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February 28, 2003

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

Alameda County
MAR 04 2003
Environmental Health

Re: **Groundwater Monitoring Report, Fourth 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 report for the above-referenced site. Presented in the report are the fourth quarter 2002 activities and the anticipated first quarter 2003 activities.

If you have any questions or comments regarding this report, please call me at (510) 420-3314.

Sincerely,
Cambria Environmental Technology, Inc.

Matthew A. Meyers
Senior Staff Geologist

Attachments: Groundwater Monitoring Report, Fourth Quarter 2002

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

**Cambria
Environmental
Technology, Inc.**

5900 Hollis Street
Suite A
Emeryville, CA 94608
Tel (510) 420-0700
Fax (510) 420-9170

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GROUNDWATER MONITORING REPORT

FOURTH QUARTER 2002

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

February 28, 2003

Alameda County
MAR 0 4 2003
Environmental Health



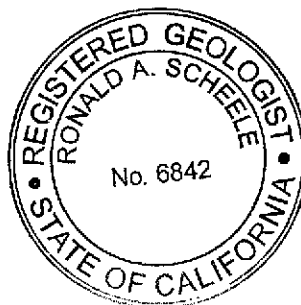
Prepared for:

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

Prepared by:

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

Matthew A. Meyers
Senior Staff Geologist



Ron Scheele, RG
Senior Geologist

GROUNDWATER MONITORING REPORT

FOURTH QUARTER 2002

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

February 28, 2003



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 is the fourth quarter 2002 groundwater monitoring activities and the anticipated first quarter 2003 activities.

FOURTH QUARTER 2002 ACTIVITIES

Monitoring Activities

Field Activities: On October 3, 2002, Cambria gauged water levels in groundwater monitoring wells MW-1 through MW-6. On October 3, 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 8021. When MTBE was detected by EPA Method 8021, 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 October 3, 2002, groundwater beneath the site generally flows in a southwesterly direction (Figure 1). The groundwater gradient is relatively flat onsite and increases significantly towards the southwest corner of the site. Depth to water and groundwater elevation data are presented in Table 1.

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Hydrocarbon Distribution in Groundwater: Hydrocarbon concentrations were detected in four of the six wells. The maximum TPHg and benzene concentrations were detected in well MW-5 at 15,000 and 94 micrograms per liter ($\mu\text{g/L}$), respectively. MTBE was below laboratory detection limits in all sampled wells. Overall, hydrocarbon concentrations decreased or remained at relatively similar levels as compared with the previous quarter with the exception of MW-5 where a modest increase in TPHg was observed. All wells continue to exhibit decreasing hydrocarbon concentration trends (see Appendix C). Table 1 summarizes the groundwater analytical results.



ANTICIPATED FIRST QUARTER 2003 ACTIVITIES

Monitoring Activities

Cambria will gauge the site wells, and collect groundwater samples from all wells according to the revised sampling schedule. Groundwater samples will be analyzed for TPHg by Modified EPA Method 8015 and BTEX and MTBE by EPA Method 8021. Any samples containing MTBE will be confirmed by EPA Method 8260. Cambria will prepare a groundwater monitoring report summarizing the monitoring activities and results.

Site Closure Activities

Based on the decreasing concentrations and the stable plume confirmation, Cambria plans to submit a closure request for this low risk groundwater site at the beginning of the next year, assuming that hydrocarbon concentrations continue their downward trends.

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 through MW-5
- Appendix D – Electronic Delivery Confirmations

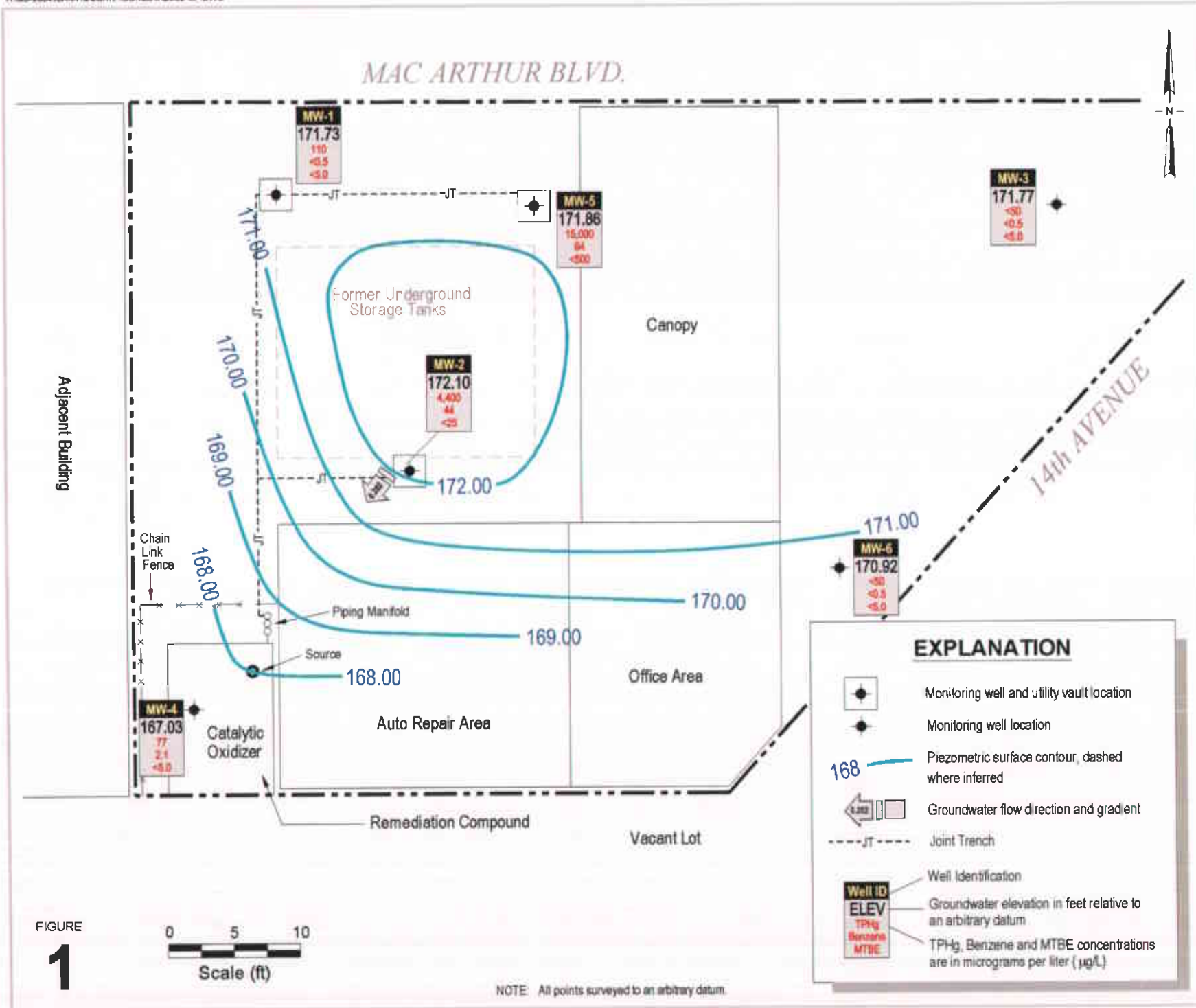
Hoosh's Auto Service
 1499 MacArthur Boulevard
 Oakland, California

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**Groundwater Elevation Contour
 and Hydrocarbon Concentration Map**

October 3, 2002



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

Well ID <i>TOC (ft*)</i>	Date	Depth to Groundwater (ft)	Groundwater Elevation (ft**)	Separate Phase Hydrocarbons (ft)	← (µg/L) →					Notes	
					TPHg	Benzene	Toluene	Ethylbenzene	Xylenes		MTBE
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
180.83	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
	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
180.63	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
	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	
	7/16/02	8.79	171.84	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
10/3/02	8.90	171.73	--	110	<0.5	<0.5	<0.5	<0.5	<5.0	f	

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

Well ID <i>TOC (ft*)</i>	Date	Depth to Groundwater (ft)	Groundwater Elevation (ft**)	Separate Phase Hydrocarbons (ft)	← (µg/L) →					Notes	
					TPHg	Benzene	Toluene	Ethylbenzene	Xylenes		MTBE
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	--	--	--	--	--	--	
	12/10/96	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	
7/16/02	8.21	172.03	--	5,700	120	18	340	15	<50	a	
10/3/02	8.14	172.10	--	4,400	44	16	68	20	<25	a	

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

Well ID <i>TOC (ft*)</i>	Date	Depth to Groundwater (ft)	Groundwater Elevation (ft**)	Separate Phase Hydrocarbons (ft)	TPHg ←	($\mu\text{g/L}$)				MTBE →	Notes
						Benzene	Toluene	Ethylbenzene	Xylenes		
MW-3	1/4/93	--	--	--	1,610	772	14	11	ND	--	
<i>179.94</i>	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
<i>179.55</i>	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)		
7/16/02	7.68	171.87	--	<50	<0.5	<0.5	<0.5	<0.5	20 (30)		
10/3/02	7.78	171.77	--	<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 <i>TOC (ft*)</i>	Date	Depth to Groundwater (ft)	Groundwater Elevation (ft**)	Separate Phase Hydrocarbons (ft)	TPHg ←	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE →	Notes
MW-4	6/27/96	17.03	163.51	--	720	2	0.5	2.5	23	3.2	
<i>180.54</i>	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	
<i>180.12</i>	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	
	7/16/02	14.05	166.07	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	10/3/02	13.09	167.03	--	77	2.1	0.51	<0.5	<0.5	<5.0	a

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

Well ID <i>TOC (ft*)</i>	Date	Depth to Groundwater (ft)	Groundwater Elevation (ft**)	Separate Phase Hydrocarbons (ft)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes
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	--	--	--	--	--	--	
180.09	8/19/99	13.45	166.86	0.10	--	--	--	--	--	--	
	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	
	7/16/02	8.40	171.64	--	<50	<0.5	<0.5	<0.5	1.7	<5.0	
	10/3/02	8.18	171.86	--	15,000	94	830	460	2,200	<500	a

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

Well ID <i>TOC (ft*)</i>	Date	Depth to Groundwater (ft)	Groundwater Elevation (ft**)	Separate Phase Hydrocarbons (ft)	TPHg ←	($\mu\text{g/L}$)				MTBE →	Notes
						Benzene	Toluene	Ethylbenzene	Xylenes		
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	
179.63	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	
	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	
7/16/02	8.84	170.79	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0		
10/3/02	8.71	170.92	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0		

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APPENDIX A

Groundwater Monitoring Field Data Sheets

Groundwater Monitoring Field Sheet

Well ID	Time	DTP	DTW	Product Thickness	Amount of Product Removed	Casing Diam.	Comment
MW-1	8:45		8.90				
MW-2	8:55 8:55		8.14				
MW-3	8:35		7.78				
MW-4	8:40		13.09				
MW-5	8:50		8.18				
MW-6	8:30		8.71				

Project Name: Hooshi's

Project Number/Task: 129-0741-033

Measured By: S. Hill

Date: 10-3-02

WELL SAMPLING FORM

Project Name: Hooshi's	Cambria Mgr: RAS	Well ID: MW-1
Project Number: 129-0741	Date: 10/03/02	Well Yield:
Site Address: 1499 MacArthur Blvd Oakland, Ca	Sampling Method:	Well Diameter: 2" pvc
	Disposable bailer	Technician(s): SG
Initial Depth to Water: 8.90	Total Well Depth: 19.90	Water Column Height: 11.00
Volume/ft: 0.16	1 Casing Volume: 1.76	3 Casing Volumes: 5.28
Purging Device: disposable bailer	Did Well Dewater?: 10	Total Gallons Purged: 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	19.7	7.19	711	
11:25	3	20.3	7.08	1024	
11:30	5	20.1	7.04	1015	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-1	10/03/02	11:35	4VOAs	HCL	TPHg BTEX MTBE	8260

WELL SAMPLING FORM

Project Name: Hooshi's	Cambria Mgr: RAS	Well ID: MW-2
Project Number: 129-0741	Date: 10/03/02	Well Yield:
Site Address: 1499 MacArthur Blvd Oakland, Ca	Sampling Method:	Well Diameter: 2" pvc
	Disposable bailer	Technician(s): SG
Initial Depth to Water: 8.14	Total Well Depth: 19.80	Water Column Height: 11.66
Volume/ft: 0.16	1 Casing Volume: 1.86	3 Casing Volumes: 5.59
Purging Device: disposable bailer	Did Well Dewater?: 70	Total Gallons Purged: 5.5
Start Purge Time: 12:25	Stop Purge Time: 12:39	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
12:30	1.5	20.3	7.15	852	
12:35	3.5	20.1	7.28	1218	
12:40	5.5	20.1	7.25	1370	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-2	10/03/02	12:45	4VOAs	HCL	TPHg BTEX MTBE	8260

WELL SAMPLING FORM

Project Name: Hooshi's	Cambria Mgr: RAS	Well ID: MW-3
Project Number: 129-0741	Date: 10/03/02	Well Yield:
Site Address: 1499 MacArthur Blvd Oakland, Ca	Sampling Method:	Well Diameter: 2" pvc
	Disposable bailer	Technician(s): SG
Initial Depth to Water: 7.78	Total Well Depth: 19.78	Water Column Height: 12.00
Volume/ft: 0.16	1 Casing Volume: 1.92	3 Casing Volumes: 5.76
Purging Device: disposable bailer	Did Well Dewater?: 00	Total Gallons Purged: 6
Start Purge Time: 10:05	Stop Purge Time: 10:19	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
10:10	2	20.7	7.13	1290	
10:15	4	20.3	7.20	1529	
10:20	6	20.1	7.18	1570	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-3	10/03/02	10:25	4VOAs	HCL	TPHg BTEX MTBE	8260

WELL SAMPLING FORM

Project Name: Hooshi's	Cambria Mgr: RAS	Well ID: MW-4
Project Number: 129-0741	Date: 10/03/02	Well Yield:
Site Address: 1499 MacArthur Blvd Oakland, Ca	Sampling Method:	Well Diameter: 2" pvc
	Disposable bailer	Technician(s): SG
Initial Depth to Water: 13.09	Total Well Depth: 19.72	Water Column Height: 6.63
Volume/ft: 0.16	1 Casing Volume: 1.06	3 Casing Volumes: 3.18
Purging Device: disposable bailer	Did Well Dewater?: no	Total Gallons Purged: 3
Start Purge Time: 10:40	Stop Purge Time: 10:54	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
10:45	1	21.2	7.20	1805	
10:50	2	20.9	7.24	1890	
10:55	3	20.7	7.22	1872	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-4	10/03/02	11:00	4VOAs	HCL	TPHg BTEX MTBE	8260

WELL SAMPLING FORM

Project Name: Hooshi's	Cambria Mgr: RAS	Well ID: MW-5
Project Number: 129-0741	Date: 10/03/02	Well Yield:
Site Address: 1499 MacArthur Blvd Oakland, Ca	Sampling Method:	Well Diameter: 2" pvc
	Disposable bailer	Technician(s): SG
Initial Depth to Water: 8.18	Total Well Depth: 14.50	Water Column Height: 6.32
Volume/ft: 0.16	1 Casing Volume: 1.01	3 Casing Volumes: 3.03
Purging Device: disposable bailer	Did Well Dewater?: NO	Total Gallons Purged: 3
Start Purge Time: 11:50	Stop Purge Time: 12:04	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
11:55	1	20.8	7.22	1009	
12:00	2	20.3	7.24	1013	
12:05	3	20.4	7.24	1047	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-5	10/03/02	12:10	4VOAs	HCL	TPHg BTEX MTBE	8260

WELL SAMPLING FORM

Project Name: Hooshi's	Cambria Mgr: RAS	Well ID: MW-6
Project Number: 129-0741	Date: 10/03/02	Well Yield:
Site Address: 1499 MacArthur Blvd Oakland, Ca	Sampling Method:	Well Diameter: 2" pvc
	Disposable bailer	Technician(s): SG
Initial Depth to Water: 8.71	Total Well Depth: 20.00	Water Column Height: 11.29
Volume/ft: 0.16	1 Casing Volume: 1.80	3 Casing Volumes: 5.41
Purging Device: disposable bailer	Did Well Dewater?: no	Total Gallons Purged: 5.5
Start Purge Time: 9:30	Stop Purge Time: 9:44	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
9:35	1.5	20.7	7.39	1180	
9:40	3.5	20.9	7.24	1403	
9:45	5.5	21.0	7.20	1454	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-6	10/03/02	9:50	4VOAs	HCL	TPHg BTEX MTBE	8260

C A M B R I A



APPENDIX B

Analytical Results for Groundwater Sampling



McC Campbell 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: #129-0741-033; Hooshi's	Date Sampled: 10/03/02
		Date Received: 10/04/02
	Client Contact: Ron Scheele	Date Reported: 10/11/02
	Client P.O.:	Date Completed: 10/11/02

October 11, 2002

Dear Ron:

Enclosed are:

- 1). the results of 6 analyzed samples from your #129-0741-033; 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. McC Campbell 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



Cambria Env. Technology 6262 Hollis St. Emeryville, CA 94608	Client Project ID: #129-0741-033; Hooshi's	Date Sampled: 10/03/02
	Client Contact: Ron Scheele	Date Received: 10/04/02
	Client P.O.:	Date Extracted: 10/05/02-10/09/02
		Date Analyzed: 10/05/02-10/09/02

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

Extraction method: SW5030B

Analytical methods: SW8021B/8015Cm

Work Order: 0210120

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	MW-1	W	110,f	ND	ND	ND	ND	ND	1	111
002A	MW-2	W	4400,a	ND<25	44	16	68	20	5	---#
003A	MW-3	W	ND	ND	ND	ND	ND	ND	1	111
004A	MW-4	W	77,a	ND	2.1	0.51	ND	ND	1	117
005A	MW-5	W	15,000,a	ND<500	94	830	460	2200	100	112
006A	MW-6	W	ND	ND	ND	ND	ND	ND	1	91.5

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	1	µg/L
	S	NA	NA	NA	NA	NA	NA	1	mg/Kg

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell 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) 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.





QC SUMMARY REPORT FOR SW8021B/8015Cm

Matrix: W

WorkOrder: 0210120

EPA Method: SW8021B/8015Cm		Extraction: SW5030B		BatchID: 4304		Spiked Sample ID: 0210120-006A				
Compound	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
TPH(gas)	ND	60	103	102	0.717	103	102	0.720	80	120
MTBE	ND	10	90	94.2	4.61	96.3	86.5	10.8	80	120
Benzene	ND	10	98	101	3.04	101	94.4	7.06	80	120
Toluene	ND	10	100	103	2.60	104	96.9	6.69	80	120
Ethylbenzene	ND	10	98.8	104	5.02	104	97.5	6.51	80	120
Xylenes	ND	30	103	103	0	103	99.7	3.61	80	120
%SS:	91.5	100	91.7	95.9	4.47	95.9	89.9	6.45	80	120

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

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

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.

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

* MS and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.

02/10/20

McCAMPBELL ANALYTICAL INC.

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

Telephone: (925) 798-1620

Fax: (925) 798-1622

CHAIN OF CUSTODY RECORD

TURN AROUND TIME:

RUSH 24 HOUR 48 HOUR 5 DAY

EDF Required? Yes No

Report To: **Ron Scheels** Bill To: **Cambria Env. Tech**

Company: **Cambria Environmental Technology Inc.**

6262 Hollis Street

Emeryville, CA 94608

E-mail:

Tele: **510-450-1983**

Fax: 510-450-8295

Project #: **129-0741-033**

Project Name: **Hooshi's**

Project Location: **1499 MacArthur Blvd. Oakland, Ca**

Sampler Signature: *[Signature]*

Analysis Request

Other

Comments

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	

confirm MIRE hits by 8260

(H)
+
✓
✓
+
✓

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED									
		Date	Time			Water	Soil	Air	Sludge	Other	Ice	HCl	HNO ₃	Other						
MW-1		10-3-02	11:35	4	Voa	X					X	X			X					
MW-2		10-3-02	12:45	4	Voa	X					X	X			X					
MW-3		10-3-02	10:25	4	Voa	X					X	X			X					
MW-4		10-3-02	11:00	4	Voa	X					X	X			X					
MW-5		10-3-02	12:10	4	Voa	X					X	X			X					
MW-6		10-3-02	9:50	4	Voa	X					X	X			X					

Relinquished By: <i>[Signature]</i>	Date: 10-4-02	Time: 5:30	Received By: secure location
Relinquished By: <i>[Signature]</i>	Date: 10/4	Time: 1148	Received By: D Roth 235
Relinquished By: D Roth 235	Date: 10/4	Time: 1224	Received By: <i>[Signature]</i>

Remarks: *[Signature]*

ICE#	PRESERVATION	VOAS	O&G	METALS	OTHER
GOOD CONDITION	APPROPRIATE				
HEAD SPACE ABSENT	CONTAINERS				
DECONTAMINATED IN LAB	PRESERVED IN LAB				

McC Campbell Analytical Inc.

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0210120

Client:

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

TEL: (510) 450-1983
 FAX: (510) 450-8295
 ProjectNo: #129-0741-033;
 PO:

04-Oct-02

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests			
					8021B/8015			
0210120-001	MW-1	Water	10/3/02 11:35:00 AM		A			
0210120-002	MW-2	Water	10/3/02 12:45:00 PM		A			
0210120-003	MW-3	Water	10/3/02 10:25:00 AM		A			
0210120-004	MW-4	Water	10/3/02 11:00:00 AM		A			
0210120-005	MW-5	Water	10/3/02 12:10:00 PM		A			
0210120-006	MW-6	Water	10/3/02 9:50:00 AM		A			

Comments:

	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

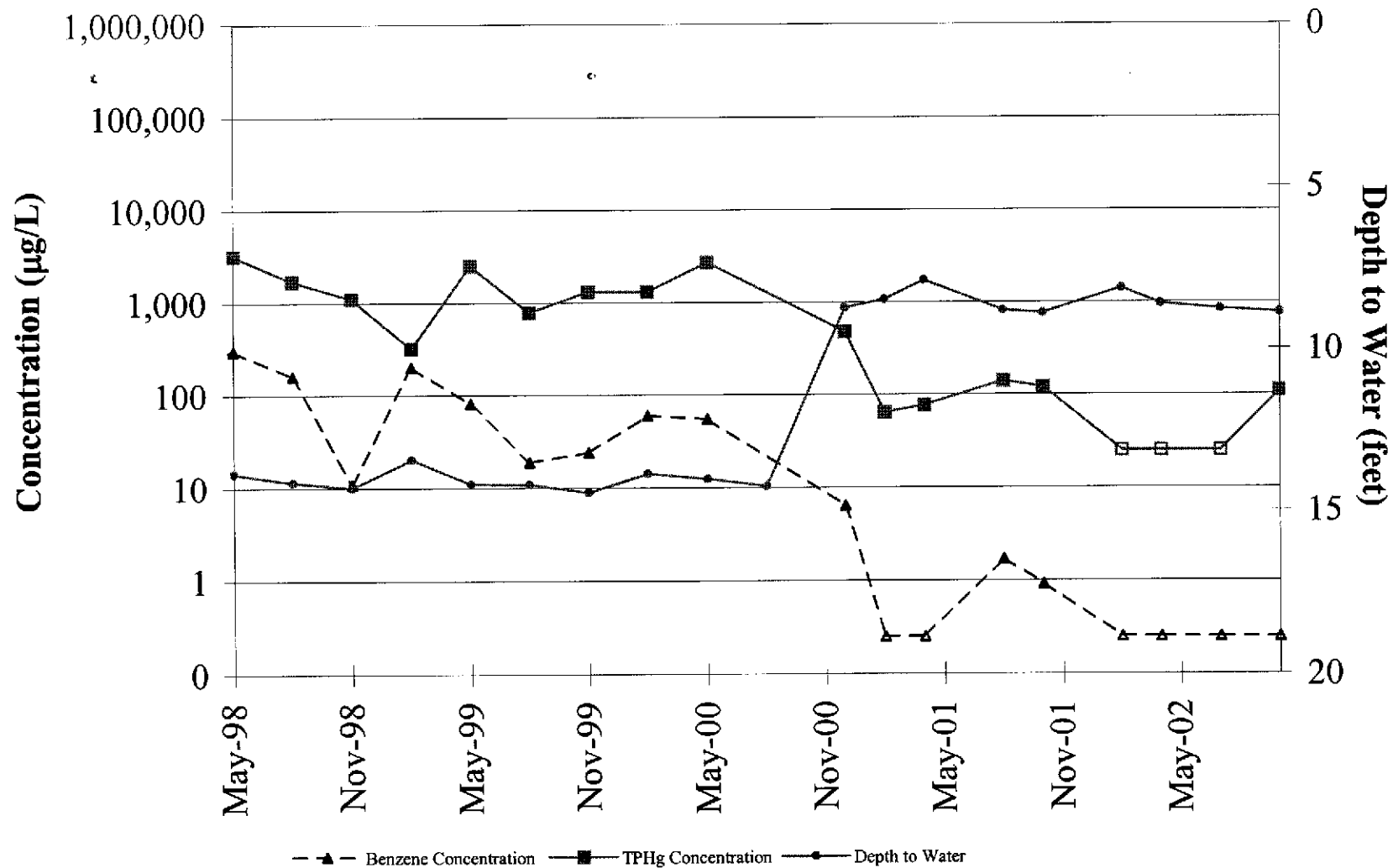
C A M B R I A



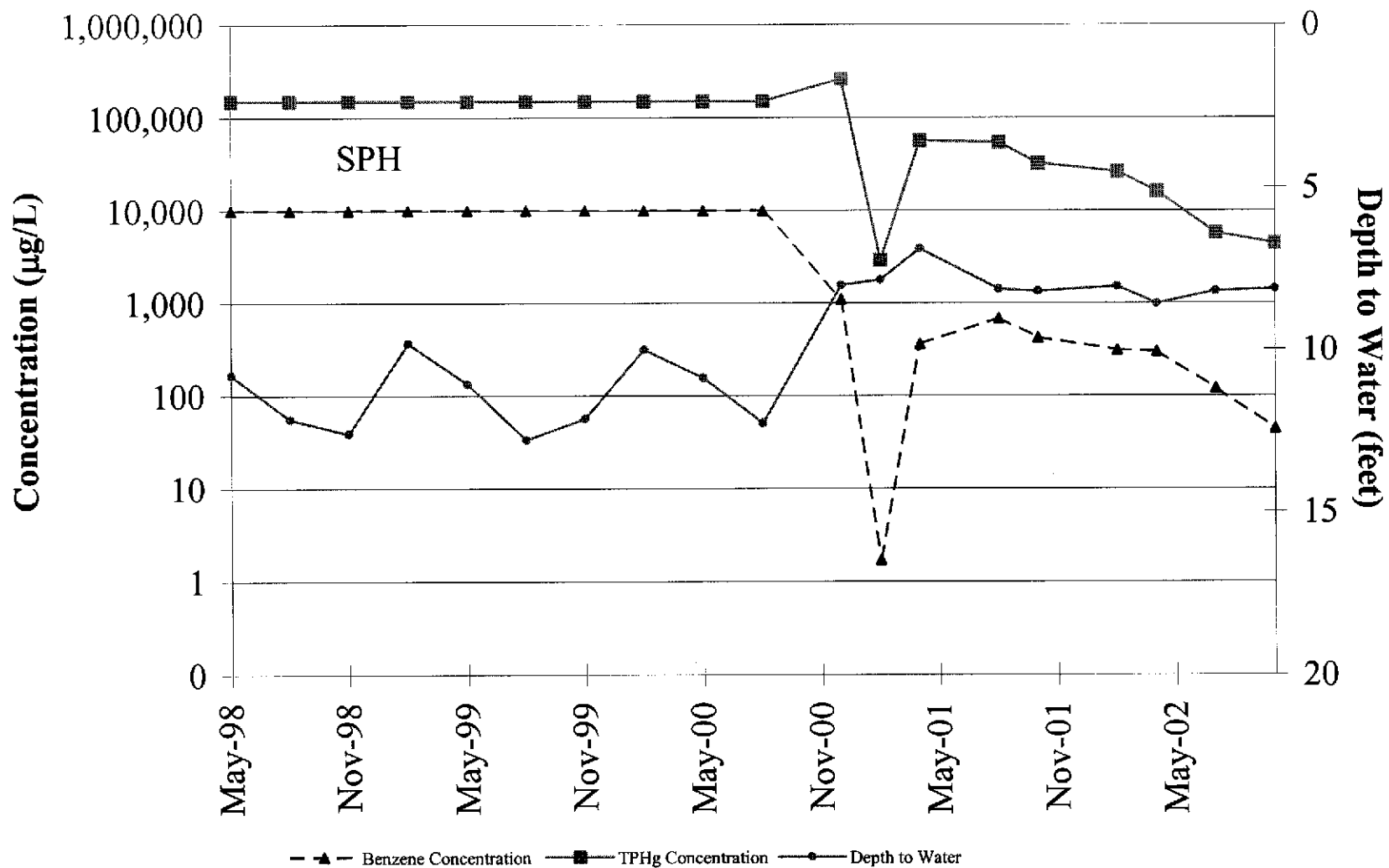
ATTACHMENT C

Benzene Concentration Graphs

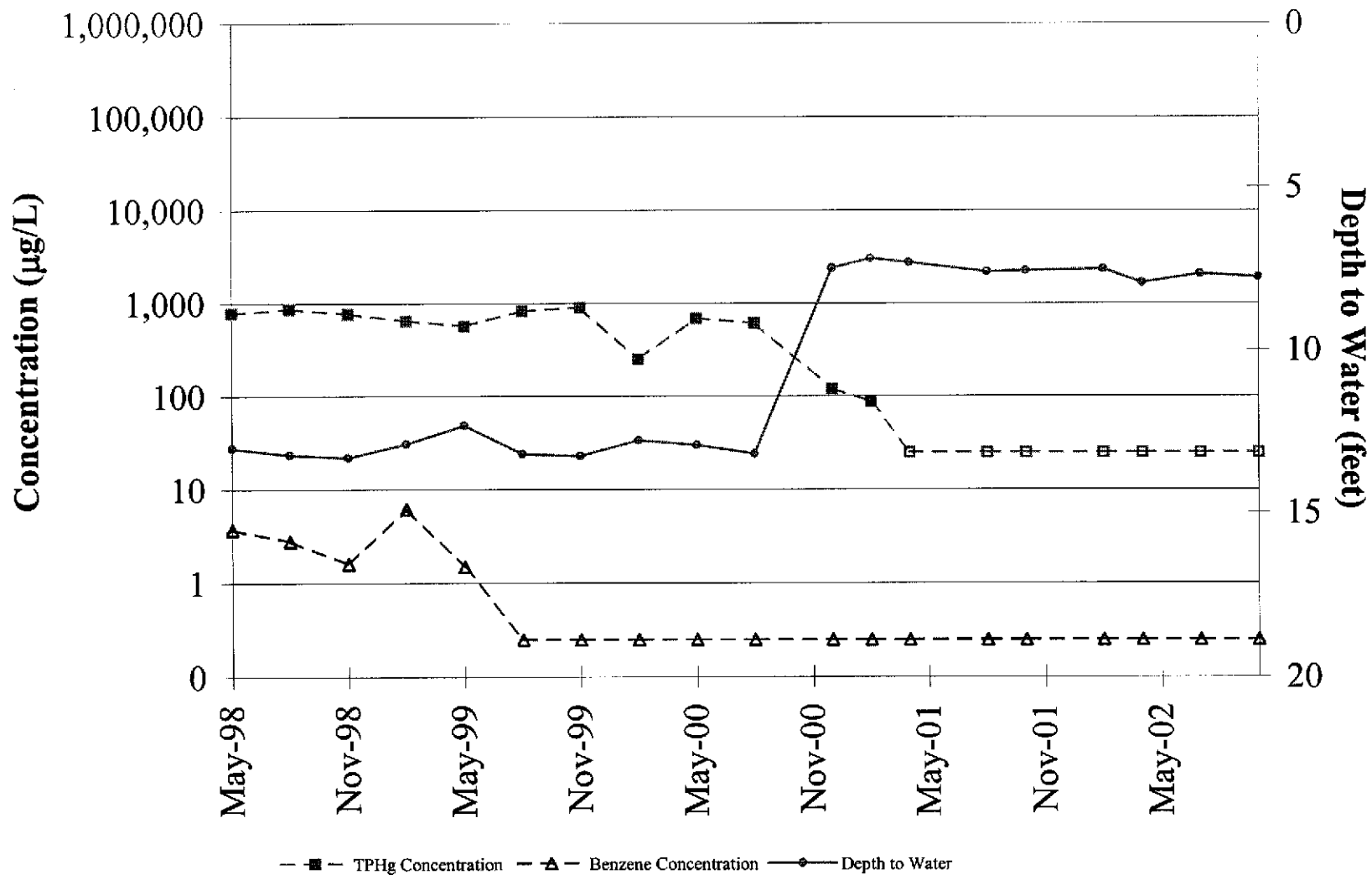
TPHg and Benzene Concentration Trend Well MW-1



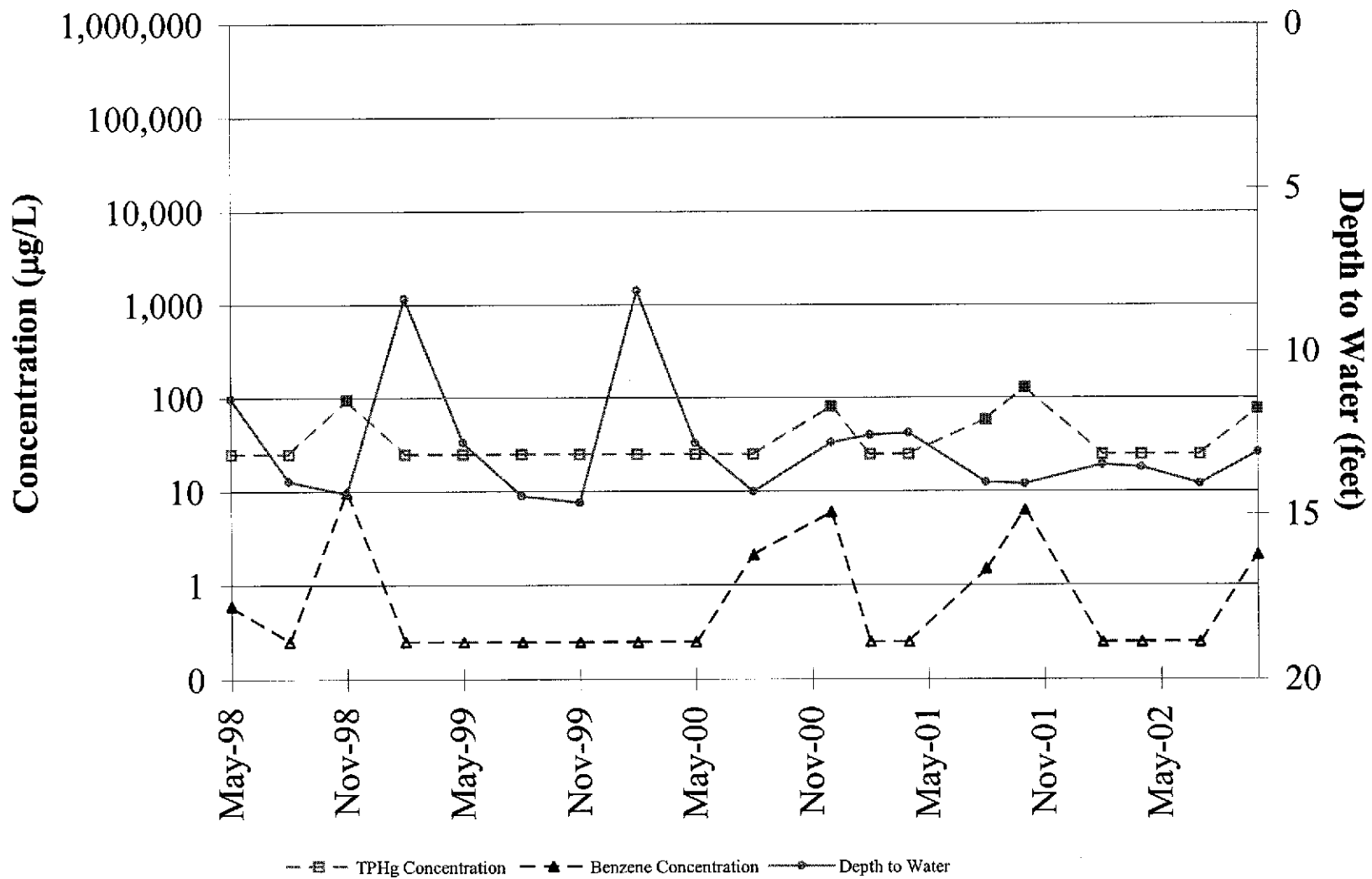
TPHg and Benzene Concentration Trend Well MW-2



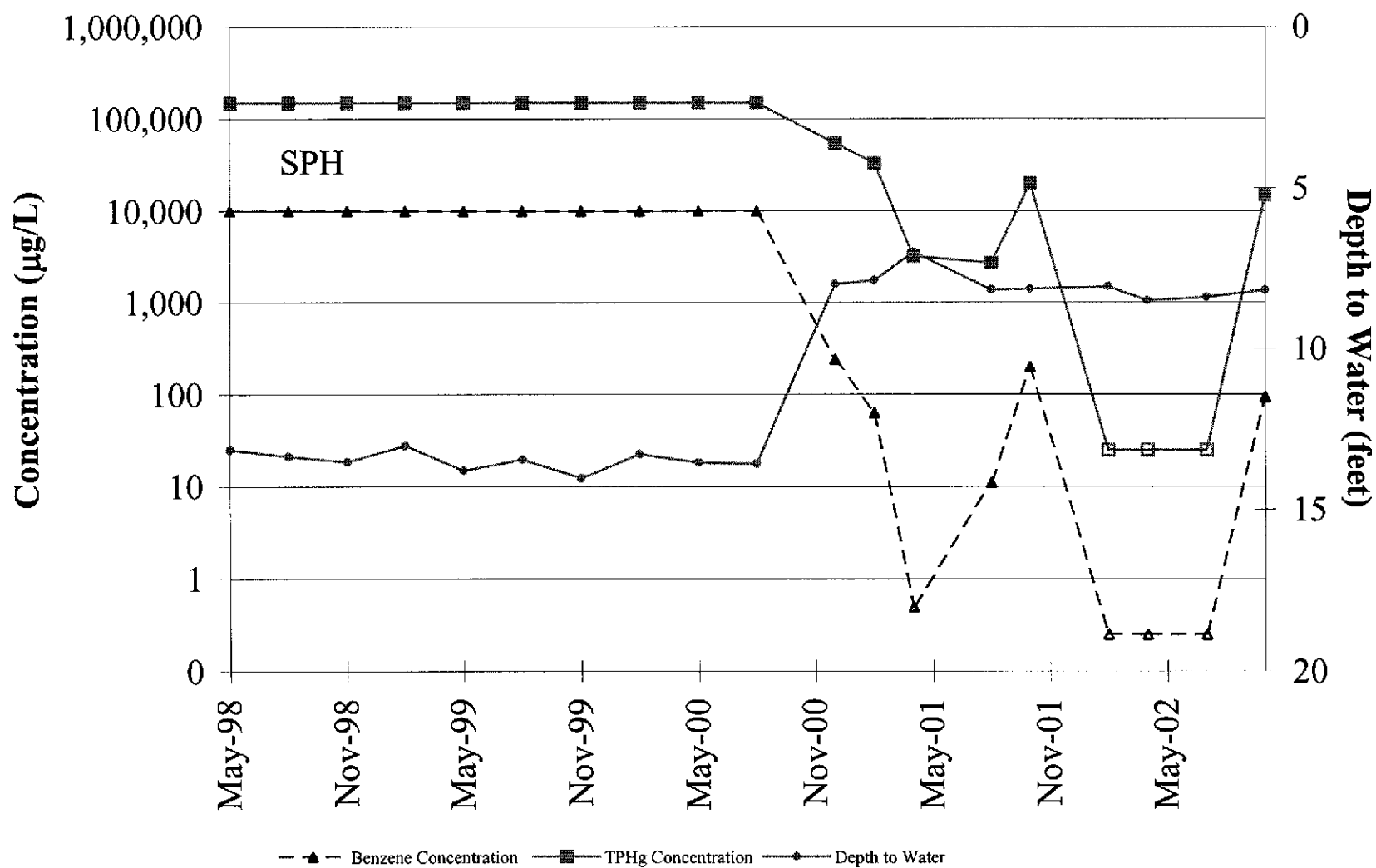
TPHg Concentration Trend Well MW-3



TPHg Concentration Trend Well MW-4



TPHg and Benzene Concentration Trend Well MW-5



C A M B R I A



APPENDIX D

Electronic Delivery Confirmations

AB2886 Electronic Delivery

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Your EDF file has been successfully uploaded!

Confirmation Number: 8523462176

Date/Time of Submittal: 2/25/2003 2:07:59 PM

Facility Global ID: T0600100714

Facility Name: HOOSHI'S AUTO SERVICE

Submittal Title: 4th Qtr 2002 Groundwater Analytical Data

Submittal Type: GW Monitoring Report

Logged in as CAMBRIA-EM (AUTH_RP)

CONTACT SITE ADMINISTRATOR.

AB2886 Electronic Delivery

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UPLOADING A GEO_WELL FILE

Processing is complete. No errors were found!
Your file has been successfully submitted!

Submittal Title: 4th Qtr 2002, Groundwater Elevation Depths for 1499 MacArthur Blvd,
Oakland

Submittal Date/Time: 2/25/2003 2:10:16 PM

**Confirmation
Number:** 8728790104

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