



May 31, 2005

Mr. Don Hwang
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

Re: **Groundwater Monitoring Report - Fourth Quarter 2004**
Connell Automobile Dealership
3093 Broadway
Oakland, California
ACHCSA Case No. 469

Dear Mr. Hwang:

On behalf of Mr. George Hill and Mr. Gordon Linden, Pangea Environmental Services, Inc. has prepared this *Groundwater Monitoring Report – Fourth Quarter 2004* for the subject site. This report describes groundwater monitoring, sampling and other site activities.

I declare, under penalty of perjury, that the information contained in the attached report is true and correct to the best of my knowledge. If you have any questions or comments, please call me at (510) 435-8664.

Sincerely,
Pangea Environmental Services, Inc.

Bob Clark-Riddell, P.E.
Principal Engineer

Attachments: *Groundwater Monitoring Report – Fourth Quarter 2004*

cc: Mr. George Hill, 305 Sheridan Avenue, Piedmont, California 94611
Mr. Gordon Linden, 150 La Salle Avenue, Piedmont, California 94611
Mr. Paul Kibel, Fitzgerald, Abbott & Beardsley, LLP, 1221 Broadway, 21st Floor, Oakland, California 94612
Mr. Leroy Griffin, Hazardous Materials Manager, Fire Department - OES, 1605 MLK Jr. Way, Oakland, California 94612

PANGEA Environmental Services, Inc.

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GROUNDWATER MONITORING REPORT - FOURTH QUARTER 2004

**Connell Automobile Dealership
3093 Broadway
Oakland, California
ACHCSA Case No. 469**

May 31, 2005

Prepared for:

Mr. George Hill
305 Sheridan Avenue
Piedmont, California 94611

and

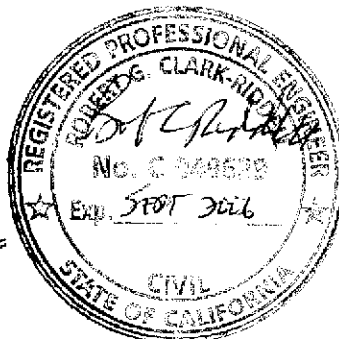
Mr. Gordon Linden
150 La Salle Avenue
Piedmont, California 94611


Prepared by:

Pangea Environmental Services, Inc.
436 14th Street, Suite 1123
Oakland, California 94612

Written by:


Morgan Gillies
Project Manager




Robert Clark-Riddell, P.E.
Principal Engineer

PANGEA Environmental Services, Inc.

INTRODUCTION

As required by the Alameda County Health Care Services Agency (ACHCSA), Pangea Environmental Services, Inc. (Pangea) has prepared this *Groundwater Monitoring Report – Fourth Quarter 2004* for the subject site. On behalf of Mr. George Hill and Mr. Gordon Linden, Pangea coordinated groundwater monitoring, sampling, and separate-phase hydrocarbon (SPH) bailing during this quarter at the subject site (Figure 1). The purpose of the monitoring and sampling is to evaluate groundwater flow direction, concentrations of dissolved hydrocarbons in groundwater, and the presence of SPH. The purpose of the SPH bailing is to provide additional remediation of residual hydrocarbons. The groundwater monitoring well locations and select site features are shown on Figure 2. Historical and current analytical results and groundwater elevation data are summarized on Figure 2 and Tables 1, 2 and 3. Table 4 presents summaries of SPH removal to date.

SITE DESCRIPTION AND BACKGROUND

The site is located on the hillside of “Pill Hill.” The upper portion of the site is near the former USTs (the presumed source area), while the lower portion of the site is near the bottom of the hill. Three underground storage tanks (USTs) that previously contained gasoline, diesel, and waste oil were removed from the site in December 1989. Soil and groundwater assessment has been ongoing since 1990. Between October 1996 and March 1998, operation of a soil vapor extraction (SVE) remediation system removed approximately 1,421 pounds of hydrocarbons. Manual removal of separate phase hydrocarbons (SPH) from monitoring wells has been conducted at the site since 1991. Chemicals of concern at the site are petroleum hydrocarbons, halogenated volatile organic compounds (e.g., 1,2 dichloroethane) and semi-volatile organic compounds (e.g., naphthalene). The petroleum hydrocarbons of concern are total petroleum hydrocarbons as gasoline (TPHg), total petroleum hydrocarbons as diesel (TPHd), benzene, toluene, ethylbenzene, and xylenes (BTEX). Compounds quantified as total petroleum hydrocarbons as motor oil (TPHmo) may be the heavier fraction of TPHd. Methyl tertiary butyl ether (MTBE) is not a constituent of concern at this site.

GROUNDWATER MONITORING AND SAMPLING

On December 27, 2004, Blaine Tech Services, Inc. (Blaine Tech) of San Jose, California, gauged depth-to-water groundwater levels and checked for SPH in accordance with the well monitoring protocol in Appendix A. The well monitoring protocol involves quarterly gauging of source area groundwater monitoring wells (MW-1, MW-6, MW-14 and MW-15), and quarterly gauging and sampling of select downgradient and crossgradient groundwater monitoring wells (MW-4, MW-7, MW-8, MW-9 and MW-13). Source area wells are sampled during the first quarter of each year, if no SPH is present.

Prior to sampling, groundwater levels and SPH thickness were measured in the wells within 45 minutes to evaluate groundwater elevation and flow patterns at the site. To facilitate groundwater sampling, approximately three well-casing volumes of groundwater were purged prior to sampling. The sampling technician recorded groundwater pH, conductivity, and temperature, and evaluated reading stabilization. Groundwater samples were collected using clean, disposable bailers and were decanted into the appropriate containers supplied by the analytical laboratory. Samples were labeled, placed in protective plastic bags, stored on crushed, water-based ice at or below 4 degrees Celsius and transported under chain-of-custody to the laboratory. Field data sheets are presented as Appendix B.

MONITORING RESULTS

Current and historical groundwater elevation data and analytical results are summarized on Figure 2 and Tables 1, 2 and 3. In accordance with the approved sampling protocol, groundwater samples were analyzed for TPHg by modified EPA Method 8015C; TPHd and TPHmo by EPA Method 8015C with silica gel cleanup; and BTEX and MTBE by EPA Method 8021B. During the first quarter of each year, groundwater samples are also analyzed for halogenated volatile organic compounds (HVOCs) by EPA Method 8010. Dissolved oxygen was also measured in all sampled wells (Table 1). Table 1 summarizes current and historical analytical results for purgeable hydrocarbons and volatile organic compounds. Table 2 summarizes extractable hydrocarbons (TPHd and TPHmo) and semi-volatile organic compounds (SVOCs). Table 3 presents historical LUFT metals concentrations in groundwater data. Laboratory analyses were performed by McCampbell Analytical of Pacheco, California. The laboratory analytical report and chain of custody are included in Appendix C.

Groundwater Flow Direction

Based on depth-to-water measurements collected on December 27, 2004, groundwater beneath the upper portion of the site generally flows in the southeast direction toward the lower portion of the site. Groundwater at the lower portion of the site generally flows toward the northeast (Figure 2). The inferred flow direction is consistent with previous quarters. Depth to water and groundwater elevation data are presented in Table 1.

Hydrocarbon Distribution in Groundwater

SPH were detected in wells MW-1, MW-6, MW-14 and MW-15, ranging from a sheen to 0.44 feet in thickness. Hydrocarbon concentrations were detected in three of the five sampled wells. The maximum TPHg, TPHd, and benzene concentrations were detected in well MW-4 at 120,000 micrograms per liter ($\mu\text{g/L}$), 8,700 $\mu\text{g/L}$, and 16,000 $\mu\text{g/L}$, respectively. No hydrocarbons were detected in down/crossgradient well MW-7 or downgradient, offsite well MW-13. No MTBE was detected in the sampled wells.

OTHER SITE ACTIVITIES

SPH Removal this Quarter

SPH removal activities were conducted on December 27, 2004. A total of 0.14 gallons of SPH was removed during this quarter from wells MW-1, MW-6 and MW-14. SPH was removed from absorbent socks in MW-1 and MW-14, and from the skimmer in MW-6. Additionally, SPH was manually bailed from monitoring well MW-1. Approximately 155.10 gallons of SPH have been removed since SPH removal activities began in December 1991. Table 4 presents the SPH thickness measurements, amount of SPH removed from the wells, and cumulative volume of SPH removal.

Ongoing Monitoring and SPH Removal

Pangea will continue quarterly groundwater monitoring and SPH bailing in accordance with the approved monitoring protocol. All program wells will be gauged for depth to water and SPH, and dissolved oxygen will be measured in program wells without SPH. All groundwater samples will be analyzed for TPHg/BTEX/MTBE by EPA Method 8015Cm/8021B and for TPHd/TPHmo by EPA Method 8015 with silica gel cleanup. During the first quarter of each year, groundwater samples will also be analyzed for HVOCs by EPA Method 8010. Pangea will summarize groundwater monitoring activities and results in a groundwater monitoring report.

Interim Remediation

Pangea submitted an Interim Remedial Action Plan (IRAP) on November 11, 2004. The ACHCSA requested limited additional information in a letter dated April 7, 2005. On April 9, 2005 Pangea provided the requested information. Pangea is awaiting regulatory approval of the IRAP.

ATTACHMENTS

Figure 1 – Site Location Map

Figure 2 – Groundwater Elevation Contours and Hydrocarbon Concentration Map

Table 1 – Groundwater Elevation and Analytical Data: Volatile Hydrocarbons, HVOCs and DO

Table 2 – Groundwater Elevation and Analytical Data: Extractable Hydrocarbons and SVOCs

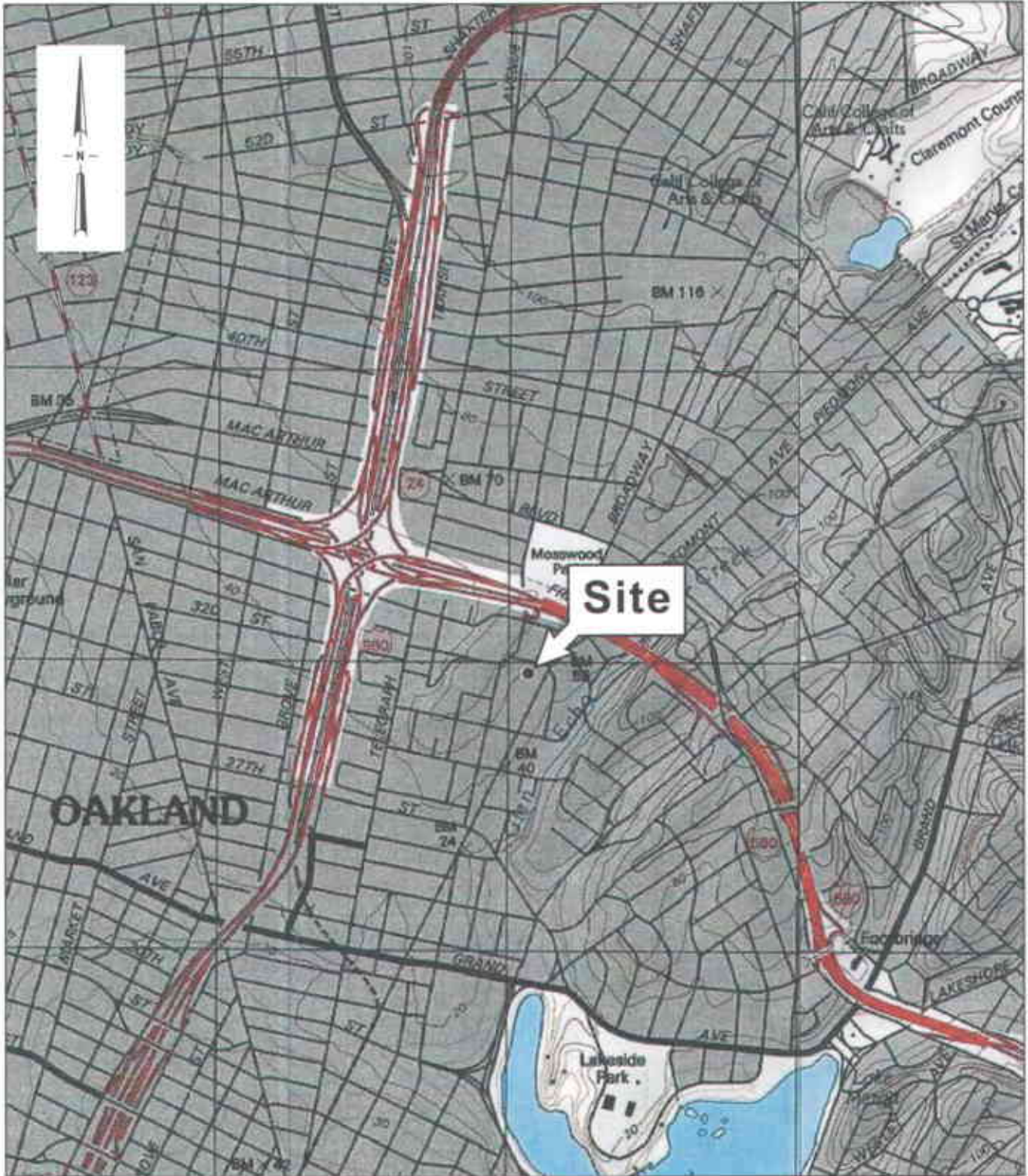
Table 3 – LUFT Metals in Groundwater

Table 4 – Separate-Phase Hydrocarbon Removal

Appendix A – Well Sampling Protocol

Appendix B – Field Data Sheets

Appendix C – Laboratory Analytical Report



SOURCE: FOPDI MAPS



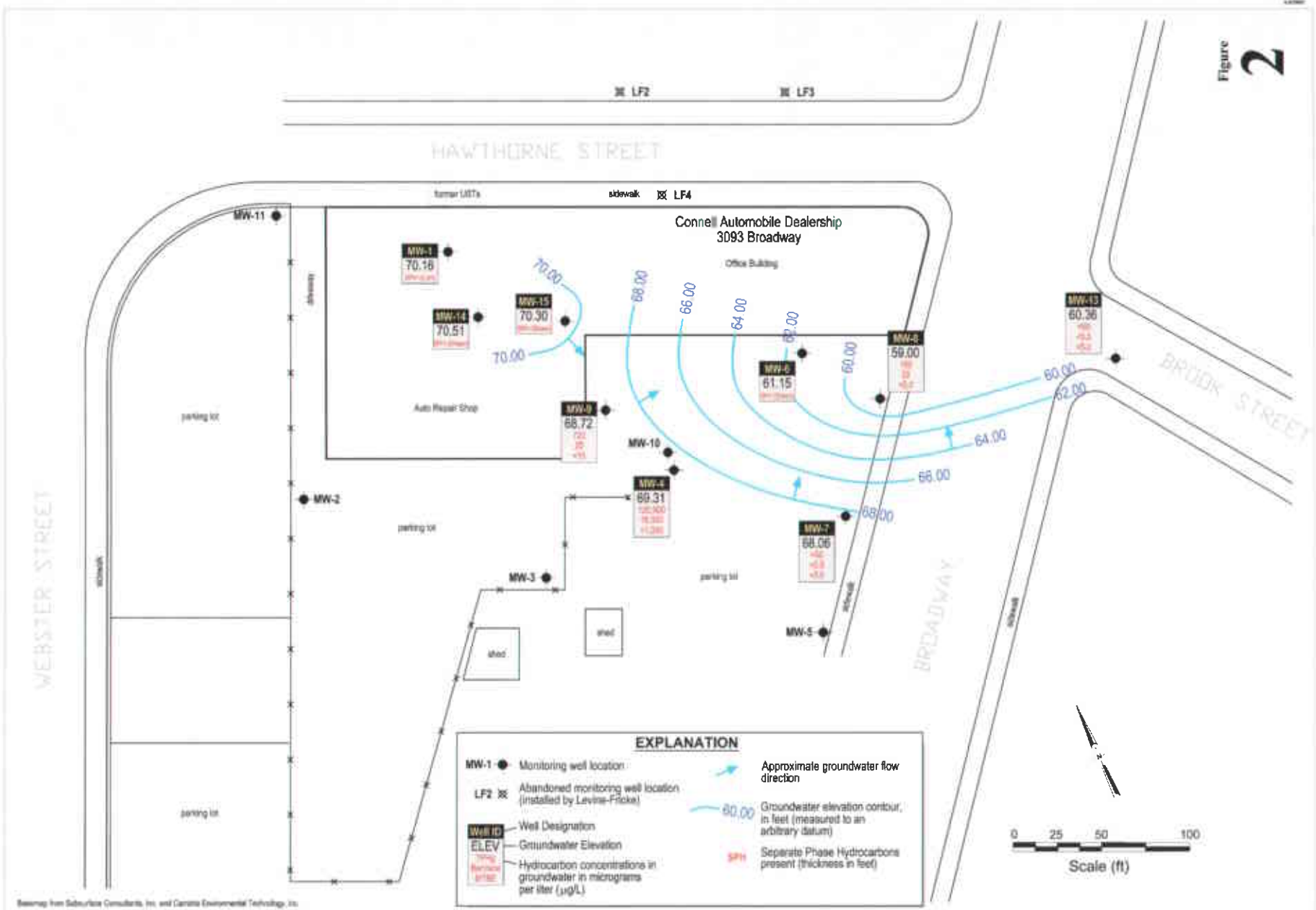
Figure

1

Vicinity Map

Connell Automobile Dealership
 3093 Broadway
 Oakland, California





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Table 1. Groundwater Elevation and Analytical Data: Volatile Hydrocarbons, HVOCs, and Dissolved Oxygen

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TVH/TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	1,2-DCA (µg/L)	Other HVOCs (µg/L)	DO (mg/L)
Monitoring Well Data												
MW-1	10/5/1990	26.40	68.08	620,000	33,000	50,000	7,900	41,000	--	--	ND	--
94.48	3/1/1991	27.46	67.02	SPH	--	--	--	--	--	--	--	--
	10/12/1992	26.44	68.04	490,000	51,000	59,000	5,000	27,000	--	--	--	--
	11/24/1992	26.63	67.85	320,000	35,000	43,000	4,200	22,000	--	--	ND	--
	4/5/1993	23.77	70.71	270,000	50,000	58,000	4,600	25,000	--	--	ND	--
	7/21/1993	24.51	69.97	SPH	--	--	--	--	--	--	--	--
	11/9/1993	26.06	68.42	SPH	--	--	--	--	--	--	--	--
	8/30/1995	21.73	72.75	SPH	--	--	--	--	--	--	--	--
	12/4/1995	21.94	72.54	SPH	--	--	--	--	<200	--	--	--
	5/2/1996	20.65	73.83	340,000	57,000	73,000	7,200	38,000	--	--	--	--
	11/5/1996	24.29	70.19	270,000	43,000	56,000	4,500	34,000	--	--	--	--
	5/9/1997	22.79	71.69	240,000	36,000	45,000	3,300	17,900	--	--	--	--
	11/5/1997	25.06	69.42	240,000	42,000	48,000	3,600	18,800	<1,000	--	--	--
	2/9/1998	22.64	71.84	220,000	47,000	60,000	5,200	29,800	<1,000	--	ND	--
	5/1/1998	19.95	74.53	160,000	35,000	42,000	2,800	16,000	<1,000	--	ND	--
	11/3/1998	23.29	71.19	200,000	39,000	49,000	4,400	26,000	<500	--	ND	--
	3/24/1999	22.30	72.18	SPH	--	--	--	--	--	--	--	--
	7/1/1999	22.70	71.78	SPH	--	--	--	--	--	--	--	--
	9/21/1999	23.81	70.67	SPH	--	--	--	--	--	--	--	--
	2/9/2000	23.95	70.59	SPH	--	--	--	--	--	--	--	--
	5/31/2000	22.05	72.43	SPH	--	--	--	--	--	--	--	--
	8/8/2000	22.49	71.99	SPH	--	--	--	--	--	--	--	--
	11/14/2000	24.65	69.83	SPH	--	--	--	--	--	--	--	--
	3/1/2001	24.22	70.28	SPH	--	--	--	--	--	--	--	--
	5/7/2001	23.85	70.67	SPH (0.05)	--	--	--	--	--	--	--	--
	8/1/2001	23.91	70.64	SPH (0.09)	--	--	--	--	--	--	--	--
	11/5/2001	23.95	70.67	SPH (0.18)	--	--	--	--	--	--	--	--
	2/13/2002	23.15	71.39	SPH(0.07)	--	--	--	--	--	--	--	--
	5/2/2002	23.91	70.60	SPH (0.04)	--	--	--	--	--	--	--	--
	8/4/2002	24.02	70.48	SPH (0.03)	--	--	--	--	--	--	--	--
	11/26/2002	24.47	70.05	SPH (0.05)	--	--	--	--	--	--	--	--
	1/20/2003	22.37	72.14	SPH (0.04)	--	--	--	--	--	--	--	--
	5/28/2003	21.77	72.73	SPH (0.02)	--	--	--	--	--	--	--	--

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Table 1. Groundwater Elevation and Analytical Data: Volatile Hydrocarbons, HVOCs, and Dissolved Oxygen

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TVH/TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	1,2-DCA (µg/L)	Other HVOCs (µg/L)	DO (mg/L)
MW-1 <i>(continued)</i>	8/5/2003	23.07	71.44	SPH (0.04)	--	--	--	--	--	--	--	--
	11/10/2003	22.53	71.97	SPH (0.03)	--	--	--	--	--	--	--	--
	2/18/2004	22.61	71.91	SPH (0.05)	--	--	--	--	--	--	--	--
	5/27/2004	22.08	72.44	SPH (0.05)	--	--	--	--	--	--	--	--
	8/19/2004	24.35	70.43	SPH (0.38)	--	--	--	--	--	--	--	--
	12/27/2004	24.62	70.16	SPH (0.44)	--	--	--	--	--	--	--	--
MW-2 94.85	3/1/1991	27.90	66.95	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	11/24/1992	27.95	66.90	<50	<0.5	1.1	<0.5	1.5	--	--	ND	--
	4/5/1993	25.99	68.86	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	7/21/1993	25.63	69.22	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	11/10/1993	26.76	68.09	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	8/30/1995	25.79	69.06	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--
	5/3/1996	23.32	71.53	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	5/8/1997	24.62	70.23	<50	<0.5	0.7	<0.5	<0.5	--	--	--	--
4/29/1998	22.22	72.63	<50	<0.5	<0.5	<0.5	<0.5	<2	--	ND	--	
MW-3 90.08	3/1/1991	23.17	66.91	<50	<50	0.6	<0.5	<0.5	--	--	ND	--
	11/25/1992	23.01	67.07	50	<0.5	0.9	<0.5	2	--	--	ND	--
	4/5/1993	22.11	67.97	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	7/21/1993	23.93	66.15	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	11/10/1993	23.14	66.94	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	8/30/1995	20.61	69.47	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--
	5/3/1996	18.43	71.65	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	5/8/1997	19.77	70.31	<50	<0.5	0.7	<0.5	<0.5	--	--	--	--
4/29/1998	17.92	72.16	<50	<0.5	<0.5	<0.5	<0.5	<2	--	ND	--	
MW-4 88.84	3/1/1991	23.79	65.05	150,000	20,000	38,000	2,800	14,000	**	--	ND	--
	10/12/1992	22.48	66.36	230,000	15,000	32,000	2,500	14,000	--	--	--	--
	11/24/1992	22.60	66.24	210,000	14,000	31,000	2,500	14,000	--	--	ND	--
	4/2/1993	20.11	68.73	SPH	--	--	--	--	--	--	--	--
	7/21/1993	20.48	68.36	SPH	--	--	--	--	--	--	--	--
	11/9/1993	21.71	67.13	SPH	--	--	--	--	--	--	--	--
	8/30/1995	19.90	68.94	SPH	--	--	--	--	--	--	--	--
	12/1/1995	19.40	69.44	SPH	--	--	--	--	--	--	--	--

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Well ID TOC Elev. (ft)	Sampling Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TVH/TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	1,2-DCA (µg/L)	Other HVOCs (µg/L)	DO (mg/L)
>>MW-4	5/2/1996	17.50	71.34	140,000	24,000	50,000	3,000	15,100	--	--	ND	--
(continued)	11/4/1996	20.13	68.71	160,000	16,000	38,000	2,700	14,000	--	--	ND	--
88.84	5/8/1997	18.63	70.21	170,000	16,000	37,000	2,400	15,900	--	--	--	--
	11/5/1997	20.19	68.65	190,000	15,000	31,000	2,200	14,600	<400	--	--	--
	2/9/1998	18.28	70.56	110,000	19,000	42,000	2,500	18,300	<500	--	--	--
	5/1/1998	16.11	72.73	130,000	15,000	31,000	2,000	13,400	<1,000	--	ND	--
	8/4/1998	17.54	71.30	130,000	16,000	34,000	2,400	15,700	<400	--	ND	--
	11/2/1998	19.21	69.63	140,000	16,000	32,000	2,300	15,500	<400	--	ND	--
	3/26/1999	17.51	71.33	110,000	15,000	30,000	1,600	15,000	450 ⁴	--	⁵	--
	7/1/1999	18.80	70.04	110,000	13,000	23,000	1,600	12,000	<83	--	⁵	--
	9/21/1999	19.85	68.99	140,000	16,000	31,000	2,400	14,800	ND	--	⁵	3.27
	2/9/2000	19.76	69.08	140,000	16,000	28,000	2,100	14,000	<400	--	DCB: 5.9, MCB: 5.9	--
	5/31/2000	17.90	70.94	15,000	17,000	28,000	2,400	14,000	<0.5 ⁶	--	ND	--
	8/8/2000	18.62	70.22	140,000	15,000	25,000	2,100	13,000	<300	--	ND	0.60
	11/14/2000	19.63	69.21	150,000	19,000	36,000	2,900	17,000	<200	--	ND	0.32
	3/1/2001	19.68	69.16	120,000	10,000	15,000	1,300	10,000	<2000	--	ND	0.13
	5/7/2001	18.60	70.24	210,000	12,000	19,000	1,900	12,000	<200	--	ND	0.23
	8/1/2001	18.73	70.11	160,000	13,000	21,000	2,200	13,000	<200	--	ND	--
	11/5/2001	18.97	69.87	220,000	15,000	26,000	3,100	16,000	<200	--	ND	--
	2/13/2002	18.59	70.25	180,000	6,100	11,000	1,400	13,000	<200	--	2-MNE: 620, NE: 1000	0.43
	5/2/2002	18.77	70.07	110,000	13,000	20,000	2,000	10,000	<1,200	--	ND	0.21
	8/4/2002	18.95	69.89	92,000	9,200	15,000	1,800	10,000	<2,000	--	ND	0.35
	11/26/2002	20.83	68.01	110,000	16,000	26,000	2,700	12,000	<1,000	--	ND	0.29
	1/20/2003	16.90	71.94	110,000	9,000	16,000	1,900	11,000	<1,200	--	ND	0.35
	5/28/2003	15.25	73.59	110,000	13,000	17,000	1,800	8,500	<1,000	--	ND	0.59
	8/5/2003	17.05	71.79	110,000	13,000	20,000	2,200	9,800	<1,000	--	<25	0.66
	11/10/2003	16.60	72.24	130,000	14,000	23,000	2,700	12,000	<2,700	--	--	0.74
	2/18/2004	16.59	72.25	110,000	11,000	17,000	1,600	9,900	<3,500	--	--	0.46
	5/27/2004	15.97	72.87	97,000	12,000	18,000	2,100	8,900	<3,000	--	--	0.59
	8/19/2004	18.11	70.73	92,000	9,500	15,000	1,900	8,600	<2,500	--	--	0.77
	12/27/2004	19.53	69.31	120,000	16,000	28,000	2,800	12,000	<1,000	--	--	0.2

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Table 1. Groundwater Elevation and Analytical Data: Volatile Hydrocarbons, HVOCs, and Dissolved Oxygen

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TVH/TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	1,2-DCA (µg/L)	Other HVOCs (µg/L)	DO (mg/L)
MW-5 84.84	3/15/1991	26.31	58.53	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	11/10/1992	26.83	58.01	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	4/2/1993	26.62	58.22	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	7/21/1993	26.60	58.24	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	11/9/1993	27.24	57.60	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	8/30/1995	27.46	57.38	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--
	5/3/1996	26.02	58.82	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	5/8/1997	26.76	58.08	<50	<0.5	0.5	<0.5	<0.5	--	--	--	--
	4/29/1998	26.55	58.29	<50	<0.5	0.5	<0.5	<0.5	<2	--	ND	--
MW-6 85.62	3/15/1991	25.82	59.80	80,000	12,000	13,000	1,100	5,400	--	--	DBCM: 160	--
	10/12/1992	25.02	60.60	19,000	3,200	1,400	200	560	--	--	--	--
	12/1/1992	28.87	56.75	SPH	--	--	--	--	--	--	--	--
	4/2/1993	26.96	58.66	SPH	--	--	--	--	--	--	--	--
	7/21/1993	26.17	59.45	SPH	--	--	--	--	--	--	--	--
	11/9/1993	27.51	58.11	SPH	--	--	--	--	--	--	--	--
	8/30/1995	28.00	57.62	SPH	--	--	--	--	--	--	--	--
	12/1/1995	27.58	58.04	SPH	--	--	--	--	<8,000,000	--	--	--
86.94	5/3/1996	28.15	58.79	130,000	37,000	50,000	3,200	14,200	--	--	ND	--
	5/9/1997	26.54	60.40	1,700,000	14,000	27,000	4,000	28,200	--	--	--	--
	11/5/1997	26.16	60.78	160,000	13,000	19,000	1,900	14,300	<200	--	--	--
	5/1/1998	22.96	62.86	130,000	15,000	23,000	1,700	13,200	<500	--	ND	--
85.82	11/3/1998	24.35	61.47	110,000	17,000	21,000	1,800	10,700	<200	--	ND	--
	3/26/1999	23.82	62.00	SPH	--	--	--	--	--	--	--	--
	7/1/1999	24.45	61.37	SPH	--	--	--	--	--	--	--	--
	9/21/1999	24.58	61.24	SPH	--	--	--	--	--	--	--	--
	2/9/2000	24.93	61.24	SPH	--	--	--	--	--	--	--	--
	5/31/2000	23.47	62.41	SPH	--	--	--	--	--	--	--	--
	8/8/2000	23.85	61.97	SPH	--	--	--	--	--	--	--	--
	11/14/2000	24.61	61.21	SPH	--	--	--	--	--	--	--	--
	3/1/2001	23.97	61.85	SPH	--	--	--	--	--	--	--	--
	5/7/2001	23.17	62.71	SPH	--	--	--	--	--	--	--	--
	8/1/2001	obstruction in well	--	--	--	--	--	--	--	--	--	--
	11/5/2001	obstruction in well	--	--	--	--	--	--	--	--	--	--

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Table 1. Groundwater Elevation and Analytical Data: Volatile Hydrocarbons, HVOCs, and Dissolved Oxygen

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TVH/TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	1,2-DCA (µg/L)	Other HVOCs (µg/L)	DO (mg/L)
>>MW-6	2/13/2002	obstruction in well		--	--	--	--	--	--	--	--	--
(continued)	5/2/2002	23.25	62.41	SPH (0.05)	--	--	--	--	--	--	--	--
	8/4/2002	23.55	62.29	SPH (0.03)	--	--	--	--	--	--	--	--
	11/26/2002	24.22	61.62	SPH (0.03)	--	--	--	--	--	--	--	--
	1/20/2003	22.49	63.36	SPH (0.04)	--	--	--	--	--	--	--	--
	5/28/2003	21.92	63.93	SPH (0.04)	--	--	--	--	--	--	--	--
	8/5/2003	23.98	61.87	SPH (0.04)	--	--	--	--	--	--	--	--
	11/10/2003	23.50	62.40	SPH (0.10)	--	--	--	--	--	--	--	--
	2/18/2004	22.21	63.64	SPH (0.04)	--	--	--	--	--	--	--	--
	5/27/2004	22.01	63.85	SPH (0.05)	--	--	--	--	--	--	--	--
	8/19/2004	24.16	61.68	SPH (0.03)	--	--	--	--	--	--	--	--
	12/27/2004	24.69	61.15	SPH (sheen)	--	--	--	--	--	--	--	--
MW-7	3/15/1991	21.63	63.78	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
85.41	11/24/1992	21.52	63.89	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	4/2/1993	20.08	65.33	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	7/21/1993	19.59	65.82	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	11/9/1993	20.65	64.76	<50	<0.5	1	<0.5	1.7	--	--	ND	--
	8/30/1995	18.78	66.63	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--
	12/1/1995	19.47	65.94	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	5/2/1996	17.15	68.26	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	8/8/1996	18.48	66.93	<50	<0.5	<0.5	<0.5	<0.5	<2	--	ND	--
	11/4/1996	18.69	66.72	<50	<1	<1	<1	<1	--	--	ND	--
	2/6/1997	17.44	67.97	<50	<0.5	<0.5	<0.5	<0.5	<2	--	ND	--
	5/8/1997	17.72	67.69	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--
	8/7/1997	18.49	66.92	<50	<0.5	<0.5	<0.5	<0.5	<2	--	ND	--
	11/5/1997	18.86	66.55	<50	<0.5	<0.5	<0.5	<0.5	<2	--	--	--
	2/9/1998	17.56	67.85	<50	<0.5	<0.5	<0.5	<0.5	<2	--	--	--
	4/29/1998	16.23	69.18	<50	<0.5	<0.5	<0.5	<0.5	<2	--	ND	--
	8/4/1998	17.24	68.17	<50	<0.5	<0.5	<0.5	<0.5	<2	--	ND	--
	11/2/1998	17.91	67.50	<50	<0.5	<0.5	<0.5	<0.5	<2	--	ND	--
	3/26/1999	16.42	68.99	<50	<0.5	<0.5	<0.5	<0.5	<2	--	ND	--
	7/1/1999	17.90	67.51	85	<0.5	1.1	0.55	2.5	<0.5	--	5	--
	9/21/1999	18.91	66.50	<50	0.7	1.8	<0.5	1.5	<5.0	--	ND	4.32
	2/9/2000	16.74	68.67	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	<0.5	--

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Table 1. Groundwater Elevation and Analytical Data: Volatile Hydrocarbons, HVOCs, and Dissolved Oxygen

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TVH/TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	1,2-DCA (µg/L)	Other HVOCs (µg/L)	DO (mg/L)
>>MW-7	5/31/2000	16.21	69.20	<50	3	6	1	9	<0.5	--	ND	--
(continued)	8/8/2000	16.92	68.49	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	0.43
	11/14/2000	17.00	68.41	<50	<0.5	0.63	<0.5	<0.5	<5.0	--	ND	0.44
	3/1/2001	17.09	68.32	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	--
	5/7/2001	17.19	68.22	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	0.51
	8/1/2001	17.25	68.16	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	--
	11/5/2001	17.35	68.06	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	--
	2/13/2002	17.50	67.91	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	0.80
	5/2/2002	17.30	68.11	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	0.31
	8/4/2002	17.58	67.83	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	0.37
	11/26/2002	18.35	67.06	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	0.28
	1/20/2003	15.84	69.57	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	0.61
	5/28/2003	15.19	70.22	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	0.74
	8/5/2003	17.00	68.41	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	<0.5	0.61
	11/10/2003	16.54	68.87	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	0.65
	2/18/2004	16.47	68.94	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	0.74
	5/27/2004	15.93	69.48	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	0.65
	8/19/2004	18.05	67.36	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	0.71
	12/27/2004	17.35	68.06	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	2.0
MW-8	10/12/1992	27.70	57.80	70	20	1	1	3	--	--	--	--
85.50	11/25/1992	27.62	57.88	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	4/8/1993	26.64	58.86	490	15	45	5.1	73	--	--	ND	--
	7/21/1993	26.60	58.90	180	2.5	3	<0.5	1.9	--	--	ND	--
	11/11/1993	27.18	58.32	310	23	<0.5	<0.5	<0.5	--	--	ND	--
	8/30/1995	26.35	59.15	660	360	6.8	13	2.8	--	--	--	--
	12/4/1995	26.72	58.78	250	46	0.9	4.9	<0.5	--	--	ND	--
	5/3/1996	25.47	60.03	69	110	<0.5	<0.5	1.5	--	--	ND	--
	8/8/1996	26.41	59.09	120	11	<0.5	<0.5	<0.5	<2	--	ND	--
	11/5/1996	26.77	58.73	110	20	<1	1	<1	--	--	ND	--
	2/6/1997	25.84	59.66	67	51	<0.5	0.56	<0.5	<2	--	ND	--
	5/9/1997	26.39	59.11	110	59	<0.5	<0.5	<0.5	--	--	--	--
	8/7/1997	26.72	58.78	<50	12	<0.5	<0.5	<0.5	<2	--	ND	--
	11/5/1997	26.82	58.68	<50	9.4	<0.5	<0.5	<0.5	<2	--	--	--
	2/9/1998	25.57	59.93	<50	6	<0.5	<0.5	<0.5	<2	--	--	--

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Table 1. Groundwater Elevation and Analytical Data: Volatile Hydrocarbons, HVOCs, and Dissolved Oxygen

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TVH/TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	1,2-DCA (µg/L)	Other HVOCs (µg/L)	DO (mg/L)
>>MW-8	5/1/1998	25.64	59.86	430	490	7.1	27	26	<10	--	ND	--
(continued)	8/5/1998	25.96	59.54	140	19	<0.5	5.2	5.3	<2	--	ND	--
	11/3/1998	26.27	59.23	150	110	1.1	4.3	4.5	<2	--	ND	--
	3/31/1999	20.93	64.57	54	170	1.5	4.1	1.9	4.4	--	1,1 DCA: 0.7	--
	7/1/1999	26.59	58.91	140	58	0.9	3	2.3	<0.5	--	⁵	--
	9/21/1999	26.89	58.61	670	170	2.6	11	7.9	<5	--	ND	2.61
	2/9/2000	26.60	58.90	300	60	1.2	4.8	1.2	<5.0	--	<0.5	--
	8/8/2000	26.43	59.07	270	56	1.2	4.1	1.0	<5.0	--	ND	0.25
	11/14/2000	26.60	58.90	330	64	1.3	3.5	0.60	<5.0	--	ND	0.51
	3/1/2001	26.41	59.09	400	140	<0.5	<0.5	0.55	<5.0	--	ND	--
	5/7/2001	26.55	58.95	240	37	0.71	2.5	0.77	<5.0	--	ND	0.49
	8/1/2001	26.71	58.79	130	5.2	<0.5	<0.5	<0.5	<5.0	--	ND	--
	11/5/2001	26.67	58.83	140	3.3	<0.5	<0.5	<0.5	<5.0	--	ND	--
	2/13/2002	26.15	59.35	1,100	440	0.087	0.66	2.0	<5.0	--	ND	0.71
	5/2/2002	26.63	58.87	90	3.9	<0.5	<0.5	<0.5	<5.0	--	ND	0.37
	8/4/2002	26.80	58.70	120	2.4	0.77	<0.5	<0.5	<5.0	--	ND	0.44
	11/26/2002	27.50	58.00	85	3.7	<0.5	<0.5	<0.5	<5.0	--	ND	0.48
	1/20/2003	24.93	60.57	90	3.9	0.67	<0.5	<0.5	<5.0	--	ND	0.65
	5/28/2003	24.28	61.22	120	1.4	<0.5	<0.5	<0.5	<5.0	--	ND	0.71
	8/5/2003	26.51	58.99	150 ^f	<0.5	<0.5	<0.5	<0.5	<5.0	--	<1.0	0.67
	11/10/2003	26.04	59.46	50	0.84	<0.5	<0.5	<0.5	<5.0	--	--	0.70
	2/18/2004	25.97	59.53	52	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	0.69
	5/27/2004	25.31	60.19	75	0.76	<0.5	<0.5	<0.5	<5.0	--	--	0.98
	8/19/2004	27.55	57.95	72	1.7	<0.5	<0.5	<0.5	<5.0	--	--	1.41
	12/27/2004	26.50	59.00	160	22	0.74	2.2	0.55	<5.0	--	--	0.2
MW-9	11/24/1992	23.51	66.86	19,000	180	590	23	2,000	--	--	TCM: 15	--
90.37	4/5/1993	21.14	69.23	2,300	48	4	0.6	13	--	--	TCM: 2	--
	7/21/1993	21.54	68.83	2,300	170	8.1	15	<0.5	--	--	ND	--
	11/10/1993	27.53	62.84	4,400	69	7.3	21	9.7	--	--	ND	--
	8/30/1995	19.59	70.78	3,200	3,900	49	80	22.8	--	--	--	--
	12/4/1995	20.65	69.72	--	--	--	--	--	<2	--	--	--
	5/2/1996	18.63	71.74	<1300	2,600	<13	200	<13	--	--	ND	--
	11/5/1996	20.69	69.68	1,800	280	<5	65	<5	--	--	ND	--
	5/9/1997	19.96	70.41	1,100	160	<0.5	42	<0.5	--	--	--	--

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Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TVH/TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	1,2-DCA (µg/L)	Other HVOCs (µg/L)	DO (mg/L)
>>MW-9	8/8/1997	20.84	69.53	570 ^{1,2}	<0.5	<0.5	<0.5	0.78 ³	<2	--	ND	--
(continued)	11/5/1997	21.55	68.82	490 ¹	<0.5	<0.5	6	<0.5	<2	--	--	--
	2/9/1998	20.21	70.16	270 ¹	48	17	5.8	<0.5	<2	--	--	--
	5/1/1998	19.27	71.10	550	70	<0.5	22	2.2	<2	--	ND	--
	8/5/1998	19.35	71.02	550 ¹	88	<0.5	13	1.9 ³	<2	--	ND	--
	11/2/1998	20.43	69.94	580	<0.5	<0.5	7.5 ³	1.6 ³	<2	--	ND	--
	3/25/1999	18.46	71.91	1,100	160	<0.5	21	2.1 ³	5.7 ⁴	--	ND	--
	7/1/1999	19.95	70.42	540	100	7.4	26	16.9	<1.3	--	5	--
	9/21/1999	21.15	69.22	2,700	320	98	88	47	<20	--	ND	5.86
	2/9/2000	21.08	69.29	1,600	81	3.6	19	18	<5.0	--	<0.5	--
	5/31/2000	19.11	71.26	1,500	170	13	25	<1.0	<0.5	--	ND	--
	8/8/2000	19.86	70.51	1,300	140	2.1	19	<0.5	<5.0	--	ND	2.4
	11/14/2000	20.90	69.47	1,700	250	2.6	44	2.1	<5.0	--	ND	0.29
	3/1/2001	20.45	69.92	1,800	170	5.6	30	2.5	<20	--	ND	0.31
	5/7/2001	19.83	70.54	1,500	120	2.6	24	<0.5	<5.0	--	ND	0.18
	8/1/2001	20.02	70.35	2,600	280	4.8	50	<0.5	<5.0	--	ND	--
	11/5/2001	19.85	70.52	2,200	170	4.5	100	0.54	<5.0	--	ND	--
	2/13/2002	19.80	70.57	1,800	98	3	58	1.5	<5.0	--	ND	0.53
	5/2/2002	19.93	70.44	1,100	82	1.4	20	<0.5	<10	--	ND	0.28
	8/4/2002	20.20	70.17	1,200	130	2.5	50	0.58	<10	--	ND	0.51
	11/26/2002	20.37	70.00	1,200	150	3.3	48	<2.5	<25	--	ND	0.53
	1/20/2003	17.93	72.44	840	110	1.2	31	0.76	<5.0	--	ND	0.31
	5/28/2003	17.25	73.12	1,100	40	1.9	3.0	<0.5	<20	--	ND	0.60
	8/5/2003	19.03	71.34	1,100 ^b	62	0.99	25	<0.5	<5.0	--	<10	0.54
	11/10/2003	18.65	71.72	1,500	120	7.6	41	<1.0	<10	--	--	0.62
	2/18/2004	18.41	71.96	820	50	1.2	19	<0.5	<5.0	--	--	0.58
	5/27/2004	17.89	72.48	730	36	2.0	11	1.6	<5.0	--	--	0.90
	8/19/2004	20.14	70.23	1,200	95	2.5	24	<0.5	<25	--	--	0.98
	12/27/2004	21.65	68.72	720	25	14	2.0	3.5	<15	--	--	2.5
MW-10	10/12/1992	21.55	67.05	28,000	2,700	3,800	210	1,300	--	--	--	--
88.60	11/24/1992	21.86	66.74	130,000	9,700	19,000	1,400	8,400	--	--	ND	--
	4/5/1993	19.14	69.46	63,000	6,300	14,000	1,100	7,500	--	--	ND	--
	7/21/1993	19.79	68.81	140,000	16,000	31,000	2,200	13,000	--	--	ND	--
	8/30/1995	17.99	70.61	92,000	13,000	24,000	1,800	9,100	--	--	--	--

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Well ID TOC Elev. (ft)	Sampling Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TVH/TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	1,2-DCA (µg/L)	Other HVOCs (µg/L)	DO (mg/L)
MW-10 <i>(continued)</i>	5/3/1996	17.04	71.56	81,000	17,000	29,000	2,100	8,500	--	--	ND	--
	5/9/1997	18.36	70.24	63,000	7,400	13,000	940	4,100	--	--	--	--
	5/1/1998	15.84	72.76	60,000	7,100	14,000	1,100	5,300	<250	--	ND	--
MW-11 102.06	11/24/1992	33.65	68.41	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	12/8/92***	33.37	68.69	<50	<0.1	<0.1	<0.1	<0.1	--	--	--	--
	12/8/1992	33.37	68.69	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--
	4/5/1993	31.03	71.03	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	7/21/1993	31.90	70.16	160	<0.5	1.8	<0.5	<0.5	--	--	ND	--
	11/9/1993	32.60	69.46	80	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	8/30/1995	28.92	73.14	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--
	5/3/1996	28.00	74.06	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	5/8/1997	29.93	72.13	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--
	4/29/1998	27.22	74.84	<50	<0.5	<0.5	<0.5	<0.5	<2	--	ND	--
MW-13 84.06	11/24/1992	26.05	58.01	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	12/8/92***	25.08	58.98	<50	<0.1	<0.1	<0.1	<0.1	--	--	--	--
	12/8/1992	25.08	58.98	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--
	4/5/1993	24.64	59.42	<50	<0.5	0.9	<0.5	<0.5	--	--	ND	--
	7/21/1993	24.29	59.77	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	11/9/1993	24.23	59.83	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	8/30/1995	23.30	60.76	<50	49	<0.5	<0.5	<0.5	--	--	--	--
	12/1/1995	23.80	60.26	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	5/3/1996	23.19	60.87	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	8/8/1996	23.44	60.62	<50	32	<0.5	<0.5	<0.5	<2	--	ND	--
	11/5/1996	24.04	60.02	<50	<1	<1	<1	<1	--	--	ND	--
	2/6/1997	23.24	60.82	<50	<0.5	<0.5	<0.5	<0.5	<2	--	ND	--
	5/8/1997	23.46	60.60	<50	81	<0.5	<0.5	<0.5	--	--	--	--
	8/8/1997	23.92	60.14	<50	<0.5	<0.5	<0.5	<0.5	<2	--	ND	--
	11/5/1997	24.27	59.79	<50	<0.5	<0.5	<0.5	<0.5	<2	--	--	--
	2/9/1998	22.89	61.17	<50	<0.5	<0.5	<0.5	<0.5	<2	--	--	--
4/29/1998	22.27	61.79	<50	24	<0.5	<0.5	<0.5	<2	--	ND	--	
8/4/1998	22.75	61.31	120	200	<1	<1	<1	<4	--	ND	--	
11/3/1998	23.90	60.16	59 ¹	33	<0.5	<0.5	<0.5	<2	--	ND	--	
3/31/1999	23.11	60.95	130	0.56	<0.5	<0.5	<0.5	<2	--	ND	--	

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Table 1. Groundwater Elevation and Analytical Data: Volatile Hydrocarbons, HVOCs, and Dissolved Oxygen
Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TVH/TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	1,2-DCA (µg/L)	Other HVOCs (µg/L)	DO (mg/L)
MW-13	7/1/1999	23.40	60.66	160	370	19	1.2	3.5	<1	--	5	--
<i>(continued)</i>	9/21/1999	21.91	62.15	370	150	1.0	0.8	0.8	<5.0	--	ND	3.76
	2/9/2000	23.84	60.22	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	<0.5	--
	8/8/2000	23.31	60.75	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	1.76
	11/14/2000	24.00	60.06	< 50	< 0.5	0.52	< 0.5	< 0.5	< 5.0	--	ND	0.49
	3/1/2001	23.93	60.13	< 50	< 0.5	<0.5	< 0.5	< 0.5	< 5.0	--	ND	--
	5/7/2001	23.93	60.13	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	0.59
	8/1/2001	24.10	59.96	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	--
	11/5/2001	24.02	60.04	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	--
	2/13/2002	23.70	60.36	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	0.55
	5/2/2002	23.97	60.09	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	0.63
	8/4/2002	24.19	59.87	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	0.31
	11/26/2002	24.78	59.28	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	0.47
	1/20/2003	22.10	61.96	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	0.53
	5/28/2003	21.72	62.34	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	0.75
	8/5/2003	23.99	60.07	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	<0.5	0.59
	11/10/2003	23.47	60.59	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	0.70
	2/18/2004	22.58	61.48	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	0.52
	5/27/2004	21.95	62.11	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	0.84
	8/19/2004	24.29	59.77	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	0.98
	12/27/2004	23.70	60.36	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	5.5
MW-14	5/26/1998	21.67	72.99	41,000	7,100	11,000	720	3,900	<1000	--	ND	--
94.66	7/1/1999	22.95	71.71	SPH	--	--	--	--	--	--	--	--
	9/21/1999	24.26	70.40	SPH	--	--	--	--	--	--	--	--
	2/9/2000	24.13	70.53	92,000	12,000	17,000	1,300	8,700	<140	--	<0.5	--
	5/31/2000	22.09	72.57	SPH	--	--	--	--	--	--	--	--
	8/8/2000	22.88	71.78	SPH	--	--	--	--	--	--	--	--
	11/14/2000	23.90	70.76	SPH	--	--	--	--	--	--	--	--
	3/1/2001	23.97	70.69	SPH	--	--	--	--	--	--	--	--
	5/7/2001	23.45	71.23	SPH (sheen)	--	--	--	--	--	--	--	--
	8/1/2001	23.57	71.12	SPH (0.06)	--	--	--	--	--	--	--	--
	11/5/2001	23.50	71.18	SPH (0.03)	--	--	--	--	--	--	--	--
	2/13/2002	22.99	71.70	SPH (0.04)	--	--	--	--	--	--	--	--
	5/2/2002	23.51	71.17	SPH (0.02)	--	--	--	--	--	--	--	--

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Table 1. Groundwater Elevation and Analytical Data: Volatile Hydrocarbons, HVOCs, and Dissolved Oxygen
Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TVH/TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	1,2-DCA (µg/L)	Other HVOCs (µg/L)	DO (mg/L)
MW-14	8/4/2002	23.61	71.06	SPH (0.01)	--	--	--	--	--	--	--	--
(continued)	1/20/2003	22.35	72.31	SPH (sheen)	--	--	--	--	--	--	--	--
	5/28/2003	21.95	72.74	SPH (0.04)	--	--	--	--	--	--	--	--
	8/5/2003	23.03	71.66	SPH (0.04)	--	--	--	--	--	--	--	--
	11/10/2003	22.70	72.02	SPH (0.07)	--	--	--	--	--	--	--	--
	2/18/2004	22.37	72.32	SPH (0.04)	--	--	--	--	--	--	--	--
	5/27/2004	21.78	72.92	SPH (0.05)	--	--	--	--	--	--	--	--
	8/19/2004	24.13	70.57	SPH (0.05)	--	--	--	--	--	--	--	--
	12/27/2004	24.19	70.51	SPH (sheen)	--	--	--	--	--	--	--	--
MW-15	5/26/1998	21.87	72.89	130,000	30,000	38,000	2,500	12,600	<1000	--	ND	--
94.76	7/1/1999	22.25	72.51	SPH	--	--	--	--	--	--	--	--
	9/21/1999	24.12	70.64	SPH	--	--	--	--	--	--	--	--
	2/9/2000	24.42	70.34	180,000	32,000	37,000	2,800	14,000	<200	--	<0.5	--
	5/31/2000	22.40	72.36	SPH	--	--	--	--	--	--	--	--
	8/8/2000	23.17	71.59	SPH	--	--	--	--	--	--	--	--
	11/14/2000	24.15	70.61	SPH	--	--	--	--	--	--	--	--
	3/1/2001	23.99	70.77	SPH	--	--	--	--	--	--	--	--
	5/7/2001	23.50	71.26	SPH (sheen)	--	--	--	--	--	--	--	--
	8/1/2001	23.62	71.14	SPH (sheen)	--	--	--	--	--	--	--	--
	11/5/2001	23.65	71.11	SPH (sheen)	--	--	--	--	--	--	--	--
	2/13/2002	23.09	71.67	68,000	9,300	8,500	760	2,600	<200	--	ND	0.59
	5/2/2002	23.59	71.17	SPH (sheen)	--	--	--	--	--	--	--	--
	8/4/2002	23.65	71.11	SPH (sheen)	--	--	--	--	--	--	--	--
	11/26/2002	24.59	70.17	SPH (sheen)	--	--	--	--	--	--	--	--
	1/20/2003	22.08	72.68	48,000	9,900	10,000	1,000	3,600	<1,200	--	ND	0.24
	5/28/2003	21.68	73.08	SPH (sheen)	--	--	--	--	--	--	--	--
	8/5/2003	24.05	70.71	SPH (sheen)	--	--	--	--	--	--	--	--
	11/10/2003	23.68	71.08	SPH (sheen)	--	--	--	--	--	--	--	--
	2/18/2004	23.51	71.25	25,000	5,200	3,600	390	1,100	<1,000	--	--	0.63
	5/27/2004	22.98	71.78	SPH (sheen)	--	--	--	--	--	--	--	--
	8/19/2004	25.31	69.45	SPH (sheen)	--	--	--	--	--	--	--	0.42
	12/27/2004	24.46	70.30	SPH (sheen)	--	--	--	--	--	--	--	--

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Table 1. Groundwater Elevation and Analytical Data: Volatile Hydrocarbons, HVOCs, and Dissolved Oxygen

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID <i>TOC Elev.</i> <i>(ft)</i>	Sampling Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TVH/TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	1,2-DCA (µg/L)	Other HVOCs (µg/L)	DO (mg/L)
Grab Sampling Data												
Sample ID												
CPT-1****	10/6/1992	--	--	490	20	60	10	60	--	1	--	--
CPT-3	10/6/1992	--	--	50	<0.4	<0.4	3	3	--	<4	--	--
CPT-4	10/6/1992	--	--	1,100	60	50	80	15	--	110	--	--
CPT-5	10/6/1992	--	--	600,000	2,300	53,000	8,000	43,000	--	730	--	--
CPT-7	10/6/1992	--	--	1,700,000	40,000	120,000	25,000	120,000	--	2,900	--	--
CPT-9	10/7/1992	--	--	2,100,000	49,000	140,000	28,000	145,000	--	620	--	--
CPT-10	10/7/1992	--	--	190,000	13,000	16,000	3,900	18,000	--	1,400	--	--
CPT-11	10/7/1992	--	--	2,000	200	50	30	70	--	11	--	--
CPT-12	10/7/1992	--	--	130,000	4,100	10,000	2,600	10,000	--	9	--	--
CPT-13(MW-10)	10/7/1992	--	--	28,000	2,700	3,800	210	1,300	--	150	--	--
CPT-17 (B-12)	10/6/1992	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	<1	ND	--
B (boring)	5/16/1998	--	--	140	37	0.64	6.6	1.7	<2	17	--	--
C (boring)	5/16/1998	--	--	<50	0.72	<0.5	<0.5	<0.5	<2	210	--	--
G (boring)	5/16/1998	--	--	590,000	15,000	25,000	2,100	10,800	<500	880	--	--

Abbreviations and Notes:

TOC Elev. (ft) = Top of casing elevation, surveyed to an arbitrary datum (measured in feet)

µg/L = micrograms per liter = parts per billion = ppb

-- = Not measured or not analyzed

ND = Not detected above laboratory reporting limit; see laboratory reports for individual reporting limits.

SPH = Separate-phase hydrocarbons encountered in well (value in parentheses is thickness in feet)

TVH = Total Volatile Hydrocarbons

TPHg = Total petroleum hydrocarbons as gasoline by modified EPA Method 8015; value in parentheses by EPA Method 8260

Benzene, toluene, ethylbenzene, and xylenes by EPA Method 8021B; value in parentheses by EPA Method 8260

MTBE = Methyl tertiary butyl ether by EPA Method 8021B; values in parentheses by EPA Method 8260

HVOCs = Halogenated volatile organic compounds by EPA Method 8010

1,2-DCA = 1,2-Dichloroethane by EPA Method 8010

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Table 1. Groundwater Elevation and Analytical Data: Volatile Hydrocarbons, HVOCs, and Dissolved Oxygen

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID	Sampling	Depth to	Groundwater				Ethyl-					
TOC Elev.	Date	Groundwater	Elevation	TVH/TPHg	Benzene	Toluene	benzene	Xylenes	MTBE	1,2-DCA	Other HVOCs	DO
(ft)		(ft)	(ft)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)

DCB = 1, 3 Dichlorobenzene

DBCM = Dibromochloromethane

MCB = Chlorobenzene

NE = Naphthalene (results for MW-1 from 1995 through 1998 from SCI reporting of SVOC results)

TCM = Chloroform = trichloromethane

DO = Dissolved oxygen, measured in the field.

<n = Chemical not present at a concentration in excess of detection limit shown.

* = Suspect laboratory contamination contributing to test result.

** = Fuel fingerprint analysis indicates MTBE is not present in the free product sample collected from this well.

*** = Duplicate sample sent to a different chemical laboratory.

**** = CPT-2, 6, 8, 14, 15 and 16 were not sampled.

1 = Sample exhibits fuel pattern which does not resemble standard

2 = Lighter hydrocarbons than indicated standard

3 = Presence of this compound confirmed by second column, however, the confirmation concentration differed from the reported result by more than a factor of two.

4 = Detection may potentially be a false positive, to be checked during the next event.

5 = One or more of the following substances found: Acetone, 1,2-Dibromoethane, 1,3,5-Trimethylbenzene, 2-Chlorotoluene, 1,2,4-Trimethylbenzene, n-Butylbenzene, and Naphthalene.

See laboratory results for details.

6 = Confirmed by GC/MS.

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Table 2. Groundwater Elevation and Analytical Data: Extractable Hydrocarbons and SVOCs
Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID <i>TOC Elev.</i> <i>(ft)</i>	Sampling Date	Depth to water <i>(ft)</i>	Groundwater Elevation <i>(ft)</i>	TEH <i>(µg/L)</i>	TPHd <i>(µg/L)</i>	TPHmo <i>(µg/L)</i>	2-Methyl naphthalene <i>(µg/L)</i>	Naphthalene <i>(µg/L)</i>	Other SVOCs <i>(µg/L)</i>
MW-1	10/5/1990	26.40	68.08	<500	--	--	--	--	--
94.48	3/1/1991	27.46	67.02	SPH	--	--	--	--	--
	10/12/1992	26.44	68.04	--	--	--	--	--	--
	11/24/1992	26.63	67.85	4,600	--	--	--	--	--
	4/5/1993	23.77	70.71	25,000	--	--	--	--	--
	7/21/1993	24.51	69.97	SPH	--	--	--	--	--
	11/9/1993	26.06	68.42	SPH	--	--	--	--	--
	8/30/1995	21.73	72.75	SPH	--	--	630	1,200	1
	12/4/1995	21.94	72.54	SPH	--	--	--	--	--
	5/2/1996	20.65	73.83	32,000	--	--	250	640	ND
	11/5/1996	24.29	70.19	--	--	--	--	--	--
	5/9/1997	22.79	71.69	28,000	--	--	280	650	2
	11/5/1997	25.06	69.42	28,000	--	--	720	1,500	ND
	2/9/1998	22.64	71.84	27,000	--	--	160	570	3
	5/1/1998	19.95	74.53	29,000	--	--	--	--	--
	5/27/1998	--	--	--	--	--	120	630	4
	11/3/1998	23.29	71.19	37,000	--	--	500	1,100	ND?
	3/24/1999	22.30	72.18	SPH	--	--	--	--	--
	7/1/1999	22.70	71.78	SPH	--	--	--	--	--
	9/21/1999	23.81	70.67	SPH	--	--	--	--	--
	2/9/2000	23.95	70.59	--	SPH	--	--	--	--
	5/31/2000	22.05	72.43	--	SPH	--	--	--	--
	11/14/2000	24.65	69.83	--	SPH	--	--	--	--
	3/1/2001	24.22	70.28	--	SPH	--	--	--	--
	5/7/2001	23.85	70.67	--	SPH	--	--	--	--
	8/1/2001	23.91	70.64	--	SPH	--	--	--	--
	11/5/2001	23.95	70.67	--	SPH	--	--	--	--
	2/13/2002	23.15	71.39	--	SPH (0.07)	--	--	--	--
5/2/2002	23.91	70.60	--	SPH (0.04)	--	--	--	--	
8/4/2002	24.02	70.48	--	SPH (0.03)	--	--	--	--	
11/26/2002	24.47	70.05	--	SPH (0.05)	--	--	--	--	
1/20/2003	22.37	72.14	--	SPH (0.04)	--	--	--	--	
5/28/2003	21.77	72.73	--	SPH (0.02)	--	--	--	--	
8/5/2003	23.07	71.44	--	SPH (0.04)	--	--	--	--	
11/10/2003	22.53	71.97	--	SPH (0.03)	--	--	--	--	

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Table 2. Groundwater Elevation and Analytical Data: Extractable Hydrocarbons and SVOCs
Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to water (ft)	Groundwater Elevation (ft)	TEH (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	2-Methyl naphthalene (µg/L)	Naphthalene (µg/L)	Other SVOCs (µg/L)
MW-1	2/18/2004	22.61	71.91	--	SPH (0.05)	--	--	--	--
<i>(cont'd)</i>	5/27/2004	22.08	72.44	--	SPH (0.05)	--	--	--	--
	8/19/2004	24.35	70.43	--	SPH (0.38)	--	--	--	--
	12/27/2004	24.62	70.16	--	SPH (0.44)	--	--	--	--
MW-2	3/1/1991	27.86	66.95	<50	--	--	--	--	--
<i>94.81</i>	11/24/1992	27.91	66.90	<50	--	--	--	--	--
	4/5/1993	25.95	68.86	870	--	--	--	--	--
	7/21/1993	25.59	69.22	<50	--	--	--	--	--
	11/10/1993	26.72	68.09	240	--	--	--	--	--
	8/30/1995	25.75	69.06	150	--	--	--	--	--
	5/3/1996	23.28	71.53	<50	--	--	--	--	--
	5/8/1997	24.58	70.23	<50	--	--	--	--	--
	4/29/1998	22.18	72.63	<47	--	--	--	--	--
MW-3	3/1/1991	23.17	66.91	<50	--	--	--	--	--
<i>90.08</i>	11/25/1992	23.01	67.07	160	--	--	--	--	--
	4/5/1993	22.11	67.97	<50	--	--	--	--	--
	7/21/1993	23.93	66.15	<50	--	--	--	--	--
	11/10/1993	23.14	66.94	<50	--	--	--	--	--
	8/30/1995	20.61	69.47	<50	--	--	--	--	--
	5/3/1996	18.43	71.65	<50	--	--	--	--	--
	5/8/1997	19.77	70.31	<50	--	--	--	--	--
	4/29/1998	17.92	72.16	<47	--	--	--	--	--
MW-4	3/1/1991	23.79	65.05	<500	--	--	--	--	--
<i>88.84</i>	10/12/1992	22.48	66.36	--	--	--	--	--	--
	11/24/1992	22.60	66.24	1,600	--	--	--	--	--
	4/2/1993	20.11	68.73	SPH	--	--	--	--	--
	7/21/1993	20.48	68.36	SPH	--	--	--	--	--
	11/9/1993	21.71	67.13	SPH	--	--	--	--	--
	8/30/1995	19.90	68.94	SPH	--	--	--	--	--
	12/1/1995	19.40	69.44	SPH	--	--	--	--	--
	5/2/1996	17.50	71.34	9,200	--	--	--	--	--
	11/4/1996	20.13	68.71	4,700	--	--	--	--	--
	5/8/1997	18.63	70.21	5,100	--	--	--	--	--

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Table 2. Groundwater Elevation and Analytical Data: Extractable Hydrocarbons and SVOCs
Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID <i>TOC Elev.</i> <i>(ft)</i>	Sampling Date	Depth to water (ft)	Groundwater Elevation (ft)	TEH (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	2-Methyl naphthalene (µg/L)	Naphthalene (µg/L)	Other SVOCs (µg/L)
MW-4 <i>(cont'd)</i>	11/5/1997	20.19	68.65	3,700	--	--	--	--	--
	2/9/1998	18.28	70.56	4,800	--	--	--	--	--
	5/1/1998	16.11	72.73	5,000	--	--	--	--	--
	8/4/1998	17.54	71.30	3,500	--	--	--	--	--
	11/2/1998	19.21	69.63	7,200	--	--	--	--	--
	3/26/1999	17.51	71.33	14,000	--	--	--	--	--
	7/1/1999	18.80	70.04	17,000	--	--	370	860	ND
	9/21/1999	19.85	68.99	14,000	--	--	360	820	ND
	2/9/2000	19.76	69.08	--	12,000	1,000	290	700	ND
	5/31/2000	17.90	70.94	--	14,000 **	<500	--	--	--
	11/14/2000	19.63	69.21	--	8,000	290	--	--	--
	3/1/2001	19.68	69.16	--	57,000	2,800	210	510	ND
	5/7/2001	18.60	70.24	--	56,000	3,600	--	--	--
	8/1/2001	18.73	70.11	--	42,000	6,700	--	--	--
	11/5/2001	18.97	69.87	--	49,000	14,000	--	--	--
	2/13/2002	18.59	70.25	--	140,000	11,000	620	1000	--
	5/2/2002	18.77	70.07	--	68,000	<25,000	--	--	--
	8/4/2002	18.95	69.89	--	58,000	<25,000	--	--	--
	11/26/2002	20.83	68.01	--	7,100	<250	--	--	--
	1/20/2003	16.90	71.94	--	29,000	<2500	--	--	--
5/28/2003	15.25	73.59	--	12,000	300	--	--	--	
8/5/2003	17.05	71.79	--	6,600	<250	--	--	--	
11/10/2003	16.60	72.24	--	15,000	--	--	--	--	
2/18/2004	16.59	72.25	--	16,000	--	--	--	--	
5/27/2004	15.97	72.87	--	23,000	<2,500	--	--	--	
8/19/2004	18.11	70.73	--	19,000	--	--	--	--	
	12/27/2004	19.53	69.31	--	8,700	<2,500	--	--	--
MW-5 <i>84.84</i>	3/15/1991	26.31	58.53	<50	--	--	--	--	--
	11/10/1992	26.83	58.01	50	--	--	--	--	--
	4/2/1993	26.62	58.22	<50	--	--	--	--	--
	7/21/1993	26.60	58.24	190	--	--	--	--	--
	11/9/1993	27.24	57.60	170	--	--	--	--	--
	8/30/1995	27.46	57.38	180	--	--	--	--	--
	5/3/1996	26.02	58.82	<50	--	--	--	--	--
	5/8/1997	26.76	58.08	<50	--	--	--	--	--
	4/29/1998	26.55	58.29	<47	--	--	--	--	--

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Table 2. Groundwater Elevation and Analytical Data: Extractable Hydrocarbons and SVOCs
Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID <i>TOC Elev.</i> <i>(ft)</i>	Sampling Date	Depth to water <i>(ft)</i>	Groundwater Elevation <i>(ft)</i>	TEH <i>(µg/L)</i>	TPHd <i>(µg/L)</i>	TPHmo <i>(µg/L)</i>	2-Methyl naphthalene <i>(µg/L)</i>	Naphthalene <i>(µg/L)</i>	Other SVOCs <i>(µg/L)</i>
MW-6	3/15/1991	25.82	59.80	<50	--	--	--	--	--
85.62	10/12/1992	25.02	60.60	--	--	--	--	--	--
	12/1/1992	28.87	56.75	SPH	--	--	--	--	--
	4/2/1993	26.96	58.66	SPH	--	--	--	--	--
	7/21/1993	26.17	59.45	SPH	--	--	--	--	--
	11/9/1993	27.51	58.11	SPH	--	--	--	--	--
	8/30/1995	28.00	57.62	SPH	--	--	--	--	--
	12/1/1995	27.58	58.04	SPH	--	--	--	--	--
86.94	5/3/1996	26.83	58.79	9,000	--	--	--	--	--
	5/9/1997	26.54	60.40	53,000	--	--	--	--	--
85.82	11/5/1997	26.16	60.78	65,000	--	--	--	--	--
	5/1/1998	22.96	62.86	25,000	--	--	--	--	--
	11/3/1998	24.35	61.47	30,000	--	--	--	--	--
	3/26/1999	23.82	62.00	SPH	--	--	--	--	--
	7/1/1999	24.45	61.37	SPH	--	--	--	--	--
	9/21/1999	24.58	61.24	SPH	--	--	--	--	--
	2/9/2000	24.93	61.24	--	SPH	--	--	--	--
	5/31/2000	23.47	62.41	--	SPH	--	--	--	--
	11/14/2000	24.61	61.21	--	SPH	--	--	--	--
	3/1/2001	23.97	61.85	--	SPH	--	--	--	--
	5/7/2001	23.17	-23.11	--	SPH	--	--	--	--
	8/1/2001	obstruction in well		--	--	--	--	--	--
	11/5/2001	obstruction in well		--	--	--	--	--	--
2/13/2002	obstruction in well		--	--	--	--	--	--	
5/2/2002	23.25	62.41	--	SPH (0.05)	--	--	--	--	
8/4/2002	23.55	62.29	--	SPH (0.03)	--	--	--	--	
11/26/2002	24.22	61.62	--	SPH (0.03)	--	--	--	--	
1/20/2003	22.49	63.36	--	SPH (0.04)	--	--	--	--	
5/28/2003	21.92	63.93	--	SPH (0.04)	--	--	--	--	
8/5/2003	23.98	61.87	--	SPH (0.04)	--	--	--	--	
11/10/2003	23.50	62.40	--	SPH (0.10)	--	--	--	--	
2/18/2004	22.21	63.64	--	SPH (0.04)	--	--	--	--	
5/27/2004	22.01	63.85	--	SPH (0.05)	--	--	--	--	
8/19/2004	24.16	61.68	--	SPH (0.03)	--	--	--	--	
12/27/2004	24.69	61.15	--	SPH (sheen)	--	--	--	--	

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Table 2. Groundwater Elevation and Analytical Data: Extractable Hydrocarbons and SVOCs
 Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to water (ft)	Groundwater Elevation (ft)	TEH (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	2-Methyl naphthalene (µg/L)	Naphthalene (µg/L)	Other SVOCs (µg/L)
MW-7	3/15/1991	21.63	63.78	<50	--	--	--	--	--
85.41	11/24/1992	21.52	63.89	<50	--	--	--	--	--
	4/2/1993	20.08	65.33	<50	--	--	--	--	--
	7/21/1993	19.59	65.82	150	--	--	--	--	--
	11/9/1993	20.65	64.76	200	--	--	--	--	--
	8/30/1995	18.78	66.63	170	--	--	--	--	--
	12/1/1995	19.47	65.94	<50	--	--	--	--	--
	5/2/1996	17.15	68.26	<50	--	--	--	--	--
	8/8/1996	18.48	66.93	<50	--	--	--	--	--
	11/4/1996	18.69	66.72	<50	--	--	--	--	--
	2/6/1997	17.44	67.97	<50	--	--	--	--	--
	5/8/1997	17.72	67.69	<50	--	--	--	--	--
	8/7/1997	18.49	66.92	<50	--	--	--	--	--
	11/5/1997	18.86	66.55	<50	--	--	--	--	--
	2/9/1998	17.56	67.85	<50	--	--	--	--	--
	4/29/1998	16.23	69.18	<47	--	--	--	--	--
	8/4/1998	17.24	68.17	<50	--	--	--	--	--
	11/2/1998	17.91	67.50	<50	--	--	--	--	--
	3/26/1999	16.42	68.99	<50	--	--	--	--	--
	7/1/1999	17.90	67.51	<50	--	--	<10	<10	ND
	9/21/1999	18.91	66.50	<48	--	--	<9.5	<9.5	ND
	2/9/2000	16.74	68.67	--	<50	<250	<10	<10	ND
	5/31/2000	16.21	69.20	--	<50	<500	--	--	--
	11/14/2000	17.00	68.41	--	<50	<250	--	--	--
	3/1/2001	17.09	68.32	--	<50	<250	<10	<10	ND
	5/7/2001	17.19	68.22	--	<50	<250	--	--	--
	8/1/2001	17.25	68.16	--	<50	<250	--	--	--
	11/5/2001	17.35	68.06	--	<50	<250	--	--	--
	2/13/2002	17.50	67.91	--	<50	<250	--	--	--
	5/2/2002	17.30	68.11	--	<50	<250	--	--	--
	8/4/2002	17.58	67.83	--	<50	<250	--	--	--
	11/26/2002	18.35	67.06	--	<50	<250	--	--	--
	1/20/2003	15.84	69.57	--	83	<250	--	--	--
	5/28/2003	15.19	70.22	--	<50	<250	--	--	--
	8/5/2003	17.00	68.41	--	<50	<250	--	--	--
	11/10/2003	16.54	68.87	--	<50	--	--	--	--

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Table 2. Groundwater Elevation and Analytical Data: Extractable Hydrocarbons and SVOCs
Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID <i>TOC Elev.</i> <i>(ft)</i>	Sampling Date	Depth to water (ft)	Groundwater Elevation (ft)	TEH (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	2-Methyl naphthalene (µg/L)	Naphthalene (µg/L)	Other SVOCs (µg/L)
MW-7	2/18/2004	16.47	68.94	--	<50	--	--	--	--
<i>(cont'd)</i>	5/27/2004	15.93	69.48	--	<50	<250	--	--	--
	8/19/2004	18.05	67.36	--	<50	--	--	--	--
	12/27/2004	17.35	68.06	--	<50	<250	--	--	--
MW-8	10/12/1992	27.70	57.80	--	--	--	--	--	--
<i>85.50</i>	11/25/1992	27.62	57.88	170	--	--	--	--	--
	4/8/1993	26.64	58.86	100	--	--	--	--	--
	7/21/1993	26.60	58.90	90	--	--	--	--	--
	11/11/1993	27.18	58.32	170	--	--	--	--	--
	8/30/1995	26.35	59.15	240	--	--	--	--	--
	12/4/1995	26.72	58.78	<50	--	--	--	--	--
	5/3/1996	25.47	60.03	94	--	--	--	--	--
	8/8/1996	26.41	59.09	250	--	--	--	--	--
	11/5/1996	26.77	58.73	<50	--	--	--	--	--
	2/6/1997	25.84	59.66	130	--	--	--	--	--
	5/9/1997	26.39	59.11	120	--	--	--	--	--
	8/7/1997	26.72	58.78	150	--	--	--	--	--
	11/5/1997	26.82	58.68	110	--	--	--	--	--
	2/9/1998	25.57	59.93	75	--	--	--	--	--
	5/1/1998	25.64	59.86	210	--	--	--	--	--
	8/5/1998	25.96	59.54	260	--	--	--	--	--
	11/3/1998	26.27	59.23	190	--	--	--	--	--
	3/31/1999	20.93	64.57	200	--	--	--	--	--
	7/1/1999	26.59	58.91	170	--	--	<9.6	<9.6	ND
	9/21/1999	26.89	58.61	420	--	--	<9.4	<9.4	ND
	2/9/2000	26.60	58.90	--	120	280	<10	<10	ND
	5/31/2000	26.16	59.34	--	160 **	<500	--	--	--
	11/14/2000	26.60	58.90	--	150	< 250	--	--	--
	3/1/2001	26.41	59.09	--	54	<250	<10	<10	Phenol: 25
	5/7/2001	26.55	58.95	--	<50	<250	--	--	--
	8/1/2001	26.71	58.79	--	58	<250	--	--	--
	11/5/2001	26.67	58.83	--	84	<250	--	--	--
	2/13/2002	26.15	59.35	--	83	<250	--	--	--
	5/2/2002	26.63	58.87	--	<50	<250	--	--	--
	8/4/2002	26.80	58.70	--	260	<250	--	--	--
	11/26/2002	27.50	58.00	--	<50	<250	--	--	--

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Table 2. Groundwater Elevation and Analytical Data: Extractable Hydrocarbons and SVOCs
 Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to water (ft)	Groundwater Elevation (ft)	TBH (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	2-Methyl naphthalene (µg/L)	Naphthalene (µg/L)	Other SVOCs (µg/L)
MW-8	1/20/2003	24.93	60.57	--	63	<250	--	--	--
(cont'd)	5/28/2003	24.28	61.22	--	<50	<250	--	--	--
	8/5/2003	26.51	58.99	--	2,700	380	--	--	--
	11/10/2003	26.04	59.46	--	<50	--	--	--	--
	2/18/2004	25.97	59.53	--	<50	--	--	--	--
	5/27/2004	25.31	60.19	--	<50	<250	--	--	--
	8/19/2004	27.55	57.95	--	<50	--	--	--	--
	12/27/2004	26.50	59.00	--	<50	<250	--	--	--
MW-9 90.37	11/24/1992	23.51	66.86	320	--	--	--	--	--
	4/5/1993	21.14	69.23	920	--	--	--	--	--
	7/21/1993	21.54	68.83	450	--	--	--	--	--
	11/10/1993	27.53	62.84	450	--	--	--	--	--
	8/30/1995	19.59	70.78	680	--	--	--	--	--
	12/4/1995	20.65	69.72	--	--	--	--	--	--
	5/2/1996	18.63	71.74	710	--	--	--	--	--
	11/5/1996	20.69	69.68	420	--	--	--	--	--
	5/9/1997	19.96	70.41	490	--	--	--	--	--
	8/8/1997	20.84	69.53	480	--	--	--	--	--
	11/5/1997	21.55	68.82	370	--	--	--	--	--
	2/9/1998	20.21	70.16	410	--	--	--	--	--
	5/1/1998	19.27	71.10	450	--	--	--	--	--
	8/5/1998	19.35	71.02	630	--	--	--	--	--
	11/2/1998	20.43	69.94	500	--	--	--	--	--
	3/25/1999	18.46	71.91	630	--	--	--	--	--
	7/1/1999	19.95	70.42	570	--	--	<9.5	<9.5	ND
	9/21/1999	21.15	69.22	770	--	--	<9.4	<9.4	ND
	2/9/2000	21.08	69.29	--	320	<250	<10	<10	ND
	5/31/2000	19.11	71.26	--	390 **	<500	--	--	--
	11/14/2000	20.90	69.47	--	160	<250	--	--	--
	3/1/2001	20.45	69.92	--	220	<250	<10	<10	ND
	5/7/2001	19.83	-19.83	--	290	<250	--	--	--
	8/1/2001	20.02	70.35	--	460	<250	--	--	--
	11/5/2001	19.85	70.52	--	230	<250	--	--	--
	2/13/2002	19.80	70.57	--	210	<250	--	--	--
	5/2/2002	19.93	70.44	--	250	<250	--	--	--
	8/4/2002	20.20	70.17	--	300	<250	--	--	--

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Table 2. Groundwater Elevation and Analytical Data: Extractable Hydrocarbons and SVOCs
Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID <i>TOC Elev.</i> <i>(ft)</i>	Sampling Date	Depth to water <i>(ft)</i>	Groundwater Elevation <i>(ft)</i>	TEH <i>(µg/L)</i>	TPHd <i>(µg/L)</i>	TPHmo <i>(µg/L)</i>	2-Methyl naphthalene <i>(µg/L)</i>	Naphthalene <i>(µg/L)</i>	Other SVOCs <i>(µg/L)</i>
MW-9	11/26/2002	20.37	70.00	--	270	<250	--	--	--
<i>(cont'd)</i>	1/20/2003	17.93	72.44	--	350	<250	--	--	--
	5/28/2003	17.25	73.12	--	91	<250	--	--	--
	8/5/2003	19.03	71.34	--	210	<250	--	--	--
	11/10/2003	18.65	71.72	--	250	--	--	--	--
	2/18/2004	18.41	71.96	--	250	--	--	--	--
	5/27/2004	17.89	72.48	--	160	<250	--	--	--
	8/19/2004	20.14	70.23	--	160	--	--	--	--
	12/27/2004	21.65	68.72	--	91	<250	--	--	--
MW-10	10/12/1992	21.55	67.05	--	--	--	--	--	--
<i>88.60</i>	11/24/1992	21.86	66.74	1,300	--	--	--	--	--
	4/5/1993	19.14	69.46	5,000	--	--	--	--	--
	7/21/1993	19.79	68.81	20,000	--	--	--	--	--
	8/30/1995	17.99	70.61	5,900	--	--	--	--	--
	5/3/1996	17.04	71.56	5,600	--	--	--	--	--
	5/9/1997	18.36	70.24	2,500	--	--	--	--	--
	5/1/1998	15.84	72.76	2,000	--	--	--	--	--
MW-11	11/24/1992	33.65	68.41	220	--	--	--	--	--
<i>102.06</i>	12/8/92*	33.37	68.69	140	--	--	--	--	--
	12/8/1992	33.37	68.69	120	--	--	--	--	--
	4/5/1993	31.03	71.03	<50	--	--	--	--	--
	7/21/1993	31.90	70.16	150	--	--	--	--	--
	11/9/1993	32.60	69.46	60	--	--	--	--	--
	8/30/1995	28.92	73.14	240	--	--	--	--	--
	5/3/1996	28.00	74.06	<50	--	--	--	--	--
	5/8/1997	29.93	72.13	<50	--	--	--	--	--
	4/29/1998	27.22	74.84	<47	--	--	--	--	--
MW-13	11/24/1992	26.05	58.01	3,600	--	--	--	--	--
<i>84.06</i>	12/8/92*	25.08	58.98	210	--	--	--	--	--
	12/8/1992	25.08	58.98	100	--	--	--	--	--
	4/5/1993	24.64	59.42	<50	--	--	--	--	--
	7/21/1993	24.29	59.77	<50	--	--	--	--	--
	11/9/1993	24.23	59.83	160	--	--	--	--	--
	8/30/1995	23.30	60.76	<50	--	--	--	--	--

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Table 2. Groundwater Elevation and Analytical Data: Extractable Hydrocarbons and SVOCs
 Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to water (ft)	Groundwater Elevation (ft)	TEH (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	2-Methyl naphthalene (µg/L)	Naphthalene (µg/L)	Other SVOCs (µg/L)
MW-13 (cont'd)	12/1/1995	23.80	60.26	<50	--	--	--	--	--
	5/3/1996	23.19	60.87	<50	--	--	--	--	--
	8/8/1996	23.44	60.62	<50	--	--	--	--	--
	11/5/1996	24.04	60.02	<50	--	--	--	--	--
	2/6/1997	23.24	60.82	<50	--	--	--	--	--
	5/8/1997	23.46	60.60	<50	--	--	--	--	--
	8/8/1997	23.92	60.14	<50	--	--	--	--	--
	11/5/1997	24.27	59.79	<50	--	--	--	--	--
	2/9/1998	22.89	61.17	<50	--	--	--	--	--
	4/29/1998	22.27	61.79	<47	--	--	--	--	--
	8/4/1998	22.75	61.31	78	--	--	--	--	--
	11/3/1998	23.90	60.16	<50	--	--	--	--	--
	3/31/1999	23.11	60.95	<48	--	--	--	--	--
	7/1/1999	23.40	60.66	100	--	--	<9.6	<9.6	ND
	9/21/1999	21.91	62.15	<48	--	--	<9.4	<9.4	ND
	2/9/2000	23.84	60.22	--	<50	<250	<10	<10	ND
	5/31/2000	22.97	61.09	--	<50	<500	--	--	--
	11/14/2000	24.00	60.06	--	--	<250	--	--	--
	3/1/2001	23.93	60.13	--	<50	<250	<10	<10	ND
	5/7/2001	23.93	60.13	--	<50	<250	--	--	--
	8/1/2001	24.10	59.96	--	<50	<250	--	--	--
	11/5/2001	24.02	60.04	--	350	610	--	--	--
	2/13/2002	23.70	60.36	--	<50	<250	--	--	--
5/2/2002	23.97	60.09	--	<50	<250	--	--	--	
8/4/2002	24.19	59.87	--	810	310	--	--	--	
11/26/2002	24.78	59.28	--	66	<250	--	--	--	
1/20/2003	22.10	61.96	--	<50	<250	--	--	--	
5/28/2003	17.25	62.34	--	<50	<250	--	--	--	
8/5/2003	23.99	60.07	--	<50	<250	--	--	--	
11/10/2003	23.47	60.59	--	<50	--	--	--	--	
2/18/2004	22.58	61.48	--	<50	--	--	--	--	
5/27/2004	21.95	62.11	--	<50	<250	--	--	--	
8/19/2004	24.29	59.77	--	<50	--	--	--	--	
	12/27/2004	23.70	60.36	--	<50	<250	--	--	--
MW-14 94.66	5/26/1998	21.67	72.99	7,700	--	--	--	--	--
	7/1/1999	22.95	71.71	SPH	--	--	--	--	--
	9/21/1999	24.26	70.40	SPH	--	--	--	--	--
	2/9/2000	24.13	70.53	--	14,000	1,500	290	600	ND
	5/31/2000	22.09	72.57	--	SPH	--	--	--	--
	11/14/2000	23.90	70.76	--	SPH	--	--	--	--

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Table 2. Groundwater Elevation and Analytical Data: Extractable Hydrocarbons and SVOCs
Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID <i>TOC Elev.</i> (ft)	Sampling Date	Depth to water (ft)	Groundwater Elevation (ft)	TEH (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	2-Methyl naphthalene (µg/L)	Naphthalene (µg/L)	Other SVOCs (µg/l.)
MW-14 <i>(cont'd)</i>	3/1/2001	23.97	70.69	--	SPH	--	--	--	--
	5/7/2001	23.45	71.23	--	SPH	--	--	--	--
	8/1/2001	23.57	71.12	--	SPH	--	--	--	--
	11/5/2001	23.50	71.18	--	SPH	--	--	--	--
	2/13/2002	22.99	71.70	--	SPH (0.04)	--	--	--	--
	5/2/2002	23.51	71.17	--	SPH (0.02)	--	--	--	--
	8/4/2002	23.61	71.06	--	SPH (0.01)	--	--	--	--
	11/26/2002	24.35	70.31	--	SPH (sheen)	--	--	--	--
	1/20/2003	22.35	72.31	--	SPH (sheen)	--	--	--	--
	5/28/2003	21.95	72.74	--	SPH (0.04)	--	--	--	--
	8/5/2003	23.03	71.66	--	SPH (0.04)	--	--	--	--
	11/10/2003	22.70	72.02	--	SPH (0.07)	--	--	--	--
	2/18/2004	22.37	72.32	--	SPH (0.04)	--	--	--	--
	5/27/2004	21.78	72.92	--	SPH (0.05)	--	--	--	--
	8/19/2004	24.13	70.57	--	SPH (0.05)	--	--	--	--
	12/27/2004	24.19	70.51	--	SPH (sheen)	--	--	--	--
MW-15 <i>94.76</i>	5/26/1998	21.87	72.89	1,700	--	--	--	--	--
	7/1/1999	22.25	72.51	SPH	--	--	--	--	--
	9/21/1999	24.12	70.64	SPH	--	--	--	--	--
	2/9/2000	24.42	70.34	--	4,000	1,200	50	270	ND
	5/31/2000	22.40	72.36	--	SPH	--	--	--	--
	11/14/2000	24.15	70.61	--	SPH	--	--	--	--
	3/1/2001	23.99	70.77	--	SPH	--	--	--	--
	5/7/2001	23.50	71.26	--	SPH	--	--	--	--
	8/1/2001	23.62	71.14	--	SPH	--	--	--	--
	11/5/2001	23.65	71.11	--	SPH (sheen)	--	--	--	--
	2/13/2002	23.09	71.67	--	3,100	<250	17	68	5
	5/2/2002	23.59	71.17	--	SPH (sheen)	--	--	--	--
	8/4/2002	23.65	71.11	--	SPH (sheen)	--	--	--	--
	11/26/2002	24.59	70.17	--	SPH (sheen)	--	--	--	--
	1/20/2003	22.08	72.68	--	3,700	340	--	--	--
	5/28/2003	21.68	73.08	--	SPH (sheen)	--	--	--	--
	8/5/2003	24.05	70.71	--	SPH (sheen)	--	--	--	--
	11/10/2003	23.68	71.08	--	SPH (sheen)	--	--	--	--
2/18/2004	23.51	71.25	--	1,100	--	--	--	--	
5/27/2004	22.98	71.78	--	SPH (sheen)	--	--	--	--	
8/19/2004	25.31	69.45	--	SPH (sheen)	--	--	--	--	
12/27/2004	24.46	70.30	--	SPH (sheen)	--	--	--	--	

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Table 2. Groundwater Elevation and Analytical Data: Extractable Hydrocarbons and SVOCs
Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to water (ft)	Groundwater Elevation (ft)	TEH (µg/l.)	TPHd (µg/L)	TPHmo (µg/L)	2-Methyl naphthalene (µg/L)	Naphthalene (µg/L)	Other SVOCs (µg/L)
Grab Sampling Data									
B (boring)	5/16/1998	--	--	77**	--	--	--	--	--
C (boring)	5/16/1998	--	--	48**	--	--	--	--	--
G (boring)	5/16/1998	--	--	35,000**	--	--	--	--	--

Abbreviations and Notes:

TOC Elev. (ft) = Top of casing elevation, surveyed to an arbitrary datum

TEH = Total extractable hydrocarbons

TPHd = Total petroleum hydrocarbons as diesel

TPHmo = Total petroleum hydrocarbons as motor oil

SVOCs = Semi-volatile organic compounds

Other SVOC's = All other compounds analyzed by EPA Method 8270

µg/l = micrograms per liter = parts per billion = ppb

ND = None detected above laboratory reporting limit, see laboratory report for individual reporting limits

1 = ND except for 1,700 ug/l 2,4 dichlorophenol, 240 ug/l bis (2-ethyl hexyl) phthalate. Also 10 mg/l oil and grease.

2 = ND except for 570 ug/l benzoic acid and 93 ug/l phenol. Also 20 mg/l oil and grease.

3 = ND except for 700 ug/l benzoic acid, 92 ug/l phenol, and 52 ug/l 3,4 methyl phenol.

4 = ND except for 74 ug/l benzoic acid and 68 ug/l creosol.

5 = ND except for 480 ug/l phenol, 110 ug/l 2,4 dimethylphenol, 210 ug/l 2-methylphenol, 200 ug/l 3,4-methylphenol, and 5.7 mg/l oil and grease.

< n = Not detected above n ug/l

-- = Not analyzed/not available

* = Duplicate sample sent to a different chemical laboratory

** = Does not match TPHd or TEH pattern

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Table 3. LUFT Metals in Groundwater

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID	Sampling Date	Cadmium (µg/L)	Chromium (µg/L)	Lead (µg/L)	Nickel (µg/L)	Zinc (µg/L)
MW-4	7/1/1999	<5	<10	59	<20	<20
	9/21/1999	<5	<10	66	<20	33
	2/9/2000	<5	17	68	<50	<50
MW-7	7/1/1999	<5	<10	<3	<20	<20
	9/21/1999	<5	<10	<3	<20	<20
	2/9/2000	<5	14	8.6	59	<50
MW-8	7/1/1999	<5	<10	<3	<20	<20
	9/21/1999	<5	<10	<3	<20	<20
	2/9/2000	<5	<5	<5	<50	<50
MW-9	7/1/1999	<5	<10	<3	34	<20
	9/21/1999	<5	<10	<3	25	37
	2/9/2000	<5	82	29	160	130
	3/1/2001	<5	47	<5	72	<50
	5/7/2001	<5	49	<5	<50	<50
	8/1/2001	<5	<20	<5	<50	<50
	2/13/2002	<5	--	<5	<50	<50
	1/20/2003	<5	<20	<5	<50	<50
MW-13	7/1/1999	<5	<10	<3	<20	<20
	9/21/1999	<5	<10	<3	<20	<20
	2/9/2000	<5	12	15	<50	<50
MW-14	2/9/2000	<5	210	24	2,500	280
MW-15	2/9/2000	<5	140	1,800	220	150
	2/13/2002	<5	--	<5	<50	<50
	1/20/2003	<5	<20	36	<50	<50

Abbreviations and Notes:

LUFT metals analyzed by EPA Method 6010

µg/l = micrograms per liter

-- = Not analyzed/not available

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Table 4. Separate-Phase Hydrocarbon Removal
Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID <i>TOC Elev.</i> <i>(ft)</i>	Date Sampled	Depth to Groundwater (feet)	SPH Thickness (feet)	SPH Removed (gallons)	Cumulative SPH Removed (gallons)	Notes
MW-1	12/23/1991	26.86	1.15	2.00	2.00	1
94.48	12/26/1991	26.08	0.22	0.50	2.50	1
	1/13/1992	26.53	0.66	1.00	3.50	1
	2/28/1992	27.75	0.42	2.00	5.50	1
	11/9/1993	26.06	1.17	0.50	6.00	1
	11/3/1995	23.10	0.76	0.75	6.75	1
	11/30/1995	23.38	0.70	0.25	7.00	1
	1/3/1996	23.30	0.78	0.53	7.53	1
	2/2/1996	22.96	0.84	0.75	8.28	1
	3/1/1996	21.69	0.14	0.10	8.38	1
	4/4/1996	21.11	0.00	0.00	8.38	1
	5/2/1996	20.96	0.00	0.00	8.38	1
	6/5/1996	20.98	0.04	0.10	8.48	1
	7/9/1996	21.64	0.20	0.10	8.58	1
	8/8/1996	22.43	0.33	0.05	8.63	1
	9/10/1996	23.25	0.60	0.10	8.73	1
	10/1/1996	23.58	0.60	0.25	8.98	1
	11/4/1996	24.29	0.78	0.13	9.11	1
	12/2/1996	24.63	0.88	0.26	9.37	1
	1/3/1997	24.08	0.81	0.39	9.76	1
	2/6/1997	22.46	0.30	0.01	9.77	1
	3/5/1997	23.00	0.00	0.00	9.77	1
	4/1/1997	22.29	0.20	0.01	9.78	1
	5/8/1997	22.79	0.33	0.02	9.80	1
	6/6/1997	24.33	1.69	0.26	10.06	1
	7/8/1997	24.00	0.96	0.20	10.26	1
	8/7/1997	24.58	1.29	1.00	11.26	1
	9/10/1997	24.93	1.21	1.50	12.76	1
	10/1/1997	24.89	0.86	0.26	13.02	1
	11/4/1997	25.06	0.77	0.26	13.28	1
	12/4/1997	24.76	0.54	0.19	13.47	1
	1/8/1998	23.66	0.00	0.00	13.47	1
	2/5/1998	22.64	0.00	0.00	13.47	1
	3/6/1998	20.80	0.00	0.00	13.47	1
	4/2/1998	20.31	0.00	0.00	13.47	1
	4/29/1998	19.95	0.00	0.00	13.47	1
	6/3/1998	20.41	0.00	0.00	13.47	1
	7/9/1998	20.97	0.07	0.00	13.47	1
	8/4/1998	21.40	trace	0.00	13.47	1
	8/26/1998	21.85	0.10	0.00	13.47	1
	11/2/1998	22.92	0.39	0.00	13.47	1
	12/4/1998	23.29	0.29	0.01	13.48	1

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Table 4. Separate-Phase Hydrocarbon Removal

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID <i>TOC Elev.</i> <i>(ft)</i>	Date Sampled	Depth to Groundwater (feet)	SPII Thickness (feet)	SPH Removed (gallons)	Cumulative SPH Removed (gallons)	Notes
MW-1	1/5/1999	23.51	0.42	0.03	13.51	1
<i>(cont'd)</i>	2/8/1999	23.08	0.05	0.25	13.76	1
	3/24/1999	21.90	0.01	0.01	13.77	1
	4/30/1999	21.52	0.00	0.00	13.77	1
	7/1/1999	22.70	0.03	0.01	13.78	1
	9/21/1999	23.81	0.08	0.20	13.98	1
	10/20/1999	23.90	0.10	0.01	13.99	1
	12/13/1999	24.24	trace	0.00	13.99	1
	2/9/2000	23.95	0.07	0.05	14.04	1
	2/15/2000	--	0.00	0.00	14.04	2
	2/25/2000	23.69	0.00	0.06	14.10	2
	3/3/2000	23.27	0.00	0.05	14.15	2
	3/28/2000	22.39	0.00	0.13	14.28	2
	5/2/2000	22.29	0.00	0.05	14.32	2
	5/31/2000	22.05	0.00	0.00	14.32	2
	7/3/2000	22.10	trace	0.02	14.34	2
	8/4/2000	22.40	0.00	0.01	14.35	2
	10/6/2000	23.47	0.46	0.01	14.36	1
	11/3/2000	24.14	0.78	0.00	14.36	
	12/1/2000	25.40	0.83	1.75	16.11	1,2
	1/4/2001	25.13	0.09	0.25	16.36	2
	2/2/2001	25.12	0.03	0.13	16.49	2
	4/3/2001	23.19	0.24	0.10	16.59	
	5/4/2001	23.31	0.47	0.00	16.59	
	5/7/2001	23.85	0.05	0.03	16.62	2
	6/11/2001	23.77	0.67	0.00	16.62	2
	5/2/2002	23.41	0.46	0.01	16.62	
	6/14/2002	23.95	0.03	0.01	16.63	2
	8/4/2002	24.02	0.03	0.01	16.64	2
	9/24/2002	24.59	0.01	0.003	16.64	2
	10/16/2002	25.08	0.03	0.003	16.64	2
	11/6/2002	25.71	0.08	0.005	16.65	2
	11/26/2002	24.47	0.05	0.003	16.65	2
	12/9/2002	24.08	0.07	0.009	16.66	2
	1/17/2003	22.14	0.07	0.005	16.67	1,2
	1/27/2003	22.55	0.02	0.003	16.67	2
	3/5/2003	23.53	0.02	0.25	16.92	1,2
	4/11/2003	23.11	0.03	0.007	16.93	1,2
	5/13/2003	22.95	0.02	0.007	16.93	1,2
	5/28/2003	21.77	0.02	0.008	16.94	1,2
	6/13/2003	21.84	0.03	0.013	16.95	1,2
	7/24/2003	23.19	0.05	0.003	16.96	1,2

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Table 4. Separate-Phase Hydrocarbon Removal
Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID <i>TOC Elev.</i> <i>(ft)</i>	Date Sampled	Depth to Groundwater (feet)	SPH Thickness (feet)	SPH Removed (gallons)	Cumulative SPH Removed (gallons)	Notes
MW-1	8/5/2003	23.07	0.04	0.013	16.97	1, 2
<i>(cont'd)</i>	9/12/2003	23.74	0.05	0.021	16.99	1, 2
	10/10/2003	23.90	0.06	0.026	17.02	1, 2
	11/10/2003	22.53	0.03	0.016	17.03	1, 2
	11/21/2003	23.12	0.02	0.026	17.06	1, 2
	12/4/2003	22.95	0.03	0.026	17.09	1, 2
	1/23/2004	22.40	0.04	0.018	17.10	1, 2
	2/6/2004	22.74	0.05	0.017	17.12	1, 2
	2/18/2004	22.61	0.05	0.018	17.14	1, 2
	3/28/2004	22.81	0.01	0.001	17.14	1, 2
	4/9/2004	22.61	0.00	0.000	17.14	1, 2
	5/27/2004	22.08	0.05	0.009	17.15	1, 2
	7/29/2004	24.52	0.92	0.660	17.81	1, 2
	8/6/2004	23.98	0.25	0.264	18.08	1, 2
	8/19/2004	24.35	0.38	0.264	18.34	1, 2
	9/3/2004	24.47	0.29	0.264	18.60	1, 2
	12/27/2004	24.18	0.44	0.119	18.72	1,2
MW-4	12/23/1991	22.63	0.98	2.50	2.50	1
88.84	12/26/1991	22.52	0.96	6.00	8.50	1
	1/10/1992	22.74	0.99	5.00	13.50	1
	2/28/1992	22.00	0.67	4.00	17.50	1
	3/11/1992	21.71	0.55	3.50	21.00	1
	3/13/1992	21.56	0.49	3.50	24.50	1
	3/17/1992	25.46	0.44	2.25	26.75	1
	3/18/1992	21.38	0.44	2.50	29.25	1
	3/19/1992	21.33	0.48	1.50	30.75	1
	3/23/1992	21.29	0.42	4.00	34.75	1
	3/24/1992	21.31	0.38	1.50	36.25	1
	3/25/1992	21.17	0.36	1.00	37.25	1
	3/26/1992	21.08	0.35	1.00	38.25	1
	3/27/1992	20.92	0.26	0.50	38.75	1
	3/31/1992	21.15	0.44	0.50	39.25	1
	4/1/1992	20.90	0.24	0.25	39.50	1
	4/2/1992	20.90	0.17	0.13	39.63	1
	4/6/1992	—	—	0.13	39.76	1
	4/10/1992	20.91	0.33	0.25	40.01	1
	4/13/1992	21.04	0.42	0.25	40.26	1
	4/20/1992	20.74	0.19	0.13	40.39	1
	5/4/1992	20.83	0.33	0.13	40.52	1
	5/18/1992	21.33	0.23	0.13	40.65	1
	5/26/1992	20.83	0.17	0.13	40.78	1
	6/1/1992	20.85	0.19	0.06	40.84	1
	6/29/1992	21.38	0.53	0.25	41.09	1
	7/29/1992	21.69	0.56	1.11	42.20	1

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Table 4. Separate-Phase Hydrocarbon Removal
Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID <i>TOC Elev.</i> <i>(ft)</i>	Date Sampled	Depth to Groundwater (feet)	SPH Thickness (feet)	SPH Removed (gallons)	Cumulative SPH Removed (gallons)	Notes
MW-4	8/28/1992	21.35	0.63	1.68	43.88	1
<i>(cont'd)</i>	4/3/1993	20.11	0.51	0.13	44.01	1
	11/9/1993	20.48	0.52	0.03	44.04	1
	8/30/1995	21.71	0.63	1.75	45.79	1
	10/2/1995	19.90	2.20	0.50	46.29	1
	11/3/1995	18.76	0.57	0.25	46.54	1
	11/30/1995	19.17	0.65	0.25	46.79	1
	1/3/1996	19.45	0.44	0.05	46.84	1
	2/2/1996	19.50	0.32	0.10	46.94	1
	3/1/1996	19.31	0.20	0.20	47.14	1
	4/4/1996	17.53	0.18	0.20	47.34	1
	5/2/1996	17.50	0.25	0.20	47.54	1
	6/5/1996	17.67	0.39	0.15	47.69	1
	7/9/1996	18.29	0.50	0.16	47.85	1
	8/8/1996	18.84	0.00	0.00	47.85	1
	9/10/1996	19.31	0.34	0.05	47.90	1
	10/1/1996	19.51	0.29	0.05	47.95	1
	11/4/1996	20.13	0.35	0.02	47.97	1
	12/2/1996	20.23	0.33	0.02	47.99	1
	1/3/1997	19.33	0.10	0.02	48.01	1
	2/6/1997	18.13	0.01	0.01	48.02	1
	4/30/1999	17.28	trace	0.00	48.02	1
	2/9/2000	19.76	0.00	0.00	48.02	1
	2/15/2000	--	0.00	0.00	48.02	2
	2/25/2000	19.30	0.00	0.00	48.02	2
MW-6	12/23/1991	28.40	3.21	7.50	7.50	1
85.62	12/26/1991	27.25	1.67	2.00	9.50	1
	1/10/1992	27.23	0.90	1.00	10.50	1
	2/4/1992	27.71	2.04	2.00	12.50	1
	2/28/1992	27.92	3.00	3.00	15.50	1
	3/10/1992	27.16	2.06	2.75	18.25	1
	3/12/1992	25.96	0.52	2.00	20.25	1
	3/23/1992	26.34	1.09	1.00	21.25	1
	3/30/1992	25.73	0.35	0.50	21.75	1
	4/10/1992	25.29	0.05	0.25	22.00	1
	4/13/1992	25.52	0.21	0.13	22.13	1
	4/20/1992	25.38	0.10	0.13	22.26	1
	5/4/1992	25.40	--	0.13	22.39	1
	5/8/1992	25.50	0.17	0.06	22.45	1
	5/26/1992	25.46	0.13	0.13	22.58	1
	6/1/1992	25.46	0.09	0.06	22.64	1
	6/29/1992	25.59	0.14	0.19	22.83	1
	7/29/1992	26.90	1.71	0.60	23.43	1
	8/28/1992	25.09	2.62	2.40	25.83	1

Pangea

Table 4. Separate-Phase Hydrocarbon Removal
Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID <i>TOC Elev.</i> <i>(ft)</i>	Date Sampled	Depth to Groundwater (feet)	SPH Thickness (feet)	SPH Removed (gallons)	Cumulative SPH Removed (gallons)	Notes
MW-6	12/2/1992	--	--	0.00	25.83	1
<i>(cont'd)</i>	4/3/1993	26.96	2.86	1.75	27.58	1
	11/9/1993	27.51	3.06	0.83	28.41	1
	8/30/1995	28.00	7.96	4.50	32.91	1
	10/2/1995	28.24	6.14	4.00	36.91	1
	11/3/1995	28.39	6.13	3.00	39.91	1
	11/30/1995	26.91	3.44	2.50	42.41	1
	1/3/1996	27.58	4.41	2.50	44.91	1
	2/2/1995	27.58	4.37	5.00	49.91	1
	3/1/1996	27.96	5.15	4.00	53.91	1
	4/4/1996	27.96	5.41	5.00	58.91	1
	5/2/1996	26.83	4.66	4.50	63.41	1
	6/5/1996	27.15	5.17	4.00	67.41	1
	7/9/1996	27.08	4.86	4.50	71.91	1
	8/8/1996	26.71	4.05	4.00	75.91	1
	9/10/1996	26.83	3.82	3.50	79.41	1
	10/1/1996	26.96	3.77	4.00	83.41	1
	11/4/1996	--	NM	0.00	83.41	4
86.94	12/2/1996	--	NM	0.00	83.41	4
	1/3/1997	--	NM	0.00	83.41	4
	2/6/1997	25.08	0.20	0.00	83.41	4
	3/5/1997	24.20	0.00	0.00	83.41	4
	4/1/1997	24.04	0.00	0.00	83.41	4
	5/8/1997	26.54	1.88	0.40	83.81	1
	6/6/1997	25.33	0.21	0.03	83.44	1
85.82	7/8/1997	25.30	0.07	0.00	83.41	1
	8/7/1997	25.52	0.00	0.00	83.41	1
	9/10/1997	25.76	0.00	0.00	83.41	1
	10/1/1997	25.12	0.00	0.00	83.41	1
	11/4/1997	26.16	0.18	0.02	83.43	1
	12/4/1997	26.08	0.16	0.05	83.86	1
	1/8/1998	25.79	0.10	0.66	84.10	1
	2/5/1998	25.31	0.89	0.00	84.10	4
	3/6/1998	24.63	0.46	0.04	84.14	1
	4/2/1998	24.45	0.59	0.10	84.24	1
	4/29/1998	22.96	0.55	0.09	84.33	1
	6/3/1998	22.81	0.41	0.03	84.36	1
	7/9/1998	23.04	0.35	0.05	84.41	1
	8/4/1998	23.29	0.35	0.04	84.45	1
	8/26/1998	23.50	0.31	0.01	84.46	1
	11/2/1998	24.24	0.43	0.02	84.48	1
	12/4/1998	24.35	0.32	0.01	84.49	1
	1/5/1999	24.51	0.40	0.03	84.52	1

Pangea

Table 4. Separate-Phase Hydrocarbon Removal
Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID <i>TOC Elev.</i> <i>(ft)</i>	Date Sampled	Depth to Groundwater (feet)	SPH Thickness (feet)	SPH Removed (gallons)	Cumulative SPH Removed (gallons)	Notes
MW-6	2/8/1999	24.00	0.03	0.13	84.65	1
<i>(cont'd)</i>	3/24/1999	23.82	0.19	0.03	84.68	1
	4/30/1999	23.60	1.13	0.10	84.78	1
	7/1/1999	24.45	0.42	0.06	84.84	1
	7/27/1999	25.35	0.24	0.06	84.90	1
	8/19/1999	24.87	0.24	0.06	84.96	1
	9/21/1999	24.58	0.10	0.20	85.16	1
	10/20/1999	25.05	0.17	0.20	85.36	1
	12/13/1999	25.08	0.10	0.06	85.42	1
	2/9/2000	24.93	0.44	0.25	85.67	1
	2/15/2000	--	0.00	0.07	85.74	3
	2/25/2000	24.23	0.00	0.01	85.75	3
	3/3/2000	24.00	0.00	0.00	85.75	3
	3/28/2000	23.54	0.00	0.05	85.80	3
	5/2/2000	23.52	0.06	0.03	85.83	3
	5/31/2000	23.39	0.08	0.00	85.83	3
	7/3/2000	23.61	trace	0.02	85.85	3
	8/4/2000	23.80	0.10	0.01	85.86	3
	10/6/2000	24.22	0.04	0.01	85.87	
	11/3/2000	24.30	0.09	0.00	85.87	
	12/1/2000	24.38	0.07	0.03	85.90	2, 3
	1/4/2001	24.65	0.17	0.00	85.90	5
	2/2/2001	24.72	0.22	0.25	86.15	3
	4/3/2001	23.90	0.06	0.05	86.20	
	5/4/2001	23.95	0.07	0.05	86.25	
	5/7/2001	--	--	0.08	86.33	
	6/11/2001	24.25	0.10	0.00	86.33	
	5/2/2002	23.25	0.01	0.00	86.33	2
	6/14/2002	23.17	0.07	0.01	86.34	1
	8/4/2002	23.55	0.03	0.01	86.35	1
	9/24/2002	23.98	0.02	0.007	86.35	1
	10/16/2002	24.20	0.09	0.005	86.36	1
	11/6/2002	25.78	0.07	0.005	86.36	1
	11/26/2002	24.22	0.03	0.009	86.37	1, 3
	12/9/2002	23.97	0.05	0.021	86.39	1, 3
	1/17/2003	21.30	0.06	0.013	86.41	1, 3
	1/27/2003	22.49	0.02	0.016	86.42	1, 3
	3/5/2003	24.35	0.06	0.013	86.44	1, 3
	4/11/2003	24.05	0.07	0.029	86.46	3
	5/13/2003	23.98	0.03	0.016	86.48	3
	5/28/2003	21.92	0.04	0.021	86.50	1, 3
	6/13/2003	21.98	0.06	0.020	86.52	1, 3

Pangea

Table 4. Separate-Phase Hydrocarbon Removal
Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID <i>TOC Elev.</i> <i>(ft)</i>	Date Sampled	Depth to Groundwater (feet)	SPH Thickness (feet)	SPH Removed (gallons)	Cumulative SPH Removed (gallons)	Notes
MW-6	7/24/2003	24.11	0.07	0.040	86.56	1, 3
<i>(cont'd)</i>	8/5/2003	23.98	0.04	0.021	86.58	1, 3
	9/12/2003	24.53	0.06	0.026	86.61	1, 3
	10/10/2003	24.88	0.10	0.026	86.64	1, 3
	11/10/2003	23.50	0.10	0.032	86.67	1, 3
	11/21/2003	23.81	0.06	0.026	86.69	1, 3
	12/4/2003	23.61	0.08	0.029	86.72	1, 3
	1/23/2004	23.09	0.10	0.026	86.75	1, 3
	2/6/2004	22.39	0.05	0.021	86.77	1, 3
	2/18/2004	22.21	0.04	0.018	86.79	1, 3
	3/28/2004	23.91	0.06	0.013	86.80	1, 3
	4/9/2004	23.89	0.03	0.026	86.83	1, 3
	5/27/2004	22.01	0.05	0.037	86.87	1, 3
	5/27/2004	22.01	0.05	0.037	86.90	1, 3
	7/29/2004	24.35	0.00	0.000	86.90	1, 3
	8/6/2004	24.05	0.03	0.005	86.91	1, 3
	8/19/2004	24.16	0.03	0.003	86.91	1, 3
	9/3/2004	24.29	0.02	0.003	86.91	1, 3
	12/27/2004	24.69	sheen	0.021	86.93	3
MW-9 <i>90.37</i>	8/8/1996	19.89	0.35	0.10	0.61	1
MW-14 <i>94.66</i>	12/4/1998	23.42	0.23	0.01	0.01	1
	1/5/1999	23.36	0.12	0.01	0.02	1
	2/8/1999	23.17	trace	0.01	0.03	1
	3/24/1999	22.08	trace	0.00	0.03	1
	4/30/1999	21.17	0.01	0.00	0.03	1
	7/1/1999	22.95	0.04	0.00	0.03	1
	9/21/1999	24.26	trace	0.00	0.03	1
	10/20/1999	24.10	0.00	0.00	0.03	1
	2/9/2000	24.13	0.00	0.00	0.03	1
	2/15/2000	--	0.00	0.00	0.03	1
	2/25/2000	--	0.00	0.00	0.03	2
	3/3/2000	23.27	0.00	0.05	0.08	2
	3/28/2000	22.40	0.00	0.13	0.21	2
	5/2/2000	22.22	0.00	0.04	0.25	2
	5/31/2000	22.09	0.00	0.00	0.25	2
	7/3/2000	22.35	trace	0.01	0.26	2
	8/4/2000	22.78	0.00	0.03	0.29	2
	10/6/2000	23.48	0.00	0.00	0.29	
	11/3/2000	23.60	0.00	0.00	0.29	
	12/1/2000	23.90	0.04	0.04	0.33	1, 2
	1/4/2001	24.10	0.00	0.00	0.33	

Pangea

Table 4. Separate-Phase Hydrocarbon Removal
Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID <i>TOC Elev.</i> <i>(ft)</i>	Date Sampled	Depth to Groundwater (feet)	SPH Thickness (feet)	SPH Removed (gallons)	Cumulative SPH Removed (gallons)	Notes
MW-14	2/2/2001	24.27	0.00	0.10	0.43	2
<i>(cont'd)</i>	4/3/2001	23.06	0.00	0.05	0.48	
	5/4/2001	23.05	0.00	0.00	0.48	
	5/7/2001	23.45	0.02	0.01	0.48	2
	6/11/2001	23.40	0.00	0.00	0.48	
	5/2/2002	23.51	0.02	0.003	0.49	2
	6/14/2002	23.88	0.01	0.003	0.49	2
	8/4/2002	23.61	0.01	0.004	0.49	2
	9/24/2002	24.07	0.01	0.007	0.50	2
	10/16/2002	24.29	trace	0.007	0.51	2
	11/6/2002	25.85	0.00	0.00	0.51	2
	11/26/2002	24.35	trace	0.00	0.51	2
	12/9/2002	24.05	trace	0.00	0.51	2
	1/17/2003	22.09	0.00	0.00	0.51	2
	1/27/2003	22.60	0.00	0.00	0.51	2
	3/5/2003	23.63	0.00	0.13	0.64	1,2
	4/11/2003	23.63	0.02	0.003	0.64	1,2
	5/13/2003	23.11	0.03	0.003	0.64	1,2
	5/28/2003	21.95	0.04	0.007	0.65	1,2
	6/13/2003	22.05	0.03	0.004	0.65	1,2
	7/24/2003	23.10	0.02	0.003	0.65	1,2
	8/5/2003	23.03	0.04	0.011	0.66	1,2
	9/12/2003	23.81	0.06	0.013	0.68	1,2
	10/10/2003	24.03	0.05	0.021	0.70	1,2
	11/10/2003	22.70	0.07	0.013	0.71	1,2
	11/21/2003	22.85	0.05	0.013	0.73	1,2
	12/4/2003	22.69	0.02	0.008	0.73	1,2
	1/23/2004	22.05	0.04	0.011	0.74	1,2
	2/6/2004	22.49	0.04	0.013	0.76	1,2
	2/18/2004	22.37	0.04	0.013	0.77	1,2
	3/28/2004	22.79	0.00	0.001	0.77	1,2
	4/9/2004	22.81	0.00	0.000	0.77	1,2
	5/27/2004	21.78	0.05	0.011	0.78	1,2
	7/29/2004	23.80	0.02	0.003	0.78	1,2
	8/6/2004	23.99	0.02	0.026	0.81	1,2
	8/19/2004	24.13	0.05	0.026	0.84	1,2
	9/3/2004	24.22	0.02	0.013	0.85	1,2
	12/27/2004	24.19	sheen	0.001	0.85	2
Total SPH Removed (gallons):					155.10	

Pangea

Table 4. Separate-Phase Hydrocarbon Removal

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID	Date	Depth to	SPH	SPH	Cumulative SPH	Notes
<i>TOC Elev.</i>	Sampled	Groundwater	Thickness	Removed	Removed	
<i>(ft)</i>		<i>(feet)</i>	<i>(feet)</i>	<i>(gallons)</i>	<i>(gallons)</i>	

Abbreviations and Notes:

TOC Elev. (ft) = Top of casing elevation, surveyed to an arbitrary datum (measured in feet)

SPH = Separate-phase hydrocarbons

-- = Not measured or not applicable

NM = Not Measured. Product was being removed by vapor extraction at time of measurement.

1 = SPH removed by manual bailing

2 = SPH removed from well by absorbent sock

3 = SPH removed from well by passive skimmer

4 = Vapor extraction system operating in well

5 = No product removed; skimmer adjusted incorrectly.

APPENDIX A

Well Monitoring Protocol

APPENDIX A

Well Monitoring Protocol

Well Monitoring Protocol			
Well	Gauging Frequency	Sampling Frequency	Analytes
Source Area Wells			
MW-1	Quarterly	Annually (1st Qtr)	TPHd, TPHmo, TPHg, BTEX, MTBE, <i>HVOCs</i> , DO
MW-6			(SVOCs and LUFT Metals no longer required)
MW-14			
MW-15			
Down-Gradient/Cross-Gradient Wells			
MW-4	Quarterly	Quarterly	TPHd, TPHmo, TPHg, BTEX, MTBE, DO
MW-7			(<i>HVOCs</i> 1 st qtr only)
MW-8			
MW-9			(SVOCs and LUFT Metals no longer required)
MW-13			
<p>1. Per the May 3, 1999, ACHCSA letter to Messrs. Hill and Linden, monitoring wells MW-2, MW-3, MW-5, MW-10, and MW-11 were dropped from the monitoring program.</p> <p>2. For cost control purposes, frequency for <i>HVOC</i> sample analysis for the cross/downgradient wells was reduced from quarterly to annually.</p> <p>3. SVOCs and LUFT Metal analysis no longer required by ACHCSA for this site.</p>			

APPENDIX B

Field Data Sheets

WELL GAUGING DATA

Project # 04/227-MD2 Date 12/7/04 Client Paugco

Site 3093 Broadway, Oakland

Well ID	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	Time
MW-1	2		24.18	0.44	450 350	24.62	—		1009
MW-4	2				per Monitoring Data Sheet	19.53	24.24		0952
MW-6	2	*			80	24.69	—		0948
MW-7	2					17.75	30.12		0937
MW-8	6					26.50	39.28		0940
MW-9	2					21.65	30.57		1015
MW-13	2					23.70	39.53		1021
MW-14	2	*			5	24.19	—		0959
MW-15	2	*				24.46	—		1005
* No split detected w/ interface probe									

WELL MONITORING DATA SHEET

Project #: <u>04/227-MW2</u>	Client: <u>Purco @ 3013 Broadway, Oakland</u>
Sampler: <u>MJ</u>	Date: <u>12/27/04</u>
Well I.D.: <u>MW-1</u>	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth (TD): <u>✓</u>	Depth to Water (DTW): <u>24.62</u>
Depth to Free Product: <u>24.18</u>	Thickness of Free Product (feet): <u>0.44</u>
Referenced to: <u>PVO</u> Grade	D.O. Meter (if req'd): <u>YSI</u> HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: <u>Bailer</u> Disposable Bailer Positive Air Displacement Electric Submersible	Watera Peristaltic Extraction Pump Other _____	Sampling Method: <u>Bailer</u> <u>Disposable Bailer</u> Extraction Port Dedicated Tubing Other: _____
---	---	---

_____ (Gals.) X _____ = _____ Gals. 1 Case Volume Specified Volumes Calculated Volume	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius² * 0.163</td> </tr> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius ² * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius ² * 0.163														

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
						<u>Removed ~ 200ml of SPH from Sect</u>
						<u>Removed ~ 250ml of SPH with D/BP. Bailer</u>

Did well dewater? Yes No	Gallons actually evacuated:
Sampling Date:	Sampling Time: Depth to Water:
Sample I.D.:	Laboratory: Kiff CalScience Other _____
Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:	
EB I.D. (if applicable):	@ _____ Time Duplicate I.D. (if applicable):
Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:	
D.O. (if req'd): Pre-purge:	_____ mg/L Post-purge: _____ mg/L
O.R.P. (if req'd): Pre-purge:	_____ mV Post-purge: _____ mV

WELL MONITORING DATA SHEET

Project #: <u>041227-MW2</u>	Client: <u>Purvis @ 3093 Broadway, Oakland</u>
Sampler: <u>R2 MW</u>	Date: <u>12/27/04</u>
Well I.D.: <u>MW-4</u>	Well Diameter: <u>(2)</u> 3 4 6 8
Total Well Depth (TD): <u>24.24</u>	Depth to Water (DTW): <u>19.53</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>(PVC)</u> Grade	D.O. Meter (if req'd): <u>81</u> HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>20.47</u>	

Purge Method: Bailer Watera Sampling Method: Bailer
 Disposable Bailer Peristaltic Disposable Bailer
 Positive Air Displacement Extraction Pump Extraction Port
 Electric Submersible Other _____ Dedicated Tubing

Other: _____

$\frac{0.8 \text{ (Gals.)} \times 3}{\text{Specified Volumes}} = \frac{2.4}{\text{Calculated Volume}} \text{ Gals.}$	<table border="1" style="width:100%; border-collapse: collapse; font-size: small;"> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius² * 0.163</td> </tr> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius ² * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius ² * 0.163														

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1213	19.7	6.8	763	251	0.8	cloudy, odor, slt
1215	20.2	6.7	764	331	1.6	"
1217	20.3	6.8	761	351	2.4	cloudy, odor, slt

Did well dewater? Yes No Gallons actually evacuated: 2.4

Sampling Date: 12/27/04 Sampling Time: 1225 Depth to Water: 19.65

Sample I.D.: MW-4 Laboratory: Kiff CalScience Other: McCampbell

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See Scope

EB I.D. (if applicable): _____ @ _____ Time Duplicate I.D. (if applicable): _____

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: _____

D.O. (if req'd): Pre-purge: _____ mg/L	Post-purge: <u>0.2</u> mg/L
O.R.P. (if req'd): Pre-purge: _____ mV	Post-purge: _____ mV

WELL MONITORING DATA SHEET

Project #: <u>CH227-M02</u>	Client: <u>Pump & Test 373 Broadway, Oakland</u>
Sampler: <u>UM</u>	Date: <u>12/29/04</u>
Well I.D.: <u>MW-6</u>	Well Diameter: <u>(2)</u> 3 4 6 8 _____
Total Well Depth (TD): _____	Depth to Water (DTW): <u>24.69</u>
Depth to Free Product: _____	Thickness of Free Product (feet): _____
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: _____	

Purge Method: Bailer Disposable Bailer Positive Air Displacement Electric Submersible	Water: _____ Peristaltic Extraction Pump Other: _____	Sampling Method: _____ Bailer Disposable Bailer Extraction Port Dedicated Tubing Other: _____
--	--	--

_____ (Gals.) X _____ = _____ Gals. 1 Case Volume Specified Volumes Calculated Volume	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius² * 0.163</td> </tr> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius ² * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius ² * 0.163														

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
						<u>emptied skimmer ~ 80 ml</u>
						<u>No SPH detected w/ int contact</u>

Did well dewater? Yes No	Gallons actually evacuated: _____
Sampling Date: _____	Sampling Time: _____ Depth to Water: _____
Sample I.D.: _____	Laboratory: Kiff CalScience Other: _____
Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: _____	
EB I.D. (if applicable): _____ @ _____ time	Duplicate I.D. (if applicable): _____
Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: _____	
D.O. (if req'd): Pre-purge: _____ mg/L	Post-purge: _____ mg/L
O.R.P. (if req'd): Pre-purge: _____ mV	Post-purge: _____ mV

WELL MONITORING DATA SHEET

Project #: <u>041227-M02</u>	Client: <u>3093 Broadway Oakland (Panca)</u>
Sampler: <u>MW</u>	Date: <u>12/27/04</u>
Well I.D.: <u>MW-7</u>	Well Diameter: <u>(2)</u> 3 4 6 8
Total Well Depth (TD): <u>30.12</u>	Depth to Water (DTW): <u>17.35</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVG</u> Grade	D.O. Meter (if req'd): <u>YSI</u> HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>19.90</u>	

Purge Method: <u>Bailer</u> <input type="checkbox"/> Disposable Bailer <input type="checkbox"/> Positive Air Displacement <input type="checkbox"/> Electric Submersible	Watertra <input type="checkbox"/> Peristaltic <input type="checkbox"/> Extraction Pump <input type="checkbox"/> Other _____	Sampling Method: <u>Bailer</u> <input checked="" type="checkbox"/> Disposable Bailer <input type="checkbox"/> Extraction Port <input type="checkbox"/> Dedicated Tubing Other: _____
--	--	--

$\frac{2.0 \text{ (Gals.)} \times 3}{\text{Specified Volumes}} = \frac{6}{\text{Calculated Volume}} \text{ Gals.}$	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Well Diameter</th> <th>Multplier</th> <th>Well Diameter</th> <th>Multplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius² * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multplier	Well Diameter	Multplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius ² * 0.163
Well Diameter	Multplier	Well Diameter	Multplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius ² * 0.163														

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1125	19.5	6.8	529	231	2	cloudy
1125	19.5	6.8	529	231	2	cloudy
1128	20.1	6.7	792	360	4	"
1132	20.0	6.7	877	520	6	DTW = 23.30 cloudy

Did well dewater? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Gallons actually evacuated: <u>6</u>	
Sampling Date: <u>12/27/04</u>	Sampling Time: <u>1410</u>	Depth to Water: <u>18.44</u>
Sample I.D.: <u>MW-7</u>	Laboratory: Kiff CalScience Other <u>McCampbell</u>	
Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: <u>SCENSCOPT</u>		
EB I.D. (if applicable): @ _____ Time	Duplicate I.D. (if applicable):	
Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:		
D.O. (if req'd): Pre-purge: _____ mg/L	Post-purge: <u>2.0</u> mg/L	
O.R.P. (if req'd): Pre-purge: _____ mV	Post-purge: _____ mV	

WELL MONITORING DATA SHEET

Project #: <u>041227-1111 MW2</u>	Client: <u>Panyma @ 3093 Broadway, Oakland</u>
Sampler: <u>MW</u>	Date: <u>12/27/04</u>
Well I.D.: <u>MW-8</u>	Well Diameter: 2 3 4 <u>6</u> 8
Total Well Depth (TD): <u>39.28</u>	Depth to Water (DTW): <u>26.56</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>BVG</u> Grade	D.O. Meter (if req'd): <u>YSI</u> HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>29.06</u>	

Purge Method: Bailer Waterra Sampling Method: Bailer
 Disposable Bailer Peristaltic Disposable Bailer
 Positive Air Displacement Extraction Pump Extraction Port
 Electric Submersible Other _____ Dedicated Tubing
 Other: _____

19 (Gals.) X 3 = _____ Gals.
 1 Case Volume Specified Volumes Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
<u>1148</u>	<u>19.2</u>	<u>6.6</u>	<u>1088</u>	<u>103</u>	<u>19</u>	<u>clear</u>
					<u>21</u>	<u>DTW = 37.17</u>
<u>1420</u>	<u>15.7</u>	<u>6.5</u>	<u>1138</u>	<u>10</u>	<u>-</u>	<u>clear</u>

Did well dewater? Yes No Gallons actually evacuated: 21

Sampling Date: 12/27/04 Sampling Time: 1420 Depth to Water: 27.55

Sample I.D.: MW-8 Laboratory: Kiff CalScience Other: McCampbell

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See SCA

EB I.D. (if applicable): _____ @ _____ Time Duplicate I.D. (if applicable): _____

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: _____

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: <u>04227-MW2</u>	Client: <u>Panycor @ 3093 Broadway, Oakland</u>
Sampler: <u>MW</u>	Date: <u>12/27/04</u>
Well I.D.: <u>MW-9</u>	Well Diameter: <u>(2)</u> 3 4 6 8
Total Well Depth (TD): <u>30.57</u>	Depth to Water (DTW): <u>21.05</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>(PVC)</u> Grade	D.O. Meter (if req'd): <u>(YSI)</u> HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>22.95</u>	

Purge Method: Bailer Water Sampling Method: Bailer
 Disposable Bailer Peristaltic Disposable Bailer
 Positive Air Displacement Extraction Pump Extraction Port
 Electric Submersible Other _____ Dedicated Tubing

1.5 (Gals.) X 3 = 4.5 Gals.
 1 Case Volume Specified Volumes Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
<u>1203</u>	<u>18.9</u>	<u>6.1</u>	<u>1028</u>	<u>>1000</u>	<u>1.5</u>	<u>cloudy, odor</u>
			<u>well dewatered @</u>		<u>1.7</u>	<u>DTW=28.91</u>
<u>1440</u>	<u>18.1</u>	<u>6.2</u>	<u>1043</u>	<u>371</u>	<u>-</u>	<u>cloudy</u>

Did well dewater? Yes No Gallons actually evacuated: 1.7

Sampling Date: 12/27/04 Sampling Time: 1440 Depth to Water: 24.80 feet

Sample I.D.: MW-9 Laboratory: Kiff CalScience Other: Melamp

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: Seescope

EB I.D. (if applicable): _____ @ _____ Time Duplicate I.D. (if applicable): _____

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: _____

D.O. (if req'd):	Pre-purge:	<u> </u> mg/L	Post-purge:	<u>2.5</u> mg/L
O.R.P. (if req'd):	Pre-purge:	<u> </u> mV	Post-purge:	<u> </u> mV

WELL MONITORING DATA SHEET

Project #: <u>041227-MW2</u>	Client: <u>Panacea @ 3093 Broadway, Concord</u>
Sampler: <u>AW</u>	Date: <u>12/27/04</u>
Well I.D.: <u>MW-13</u>	Well Diameter: <u>2</u> 3 4 6 8 _____
Total Well Depth (TD): <u>39.53</u>	Depth to Water (DTW): <u>23.70</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <u>YSI</u> HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>26.87</u>	

Purge Method: Bailer <input checked="" type="checkbox"/> Disposable Bailer Positive Air Displacement Electric Submersible	Waterra Peristaltic Extraction Pump Other _____	Sampling Method: Bailer <input checked="" type="checkbox"/> Disposable Bailer Extraction Port Dedicated Tubing Other: _____
--	--	---

$2.5 \text{ (Gals.)} \times 3 = \text{Gals.}$ I Case Volume Specified Volumes Calculated Volume	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius² * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius ² * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius ² * 0.163														

Time	Temp. (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1049	18.5	6.3	834	71000	2.5	cloudy
1052	19.3	6.4	775	71000	5	"
1059	19.5	6.5	791	71000	7.5	cloudy
						DTW = 30.11

Did well dewater? Yes <input checked="" type="checkbox"/> No	Gallons actually evacuated: <u>7.5</u>
Sampling Date: <u>12/27/04</u> Sampling Time: <u>1345</u> Depth to Water: <u>25.10</u>	
Sample I.D.: <u>MW-13</u> Laboratory: Kiff CalScience <u>(Other) McCombs</u>	
Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: <u>Seescope</u>	
EB I.D. (if applicable): @ _____ Time Duplicate I.D. (if applicable):	
Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:	
D.O. (if req'd): Pre-purge: _____ mg/L Post-purge: <u>5.5</u> mg/L	
O.R.P. (if req'd): Pre-purge: _____ mV Post-purge: _____ mV	

WELL MONITORING DATA SHEET

Project #: <u>041227-MD2</u>	Client: <u>Pungo 2073 Broadway Oakland</u>
Sampler: <u>MD</u>	Date: <u>12/27/04</u>
Well I.D.: <u>MW-14</u>	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth (TD): <u>—</u>	Depth to Water (DTW): <u>24.19</u>
Depth to Free Product: <u>—</u>	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: Bailer Disposable Bailer Positive Air Displacement Electric Submersible	Waterra Peristaltic Extraction Pump Other _____	Sampling Method: Bailer Disposable Bailer Extraction Port Dedicated Tubing Other: _____
--	--	---

_____ (Gals.) X _____ = _____ Gals. Case Volume Specified Volumes Calculated Volume	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius² * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius ² * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius ² * 0.163														

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
						<u>emptied absorbant sock</u>
						<u>~5ml spilt (80ml H₂O)</u>

Did well dewater? Yes No	Gallons actually evacuated: _____
Sampling Date: _____	Sampling Time: _____
Sample I.D.: _____	Depth to Water: _____
Laboratory: KMF CalScience Other _____	
Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other _____	
EB I.D. (if applicable): _____ @ _____ Time	Duplicate I.D. (if applicable): _____
Analyzed for: TPH-G BTEX MTBE TPH-D' Oxygenates (5) Other _____	
D.O. (if req'd): Pre-purge: _____ mg/L	Post-purge: _____ mg/L
O.R.P. (if req'd): Pre-purge: _____ mV	Post-purge: _____ mV

WELL MONITORING DATA SHEET

Project #: <u>CH1227-MD2</u>	Client: <u>Amgen @ 7093 Broadway, Oakland</u>
Sampler: <u>MD</u>	Date: <u>12/27/04</u>
Well I.D.: <u>MW-15</u>	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth (TD):	Depth to Water (DTW): <u>24.46</u>
Depth to Free Product: <u>—</u>	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]:	

Purge Method: <input type="checkbox"/> Bailer <input type="checkbox"/> Disposable Bailer <input type="checkbox"/> Positive Air Displacement <input type="checkbox"/> Electric Submersible	Water: <input type="checkbox"/> Peristaltic <input type="checkbox"/> Extraction Pump Other: _____	Sampling Method: <input type="checkbox"/> Bailer <input type="checkbox"/> Disposable Bailer <input type="checkbox"/> Extraction Port <input type="checkbox"/> Dedicated Tubing Other: _____
--	---	---

_____ (Gals.) X _____ = _____ Gals. 1 Case Volume Specified Volumes Calculated Volume	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius² * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius ² * 0.163
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1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius ² * 0.163														

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
						<u>No SPH detected</u>

Did well dewater? Yes No	Gallons actually evacuated:
Sampling Date:	Sampling Time: Depth to Water:
Sample I.D.:	Laboratory: Kiff CalScience Other _____
Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:	
EB I.D. (if applicable):	① _____ Duplicate I.D. (if applicable):
Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:	
D.O. (if req'd): Pre-purge:	mg/L Post-purge: mg/L
O.R.P. (if req'd): Pre-purge:	mV Post-purge: mV

APPENDIX C

Laboratory Analytical Report



McC Campbell Analytical, Inc.

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

Pangea Environmental Services, I 64 Sonia Street Oakland, CA 94618	Client Project ID: 3093 Broadway Oakland, CA	Date Sampled: 12/27/04
		Date Received: 12/28/04
	Client Contact: Bob Clark-Riddell	Date Reported: 01/05/05
	Client P.O.:	Date Completed: 01/05/05

WorkOrder: 0412530

January 05, 2005

Dear Bob:

Enclosed are:

- 1). the results of 5 analyzed samples from your **3093 Broadway Oakland, CA** project,
- 2). a QC report for the above samples
- 3). a copy of the chain of custody, and
- 4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions please contact me. McC Campbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,

Angela Rydelius, Lab Manager



McC Campbell Analytical, Inc.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
 Telephone : 925-798-1620 Fax : 925-798-1622
 Website: www.mcccampbell.com E-mail: main@mcccampbell.com

Pangea Environmental Services, I 64 Sonia Street Oakland, CA 94618	Client Project ID: 3093 Broadway Oakland, CA	Date Sampled: 12/27/04
	Client Contact: Bob Clark-Riddell	Date Received: 12/28/04
	Client P.O.:	Date Extracted: 12/30/04-12/31/04
		Date Analyzed: 12/30/04-12/31/04

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

Extraction method: SW5030B

Analytical methods: SW8021B/8015Cm

Work Order: 0412530

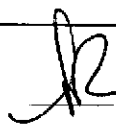
Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	MW-4	W	120,000,a,h	ND<1000	16,000	28,000	2800	12,000	100	111
002A	MW-7	W	ND	ND	ND	ND	ND	ND	1	108
003A	MW-8	W	160,a	ND	22	0.74	2.2	0.55	1	109
004A	MW-9	W	720,a	ND<15	25	14	2.0	3.5	1	109
005A	MW-13	W	ND	ND	ND	ND	ND	ND	1	109

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	0.5	1	µg/L
	S	NA	NA	NA	NA	NA	NA	NA	1	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 µg/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 McC Campbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request.


 Angela Rydelius, Lab Manager



McC Campbell Analytical, Inc.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
 Telephone : 925-798-1620 Fax : 925-798-1622
 Website: www.mcccampbell.com E-mail: main@mcccampbell.com

Pangea Environmental Services, I 64 Sonia Street Oakland, CA 94618	Client Project ID: 3093 Broadway Oakland, CA	Date Sampled: 12/27/04
	Client Contact: Bob Clark-Riddell	Date Received: 12/28/04
	Client P.O.:	Date Extracted: 12/28/04
		Date Analyzed: 12/29/04

Diesel (C10-23) and Oil (C18+) Range Extractable Hydrocarbons with Silica Gel Clean-Up*

Extraction method: SW3510C Analytical methods: SW8015C Work Order: 0412530

Lab ID	Client ID	Matrix	TPH(d)	TPH(mo)	DF	% SS
0412530-001B	MW-4	W	8700,d,h	ND<2500	10	102
0412530-002B	MW-7	W	ND	ND	1	104
0412530-003B	MW-8	W	ND	ND	1	103
0412530-004B	MW-9	W	91,d	ND	1	97
0412530-005B	MW-13	W	ND	ND	1	100

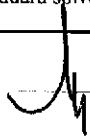
Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	250	µg/L
	S	NA	NA	mg/Kg

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

#) cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract; &) low or no surrogate due to matrix interference.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant; d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel (asphalt); f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; k) kerosene/kerosene range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit.

DHS Certification No. 1644

 Angela Rydelius, Lab Manager



QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0412530

EPA Method: SW8021B/8015Cm		Extraction: SW5030B		BatchID: 14499			Spiked Sample ID: 0412530-005A			
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	LCS / LCSD
TPH(btex) [£]	ND	60	96.8	101	4.58	97.1	93.3	3.92	70 - 130	70 - 130
MTBE	ND	10	97.3	100	2.79	88.9	87	2.12	70 - 130	70 - 130
Benzene	ND	10	99	105	5.87	93.7	92.9	0.960	70 - 130	70 - 130
Toluene	ND	10	96.8	104	7.14	96.5	96.5	0	70 - 130	70 - 130
Ethylbenzene	ND	10	105	107	2.00	99.8	98.6	1.17	70 - 130	70 - 130
Xylenes	ND	30	91.7	95	3.57	100	99.7	0.334	70 - 130	70 - 130
%SS:	109	10	109	110	1.32	99	99	0	70 - 130	70 - 130

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

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

% 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.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not applicable or 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.



QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0412530

EPA Method: SW8015C		Extraction: SW3510C			BatchID: 14489		Spiked Sample ID: N/A			
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	LCS / LCSD
TPH(d)	N/A	7500	N/A	N/A	N/A	90.2	91.4	1.31	N/A	70 - 130
%SS:	N/A	2500	N/A	N/A	N/A	90	91	1.30	N/A	70 - 130
All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE										

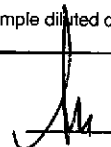
MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% 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.

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.

 QA/QC Officer

McC Campbell Analytical, Inc.



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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0412530

ClientID: PEO

Report to:		Bill to:	Requested TAT:
Bob Clark-Riddell	TEL: (510) 435-8664	Bob Clark-Riddell	5 days
Pangea Environmental Services, Inc.	FAX: (510) 654-4006	Pangea Environmental Services, Inc.	
64 Sonia Street	ProjectNo: 3093 Broadway Oakland, CA	64 Sonia Street	<i>Date Received:</i> 12/28/2004
Oakland, CA 94618	PO:	Oakland, CA 94618	<i>Date Printed:</i> 12/28/2004

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)														
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0412530-001	MW-4	Water	12/27/04 12:25:00	<input type="checkbox"/>	A	A	B												
0412530-002	MW-7	Water	12/27/04 2:10:00	<input type="checkbox"/>	A		B												
0412530-003	MW-8	Water	12/27/04 2:20:00	<input type="checkbox"/>	A		B												
0412530-004	MW-9	Water	12/27/04 2:40:00	<input type="checkbox"/>	A		B												
0412530-005	MW-13	Water	12/27/04 1:45:00	<input type="checkbox"/>	A		B												

Test Legend:

1	G-MBTX_W	2	PREF REPORT	3	TPH(DMO)WSG_W	4		5	
6		7		8		9		10	
11		12		13		14		15	

Prepared by: Melissa Valles

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.

pe

0412530

BLAINE

TECH SERVICES, INC.

1680 ROGERS AVENUE
SAN JOSE, CALIFORNIA 95112-1105
FAX (408) 573-7771
PHONE (408) 573-0555

CONDUCT ANALYSIS TO DETECT

LAB McCampbell DHS #
ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND
 EPA RWQCB REGION
 LIA
 OTHER

CHAIN OF
BTS # 041227-M2
CLIENT PANGEA Environmental Services
SITE 3093 Broadway
Oakland, CA

C = COMPOSITE ALL CONTAINERS

TPH-G/BTEX/MTBE (8015B/8021)
TPH-D & Motor Oil w/silica gel cleanup (EPA 8015)

SPECIAL INSTRUCTIONS
Invoice and Report to : PANGEA Env. Services
Attn: Bob Clark-Riddell
EDF Required

SAMPLE I.D.	DATE	TIME	MATRIX		CONTAINERS	C	TPH-G/BTEX/MTBE (8015B/8021)	TPH-D & Motor Oil w/silica gel cleanup (EPA 8015)									ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #	
			S=SOIL	W=H ₂ O																	
+ MW-4	12/27/04	1225	W	S			X	X													
+ MW-7		1410		S			X	X													
+ MW-8		1420		S			X	X													
+ MW-9		1440		S			X	X													
+ MW-13		1345	W	S			X	X													

ICE/°
GOOD CONDITION
HEAD SPACE ABSENT
DECHLORINATED IN LAB
PRESERVATION GAS O&G METALS OTHER
APPROPRIATE CONTAINERS
PRESERVED IN LAB

SAMPLING COMPLETED	DATE	TIME	SAMPLING PERFORMED BY	RESULTS NEEDED
	12/27/04	1500	John DeJong	NO LATER THAN
RELEASED BY	DATE	TIME	RECEIVED BY	Standard 5 day TAT
<i>[Signature]</i>	12/28/04	4:00 PM	<i>[Signature]</i>	
RELEASED BY	DATE	TIME	RECEIVED BY	
<i>[Signature]</i>	12/28/04	6:00	<i>[Signature]</i>	
RELEASED BY	DATE	TIME	RECEIVED BY	
<i>[Signature]</i>	12/28/04	6:00	<i>[Signature]</i>	

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #