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March 25, 2002

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

APR 02 2002

Re: **Groundwater Monitoring and System Progress Report**
First 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 first quarter 2002 activities and the anticipated second 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, First 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
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GROUNDWATER MONITORING AND SYSTEM PROGRESS REPORT

FIRST QUARTER 2002

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

APR 02 2002

March 25, 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

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Ron Scheele, RG
Senior Geologist

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GROUNDWATER MONITORING AND SYSTEM PROGRESS REPORT

FIRST QUARTER 2002

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

March 25, 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 first quarter 2002 groundwater monitoring and corrective action activities and the anticipated second quarter 2002 activities.

FIRST QUARTER 2002 ACTIVITIES

Monitoring Activities

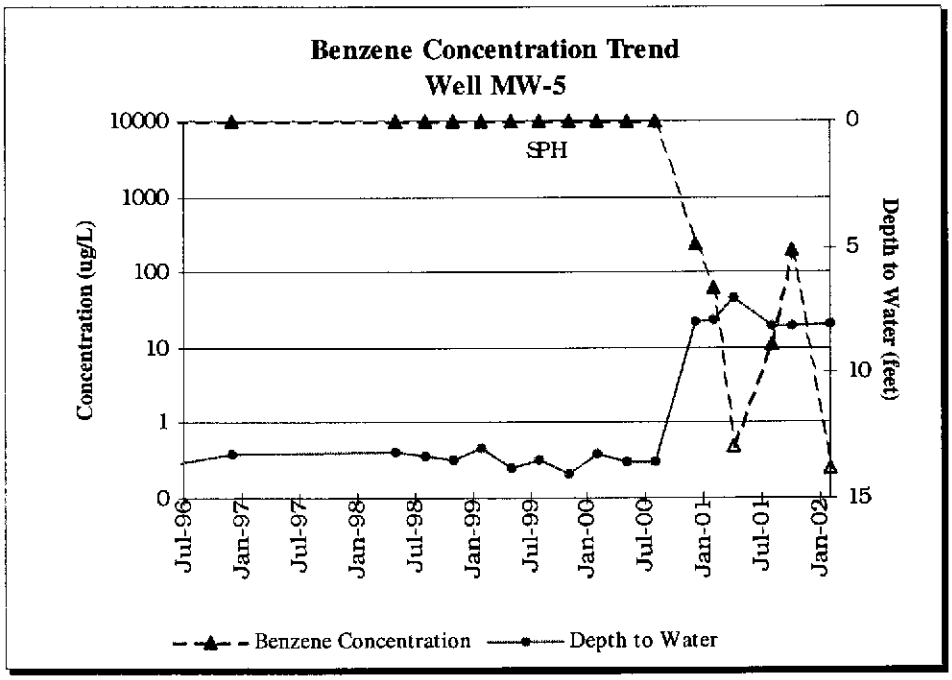
Field Activities: On February 1, 2002, Cambria gauged water levels in groundwater monitoring wells MW-1 through MW-6. On February 1, 2002, groundwater samples were obtained from monitoring wells according to the sampling schedule. Field data sheets are presented as Appendix A.

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 February 1, 2002, groundwater beneath the site flows towards the southwest at a gradient of 0.235 ft/ft (Figure 1). This is consistent with the historic groundwater flow direction and gradient. Depth to water and groundwater elevation data are presented in Table 1.

Hydrocarbon Distribution in Groundwater: Hydrocarbon concentrations have decreased in all wells as compared with the previous quarter. TPHg and benzene concentrations were detected only in well MW-2 at 26,000 micrograms per liter (μg/L) and 310 μg/L, respectively. MTBE was detected only in well MW-3 at 8.5 μg/L (confirmed by EPA 8260). 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 SECOND 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.

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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 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 six 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 evaluating if further active remedial action is still warranted or whether a risk based corrective action (RBCA) plan 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

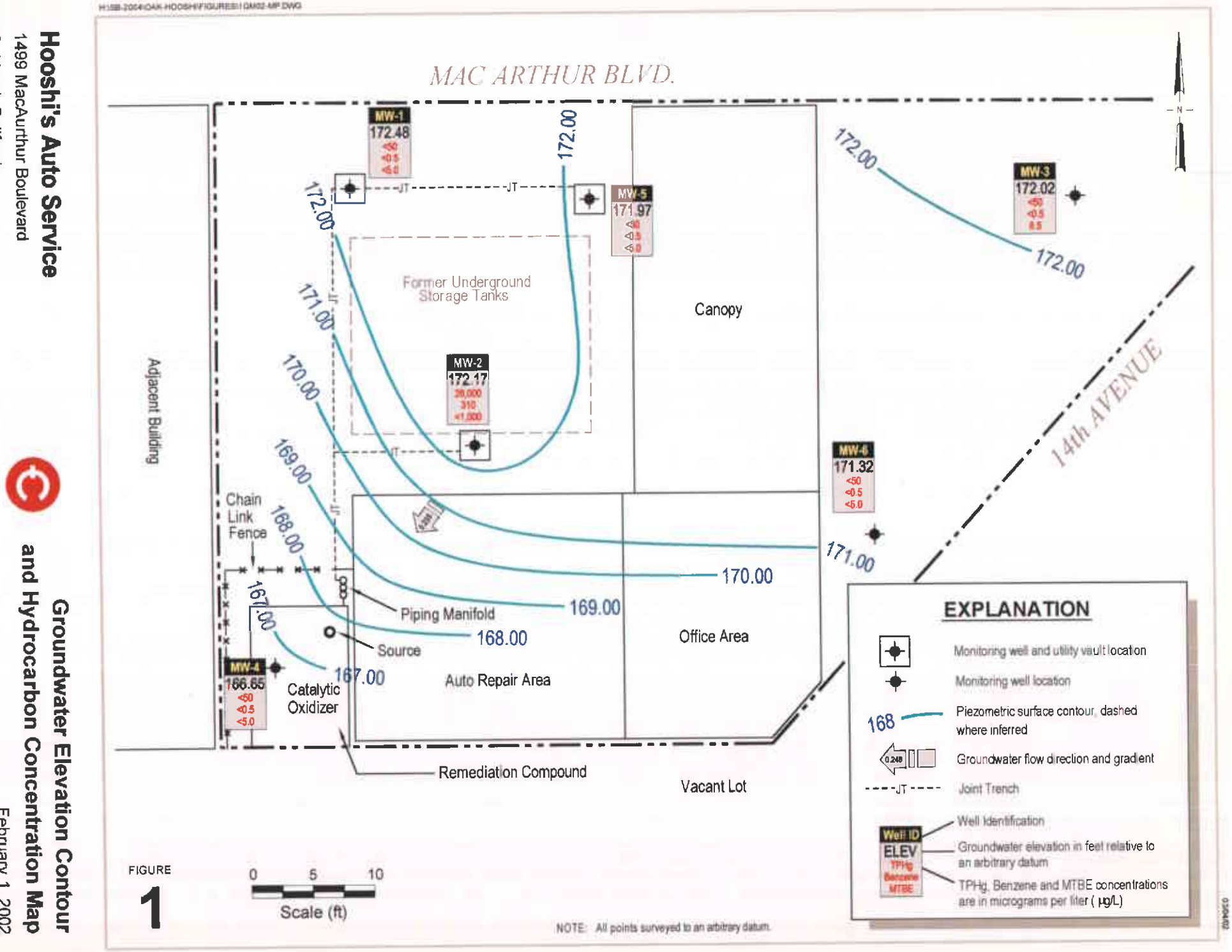
Appendix B – Analytical Results for Groundwater Sampling

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

Hooshi's Auto Service

1499 MacArthur Boulevard

Oakland, California



FIGURE

1

Groundwater Elevation Contour and Hydrocarbon Concentration Map

February 1, 2002

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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**	
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	--	--	--	--	--	--	

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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) →						
	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**
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)**	

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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-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**	
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

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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) →						
	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**	
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**	
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	

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

Well ID	Date	Depth to Groundwater	Groundwater Elevation	Separate Phase Hydrocarbons	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes
TOC (ft)*		(ft)	(ft**)	(ft)	←			(µg/L)		→	

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 gasoline?).

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

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WELL DEPTH MEASUREMENTS

Well ID	Time	Product Depth	Water Depth	Product Thickness	Well Depth	Comments
MW-1	3:50		8.15		19.90	
MW-2	3:35		8.07		19.80	
MW-3	3:40		7.53		19.78	
MW-4	3:45		13.47		19.72	
MW-5	3:55		8.07		14.50	
MW-6	3:30		8.31		20.00	

Project Name: Hooshis

Project Number: 129-0741

Measured By: [illegible]

Date: 2-1-02

F:\TEMPLATE\FORMS\FIELD\GW-DEPTH.WPD

CAMBRIA

WELL SAMPLING FORM

Project Name: Hooshi's	Cambria Mgr: RAS	Well ID: MW-1
Project Number: 129-0741	Date: 2-1-02 ~~10-22-01~~	Well Yield: ----
Site Address: 1499 MacArthur Blvd Oakland, Ca	Sampling Method: Disposable bailer	Well Diameter: 2" pvc
		Technician(s): SG
Initial Depth to Water: 8.15	Total Well Depth: 19.90	Water Column Height: 11.75
Volume/ft: 0.16	1 Casing Volume: 1.88	3 Casing Volumes: 5.64
Purging Device: disposable bailer	Did Well Dewater?: no	Total Gallons Purged: 6
Start Purge Time: 6:10	Stop Purge Time: 6:17	Total Time: 7mins

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. C	pH	Cond. uS	Comments
6:12	2	15.9	7.59	920	
6:15	4	16.3	7.50	1079	
6:18	6	16.2	7.43	984	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-1	2-1-02 ~~10-22-01~~	6:20	VOA	HCl	TPH$_g$ BTEX MTBE	8020/8015
MW-						

CAMBRIA

WELL SAMPLING FORM

Project Name: Hooshi's	Cambria Mgr: RAS	Well ID: MW-2
Project Number: 129-0741	Date: ~~[illegible]~~ 2-1-02	Well Yield: ----
Site Address: 1499 MacArthur Blvd Oakland, Ca	Sampling Method: Disposable bailer	Well Diameter: 2" pvc
		Technician(s): SG
Initial Depth to Water: 8.07	Total Well Depth: 19.80	Water Column Height: 11.73
Volume/ft: 0.16	1 Casing Volume: 1.87	3 Casing Volumes: 5.63
Purging Device: disposable bailer	Did Well Dewater?: no	Total Gallons Purged: 6
Start Purge Time: 6:50	Stop Purge Time: 7:55	Total Time: 5mins

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. C	pH	Cond. uS	Comments
6:52	2	16.3	7.21	924	
6:54	4	16.5	7.47	930	
6:56	6	16.5	7.43	1070	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-2	2-1-02 ~~[illegible]~~	7:00	VOa	HCl	TPHg BTEX MTBE	8020/8015
MW-						

TEMPLATE/FORMS/FIELD/WELL SAMP.DOC
M 2/11/94

CAMBRIA

WELL SAMPLING FORM

Project Name: Hooshi's	Cambria Mgr: RAS	Well ID: MW-3
Project Number: 129-0741	Date: ~~10/22/01~~ 2-1-02	Well Yield: -----
Site Address: 1499 MacArthur Blvd Oakland, Ca	Sampling Method: Disposable bailer	Well Diameter: 2" pvc
		Technician(s): SG
Initial Depth to Water: 7.53	Total Well Depth: 19.78	Water Column Height: 12.25
Volume/ft: 0.16	1 Casing Volume: 1.96	3 Casing Volumes: 5.88
Purging Device: disposable bailer	Did Well Dewater?: no	Total Gallons Purged: 6
Start Purge Time: 4:25	Stop Purge Time: 4:39	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. C	pH	Cond. uS	Comments
4:30	2	16.1	7.20	1050	
4:35	4	16.3	7.19	1129	
4:40	6	16.1	7.25	1170	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-3	2-1-02 ~~10/22/01~~	4:45	VOA	HCl	TPHg BTEX MTBE	8020/8015
MW-						

CAMBRIA

WELL SAMPLING FORM

Project Name: Bo Gin	Cambria Mgr: RAS	Well ID: MW-4
Project Number: 230-0116	Date: ~~10-22-01~~ 2-1-02	Well Yield: ----
Site Address: 706 Harrison St Oakland, Ca	Sampling Method: Disposable bailer	Well Diameter: 2" pvc
		Technician(s): SG
Initial Depth to Water: 13.47	Total Well Depth: 19.72	Water Column Height: 6.25
Volume/ft: 0.16	1 Casing Volume: 1.00	3 Casing Volumes: 3
Purging Device: disposable bailer	Did Well Dewater?: no	Total Gallons Purged: 3
Start Purge Time: 5:35	Stop Purge Time: 5:49	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. C	pH	Cond. uS	Comments
5:40	1	16.1	7.25	1124	
5:45	2	16.4	7.39	1017	
5:50	3	16.3	7.35	1092	
					BOK

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-4	~~10-22-01~~ 2-1-02	5:55	voa	HCl	TPHg BTEX MTBE	8015 / 8020
MW-						

TEMPLATE/FORMS/FIELD/WELLSAMP.WPD

CAMBRIA

WELL SAMPLING FORM

Project Name: Hooshi's	Cambria Mgr: RAS	Well ID: MW- 5
Project Number: 129-0741	Date: 2-1-02	Well Yield: -----
Site Address: 1499 MacArthur Blvd Oakland, Ca	Sampling Method: Disposable bailer	Well Diameter: 2" pvc
		Technician(s): SG
Initial Depth to Water: 8.07	Total Well Depth: 14.50	Water Column Height: 6.43
Volume/ft: 0.16	1 Casing Volume: 1.02	3 Casing Volumes: 3.06
Purging Device: disposable bailer	Did Well Dewater?: no	Total Gallons Purged: 3
Start Purge Time: 6:30	Stop Purge Time: 6:34	Total Time: 4mins

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. C	pH	Cond. uS	Comments
6:32	1	16.4	7.20	920	
6:34	2	16.3	7.35	1017	
6:35	3	16.1	7.45	1084	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW- 5	2-1-02	6:40	VOA	HCl	TPH$_g$ BTEX MTBE	8020/8015
MW-						

CAMBRIA

WELL SAMPLING FORM

Project Name: Bo Gin	Cambria Mgr: RAS	Well ID: MW-6
Project Number: 230-0116	Date: 2-1-02 ~~10-22-01~~	Well Yield: -----
Site Address: 706 Harrison St Oakland, Ca	Sampling Method: Disposable bailer	Well Diameter: 2" pvc
		Technician(s): SG
Initial Depth to Water: 8.31	Total Well Depth: 20.00	Water Column Height: 11.69
Volume/ft: 0.16	1 Casing Volume: 1.87	3 Casing Volumes: 5.61
Purging Device: disposable bailer	Did Well Dewater?: no	Total Gallons Purged: 6
Start Purge Time: 5:00	Stop Purge Time: 5:14	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. C	pH	Cond. uS	Comments
5:05	1 2	16.3	7.25	795	
5:10	2 4	16.1	7.22	807	
5:15	3 6	16.5	7.27	815	
					[illegible]

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-6	2-1-02 ~~10-22-01~~	5:20	voa	HCl	TPHg BTEX MTBE	8015/8020
MW-						

TEMPLATES/FORMS/FIELD/WELLSAMP.WPD
M 7/21/94

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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 Environmental Technology 6262 Hollis Street Emeryville, CA 94608	Client Project ID: #129-0741 030; Hooshi's	Date Sampled: 02/01/02
		Date Received: 02/06/02
	Client Contact: Ron Scheele	Date Extracted: 02/06/02
	Client P.O:	Date Analyzed: 02/06/02

02/13/02

Dear Ron:

Enclosed are:

1). the results of **6** samples from your **#129-0741 030; 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,

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 Environmental Technology	Client Project ID: #129-0741 030; Hooshi's	Date Sampled: 02/01/02
6262 Hollis Street		Date Received: 02/06/02
Emeryville, CA 94608	Client Contact: Ron Scheele	Date Extracted: 02/07-02/11/02
	Client P.O:	Date Analyzed: 02/07-02/11/02

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & BTEX*

EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(g)+	MTBE	Benzene	Toluene	Ethyl-benzene	Xylenes	% Recovery Surrogate
89694	MW-1	W	ND	ND	ND	ND	ND	ND	108
89695	MW-2	W	26,000,a	ND<1000	310	490	920	1600	102
89696	MW-3	W	ND	8.5	ND	ND	ND	ND	102
89697	MW-4	W	ND	ND	ND	ND	ND	ND	102
89698	MW-5	W	ND	ND	ND	ND	ND	ND	96
89699	MW-6	W	ND	ND	ND	ND	ND	ND	103
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	5.0	0.5	0.5	0.5	0.5	
		S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP and SPLP extracts in ug/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 (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 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 Environmental Technology 6262 Hollis Street Emeryville, CA 94608	Client Project ID: #129-0741 030; Hooshi's	Date Sampled: 02/01/02
		Date Received: 02/06/02
	Client Contact: Ron Scheele	Date Extracted: 02/12/02
	Client P.O:	Date Analyzed: 02/12/02

Methyl tert-Butyl Ether *

EPA method 8260 modified

Lab ID	Client ID	Matrix	MTBE*	% Recovery Surrogate
89696	MW-3	W	8.5	104
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	1.0 ug/L	
		S	5.0 ug/kg	

* 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 ~5 vol. % sediment; j) sample diluted due to high organic content.

DHS Certification No. 1644

Edward Hamilton, Lab Director

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Telephone : 925-798-1620 Fax : 925-798-1622
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QC REPORT

EPA 8015m + 8020

Date: 02/07/02 **Extraction:** EPA 5030 **Matrix:** Water

Compound	Concentration: ug/L				%Recovery		RPD
	Sample	MS	MSD	Amount Spiked	MS	MSD	
SampleID: 20202					Instrument:	GC-3	
Surrogate1	ND	100.0	101.0	100.00	100	101	1.0
Xylenes	ND	35.7	33.7	30.00	119	112	5.8
Ethylbenzene	ND	11.6	11.3	10.00	116	113	2.6
Toluene	ND	11.6	11.1	10.00	116	111	4.4
Benzene	ND	11.3	10.9	10.00	113	109	3.6
MTBE	ND	10.8	9.6	10.00	108	96	11.8
TPH (gas)	ND	57.6	58.7	100.00	58	59	1.8

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

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

RPD means Relative Percent Deviation

McCAMPBELL ANALYTICAL INC.
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http://www.mccampbell.com E-mail: main@mccampbell.com

QC REPORT

VOCs (EPA 8240/8260)

Date: 02/12/02 **Extraction:** EPA 5030 **Matrix:** Water

Compound	Concentration: ug/L				%Recovery		RPD
	Sample	MS	MSD	Amount Spiked	MS	MSD	
SampleID: 21202					Instrument:	GC-10	
Surrogate	ND	96.0	98.0	100.00	96	98	2.1
Methyl tert-Butyl Ether	ND	10.6	10.9	10.00	106	109	2.8

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

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

RPD means Relative Percent Deviation

29952 ZC571

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.

Company: Cambria Environmental Technology

6262 Hollis Street

Emeryville, CA 94608

Tele: (510) 450-1983 Fax: (510) 450-8295

Project #: 129-0741 030 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	Soil	Air	Sludge	Other	METHOD PRESERVED: Ice	HCl	HNO_3	Other	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		2-1-02	6:20	4	VOA	X					X	X			+																✓ Confirm MTBE by 8260
MW-2		2-1-02	7:00	4	VOA	X					X	X			+																X
MW-3		2-1-02	4:45	4	VOA	X					X	X			+																X
MW-4		2-1-02	5:55	4	VOA	X					X	X			+																X
MW-5		2-1-02	6:40	4	VOA	X					X	X			+																X
MW-6		2-1-02	5:20	4	VOA	X					X	X			+																X

+ 89694
+ 89695
✓ 89696
(+) 89697
+ 89698
(+) 89699

ICE/t ✓ VOAS | O&G | METALS | OTHER
GOOD CONDITION ✓ PRESERVATION ✓
HEAD SPACE ABSENT ✓ APPROPRIATE CONTAINERS ✓

Relinquished By:	Date:	Time:	Received By:
S. Hill	2/6	11AM	Scott Collins #283
Scott Collins #283	2/6	1445	V. Miller 2/6/02 4:30
Relinquished By:	Date:	Time:	Received By:

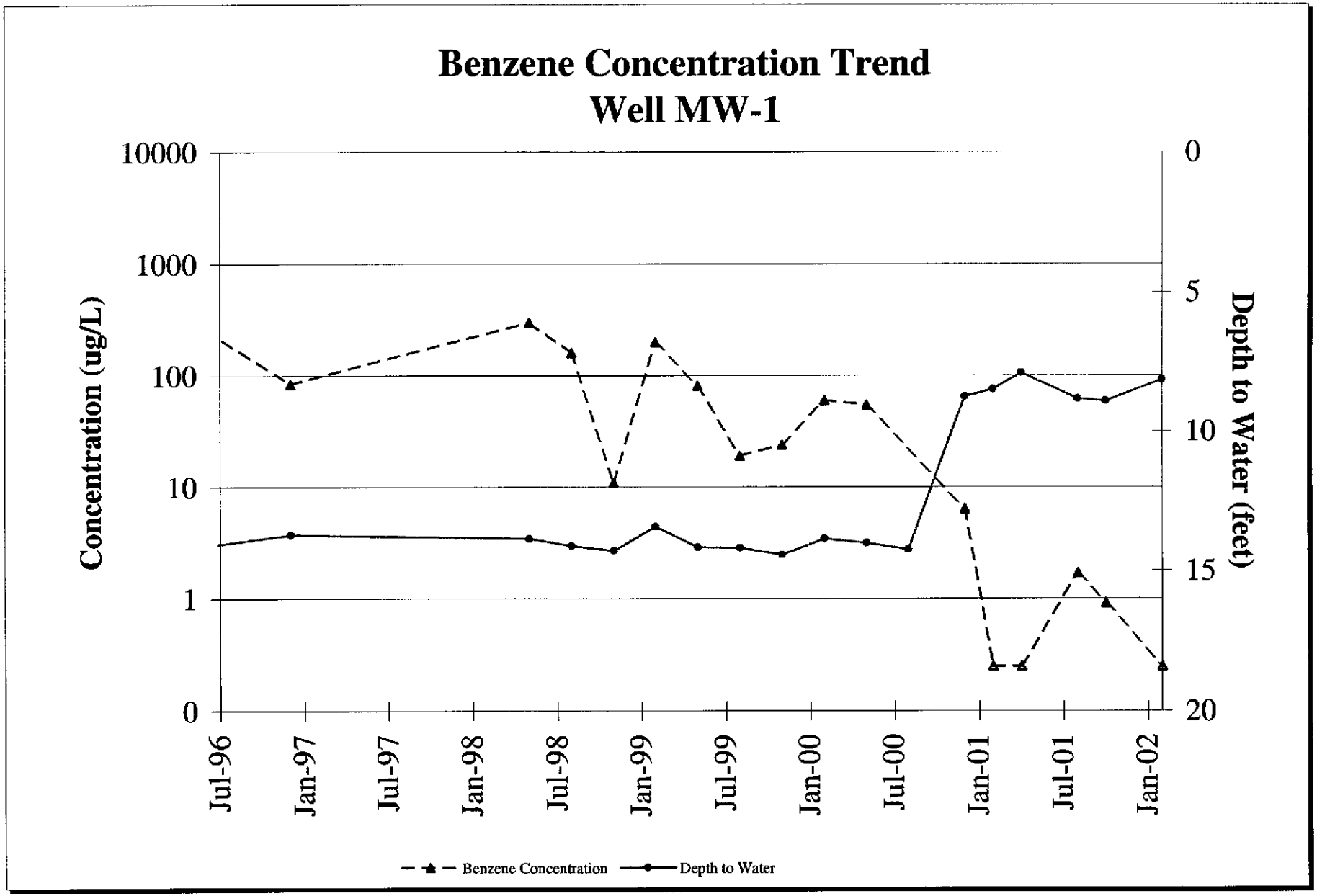
Remarks: Report results in EDF format

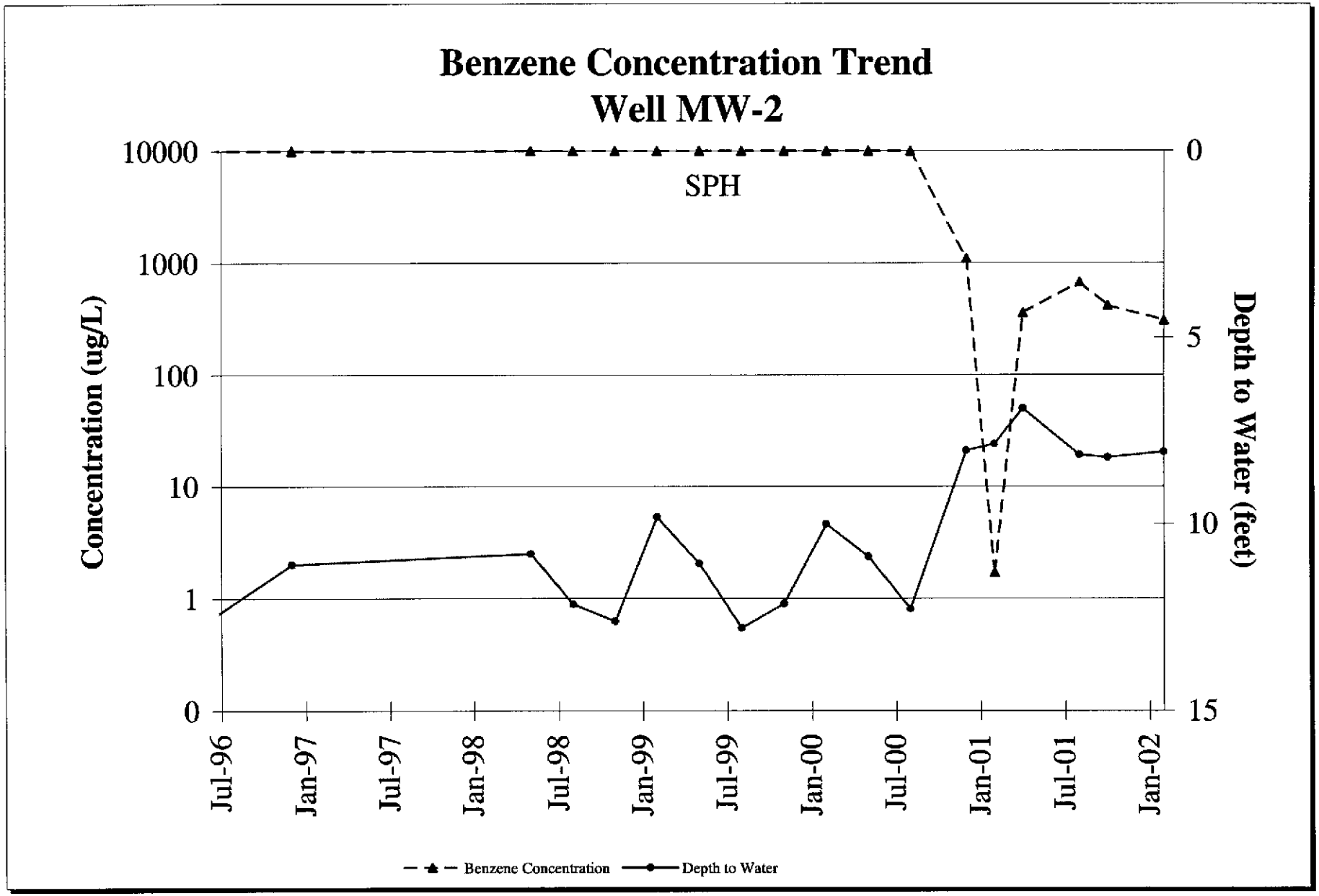
Sent By: McCampbell Analytical, Inc.; 1 925 798 4612; Sep-5-01 8:42AM; Page 2/2

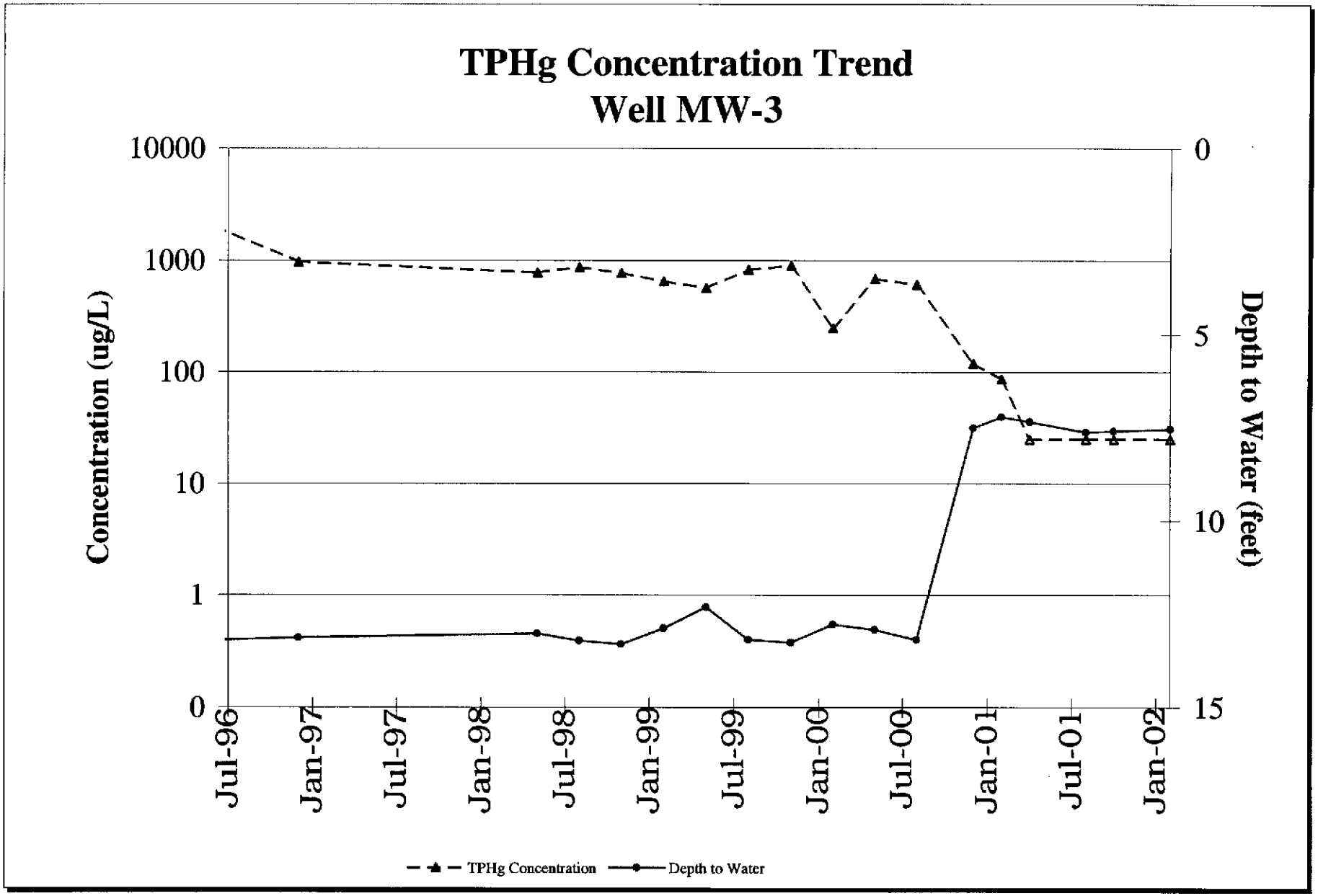
CAMBRIA

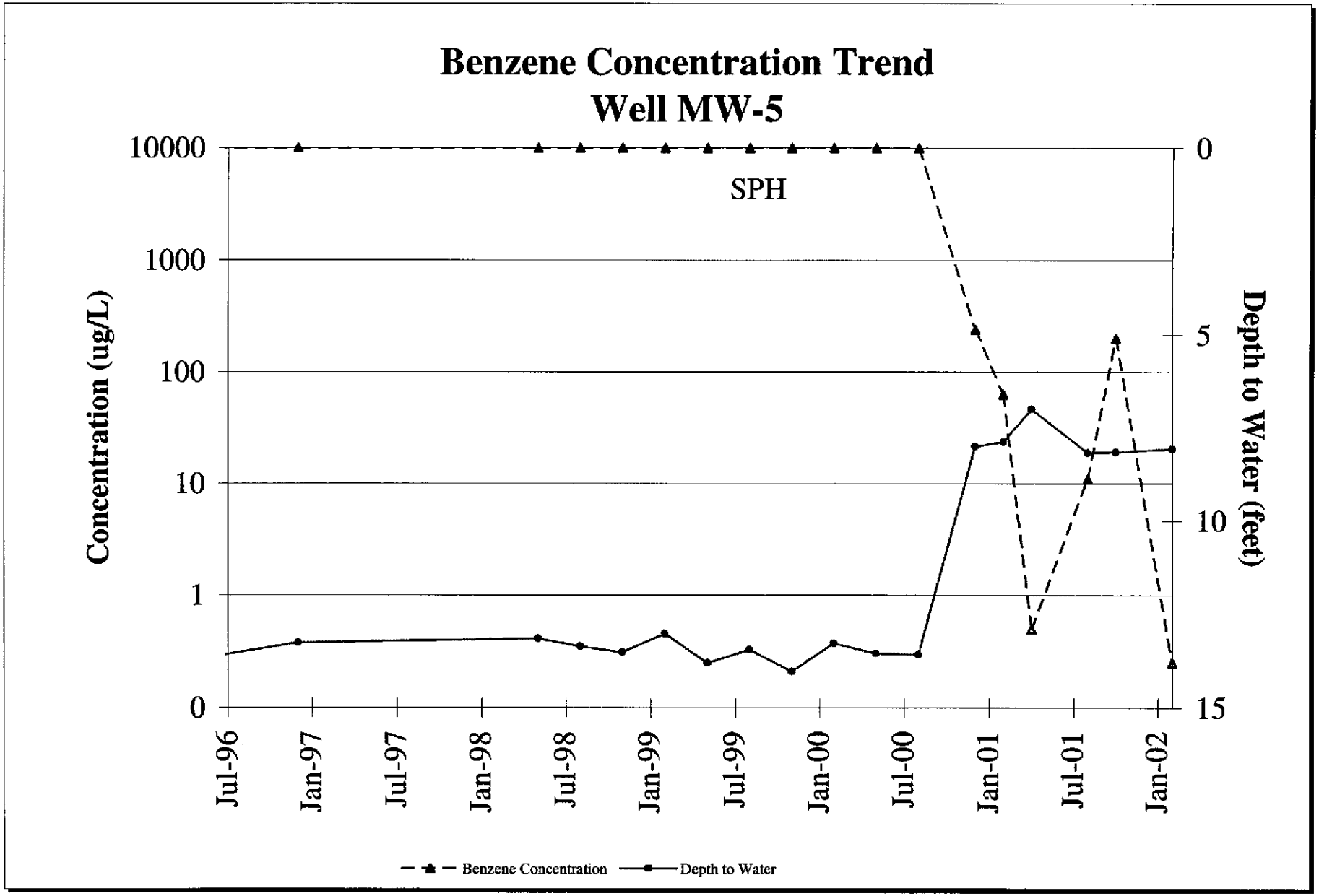
ATTACHMENT C

Benzene Concentration Graphs


Benzene Concentration Trend
Well MW-1
Concentration (ug/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 (ug/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


TPHg Concentration Trend
Well MW-3
Concentration (ug/L)
10000
1000
100
10
1
0
Depth to Water (feet)
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
TPHg Concentration
Depth to Water


Benzene Concentration Trend
Well MW-5
SPH
Concentration (ug/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