

C A M B R I A

20433

October 15, 2002

Barney Chan  
Alameda County Health Care Services Agency  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502-6577

Re: **Third Quarter 2002 Monitoring Report**  
Former Shell Service Station  
1230 14th Street 94107  
Oakland, California  
Incident #97088250  
Cambria Project #244-0233-002

Alameda County  
OCT 18 2002  
Environmental Health



Dear Mr. Chan:

On behalf of Equilon Enterprises LLC dba Shell Oil Products US, Cambria Environmental Technology, Inc. (Cambria) is submitting this groundwater monitoring report in accordance with the reporting requirements of 23 CCR 2652d.

### THIRD QUARTER 2002 ACTIVITIES

**Groundwater Monitoring:** Blaine Tech Services, Inc. (Blaine) of San Jose, California gauged all site wells, measured dissolved oxygen (DO) concentrations, calculated groundwater elevations, and compiled the collected data. Cambria prepared an area vicinity map which includes previously submitted well survey information (Figure 1) and a groundwater elevation contour map (Figure 2). Blaine's report, with supporting field notes, is included as Attachment A.

**Groundwater Extraction (GWE):** As proposed in the May 23, 2002 *Subsurface Investigation Work Plan*, semi-monthly mobile GWE using MW-5 began on June 11, 2002 in an attempt to reduce hydrocarbon concentrations in groundwater in the suspected source area. Mass-removal data for the site is presented in Table 1. To date, approximately 0.72 pounds of hydrocarbons have been removed by GWE.

**Dual Phase Vapor Extraction (DVE):** Dual-phase vapor extraction (DVE) is the process of applying high vacuum through an airtight well seal to simultaneously extract soil vapors from the vadose zone and to enhance GWE from the saturated zone. Semi-monthly GWE was changed to

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Environmental  
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semi-monthly DVE beginning on September 19, 2002. Mass removal data is summarized in Table 2. To date, approximately 1.3 pounds of vapor phase hydrocarbons have been removed from the subsurface.

**July 2002 Door-to-Door Receptor Survey:** On July 23, 2002, Cambria conducted a door-to-door survey of the properties downgradient of the site to determine whether there are any active water wells or basements in the area downgradient of the site. Cambria received responses from 23 of the 36 properties included in the survey. Nine of the respondents reported that either a one-half or a full basement was present at their dwelling. Only one sump pump was reported. Results of the survey were tabulated and reported in Cambria's August 26, 2002 *Subsurface Investigation Report and Corrective Action Plan (SI and CAP)*.

**Subsurface Investigation:** On July 23, 2002 Cambria advanced four offsite hand-auger borings to complete the work outlined in the May 23, 2002 *Subsurface Investigation Work Plan*. The onsite portion of the work, which included a total of nine onsite Geoprobe® borings, was completed on June 9 and 10, 2002. The purpose of the investigation was to further define the extent of impacted soil in the former underground storage tank area and to further characterize the extent of impacted groundwater downgradient of the site. During the investigation, no benzene was detected in any of the unsaturated soil samples. Total petroleum hydrocarbons as gasoline were detected at a concentration of 2.3 parts per million in one unsaturated soil sample. Groundwater results from the investigation indicate that the hydrocarbon plume in groundwater appears to be confined to within 10 feet to the west, 10 feet to the south, 15 feet to the east and 30 feet to the north of the tank pit area. Analytical results obtained from the saturated soil samples indicate that the hydrocarbon concentrations attenuate vertically to very low concentrations within 10 feet of the static groundwater level. Results of the investigation were reported in Cambria's SI and CAP dated August 26, 2002.

**SI and CAP:** In addition to the subsurface investigation results described above, Cambria's August 26, 2002 SI and CAP included an evaluation of remedial alternatives to reduce benzene concentrations in groundwater to levels considered protective of human health and the environment in the shortest time frame feasible. Cambria recommended in-situ oxidation using Fenton's Reagent/Hydrogen Peroxide. In an August 30, 2002 email, the Alameda County Health Care Services Agency (ACHCSA) identified a number of concerns regarding the SI and CAP. ACHCSA also indicated that the CAP for this site would go through a public participation process with a 30-day public review and comment period before approval.

**Subsurface Investigation Report and Corrective Action Plan Addendum:** Cambria responded to ACHCSA's concerns regarding the August 26, 2002 SI and CAP in a *Subsurface Investigation*



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*Report and Corrective Action Plan – Addendum* dated September 12, 2002. To date, Cambria has not received a written response from ACHCSA.

## ANTICIPATED FOURTH QUARTER 2002 ACTIVITIES

**Groundwater Monitoring:** Blaine will gauge and sample all wells, measure DO concentrations, and tabulate the data. Groundwater samples are collected semi-annually in the second and fourth quarters. Cambria will prepare a monitoring report.



**Groundwater Extraction (DVE):** Semi-monthly DVE using MW-5 will continue through the fourth quarter of 2002.

**Corrective Action Implementation:** Cambria intends to schedule and conduct the 5-day in-situ field test of hydrogen peroxide/Fenton's reagent injection as soon as approval to proceed is given by ACHCSA.

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**CLOSING**

We appreciate the opportunity to work with you on this project. Please call Melody Munz at (510) 420-3324 if you have any questions or comments.

Sincerely,  
**Cambria Environmental Technology, Inc**

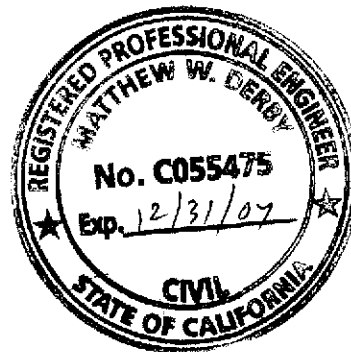


*M. Munz.*

Melody Munz  
Project Engineer

*Matthew W. Derby*

Matthew W. Derby, P.E.  
Senior Project Engineer



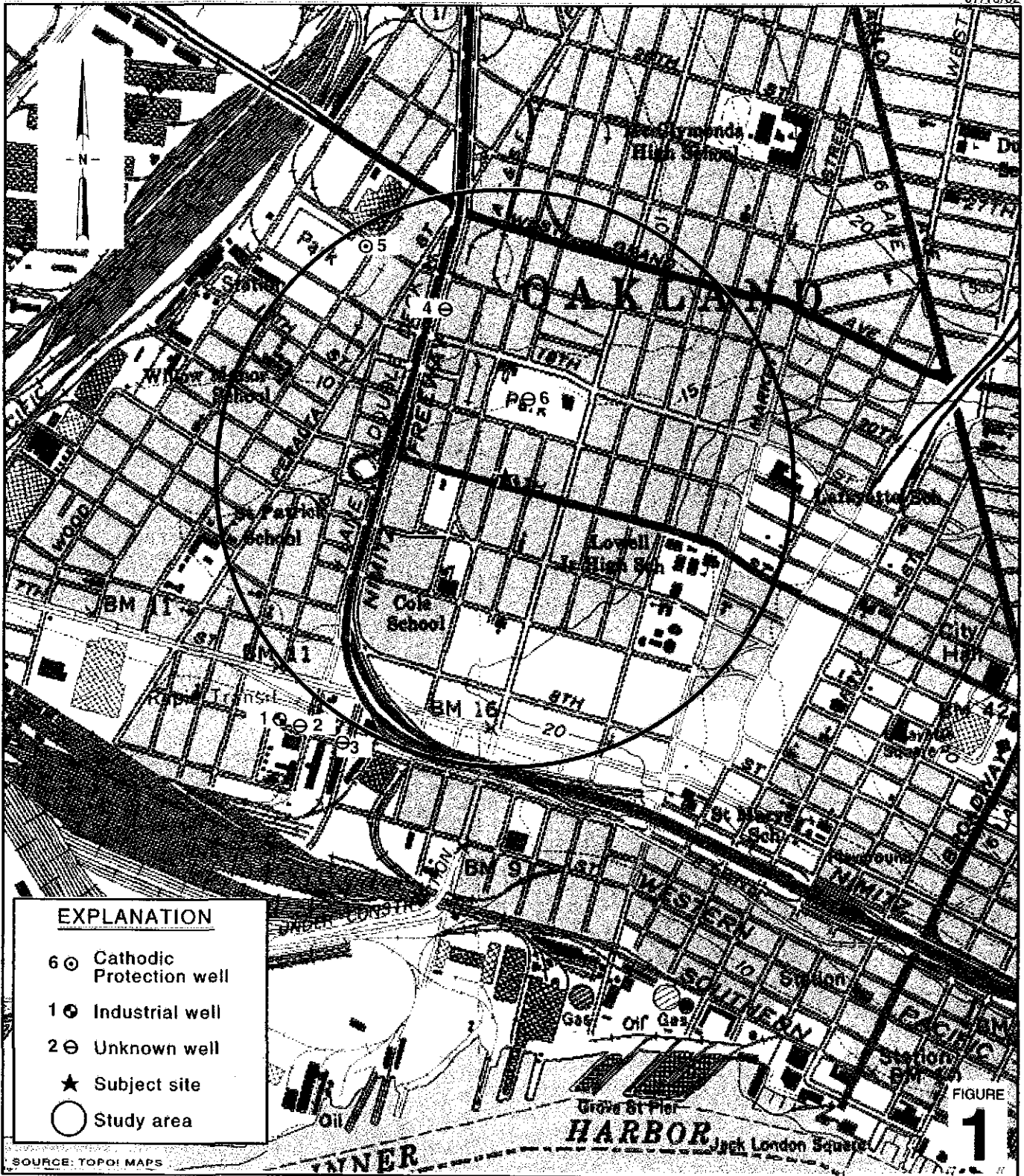
Figures: 1 - Vicinity/Area Well Survey Map  
2 - Groundwater Elevation Contour Map

Tables: 1 - Groundwater Extraction – Mass Removal Data  
2 - Vapor Extraction – Mass Removal Data

Attachment: A - Blaine Groundwater Monitoring Report and Field Notes

cc: Karen Petryna, Shell Oil Products US, P.O. Box 7869, Burbank, CA 91510-7869  
Tom Saberi, 1045 Airport Boulevard, Suite 12, South San Francisco, CA 94080  
Matthew Dudley, Sedgwick, Detert, Moran, & Arnold, 1 Embarcadero Center,  
16th Floor, San Francisco, CA 94111-3628

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SOURCE: TOPOI MAPS

**Former Shell Service Station**  
 1230 14th Street  
 Oakland, California  
 Incident #97088250



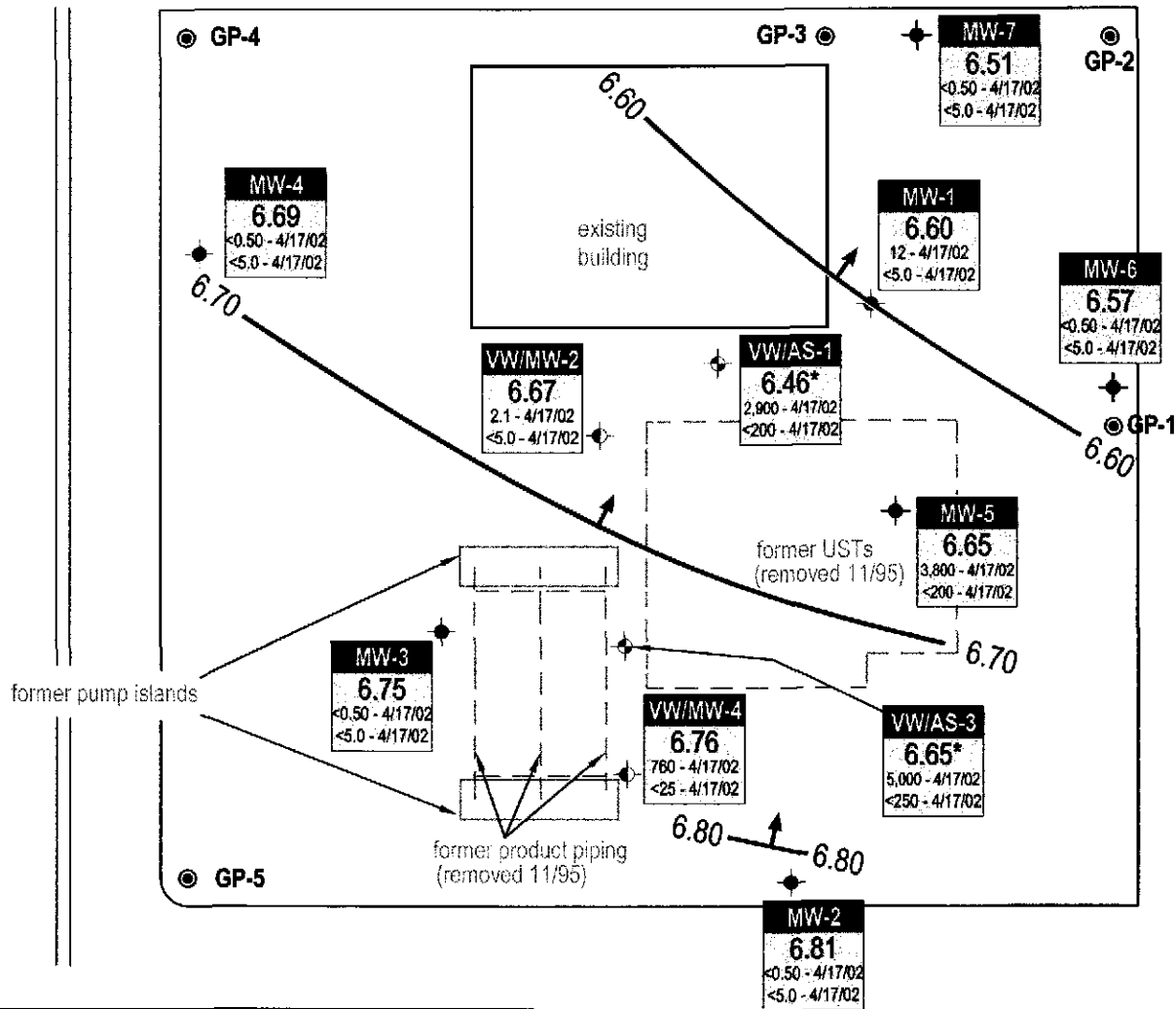
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**Vicinity/Area Well  
 Survey Map**  
 (1/2-Mile Radius)

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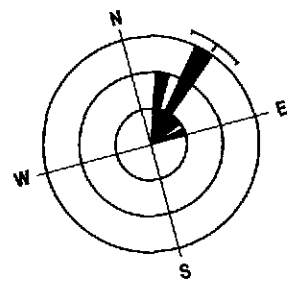


UNION STREET

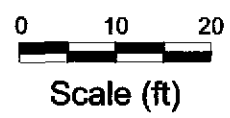


**EXPLANATION**

- MW-1 Monitoring well location
  - VW/AS-1 Combination air sparge/soil vapor extraction well
  - VW/MW-2 Combination soil vapor extraction well/monitoring well
  - GP-1 Soil boring location (12/11/00)
  - \* Data anomalous, not used for contouring
  - Groundwater flow direction
  - XX.XX Groundwater elevation contour, in feet above mean sea level (msl), approximately located, dashed where inferred
- 
- |                 |  |
|-----------------|--|
| Well            | Well designation   |
| ELEV            | Groundwater elevation, in feet above msl   |
| Benzene<br>MTBE | Benzene and MTBE concentrations are in parts per billion and are analyzed by EPA Method 8260 |



Groundwater Flow Direction  
(3Q00 through 3Q02)



Scale (ft)

14TH STREET

FIGURE  
**2**

**Former Shell Service Station**  
1230 14th Street  
Oakland, California  
Incident #97088250



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**Groundwater Elevation  
Contour Map**

July 18, 2002

**Table 1: Groundwater Extraction - Mass Removal Data - Former Shell Service Station, Incident #97088250, 1230 14th St., Oakland, California**

Date Purged	Well ID	Volume Pumped (gal)	Cumulative Volume Pumped (gal)	Date Sampled	TPPH			Benzene		
					TPPH Concentration (ppb)	TPPH Removed (pounds)	TPPH Removed To Date (pounds)	Benzene Concentration (ppb)	Benzene Removed (pounds)	Benzene Removed To Date (pounds)
06/11/02	MW-5	300	300	04/17/02	33,000	0.08261	0.08261	3,800	0.00951	0.00951
06/25/02	MW-5	200	500	04/17/02	33,000	0.05507	0.13768	3,800	0.00634	0.01585
07/09/02	MW-5	415	915	04/17/02	33,000	0.11428	0.25196	3,800	0.01316	0.02901
07/23/02	MW-5	300	1,215	04/17/02	33,000	0.08261	0.33457	3,800	0.00951	0.03853
08/06/02	MW-5	300	1,515	04/17/02	33,000	0.08261	0.41718	3,800	0.00951	0.04804
08/20/02	MW-5	185	1,700	04/17/02	33,000	0.05094	0.46812	3,800	0.00587	0.05390
09/03/02	MW-5	151	1,851	04/17/02	33,000	0.04158	0.50970	3,800	0.00479	0.05869
09/19/02	MW-5	400	2,251	04/17/02	33,000	0.11015	0.61984	3,800	0.01268	0.07138
10/01/02	MW-5	375	2,626	04/17/02	33,000	0.10326	0.72311	3,800	0.01189	0.08327
<b>Total Gallons Extracted:</b>			<b>2,626</b>		<b>Total Pounds Removed:</b>		<b>0.72311</b>		<b>0.08327</b>	
					<b>Total Gallons Removed:</b>		<b>0.11854</b>		<b>0.0141</b>	

**Abbreviations & Notes:**

TPPH = Total purgeable hydrocarbons as gasoline  
 ppb = Parts per billion  
 gal = Gallons  
 Mass removed based on the formula: volume extracted (gal) x concentration (µg/L) x (g/10<sup>6</sup>µg) x (pound/453.6g) x (3.785 L/gal)  
 Volume removal data based on the formula: density (in gms/cc) x 9.339 (ccxlbs/gmsxgals)  
 TPPH and benzene analyzed by EPA Method 8260  
 Concentrations based on most recent groundwater monitoring results  
 If concentration is less than the laboratory detection limit, one half of the detection limit concentration is used in the mass removal calculation.  
 Groundwater extracted by vacuum trucks provided by Phillips Services. Water disposed of at a Martinez Refinery.

**Table 2: Vapor Extraction - Mass Removal Data - Former Shell Service Station, Incident #97088250, 1230 14th Street, Oakland, California**

Date	Well ID	Interval Hours of Operation (hours)	System Flow Rate (CFM)	Hydrocarbon Concentrations			TPPH		Benzene	
				TPHg	Benzene	MTBE	TPHg Removal Rate (#/hour)	Cumulative TPHg Removed (#)	Benzene Removal Rate (#/hour)	Cumulative Benzene Removed (#)
				(Concentrations in ppmv)						
09/19/02	MW-5	4.00	10.1	150	25	<0.33	0.020	0.081	0.003	0.012
10/01/02	MW-5	4.00	11.1	2,100	23	2.0	0.312	1.327	0.003	0.025
<b>Total Pounds Removed:</b>							<b>TPHg =</b>	<b>1.327</b>	<b>Benzene =</b>	<b>0.025</b>

**Abbreviations and Notes:**

CFM = Cubic feet per minute

TPHg = Total petroleum hydrocarbons as gasoline (C6-C12) by modified EPA Method 8015 in 1 liter tedlar bag samples

ppmv = Parts per million by volume

# = Pounds

NA = Not available

TPHG, Benzene, and MTBE analyzed by EPA Method 8015/8020 in 1 liter tedlar bag samples

TPHg / Benzene / MTBE removal rate = Rate based on Bay Area Air Quality Management District's Manual of Procedures for Soil Vapor Extraction dated July 17, 1991.

(Rate = Concentration (ppmv) x system flow rate (cfm) x (1lb-mole/386ft3) x molecular weight (86 lb/lb-mole for TPHg, 78 lb/lb-mole for benzene, 88 lb/lb-mole for MTBE) x 60 min/hour x 1/1,000,000)

Cumulative TPHg / Benzene / MTBE removal = Previous removal rate multiplied by the hour-interval of operation plus the previous total

If concentration is less than the laboratory detection limit, one half of the detection limit concentration is used in the mass removal calculation.



**ATTACHMENT A**  
**Blaine Groundwater Monitoring Report**  
**and Field Notes**

**BLAINE**  
TECH SERVICES, INC.



1680 ROGERS AVENUE  
SAN JOSE, CA 95112-1105  
(408) 573-7771 FAX  
(408) 573-0555 PHONE  
CONTRACTOR'S LICENSE #746684  
www.blainetech.com

August 12, 2002

Karen Petryna  
Shell Oil Products US  
P.O. Box 7869  
Burbank, CA 91510-7869

Third Quarter 2002 Groundwater Monitoring at  
Former Shell Service Station  
1230 14<sup>th</sup> Street  
Oakland, CA

Monitoring performed on July 18, 2002

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Groundwater Monitoring Report 020718-AM-3

This report covers the routine monitoring of groundwater wells at this Former Shell facility. In accordance with standard procedures that conform to Regional Water Quality Control Board requirements, routine field data collection includes depth to water, total well depth, thickness of any separate immiscible layer, water column volume, calculated purge volume (if applicable), elapsed evacuation time (if applicable), total volume of water removed (if applicable), and standard water parameter instrument readings. Sample material is collected, contained, stored, and transported to the laboratory in conformance with EPA standards. Purgewater (if applicable) is, likewise, collected and transported to the Martinez Refining Company.

Basic field information is presented alongside analytical values excerpted from the laboratory report in the cumulative table of **WELL CONCENTRATIONS**. The full analytical report for the most recent samples and the field data sheets are attached to this report.

At a minimum, Blaine Tech Services, Inc. field personnel are certified on completion of a forty hour Hazardous Materials and Emergency Response training course per 29 CFR 1910.120. Field personnel are also enrolled in annual eight hour refresher courses.

Blaine Tech Services, Inc. conducts sampling and documentation assignments of this type as an independent third party. Our activities at this site consisted of objective data and sample collection only. No interpretation of analytical results, defining of hydrological conditions or formulation of recommendations was performed.

Please call if you have any questions.

Yours truly,

Leon Gearhart  
Project Coordinator

LG/jt

attachments: Cumulative Table of WELL CONCENTRATIONS  
Certified Analytical Report  
Field Data Sheets

cc: Anni Kreml  
Cambria Environmental Technology, Inc.  
1144 65<sup>th</sup> Street, Ste. C  
Oakland, CA 94608-2411

**WELL CONCENTRATIONS**  
**Former Shell Service Station**  
**1230 14th Street**  
**Oakland, CA**

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
MW-1	03/25/1996	37,000	7,400	1,500	720	3,300	<500	NA	18.58	9.53	9.05	NA
MW-1	06/21/1996	35,000	9,900	460	340	3,500	890	NA	18.58	10.72	7.86	NA
MW-1	09/26/1996	19,000	8,200	510	780	790	<250	NA	18.58	12.88	5.70	NA
MW-1	12/19/1996	27,000	120	1,200	1,400	2,800	<100	NA	18.58	12.59	5.99	NA
MW-1	12/19/1996	32,000	12,000	1,300	1,600	3,100	830	NA	18.58	12.59	5.99	NA
MW-1	03/25/1997	39,000	13,000	1,600	840	3,100	730	NA	18.58	11.10	7.48	1.2
MW-1	06/26/1997	NA	NA	NA	NA	NA	NA	NA	18.58	12.42	6.16	NA
MW-1	09/26/1997	NA	NA	NA	NA	NA	NA	NA	18.58	13.31	5.27	0.8
MW-1	12/05/1997	NA	NA	NA	NA	NA	NA	NA	18.58	12.65	5.93	0.3
MW-1	02/19/1998	16,000	5,500	450	500	800	<500	NA	18.58	6.46	12.12	2.4
MW-1	06/08/1998	NA	NA	NA	NA	NA	NA	NA	18.58	6.62	11.96	1.2
MW-1	08/25/1998	NA	NA	NA	NA	NA	NA	NA	18.58	11.83	6.75	2.8
MW-1	12/28/1998	NA	NA	NA	NA	NA	NA	NA	18.58	12.01	6.57	2.6
MW-1	03/26/1999	NA	NA	NA	NA	NA	NA	NA	18.58	9.15	9.43	2.2
MW-1	06/30/1999	NA	NA	NA	NA	NA	NA	NA	18.58	11.22	7.36	3.8
MW-1	09/30/1999	NA	NA	NA	NA	NA	NA	NA	18.58	11.89	6.69	3.0
MW-1	12/27/1999	34,800	8,660	953	956	2,770	<1,000	NA	18.58	13.55	5.03	2.4/2.1
MW-1	01/21/2000	40,600	14,700	1,850	1,210	3,670	<500	NA	18.58	13.42	5.16	2.8
MW-1	03/07/2000	NA	NA	NA	NA	NA	NA	NA	18.58	8.11	10.47	0.4
MW-1	04/17/2000	NA	NA	NA	NA	NA	NA	NA	18.58	9.78	8.80	3.0/3.4
MW-1	04/18/2000	18,300	8,060	543	528	872	<50.0	NA	18.58	NA	NA	NA
MW-1	09/21/2000	NA	NA	NA	NA	NA	NA	NA	18.58	13.11	5.47	5.2
MW-1	10/17/2000	15,800	6,720	435	587	887	351	<66.7	18.58	12.61	5.97	1.2/0.8
MW-1	01/09/2001	NA	NA	NA	NA	NA	NA	NA	18.58	12.94	5.64	0.3
MW-1	04/27/2001	1,400	650	28	58	48	NA	<10	18.58	10.73	7.85	1.8/2.1
MW-1	07/03/2001	NA	NA	NA	NA	NA	NA	NA	18.58	12.00	6.58	1.8
MW-1	12/06/2001	4,500	1,500	85	160	210	NA	<50	18.58	10.53	8.05	2.5/2.9

**WELL CONCENTRATIONS**  
**Former Shell Service Station**  
**1230 14th Street**  
**Oakland, CA**

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
MW-1	01/23/2002	NA	NA	NA	NA	NA	NA	NA	18.58	9.33	9.25	0.1
MW-1	04/17/2002	230	12	<0.50	4.6	2.5	NA	<5.0	18.58	10.49	8.09	6.3/5.3
MW-1	07/18/2002	NA	NA	NA	NA	NA	NA	NA	18.58	11.98	6.60	1.2
MW-2	03/25/1996	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	17.90	8.19	9.71	NA
MW-2	06/21/1996	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	17.90	9.94	7.96	NA
MW-2	09/26/1996	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	17.90	12.15	5.75	NA
MW-2	12/19/1996	<50	<0.5	<0.5	<0.5	<0.5	<2.5	NA	17.90	11.70	6.20	NA
MW-2	03/25/1997	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	17.90	9.25	8.65	1.8
MW-2	06/26/1997	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	17.90	11.36	6.54	2.4
MW-2	09/26/1997	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	17.90	12.56	5.34	1.1
MW-2	09/26/1997	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	17.90	12.56	5.34	1.1
MW-2	12/05/1997	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	17.90	11.15	6.75	0.7
MW-2	02/19/1998	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	17.90	5.61	12.29	2.7
MW-2	06/08/1998	<50	<0.30	<0.30	<0.30	<0.60	<10	NA	17.90	5.58	12.32	3.2
MW-2	08/25/1998	NA	NA	NA	NA	NA	NA	NA	17.90	10.67	7.23	1.7
MW-2	12/28/1998	<50.0	<0.500	<0.500	<0.500	<0.500	<2.00	NA	17.90	11.65	6.25	0.4/0.8
MW-2	03/26/1999	NA	NA	NA	NA	NA	NA	NA	17.90	8.60	9.30	0.7
MW-2	06/30/1999	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	NA	17.90	10.30	7.60	2.3
MW-2	09/30/1999	NA	NA	NA	NA	NA	NA	NA	17.90	10.77	7.13	1.9
MW-2	12/27/1999	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	NA	17.90	12.21	5.69	0.7/0.7
MW-2	03/07/2000	NA	NA	NA	NA	NA	NA	NA	17.90	7.13	10.77	1.1
MW-2	04/17/2000	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	NA	17.90	8.35	9.55	1.8/1.8
MW-2	09/21/2000	NA	NA	NA	NA	NA	NA	NA	17.90	11.76	6.14	2.1
MW-2	10/17/2000	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	NA	17.90	11.80	6.10	0.9/0.6
MW-2	01/09/2001	NA	NA	NA	NA	NA	NA	NA	17.90	12.14	5.76	0.7
MW-2	04/27/2001	<50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	17.90	9.85	8.05	1.1/0.9

**WELL CONCENTRATIONS**  
**Former Shell Service Station**  
**1230 14th Street**  
**Oakland, CA**

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
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MW-2	07/03/2001	NA	NA	NA	NA	NA	NA	NA	17.90	11.20	6.70	1.2
MW-2	12/06/2001	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	17.90	10.77	7.13	3.9/2.1
MW-2	01/23/2002	NA	NA	NA	NA	NA	NA	NA	17.90	8.64	9.26	2.5
MW-2	04/17/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	17.90	9.61	8.29	3.5/5.2
MW-2	07/18/2002	NA	NA	NA	NA	NA	NA	NA	17.90	11.09	6.81	1.4

MW-3	03/25/1996	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	18.18	8.47	9.71	NA
MW-3	06/21/1996	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	18.18	10.40	7.78	NA
MW-3	09/26/1996	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	18.18	12.45	5.73	NA
MW-3	12/19/1996	<50	<0.5	<0.5	<0.5	<0.5	<2.5	NA	18.18	12.14	6.02	NA
MW-3	03/25/1997	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	18.18	9.54	8.64	2.2
MW-3	06/26/1997	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	18.18	11.66	6.52	3.6
MW-3	09/26/1997	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	18.18	12.85	5.33	1.1
MW-3	12/05/1997	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	18.18	11.44	6.74	0.6
MW-3	02/19/1998	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	18.18	6.78	11.40	3.6
MW-3	06/08/1998	<50	<0.30	<0.30	<0.30	<0.60	<10	NA	18.18	6.82	11.36	3.8
MW-3	06/08/1998	<50	<0.30	<0.30	<0.30	<0.60	<10	NA	18.18	6.82	11.36	3.8
MW-3	08/25/1998	NA	NA	NA	NA	NA	NA	NA	18.18	11.09	7.09	1.2
MW-3	12/28/1998	<50.0	<0.500	<0.500	<0.500	<0.500	<2.00	NA	18.18	11.84	6.34	0.9/0.6
MW-3	03/26/1999	NA	NA	NA	NA	NA	NA	NA	18.18	8.57	9.61	0.8
MW-3	06/30/1999	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	NA	18.18	10.61	7.57	4.8
MW-3	09/30/1999	NA	NA	NA	NA	NA	NA	NA	18.18	11.53	6.65	1.4
MW-3	12/27/1999	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	NA	18.18	12.35	5.83	1.4/2.5
MW-3	03/07/2000	NA	NA	NA	NA	NA	NA	NA	18.17	7.36	10.81	5.8
MW-3	04/17/2000	<50.0	<0.500	<0.500	<0.500	<0.500	19.3	NA	18.17	8.39	9.78	6.5/5.1
MW-3	09/21/2000	NA	NA	NA	NA	NA	NA	NA	18.17	12.01	6.16	3.0
MW-3	10/17/2000	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	NA	18.17	12.10	6.07	2.0/1.0

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MW-3	01/09/2001	NA	NA	NA	NA	NA	NA	NA	18.17	12.43	5.74	1.9
MW-3	04/27/2001	<50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	18.17	10.10	8.07	2.3/2.4
MW-3	07/03/2001	NA	NA	NA	NA	NA	NA	NA	18.17	11.45	6.72	1.4
MW-3	12/06/2001	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	18.17	11.07	7.10	2.8/3.9
MW-3	01/23/2002	NA	NA	NA	NA	NA	NA	NA	18.17	8.89	9.28	3.1
MW-3	04/17/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	18.17	9.92	8.25	3.7/3.2
MW-3	07/18/2002	NA	NA	NA	NA	NA	NA	NA	18.17	11.42	6.75	1.6
MW-4	03/25/1996	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	18.01	9.20	8.81	NA
MW-4	06/21/1996	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	18.01	10.25	7.76	NA
MW-4	09/26/1996	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	18.01	12.29	5.72	NA
MW-4	12/19/1996	<50	<0.5	<0.5	<0.5	<0.5	<2.5	NA	18.01	12.47	5.54	NA
MW-4	03/25/1997	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	18.01	9.44	8.57	1.8
MW-4	06/26/1997	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	18.01	11.57	6.44	6.2
MW-4 (D)	06/26/1997	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	18.01	11.57	6.44	6.2
MW-4	09/26/1997	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	18.01	12.75	5.26	2.1
MW-4	12/05/1997	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	18.01	11.37	6.64	1.0
MW-4 (D)	12/05/1997	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	18.01	11.37	6.64	1.0
MW-4	02/19/1998	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	18.01	5.59	12.42	6.5
MW-4	06/08/1998	<50	<0.30	<0.30	<0.30	<0.60	<10	NA	18.01	5.65	12.36	2.6
MW-4	08/25/1998	NA	NA	NA	NA	NA	NA	NA	18.01	10.98	7.03	2.4
MW-4	12/28/1998	<50.0	<0.500	<0.500	<0.500	<0.500	<2.00	NA	18.01	11.83	6.18	1.3/1.2
MW-4	03/26/1999	NA	NA	NA	NA	NA	NA	NA	18.01	8.40	9.61	1.9
MW-4	06/30/1999	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	NA	18.01	10.53	7.48	7.6
MW-4	09/30/1999	NA	NA	NA	NA	NA	NA	NA	18.01	11.03	6.98	2.6
MW-4	12/27/1999	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	NA	18.01	12.53	5.48	1.9/0.8
MW-4	03/07/2000	NA	NA	NA	NA	NA	NA	NA	18.01	7.00	11.01	6.5

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MW-4	04/17/2000	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	NA	18.01	8.57	9.44	5.1/5.1
MW-4	09/21/2000	NA	NA	NA	NA	NA	NA	NA	18.01	12.05	5.96	3.0
MW-4	10/17/2000	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	NA	18.01	11.96	6.05	5.5/1.2
MW-4	01/09/2001	NA	NA	NA	NA	NA	NA	NA	18.01	12.33	5.68	2.1
MW-4	04/27/2001	<50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	18.01	9.96	8.05	5.3/3.8
MW-4	07/03/2001	NA	NA	NA	NA	NA	NA	NA	18.01	11.35	6.66	4.5
MW-4	12/06/2001	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	18.01	10.99	7.02	10.23/6.5
MW-4	01/23/2002	NA	NA	NA	NA	NA	NA	NA	18.01	8.80	9.21	8.8
MW-4	04/17/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	18.01	9.75	8.26	7.0/5.1
<b>MW-4</b>	<b>07/18/2002</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>18.01</b>	<b>11.32</b>	<b>6.69</b>	<b>5.3</b>
MW-5	12/03/2001	NA	NA	NA	NA	NA	NA	NA	18.47	11.86	6.61	NA
MW-5	12/06/2001	31,000	3,000	2,000	1,100	3,000	NA	<50	18.47	11.40	7.07	3.1/3.2
MW-5	01/23/2002	NA	NA	NA	NA	NA	NA	NA	18.47	9.24	9.23	0.9
MW-5	04/17/2002	33,000	3,800	2,400	1,300	4,400	NA	<200	18.47	10.35	8.12	5.3/3.8
<b>MW-5</b>	<b>07/18/2002</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>18.47</b>	<b>11.82</b>	<b>6.65</b>	<b>0.8</b>
MW-6	12/03/2001	NA	NA	NA	NA	NA	NA	NA	18.84	12.19	6.65	NA
MW-6	12/06/2001	76	5.7	3.8	1.4	7.0	NA	<5.0	18.84	11.70	7.14	6.3/6.1
MW-6	01/23/2002	NA	NA	NA	NA	NA	NA	NA	18.84	9.57	9.27	8.7
MW-6	04/17/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	18.84	10.73	8.11	9.8/9.1
<b>MW-6</b>	<b>07/18/2002</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>18.84</b>	<b>12.27</b>	<b>6.57</b>	<b>1.7</b>
MW-7	12/03/2001	NA	NA	NA	NA	NA	NA	NA	19.20	12.66	6.54	NA
MW-7	12/06/2001	1,800	390	<2.0	6.2	<2.0	NA	<20	19.20	12.20	7.00	3.9/3.8
MW-7	01/23/2002	NA	NA	NA	NA	NA	NA	NA	19.20	10.00	9.20	9.4
MW-7	04/17/2002	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	19.20	11.21	7.99	8.8/7.3



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MW-7	07/18/2002	NA	NA	NA	NA	NA	NA	NA	19.20	12.69	6.51	0.8
VW/MW-2	03/25/1996	13,000	900	920	180	1,500	<250	NA	18.30	9.04	9.26	NA
VW/MW-2	06/21/1996	27,000	4,100	1,100	1,400	3,200	700	NA	18.30	10.48	7.82	NA
VW/MW-2	09/26/1996	27,000	5,300	1,900	980	2,200	<500	NA	18.30	12.52	5.78	NA
VW/MW-2 (D)	09/26/1996	29,000	5,800	2,200	1,100	2,500	<250	NA	18.30	12.52	5.78	NA
VW/MW-2	12/19/1996	50,000	6,200	5,100	1,700	5,600	590	NA	18.30	12.42	5.88	NA
VW/MW-2	03/25/1997	210	5.6	<0.50	0.52	<0.50	14	NA	18.30	9.83	8.47	2.0
VW/MW-2 (D)	03/25/1997	250	1.7	0.58	0.51	<0.50	4.7	NA	18.30	9.83	8.47	2.0
VW/MW-2	06/26/1997	NA	NA	NA	NA	NA	NA	NA	18.30	12.43	5.87	NA
VW/MW-2	09/26/1997	NA	NA	NA	NA	NA	NA	NA	18.30	12.98	5.32	0.9
VW/MW-2	12/05/1997	NA	NA	NA	NA	NA	NA	NA	18.30	12.20	6.10	0.4
VW/MW-2	02/19/1998	<50	1.5	<0.50	<0.50	0.71	<2.5	NA	18.30	5.83	12.47	3.6
VW/MW-2	06/08/1998	NA	NA	NA	NA	NA	NA	NA	18.30	5.80	12.50	1.0
VW/MW-2	08/25/1998	NA	NA	NA	NA	NA	NA	NA	18.30	11.72	6.58	4.8
VW/MW-2	12/28/1998	NA	NA	NA	NA	NA	NA	NA	18.30	11.69	6.61	2.7
VW/MW-2	03/26/1999	NA	NA	NA	NA	NA	NA	NA	18.30	8.75	9.55	2.8
VW/MW-2	06/30/1999	NA	NA	NA	NA	NA	NA	NA	18.30	10.72	7.58	4.7
VW/MW-2	09/30/1999	NA	NA	NA	NA	NA	NA	NA	18.30	12.24	6.06	4.9
VW/MW-2	12/27/1999	13,500	1,330	1,310	490	1,400	<250	NA	18.30	13.92	4.38	2.1/1.9
VW/MW-2	01/21/2000	12,100	2,200	1,080	429	1,120	<250	NA	18.30	13.26	5.04	2.8
VW/MW-2	03/07/2000	NA	NA	NA	NA	NA	NA	NA	18.28	7.87	10.41	3.7
VW/MW-2	04/17/2000	NA	NA	NA	NA	NA	NA	NA	18.28	9.65	8.63	3.7/4.1
VW/MW-2	04/18/2000	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	NA	18.28	NA	NA	NA
VW/MW-2	09/21/2000	NA	NA	NA	NA	NA	NA	NA	18.28	12.75	5.53	6.2
VW/MW-2	10/17/2000	4,070	763	589	214	501	<50.0	NA	18.28	12.21	6.07	0.8/0.7
VW/MW-2	01/09/2001	NA	NA	NA	NA	NA	NA	NA	18.28	12.51	5.77	0.7

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VW/MW-2	04/27/2001	80	5.7	<0.50	2.7	4.9	NA	<0.50	18.28	10.21	8.07	2.3/2.8
VW/MW-2	07/03/2001	NA	NA	NA	NA	NA	NA	NA	18.28	11.60	6.68	0.6
VW/MW-2	12/06/2001	160	1.7	1.0	1.8	4.6	NA	<5.0	18.28	11.15	7.13	3.7/2.3
VW/MW-2	01/23/2002	NA	NA	NA	NA	NA	NA	NA	18.28	9.07	9.21	0.5
VW/MW-2	04/17/2002	<50	2.1	<0.50	<0.50	<0.50	NA	<5.0	18.28	10.11	8.17	4.9/4.4
VW/MW-2	07/18/2002	NA	NA	NA	NA	NA	NA	NA	18.28	11.61	6.67	0.9
VW/MW-4	03/25/1996	83,000	6,500	7,000	2,000	11,000	<250	NA	18.14	8.45	9.69	NA
VW/MW-4 (D)	03/25/1996	84,000	6,400	7,000	2,100	12,000	<250	NA	18.14	8.45	9.69	NA
VW/MW-4	06/21/1996	110,000	14,000	15,000	3,700	17,000	1,700	NA	18.14	10.38	7.76	NA
VW/MW-4 (D)	06/21/1996	100,000	12,000	12,000	2,900	13,000	<1,000	NA	18.14	10.38	7.76	NA
VW/MW-4	09/26/1996	52,000	13,000	2,700	2,100	3,200	<500	NA	18.14	12.43	5.71	NA
VW/MW-4	12/19/1996	75,000	15,000	6,600	3,000	7,600	<1,250	NA	18.14	11.87	6.27	NA
VW/MW-4	03/25/1997	56,000	4,700	1,500	2,500	6,300	580	NA	18.14	9.60	8.54	2.4
VW/MW-4	06/26/1997	NA	NA	NA	NA	NA	NA	NA	18.14	12.36	5.78	NA
VW/MW-4	09/26/1997	NA	NA	NA	NA	NA	NA	NA	18.14	12.82	5.32	0.4
VW/MW-4	12/05/1997	NA	NA	NA	NA	NA	NA	NA	18.14	12.15	5.99	0.3
VW/MW-4	02/19/1998	4,100	320	40	44	520	<50	NA	18.14	5.85	12.29	1.8
VW/MW-4 (D)	02/19/98	4,300	340	44	47	540	<50	NA	18.14	5.85	12.29	1.8
VW/MW-4	06/08/1998	NA	NA	NA	NA	NA	NA	NA	18.14	5.87	12.27	1.8
VW/MW-4	08/25/1998	NA	NA	NA	NA	NA	NA	NA	18.14	10.96	7.18	2.5
VW/MW-4	12/28/1998	NA	NA	NA	NA	NA	NA	NA	18.14	11.28	6.86	0.9
VW/MW-4	03/26/1999	NA	NA	NA	NA	NA	NA	NA	18.14	8.45	9.69	1.9
VW/MW-4	06/30/1999	NA	NA	NA	NA	NA	NA	NA	18.14	9.70	8.44	3.6
VW/MW-4	09/30/1999	NA	NA	NA	NA	NA	NA	NA	18.14	11.78	6.36	2.6
VW/MW-4	12/27/1999	33,900	3,740	2,000	1,130	5,090	587	NA	18.14	12.63	5.51	0.4/0.2
VW/MW-4	01/21/2000	13,900	1,560	568	227	1,990	<500	21.0a	18.14	13.07	5.07	1.0

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VW/MW-4	03/07/2000	NA	NA	NA	NA	NA	NA	NA	18.13	7.82	10.31	0.9
VW/MW-4	04/17/2000	NA	NA	NA	NA	NA	NA	NA	18.13	9.18	8.95	1.4/1.9
VW/MW-4	04/18/2000	757	103	8.59	30.8	84.2	<25.0	NA	18.13	NA	NA	NA
VW/MW-4	09/21/2000	NA	NA	NA	NA	NA	NA	NA	18.13	12.18	5.95	5.0
VW/MW-4	10/17/2000	8,360	2,060	391	468	1,170	147	NA	18.13	12.03	6.10	0.7/0.8
VW/MW-4	01/09/2001	NA	NA	NA	NA	NA	NA	NA	18.13	12.42	5.71	0.9
VW/MW-4	04/27/2001	7,100	2,300	50	460	250	NA	<10	18.13	10.13	8.00	1.0/1.4
VW/MW-4	07/03/2001	NA	NA	NA	NA	NA	NA	NA	18.13	11.42	6.71	1.2
VW/MW-4	12/06/2001	7,700	750	90	300	350	NA	<25	18.13	11.02	7.11	2.5/1.9
VW/MW-4	01/23/2002	NA	NA	NA	NA	NA	NA	NA	18.13	8.89	9.24	0.4
VW/MW-4	04/17/2002	4,800	760	27	240	150	NA	<25	18.13	9.89	8.24	4.7/5.1
VW/MW-4	07/18/2002	NA	NA	NA	NA	NA	NA	NA	18.13	11.37	6.76	0.6
VW/AS-1	03/25/1996	NA	NA	NA	NA	NA	NA	NA	18.60	8.98	9.62	NA
VW/AS-1	06/21/1996	NA	NA	NA	NA	NA	NA	NA	18.60	10.95	7.65	NA
VW/AS-1	09/26/1996	NA	NA	NA	NA	NA	NA	NA	18.60	12.98	5.62	NA
VW/AS-1	12/19/1996	NA	NA	NA	NA	NA	NA	NA	18.60	12.67	5.93	NA
VW/AS-1	03/25/1997	NA	NA	NA	NA	NA	NA	NA	18.60	10.12	8.48	NA
VW/AS-1	06/26/1997	NA	NA	NA	NA	NA	NA	NA	18.60	12.34	6.26	NA
VW/AS-1	09/26/1997	NA	NA	NA	NA	NA	NA	NA	18.60	13.40	5.20	NA
VW/AS-1	12/05/1997	NA	NA	NA	NA	NA	NA	NA	18.60	11.96	6.64	5.2
VW/AS-1	02/19/1998	NA	NA	NA	NA	NA	NA	NA	18.60	6.22	12.38	1.3
VW/AS-1	06/08/1998	NA	NA	NA	NA	NA	NA	NA	18.60	6.20	12.40	1.0
VW/AS-1	08/25/1998	NA	NA	NA	NA	NA	NA	NA	18.60	11.59	7.01	1.6
VW/AS-1	12/28/1998	NA	NA	NA	NA	NA	NA	NA	18.60	11.74	6.86	1.3
VW/AS-1	03/26/1999	NA	NA	NA	NA	NA	NA	NA	18.60	9.20	9.40	1.3
VW/AS-1	06/30/1999	NA	NA	NA	NA	NA	NA	NA	18.60	11.08	7.52	2.1

**WELL CONCENTRATIONS**  
**Former Shell Service Station**  
**1230 14th Street**  
**Oakland, CA**

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	DO Reading (ppm)
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VW/AS-1	09/30/1999	NA	NA	NA	NA	NA	NA	NA	18.60	11.94	6.66	1.9
VW/AS-1	12/27/1999	8,940	2,000	95.7	1,200	570	606	NA	18.60	11.01	7.59	1.6/1.8
VW/AS-1	03/07/2000	NA	NA	NA	NA	NA	NA	NA	18.59	7.35	11.24	NA
VW/AS-1	04/17/2000	NA	NA	NA	NA	NA	NA	NA	18.59	9.08	9.51	1.9/2.0
VW/AS-1	04/18/2000	20,800	6,550	1,220	2,270	1,720	<250	NA	18.59	NA	NA	NA
VW/AS-1	09/21/2000	NA	NA	NA	NA	NA	NA	NA	18.59	11.98	6.61	2.1
VW/AS-1	10/17/2000	38,400	7,240	5,980	1,960	5,730	534	72.4	18.59	12.62	5.97	2.5/1.0
VW/AS-1	01/09/2001	NA	NA	NA	NA	NA	NA	NA	18.59	13.03	5.56	1.9
VW/AS-1	04/27/2001	34,000	8,000	2,100	2,500	2,000	NA	<25	18.59	10.71	7.88	2.9/2.1
VW/AS-1	07/03/2001	NA	NA	NA	NA	NA	NA	NA	18.59	12.03	6.56	2.0
VW/AS-1	12/06/2001	6,000	990	35	820	59	NA	<25	18.59	11.63	6.96	1.2/0.8
VW/AS-1	01/23/2002	NA	NA	NA	NA	NA	NA	NA	18.59	9.34	9.25	0.9
VW/AS-1	04/17/2002	12,000	2,900	57	1,400	98	NA	<200	18.59	10.41	8.18	3.3/2.9
VW/AS-1	07/18/2002	NA	NA	NA	NA	NA	NA	NA	18.59	12.13	6.46	0.3

VW/AS-3	03/25/1996	NA	NA	NA	NA	NA	NA	NA	18.17	8.50	9.67	NA
VW/AS-3	06/21/1996	NA	NA	NA	NA	NA	NA	NA	18.17	10.42	7.75	NA
VW/AS-3	09/26/1996	NA	NA	NA	NA	NA	NA	NA	18.17	12.49	5.68	NA
VW/AS-3	12/19/1996	NA	NA	NA	NA	NA	NA	NA	18.17	12.28	5.89	NA
VW/AS-3	03/25/1997	NA	NA	NA	NA	NA	NA	NA	18.17	9.61	8.56	NA
VW/AS-3	06/26/1997	NA	NA	NA	NA	NA	NA	NA	18.17	11.80	6.37	NA
VW/AS-3	09/26/1997	NA	NA	NA	NA	NA	NA	NA	18.17	12.89	5.28	NA
VW/AS-3	12/05/1997	NA	NA	NA	NA	NA	NA	NA	18.17	11.38	6.79	1.8
VW/AS-3	02/19/1998	NA	NA	NA	NA	NA	NA	NA	18.17	6.24	11.93	1.3
VW/AS-3	06/08/1998	NA	NA	NA	NA	NA	NA	NA	18.17	6.25	11.92	1.2
VW/AS-3	08/25/1998	NA	NA	NA	NA	NA	NA	NA	18.17	11.43	6.74	1.3
VW/AS-3	12/28/1998	NA	NA	NA	NA	NA	NA	NA	18.17	11.63	6.54	1.7

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VW/AS-3	03/26/1999	NA	NA	NA	NA	NA	NA	NA	18.17	8.92	9.25	1.5
VW/AS-3	06/30/1999	NA	NA	NA	NA	NA	NA	NA	18.17	10.71	7.46	2.5
VW/AS-3	09/30/1999	NA	NA	NA	NA	NA	NA	NA	18.17	11.78	6.39	1.5
VW/AS-3	12/27/1999	488	47.9	2.60	16.9	8.50	35.4	NA	18.17	12.57	5.60	1.5/2.1
VW/AS-3	03/07/2000	NA	NA	NA	NA	NA	NA	NA	18.14	4.82	13.32	NA
VW/AS-3	04/17/2000	NA	NA	NA	NA	NA	NA	NA	18.14	8.69	9.45	2.0/2.4
VW/AS-3	04/18/2000	3,110	871	<5.00	141	56.8	78.2	NA	18.14	NA	NA	NA
VW/AS-3	09/21/2000	NA	NA	NA	NA	NA	NA	NA	18.14	11.65	6.49	2.5
VW/AS-3	10/17/2000	7,730	2,700	<50.0	542	344	<250	42.1	18.14	12.13	6.01	1.6/1.0
VW/AS-3	01/09/2001	NA	NA	NA	NA	NA	NA	NA	18.14	12.51	5.63	2.2
VW/AS-3	04/27/2001	14,000	3,900	62	690	560	NA	46	18.14	10.20	7.94	2.8/1.6
VW/AS-3	07/03/2001	NA	NA	NA	NA	NA	NA	NA	18.14	11.55	6.59	2.6
VW/AS-3	12/06/2001	5,000	1,200	19	380	320	NA	<50	18.14	11.10	7.04	0.9/1.1
VW/AS-3	01/23/2002	NA	NA	NA	NA	NA	NA	NA	18.14	8.93	9.21	1.1
VW/AS-3	04/17/2002	17,000	5,000	<25	1,100	390	NA	<250	18.14	10.00	8.14	3.2/3.2
VW/AS-3	07/18/2002	NA	NA	NA	NA	NA	NA	NA	18.14	11.49	6.65	0.4

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**Abbreviations:**

TPPH = Total petroleum hydrocarbons as gasoline by EPA Method 8260B; prior to April 27, 2001, analyzed by EPA Method 8015.

BTEX = benzene, toluene, ethylbenzene, xylenes by EPA Method 8260B; prior to April 27, 2001, analyzed by EPA Method 8020.

MTBE = Methyl-tertiary-butyl ether

TOC = Top of Casing Elevation

GW = Groundwater

DO = Dissolved Oxygen

NA = Not applicable

ug/L = Parts per billion

ppm = Parts per million

MSL = Mean sea level

ft = Feet

<n = Below detection limit

D = Duplicate sample

n/n = Pre-purge/Post-purge DO Readings

**Notes:**

a = Sample was analyzed outside of the EPA recommended holding time.

Site surveyed November 1, 2001 by Virgil Chavez Land Surveying of Vallejo, California.

