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March 21, 2006

Mr. Don Hwang
Alameda County Environmental Health Services
UST Local Oversight Program
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Re: **First Quarter 2006 Monitoring Report**

Former ARCO Service Station
706 Harrison Street
Oakland, California
STID 3749
Fuel Leak Case RO0000484
Cambria Project #230-0116



Dear Mr. Hwang:

On behalf of Mr. Bo K. Gin, Cambria Environmental Technology, Inc. is submitting this *First Quarter 2006 Monitoring Report* for the subject site. The report describes first quarter 2006 activities and results as well as anticipated second quarter 2006 activities.

If you have any questions or comments regarding this report, please contact Matthew Meyers at (510) 420-3314 or Mark Jonas at (510) 420-3307.

Sincerely,
Cambria Environmental Technology, Inc.



Matthew A. Meyers
Project Geologist

Attachments: *First Quarter 2006 Monitoring Report*

cc: Mr. Bo K. Gin, 342 Lester Avenue, Oakland, California 94606
Mr. Robert Kitay, Aqua Science Engineering, 208 W. Pintado Road, Danville, California 94526

**Cambria
Environmental
Technology, Inc.**

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FIRST QUARTER 2006 MONITORING REPORT

**Former ARCO Service Station
706 Harrison Street
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STID 3749
Fuel Leak Case RO0000484
Cambria Project #230-0116**

March 21, 2006



Prepared for:

Mr. Bo K. Gin
342 Lester Avenue
Oakland, California 94606

Prepared by:

Cambria Environmental Technology, Inc.
5900 Hollis Street, Suite A
Emeryville, California 94608

Written by:

Glenn D Reiss

Glenn Reiss
Staff Geologist

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Mark L. Jonas
Mark Jonas, P.G.
Senior Project Manager



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FIRST QUARTER 2006 MONITORING REPORT

Former ARCO Service Station

706 Harrison Street

Oakland, California

STID 3749

Fuel Leak Case RO0000484

Cambria Project #230-0116

March 21, 2006

INTRODUCTION



On behalf of Mr. Bo K. Gin, Cambria Environmental Technology, Inc. (Cambria) is submitting this *First Quarter 2006 Monitoring Report* for the subject site. Presented below are the first quarter 2006 groundwater monitoring activities and results and the anticipated second quarter 2006 activities.

Figure 1 presents recent groundwater elevations and selected hydrochemical data. Table 1 presents recent and historic groundwater level measurements and elevations, and hydrochemical data. Appendix A contains field data sheets for this monitoring event. Appendix B presents the recent laboratory analytical report. Appendix C includes time-series plots with benzene and methyl tertiary butyl ether (MTBE) concentrations, and groundwater elevations. Appendix D provides monitoring groundwater elevations and analytical data for the neighboring former Shell Station located at 726 Harrison Street, in Oakland, California.

FIRST QUARTER 2006 ACTIVITIES

Monitoring Activities

Field Activities: On January 23, 2006, Muskan Environmental Sampling (MES) conducted quarterly monitoring and sampling activities. MES measured well water levels and collected groundwater samples from monitoring wells MW-1 through MW-7 (Figure 1). The groundwater depth measurements have been submitted to the GeoTracker database.

Prior to groundwater sampling, groundwater levels were measured in all monitoring wells. Each monitoring well was then purged before sampling. MES purged at least three well-casing volumes of groundwater from each monitoring well. Field measurements of pH, specific conductance, and temperature of purged groundwater were measured after the extraction of each successive casing volume. Well purging continued until consecutive pH, specific conductance, and temperature measurements appeared to stabilize. Field measurements, purge volumes, and sample collection data were recorded on field sampling data forms, presented in Appendix A.

Groundwater samples were collected using new disposable bailers, decanted into appropriate sampling containers supplied by the analytical laboratory. Samples were labeled, placed in protective foam sleeves, stored on crushed, water-based ice at or below 4 degrees Celsius and transported under a chain-of-custody (COC) to the laboratory. The COC used for this monitoring event is provided in Appendix B.



Sample Analyses: Groundwater samples were analyzed by McCampbell Analytical, Inc. of Pacheco, California, a California-certified laboratory. All groundwater samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg) by modified United States Environmental Protection Agency (EPA) Method SW8015C; benzene, toluene, ethylbenzene, and total xylenes (BTEX) and MTBE by EPA Method SW8021B; and all samples except MW-5 were analyzed for MTBE by EPA Method SW8260B. The analytical laboratory report is included in Appendix B. Groundwater analytical results are provided on Table 1 and summarized on Figure 1. Groundwater analytical results have been submitted to the GeoTracker database.

Monitoring Results

Groundwater Flow Direction and Gradient: Based on depth-to-water measurements collected during the monitoring event on January 23, 2006, groundwater appears to flow towards the south-southwest with an apparent gradient of 0.011 feet per foot (Figure 1). The gradient and flow direction are consistent with historical data. Depth-to-water and groundwater elevation data for the site are presented in Table 1.

Hydrocarbon Distribution in Groundwater: Hydrocarbons were detected in wells MW-1, MW-2, and MW-4 during this sampling event (Table 1). The highest TPHg and BTEX concentrations were detected in monitoring well MW-2 at 54,000 micrograms per liter ($\mu\text{g/L}$), 1,600 $\mu\text{g/L}$, 8,000 $\mu\text{g/L}$, 1,600 $\mu\text{g/L}$, and 6,700 $\mu\text{g/L}$, respectively. TPHg and BTEX concentrations were detected in well MW-1 at 3,100 $\mu\text{g/L}$, 790 $\mu\text{g/L}$, 6.5 $\mu\text{g/L}$, 79 $\mu\text{g/L}$, and 32 $\mu\text{g/L}$, respectively.

TPHg and BTEX concentrations remain elevated in upgradient well MW-4 at 1,300 $\mu\text{g/L}$, 170 $\mu\text{g/L}$, 13 $\mu\text{g/L}$, 14 $\mu\text{g/L}$, and 14 $\mu\text{g/L}$, respectively. No hydrocarbons, excluding MTBE (see below), were detected in down/cross-gradient well MW-6 or cross-gradient well MW-7. Analytical results are presented in Figure 1, Table 1, and Appendix B.

Significantly elevated concentrations of TPHg and BTEX are present up-gradient of the site, on the adjacent property (see Figure 1 and Appendix D).

MTBE Distribution in Groundwater: MTBE was detected in down-gradient well MW-1, source area well MW-2, up-gradient well MW-4, down/cross-gradient well MW-6, and cross-gradient wells MW-3 and MW-7 during this sampling event. This is the first time that MTBE has been detected in well MW-3.

The highest on-site MTBE concentration was detected in source area well MW-2 at 7,000 µg/L. MTBE concentrations in wells MW-1, MW-3, MW-4, MW-6, and MW-7 were 5,100 µg/L, 260 µg/L, 3,300 µg/L, 0.50 µg/L, and 2.2 µg/L, respectively.

Significantly higher concentrations of MTBE were identified in wells located up-gradient, on the adjacent property. The highest MTBE concentration was detected in monitoring well MW-5, on the adjacent property, at 13,000 µg/L (Figure 1).



ANTICIPATED SECOND QUARTER 2006 ACTIVITIES

Monitoring Activities

During second quarter 2006, Cambria will measure water levels and collect groundwater samples from monitoring wells MW-1, MW-2, MW-3, MW-4, MW-6, and MW-7. Pursuant to ACHCSA's letter dated February 25, 2003, the well sampling schedule was revised so that wells MW-1, MW-2, and MW-4 are sampled on a quarterly basis and wells MW-3, MW-5, MW-6, and MW-7 are sampled on a semi-annual basis during the first and third quarters. However, due to detections of MTBE in wells MW-3, MW-6, and MW-7, Cambria resumed and will continue quarterly sampling of these wells. Groundwater samples will be analyzed for TPHg by EPA Method SW8015C, BTEX, and MTBE by EPA Method SW8021B and by EPA Method SW8260B. Cambria will prepare a groundwater monitoring report summarizing the monitoring activities and results.

ATTACHMENTS:

Figure 1 – Groundwater Elevation Contour and Hydrocarbon Concentration Map

Table 1 – Groundwater Elevations and Analytical Data

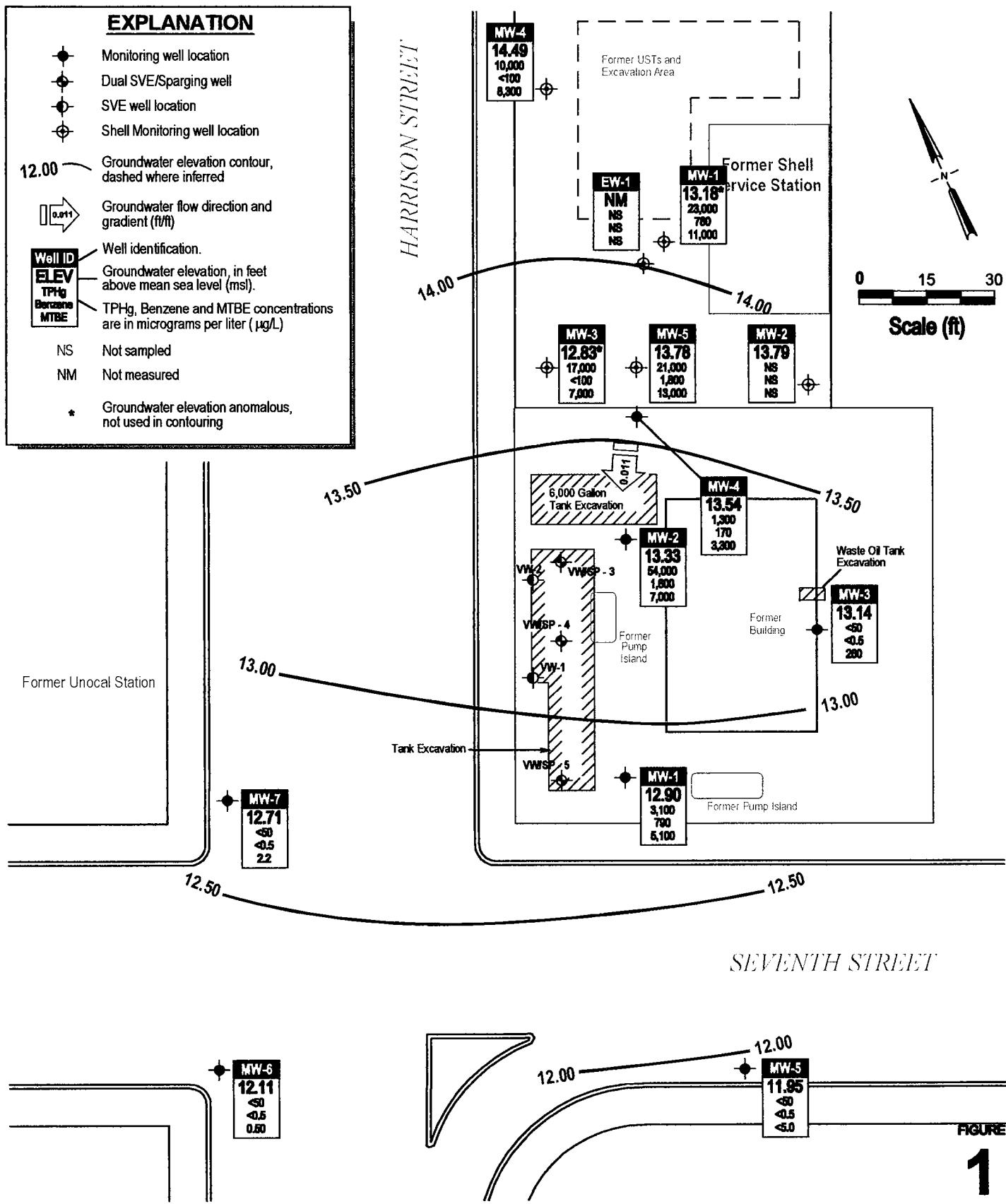
Appendix A – Groundwater Monitoring Field Data Sheets

Appendix B – Laboratory Analytical Report

Appendix C – Benzene and MTBE Concentration Graphs

Appendix D – Former Shell Station Groundwater Monitoring and Analytical Results

FIGURE



Former ARCO Station
706 Harrison Street
Oakland, California



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Groundwater Elevation Contour and Hydrocarbon Concentration Map

January 23, 2006

TABLE

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Table 1. Groundwater Elevations and Analytical Data: Former ARCO Station - 706 Harrison Street, Oakland, California

Well ID TOC Sampling Frequency	Date Sampled	Depth to Water (ft)	Groundwater Elevation (ft-msl)	TPHg ($\mu\text{g/L}$)	Benzene ($\mu\text{g/L}$)	Toluene ($\mu\text{g/L}$)	Ethylbenzene ($\mu\text{g/L}$)	Xylenes ($\mu\text{g/L}$)	MTBE by 8021B ($\mu\text{g/L}$)	MTBE by 8260B ($\mu\text{g/L}$)	Notes
MW-1	8/13/1993	17.40	11.75	20,000	8,500	640	280	440	-	-	
29.15	12/14/1993	17.27	11.88	17,000	9,200	1,200	4,400	540	-	-	
Quarterly	4/15/1994	17.00	12.15	9,500	3,600	530	160	280	-	-	
	12/29/1994	16.40	12.75	-	-	-	-	-	-	-	
	7/19/1996	15.83	13.32	17,000	5,200	1,100	330	530	-	-	sheen/odor
	1/27/1997	13.58	15.57	30,000	9,800	1,300	790	880	400	-	b, sheen/odor
	6/18/1997	16.11	13.04	19,000	5,600	1,400	510	770	1,200	800	a, b
	9/18/1997	16.62	12.53	48,000	18,000	4,400	1,000	1,700	ND<640	-	b
	12/10/1997	15.93	13.22	22,000	4,900	1,300	580	650	460	260	a, b, odor
	2/18/1998	11.56	17.59	16,000	5,000	750	400	780	1,800	-	b
	5/12/1998	13.53	15.62	19,000	4,600	810	450	770	5,500	-	b, c
	8/18/1998	15.19	13.96	12,000	3,600	1,300	300	570	5,100	3,700	a, b
	11/24/1998	15.67	13.48	13,000	3,600	890	330	380	6,100	-	b
	2/4/1999	15.31	13.84	20,000	5,900	830	450	500	4,900	-	b
	5/18/1999	14.95	14.20	23,000	7,000	1,600	520	830	6,100	-	b
	8/27/1999	15.84	13.31	19,000	5,800	1,700	410	710	1,800	2,100	a, b
	11/18/1999	16.39	12.76	20,000	4,900	630	410	580	4,900	3,600	b
	2/29/2000	13.43	15.72	12,000	2,800	24	290	170	3,100	3,400	a
	5/25/2000	15.08	14.07	12,000	2,200	120	330	260	9,100	12,000	a, b
	8/9/2000	16.09	13.06	13,000	2,500	44	310	140	16,000	-	b
	11/9/2000	15.90	13.25	11,000	2,500	140	380	150	11,000	12,000	b
	1/29/2001	16.05	13.10	9,600	3,100	100	77	200	2,600	2,400	b
	4/16/2001	16.90	12.25	3,300	1,200	4.4	2.7	28	900	940	b
	8/14/2001	17.13	12.02	2,000	500	3.4	24	7.8	68	53	a
	10/22/2001	16.11	13.04	220	83	0.63	2.8	ND<0.5	ND<10	5.7	a
	2/1/2002	16.93	12.22	640	220	1.7	4.7	0.57	ND<10	-	a
	5/10/2002	15.09	14.06	230	26	0.97	ND<0.5	ND<0.5	ND<5.0	-	a
	7/8/2002	15.20	13.95	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND<0.5	
	10/2/2002	15.70	13.45	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	1/23/2003	15.09	14.06	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	4/29/2003	13.02	16.13	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
26.17	7/18/2003	14.50	11.67	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	10/9/2003	13.81	12.36	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	1/28/2004	13.09	13.08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	4/7/2004	14.97	11.20	180	60	0.56	1.9	ND<0.5	ND<5.0	-	a
	7/23/2004	14.15	12.02	130	36	ND<0.5	0.65	ND<0.5	ND<5.0	-	a
	10/12/2004	16.30	9.87	ND<50	2.5	1.5	ND<0.5	0.86	ND<5.0	-	
	2/14/2005	13.85	12.32	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	4/27/2005	13.35	12.82	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	7/19/2005	14.68	11.49	4,500	1,400	6.5	160	58	630	-	a
	10/18/2005	15.15	11.02	1,700	340	ND<5.0	28	ND<5.0	8,000	7,200	a
	1/23/2006	13.27	12.90	3,100	790	6.5	79	32	4,200	5,100	a

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Well ID TOC Sampling Frequency	Date Sampled	Depth to Water (ft)	Groundwater Elevation (ft-msl)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE by 8021B (µg/L)	MTBE by 8260B (µg/L)	Notes
MW-2	8/13/1993	17.05	13.46	34,000	6,800	10,000	740	3,900	-	-	
30.5I	12/14/1993	18.28	12.23	16,000	3,200	4,200	500	1,700	-	-	
Quarterly	4/15/1994	18.10	12.41	23,000	2,500	4,200	470	1,800	-	-	
	12/29/1994	17.40	13.11	-	-	-	-	-	-	-	
	7/19/1996	16.72	13.79	90,000	7,300	14,000	1,600	7,300	-	-	odor
	1/27/1997	14.89	15.62	63,000	7,100	13,000	1,600	7,100	500	-	b, odor
	6/18/1997	17.12	13.39	52,000	5,100	10,000	1,400	6,000	ND<200	-	b
	9/18/1997	17.63	12.88	110,000	9,400	23,000	2,600	13,000	ND>890	-	b, sheen/odor
	12/10/1997	16.98	13.53	39,000	2,600	5,300	940	3,900	780	320	b, odor
	2/18/1998	12.61	17.90	85,000	9,000	19,000	2,300	11,000	2,400	-	b
	5/12/1998	14.45	16.06	110,000	9,500	21,000	2,500	12,000	ND<1,200	-	b
	8/18/1998	16.14	14.37	64,000	6,000	13,000	1,700	7,800	2,000	1,300	a, b
	11/24/1998	16.70	13.81	78,000	5,300	14,000	2,300	11,000	ND<2,000	-	b, g
	2/4/1999	18.39	12.12	66,000	5,800	16,000	2,600	12,000	3,000	-	b, g
	5/18/1999	15.90	14.61	78,000	6,700	17,000	2,400	10,000	4,300	-	b
	8/27/1999	16.79	13.72	91,000	7,400	17,000	2,300	11,000	1,200	1,000	a, b
	11/18/1999	17.32	13.19	180,000	7,000	20,000	3,300	16,000	ND<6,000	1,700	b,g
	2/29/2000	14.37	16.14	86,000	5,500	13,000	2,000	9,500	3,500	4,700	a
	5/25/2000	16.01	14.50	110,000	6,300	14,000	2,400	10,000	7,500	6,500	a, b, g
	8/9/2000	17.02	13.49	77,000	5,000	13,000	2,000	8,600	5,900	-	b
	11/9/2000	17.00	13.51	70,000	4,800	12,000	1,900	8,000	9,400	8,300	b
	1/29/2001	18.31	12.20	110,000	8,200	21,000	2,800	13,000	2,500	1,900	b,g
	4/16/2001	18.59	11.92	97,000	7,400	15,000	2,500	12,000	ND<3,000	ND<50	b,g
	8/14/2001	18.74	11.77	97,000	6,200	14,000	2,400	13,000	ND<250	ND<50	a,j
27.53	10/22/2001	18.27	12.24	71,000	5,900	15,000	2,400	12,000	ND<1,400	150	a
	2/1/2002	18.05	12.46	1,400	11	88	44	210	ND<5.0	-	a
	5/10/2002	17.15	13.36	97,000	4,500	15,000	2,500	12,000	ND<3,000	-	a,g
	7/8/2002	15.30	15.21	42,000	2,100	6,500	2,200	8,800	ND<1,000	65	a
	10/2/2002	15.89	14.62	70,000	1,700	5,700	1,900	8,300	ND<1,700	-	a
	1/23/2003	17.51	13.00	40,000	1,900	7,800	1,200	5,600	ND<1,000	-	a
	4/29/2003	15.31	15.20	82,000	2,500	11,000	2,200	9,400	ND<2,000	-	a
	7/18/2003	16.84	10.69	57,000	2,100	8,700	2,200	10,000	-	ND<50	a
	10/9/2003	16.05	11.48	49,000	1,800	7,000	1,700	7,600	ND<1,500	26	a
	1/28/2004	15.39	12.14	550	21	33	3.0	61	ND<100	-	a
	4/7/2004	16.01	11.52	41,000	2,500	11,000	1,900	8,000	ND<2,000	-	a
	7/23/2004	15.30	12.23	81,000	2,000	12,000	2,500	12,000	ND<2,000	-	a,h
	10/12/2004	17.87	9.66	75,000	2,600	13,000	2,300	11,000	ND<1,300	-	a
	2/14/2005	14.80	12.73	75,000	2,600	12,000	2,400	10,000	ND<1,800	-	a,h
	4/27/2005	14.63	12.90	61,000	2,800	11,000	1,600	7,000	ND<2,700	-	a
	7/19/2005	15.60	11.93	90,000	3,700	14,000	2,600	10,000	ND<7,000	-	a
	10/18/2005	16.08	11.45	77,000	3,300	14,000	2,400	11,000	7,900	6,400	a
	1/23/2006	14.20	13.33	54,000	1,600	8,000	1,600	6,700	6,600	7,000	a

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Table 1. Groundwater Elevations and Analytical Data: Former ARCO Station - 706 Harrison Street, Oakland, California

Well ID TOC Sampling Frequency	Date Sampled	Depth to Water (ft)	Groundwater Elevation (ft-msl)	TPHg ($\mu\text{g/L}$)	Benzene ($\mu\text{g/L}$)	Toluene ($\mu\text{g/L}$)	Ethylbenzene ($\mu\text{g/L}$)	Xylenes ($\mu\text{g/L}$)	MTBE by 8021B ($\mu\text{g/L}$)	MTBE by 8260B ($\mu\text{g/L}$)	Notes
MW-3	8/13/1993	17.05	12.72	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.5	-	-	
29.77	12/14/1993	17.70	12.07	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.5	-	-	
Semi-annually	4/15/1994	17.40	12.37	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	-	-	
	12/29/1994	16.80	12.97	-	-	-	-	-	-	-	
	7/19/1996	16.28	13.49	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	-	-	
	1/27/1997	13.83	15.94	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	6/18/1997	16.53	13.24	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	9/18/1997	17.07	12.70	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	12/10/1997	16.15	13.62	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	2/18/1998	11.80	17.97	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	5/12/1998	13.85	15.92	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	8/18/1998	15.57	14.20	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	11/24/1998	16.04	13.73	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	2/4/1999	17.80	11.97	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	5/18/1999	15.29	14.48	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	8/27/1999	16.15	13.62	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	11/18/1999	16.77	13.00	-	-	-	-	-	-	-	
	2/29/2000	13.71	16.06	ND<50	2	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	5/25/2000	15.46	14.31	-	-	-	-	-	-	-	
	8/9/2000	16.46	13.31	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	11/9/2000	16.25	13.52	-	-	-	-	-	-	-	
	1/29/2001	16.52	13.25	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	4/16/2001	16.95	12.82	-	-	-	-	-	-	-	
	8/14/2001	17.11	12.66	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	10/22/2001	16.50	13.27	-	-	-	-	-	-	-	
	2/1/2002	16.90	12.87	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	5/10/2002	15.03	14.74	-	-	-	-	-	-	-	
	7/8/2002	14.45	15.32	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	10/2/2002	15.03	14.74	-	-	-	-	-	-	-	
	1/23/2003	15.48	14.29	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	4/29/2003	12.49	17.28	-	-	-	-	-	-	-	
26.79	7/18/2003	14.80	11.99	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	10/9/2003	14.13	12.66	-	-	-	-	-	-	-	
	1/28/2004	13.47	13.32	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	4/7/2004	15.41	11.38	-	-	-	-	-	-	-	
	7/23/2004	14.54	12.25	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	10/12/2004	16.58	10.21	-	-	-	-	-	-	-	
	2/14/2005	14.19	12.60	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	4/27/2005	13.68	13.11	-	-	-	-	-	-	-	
	7/19/2005	15.15	11.64	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	10/18/2005	15.60	11.19	-	-	-	-	-	-	-	
	1/23/2006	13.65	13.14	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	270	260	

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Table 1. Groundwater Elevations and Analytical Data: Former ARCO Station - 706 Harrison Street, Oakland, California

Well ID TOC Sampling Frequency	Date Sampled	Depth to Water (ft)	Groundwater Elevation (ft-msl)	TPHg ($\mu\text{g/L}$)	Benzene ($\mu\text{g/L}$)	Toluene ($\mu\text{g/L}$)	Ethylbenzene ($\mu\text{g/L}$)	Xylenes ($\mu\text{g/L}$)	MTBE by 8021B ($\mu\text{g/L}$)	MTBE by 8260B ($\mu\text{g/L}$)	Notes
MW-4 31.18 Quarterly	12/16/1994	18.10	13.08	2,500	32	6.5	4.5	17	-	-	
	12/29/1994	17.95	13.23	-	-	-	-	-	-	-	
	7/19/1996	17.38	13.80	3,300	520	39	67	60	-	-	
	1/27/1997	15.25	15.93	4,500	860	55	100	91	1,100	-	b
	6/18/1997	17.61	13.57	2,700	700	52	81	76	2,200	2,300	a, b
	9/18/1997	18.01	13.17	3,900	760	38	56	64	ND<170	-	b
	12/10/1997	17.45	13.73	12,000	1,800	120	210	210	2,900	2,600	a, b
	2/18/1998	13.09	18.09	1,700	210	8	6.7	16	200	-	b
	5/12/1998	14.78	16.40	2,100	300	15	36	34	920	-	b, c
	8/18/1998	16.59	14.59	4,700	1,000	130	110	150	5,200	4,900	a, b
	11/24/1998	17.18	14.00	3,000	810	44	76	94	4,800	-	b
	2/4/1999	18.90	12.28	2,800	770	50	69	69	3,100	-	b
	5/18/1999	16.30	14.88	4,000	780	57	7.7	79	4,800	-	b
	8/27/1999	17.21	13.97	4,100	870	51	74	99	3,300	4,100	a, b
	11/18/1999	17.77	13.41	3,000	760	43	67	65	5,100	5,400	b
	2/29/2000	14.85	16.33	4,600	1,000	64	94	170	4,100	4,600	a
	5/25/2000	16.45	14.73	2,600	540	39	59	41	3,500	5,300	b
	8/9/2000	17.47	13.71	4,400	930	66	98	79	9,400	-	b
	11/9/2000	17.45	13.73	4,200	630	34	54	44	7,800	9,400	b
	1/29/2001	18.90	12.28	3,100	710	34	66	51	9,400	8,000	b
28.20	4/16/2001	19.17	12.01	160	1.2	1.3	ND<0.5	12	22	20	b
	8/14/2001	19.20	11.98	1,700	190	11	35	13	300	250	b
	10/22/2001	18.95	12.23	1,100	120	3.7	29	7.9	ND<25	16	a
	2/1/2002	19.05	12.13	2,600	25	43	21	280	ND<5.0	-	a
	5/10/2002	17.69	13.49	490	3.5	2.0	2.1	2.2	ND<5.0	-	a
	7/8/2002	15.75	15.43	170	0.51	0.62	1.6	1.2	ND<5.0	2.0	m
	10/2/2002	16.30	14.88	240	1.7	2.0	2.2	0.88	ND<5.0	-	a
	1/23/2003	17.74	13.44	ND<50	0.52	4.1	ND<0.5	1.9	ND<5.0	-	
	4/29/2003	15.47	15.71	1,300	75	4.8	21	7.3	130	120	a
	7/18/2003	17.08	11.12	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	-	0.74	a
	10/9/2003	16.25	11.95	210	4.7	0.57	1.6	1.1	ND<10	10	a
	1/28/2004	15.65	12.55	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	a
	4/7/2004	16.49	11.71	-	-	-	-	-	-	-	
	4/12/2004	-	-	770	56	3.2	7.0	6.5	120	160	a
	7/23/2004	15.86	12.34	1,100	130	11	17	17	790	800	a
	10/12/2004	18.05	10.15	150	0.86	ND<0.5	ND<0.5	0.97	ND<10	-	a
	2/14/2005	15.30	12.90	1,500	200	16	30	31	420	550	a
	4/27/2005	14.20	14.00	3,000	520	100	27	86	600	480	a
	7/19/2005	16.08	12.12	1,800	310	16	36	25	1,000	1,100	a
	10/18/2005	16.55	11.65	2,500	450	28	47	51	3,800	4,500	a
	1/23/2006	14.66	13.54	1,300	170	13	14	14	2,500	3,300	a

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Well ID TOC Sampling Frequency	Date Sampled	Depth to Water (ft)	Groundwater Elevation (ft-msl)	TPHg ($\mu\text{g/L}$)	Benzene ($\mu\text{g/L}$)	Toluene ($\mu\text{g/L}$)	Ethylbenzene ($\mu\text{g/L}$)	Xylenes ($\mu\text{g/L}$)	MTBE by 8021B ($\mu\text{g/L}$)	MTBE by 8260B ($\mu\text{g/L}$)	Notes
MW-5	12/16/1994	16.07	11.97	ND<50	1.1	ND<0.5	ND<0.5	2.4	-	-	
28.04	12/29/1994	16.10	11.94	-	-	-	-	-	-	-	
Semi-annually	7/19/1996	15.49	12.55	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	-	-	
	1/27/1997	13.60	14.44	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	6/18/1997	15.55	12.49	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	9/18/1997	16.16	11.88	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	12/10/1997	15.41	12.63	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	2/18/1998	10.93	17.11	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	5/12/1998	13.25	14.79	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	8/18/1998	14.75	13.29	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	11/24/1998	15.15	12.89	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	2/4/1999	14.61	13.43	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	5/18/1999	14.15	13.89	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	8/27/1999	15.43	12.61	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	11/18/1999	15.97	12.07	-	-	-	-	-	-	-	
	2/29/2000	13.16	14.88	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	5/25/2000	14.72	13.32	-	-	-	-	-	-	-	
	8/9/2000	15.68	12.36	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	11/9/2000	15.39	12.65	-	-	-	-	-	-	-	
	1/29/2001	15.97	12.07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	4/16/2001	16.24	11.80	-	-	-	-	-	-	-	
	8/14/2001	17.39	10.65	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	10/22/2001	15.90	12.14	-	-	-	-	-	-	-	
	2/1/2002	16.55	11.49	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	5/10/2002	15.12	12.92	-	-	-	-	-	-	-	
	7/8/2002	15.92	12.12	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	10/2/2002	16.42	11.62	-	-	-	-	-	-	-	
	1/23/2003	14.90	13.14	ND<50	20	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	4/29/2003	12.05	15.99	-	-	-	-	-	-	-	
25.07	7/18/2003	14.28	10.79	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	10/9/2003	13.36	11.71	-	-	-	-	-	-	-	
	1/28/2004	12.68	12.39	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	4/7/2004	14.71	10.36	-	-	-	-	-	-	-	
	7/23/2004	13.49	11.58	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	i
	10/12/2004	15.88	9.19	-	-	-	-	-	-	-	
	2/14/2005	13.22	11.85	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	i
	4/27/2005	13.40	11.67	-	-	-	-	-	-	-	
	7/19/2005	14.21	10.86	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	i
	10/18/2005	14.79	10.28	-	-	-	-	-	-	-	
	1/23/2006	13.12	11.95	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	i

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MW-6 29.10 Quarterly	12/16/1994	17.74	11.36	-	-	-	-	-	-	-	
	12/29/1994	17.40	11.70	-	-	-	-	-	-	-	
	7/19/1996	16.60	12.50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	-	-	
	1/27/1997	14.88	14.22	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	6/18/1997	16.73	12.37	51	22	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	c
	9/18/1997	17.24	11.86	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	12/10/1997	16.56	12.54	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	2/18/1998	12.93	16.17	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	5/12/1998	14.35	14.75	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	8/18/1998	15.94	13.16	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	11/24/1998	16.46	12.64	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	2/4/1999	18.25	10.85	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	5/18/1999	15.73	13.37	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	8/27/1999	15.64	13.46	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	11/18/1999	17.04	12.06	-	-	-	-	-	-	-	
	2/29/2000	14.55	14.55	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	5/25/2000	15.86	13.24	-	-	-	-	-	-	-	
	8/9/2000	16.80	12.30	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	11/9/2000	16.60	12.50	-	-	-	-	-	-	-	
	1/29/2001	17.00	12.10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	4/16/2001	17.15	11.95	-	-	-	-	-	-	-	
	8/14/2001	17.30	11.80	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	10/22/2001	17.13	11.97	-	-	-	-	-	-	-	
	2/1/2002	16.57	12.53	70	37	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	a
26.13	5/10/2002	15.25	13.85	-	-	-	-	-	-	-	
	7/8/2002	15.79	13.31	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	10/2/2002	16.38	12.72	-	-	-	-	-	-	-	
	1/23/2003	16.03	13.07	ND<50	21	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	4/29/2003	14.19	14.91	-	-	-	-	-	-	-	
	7/18/2003	15.47	10.66	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	10/9/2003	14.73	11.40	-	-	-	-	-	-	-	
	1/28/2004	14.05	12.08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	4/7/2004	14.41	11.72	-	-	-	-	-	-	-	
	7/23/2004	15.15	10.98	3,300	1,300	ND<5.0	52	9.7	ND<50	-	a
	10/12/2004	17.29	8.84	-	-	-	-	-	-	-	
	2/14/2005	14.60	11.53	350	160	ND<0.5	ND<0.5	ND<0.5	ND<25	2.0	a,i
	4/27/2005	14.10	12.03	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	ND<0.5	
	7/19/2005	15.18	10.95	110	15	ND<0.5	0.62	ND<0.5	ND<5.0	1.7	a,i
	10/18/2005	15.65	10.48	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	0.87	i
	1/23/2006	14.02	12.11	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	0.50	i

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MW-7 29.67 Quarterly	12/16/1994	17.07	12.60	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	12/29/1994	17.65	12.02	-	-	-	-	-	-	-	
	7/19/1996	16.44	13.23	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	1/27/1997	15.09	14.58	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	6/18/1997	16.59	13.08	73	ND<0.5	0.55	ND<0.5	ND<0.5	ND<5.0	-	d
	9/18/1997	17.06	12.61	94	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	b, f
	12/10/1997	16.58	13.09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	2/18/1998	12.60	17.07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	5/12/1998	14.81	14.86	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	8/18/1998	15.67	14.00	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	11/24/1998	16.30	13.37	200	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	d
	2/4/1999	15.99	13.68	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	5/18/1999	15.42	14.25	200	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	d
	8/27/1999	16.35	13.32	140	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	11/18/1999	16.81	12.86	--	--	--	--	--	--	--	
	2/29/2000	14.16	15.51	100	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	f
	5/25/2000	15.54	14.13	--	--	--	--	--	--	--	
	8/9/2000	16.56	13.11	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	11/9/2000	16.45	13.22	-	-	-	-	-	-	-	
	1/29/2001	16.92	12.75	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	4/16/2001	17.03	12.64	-	-	-	-	-	-	-	
	8/14/2001	17.27	12.40	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	10/22/2001	16.95	12.72	-	-	-	-	-	-	-	
	2/1/2002	16.14	13.53	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	5/10/2002	15.30	14.37	-	-	-	-	-	-	-	
	7/8/2002	15.73	13.94	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	10/2/2002	16.24	13.43	-	-	-	-	-	-	-	
	1/23/2003	15.70	13.97	ND<50	23	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	4/29/2003	12.68	16.99	-	-	-	-	-	-	-	
26.70	7/18/2003	15.19	11.51	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	10/9/2003	14.45	12.25	-	-	-	-	-	-	-	
	1/28/2004	13.88	12.82	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	4/7/2004	15.71	10.99	-	-	-	-	-	-	-	
	7/23/2004	14.85	11.85	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	130	120	
	10/12/2004	16.90	9.80	-	-	-	-	-	-	-	
	2/14/2005	14.42	12.28	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	190	200	
	4/27/2005	13.75	12.95	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	1.3	
	7/19/2005	14.91	11.79	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	65	66	
	10/18/2005	15.40	11.30	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	12	15	
	1/23/2006	13.99	12.71	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	2.2	

CAMBRIA

Table 1. Groundwater Elevations and Analytical Data: Former ARCO Station - 706 Harrison Street, Oakland, California

Well ID TOC Sampling Frequency	Date Sampled	Depth to Water (ft)	Groundwater Elevation (ft-msl)	TPHg ($\mu\text{g/L}$)	Benzene ($\mu\text{g/L}$)	Toluene ($\mu\text{g/L}$)	Ethylbenzene ($\mu\text{g/L}$)	Xylenes ($\mu\text{g/L}$)	MTBE by 8021B ($\mu\text{g/L}$)	MTBE by 8260B ($\mu\text{g/L}$)	Notes
VW-3	3/6/2003	-	-	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	i
	3/25/2003	-	-	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	i
VW-4	3/6/2003	-	-	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	3/25/2003	-	-	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
Trip Blank	11/9/2000	-	-	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	
	2/14/2005	-	-	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	-	

Abbreviations and Analyses:

ND<0.5 = Not Detected (ND) above laboratory detection limit.

TOC = Top of casing elevation, measured in feet, relative to mean sea level

ft = Measured in feet

ft-msl = Elevation in feet relative to mean sea level

TPHg = Total petroleum hydrocarbons as gasoline by modified EPA Method SW8015C

Benzene, ethylbenzene, toluene and xylenes by EPA Method SW8021B.

MTBE = Methyl tertiary butyl ether by EPA Method SW8021B and/or SW8260B.

$\mu\text{g/L}$ = Micrograms per liter

- = Not sampled, not analyzed, or not applicable

Data prior to 12/16/94 provided by previous consultant.

Wells were re-surveyed on October 27, 2003 to City of Oakland Benchmark 25A.

Analytical Laboratory Notes:

a = "unmodified or weakly modified gasoline is significant"

b = "heavier gasoline range compounds are significant"

c = "lighter gasoline range compounds are significant"

d = "isolated peaks are present"

f = "hydrocarbons with no recognizable patterns are present"

g = "lighter than water immiscible sheen is present"

h = "lighter than water immiscible sheen/product is present"

i = "sample contains greater than ~1 vol. % sediment"

j = "sample was diluted due to high organic content"

m = "no recognizable pattern"

APPENDIX A

Groundwater Monitoring Field Data Sheets



WELL GAUGING SHEET

Client: Cambria Environmental Technology Inc.						
Site						
Address: 706 Harrison Street Oakland, CA						
Date: 1/23/2006			Signature:			
Well ID	Time	Depth to SPH	Depth to Water	SPH Thickness	Depth to Bottom	Comments
MW-1	12:54		13.27		24.40	
MW-2	1:00		14.20		25.41	
MW-3	12:38		13.65		27.75	
MW-4	12:57		14.66		25.60	
MW-5	12:33		13.12		27.88	
MW-6	12:46		14.02		25.89	
MW-7	12:50		13.99		27.80	



MUSKAN
ENVIRONMENTAL
SAMPLING

WELL SAMPLING FORM

Date:	1/23/2006						
Client:	Cambria Environmental Technology Inc.						
Site Address:	706 Harrison Street Oakland, CA						
Well ID:	MW-1						
Well Diameter:	2"						
Purging Device:	Disposable Bailer						
Sampling Method:	Disposable Bailer						
Total Well Depth:	24.40	Fe=	mg/L				
Depth to Water:	13.27	ORP=	mV				
Water Column Height:	11.13	DO=	mg/L				
Gallons/ft:	0.16						
1 Casing Volume (gal):	1.78		COMMENTS: turbid				
3 Casing Volumes (gal):	5.34						
TIME:	CASING VOLUME (gal)	TEMP (Celsius)	pH	COND. ($\mu\text{S}/\text{cm}$)			
4:20	1.8	20.4	7.15	1389			
4:25	3.6	20.1	7.19	1418			
4:30	5.3	20.0	7.19	1422			
Sample ID:	Date:	Time	Container Type	Preservative	Analytes	Method	
MW-1	1/23/2006	4:35	Voa	HCl, ICE	TPHg, BTEX, MTBE	8015, 8021, 8260	



MUSKAN
ENVIRONMENTAL
SAMPLING

WELL SAMPLING FORM

Date:	1/23/2006					
Client:	Cambria Environmental Technology Inc.					
Site Address:	706 Harrison Street Oakland, CA					
Well ID:	MW-2					
Well Diameter:	2"					
Purging Device:	Disposable Bailer					
Sampling Method:	Disposable Bailer					
Total Well Depth:	25.41	Fe=	mg/L			
Depth to Water:	14.20	ORP=	mV			
Water Column Height:	11.21	DO=	mg/L			
Gallons/ft:	0.16					
1 Casing Volume (gal):	1.79	COMMENTS: turbid				
3 Casing Volumes (gal):	5.38					
TIME:	CASING VOLUME (gal)	TEMP (Celsius)	pH	COND. (µS/cm)		
5:30	1.8	20.1	7.10	940		
5:35	3.6	20.0	7.16	913		
5:40	5.4	20.0	7.17	957		
Sample ID:	Date:	Time	Container Type	Preservative	Analytes	Method
MW-2	1/23/2006	5:45	Voa	HCl, ICE	TPHg, BTEX, MTBE	8015, 8021, 8260



MUSKAN
ENVIRONMENTAL
SAMPLING

WELL SAMPLING FORM



MUSKAN
ENVIRONMENTAL
SAMPLING

WELL SAMPLING FORM

Date:	1/23/2006					
Client:	Cambria Environmental Technology Inc.					
Site Address:	706 Harrison Street Oakland, CA					
Well ID:	MW-4					
Well Diameter:	2"					
Purging Device:	Disposable Bailer					
Sampling Method:	Disposable Bailer					
Total Well Depth:	25.60		Fe=	mg/L		
Depth to Water:	14.66		ORP=	mV		
Water Column Height:	10.94		DO=	mg/L		
Gallons/ft:	0.16					
1 Casing Volume (gal):	1.75		COMMENTS: turbid			
3 Casing Volumes (gal):	5.25					
TIME:	CASING VOLUME (gal)	TEMP (Celsius)	pH	COND. ($\mu\text{S}/\text{cm}$)		
4:55	1.8	21.0	7.18	695		
5:00	3.5	20.7	7.13	723		
5:05	5.3	20.5	7.15	716		
Sample ID:	Date:	Time	Container Type	Preservative	Analytes	Method
MW-4	1/23/2006	5:10	Voa	HCl, ICE	TPHg, BTEX, MTBE	8015, 8021, 8260



MUSKAN
ENVIRONMENTAL
SAMPLING

WELL SAMPLING FORM



MUSKAN
ENVIRONMENTAL
SAMPLING

WELL SAMPLING FORM

Date:	1/23/2006					
Client:	Cambria Environmental Technology Inc.					
Site Address:	706 Harrison Street Oakland, CA					
Well ID:	MW-6					
Well Diameter:	2"					
Purging Device:	Disposable Bailer					
Sampling Method:	Disposable Bailer					
Total Well Depth:	25.89		Fe=	mg/L		
Depth to Water:	14.02		ORP=	mV		
Water Column Height:	11.87		DO=	mg/L		
Gallons/ft:	0.16					
1 Casing Volume (gal):	1.90		COMMENTS: turbid			
3 Casing Volumes (gal):	5.70					
TIME:	CASING VOLUME (gal)	TEMP (Celsius)	pH	COND. (µS/cm)		
2:00	1.9	19.8	7.18	922		
2:05	3.8	20.3	7.15	870		
2:10	5.7	20.1	7.11	889		
Sample ID:	Date:	Time	Container Type	Preservative	Analytes	Method
MW-6	1/23/2006	2:15	Voa	HCl, ICE	TPHg, BTEX, MTBE	8015, 8021, 8260



MUSKAN
ENVIRONMENTAL
SAMPLING

WELL SAMPLING FORM

Date:	1/23/2006					
Client:	Cambria Environmental Technology Inc.					
Site Address:	706 Harrison Street Oakland, CA					
Well ID:	MW-7					
Well Diameter:	2"					
Purging Device:	Disposable Bailer					
Sampling Method:	Disposable Bailer					
Total Well Depth:	27.80		Fe=	mg/L		
Depth to Water:	13.99		ORP=	mV		
Water Column Height:	13.81		DO=	mg/L		
Gallons/ft:	0.16					
1 Casing Volume (gal):	2.21		COMMENTS: turbid			
3 Casing Volumes (gal):	6.63					
TIME:	CASING VOLUME (gal)	TEMP (Celsius)	pH	COND. ($\mu\text{S}/\text{cm}$)		
2:40	2.2	21.7	7.09	490		
2:45	4.4	21.0	7.12	506		
2:50	6.6	21.1	7.14	520		
Sample ID:	Date:	Time	Container Type	Preservative	Analytes	Method
MW-7	1/23/2006	2:55	Voa	HCl, ICE	TPHg, BTEX, MTBE	8015, 8021, 8260

APPENDIX B

Laboratory Analytical Report



McCampbell Analytical, Inc.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
Website: www.mccampbell.com E-mail: main@mccampbell.com

Cambria Env. Technology 5900 Hollis St, Suite A Emeryville, CA 94608	Client Project ID: #230-0116; BoGin	Date Sampled: 01/23/06
	Client Contact: Matt Meyers	Date Received: 01/24/06
	Client P.O.:	Date Reported: 01/30/06
		Date Completed: 01/30/06

WorkOrder: 0601346

January 30, 2006

Dear Matt:

Enclosed are:

- 1). the results of 7 analyzed samples from your #230-0116; BoGin project,
- 2). a QC report for the above samples
- 3). a copy of the chain of custody, and
- 4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Best regards,

Angela Rydelius, Lab Manager



McCampbell Analytical, Inc.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
Website: www.mccampbell.com E-mail: main@mccampbell.com

Cambria Env. Technology 5900 Hollis St, Suite A Emeryville, CA 94608	Client Project ID: #230-0116; BoGin	Date Sampled: 01/23/06
		Date Received: 01/24/06
	Client Contact: Matt Meyers	Date Extracted: 01/25/06-01/26/06
	Client P.O.:	Date Analyzed: 01/25/06-01/26/06

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE*

Extraction method: SW5030B

Analytical methods: SW8021B/8015Cm

Work Order: 0601346

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request.



McCampbell Analytical, Inc.

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Website: www.mccampbell.com E-mail: main@mccampbell.com

Cambria Env. Technology 5900 Hollis St, Suite A Emeryville, CA 94608	Client Project ID: #230-0116; BoGin	Date Sampled: 01/23/06
		Date Received: 01/24/06
	Client Contact: Matt Meyers	Date Extracted: 01/25/06-01/28/06

Methyl tert-Butyl Ether*

Extraction method: SW5030B

Analytical methods: SW8260B

Work Order: 0601346

Reporting Limit for DF=1; ND means not detected at or above the reporting limit	W	0.5	µg/L
	S	NA	NA

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or surrogate coelutes with another peak.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.



McCampbell Analytical, Inc.

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Telephone : 925-798-1620 Fax : 925-798-1622
Website: www.mccampbell.com E-mail: main@mccampbell.com

QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0601346

EPA Method: SW8021B/8015Cm		Extraction: SW5030B		BatchID: 20003		Spiked Sample ID: 0601333-004A				
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
TPH(btex) [£]	ND	60	112	108	3.12	104	104	0	70 - 130	70 - 130
MTBE	ND	10	97.2	99.4	2.17	80.6	81.9	1.64	70 - 130	70 - 130
Benzene	ND	10	88.7	91.9	3.55	95.7	90.5	5.53	70 - 130	70 - 130
Toluene	ND	10	88.7	91.6	3.18	95.5	90.8	5.04	70 - 130	70 - 130
Ethylbenzene	ND	10	90.6	93.5	3.21	97.5	93.8	3.83	70 - 130	70 - 130
Xylenes	ND	30	94.3	95	0.704	99.7	95	4.79	70 - 130	70 - 130
%SS:	106	10	94	96	1.80	104	101	2.81	70 - 130	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 20003 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0601346-001A	1/23/06 4:35 PM	1/25/06	1/25/06 8:26 AM	0601346-001A	1/23/06 4:35 PM	1/26/06	1/26/06 6:32 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (\text{MS-Sample}) / (\text{Amount Spiked})$; RPD = $100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not applicable or not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS Certification No. 1644

 QA/QC Officer



McCampbell Analytical, Inc.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
Website: www.mccampbell.com E-mail: main@mccampbell.com

QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0601346

EPA Method: SW8021B/8015Cm		Extraction: SW5030B		BatchID: 20018		Spiked Sample ID: 0601355-001A				
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
TPH(btex) [£]	ND	60	108	104	3.26	105	99.9	4.85	70 - 130	70 - 130
MTBE	ND	10	91.4	89.2	2.40	97.7	96.7	1.06	70 - 130	70 - 130
Benzene	ND	10	89.4	83.4	6.85	92.3	82.7	10.9	70 - 130	70 - 130
Toluene	ND	10	89.4	84.1	6.12	93.6	83	12.0	70 - 130	70 - 130
Ethylbenzene	ND	10	92.5	88.8	4.08	93.7	91.9	1.92	70 - 130	70 - 130
Xylenes	ND	30	95	90.3	5.04	95	93.7	1.41	70 - 130	70 - 130
%SS:	101	10	95	95	0	98	96	1.79	70 - 130	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 20018 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0601346-002A	1/23/06 5:45 PM	1/26/06	1/26/06 6:00 AM	0601346-003A	1/23/06 4:00 PM	1/25/06	1/25/06 9:30 AM
0601346-004A	1/23/06 5:10 PM	1/25/06	1/25/06 10:03 AM	0601346-005A	1/23/06 1:30 PM	1/25/06	1/25/06 10:35 AM
0601346-006A	1/23/06 2:15 PM	1/25/06	1/25/06 3:45 PM	0601346-007A	1/23/06 2:55 PM	1/25/06	1/25/06 4:15 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not applicable or not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



McCampbell Analytical, Inc.

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QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0601346

EPA Method: SW8260B		Extraction: SW5030B		BatchID: 20017			Spiked Sample ID: 0601346-006B			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
Methyl-t-butyl ether (MTBE)	0.5	10	85.4	93.8	8.94	102	118	13.7	70 - 130	70 - 130
%SSI:	107	10	98	101	2.96	104	101	2.95	70 - 130	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 20017 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0601346-001B	1/23/06 4:35 PM	1/28/06	1/28/06 8:23 AM	0601346-002B	1/23/06 5:45 PM	1/28/06	1/28/06 9:07 AM
0601346-004B	1/23/06 5:10 PM	1/28/06	1/28/06 9:50 AM	0601346-006B	1/23/06 2:15 PM	1/25/06	1/25/06 5:06 PM
0601346-007B	1/23/06 2:55 PM	1/28/06	1/28/06 7:40 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (\text{MS-Sample}) / (\text{Amount Spiked})$; RPD = $100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.

DHS Certification No. 1644

 QA/QC Officer

0601346 CETO

McCAMPBELL ANALYTICAL, INC.

110 2nd AVENUE SOUTH, #D7
PACHECO, CA 94553-5560

Website: www.mccampbell.com **Email:** main@mccampbell.com
Telephone: (925) 798-1620 **Fax:** (925) 798-1622

Telephone: (925) 798-1620

Fax: (925) 798-1622

CHAIN OF CUSTODY RECORD

TURN AROUND TIME

RUSH 24 HR 48 HR 72 HR 5 DAY.

EDF Required? Yes No

Report To: Matt Meyers Bill To: Cambria Environmental Technology
Company: Cambria Environmental Technology
5900 Hollis St. Ste A
Emeryville, CA 94608 E-Mail: mmeayers.Cambria-env
Tele: 510-420-3314 Fax: (510) 420-9170
Project #: 230-0116 Project Name: BoGin
Project Location: 706 Harrison St. Oakland, CA
Sampler Signature: Muskan Environmental Sampling

Renngulshed By:

Date
1/21

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Received B

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Dat

T

: Received By

McC Campbell Analytical, Inc.

 110 Second Avenue South, #D7
Pacheco, CA 94553-5560
(925) 798-1620

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

WorkOrder: 0601346

ClientID: CETE

EDF: YES

Report to:

Matt Meyers
Cambria Env. Technology
5900 Hollis St, Suite A
Emeryville, CA 94608

TEL: (510) 420-0700
FAX: (510) 420-9170
ProjectNo: #230-0116; BoGin
PO:

Bill to:

Accounts Payable
Cambria Env. Technology
5900 Hollis St, Ste. A
Emeryville, CA 94608

Requested TAT: **5 days**

Date Received: 01/24/2006
Date Printed: 01/24/2006

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12

0601346-001	MW-1	Water	1/23/06 4:35:00 PM	<input type="checkbox"/>	A	B	A										
0601346-002	MW-2	Water	1/23/06 5:45:00 PM	<input type="checkbox"/>	A	B											
0601346-003	MW-3	Water	1/23/06 4:00:00 PM	<input type="checkbox"/>	A												
0601346-004	MW-4	Water	1/23/06 5:10:00 PM	<input type="checkbox"/>	A	B											
0601346-005	MW-5	Water	1/23/06 1:30:00 PM	<input type="checkbox"/>	A												
0601346-006	MW-6	Water	1/23/06 2:15:00 PM	<input type="checkbox"/>	A	B											
0601346-007	MW-7	Water	1/23/06 2:55:00 PM	<input type="checkbox"/>	A	B											

Test Legend:

1	G-MBTEX_W
6	
11	

2	MTBE_W
7	
12	

3	PREF REPORT
8	

4	
9	

5	
10	

Prepared by: Kathleen Owen**Comments:**

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.



McCampbell Analytical, Inc.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
Website: www.mccampbell.com E-mail: main@mccampbell.com

Cambria Env. Technology 5900 Hollis St, Suite A Emeryville, CA 94608	Client Project ID: #230-0116; BoGin	Date Sampled: 01/23/06
		Date Received: 01/24/06
	Client Contact: Matt Meyers	Date Reported: 02/03/06
	Client P.O.:	Date Completed: 02/06/06

WorkOrder: 0601346

February 06, 2006

 **ORIGINAL**

Dear Matt:

Enclosed are:

- 1). the results of 7 analyzed samples from your #230-0116; BoGin project,
- 2). a QC report for the above samples
- 3). a copy of the chain of custody, and
- 4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Best regards,



Angela Rydelius, Lab Manager



McCampbell Analytical, Inc.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
Website: www.mccampbell.com E-mail: main@mccampbell.com

Cambria Env. Technology 5900 Hollis St, Suite A Emeryville, CA 94608	Client Project ID: #230-0116; BoGin	Date Sampled: 01/23/06
		Date Received: 01/24/06
	Client Contact: Matt Meyers	Date Extracted: 01/31/06
	Client P.O.:	Date Analyzed: 01/31/06

Methyl tert-Butyl Ether*

Extraction method: SW5030B

Analytical methods: SW8260B

Work Order: 0601346

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	0.5	µg/L
	S	NA	NA

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or surrogate coelutes with another peak.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.



McCampbell Analytical, Inc.

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Telephone : 925-798-1620 Fax : 925-798-1622
Website: www.mccampbell.com E-mail: main@mccampbell.com

QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0601346

EPA Method: SW8260B		Extraction: SW5030B			BatchID: 20091			Spiked Sample ID: 0601441-001A		
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
Methyl-t-butyl ether (MTBE)	ND	10	110	112	1.30	110	108	1.23	70 - 130	70 - 130
%SS1:	102	10	101	101	0	101	100	0.138	70 - 130	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 20091 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0601346-003A	1/23/06 4:00 PM	1/31/06	1/31/06 6:01 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (\text{MS-Sample}) / (\text{Amount Spiked})$; RPD = $100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.

0601346 CETE

McCAMPBELL ANALYTICAL, INC.

110 2nd AVENUE SOUTH, #D7
PACHECO, CA 94553-5560

Website: www.mccampbell.com **Email:** main@mccampbell.com
Telephone: (925) 798-1620 **Fax:** (925) 798-1622

CHAIN OF CUSTODY RECORD

TURN AROUND TIME

RUSH 24 HR 48 HR 72 HR 51

EDF Required? Yes No

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

WorkOrder: 0601346

ClientID: CETE

EDF: YES

Report to:

Matt Meyers
Cambria Env. Technology
5900 Hollis St, Suite A
Emeryville, CA 94608

TEL: (510) 420-0700
FAX: (510) 420-9170
ProjectNo: #230-0116; BoGin
PO:

Bill to:

Accounts Payable
Cambria Env. Technology
5900 Hollis St, Ste. A
Emeryville, CA 94608

Requested TAT: 5 days
Date Received: 01/24/2006
Date Add-On: 01/31/2006
Date Printed: 01/31/2006

Sample ID	Client SampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
0601346-003	MW-3	Water	1/23/06 4:00:00 PM	<input type="checkbox"/>	A												

Test Legend:

1	MTBE_W
6	
11	

2	
7	
12	

3	
8	

4	
9	

5	
10	

Prepared by: Kathleen Owen

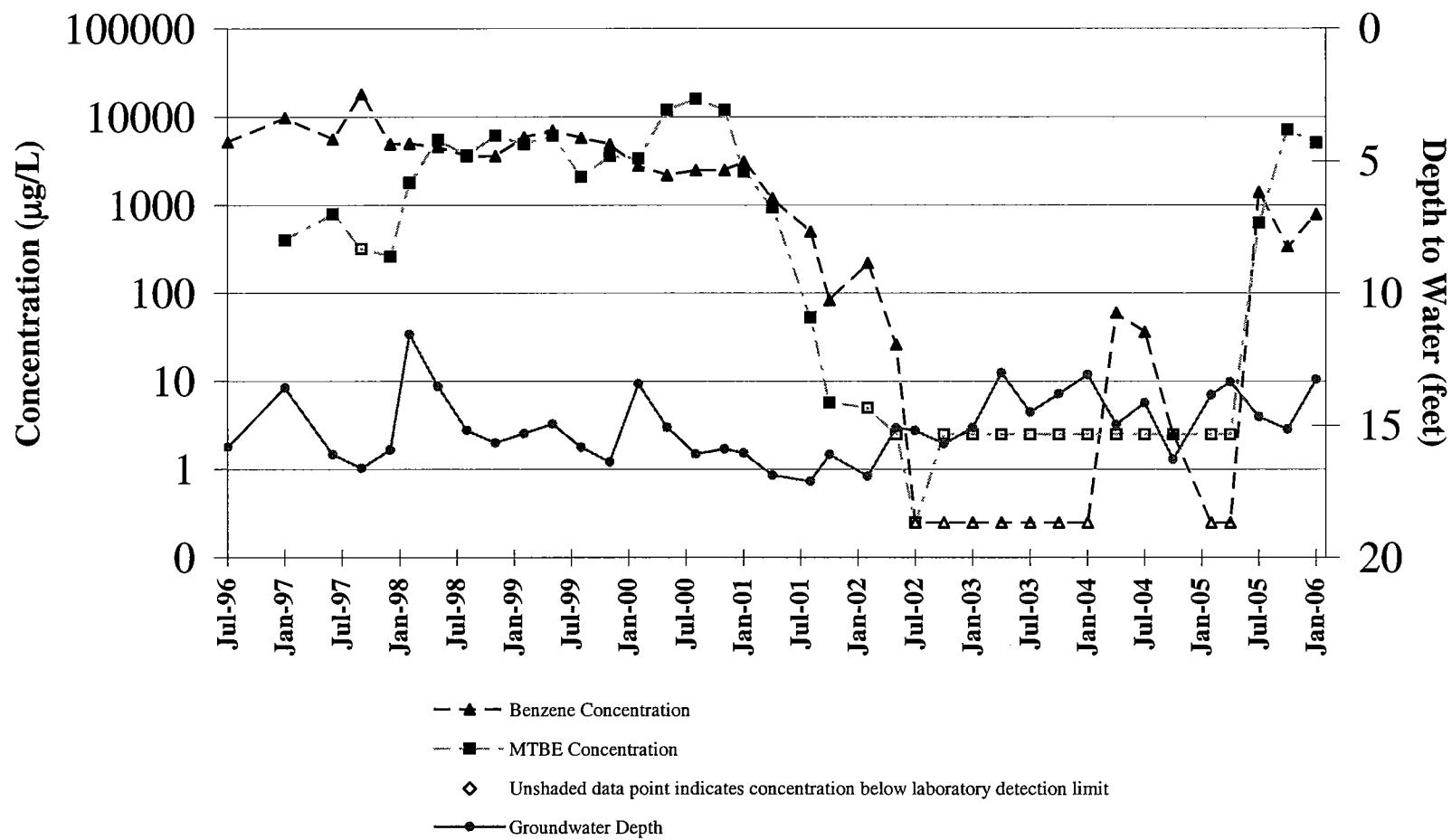
Comments: MTBE added on MW-3 on 1/31/06 on 5d.

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

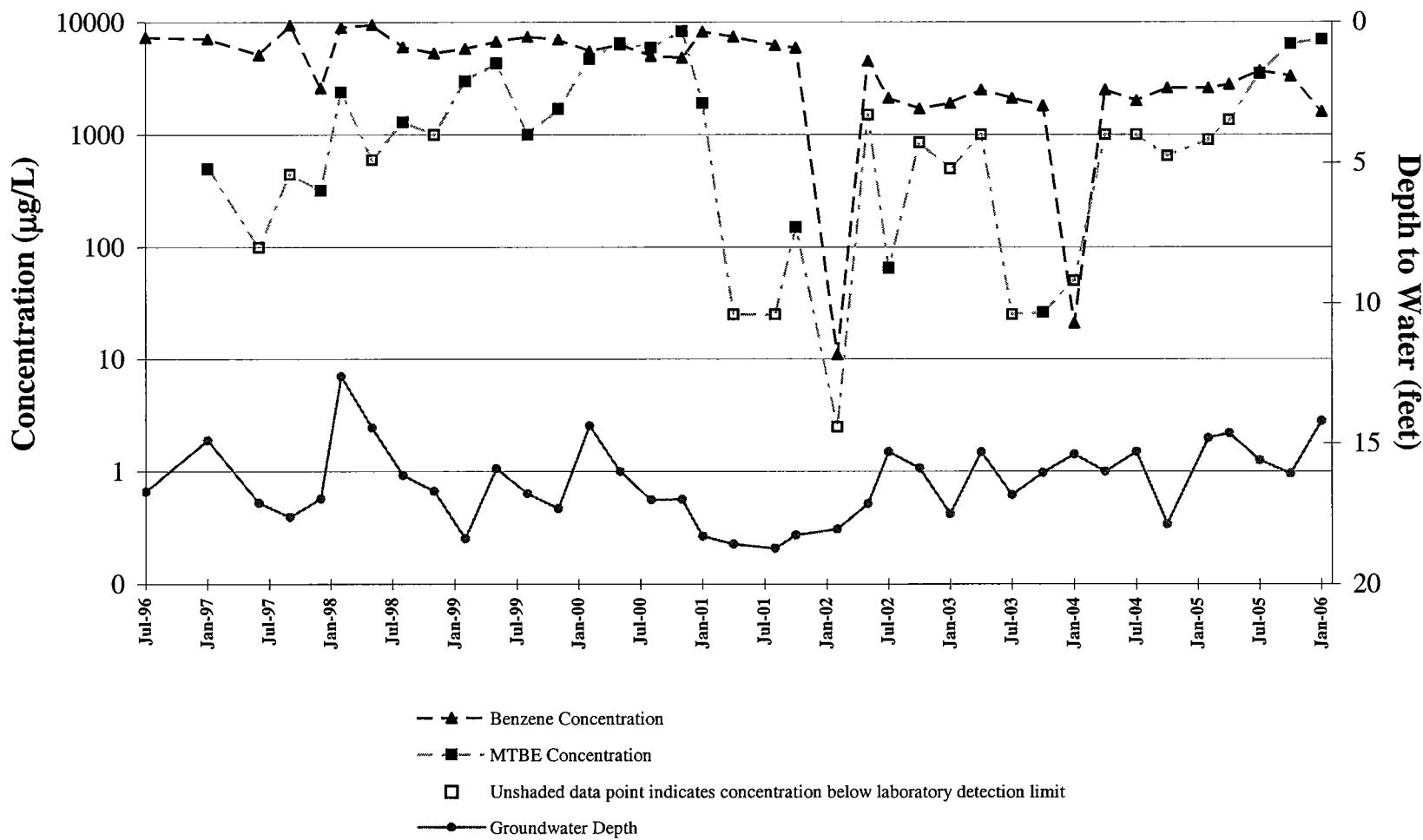
APPENDIX C

Benzene and MTBE Concentration Graphs

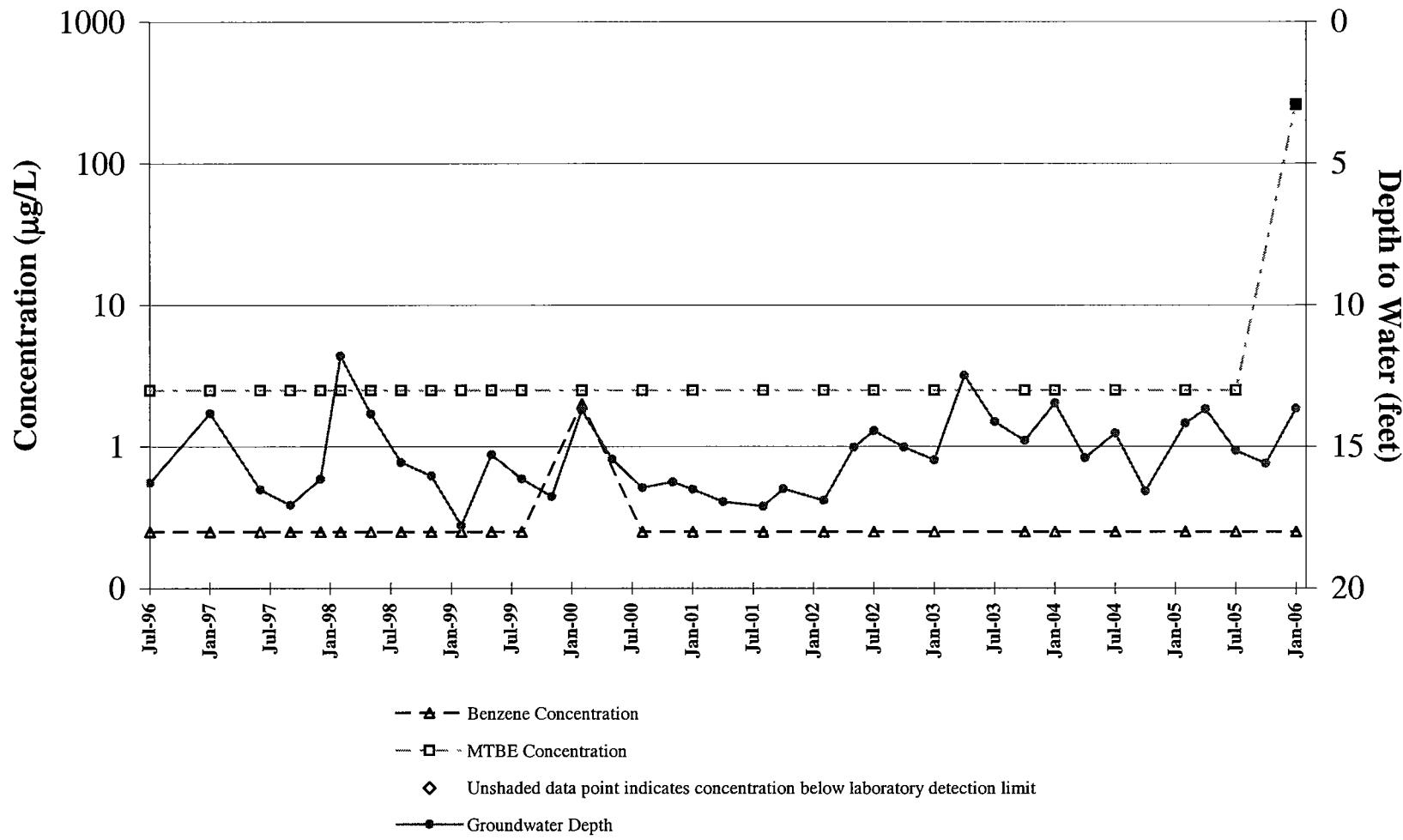
Monitoring Well MW-1
Benzene and MTBE Concentration Trends
Former ARCO Service Station, 706 Harrison Street, Oakland, CA



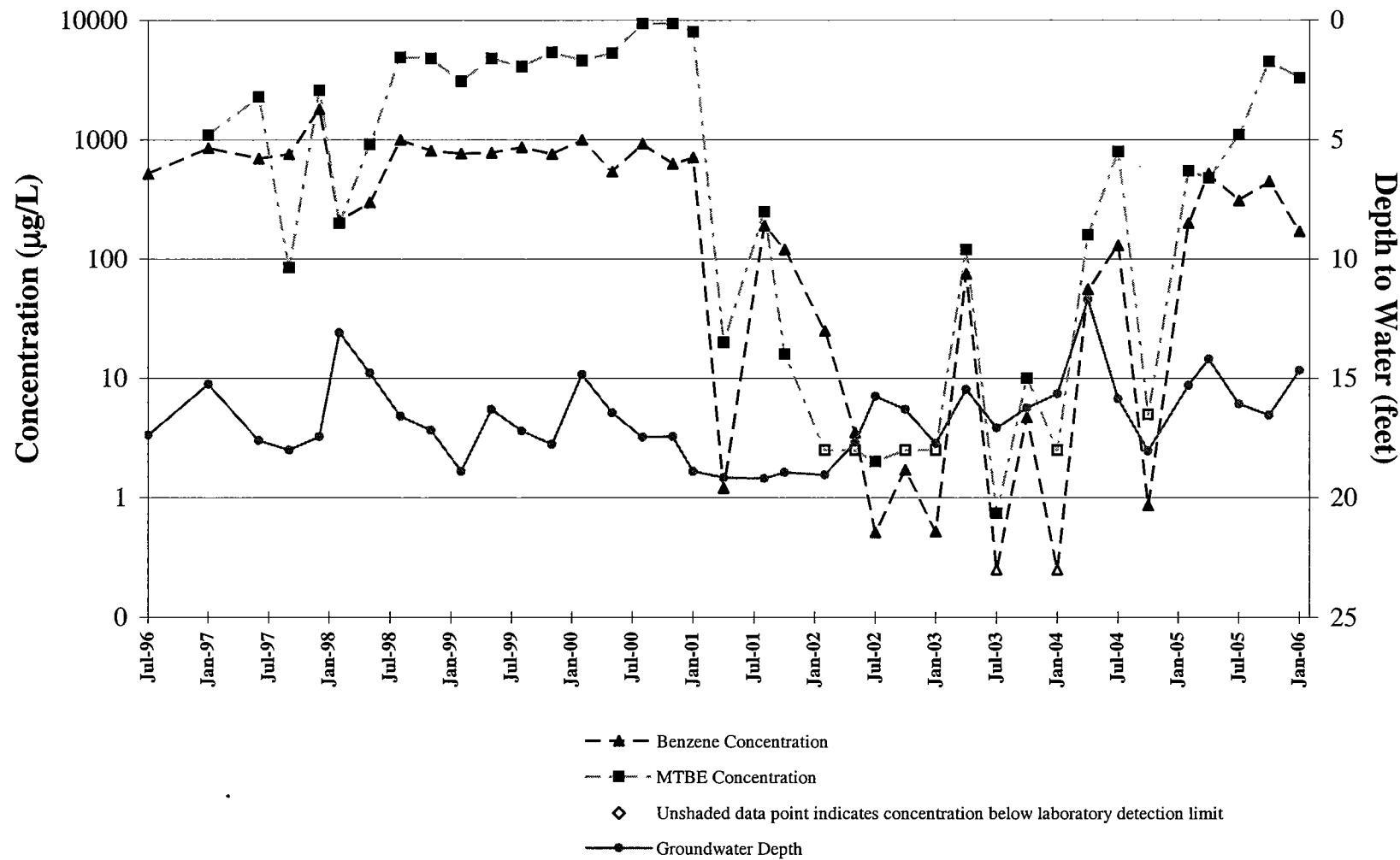
Monitoring Well MW-2
Benzene and MTBE Concentration Trends
Former ARCO Service Station, 706 Harrison Street, Oakland, CA



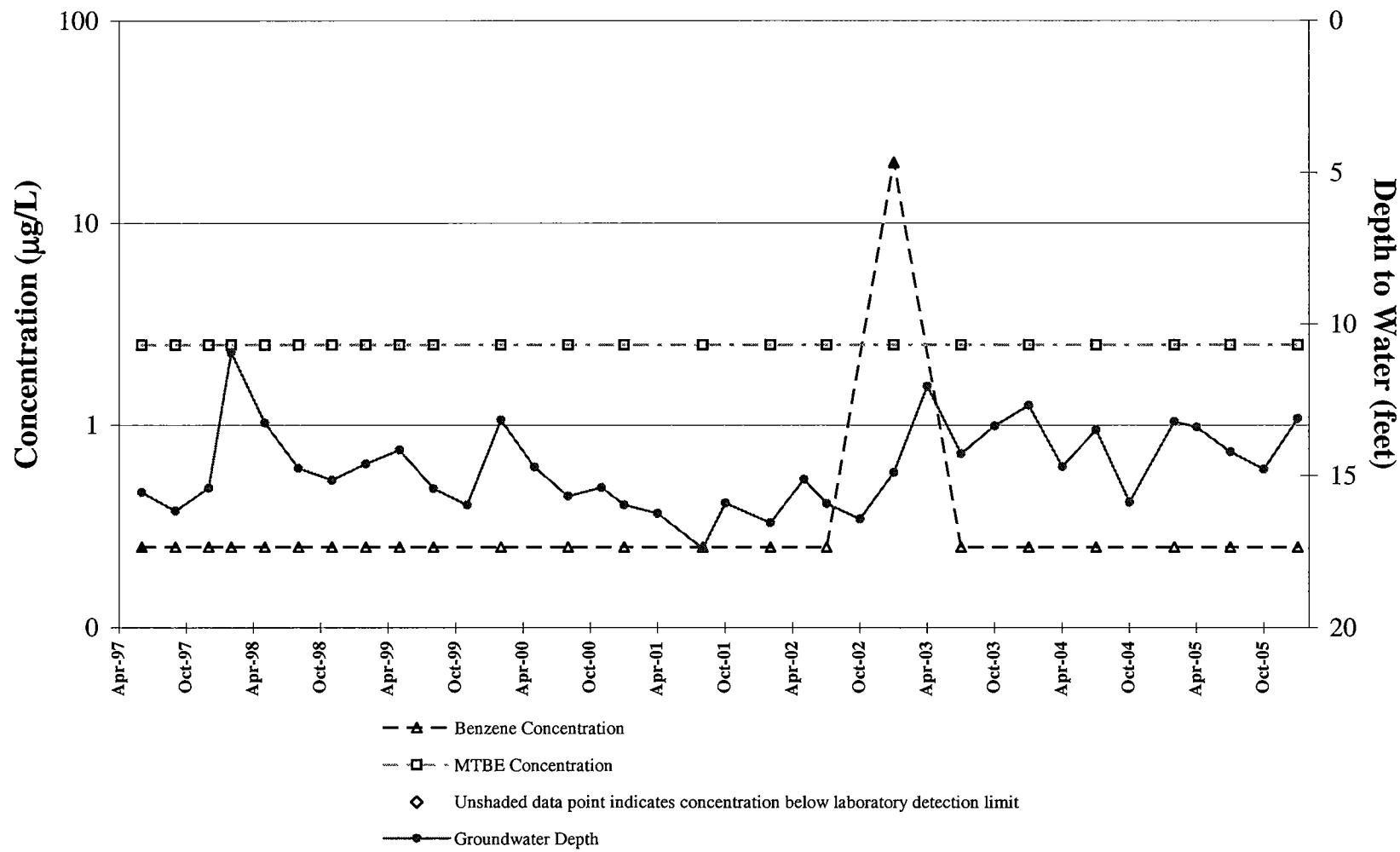
Monitoring Well MW-3
Benzene and MTBE Concentration Trends
Former ARCO Service Station, 706 Harrison Street, Oakland, CA



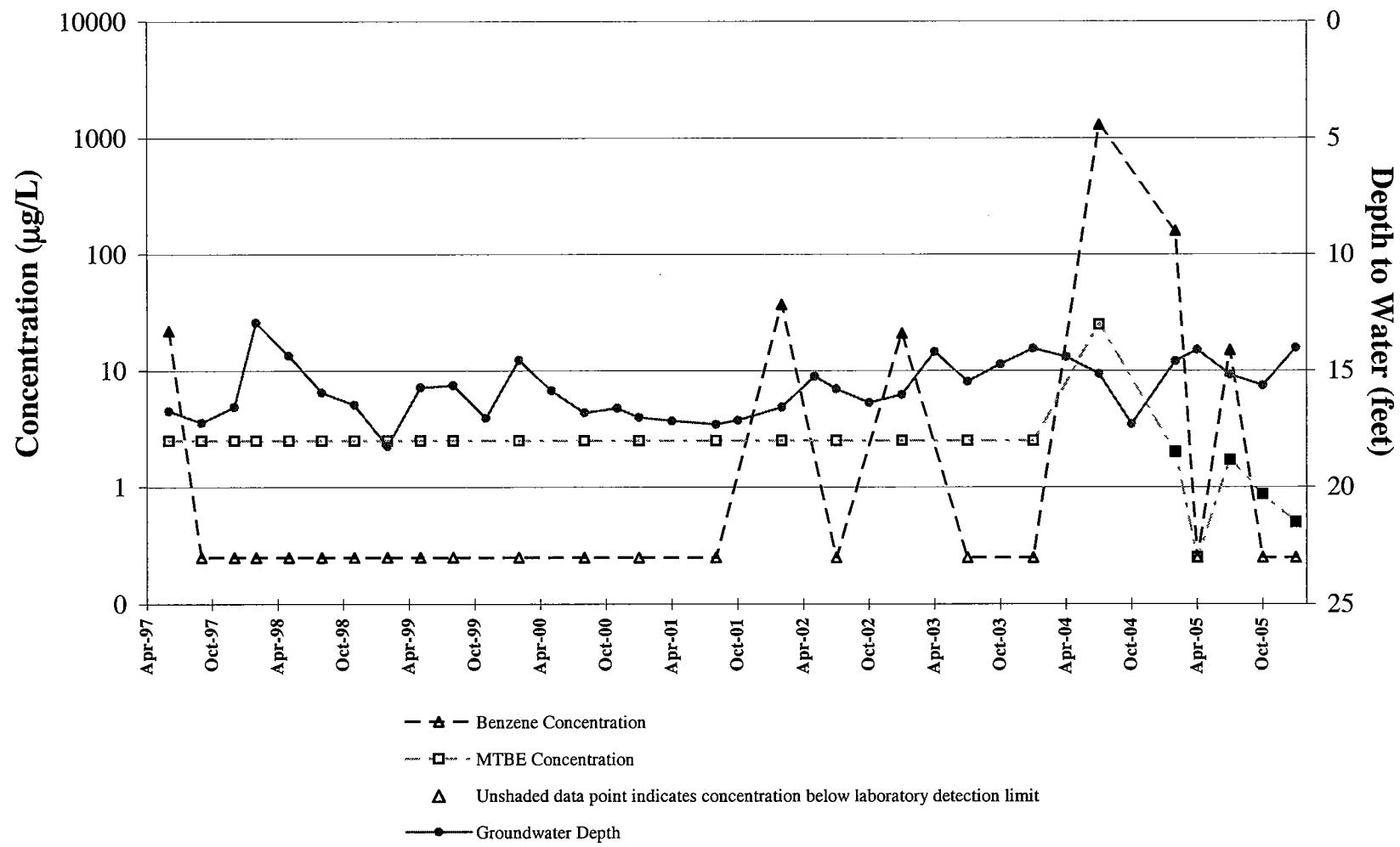
Monitoring Well MW-4
Benzene and MTBE Concentration Trends
Former ARCO Service Station, 706 Harrison Street, Oakland, CA



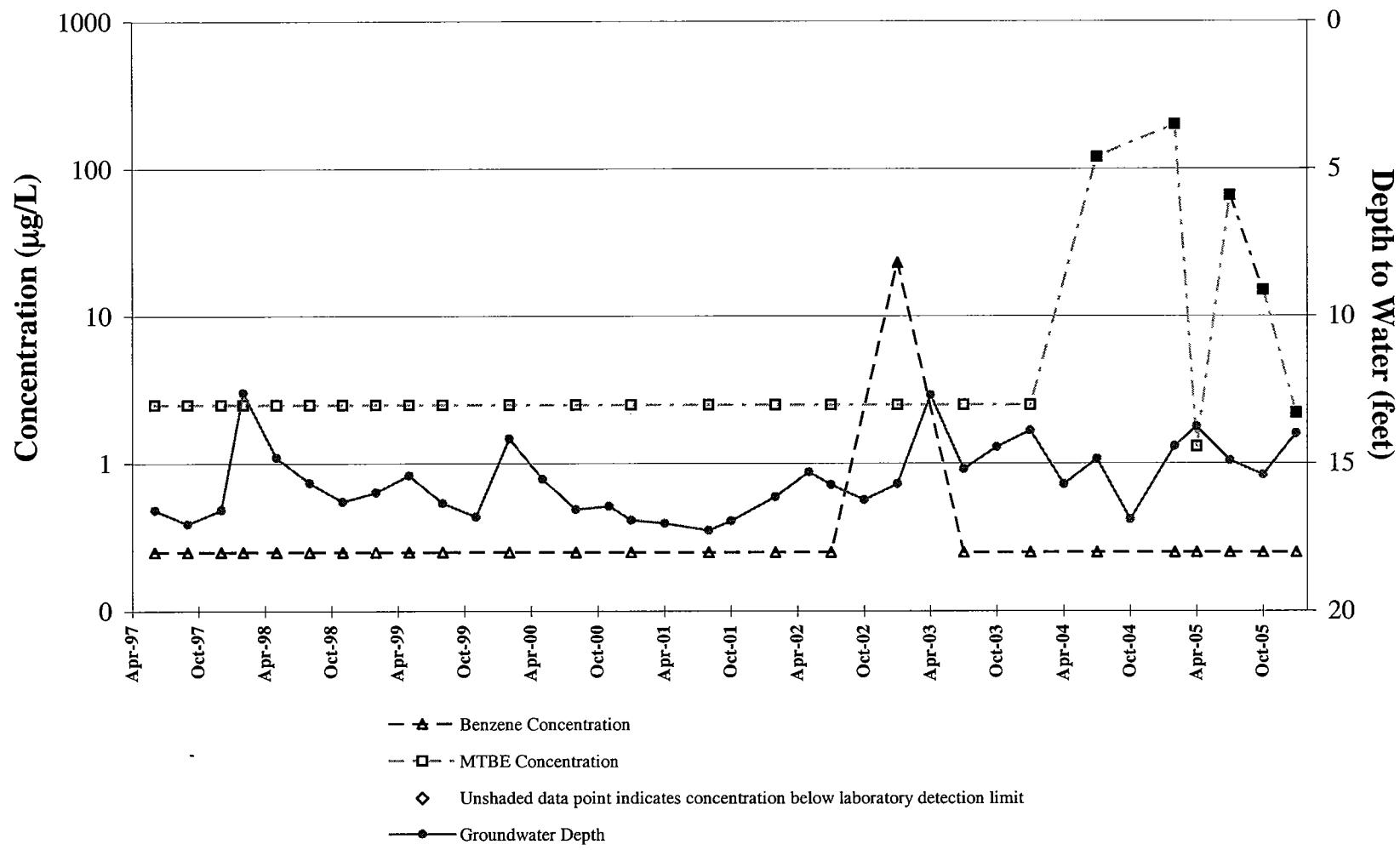
Monitoring Well MW-5
Benzene and MTBE Concentration Trends
Former ARCO Service Station, 706 Harrison Street, Oakland, CA



Monitoring Well MW-6
Benzene and MTBE Concentration Trends
Former ARCO Service Station, 706 Harrison Street, Oakland, CA



Monitoring Well MW-7
Benzene and MTBE Concentration Trends
Former ARCO Service Station, 706 Harrison Street, Oakland, CA



APPENDIX D

Former Shell Station Groundwater Monitoring and Analytical Results

TABLE ONE
Groundwater Elevation Data
Yee Property
726 Harrison St., Oakland, CA

Well ID	Date of Measurement	Top of Casing Elevation (Relative to Mean Sea Level)	Depth to Water (feet)	Groundwater Elevation (project data)
MW-1	12/15/1998	31.95*	17.32	14.63
	3/4/1999		15.52	16.43
	6/17/1999		16.9	15.05
	8/27/1999		17.39	14.56
	12/9/1999		18.03	13.92
	3/7/2000		15.11	16.84
	6/7/2000		16.66	15.29
	10/11/2000		18.08	13.87
	1/18/2001		17.96	13.99
	4/5/2001		16.35	15.60
	7/17/2001		16.94	15.01
	10/5/2001	28.98	17.35	11.63
	1/18/2002		15.40	13.58
	4/11/2002		15.76	13.22
	7/8/2002		16.17	12.81
	10/9/2002		16.72	12.26
	1/29/2003		16.26	12.72
	4/11/2003		16.56	12.42
	7/18/2003		16.42	12.56
	10/9/2003		16.88	12.10
	1/28/2004		16.10	12.88
	4/7/2004		15.43	13.55
	7/23/2004		16.41	12.57
	10/12/2004		17.73	11.25
	1/29/2005		15.02	13.96
	4/28/2005		14.99	13.99
	7/19/2005		16.36	12.62
	10/18/2005		17.82	11.16
	1/23/2006		15.80	13.18

TABLE ONE
Groundwater Elevation Data
Yee Property
726 Harrison St., Oakland, CA

Well ID	Date of Measurement	Top of Casing Elevation (Relative to Mean Sea Level)	Depth to Water (feet)	Groundwater Elevation (project data)
MW-2	12/15/1998	32.40*	18.03	14.37
	3/4/1999		16.11	16.29
	6/17/1999		17.72	14.68
	8/27/1999	Inaccessible		
	12/9/1999	Inaccessible		
	3/7/2000	Inaccessible		
	6/7/2000		17.67	14.73
	10/11/2000		18.91	13.49
	1/18/2001		18.66	13.74
	4/5/2001		16.97	15.43
	7/17/2001		17.54	14.86
	10/5/2001	29.44	17.98	11.46
	1/18/2002		15.87	13.57
	4/11/2002		16.36	13.08
	7/8/2002		16.72	12.72
	10/9/2002		17.33	12.11
	1/29/2003		16.82	12.62
	4/11/2003		17.15	12.29
	7/18/2003		17.05	12.39
	10/9/2003		17.52	11.92
	1/28/2004		16.70	12.74
	4/7/2004		16.02	13.42
	7/23/2004	Inaccessible		
	10/12/2004		17.31	12.13
	1/29/2005		15.46	13.98
	4/28/2005		15.79	13.65
	7/19/2005		17.25	12.19
	10/18/2005		17.72	11.72
	1/23/2005		15.65	13.79

TABLE ONE
Groundwater Elevation Data
Yee Property
726 Harrison St., Oakland, CA

Well ID	Date of Measurement	Top of Casing Elevation (Relative to Mean Sea Level)	Depth to Water (feet)	Groundwater Elevation (project data)
MW-3	12/15/1998	31.61*	17.26	14.35
	3/4/1999		15.47	16.14
	6/17/1999		16.92	14.69
	8/27/1999		17.40	14.21
	12/9/1999		18.01	13.60
	3/7/2000		16.15	15.46
	6/7/2000		16.85	14.76
	10/11/2000		18.07	13.54
	1/18/2001		17.89	13.72
	4/5/2001		16.21	15.40
	7/17/2001		16.90	14.71
	10/5/2001	28.64	17.32	11.32
	1/18/2002		15.35	13.29
	4/11/2002		15.82	12.82
	7/8/2002		16.15	12.49
	10/9/2002		16.67	11.97
	1/29/2003		16.19	12.45
	4/11/2003		16.49	12.15
	7/18/2003		16.42	12.22
	10/9/2003		16.80	11.84
	1/28/2003		15.94	12.70
	4/7/2004		15.28	13.36
	7/23/2004		16.15	12.49
	10/12/2004		16.63	12.01
	1/29/2005		16.15	12.49
	4/28/2005		14.94	13.70
	7/19/2005		16.25	12.39
	10/18/2005		16.76	11.88
	1/23/2006		15.81	12.83

TABLE ONE
Groundwater Elevation Data
Yee Property
726 Harrison St., Oakland, CA

Well ID	Date of Measurement	Top of Casing Elevation (Relative to Mean Sea Level)	Depth to Water (feet)	Groundwater Elevation (project data)
MW-4	12/15/1998	32.53*	17.59	14.94
	3/4/1999		15.88	16.65
	6/17/1999		17.14	15.39
	8/27/1999		17.65	14.88
	12/9/1999		18.28	14.25
	3/7/2000		15.41	17.12
	6/7/2000		17.09	15.44
	10/11/2000		18.33	14.20
	1/18/2001		18.23	14.30
	4/5/2001		16.69	15.84
	7/17/2001		17.32	15.21
	10/5/2001	29.58	17.71	11.87
	1/18/2002		15.85	13.73
	4/11/2002		16.14	13.44
	7/8/2002		16.56	13.02
	10/9/2002		17.09	12.49
	1/29/2003		16.65	12.93
	4/11/2003		16.93	12.65
	7/18/2003		16.78	12.80
	10/9/2003		17.26	12.32
	1/28/2004		16.38	13.20
	4/7/2004		15.64	13.94
	7/23/2004		16.58	13.00
	10/12/2004	Inaccessible		
	1/29/2005		14.90	14.68
	4/28/2005		15.18	14.40
	7/19/2005		16.48	13.10
	10/18/2005		16.99	12.59
	1/23/2006		15.09	14.49

TABLE ONE
Groundwater Elevation Data
Yee Property
726 Harrison St., Oakland, CA

Well ID	Date of Measurement	Top of Casing Elevation (Relative to Mean Sea Level)	Depth to Water (feet)	Groundwater Elevation (project data)
MW-5	8/29/2001	29.06	17.42	11.64
	1/18/2002		15.68	13.38
	4/11/2002		16.17	12.89
	7/8/2002		16.51	12.55
	10/9/2002		17.10	11.96
	1/29/2003		16.58	12.48
	4/11/2003		16.87	12.19
	7/18/2003		16.77	12.29
	10/9/2003		17.21	11.85
	1/28/2004		16.34	12.72
	4/7/2004		15.38	13.68
	7/23/2004		16.55	12.51
	10/12/2004		17.02	12.04
	1/29/2005		15.23	13.83
	4/28/2005		15.41	13.65
	7/19/2005		16.79	12.27
	10/18/2005		17.28	11.78
	1/23/2006		15.28	13.78

* Top of casing elevation relative to arbitrary project datum

TABLE THREE
Summary of Analytical Results for GROUNDWATER Samples
Yee Property
726 Harrison St., Oakland, CA
All results are in parts per billion (ppb)

Well ID & Dates Sampled	TPH-G	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE
<u>MW-1</u>						
7/3/1997	18,000	2,700	350	450	900	7,400
12/5/1998	18,000	1,500	270	260	560	14,000
3/4/1999	44,000	2,800	400	440	960	43,000
6/17/1999	33,000	2,200	250	460	660	25,000
8/27/1999	6,000	1,000	97	190	230	14,000/ 16,000*
12/9/1999	15,000	1,500	160	220	420	17,000
3/7/2000	9,300	1,500	210	66	530	12,000
6/7/2000	26,000**	1,700	< 250	360	580	30,000
10/11/2000	13,000**	1,600	< 100	140	160	19,000
1/18/2001	14,000**	450	< 100	110	230	9,600
4/5/2001	38,000	2,200	180	290	590	35,000
7/17/2001	35,000**	1,800	< 100	300	170	35,000
10/5/2001	17,000	1,500	210	420	790	27,000
1/18/2002	18,000	1,500	120	160	220	22,000
4/11/2002	41,000	2,700	210	340	380	30,000
7/8/2002	36,000	2,800	140	360	300	31,000
10/9/2002	30,000	1,700	310	< 100	< 100	19,000
1/29/2003	26,000	2,400	< 100	310	520	20,000
4/11/2003	22,000	1,700	< 100	270	580	16,000
7/18/2003	40,000	3,200	290	480	830	39,000
10/9/2003	54,000**	3,300	< 130	350	310	49,000
1/28/2004	26,000***	3,000	310	420	800	31,000
4/7/2004	33,000***	2,800	130	310	310	39,000
7/23/2004	56,000***	4,500	< 250	390	< 500	53,000
10/12/2004	25,000***	1,400	< 250	< 250	< 500	25,000
1/29/2005	24,000	1,600	< 100	160	< 200	19,000
4/28/2005	< 10,000	2,000	< 100	160	100	34,000
7/19/2005	37,000	2,100	83	210	230	28,000
10/18/2005	37,000	1,300	< 250	< 250	< 250	23,000
1/24/2006	23,000	780	< 100	160	260	11,000

TABLE THREE
Summary of Analytical Results for GROUNDWATER Samples
Yee Property
726 Harrison St., Oakland, CA
All results are in parts per billion (ppb)

Well ID & Dates Sampled	TPH-G	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE
MW-3						
12/5/1998	6,500***	< 50	50	60	50	3,900
3/4/1999	2,800	< 25	< 25	< 25	< 25	1,600
6/17/1999	1,000	< 10	< 10	< 10	< 10	1,400
8/27/1999	230	< 0.5	0.51	0.5	1	1,500/ 1,600*
12/9/1999	870**	< 0.5	< 0.5	< 0.5	< 0.5	2,100
3/7/2000	150**	4	< 0.5	< 0.5	< 0.5	830
6/7/2000	140**	< 0.5	< 0.5	< 0.5	< 0.5	1,100
10/11/2000	620**	< 5.0	< 5.0	< 5.0	< 5.0	1,500
1/18/2001	1,200**	< 5.0	< 5.0	< 5.0	< 5.0	1,000
4/5/2001	1,700**	< 5.0	< 5.0	< 5.0	< 5.0	1,900
7/17/2001	1,400**	< 10	< 10	< 10	< 10	1,700
10/5/2001	< 1,000	< 10	< 10	< 10	< 10	1,700
1/18/2002	1,600	26	20	16	54	2,100
4/11/2002	2,600	21	16	< 10	21	2,300
7/8/2002	2,800	< 10	< 10	< 10	< 10	3,800
10/9/2002	6,000	< 50	< 50	< 50	< 50	4,900
1/29/2003	1,800	< 10	< 10	< 10	< 10	2,300
4/11/2003	2,900	< 25	< 25	< 25	< 25	3,100
7/18/2003	3,400	< 10	< 10	< 10	< 10	3,200
10/9/2003	2,300	< 10	< 10	< 10	< 10	2,700
1/28/2003	1,700**	< 10	< 10	< 10	< 10	2,900
4/7/2004	2,700**	< 10	< 10	< 10	< 20	3,600
7/23/2004	4,200**	< 25	< 25	< 25	< 50	4,900
10/12/2004	5,000**	< 50	< 50	< 50	< 100	5,900
1/29/2005	< 1,000	< 10	< 10	< 10	< 20	3,100
4/28/2005	< 200	< 2.0	< 2.0	< 2.0	< 2.0	1,300
7/19/2005	4,400	< 20	< 20	< 20	< 40	3,000
10/18/2005	18,000	< 50	< 50	< 50	< 50	6,800
1/24/2006	17,000	< 100	< 100	< 100	< 200	7,000

TABLE THREE
Summary of Analytical Results for GROUNDWATER Samples
Yee Property
726 Harrison St., Oakland, CA
All results are in parts per billion (ppb)

Well ID & Dates Sampled	TPH-G	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE
MW-4						
12/5/1998	880	3	< 0.5	< 0.5	< 0.5	950
3/4/1999	3,800	< 25	< 25	< 25	< 25	3,700
6/17/1999	2,700	< 25	< 25	< 25	< 25	2,700
8/27/1999	440	4.7	1.1	0.58	1.3	1,600/ 1,700*
12/9/1999	1,100**	< 2.5	< 2.5	< 2.5	< 2.5	1,700
3/7/2000	< 250	< 2.5	< 2.5	< 2.5	< 2.5	1,700
6/7/2000	530**	8.8	< 2.5	< 2.5	< 2.5	440
10/11/2000	700**	3.9	< 2.5	< 2.5	< 2.5	680
1/18/2001	2,000**	< 2.5	< 2.5	< 2.5	< 2.5	780
4/5/2001	810**	< 2.5	< 2.5	< 2.5	< 2.5	620
7/17/2001	880**	< 2.5	< 2.5	< 2.5	< 2.5	570
10/5/2001	550**	< 2.5	< 2.5	< 2.5	< 2.5	710
1/18/2002	960**	< 5.0	< 5.0	< 5.0	< 5.0	1,300
4/11/2002	1,100**	< 5.0	< 5.0	< 5.0	< 5.0	550
7/8/2002	1,200**	< 5.0	< 5.0	< 5.0	< 5.0	890
10/9/2002	1,300**	< 5.0	< 5.0	< 5.0	< 5.0	880
1/29/2003	530**	< 1.0	< 1.0	< 1.0	< 1.0	190
4/11/2003	690**	< 2.5	< 2.5	< 2.5	< 2.5	310
7/18/2003	1,600**	< 10	< 10	< 10	< 10	1,300
10/9/2003	1500***	< 10	< 10	< 10	< 10	1,400
1/28/2004	1,200**	< 10	< 10	< 10	< 10	1,900
4/7/2004	1,900**	< 10	< 10	< 10	< 20	2,200
7/23/2004	1,800**	< 10	< 10	< 10	< 20	1,600
10/12/2004	Inaccessible due to car parked over well					
1/29/2005	< 1,300	< 13	< 13	< 13	< 25	3,900
4/28/2005	510	< 1.5	< 1.5	< 1.5	< 1.5	510
7/19/2005	5,400	< 50	< 50	< 50	< 100	2,700
10/18/2005	10,000	< 50	< 50	< 50	< 50	9,000
1/24/2006	10,000	< 100	< 100	< 100	< 200	8,300

TABLE THREE
Summary of Analytical Results for GROUNDWATER Samples
Yee Property
726 Harrison St., Oakland, CA
All results are in parts per billion (ppb)

Well ID & Dates Sampled	TPH-G	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE
MW-5						
8/29/2001	14,000	1,300	470	230	800	14,000
1/18/2002	24,000	3,200	1,300	390	1,500	5,700
4/11/2002	23,000	2,700	980	38	950	4,300
7/8/2002	19,000	3,300	25	360	1,100	2,100
10/9/2002	24,000	2,800	990	360	820	2,400
1/29/2003	17,000	2,100	1,400	380	1,400	< 250
4/11/2003	26,000	2,900	2,200	590	2,200	630
7/18/2003	26,000	3,500	1,700	480	1,300	1,300
10/9/2003	27,000	3,800	1,900	510	1,700	1,200
1/28/2004	29,000	4,800	2,900	770	2,300	3,300
4/7/2004	23,000	4,400	2,700	720	2,200	1,700
7/23/2004	29,000	5,200	2,200	810	1,400	2,200
10/12/2004	26,000	4,300	2,000	670	1,300	2,200
1/29/2005	29,000	4,600	2,500	750	1,400	2,200
4/28/2005	32,000	3,300	2,300	530	2,100	4,100
7/19/2005	39,000	4,300	2,300	690	1,500	5,400
10/18/2005	110,000	3,400	1,900	540	1,600	13,000
1/24/2006	21,000	1,800	1,200	270	820	13,000
ESL	400	46	130	290	13	1,800

Notes:

* EPA Method 8020/EPA Method 8260 (MTBE confirmation)

** Hydrocarbon reported in the gasoline range does not match the laboratory gasoline standard

*** Sample contains a discrete peak in addition to gasoline

ESL = Environmental screening levels presented in the "Screening For Environmental Concerns

at Sites With Contaminated Soil and Groundwater (July 2003)" document prepared by the

Most current data is in **Bold**

Non-detectable concentrations noted by the less than sign (<) followed by the laboratory method reporting limit.