

C A M B R I A

CAMBRIA ENVIRONMENTAL
PROTECTION

CD JUL 17 PM 1:23

July 12, 2000

Ms. Susan Hugo
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

Re: **Second Quarter 2000 Monitoring Report**
Connell Automobile Dealership
3093 Broadway
Oakland, California
StID #469

Dear Ms. Hugo:

On behalf of Messrs. George Hill and Gordon Linden, and as required by the Alameda County Health Care Services Agency (ACHCSA), Cambria Environmental Technology, Inc. (Cambria) has prepared this quarterly monitoring report for the above-referenced site. This report satisfies the quarterly reporting requirements prescribed by 23 CCR 2652d. The site background, second quarter 2000 activities and results, and the anticipated third quarter 2000 activities are presented below.

SITE BACKGROUND

Three underground storage tanks (USTs) which previously contained gasoline, diesel, and waste oil were removed from the subject site in December 1989. Soil and groundwater investigation has been ongoing since 1990. Between October 1996 and March 1998, operation of a soil vapor extraction (SVE) remediation system removed approximately 1,421 lbs of hydrocarbons. Manual removal of hydrocarbons from site monitoring wells has been ongoing since 1991.

SECOND QUARTER 2000 ACTIVITIES AND RESULTS

Groundwater Monitoring: Cambria monitored site groundwater following the sampling protocol described in Cambria's May 8, 2000 *Workplan Addendum*. On May 31, 2000, Cambria gauged monitoring wells MW-1, MW-4, MW-6, MW-7, MW-8, MW-9, MW-13, MW-14, and MW-15, and inspected the wells for separate-phase hydrocarbons (SPH). Groundwater samples were collected from wells MW-4, MW-7, MW-8, MW-9, and MW-13. The samples were analyzed by a California Department of Health Services (DHS) certified analytical laboratory for total petroleum hydrocarbons (TPH) as diesel, TPH as motor oil (TPHmo), TPH as gasoline (TPHg), benzene, toluene, ethylbenzene, xylenes (BTEX), methyl tertiary butyl ether (MTBE), and EPA List 8010 halogenated volatile organic compounds (HVOCs). The groundwater elevations, groundwater flow

Oakland, CA
San Ramon, CA
Sonoma, CA
Portland, OR

Cambria
Environmental
Technology, Inc.

1144 65th Street
Suite B
Oakland, CA 94608
Tel (510) 420-0700
Fax (510) 420-9170

direction, and gradient are shown on Figure 1. The groundwater and analytical data are presented in Tables 1, 2, and 3. SPH thicknesses and quantities removed are presented in Table 4. The analytical laboratory report is included as Attachment A. Field data sheets are included as Attachment B.

Groundwater Flow Direction: Based on the May 31, 2000, depth-to-water measurements, groundwater flowed eastward with a gradient of approximately 0.08 ft/ft during the second quarter of 2000 (Figure 1). This result is consistent with the historical local groundwater flow direction.

Contaminant Distribution in Groundwater: In general, monitoring results were consistent with past results for this site. SPH were detected in well MW-6 (Figure 1). The primary contaminants of concern (COCs) in site groundwater are benzene, 1,2-DCA, naphthalene, lead and nickel; these COCs are typically associated with releases from USTs containing gasoline, diesel, and/or motor oil. The maximum benzene concentration detected in groundwater was 17,000 ug/l in MW-4, and the maximum 1,2-DCA concentration was 300 ug/l in MW-9 (Table 1). Although not analyzed this quarter, naphthalene, lead, and nickel concentrations are expected to be consistent with the first quarter 2000 results. The contaminant plumes are adequately defined cross-gradient (south) and downgradient of the former UST complex location by wells MW-7 and MW-13, respectively.

Separate-Phase Hydrocarbon Removal: During site visits on March 28, 2000, May 2, 2000, and May 31, 2000, Cambria inspected the passive SPH recovery devices in wells MW-1, MW-6, and MW-14. On March 28, 2000 and May 2, 2000, product was observed in the absorbent socks in wells MW-1 and MW-14, and in the product skimmer in well MW-6. The socks were removed and replaced, and the skimmer was emptied and reset. No SPH was recovered during the May 31, 2000 monitoring event. As of May 31, 2000, a total of approximately 909 lbs of SPH has been recovered from the site monitoring wells since liquid-phase hydrocarbon removal began in December 1991. Table 4 presents the SPH thickness measurements, the amount of SPH removed from the wells during each site visit, and the cumulative mass of SPH removed from each well.

Regulatory Interaction: On April 3, 2000, Cambria and Msrs. George Hill and Gordon Linden of the Connell Trust met with Ms. Susan Hugo of the ACHCSA. Cambria memorialized the results of that meeting in the May 8, 2000 *Workplan Addendum*. Ms. Hugo verbally approved the *Workplan Addendum* on June 30, 2000. Written approval of the addendum is pending.

ANTICIPATED THIRD QUARTER 2000 ACTIVITIES

Groundwater Monitoring and Reporting: As required by the ACHCSA, Cambria will gauge site wells MW-1, MW-4, MW-6, MW-7, MW-8, MW-9, MW-13, MW-14, and MW-15 on a quarterly basis, collecting groundwater samples from MW-4, MW-7, MW-8, MW-9, and MW-13. During third quarter 2000, Cambria will analyze groundwater samples for TPHd, TPHmo, TPHg, BTEX, MTBE, and EPA List 8010 HVOCs. Cambria will prepare a quarterly monitoring report that will include tabulated groundwater elevation and analytical data and a potentiometric surface map.

Separate-Phase Hydrocarbon Removal: Cambria will conduct monthly SPH recovery events. Proper functioning of the recovery devices in MW-1, MW-6, and MW-14 will be verified, and collected SPH will be transferred to labeled, DOT-approved steel drums pending disposal or recycling.

Implementation of the May 8, 2000 Workplan Addendum: Cambria anticipates implementation of the May 8, 2000 *Workplan Addendum* to begin during the third quarter 2000. The ACHCSA-approved scope of work includes soil vapor sampling, preparation of a screening level health risk assessment, and feasibility testing of technologies for active removal of SPH from site wells. Prior to implementation, cost pre-approval will be obtained from the state UST Cleanup Fund.

C A M B R I A

Ms. Susan Hugo
July 12, 2000

CLOSING

We trust that this report meets your requirements. If you have any questions or comments concerning this report, please call Bob Schultz at (510) 420-3341.

Sincerely,

Cambria Environmental Technology, Inc.

Catherine M. Bell

Robert W. Schultz
Project Geologist

Bob Clark-Riddell

Bob Clark-Riddell, P.E.
Principal Engineer



Attachments: A - Analytical Laboratory Report
B - Field Data Sheets

cc: George Hill, 305 Sheridan Avenue, Piedmont, CA 94611
Gordon Linden, 101 Gleneden Avenue, Oakland, CA 94611
Paul Kibel, Fitzgerald, Abbott & Beardsley, LLP, 1221 Broadway, 21st Floor, Oakland, CA 94612
Leroy Griffin, Hazardous Materials Manager, Fire Department - OES, 1605 MLK Jr. Way, Oakland, CA 94612

H:\SB-2004 (UST Fund)\Connell\QM\2QM00.wpd

Groundwater Elevation Contours

May 31, 2000

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C A M B R I A

1**FIGURE****Connell Automobile Dealership**3093 Broadway
Oakland, California**EXPLANATION**

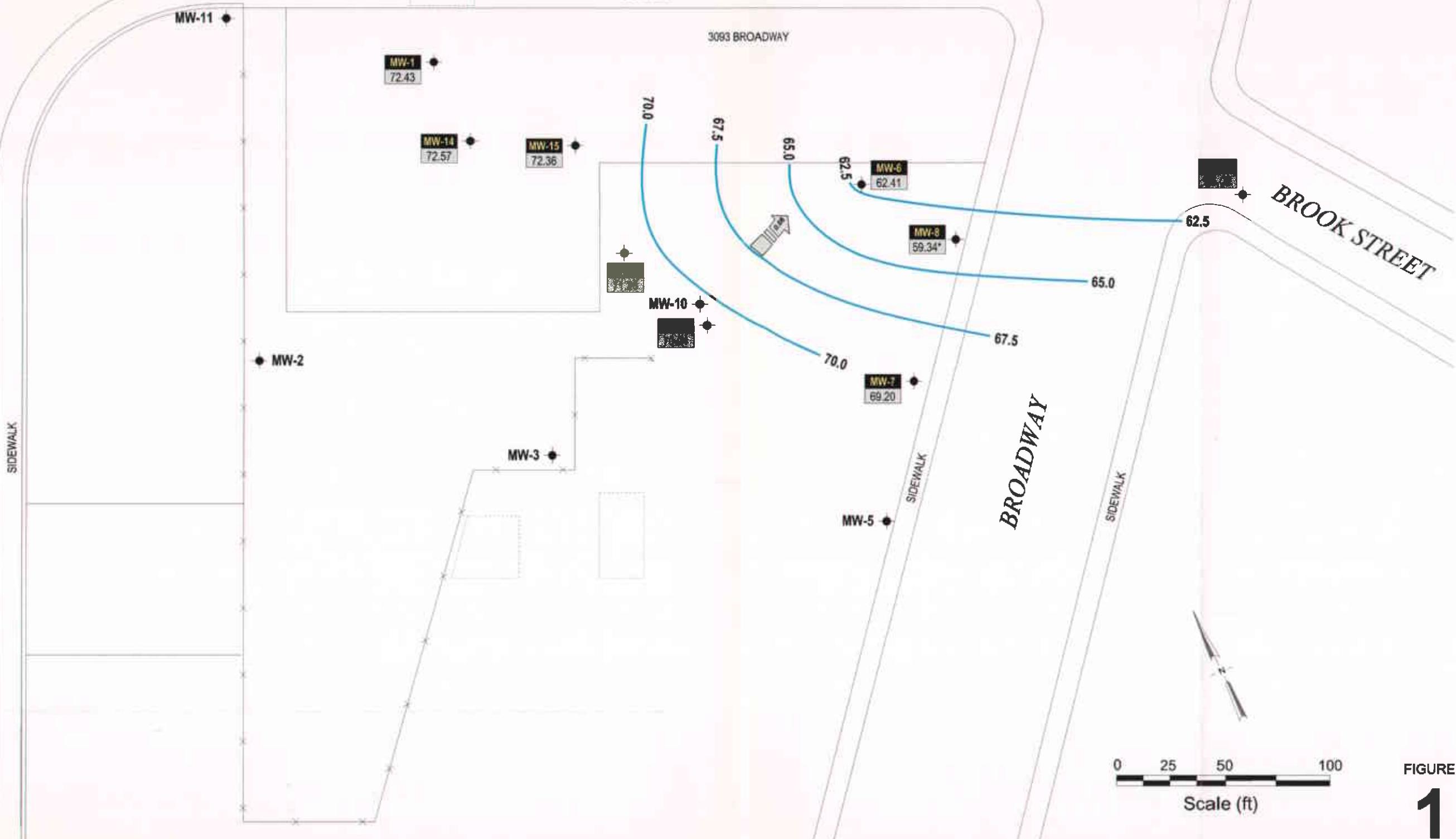
- MW-1** • Monitoring well location
Groundwater elevation anomalous,
not included in contouring
- | | |
|---------|-----------------------|
| Well ID | |
| ELEV | Groundwater Elevation |

Basemap from Subsurface Consultants, Inc.

HAWTHORNE STREET

SIDEWALK

3093 BROADWAY

WEBSTER STREET

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

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TVH	TPHg	Benzene	Toluene	Ethyl- benzene		Xylenes	MTBE	1,2-DCA	Other HVOCs
								<----- ug/l----->					
MW-1 94.48	10/05/90	26.40	68.08	620,000	--	33,000	50,000	7,900	41,000	--	2,900	--	ND
	03/01/91	27.46	67.02	FP	--	--	--	--	--	**	--	--	--
	10/12/92	26.44	68.04	490,000	--	51,000	59,000	5,000	27,000	--	1,300	--	--
	11/24/92	26.63	67.85	320,000	--	35,000	43,000	4,200	22,000	--	1,600	--	ND
	04/05/93	23.77	70.71	270,000	--	50,000	58,000	4,600	25,000	--	1,800	--	ND
	07/21/93	24.51	69.97	FP	--	--	--	--	--	--	--	--	--
	11/09/93	26.06	68.42	FP	--	--	--	--	--	--	--	--	--
	08/30/95	21.73	72.75	FP	--	--	--	--	--	--	--	--	--
	12/04/95	21.94	72.54	FP	--	--	--	--	--	<200	--	--	--
	05/02/96	20.65	73.83	340,000	--	57,000	73,000	7,200	38,000	--	1,200	--	--
	11/05/96	24.29	70.19	270,000	--	43,000	56,000	4,500	34,000	--	--	--	--
	05/09/97	22.79	71.69	240,000	--	36,000	45,000	3,300	17,900	--	930	--	--
	11/05/97	25.06	69.42	240,000	--	42,000	48,000	3,600	18,800	<1,000	1,200	--	--
	02/09/98	22.64	71.84	220,000	--	47,000	60,000	5,200	29,800	<1,000	1,500	--	ND
	05/01/98	19.95	74.53	160,000	--	35,000	42,000	2,800	16,000	<1,000	1,100	--	ND
	11/03/98	23.29	71.19	200,000	--	39,000	49,000	4,400	26,000	<500	1,200	--	ND
	03/24/99	22.30	72.18	FP	--	--	--	--	--	--	--	--	--
	07/01/99	22.70	71.78	FP	--	--	--	--	--	--	--	--	--
	09/21/99	23.81	70.67	FP	--	--	--	--	--	--	--	--	--
	02/09/00	23.95	70.59	FP	--	--	--	--	--	--	--	--	--
	05/31/00	22.05	72.43	--	--	--	--	--	--	--	--	--	--
MW-2 94.81	03/01/91	27.86	66.95	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0	--	ND
	11/24/92	27.91	66.90	<50	--	<0.5	1.1	<0.5	1.5	--	<1.0	--	ND
	04/05/93	25.95	68.86	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0	--	ND
	07/21/93	25.59	69.22	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0	--	ND
	11/10/93	26.72	68.09	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0	--	ND
	08/30/95	25.75	69.06	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0	--	--
	05/03/96	23.28	71.53	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0	--	ND
	05/08/97	24.58	70.23	<50	--	<0.5	0.7	<0.5	<0.5	--	<1.0	--	--
	04/29/98	22.18	72.63	<50	--	<0.5	<0.5	<0.5	<0.5	<2	<1.0	--	ND

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

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TVH	TPHg	Benzene	Toluene	Ethyl-benzene	Xylenes	MTBE	1,2-DCA	Other HVOCs
ug/l												
MW-3	03/01/91	23.17	66.91	<50	--	<50	0.6	<0.5	<0.5	--	<1.0	ND
90.08	11/25/92	23.01	67.07	50	--	<0.5	0.9	<0.5	2	--	<1.0	ND
	04/05/93	22.11	67.97	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0	ND
	07/21/93	23.93	66.15	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0	ND
	11/10/93	23.14	66.94	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0	ND
	08/30/95	20.61	69.47	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0	--
	05/03/96	18.43	71.65	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0	ND
	05/08/97	19.77	70.31	<50	--	<0.5	0.7	<0.5	<0.5	--	<1.0	--
	04/29/98	17.92	72.16	<50	--	<0.5	<0.5	<0.5	<0.5	<2	<1.0	ND
MW-4	03/01/91	23.79	65.05	150,000	--	20,000	38,000	2,800	14,000	**	610	ND
88.84	10/12/92	22.48	66.36	230,000	--	15,000	32,000	2,500	14,000	--	430	--
	11/24/92	22.60	66.24	210,000	--	14,000	31,000	2,500	14,000	--	500	ND
	04/02/93	20.11	68.73	FP	--	--	--	--	--	--	--	--
	07/21/93	20.48	68.36	FP	--	--	--	--	--	--	--	--
	11/09/93	21.71	67.13	FP	--	--	--	--	--	--	--	--
	08/30/95	19.90	68.94	FP	--	--	--	--	--	--	--	--
	12/01/95	19.40	69.44	FP	--	--	--	--	--	--	--	--
	05/02/96	17.50	71.34	140,000	--	24,000	50,000	3,000	15,100	--	420	ND
	11/04/96	20.13	68.71	160,000	--	16,000	38,000	2,700	14,000	--	380	ND
	05/08/97	18.63	70.21	170,000	--	16,000	37,000	2,400	15,900	--	290	--
	11/05/97	20.19	68.65	190,000	--	15,000	31,000	2,200	14,600	<400	290	--
	02/09/98	18.28	70.56	110,000	--	19,000	42,000	2,500	18,300	<500	300	--
	05/01/98	16.11	72.73	130,000	--	15,000	31,000	2,000	13,400	<1,000	260	ND
	08/04/98	17.54	71.30	130,000	--	16,000	34,000	2,400	15,700	<400	240	ND
	11/02/98	19.21	69.63	140,000	--	16,000	32,000	2,300	15,500	<400	230	ND
	03/26/99	17.51	71.33	110,000	--	15,000	30,000	1,600	15,000	450 ⁴	210	⁵
	07/01/99	18.80	70.04	110,000	--	13,000	23,000	1,600	12,000	<83	170	⁵
	09/21/99	19.85	68.99	140,000	--	16,000	31,000	2,400	14,800	ND	<1000	⁵
	02/09/00	19.76	69.08	--	140,000	16,000	28,000	2,100	14,000	<400	100	DCB: 5.9, MCB: 5.9
	05/31/00	17.90	70.94	--	15,000	17,000	28,000	2,400	14,000	<0.5 ⁶	<0.5	ND

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

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TVH <-----	TPHg -----	Benzene	Toluene	Ethyl- benzene ug/l	Xylenes	MTBE	1,2-DCA	Other HVOCs ----->
						-----	-----	-----	-----	-----	-----	-----
MW-5 84.84	03/15/91	26.31	58.53	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0	ND
	11/10/92	26.83	58.01	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0	ND
	04/02/93	26.62	58.22	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0	ND
	07/21/93	26.60	58.24	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0	ND
	11/09/93	27.24	57.60	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0	ND
	08/30/95	27.46	57.38	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0	--
	05/03/96	26.02	58.82	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0	ND
	05/08/97	26.76	58.08	<50	--	<0.5	0.5	<0.5	<0.5	--	<1.0	--
	04/29/98	26.55	58.29	<50	--	<0.5	0.5	<0.5	<0.5	<2	<1.0	ND
MW-6 85.62	03/15/91	25.82	59.80	80,000	--	12,000	13,000	1,100	5,400	--	1,400	DBCM: 160
	10/12/92	25.02	60.60	19,000	--	3,200	1,400	200	560	--	840	--
	12/01/92	28.87	56.75	FP	--	--	--	--	--	--	--	--
	04/02/93	26.96	58.66	FP	--	--	--	--	--	--	--	--
	07/21/93	26.17	59.45	FP	--	--	--	--	--	--	--	--
	11/09/93	27.51	58.11	FP	--	--	--	--	--	--	--	--
	08/30/95	28.00	57.62	FP	--	--	--	--	--	--	--	--
	12/01/95	27.58	58.04	FP	--	--	--	--	--	<8,000,000	71	--
	05/03/96	28.15	58.79	130,000	--	37,000	50,000	3,200	14,200	--	2,400	ND
86.94	05/09/97	26.54	60.40	1,700,000	--	14,000	27,000	4,000	28,200	--	1,200	--
	11/05/97	26.16	60.78	160,000	--	13,000	19,000	1,900	14,300	<200	790	--
	05/01/98	22.96	62.86	130,000	--	15,000	23,000	1,700	13,200	<500	1,100	ND
	11/03/98	24.35	61.47	110,000	--	17,000	21,000	1,800	10,700	<200	990	ND
	03/26/99	23.82	62.00	FP	--	--	--	--	--	--	--	--
	07/01/99	24.45	61.37	FP	--	--	--	--	--	--	--	--
	09/21/99	24.58	61.24	FP	--	--	--	--	--	--	--	--
	02/09/00	24.93	61.24	FP	--	--	--	--	--	--	--	--
	05/31/00	23.47	62.41	--	FP	--	--	--	--	--	--	--

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

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TVH <-----	TPHg ----->	Benzene	Toluene	Ethyl- benzene ---ug/l---	Xylenes	MTBE	1,2-DCA	Other HVOCs ----->
MW-7	03/15/91	21.63	63.78	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0	ND
85.41	11/24/92	21.52	63.89	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0	ND
	04/02/93	20.08	65.33	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0	ND
	07/21/93	19.59	65.82	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0	ND
	11/09/93	20.65	64.76	<50	--	<0.5	1	<0.5	1.7	--	<1.0	ND
	08/30/95	18.78	66.63	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0	--
	12/01/95	19.47	65.94	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0	ND
	05/02/96	17.15	68.26	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0	ND
	08/08/96	18.48	66.93	<50	--	<0.5	<0.5	<0.5	<0.5	<2	<1.0	ND
	11/04/96	18.69	66.72	<50	--	<1	<1	<1	<1	--	<1.0	ND
	02/06/97	17.44	67.97	<50	--	<0.5	<0.5	<0.5	<0.5	<2	<1.0	ND
	05/08/97	17.72	67.69	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0	--
	08/07/97	18.49	66.92	<50	--	<0.5	<0.5	<0.5	<0.5	<2	<1.0	ND
	11/05/97	18.86	66.55	<50	--	<0.5	<0.5	<0.5	<0.5	<2	1	--
	02/09/98	17.56	67.85	<50	--	<0.5	<0.5	<0.5	<0.5	<2	<1.0	--
	04/29/98	16.23	69.18	<50	--	<0.5	<0.5	<0.5	<0.5	<2	<1.0	ND
	08/04/98	17.24	68.17	<50	--	<0.5	<0.5	<0.5	<0.5	<2	1.1	ND
	11/02/98	17.91	67.50	<50	--	<0.5	<0.5	<0.5	<0.5	<2	1.2	ND
	03/26/99	16.42	68.99	<50	--	<0.5	<0.5	<0.5	<0.5	<2	ND	ND
	07/01/99	17.90	67.51	85	--	<0.5	1.1	0.55	2.5	<0.5	1.0	5
	09/21/99	18.91	66.50	<50	--	0.7	1.8	<0.5	1.5	<5.0	<5.0	ND
	02/09/00	16.74	68.67	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5
	05/31/00	16.21	69.20	--	<50	3	6	1	9	<0.5	<0.5	ND
MW-8	10/12/92	27.70	57.80	70	--	20	1	1	3	--	210	--
85.50	11/25/92	27.62	57.88	<50	--	<0.5	<0.5	<0.5	<0.5	--	200	ND
	04/08/93	26.64	58.86	490	--	15	45	5.1	73	--	210	ND
	07/21/93	26.60	58.90	180	--	2.5	3	<0.5	1.9	--	350	ND
	11/11/93	27.18	58.32	310	--	23	<0.5	<0.5	<0.5	--	240	ND
	08/30/95	26.35	59.15	660	--	360	6.8	13	2.8	--	130	--
	12/04/95	26.72	58.78	250	--	46	0.9	4.9	<0.5	--	94	ND
	05/03/96	25.47	60.03	69	--	110	<0.5	<0.5	1.5	--	100	ND

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Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TVH <-----	TPHg	Benzene	Toluene	Ethyl- benzene ug/l	Xylenes	MTBE	1,2-DCA	Other HVOCs ----->
	08/08/96	26.41	59.09	120	--	11	<0.5	<0.5	<0.5	<2	93	ND
	11/05/96	26.77	58.73	110	--	20	<1	1	<1	--	98	ND
	02/06/97	25.84	59.66	67 ^{1,2}	--	51	<0.5	0.56	<0.5	<2	81	ND
	05/09/97	26.39	59.11	110 ^{1,2}	--	59	<0.5	<0.5	<0.5	--	76	--
	08/07/97	26.72	58.78	<50	--	12 ³	<0.5	<0.5	<0.5	<2	79	ND
	11/05/97	26.82	58.68	<50	--	9.4	<0.5	<0.5	<0.5	<2	84	--
	02/09/98	25.57	59.93	<50	--	6	<0.5	<0.5	<0.5	<2	85	--
	05/01/98	25.64	59.86	430	--	490	7.1	27	26	<10	85	ND
	08/05/98	25.96	59.54	140	--	19	<0.5	5.2	5.3	<2	69	ND
	11/03/98	26.27	59.23	150	--	110	1.1	4.3	4.5	<2	67	ND
	03/31/99	20.93	64.57	54	--	170	1.5	4.1	1.9	4.4 ⁴	5.9	1,1 DCA: 0.7
	07/01/99	26.59	58.91	140	--	58	0.9	3	2.3	<0.5	55	⁵
	09/21/99	26.89	58.61	670	--	170	2.6	11	7.9	<5	41	ND
	02/09/00	26.60	58.90	--	300	60	1.2	4.8	1.2	<5.0	40	<0.5
	05/31/00	26.16	59.34	--	380	85	2	4	3	<0.5	52	ND
MW-9	11/24/92	23.51	66.86	19,000	--	180	590	23	2000	--	340	TCM: 15
90.37	04/05/93	21.14	69.23	2,300	--	48	4	0.6	13	--	600	TCM: 2
	07/21/93	21.54	68.83	2,300	--	170	8.1	15	<0.5	--	1100	ND
	11/10/93	27.53	62.84	4,400	--	69	7.3	21	9.7	--	900	ND
	08/30/95	19.59	70.78	3,200	--	3,900	49	80	22.8	--	960	--
	12/04/95	20.65	69.72	--	--	--	--	--	--	<2	--	--
	05/02/96	18.63	71.74	<1300	--	2,600	<13	200	<13	--	550	ND
	11/05/96	20.69	69.68	1,800	--	280	<5	65	<5	--	770	ND
	05/09/97	19.96	70.41	1,100	--	160	<0.5	42	<0.5	--	690	--
	08/08/97	20.84	69.53	570 ^{1,2}	--	<0.5	<0.5	<0.5	0.78 ³	<2	680	ND
	11/05/97	21.55	68.82	490 ¹	--	<0.5	<0.5	6	<0.5	<2	500	--
	02/09/98	20.21	70.16	270 ¹	--	48	17	5.8	<0.5	<2	520	--
	05/01/98	19.27	71.10	550	--	70	<0.5	22	2.2	<2	390	ND
	08/05/98	19.35	71.02	550 ¹	--	88	<0.5	13	1.9 ³	<2	420	ND
	11/02/98	20.43	69.94	580	--	<0.5	<0.5	7.5 ³	1.6 ³	<2	430	ND
	03/25/99	18.46	71.91	1,100	--	160	<0.5	21	2.1 ³	5.7 ⁴	550	ND

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

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TVH <----->	TPHg <----->	Benzene	Toluene	Ethyl- benzene ug/l <----->	Xylenes	MTBE	1,2-DCA	Other HVOCs ----->
	07/01/99	19.95	70.42	540	--	100	7.4	26	16.9	<1.3	400	5
	09/21/99	21.15	69.22	2,700	--	320	98	88	47	<20	540	ND
	02/09/00	21.08	69.29	--	1,600	81	3.6	19	18	<5.0	360	<0.5
	05/31/00	19.11	71.26	--	1,500	170	13	25	<1.0	<0.5	300	ND
MW-10 <i>88.60</i>	10/12/92	21.55	67.05	28,000	--	2,700	3,800	210	1,300	--	150	--
	11/24/92	21.86	66.74	130,000	--	9,700	19,000	1,400	8,400	--	370	ND
	04/05/93	19.14	69.46	63,000	--	6,300	14,000	1,100	7,500	--	70	ND
	07/21/93	19.79	68.81	140,000	--	16,000	31,000	2,200	13,000	--	700	ND
	08/30/95	17.99	70.61	92,000	--	13,000	24,000	1,800	9,100	--	300	--
	05/03/96	17.04	71.56	81,000	--	17,000	29,000	2,100	8,500	--	320	ND
	05/09/97	18.36	70.24	63,000	--	7,400	13,000	940	4,100	--	150	--
	05/01/98	15.84	72.76	60,000	--	7,100	14,000	1100	5,300	<250	120	ND
MW-11 <i>102.06</i>	11/24/92	33.65	68.41	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0	ND
	12/8/92***	33.37	68.69	<50	--	<0.1	<0.1	<0.1	<0.1	--	--	--
	12/08/92	33.37	68.69	<50	--	<0.5	<0.5	<0.5	<0.5	--	--	--
	04/05/93	31.03	71.03	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0	ND
	07/21/93	31.90	70.16	160	--	<0.5	1.8	<0.5	<0.5	--	<1.0	ND
	11/09/93	32.60	69.46	80	--	<0.5	<0.5	<0.5	<0.5	--	<1.0	ND
	08/30/95	28.92	73.14	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0	--
	05/03/96	28.00	74.06	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0	ND
	05/08/97	29.93	72.13	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0	--
	04/29/98	27.22	74.84	<50	--	<0.5	<0.5	<0.5	<0.5	<2	<1.0	ND
MW-13 <i>84.06</i>	11/24/92	26.05	58.01	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0	ND
	12/8/92***	25.08	58.98	<50	--	<0.1	<0.1	<0.1	<0.1	--	--	--
	12/08/92	25.08	58.98	<50	--	<0.5	<0.5	<0.5	<0.5	--	--	--
	04/05/93	24.64	59.42	<50	--	<0.5	0.9	<0.5	<0.5	--	<1.0	ND
	07/21/93	24.29	59.77	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0	ND
	11/09/93	24.23	59.83	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0	ND
	08/30/95	23.30	60.76	<50	--	49	<0.5	<0.5	<0.5	--	3.6	--

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

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TVH <--	TPHg --	Benzene	Toluene	Ethyl- benzene ug/l	Xylenes	MTBE	1,2-DCA	Other HVOCs -->
	12/01/95	23.80	60.26	<50	--	<0.5	<0.5	<0.5	<0.5	--	4.1	ND
	05/03/96	23.19	60.87	<50	--	<0.5	<0.5	<0.5	<0.5	--	4	ND
	08/08/96	23.44	60.62	<50	--	32	<0.5	<0.5	<0.5	<2	6.4	ND
	11/05/96	24.04	60.02	<50	--	<1	<1	<1	<1	--	5.7	ND
	02/06/97	23.24	60.82	<50	--	<0.5	<0.5	<0.5	<0.5	<2	3.5	ND
	05/08/97	23.46	60.60	<50	--	81	<0.5	<0.5	<0.5	--	5.5	--
	08/08/97	23.92	60.14	<50	--	<0.5	<0.5	<0.5	<0.5	<2	6.8	ND
	11/05/97	24.27	59.79	<50	--	<0.5	<0.5	<0.5	<0.5	<2	5.5	--
	02/09/98	22.89	61.17	<50	--	<0.5	<0.5	<0.5	<0.5	<2	2.9	--
	04/29/98	22.27	61.79	<50	--	24	<0.5	<0.5	<0.5	<2	5.7	ND
	08/04/98	22.75	61.31	120	--	200	<1	<1	<1	<4	6.2	ND
	11/03/98	23.90	60.16	59 ¹	--	33	<0.5	<0.5	<0.5	<2	6.1	ND
	03/31/99	23.11	60.95	130	--	0.56	<0.5	<0.5	<0.5	<2	1.4	ND
	07/01/99	23.40	60.66	160	--	370	19	1.2	3.5	<1	4.2	5
	09/21/99	21.91	62.15	370	--	150	1.0	0.8	0.8	<5.0	<5.0	ND
	02/09/00	23.84	60.22	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	2.1	<0.5
	05/31/00	22.97	61.09	--	<50	5	<0.5	<0.5	<1.0	<0.5	<0.5	ND
MW-14 94.66	05/26/98	21.67	72.99	41,000	--	7,100	11,000	720	3,900	<1000	440	ND
	07/01/99	22.95	71.71	FP	--	--	--	--	--	--	--	--
	09/21/99	24.26	70.40	FP	--	--	--	--	--	--	--	--
	02/09/00	24.13	70.53	--	92,000	12,000	17,000	1,300	8,700	<140	450	<0.5
	05/31/00	22.09	72.57	--	--	--	--	--	--	--	--	--
MW-15 94.76	05/26/98	21.87	72.89	130,000	--	30,000	38,000	2,500	12,600	<1000	1,200	ND
	07/01/99	22.25	72.51	FP	--	--	--	--	--	--	--	--
	09/21/99	24.12	70.64	FP	--	--	--	--	--	--	--	--
	02/09/00	24.42	70.34	--	180,000	32,000	37,000	2,800	14,000	<200	1,100	<0.5
	05/31/00	22.40	72.36	--	--	--	--	--	--	--	--	--

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

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID	Sampling Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TVH	TPHg	Benzene	Toluene	Ethyl-benzene	Xylenes	MTBE	1,2-DCA	Other HVOCs
TOC Elev. (ft)			<----- (ft)	-----	-----	-----	-----	----- ug/l-----	-----	-----	-----	----->

Abbreviations and Notes:

TOC Elev. (ft) = Top of casing elevation in feet above mean sea level

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

TVH = Total Volatile Hydrocarbons

TPHg = Total petroleum hydrocarbons as gasoline

MTBE = Methyl tert-butyl ether

1,2-DCA = 1,2 Dichloroethane

HVOCs = Halogenated volatile organic compounds by EPA Method 8010

DCB = 1, 3 Dichlorobenzene

MCB = Chlorobenzene

DBCM = Dibromochloromethane

TCM = Chloroform = trichloromethane

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

-- = Sample not analyzed

FP = Free product encountered in well

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

MW-1 was initially referred to as Sample 5.

* = 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.

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	TPHd	TPHmo	2-Methyl naphthalene ug/l	Naphthalene	Other SVOCs
MW-1 94.48	10/05/90	26.40	68.08	<500	--	--	--	--	--
	03/01/91	27.46	67.02	FP	--	--	--	--	--
	10/12/92	26.44	68.04	--	--	--	--	--	--
	11/24/92	26.63	67.85	4,600	--	--	--	--	--
	04/05/93	23.77	70.71	25,000	--	--	--	--	--
	07/21/93	24.51	69.97	FP	--	--	--	--	--
	11/09/93	26.06	68.42	FP	--	--	--	--	--
	08/30/95	21.73	72.75	FP	--	--	630	1,200	ND
	12/04/95	21.94	72.54	FP	--	--	--	--	--
	05/02/96	20.65	73.83	32,000	--	--	250	640	ND
	11/05/96	24.29	70.19	--	--	--	--	--	--
	05/09/97	22.79	71.69	28,000	--	--	280	650	ND
	11/05/97	25.06	69.42	28,000	--	--	720	1,500	ND
	02/09/98	22.64	71.84	27,000	--	--	160	570	ND
	05/01/98	19.95	74.53	29,000	--	--	--	--	--
	05/27/98	--	--	--	--	--	120	630	ND
	11/03/98	23.29	71.19	37,000	--	--	500	1,100	ND
	03/24/99	22.30	72.18	FP	--	--	--	--	--
	07/01/99	22.70	71.78	FP	--	--	--	--	--
	09/21/99	23.81	70.67	FP	--	--	--	--	--
	02/09/00	23.95	70.59	--	FP	--	--	--	--
	05/31/00	22.05	72.43	--	--	--	--	--	--
MW-2 94.81	03/01/91	27.86	66.95	<50	--	--	--	--	--
	11/24/92	27.91	66.90	<50	--	--	--	--	--
	04/05/93	25.95	68.86	870	--	--	--	--	--
	07/21/93	25.59	69.22	<50	--	--	--	--	--
	11/10/93	26.72	68.09	240	--	--	--	--	--
	08/30/95	25.75	69.06	150	--	--	--	--	--
	05/03/96	23.28	71.53	<50	--	--	--	--	--
	05/08/97	24.58	70.23	<50	--	--	--	--	--
MW-3 90.08	04/29/98	22.18	72.63	<47	--	--	--	--	--
	03/01/91	23.17	66.91	<50	--	--	--	--	--
	11/25/92	23.01	67.07	160	--	--	--	--	--
	04/05/93	22.11	67.97	<50	--	--	--	--	--
	07/21/93	23.93	66.15	<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 <-----	TPHd --	TPHmo --	2-Methyl naphthalene ug/l		Other SVOCs ----->
							naphthalene	Naphthalene	
	11/10/93	23.14	66.94	<50	--	--	--	--	--
	08/30/95	20.61	69.47	<50	--	--	--	--	--
	05/03/96	18.43	71.65	<50	--	--	--	--	--
	05/08/97	19.77	70.31	<50	--	--	--	--	--
	04/29/98	17.92	72.16	<47	--	--	--	--	--
MW-4 88.84	03/01/91	23.79	65.05	<500	--	--	--	--	--
	10/12/92	22.48	66.36	--	--	--	--	--	--
	11/24/92	22.60	66.24	1,600	--	--	--	--	--
	04/02/93	20.11	68.73	FP	--	--	--	--	--
	07/21/93	20.48	68.36	FP	--	--	--	--	--
	11/09/93	21.71	67.13	FP	--	--	--	--	--
	08/30/95	19.90	68.94	FP	--	--	--	--	--
	12/01/95	19.40	69.44	FP	--	--	--	--	--
	05/02/96	17.50	71.34	9,200	--	--	--	--	--
	11/04/96	20.13	68.71	4,700	--	--	--	--	--
	05/08/97	18.63	70.21	5,100	--	--	--	--	--
	11/05/97	20.19	68.65	3,700	--	--	--	--	--
	02/09/98	18.28	70.56	4,800	--	--	--	--	--
	05/01/98	16.11	72.73	5,000	--	--	--	--	--
	08/04/98	17.54	71.30	3,500	--	--	--	--	--
	11/02/98	19.21	69.63	7,200	--	--	--	--	--
	03/26/99	17.51	71.33	14,000	--	--	--	--	--
	07/01/99	18.80	70.04	17,000	--	--	370	860	ND
	09/21/99	19.85	68.99	14,000	--	--	360	820	ND
	02/09/00	19.76	69.08	--	12,000	1,000	290	700	ND
	05/31/00	17.90	70.94	--	14,000 **	<500	--	--	--
MW-5 84.84	03/15/91	26.31	58.53	<50	--	--	--	--	--
	11/10/92	26.83	58.01	50	--	--	--	--	--
	04/02/93	26.62	58.22	<50	--	--	--	--	--
	07/21/93	26.60	58.24	190	--	--	--	--	--
	11/09/93	27.24	57.60	170	--	--	--	--	--
	08/30/95	27.46	57.38	180	--	--	--	--	--
	05/03/96	26.02	58.82	<50	--	--	--	--	--
	05/08/97	26.76	58.08	<50	--	--	--	--	--
	04/29/98	26.55	58.29	<47	--	--	--	--	--

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

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to water (ft)	Groundwater Elevation (ft)	TEH	TPHd	TPHmo	2-Methyl naphthalene ug/l	Naphthalene	Other SVOCs
MW-6 85.62	03/15/91	25.82	59.80	<50	--	--	--	--	--
	10/12/92	25.02	60.60	--	--	--	--	--	--
	12/01/92	28.87	56.75	FP	--	--	--	--	--
	04/02/93	26.96	58.66	FP	--	--	--	--	--
	07/21/93	26.17	59.45	FP	--	--	--	--	--
	11/09/93	27.51	58.11	FP	--	--	--	--	--
	08/30/95	28.00	57.62	FP	--	--	--	--	--
	12/01/95	27.58	58.04	FP	--	--	--	--	--
	05/03/96	26.83	58.79	9,000	--	--	--	--	--
	05/09/97	26.54	60.40	53,000	--	--	--	--	--
86.94	11/05/97	26.16	60.78	65,000	--	--	--	--	--
	05/01/98	22.96	62.86	25,000	--	--	--	--	--
	11/03/98	24.35	61.47	30,000	--	--	--	--	--
	03/26/99	23.82	62.00	FP	--	--	--	--	--
	07/01/99	24.45	61.37	FP	--	--	--	--	--
	09/21/99	24.58	61.24	FP	--	--	--	--	--
	02/09/00	24.93	61.24	--	FP	--	--	--	--
	05/31/00	23.47	62.41	--	FP	--	--	--	--
MW-7 85.41	03/15/91	21.63	63.78	<50	--	--	--	--	--
	11/24/92	21.52	63.89	<50	--	--	--	--	--
	04/02/93	20.08	65.33	<50	--	--	--	--	--
	07/21/93	19.59	65.82	150	--	--	--	--	--
	11/09/93	20.65	64.76	200	--	--	--	--	--
	08/30/95	18.78	66.63	170	--	--	--	--	--
	12/01/95	19.47	65.94	<50	--	--	--	--	--
	05/02/96	17.15	68.26	<50	--	--	--	--	--
	08/08/96	18.48	66.93	<50	--	--	--	--	--
	11/04/96	18.69	66.72	<50	--	--	--	--	--
	02/06/97	17.44	67.97	<50	--	--	--	--	--
	05/08/97	17.72	67.69	<50	--	--	--	--	--
	08/07/97	18.49	66.92	<50	--	--	--	--	--
	11/05/97	18.86	66.55	<50	--	--	--	--	--
	02/09/98	17.56	67.85	<50	--	--	--	--	--
	04/29/98	16.23	69.18	<47	--	--	--	--	--
	08/04/98	17.24	68.17	<50	--	--	--	--	--
	11/02/98	17.91	67.50	<50	--	--	--	--	--
	03/26/99	16.42	68.99	<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	TPHd	TPHmo	2-Methyl naphthalene		Other SVOCs
							<-----	ug/l----->	
	07/01/99	17.90	67.51	<50	--	--	<10	<10	ND
	09/21/99	18.91	66.50	<48	--	--	<9.5	<9.5	ND
	02/09/00	16.74	68.67	--	<50	<250	<10	<10	ND
	05/31/00	16.21	69.20	--	<50	<500	--	--	--
MW-8 85.50	10/12/92	27.70	57.80	--	--	--	--	--	--
	11/25/92	27.62	57.88	170	--	--	--	--	--
	04/08/93	26.64	58.86	100	--	--	--	--	--
	07/21/93	26.60	58.90	90	--	--	--	--	--
	11/11/93	27.18	58.32	170	--	--	--	--	--
	08/30/95	26.35	59.15	240	--	--	--	--	--
	12/04/95	26.72	58.78	<50	--	--	--	--	--
	05/03/96	25.47	60.03	94	--	--	--	--	--
	08/08/96	26.41	59.09	250	--	--	--	--	--
	11/05/96	26.77	58.73	<50	--	--	--	--	--
	02/06/97	25.84	59.66	130	--	--	--	--	--
	05/09/97	26.39	59.11	120	--	--	--	--	--
	08/07/97	26.72	58.78	150	--	--	--	--	--
	11/05/97	26.82	58.68	110	--	--	--	--	--
	02/09/98	25.57	59.93	75	--	--	--	--	--
	05/01/98	25.64	59.86	210	--	--	--	--	--
	08/05/98	25.96	59.54	260	--	--	--	--	--
	11/03/98	26.27	59.23	190	--	--	--	--	--
	03/31/99	20.93	64.57	200	--	--	--	--	--
	07/01/99	26.59	58.91	170	--	--	<9.6	<9.6	ND
	09/21/99	26.89	58.61	420	--	--	<9.4	<9.4	ND
	02/09/00	26.60	58.90	--	120	280	<10	<10	ND
	05/31/00	26.16	59.34	--	160 **	<500	--	--	--
MW-9 90.37	11/24/92	23.51	66.86	320	--	--	--	--	--
	04/05/93	21.14	69.23	920	--	--	--	--	--
	07/21/93	21.54	68.83	450	--	--	--	--	--
	11/10/93	27.53	62.84	450	--	--	--	--	--
	08/30/95	19.59	70.78	680	--	--	--	--	--
	12/04/95	20.65	69.72	--	--	--	--	--	--
	05/02/96	18.63	71.74	710	--	--	--	--	--
	11/05/96	20.69	69.68	420	--	--	--	--	--

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

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID <i>TOC Elev. (ft)</i>	Sampling Date	Depth to water (ft)	Groundwater Elevation (ft)	TEH <-----	TPHd	TPHmo	2-Methyl naphthalene ug/l	Naphthalene	Other SVOCs ----->
	05/09/97	19.96	70.41	490	--	--	--	--	--
	08/08/97	20.84	69.53	480	--	--	--	--	--
	11/05/97	21.55	68.82	370	--	--	--	--	--
	02/09/98	20.21	70.16	410	--	--	--	--	--
	05/01/98	19.27	71.10	450	--	--	--	--	--
	08/05/98	19.35	71.02	630	--	--	--	--	--
	11/02/98	20.43	69.94	500	--	--	--	--	--
	03/25/99	18.46	71.91	630	--	--	--	--	--
	07/01/99	19.95	70.42	570	--	--	<9.5	<9.5	ND
	09/21/99	21.15	69.22	770	--	--	<9.4	<9.4	ND
	02/09/00	21.08	69.29	--	320	<250	<10	<10	ND
	05/31/00	19.11	71.26	--	390 **	<500	--	--	--
MW-10	10/12/92	21.55	67.05	--	--	--	--	--	--
<i>88.60</i>	11/24/92	21.86	66.74	1,300	--	--	--	--	--
	04/05/93	19.14	69.46	5,000	--	--	--	--	--
	07/21/93	19.79	68.81	20,000	--	--	--	--	--
	08/30/95	17.99	70.61	5,900	--	--	--	--	--
	05/03/96	17.04	71.56	5,600	--	--	--	--	--
	05/09/97	18.36	70.24	2,500	--	--	--	--	--
	05/01/98	15.84	72.76	2,000	--	--	--	--	--
MW-11	11/24/92	33.65	68.41	220	--	--	--	--	--
<i>102.06</i>	12/8/92*	33.37	68.69	140	--	--	--	--	--
	12/08/92	33.37	68.69	120	--	--	--	--	--
	04/05/93	31.03	71.03	<50	--	--	--	--	--
	07/21/93	31.90	70.16	150	--	--	--	--	--
	11/09/93	32.60	69.46	60	--	--	--	--	--
	08/30/95	28.92	73.14	240	--	--	--	--	--
	05/03/96	28.00	74.06	<50	--	--	--	--	--
	05/08/97	29.93	72.13	<50	--	--	--	--	--
	04/29/98	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	TPHd	TPHmo	2-Methyl naphthalene ug/l	Naphthalene	Other SVOCs
MW-13 84.06	11/24/92	26.05	58.01	3,600	--	--	--	--	--
	12/8/92*	25.08	58.98	210	--	--	--	--	--
	12/08/92	25.08	58.98	100	--	--	--	--	--
	04/05/93	24.64	59.42	<50	--	--	--	--	--
	07/21/93	24.29	59.77	<50	--	--	--	--	--
	11/09/93	24.23	59.83	160	--	--	--	--	--
	08/30/95	23.30	60.76	<50	--	--	--	--	--
	12/01/95	23.80	60.26	<50	--	--	--	--	--
	05/03/96	23.19	60.87	<50	--	--	--	--	--
	08/08/96	23.44	60.62	<50	--	--	--	--	--
	11/05/96	24.04	60.02	<50	--	--	--	--	--
	02/06/97	23.24	60.82	<50	--	--	--	--	--
	05/08/97	23.46	60.60	<50	--	--	--	--	--
	08/08/97	23.92	60.14	<50	--	--	--	--	--
	11/05/97	24.27	59.79	<50	--	--	--	--	--
	02/09/98	22.89	61.17	<50	--	--	--	--	--
	04/29/98	22.27	61.79	<47	--	--	--	--	--
	08/04/98	22.75	61.31	78	--	--	--	--	--
	11/03/98	23.90	60.16	<50	--	--	--	--	--
	03/31/99	23.11	60.95	<48	--	--	--	--	--
	07/01/99	23.40	60.66	100	--	--	<9.6	<9.6	ND
	09/21/99	21.91	62.15	<48	--	--	<9.4	<9.4	ND
	02/09/00	23.84	60.22	--	<50	<250	<10	<10	ND
	05/31/00	22.97	61.09	--	<50	<500	--	--	--
MW-14 94.66	05/26/98	21.67	72.99	7,700	--	--	--	--	--
	07/01/99	22.95	71.71	FP	--	--	--	--	--
	09/21/99	24.26	70.40	FP	--	--	--	--	--
	02/09/00	24.13	70.53	--	14,000	1,500	290	600	ND
	05/31/00	22.09	72.57	--	--	--	--	--	--
MW-15 94.76	05/26/98	21.87	72.89	1,700	--	--	--	--	--
	07/01/99	22.25	72.51	FP	--	--	--	--	--

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

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID <i>TOC Elev.</i> (ft)	Sampling Date	Depth to water (ft)	Groundwater Elevation (ft)	TEH <-----	TPHd	TPHmo	2-Methyl naphthalene ug/l	Naphthalene	Other SVOCs ----->
	09/21/99	24.12	70.64	FP	--	--	--	--	--
	02/09/00	24.42	70.34	--	4,000	1,200	50	270	ND
	05/31/00	22.40	72.36	--	--	--	--	--	--

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

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

< n = Not detected above n ug/l

-- = Not analyzed/not available

* = Duplicate sample sent to a different chemical laboratory

** = Does not match diesel pattern

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Table 3. LUFT Metals in Groundwater

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID	Sampling Date	Cadmium <----->	Chromium ug/l	Lead ug/l	Nickel ug/l	Zinc ug/l
MW-4	07/01/99	<5	<10	59	<20	<20
	09/21/99	<5	<10	66	<20	33
	02/09/00	<5	17	68	<50	<50
MW-7	07/01/99	<5	<10	<3	<20	<20
	09/21/99	<5	<10	<3	<20	<20
	02/09/00	<5	14	8.6	59	<50
MW-8	07/01/99	<5	<10	<3	<20	<20
	09/21/99	<5	<10	<3	<20	<20
	02/09/00	<5	<5	<5	<50	<50
MW-9	07/01/99	<5	<10	<3	34	<20
	09/21/99	<5	<10	<3	25	37
	02/09/00	<5	82	29	160	130
MW-13	07/01/99	<5	<10	<3	<20	<20
	09/21/99	<5	<10	<3	<20	<20
	02/09/00	<5	12	15	<50	<50
MW-14	02/09/00	<5	210	24	2,500	280
MW-15	02/09/00	<5	140	1,800	220	150

Abbreviations and Notes:

LUFT metals analyzed by EPA Method 6010

ug/l = micrograms per liter

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

Well ID TOC Elev. (ft)	Sampling Date	Depth to Water (ft)	LPH Thickness (ft)	Hydrocarbons Removed (gallons)	Hydrocarbons Removed (lbs)	Cumulative Hydrocarbons Removed (lbs)	Notes
MW-1	12/23/91	26.86	1.15	2.00	12.20	12.20	1
94.48	12/26/91	26.08	0.22	0.50	3.05	15.25	1
	01/13/92	26.53	0.66	1.00	6.10	21.35	1
	02/28/92	27.75	0.42	2.00	12.20	33.55	1
	11/09/93	26.06	1.17	0.50	3.05	36.60	1
	11/03/95	23.10	0.76	0.75	4.58	41.18	1
	11/30/95	23.38	0.70	0.25	1.53	42.70	1
	01/03/96	23.30	0.78	0.53	3.23	45.93	1
	02/02/96	22.96	0.84	0.75	4.58	50.51	1
	03/01/96	21.69	0.14	0.10	0.61	51.12	1
	04/04/96	21.11	0.00	0.00	0.00	51.12	1
	05/02/96	20.96	0.00	0.00	0.00	51.12	1
	06/05/96	20.98	0.04	0.10	0.61	51.73	1
	07/09/96	21.64	0.20	0.10	0.61	52.34	1
	08/08/96	22.43	0.33	0.05	0.31	52.64	1
	09/10/96	23.25	0.60	0.10	0.61	53.25	1
	10/01/96	23.58	0.60	0.25	1.53	54.78	1
	11/04/96	24.29	0.78	0.13	0.79	55.57	1
	12/02/96	24.63	0.88	0.26	1.59	57.16	1
	01/03/97	24.08	0.81	0.39	2.38	59.54	1
	02/06/97	22.46	0.30	0.01	0.06	59.60	1
	03/05/97	23.00	0.00	0.00	0.00	59.60	1
	04/01/97	22.29	0.20	0.01	0.06	59.66	1
	05/08/97	22.79	0.33	0.02	0.12	59.78	1
	06/06/97	24.33	1.69	0.26	1.59	61.37	1
	07/08/97	24.00	0.96	0.20	1.22	62.59	1
	08/07/97	24.58	1.29	1.00	6.10	68.69	1
	09/10/97	24.93	1.21	1.50	9.15	77.84	1
	10/01/97	24.89	0.86	0.26	1.59	79.42	1
	11/04/97	25.06	0.77	0.26	1.59	81.01	1
	12/04/97	24.76	0.54	0.19	1.16	82.17	1
	01/08/98	23.66	0.00	0.00	0.00	82.17	1
	02/05/98	22.64	0.00	0.00	0.00	82.17	1
	03/06/98	20.80	0.00	0.00	0.00	82.17	1
	04/02/98	20.31	0.00	0.00	0.00	82.17	1
	04/29/98	19.95	0.00	0.00	0.00	82.17	1
	06/03/98	20.41	0.00	0.00	0.00	82.17	1
	07/09/98	20.97	0.07	0.00	0.00	82.17	1
	08/04/98	21.40	trace	trace	0.00	82.17	1
	08/26/98	21.85	0.10	trace	0.00	82.17	1
	11/02/98	22.92	0.39	trace	0.00	82.17	1

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

Well ID <i>TOC Elev.</i> <i>(ft)</i>	Sampling Date	Depth to Water (ft)	LPH Thickness (ft)	Hydrocarbons Removed (gallons)	Hydrocarbons Removed (lbs)	Cumulative Hydrocarbons Removed (lbs)	Notes
	12/04/98	23.29	0.29	0.01	0.06	82.23	1
	01/05/99	23.51	0.42	0.03	0.18	82.41	1
	02/08/99	23.08	0.05	0.25	1.53	83.94	1
	03/24/99	21.90	0.01	0.01	0.06	84.00	1
	04/30/99	21.52	0.00	0.00	0.00	84.00	1
	07/01/99	22.70	0.03	0.01	0.06	84.06	1
	09/21/99	23.81	0.08	0.20	1.22	85.28	1
	10/20/99	23.90	0.10	0.01	0.06	85.34	1
	12/13/99	24.24	trace	0.00	0.00	85.34	1
	02/09/00	23.95	0.07	0.05	0.31	85.64	1
	02/15/00	--	0.00	0.00	0.00	85.64	2
	02/25/00	23.69	0.00	0.06	0.38	86.03	2
	03/03/00	23.27	0.00	0.05	0.31	86.33	2
	03/28/00	22.39	0.00	0.13	0.79	87.13	2
	05/02/00	22.29	0.00	0.05	0.29	87.42	2
	05/31/00	22.05	0.00	0.00	0.00	87.42	
MW-4	12/23/91	22.63	0.98	2.50	15.25	15.25	1
88.84	12/26/91	22.52	0.96	6.00	36.60	51.85	1
	01/10/92	22.74	0.99	5.00	30.50	82.35	1
	02/28/92	22.00	0.67	4.00	24.40	106.75	1
	03/11/92	21.71	0.55	3.50	21.35	128.10	1
	03/13/92	21.56	0.49	3.50	21.35	149.45	1
	03/17/92	25.46	0.44	2.25	13.73	163.18	1
	03/18/92	21.38	0.44	2.50	15.25	178.43	1
	03/19/92	21.33	0.48	1.50	9.15	187.58	1
	03/23/92	21.29	0.42	4.00	24.40	211.98	1
	03/24/92	21.31	0.38	1.50	9.15	221.13	1
	03/25/92	21.17	0.36	1.00	6.10	227.23	1
	03/26/92	21.08	0.35	1.00	6.10	233.33	1
	03/27/92	20.92	0.26	0.50	3.05	236.38	1
	03/31/92	21.15	0.44	0.50	3.05	239.43	1
	04/01/92	20.90	0.24	0.25	1.53	240.95	1
	04/02/92	20.90	0.17	0.13	0.79	241.74	1
	04/06/92	--	--	0.13	0.79	242.54	1
	04/10/92	20.91	0.33	0.25	1.53	244.06	1
	04/13/92	21.04	0.42	0.25	1.53	245.59	1
	04/20/92	20.74	0.19	0.13	0.79	246.38	1
	05/04/92	20.83	0.33	0.13	0.79	247.17	1
	05/18/92	21.33	0.23	0.13	0.79	247.97	1
	05/26/92	20.83	0.17	0.13	0.79	248.76	1
	06/01/92	20.85	0.19	0.06	0.37	249.12	1

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

Well ID TOC Elev. (ft)	Sampling Date	Depth to Water (ft)	LPH Thickness (ft)	Hydrocarbons Removed (gallons)	Hydrocarbons Removed (lbs)	Cumulative Hydrocarbons Removed (lbs)	Notes
	06/29/92	21.38	0.53	0.25	1.53	250.65	1
	07/29/92	21.69	0.56	1.11	6.77	257.42	1
	08/28/92	21.35	0.63	1.68	10.25	267.67	1
	04/03/93	20.11	0.51	0.13	0.79	268.46	1
	11/09/93	20.48	0.52	0.03	0.18	268.64	1
	08/30/95	21.71	0.63	1.75	10.68	279.32	1
	10/02/95	19.90	2.20	0.50	3.05	282.37	1
	11/03/95	18.76	0.57	0.25	1.53	283.89	1
	11/30/95	19.17	0.65	0.25	1.53	285.42	1
	01/03/96	19.45	0.44	0.05	0.31	285.72	1
	02/02/96	19.50	0.32	0.10	0.61	286.33	1
	03/01/96	19.31	0.20	0.20	1.22	287.55	1
	04/04/96	17.53	0.18	0.20	1.22	288.77	1
	05/02/96	17.50	0.25	0.20	1.22	289.99	1
	06/05/96	17.67	0.39	0.15	0.92	290.91	1
	07/09/96	18.29	0.50	0.16	0.98	291.89	1
	08/08/96	18.84	0.00	0.00	0.00	291.89	1
	09/10/96	19.31	0.34	0.05	0.31	292.19	1
	10/01/96	19.51	0.29	0.05	0.31	292.50	1
	11/04/96	20.13	0.35	0.02	0.12	292.62	1
	12/02/96	20.23	0.33	0.02	0.12	292.74	1
	01/03/97	19.33	0.10	0.02	0.12	292.86	1
	02/06/97	18.13	0.01	0.01	0.06	292.92	1
	04/30/99	17.28	trace	0.00	0.00	292.92	1
	02/09/00	19.76	0.00	0.00	0.00	292.92	1
	02/15/00	--	0.00	0.00	0.00	292.92	2
	02/25/00	19.30	0.00	0.00	0.00	292.92	2
MW-6 85.62	12/23/91	28.40	3.21	7.50	45.75	45.75	1
	12/26/91	27.25	1.67	2.00	12.20	57.95	1
	01/10/92	27.23	0.90	1.00	6.10	64.05	1
	02/04/92	27.71	2.04	2.00	12.20	76.25	1
	02/28/92	27.92	3.00	3.00	18.30	94.55	1
	03/10/92	27.16	2.06	2.75	16.78	111.33	1
	03/12/92	25.96	0.52	2.00	12.20	123.53	1
	03/23/92	26.34	1.09	1.00	6.10	129.63	1
	03/30/92	25.73	0.35	0.50	3.05	132.68	1
	04/10/92	25.29	0.05	0.25	1.53	134.20	1
	04/13/92	25.52	0.21	0.13	0.79	134.99	1
	04/20/92	25.38	0.10	0.13	0.79	135.79	1
	05/04/92	25.40	--	0.13	0.79	136.58	1
	05/08/92	25.50	0.17	0.06	0.37	136.95	1

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

Well ID <i>TOC Elev.</i> (ft)	Sampling Date	Depth to Water (ft)	LPH Thickness (ft)	Hydrocarbons Removed (gallons)	Hydrocarbons Removed (lbs)	Cumulative Hydrocarbons Removed (lbs)	Notes
86.94	05/26/92	25.46	0.13	0.13	0.79	137.74	1
	06/01/92	25.46	0.09	0.06	0.37	138.10	1
	06/29/92	25.59	0.14	0.19	1.16	139.26	1
	07/29/92	26.90	1.71	0.60	3.66	142.92	1
	08/28/92	25.09	2.62	2.40	14.64	157.56	1
	12/02/92	--	--	0.00	0.00	157.56	1
	04/03/93	26.96	2.86	1.75	10.68	168.24	1
	11/09/93	27.51	3.06	0.83	5.06	173.30	1
	08/30/95	28.00	7.96	4.50	27.45	200.75	1
	10/02/95	28.24	6.14	4.00	24.40	225.15	1
	11/03/95	28.39	6.13	3.00	18.30	243.45	1
	11/30/95	26.91	3.44	2.50	15.25	258.70	1
	01/03/96	27.58	4.41	2.50	15.25	273.95	1
	02/02/95	27.58	4.37	5.00	30.50	304.45	1
	03/01/96	27.96	5.15	4.00	24.40	328.85	1
	04/04/96	27.96	5.41	5.00	30.50	359.35	1
	05/02/96	26.83	4.66	4.50	27.45	386.80	1
	06/05/96	27.15	5.17	4.00	24.40	411.20	1
	07/09/96	27.08	4.86	4.50	27.45	438.65	1
	08/08/96	26.71	4.05	4.00	24.40	463.05	1
	09/10/96	26.83	3.82	3.50	21.35	484.40	1
85.82	10/01/96	26.96	3.77	4.00	24.40	508.80	1
	11/04/96	--	--	NM	NM	NM	4
	12/02/96	--	--	NM	NM	NM	4
	01/03/97	--	--	NM	NM	NM	4
	02/06/97	25.08	0.20	NM	NM	NM	4
	03/05/97	24.20	0.00	NM	NM	NM	4
	04/01/97	24.04	0.00	NM	NM	NM	4
	05/08/97	26.54	1.88	0.40	2.44	511.24	1
	06/06/97	25.33	0.21	0.03	0.18	511.42	1
	07/08/97	25.30	0.07	0.00	0.00	511.42	1
	08/07/97	25.52	0.00	0.00	0.00	511.42	1
	09/10/97	25.76	0.00	0.00	0.00	511.42	1
	10/01/97	25.12	0.00	0.00	0.00	511.42	1
	11/04/97	26.16	0.18	0.02	0.12	511.55	1
	12/04/97	26.08	0.16	0.05	0.31	511.85	1
	01/08/98	25.79	0.10	0.66	4.03	515.88	1
	02/05/98	25.31	0.89	NM	NM	NM	4
	03/06/98	24.63	0.46	0.04	0.24	516.12	1
86.94	04/02/98	24.45	0.59	0.10	0.61	516.73	1
	04/29/98	22.96	0.55	0.09	0.55	517.28	1
	06/03/98	22.81	0.41	0.03	0.18	517.46	1

CAMBRIA

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

Well ID TOC Elev. (ft)	Sampling Date	Depth to Water (ft)	LPH Thickness (ft)	Hydrocarbons Removed (gallons)	Hydrocarbons Removed (lbs)	Cumulative Hydrocarbons Removed (lbs)	Notes
	07/09/98	23.04	0.35	0.05	0.31	517.77	1
	08/04/98	23.29	0.35	0.04	0.24	518.01	1
	08/26/98	23.50	0.31	0.01	0.06	518.07	1
	11/02/98	24.24	0.43	0.02	0.12	518.20	1
	12/04/98	24.35	0.32	0.01	0.06	518.26	1
	01/05/99	24.51	0.40	0.03	0.18	518.44	1
	02/08/99	24.00	0.03	0.13	0.76	519.20	1
	03/24/99	23.82	0.19	0.03	0.18	519.38	1
	04/30/99	23.60	1.13	0.10	0.61	519.99	1
	07/01/99	24.45	0.42	0.06	0.38	520.38	1
	07/27/99	25.35	0.24	0.06	0.38	520.76	1
	08/19/99	24.87	0.24	0.06	0.37	521.12	1
	09/21/99	24.58	0.10	0.20	1.22	522.34	1
	10/20/99	25.05	0.17	0.20	1.22	523.56	1
	12/13/99	25.08	0.10	0.06	0.37	523.93	1
	02/09/00	24.93	0.44	0.25	1.53	525.45	1
	02/15/00	--	0.00	0.07	0.43	525.88	3
	02/25/00	24.23	0.00	0.01	0.06	525.94	3
	03/03/00	24.00	0.00	0.00	0.01	525.95	3
	03/28/00	23.54	0.00	0.05	0.31	526.26	3
	05/02/00	23.52	0.06	0.03	0.15	526.41	3
	05/31/00	23.39	0.08	0.00	0.00	526.41	
MW-9 90.37	08/08/96	19.89	0.35	0.10	0.61	0.61	1
MW-14 94.66	12/04/98	23.42	0.23	0.01	0.06	0.06	1
	01/05/99	23.36	0.12	0.01	0.06	0.12	1
	02/08/99	23.17	trace	0.01	0.06	0.18	1
	03/24/99	22.08	trace	trace	0.00	0.18	1
	04/30/99	21.17	0.01	trace	0.00	0.18	1
	07/01/99	22.95	0.04	trace	0.00	0.18	1
	09/21/99	24.26	trace	trace	0.00	0.18	1
	10/20/99	24.10	0.00	0.00	0.00	0.18	1
	02/09/00	24.13	0.00	0.00	0.00	0.18	1
	02/15/00	--	0.00	0.00	0.00	0.18	1
	02/25/00	--	0.00	0.00	0.00	0.18	2
	03/03/00	23.27	0.00	0.05	0.31	0.49	2
	03/28/00	22.40	0.00	0.13	0.76	1.25	2
	05/02/00	22.22	0.00	0.04	0.24	1.49	2
	05/31/00	22.09	0.00	0.00	0.00	1.49	

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

Well ID <i>TOC Elev. (ft)</i>	Sampling Date	Depth to Water (ft)	LPH Thickness (ft)	Hydrocarbons Removed (gallons)	Hydrocarbons Removed (lbs)	Cumulative Hydrocarbons Removed (lbs)	Notes
MW-15	09/20/99	24.12	trace	trace	0.00	0.00	1
94.76	10/20/99	24.40	0.00	0.00	0.00	0.00	1
	12/13/99	24.61	0.00	0.00	0.00	0.00	

Abbreviations and Notes:

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

-- = Not measured or not applicable

NM = product was being removed by vapor extraction at time of measurement.

1 = LPH removed by manual bailing

2 = LPH removed from well by absorbent sock

3 = LPH removed from well by passive skimmer

4 = vapor extraction system operating in well

Liquid-phase hydrocarbons (LPH) converted from volume to weight using the relation 1 gallon LPH= 6.1 pounds.

ATTACHMENT A

Analytical Laboratory Report



North State Environmental Laboratory

90 South Spruce Avenue, Suite V • South San Francisco, CA 94080 • (650) 266-4563 • FAX (650) 266-4560

CA ELAP # 1753

C E R T I F I C A T E O F A N A L Y S I S

Lab Number: 00-0753

Client: Cambria Environmental

Project: 3093 Broadway/ 425-1580

Date Reported: 06/09/2000

Gasoline, BTEX and MTBE by Methods 8015M and 8020
Diesel, Motor Oil Hydrocarbons by Method 8015M

Analyte	Method	Result	Unit	Date Sampled	Date Analyzed
Sample: 00-0753-01	Client ID: MW-4			05/31/2000	WATER
Gasoline	8015M	15000	ug/L		06/05/2000
Benzene	8020	17000	ug/L		
Ethylbenzene	8020	2400	ug/L		
MTBE	8020	**ND	ug/L		
Toluene	8020	28000	ug/L		
Xylenes	8020	14000	ug/L		
Diesel	8015M	*14	mg/L		06/07/2000
Motor Oil	8015M	ND			
Sample: 00-0753-02	Client ID: MW-7			05/31/2000	WATER
Gasoline	8015M	ND			06/05/2000
Benzene	8020	3	ug/L		
Ethylbenzene	8020	1	ug/L		
MTBE	8020	ND			
Toluene	8020	6	ug/L		
Xylenes	8020	9	ug/L		
Diesel	8015M	ND			06/06/2000
Motor Oil	8015M	ND			



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C E R T I F I C A T E O F A N A L Y S I S

Lab Number: 00-0753

Client: Cambria Environmental

Project: 3093 Broadway/ 425-1580

Date Reported: 06/09/2000

Gasoline, BTEX and MTBE by Methods 8015M and 8020
Diesel, Motor Oil Hydrocarbons by Method 8015M

Analyte	Method	Result	Unit	Date Sampled	Date Analyzed
Sample: 00-0753-03	Client ID: MW-8-PRE			05/31/2000	WATER
Gasoline	8015M	2300	ug/L		06/05/2000
Benzene	8020	740	ug/L		
Ethylbenzene	8020	40	ug/L		
MTBE	8020	ND			
Toluene	8020	16	ug/L		
Xylenes	8020	13	ug/L		
Diesel	8015M	0.3	mg/L		06/06/2000
Motor Oil	8015M	ND			
Sample: 00-0753-04	Client ID: MW-8-POST			05/31/2000	WATER
Gasoline	8015M	380	ug/L		06/05/2000
Benzene	8020	85	ug/L		
Ethylbenzene	8020	4	ug/L		
MTBE	8020	ND			
Toluene	8020	2	ug/L		
Xylenes	8020	3	ug/L		
Diesel	8015M	*0.16	mg/L		06/06/2000
Motor Oil	8015M	ND			



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C E R T I F I C A T E O F A N A L Y S I S

Lab Number: 00-0753

Client: Cambria Environmental

Project: 3093 Broadway/ 425-1580

Date Reported: 06/09/2000

Gasoline, BTEX and MTBE by Methods 8015M and 8020
Diesel, Motor Oil Hydrocarbons by Method 8015M

Analyte	Method	Result	Unit	Date Sampled	Date Analyzed
Sample: 00-0753-05	Client ID: MW-9			05/31/2000	WATER
Gasoline	8015M	1500	ug/L		06/05/2000
Benzene	8020	170	ug/L		
Ethylbenzene	8020	25	ug/L		
MTBE	8020	ND			
Toluene	8020	13	ug/L		
Xylenes	8020	ND			
Diesel	8015M	*0.39	mg/L		06/06/2000
Motor Oil	8015M	ND			
Sample: 00-0753-06	Client ID: MW-13			05/31/2000	WATER
Gasoline	8015M	ND			06/05/2000
Benzene	8020	5	ug/L		
Ethylbenzene	8020	ND			
MTBE	8020	ND			
Toluene	8020	ND			
Xylenes	8020	ND			
Diesel	8015M	ND			06/06/2000
Motor Oil	8015M	ND			



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CA ELAP # 1753

C E R T I F I C A T E O F A N A L Y S I S

Quality Control/Quality Assurance

Lab Number: 00-0753
Client: Cambria Environmental
Project: 3093 Broadway/ 425-1580

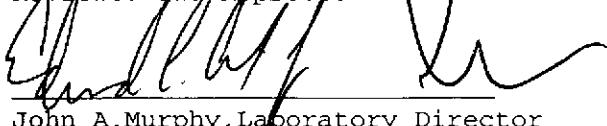
Date Reported: 06/09/2000

Gasoline, BTEX and MTBE by Methods 8015M and 8020
Diesel, Motor Oil Hydrocarbons by Method 8015M

Analyte	Method	Reporting Limit	Unit	Blank	Avg MS/MSD Recovery	RPD
Gasoline	8015M	50	ug/L	ND	117	3
Benzene	8020	0.5	ug/L	ND	117	0
Ethylbenzene	8020	0.5	ug/L	ND	117	0
Toluene	8020	0.5	ug/L	ND	113	1
Xylenes	8020	1.0	ug/L	ND	121	1
MTBE	8020	0.5	ug/L	ND	119	3
Diesel	8015M	0.05	mg/L	ND	115	1
Motor Oil	8015M	0.5	mg/L	ND	NA	NA

ELAP Certificate NO:1753

Reviewed and Approved


John A. Murphy, Laboratory Director



North State Environmental Laboratory

CA ELAP # 1753

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C E R T I F I C A T E O F A N A L Y S I S

Job Number: 00-0753

Date Sampled : 05/31/2000

Client : Cambria Environmental

Date Analyzed: 06/05/2000

Project : 3093 Broadway/ 425-1580

Date Reported: 06/09/2000

8010 Volatile Organics by GC/MS

Laboratory Number	00-0753-01	00-0753-02	00-0753-03	00-0753-04	00-0753-05	00-0753-06
Client ID	MW-4	MW-7	MW-8-PRE	MW-8-POST	MW-9	MW-13
Matrix	WATER	WATER	WATER	WATER	WATER	WATER
Analyte	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Chloromethane	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5
Vinyl Chloride	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
Bromomethane	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5
Chloroethane	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5
Trichlorofluoromethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
1,1-Dichloroethene	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
Methylene Chloride	ND<50	ND<50	ND<50	ND<50	ND<50	ND<50
t-1,2-Dichloroethene	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
1,1-Dichloroethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
c-1,2-Dichloroethene	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
Chloroform	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
1,1,1-Trichloroethane	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Carbon Tetrachloride	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
1,2-Dichloroethane	ND<0.5	ND<0.5	ND<0.5	52	300	ND<0.5
Trichloroethene	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
Bromodichloromethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
t-1,3-Dichloropropene	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
c-1,3-Trichloropropene	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
1,1,2-Trichloroethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
Tetrachloroethene	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Dibromobenzene	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
Chlorobenzene	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
1,1,2,2-Tetrachloroethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
1,3-Dichlorobenzene	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
1,4-Dichlorobenzene	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
1,2-Dichlorobenzene	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
Trichlorotrifluoroethane	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
1,2-Dibromoethane	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
SUR-Dibromofluoromethane	91 % Rec	92 % Rec	92 % Rec	98 % Rec	83 % Rec	96 % Rec
SUR-Toluene d8	114% Rec	105% Rec	106% Rec	105% Rec	93 % Rec	105% Rec
SUR-4-Bromofluorobenzene	106% Rec	109% Rec	114% Rec	112% Rec	100% Rec	110% Rec



North State Environmental Laboratory

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C E R T I F I C A T E O F A N A L Y S I S

Job Number: 00-0753

Date Sampled : 05/31/2000

Client : Cambria Environmental

Date Analyzed: 06/05/2000

Project : 3093 Broadway/ 425-1580

Date Reported: 06/09/2000

8010 Volatile Organics by GC/MS Quality Control/Quality Assurance Summary

Laboratory Number	00-0753	MS/MSD	RPD
Client ID	Blank	Recovery	
Matrix	WATER	WATER	
Analyte		%Recoveries	
Chloromethane	ND<5		
Vinyl Chloride	ND<1		
Bromomethane	ND<5		
Chloroethane	ND<5		
Trichlorofluoromethane	ND<1		
1,1-Dichloroethene	ND<1	42	0
Methylene Chloride	ND<50		
t-1,2-Dichloroethene	ND<1		
1,1-Dichloroethane	ND<1		
c-1,2-Dichloroethene	ND<1		
Chloroform	ND<1		
1,1,1-Trichloroethane	ND<0.5		
Carbon Tetrachloride	ND<0.5		
1,2-Dichloroethane	ND<0.5		
Trichloroethene	ND<1	105	1
Bromodichloromethane	ND<1		
t-1,3-Dichloropropene	ND<1		
c-1,3-Trichloropropene	ND<1		
1,1,2-Trichloroethane	ND<1		
Tetrachloroethene	ND<0.5		
Dibromobenzene	ND<1		
Chlorobenzene	ND<1	110	2
1,1,2,2-Tetrachloroethane	ND<1		
1,3-Dichlorobenzene	ND<1		
1,4-Dichlorobenzene	ND<1		
1,2-Dichlorobenzene	ND<1		
Trichlorotrifluoroethane	ND<1		
1,2-Dibromoethane	ND<0.5		
SUR-Dibromofluoromethane	93% Rec	107/108	1
SUR-Toluene d8	104% Rec	105/103	2
SUR-4-Bromofluorobenzene	108% Rec	109/109	0

Reviewed and Approved

John A. Murphy
Laboratory Director



CO157 00-0753

BOB SCHULTZ P.M.

North State Environmental Analytical Laboratory

90 South Spruce Avenue, Suite W, South San Francisco, CA 94080

Phone: (650) 266-4563 Fax: (650) 266-4560

Chain of Custody / Request for Analysis
Lab Job No.: _____ Page 1 of 1

Client: Cambria Environmental		Report to: Cathy Bell			Phone: 510-420-3319				Turnaround Time Standard	
Mailing Address: 1144 65th St., Suite C Oakland, CA 94608		Billing to: Same			Fax: 510-420-9170					
					PO# / Billing Reference: 425-1580					
Project / Site Address: Connell, 3093 Broadway, Oakland										Sampler: <i>Adele Lynn Jones, Cathy Bell</i>
Sample ID	Sample Type	Container No. / Type	Pres.	Sampling Date / Time	Analysis Requested					Comments / Hazards
MW-4	water	*	*	5/31/00, 1:30	TPH _d TPH _s MTBE 80/50/5 HVOCS	BTEX, BGE 80/50/5 HVOCS	TATrac			* 6 VOAs preserved
MW-7	water			5/31/00, 12:35	XX	XX	XX			w/ HCl per sample,
MW-8-pre				5/31/00, 11:00	XX	XX	XX			1 - 1L amber
MW-8-post				5/31/00, 13:00	XX	XX	XX			per sample (non-pres.)
MW-9				5/31/00, 12:03	XX	XX	XX			
MW-13	↓	↓	↓	5/31/00, 1:35	XX	XX	XX			
Relinquished by:	<i>Catharine M. Bell</i>				Date: 5/31/00	Time: 4:00	Received by:	 Lab Comments		
Relinquished by:					Date:	Time:	Received by:			
Relinquished by:					Date:	Time:	Received by:			

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WELL DEPTH MEASUREMENTS

Well ID	Time	Product Depth	Water Depth	Product Thickness	Well Depth	Comments
MW-7	10:15		16.21'			no bolts in vault box
MW-13	10:20		22.97'			
MW-8	10:26		26.16'			6" diam.
MW-9	10:30		19.11'			lock won't latch
MW-4	10:35		17.90'			
MW-6	10:39	23.39	23.47'	0.08'	—	one bolt missing from vault box cover
MW-15	2:15	none	22.40'	—		
MW-14	2:19	none	22.09'	—		
MW-1	2:26	none	22.05'	—		

Project Name: Connell

Project Number: 452-1580

Measured By: CB/JJ

Date: 5/31/00

WELL SAMPLING FORM

Project Name: Connell	Cambria Mgr: RWS	Well ID: MW-4
Project Number: 425-1580	Date:	Well Yield: -----
Site Address: 3093 Broadway Oakland, California	Sampling Method:	Well Diameter: 2" pvc
	Disposable bailer	Technician(s): JJ/CB
Initial Depth to Water: 17.90'	Total Well Depth: 26.00'	Water Column Height: 8.10'
Volume/ft: .16 ft ³ /ft	1 Casing Volume: 1.30 gal	3 Casing Volumes: 3.89 gal
Purging Device: bailer	Did Well Dewater?: no	Total Gallons Purged: 4 gal
Start Purge Time: 12:32	Stop Purge Time: 12:43	Total Time: 11 min

1 Casing Volume = Water column height x Volume/ ft.

Well Diam.	Volume/ft (gallons)
2"	0.16
4"	0.65
6"	1.47

Time	Casing Volume	Temp. °C	pH	Cond. μS	Comments
12:34	1	20.6	8.2	695	sheen on purge
12:38	2	20.3	7.8	709	water in bucket,
12:42	3	20.2	7.7	628	odor of hydrocarbons

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW4	5/21/00	(330)	6 voa's	HCL	TPHg, BTEX, MTBE SVOCS HVOCs	8015M/8020, confirm MTBE 8260, SVOCs by 8270, 8010 list
			2-1L ambers	none	TPHd/TPHmo	8015 multi-range
			1-0.5L plastic	none	Luft 5 Metals - Pb, Cr, Cd, Zn, Ni	

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WELL SAMPLING FORM

Project Name: Connell	Cambria Mgr: RWS	Well ID: MW-7
Project Number: 425-1580	Date: 5/31/00	Well Yield: -----
Site Address: 3093 Broadway Oakland, California	Sampling Method:	Well Diameter: 2" pvc
	Disposable bailer	Technician(s): JJ/CB
Initial Depth to Water: 16.21'	Total Well Depth: 30.00'	Water Column Height: 13.79'
Volume/ft: 16 ^{gal} /ft	1 Casing Volume: 2.21 gal	3 Casing Volumes: 6.62 gal
Purging Device: bailer	Did Well Dewater?: no	Total Gallons Purged: ~7 gal
Start Purge Time: 1208	Stop Purge Time: 1221	Total Time: 13 min

1 Casing Volume = Water column height x Volume/ ft.

Well Diam.	Volume/ft (gallons)
2"	0.16
4"	0.65
6"	1.47

Time	Casing Volume	Temp. °C	pH	Cond. μS	Comments
1208	1	19.9	8.1	362	
1215	2	19.9	7.8	575	
1221	3	19.7	7.2	725	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW7	5/31/00	1235	6 voa's	HCL	TPHg, BTEX, MTBE SVOCs HVOCs	8015M/8020, confirm MTBE 8260, SVOCs by 8270, 8010 list
			2-1L ambers	none	TPHd/TPHmo	8015 multi-range
			1-0.5L plastic	none	Luft 5 Metals - Pb, Cr, Cd, Zn, Ni	

WELL SAMPLING FORM

Project Name: Connell	Cambria Mgr: RWS	Well ID: MW - 8
Project Number: 425-1580	Date: 5/31/00	Well Yield: -----
Site Address: 3093 Broadway Oakland, California	Sampling Method:	Well Diameter: 6 " pvc
	Disposable bailer	Technician(s): SS/CB
Initial Depth to Water: 26.16'	Total Well Depth: 39.50'	Water Column Height: 13.34'
Volume/ft: (.47)	1 Casing Volume: 19.6 gal	3 Casing Volumes: 58.83 gal
Purging Device: Simeric 18 pump	Did Well Dewater?: Yes	Total Gallons Purged: ~45 gal
Start Purge Time: 1116	Stop Purge Time: 1137	Total Time: 21 min

1 Casing Volume = Water column height x Volume/ ft.

Well Diam.	Volume/ft (gallons)
2"	0.16
4"	0.65
6"	1.47

Time	Casing Volume	Temp. °C	pH	Cond. μS	Comments
1119	1	21.8	7.5	749	
1122	1	21.4	7.2	718	
1128	2	21.6	7.1	1091	
1131	2	21.5	6.8	1115	
1136	3	21.4	7.2	1140	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-8-pre	5/31/00	11:00	6 vials	HCL	TPHg, BTEX, MTBE SVOCS HVOCs	8015M/8020, confirm MTBE 8260, SVOCs by 8270, 8010 list
MW-8-post			1 1L ambers	none	TPHd/TPHmo	8015 multi-range
Same for both			1- 0.5L plastic	none	Luft 5 Metals - Pb, Cr, Cd, Zn, Ni	

WELL SAMPLING FORM

Project Name: Connell	Cambria Mgr: RWS	Well ID: MW-9
Project Number: 425-1580	Date:	Well Yield: -----
Site Address: 3093 Broadway Oakland, California	Sampling Method:	Well Diameter: 2 " pvc
	Disposable bailer	Technician(s): JJ/CB
Initial Depth to Water: 19.11'	Total Well Depth: 30.00'	Water Column Height: 10.89'
Volume/ft: 16 ^{ft³} /ft	1 Casing Volume: 1.75 gal	3 Casing Volumes: 5.25 gal
Purging Device: bailer	Did Well Dewater?: yes	Total Gallons Purged: 3.0 gal
Start Purge Time: 11:28	Stop Purge Time: 11:39	Total Time: 11 min.

1 Casing Volume = Water column height x Volume/ ft.

Well Diam.	Volume/ft (gallons)
2"	0.16
4"	0.65
6"	1.47

Time	Casing Volume	Temp. °C	pH	Cond. μS	Comments
11:31		20.6	8.6	708	
11:38	2	21.3	7.7	720	← low confidence - well was de-watering

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-9	12-03	5/31	6 voa's	HCL	TPHg, BTEX, MTBE SVOCS HVOCs	8015M/8020, confirm MTBE 8260, SVOCs by 8270, 8010 list
MW-9	5/31	12-03	2- 1L ambers	none	TPHd/TPHmo	8015 multi-range
MW-9	5/31	12-03	1- 0.5L plastic	none	Luft 5 Metals - Pb, Cr, Cd, Zn, Ni	

WELL SAMPLING FORM

Project Name: Connell	Cambria Mgr: RWS	Well ID: MW-13
Project Number: 425-1580	Date: 5/31/00	Well Yield: -----
Site Address: 3093 Broadway Oakland, California	Sampling Method:	Well Diameter: 2 " pvc
	Disposable bailer	Technician(s): JJ CB
Initial Depth to Water: 22.91'	Total Well Depth: 39.00'	Water Column Height: 16.03'
Volume/ft: 0.16	1 Casing Volume: 2.57 gal	3 Casing Volumes: 7.71 gal
Purging Device: bailer	Did Well Dewater?: no	Total Gallons Purged: 8
Start Purge Time: 1:05	Stop Purge Time: 1:24	Total Time: 19 min.

1 Casing Volume = Water column height x Volume/ ft.

Well Diam.	Volume/ft (gallons)
2"	0.16
4"	0.65
6"	1.47

Time	Casing Volume	Temp. °C	pH	Cond. μS	Comments
1:10	1	20.2°	7.7	858	
1:16	2	20.0°	7.0	798	
1:23	3	20.0°	7.2	843	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-13	5/31	1:35	6 voa's	HCL	TPHg, BTEX, MTBE SVOCs HVOCs	8015M/8020, confirm MTBE 8260, SVOCs by 8270, 8010 list
MW-13	5/31	1:35	1- 1L ambers 1- 0.5L plastic	none	TPHd/TPHmo Luft 5 Metals - Pb, Cr, Cd, Zn, Ni	8015 multi-range

Product Removal Form Connell Automobile Dealership, Oakland, CA

By: M. ERICKSON Date: 3/28/00

Project and Task #: 425-1580-1

Well	Treatment	Time	Gallons Removed*	DTW/ DTP	Comments
MW-1	SoakEase	1:49	.125	22.39'	16 OZ OF PRODUCT REMOVED
MW-6	Skimmer	1:22	0.05	23.58'	5" IN RECEPTACLE SKIMMER GAPS LOOKS CLEAR
MW-14	SoakEase	2:00	.125	22.40'	16 OZ OF PRODUCT REMOVED

* If SoakEase is removed, wring out used sock into bucket and estimate vol. removed. Saturated socks theoretically hold about 1 quart (0.25 gal) of product. Skimmer receptacle holds about $\frac{1}{2}$ quart (0.14 gal) of product.

Notes

MW-6 ; TD 32.66' DTW: 23.57'
MW-1 ; TD 34.60' DTW: 22.39'

REPLACED W/ NEW SOAK EASE.

MW-14 TD 32.80' DTW: 22.40'
REPLACED W/ NEW SOAK EASE

11 EMPTY DRUMS (55 GAL) ON SITE.
1 PRODUCT DRUM.

No. of Product Drums Onsite: 1

Drum capacity available: 95% 1-10 GAL STEEL

Product Removal Form Connell Automobile Dealership, Oakland, CA

By: M. ERICSON

Date: 5/2/00

Project and Task #: 425-1580-1

Well	Treatment	Time	Gallons Removed*	DTW/ DTP	Comments
MW-1	SoakEase	2:07	,047	22.09'	REPLACED SOAK EASE
MW-6	Skimmer	1:58	,025	23.52 / 22.46'	0.06' SPH.
MW-14	SoakEase	2:23	,04	22.22'	REPLACED SOAK EASE

* If SoakEase is removed, wring out used sock into bucket and estimate vol. removed. Saturated socks theoretically hold about 1 quart (0.25 gal) of product. Skimmer receptacle holds about $\frac{1}{2}$ quart (0.14 gal) of product.

Notes

- ARRIVED @ SITE 1:45

- OPEN CERVIS & CHECK AMOUNT OF SPH COLLECTED

- SKIMMER RECEPTACLE IN BOTTOM OF WELL
ABLE TO RECOVER .5 hr.

- LEAVE SITE @ 3:30

- DONE 3:50 FINISH BAILEY EVEN,

No. of Product Drums Onsite: 1 - 7.5 GPC

Drum capacity available: 90%

Product Removal Form Connell Automobile Dealership, Oakland, CA

By: SS/ CB Date: 5/31/00

Project and Task #: 425-1580-011

Well	Treatment	Time	Gallons Removed*	DTW/ DTP	Comments
MW-1	SoakEase	2:26	Ø	22.05/aa	No product observed
MW-6	Skimmer	10:35	Ø	23.39/ 23.47	Skimmer held water only, reset skimmer
MW-14	SoakEase	2:19	Ø	22.09/aa	No product observed

* If SoakEase is removed, wring out used sock into bucket and estimate vol. removed. Saturated socks theoretically hold about 1 quart (0.25 gal) of product. Skimmer receptacle holds about $\frac{1}{2}$ quart (0.14 gal) of product.

Notes No product in skimmer.

MW-1 + MW-14: Soak-Eases were clean & were not replaced.

No. of Product Drums Onsite: _____

Drum capacity available: _____