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Reference No. 120741

Mr. Jerry Wickham
Alameda County Department of Environmental Health
UST Local Oversight Program
1131 Harbor Bay Parkway, 2nd Floor
Alameda, California 94502

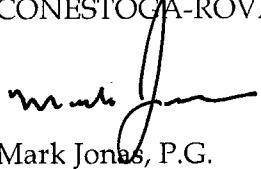
Dear Mr. Wickham:

Re: Groundwater Monitoring Report - First Quarter 2009
Gatzke / Hooshi's Auto Service
1499 MacArthur Boulevard
Oakland, California 94602
Fuel Leak Case No. RO0000516

On behalf of Ms. Naomi Gatzke, Conestoga-Rovers & Associates (CRA) is submitting this *Groundwater Monitoring Report - First Quarter 2009* for the subject site. This report describes First Quarter 2009 activities and results as well as anticipated Second Quarter 2009 activities.

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

Yours truly,
CONESTOGA-ROVERS & ASSOCIATES


Mark Jones, P.G.

MW/aa/4
Encl. *Groundwater Monitoring Report - First Quarter 2009*

c.c.: Ms. Naomi Gatzke

Equal
Employment
Opportunity Employer



GROUNDWATER MONITORING REPORT - FIRST QUARTER 2009

**GATZKE/HOOSHI'S AUTO SERVICE
1499 MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA 94602**

AGENCY CASE NO. RO0000516

**Prepared by:
Conestoga-Rovers
& Associates**

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APRIL 15, 2009

REF. NO. 120741 (4)

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TABLE OF CONTENTS

	<u>Page</u>
1.0 INTRODUCTION	1
1.1 SITE INFORMATION.....	1
2.0 SITE ACTIVITIES AND RESULTS	2
2.1 CURRENT QUARTER'S ACTIVITIES	2
2.1.1 FIELD ACTIVITIES	2
2.1.2 SAMPLE ANALYSES	2
2.2 CURRENT QUARTER'S RESULTS	3
2.3 PROPOSED ACTIVITIES FOR NEXT QUARTER.....	3

LIST OF FIGURES
(Following Text)

FIGURE 1 VICINITY MAP

FIGURE 2 GROUNDWATER ELEVATION CONTOUR
AND HYDROCARBON CONCENTRATION MAP

LIST OF TABLES

TABLE 1 MONITORING WELL CONSTRUCTION DETAILS

TABLE 2 GROUNDWATER ELEVATION AND ANALYTICAL DATA

LIST OF APPENDICES

APPENDIX A GROUNDWATER MONITORING FIELD DATA SHEETS

APPENDIX B LABORATORY ANALYTICAL REPORT

APPENDIX C TPHg AND BENZENE CONCENTRATION TREND GRAPHS

1.0 INTRODUCTION

On behalf of Mrs. Naomi Gatzke, Conestoga-Rovers & Associates (CRA) is submitting this *Groundwater Monitoring Report - First Quarter 2009* for the subject site. Presented are the first quarter 2009 groundwater monitoring activities with results and anticipated second quarter 2009 activities.

Figure 1 is a vicinity map. Figure 2 presents recent groundwater elevation contours and hydrocarbon concentrations. Table 1 includes monitoring well construction details. Table 2 provides recent and historic groundwater level measurements, elevations, hydrochemical, and separate phase hydrocarbon (SPH) data. Appendix A contains field data sheets for this monitoring event. Appendix B presents the recent laboratory analytical report. Appendix C includes time-series plots with benzene and total petroleum hydrocarbons as gasoline (TPHg) concentrations and groundwater elevations

1.1 SITE INFORMATION

Site Address	1499 MacArthur Boulevard, Oakland
Site Use	Auto Service Business
Client and Contact	Mrs. Naomi Gatzke
Consultant and Contact Person	CRA, Mark Jonas, P.G.
Lead Agency and Contact Person	Alameda County Environmental Health Mr. Jerry Wickham, P.G.
Agency Case No.	RO0000516

2.0 SITE ACTIVITIES AND RESULTS

2.1 CURRENT QUARTER'S ACTIVITIES

2.1.1 FIELD ACTIVITIES

On January 20, 2008, Muskan Environmental Sampling (MES) conducted quarterly monitoring and sampling activities. MES measured well water levels in all wells and collected groundwater samples from monitoring wells MW-1 and MW-5 (Figure 2). Wells MW-3, MW-4, and MW-6 are sampled annually during the fourth quarter. Well MW-2 was not sampled due to the presence of measurable SPH. Groundwater depth measurements have been submitted to the GeoTracker database.

Prior to groundwater sampling, groundwater levels were measured in all monitoring wells. Each monitoring well was then purged before sampling. MES purged at least three well-casing volumes of groundwater from each monitoring well. Field measurements of pH, conductivity, 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 using new disposable bailers, decanted into appropriate sampling containers supplied by the analytical laboratory. Samples were labeled, placed in protective foam sleeves, stored on crushed, water-based ice at or below 4 degrees Celsius and transported under a chain-of-custody (COC) to the laboratory. The COC used for this monitoring event is provided in Appendix B.

2.1.2 SAMPLE ANALYSES

Groundwater samples were analyzed by McCampbell Analytical, Inc. of Pittsburg, California, a California-certified laboratory (DHS License No. 1644). 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. Detections of MTBE were confirmed by EPA Method SW8260B. The analytical laboratory report is included in Appendix B. Groundwater analytical results are provided on Table 2 and summarized on Figure 2. Groundwater analytical results have been submitted to the GeoTracker database.

2.2 CURRENT QUARTER'S RESULTS

Groundwater Flow Direction	Southwest
Hydraulic Gradient	0.125
Range of Measured Water Depth from Top of Casing in Monitoring Wells	7.05 to 10.17 feet
Were Measureable Separate Phase	Yes (MW-2)
Hydrocarbons Observed	

Based on depth-to-water measurements collected during the monitoring event on January 20, 2009, groundwater appears to generally flow towards the southwest, with an apparent gradient of 0.125 feet per foot (Figure 2). The gradient and flow direction are consistent with historical data. Depth-to-water and groundwater elevation data for the site are in Table 2.

Hydrocarbons were detected in wells MW-1 and MW-5. TPHg concentrations were 81 micrograms per liter ($\mu\text{g}/\text{L}$) and 38,000 $\mu\text{g}/\text{L}$ in wells MW-1 and MW-5, respectively. BTEX was detected in well MW-5 at concentrations of 220 $\mu\text{g}/\text{L}$, 530 $\mu\text{g}/\text{L}$, 270 $\mu\text{g}/\text{L}$, and 4,400 $\mu\text{g}/\text{L}$ respectively. No MTBE was detected in wells MW-1 or MW-5 this quarter.

2.3 PROPOSED ACTIVITIES FOR NEXT QUARTER

During the second quarter 2009, CRA will measure water levels in all wells and collect groundwater samples from monitoring wells MW-1, MW-2, and MW-5. 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 will be analyzed for TPHg by modified EPA Method SW8015C and for BTEX and MTBE by EPA Method SW8021B. Detections of MTBE will be confirmed by EPA Method SW8260B. CRA will then prepare a groundwater monitoring report summarizing the monitoring activities and results.

A December 2008 Work Plan was submitted to ACEH for additional characterization. The Work Plan will be implemented after ACEH approves the scope of work.

All of Which is Respectfully Submitted,
CONESTOGA-ROVERS & ASSOCIATES

Mark Werner

Michael Werner

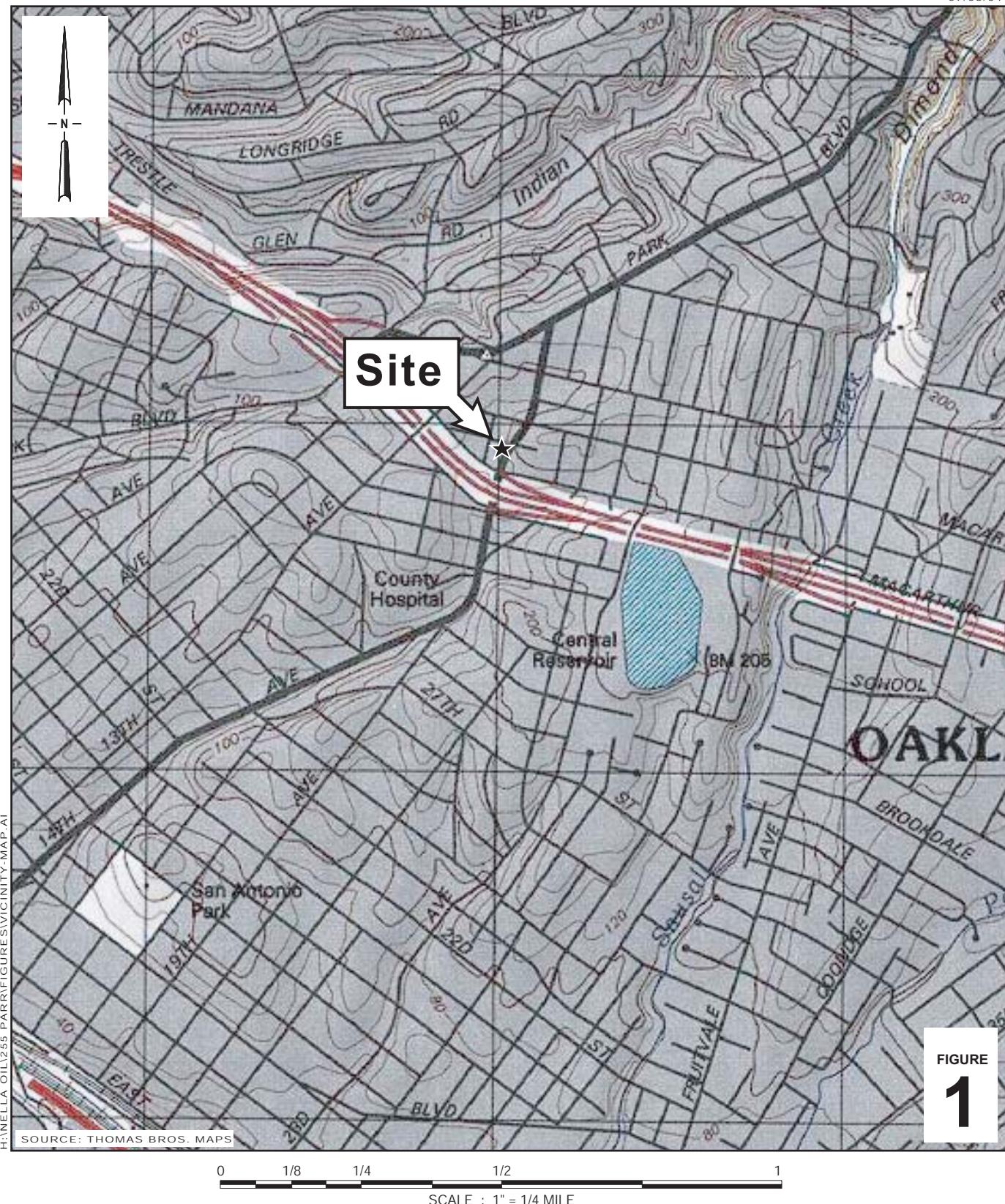
Mark Jonas

Mark Jonas, P.G.



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FIGURES



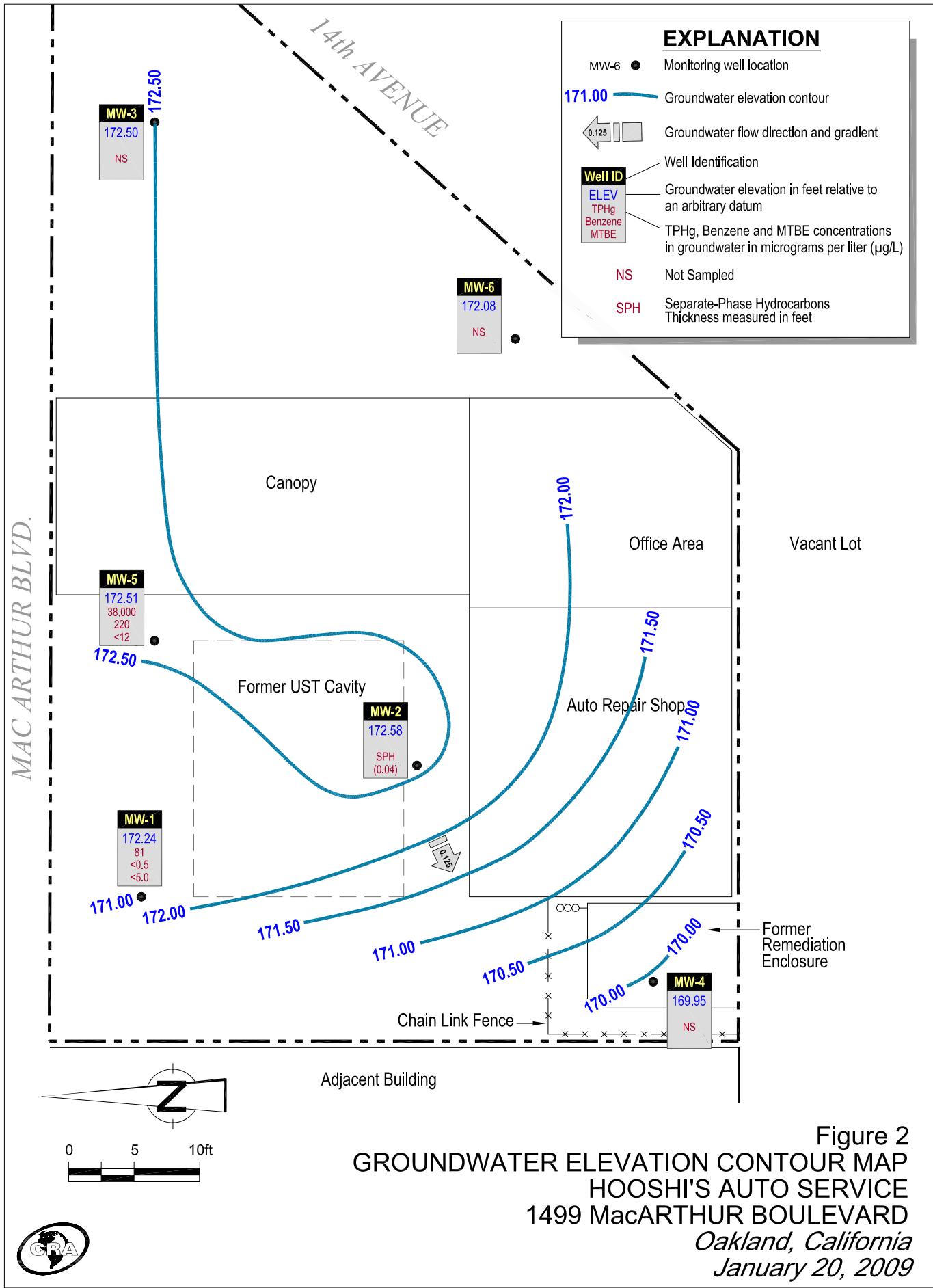
Hooshi's Auto Service

1499 MacArthur Boulevard
Oakland, California



CONESTOGA-ROVERS
& ASSOCIATES

Vicinity Map



TABLES

TABLE 1

MONITORING WELL CONSTRUCTION DETAILS
GATZKE/HOOSHI'S AUTO SERVICE
1499 MACARTHUR BOULEVARD, OAKLAND, CALIFORNIA

Well ID	Former ID	Date Installed	Date Destroyed	Borehole Diameter (in)	Depth of Borehole (ft)	Casing Diameter (in)	Screened Interval (ft bgs)	Filter Pack (ft bgs)	Bentonite Seal (ft bgs)	Cement (ft bgs)	TOC elevation (ft above msl)
MW-1	B1	1/7/1993	--		20*	2					180.83
MW-2	B2	1/7/1993	--		20*	2					180.24
MW-3	B3	1/7/1993	--		20*	2					179.55
MW-4	--	6/27/1996	--		20	2	4.5 - 19	3.5 - 19	2.5 - 3.5	1 - 2.5	180.12
MW-5	--	6/27/1996	--		20	2	4.5 - 19	3.5 - 19	2.5 - 3.5	1 - 2.5	180.09
MW-6	--	6/27/1996	--		20	2	4.5 - 19	3.5 - 19	2.5 - 3.5	1 - 2.5	179.63

Abbreviations / Notes

ft = feet

in = inches

ft bgs = feet below grade surface

ft above msl = feet above mean sea level

TOC = top of casing

Elevations surveyed by Virgil Chavez Land Surveying.

* = Depth assume by downhole measurement.

TABLE 2

GROUNDWATER ELEVATION AND ANALYTICAL DATA
GATZKE/HOOSHI'S AUTO SERVICE
1499 MACARTHUR BOULEVARD, OAKLAND, CALIFORNIA

Well ID	Date	TOC Depth to Groundwater TOC (ft*)	Groundwater Elevation (ft msl**)	SPH Thickness (ft)	TPHg ←	Benzene	Toluene	Ethylbenzene (µg/L)	Xylenes	MTBE →	Notes
<u>2006 Grab Groundwater Analytical Data</u>											
B-1*	12/21/2006	--	--	--	13,000	37 / 28	32 / ND<17	380 / 520	1,100 / 1,300	ND<17	a,i
B-2*	12/21/2006	--	--	--	40,000	1,100 / 1,100	1,300 / 1,300	990 / 840	6,400 / 5,900	ND<50	a,i
B-3*	12/21/2006	--	--	--	300	1.9 / 3.2	1.0 / 0.98	0.76 / 1.4	0.62 / 1.2	ND<0.5	a,i
B-4*	12/21/2006	--	--	--	7,600	110 / 87	32 / 22	470 / 520	520 / 450	ND<10	a,i
B-5*	12/22/2006	--	--	--	72,000	-- / 850	-- / 3,100	-- / 2,800	-- / 16,000	ND<100	a,b
<u>Monitoring Well Groundwater Analytical Data</u>											
MW-1	1/4/1993	--	--	--	539	130	12	22	13	--	
181.00	4/22/1993	--	--	--	1,130	75	8.0	38	11	--	
	12/27/1994	--	--	--	770	22	6.6	14	21	--	
	6/27/1996	14.11	166.89	--	3,300	260	34	59	170	80	
	12/10/1996	13.71	167.29	--	1,500	84	11	22	32	34	
	5/8/1998	13.85	167.15	--	3,200	300	12	62	36	ND<120	a
	8/17/1998	14.11	166.89	--	1,700	160	18	32	27	39	a
	11/4/1998	14.28	166.72	--	1,100	11	4.3	3.6	6.5	ND<50	a
	2/17/1999	13.41	167.59	--	320	200	47	72	75	57	a
	5/27/1999	14.16	166.84	--	2,500	81	12	29	41	ND<80	a
	8/19/1999	14.18	166.82	--	780	19	ND<0.5	5.7	4.5	28	a
180.83	11/23/1999	14.43	166.40	--	1,300	24	0.64	1.8	3.3	ND<100	a
	2/17/2000	13.85	166.98	--	1,300	60	9.1	22	19	22/16	a,b
	5/9/2000	14.01	166.82	--	2,700	55	13	19	25	34/29	a
	8/15/2000	14.24	166.59	--	--	--	--	--	--	--	
	12/1/2000	8.75	172.08	--	480	6.4	5.9	1.1	3.9	18 (21)	a
180.63	2/8/2001	8.49	172.14	--	64	ND<0.5	ND<0.5	ND<0.5	ND<0.5	6.1/5.6	a,c
	4/9/2001	8.71	171.92	--	--	--	--	--	--	--	
	4/24/2001	7.90	172.73	--	77	ND<0.5	ND<0.5	ND<0.5	ND<0.5	5.6/3.7	c
	8/6/2001	8.83	171.80	--	140	1.7	0.55	ND<0.5	0.63	5.8/4.0	a
	10/22/2001	8.91	171.72	--	120	0.92	ND<0.5	ND<0.5	0.59	11(10)	a
	2/1/2002	8.15	172.48	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	4/19/2002	8.63	172.00	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	7/16/2002	8.79	171.84	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	10/3/2002	8.90	171.73	--	110	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	f
	1/10/2003	7.93	172.70	--	ND<50	ND<0.5	0.74	ND<0.5	ND<0.5	ND<5.0	
	4/21/2003	8.17	172.46	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	7/9/2003	8.92	171.71	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	10/7/2003	9.13	171.50	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	1/22/2004	8.20	172.43	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	4/2/2004	7.09	173.54	--	110	0.52	ND<0.5	ND<0.5	ND<0.5	ND<5.0	a
	12/29/2004	6.15	174.48	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	1/27/2005	7.15	173.48	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	4/6/2005	6.84	173.79	--	140	ND<0.5	0.55	ND<0.5	0.70	ND<5.0	c
	7/28/2005	7.36	173.27	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	10/14/2005	7.51	173.12	--	220	1.2	ND<0.5	0.56	0.75	ND<5.0	a
	1/30/2006	6.80	173.83	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	4/11/2006	6.60	174.03	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	7/14/2006	7.53	173.10	--	170	0.65	0.60	ND<0.5	ND<0.5	ND<5.0	a
	10/13/2006	7.47	173.16	--	200	0.93	ND<0.5	ND<0.5	ND<0.5	ND<5.0	a
	1/12/2007	7.40	173.23	--	92	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	c,i
	4/20/2007	7.14	173.49	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	7/30/2007	7.81	172.82	--	130	0.52	ND<0.5	ND<0.5	0.61	ND<10	a,c
	10/24/2007	8.15	172.48	--	150	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	c
	1/15/2008	7.79	172.84	--	86	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	c
	4/17/2008	8.64	171.99	--	100	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	c
	7/9/2008	9.09	171.54	--	140	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	c
	10/28/2008	9.62	171.01	--	120	0.59	ND<0.5	ND<0.5	ND<0.5	ND<5.0	a
	1/20/2009	8.39	172.24	--	81	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	c

TABLE 2

GROUNDWATER ELEVATION AND ANALYTICAL DATA
GATZKE/HOOSHI'S AUTO SERVICE
1499 MACARTHUR BOULEVARD, OAKLAND, CALIFORNIA

Well ID	Date	TOC Depth to	Groundwater	SPH	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes
		TOC (ft*)	Groundwater (ft)	Elevation (ft msl**) (ft)		Thickness	<	(µg/L)	→		
MW-2	1/4/1993	--	--	--	149,000	21,700	25,000	ND	7,760	--	
180.45	4/22/1993	--	--	--	136,300	9,900	15,870	15,300	2,190	--	
	12/27/1994	--	--	--	94,000	11,000	18,000	2,700	16,000	--	
	6/27/1996	12.61	168.64	1.00	--	--	--	--	--	--	
	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	--	--	--	--	--	--	
180.24	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	Sheen, Field	260,000	1,100	5,000	1,900	17,000	ND<100	a
	2/8/2001	7.86	172.38	Sheen, Field	2,900	1.7	14	5.0	140	ND<5.0	c,d
	4/9/2001	7.95	172.29	Sheen, Field	--	--	--	--	--	--	
	4/24/2001	6.90	173.34	Sheen, Lab	56,000	360	980	1,000	4,700	ND<5.0	a,b
	8/6/2001	8.15	172.09	Sheen, Field & Lab	54,000	680	1,900	1,500	7,800	ND<200/ND<10	a,b,j
	10/22/2001	8.22	172.02	Sheen, Field & Lab	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	Sheen, Lab	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	Sheen, Field	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	Sheen, Field & Lab	14,000	380	120	780	1,200	ND<100	a, b
	1/30/2006	5.91	174.33	Sheen, Field & Lab	22,000	310	140	1,300	2,800	ND<50	a,b,i
	4/11/2006	5.65	174.59	Sheen, Field & Lab	18,000	280	170	780	1,400	ND<250	a,b,i
	7/14/2006	6.76	173.48	Sheen, Field & Lab	49,000	340	140	1,600	4,800	ND<500	a,b
	10/13/2006	6.74	173.50	Sheen, Field & Lab	21,000	490	73	600	1,100	ND<110	a,b,i
	1/12/2007	6.55	173.69	Sheen, Field	16,000	320	170	600	2,100	ND<250	a,i
	4/20/2007	6.39	173.85	Sheen, Field & Lab	15,000	340	160	420	1,700	ND<120	a,b
	7/30/2007	7.09	173.15	Sheen, Field	17,000	430	170	740	2,100	ND<100	a
	10/24/2007	7.40	172.84	Sheen, Field & Lab	14,000	370	40	240	490	ND<100 (8.3)	a,b
	1/15/2008	6.90	173.34	Sheen, Field	13,000	440	180	510	1,700	ND<250	a,i
	4/17/2008	7.89	172.35	Sheen, Field	29,000	410	200	830	2,700	ND<130	a
	7/9/2008	8.39	171.85	Sheen, Field	21,000	370	170	760	2,200	ND<120	a
	10/28/2008	8.94	171.30	Sheen, Field	24,000	550	140	810	1,600	ND<200	a
	1/20/2009	7.69	172.58	0.04	--	--	--	--	--	--	
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
MW-3 cont'd	11/4/1998	13.31	166.63	--	770	1.6	4.4	2.0	6.9	ND<30	c

TABLE 2

GROUNDWATER ELEVATION AND ANALYTICAL DATA
GATZKE/HOOSHI'S AUTO SERVICE
1499 MACARTHUR BOULEVARD, OAKLAND, CALIFORNIA

Well ID	Date	TOC Depth to	Groundwater	SPH	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes
		TOC (ft*)	Groundwater (ft)	Elevation (ft msl**)		Thickness (ft)	<	(µg/L)	→		
179.55	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
	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
	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	
	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	--	--	--	--	--	--	--	
	4/20/2007	5.76	173.79	--	--	--	--	--	--	--	
	7/30/2007	6.44	173.11	--	--	--	--	--	--	--	
	10/24/2007	6.82	172.73	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	1/15/2008	6.45	173.10	--	--	--	--	--	--	--	
	4/17/2008	7.30	172.25	--	--	--	--	--	--	--	
	7/8/2008	7.79	171.76	--	--	--	--	--	--	--	
	10/28/2008	8.29	171.26	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	i
	1/20/2009	7.05	172.50	--	--	--	--	--	--	--	
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	
	11/23/1999	14.63	165.49	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
180.12	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
	MW-4 cont'd	10/22/2001	14.05	166.07	--	130	6.3	ND<0.5	0.88	ND<0.5	a

TABLE 2

GROUNDWATER ELEVATION AND ANALYTICAL DATA
GATZKE/HOOSHI'S AUTO SERVICE
1499 MACARTHUR BOULEVARD, OAKLAND, CALIFORNIA

Well ID TOC (ft*)	Date	TOC Depth to Groundwater	Groundwater Elevation	SPH Thickness	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes
		(ft)	(ft msl**)	(ft)	←	(µg/L)	→				
	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
	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	--	--	--	--	--	--	--	
	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	--	--	--	--	--	--	--	
	4/20/2007	9.22	170.90	--	--	--	--	--	--	--	
	7/30/2007	11.29	168.83	--	--	--	--	--	--	--	
	10/24/2007	10.08	170.04	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	1/15/2008	8.26	171.86	--	--	--	--	--	--	--	
	4/17/2008	10.84	169.28	--	--	--	--	--	--	--	
	7/9/2008	10.08	170.04	--	--	--	--	--	--	--	
	10/28/2008	11.90	168.22	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	1/20/2009	10.17	169.95	--	--	--	--	--	--	--	
MW-5 180.23	6/27/1996	13.62	166.74	0.16	--	--	--	--	--	--	
	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	--	--	--	--	--	--	
180.09	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	--	--	--	--	--	--	
	12/1/2000	8.00	172.09	0.00	54,000	240	1,700	870	1,000	ND<300	c,d
180.04	2/8/2001	7.88	172.16	Sheen ^{***}	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	Sheen ^{Lab}	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
MW-5 cont'd	12/29/2004	5.27	174.77	--	72	ND<0.5	0.78	ND<0.5	6.5	ND<5.0	d

TABLE 2

GROUNDWATER ELEVATION AND ANALYTICAL DATA
GATZKE/HOOSHI'S AUTO SERVICE
1499 MACARTHUR BOULEVARD, OAKLAND, CALIFORNIA

Well ID TOC (ft*)	Date	TOC Depth to Groundwater	Groundwater Elevation	SPH Thickness	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes
		(ft)	(ft msl**)	(ft)	<—————>	(µg/L)	—————>				
	1/27/2005	6.25	173.79	--	3,300	<5.0	22	18	320	<50	a
	4/6/2005	5.90	174.14	Sheen	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	Sheen	Field & Lab	23,000	140	370	240	2,100	ND<500
	1/30/2006	5.96	174.08	Sheen	Field & Lab	2,500	1.0	8.7	ND<1.0	130	ND<10
	4/11/2006	5.63	174.41	Sheen	Field	1,200	1.3	3.1	1.7	54	ND<5.0
	7/14/2006	6.65	173.39	Sheen	Field & Lab	13,000	27	66	30	480	ND<50
	10/13/2006	6.60	173.44	Sheen	Field & Lab	23,000	170	390	260	2,500	ND<250
	1/12/2007	6.50	173.54	Sheen	Field & Lab	17,000	72	130	70	1,600	ND<250
	4/20/2007	6.22	173.82	Sheen	Field & Lab	10,000	55	120	37	620	ND<50
	7/30/2007	6.95	173.09	Sheen	Field	41,000	120	580	270	3,100	ND<250
	10/24/2007	7.27	172.77	Sheen	Field & Lab	31,000	210	440	300	2,500	ND<200 (ND<5.0)
	1/15/2008	6.89	173.15	Sheen	Field & Lab	14,000	87	120	39	1,400	ND<100
	4/17/2008	7.80	172.24	Sheen	Field & Lab	21,000	35	150	71	1,100	ND<80
	7/9/2008	8.24	171.80	Sheen	Field & Lab	30,000	130	600	290	4,000	ND<180
	10/28/2008	8.78	171.26	Sheen	Field & Lab	36,000	270	780	530	4,600	ND<250
	1/20/2009	7.53	172.51	Sheen	Field & Lab	38,000	220	530	270	4,400	ND<500 (ND<12)
MW-6	6/27/1996	18.55	161.48	--	ND	ND	ND	ND	ND	--	
180.03	12/10/1996	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	
179.63	8/19/1999	13.10	166.93	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	11/23/1999	13.58	166.05	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	2/17/2000	10.72	168.91	--	ND<50	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<5.0	
	8/15/2000	12.49	167.14	--	ND<50	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<5.0	
	2/8/2001	8.20	171.43	--	ND<50	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<5.0	
	8/6/2001	8.69	170.94	--	ND<50	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<5.0	
	2/1/2002	8.31	171.32	--	ND<50	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<5.0	
	7/16/2002	8.84	170.79	--	ND<50	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<5.0	
	1/10/2003	6.99	172.64	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	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<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<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<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<5.0	
	1/12/2007	6.61	173.02	--	--	--	--	--	--	--	
	4/20/2007	6.45	173.18	--	--	--	--	--	--	--	
	7/30/2007	6.98	172.65	--	--	--	--	--	--	--	
MW-6 cont'd	10/24/2007	7.30	172.33	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	

TABLE 2

GROUNDWATER ELEVATION AND ANALYTICAL DATA
GATZKE/HOOSHI'S AUTO SERVICE
1499 MACARTHUR BOULEVARD, OAKLAND, CALIFORNIA

Well ID	Date	TOC Depth to Groundwater TOC (ft*)	Groundwater Elevation (ft msl**)	SPH Thickness (ft)	TPHg	Benzene	Toluene	Ethylbenzene ($\mu\text{g/L}$)	Xylenes	MTBE	Notes
	1/15/2008	6.93	172.70	--	--	--	--	--	--	--	--
	4/17/2008	7.78	171.85	--	--	--	--	--	--	--	--
	7/9/2008	8.22	171.41	--	--	--	--	--	--	--	--
	10/28/2008	8.73	170.90	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	1/20/2009	7.55	172.08	--	--	--	--	--	--	--	--
Trip Blank	5/8/1998	--	--	--	ND<50	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<5.0	
	5/27/1999	--	--	--	ND<50	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<5.0	
	12/1/2000	--	--	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
MCLs	--	--	--	--	NE	1	150	700	1,750	NE	

Abbreviations and Methods:

TOC = Top of casing elevation

ft = Measured in feet

ft msl = elevation in feet mean sea level.

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 or SW8260B in parenthesis.

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

-- = Not sampled, not analyzed, not applicable, or no SPH measured or observed.

ND<0.5 = Not Detected (ND) above Detection Limit.

x.x/y.y = Result of EPA Method SW8021B / Result of EPA Method SW8260B

TOC Depth to Groundwater = Groundwater depth measured in feet below TOC

Sheen = A sheen was observed on the water's surface.

Field = Observed in the field

Lab = Observed in analytical laboratory

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.

i - Liquid sample contains greater than ~1 vol. % sediment

j - Sample diluted due to high organic content.

* = 2006 grab groundwater samples collected from 20 ft bgs.

** = 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



MUSKAN ENVIRONMENTAL SAMPLING

WELL GAUGING SHEET



MUSKAN
ENVIRONMENTAL
SAMPLING

WELL SAMPLING FORM

Date:	1/20/2009						
Client:	Conestoga-Rovers and Associates						
Site Address:	1499 MacArthur Boulevard, Oakland, CA						
Well ID:	MW-1						
Well Diameter:	2"						
Purging Device:	Disposable Bailer						
Sampling Method:	Disposable Bailer						
Total Well Depth:	20.05		Fe=	mg/L			
Depth to Water:	8.39		ORP=	mV			
Water Column Height:	11.66		DO=	mg/L			
Gallons/ft:	0.16						
1 Casing Volume (gal):	1.87		COMMENTS: very turbid				
3 Casing Volumes (gal):	5.60						
TIME:	CASING VOLUME (gal)	TEMP (Celsius)	pH	COND. (µS)			
10:45	1.9	18.9	7.41	822			
10:48	3.7	18.6	7.38	840			
10:50	5.6	18.2	7.35	849			
Sample ID:	Sample Date:	Sample Time:	Container Type	Preservative	Analytes	Method	
MW-1	1/20/2009	10:55	40 ml VOA	HCl, ICE	TPHg BTEX MTBE	8015, 8021, 8260	
					Signature: 		



WELL SAMPLING FORM

Date:	1/20/2009							
Client:	Conestoga-Rovers and Associates							
Site Address:	1499 MacArthur Boulevard, Oakland, CA							
Well ID:	MW-2							
Well Diameter:	2"							
Purging Device:								
Sampling Method:								
Total Well Depth:	Fe= mg/L							
Depth to Water:	7.69 ORP= mV							
Water Column Height:	DO= mg/L							
Gallons/ft:								
1 Casing Volume (gal):	COMMENTS: SPH @ 7.65, DTW @ 7.69, SPH thickness = 0.04, well not sampled							
3 Casing Volumes (gal):								
TIME:					CASING VOLUME (gal)	TEMP (Celsius)	pH	COND. (µS)
Sample ID:	Sample Date:	Sample Time:	Container Type	Preservative	Analytes	Method		
					Signature: 			



WELL SAMPLING FORM

Date:	1/20/2009					
Client:	Conestoga-Rovers and Associates					
Site Address:	1499 MacArthur Boulevard, Oakland, CA					
Well ID:	MW-5					
Well Diameter:	2"					
Purging Device:	Disposable Bailer					
Sampling Method:	Disposable Bailer					
Total Well Depth:	14.70					
Depth to Water:	7.53					
Water Column Height:	7.17					
Gallons/ft:	0.16					
1 Casing Volume (gal):	1.15					
3 Casing Volumes (gal):	3.44					
TIME:	CASING VOLUME (gal)	TEMP (Celsius)	pH	COND. (µS)		
11:05	1.1	18.1	7.42	517		
11:08	2.3	18.2	7.46	520		
11:10	3.4	18.3	7.40	523		
Sample ID:	Sample Date:	Sample Time:	Container Type	Preservative	Analytes	Method
MW-5	1/20/2009	11:15	40 ml VOA	HCl, ICE	TPHg BTEX MTBE	8015, 8021, 8260
					Signature: 	

APPENDIX B

LABORATORY ANALYTICAL REPORT



McCampbell 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

Conestoga-Rovers & Associates 5900 Hollis St, Suite A Emeryville, CA 94608	Client Project ID: #120741; Hooshi's	Date Sampled: 01/20/09
		Date Received: 01/20/09
	Client Contact: Mark Jonas	Date Reported: 01/23/09
	Client P.O.:	Date Completed: 01/26/09

WorkOrder: 0901343

January 26, 2009

Dear Mark:

Enclosed within are:

- 1) The results of the 2 analyzed samples from your project: **#120741; Hooshi's**,
- 2) A QC report for the above samples,
- 3) A copy of the chain of custody, and
- 4) An invoice 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 or concerns, please feel free to give me a call. Thank you for choosing
McCampbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McCampbell Analytical, Inc.



McCAMPBELL ANALYTICAL, INC.

1534 WILLOW PASS ROAD
PITTSBURG, CA 94565-1701Website: www.mccampbell.com Email: main@mccampbell.com
Telephone: (877) 252-9262 Fax: (925) 252-9269

0901343

CHAIN OF CUSTODY RECORD

TURN AROUND TIME

RUSH 24 HR 48 HR 72 HR 5 DAY

GeoTracker EDF PDF Excel Write On (DW) Check if sample is effluent and "J" flag is required

Report To: Mark Jones Bill To: Conestoga-Rovers & Associates
 Company: Conestoga-Rovers & Associates
 5900 Wallis St., Ste. A
 Emeryville, CA E-Mail: jonas@crworld.com
 Tele: (510) 420-3307 Fax: (510) 420-9170
 Project #: 120741 Project Name: Hooshis
 Project Location: 1409 MacArthur Blvd., Oakland, CA
 Sampler Signature: MusKan Environmental Sampling llc

SAMPLE ID	LOCATION/ Field Point Name	SAMPLING		# Containers	Type	MATRIX	METHOD PRESERVED	Analysis Request										Other	Comments								
		Date	Time					Water	Air	Sludge	Other	ICE	HCL	HNO ₃	Other	BTEX & TPH as Gas (602 / 8021 + 8015) / MTBE	TPH as Diesel (8015)	Total Petroleum Oil & Grease (1664 / 5520 E/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 502.2 / 601 / 8010 / 8021 (HVOCs)	MTBE / BTEX ONLY (EPA 602 / 8021)	EPA 505/ 608 / 8081 (Cl Pesticides)	EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners	EPA 507 / 8141 (NP Pesticides)	EPA 515 / 8151 (Acidic Cl Herbicides)	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)
MW-1		1-20-09	10:55	4	Vog	X				X		X			X												
MW-5		X	11:15	4	Vog	X				X		X			X												

Relinquished By:	Date: 1-20-09	Time: 12:20 PM	Received By: ENVIRONMENTAL SERVICES 1-20-09 RAB
Relinquished By: ENVIRONMENTAL SERVICES RAB	Date: 1-20-09	Time: 14:31	Received By: ENVIRONMENTAL SERVICES
Relinquished By: D	Date: 1/20/09	Time: 9:10	Received By: ENVIRONMENTAL SERVICES

ICE/t^o YES 3405
 GOOD CONDITION
 HEAD SPACE ABSENT
 DECHLORINATED IN LAB WA
 APPROPRIATE CONTAINERS
 PRESERVED IN LAB WA

VOAS	O&G	METALS	OTHER
PRESERVATION			pH<2

McCampbell Analytical, Inc.

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

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

WorkOrder: 0901343

ClientCode: CETE

WriteOn EDF Excel Fax Email HardCopy ThirdParty J-flag

Report to:

Mark Jonas Email: mjonas@CRAworld.com
Conestoga-Rovers & Associates cc: mwerner@craworld.com
5900 Hollis St, Suite A PO:
Emeryville, CA 94608 ProjectNo: #120741; Hooshi's
(510) 420-0700 FAX (510) 420-9170

Bill to:

Accounts Payable
Conestoga-Rovers & Associates
5900 Hollis St, Ste. A
Emeryville, CA 94608

Requested TAT: 5 days

Date Received: 01/20/2009

Date Printed: 01/20/2009

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
0901343-001	MW-1	Water	1/20/2009 10:55	<input type="checkbox"/>	A											
0901343-002	MW-5	Water	1/20/2009 11:15	<input type="checkbox"/>	A											

Test Legend:

1	G-MBTEX_W
6	
11	

2	
7	
12	

3	
8	

4	
9	

5	
10	

Prepared by: Samantha Arbuckle

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

**McCampbell Analytical, Inc.**

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Telephone: 877-252-9262 Fax: 925-252-9269

Sample Receipt Checklist

Client Name: **Conestoga-Rovers & Associates**Date and Time Received: **01/20/09 8:07:56 PM**Project Name: **#120741; Hooshi's**Checklist completed and reviewed by: **Samantha Arbuckle**WorkOrder N°: **0901343** Matrix WaterCarrier: Rob Pringle (MAI Courier)

Chain of Custody (COC) Information

- Chain of custody present? Yes No
- Chain of custody signed when relinquished and received? Yes No
- Chain of custody agrees with sample labels? Yes No
- Sample IDs noted by Client on COC? Yes No
- Date and Time of collection noted by Client on COC? Yes No
- Sampler's name noted on COC? Yes No

Sample Receipt Information

- Custody seals intact on shipping container/cooler? Yes No NA
- Shipping container/cooler in good condition? Yes No
- Samples in proper containers/bottles? Yes No
- Sample containers intact? Yes No
- Sufficient sample volume for indicated test? Yes No

Sample Preservation and Hold Time (HT) Information

- All samples received within holding time? Yes No
- Container/Temp Blank temperature Cooler Temp: 3.9°C NA
- Water - VOA vials have zero headspace / no bubbles? Yes No No VOA vials submitted
- Sample labels checked for correct preservation? Yes No
- TTLC Metal - pH acceptable upon receipt (pH<2)? Yes No NA
- Samples Received on Ice? Yes No

(Ice Type: WET ICE)

* NOTE: If the "No" box is checked, see comments below.

Client contacted:

Date contacted:

Contacted by:

Comments:



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Telephone: 877-252-9262 Fax: 925-252-9269

Conestoga-Rovers & Associates
5900 Hollis St, Suite A
Emeryville, CA 94608

Client Project ID: #120741; Hooshi's

Date Sampled: 01/20/09

Telephone: 877-252-9262 Fax: 925-252-9269

Telephone: 877-252-9262 Fax: 925-252-9269

Client Contact: Mark Jonas

Date Extracted: 01/21/09-01/22/09

Client P.O.:

Date Analyzed 01/21/09-01/22/09

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

Extraction method SW5030B

Analytical methods SW8021B/8015Bm

Work Order: 0901343

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5	0.5	0.5	0.5	0.5	µg/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	mg/Kg

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in $\mu\text{g}/\text{wipe}$, product/oil/non-aqueous liquid samples in mg/L.

cluttered chromatogram: sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation:

b6) lighter than water immiscible sheen/product is present

d1) weakly modified or unmodified gasoline is significant

d9) no recognizable pattern



QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 40889

WorkOrder 0901343

EPA Method SW8021B/8015Bm		Extraction SW5030B								Spiked Sample ID: 0901326-009A			
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) ^f	ND	60	97.8	105	7.51	98.8	103	4.46	70 - 130	20	70 - 130	20	
MTBE	ND	10	93.2	99.4	6.44	89.4	99.8	11.0	70 - 130	20	70 - 130	20	
Benzene	ND	10	84.5	90	6.32	82.5	92.4	11.4	70 - 130	20	70 - 130	20	
Toluene	ND	10	85.9	91.8	6.62	83.6	93	10.7	70 - 130	20	70 - 130	20	
Ethylbenzene	ND	10	86.1	92.4	7.01	84.1	92.8	9.84	70 - 130	20	70 - 130	20	
Xylenes	ND	30	94.7	103	7.97	94.7	104	9.62	70 - 130	20	70 - 130	20	
%SS:	108	10	99	102	3.18	101	102	0.986	70 - 130	20	70 - 130	20	

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

BATCH 40889 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0901343-001A	01/20/09 10:55 AM	01/22/09	01/22/09 6:14 PM	0901343-002A	01/20/09 11:15 AM	01/21/09	01/21/09 10:56 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.

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

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

NR = matrix interference and/or 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, or inconsistency in sample containers.



McCampbell 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

Conestoga-Rovers & Associates 5900 Hollis St, Suite A Emeryville, CA 94608	Client Project ID: #120741; Hooshi's	Date Sampled: 01/20/09
		Date Received: 01/20/09
	Client Contact: Mark Jonas	Date Reported: 01/23/09
	Client P.O.:	Date Completed: 01/26/09

WorkOrder: 0901343

January 26, 2009

Dear Mark:

Enclosed within are:

- 1) The results of the **1** analyzed sample from your project: **#120741; Hooshi's**,
- 2) A QC report for the above sample,
- 3) A copy of the chain of custody, and
- 4) An invoice 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 or concerns, please feel free to give me a call. Thank you for choosing
McCampbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McCampbell Analytical, Inc.



McCAMPBELL ANALYTICAL, INC.

1534 WILLOW PASS ROAD
PITTSBURG, CA 94565-1701Website: www.mccampbell.com Email: main@mccampbell.com
Telephone: (877) 252-9262 Fax: (925) 252-9269

0901343

Report To: Mark Jones

Bill To: Conestoga-Rovers & Associates

Company: Conestoga-Rovers & Associates
5900 Hall St. Ste A
Emeryville, CA

Tele: (510) 420-3307

Project #: 120741

Project Location: 1409 MacArthur Blvd., Oakland, CA

Sampler Signature: MusKem Environmental Sampling Inc.

E-Mail: mjones@crwold.com

Fax: (510) 420-9170

Project Name: Hoashi's

Analysis Request

Other

Comments
Filter Samples for Metals analysis:
Yes / No

CHAIN OF CUSTODY RECORD

TURN AROUND TIME

RUSH 24 HR 48 HR 72 HR 5 DAYGeoTracker EDF PDF Excel Write On (DW) Check if sample is effluent and "J" flag is required

SAMPLE ID	LOCATION/ Field Point Name	SAMPLING		# Containers	Type Containers	MATRIX	METHOD PRESERVED	BTEX & TPH as Gas (602 / 8021 + 8015) / MTBE	TPH as Diesel (8015)	Total Petroleum Oil & Grease (1664 / 5520 E/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 502.2 / 601 / 8010 / 8021 (HVOCs)	MTBE / BTEX ONLY (EPA 602 / 8021)	EPA 505 / 608 / 8081 (Cl Pesticides)	EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners	EPA 507 / 8141 (NP Pesticides)	EPA 515 / 8151 (Acidic Cl Herbicides)	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAs)	CAM17 Metals (200.7 / 200.8 / 6010 / 6020)	LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020)	Lead (200.7 / 200.8 / 6010 / 6020)	Other	Comments
		Date	Time																						
MW-4		1-20-09	10:55	4	Vog	X																			
MW-5		X	11:15	4	Vog	X																			

Relinquished By:

Date: 1-20-09

Time: 12:20 PM

Received By:

ENVIROTECH SERVICES
1-20-09
PMSICE/t° *yes 39.9*

GOOD CONDITION

HEAD SPACE ABSENT

DECHLORINATED IN LAB

APPROPRIATE CONTAINERS

PRESERVED IN LAB

COMMENTS:

Envirotech Services
PMS

Date: 1-20-09

Time: 14:31

Received By:

Signature

Relinquished By:

Date: 1/20/09

Time: 9:10

Received By:

*Signature*VOAS O&G METALS OTHER
PRESERVATION pH<2+ + CONCERNED
MW-5
MW-4
MTBE b1 8260 1/23/09

McCampbell Analytical, Inc.

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

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

WorkOrder: 090134 A ClientCode: CETE

WriteOn EDF Excel Fax Email HardCopy ThirdParty J-flag

Report to:

Mark Jonas Email: mjonas@CRAworld.com
Conestoga-Rovers & Associates cc: mwerner@craworld.com
5900 Hollis St, Suite A PO:
Emeryville, CA 94608 ProjectNo: #120741; Hooshi's
(510) 420-0700 FAX (510) 420-9170

Bill to:

Accounts Payable
Conestoga-Rovers & Associates
5900 Hollis St, Ste. A
Emeryville, CA 94608

Requested TAT: 5 days

Date Received: 01/20/2009

Date Add-On: 01/23/2009

Date Printed: 01/23/2009

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
0901343-002	MW-5	Water	1/20/2009 11:15	<input type="checkbox"/>	A											

Test Legend:

1	MTBE_W
6	
11	

2	
7	
12	

3	
8	

4	
9	

5	
10	

Prepared by: Samantha Arbuckle

Comments: MTBE by 8260 added on 002 1/23/09

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.



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Conestoga-Rovers & Associates 5900 Hollis St, Suite A Emeryville, CA 94608	Client Project ID: #120741; Hooshi's	Date Sampled: 01/20/09
		Date Received: 01/20/09
	Client Contact: Mark Jonas	Date Extracted: 01/23/09
	Client P.O.:	Date Analyzed 01/23/09

Methyl tert-Butyl Ether*

Extraction method SW5030B

Analytical methods SW8260B

Work Order: 0901343

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

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

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

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

a3) sample diluted due to high organic content / matrix interference



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 Web: www.mccampbell.com E-mail: main@mccampbell.com
 Telephone: 877-252-9262 Fax: 925-252-9269

QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 40951

WorkOrder: 0901343

EPA Method: SW8260B			Extraction: SW5030B			Spiked Sample ID: 0901447-001B									
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			
Methyl-t-butyl ether (MTBE)	ND	10	98.9	97.9	0.959	90.2	93.7	3.77	70 - 130	30	70 - 130	30			
%SS1:	94	25	89	88	0.459	87	89	2.13	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 40951 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0901343-002A	01/20/09 11:15 AM	01/23/09	01/23/09 5:39 PM				

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

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

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

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

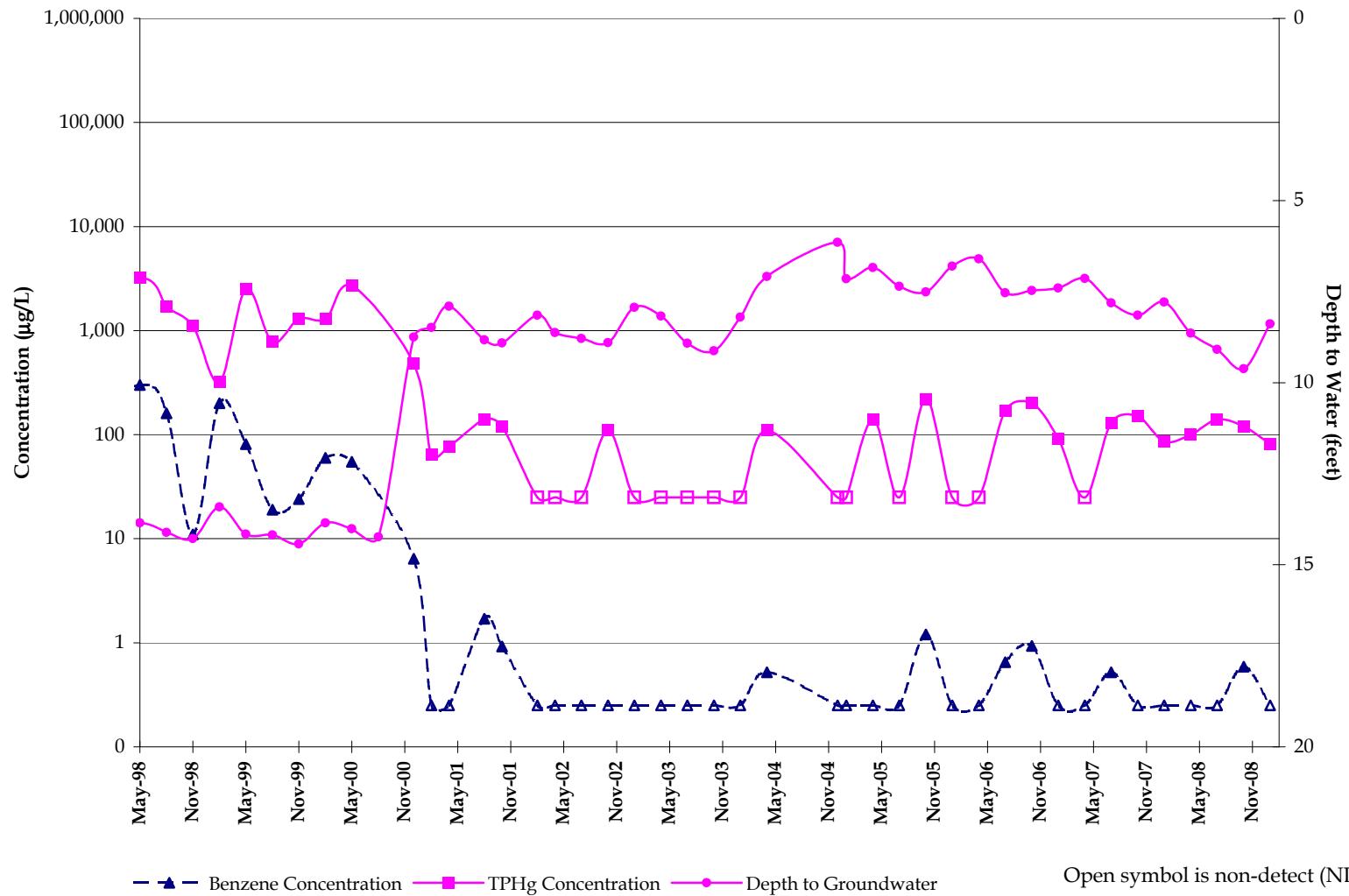
NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

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

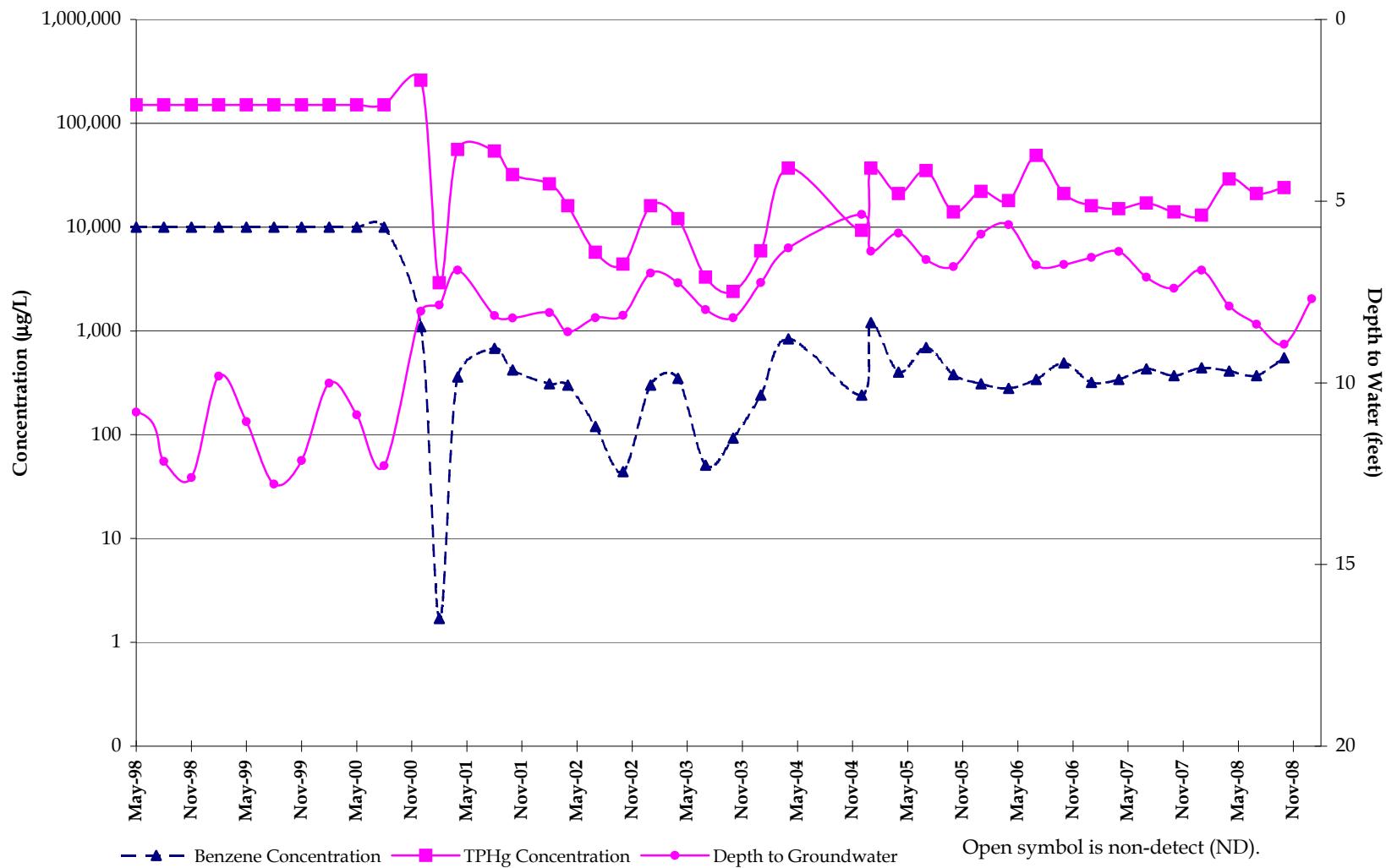
APPENDIX C

TPH_g AND BENZENE CONCENTRATION TREND GRAPHS

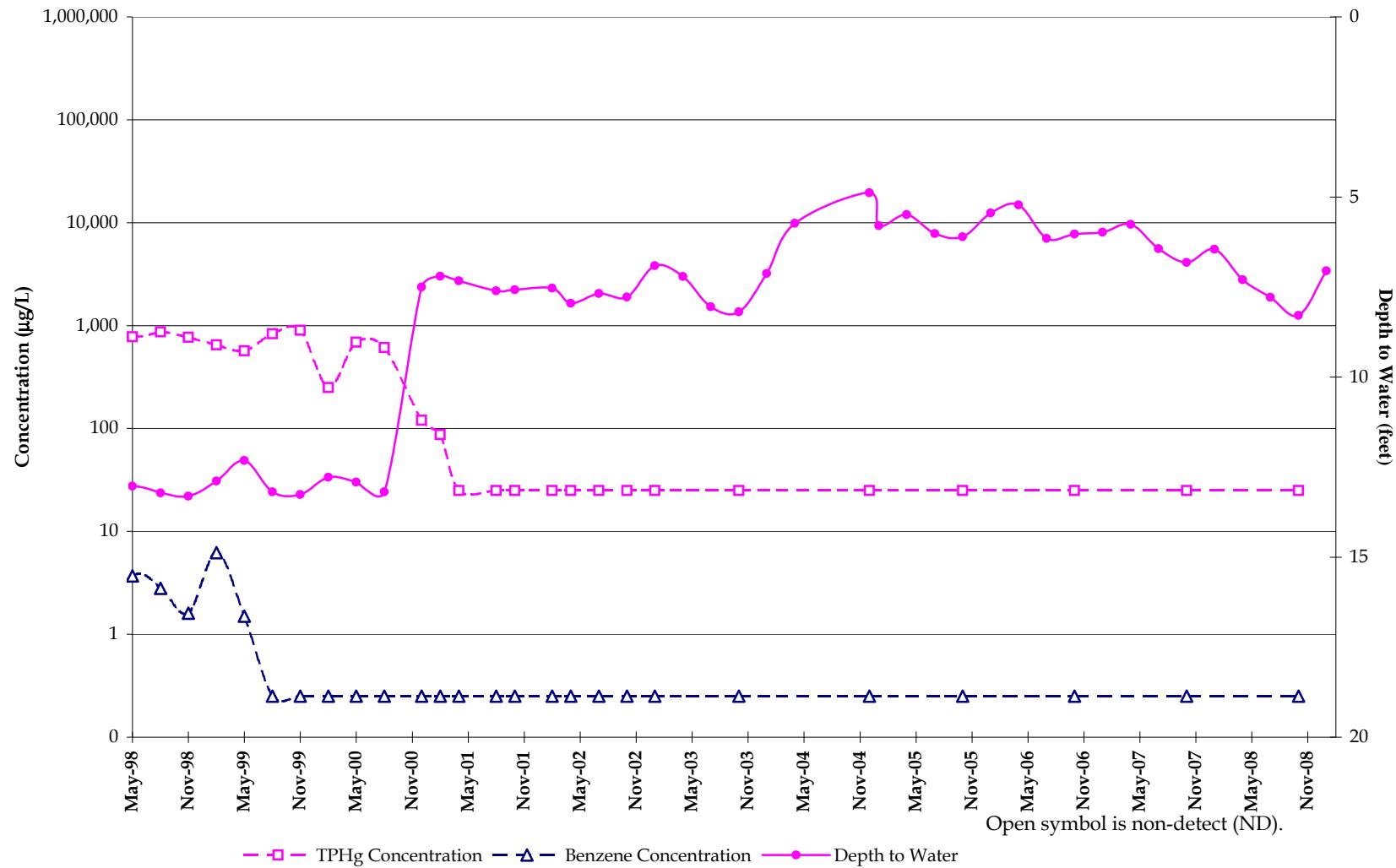
Monitoring Well MW-1
TPHg and Benzene Concentration Trend
Hooshi's Auto Service, 1499 MacArthur Boulevard, Oakland, CA



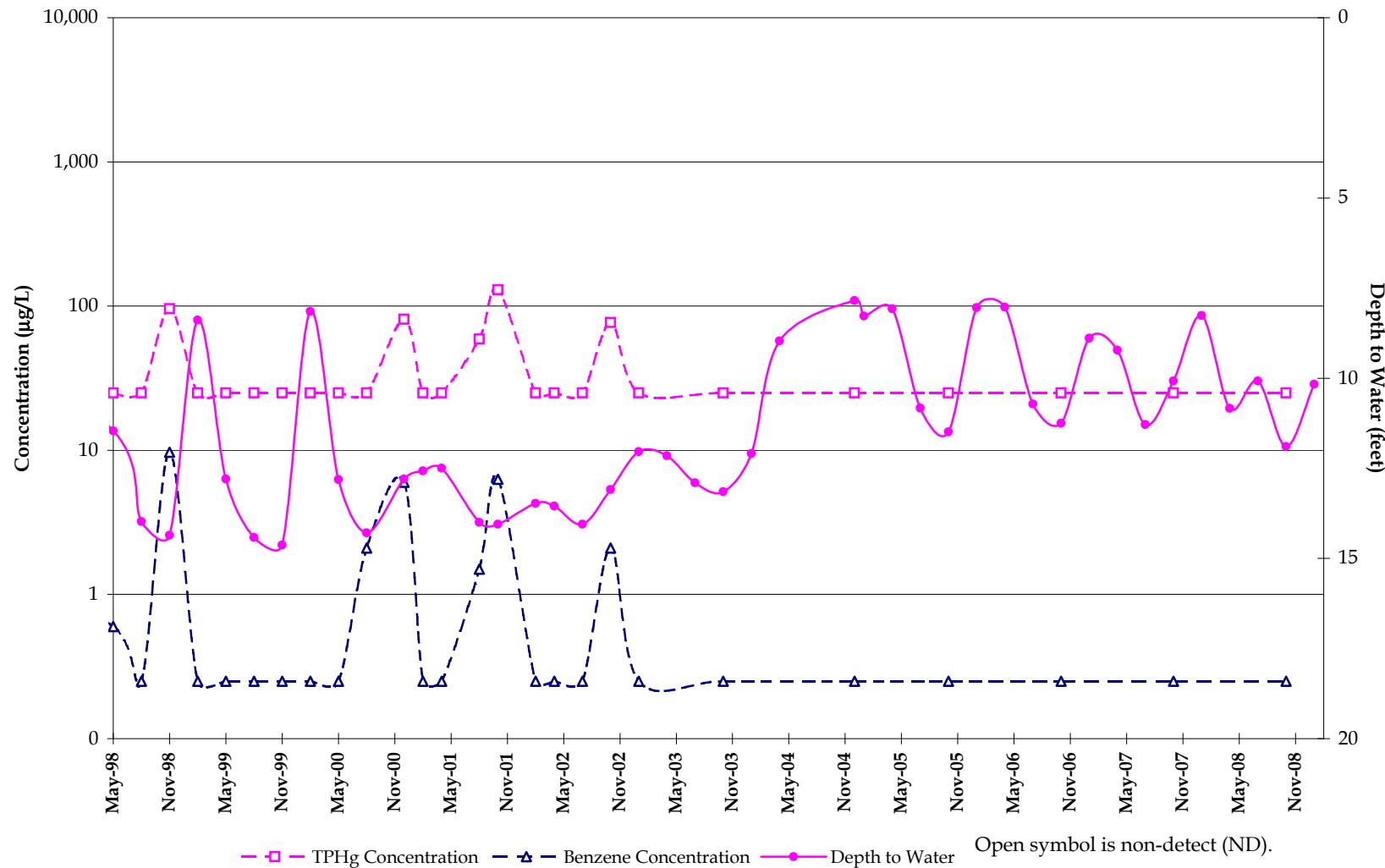
Monitoring Well MW-2
TPHg and Benzene Concentration Trend
Hooshi's Auto Service, 1499 MacArthur Boulevard, Oakland, CA



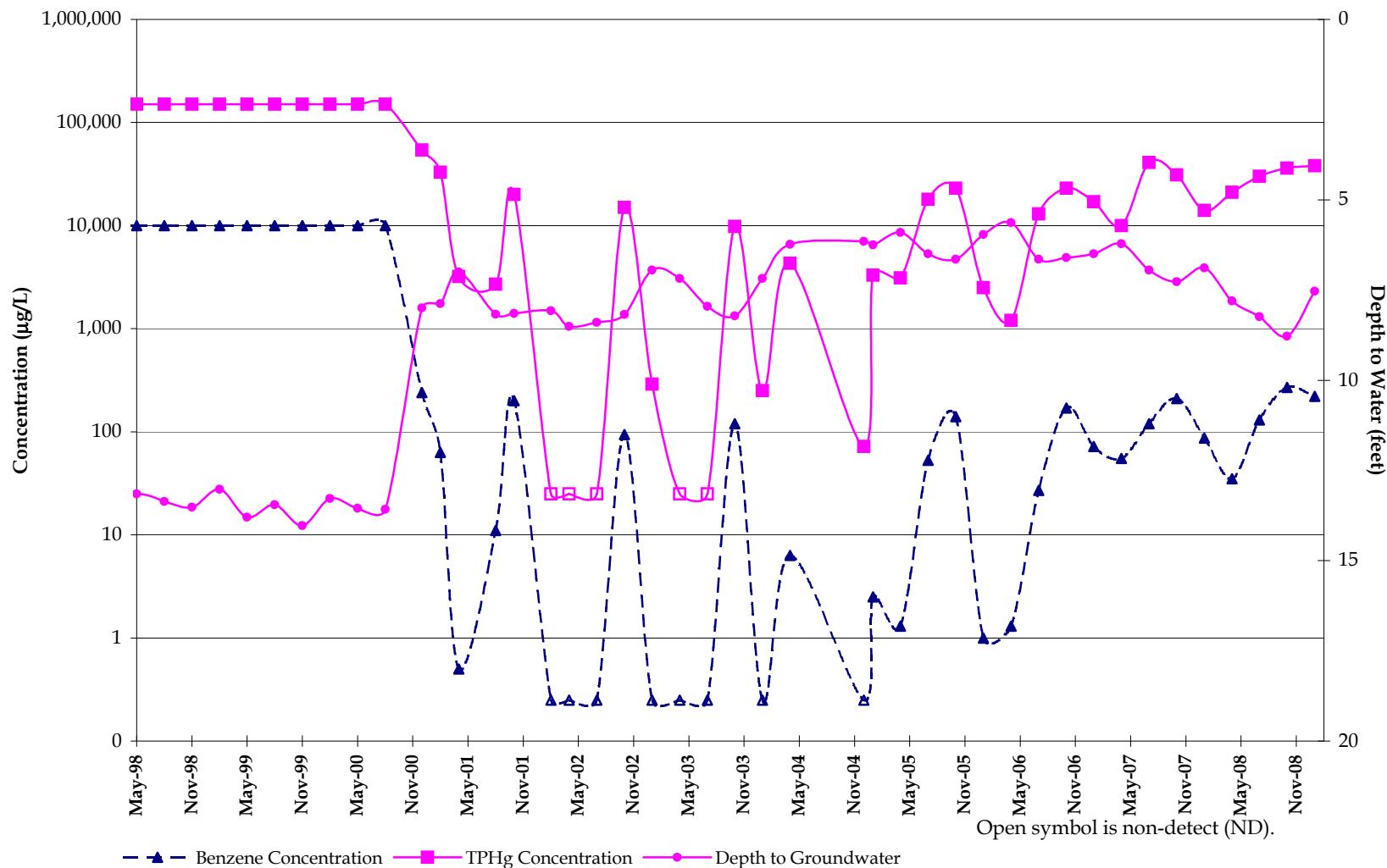
Monitoring Well MW-3
TPHg and Benzene Concentration Trend
Hooshi's Auto Service, 1499 MacArthur Boulevard, Oakland, CA



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



Monitoring Well MW-6
TPHg and Benzene Concentration Trend
Hooshi's Auto Service, 1499 MacArthur Boulevard, Oakland, CA

