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Alameda County  
FEB 15 2006  
Environmental Health

February 7, 2006

Mr. Don Hwang  
Alameda County Health Care Services Agency  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577

Re: **Connell Automobile Dealership –  
Groundwater Monitoring Report – Fourth Quarter 2005**  
3093 Broadway  
Oakland, California


Dear Mr. Hwang:

The Hill Family Trust & Linden Broadway Property Trust (Trusts) have retained Pangea Environmental Services, Inc. (Pangea) to provide environmental consulting services for corrective action at the site referenced above. Pangea is submitting the attached report on behalf of the Trusts.

I, Paul Kibel of Fitzgerald Abbot & Beardsley, am a legal representative of the Trusts. I declare, under penalty of perjury, that the information and/or recommendations contained in the attached report is true and correct to the best of my knowledge.

Sincerely,

FITZGERALD ABBOTT & BEARDSLEY LLP



Paul S. Kibel

RECEIVED

FEB 14 2006

ENVIRONMENTAL HEALTH SERVICES



February 7, 2006

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

Alameda County  
FEB 15 2006  
Environmental Health

Re: **Groundwater Monitoring Report – Fourth Quarter 2005**  
Connell Automobile Dealership  
3093 Broadway  
Oakland, California  
ACHCSA Case No. 469

Dear Mr. Hwang:

On behalf of the Hill Family Trust and Linden Broadway Trust, Pangea Environmental Services, Inc. has prepared this *Groundwater Monitoring Report – Fourth Quarter 2005* for the subject site. This report describes groundwater monitoring, sampling, and other site activities.

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 2005*

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, 21<sup>st</sup> Floor, Oakland, California 94612  
Mr. Leroy Griffin, Hazardous Materials Manager, Fire Department - OES, 1605 MLK Jr. Way, Oakland, California 94612

**PANGEA Environmental Services, Inc.**

1710 Franklin Street, Suite 200, Oakland, California 94612 Telephone 510.836.3700 Facsimile 510.836.3709 www.pangeaenv.com



**GROUNDWATER MONITORING REPORT – FOURTH QUARTER 2005**

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

**February 7, 2006**

*Prepared for:*

Hill Family Trust  
c/o Mr. George Hill  
305 Sheridan Avenue  
Piedmont, California 94611

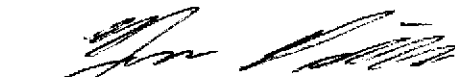
and

Linden Broadway Trust  
c/o Mr. Gordon Linden  
150 La Salle Avenue  
Piedmont, California 94611


*Prepared by:*

Pangea Environmental Services, Inc.  
1710 Franklin Street, Suite 200  
Oakland, California 94612

*Written by:*

  
Morgan Gillies  
Project Manager



  
Bob 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 2005* for the subject site. On behalf of the Hill Family Trust and Linden Broadway Trust, Pangea conducted groundwater monitoring, sampling, and separate-phase hydrocarbon (SPH) measurement and removal 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 thickness of SPH. If sufficient SPH is measured, the product is removed to provide additional remediation of residual hydrocarbons. Current analytical data and groundwater elevations are shown on Figure 2. Current and historical data are summarized on Tables 1 and 2. Table 3 summarizes SPH removal to date.

## SITE DESCRIPTION AND BACKGROUND

The site is located on the hillside of “Pill Hill” south of Hawthorne Avenue, between Broadway and Webster Street. The upper portion of the site is near the location of 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 have 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 removed a total of approximately 948 pounds (155 gallons) of SPH 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), and benzene, toluene, ethylbenzene and xylenes (BTEX). Analytical laboratories have quantified extractable hydrocarbons as total petroleum hydrocarbons as motor oil (TPHmo), but these hydrocarbons may represent the heavier fraction of TPHd. Methyl tertiary butyl ether (MTBE) is not a constituent of concern at this site.

## **GROUNDWATER MONITORING AND SAMPLING**

On November 30, 2005, Pangea gauged depth-to-water groundwater levels and inspected for SPH in site monitoring wells 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 2 hours to evaluate groundwater elevation and flow patterns at the site. Before well purging, the dissolved oxygen (DO) concentration was measured in each well. DO was measured by lowering a downwell sensor to the approximate middle of the water column, and allowing the reading to stabilize during gentle height adjustment. Prior to sample collection, approximately three well-casing volumes of groundwater were purged using a disposable bailer, PVC bailer or electric submersible pump. During well purging, field technicians measured and recorded groundwater pH, conductivity, and temperature. Groundwater samples were collected from each well with a disposable bailer and decanted into the appropriate containers supplied by the analytic 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. Groundwater monitoring field data sheets are presented as Appendix B.

## **MONITORING RESULTS**

Current groundwater elevation and analytical data are summarized on Figure 2. Current and historical data are described below and summarized on Tables 1 and 2. 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 8260B. Table 1 summarizes current and historical analytical results for purgeable hydrocarbons and volatile organic compounds, and presents dissolved oxygen data. DO concentrations ranged from 0.39 milligrams per liter (mg/L) in well MW-4 to 2.28 mg/L in well MW-13. Table 2 summarizes extractable hydrocarbons (TPHd and TPHmo), and semi-volatile organic compounds (SVOCs). Laboratory analyses were performed by McCampbell Analytical of Pacheco,

California, a state-certified laboratory. The laboratory analytical report and chain of custody are included in Appendix C.

### **Groundwater Flow Direction**

Based on depth-to-water measurements from November 30, 2005, groundwater beneath the upper portion of the site generally flows in an easterly direction toward the lower portion of the site. Groundwater at the lower portion of the site generally flows toward the north-northeast (Figure 2). The inferred flow direction is fairly consistent with previous monitoring. 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 0.02 to 0.05 feet in thickness. Hydrocarbons were detected at concentrations above reporting limits in three of the five sampled wells. The maximum TPHg, TPHd, and benzene concentrations were detected in well MW-4 at 100,000 micrograms per liter ( $\mu\text{g/L}$ ), 19,000  $\mu\text{g/L}$ , and 12,000  $\mu\text{g/L}$ , respectively. No hydrocarbons were detected in down/crossgradient well MW-7 or downgradient well MW-13. No MTBE was detected in the sampled wells.

## **OTHER SITE ACTIVITIES**

### **SPH Removal this Quarter**

SPH removal activities were conducted on November 30, 2005. The SPH volumes recovered from site monitoring wells MW-1, MW-6, MW-14 and MW-15 were insufficient to quantify. The amount of SPH removed from absorbent socks in MW-14 and from the skimmer in MW-6 was also insufficient to quantify. Approximately 948 pounds (155.52 gallons) of SPH have been removed since SPH removal activities began in December 1991. Table 3 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 checked for SPH. For program wells without SPH, Pangea will collect groundwater samples and measure dissolved oxygen. All groundwater samples will be analyzed for TPHg/BTEX/MTBE by EPA Method 8015Cm/8021B and for TPHd/TPHmo by EPA Method 8015C 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 Remedial Action**

Pangea submitted an *Interim Remedial Action Plan (IRAP)* to the ACEH on November 11, 2004. On April 7, 2005, the ACEH provided initial IRAP comments, and Pangea responded to the ACEH concerns in a letter dated April 9, 2005. The ACEH then verbally requested an IRAP addendum. Pangea prepared IRAP Addendum dated December 6, 2005, to address specific ACEH concerns, revise IRAP figures and summarize the proposed remedial approach of dual phase extraction and air sparging (DPE/AS). To help facilitate review of the IRAP Addendum, Pangea met with the ACEH on January 6, 2006. In response to ACEH concerns expressed at the meeting, Pangea prepared IRAP Addendum No. 2 dated January 9, 2006. The second addendum proposes shorter well screen intervals for the proposed monitoring wells, to comply with recent preferences of the ACEH.

Pangea respectfully requests that the ACEH quickly approve the IRAP and Addendums to facilitate system installation and operation during the upcoming dry season. Plan approval is required soon since several months of permitting and system installation will be necessary before system startup. The responsible parties are eager to commence site remediation.

## **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

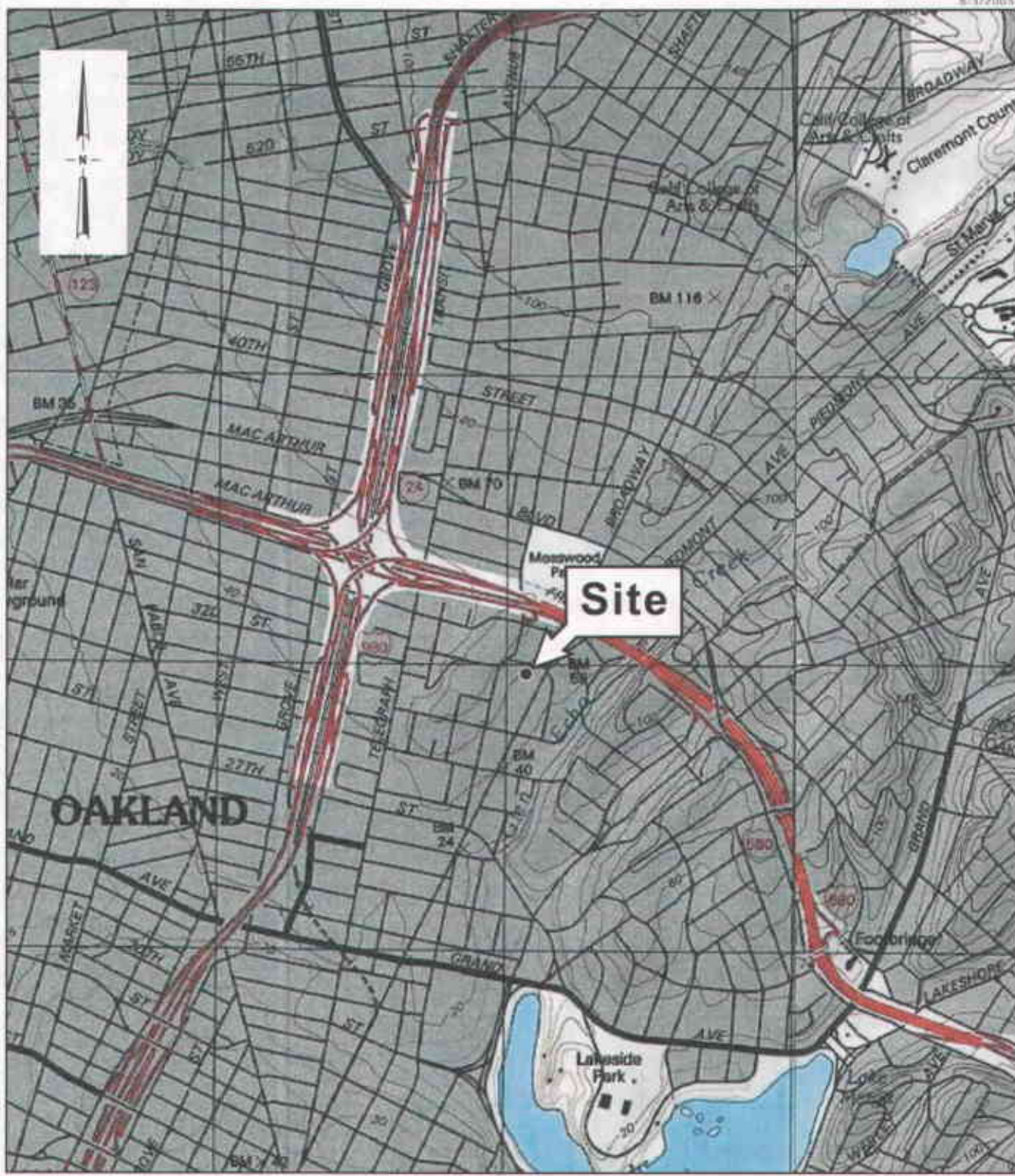
Table 3 – Separate-Phase Hydrocarbon Removal

Appendix A – Well Monitoring Protocol

Appendix B – Groundwater Monitoring Field Data Sheets

Appendix C – Laboratory Analytical Report





SOURCE: TOPOI MAPS



SCALE : 1" = 1/4 MILE

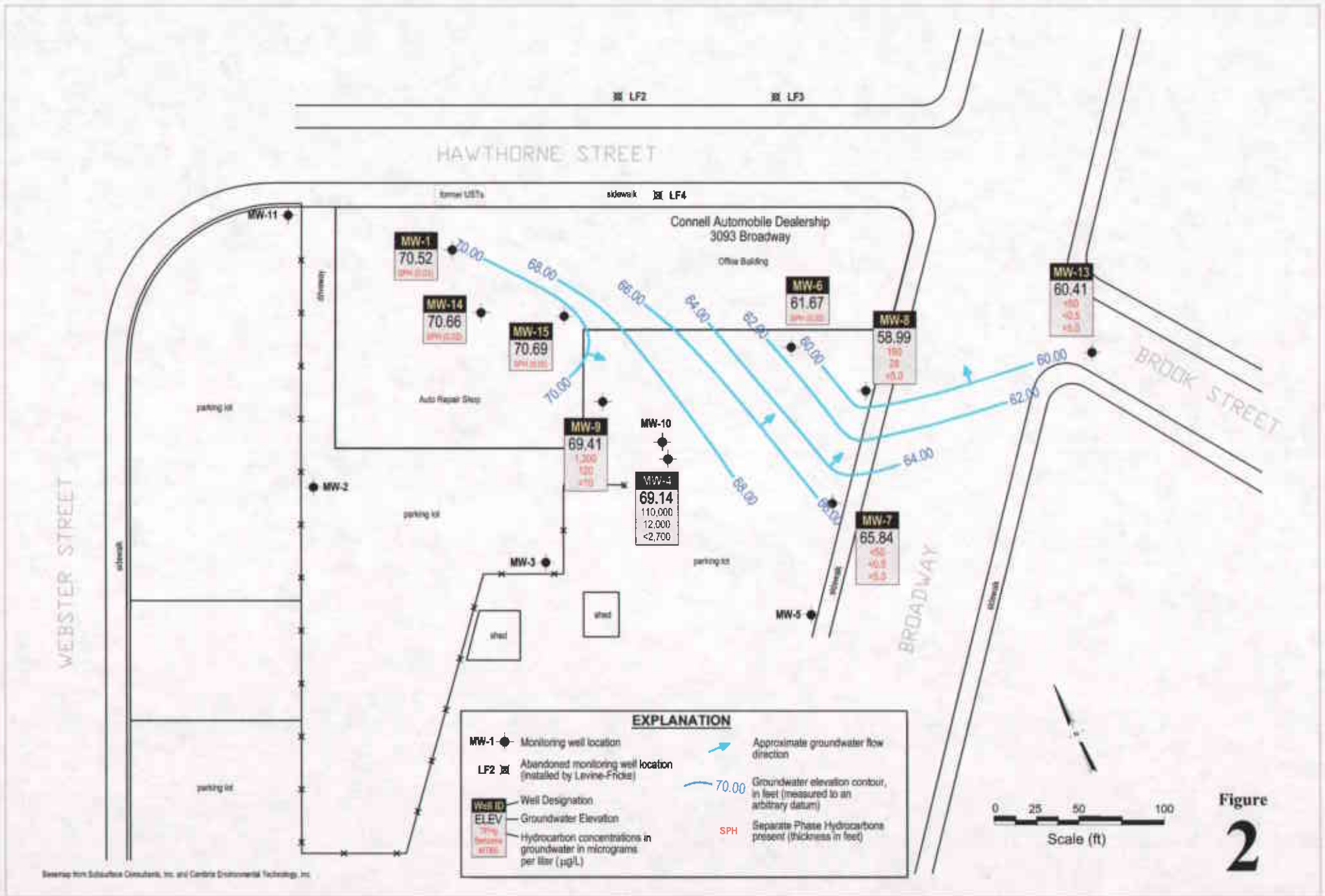
Figure

1

Vicinity Map

**Cornell Automobile Dealership**  
 3093 Broadway  
 Oakland, California





**Connell Automobile Dealership**  
 3093 Broadway  
 Oakland, California



**Groundwater Elevation and  
 Hydrocarbon Concentration Map**  
 November 30, 2005

# Pangea

**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	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)	--	--	--	--	--	--	--	--

# Pangea

**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	5/28/2003	21.77	72.73	SPH (0.02)	--	--	--	--	--	--	--	--
(continued)	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	70.21	SPH (0.44)	--	--	--	--	--	--	--	--
	2/18/2005	23.14	71.37	SPH (0.04)	--	--	--	--	--	--	--	--
	5/11/2005	22.71	71.79	SPH (0.02)	--	--	--	--	--	--	--	--
	8/3/2005	23.03	71.50	SPH (0.06)	--	--	--	--	--	--	--	--
	<b>11/30/2005</b>	<b>23.98</b>	<b>70.52</b>	<b>SPH (0.03)</b>	--	--	--	--	--	--	--	--
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	--

# Pangea

**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-4	3/1/1991	23.79	65.05	150,000	20,000	38,000	2,800	14,000	**	--	ND	--
88.84	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	--	--	--	--	--	--	--	--
	5/2/1996	17.50	71.34	140,000	24,000	50,000	3,000	15,100	--	--	ND	--
	11/4/1996	20.13	68.71	160,000	16,000	38,000	2,700	14,000	--	--	ND	--
	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 <sup>4</sup>	--	<sup>5</sup>	--
	7/1/1999	18.80	70.04	110,000	13,000	23,000	1,600	12,000	<83	--	<sup>5</sup>	--
	9/21/1999	19.85	68.99	140,000	16,000	31,000	2,400	14,800	ND	--	<sup>5</sup>	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 <sup>5</sup>	--	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

# Pangea

**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-4 (continued) 88.84	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
	2/18/2005	18.40	70.44	97,000	11,000	16,000	1,700	7,400	<4,000	<50	<50	0.89
	5/11/2005	17.93	70.91	110,000	10,000	16,000	1,900	8,400	<3,000	--	--	1.03
	8/3/2005	18.14	70.70	110,000	12,000	18,000	2,200	8,000	<3,600	--	--	0.77
	<b>11/30/2005</b>	<b>19.70</b>	<b>69.14</b>	<b>100,000</b>	<b>12,000</b>	<b>18,000</b>	<b>2,200</b>	<b>9,400</b>	<b>&lt;2700</b>	--	--	<b>0.39</b>
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	--

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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	3/26/1999	23.82	62.00	SPH	--	--	--	--	--	--	--	--
(continued)	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		--	--	--	--	--	--	--	--	--
	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	61.13	SPH (sheen)	--	--	--	--	--	--	--	--
	2/18/2005	23.55	62.33	SPH (0.08)	--	--	--	--	--	--	--	--
	5/11/2005	22.90	62.97	SPH (0.06)	--	--	--	--	--	--	--	--
	8/3/2005	23.68	62.19	SPH (0.06)	--	--	--	--	--	--	--	--
	<b>11/30/2005</b>	<b>24.17</b>	<b>61.67</b>	<b>SPH (0.02)</b>	--	--	--	--	--	--	--	--
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	--	--	--	--

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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	12/1/1995	19.47	65.94	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
(continued)	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	--
	5/31/2000	16.21	69.20	<50	3	6	1	9	<0.5	--	ND	--
	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



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Connell Automobile Dealership, 3093 Broadway, Oakland, California

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>>MW-7	12/27/2004	17.35	68.06	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	2.0
(continued)	2/18/2005	16.23	69.18	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	0.93
	5/11/2005	15.79	69.62	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	1.18
	8/3/2005	17.52	67.89	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	0.89
	<b>11/30/2005</b>	<b>19.57</b>	<b>65.84</b>	<b>&lt;50</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;5.0</b>	--	--	<b>1.70</b>
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	--	--	--
	5/1/1998	25.64	59.86	430	490	7.1	27	26	<10	--	ND	--
	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	--

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>>MW-8	2/13/2002	26.15	59.35	1,100	440	0.087	0.66	2.0	<5.0	--	ND	0.71
(continued)	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 <sup>f</sup>	<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
	2/18/2005	26.00	59.50	130	27	0.70	2.3	0.69	<5.0	47	<1.0	0.91
	5/11/2005	25.47	60.03	550	190	2.5	2.9	9.3	<5.0	--	--	1.22
	8/3/2005	26.31	59.19	240	36	0.86	3.1	1.2	<5.0	--	--	1.05
	<b>11/30/2005</b>	<b>26.51</b>	<b>58.99</b>	<b>160</b>	<b>28</b>	<b>1.7</b>	<b>2.0</b>	<b>1.3</b>	<b>&lt;5.0</b>	--	--	<b>0.71</b>
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	--	--	--	--
	8/8/1997	20.84	69.53	570 <sup>1,2</sup>	<0.5	<0.5	<0.5	0.78 <sup>3</sup>	<2	--	ND	--
	11/5/1997	21.55	68.82	490 <sup>1</sup>	<0.5	<0.5	6	<0.5	<2	--	--	--
	2/9/1998	20.21	70.16	270 <sup>1</sup>	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 <sup>1</sup>	88	<0.5	13	1.9 <sup>3</sup>	<2	--	ND	--
	11/2/1998	20.43	69.94	580	<0.5	<0.5	7.5 <sup>3</sup>	1.6 <sup>3</sup>	<2	--	ND	--
	3/25/1999	18.46	71.91	1,100	160	<0.5	21	2.1 <sup>3</sup>	5.7 <sup>4</sup>	--	ND	--
	7/1/1999	19.95	70.42	540	100	7.4	26	16.9	<1.3	--	<sup>5</sup>	--

# Pangea

**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-9	9/21/1999	21.15	69.22	2,700	320	98	88	47	<20	--	ND	5.86
(continued)	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 <sup>a</sup>	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
	2/18/2005	19.97	70.40	600	24	<0.5	3.8	<0.5	<5.0	220	<5.0	0.88
	5/11/2005	19.41	70.96	510	11	<0.5	1.6	<0.5	<5.0	--	--	0.95
	8/3/2005	19.35	71.02	620	26	5.7	4.0	<0.5	<5.0	--	--	0.65
	<b>11/30/2005</b>	<b>20.96</b>	<b>69.41</b>	<b>1,300</b>	<b>120</b>	<b>2.9</b>	<b>22</b>	<b>&lt;0.5</b>	<b>&lt;10</b>	--	--	<b>0.49</b>

# Pangea

**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-10 88.60	10/12/1992	21.55	67.05	28,000	2,700	3,800	210	1,300	--	--	--	--
	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	--	--	--	--
	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	--	

# Pangea

**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	11/5/1997	24.27	59.79	<50	<0.5	<0.5	<0.5	<0.5	<2	--	--	--
(continued)	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 <sup>1</sup>	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	--
	7/1/1999	23.40	60.66	160	370	19	1.2	3.5	<1	--	5	--
	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
	2/18/2005	23.15	60.91	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	0.97
	5/11/2005	22.68	61.38	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	1.05
	8/3/2005	23.04	61.02	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	1.12
	<b>11/30/2005</b>	<b>23.65</b>	<b>60.41</b>	<b>&lt;50</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;5.0</b>	--	--	<b>2.28</b>

# Pangea

**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 94.66	5/26/1998	21.67	72.99	41,000	7,100	11,000	720	3,900	<1000	--	ND	--
	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)	--	--	--	--	--	--	--	--
	8/4/2002	23.61	71.06	SPH (0.01)	--	--	--	--	--	--	--	--
	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	70.47	SPH (sheen)	--	--	--	--	--	--	--	--
	2/18/2005	23.24	71.46	SPH (0.05)	--	--	--	--	--	--	--	--
	5/11/2005	22.77	71.92	SPH (0.04)	--	--	--	--	--	--	--	--
	8/3/2005	23.17	71.51	SPH (0.02)	--	--	--	--	--	--	--	--
	<b>11/30/2005</b>	<b>24.02</b>	<b>70.66</b>	<b>SPH (0.02)</b>	--	--	--	--	--	--	--	--
MW-15 94.76	5/26/1998	21.87	72.89	130,000	30,000	38,000	2,500	12,600	<1000	--	ND	--
	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	--	--	--	--	--	--	--	--

# Pangea

**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-15	3/1/2001	23.99	70.77	SPH	--	--	--	--	--	--	--	--
(continued)	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)	--	--	--	--	--	--	--	--
	2/18/2005	23.27	71.57	SPH (0.10)	--	--	--	--	--	--	--	--
	5/11/2005	22.80	72.03	SPH (0.09)	--	--	--	--	--	--	--	--
	8/3/2005	23.29	71.48	SPH (0.01)	--	--	--	--	--	--	--	--
	11/30/2005	24.11	70.69	SPH (0.05)	--	--	--	--	--	--	--	--

## 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	--	--

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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 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)
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 8015C

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

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.



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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-					
<i>TOC Elev.</i>	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)

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 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	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)	--	--	--	--
	2/18/2004	22.61	71.91	--	SPH (0.05)	--	--	--	--
	5/27/2004	22.08	72.44	--	SPH (0.05)	--	--	--	--

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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	8/19/2004	24.35	70.43	--	SPH (0.38)	--	--	--	--
(cont'd)	12/27/2004	24.62	70.21	--	SPH (0.44)	--	--	--	--
	2/18/2005	23.14	71.37	--	SPH (0.04)	--	--	--	--
	5/11/2005	22.71	71.79	--	SPH (0.02)	--	--	--	--
	8/3/2005	23.03	71.50	--	SPH (0.06)	--	--	--	--
	<b>11/30/2005</b>	<b>23.98</b>	<b>70.52</b>	--	<b>SPH (0.03)</b>	--	--	--	--
MW-2	3/1/1991	27.86	66.95	<50	--	--	--	--	--
94.81	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	--	--	--	--	--
90.08	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	--	--	--	--	--

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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-4	3/1/1991	23.79	65.05	<500	--	--	--	--	--
88.84	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	--	--	--	--	--
	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	--	--	--	--

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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-4	12/27/2004	19.53	69.31	--	8,700	<2,500	--	--	--
(cont'd)	2/18/2005	18.40	70.44	--	13,000	<250	--	--	--
	5/11/2005	17.93	70.91	--	16,000	<1,200	--	--	--
	8/3/2005	18.14	70.70	--	20,000	<5,000	--	--	--
	<b>11/30/2005</b>	<b>19.70</b>	<b>69.14</b>	--	<b>19,000</b>	<b>&lt;2,500</b>	--	--	--
MW-5	3/15/1991	26.31	58.53	<50	--	--	--	--	--
84.84	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	--	--	--	--	--
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	--	--	--	--	--
	5/3/1996	26.83	58.79	9,000	--	--	--	--	--
86.94	5/9/1997	26.54	60.40	53,000	--	--	--	--	--
	11/5/1997	26.16	60.78	65,000	--	--	--	--	--
85.82	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	62.71	--	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 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-6	8/1/2001		obstruction in well	--	--	--	--	--	--
(cont'd)	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	61.13	--	SPH (sheen)	--	--	--	--
	2/18/2005	23.55	62.33	--	SPH (0.08)	--	--	--	--
	5/11/2005	22.90	62.97	--	SPH (0.06)	--	--	--	--
	8/3/2005	23.68	62.19	--	SPH (0.06)	--	--	--	--
	<b>11/30/2005</b>	<b>24.17</b>	<b>61.67</b>	--	<b>SPH (0.02)</b>	--	--	--	--
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	--	--	--	--	--

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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	3/26/1999	16.42	68.99	<50	--	--	--	--	--
(cont'd)	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	--	--	--	--
	2/18/2004	16.47	68.94	--	<50	--	--	--	--
	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	--	--	--
	2/18/2005	16.23	69.18	--	<50	<250	--	--	--
	5/11/2005	15.79	69.62	--	<50	<250	--	--	--
	8/3/2005	17.52	67.89	--	<50	<250	--	--	--
	<b>11/30/2005</b>	<b>19.57</b>	<b>65.84</b>	--	<b>&lt;50</b>	<b>&lt;250</b>	--	--	--

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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-8	10/12/1992	27.70	57.80	--	--	--	--	--	--
85.50	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	--	--	--
	1/20/2003	24.93	60.57	--	63	<250	--	--	--
	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	--	--	--	--



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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-8	2/18/2004	25.97	59.53	--	<50	--	--	--	--
(cont'd)	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	--	--	--
	2/18/2005	26.00	59.50	--	<50	<250	--	--	--
	5/11/2005	25.47	60.03	--	<50	<250	--	--	--
	8/3/2005	26.31	59.19	--	53	<250	--	--	--
	<b>11/30/2005</b>	<b>26.51</b>	<b>58.99</b>	--	<b>&lt;50</b>	<b>&lt;250</b>	--	--	--
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	70.54	--	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 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-9	11/26/2002	20.37	70.00	--	270	<250	--	--	--
(cont'd)	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	--	--	--
	2/18/2005	19.97	70.40	--	120	<250	--	--	--
	5/11/2005	19.41	70.96	--	76	<250	--	--	--
	8/3/2005	19.35	71.02	--	110	<250	--	--	--
	<b>11/30/2005</b>	<b>20.96</b>	<b>69.41</b>	--	<b>210</b>	<b>&lt;250</b>	--	--	--
MW-10	10/12/1992	21.55	67.05	--	--	--	--	--	--
88.60	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	--	--	--	--	--
102.06	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	--	--	--	--	--

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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	11/24/1992	26.05	58.01	3,600	--	--	--	--	--
84.06	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	--	--	--	--	--
	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	--	65	<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	66.81	--	<50	<250	--	--	--
	8/5/2003	23.99	60.07	--	<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)	TEH (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	2-Methyl naphthalene (µg/L)	Naphthalene (µg/L)	Other SVOCs (µg/L)
MW-13	11/10/2003	23.47	60.59	--	<50	--	--	--	--
(cont'd)	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	--	--	--
	2/18/2005	23.15	60.91	--	<50	<250	--	--	--
	5/11/2005	22.68	61.38	--	<50	<250	--	--	--
	8/3/2005	23.04	61.02	--	56	<250	--	--	--
	<b>11/30/2005</b>	<b>23.65</b>	<b>60.41</b>	--	<b>&lt;50</b>	<b>&lt;250</b>	--	--	--
MW-14	5/26/1998	21.67	72.99	7,700	--	--	--	--	--
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	--	14,000	1,500	290	600	ND
	5/31/2000	22.09	72.57	--	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	--	--	--	--
	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	70.47	--	SPH (sheen)	--	--	--	--
	2/18/2005	23.24	71.46	--	SPH (0.05)	--	--	--	--
	5/11/2005	22.77	71.92	--	SPH (0.04)	--	--	--	--
	8/3/2005	23.17	71.51	--	SPH (0.02)	--	--	--	--
	<b>11/30/2005</b>	<b>24.02</b>	<b>70.66</b>	--	<b>SPH (0.02)</b>	--	--	--	--

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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-15	5/26/1998	21.87	72.89	1,700	--	--	--	--	--	
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	--	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)	--	--	--	--	
	2/18/2005	23.27	71.57	--	SPH (0.10)	--	--	--	--	
	5/11/2005	22.80	72.03	--	SPH (0.09)	--	--	--	--	
	8/3/2005	23.29	71.48	--	SPH (0.01)	--	--	--	--	
		<b>11/30/2005</b>	<b>24.11</b>	<b>70.69</b>	--	<b>SPH (0.05)</b>	--	--	--	--
	<b>Grab Sampling Data</b>									
B (boring)	5/16/1998	--	--	77**	--	--	--	--	--	
C (boring)	5/16/1998	--	--	48**	--	--	--	--	--	
G (boring)	5/16/1998	--	--	35,000**	--	--	--	--	--	

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**Table 2. Groundwater Elevation and Analytical Data: Extractable Hydrocarbons and SVOCs**

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID	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)
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**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 hxyly) 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. Separate-Phase Hydrocarbon Removal**  
Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Date Sampled	Depth to Groundwater (feet)	SPH Thickness (feet)	SPH Removed (mL)	SPH Removed (gallons)	SPH Removed (lbs)	Cumulative SPH Removed (gallons)	Notes
MW-1	12/23/1991	26.86	1.15		2.00	12.20	2.00	1
94.48	12/26/1991	26.08	0.22		0.50	3.05	2.50	1
	1/13/1992	26.53	0.66		1.00	6.10	3.50	1
	2/28/1992	27.75	0.42		2.00	12.20	5.50	1
	11/9/1993	26.06	1.17		0.50	3.05	6.00	1
	11/3/1995	23.10	0.76		0.75	4.58	6.75	1
	11/30/1995	23.38	0.70		0.25	1.53	7.00	1
	1/3/1996	23.30	0.78		0.53	3.23	7.53	1
	2/2/1996	22.96	0.84		0.75	4.58	8.28	1
	3/1/1996	21.69	0.14		0.10	0.61	8.38	1
	4/4/1996	21.11	0.00		0.00	0.00	8.38	1
	5/2/1996	20.96	0.00		0.00	0.00	8.38	1
	6/5/1996	20.98	0.04		0.10	0.61	8.48	1
	7/9/1996	21.64	0.20		0.10	0.61	8.58	1
	8/8/1996	22.43	0.33		0.05	0.31	8.63	1
	9/10/1996	23.25	0.60		0.10	0.61	8.73	1
	10/1/1996	23.58	0.60		0.25	1.53	8.98	1
	11/4/1996	24.29	0.78		0.13	0.79	9.11	1
	12/2/1996	24.63	0.88		0.26	1.59	9.37	1
	1/3/1997	24.08	0.81		0.39	2.38	9.76	1
	2/6/1997	22.46	0.30		0.01	0.06	9.77	1
	3/5/1997	23.00	0.00		0.00	0.00	9.77	1
	4/1/1997	22.29	0.20		0.01	0.06	9.78	1
	5/8/1997	22.79	0.33		0.02	0.12	9.80	1
	6/6/1997	24.33	1.69		0.26	1.59	10.06	1
	7/8/1997	24.00	0.96		0.20	1.22	10.26	1
	8/7/1997	24.58	1.29		1.00	6.10	11.26	1
	9/10/1997	24.93	1.21		1.50	9.15	12.76	1
	10/1/1997	24.89	0.86		0.26	1.59	13.02	1
	11/4/1997	25.06	0.77		0.26	1.59	13.28	1
	12/4/1997	24.76	0.54		0.19	1.16	13.47	1
	1/8/1998	23.66	0.00		0.00	0.00	13.47	1
	2/5/1998	22.64	0.00		0.00	0.00	13.47	1
	3/6/1998	20.80	0.00		0.00	0.00	13.47	1
	4/2/1998	20.31	0.00		0.00	0.00	13.47	1
	4/29/1998	19.95	0.00		0.00	0.00	13.47	1
	6/3/1998	20.41	0.00		0.00	0.00	13.47	1
	7/9/1998	20.97	0.07		0.00	0.00	13.47	1
	8/4/1998	21.40	trace		0.00	0.00	13.47	1
	8/26/1998	21.85	0.10		0.00	0.00	13.47	1
	11/2/1998	22.92	0.39		0.00	0.00	13.47	1
	12/4/1998	23.29	0.29		0.01	0.06	13.48	1
	1/5/1999	23.51	0.42		0.03	0.18	13.51	1
	2/8/1999	23.08	0.05		0.25	1.53	13.76	1
	3/24/1999	21.90	0.01		0.01	0.06	13.77	1
	4/30/1999	21.52	0.00		0.00	0.00	13.77	1
	7/1/1999	22.70	0.03		0.01	0.06	13.78	1
	9/21/1999	23.81	0.08		0.20	1.22	13.98	1

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**Table 3. 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 (mL)	SPH Removed (gallons)	SPH Removed (lbs)	Cumulative SPH Removed (gallons)	Notes
MW-1	10/20/1999	23.90	0.10		0.01	0.06	13.99	1
<i>(cont'd)</i>	12/13/1999	24.24	trace		0.00	0.00	13.99	1
	2/9/2000	23.95	0.07		0.05	0.31	14.04	1
	2/15/2000	--	0.00		0.00	0.00	14.04	2
	2/25/2000	23.69	0.00		0.06	0.38	14.10	2
	3/3/2000	23.27	0.00		0.05	0.31	14.15	2
	3/28/2000	22.39	0.00		0.13	0.76	14.28	2
	5/2/2000	22.29	0.00		0.05	0.29	14.32	2
	5/31/2000	22.05	0.00		0.00	0.00	14.32	2
	7/3/2000	22.10	trace		0.02	0.12	14.34	2
	8/4/2000	22.40	0.00		0.01	0.06	14.35	2
	10/6/2000	23.47	0.46		0.01	0.06	14.36	1
	11/3/2000	24.14	0.78		0.00	0.00	14.36	
	12/1/2000	25.40	0.83		1.75	10.68	16.11	1,2
	1/4/2001	25.13	0.09		0.25	1.53	16.36	2
	2/2/2001	25.12	0.03		0.13	0.76	16.49	2
	4/3/2001	23.19	0.24		0.10	0.61	16.59	
	5/4/2001	23.31	0.47		0.00	0.00	16.59	
	5/7/2001	23.85	0.05		0.03	0.16	16.62	2
	6/11/2001	23.77	0.67		0.00	0.00	16.62	2
	5/2/2002	23.41	0.46		0.01	0.04	16.62	
	6/14/2002	23.95	0.03		0.01	0.04	16.63	2
	8/4/2002	24.02	0.03		0.01	0.06	16.64	2
	9/24/2002	24.59	0.01		0.003	0.02	16.64	2
	10/16/2002	25.08	0.03		0.003	0.02	16.64	2
	11/6/2002	25.71	0.08		0.005	0.03	16.65	2
	11/26/2002	24.47	0.05		0.003	0.02	16.65	2
	12/9/2002	24.08	0.07		0.009	0.06	16.66	2
	1/17/2003	22.14	0.07		0.005	0.03	16.67	1,2
	1/27/2003	22.55	0.02		0.003	0.02	16.67	2
	3/5/2003	23.53	0.02		0.25	1.53	16.92	1,2
	4/11/2003	23.11	0.03		0.007	0.04	16.93	1,2
	5/13/2003	22.95	0.02		0.007	0.04	16.93	1,2
	5/28/2003	21.77	0.02		0.008	0.05	16.94	1,2
	6/13/2003	21.84	0.03		0.013	0.08	16.95	1,2
	7/24/2003	23.19	0.05		0.003	0.02	16.96	1,2
	8/5/2003	23.07	0.04		0.013	0.08	16.97	1,2
	9/12/2003	23.74	0.05		0.021	0.13	16.99	1,2
	10/10/2003	23.90	0.06		0.026	0.16	17.02	1,2
	11/10/2003	22.53	0.03		0.016	0.10	17.03	1,2
	11/21/2003	23.12	0.02		0.026	0.16	17.06	1,2
	12/4/2003	22.95	0.03		0.026	0.16	17.09	1,2
	1/23/2004	22.40	0.04	70	0.018	0.11	17.10	1,2
	2/6/2004	22.74	0.05	65	0.017	0.10	17.12	1,2
	2/18/2004	22.61	0.05	70	0.018	0.11	17.14	1,2
	3/28/2004	22.81	0.01	5	0.001	0.01	17.14	1,2
	4/9/2004	22.61	0.00	0	0.000	0.00	17.14	1,2
	5/27/2004	22.08	0.05	35	0.009	0.06	17.15	1,2



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**Table 3. Separate-Phase Hydrocarbon Removal**

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID	Date	Depth to	SPH	SPH	SPH	SPH	Cumulative SPH	Notes
TOC Elev.	Sampled	Groundwater	Thickness	Removed	Removed	Removed	Removed	
(ft)		(feet)	(feet)	(mL)	(gallons)	(lbs)	(gallons)	
MW-1	7/29/2004	24.52	0.92	2500	0.660	4.03	17.81	1, 2
(cont'd)	8/6/2004	23.98	0.25	1000	0.264	1.61	18.08	1, 2
	8/19/2004	24.35	0.38	1000	0.264	1.61	18.34	1, 2
	9/3/2004	24.47	0.29	1000	0.264	1.61	18.60	1, 2
	12/27/2004	24.18	0.44	450	0.119	0.73	18.72	1,2
	2/18/2005	23.14	0.04	250	0.066	0.40	18.79	1,2
	5/11/2005	22.71	0.02	0	0.000	0.00	18.79	
	8/3/2005	23.03	0.06	0	0.000	0.00	18.79	
	<b>11/30/2005</b>	<b>23.98</b>	<b>0.03</b>	<b>0</b>	<b>0.000</b>	<b>0.00</b>	<b>18.79</b>	
MW-4	12/23/1991	22.63	0.98		2.50	15.25	2.50	1
88.84	12/26/1991	22.52	0.96		6.00	36.60	8.50	1
	1/10/1992	22.74	0.99		5.00	30.50	13.50	1
	2/28/1992	22.00	0.67		4.00	24.40	17.50	1
	3/11/1992	21.71	0.55		3.50	21.35	21.00	1
	3/13/1992	21.56	0.49		3.50	21.35	24.50	1
	3/17/1992	25.46	0.44		2.25	13.73	26.75	1
	3/18/1992	21.38	0.44		2.50	15.25	29.25	1
	3/19/1992	21.33	0.48		1.50	9.15	30.75	1
	3/23/1992	21.29	0.42		4.00	24.40	34.75	1
	3/24/1992	21.31	0.38		1.50	9.15	36.25	1
	3/25/1992	21.17	0.36		1.00	6.10	37.25	1
	3/26/1992	21.08	0.35		1.00	6.10	38.25	1
	3/27/1992	20.92	0.26		0.50	3.05	38.75	1
	3/31/1992	21.15	0.44		0.50	3.05	39.25	1
	4/1/1992	20.90	0.24		0.25	1.53	39.50	1
	4/2/1992	20.90	0.17		0.13	0.79	39.63	1
	4/6/1992	--	--		0.13	0.79	39.76	1
	4/10/1992	20.91	0.33		0.25	1.53	40.01	1
	4/13/1992	21.04	0.42		0.25	1.53	40.26	1
	4/20/1992	20.74	0.19		0.13	0.79	40.39	1
	5/4/1992	20.83	0.33		0.13	0.79	40.52	1
	5/18/1992	21.33	0.23		0.13	0.79	40.65	1
	5/26/1992	20.83	0.17		0.13	0.79	40.78	1
	6/1/1992	20.85	0.19		0.06	0.37	40.84	1
	6/29/1992	21.38	0.53		0.25	1.53	41.09	1
	7/29/1992	21.69	0.56		1.11	6.77	42.20	1
	8/28/1992	21.35	0.63		1.68	10.25	43.88	1
	4/3/1993	20.11	0.51		0.13	0.79	44.01	1
	11/9/1993	20.48	0.52		0.03	0.18	44.04	1
	8/30/1995	21.71	0.63		1.75	10.68	45.79	1
	10/2/1995	19.90	2.20		0.50	3.05	46.29	1
	11/3/1995	18.76	0.57		0.25	1.53	46.54	1
	11/30/1995	19.17	0.65		0.25	1.53	46.79	1
	1/3/1996	19.45	0.44		0.05	0.31	46.84	1
	2/2/1996	19.50	0.32		0.10	0.61	46.94	1
	3/1/1996	19.31	0.20		0.20	1.22	47.14	1
	4/4/1996	17.53	0.18		0.20	1.22	47.34	1

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**Table 3. Separate-Phase Hydrocarbon Removal**  
Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Date Sampled	Depth to Groundwater (feet)	SPH Thickness (feet)	SPH Removed (mL)	SPH Removed (gallons)	SPH Removed (lbs)	Cumulative SPH Removed (gallons)	Notes
MW-4	5/2/1996	17.50	0.25		0.20	1.22	47.54	1
(cont'd)	6/5/1996	17.67	0.39		0.15	0.92	47.69	1
	7/9/1996	18.29	0.50		0.16	0.98	47.85	1
	8/8/1996	18.84	0.00		0.00	0.00	47.85	1
	9/10/1996	19.31	0.34		0.05	0.31	47.90	1
	10/1/1996	19.51	0.29		0.05	0.31	47.95	1
	11/4/1996	20.13	0.35		0.02	0.12	47.97	1
	12/2/1996	20.23	0.33		0.02	0.12	47.99	1
	1/3/1997	19.33	0.10		0.02	0.12	48.01	1
	2/6/1997	18.13	0.01		0.01	0.06	48.02	1
	4/30/1999	17.28	trace		0.00	0.00	48.02	1
	2/9/2000	19.76	0.00		0.00	0.00	48.02	1
	2/15/2000	--	0.00		0.00	0.00	48.02	2
	2/25/2000	19.30	0.00		0.00	0.00	48.02	2
MW-6	12/23/1991	28.40	3.21		7.50	45.75	7.50	1
85.62	12/26/1991	27.25	1.67		2.00	12.20	9.50	1
	1/10/1992	27.23	0.90		1.00	6.10	10.50	1
	2/4/1992	27.71	2.04		2.00	12.20	12.50	1
	2/28/1992	27.92	3.00		3.00	18.30	15.50	1
	3/10/1992	27.16	2.06		2.75	16.78	18.25	1
	3/12/1992	25.96	0.52		2.00	12.20	20.25	1
	3/23/1992	26.34	1.09		1.00	6.10	21.25	1
	3/30/1992	25.73	0.35		0.50	3.05	21.75	1
	4/10/1992	25.29	0.05		0.25	1.53	22.00	1
	4/13/1992	25.52	0.21		0.13	0.79	22.13	1
	4/20/1992	25.38	0.10		0.13	0.79	22.26	1
	5/4/1992	25.40	--		0.13	0.79	22.39	1
	5/8/1992	25.50	0.17		0.06	0.37	22.45	1
	5/26/1992	25.46	0.13		0.13	0.79	22.58	1
	6/1/1992	25.46	0.09		0.06	0.37	22.64	1
	6/29/1992	25.59	0.14		0.19	1.16	22.83	1
	7/29/1992	26.90	1.71		0.60	3.66	23.43	1
	8/28/1992	25.09	2.62		2.40	14.64	25.83	1
	12/2/1992	--	--		0.00	0.00	25.83	1
	4/3/1993	26.96	2.86		1.75	10.68	27.58	1
	11/9/1993	27.51	3.06		0.83	5.06	28.41	1
	8/30/1995	28.00	7.96		4.50	27.45	32.91	1
	10/2/1995	28.24	6.14		4.00	24.40	36.91	1
	11/3/1995	28.39	6.13		3.00	18.30	39.91	1
	11/30/1995	26.91	3.44		2.50	15.25	42.41	1
	1/3/1996	27.58	4.41		2.50	15.25	44.91	1
	2/2/1996	27.58	4.37		5.00	30.50	49.91	1
	3/1/1996	27.96	5.15		4.00	24.40	53.91	1
	4/4/1996	27.96	5.41		5.00	30.50	58.91	1
	5/2/1996	26.83	4.66		4.50	27.45	63.41	1
	6/5/1996	27.15	5.17		4.00	24.40	67.41	1
	7/9/1996	27.08	4.86		4.50	27.45	71.91	1

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**Table 3. 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 (mL)	SPH Removed (gallons)	SPH Removed (lbs)	Cumulative SPH Removed (gallons)	Notes
MW-6	8/8/1996	26.71	4.05		4.00	24.40	75.91	1
<i>(cont'd)</i>	9/10/1996	26.83	3.82		3.50	21.35	79.41	1
	10/1/1996	26.96	3.77		4.00	24.40	83.41	1
86.94	11/4/1996	--	NM		0.00	0.00	83.41	4
	12/2/1996	--	NM		0.00	0.00	83.41	4
	1/3/1997	--	NM		0.00	0.00	83.41	4
	2/6/1997	25.08	0.20		0.00	0.00	83.41	4
	3/5/1997	24.20	0.00		0.00	0.00	83.41	4
	4/1/1997	24.04	0.00		0.00	0.00	83.41	4
	5/8/1997	26.54	1.88		0.40	2.44	83.81	1
	6/6/1997	25.33	0.21		0.03	0.18	83.44	1
85.82	7/8/1997	25.30	0.07		0.00	0.00	83.41	1
	8/7/1997	25.52	0.00		0.00	0.00	83.41	1
	9/10/1997	25.76	0.00		0.00	0.00	83.41	1
	10/1/1997	25.12	0.00		0.00	0.00	83.41	1
	11/4/1997	26.16	0.18		0.02	0.12	83.43	1
	12/4/1997	26.08	0.16		0.05	0.31	83.86	1
	1/8/1998	25.79	0.10		0.66	4.03	84.10	1
	2/5/1998	25.31	0.89		0.00	0.00	84.10	4
	3/6/1998	24.63	0.46		0.04	0.24	84.14	1
	4/2/1998	24.45	0.59		0.10	0.61	84.24	1
	4/29/1998	22.96	0.55		0.09	0.55	84.33	1
	6/3/1998	22.81	0.41		0.03	0.18	84.36	1
	7/9/1998	23.04	0.35		0.05	0.31	84.41	1
	8/4/1998	23.29	0.35		0.04	0.24	84.45	1
	8/26/1998	23.50	0.31		0.01	0.06	84.46	1
	11/2/1998	24.24	0.43		0.02	0.12	84.48	1
	12/4/1998	24.35	0.32		0.01	0.06	84.49	1
	1/5/1999	24.51	0.40		0.03	0.18	84.52	1
	2/8/1999	24.00	0.03		0.13	0.76	84.65	1
	3/24/1999	23.82	0.19		0.03	0.18	84.68	1
	4/30/1999	23.60	1.13		0.10	0.61	84.78	1
	7/1/1999	24.45	0.42		0.06	0.38	84.84	1
	7/27/1999	25.35	0.24		0.06	0.38	84.90	1
	8/19/1999	24.87	0.24		0.06	0.37	84.96	1
	9/21/1999	24.58	0.10		0.20	1.22	85.16	1
	10/20/1999	25.05	0.17		0.20	1.22	85.36	1
	12/13/1999	25.08	0.10		0.06	0.37	85.42	1
	2/9/2000	24.93	0.44		0.25	1.53	85.67	1
	2/15/2000	--	0.00		0.07	0.43	85.74	3
	2/25/2000	24.23	0.00		0.01	0.06	85.75	3
	3/3/2000	24.00	0.00		0.00	0.01	85.75	3
	3/28/2000	23.54	0.00		0.05	0.31	85.80	3
	5/2/2000	23.52	0.06		0.03	0.15	85.83	3
	5/31/2000	23.39	0.08		0.00	0.00	85.83	3
	7/3/2000	23.61	trace		0.02	0.12	85.85	3
	8/4/2000	23.80	0.10		0.01	0.06	85.86	3
	10/6/2000	24.22	0.04		0.01	0.06	85.87	

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**Table 3. Separate-Phase Hydrocarbon Removal**

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID	Date	Depth to	SPH	SPH	SPH	SPH	Cumulative SPH	Notes
TOC Elev.	Sampled	Groundwater	Thickness	Removed	Removed	Removed	Removed	
(ft)		(feet)	(feet)	(mL)	(gallons)	(lbs)	(gallons)	
MW-6	11/3/2000	24.30	0.09		0.00	0.00	85.87	
(cont'd)	12/1/2000	24.38	0.07		0.03	0.18	85.90	2, 3
	1/4/2001	24.65	0.17		0.00	0.00	85.90	5
	2/2/2001	24.72	0.22		0.25	1.53	86.15	3
	4/3/2001	23.90	0.06		0.05	0.31	86.20	
	5/4/2001	23.95	0.07		0.05	0.31	86.25	
	5/7/2001	--	--		0.08	0.48	86.33	
	6/11/2001	24.25	0.10		0.00	0.00	86.33	
	5/2/2002	23.25	0.01		0.00	0.02	86.33	2
	6/14/2002	23.17	0.07		0.01	0.04	86.34	1
	8/4/2002	23.55	0.03		0.01	0.06	86.35	1
	9/24/2002	23.98	0.02		0.007	0.04	86.35	1
	10/16/2002	24.20	0.09		0.005	0.03	86.36	1
	11/6/2002	25.78	0.07		0.005	0.03	86.36	1
	11/26/2002	24.22	0.03		0.009	0.06	86.37	1, 3
	12/9/2002	23.97	0.05		0.021	0.13	86.39	1, 3
	1/17/2003	21.30	0.06		0.013	0.08	86.41	1, 3
	1/27/2003	22.49	0.02		0.016	0.10	86.42	1, 3
	3/5/2003	24.35	0.06		0.013	0.08	86.44	1, 3
	4/11/2003	24.05	0.07		0.029	0.18	86.46	3
	5/13/2003	23.98	0.03		0.016	0.10	86.48	3
	5/28/2003	21.92	0.04		0.021	0.13	86.50	1, 3
	6/13/2003	21.98	0.06		0.020	0.12	86.52	1, 3
	7/24/2003	24.11	0.07		0.040	0.24	86.56	1, 3
	8/5/2003	23.98	0.04		0.021	0.13	86.58	1, 3
	9/12/2003	24.53	0.06		0.026	0.16	86.61	1, 3
	10/10/2003	24.88	0.10		0.026	0.16	86.64	1, 3
	11/10/2003	23.50	0.10		0.032	0.19	86.67	1, 3
	11/21/2003	23.81	0.06		0.026	0.16	86.69	1, 3
	12/4/2003	23.61	0.08		0.029	0.18	86.72	1, 3
	1/23/2004	23.09	0.10	100	0.026	0.16	86.75	1, 3
	2/6/2004	22.39	0.05	80	0.021	0.13	86.77	1, 3
	2/18/2004	22.21	0.04	70	0.018	0.11	86.79	1, 3
	3/28/2004	23.91	0.06	50	0.013	0.08	86.80	1, 3
	4/9/2004	23.89	0.03	100	0.026	0.16	86.83	1, 3
	5/27/2004	22.01	0.05	140	0.037	0.23	86.87	1, 3
	5/27/2004	22.01	0.05	140	0.037	0.23	86.90	1, 3
	7/29/2004	24.35	0.00	0	0.000	0.00	86.90	1, 3
	8/6/2004	24.05	0.03	20	0.005	0.03	86.91	1, 3
	8/19/2004	24.16	0.03	10	0.003	0.02	86.91	1, 3
	9/3/2004	24.29	0.02	10	0.003	0.02	86.91	1, 3
	12/27/2004	24.69	sheen	80	0.021	0.13	86.93	3
	2/18/2005	23.55	0.08	130	0.034	0.21	86.97	1, 3
	5/11/2005	22.90	0.06	120	0.032	0.19	87.00	1, 3
	8/3/2005	23.68	0.06	0	0.000	0.00	87.00	
	<b>11/30/2005</b>	<b>24.17</b>	<b>0.02</b>	<b>0</b>	<b>0.000</b>	<b>0.00</b>	<b>87.00</b>	

# Pangea

**Table 3. 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 <i>(feet)</i>	SPH Thickness <i>(feet)</i>	SPH Removed <i>(mL)</i>	SPH Removed <i>(gallons)</i>	SPH Removed <i>(lbs)</i>	Cumulative SPH Removed <i>(gallons)</i>	Notes
MW-9 90.37	8/8/1996	19.89	0.35		0.10	0.61	0.61	1
MW-14 94.66	12/4/1998	23.42	0.23		0.01	0.06	0.01	1
	1/5/1999	23.36	0.12		0.01	0.06	0.02	1
	2/8/1999	23.17	trace		0.01	0.06	0.03	1
	3/24/1999	22.08	trace		0.00	0.00	0.03	1
	4/30/1999	21.17	0.01		0.00	0.00	0.03	1
	7/1/1999	22.95	0.04		0.00	0.00	0.03	1
	9/21/1999	24.26	trace		0.00	0.00	0.03	1
	10/20/1999	24.10	0.00		0.00	0.00	0.03	1
	2/9/2000	24.13	0.00		0.00	0.00	0.03	1
	2/15/2000	--	0.00		0.00	0.00	0.03	1
	2/25/2000	--	0.00		0.00	0.00	0.03	2
	3/3/2000	23.27	0.00		0.05	0.31	0.08	2
	3/28/2000	22.40	0.00		0.13	0.76	0.21	2
	5/2/2000	22.22	0.00		0.04	0.24	0.25	2
	5/31/2000	22.09	0.00		0.00	0.00	0.25	2
	7/3/2000	22.35	trace		0.01	0.06	0.26	2
	8/4/2000	22.78	-0.00		0.03	0.18	0.29	2
	10/6/2000	23.48	0.00		0.00	0.00	0.29	
	11/3/2000	23.60	0.00		0.00	0.00	0.29	
	12/1/2000	23.90	0.04		0.04	0.24	0.33	1, 2
	1/4/2001	24.10	0.00		0.00	0.00	0.33	
	2/2/2001	24.27	0.00		0.10	0.61	0.43	2
	4/3/2001	23.06	0.00		0.05	0.31	0.48	
	5/4/2001	23.05	0.00		0.00	0.00	0.48	
	5/7/2001	23.45	0.02		0.01	0.05	0.48	2
	6/11/2001	23.40	0.00		0.00	0.00	0.48	
	5/2/2002	23.51	0.02		0.003	0.02	0.49	2
	6/14/2002	23.88	0.01		0.003	0.02	0.49	2
	8/4/2002	23.61	0.01		0.004	0.02	0.49	2
	9/24/2002	24.07	0.01		0.007	0.04	0.50	2
	10/16/2002	24.29	trace		0.007	0.04	0.51	2
	11/6/2002	25.85	0.00		0.00	0.00	0.51	2
	11/26/2002	24.35	trace		0.00	0.00	0.51	2
	12/9/2002	24.05	trace		0.00	0.00	0.51	2
	1/17/2003	22.09	0.00		0.00	0.00	0.51	2
	1/27/2003	22.60	0.00		0.00	0.00	0.51	2
	3/5/2003	23.63	0.00		0.13	0.79	0.64	1,2
	4/11/2003	23.63	0.02		0.003	0.02	0.64	1,2
	5/13/2003	23.11	0.03		0.003	0.02	0.64	1,2
	5/28/2003	21.95	0.04		0.007	0.04	0.65	1,2
	6/13/2003	22.05	0.03		0.004	0.02	0.65	1,2
	7/24/2003	23.10	0.02		0.003	0.02	0.65	1,2
	8/5/2003	23.03	0.04		0.011	0.06	0.66	1,2
	9/12/2003	23.81	0.06		0.013	0.08	0.68	1,2
	10/10/2003	24.03	0.05		0.021	0.13	0.70	1,2

# Pangea

**Table 3. Separate-Phase Hydrocarbon Removal**

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID	Date	Depth to	SPH	SPH	SPH	SPH	Cumulative SPH	Notes
<i>TOC Elev.</i>	<i>Sampled</i>	<i>Groundwater</i>	<i>Thickness</i>	<i>Removed</i>	<i>Removed</i>	<i>Removed</i>	<i>Removed</i>	
<i>(ft)</i>		<i>(feet)</i>	<i>(feet)</i>	<i>(mL)</i>	<i>(gallons)</i>	<i>(lbs)</i>	<i>(gallons)</i>	
MW-14	11/10/2003	22.70	0.07		0.013	0.08	0.71	1,2
<i>(cont'd)</i>	11/21/2003	22.85	0.05		0.013	0.08	0.73	1,2
	12/4/2003	22.69	0.02		0.008	0.05	0.73	1,2
	1/23/2004	22.05	0.04	40	0.011	0.06	0.74	1,2
	2/6/2004	22.49	0.04	50	0.013	0.08	0.76	1,2
	2/18/2004	22.37	0.04	50	0.013	0.08	0.77	1,2
	3/28/2004	22.79	0.00	5	0.001	0.01	0.77	1,2
	4/9/2004	22.81	0.00	0	0.000	0.00	0.77	1,2
	5/27/2004	21.78	0.05	40	0.011	0.06	0.78	1,2
	7/29/2004	23.80	0.02	10	0.003	0.02	0.78	1,2
	8/6/2004	23.99	0.02	100	0.026	0.16	0.81	1,2
	8/19/2004	24.13	0.05	100	0.026	0.16	0.84	1,2
	9/3/2004	24.22	0.02	50	0.013	0.08	0.85	1,2
	12/27/2004	24.19	sheen	5	0.001	0.01	0.85	2
	2/18/2005	23.24	0.05	120	0.032	0.19	0.88	1,2
	5/11/2005	22.77	0.04	500	0.132	0.81	1.02	1,2
	8/3/2005	23.17	0.02	0	0.000	0.00	1.02	
	<b>11/30/2005</b>	<b>24.02</b>	<b>0.02</b>	<b>0</b>	<b>0.000</b>	<b>0.00</b>	<b>1.02</b>	
MW-15	2/18/2005	23.27	0.10	20	0.005	0.03	0.01	1
	5/11/2005	22.80	0.09	450	0.119	0.73	0.12	1
	8/3/2005	23.29	0.01	0	0.000	0.00	0.12	
	<b>11/30/2005</b>	<b>24.11</b>	<b>0.05</b>	<b>0</b>	<b>0.000</b>	<b>0.00</b>	<b>0.12</b>	

*Total SPH Removed (gallons):* 155.52

*Total SPH Removed (pounds):* 948.67

**Abbreviations and Notes:**

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

SPH = Separate-phase hydrocarbons

SPH converted from volume to weight using the estimated relation 1 gallon SPH = 6.1 pounds.

-- = 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	Gauging Frequency	Sampling Frequency	Analytes
<b>Source Area Wells</b>			
MW-1	Quarterly	Annually (1 <sup>st</sup> Qtr)	TPHd, TPHmo, TPHg, BTEX, MTBE, HVOCs, DO
MW-6			(SVOCs and LUFT Metals no longer required)
MW-14			
MW-15			
<b>Down-Gradient/Cross-Gradient Wells</b>			
MW-4	Quarterly	Quarterly	TPHd, TPHmo, TPHg, BTEX, MTBE, DO
MW-7			(HVOCs 1 <sup>st</sup> 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 Messers 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 HVOC sample analysis for the cross-flow gradient wells was reduced from quarterly to annually.</p> <p>3. SVOCs and LUFT Metal analysis no longer required by ACHCSA for this site.</p> <p>4. Wells will not be sampled if SPH is observed.</p>			



**APPENDIX B**

**Groundwater Monitoring Field Data Sheets**

Well Gauging Data Sheet

Project Task #:			Project Name: Connell				
Address: 3093 Broadway Oakland, CA						Date: 11-30-05	
Name: Sanjiv Gill			Signature: 				
Well ID	Well Size (in.)	Time	Depth to Immiscible Liquid (ft)	Thickness of Immiscible Liquid (ft)	Depth to Water (ft)	Total Depth (ft)	Measuring Point
MW-1	2"	4:20	23.95		23.98		TOC
MW-4	2"	9:00	<del>19.70</del>		19.70	24.25	
MW-6	2"	9:15	24.15		24.17		
MW-7	2"	8:55			19.57	30.16	
MW-8	6"	9:05			26.51	39.30	
MW-9	2"	9:10			20.96	30.63	
MW-13	2"	7:40			23.65	39.50	
MW-14	2"	9:25	24.00		24.02		
MW-15	2"	9:30	24.06		24.11		

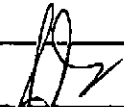
Comments: SPH Removal = MW-1 insignificant amt., MW-6 - insignificant amt., MW-14 = insignificant amt. & MW-15 = insignificant amt.

## MONITORING FIELD DATA SHEET

Well ID: MW-4

Project Task #:		Project Name: Connell						
Address: 3093 Broadway Oakland, CA								
Date: 11/30/05				Weather: Sunny				
Well Diameter: 2"		Volume/ft.		1" = 0.04	3" = 0.37	6" = 1.47		
				2" = 0.16	4" = 0.65	radius <sup>2</sup> * 0.163		
Total Depth (TD): 24.25				Depth to Product:				
Depth to Water (DTW): 19.70				Product Thickness:				
Water Column Height: 4.55				1 Casing Volume: 0.72		gallons		
Reference Point: TOC				3 Casing Volumes: 2.18		gallons		
Purging Device: Disposable Bailer								
Sampling Device: Disposable Bailer								
Time	Temp (°C)	pH	Cond (µs)	NTU	DO (mg/L)	ORP (mV)	Vol (gal)	DTW
12:05	19.2	6.95	695				1	
12:07	18.9	6.88	673				1.5	
12:10	19.0	6.88	670				2	

Comments: Pre purge DO meter Oakton, DO = 0.39 mg/L  
 Post purge DO = mg/L

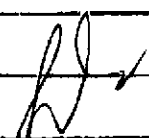
Sample ID: MW-4	Sample Time: 12:15
Laboratory: Mc Campbell	Sample Date: 11/30/05
Containers/Preservative: Voa/HCL	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature: 

## MONITORING FIELD DATA SHEET

Well ID: MW- 7

Project Task #:		Project Name: Connell						
Address: 3093 Broadway Oakland, CA								
Date: 11/30/05				Weather: Sunny				
Well Diameter: 2"				Volume/ft.	1" = 0.04	3" = 0.37	6" = 1.47	
				2" = 0.16	4" = 0.65	radius <sup>2</sup> * 0.163		
Total Depth (TD): 30.16				Depth to Product:				
Depth to Water (DTW): 19.57				Product Thickness:				
Water Column Height: 10.59				1 Casing Volume: 1.69		gallons		
Reference Point: TOC				3 Casing Volumes: 5.08		gallons		
Purging Device: Disposable Bailer								
Sampling Device: Disposable Bailer								
Time	Temp @	pH	Cond (us)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
9:50	18.9	6.77	597				1.5	
9:55	18.7	6.81	590				3	
10:00	18.8	6.83	583				5	

Comments: Pre purge DO meter Oakton, DO = 1.70 mg/L  
 Post purge DO =      mg/L

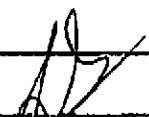
Sample ID: MW- 7	Sample Time: 10:05
Laboratory: Mc Campbell	Sample Date: 11/30/05
Containers/Preservative: Voal/HCL	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature: 

## MONITORING FIELD DATA SHEET

Well ID: MW-8

Project Task #:		Project Name: Connell						
Address: 3093 Broadway Oakland, CA								
Date: 11/30/05				Weather: Sunny				
Well Diameter: 2" 6"		Volume/ft.		1" = 0.04	3" = 0.37	6" = 1.47		
				2" = 0.16	4" = 0.65	radius <sup>2</sup> = 0.163		
Total Depth (TD): <del>39.30</del> 39.30				Depth to Product:				
Depth to Water (DTW): 26.51				Product Thickness:				
Water Column Height: 17.79		1 Casing Volume: 18.80				gallons		
Reference Point: TOC		3 Casing Volumes: 56.40				gallons		
Purging Device: <del>Disposable Bailer</del> Wheel pump								
Sampling Device: Disposable Bailer								
Time	Temp (°C)	pH	Cond (us)	NTU	DO (mg/L)	ORP (mV)	Vol (gal)	DTW
10:45	19.0	6.79	840				19	
11:00	19.2	6.70	907				38	
11:15	19.1	6.72	911				57	

Comments: Pre purge DO meter Oakton, DO = 0.71 mg/L  
 Post purge DO = mg/L

Sample ID: MW- 8	Sample Time: 11:20
Laboratory: Mc Campbell	Sample Date: 11/30/05
Containers/Preservative: Voa/HCL	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature: 



**MONITORING FIELD DATA SHEET**

**Well ID: MW-9**

Project Task #:		Project Name: Connell						
Address: 3093 Broadway Oakland, CA								
Date: 11/30/05				Weather: Sunny				
Well Diameter: 2"		Volume/ft.		1" = 0.04	3" = 0.37	6" = 1.47		
				2" = 0.16	4" = 0.65	radius <sup>2</sup> = 0.163		
Total Depth (TD): 30.63				Depth to Product:				
Depth to Water (DTW): 20.96				Product Thickness:				
Water Column Height: 9.67				1 Casing Volume: 1.54		gallons		
Reference Point: TOC				3 Casing Volumes: 4.64		gallons		
Purging Device: Disposable Bailer								
Sampling Device: Disposable Bailer								
Time	Temp @	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
11:35	18.9	6.64	913				1.5	
11:38	19.2	6.72	897				3.5	
11:40	19.2	6.70	897				4.5	

Comments: Pre purge DO meter Oakton, DO = 0.49 mg/L  
 Post purge DO = mg/L

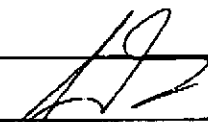
Sample ID: MW-9	Sample Time: 11:45
Laboratory: Mc Campbell	Sample Date: 11/30/05
Containers/Preservative: Voa/HCL	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature:

## MONITORING FIELD DATA SHEET

Well ID: MW-13

Project Task #:		Project Name: Connell						
Address: 3093 Broadway Oakland, CA								
Date: 11/30/05				Weather: Sunny				
Well Diameter: 2"				Volume/ft.	1" = 0.04	3" = 0.37	6" = 1.47	
				2" = 0.16	4" = 0.65	radius** 0.163		
Total Depth (TD): 39.50				Depth to Product:				
Depth to Water (DTW): 23.65				Product Thickness:				
Water Column Height: 15.85				1 Casing Volume: 2.53		gallons		
Reference Point: TOC				3 Casing Volumes: 7.60		gallons		
Purging Device: Disposable Bailer								
Sampling Device: Disposable Bailer								
Time	Temp (°C)	pH	Cond (µs)	NTU	DO (mg/L)	ORP (mV)	Vol (gal)	DTW
8:15	19.0	6.89	695				2.5	
8:20	19.3	6.84	733				5	
8:25	19.6	6.81	728				7.5	

Comments: Pre purge DO meter Oakton, DO = 2.28 mg/L  
 Post purge DO = mg/L

Sample ID: MW-13	Sample Time: 8:30
Laboratory: Mc Campbell	Sample Date: 11/30/05
Containers/Preservative: Voa/HCL	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature: 

**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.mcccampbell.com E-mail: main@mcccampbell.com

Pangea Environmental Svcs., Inc. 1710 Franklin Street, Ste. 200 Oakland, CA 94612	Client Project ID: Connell	Date Sampled: 11/30/05
		Date Received: 11/30/05
	Client Contact: Bob Clark-Riddell	Date Reported: 12/06/05
	Client P.O.:	Date Completed: 12/06/05

**WorkOrder: 0511534**

December 06, 2005

Dear Bob:

Enclosed are:

- 1). the results of 5 analyzed samples from your **Connell 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 Svcs., Inc.  1710 Franklin Street, Ste. 200  Oakland, CA 94612	Client Project ID: Connell	Date Sampled: 11/30/05
		Date Received: 11/30/05
	Client Contact: Bob Clark-Riddell	Date Extracted: 12/01/05-12/02/05
	Client P.O.:	Date Analyzed: 12/01/05-12/02/05

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

Extraction method: SW5030B

Analytical methods: SW8021B/8015Cm

Work Order: 0511534

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	MW-4	W	100,000,a,h,i	ND<2700	12,000	18,000	2200	9400	100	108
002A	MW-7	W	ND,i	ND	ND	ND	ND	ND	1	101
003A	MW-8	W	160,a,i	ND	28	1.7	2.0	1.3	1	112
004A	MW-9	W	1300,a,i	ND<10	120	2.9	22	ND	1	118
005A	MW-13	W	ND,i	ND	ND	ND	ND	ND	1	101

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 Svcs., Inc.  1710 Franklin Street, Ste. 200  Oakland, CA 94612	Client Project ID: Connell	Date Sampled: 11/30/05
		Date Received: 11/30/05
	Client Contact: Bob Clark-Riddell	Date Extracted: 11/30/05
	Client P.O.:	Date Analyzed: 12/01/05

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

Extraction method: SW3510C

Analytical methods: SW8015C

Work Order: 0511534

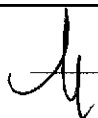
Lab ID	Client ID	Matrix	TPH(d)	TPH(mo)	DF	% SS
0511534-001B	MW-4	W	19,000,d,h,i	ND<2500	10	106
0511534-002B	MW-7	W	ND,i	ND	1	99
0511534-003B	MW-8	W	ND,i	ND	1	98
0511534-004B	MW-9	W	210,d,i	ND	1	100
0511534-005B	MW-13	W	ND,i	ND	1	102

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.

 Angela Rydelius, Lab Manager



**QC SUMMARY REPORT FOR SW8021B/8015Cm**

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0511534

EPA Method: SW8021B/8015Cm		Extraction: SW5030B			BatchID: 19218			Spiked Sample ID: 0511538-002A		
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) <sup>£</sup>	ND	60	101	95.2	5.66	104	99.9	3.97	70 - 130	70 - 130
MTBE	ND	10	92.4	91.4	1.08	102	99.9	2.39	70 - 130	70 - 130
Benzene	ND	10	90.4	91.1	0.793	91.1	96.3	5.61	70 - 130	70 - 130
Toluene	ND	10	96.8	98	1.19	96.6	103	6.16	70 - 130	70 - 130
Ethylbenzene	ND	10	103	104	0.813	105	110	4.26	70 - 130	70 - 130
Xylenes	ND	30	107	107	0	107	110	3.08	70 - 130	70 - 130
%SS:	103	10	98	101	2.88	95	100	4.68	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

**BATCH 19218 SUMMARY**

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0511534-001A	11/30/05 12:15 PM	12/01/05	12/01/05 10:49 AM	0511534-002A	11/30/05 10:05 AM	12/02/05	12/02/05 9:44 PM
0511534-003A	11/30/05 11:20 AM	12/02/05	12/02/05 3:35 AM	0511534-004A	11/30/05 11:45 AM	12/02/05	12/02/05 7:16 PM
0511534-005A	11/30/05 8:30 AM	12/02/05	12/02/05 4:05 AM				

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).

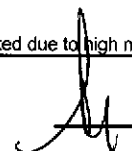
MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the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

 QA/QC Officer



**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

### QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0511534

EPA Method: SW8015C		Extraction: SW3510C			BatchID: 19231			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	1000	N/A	N/A	N/A	103	101	1.97	N/A	70 - 130
%SS:	N/A	2500	N/A	N/A	N/A	103	101	2.04	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

#### BATCH 19231 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0511534-001B	11/30/05 12:15 PM	11/30/05	12/01/05 8:34 PM	0511534-002B	11/30/05 10:05 AM	11/30/05	12/01/05 3:13 PM
0511534-003B	11/30/05 11:20 AM	11/30/05	12/01/05 4:21 PM	0511534-004B	11/30/05 11:45 AM	11/30/05	12/01/05 5:30 PM
0511534-005B	11/30/05 8:30 AM	11/30/05	12/01/05 6:38 PM				

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


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

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

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.

DHS Certification No. 1644

 QA/QC Officer

0511534 P00

**McCAMPBELL ANALYTICAL, INC.**

110 2<sup>ND</sup> AVENUE SOUTH, #D7  
PACHECO, CA 94553-5560

Website: [www.mccampbell.com](http://www.mccampbell.com) Email: [main@mccampbell.com](mailto:main@mccampbell.com)  
Telephone: (925) 798-1620 Fax: (925) 798-1622

**CHAIN OF CUSTODY RECORD**

TURN AROUND TIME

RUSH  24 HR  48 HR  72 HR  5 DAY

EDF Required? Yes No

Report To: Bob Clark-Riddell Bill To: Pangea Environmental

Company: Pangea Environmental Services Inc.

1710 Franklin Street Suite 200

Oakland, CA 94612

E-Mail: [bcr@pangeaenv.com](mailto:bcr@pangeaenv.com)

Tele: 510-836-3702

Fax: 510-836-3709

Project #:

Project Name: Connell

Project Location: 3093 Broadway Oakland, CA

Sampler Signature: Muskan Environmental Sampling

**Analysis Request**

Other

Comments

MTBE / BTEX & TPH as Gas (602 / 8021 + 8015)	
MTBE / BTEX ONLY (EPA 692 / 8021)	
TPH as Diesel (8015)	
Total Petroleum Oil & Grease (1664 / 5520 E/B&F)	
Total Petroleum Hydrocarbons (418.1)	
EPA 502.2 / 601 / 8010 / 8021 (BVOCs)	
EPA 505 / 608 / 8081 (CI Pesticides)	
EPA 608 / 8082 PCBs ONLY; Aroclors / Congeners	
EPA 507 / 8141 (NP Pesticides)	
EPA 515 / 8151 (Acidic CI Herbicides)	
EPA 524.2 / 624 / 8269 (VOCs)	
Fuel Additives (MTBE, ETBE, TAME, DIPE, TBA, 1,2-DCA, 1,2-EDB, ethanol) by 8260B	
IFMbe is detected by 8021 confirm by 8260B	

Filter Samples for Metals analysis: Yes / No

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED								
		Date	Time			Water	Soil	Air	Sludge	Other	ICE	HCL	HNO <sub>3</sub>	Other					
MW-4		11-30-05	12:15	2	VOC P/B	X						X	X						
MW-7			10:05																
MW-8			11:20																
MW-9			11:45																
MW-13		X	8:30			X						X	X						

Relinquished By: [Signature] Date: 11/30/05 Time: 250 Received By: [Signature]

Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received By: \_\_\_\_\_

**McC Campbell Analytical, Inc.**

**CHAIN-OF-CUSTODY RECORD**



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

WorkOrder: 0511534

ClientID: PEO

EDF: YES

Report to:

Bob Clark-Riddell  
 Pangea Environmental Svcs., Inc.  
 1710 Franklin Street, Ste. 200  
 Oakland, CA 94612

TEL: (510) 836-3700  
 FAX: (510) 836-3709  
 ProjectNo: Connell  
 PO:

Bill to:

Bob Clark-Riddell  
 Pangea Environmental Svcs., Inc.  
 1710 Franklin Street, Ste. 200  
 Oakland, CA 94612

Requested TAT:

5 days

*Date Received:* 11/30/2005

*Date Printed:* 11/30/2005

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
0511534-001	MW-4	Water	11/30/2005	<input type="checkbox"/>	A	A	B										
0511534-002	MW-7	Water	11/30/2005	<input type="checkbox"/>	A		B										
0511534-003	MW-8	Water	11/30/2005	<input type="checkbox"/>	A		B										
0511534-004	MW-9	Water	11/30/2005	<input type="checkbox"/>	A		B										
0511534-005	MW-13	Water	11/30/2005	<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							

Prepared by: Juanita Venegas

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.