the excavation equipment. The soil was stockpiled and then spread out for aeration. The excavation was subsequently backfilled on August 5 and 6, 1987 with the aerated soil.

Three ground water monitor wells were installed in June 1987 (MW-1 to MW-3) and well MW-1 initially contained 30 inches of free-phase floating product (free product). Well MW-2 was subsequently destroyed in 1987 when the current building was constructed. On August 12, 1987, Boring 6 was advanced to investigate soil permeability. In January 1988, ground water extraction wells MW-1A and MW-4 were installed to remove free product. In August 1988, off-site well MW-5 was installed.

Free product was removed from well MW-1 on a daily basis yielding an estimated 2,300 gallons of free product from September 1987 to March 1991. A ground water extraction and treatment system was installed in June 1992. The system was removed in July 1999, after extracting an additional 867 gallons of free product. Five Cone Penetrometer Test (CPT) borings both south of the Site and north of well MW-5 were advanced in March 1995. In April 1996, well MW-6 was installed. In April 1998, analyses showed the free product consisted of leaded gasoline. Measurable thickness of free product has not been observed in the wells since 1999.

In 1999, oxygen release compound (ORC®) socks were placed in wells MW-1A, MW-3, MW-4, and MW-5. The ORC® socks were removed at the request of Alameda County Department of Environmental Health in 2002.

Quarterly ground water monitoring of wells MW-1, MW-3, MW-5, and MW-6 has been conducted from January 1994 through March 2009, when semi-annual monitoring commenced. Ground water extraction wells MW-1A and MW-4 were periodically sampled from August 1991 to June 1999.

On April 15, 2010, all monitor wells were surveyed by Muir Consulting of Oakdale, California to Geotracker specifications using NAVD88 datum. The prior monitor well elevations referenced the City of Oakland datum, which differs -5.7 feet from NAVD88, the standard national datum.

In April of 2011, three wells were installed at the Merrill Sign Company, a RWQCB site located on the corner of 18th and Jefferson St (PDE, 2011). AWR coordinated with PDE to measure depth to water and collected ground water samples in the monitor wells at both sites. The Merrill Site was given case closure on July 31, 2012 and the monitor wells were destroyed shortly after.

2.1 Subsurface Conditions

Boring logs show that silty sand and clayey sand are present from the surface to a depth of approximately 17.5 feet below ground surface (bgs). Sand was reported in site soil borings and well logs from approximately 17.5 to 31.0 feet bgs with the exception of MW-5 where sand was reported from the surface to 31.0 feet bgs with a layer of silty sand from 6 to 12 feet bgs. These soils are underlain by stiff to very stiff, saturated silty clays to the maximum explored depth of 41.5 feet bgs. Ground water was encountered at approximately 23 feet bgs in the boreholes.

3.0 GROUND WATER MONITORING AND SAMPLING

Ground water monitoring and sampling of the Site was performed on September 12, 2013 by AWR personnel. Work at the Site included measuring depth to water, subjectively evaluating the possible presence of petroleum in ground water in the wells, purging and sampling the wells using ASTM low-flow sampling techniques, and submitting the samples under chain of custody to a state-certified laboratory for analysis.

Ground water elevation data are summarized in Table 1, gradient data are summarized in Table 2, and analytical data are summarized in Table 3. Field sheets of recently recorded ground water monitoring data are included in Appendix A

3.1 Ground Water Monitoring

Before purging and sampling ground water, depth to water was measured from the top of each well casing using an electronic water level meter. The water level measurements were recorded to the nearest 0.01 foot.

3.2 Ground Water Gradient

Ground water elevation contours are illustrated on Figure 3. The ground water gradient direction is to the west-northwest at an average of 0.002 ft/ft. A rose diagram depicting cumulative ground water gradients is presented in Figure 6.

3.3 Ground Water Sampling

Before ground water sampling, each well was purged using low-flow techniques described in the "Low-Flow (Minimal Drawdown) Ground Water Sampling Procedures" (ASTM No 6771-02, 2002). Dedicated tubing, attached to a peristaltic pump, was lowered to the mid-point of the reported screen zone. The pump was set to a rate of less than 1 liter per minute and pH, dissolved oxygen (DO), specific conductance (SC), oxidation reduction potential (ORP), depth to water (DTW) and temperature were measured in three to five minute intervals within a flow-through cell. When depth to water remained constant and parameters stabilized to within ±10% in consecutive readings, the pump rate was reduced, the tube was disconnected from the flow-through cell and samples were collected directly from the dedicated tubing.

From each monitor well, four laboratory-supplied 40-milliliter HCL-preserved sample vials were filled with ground water and sealed with zero headspace. Once filled, sample vials were inverted and tapped to test for air bubbles. Sample containers were labeled and stored in a pre-chilled, insulated container and returned to AWR's Walnut Creek office where they were stored at 4°C. The samples were transported to TestAmerica, a state-certified analytical laboratory, following standard COC protocols for the requested analyses.

Water purged during the development and sampling of the monitor wells is being temporarily stored onsite in a 55-gallon drum pending laboratory analysis and off-site disposal.

4.0 RESULTS OF GROUND WATER SAMPLING

Ground water samples collected from wells MW-1, MW-3, MW-4, MW-5, and MW-6 were analyzed for Total Petroleum Hydrocarbon as Gasoline (TPHg), benzene, toluene, ethylbenzene, total xylenes (BTEX), and methyl tertiary butyl ether (MTBE) by EPA Method 8260B. The TPHg number represents the total concentration of hydrocarbons in the C7 to C12 carbon chain range, using a laboratory response factor calibrated to a gasoline standard. Copies of the chain of custody record and laboratory analytical reports with individual and standard chromatograms are included as Appendix B. TPHg, BTEX, and MTBE analytical results are summarized in Table 3.

5.0 DISCUSSION

The available data collected at 1700 Jefferson Street indicates that ground water has been affected by fuel from the former USTs. In Table 3, ground water concentrations are compared to RWQCB Environmental Screening Levels (ESLs) (Revised May, 2013). Ground water use as a potential source of drinking water in this area is highly unlikely due to the site location and the high quality public drinking water supplied by EBMUD. Therefore, ground water ESLs for evaluation of potential vapor intrusion were selected for BTEX compounds. Because there is no vapor intrusion ESL listed for TPHg, the drinking water quality goal is listed instead.

Charts 1 and 2 depict the trends of TPHg and benzene respectively in the monitor wells MW-1, MW-3, and MW-5 over time. Figures 4 and 5 show the distribution of TPHg and benzene in ground water at the Site.

6.0 SUMMARY

Based on the results of ground water monitoring performed at 1700 Jefferson Street:

- Ground water gradient direction is to the west-northwest at an average of 0.002 ft/ft.
- Compared to the concentrations measured in March 2013, benzene decreased in MW-1 and MW-5, but increased in all remaining wells in the September monitoring event. TPHg concentrations decreased in MW-1 and increased in all other wells.
- No detectable TPHg and BTEX concentrations were reported in the downgradient well MW-6.
- From 1999 to 2012, concentrations of TPHg, benzene, toluene, and total xylenes all decreased by an order of magnitude in MW-4.
- Despite seasonal fluctuations, concentrations in ground water have remained relatively stable over the past 10 years as depicted in Charts 1 and 2.

7.0 REFERENCES

ASTM 2002. *Standard Practice for Low-Flow Purging and Sampling for Wells and Devices Used for Ground-Water Quality Investigations.* Designation: D 6771-02

California Regional Water Quality Control Board Region 2 – Environmental Screening Levels, San Francisco Bay Regional Water Quality Control Board, California Environmental Protection Agency, 2008

P&D Environmental (PDE), Ground Water Monitoring Well Installation Report, Merrill Sign Company, May 2011

TABLES

Table 1
GROUND WATER ELEVATIONS
1700 Jefferson Street, Oakland, California

1700 Jefferson St, ARC Document Solutions

Well ID	MW-1		MW-1A		MW-3		MW-4		MW-5		MW-6	
Top of Casing (ft above MSL)	36.81		35.25		36.23		36.77		35.21		35.91	
Date	DTW (ft bgs)	GWE (ft bgs)	DTW (ft bgs)	GWE (ft bgs)	DTW (ft bgs)	GWE (ft bgs)	DTW (ft bgs)	GWE (ft bgs)	DTW (ft bgs)	GWE (ft bgs)	DTW (ft bgs)	GWE (ft bgs)
7/8/1987	25.75	5.69	--	--	25.50	6.27	--	--	--	--	--	--
7/12/1989	26.00	5.44	--	--	24.44	7.33	--	--	24.91	4.31	--	--
Data not available from 1990 to 1995												
3/6/1996	NS	--	--	--	24.79	6.98	--	--	23.53	7.03	NA	---
6/11/1996	FP	--	--	--	25.60	6.17	--	--	23.78	6.78	25.16	6.10
9/19/1996	FP	--	--	--	26.09	5.68	--	--	24.48	6.08	25.76	5.50
12/23/1996	FP	--	--	--	FP	---	--	--	24.83	5.73	25.88	5.38
3/27/1997	FP	--	--	--	FP	---	--	--	23.82	6.74	24.78	6.48
6/4/1997	26.41	5.95	--	--	25.11	6.66	--	--	23.92	6.64	24.60	6.66
9/26/1997	26.80	5.56	--	--	25.41	6.36	--	--	24.29	6.27	24.80	6.46
12/22/1997	26.00	6.36	--	--	24.91	6.86	--	--	24.02	6.54	24.71	6.55
3/31/1998	26.06	6.30	--	--	24.05	7.72	--	--	22.78	7.78	23.75	7.51
6/18/1998	25.60	6.76	--	--	23.71	8.06	--	--	22.51	8.05	23.22	8.04
8/28/1998	25.45	6.91	--	--	23.70	8.07	--	--	22.74	7.82	22.23	9.03
12/2/1998	24.92	7.44	--	--	23.60	8.17	--	--	23.16	7.40	23.72	7.54
3/10/1999	24.90	7.46	--	--	22.65	9.12	--	--	22.82	7.74	23.54	7.72
6/30/1999	25.53	6.83	--	--	23.07	8.70	--	--	22.41	8.15	23.04	8.22
9/29/1999	24.23	8.13	--	--	23.03	8.74	--	--	22.81	7.75	23.42	7.84
11/22/1999	24.33	8.03	--	--	23.68	8.09	--	--	22.88	7.68	23.64	7.62
2/11/2000	24.38	7.98	--	--	23.74	8.03	--	--	22.74	7.82	23.67	7.59
5/30/2000	23.57	8.79	--	--	22.97	8.80	--	--	21.73	8.83	22.82	8.44
9/15/2000	23.85	8.51	--	--	23.12	8.65	--	--	22.14	8.42	23.10	8.16
11/16/2000	24.14	8.22	--	--	23.40	8.37	--	--	22.39	8.17	23.41	7.85
4/2/2001	23.40	8.96	--	--	23.40	8.37	--	--	22.07	8.49	23.33	7.93
6/28/2001	23.58	8.78	--	--	23.17	8.60	--	--	22.15	8.41	23.15	8.11
8/30/2001	24.00	8.36	--	--	23.35	7.42	--	--	22.35	8.21	23.35	7.91
12/26/2001	24.18	8.18	--	--	23.54	8.23	--	--	22.49	8.07	23.27	7.99
4/23/2002	NA	--	--	--	22.89	8.88	--	--	21.07	9.49	22.89	8.37
6/14/2002	23.41	8.95	--	--	22.85	8.92	--	--	21.80	8.76	22.81	8.45
8/20/2002	23.85	8.51	--	--	23.11	8.66	--	--	22.14	8.42	23.15	8.11
12/27/2002	24.10	8.26	--	--	23.34	8.43	--	--	NA[1]	NA[1]	23.41	7.85
4/1/2003	23.75	8.61	--	--	22.90	8.87	--	--	NA[1]	NA[1]	23.16	8.10
7/1/2003	23.50	8.86	--	--	22.80	8.97	--	--	NA[1]	NA[1]	22.75	8.51
9/24/2003	23.82	8.54	--	--	23.15	8.62	--	--	22.21	8.35	23.16	8.10
12/29/2003	24.07	8.29	--	--	23.45	8.32	--	--	22.56	8.00	23.47	7.79
5/18/2004	23.64	8.72	--	--	22.98	8.79	--	--	21.85	8.71	22.87	8.39
6/30/2004	23.64	8.72	--	--	23.04	8.73	--	--	22.00	8.56	22.43	8.83
9/23/2004	23.98	8.38	--	--	23.32	8.45	--	--	22.36	8.20	23.30	7.96
12/28/2004	24.07	8.29	--	--	28.71	3.06	--	--	22.42	8.14	23.42	7.84
3/16/2005	23.80	8.56	--	--	23.70	8.07	--	--	22.11	8.45	23.60	7.66
6/23/2005	22.90	9.46	--	--	22.40	9.37	--	--	21.20	9.36	22.27	8.99
9/9/2005	23.27	9.09	--	--	22.63	9.14	--	--	21.68	8.88	22.55	8.71
12/2/2005	23.75	8.61	--	--	23.06	8.74	--	--	22.19	8.37	23.05	8.21
3/24/2006	23.05	9.31	--	--	22.57	9.20	--	--	21.01	9.55	22.50	8.76
6/29/2006	22.56	9.80	--	--	23.91	9.84	--	--	20.78	9.78	21.85	9.41
9/13/2006	23.00	9.36	--	--	22.35	9.42	--	--	21.35	9.21	22.31	8.95
12/27/2006	23.47	8.89	--	--	22.82	8.95	--	--	21.82	8.74	22.85	8.41
3/30/2007	23.51	8.85	--	--	22.91	8.86	--	--	21.70	8.86	22.88	8.38
7/2/2007	23.39	8.97	--	--	22.88	8.89	--	--	21.81	8.75	22.75	8.51
10/2/2007	23.87	8.49	--	--	23.20	8.57	--	--	22.22	8.34	23.17	8.09
12/13/2007	24.05	8.31	--	--	23.40	8.37	--	--	22.31	8.25	23.37	7.89
3/26/2008	23.56	8.80	--	--	23.00	8.77	--	--	21.77	8.79	22.97	8.29
6/2/2008	23.70	8.66	--	--	23.08	8.69	--	--	22.04	8.52	23.07	8.19
9/10/2008	24.07	8.29	--	--	23.55	8.22	--	--	22.52	8.04	23.49	7.77
11/19/2008	24.33	8.03	--	--	23.68	8.09	--	--	22.63	7.93	23.64	7.62
3/3/2009	24.31	8.05	--	--	23.78	7.99	--	--	22.51	8.05	22.51	7.51
9/3/2009	24.16	8.20	--	--	23.55	8.22	--	--	22.36	8.20	23.49	-15.44
3/3/2010	23.99	12.82	22.42	12.83	23.45	12.78	23.87	12.90	22.14	13.07	23.49	12.42
9/8/2010	23.75	13.06	22.31	12.94	23.09	13.14	23.63	13.14	22.05	13.16	23.11	12.80
3/16/2011	23.63	13.18	22.09	13.16	23.05	13.18	23.55	13.22	21.85	13.36	23.06	12.85
9/9/2011	23.16	13.65	21.64	13.61	22.50	13.73	23.06	13.71	21.57	13.64	22.50	13.41
4/12/2012	23.42	13.39	21.89	13.36	22.79	13.44	23.33	13.44	21.69	13.52	22.83	13.08
10/10/2012	23.61	13.20	--	--	22.90	13.33	23.47	13.30	22.02	13.19	22.95	12.96
3/25/2013	23.54	13.27	22.10	13.15	22.84	13.39	23.40	13.37	21.94	13.27	22.92	12.99
9/12/2013	24.07	12.74	22.53	12.72	23.35	12.88	23.95	12.82	22.52	12.69	23.43	12.48

612 18th St, Merrill Sign Company

	MW-1		MW-2		MW-3	
	34.62		34.57		34.72	
	DTW (ft bgs)	GWE (ft bgs)	DTW (ft bgs)	GWE (ft bgs)	DTW (ft bgs)	GWE (ft bgs)
4/25/2011	21.18	13.44	21.21	13.36	21.61	13.11
7/25/2011	21.22	13.40	21.14	13.43	21.54	13.18
9/9/2011	21.51	13.11	21.39	13.18	21.79	12.93
4/12/2012	21.58	13.04	21.56	13.01	21.76	12.96

Notes:

NS: Not Sampled
FP: Free Product
NA: Not Available
MSL: Mean sea level
ft: feet
bgs: below ground surface
1: Data not available due to ORC socks in well
2: Data not available due to probable equipment malfunction or operator error
Well elevations prior to 2010 are in City of Oakland Datum; After 2010, all elevations are in NAVD 88 Datum.

Table 2
GROUND WATER GRADIENT AND FLOW DIRECTION
1700 Jefferson Street, Oakland, California

Date Monitored	Ground Water Gradient	Ground Water Direction
6/11/1996	0.003	SW
6/4/1997	0.009	NW
3/31/1998	0.002	W
8/28/1998	0.007	E
12/2/1998	0.006	NW
3/10/1999	0.011	NW
9/29/1999	0.004	NW
2/11/2000	0.001	NW
5/30/2000	0.003	W
11/16/2000	0.044	W
4/2/2001	0.001	SW
6/28/2001	0.005	SW
8/30/2001	0.004	SW
4/23/2002	0.006	W-SW
6/14/2002	0.004	W- SW
8/20/2002	0.005	W- SW
12/27/2002	0.005	W- SW
4/1/2003	0.007	W- SW
7/1/2003	0.006	W-NW
9/24/2003	0.005	W-NW
12/29/2003	0.003	W-NW
5/18/2004	0.006	W
6/30/2004	0.002	N
9/23/2004	0.005	W
12/28/2004	0.0451	SE[1]
3/16/2005	0.01	SW
6/23/2005	0.005	W
9/9/2005	0.005	W
12/2/2005	0.006	NW
3/24/2006	0.006	NW
9/13/2006	0.005	W-NW
12/13/2007	0.004	W-NW
3/26/2008	0.004	W
6/2/2008	0.004	W
9/10/2008	0.005	W
3/3/2009	0.004	W
9/3/2009	0.003	W-NW
3/3/2010	0.002	SW
9/8/2010	0.0015	W-SW
3/16/2011	0.0024	W-SW
9/9/2011	0.0031	NW
4/12/2012	0.004	NW
10/10/2012	0.0027	W-NW
3/25/2013	0.003	W-NW
9/12/2013	0.003	W-NW

Notes:

[1] MACTEC reported an error in groundwater measurement

Table 3
GROUND WATER ANALYTICAL RESULTS
1700 Jefferson Street, Oakland, California

Well ID	Date Sampled	TPH as Gasoline[2]	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Free Product
		(µg/L)						(inches)
ESLs[1]		100	27	95,000	310	37,000	9,900	--
MW-1	7/8/1987	190,000	18,000	26,000	--	3,700	--	30
	9/12/1988	--	--	--	--	--	--	25
	7/12/1989	190,000	1,000	8,900	2,900	19,000	--	21.6
	8/1/1991	--	--	--	--	--	--	12
	6/18/1992	--	--	--	--	--	--	34
	7/2/1992	--	--	--	--	--	--	18
	7/23/1992	--	--	--	--	--	--	10
	8/18/1992	--	--	--	--	--	--	10
	11/11/1992	--	--	--	--	--	--	13
	1/29/1993	--	--	--	--	--	--	25.2
	2/12/1993	--	--	--	--	--	--	10.2
	1/6/1994	--	--	--	--	--	--	14.8
	3/17/1994	--	--	--	--	--	--	23.4
	4/13/1994	--	--	--	--	--	--	12
	6/29/1994	--	--	--	--	--	--	0
	12/8/1994	--	--	--	--	--	--	FP
	4/3/1995	--	--	--	--	--	--	FP
	6/27/1995	--	--	--	--	--	--	FP
	9/19/1995	--	--	--	--	--	--	FP
	12/13/1995	--	--	--	--	--	--	FP
	3/6/1996	--	--	--	--	--	--	FP
	6/11/1996	--	--	--	--	--	--	FP
	9/19/1996	--	--	--	--	--	--	FP
	12/23/1996	--	--	--	--	--	--	FP
	3/27/1997	--	--	--	--	--	--	FP
	6/4/1997	68,000	2,200	4,500	1,500	11,000	<500	--
	9/26/1997	59,000	6,000	3,000	1,600	8,600	<500	--
	12/23/1997	41,000	6,800	3,000	1,400	6,600	300	--
	3/31/1998	44,000	8,300	3,700	1,100	4,300	420	--
	6/18/1998	32,000	1,100	3,800	550	3,000	<50	--
	8/28/1998	26,000	8,600	2,300	730	2,100	<50	--
	12/2/1998	26,000	9,200	4,300	820	2,800	<50	--
	3/10/1999	26,000	8,200	5,900	870	3,500	<50	--
	6/30/1999	18,000	7,000	5,800	950	2,500	<25	--
	9/29/1999	21,000	9,200	10,000	1,200	5,500	<250	--
	9/29/1999	14,000	6,200	5,900	620	3,500	<250	--
	11/22/1999	24,000	4,900	5,000	730	3,500	<100	--
	2/11/2000	19,000	4,100	4,800	530	2,800	7	--
	5/30/2000	19,000	5,700	8,400	730	3,500	<5.0	--
	9/15/2000	20,000	4,100	5,700	540	2,700	<12	--
	11/16/2000	18,000	3,500	4,300	640	3,200	<40	--
	4/2/2001	19,000	4,700	5,200	570	2,600	50	--
	6/28/2001	39,000	5,200	4,200	660	3,900	9	--
	8/30/2001	31,000	5,600	5,100	560	2,500	<100	--
	12/26/2001	34,000	5,300	5,200	630	2,400	<120	--
	4/24/2002	35,000	4,900	6,000	740	3,100	<120	--
	6/14/2002	35,000	5,400	6,800	870	3,500	<250	--
	8/20/2002	26,000	4,100	4,700	620	2,700	<120	--
	12/27/2002	28,000	4,500	5,000	660	3,000	<120	--
	4/1/2003	16,000	4,500	6,000	680	3,100	<120	--
	7/1/2003	61,000	7,700	11,000	1,200	6,700	<250	--
	9/25/2003	59,000	7,600	9,400	1,000	4,800	<1,200	--
	12/29/2003	46,000	6,600	7,900	960	4,000	<250	--
	5/18/2004	23,000	4,100	4,700	450	1,500	<50	--
	6/30/2004	24,000	3,500	3,600	390	1,300	<50	--
	9/23/2004	24,000	3,800	3,900	470	1,400	<25	--
	12/28/2004	22,000	3,400	3,400	380	1,400	<250	--
	3/16/2005	21,000	4,100	4,200	470	1,300	<50	--
	6/23/2005	30,000	5,400	5,500	520	1,900	<1,200	--
	9/9/2005	7,100	840	950	120	410	<120	--
	12/2/2005	19,000	3,600	3,500	410	1,300	<2.5	--
	3/24/2006	29,000	6,200	6,000	620	2,000	<500	--
	6/29/2006	23,000	4,800	4,000	330	1,200	<500	--
	9/13/2006	20,000	4,500	3,900	400	1,400	<250	--
	12/27/2006	31,000	6,000	5,300	710	2,500	<500	--
	3/30/2007	30,000	5,000	4,600	520	1,700	<500	--
	7/2/2007	14,000	2,500	2,000	280	930	<500	--
	10/2/2007	19,000	3,400	2,700	400	1,200	<500	--
	12/13/2007	18,000	3,500	2,700	390	1,100	<500	--
	3/26/2008	28,000	4,900	4,900	530	2,100	<500	--
	6/2/2008	20,000	3,300	3,300	380	1,700	<500	--
	9/10/2008	24,000	4,200	4,200	470	2,200	<500	--
	11/19/2008	26,000	4,500	4,500	490	2,500	<500	--
	3/3/2009	33,100	5,380	5,380	603	2,800	<100	--
	9/3/2009	35,900	5,570	5,180	620	3,270	<100	--
	3/3/2010	51,700	10,100	8,050	952	4,560	<200	--
	9/8/2010	30,000	7,300	6,300	550	3,700	<50	--
	3/16/2011	38,000	8,600	6,900	670	4,300	<50	--
	9/9/2011	33,000	8,700	6,500	620	4,400	<50	--
	4/12/2012	34,000	7,300	4,700	570	4,300	<50	--
	10/10/2012	37,000	7,900	5,200	800	5,100	<50	--
	3/25/2013	30,000	6,500	4,700	560	4,500	<50	--
	9/12/2013	12,000	2,800	1,500	330	1,000	<50	--
MW-1A	9/12/1988	--	--	--	--	--	--	28.2
	7/12/1989	220,000	1,200	9,210	3,100	24,000	NA	18.6
	8/1/1991	350,000	17,000	31,000	3,000	FP	NA	FP
	7/2/1992	FP	FP	FP	FP	FP	NA	18
	9/30/1992	FP	FP	FP	FP	FP	NA	10 - 13
	2/12/1993	FP	FP	FP	FP	FP	NA	13
	3/30/1993	FP	FP	FP	FP	FP	NA	10.2-14.8
	1/6/1994	FP	FP	FP	FP	14,000	NA	16.2
	4/13/1994	170,000	17,000	31,000	2,100	22,000	NA	12
	6/29/1994	95,000	16,000	21,000	1,500	12,000	NA	4.5+/-
	12/8/1994	190,000	13,000	21,000	1,400	11,000	NA	--
	4/3/1995	67,000	11,000	13,000	910	9,800	NA	--
	6/27/1995	53,000	11,000	9,900	500	6,300	NA	--

Well ID	Date Sampled	TPH as Gasoline	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Free Product
		(µg/L)						(inches)
ESLs		100	27	95,000	310	37,000	9900	--
MW-1A	9/19/1995	52,000	8,900	11,000	790	5,300	NA	--
	12/13/1995	62,000	9,900	9,200	710	6,800	NA	--
	3/6/1996	200,000	14,000	22,000	2,700	22,000	NA	--
	6/11/1996	140,000	18,000	28,000	2,800	19,000	NA	--
	9/19/1996	100,000	16,000	22,000	2,100	14,000	NA	--
	12/23/1996	FP	FP	FP	FP	FP	NA	--
	3/27/1997	66,000	12,000	15,000	1,400	100	1,800	--
	6/4/1997	54,000	11,000	12,000	1,000	7,200	<500	--
	9/26/1997	73,000	10,000	16,000	1,400	8,500	<500	--
	12/23/1997	66,000	10,000	16,000	1,400	12,000	1,900	--
	3/31/1998	51,000	9,100	11,000	1,100	6,800	300	--
	6/18/1998	50,000	11,000	15,000	870	5,800	<50	--
	8/28/1998	15,000	1,100	830	31	3,000	<50	--
	12/2/1998	41,000	8,500	11,000	720	6,700	<50	--
	3/10/1999	10,000	2,300	1,900	1,600	2,300	<50	--
	6/30/1999	18,000	6,400	7,800	660	4,100	<25	--
MW-2	7/8/1987	8,200	1,500	340	--	87	--	--
	11/9/1987	WELL DESTROYED						
MW-3	7/8/1987	6,200	180	500	--	170	--	0
	7/12/1989	13,000	4	160	210	420	--	0
	8/1/1991	74,000	1,600	4,600	670	4,300	--	4
	9/30/1992	--	--	--	--	--	--	4.1
	11/11/1992	--	--	--	--	--	--	2
	1/29/1993	--	--	--	--	--	--	1.7
	2/12/1993	--	--	--	--	--	--	1.3
	1/6/1994	--	--	--	--	--	--	2.2
	3/17/1994	--	--	--	--	--	--	2.4
	4/13/1994	--	--	--	--	--	--	1.8
	6/29/1994	39,000	3,200	2,900	580	4,300	--	0.5
	12/8/1994	4,600,000	1,500	4,200	6,000	95,000	--	--
	4/3/1995	51,000	1,100	2,300	580	4,800	--	--
	6/27/1995	20,000	270	550	190	1,700	--	--
	9/19/1995	6,200	70	140	68	500	--	--
	12/13/1995	19,000	220	480	140	1,700	--	--
	3/6/1996	7,000	120	170	49	440	--	--
	6/11/1996	16,000	170	270	68	1,500	--	--
	9/19/1996	6,000	45	30	15	300	--	--
	6/4/1997	85,000	8,500	13,000	2,400	16,000	<500	--
	9/26/1997	47,000	610	6,000	930	5,900	<100	--
	12/23/1997	32,000	640	5,300	800	5,900	<300	--
	3/31/1998	32,000	690	3,800	870	5,200	350	--
	6/18/1998	16,000	180	1,500	490	3,700	<25	--
	8/28/1998	17,000	84	1,100	430	3,800	<50	--
	12/2/1998	3,200	39	85	25	360	<50	--
	3/10/1999	9,600	86	540	250	2,300	<25	--
	6/30/1999	7,900	31	330	200	1,800	<25	--
	9/29/1999	5,000	120	340	230	1,300	10	--
	9/29/1999	4,100	180	340	130	580	14	--
	11/22/1999	3,100	7	33	27	260	<1.0	--
	2/11/2000	540	8	20	2	28	31	--
	5/30/2000	490	11	6	0	17	<5.0	--
	9/15/2000	1,500	28	14	3	160	<5.0	--
	11/16/2000	1,300	20	34	25	28	<5.0	--
	4/2/2001	170	9	6	1	8	77	--
	6/28/2001	4,900	150	240	38	160	<2	--
	8/30/2001	3,100	42	48	26	210	<1.2	--
	12/26/2001	950	8	5	1	7	<0.5	--
	4/24/2002	300	11	5	1	1	<0.5	--
	6/14/2002	4,600	130	470	91	390	<0.5	--
	8/20/2002	4,900	330	170	40	150	<5.0	--
	12/27/2002	4,000	110	280	57	260	19	--
	4/1/2003	5,900	370	150	44	230	<1.0	--
	7/1/2003	12,000	200	460	130	390	<5.0	--
	9/25/2003	10,000	150	300	120	280	<2.5	--
	12/29/2003	7,300	160	250	79	210	<2.5	--
	5/18/2004	1,500	77	72	19	59	<12	--
	6/30/2004	2,000	81	37	34	40	<1.0	--
	9/23/2004	3,400	140	95	36	40	<10	--
	12/28/2004	3,900	340	37	11	60	<5.0	--
	3/16/2005	970	1	2	1	3	<2.5	--
	6/23/2005	850	56	7	<5	12	<25	--
	9/9/2005	3,900	470	100	33	96	<62	--
	12/2/2005	760	14	8	2	17	<0.5	--
	3/24/2006	590	83	41	7	33	<12	--
	6/29/2006	1,100	130	38	16	21	<25	--
	9/13/2006	1,300	260	71	44	28	<25	--
	12/27/2006	3,000	250	160	49	140	<25	--
	3/30/2007	3,100	250	260	46	110	<25	--
	7/2/2007	2,600	250	250	54	130	<25	--
	10/2/2007	1,900	170	140	24	48	<25	--
	12/13/2007	2,900	250	170	66	120	<25	--
	3/26/2008	2,300	340	95	26	64	<25	--
	6/2/2008	2,300	270	250	59	130	<25	--
	9/10/2008	2,900	300	180	88	220	<25	--
	11/19/2008	1,000	62	55	21	32	<25	--
	3/3/2009	3,020	37	10	3.8J	12.3J	<10	--
	9/3/2009	538	59	1	13	2	<1.0	--
	3/3/2010	1,570	98	12	20	14	<1.0	--
	9/8/2010	1,100	200	23	23	11	<0.5	--
	3/16/2011	930	75	19	8	6	<2.5	--
	9/9/2011	1,300	280	43	13	40	<2.5	--
	4/12/2012	1,800	91	21	10	26	<0.5	--
	10/10/2012	1,400	200	14	9	<10	<0.5	--
	3/25/2013	1,000	75	40	14	24	<0.5	--
	9/12/2013	1,200	280	6.5	20	11	<0.5	--

Table 3
GROUND WATER ANALYTICAL RESULTS
1700 Jefferson Street, Oakland, California

Well ID	Date Sampled	TPH as Gasoline[2]	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Free Product
		(µg/L)						(inches)
ESLs[1]		100	27	95,000	310	37,000	9,900	--
MW-4	9/12/1988	--	--	--	--	--	--	5.9
	7/12/1989	93,000	460	4,200	1,200	9,700	NA	25.2
	8/1/1991	86,000	1,500	6,200	1,000	FP	NA	18
	9/30/1992	FP	FP	FP	FP	FP	NA	FP
	2/12/1993	FP	FP	FP	FP	FP	NA	8.8
	1/6/1994	FP	FP	FP	FP	3,200	NA	6.2
	4/13/1994	58,000	1,500	2,500	520	7,300	NA	--
	6/29/1994	16,000	1,300	790	51	3,400	NA	--
	12/8/1994	92,000	1,700	4,100	310	5,400	NA	--
	4/3/1995	35,000	1,200	3,400	280	5,800	NA	--
	6/27/1995	13,000	1,300	1,600	77	1,800	NA	--
	9/19/1995	14,000	630	470	14	1,800	NA	--
	12/13/1995	11,000	2,200	2,100	110	2,100	NA	--
	3/6/1996	110,000	2,600	3,600	780	10,000	NA	--
	6/11/1996	260,000	6,600	19,000	3,700	28,000	NA	--
	9/19/1996	95,000	9,900	19,000	2,000	13,000	NA	--
	12/23/1996	FP	FP	FP	FP	FP	NA	FP
	3/27/1997	37,000	2,600	6,900	540	5,500	1,400	--
	6/4/1997	24,000	2,600	3,200	140	3,500	<300	--
	9/26/1997	41,000	2,900	5,000	350	4,800	<500	--
	12/23/1997	48,000	6,000	11,000	580	8,200	270	--
	6/18/1998	25,000	2,000	460	<15	6,400	<50	--
	8/28/1998	48,000	9,700	11,000	890	5,000	<50	--
	12/2/1998	10,000	1,700	610	<15	2,300	<50	--
	3/10/1999	11,000	2,300	2,100	88	1,600	<25	--
	6/30/1999	88,000	1,800	3,000	150	2,700	<25	--
	4/12/2012	2,700	380	160	100	100	<0.5	--
	10/10/2012	4,200	400	200	150	130	<0.5	--
	3/25/2013	2,900	360	16	120	29	<0.5	--
	9/12/2013	12,000	230	7.2	130	59	<0.5	--
MW-5	9/12/1988	--	--	--	--	--	--	0.5
	7/12/1989	14,000	7	190	210	500	--	0.4
	8/1/1991	120,000	20,000	14,000	1,900	4,900	--	0
	9/30/1992	51,000	13,000	5,900	1,400	2,600	--	0
	3/30/1993	74,000	16,000	5,000	1,800	2,700	--	0.06
	1/6/1994	80,000	19,000	8,200	1,400	2,700	--	0
	4/13/1994	63,000	14,000	3,500	1,500	2,100	--	0
	6/29/1994	64,000	29,000	5,400	2,800	4,500	--	0
	12/8/1994	59,000	13,000	3,800	1,800	2,900	--	--
	4/3/1995	51,000	15,000	2,200	2,800	4,500	--	--
	6/27/1995	41,000	12,000	2,100	1,400	1,600	--	--
	9/19/1995	50,000	1,600	2,700	2,000	2,100	--	--
	12/13/1995	45,000	13,000	2,100	16,000	1,900	--	--
	3/6/1996	51,000	15,000	2,800	2,000	2,400	--	--
	6/11/1996	48,000	12,000	2,900	2,000	2,700	--	--
	9/19/1996	48,000	12,000	4,500	2,300	4,000	--	--
	12/23/1996	45,000	12,000	2,200	2,700	6,500	600	--
	3/27/1997	44,000	11,000	1,100	1,900	2,800	300	--
	6/4/1997	35,000	8,900	560	1,500	1,700	<100	--
	9/26/1997	36,000	7,900	270	1,500	1,300	<500	--
	12/23/1997	39,000	13,000	500	1,900	1,700	<1,000	--
	3/31/1998	48,000	10,000	400	2,000	2,200	350	--
	6/18/1998	17,000	9,500	310	420	850	<10	--
	8/28/1998	16,000	5,400	160	1,100	900	<50	--
	12/2/1998	15,000	8,400	120	1,500	840	<50	--
	3/10/1999	23,000	14,000	300	1,800	1,100	<50	--
	6/30/1999	7,700	5,200	270	1,100	690	<25	--
	9/29/1999	11,000	9,600	710	1,100	1,100	<100	--
	9/29/1999	10,000	14,000	470	1,100	600	<100	--
	11/22/1999	30,000	11,000	3,400	1,500	2,500	<100	--
	2/11/2000	23,000	12,000	4,500	1,200	1,300	6.6	--
	5/30/2000	19,000	9,900	6,900	1,200	2,600	<200	--
	9/15/2000	24,000	3,800	3,000	460	1,200	<10	--
	11/16/2000	1,800	470	220	39	100	<5	--
	4/2/2001	15,000	7,400	3,000	1,000	2,200	<50	--
	6/28/2001	3,600	300	11	16	15	4	--
	8/30/2001	34,000	8,300	3,000	1,400	2,600	<50	--
	12/26/2001	1,900	300	110	55	120	<10	--
	4/24/2002	9,400	2,300	130	300	270	<50	--
	6/14/2002	1,700	110	<2.5	7	<2.5	<0.50	--
	8/20/2002	3,200	320	9	22	19	<0.50	--
	12/27/2002	6,200	2,200	140	160	250	<25	--
	9/25/2003	43,000	12,000	2,800	1,500	3,000	<1,200	--
	12/29/2003	26,000	7,700	1,900	910	210	<2.5	--
	5/18/2004	15,000	5,000	1,300	380	770	<50	--
	6/30/2004	18,000	5,700	1,600	540	1,200	<50	--
	9/23/2004	42,000	12,000	3,900	1,200	2,400	<120	--
	12/28/2004	41,000	10,000	3,800	1,000	2,300	<250	--
	3/16/2005	37,000	11,000	3,800	1,100	2,400	<120	--
MW-1*	4/25/2011	< 50	< 0.5	--	< 0.5	< 0.5	< 0.5	--
	9/9/2011	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--
MW-2*	4/25/2011	< 50	< 0.5	--	< 0.5	< 0.5	< 0.5	--
	9/9/2011	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--
MW-3*	4/25/2011	< 50	< 0.5	--	< 0.5	< 0.5	< 0.5	--
	9/9/2011	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	--

Well ID	Date Sampled	TPH as Gasoline	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Free Product
		(µg/L)						(inches)
ESLs		100	27	95,000	310	37,000	9900	--
MW-5	6/23/2005	27,000	7,700	1,700	680	1,300	<1,200	--
	9/9/2005	46,000	10,000	2,700	1,100	2,100	<1,200	--
	12/2/2005	21,000	5,900	1,500	600	1,200	<500	--
	3/24/2006	<10,000	2,800	450	190	180	<500	--
	6/29/2006	1,200	240	11	13	18	<2.5	--
	9/13/2006	5,800	1,600	210	180	270	<120	--
	12/27/2006	16,000	4,300	610	460	750	<500	--
	3/30/2007	31,000	10,000	1,400	1,100	1,600	<500	--
	7/2/2007	33,000	9,400	1,400	1,000	1,500	<500	--
	10/2/2007	36,000	11,000	2,100	1,100	1,700	<620	--
	12/13/2007	34,000	11,000	2,600	1,200	1,900	<1,200	--
	3/26/2008	28,000	7,700	1,900	860	1,300	<1,200	--
	6/2/2008	43,000	13,000	3,800	1,400	2,400	<1,200	--
	9/10/2008	45,000	13,000	3,700	1,200	2,200	<1,200	--
	11/19/2008	46,000	14,000	3,900	3,900	2,700	<1,200	--
	3/3/2009	43,400	11,700	3,560	1,290	2,200	<250	--
	9/3/2009	35,900	8,800	1,240	1,720	2,420	<100	--
	3/3/2010	27,200	6,820	279	1,870	2,050	<100	--
	9/8/2010	22,000	6,000	250	1,700	1,900	<50	--
	3/16/2011	31,000	6,400	500	1,900	2,600	<50	--
	9/9/2011	30,000	9,400	1,600	1,800	2,500	<50	--
	4/12/2012	44,000	13,000	5,000	1,700	2,900	<50	--
	10/10/2012	47,000	14,000	6,700	1,900	3,400	<50	--
	3/25/2013	45,000	14,000	8,200	1,800	3,600	<50	--
	9/12/2013	50,000	13,000	10,000	2,000	5,300	<50	--
MW-6	6/11/1996	<50	<0.5	<0.5	<0.5	<2	--	--
	9/19/1996	<50	<0.5	<0.5	<0.5	<2	--	--
	12/23/1996	<50	<0.5	<0.5	<0.5	<2	<5	--
	3/27/1997	<50	<0.5	<0.5	<0.5	<2	<5	--
	6/4/1997	<50	<0.5	<0.5	<0.5	<2	<5	--
	9/26/1997	<50	<0.5	<0.5	<0.5	<2	<5	--
	12/23/1997	<50	<0.5	<0.5	<0.5	<2	<5	--
	3/31/1998	<50	<0.5	<0.5	<0.5	<2	<5	--
	6/18/1998	<50	<0.3	<0.3	<0.3	<0.6	<1.0	--
	8/28/1998	<50	<0.3	<0.3	<0.3	<0.6	<1.0	--
	12/2/1998	<50	<0.3	<0.3	<0.3	<0.6	<1.0	--
	3/10/1999	<50	<0.3	<0.3	<0.3	<0.6	<1.0	--
	6/30/1999	<50	<0.3	<0.3	<0.3	<0.6	<1.0	--
	9/29/1999	<50	<0.3	<0.3	<0.3	<0.6	<1.0	--
	9/29/1999	<50	<0.3	<0.3	<0.3	<0.6	<1.0	--
	11/22/1999	<50	<0.3	<0.3	<0.3	<0.6	<1.0	--
	2/11/2000	<50	<0.3	<0.3	<0.3	<0.6	<1.0	--
	5/30/2000	<50	<0.3	<0.3	<0.3	<0.6	<1.0	--
	9/15/2000	<50	<0.3	<0.3	<0.3	<0.6	<1.0	--
	11/16/2000	<50	<0.3	<0.3	<0.3	<0.3	<1.0	--
	4/2/2001	<50	<0.3	<0.3	<0.3	2.7	5	--
	6/28/2001	<50	<0.5	<0.5	<0.3	<0.5	17	--
	8/30/2001	<50	<0.5	<0.5	<0.3	8.7	<2.5	--
	12/26/2001	66	3.6	3.6	3.6	<0.5	<2.5	--
	4/24/2002	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
	6/14/2002	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
	8/20/2002	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
	12/27/2002	<50	<0.5	<0.05	<0.5	<0.5	<2.5	--
	4/1/2003	<50	<0.5	<0.05	<0.5	<0.5	<2.5	--
	7/1/2003	<50	<0.5	<0.05	<0.5	<2.5	<2.5	--
	9/25/2003	<50	<0.5	<0.05	<0.5	<2.5	<2.5	--
	12/29/2003	<50	<0.5	<0.05	<0.5	<0.5	<2.5	--
	5/18/2004	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
	6/30/2004	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
	9/23/2004	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
	12/28/2004	59	<0.5	<0.5	<0.5	2	<2.5	--
	3/16/2005	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
	6/23/2005	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
	9/9/2005	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
	12/2/2005	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
	3/24/2006	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
	6/29/2006	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
	9/13/2006	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
	12/27/2006	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
	3/30/2007	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
	7/2/2007	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
	10/2/2007	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
	12/13/2007	<50	<0.5	1	<0.5	<0.5	<2.5	--
	3/26/2008	<50	<0.5	<0.5	<0.5	1	<2.5	--
	6/2/2008	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
	9/10/2008	<51	<0.5	<0.5	<0.5	<0.5	<2.6	--
	11/19/2008	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
	3/3/2009	<50	<1.0	0.53J	<1.0	<2.0	<1.0	--
	9/3/2009	<50	<1.0	<1.0	<1.0	<2.0	<1.0	--
	3/3/2010	<50	<1.0	<1.0	<1.0	<2.0	<1.0	--
	9/8/2010	<50	<0.5	<0.5	<0.5	<1.0	<0.5	--
	3/16/2011	<50	0.67	<0.5	<0.5	<1.0	<0.5	--
	9/9/2011	69	1	<0.5	<0.5	<1.0	<0.5	--
	4/12/2012	<50	<0.5	<0.5	<0.5	<1.0	<0.5	--
	10/10/2012	<50	<0.5	<0.5	<0.5	<1.0	<0.5	--
	3/25/2013	<50	<0.5	<0.5	<0.5	<1.0	<0.5	--
	9/12/2013	<50	<0.5	<0.5	<0.5	<1.0	<0.5	--

Notes:

µg/L: micrograms per liter (approximately equivalent to ppb)

<: Concentration is below the reporting limit of the lab

J: Estimated value

--: not applicable or none

*: Well Located on the Merrill Sign Company Site, data provided by P&D Environmental

[1]: Environmental Screening Levels - San Francisco Bay Regional Water Quality Control Board revised May 2013. Ground water screening levels fro evaluation of potential vapor intrusion are selected under a residential land use in fine to coarse mix of soil conditions (Table E-1)

[2]: Drinking water ESL is listed for TPH as gasoline

FP: Free product measured (amount unknown)

Concentration is above selected screening criteria

CHARTS

CHART 1
Concentrations of TPH as Gasoline vs. Time in MW-1, MW-3, and MW-5
1700 Jefferson, Oakland, California

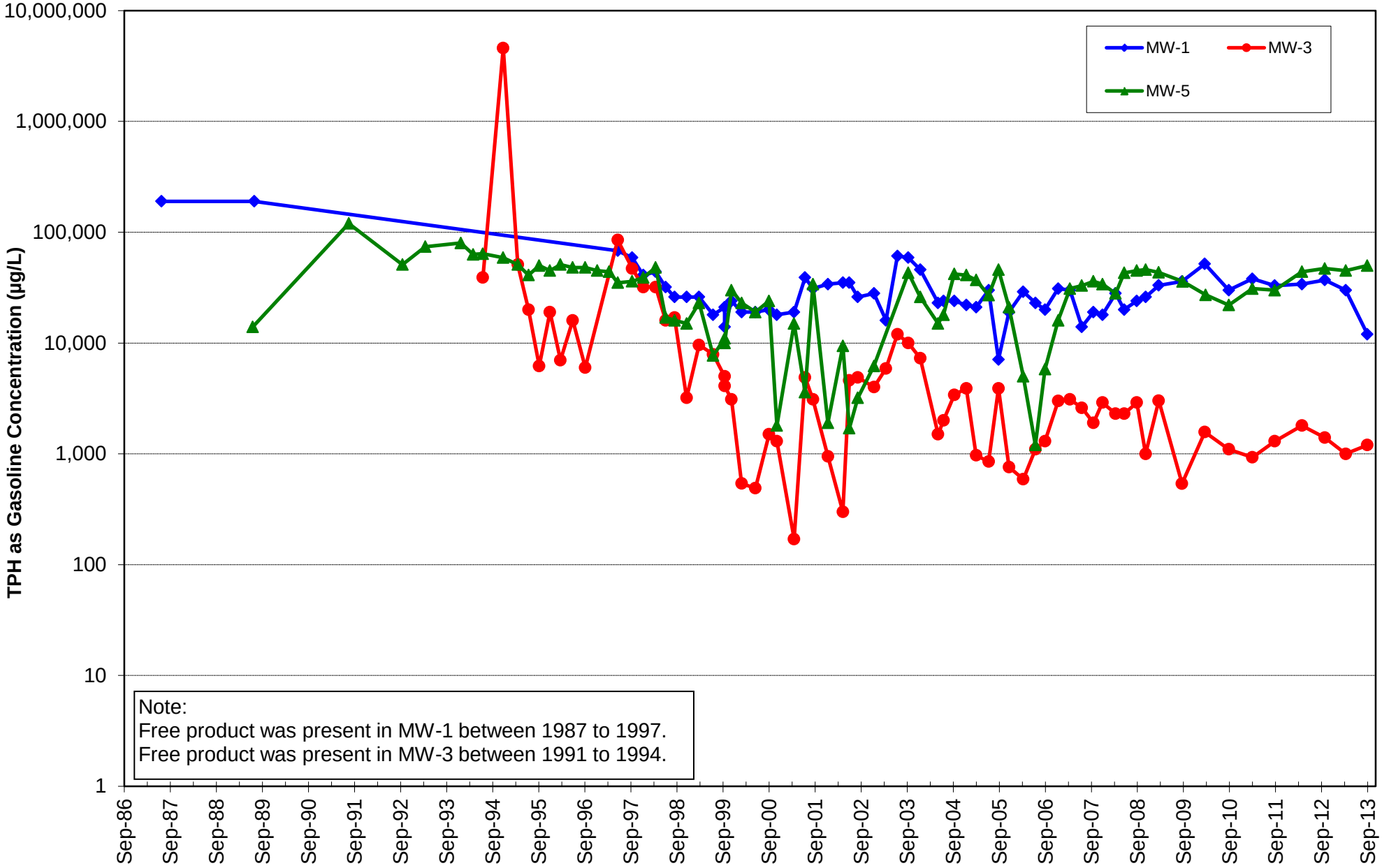
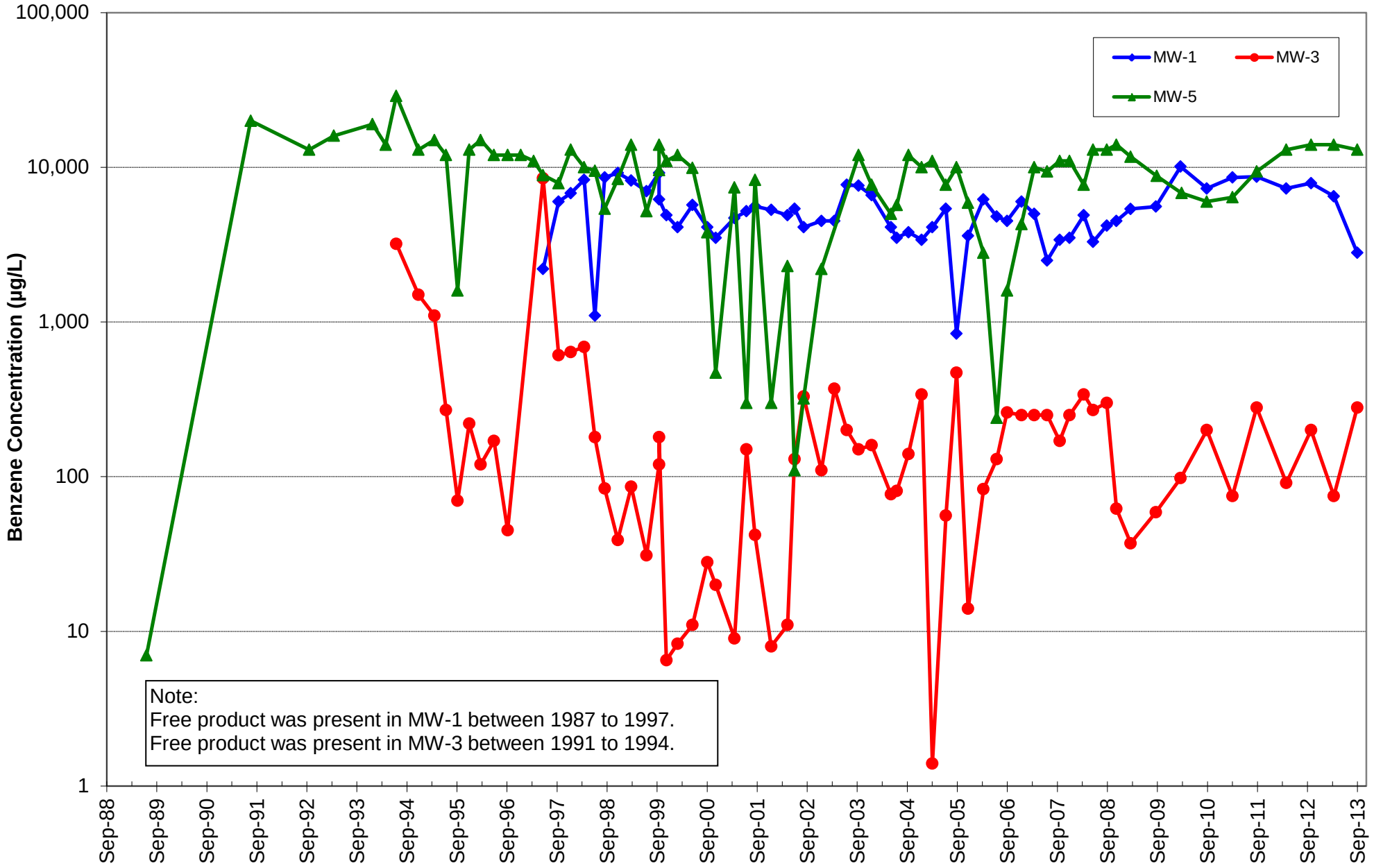
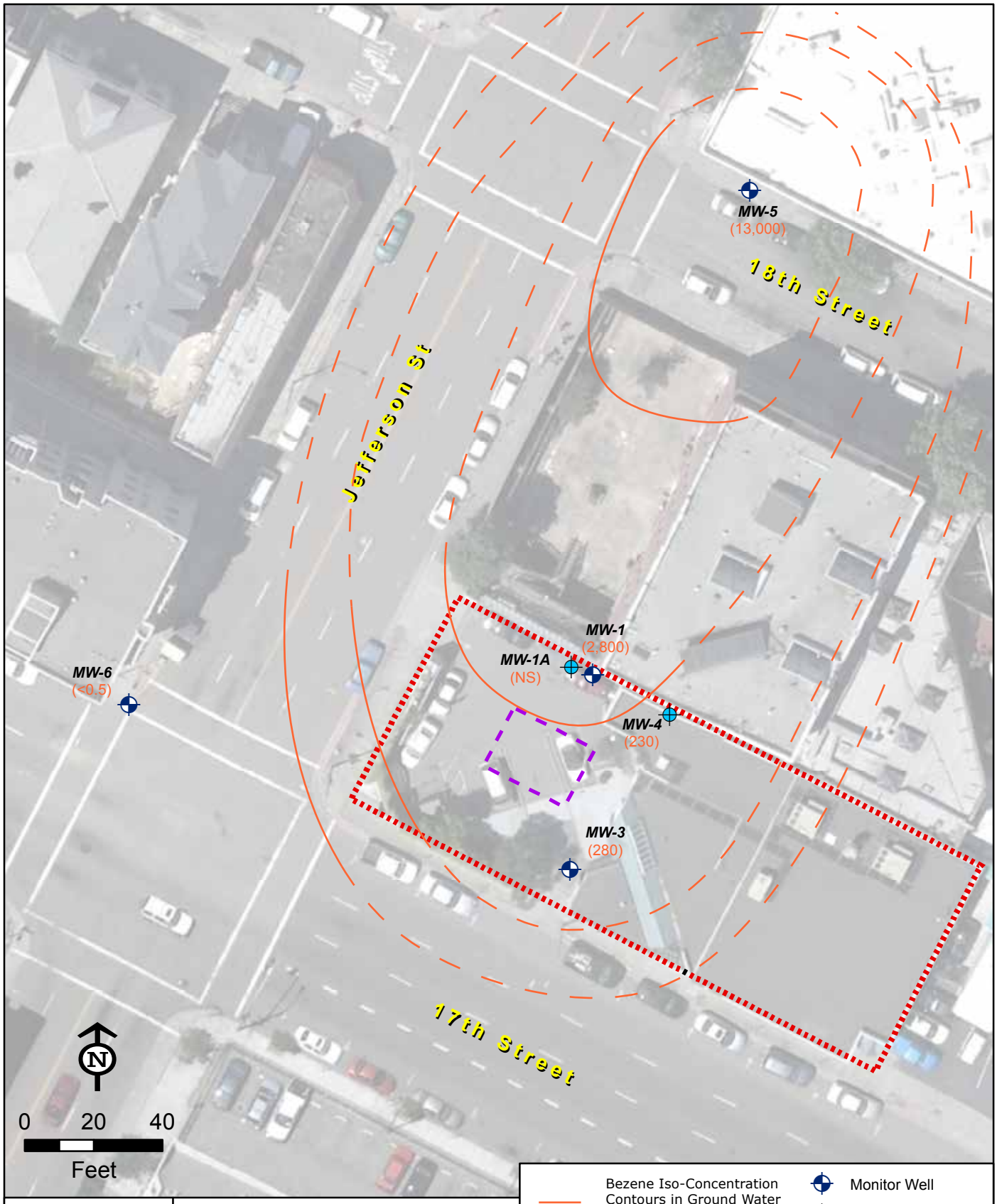


CHART 2
Concentrations of Benzene vs. Time in MW-1, MW-3, and MW-5
1700 Jefferson, Oakland, California



FIGURES



APPLIED WATER RESOURCES

Figure - 5

Benzene Iso Concentration Contours - March 2013

1700 Jefferson Street, Oakland, CA

Bezene Iso-Concentration Contours in Ground Water (Dashed Where Inferred)

(13,000) Benzene Concentration (ug/L)

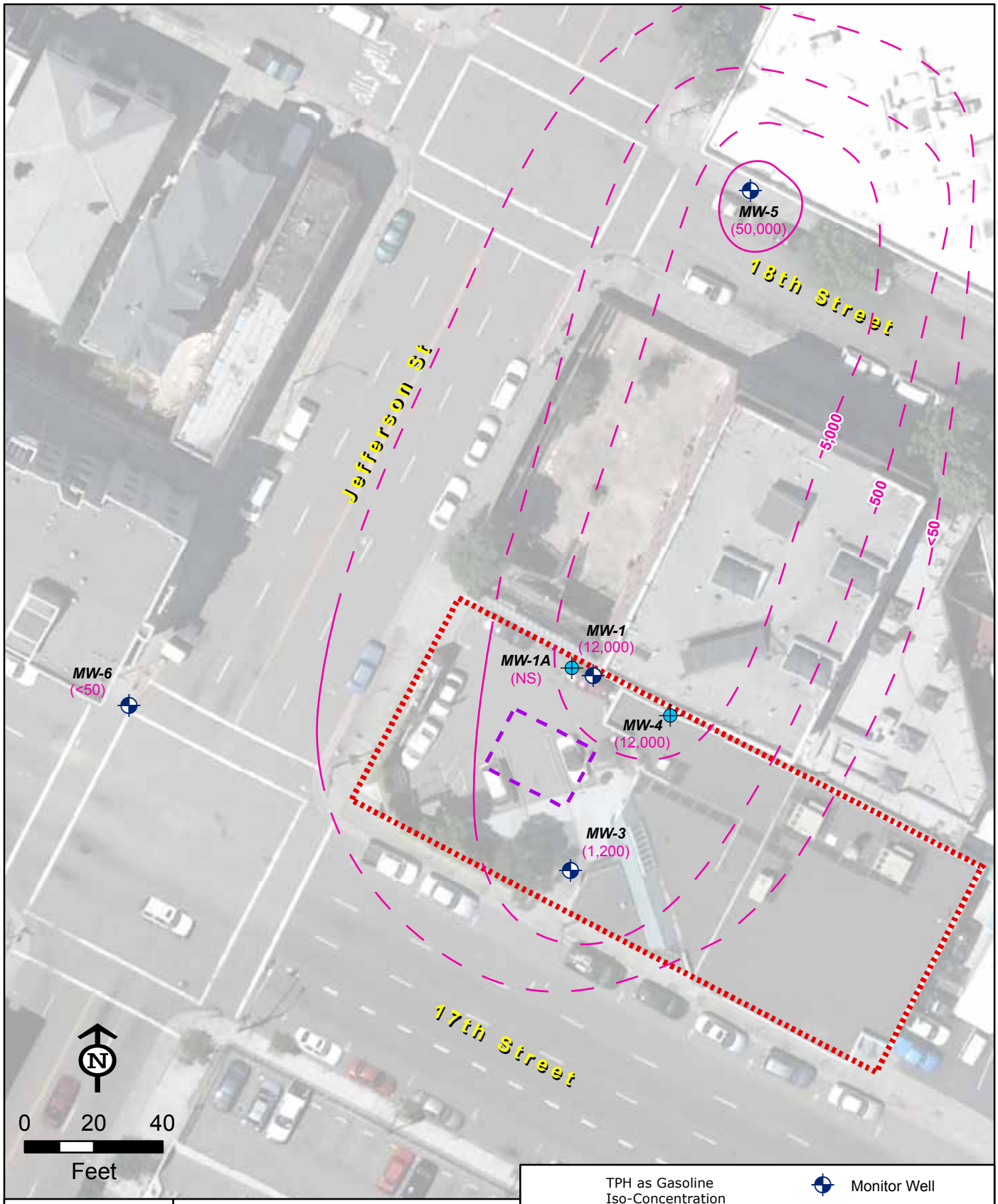
(NS) Not Sampled

Monitor Well

Extraction Well

Tank Removal Excavation Area (approx)

Property Boundary



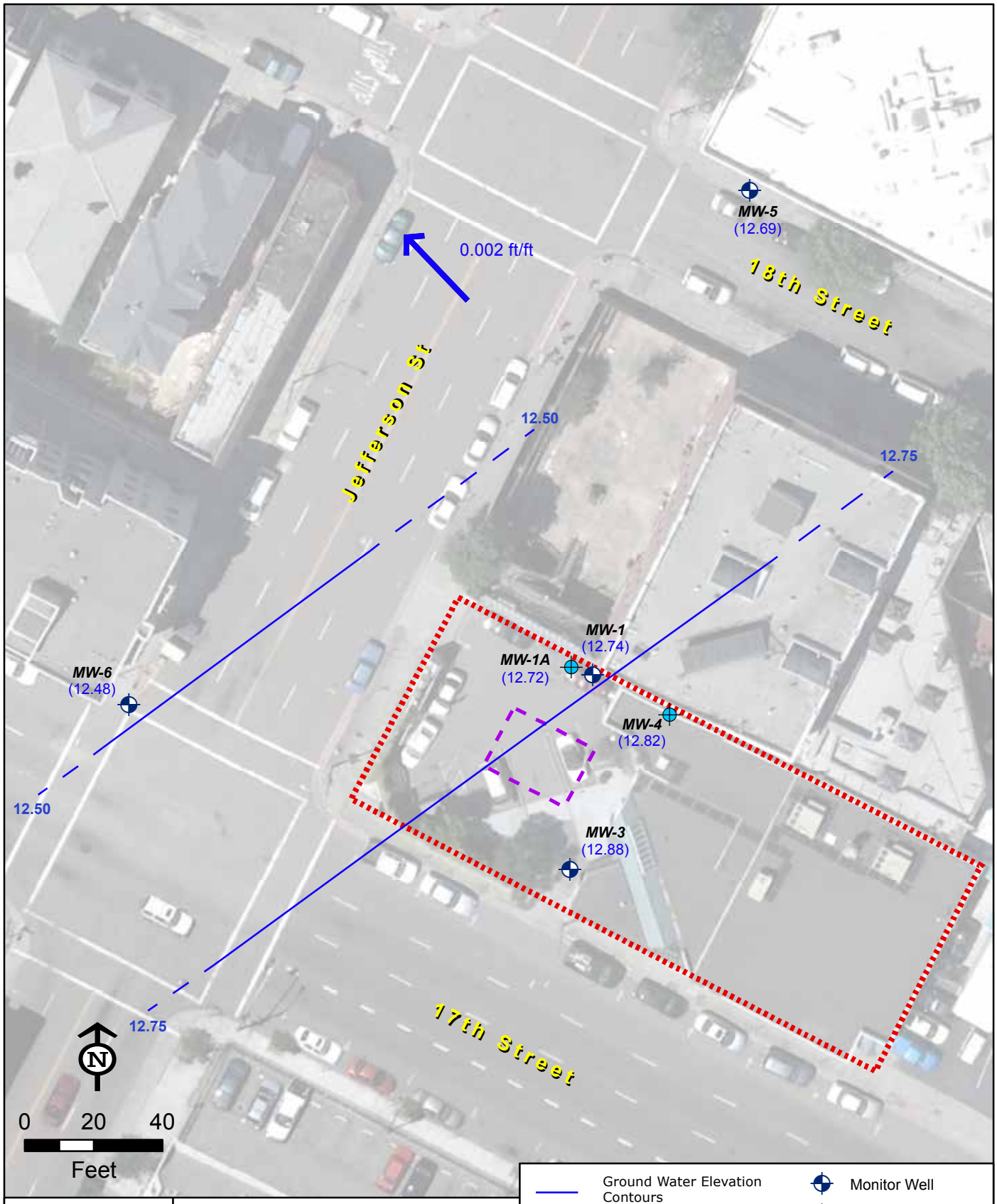
APPLIED WATER RESOURCES

Figure - 4

TPH as Gasoline Iso Concentration Contours - September 2013

1700 Jefferson Street, Oakland, CA

TPH as Gasoline Iso-Concentration Contours in Ground Water (Dashed Where Inferred)	Monitor Well
(12,000) TPH as Gasoline Concentration (ug/L)	Extraction Well
(NS) Not Sampled	Tank Removal Excavation Area (approx)
	Property Boundary



APPLIED WATER RESOURCES

Figure - 3

Ground Water Gradient September 2013

1700 Jefferson Street, Oakland, CA

Ground Water Elevation Contours (Dashed Where Inferred)

(12.88) Ground Water Elevation

Gradient Direction

Monitor Well

Extraction Well

Tank Removal Excavation Area (approx)

Property Boundary

APPENDIX A:

MONITOR WELL WORKSHEETS

Depth to Water Measurement Sheet

Date:		Site:		Location:		Client:		Initials:
9-12-13		1700 Jefferson		1700 Jefferson		ARC		GB
Well ID	Time	Diameter	Depth to Bottom	Initial Depth to Water	Equilibrated Depth to Water			Notes:
	hh:mm	inches	feet	feet	feet			
MW-1	745	4			24.07			
MW-1A	746	4			[illegible]	22.63		
MW-3	740	4			23.35			
MW-4	742	4			23.95			
MW-5	751	2			22.52			
MW-6	735	2			23.43			

Monitor Well Data Sheet

Site Name: 1700 Jefferson	Well/Sample ID: MW-1
Location: 1700 Jefferson	Initial Depth to Water (DTW): 24.07
Client: ARE	Total Well Depth (TD): 32.35
Sampler: IB	Well Diameter (inches): 4
Date: 9-12-13	Did Well Dewater? N
Purge & Sample Method: Peri w/ dedicated tube	Purge Rate (liters/min): 0.4
	Sample Rate (liters/min): 0.3

Time	pH	SC	DO	Temp	ORP	DTW	Cumulative Volume	Notes
hh:mm	SU	µmhos/cm	mg/l	°C	mV	feet bgs	liters	
1037	6.68	1324	0.44	18.5	-285.2	24.15	2	
1042	6.69	1322	0.39	18.5	-288.2	24.15	4	
1045	6.69	1322	0.36	18.6	-289.0	24.15	5.2	
1049	6.70	1321	0.36	18.6	-289.3	24.15	6.8	
1052	6.70	1323	0.35	18.7	-289.2	24.15	8	

Total Liters Purged: 8	Start Purge Time: 1032	DTW prior to sample (ft): 24.15
Total Sample Volume: 160mL	Stop Purge Time: 1052	Start Sample Time: 1052
Sheen: Slight	Color: clear	Odor: yes
Instrument ID: 359	Last Calibrated: 730	

Notes:

16624

Applied Water Resources Corp.,
1600 Riviera Ave. Suite 310, Walnut Creek, CA 94596

Monitor Well Data Sheet

Site Name: 1700 Jefferson	Well/Sample ID: MW-3
Location: 1700 Jefferson	Initial Depth to Water (DTW): 23.35
Client: ARC	Total Well Depth (TD): 31.77
Sampler: LB	Well Diameter (inches): 4
Date: 9-12-13	Did Well Dewater? N
Purge & Sample Method: Peri w/ dedicated tube	Purge Rate (liters/min): 0.3
	Sample Rate (liters/min): 0.2

Time	pH	SC	DO	Temp	ORP	DTW	Cumulative Volume	Notes
hh:mm	SU	µmhos/cm	mg/l	°C	mV	feet bgs	liters	
941	6.54	654	0.41	19.7	187.3	23.71	1.5	
946	6.55	653	0.25	19.8	-196.4	23.71	3	
950	6.55	653	0.24	19.8	-199.6	23.71	4.2	
953	6.55	655	0.24	19.8	-201.0	23.71	5.1	

Total Liters Purged: 5.1	Start Purge Time: 936	DTW prior to sample (ft): 23.71
Total Sample Volume: 160mL	Stop Purge Time: 953	Start Sample Time: 953
Sheen: NO	Color: Clear	Odor: yes
Instrument ID: 359		Last Calibrated: 730

Notes:

Monitor Well Data Sheet

Site Name:	1700 Jefferson	Well/Sample ID:	MW-4
Location:	1700 Jefferson	Initial Depth to Water (DTW):	23.95
Client:	ARC	Total Well Depth (TD):	33.76
Sampler:	LB	Well Diameter (inches):	4
Date:	9-12-13	Did Well Dewater?	N
Purge & Sample Method:	Peri w/ dedicated tube	Purge Rate (liters/min):	0.4
		Sample Rate (liters/min):	0.3

Time	pH	SC	DO	Temp	ORP	DTW	Cumulative Volume	Notes
hh:mm	SU	µmhos/cm	mg/l	°C	mV	feet bgs	liters	
1011	6.74	1518	0.24	18.6	-271.8	24.11	2	
1014	6.72	1516	0.23	18.6	-277.9	24.11	3.2	
1017	6.70	1501	0.24	18.6	-297.8	24.11	4.4	
1020	6.70	1500	0.25	18.6	-290.0	24.11	5.6	

Total Liters Purged:	5.6	Start Purge Time:	1006	DTW prior to sample (ft):	24.11
Total Sample Volume:	160mL	Stop Purge Time:	1020	Start Sample Time:	1020
Sheen:	NO	Color:	Black	Odor:	Yes - TPH
Instrument ID:	359			Last Calibrated:	9/30

Notes:

Monitor Well Data Sheet

Site Name: 1700 Jefferson	Well/Sample ID: MW-5
Location: 1700 Jefferson	Initial Depth to Water (DTW): 22.52
Client: ARC	Total Well Depth (TD): 41.40
Sampler: VB	Well Diameter (inches): 2
Date: 9-12-13	Did Well Dewater? N
Purge & Sample Method: Peri w/ dedicated tube	Purge Rate (liters/min): 0.3
	Sample Rate (liters/min): 0.25

Time	pH	SC	DO	Temp	ORP	DTW	Cumulative Volume	Notes
hh:mm	SU	µmhos/cm	mg/l	°C	mV	feet bgs	liters	
909	6.78	982	0.67	19.3	-154.6	22.66	1.5	
914	6.80	978	0.33	19.3	-162.7	22.66	3	
917	6.81	974	0.27	19.3	-165.8	22.66	3.9	
920	6.81	974	0.26	19.3	-167.8	22.66	4.8	
923	6.79	984	0.25	19.4	-167.3	22.66	5.7	

Total Liters Purged: 5.7	Start Purge Time: 904	DTW prior to sample (ft): 22.66
Total Sample Volume: 160mL	Stop Purge Time: 923	Start Sample Time: 923
Sheen: NO	Color: Black to clear	Odor: yes. strong - TPH degradation
Instrument ID: 359	Last Calibrated: 730	

Notes:

Monitor Well Data Sheet

Site Name: 1700 Jefferson	Well/Sample ID: MW-6
Location: 1700 Jefferson	Initial Depth to Water (DTW): 23.43
Client: ARC	Total Well Depth (TD): 31.26
Sampler: MB	Well Diameter (inches): 2
Date: 9-12-13	Did Well Dewater? N
Purge & Sample Method: Peri w/ dedicated tube	Purge Rate (liters/min): 0.4
	Sample Rate (liters/min): 0.3

Time	pH	SC	DO	Temp	ORP	DTW	Cumulative Volume	Notes
hh:mm	SU	µmhos/cm	mg/l	°C	mV	feet bgs	liters	
824	6.42	1055	1.98	20.5	-55.1	23.56	1.2	
828	6.48	1052	1.01	20.6	-54.6	23.59	2.8	
833	6.52	1049	0.65	20.6	-61.3	23.59	4.8	
836	6.53	1053	0.54	20.6	-58.6	23.59	6	
839	6.53	1047	0.44	20.6	-56.6	23.59	7.2	
842	6.54	1051	0.42	20.6	-55.3	23.59	8.4	
845	6.54	1047	0.40	20.6	-54.1	23.59	9.6	

Total Liters Purged: 9.6	Start Purge Time: 821	DTW prior to sample (ft): 23.59
Total Sample Volume: 160mL	Stop Purge Time: 845	Start Sample Time: 845
Sheen: NO	Color: Clear	Odor: NO
Instrument ID: 359		Last Calibrated: 730

Notes:

APPENDIX B:

LABORATORY ANALYTICAL RESULTS

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

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

TestAmerica Job ID: 720-52310-1
Client Project/Site: ARC 1700 Jefferson

For:
Applied Water Resources Corporation
1600 Riviera Ave
Suite 310
Walnut Creek, California 94596

Attn: Mr. Yola Bayram

Authorized for release by:
9/20/2013 6:13:31 PM
Micah Smith, Project Manager I
micah.smith@testamericainc.com

Designee for

Onieka Howard, Project Manager I
onieka.howard@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.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: Applied Water Resources Corporation
Project/Site: ARC 1700 Jefferson

TestAmerica Job ID: 720-52310-1

Job ID: 720-52310-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative
720-52310-1

Comments
No additional comments.

Receipt
The samples were received on 9/13/2013 2:25 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.0º C.

GC/MS VOA
Method(s) 8260B: The following samples submitted for volatiles analysis was received with insufficient preservation (pH >2): MW-6 (720-52310-5).

No other analytical or quality issues were noted.

Detection Summary

Client: Applied Water Resources Corporation
Project/Site: ARC 1700 Jefferson

TestAmerica Job ID: 720-52310-1

Client Sample ID: MW-1 — Lab Sample ID: 720-52310-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	2800		50		ug/L	100		8260B/CA_LUFT MS	Total/NA
Ethylbenzene	330		50		ug/L	100		8260B/CA_LUFT MS	Total/NA
Toluene	1500		50		ug/L	100		8260B/CA_LUFT MS	Total/NA
Xylenes, Total	1000		100		ug/L	100		8260B/CA_LUFT MS	Total/NA
Gasoline Range Organics (GRO) -C5-C12	12000		5000		ug/L	100		8260B/CA_LUFT MS	Total/NA

Client Sample ID: MW-3 — Lab Sample ID: 720-52310-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	280		5.0		ug/L	10		8260B/CA_LUFT MS	Total/NA
Ethylbenzene	20		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
Toluene	6.5		0.50		ug/L	1		8260B/CA_LUFT MS	Total/NA
Xylenes, Total	11		1.0		ug/L	1		8260B/CA_LUFT MS	Total/NA
Gasoline Range Organics (GRO) -C5-C12	1200		50		ug/L	1		8260B/CA_LUFT MS	Total/NA

Client Sample ID: MW-4 — Lab Sample ID: 720-52310-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	230		5.0		ug/L	10		8260B/CA_LUFT MS	Total/NA
Ethylbenzene	130		5.0		ug/L	10		8260B/CA_LUFT MS	Total/NA
Toluene	7.2		5.0		ug/L	10		8260B/CA_LUFT MS	Total/NA
Xylenes, Total	59		10		ug/L	10		8260B/CA_LUFT MS	Total/NA
Gasoline Range Organics (GRO) -C5-C12	12000		500		ug/L	10		8260B/CA_LUFT MS	Total/NA

Client Sample ID: MW-5 — Lab Sample ID: 720-52310-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	13000		250		ug/L	500		8260B/CA_LUFT MS	Total/NA
Ethylbenzene	2000		50		ug/L	100		8260B/CA_LUFT MS	Total/NA
Toluene	10000		50		ug/L	100		8260B/CA_LUFT MS	Total/NA
Xylenes, Total	5300		100		ug/L	100		8260B/CA_LUFT MS	Total/NA
Gasoline Range Organics (GRO) -C5-C12	50000		5000		ug/L	100		8260B/CA_LUFT MS	Total/NA

Client Sample ID: MW-6 — Lab Sample ID: 720-52310-5

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

Client: Applied Water Resources Corporation
Project/Site: ARC 1700 Jefferson

TestAmerica Job ID: 720-52310-1

Client Sample ID: MW-1
Date Collected: 09/12/13 10:52
Date Received: 09/13/13 14:10

Lab Sample ID: 720-52310-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		50		ug/L			09/18/13 00:02	100
Benzene	**2800**		50		ug/L			09/18/13 00:02	100
Ethylbenzene	**330**		50		ug/L			09/18/13 00:02	100
Toluene	**1500**		50		ug/L			09/18/13 00:02	100
Xylenes, Total	**1000**		100		ug/L			09/18/13 00:02	100
Gasoline Range Organics (GRO) -C5-C12	**12000**		5000		ug/L			09/18/13 00:02	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*67 - 130*		*09/18/13 00:02*	*100*
1,2-Dichloroethane-d4 (Surr)	*95*		*72 - 130*		*09/18/13 00:02*	*100*
Toluene-d8 (Surr)	*94*		*70 - 130*		*09/18/13 00:02*	*100*

Client: Applied Water Resources Corporation
Project/Site: ARC 1700 Jefferson

TestAmerica Job ID: 720-52310-1

Client Sample ID: MW-3
Date Collected: 09/12/13 09:53
Date Received: 09/13/13 14:10

Lab Sample ID: 720-52310-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			09/18/13 00:30	1
Benzene	**280**		5.0		ug/L			09/18/13 13:05	10
Ethylbenzene	**20**		0.50		ug/L			09/18/13 00:30	1
Toluene	**6.5**		0.50		ug/L			09/18/13 00:30	1
Xylenes, Total	**11**		1.0		ug/L			09/18/13 00:30	1
Gasoline Range Organics (GRO) -C5-C12	**1200**		50		ug/L			09/18/13 00:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*67 - 130*		*09/18/13 00:30*	*1*
4-Bromofluorobenzene	*97*		*67 - 130*		*09/18/13 13:05*	*10*
1,2-Dichloroethane-d4 (Surr)	*97*		*72 - 130*		*09/18/13 00:30*	*1*
1,2-Dichloroethane-d4 (Surr)	*128*		*72 - 130*		*09/18/13 13:05*	*10*
Toluene-d8 (Surr)	*99*		*70 - 130*		*09/18/13 00:30*	*1*
Toluene-d8 (Surr)	*101*		*70 - 130*		*09/18/13 13:05*	*10*

Client: Applied Water Resources Corporation
Project/Site: ARC 1700 Jefferson

TestAmerica Job ID: 720-52310-1

Client Sample ID: MW-4
Date Collected: 09/12/13 10:20
Date Received: 09/13/13 14:10

Lab Sample ID: 720-52310-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		5.0		ug/L			09/18/13 00:57	10
Benzene	**230**		5.0		ug/L			09/18/13 00:57	10
Ethylbenzene	**130**		5.0		ug/L			09/18/13 00:57	10
Toluene	**7.2**		5.0		ug/L			09/18/13 00:57	10
Xylenes, Total	**59**		10		ug/L			09/18/13 00:57	10
Gasoline Range Organics (GRO) -C5-C12	**12000**		500		ug/L			09/18/13 00:57	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*67 - 130*		*09/18/13 00:57*	*10*
1,2-Dichloroethane-d4 (Surr)	*95*		*72 - 130*		*09/18/13 00:57*	*10*
Toluene-d8 (Surr)	*94*		*70 - 130*		*09/18/13 00:57*	*10*

Client: Applied Water Resources Corporation
Project/Site: ARC 1700 Jefferson

TestAmerica Job ID: 720-52310-1

Client Sample ID: MW-5
Date Collected: 09/12/13 09:23
Date Received: 09/13/13 14:10

Lab Sample ID: 720-52310-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		50		ug/L			09/18/13 01:25	100
Benzene	**13000**		250		ug/L			09/18/13 13:33	500
Ethylbenzene	**2000**		50		ug/L			09/18/13 01:25	100
Toluene	**10000**		50		ug/L			09/18/13 01:25	100
Xylenes, Total	**5300**		100		ug/L			09/18/13 01:25	100
Gasoline Range Organics (GRO) -C5-C12	**50000**		5000		ug/L			09/18/13 01:25	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*67 - 130*		*09/18/13 01:25*	*100*
4-Bromofluorobenzene	*99*		*67 - 130*		*09/18/13 13:33*	*500*
1,2-Dichloroethane-d4 (Surr)	*93*		*72 - 130*		*09/18/13 01:25*	*100*
1,2-Dichloroethane-d4 (Surr)	*120*		*72 - 130*		*09/18/13 13:33*	*500*
Toluene-d8 (Surr)	*95*		*70 - 130*		*09/18/13 01:25*	*100*
Toluene-d8 (Surr)	*99*		*70 - 130*		*09/18/13 13:33*	*500*

Client: Applied Water Resources Corporation
Project/Site: ARC 1700 Jefferson

TestAmerica Job ID: 720-52310-1

Client Sample ID: MW-6
Date Collected: 09/12/13 08:45
Date Received: 09/13/13 14:10

Lab Sample ID: 720-52310-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			09/18/13 01:53	1
Benzene	ND		0.50		ug/L			09/18/13 01:53	1
Ethylbenzene	ND		0.50		ug/L			09/18/13 01:53	1
Toluene	ND		0.50		ug/L			09/18/13 01:53	1
Xylenes, Total	ND		1.0		ug/L			09/18/13 01:53	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			09/18/13 01:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*91*		*67 - 130*		*09/18/13 01:53*	*1*
1,2-Dichloroethane-d4 (Surr)	*95*		*72 - 130*		*09/18/13 01:53*	*1*
Toluene-d8 (Surr)	*95*		*70 - 130*		*09/18/13 01:53*	*1*

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

Lab Sample ID: MB 720-144418/4
Matrix: Water
Analysis Batch: 144418

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			09/17/13 18:28	1
Benzene	ND		0.50		ug/L			09/17/13 18:28	1
Ethylbenzene	ND		0.50		ug/L			09/17/13 18:28	1
Toluene	ND		0.50		ug/L			09/17/13 18:28	1
Xylenes, Total	ND		1.0		ug/L			09/17/13 18:28	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			09/17/13 18:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*90*		*67 - 130*		*09/17/13 18:28*	*1*
1,2-Dichloroethane-d4 (Surr)	*99*		*72 - 130*		*09/17/13 18:28*	*1*
Toluene-d8 (Surr)	*93*		*70 - 130*		*09/17/13 18:28*	*1*

Lab Sample ID: LCS 720-144418/5
Matrix: Water
Analysis Batch: 144418

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	25.0	26.0		ug/L		104	62 - 130
Benzene	25.0	25.8		ug/L		103	79 - 130
Ethylbenzene	25.0	26.8		ug/L		107	80 - 120
Toluene	25.0	26.1		ug/L		105	78 - 120
m-Xylene & p-Xylene	50.0	52.2		ug/L		104	70 - 142
o-Xylene	25.0	27.9		ug/L		112	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*96*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*95*		*72 - 130*
Toluene-d8 (Surr)	*97*		*70 - 130*

Lab Sample ID: LCS 720-144418/7
Matrix: Water
Analysis Batch: 144418

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO) -C5-C12	500	491		ug/L		98	62 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*93*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*96*		*72 - 130*
Toluene-d8 (Surr)	*95*		*70 - 130*

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

Lab Sample ID: LCSD 720-144418/6
Matrix: Water
Analysis Batch: 144418

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methyl tert-butyl ether			25.0	25.4		ug/L		102	62 - 130	2	20
Benzene			25.0	25.7		ug/L		103	79 - 130	0	20
Ethylbenzene			25.0	26.7		ug/L		107	80 - 120	0	20
Toluene			25.0	26.1		ug/L		105	78 - 120	0	20
m-Xylene & p-Xylene			50.0	52.3		ug/L		105	70 - 142	0	20
o-Xylene			25.0	27.5		ug/L		110	70 - 130	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*96*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*93*		*72 - 130*
Toluene-d8 (Surr)	*96*		*70 - 130*

Lab Sample ID: LCSD 720-144418/8
Matrix: Water
Analysis Batch: 144418

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO) -C5-C12			500	481		ug/L		96	62 - 120	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*93*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*95*		*72 - 130*
Toluene-d8 (Surr)	*95*		*70 - 130*

Lab Sample ID: MB 720-144449/4
Matrix: Water
Analysis Batch: 144449

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			09/18/13 08:42	1
Benzene	ND		0.50		ug/L			09/18/13 08:42	1
Ethylbenzene	ND		0.50		ug/L			09/18/13 08:42	1
Toluene	ND		0.50		ug/L			09/18/13 08:42	1
Xylenes, Total	ND		1.0		ug/L			09/18/13 08:42	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			09/18/13 08:42	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*67 - 130*		*09/18/13 08:42*	*1*
1,2-Dichloroethane-d4 (Surr)	*123*		*72 - 130*		*09/18/13 08:42*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*		*09/18/13 08:42*	*1*

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

Lab Sample ID: LCS 720-144449/5
Matrix: Water
Analysis Batch: 144449

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Methyl tert-butyl ether			25.0	27.9		ug/L		112	62 - 130		
Benzene			25.0	24.2		ug/L		97	79 - 130		
Ethylbenzene			25.0	26.8		ug/L		107	80 - 120		
Toluene			25.0	24.5		ug/L		98	78 - 120		
m-Xylene & p-Xylene			50.0	55.6		ug/L		111	70 - 142		
o-Xylene			25.0	27.3		ug/L		109	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*100*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*118*		*72 - 130*
Toluene-d8 (Surr)	*101*		*70 - 130*

Lab Sample ID: LCS 720-144449/7
Matrix: Water
Analysis Batch: 144449

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO) -C5-C12			500	466		ug/L		93	62 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*106*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*127*		*72 - 130*
Toluene-d8 (Surr)	*99*		*70 - 130*

Lab Sample ID: LCSD 720-144449/6
Matrix: Water
Analysis Batch: 144449

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methyl tert-butyl ether			25.0	27.9		ug/L		111	62 - 130	0	20
Benzene			25.0	23.8		ug/L		95	79 - 130	2	20
Ethylbenzene			25.0	25.5		ug/L		102	80 - 120	5	20
Toluene			25.0	24.1		ug/L		96	78 - 120	2	20
m-Xylene & p-Xylene			50.0	52.7		ug/L		105	70 - 142	5	20
o-Xylene			25.0	25.6		ug/L		102	70 - 130	6	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*101*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*126*		*72 - 130*
Toluene-d8 (Surr)	*102*		*70 - 130*

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

Lab Sample ID: LCSD 720-144449/8
Matrix: Water
Analysis Batch: 144449

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO) -C5-C12			500	465		ug/L		93	62 - 120	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*103*		*67 - 130*
1,2-Dichloroethane-d4 (Surr)	*126*		*72 - 130*
Toluene-d8 (Surr)	*99*		*70 - 130*

GC/MS VOA

Analysis Batch: 144418

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-52310-1	MW-1	Total/NA	Water	8260B/CA_LUFT MS	
720-52310-2	MW-3	Total/NA	Water	8260B/CA_LUFT MS	
720-52310-3	MW-4	Total/NA	Water	8260B/CA_LUFT MS	
720-52310-4	MW-5	Total/NA	Water	8260B/CA_LUFT MS	
720-52310-5	MW-6	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-144418/5	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-144418/7	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-144418/6	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-144418/8	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
MB 720-144418/4	Method Blank	Total/NA	Water	8260B/CA_LUFT MS	

Analysis Batch: 144449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-52310-2	MW-3	Total/NA	Water	8260B/CA_LUFT MS	
720-52310-4	MW-5	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-144449/5	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-144449/7	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-144449/6	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-144449/8	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
MB 720-144449/4	Method Blank	Total/NA	Water	8260B/CA_LUFT MS	

Lab Chronicle

Client: Applied Water Resources Corporation
Project/Site: ARC 1700 Jefferson

TestAmerica Job ID: 720-52310-1

Client Sample ID: MW-1

Lab Sample ID: 720-52310-1

Date Collected: 09/12/13 10:52

Matrix: Water

Date Received: 09/13/13 14:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		100	144418	09/18/13 00:02	YYB	TAL PLS

Client Sample ID: MW-3

Lab Sample ID: 720-52310-2

Date Collected: 09/12/13 09:53

Matrix: Water

Date Received: 09/13/13 14:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	144418	09/18/13 00:30	YYB	TAL PLS
Total/NA	Analysis	8260B/CA_LUFTMS		10	144449	09/18/13 13:05	PDR	TAL PLS

Client Sample ID: MW-4

Lab Sample ID: 720-52310-3

Date Collected: 09/12/13 10:20

Matrix: Water

Date Received: 09/13/13 14:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		10	144418	09/18/13 00:57	YYB	TAL PLS

Client Sample ID: MW-5

Lab Sample ID: 720-52310-4

Date Collected: 09/12/13 09:23

Matrix: Water

Date Received: 09/13/13 14:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		100	144418	09/18/13 01:25	YYB	TAL PLS
Total/NA	Analysis	8260B/CA_LUFTMS		500	144449	09/18/13 13:33	PDR	TAL PLS

Client Sample ID: MW-6

Lab Sample ID: 720-52310-5

Date Collected: 09/12/13 08:45

Matrix: Water

Date Received: 09/13/13 14:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	144418	09/18/13 01:53	YYB	TAL PLS

Laboratory References:

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

Certification Summary

Client: Applied Water Resources Corporation
Project/Site: ARC 1700 Jefferson

TestAmerica Job ID: 720-52310-1

Laboratory: TestAmerica Pleasanton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-14

Method Summary

Client: Applied Water Resources Corporation
Project/Site: ARC 1700 Jefferson

TestAmerica Job ID: 720-52310-1

Method	Method Description	Protocol	Laboratory
8260B/CA_LUFTMS	8260B / CA LUFT MS	SW846	TAL PLS

Protocol References:

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

Laboratory References:

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

Sample Summary

Client: Applied Water Resources Corporation
Project/Site: ARC 1700 Jefferson

TestAmerica Job ID: 720-52310-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-52310-1	MW-1	Water	09/12/13 10:52	09/13/13 14:10
720-52310-2	MW-3	Water	09/12/13 09:53	09/13/13 14:10
720-52310-3	MW-4	Water	09/12/13 10:20	09/13/13 14:10
720-52310-4	MW-5	Water	09/12/13 09:23	09/13/13 14:10
720-52310-5	MW-6	Water	09/12/13 08:45	09/13/13 14:10

AWR Corp.

720-52310

SAMPLE ANALYSIS/COMPOSITE REQUEST FORM
CHAIN-OF-CUSTODY

1486 13

Invoice to: AWR Corp	Date: 9-13-13	Page: 1 of 1
Project Name: ARC 1700 Jefferson	Location: 1700 Jefferson	
Project #:	EDF report: (y) n email: ybayram@awrcorp.net	
Project Manager	Tel: 925-938-1600x108	Fax: (925) 938-1610
Laboratory: Test America	Turnaround Time (days): 1 / 2 / 3 / 4 / 5 / 6 / 7 / 14 / Std	
Sampler Signature:		X

Analyses Required

Sample ID	Date	Depth	Time	Sample Matrix	# Containers	Type of Container	Preservative	TPHg BTEX MTBE				
MW-1	9-12-13		1052	W	4	VOAs	HCl	X	X			
MW-3			953									
MW-4			1020									
MW-5			923									
MW-6			845									

Notes:

720-52310 Chain of Custody

2.0°c

Relinquished by:	Date	Time	Received by:	Date	Time
	9-13-13	1630		9/13/13	1030
	9/13/13	1425		9/13/13	1425

Login Sample Receipt Checklist

Client: Applied Water Resources Corporation

Job Number: 720-52310-1

Login Number: 52310

List Source: TestAmerica Pleasanton

List Number: 1

Creator: Gonzales, Justinn

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are 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 containers received 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	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	