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JUL 31 2002

July 26, 2002

Mr. Don Hwang
Alameda County Department of Environmental Health
UST Local Oversight Program
1131 Harbor Bay Parkway, 2nd Floor
Alameda, CA 94502

Re: **Groundwater Monitoring and System Progress Report**
Second Quarter 2002
Hooshi's Auto Service
1499 MacArthur Boulevard
Oakland, California 94602
Cambria Project No. 129-0741

Dear Mr. Hwang:

On behalf of Ms. Naomi Gatzke, Cambria Environmental Technology, Inc. (Cambria) has prepared this groundwater monitoring and remediation system progress report for the above-referenced site. Presented in the report are the second quarter 2002 activities and the anticipated third quarter 2002 activities.

If you have any questions or comments regarding this report, please call me at (510) 450-1983.

Sincerely,
Cambria Environmental Technology, Inc.

Ron Scheele, RG
Senior Geologist

Attachments: Groundwater Monitoring and System Progress Report, Second Quarter 2002

cc: Ms. Naomi Gatzke, 1545 Scenic View Drive, San Leandro, California 94577

Oakland, CA
San Ramon, CA
Sonoma, CA

Cambria Environmental Technology, Inc.

1144 65th Street
Suite B
Oakland, CA 94608
Tel (510) 420-0700
Fax (510) 420-9170

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JUL 31 2002

GROUNDWATER MONITORING AND SYSTEM PROGRESS REPORT

SECOND QUARTER 2002

Hooshi's Auto Service
1499 MacArthur Boulevard
Oakland, California 94602
Cambria Project No. 129-0741

July 26, 2002

Prepared for:

Ms. Naomi Gatzke
1545 Scenic View Drive
San Leandro, California 94577

Prepared by:

Cambria Environmental Technology, Inc.
6262 Hollis Street
Emeryville, California 94608

REGISTERED GEOLOGIST • RONALD A. SCHEELE • No. 6842 • STATE OF CALIFORNIA

Matthew A. Meyers
Staff Geologist

Ron Scheele, RG
Senior Geologist

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GROUNDWATER MONITORING AND SYSTEM PROGRESS REPORT

SECOND QUARTER 2002

Hooshi's Auto Service
1499 MacArthur Boulevard
Oakland, California 94602
Cambria Project No. 129-0741

July 26, 2002

INTRODUCTION

On behalf of Ms. Naomi Gatzke, Cambria Environmental Technology, Inc. (Cambria) has prepared this Groundwater Monitoring and System Progress Report for the above-referenced site (see Figure 1). Presented in the report are the second quarter 2002 groundwater monitoring and corrective action activities and the anticipated third quarter 2002 activities.

SECOND QUARTER 2002 ACTIVITIES

Monitoring Activities

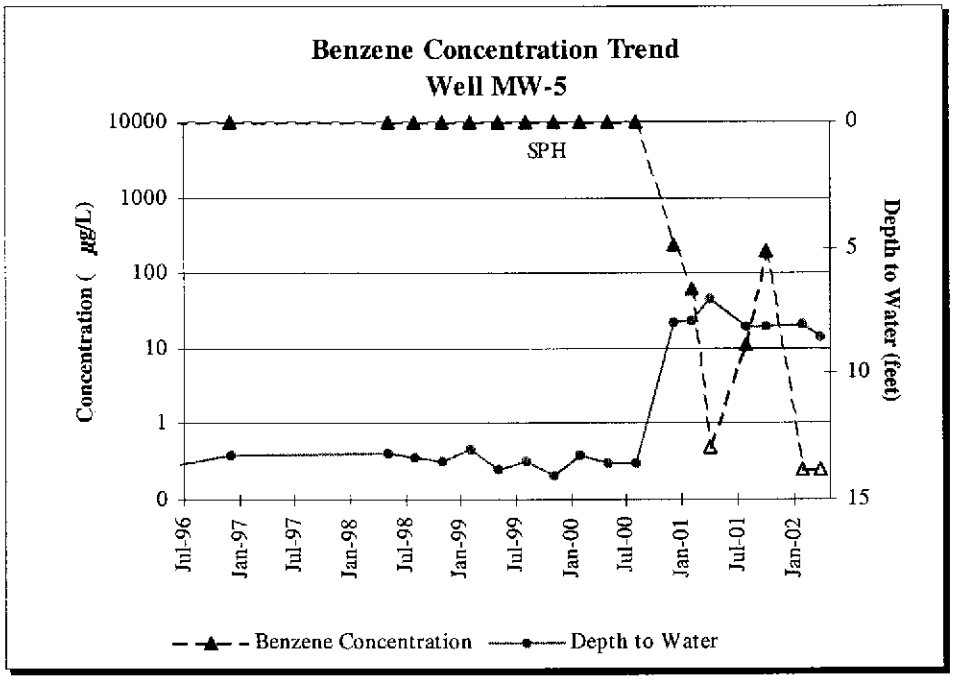
Field Activities: On April 19, 2002, Cambria gauged water levels in groundwater monitoring wells MW-1 through MW-6. On April 19, 2002, groundwater samples were obtained from monitoring wells according to the sampling schedule. Field data sheets are presented as Appendix A.

Sample Analyses: Groundwater samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg) by modified EPA Method 8015, benzene, toluene, ethylbenzene, and xylenes (BTEX), and methyl tertiary butyl ether (MTBE) by EPA Method 8020. When MTBE was detected by EPA Method 8020, the result was confirmed by EPA Method 8260. The groundwater analytical results are summarized in Table 1. The laboratory analytical report is included as Appendix B.

Monitoring Results

Groundwater Flow Direction: Based on field measurements collected on April 19, 2002, groundwater beneath the site generally flows in a southerly direction (Figure 1). The groundwater gradient is relatively flat onsite and increases significantly towards the southwest corner of the site. The depth to groundwater rose significantly in the later part of 2000 and has remained high in all wells except MW-4, which is located next to a slope that drops away from the south side of the site. Depth to water and groundwater elevation data are presented in Table 1.

Hydrocarbon Distribution in Groundwater: TPHg and benzene concentrations were detected only in well MW-2 at 16,000 micrograms per liter (μg/L) and 300 μg/L, respectively. MTBE was detected only in offsite well MW-3 at 11 μg/L (as confirmed by EPA 8260). Hydrocarbon concentrations have continued to decrease in MW-2 as compared with the previous quarter. Table 1 summarizes the groundwater analytical results. A decreasing benzene concentration trend can be seen in monitoring wells MW-1, MW-2, and MW-5 (see graph below and Appendix C).



ANTICIPATED THIRD QUARTER 2002 ACTIVITIES

Monitoring Activities

Cambria will gauge the site wells, and collect groundwater samples from all wells according to the sampling schedule. Groundwater samples will be analyzed for TPHg by Modified EPA Method 8015 and BTEX and MTBE by EPA Method 8020. Any samples containing MTBE will be confirmed by EPA Method 8260. Cambria will prepare a groundwater monitoring report summarizing the monitoring activities and results.

Corrective Action Activities

Interim Remedial Action: Soil vapor extraction (SVE) system operations were performed for eight months (September 2000 through April 2001) and were subsequently halted due to low hydrocarbon removal rates. During the fourth quarter 2000, groundwater levels rose approximately 5 feet and have remained at these levels for the past seven quarters. However, groundwater levels are still within the well screen intervals of 5 to 20 ft. Based on the decreasing hydrocarbon trend apparent in several of the wells, Cambria is considering whether further active remedial action is warranted or if a risk based corrective action (RBCA) plan approach should be conducted.

Groundwater Sampling Schedule Modification: Based on the historical groundwater sampling data, Cambria requests that the sampling frequency of wells MW-3, MW-4, and MW-6 be reduced from a quarterly to annual basis.

ATTACHMENTS

Figure 1 – Groundwater Elevation Contour and Hydrocarbon Concentration Map

Table 1 – Groundwater Elevation and Analytical Data

Appendix A – Groundwater Monitoring Field Data Sheets

Appendix B – Analytical Results for Groundwater Sampling

Appendix C – Benzene Concentration Graphs – MW-1, MW-2, and MW-5

H:\SB-2004\OAK-HOOSHI\FIGURES\2QM02-MP.DWG

Hooshi's Auto Service

1499 MacArthur Boulevard
Oakland, California

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Groundwater Elevation Contour and Hydrocarbon Concentration Map

April 19, 2002

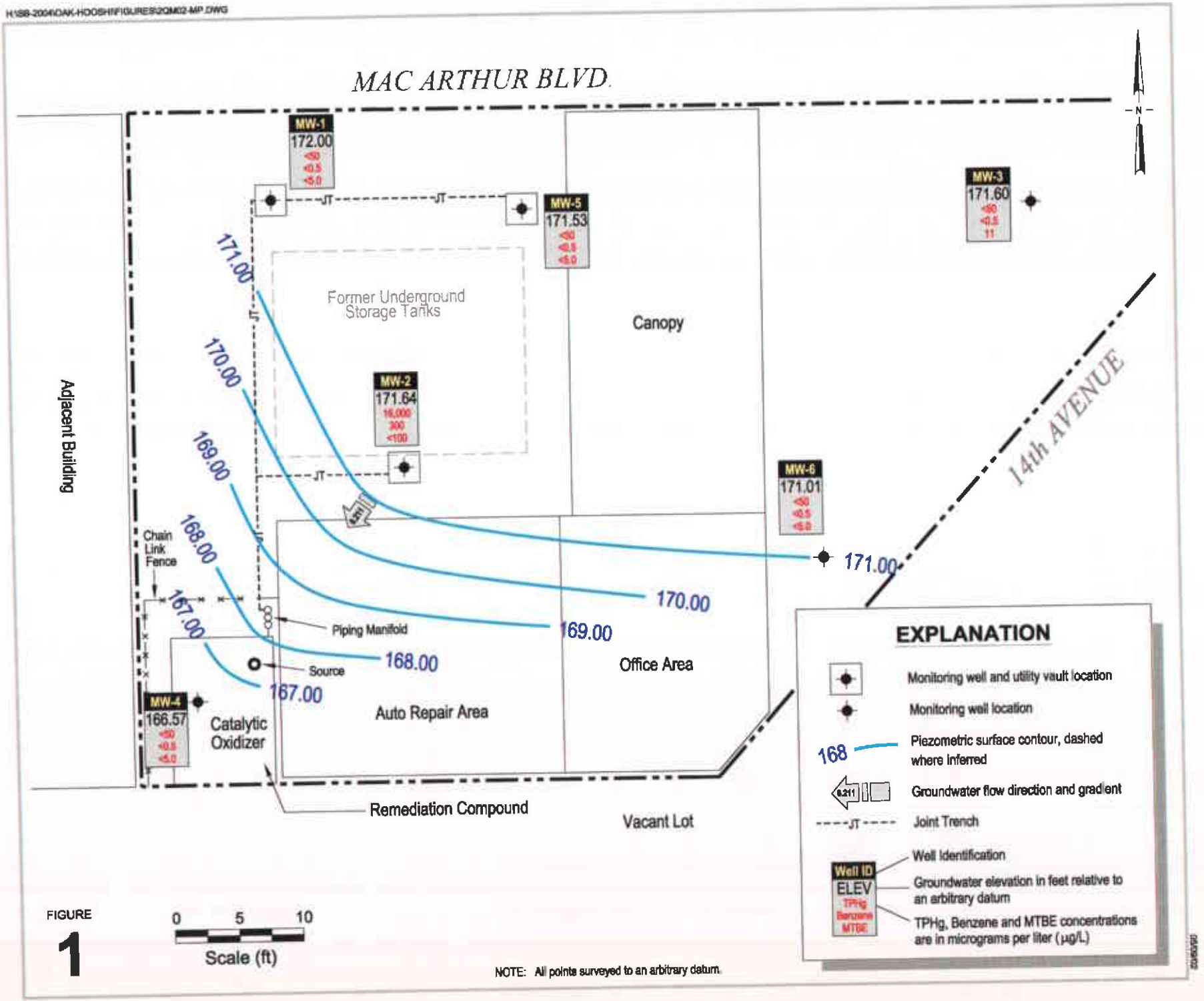

FIGURE
1

NOTE: All points surveyed to an arbitrary datum.

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Table 1. Groundwater Elevation and Analytical Data - Hooshi's Auto Service, 1499 MacArthur Boulevard, Oakland, California

Well ID *TOC (ft*)*	Date	Depth to Groundwater (ft)	Groundwater Elevation (ft**)	Separate Phase Hydrocarbons (ft)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes
					← (µg/L) →						
MW-1	1/4/93	--	--	--	539	130	12	22	13	--	
181.00	4/22/93	--	--	--	1,130	75	8.0	38	11	--	
	12/27/94	--	--	--	770	22	6.6	14	21	--	
	6/27/96	14.11	166.89	--	3,300	260	34	59	170	80	
	12/10/96	13.71	167.29	--	1,500	84	11	22	32	34	
	5/8/98	13.85	167.15	--	3,200	300	12	62	36	<120	a
	8/17/98	14.11	166.89	--	1,700	160	18	32	27	39	a
	11/4/98	14.28	166.72	--	1,100	11	4.3	3.6	6.5	<50	a
	2/17/99	13.41	167.59	--	320	200	47	72	75	57	a
	5/27/99	14.16	166.84	--	2,500	81	12	29	41	<80	a
	8/19/99	14.18	166.82	--	780	19	<0.5	5.7	4.5	28	a
180.83	11/23/99	14.43	166.40	--	1,300	24	0.64	1.8	3.3	<100	a
	2/17/00	13.85	166.98	--	1,300	60	9.1	22	19	22 (16)	a,b
	5/9/00	14.01	166.82	--	2,700	55	13	19	25	34 (29)	a
	8/15/00	14.24	166.59	--	--	--	--	--	--	--	
	12/1/00	8.75	172.08	--	480	6.4	5.9	1.1	3.9	18 (21)	a
180.63	2/8/01	8.49	172.14	--	64	<0.5	<0.5	<0.5	<0.5	6.1 (5.6)	a,c
	4/9/01	8.71	171.92	--	--	--	--	--	--	--	
	4/24/01	7.90	172.73	--	77	<0.5	<0.5	<0.5	<0.5	5.6 (3.7)	c
	8/6/01	8.83	171.80	--	140	1.7	0.55	<0.5	0.63	5.8 (4.0)	a
	10/22/01	8.91	171.72	--	120	0.92	<0.5	<0.5	0.59	11(10)	a
	2/1/02	8.15	172.48	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	4/19/02	**8.63**	**172.00**	**--**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**	

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Table 1. Groundwater Elevation and Analytical Data - Hooshi's Auto Service, 1499 MacArthur Boulevard, Oakland, California

Well ID *TOC (ft*)*	Date	Depth to Groundwater (ft)	Groundwater Elevation (ft**)	Separate Phase Hydrocarbons (ft)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes
					← (µg/L) →						
MW-2	1/4/93	--	--	--	149,000	21,700	25,000	ND	7,760	--	
180.45	4/22/93	--	--	--	136,300	9,900	15,870	15,300	2,190	--	
	12/27/94	--	--	--	94,000	11,000	18,000	2,700	16,000	--	
	6/27/96	12.61	168.64	1.00	--	--	--	--	--	--	
	12/10/99	11.10	169.55	0.25	--	--	--	--	--	--	
	5/8/98	10.81	169.66	0.03	--	--	--	--	--	--	
	8/17/98	12.16	168.31	0.02	--	--	--	--	--	--	
	11/4/98	12.61	167.86	0.02	--	--	--	--	--	--	
	2/17/99	9.82	170.66	0.04	--	--	--	--	--	--	
	5/27/99	11.07	169.48	0.13	--	--	--	--	--	--	
	8/19/99	12.79	167.68	0.02	--	--	--	--	--	--	
180.24	11/23/99	12.14	168.20	0.12	--	--	--	--	--	--	
	2/17/00	10.01	170.37	0.18	--	--	--	--	--	--	
	5/9/00	10.88	169.38	0.03	--	--	--	--	--	--	
	8/15/00	12.28	167.97	0.01	--	--	--	--	--	--	
	12/1/00	8.03	172.21	--	260,000	1,100	5,000	1,900	17,000	<100	a
	2/8/01	7.86	172.38	--	2,900	1.7	14	5.0	140	<5.0	c,d
	4/9/01	7.95	172.29	--	--	--	--	--	--	--	
	4/24/01	6.90	173.34	--	56,000	360	980	1,000	4,700	<5.0	a,b
	8/6/01	8.15	172.09	--	54,000	680	1,900	1,500	7,800	<200 (<10)	a,h,j
	10/22/01	8.22	172.02	--	32,000	420	770	1,100	4,100	<250	a,h
	2/1/02	8.07	172.17	--	26,000	310	490	920	1,600	<1,000	a
	4/19/02	**8.60**	**171.64**	**--**	**16,000**	**300**	**240**	**1,000**	**990**	**<100**	**a**

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Table 1. Groundwater Elevation and Analytical Data - Hooshi's Auto Service, 1499 MacArthur Boulevard, Oakland, California

Well ID *TOC (ft*)*	Date	Depth to Groundwater (ft)	Groundwater Elevation (ft**)	Separate Phase Hydrocarbons (ft)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes
					← (µg/L) →						
MW-3	1/4/93	--	--	--	1,610	772	14	11	ND	--	
179.94	4/22/93	--	--	--	3,040	980	34	19	16		
	12/27/94	--	--	--	2,600	180	9.0	7.2	13		
	6/27/96	13.20	166.74	--	2,000	22	2.9	11	7.4	56	
	12/10/96	13.13	166.81	--	970	<0.5	<0.5	<0.5	<0.5	24	
	5/8/98	13.03	166.91	--	780	3.7	2.1	1.1	2.4	<32	a
	8/17/98	13.22	166.72	--	870	2.8	<0.5	<0.5	3.7	<5.0	b,c
	11/4/98	13.31	166.63	--	770	1.6	4.4	2.0	6.9	<30	c
	2/17/99	12.89	167.05	--	650	6.2	3.4	1.5	2.6	<5.0	b,c
	5/27/99	12.32	167.62	--	570	1.5	1.2	0.72	1.1	<20	a
	8/19/99	13.19	166.75	--	830	<0.5	1.9	<0.5	1.3	<20	c,d
179.55	11/23/99	13.26	166.29	--	900	<0.5	1.8	0.56	1.4	<20	c,d
	2/17/00	12.78	166.77	--	250	<0.5	1.5	<0.5	0.62	<5.0	d
	5/9/00	12.92	166.63	--	690	<0.5	2.1	0.85	1.6	<5.0	a
	8/15/00	13.19	166.36	--	610	<0.5	2.3	0.75	1.2	<5.0	c,d
	12/1/00	7.50	172.05	--	120	<0.5	0.90	0.65	0.62	<5.0	c,d
	2/8/01	7.20	172.35	--	87	<0.5	<0.5	<0.5	<0.5	<5.0	c,d
	4/9/01	7.33	172.22	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	8/6/01	7.61	171.94	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	10/22/01	7.58	171.97	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	2/1/02	7.53	172.02	--	<50	<0.5	<0.5	<0.5	<0.5	8.5 (8.5)	
	4/19/02	**7.95**	**171.60**	--	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**9.0 (11)**	

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Well ID *TOC (ft*)*	Date	Depth to Groundwater (ft)	Groundwater Elevation (ft**)	Separate Phase Hydrocarbons (ft)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes
					← (µg/L) →						
MW-4	6/27/96	17.03	163.51	--	720	2	0.5	2.5	23	3.2	
180.54	12/10/96	8.50	172.04	--	80	2.4	<0.5	<0.5	6.6	<2.0	
	5/8/98	11.46	169.08	--	<50	0.60	<0.5	<0.5	<0.5	<5.0	
	8/17/98	13.98	166.56	--	<50	<0.5	<0.5	<0.5	0.5	<5.0	
	11/4/98	14.36	166.18	--	96	9.7	8.1	4.8	18	<5.0	a
	2/17/99	8.39	172.15	--	<50	<0.5	<0.5	<0.5	0.5	<5.0	
	5/27/99	12.80	167.74	--	<50	<0.5	1.0	<0.5	2.9	<5.0	
	8/19/99	14.42	166.12	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
180.12	11/23/99	14.63	165.49	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	2/17/00	8.15	171.97	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	5/9/00	12.81	167.31	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	8/15/00	14.29	165.83	--	<50	2.1	<0.5	<0.5	<0.5	<5.0	
	12/1/00	12.80	167.32	--	81	6.0	8.4	1.0	5.6	<5.0	a
	2/8/01	12.57	167.55	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	4/9/01	12.50	167.62	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	8/6/01	14.00	166.12	--	59	1.5	<0.5	<0.5	<0.5	<5.0	a
	10/22/01	14.05	166.07	--	130	6.3	<0.5	0.88	<0.5	<5.0	a
	2/1/02	13.47	166.65	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	4/19/02	**13.55**	**166.57**	**--**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**	

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Well ID *TOC (ft*)*	Date	Depth to Groundwater (ft)	Groundwater Elevation (ft**)	Separate Phase Hydrocarbons (ft)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes
					← (µg/L) →						
MW-5	6/27/96	13.62	166.74	0.16	--	--	--	--	--	--	
180.23	12/10/96	13.26	167.77	1.00	--	--	--	--	--	--	
	5/8/98	13.15	167.11	0.04	--	--	--	--	--	--	
	8/17/98	13.36	166.89	0.02	--	--	--	--	--	--	
	11/4/98	13.52	166.73	0.02	--	--	--	--	--	--	
	2/17/99	13.02	167.23	0.02	--	--	--	--	--	--	
	5/27/99	13.80	166.71	0.35	--	--	--	--	--	--	
	8/19/99	13.45	166.86	0.10	--	--	--	--	--	--	
180.09	11/23/99	14.03	166.35	0.36	--	--	--	--	--	--	
	2/17/00	13.28	167.02	0.26	--	--	--	--	--	--	
	5/9/00	13.55	166.77	0.29	--	--	--	--	--	--	
	8/15/00	13.58	166.54	0.04	--	--	--	--	--	--	
	12/1/00	8.00	172.09	0.00	54,000	240	1,700	870	1,000	<300	c,d
180.04	2/8/01	7.88	172.16	0.00	33,000	63	420	120	4,500	<50	a,b
	4/9/01	7.97	172.07	0.00	--	--	--	--	--	--	
	4/24/01	7.00	173.04	0.00	3,200	<1.0	11	7	260	<5.0	c,d
	8/6/01	8.17	171.87	--	2,700	11	40	21	240	<5.0	a
	10/22/01	8.15	171.89	--	20,000	200	1,200	330	2,900	<100	a,h
	2/1/02	8.07	171.97	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	4/19/02	**8.51**	**171.53**	--	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**	

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Table 1. Groundwater Elevation and Analytical Data - Hooshi's Auto Service, 1499 MacArthur Boulevard, Oakland, California

Well ID *TOC (ft*)*	Date	Depth to Groundwater (ft)	Groundwater Elevation (ft**)	Separate Phase Hydrocarbons (ft)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes
					← (µg/L) →						
MW-6	6/27/96	18.55	161.48	--	ND	ND	ND	ND	ND	--	
180.03	12/10/99	11.79	168.24	--	<0.5	<0.5	<0.5	<0.5	<0.5	<2.0	
	5/8/98	11.62	168.41	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	8/17/98	12.66	167.37	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	11/4/98	13.56	166.47	--	68	3.8	3.7	2.8	11	<5.0	a
	2/17/99	12.91	167.12	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	5/27/99	13.03	167.00	--	<50	1.0	1.7	0.82	4.9	<5.0	
	8/19/99	13.10	166.93	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
179.63	11/23/99	13.58	166.05	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	2/17/00	10.72	168.91	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	5/9/00	11.71	167.92	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	8/15/00	12.49	167.14	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	12/1/00	8.64	170.99	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	2/8/01	8.20	171.43	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	4/9/01	8.53	171.10	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	8/6/01	8.69	170.94	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	10/22/01	8.75	170.88	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	2/1/02	8.31	171.32	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	4/19/02	**8.62**	**171.01**	**--**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**	

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Table 1. Groundwater Elevation and Analytical Data - Hooshi's Auto Service, 1499 MacArthur Boulevard, Oakland, California

Well ID *TOC (ft*)*	Date	Depth to Groundwater (ft)	Groundwater Elevation (ft**)	Separate Phase Hydrocarbons (ft)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes
					← (µg/L) →						
Trip Blank	5/8/98	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	11/4/98	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	5/27/99	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	11/23/99	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	12/1/00	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	

Abbreviations and Methods:

TPHg = Total petroleum hydrocarbons as gasoline by modified EPA Method 8015

Benzene, toluene, ethylbenzene, and xylenes by EPA Method 8020

MTBE = Methyl tertiary butyl ether by EPA Method 8020

(concentration in parentheses confirmed by EPA Method 8260)

µg/L = Micrograms per liter

TOC = Top of casing elevation

* = wells surveyed to an arbitrary datum

** = Calculated groundwater elevation corrected for SPH by the relation:

Groundwater Elevation = Well Elevation - Depth to Water +(0.8xSPH thickness (ft))

*** = Due to the air sparge system running during sampling, samples collected on 4/9/01 were anomalous. Well was resampled on 4/24/01 with the air sparge system off.

-- = not sampled.

Abbreviations and Methods (Cont'd):

MCLs = California primary maximum contaminant levels for drinking water (22 CCR 64444)

NE = MCLs not established

ND = Compound not detected, detection limit unknown

Notes:

a - The analytical laboratory noted that unmodified or weakly modified gasoline is significant.

b - The analytical laboratory noted that lighter than water immiscible sheen is present.

c - The analytical laboratory noted no recognizable pattern.

d - The analytical laboratory noted heavier gasoline range compounds are significant (aged ga

h - The analytical laboratory noted lighter than water immiscible sheen is present

j - The analytical laboratory noted sample diluted due to high organic content.

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APPENDIX A

Groundwater Monitoring Field Data Sheets

CAMBRIA

WELL DEPTH MEASUREMENTS

Well ID	Time	Product Depth	Water Depth	Product Thickness	Well Depth	Comments
MW-1	10:45		8.63		19.90	
MW-2	10:55		8.60		19.80	
MW-3	10:35		7.95		19.78	
MW-4	10:40		13.55		19.72	
MW-5	10:50		8.51		14.50	
MW-6	10:30		8.62		20.00	

Project Name: **HOOSHI'S**

Project Number: 129-0714

Measured By: J. Hill

Date:04/19/02

CAMBRIA

WELL SAMPLING FORM

Project Name: Hooshi's	Cambria Mgr: **RAS**	Well ID: MW-1
Project Number: 129-0714	Date:04/19/02	Well Yield:
Site Address: 1499 MacAurthur Blvd Oakland, Ca	Sampling Method: **Disposable bailer**	Well Diameter: **2" pvc** Technician(s): SG
Initial Depth to Water: 8.63	Total Well Depth: 19.90	Water Column Height: 11.27
Volume/ft: 0.16	1 Casing Volume: 1.80	3 Casing Volumes: 5.40
Purging Device: disposable bailer	Did Well Dewater?: no	Total Gallons Purged: 5.5
Start Purge Time: 11:15	Stop Purge Time: 11:29	Total Time: 14mins

1 Casing Volume = Water column height x Volume/ ft.

Well Diam.	Volume/ft (gallons)
2"	0.16
4"	0.65
6"	1.47

Time	Casing Volume	Temp.	pH	Cond.	Comments
11:20	1.5	16.9	7.41	1025	
11:25	3.5	17.1	7.45	913	
11:30	5.5	17.1	7.43	927	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-1	**04/19/02**	11:35	**4VOAs**	**HCL**	**TPHg BTEX MTBE**	**8260**

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NSM 5/31/94

CAMBRIA

WELL SAMPLING FORM

Project Name: Hooshi's	Cambria Mgr: **RAS**	Well ID: MW-2
Project Number: 129-0714	Date:04/19/02	Well Yield:
Site Address: 1499 MacAurthur Blvd Oakland, Ca	Sampling Method: **Disposable bailer**	Well Diameter: **2" pvc** Technician(s): SG
Initial Depth to Water: 8.60	Total Well Depth: 19.80	Water Column Height: 11.2
Volume/ft: 0.16	1 Casing Volume: 1.79	3 Casing Volumes: 5.37
Purging Device: disposable bailer	Did Well Dewater?: no	Total Gallons Purged: 5.5
Start Purge Time: 14:10	Stop Purge Time: 14:29	Total Time: 19 mins

1 Casing Volume = Water column height x Volume/ ft.

Well Diam.	Volume/ft (gallons)
2"	0.16
4"	0.65
6"	1.47

Time	Casing Volume	Temp.	pH	Cond.	Comments
14:15	1.5	17.1	7.45	819	odor
14:20	3.5	17.2	7.41	8.79	
14:30	5.5	17.2	7.38	804	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-2	**04/19/02**	14:35	**4VOAs**	**HCL**	**TPHg BTEX MTBE**	**8260**

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CAMBRIA

WELL SAMPLING FORM

Project Name: Hooshi's	Cambria Mgr: **RAS**	Well ID: MW-3
Project Number: 129-0714	Date:04/19/02	Well Yield:
Site Address: 1499 MacAurthur Blvd Oakland, Ca	Sampling Method: **Disposable bailer**	Well Diameter: **2" pvc** Technician(s): SG
Initial Depth to Water: 7.95	Total Well Depth: 19.78	Water Column Height: 11.83
Volume/ft: 0.16	1 Casing Volume: 1.89	3 Casing Volumes: 5.67
Purging Device: disposable bailer	Did Well Dewater?: no	Total Gallons Purged: 5.5
Start Purge Time: 12:15	Stop Purge Time: 12:29	Total Time: 14mins

1 Casing Volume = Water column height x Volume/ ft.

Well Diam.	Volume/ft (gallons)
2"	0.16
4"	0.65
6"	1.47

Time	Casing Volume	Temp.	pH	Cond.	Comments
12:20	1.5	17.4	7.15	1090	
12:25	3.5	17.5	7.22	1151	
12:30	5.5	17.4	7.28	1117	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-3	**04/19/02**	12:35	**4VOAs**	**HCL**	**TPHg BTEX MTBE**	**8260**

CAMBRIA

WELL SAMPLING FORM

Project Name: Hooshi's	Cambria Mgr: **RAS**	Well ID: MW-4
Project Number: 129-0714	Date:04/19/02	Well Yield:
Site Address: 1499 MacAurthur Blvd Oakland, Ca	Sampling Method: **Disposable bailer**	Well Diameter: **2" pvc** Technician(s): SG
Initial Depth to Water: 13.55	Total Well Depth: 19.72	Water Column Height: 6.17
Volume/ft: 0.16	1 Casing Volume: 0.98	3 Casing Volumes: 2.96
Purging Device: disposable bailer	Did Well Dewater?: no	Total Gallons Purged: 3
Start Purge Time: 11:45	Stop Purge Time: 11:59	Total Time: 14mins

1 Casing Volume = Water column height x Volume/ ft.

Well Diam.	Volume/ft (gallons)
2"	0.16
4"	0.65
6"	1.47

Time	Casing Volume	Temp.	pH	Cond.	Comments
11:50	1	17.4	7.09	1290	
11:55	2	17.3	7.20	1570	
12:00	3	17.3	7.24	1584	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-4	**04/19/02**	12:05	**4VOAs**	**HCL**	**TPHg BTEX MTBE**	**8260**

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WELL SAMPLING FORM

Project Name: Hooshi's	Cambria Mgr: **RAS**	Well ID: MW-5
Project Number: 129-0714	Date:04/19/02	Well Yield:
Site Address: 1499 MacAurthur Blvd Oakland, Ca	Sampling Method: **Disposable bailer**	Well Diameter: **2" pvc** Technician(s): SG
Initial Depth to Water: 8.51	Total Well Depth: 14.50	Water Column Height: 5.99
Volume/ft: 0.16	1 Casing Volume: 0.95	3 Casing Volumes: 2.87
Purging Device: disposable bailer	Did Well Dewater?: no	Total Gallons Purged: 3
Start Purge Time: 13:15	Stop Purge Time: 13:29	Total Time: 14 mins

1 Casing Volume = Water column height x Volume/ ft.

Well Diam.	Volume/ft (gallons)
2"	0.16
4"	0.65
6"	1.47

Time	Casing Volume	Temp.	pH	Cond.	Comments
13:20	1	17.4	7.19	1010	
13:25	2	17.4	7.24	1054	
13:30	3	17.4	7.28	1070	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-5	**04/19/02**	13:35	**4VOAs**	**HCL**	**TPHg BTEX MTBE**	**8260**

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WELL SAMPLING FORM

Project Name: Hooshi's	Cambria Mgr: **RAS**	Well ID: MW-6
Project Number: 129-0714	Date:04/19/02	Well Yield:
Site Address: 1499 MacAurthur Blvd Oakland, Ca	Sampling Method: **Disposable bailer**	Well Diameter: **2" pvc** Technician(s): SG
Initial Depth to Water: 8.62	Total Well Depth: 20.00	Water Column Height: 11.38
Volume/ft: 0.16	1 Casing Volume: 1.82	3 Casing Volumes: 5.46
Purging Device: disposable bailer	Did Well Dewater?: no	Total Gallons Purged: 5.5
Start Purge Time: 12:45	Stop Purge Time: 12:59	Total Time: 14 mins

1 Casing Volume = Water column height x Volume/ ft.

Well Diam.	Volume/ft (gallons)
2"	0.16
4"	0.65
6"	1.47

Time	Casing Volume	Temp.	pH	Cond.	Comments
12:50	1.5	17.5	7.39	1105	
12:55	3.5	17.2	7.20	1224	
13:00	5.5	17.3	7.25	1290	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-6	**04/19/02**	13:05	**4VOAs**	**HCL**	**TPHg BTEX MTBE**	**8260**

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NSM 5/31/94

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APPENDIX B

Analytical Results for Groundwater Sampling

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

Cambria Env. Technology 6262 Hollis St. Emeryville, CA 94608	Client Project ID: #129-0714-031; Hooshi's	Date Sampled: 04/19/02
		Date Received: 04/22/02
	Client Contact: Ron Scheele	Date Reported: 04/29/02
	Client P.O.:	Date Completed: 04/29/02

April 29, 2002

Dear Ron:

Enclosed are:

1). the results of **6** samples from your **#129-0714-031; Hooshi's 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.

Yours truly,

Angela Rydelius, Lab Manager

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

Cambria Env. Technology	Client Project ID: #129-0714-031; Hooshi's	Date Sampled: 04/19/02
6262 Hollis St.		Date Received: 04/22/02
Emeryville, CA 94608	Client Contact: Ron Scheele	Date Extracted: 04/23/02-04/26/02
	Client P.O.:	Date Analyzed: 04/23/02-04/26/02

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0204347

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	MW-1	W	ND	ND	ND	ND	ND	ND	1	99.1
002A	MW-2	W	16000,a	ND<100	300	240	1000	990	20	117
003A	MW-3	W	ND	9.0	ND	ND	ND	ND	1	101
004A	MW-4	W	ND	ND	ND	ND	ND	ND	1	101
005A	MW-5	W	ND	ND	ND	ND	ND	ND	1	103
006A	MW-6	W	ND	ND	ND	ND	ND	ND	1	102
Reporting Limit for DF =1; ND means not detected at or above the reporting limit		W	50	5	0.5	0.5	0.5	0.5		ug/L
		S	1	0.05	0.005	0.005	0.005	0.005		mg/Kg

*water and vapor samples are reported in ug/L, soil and sludge samples in mg/kg, wipe samples in ug/wipe, and TCLP extracts in ug/L.

DF = dilution factor.

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); 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 ~2 vol. % sediment; j) no recognizable pattern.

DHS Certification No. 1644

Edward Hamilton, Lab Director

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

Cambria Env. Technology	Client Project ID: #129-0714-031; Hooshi's	Date Sampled: 04/19/02
6262 Hollis St.		Date Received: 04/22/02
Emeryville, CA 94608	Client Contact: Ron Scheele	Date Extracted: 04/26/02
	Client P.O.:	Date Analyzed: 04/26/02

Methyl tert-Butyl Ether*

Extraction method: SW5030B Analytical methods: SW8260B Work Order: 0204347

Lab ID	Client ID	Matrix	Methyl-t-butyl ether (MTBE)	DF	% SS
003B	MW-3	W	11	1	110

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

* water samples are reported in ug/L, soil and sludge samples in ug/kg, wipe samples in ug/wipe and all TCLP / STLC / SPLP extracts in ug/L

h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~2 vol. % sediment; j) sample diluted due to high organic content.

DHS Certification No. 1644

Edward Hamilton, Lab Director

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

QC REPORT

EPA 8015m + 8020

Date: 04/23/02 **Extraction:** EPA 5030 **Matrix:** Water

Compound	Concentration: ug/L				%Recovery		RPD
	Sample	MS	MSD	Amount Spiked	MS	MSD	
SampleID: 42302					Instrument	GC-3	
Surrogate1	ND	98.0	101.0	100.00	98	101	3.0
Xylenes	ND	33.0	33.0	30.00	110	110	0.0
Ethylbenzene	ND	11.0	11.0	10.00	110	110	0.0
Toluene	ND	11.0	11.0	10.00	110	110	0.0
Benzene	ND	10.0	10.0	10.00	100	100	0.0
MTBE	ND	9.9	9.5	10.00	99	95	4.1
TPH (gas)	ND	85.1	86.0	100.00	85	86	1.0

$$\%\ \text{Recovery} = \frac{(MS - Sample)}{AmountSpiked} \cdot 100$$

$$RPD = \frac{(MS - MSD)}{(MS + MSD)} \cdot 2 \cdot 100$$

RPD means Relative Percent Deviation

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

QC REPORT

VOCs (EPA 8240/8260)

Date: 04/26/02 **Extraction:** EPA 5030 **Matrix:** Water

Compound	Concentration: ug/L				%Recovery		RPD
	Sample	MS	MSD	Amount Spiked	MS	MSD	
SampleID: 50102					Instrument	GC-4	
Surrogate	ND	102.0	101.0	100.00	102	101	1.0
Methyl tert-Butyl Ether	ND	9.9	9.8	10.00	99	98	1.0

$$\%\ \text{Recovery} = \frac{(MS - Sample)}{Amount Spiked} \cdot 100$$

$$\text{RPD} = \frac{(MS - MSD)}{(MS + MSD)} \cdot 2 \cdot 100$$

RPD means Relative Percent Deviation

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0204347

Client:
Cambria Env. Technology
6262 Hollis St.
Emeryville, CA 94608

TEL: (510) 450-1983
FAX: (510) 450-8295
ProjectNo: #129-0714-031;
PO:

22-Apr-02

Sample ID	ClientSampID	Matrix	Collection Date	Bottle	Requested Tests				
					8021B/8015				
0204347-001	MW-1	Water	4/19/02 11:35:00 AM		A				
0204347-002	MW-2	Water	4/19/02 2:35:00 PM		A				
0204347-003	MW-3	Water	4/19/02 12:35:00 PM		A				
0204347-004	MW-4	Water	4/19/02 12:05:00 PM		A				
0204347-005	MW-5	Water	4/19/02 1:33:00 PM		A				
0204347-006	MW-6	Water	4/19/02 1:05:00 PM		A				

Comments: Confirm MTBE hits by 8260

	Date/Time		Date/Time
Relinquished by:		**Received by:**	
Relinquished by:		**Received by:**	
Relinquished by:		**Received by:**	

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.

Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

0204347

McCAMPBELL ANALYTICAL INC.

110 2nd AVENUE SOUTH, #D7
PACHECO, CA 94553
Telephone: (925) 798-1620 Fax: (925) 798-1622

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HOUR ☐ 48 HOUR ☒ 5 DAY

Report To: Ron Scheele Bill To: Cambria Env. Tech
Company: Cambria Environmental Technology
6262 Hollis Street
Emeryville, CA 94608
Tele: (510) 450-1983 Fax: (510) 450-8295
Project #: 129-0714-031 Project Name: Hooshi's
Project Location: 1499 MacArthur Blvd. Oakland, Ca
Sampler Signature: S. Hill

SAMPLE ID	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED Ice	METHOD PRESERVED HCl	METHOD PRESERVED HNO_3	METHOD PRESERVED Other
MW-1		4-19-02	11:35	4	VOA	X								
MW-2		4-19-02	14:35	4	VOA	X								
MW-3		4-19-02	12:35	4	VOA	X								
MW-4		4-19-02	12:05	4	VOA	X								
MW-5		4-19-02	13:35	4	VOA	X								
MW-6		4-19-02	13:05	4	VOA	X								

Analysis Request

SAMPLE ID	BTEX & TPH as Gas (602/8020 + 8015) MTBE	TPH as Diesel (8015)	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 601 / 8010	BTEX ONLY (EPA 602 / 8020)	EPA 608 / 8080	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8240 / 8260	EPA 625 / 8270	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI	Other	Comments
MW-1	X															Confirm MTBE hits by 8260	
MW-2	X															X	
MW-3	X															X	
MW-4	X															X	
MW-5	X															X	
MW-6	X															X	

Relinquished By:	Date:	Time:	Received By:
S. Hill	4-23-02	5:00	secure location
Susan K Lutkas	4/22	930	ER #285
ER #285	4/22	1230	S. Vann 04/22/02

Remarks: Report results in EDF format

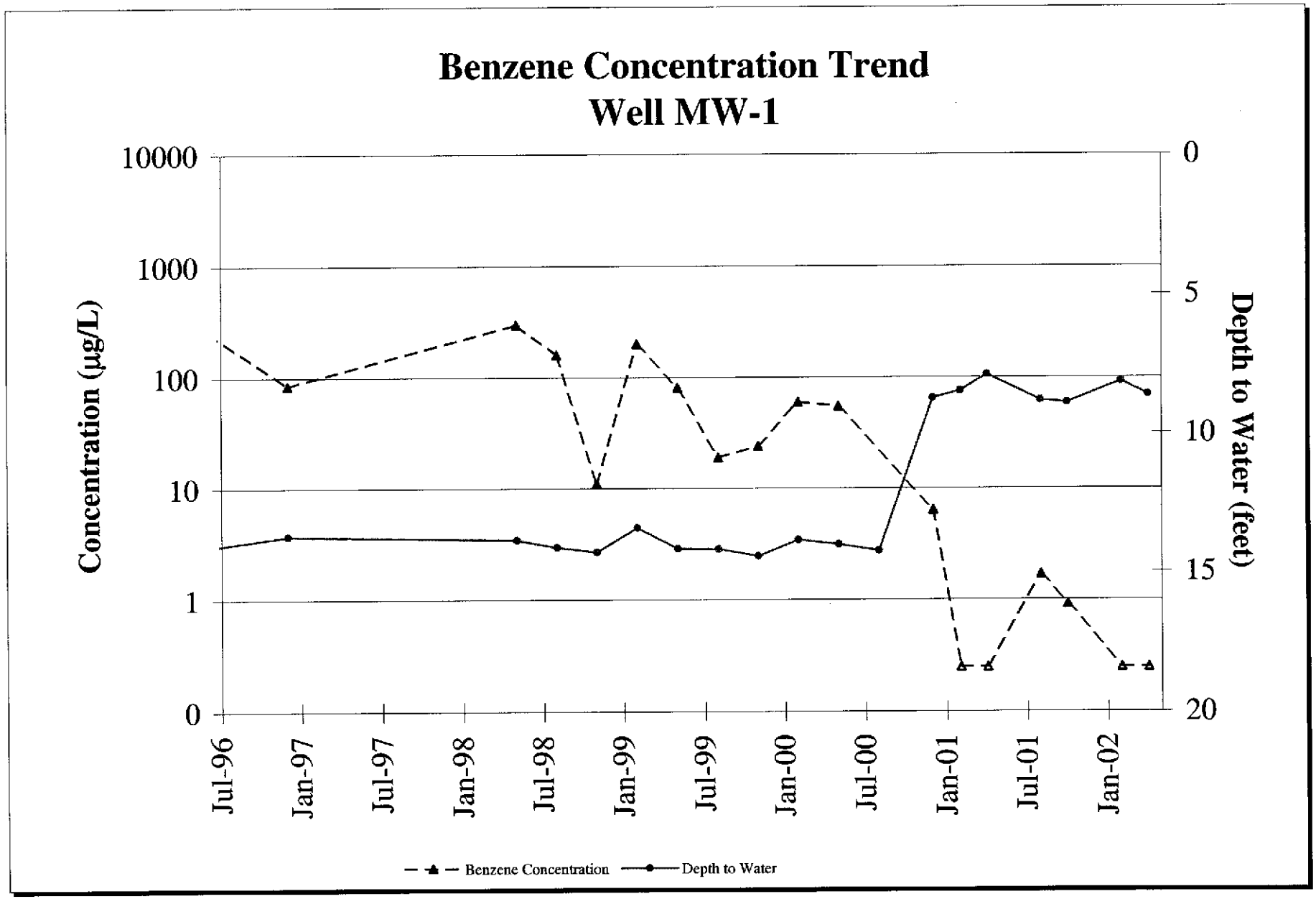
ICE/T ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT ____
PRESERVATION APPROPRIATE ✓
CONTAINERS ✓

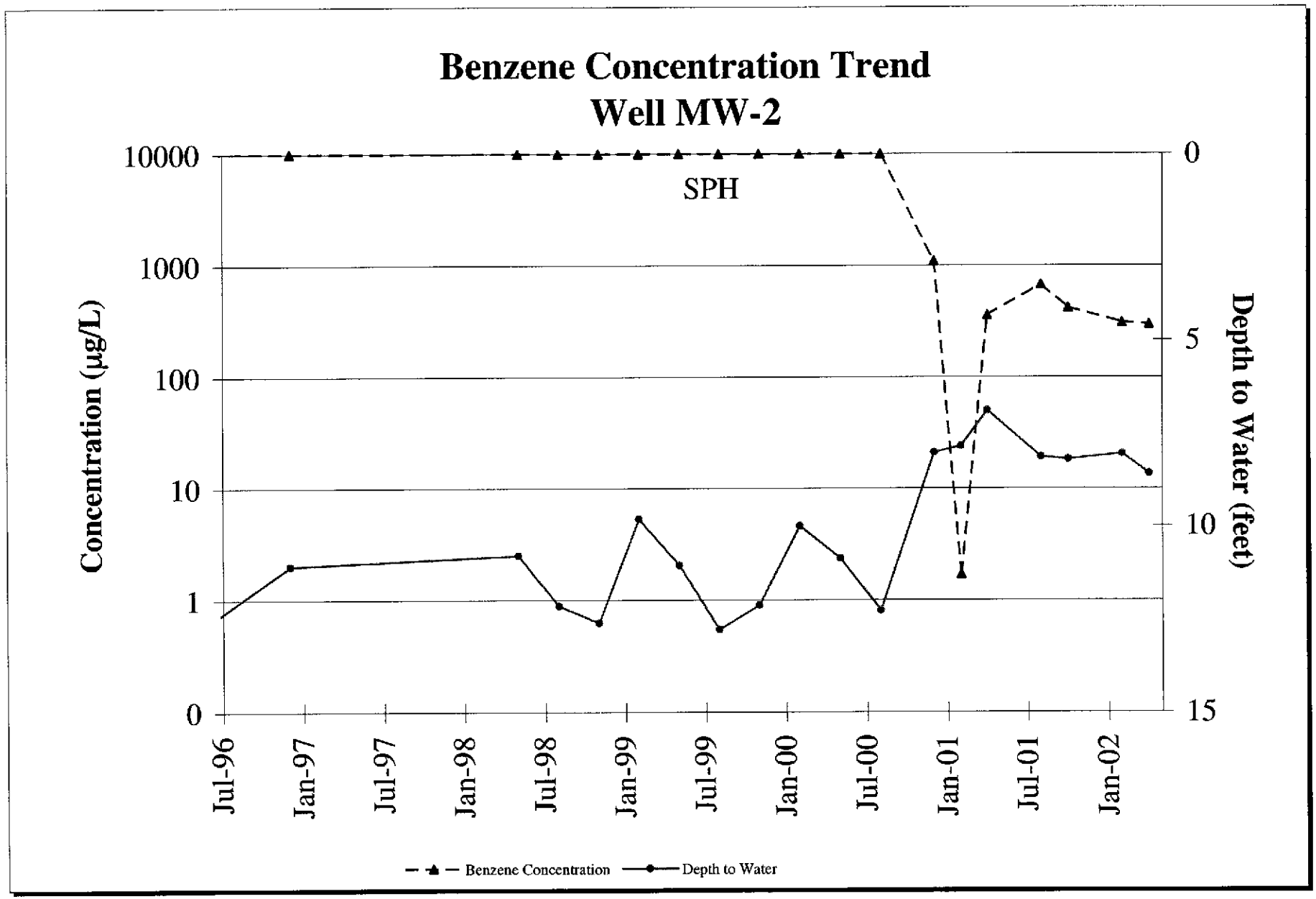
VOAS ✓ | O&G | METALS | OTHER

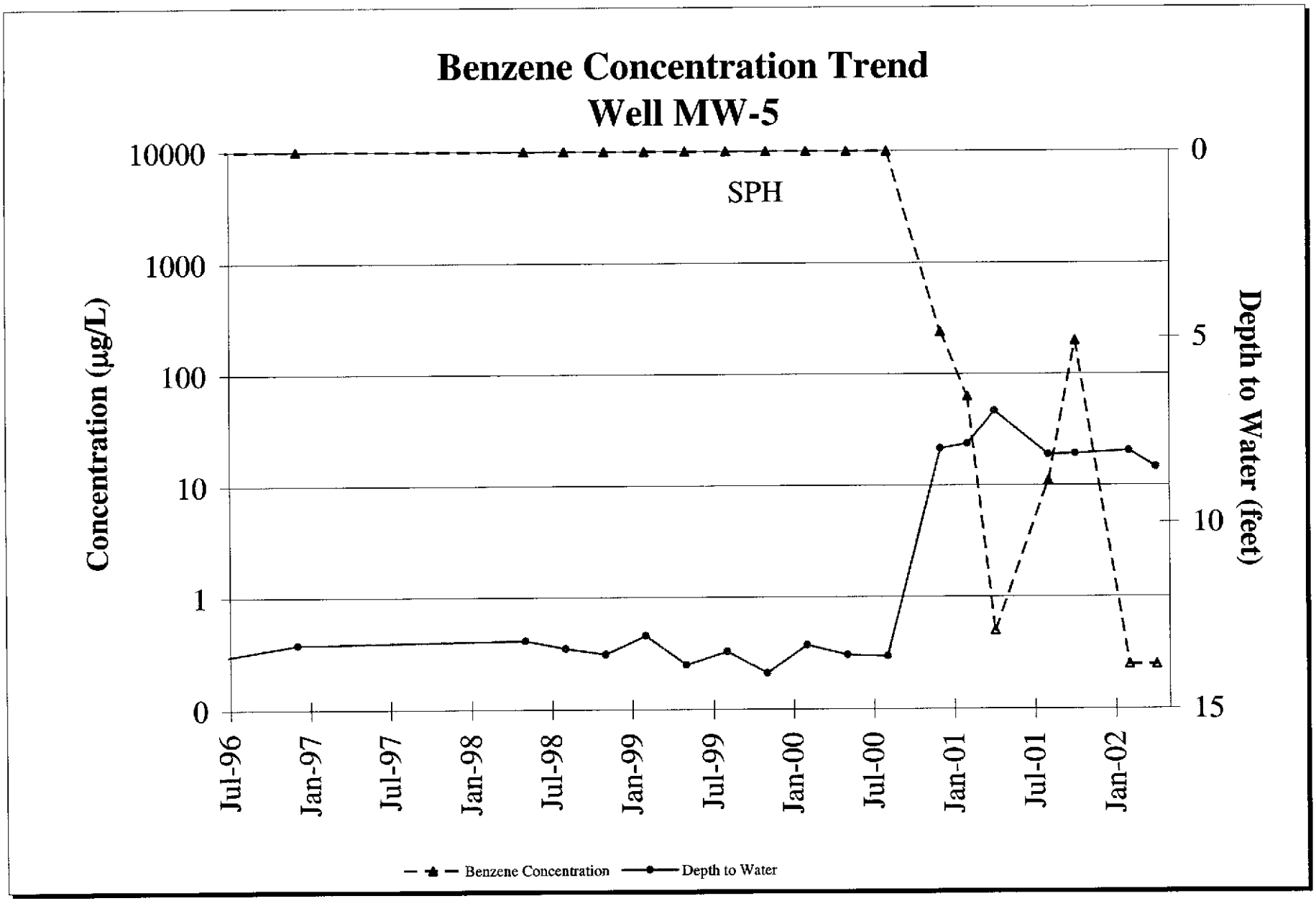
CAMBRIA

ATTACHMENT C

Benzene Concentration Graphs


Benzene Concentration Trend
Well MW-1
Concentration (µg/L)
10000
1000
100
10
1
0
Depth to Water (feet)
0
5
10
15
20
Jul-96
Jan-97
Jul-97
Jan-98
Jul-98
Jan-99
Jul-99
Jan-00
Jul-00
Jan-01
Jul-01
Jan-02
Benzene Concentration
Depth to Water


Benzene Concentration Trend
Well MW-2
10000
1000
100
10
1
0
SPH
Concentration (µg/L)
0
5
10
15
Depth to Water (feet)
Jul-96
Jan-97
Jul-97
Jan-98
Jul-98
Jan-99
Jul-99
Jan-00
Jul-00
Jan-01
Jul-01
Jan-02
Benzene Concentration
Depth to Water


Benzene Concentration Trend
Well MW-5
SPH
Concentration (µg/L)
Depth to Water (feet)
10000
1000
100
10
1
0
0
5
10
15
Jul-96
Jan-97
Jul-97
Jan-98
Jul-98
Jan-99
Jul-99
Jan-00
Jul-00
Jan-01
Jul-01
Jan-02
Benzene Concentration
Depth to Water