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*By dehloptoxic at 8:44 am, Feb 22, 2007*

February 20, 2007

Ms. Donna Drogos  
Alameda County Department of Environmental Health  
UST Local Oversight Program  
1131 Harbor Bay Parkway, 2nd Floor  
Alameda, California 94502

Re: **Groundwater Monitoring Report – First Quarter 2007**

Hooshi's Auto Service  
1499 MacArthur Boulevard, Oakland, California 94602  
Fuel Leak Case #RO0000516  
Cambria Project #129-0741



Dear Ms. Drogos:

On behalf of Ms. Naomi Gatzke, Cambria Environmental Technology, Inc. (Cambria) prepared this *Groundwater Monitoring Report – First Quarter 2007* for the referenced site. Presented in the report is a summary of the First Quarter 2007 activities and results, closure request status, and a description of the anticipated second quarter 2007 activities.

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

Sincerely,  
**Cambria Environmental Technology, Inc.**

Mark Jonas, P.G.  
Senior Project Manager

Attachment: *Groundwater Monitoring Report - First Quarter 2007*

cc: Ms. Naomi Gatzke, 1545 Scenicview Drive, San Leandro, CA 94577  
Mr. Dennis Parfitt, State Water Resources Control Board, Division of Water Quality, P.O. Box 2231, Sacramento, CA 95812

# C A M B R I A

## GROUNDWATER MONITORING REPORT - FIRST QUARTER 2007

Hooshi's Auto Service  
1499 MacArthur Boulevard  
Oakland, California 94602  
Cambria Project #129-0741

February 20, 2007

*Prepared for:*

Ms. Naomi Gatzke  
1545 Scenicview Drive  
San Leandro, California 94577

*Prepared by:*

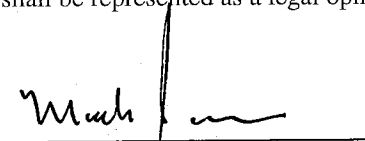
Cambria Environmental Technology, Inc.  
5900 Hollis Street, Suite A  
Emeryville, California 94608

*Written by:*

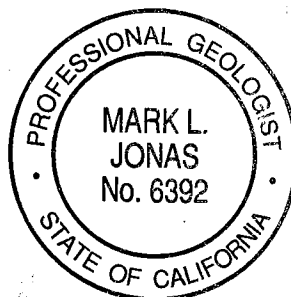


Christina McClelland  
Staff Geologist

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Mark Jonas, P.G.  
Senior Project Manager



## GROUNDWATER MONITORING REPORT - FIRST QUARTER 2007

Hooshi's Auto Service  
1499 MacArthur Boulevard  
Oakland, California 94602  
Cambria Project #129-0741

February 20, 2007

### INTRODUCTION



On behalf of Ms. Naomi Gatzke, Cambria Environmental Technology, Inc. (Cambria) prepared this *Groundwater Monitoring Report – First Quarter 2007* for the referenced site. Presented in this report is a summary of the First Quarter 2007 groundwater monitoring activities and results, closure request status, and a description of the anticipated second quarter 2007 activities.

Figure 1 presents recent groundwater elevations and selected hydrochemical data. Table 1 provides recent and historic groundwater level measurements, groundwater elevations, measurements of separate phase hydrocarbons (SPH), and hydrochemical data. Appendix A contains field data sheets for this monitoring event. Appendix B presents the laboratory analytical report for this monitoring event. Appendix C includes time-series plots of total petroleum hydrocarbons as gasoline (TPHg) and benzene concentrations, and groundwater elevations.


### FIRST QUARTER 2007 ACTIVITIES

#### Monitoring Activities

**Field Activities:** On January 12, 2007, Muskan Environmental Sampling (MES) conducted quarterly monitoring and sampling activities. MES measured well water levels in wells MW-1 through MW-6 and collected groundwater samples from monitoring wells MW-1, MW-2 and MW-5 in accordance with the sampling schedule. The groundwater depth measurements were submitted to the GeoTracker database.

Prior to groundwater sampling, groundwater levels were measured in all monitoring wells. Wells MW-1, MW-2 and MW-5 were then purged with a new disposable bailer before sampling. MES purged at least three well-casing volumes of groundwater from each sampled monitoring well. Field measurements of pH, specific conductance, and temperature of purged groundwater were measured after the extraction of each successive casing volume. Well purging continued until consecutive pH, specific conductance, and temperature measurements appeared to stabilize. Field measurements, purge volumes, and sample collection data were recorded on field sampling data forms provided in Appendix A.

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



**Sample Analyses:** Groundwater samples were analyzed by McCampbell Analytical, Inc. of Pittsburg, California, a California-certified laboratory. All groundwater samples were analyzed for TPHg by modified United States Environmental Protection Agency (EPA) Method SW8015C; and benzene, toluene, ethylbenzene, total xylenes (BTEX), and methyl tertiary-butyl ether (MTBE) by EPA Method SW8021B. The analytical laboratory report is included in Appendix B. Groundwater analytical results are provided in Table 1 and summarized on Figure 1. Analytical results were submitted to the GeoTracker database.

## Monitoring Results

**Groundwater Flow Direction and Gradient:** Based on depth-to-water measurements collected during the monitoring event on January 12, 2007, groundwater generally appeared to flow toward the southwest at a gradient of approximately 0.104 feet per foot. The groundwater gradient and flow direction are consistent with historical data. Depth-to-water and groundwater elevation data for the site are presented in Table 1.

**Hydrocarbon Distribution in Groundwater:** Hydrocarbons were detected in all three of the sampled wells. The highest concentration of TPHg was detected in monitoring well MW-5 at 17,000 micrograms per liter ( $\mu\text{g/L}$ ). The highest concentrations of BTEX compounds were detected in monitoring well MW-2 at concentrations of 320  $\mu\text{g/L}$ , 170  $\mu\text{g/L}$ , 600  $\mu\text{g/L}$  and 2,100  $\mu\text{g/L}$ , respectively. No MTBE was detected in any of the sampled wells.

## ANTICIPATED SECOND QUARTER 2007 ACTIVITIES

During a phone discussion between Mr. Don Hwang of Alameda County Environmental Health (ACEH) and Matt Meyers of Cambria, Mr. Hwang recommended continuing quarterly monitoring. As a result, Cambria will continue monitoring activities according to the approved monitoring schedule through 2007, pending ACEH's consideration of a modified sampling schedule.

## Monitoring Activities

During the second quarter 2007, Cambria will measure water levels in all wells and collect groundwater samples from monitoring wells MW-1, MW-2 and MW-5 in accordance with the sampling schedule. Cambria will then prepare a groundwater monitoring report summarizing the monitoring activities and results.

Based on the sampling schedule, monitoring wells MW-1, MW-2, and MW-5 are sampled on a quarterly basis and monitoring wells MW-3, MW-4, and MW-6 are sampled on an annual basis during the fourth quarter. Groundwater samples are analyzed for TPHg by modified EPA Method SW8015C, with BTEX and MTBE analyzed by EPA Method SW8021B.



## ATTACHMENTS

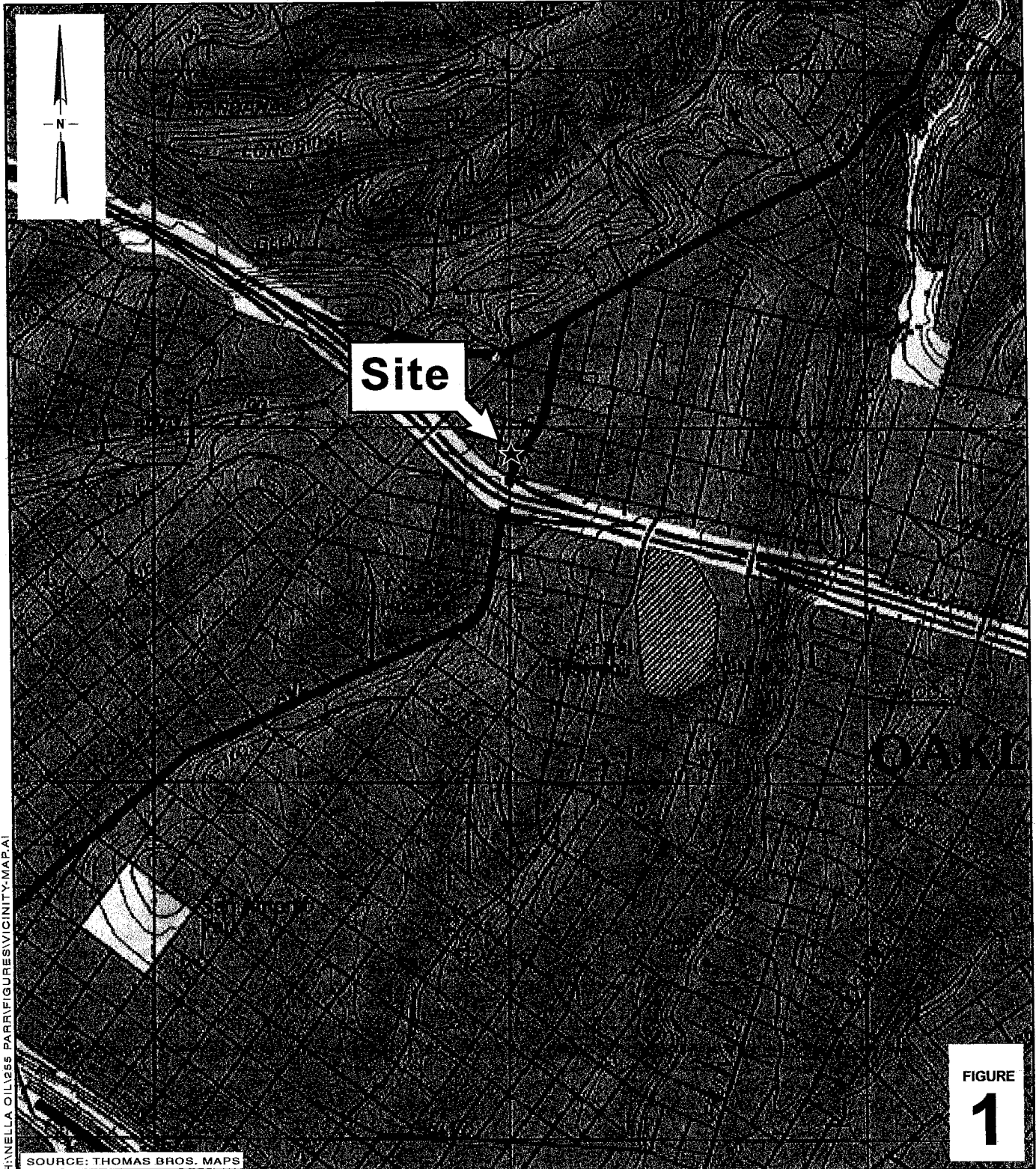
Figure 1 – Groundwater Elevation Contour and Hydrocarbon Concentration Map

Table 1 – Groundwater Elevation and Analytical Data

Appendix A – Groundwater Monitoring Field Data Sheets

Appendix B – Analytical Results for Groundwater Sampling

Appendix C – TPHg and Benzene Concentration Graphs



HANELLA OILYSS PARR FIGURES VICINITY-MAP.A1

SOURCE: THOMAS BROS. MAPS

FIGURE  
**1**

0 1/8 1/4 1/2 1

SCALE : 1" = 1/4 MILE

**Hooshii's Auto Service**

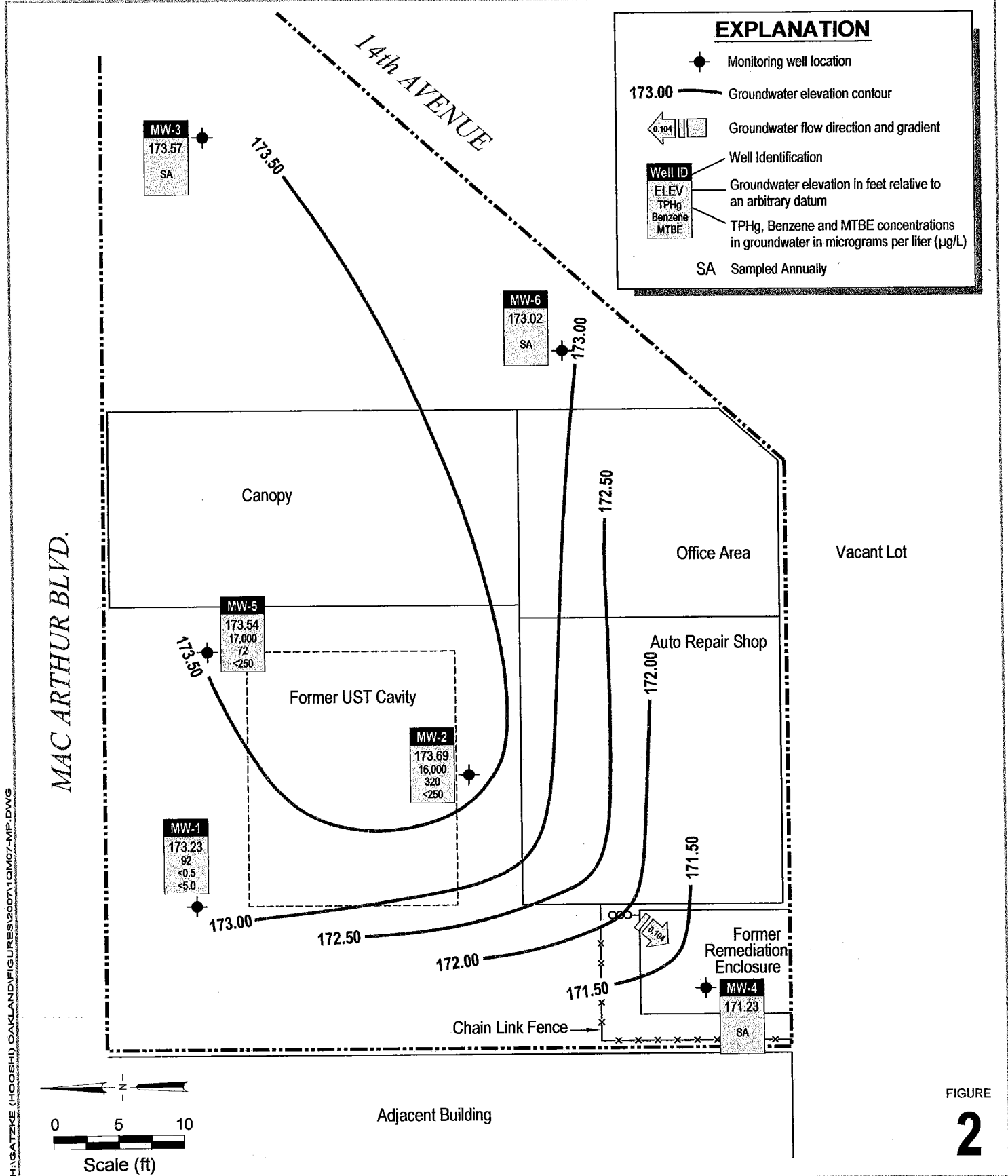
1499 MacArthur Boulevard

Oakland, California



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**Vicinity Map**



H:\GATZKE (HOOSHI) OAKLAND\FIGURES\2007\1Q10\07-MP.DWG

FIGURE  
**2**

**Hooshi's Auto Service**  
1499 MacArthur Boulevard  
Oakland, California



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**Groundwater Elevation Contour  
and Hydrocarbon Concentration Map**

January 12, 2007





# CAMBRIA

**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**)	SPH Thickness (ft)	TPHg	Benzene	Toluene	Ethylbenzene			Xylenes	MTBE	Notes
								(µg/L)					
MW-2 cont'd 180.24	12/10/1996	11.10	169.55	0.25	--	--	--	--	--	--	--	--	
	5/8/1998	10.81	169.66	0.03	--	--	--	--	--	--	--	--	
	8/17/1998	12.16	168.31	0.02	--	--	--	--	--	--	--	--	
	11/4/1998	12.61	167.86	0.02	--	--	--	--	--	--	--	--	
	2/17/1999	9.82	170.66	0.04	--	--	--	--	--	--	--	--	
	5/27/1999	11.07	169.48	0.13	--	--	--	--	--	--	--	--	
	8/19/1999	12.79	167.68	0.02	--	--	--	--	--	--	--	--	
	11/23/1999	12.14	168.20	0.12	--	--	--	--	--	--	--	--	
	2/17/2000	10.01	170.37	0.18	--	--	--	--	--	--	--	--	
	5/9/2000	10.88	169.38	0.03	--	--	--	--	--	--	--	--	
	8/15/2000	12.28	167.97	0.01	--	--	--	--	--	--	--	--	
	12/1/2000	8.03	172.21	--	260,000	1,100	5,000	1,900	17,000	ND<100	a		
	2/8/2001	7.86	172.38	--	2,900	1.7	14	5.0	140	ND<5.0	c,d		
	4/9/2001	7.95	172.29	--	--	--	--	--	--	--			
	4/24/2001	6.90	173.34	--	56,000	360	980	1,000	4,700	ND<5.0	a,b		
	8/6/2001	8.15	172.09	--	54,000	680	1,900	1,500	7,800	ID<200 (ND<10)	a,b,j		
	10/22/2001	8.22	172.02	--	32,000	420	770	1,100	4,100	ND<250	a,b		
	2/1/2002	8.07	172.17	--	26,000	310	490	920	1,600	ND<1,000	a		
	4/19/2002	8.60	171.64	--	16,000	300	240	1,000	990	ND<100	a		
	7/16/2002	8.21	172.03	--	5,700	120	18	340	15	ND<50	a		
10/3/2002	8.14	172.10	--	4,400	44	16	68	20	ND<25	a			
1/10/2003	6.98	173.26	--	16,000	300	320	580	830	ND<100	a,b			
4/21/2003	7.25	172.99	--	12,000	350	260	610	380	ND<50	a			
7/9/2003	7.99	172.25	--	3,300	51	7.4	47	2.8	ND<17	a			
10/7/2003	8.21	172.03	--	2,400	93	11	34	22	ND<50	a			
1/22/2004	7.24	173.00	--	5,900	240	130	350	200	ND<50	a			
4/2/2004	6.29	173.95	--	37,000	840	1,500	1,300	5,900	ND<500	a			
12/29/2004	5.37	174.87	--	9,300	240	230	330	880	ND<50	a			
1/27/2005	6.38	173.86	--	37,000	1,200	1,400	1,300	5,200	<250	a			
4/6/2005	5.88	174.36	--	21,000	400	340	780	1,700	ND<100	a			
7/28/2005	6.61	173.63	--	35,000	690	1,200	1,200	5,200	ND<500	a			
10/14/2005	6.80	173.44	--	14,000	380	120	780	1,200	ND<100	a,b			
1/30/2006	5.91	174.33	--	22,000	310	140	1,300	2,800	ND<50	a,b,i			
4/11/2006	5.65	174.59	--	18,000	280	170	780	1,400	ND<250	a,b,i			
7/14/2006	6.76	173.48	--	49,000	340	140	1,600	4,800	ND<500	a,b			
10/13/2006	6.74	173.50	--	21,000	490	73	600	1,100	ND<110	a,b,i			
1/12/2007	6.55	173.69	--	16,000	320	170	600	2,100	ND<250	a,i			
MW-3	1/4/1993	--	--	--	1,610	772	14	11	ND	--			
179.94	4/22/1993	--	--	--	3,040	980	34	19	16	--			
	12/27/1994	--	--	--	2,600	180	9.0	7.2	13	--			
	6/27/1996	13.20	166.74	--	2,000	22	2.9	11	7.4	56			
	12/10/1996	13.13	166.81	--	970	ND<0.5	ND<0.5	ND<0.5	ND<0.5	24			
	5/8/1998	13.03	166.91	--	780	3.7	2.1	1.1	2.4	ND<32	a		
	8/17/1998	13.22	166.72	--	870	2.8	ND<0.5	ND<0.5	3.7	ND<5.0	b,c		
	11/4/1998	13.31	166.63	--	770	1.6	4.4	2.0	6.9	ND<30	c		
	2/17/1999	12.89	167.05	--	650	6.2	3.4	1.5	2.6	ND<5.0	b,c		
	5/27/1999	12.32	167.62	--	570	1.5	1.2	0.72	1.1	ND<20	a		
	8/19/1999	13.19	166.75	--	830	ND<0.5	1.9	ND<0.5	1.3	ND<20	c,d		
179.55	11/23/1999	13.26	166.29	--	900	ND<0.5	1.8	0.56	1.4	ND<20	c,d		
	2/17/2000	12.78	166.77	--	250	ND<0.5	1.5	ND<0.5	0.62	ND<5.0	d		
	5/9/2000	12.92	166.63	--	690	ND<0.5	2.1	0.85	1.6	ND<5.0	a		
	8/15/2000	13.19	166.36	--	610	ND<0.5	2.3	0.75	1.2	ND<5.0	c,d		
	12/1/2000	7.50	172.05	--	120	ND<0.5	0.90	0.65	0.62	ND<5.0	c,d		
	2/8/2001	7.20	172.35	--	87	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	c,d		

# CAMBRIA

**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**)	SPH Thickness (ft)	← (µg/L) →						Notes	
					TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE		
<i>MW-3 cont'd</i>	4/9/2001	7.33	172.22	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0		
	8/6/2001	7.61	171.94	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0		
	10/22/2001	7.58	171.97	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0		
	2/1/2002	7.53	172.02	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	8.5 (8.5)		
	4/19/2002	7.95	171.60	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	9.0 (11)		
	7/16/2002	7.68	171.87	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	20 (30)		
	10/3/2002	7.78	171.77	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0		
	1/10/2003	6.91	172.64	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	19 (16)		
	sampled annually	4/21/2003	7.21	172.34	--	--	--	--	--	--	--	
		7/9/2003	8.05	171.50	--	--	--	--	--	--	--	
		10/7/2003	8.19	171.36	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
		1/22/2004	7.13	172.42	--	--	--	--	--	--	--	
		4/2/2004	5.73	173.82	--	--	--	--	--	--	--	
		12/29/2004	4.88	174.67	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
		1/27/2005	5.80	173.75	--	--	--	--	--	--	--	
		4/6/2005	5.49	174.06	--	--	--	--	--	--	--	
		7/28/2005	6.02	173.53	--	--	--	--	--	--	--	
		10/14/2005	6.11	173.44	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	1/30/2006	5.45	174.10	--	--	--	--	--	--	--		
	4/11/2006	5.22	174.33	--	--	--	--	--	--	--		
7/14/2006	6.15	173.40	--	--	--	--	--	--	--			
10/13/2006	6.03	173.52	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0			
1/12/2007	5.98	173.57	--	--	--	--	--	--	--			
MW-4	6/27/1996	17.03	163.51	--	720	2	0.5	2.5	23	3.2		
180.54	12/10/1996	8.50	172.04	--	80	2.4	ND<0.5	ND<0.5	6.6	ND<2.0		
	5/8/1998	11.46	169.08	--	ND<50	0.60	ND<0.5	ND<0.5	ND<0.5	ND<5.0		
	8/17/1998	13.98	166.56	--	ND<50	ND<0.5	ND<0.5	ND<0.5	0.5	ND<5.0		
	11/4/1998	14.36	166.18	--	96	9.7	8.1	4.8	18	ND<5.0	a	
	2/17/1999	8.39	172.15	--	ND<50	ND<0.5	ND<0.5	ND<0.5	0.5	ND<5.0		
	5/27/1999	12.80	167.74	--	ND<50	ND<0.5	1.0	ND<0.5	2.9	ND<5.0		
	8/19/1999	14.42	166.12	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0		
180.12	11/23/1999	14.63	165.49	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0		
	2/17/2000	8.15	171.97	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0		
	5/9/2000	12.81	167.31	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0		
	8/15/2000	14.29	165.83	--	ND<50	2.1	ND<0.5	ND<0.5	ND<0.5	ND<5.0		
	12/1/2000	12.80	167.32	--	81	6.0	8.4	1.0	5.6	ND<5.0	a	
	2/8/2001	12.57	167.55	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0		
	4/9/2001	12.50	167.62	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0		
	8/6/2001	14.00	166.12	--	59	1.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	a	
	10/22/2001	14.05	166.07	--	130	6.3	ND<0.5	0.88	ND<0.5	ND<5.0	a	
	2/1/2002	13.47	166.65	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0		
	4/19/2002	13.55	166.57	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0		
	7/16/2002	14.05	166.07	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0		
	10/3/2002	13.09	167.03	--	77	2.1	0.51	ND<0.5	ND<0.5	ND<5.0	a	
	1/10/2003	12.04	168.08	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	20 (15)	a	
sampled annually	4/21/2003	12.15	167.97	--	--	--	--	--	--	--		
	7/9/2003	12.90	167.22	--	--	--	--	--	--	--		
	10/7/2003	13.15	166.97	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0		
	1/22/2004	12.09	168.03	--	--	--	--	--	--	--		
	4/2/2004	8.97	171.15	--	--	--	--	--	--	--		
	12/29/2004	7.85	172.27	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0		
	1/27/2005	8.28	171.84	--	--	--	--	--	--	--		
	4/6/2005	8.07	172.05	--	--	--	--	--	--	--		

# CAMBRIA

**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**)	SPH Thickness (ft)	← (µg/L) →						Notes	
					TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE		
<i>MW-4 cont'd</i>	7/28/2005	10.83	169.29	--	--	--	--	--	--	--		
	10/14/2005	11.49	168.63	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0		
	1/30/2006	8.04	172.08	--	--	--	--	--	--	--		
	4/11/2006	8.03	172.09	--	--	--	--	--	--	--		
	7/14/2006	10.72	169.40	--	--	--	--	--	--	--		
	10/13/2006	11.25	168.87	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0		
	1/12/2007	8.89	171.23	--	--	--	--	--	--	--		
<i>MW-5</i>	6/27/1996	13.62	166.74	0.16	--	--	--	--	--	--		
<i>180.23</i>	12/10/1996	13.26	167.77	1.00	--	--	--	--	--	--		
	5/8/1998	13.15	167.11	0.04	--	--	--	--	--	--		
	8/17/1998	13.36	166.89	0.02	--	--	--	--	--	--		
	11/4/1998	13.52	166.73	0.02	--	--	--	--	--	--		
	2/17/1999	13.02	167.23	0.02	--	--	--	--	--	--		
	5/27/1999	13.80	166.71	0.35	--	--	--	--	--	--		
	8/19/1999	13.45	166.86	0.10	--	--	--	--	--	--		
	<i>180.09</i>	11/23/1999	14.03	166.35	0.36	--	--	--	--	--	--	
		2/17/2000	13.28	167.02	0.26	--	--	--	--	--	--	
		5/9/2000	13.55	166.77	0.29	--	--	--	--	--	--	
8/15/2000		13.58	166.54	0.04	--	--	--	--	--	--		
<i>180.04</i>	12/11/2000	8.00	172.09	0.00	54,000	240	1,700	870	1,000	ND<300	c,d	
	2/8/2001	7.88	172.16	0.00	33,000	63	420	120	4,500	ND<50	a,b	
	4/9/2001	7.97	172.07	0.00	--	--	--	--	--	--		
	4/24/2001	7.00	173.04	0.00	3,200	ND<1.0	11	7	260	ND<5.0	c,d	
	8/6/2001	8.17	171.87	--	2,700	11	40	21	240	ND<5.0	a	
	10/22/2001	8.15	171.89	--	20,000	200	1,200	330	2,900	ND<100	a,b	
	2/1/2002	8.07	171.97	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0		
	4/19/2002	8.51	171.53	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0		
	7/16/2002	8.40	171.64	--	ND<50	ND<0.5	ND<0.5	ND<0.5	1.7	ND<5.0		
	10/3/2002	8.18	171.86	--	15,000	94	830	460	2,200	ND<500	a	
	1/10/2003	6.95	173.09	--	290	ND<0.5	1.8	ND<0.5	17	ND<5.0	a	
	4/21/2003	7.18	172.86	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0		
	7/9/2003	7.95	172.09	--	ND<50	ND<0.5	ND<0.5	ND<0.5	2.7	ND<5.0		
	10/7/2003	8.22	171.82	--	9,800	120	340	180	2,000	ND<50	a	
	1/22/2004	7.18	172.86	--	250	ND<0.5	0.82	ND<0.5	29	ND<5.0	d	
	4/2/2004	6.23	173.81	--	4,300	6.3	18	59	750	ND<25	a	
	<i>MW-5 cont'd</i>	12/29/2004	5.27	174.77	--	72	ND<0.5	0.78	ND<0.5	6.5	ND<5.0	d
		1/27/2005	6.25	173.79	--	3,300	<5.0	22	18	320	<50	a
		4/6/2005	5.90	174.14	--	3,100	1.3	6.9	7.2	100	ND<10	c,d
7/28/2005		6.50	173.54	--	18,000	53	230	130	2,100	ND<500	a	
10/14/2005		6.65	173.39	--	23,000	140	370	240	2,100	ND<500	a,b	
1/30/2006		5.96	174.08	--	2,500	1.0	8.7	ND<1.0	130	ND<10	b,c,d	
4/11/2006		5.63	174.41	--	1,200	1.3	3.1	1.7	54	ND<5.0	a	
7/14/2006		6.65	173.39	--	13,000	27	66	30	480	ND<50	a,b	
10/13/2006		6.60	173.44	--	23,000	170	390	260	2,500	ND<250	a,b	
1/12/2007		6.50	173.54	--	17,000	72	130	70	1,600	ND<250	a,h,i	
<i>MW-6</i>	6/27/1996	18.55	161.48	--	ND	ND	ND	ND	ND	--		
<i>180.03</i>	12/10/1999	11.79	168.24	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.0		
	5/8/1998	11.62	168.41	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0		
	8/17/1998	12.66	167.37	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0		
	11/4/1998	13.56	166.47	--	68	3.8	3.7	2.8	11	ND<5.0	a	
	2/17/1999	12.91	167.12	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0		
	5/27/1999	13.03	167.00	--	ND<50	1.0	1.7	0.82	4.9	ND<5.0		
	8/19/1999	13.10	166.93	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0		

# CAMBRIA

**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**)	SPH Thickness (ft)	TPHg	Benzene Toluene Ethylbenzene Xylenes MTBE					Notes		
						(µg/L)							
179.63	11/23/1999	13.58	166.05	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0		
MW-6 cont'd	2/17/2000	10.72	168.91	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0		
	5/9/2000	11.71	167.92	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0		
	8/15/2000	12.49	167.14	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0		
	12/1/2000	8.64	170.99	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0		
	2/8/2001	8.20	171.43	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0		
	4/9/2001	8.53	171.10	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0		
	8/6/2001	8.69	170.94	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0		
	10/22/2001	8.75	170.88	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0		
	2/1/2002	8.31	171.32	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0		
	4/19/2002	8.62	171.01	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0		
	7/16/2002	8.84	170.79	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0		
	10/3/2002	8.71	170.92	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0		
	1/10/2003	6.99	172.64	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	19 (16)		
	sampled annually	4/21/2003	7.15	172.48	--	--	--	--	--	--	--	--	
		7/9/2003	7.98	171.65	--	--	--	--	--	--	--	--	
		10/7/2003	8.28	171.35	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
1/22/2004		7.15	172.48	--	--	--	--	--	--	--	--		
4/2/2004		6.56	173.07	--	--	--	--	--	--	--	--		
12/29/2004		5.63	174.00	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0		
1/27/2005		6.66	172.97	--	--	--	--	--	--	--	--		
4/6/2005		6.25	173.38	--	--	--	--	--	--	--	--		
7/28/2005		6.71	172.92	--	--	--	--	--	--	--	--		
10/14/2005		6.86	172.77	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0		
1/30/2006		6.35	173.28	--	--	--	--	--	--	--	--		
4/11/2006		5.89	173.74	--	--	--	--	--	--	--	--		
7/14/2006	6.80	172.83	--	--	--	--	--	--	--	--			
10/13/2006	6.75	172.88	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0			
1/12/2007	6.61	173.02	--	--	--	--	--	--	--	--			
Trip Blank	5/8/1998	--	--	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0		
	11/4/1998	--	--	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0		
	5/27/1999	--	--	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0		
	11/23/1999	--	--	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0		
	12/1/2000	--	--	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0		

**Abbreviations and Methods:**

TOC = Top of casing elevation  
 ft = Measured in feet  
 SPH = Separate phase hydrocarbons  
 TPHg = Total petroleum hydrocarbons as gasoline by modified EPA Method SW8015C  
 Benzene, toluene, ethylbenzene, and xylenes by EPA Method SW8021B  
 MTBE = Methyl tertiary butyl ether by EPA Method SW8021B  
 (concentration in parentheses confirmed by EPA Method SW8260B)  
 µg/L = Micrograms per liter  
 -- = Not sampled, not analyzed, or not applicable  
 ND<0.5 = Not Detected (ND) above Detection Limit.  
 ND = Compound not detected, detection limit unknown

**Analytical Laboratory Notes:**

a - Unmodified or weakly modified gasoline is significant.  
 b - Lighter than water immiscible sheen is present.  
 c - No recognizable pattern on laboratory chromatogram.  
 d - Heavier gasoline range compounds are significant (aged gasoline?).  
 f - One to a few isolated non-target peaks present on laboratory chromatogram.  
 h = lighter than water immiscible sheen/product present.  
 i - Liquid sample contains greater than ~1 vol. % sediment  
 j - Sample diluted due to high organic content.

\*\* = 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.

**APPENDIX A**

Groundwater Monitoring Field Data Sheets











**APPENDIX B**

Analytical Results for Groundwater Sampling





# McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701  
Web: www.mcccampbell.com E-mail: main@mcccampbell.com  
Telephone: 877-252-9262 Fax: 925-252-9269

## QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder 0701247

EPA Method SW8021B/8015Cm		Extraction SW5030B			BatchID: 25682			Spiked Sample ID: 0701247-001A				
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex) <sup>£</sup>	ND	60	86.1	86.8	0.508	94.5	86.8	8.58	70 - 130	30	70 - 130	30
MTBE	ND	10	82.8	86.8	4.74	87.6	93.5	6.50	70 - 130	30	70 - 130	30
Benzene	ND	10	90.4	94	3.90	97.1	99.1	2.07	70 - 130	30	70 - 130	30
Toluene	ND	10	95.9	98.7	2.91	89.3	88.5	0.847	70 - 130	30	70 - 130	30
Ethylbenzene	ND	10	92.2	93.4	1.38	89.4	94.2	5.22	70 - 130	30	70 - 130	30
Xylenes	ND	30	99.7	100	0.334	95.7	89.7	6.47	70 - 130	30	70 - 130	30
%SS:	99	10	98	98	0	98	110	10.9	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

### BATCH 25682 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0701247-001	1/12/07 10:30 AM	1/12/07	1/12/07 10:09 PM	0701247-002	1/12/07 11:15 AM	1/12/07	1/12/07 8:23 PM
0701247-003	1/12/07 10:50 AM	1/12/07	1/12/07 9:28 PM				

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

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

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

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



**McC Campbell Analytical, Inc.**

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701  
Web: www.mccampbell.com E-mail: main@mccampbell.com  
Telephone: 877-252-9262 Fax: 925-252-9269

**INVOICE for ANALYTICAL SERVICES**

Project Name: #129-0741  
PO Number: N/A  
Date Sampled: 01/12/07  
Date Received: 01/12/07

**Invoice N<sup>o</sup>: 0701247**

INV DATE: **January 18, 2007**  
Print DATE: **January 18, 2007**

Report To: Mark Jonas  
Cambria Env. Technology  
5900 Hollis St, Suite A  
Emeryville, CA 94608  
mjonas@cambria-env.com

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

Description	TAT	Matrix	Qty	Mult	Unit Price	Test Total
Tests:						
TPH(g) + MBTEX	5 days	Water	3	1	\$45.00	\$135.00
SubTotal:						\$135.00

**Invoice Total: \$135.00**

**PLEASE PAY OFF EMAILED INVOICE**

Please include the invoice number with your check and remit to Accounts Receivable at the letter head address. MAI also accepts credit card (Visa/Master Card/Discover/American Express) payment. Please call Account Receivable for details on this service.

MAI's EDF charge does not include the EDF charge for subcontracted analyses. The minimum EDF charge per workorder is \$25.00. For invoice total greater than \$5000.00, EDF will be 2% of the total invoice. The EDF charge for subcontracted analyses will be identical to Subcontractor's fee.

Terms are net 30 days from the invoice date. After this period 10% interest will be charged annually. Overdue accounts are responsible for all legal and collection fees. If you have any questions about billing, please contact Accounts Receivable at McC Campbell Analytical.



**McC Campbell Analytical, Inc.**



1534 Willow Pass Rd  
 Pittsburg, CA 94565-1701  
 (925) 252-9262

**CHAIN-OF-CUSTODY RECORD**

WorkOrder: 0701247

ClientID: CETE

ED

Fax

Email

HardCop

ThirdPart

Report to:

Mark Jonas  
 Cambria Env. Technology  
 5900 Hollis St, Suite A  
 Emeryville, CA 94608

Email: mjonas@cambria-env.com  
 TEL: (510) 420-070 FAX: (510) 420-917  
 ProjectNo: #129-0741  
 PO:

Bill to:

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

Requested TAT: 5 days

Date Received: 01/12/2007

Date Printed: 01/12/2007

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)													
					1	2	3	4	5	6	7	8	9	10	11	12		
0701247-001	MW-1	Water	1/12/2007	<input type="checkbox"/>	A													
0701247-002	MW-2	Water	1/12/2007	<input type="checkbox"/>	A													
0701247-003	MW-5	Water	1/12/2007	<input type="checkbox"/>	A													

Test Legend:

1	G-MBTEX W
6	
11	

2	
7	
12	

3	
8	

4	
9	

5	
10	

Prepared by: Sheli Cryderman

Comments:

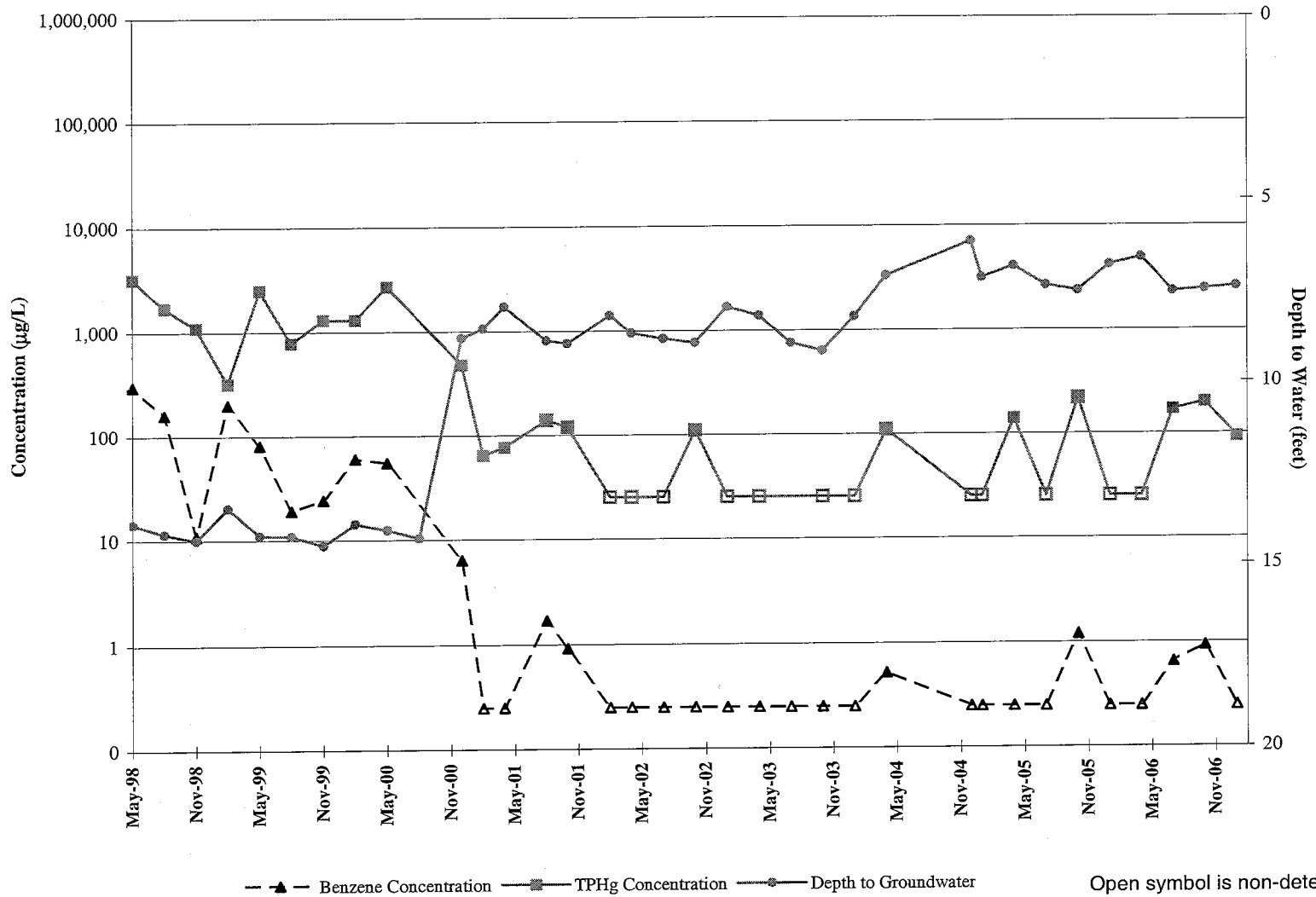
NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

## **APPENDIX C**

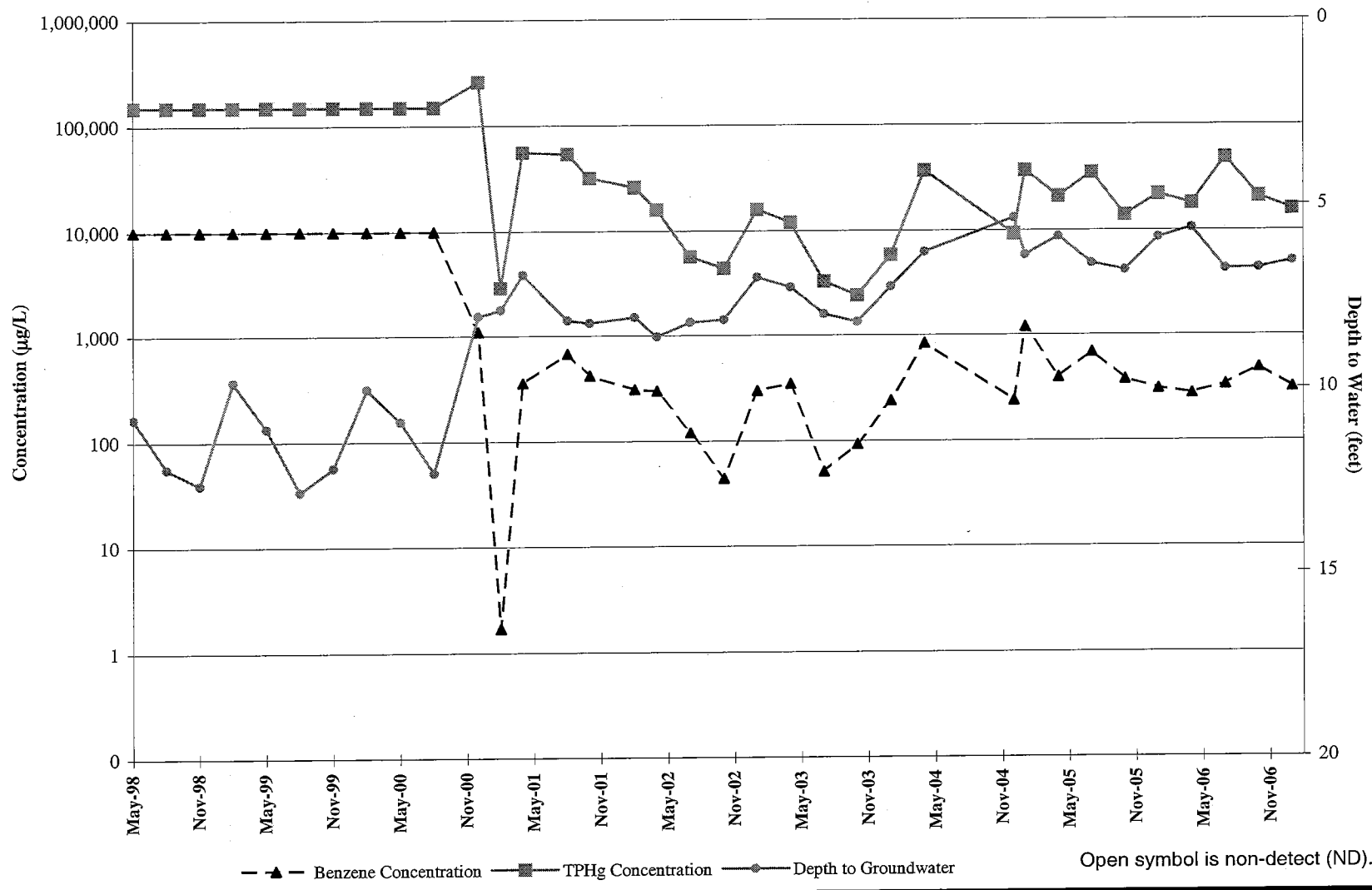
TPHg and Benzene Concentration Graphs



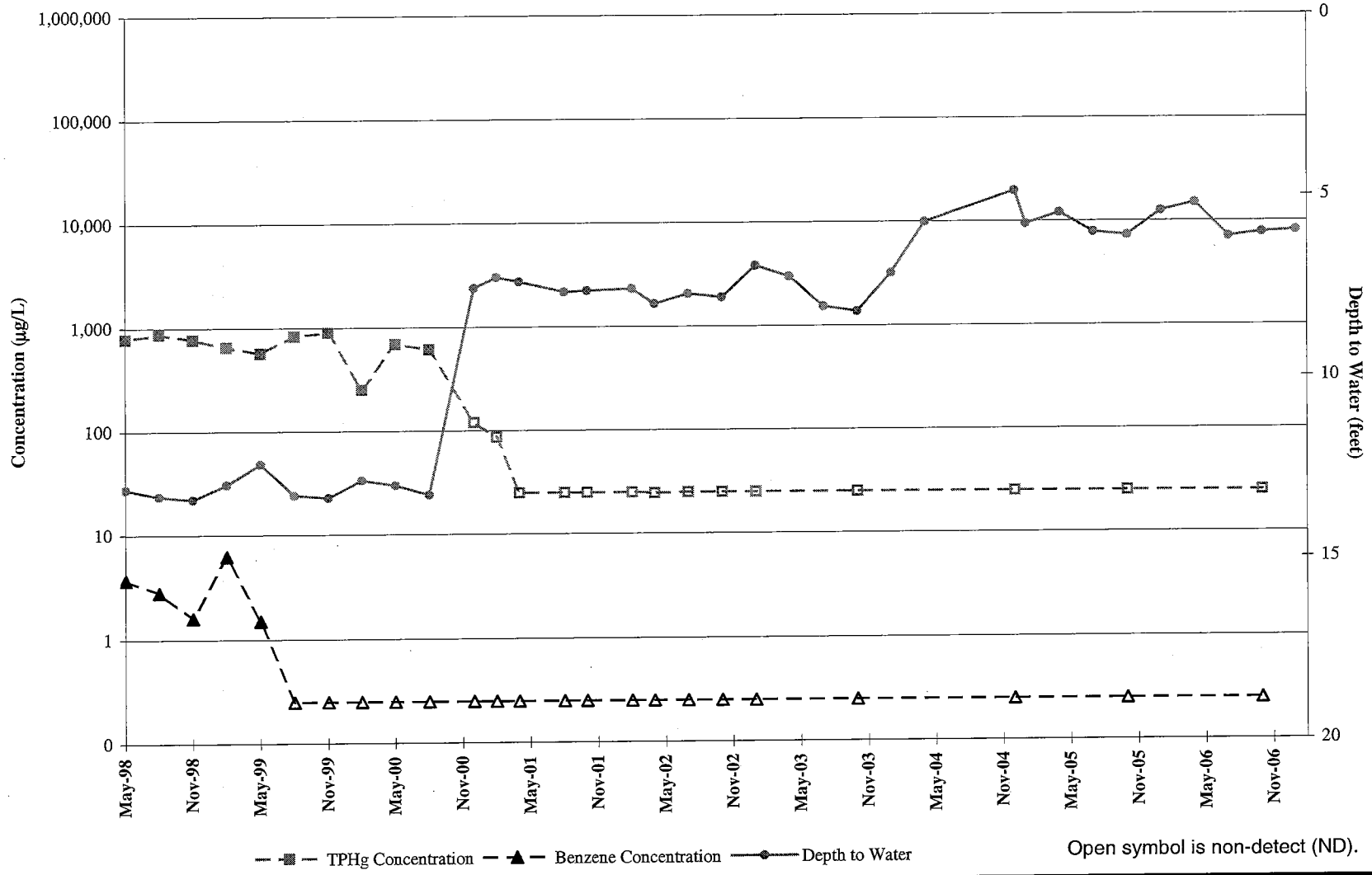
**Monitoring Well MW-1  
TPHg and Benzene Concentration Trend  
Hooshi's Auto Service, 1499 MacArthur Boulevard, Oakland, CA**



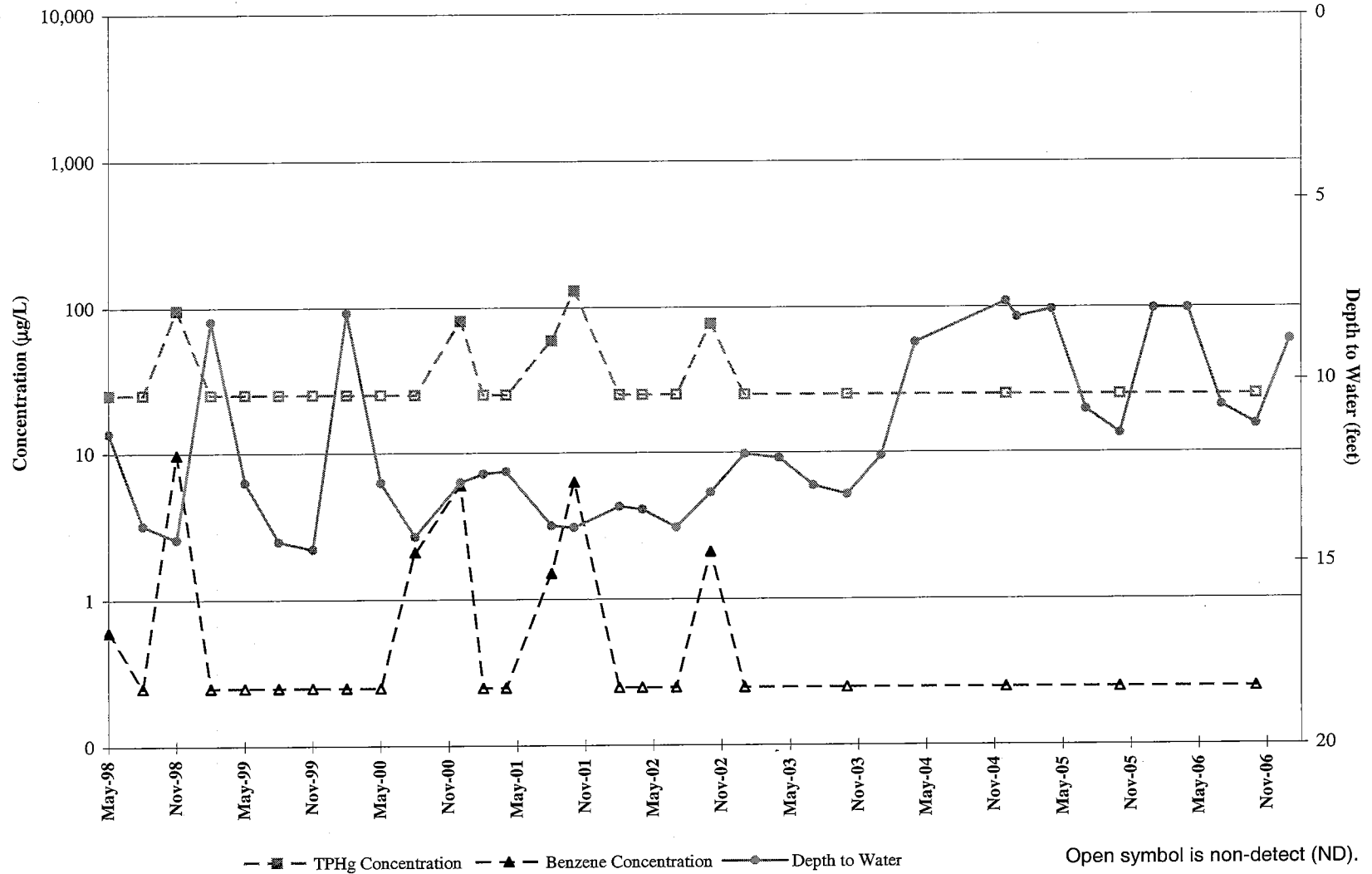
**Monitoring Well MW-2  
TPHg and Benzene Concentration Trend  
Hooshi's Auto Service, 1499 MacArthur Boulevard, Oakland, CA**



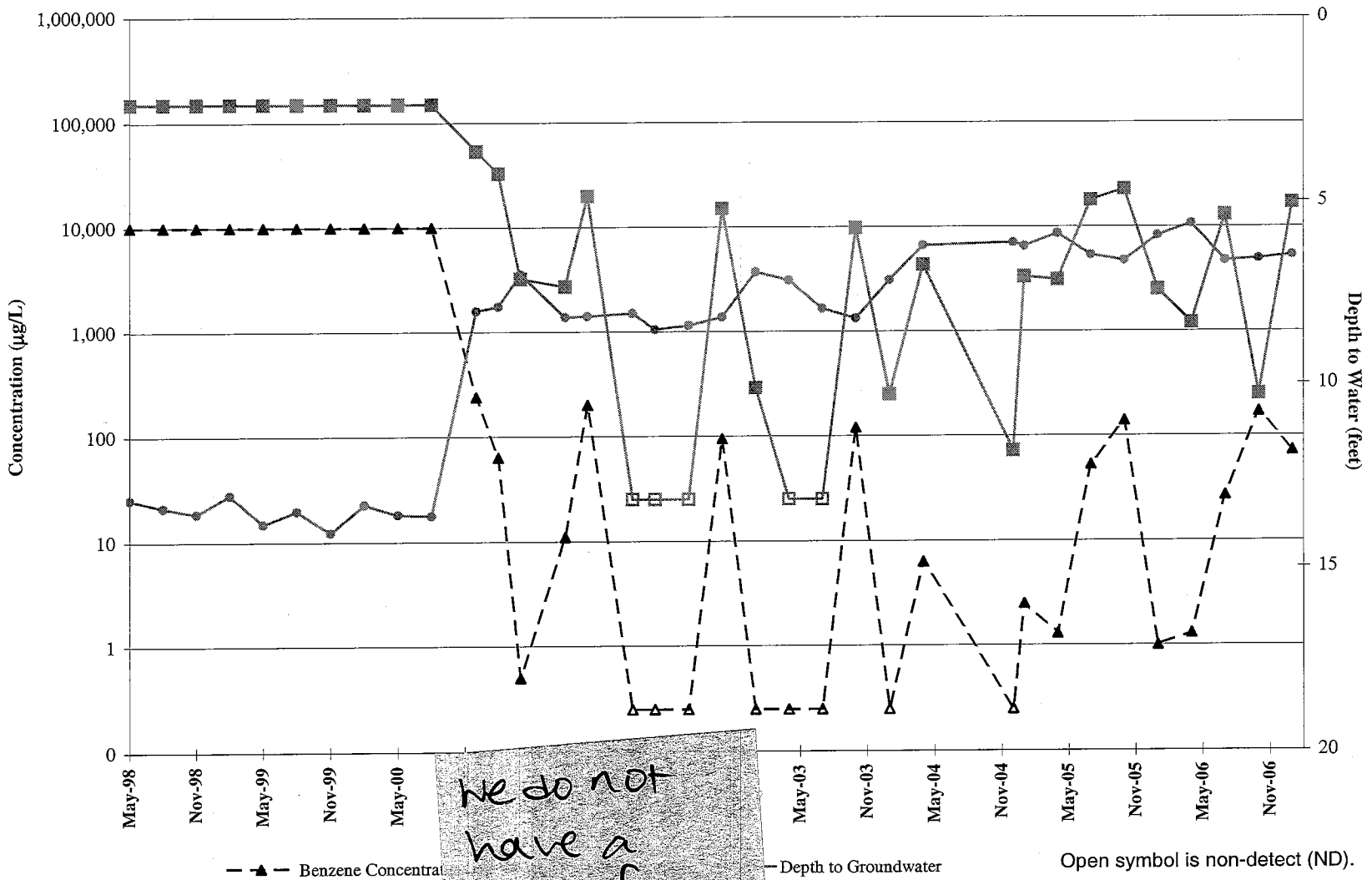
**Monitoring Well MW-3  
TPHg and Benzene Concentration Trend  
Hooshi's Auto Service, 1499 MacArthur Boulevard, Oakland, CA**



**Monitoring Well MW-4  
TPHg and Benzene Concentration Trend  
Hooshi's Auto Service, 1499 MacArthur Boulevard, Oakland, CA**



**Monitoring Well MW-5  
TPHg and Benzene Concentration Trend  
Hooshi's Auto Service, 1499 MacArthur Boulevard, Oakland, CA**



*We do not have a graph for MW-6...?*