



Shell Oil Products US

November 12, 2002

LOTT

Alameda County  
NOV 15 2002  
Environmental Health

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

Subject: **Shell-branded Service Station**  
285 Hegenberger Road  
Oakland, California 94621

Dear Mr. Chan:

Attached for your review and comment is a copy of the *Third Quarter 2002 Monitoring Report* for the above referenced site. Upon information and belief, I declare, under penalty of perjury, that the information contained in the attached document is true and correct.

As always, please feel free to contact me directly at (559) 645-9306 with any questions or concerns.

Sincerely,

Shell Oil Products US

*Karen Petryna*

Karen Petryna  
Sr. Environmental Engineer

November 11, 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**  
Shell-branded Service Station  
285 Hegenberger Road  
Oakland, California  
Incident #98995749  
Cambria Project #244-0734-002



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 collected dissolved oxygen (DO) measurements, gauged water levels, sampled selected wells, calculated groundwater elevations and compiled the gasoline constituents analytical data. Cambria compiled the non-gasoline constituents analytical data (Table 1) and prepared a groundwater elevation contour map (Figure 1). Blaine's report, presenting the laboratory report and supporting field documents, is included as Attachment A.

**Bio-Attenuation Parameter Monitoring:** Bio-attenuation parameters have been measured in groundwater samples to determine the status of, and trends in, aerobic degradation of the site hydrocarbons in groundwater. In typical reducing environments, an inverse relationship between benzene, toluene, ethylbenzene and xylenes (BTEX) concentrations and oxygen, nitrate, and sulfate concentrations, and a direct relationship between BTEX and ferrous iron concentrations are expected. The observed relationships between measured BTEX concentrations and the bioparameters are indicated in Table 1. In general, the evidence indicates that biological degradation of BTEX is occurring in groundwater at the site.

Oakland, CA  
San Ramon, CA  
Sonoma, CA

**Cambria  
Environmental  
Technology, Inc.**

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



***Air-Sparge and Soil Vapor Extraction (AS/SVE) System Operation:*** An AS/SVE system has been operated at the site using AS/SVE wells AS-1/VEW-5, AS-2/VEW-6 and AS-3/VEW-7 since March 25, 2002. In accordance with Bay Area Air Quality Management District (BAAQMD) Permit to Operate #3356, vapor monitoring using an organic vapor analyzer (OVA) is conducted monthly. In addition to OVA monitoring, influent, midfluent and effluent vapor samples are collected and analyzed for total petroleum hydrocarbons as gasoline (TPHg), BTEX and methyl tertiary butyl ether using EPA Method 8260B. A concentration of 20 parts per million by volume TPHg was detected in the effluent vapor sample collected on July 30, 2002. Upon receipt of this information from the laboratory, Cambria shut down the AS/SVE system pending carbon changeout. Carbon changeout took place on September 13, 2002, and the system was restarted on September 23, 2002. Analytical results and vapor monitoring data are summarized in Table 2. Laboratory reports and field data sheets for the AS/SVE system are included as Attachment B.

#### **ANTICIPATED FUTURE 2002 ACTIVITIES**

***Groundwater Monitoring:*** The next sampling event is scheduled for the fourth quarter of 2002. At that time, Blaine will collect DO measurements, gauge water levels, sample selected site wells and tabulate the data. Cambria will prepare a monitoring report.

***Air-Sparge and SVE System Operation:*** Cambria will continue to operate the AS/SVE system. In accordance with the BAAQMD Permit to Operate, Cambria will monitor influent, midfluent and effluent vapor concentrations on a monthly basis.

**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**



*Melody Munz*  
Melody Munz  
Project Engineer

*Matthew W. Derby*  
Matthew W. Derby, P.E.  
Senior Project Manager

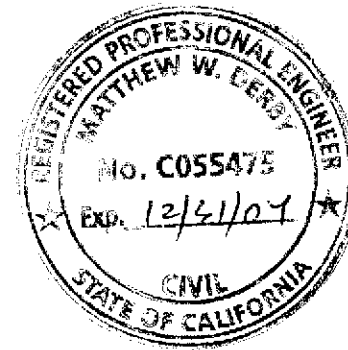


Figure: 1 - Groundwater Elevation Contour Map

Tables: 1 - Groundwater Analytical Data - Other Constituents  
2 - Analytical Results and Monitoring Data for Vapor Extraction System

Attachments: A - Blaine Groundwater Monitoring Report and Field Notes  
B - AS/SVE System Field Sheets and Laboratory Reports

cc: Karen Petryna, Shell Oil Products US, P.O. Box 7869, Burbank, CA 91510-7869  
J.T., Elizabeth G., W.T., and Jeanette Watters, Tr., c/o Property Tax Dept, PO Box 2099,  
Houston, TX 77252-1413

G:\Oakland 285 Hegenberger\QM\3q02\3q02qm.doc

G:\OAKLAND\285HEGENBERGER\FIGURE\30M02.MPA

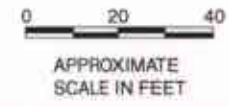
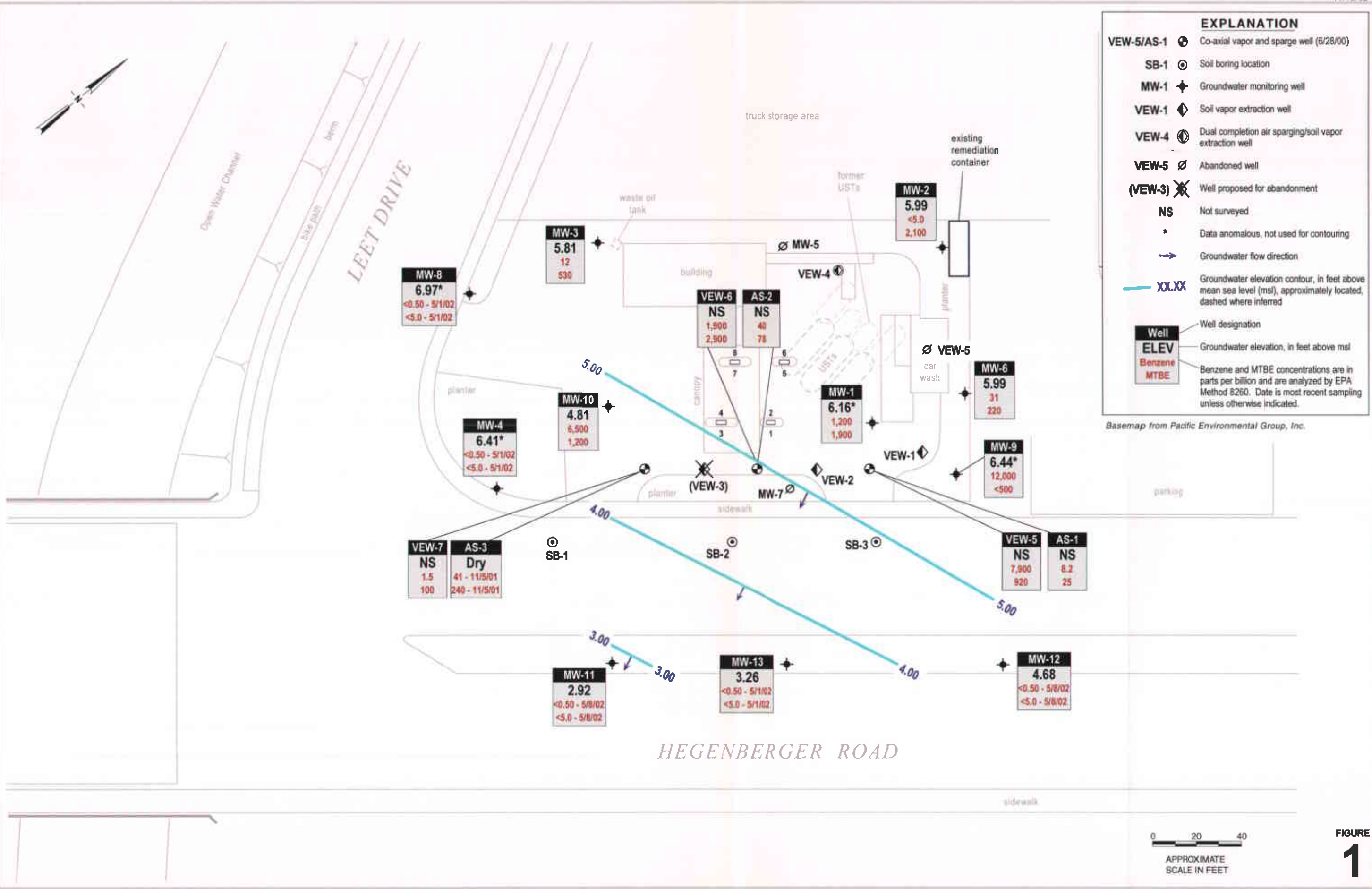


FIGURE 1

Shell-branded Service Station  
 285 Hegenberger Road  
 Oakland, California  
 Incident #98995749

**Table 1. Groundwater Analytical Data - Other Constituents - Shell-branded Service Station, Incident #98995749, 285 Hegenberger Road, Oakland, California**

Well ID	Date	Motor Oil	Nitrate as Nitrate	Sulfate	Ferrous Iron	DO	ORP
		(Concentrations in ppm)					(millivolts)
MW-1	06/10/98	----	<1.0	3.3	14	0.5/0.5	-163/-178
	06/10/98 <sup>dup</sup>	----	<1.0	5.1	14	0.5/0.5	-163/-178
	12/30/98	<0.250	<1.0	6.8	9.2	1.6/1.4	-119/-107
	06/25/99	---	0.0800	1.39	11.40	1.2/2.1	-150/-148
	12/28/99	0.507	<5.00	<5.00	3.80	1.4/1.8	-156/-152
	05/31/00	<0.500	<1.00	11.9	1.30	0.98/2.27	2/-130
	10/17/00	<0.5	<0.200	2.68	7.98	4.0/3.1	-122/-114
	05/01/01	0.297	<0.2	<1	0.541	1.6/1.3	-125/-130
	11/07/01	<5	<0.2	<1	3.4	2.1/1.4	-42/-56
	05/01/02	<0.1	<0.2	<1	4.7	3.4/2.3	-87/-108
<b>07/16/02</b>	<b>&lt;5</b>	<b>&lt;0.50</b>	<b>2.0</b>	<b>&lt;0.10</b>	<b>0.9/0.8</b>	<b>-120/-134</b>	
MW-2	06/10/98	----	<1.0	47	5.1	0.7/0.6	-155/-161
	12/30/98	<0.250	<1.0	84	7.6	1.3/1.2	-96/-107
	06/25/99	----	<0.0500	126	7.97	2.3/2.5	-101/-106
	12/28/99	<0.500	<5.00	98.8	0.380	2.1/2.4	-112/-120
	05/31/00	<0.500	6.89	129	0.130	1.8/2.7	-15/-73
	10/17/00	---	---	---	---	---	---
	11/05/01	<0.1	<0.2	3	0.43	0.6/1.1	-81/-111
	05/01/02	<0.1	<0.2	380	0.19	6.2/0.9	-62/-50
<b>07/16/02</b>	<b>&lt;5</b>	<b>0.60</b>	<b>62</b>	<b>&lt;0.10</b>	<b>0.9/1.3</b>	<b>-79/-67</b>	
MW-3	06/10/98	----	<1.0	15	3.5	0.8/0.9	-101/-149
	12/30/98	<0.250	<1.0	21	2.1	1.3/1.4	-84/-76
	06/25/99	----	<0.0500	4.74	8.73	1.4/1.9	-138/-148
	12/28/99	<0.500	<5.00	5.10	0.260	1.3/1.5	-86/-74
	05/31/00	<0.500	<1.00	19.3	22.6	1.2/2.2	-68/-103
	10/17/00	<0.5	<1.00	21.2	5.78	2.0/2.1	152/138
	05/01/01	<0.25	---	8.72	0.328	1.9/2.7	-63/-95
	05/29/01	---	0.45	---	---	3.0/1.9	78/-8
	11/05/01	<0.1	<0.2	6.6	0.19	0.5/1.9	-119/113
	05/01/02	0.39	0.83	20	<0.1	4.1/0.7	-82/-44
	<b>07/16/02</b>	<b>&lt;5</b>	<b>&lt;0.50</b>	<b>2.5</b>	<b>&lt;0.10</b>	<b>0.3/1.7</b>	<b>-95/-112</b>

**Table 1. Groundwater Analytical Data - Other Constituents - Shell-branded Service Station, Incident #98995749, 285 Hegenberger Road, Oakland, California**

Well ID	Date	Motor Oil	Nitrate as Nitrate	Sulfate	Ferrous Iron	DO	ORP
		(Concentrations in ppm)					(millivolts)
MW-4	12/30/98	<0.250	<1.0	9.6	1.6	1.7/1.6	-118/-111
	12/28/99	<0.500	<5.00	<5.00	<0.0100	1.4/1.5	-121/-117
	05/31/00	<0.500	---	---	---	---	---
	10/17/00	0.513	1.05	16.0	0.338	3.8/4.0	167/131
	11/05/01	<0.1	0.2	12	0.46	1.3/1.5	-126/112
	05/01/02	<0.1	<0.2	7.4	0.43	2.6/1.1	146/-90
MW-6	06/10/98	----	<1.0	7.4	1.8	0.4/0.4	-159/-155
	12/30/98	<0.250	<1.0	120	0.46	2.1/1.6	-98/-107
	06/25/99	----	0.101	22.1	12.80	1.4/3.6	-143/-136
	12/28/99	0.568	<5.00	147	0.320	1.8/2.0	-108/-96
	05/31/00	<0.500	<1.00	19.2	0.704	0.92/2.30	-31/-91
	10/17/00	<0.5	<1.00	<5.00	3.31	2.5/2.1	-107/-126
	05/01/01	0.416	---	4.88	<0.1	2.2/1.6	-107/-112
	05/29/01	---	<0.1	---	---	2.0/1.3	33/-65
	11/07/01	<5	<0.2	44	2.4	2.4/1.8	60/51
	05/01/02	<0.1	<0.2	10	<0.1	2.5/2.0	-111/-130
<b>07/16/02</b>	<b>&lt;5</b>	<b>&lt;0.50</b>	<b>1.7</b>	<b>&lt;0.10</b>	<b>0.6/0.6</b>	<b>-108/-105</b>	
MW-8	12/30/98	<0.250	12	54	0.031	0.8/0.9	-128/-121
	12/28/99	<0.500	<5.00	<5.00	<0.0100	1.0/0.9	-136/-121
	05/31/00	---	---	---	---	---	---
	10/17/00	<0.5	<1.00	23.2	1.12	4.0/4.1	114/119
	11/05/01	<0.1	0.59	22	0.13	0.6/1.3	-66/-75
	05/01/02	<0.1	2.1	18	<0.1	0.6/3.6	30/87
MW-9	06/10/98	----	<1.0	6.6	21	0.3/0.4	-169/-188
	12/30/98	<0.250	<1.0	6.4	9.3	1.1/1.2	-107/-111
	06/25/99	----	0.0900	1.25	19.80	1.2/2.4	-164/-153
	12/28/99	<0.500	<5.00	<5.00	0.660	1.0/1.1	-111/-115
	05/31/00	<0.500	<1.00	13.9	1.41	2.8/a	-21/162
	10/17/00	<0.5	<1.00	<5.00	13.3	3.0/3.5	-126/-132
	05/01/01	<0.250	---	<1	2.66	1.6/1.0	-144/-154

**Table 1. Groundwater Analytical Data - Other Constituents - Shell-branded Service Station, Incident #98995749, 285 Hegenberger Road, Oakland, California**

Well ID	Date	Motor Oil	Nitrate as Nitrate	Sulfate	Ferrous Iron	DO	ORP
		(Concentrations in ppm)					
MW-9 (cont.)	05/29/01	---	<0.1	---	---	1.9/1.5	45/-96
	11/07/01	<5	<0.2	<1	2.7	1.4/1.1	-39/-54
	05/01/02	<0.1	<0.2	<1	12	2.9/1.1	-111/-181
	07/16/02	<5	<0.50	1.4	0.12	0.7/0.4	-54/-121
MW-10	06/10/98	---	<1.0	6.3	17	0.7/0.5	-149/-162
	12/30/98	<0.250	<1.0	8.0	17	1.0/0.7	-72/-89
	06/25/99	---	0.134	<1.00	15.80	0.9/2.5	-139/-119
	12/28/99	0.604	0.998	<5.00	2.20	1.2/1.4	-87/-92
	05/31/00	<0.500	<1.00	12.4	3.22	2.8/3.9	-28/-93
	10/17/00	<0.5	<1.00	<5.00	8.30	2.3/3.0	-160/-113
	05/01/01	0.884	---	<1	2.34	2.0/1.1	-129/-137
	05/29/01	---	<0.1	---	---	3.70/1.8	-15/-50
	11/07/01	<5	<0.2	<1	2.4	1.8/1.0	-139/-147
	05/01/02	<0.1	<0.2	<1	1.9	4.0/0.5	-121/-113
07/16/02	<5	<0.50	0.82	<0.10	0.5/1.5	-120/-118	
MW-11	12/30/98	<0.250	<1.0	1,000	0.21	0.7/0.6	-86/-74
	12/28/99	<0.500	<5.00	<5.00	<0.0100	0.8/1.0	-94/-67
	05/31/00	---	---	---	---	---	---
	10/17/00	<0.50	<1.00	1,140	1.74	4.1/4.0	81/64
	05/08/02	<5	3.8	1,000	1.2	1.0/1.1	-33/-21
MW-12	12/30/98	<0.250	6.1	1,500	0.06	1.3/0.9	-119/-106
	12/28/99	<0.500	<5.00	<5.00	<0.0100	1.0/1.2	-120/-110
	05/31/00	---	---	---	---	---	---
	10/17/00	<0.50	<1.00	182	0.0107	5.1/3.0	15/24
	05/08/02	<5	12	170	<0.10	1.2/0.9	17/26
MW-13	12/30/98	<0.250	7.2	230	0.031	1.1/0.8	-111/-104
	12/28/99	<0.500	<5.00	<5.00	<0.0100	0.8/1.0	-117/-115
	05/31/00	---	---	---	---	---	---



**Table 1. Groundwater Analytical Data - Other Constituents - Shell-branded Service Station, Incident #98995749, 285 Hegenberger Road, Oakland, California**

Well ID	Date	Motor Oil	Nitrate as Nitrate	Sulfate	Ferrous Iron	DO	ORP
		(Concentrations in ppm)					(millivolts)
MW-13 (cont.)	10/17/00	<0.5	<1.00	1,800	0.169	2.5/2.8	-10/19
	05/01/02	<0.1	10	280	<0.1	3.5/3.5	96/102
VEW-5	10/17/00	<1	<1.00	15.0	2.64	3.0/3.1	-112/-126
	05/01/01	1.45	---	---	2.4	0.4/0.6	-95/-133
	11/05/01	<100	<0.2	<1	5.6	0.6/a	-108/a
	05/01/02	<0.1	0.2	21	19	4.7/2.9	492/-0
	07/16/02	<5	<0.50	3.0	0.61	0.4/0.3	-96/-185
VEW-6	10/17/00	<1	<1.00	17.7	4.16	2.0/2.1	-92/-115
	05/01/01	0.805	---	---	1.67	0.8/1.2	-108/-129
	05/29/01	---	0.49	---	---	3.0/1.7	-13//-53
	11/05/01	<100	<0.2	14	5.6	0.8/1.3	-145/-127
	05/01/02	<0.1	<0.2	13	3.3	0.2/0.4	-177/-182
	07/16/02	<5	<0.50	41	<0.10	0.3/0.2	-125/-108
VEW-7	10/17/00	<1	<0.200	1.96	508	3.5/4.1	-87/-82
	05/01/01	0.348	---	---	1.97	0.8/0.8	-102/-120
	05/29/01	---	0.43	---	---	2.5/1.4	-21/-75
	11/05/01	<100	<0.2	4.1	4.8	3.52/a	-113/-147
	05/01/02	<0.1	<0.2	41	0.62	2.9/3.3	110/0
	07/16/02	<5	25	240	<0.10	3.6/2.5	-102/-36
AS-1	10/17/00	<1	<1.00	965	0.708	2.0/2.5	-109/-79
	11/05/01	<100	<0.2	830	0.21	0.4/0.5	-122/150
	07/16/02	<5	<0.50	1,800	<0.10	4.6/2.8	-51/-95
AS-2	10/17/00	<0.5	<1.00	3,810	2.46	3.1/3.0	-65/-69
	11/05/01	<100	<10	4,100	8.8	0.8/0.6	-97/-132
	05/01/02	<0.1	<2	5,500	0.34	1.0/0.8	0/-163
	07/16/02	<5	<2.5	5,300	<0.10	0.7/0.9	-71/-93

**Table 1. Groundwater Analytical Data - Other Constituents - Shell-branded Service Station, Incident #98995749, 285 Hegenberger Road, Oakland, California**

Well ID	Date	Motor Oil	Nitrate as Nitrate	Sulfate	Ferrous Iron	DO	ORP
		(Concentrations in ppm)					(millivolts)
AS-3	10/17/00	1.26	<1.00	493	0.0402	3.1/3.0	26/29
	11/05/01	<100	<0.2	450	0.13	1.1/3.2	-71/-62

Ideal Aerobic Degradation Relationship:  
Observed Relationship:

Inverse Inconclusive      Inverse Moderately Inverse      Direct Direct      Inverse Moderately Inverse      Direct Inconclusive

**Abbreviations:**

ppm = Parts per million  
DO = Dissolved oxygen, measured in the field, reported as pre-purge/post-purge  
ORP = Oxidation reduction potential, measured in the field, reported as pre-purge/post-purge

**Notes:**

---- = Not analyzed  
<n = Below detection limit of n ppm  
Motor oil by DHS LUFT  
Ferrous iron analyzed by EPA Method 200.7  
Nitrate as nitrate and sulfate analyzed by EPA Method 300.0  
a = Post-purge reading not taken

# CAMBRIA

**Table 2: Analytical Results and Monitoring Data for Vapor Extraction System - Shell-branded Service Station, Incident #98995749, 285 Hegenberger Road, Oakland, CA 94621**

Sample Date (mm/dd/yy)	<u>INFLUENT</u>				<u>MIDFLUENT</u>				<u>EFFLUENT</u>			
	TPHg Conc. (ppmv)	Benzene Conc. (ppmv)	MTBE Conc (ppmv)	OVA Conc. (ppmv)	TPHg Conc. (ppmv)	Benzene Conc (ppmv)	MTBE Conc (ppmv)	OVA Conc. (ppmv)	TPHg Conc. (ppmv)	Benzene Conc. (ppmv)	MTBE Conc (ppmv)	OVA Conc. (ppmv)
03/25/02	<5.0	<0.050	<0.10	1	<5.0	<0.050	<0.10	0	<5.0	<0.050	<0.10	0
03/26/02				1				0				0
03/27/02				0				0				0
03/28/02	<5.0	<0.050	<0.10	1	<5.0	<0.050	<0.10	0	<5.0	<0.050	<0.10	0
03/29/02				0				0				0
04/30/02	300	3.40	<0.20		14	0.12	<0.10		5	0.05	<1.0	--
05/09/02				438				29				4
05/14/02	52	1.70	0.32	519	<5.0	<0.050	<0.10	74	<5.0	<0.050	<0.10	18
06/03/02				1,070				89				0
06/25/02				1,152				112				0
07/05/02	91	1.60	0.12	1,724	<5.0	<0.050	<0.10	129	<5.0	<0.050	<0.10	0
07/16/02				1,611				150				0
07/30/02	120	1.50	0.16	1,470	<5.0	<0.050	<0.10	110	20	<0.050	1.40	0
08/13/02				1,941				142				0
08/13/02	System shut down for Carbon Change Out											
09/23/02	930	5.6	<4.0	340	---	---	---	0.2	---	---	---	0

**Abbreviations & Notes:**

TPHg = Total petroleum hydrocarbons as gasoline  
 BTEX = benzene, toluene, ethlybenzene and xylenes  
 MTBE = Methyl tert-butyl ether  
 ppmv = parts per million by volume  
 OVA = organic vapor analyzer  
 BTEX and MTBE analyzed by EPA Method 8060B  
 "--" no reading taken

**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 8, 2002

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

Third Quarter 2002 Groundwater Monitoring at  
Shell-branded Service Station  
285 Hegenberger Road  
Oakland, CA

Monitoring performed on July 16, 2002

---

Groundwater Monitoring Report 020716-DA-1

This report covers the routine monitoring of groundwater wells at this Shell-branded 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.  
114 65<sup>th</sup> Street, Suite C  
Oakland, CA 94608-2411

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**285 Hegenberger Road**  
**Oakland, CA**

Well ID	Date	TPPH (ug/L)	TEPH (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	02/16/1989	99,000	NA	20,000	23,000	5,700	2,300	NA	NA	6.64	3.83	2.81	NA
MW-1	05/23/1989	48,000	11,000	4,200	5,200	1,200	7,700	NA	NA	6.64	3.59	3.05	NA
MW-1	08/03/1989	63,000	11,000	5,500	5,500	3,200	9,500	NA	NA	6.64	4.04	2.60	NA
MW-1	12/15/1989	30,000	11,000	ND	ND	ND	ND	NA	NA	6.64	4.22	2.42	NA
MW-1	02/07/1990	93,000	10,000	13,000	9,600	2,400	14,000	NA	NA	6.64	4.60	2.04	NA
MW-1	04/18/1990	55,000	8,700	14,000	8,400	3,200	13,000	NA	NA	6.64	4.02	2.62	NA
MW-1	07/23/1990	73,000	3,600	16,000	7,400	2,800	15,000	NA	NA	6.64	4.17	2.47	NA
MW-1	09/27/1990	45,000	1,700	8,000	4,300	2,000	11,000	NA	NA	6.64	4.60	2.04	NA
MW-1	01/03/1991	43,000	3,100	10,000	3,400	1,900	11,000	NA	NA	6.64	4.88	1.76	NA
MW-1	04/10/1991	67,000	1,800	20,000	9,600	3,500	16,000	NA	NA	6.64	3.55	3.09	NA
MW-1	07/12/1991	NA	NA	NA	NA	NA	NA	NA	NA	6.64	3.97	2.67	NA
MW-1	10/08/1991	55,000	7,400	18,000	3,500	2,300	8,600	NA	NA	6.64	4.26	2.38	NA
MW-1	02/06/1992	48,000	15,000 a	12,000	2,800	1,900	7,400	NA	NA	6.64	4.94	1.70	NA
MW-1	05/04/1992	71,000	10,000 a	16,000	6,000	3,100	14,000	NA	NA	6.64	3.58	3.06	NA
MW-1	07/28/1992	68,000	18,000 a	21,000	5,500	3,400	15,000	NA	NA	6.64	3.91	2.73	NA
MW-1 (D)	07/28/1992	70,000	19,000 a	17,000	5,000	2,700	13,000	NA	NA	6.64	3.91	2.73	NA
MW-1	10/27/1992	53,000	1,300	18,000	3,700	3,400	11,000	NA	NA	6.64	4.79	1.85	NA
MW-1 (D)	10/27/1992	48,000	2,500 a	17,000	3,600	3,100	9,900	NA	NA	6.64	4.79	1.85	NA
MW-1	01/14/1993	84,000	2,200 a	17,000	5,400	3,000	13,000	NA	NA	6.64	3.39	3.25	NA
MW-1	04/23/1993	100,000	2,300 a	18,000	7,800	4,700	20,000	NA	NA	6.64	2.67	3.97	NA
MW-1	07/20/1993	41a	3,100 a	12,000	870	1,500	4,400	NA	NA	9.50	3.48	6.02	NA
MW-1	10/18/1993	33,000	8,100 a	14,000	1,200	2,000	4,900	NA	NA	9.50	4.20	5.30	NA
MW-1 (D)	10/18/1993	44,000	3,700 a	14,000	1,200	2,000	4,900	NA	NA	9.50	4.20	5.30	NA
MW-1	01/06/1994	71,000	9,000 a	9,000	870	1,600	5,100	NA	NA	9.50	4.13	5.37	NA
MW-1	04/12/1994	42,000	5,900	6,600	170	2,300	4,700	NA	NA	9.50	2.42	7.08	NA
MW-1 (D)	04/12/1994	40,000	4,700	6,300	180	2,000	4,400	NA	NA	9.50	2.42	7.08	NA

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**285 Hegenberger Road**  
**Oakland, CA**

Well ID	Date	TPPH (ug/L)	TEPH (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	07/25/1994	13,000	7,000 a	4,400	110	460	1,400	NA	NA	9.50	3.37	6.13	NA
MW-1	10/25/1994	19,000	3,900	5,500	210	880	2,000	NA	NA	9.50	4.07	5.43	NA
MW-1	01/09/1995	37,000	8,600 a	6,700	800	2,800	8,900	NA	NA	9.50	2.65	6.85	NA
MW-1	04/11/1995	26,000	5,500	4,700	270	1,800	3,400	NA	NA	9.50	2.38	7.12	NA
MW-1	07/18/1995	57,000	7,000	7,500	880	4,100	11,000	NA	NA	9.50	3.49	6.01	NA
MW-1 (D)	07/19/1995	46,000	6,600	6,000	670	3,200	7,500	NA	NA	9.50	3.49	6.01	NA
MW-1	10/18/1995b	37,000	3,200	5,400	450	2,600	7,400	10,000	NA	9.50	NA	NA	NA
MW-1	01/09/1996	32,000	NA	3,000	240	1,900	3,500	6,100	NA	9.50	2.95	6.55	NA
MW-1	04/02/1996	30,000	NA	3,100	260	2.0	3,900	8.0	NA	9.50	2.00	7.50	NA
MW-1	10/03/1996	18,000	2,800	3,000	120	1,200	1,700	7,500	NA	9.50	3.21	6.29	2.2
MW-1	04/03/1997	29,000	3,000	2,300	170	2,300	2,900	4,300	NA	9.50	2.84	6.66	2.2
MW-1	10/08/1997	22,000	3,600	920	71	2,400	2,200	820	NA	9.50	2.58	6.92	1.5
MW-1	06/10/1998	13,000	2,900	860	<100	1,300	500	29,000	32,000	9.50	2.67	6.83	0.5/0.5
MW-1 (D)	06/10/1998	9,400	2,100	870	<50	1,300	520	28,000	NA	9.50	2.67	6.83	0.5/0.5
MW-1	12/30/1998	6,930	1,540	714	52.7	243	<25.0	9,000	NA	9.50	4.68	4.82	1.6/1.4
MW-1 *	06/25/1999	12,600	NA	1,110	44.7	1,340	710	6,080	NA	9.50	2.86	6.64	1.2/2.1
MW-1	12/28/1999	3,260	1,170	527	14.0	50.7	40.3	5,430	7,060b	9.50	3.23	6.27	1.4/1.8
MW-1	05/31/2000	6,820	2,050	1,620	<50.0	116	<50.0	6,070	4,710	9.50	2.39	7.11	0.98/2.27
MW-1	10/17/2000	2,530	995 a	388	<10.0	16.4	22.1	917	NA	9.50	2.05	7.45	4.0/3.1
MW-1	05/01/2001	12,300	1,510	1,480	19.5	205	111	4,160	NA	9.50	3.55	5.95	1.6/1.3
MW-1	11/05/2001	NA	NA	NA	NA	NA	NA	NA	NA	9.85 e	4.43	5.42	0.4
MW-1	11/07/2001	3,000	<1,000	290	6.0	11	15	NA	870	9.85	4.00	5.85	2.1/1.4
MW-1	05/01/2002	11,000	<2,000	2,100	29	180	68	NA	1,500	9.85	3.14	6.71	3.4/2.3
MW-1	07/16/2002	7,400	<1,500	1,200	22	37	24	NA	1,900	9.85	3.69	6.16	0.9/0.8
MW-2	02/16/1989	20,000	NA	200	900	2,700	9,600	NA	NA	7.68	5.33	2.35	NA



**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**285 Hegenberger Road**  
**Oakland, CA**

Well ID	Date	TPPH (ug/L)	TEPH (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-2	05/23/1989	1,500	1,600	4.3	2.9	11	150	NA	NA	7.68	5.23	2.45	NA
MW-2	08/03/1989	15,000	7,400	75	120	850	2,200	NA	NA	7.68	6.03	1.65	NA
MW-2	12/15/1989	5,000	2,600	52	13	4.1	290	NA	NA	7.68	6.43	1.25	NA
MW-2	02/07/1990	13,000	4,800	32	34	230	640	NA	NA	7.68	5.82	1.86	NA
MW-2	04/18/1990	9,800	3,200	33	19	460	1,700	NA	NA	7.68	5.88	1.80	NA
MW-2	07/23/1990	9,600	2,700	41	27	540	940	NA	NA	7.68	6.05	1.63	NA
MW-2	10/01/1990	390	1,600	3.4	15	8.5	25	NA	NA	7.68	NA	NA	NA
MW-2	01/03/1991	1,800	830	56	4.4	4.8	92	NA	NA	7.68	6.82	0.86	NA
MW-2	04/10/1991	1,900	280	ND	28	140	490	NA	NA	7.68	4.80	2.88	NA
MW-2	07/12/1991	8,100	1,100	89	66	350	930	NA	NA	7.68	5.70	1.98	NA
MW-2	10/08/1991	1,400	2,600	5.1	1.5	36	270	NA	NA	7.68	6.40	1.28	NA
MW-2	02/06/1992	2,000	5,400 a	7.8	2.5	130	210	NA	NA	7.68	6.40	1.28	NA
MW-2	05/04/1992	21	1,000	ND	ND	300	960	NA	NA	7.68	4.68	3.00	NA
MW-2	07/28/1992	2,100	830 a	7.7	3.3	130	310	NA	NA	7.68	5.86	1.82	NA
MW-2	10/27/1992	1,100	530	16	3.1	4.5	25	NA	NA	7.68	6.96	0.72	NA
MW-2	01/14/1993	290	170 a	5.2	3.1	8.4	21	NA	NA	7.68	4.12	3.56	NA
MW-2	04/23/1993	2,400	1,200 a	ND	ND	210	610	NA	NA	7.68	3.84	3.84	NA
MW-2	07/20/1993	440	130	1.7	1.7	15	38	NA	NA	10.55	5.17	5.38	NA
MW-2	10/18/1993	2,100	1,600 a	ND	ND	90	110	NA	NA	10.55	6.20	4.35	NA
MW-2	01/06/1994	1.9a	130	ND	6.7	7.1	12	NA	NA	10.55	5.39	5.16	NA
MW-2	04/12/1994	120	130	ND	ND	3.4	4.3	NA	NA	10.55	4.72	5.83	NA
MW-2	07/25/1994	0.18a	280 a	5.3	ND	6.2	8.2	NA	NA	10.55	5.44	5.11	NA
MW-2	10/25/1994	170	400	ND	ND	ND	ND	NA	NA	10.55	6.73	3.82	NA
MW-2	01/09/1995	ND	ND	ND	ND	ND	ND	NA	NA	10.55	4.34	6.21	NA
MW-2	04/11/1995	ND	ND	ND	ND	ND	ND	NA	NA	10.55	3.72	6.83	NA
MW-2	07/18/1995	250	160	2.8	0.5	12	13	NA	NA	10.55	4.91	5.64	NA

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**285 Hegenberger Road**  
**Oakland, CA**

Well ID	Date	TPPH (ug/L)	TEPH (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-2	10/18/1995	NA	NA	NA	NA	NA	NA	NA	NA	10.55	5.88	4.67	NA
MW-2	01/09/1996	790	130	5.1	1.5	2.4	4.6	1,400	NA	10.55	4.75	5.80	NA
MW-2	04/02/1996	260	NA	<2	<2	13	6.9	540	NA	10.55	3.25	7.30	NA
MW-2	10/03/1996	<2,000	620	<20	<20	<20	<20	13,000	NA	10.55	5.27	5.28	2.3
MW-2	04/03/1997	<1,000	190	<10	<10	<10	<10	2,800	NA	10.55	3.99	6.56	2.2
MW-2	10/08/1997	<5,000	1,100	<50	<50	<50	<50	d	NA	10.55	5.03	5.52	1.6
MW-2	06/10/1998	120	310	1.7	<1.0	<1.0	<1.0	3,800	NA	10.55	4.11	6.44	0.7/0.6
MW-2	12/30/1998	<5,000	1,050	<50.0	<50.0	<50.0	<50.0	12,100	15,300	10.55	4.76	5.79	1.3/1.2
MW-2 *	06/25/1999	<1,000	NA	<10.0	<10.0	<10.0	<10.0	7,570	NA	10.55	4.63	5.92	2.3/2.5
MW-2	12/28/1999	228	446	4.54	<0.500	<0.500	<0.500	4,260	NA	10.55	4.95	5.60	2.1/2.4
MW-2	05/31/2000	597	187	19.3	<0.500	0.860	<0.500	2,480	NA	10.55	4.06	6.49	1.8/2.7
MW-2	10/17/2000	Well inaccessible		NA	NA	NA	NA	NA	NA	10.55	NA	NA	NA
MW-2	05/01/2001	Well inaccessible		NA	NA	NA	NA	NA	NA	10.55	NA	NA	NA
MW-2	11/05/2001	<500	610	<5.0	<5.0	<5.0	<5.0	NA	1,800	10.55	6.12	4.43	0.6/1.1
MW-2	05/01/2002	440	<50	<2.5	<2.5	<2.5	<2.5	NA	1,300	10.55	3.85	6.70	6.2/0.9
MW-2	07/16/2002	<500	250	<5.0	<5.0	<5.0	<5.0	NA	2,100	10.55	4.56	5.99	0.9/1.3
MW-3	02/16/1989	60,000	NA	5,500	ND	3,200	5,200	NA	NA	7.81	5.17	2.64	NA
MW-3	05/23/1989	ND	1,500	ND	200	ND	ND	NA	NA	7.81	5.09	2.72	NA
MW-3	08/03/1989	2,000	1,200	120	ND	ND	86	NA	NA	7.81	5.34	2.47	NA
MW-3	12/15/1989	5,200	1,700	380	12	17	410	NA	NA	7.81	6.02	1.79	NA
MW-3	02/07/1990	260	230	17	47	5.4	2.5	NA	NA	7.81	4.95	2.86	NA
MW-3	04/18/1990	260	ND	ND	ND	ND	9.4	NA	NA	7.81	5.55	2.26	NA
MW-3	07/23/1990	510	210	46	ND	ND	9.3	NA	NA	7.81	5.81	2.00	NA
MW-3	09/27/1990	460	350	6.3	1.2	ND	15	NA	NA	7.81	6.86	0.95	NA
MW-3	01/03/1991	4,800	630	920	1.7	ND	190	NA	NA	7.81	6.84	0.97	NA

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**285 Hegenberger Road**  
**Oakland, CA**

Well ID	Date	TPPH (ug/L)	TEPH (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-3	04/10/1991	120	60	1.2	8.8	3.5	21	NA	NA	7.81	4.93	2.88	NA
MW-3	07/12/1991	430	ND	12	0.8	ND	7.7	NA	NA	7.81	5.56	2.25	NA
MW-3	10/08/1991	770	560	140	ND	ND	53	NA	NA	7.81	6.62	1.19	NA
MW-3	02/06/1992	500	340 a	74	0.7	5.2	5.3	NA	NA	7.81	6.28	1.53	NA
MW-3	05/04/1992	310	290 a	47	0.9	17	16	NA	NA	7.81	4.65	3.16	NA
MW-3	07/28/1992	780	100 a	130	ND	13	4.2	NA	NA	7.81	5.56	2.25	NA
MW-3	10/27/1992	740	69a	92	ND	7.8	9.6	NA	NA	7.81	6.65	1.16	NA
MW-3	01/14/1993	ND	ND	2.4	2.8	ND	ND	NA	NA	7.81	3.88	3.93	NA
MW-3	04/23/1993b	NA	NA	NA	NA	NA	NA	NA	NA	7.81	NA	NA	NA
MW-3	07/20/1993b	NA	NA	NA	NA	NA	NA	NA	NA	11.25 (TOB)	NA	NA	NA
MW-3	10/18/1993b	NA	NA	NA	NA	NA	NA	NA	NA	11.25 (TOB)	NA	NA	NA
MW-3	01/06/1994	130	64	1.7	ND	ND	0.93	NA	NA	11.25 (TOB)	5.54	NA	NA
MW-3	04/12/1994	ND	75	0.82	ND	ND	0.7	NA	NA	11.25 (TOB)	4.82	NA	NA
MW-3	07/25/1994	0.06a	ND	2.8	ND	ND	0.7	NA	NA	11.25 (TOB)	6.03 (TOB)	5.22	NA
MW-3	10/25/1994	70	100	ND	ND	ND	ND	NA	NA	11.25 (TOB)	6.48	NA	NA
MW-3	01/09/1995	ND	ND	ND	ND	ND	ND	NA	NA	11.25 (TOB)	4.86 (TOB)	6.39	NA
MW-3	04/11/1995	ND	ND	ND	ND	ND	ND	NA	NA	11.25 (TOB)	4.22 (TOB)	7.03	NA
MW-3	07/18/1995	ND	90	2.8	ND	ND	ND	NA	NA	11.25 (TOB)	5.44 (TOB)	5.81	NA
MW-3	10/18/1995	NA	NA	NA	NA	NA	NA	NA	NA	11.25 (TOB)	5.72	NA	NA
MW-3	01/09/1996	90	90	1.7	ND	<0.5	<0.5	61	NA	11.25 (TOB)	4.96	NA	NA
MW-3	04/02/1996	<50	NA	<0.5	<0.5	<0.5	<0.5	24	NA	11.25 (TOB)	3.43	NA	NA
MW-3	10/03/1996	<500	180	<5	<5	<5	<5	1,200	NA	11.25 (TOB)	5.39	NA	2.4
MW-3	04/03/1997	150	83	3.2	<0.50	<0.50	0.81	280	NA	11.25 (TOB)	4.20	NA	2.0
MW-3	10/08/1997	180	120	7.3	0.68	0.54	3.9	1,700	NA	11.25 (TOB)	5.51(TOB)	5.74	2.1
MW-3	06/10/1998	130	120	12	0.85	<0.50	2.1	600	NA	11.25 (TOB)	3.91(TOB)	7.34	0.8/0.9
MW-3	12/30/1998	<250	108	<2.50	<2.50	<2.50	<2.50	1,010	NA	11.25 (TOB)	5.76 (TOB)	5.49	1.3/1.4

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**285 Hegenberger Road**  
**Oakland, CA**

Well ID	Date	TPPH (ug/L)	TEPH (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-3 *	06/25/1999	269	NA	4.24	<2.50	<2.50	<2.50	1,180	NA	11.25 (TOB)	4.73	NA	1.4/1.9
MW-3	12/28/1999	333	122	41.4	6.48	6.57	21.3	2,680	NA	11.25 (TOB)	5.75 (TOB)	5.50	1.3/1.5
MW-3	05/31/2000	1,180	89.2	19.1	1.92	3.26	<1.00	2,130	NA	11.25 (TOB)	4.96 (TOB)	6.29	1.2/2.2
MW-3	10/17/2000	156	183 a	5.22	0.819	<0.500	1.53	2,250	NA	11.25 (TOB)	5.70 (TOB)	5.55	2.0/2.1
MW-3	05/01/2001	286	95.9	<2.50	<2.50	<2.50	<2.50	1,470	NA	11.25 (TOB)	4.88 (TOB)	6.37	1.9/2.7
MW-3	05/29/2001	NA	NA	NA	NA	NA	NA	NA	NA	11.25 (TOB)	5.25 (TOB)	6.00	3.0/1.9
MW-3	11/05/2001	<500	<50	<5.0	<5.0	<5.0	<5.0	NA	2,100	11.25 (TOB)	6.25 (TOB)	5.00	0.5/1.9
MW-3	05/01/2002	<100	80	<1.0	<1.0	<1.0	<1.0	NA	430	11.25 (TOB)	4.77 (TOB)	6.48	4.1/0.7
<b>MW-3</b>	<b>07/16/2002</b>	<b>410</b>	<b>340</b>	<b>12</b>	<b>2.0</b>	<b>&lt;2.0</b>	<b>3.5</b>	<b>NA</b>	<b>530</b>	<b>11.25 (TOB)</b>	<b>5.44 (TOB)</b>	<b>5.81</b>	<b>0.3/1.7</b>

MW-4	05/23/1989	ND	ND	ND	ND	ND	ND	NA	NA	7.38	5.60	1.78	NA
MW-4	08/03/1989	ND	ND	ND	ND	ND	ND	NA	NA	7.38	6.37	1.01	NA
MW-4	12/15/1989	ND	ND	ND	ND	ND	ND	NA	NA	7.38	6.91	0.47	NA
MW-4	03/08/1990	ND	ND	ND	ND	ND	ND	NA	NA	7.38	6.06	1.32	NA
MW-4	04/18/1990	NA	NA	NA	NA	NA	NA	NA	NA	7.38	5.84	1.54	NA
MW-4	07/23/1990	ND	ND	ND	ND	ND	ND	NA	NA	7.38	6.92	0.46	NA
MW-4	09/27/1991	ND	ND	ND	ND	ND	ND	NA	NA	7.38	8.03	0.65	NA
MW-4	01/03/1991	NA	NA	NA	NA	NA	NA	NA	NA	7.38	7.54	-0.16	NA
MW-4	04/10/1991	ND	ND	ND	ND	ND	ND	NA	NA	7.38	5.06	2.32	NA
MW-4	07/12/1991	ND	ND	ND	ND	ND	ND	NA	NA	7.38	6.86	0.52	NA
MW-4	10/08/1991	ND	ND	ND	ND	ND	ND	NA	NA	7.38	7.44	-0.06	NA
MW-4	02/06/1992	120	2,500 a	ND	ND	ND	ND	NA	NA	7.38	7.29	0.09	NA
MW-4	05/04/1992	ND	53	ND	ND	ND	ND	NA	NA	7.38	5.33	2.05	NA
MW-4	07/28/1992	ND	60	ND	ND	ND	ND	NA	NA	7.38	6.95	0.43	NA
MW-4	10/27/1992	ND	ND	ND	ND	ND	ND	NA	NA	7.38	7.65	-0.27	NA
MW-4	01/14/1993	ND	ND	ND	ND	ND	ND	NA	NA	7.38	4.84	2.54	NA

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**285 Hegenberger Road**  
**Oakland, CA**

Well ID	Date	TPPH (ug/L)	TEPH (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-4	04/23/1993	ND	ND	ND	ND	ND	ND	NA	NA	7.38	4.84	2.54	NA
MW-4	07/20/1993	ND	ND	2.2	ND	1.1	7.7	NA	NA	10.28	6.47	3.81	NA
MW-4	10/18/1993	ND	ND	ND	1.2	ND	ND	NA	NA	10.28	7.35	2.93	NA
MW-4	01/06/1994	ND	ND	ND	ND	ND	ND	NA	NA	10.28	7.64	2.64	NA
MW-4	04/12/1994	ND	76	ND	ND	ND	ND	NA	NA	10.28	6.39	3.89	NA
MW-4	07/25/1994	ND	ND	ND	ND	ND	ND	NA	NA	10.28	7.00	3.28	NA
MW-4	10/25/1994	ND	ND	ND	ND	ND	ND	NA	NA	10.28	7.53	2.75	NA
MW-4	01/09/1995	ND	70 a	ND	ND	ND	ND	NA	NA	10.28	4.90	5.38	NA
MW-4	04/11/1995	ND	140	1.5	ND	0.6	3.4	NA	NA	10.28	5.04	5.24	NA
MW-4	07/18/1995	ND	160	13	3.4	ND	ND	NA	NA	10.28	6.18	4.10	NA
MW-4	10/18/1995	NA	NA	NA	NA	NA	NA	NA	NA	10.28	6.63	3.65	NA
MW-4	01/09/1996	<50	ND	<0.5	ND	<0.5	<0.5	ND	NA	10.28	3.82	6.46	NA
MW-4	04/02/1996	<50	NA	<0.5	<0.5	<0.5	<0.5	<2.5	NA	10.28	3.97	6.31	NA
MW-4	10/03/1996	<50	81	<0.5	<0.5	<0.5	<0.5	<2.5	NA	10.28	3.74	6.54	NA
MW-4	04/03/1997	<50	69	<0.50	<0.50	<0.50	<0.50	<2.5	NA	10.28	3.74	6.54	1.8
MW-4	10/08/1997	<50	75	<0.50	<0.50	<0.50	<0.50	13	NA	10.28	4.89	5.39	2.0
MW-4 (D)	10/08/1997	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	10.28	4.89	5.39	2.0
MW-4	06/10/1998	NA	NA	NA	NA	NA	NA	NA	NA	10.28	4.39	5.89	NA
MW-4	12/30/1998	<50.0	94.1	<0.500	<0.500	<0.500	0.580	7.33	NA	10.28	5.58	4.70	1.7/1.6
MW-4	06/25/1999	NA	NA	NA	NA	NA	NA	NA	NA	10.28	4.17	6.11	NA
MW-4	12/28/1999	<50.0	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	NA	10.28	4.54	5.74	1.4/1.5
MW-4	05/31/2000	NA	NA	NA	NA	NA	NA	NA	NA	10.28	3.85	6.43	NA
MW-4	10/17/2000	<50.0	274a	<0.500	<0.500	<0.500	<0.500	9.40	NA	10.28	3.50	6.78	3.8/4.0
MW-4	05/01/2001	NA	NA	NA	NA	NA	NA	NA	NA	10.28	4.10	6.18	NA
MW-4	11/05/2001	<50	<50	<0.50	<0.50	<0.50	<0.50	NA	8.4	10.28	5.21	5.07	1.3/1.5
MW-4	05/01/2002	<50	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	10.28	4.28	6.00	2.6/1.1

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**285 Hegenberger Road**  
**Oakland, CA**

Well ID	Date	TPPH (ug/L)	TEPH (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-4	07/16/2002	NA	NA	NA	NA	NA	NA	NA	NA	10.28	3.87	6.41	NA
------	------------	----	----	----	----	----	----	----	----	-------	------	------	----

MW-5	05/23/1989	26,000	7,000	1,500	280	ND	8,100	NA	NA	8.18	5.47	2.71	NA
MW-5	08/03/1989	12,000	8,700	860	94	ND	2,600	NA	NA	8.18	5.94	2.24	NA
MW-5	12/15/1989	1,000	710	22	35	18	44	NA	NA	8.18	6.75	1.43	NA
MW-5	02/07/1990	ND	620	0.8	ND	ND	ND	NA	NA	8.18	6.03	2.15	NA
MW-5	04/18/1990	19,000	5,000	4,500	850	97	8,000	NA	NA	8.18	5.80	2.38	NA
MW-5	07/23/1990	23,000	2,700	3,600	400	160	6,500	NA	NA	8.18	6.00	2.18	NA
MW-5	09/23/1990	5,400	550	1,400	26	13	1,300	NA	NA	8.18	7.18	1.00	NA
MW-5	01/03/1991	860	560	280	2.8	0.8	45	NA	NA	8.18	7.17	1.01	NA
MW-5	04/10/1991	12,000	1,800	710	130	500	2,400	NA	NA	8.18	5.25	2.93	NA
MW-5	07/12/1991	24,000	1,700	2,200	280	430	5,700	NA	NA	8.18	5.70	2.48	NA
MW-5	10/08/1991	2,800	1,400	860	13	ND	580	NA	NA	8.18	6.50	1.68	NA
MW-5	02/06/1992	1,000	1,200	300	ND	14	62	NA	NA	8.18	6.35	1.83	NA
MW-5	05/04/1992	10,000	4,100 a	1,500	350	710	2,300	NA	NA	8.18	4.87	3.31	NA
MW-5	07/28/1992	12,000	3,800 a	2,200	63	1,400	3,500	NA	NA	8.18	5.73	2.45	NA
MW-5	10/27/1992	7,500	480 a	1,100	59	230	900	NA	NA	8.18	6.98	1.20	NA
MW-5	01/14/1993	7,700	1,100 a	420	49	570	840	NA	NA	8.18	4.70	3.48	NA
MW-5	04/23/1993	110,000	1,600 a	2,900	2,500	3,400	12,000	NA	NA	8.18	4.19	3.99	NA
MW-5	07/20/1993	18a	1,200 a	1,400	84	1,500	3,200	NA	NA	10.87	5.10	5.77	NA
MW-5	10/18/1993	14,000	5,800 a	2,000	100	2,300	5,100	NA	NA	10.87	5.79	5.08	NA
MW-5	01/06/1994	81,000	1,100 a	11,000	9,300	3,600	12,000	NA	NA	10.87	5.56	5.31	NA
MW-5	04/12/1994	17,000	4,100	2,900	380	430	1,300	NA	NA	10.87	4.90	5.97	NA
MW-5	07/25/1994	5,900	5,400 a	1,500	42	34	170	NA	NA	10.87	5.38	5.49	NA
MW-5	10/25/1994	2,300	1,900 a	35	3	ND	8	NA	NA	10.87	6.16	4.71	NA
MW-5	01/09/1995	8,300	3,700 a	1,500	95	330	1,900	NA	NA	10.87	4.60	6.27	NA

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**285 Hegenberger Road**  
**Oakland, CA**

Well ID	Date	TPPH (ug/L)	TEPH (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-5	04/11/1995	7,300	9,800	1,200	230	600	550	NA	NA	10.87	3.74	7.13	NA
MW-5	07/18/1995	17,000	5,100	2,300	730	770	2,500	NA	NA	10.87	4.97	5.90	NA
MW-5	10/18/1995	Well abandoned		NA	NA	NA	NA	NA	NA	10.87	5.67	5.20	NA
MW-6	05/23/1989	22,000	7,000	16	6.5	7	3,400	NA	NA	8.21	5.47	2.74	NA
MW-6	08/03/1989	28,000	8,800	1,200	130	2,100	2,800	NA	NA	8.21	5.91	2.30	NA
MW-6	12/15/1989	16,000	5,500	370	92	200	180	NA	NA	8.21	5.98	2.23	NA
MW-6	02/07/1990	22,000	2,600	520	85	630	770	NA	NA	8.21	5.47	2.74	NA
MW-6	04/18/1990	21,000	5,700	900	77	2,700	2,700	NA	NA	8.21	5.80	2.41	NA
MW-6	07/23/1990	24,000	3,000	1,000	94	3,400	2,700	NA	NA	8.21	5.85	2.36	NA
MW-6	09/27/1990	22,000	ND	700	93	2,500	2,400	NA	NA	8.21	6.42	1.79	NA
MW-6	01/03/1991	25,000	960	1,000	88	2,600	3,700	NA	NA	8.21	6.73	1.48	NA
MW-6	04/10/1991	18,000	920	560	190	480	830	NA	NA	8.21	5.24	2.97	NA
MW-6	07/12/1991	9,500	1,900	670	51	1,100	920	NA	NA	8.21	5.78	2.43	NA
MW-6	10/08/1991	11,000	5,100	1,000	43	ND	ND	NA	NA	8.21	6.36	1.85	NA
MW-6	02/06/1992	7,200	1,500 a	560	8	720	160	NA	NA	8.21	6.15	2.06	NA
MW-6	05/04/1992	7,900	2,900 a	610	ND	1,500	240	NA	NA	8.21	5.07	3.14	NA
MW-6	07/28/1992	17,000	3,200 a	1,200	ND	3,000	610	NA	NA	8.21	5.85	2.36	NA
MW-6	10/27/1992	15,000	1,300 a	1,300	130	1,700	490	NA	NA	8.21	6.69	1.52	NA
MW-6	01/14/1993	4,900	1,600 a	80	31	330	37	NA	NA	8.21	4.52	3.69	NA
MW-6	04/23/1993	4,800	1,800 a	120	ND	780	73	NA	NA	8.21	4.32	3.89	NA
MW-6	07/20/1993	19a	910 a	570	18	1,100	130	NA	NA	11.04	5.39	5.65	NA
MW-6	10/18/1993	24,000	2,500 a	770	440	1,600	830	NA	NA	11.04	6.67	4.37	NA
MW-6	01/06/1994	20 a	2,300 a	450	30	530	52	NA	NA	11.04	5.66	5.38	NA
MW-6	04/12/1994	3,600	1,600	150	ND	340	21	NA	NA	11.04	4.91	6.13	NA
MW-6	07/25/1994	1,600	2,200 a	160	ND	ND	10	NA	NA	11.04	5.55	5.49	NA

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**285 Hegenberger Road**  
**Oakland, CA**

Well ID	Date	TPPH (ug/L)	TEPH (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-6 (D)	07/25/1994	1,000	2,400 a	160	ND	ND	18	NA	NA	11.04	5.55	5.49	NA
MW-6	10/25/1994	9,800	3,000 a	390	22	300	57	NA	NA	11.04	6.24	4.80	NA
MW-6	01/09/1995	2,200	800 a	74	12	400	39	NA	NA	11.04	4.58	6.46	NA
MW-6	04/11/1995	5,000	7,700	330	15	760	85	NA	NA	11.04	4.04	7.00	NA
MW-6	07/18/1995	4,200	1,700	320	11	490	22	NA	NA	11.04	5.01	6.03	NA
MW-6	10/18/1995	NA	NA	NA	NA	NA	NA	NA	NA	11.04	5.86	5.18	NA
MW-6	01/09/1996	5,600	790	59	<5	180	12	14,000	NA	11.04	4.75	6.29	NA
MW-6	04/02/1996	1,500	NA	12	<5	170	9	1,900	NA	11.04	3.82	7.22	NA
MW-6	10/03/1996	2,600	1,800	110	<25	<25	<25	11,000	NA	11.04	5.27	5.77	2.2
MW-6	04/03/1997	<2,500	650	30	<25	32	<25	10,000	NA	11.04	4.42	6.62	2.0
MW-6	10/08/1997	1,900	1,100	31	<5.0	6.1	<5.0	2,600	NA	11.04	4.70	6.34	1.0
MW-6	06/10/1998	<1,000	1,500	17	12	14	88	14,000	NA	11.04	4.36	6.68	0.4/0.4
MW-6	12/30/1998	260	528	<2.50	<2.50	<2.50	<2.50	909	NA	11.04	4.98	6.06	2.1/1.6
MW-6 *	06/25/1999	<2,500	NA	<25.0	<25.0	<25.0	<25.0	8,850	7,630	11.04	4.81	6.23	1.4/3.6
MW-6	12/28/1999	526	416	7.60	<1.00	<1.00	<1.00	1,510	NA	11.04	5.17	5.87	1.8/2.0
MW-6	05/31/2000	2,870	998	45.7	4.70	8.61	<2.50	3,780	NA	11.04	4.58	6.46	0.92/2.30
MW-6	10/17/2000	2,370	944a	49.8	5.36	<5.00	<5.00	746	NA	11.04	4.80	6.24	2.5/2.1
MW-6	05/01/2001	3,000	706	2.72	<2.50	4.46	<2.50	473	NA	11.04	4.75	6.29	2.2/1.6
MW-6	05/29/2001	NA	NA	NA	NA	NA	NA	NA	NA	11.04	4.86	6.18	2.0/1.3
MW-6	11/05/2001	NA	NA	NA	NA	NA	NA	NA	NA	11.04	5.73	5.31	0.6
MW-6	11/07/2001	1,700	180	1.3	1.2	1.3	1.1	NA	430	11.04	5.75	5.29	2.4/1.8
MW-6	05/01/2002	1,400	<300	2.0	0.61	4.3	0.68	NA	220	11.04	4.47	6.57	2.5/2.0
<b>MW-6</b>	<b>07/16/2002</b>	<b>3,500</b>	<b>&lt;600</b>	<b>31</b>	<b>1.5</b>	<b>5.7</b>	<b>1.2</b>	<b>NA</b>	<b>220</b>	<b>11.04</b>	<b>5.05</b>	<b>5.99</b>	<b>0.6/0.6</b>
MW-7	05/23/1989	47,000	11,000	3,500	5,000	1,500	7,800	NA	NA	7.44	5.48	1.96	NA
MW-7	08/03/1989	68,000	22,000	6,200	6,600	3,600	8,800	NA	NA	7.44	4.22	3.22	NA



**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**285 Hegenberger Road**  
**Oakland, CA**

Well ID	Date	TPPH (ug/L)	TEPH (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-7	12/15/1989	100,000	12,000	4,500	5,300	1,300	5,300	NA	NA	7.44	4.58	2.86	NA
MW-7	02/07/1990	96,000	8,100	15,000	15,000	2,500	14,000	NA	NA	7.44	5.34	2.10	NA
MW-7	04/18/1990	94,000	10,000	25,000	13,000	3,300	13,000	NA	NA	7.44	4.92	2.52	NA
MW-7	07/23/1990	84,000	12,000	3,800	26,000	13,000	3,000	NA	NA	7.44	4.99	2.45	NA
MW-7	09/27/1990	43,000	ND	25,000	6,100	2,400	9,000	NA	NA	7.44	6.16	1.28	NA
MW-7	01/03/1991	78,000	3,100	26,000	16,000	3,000	14,000	NA	NA	7.44	4.96	2.48	NA
MW-7	04/10/1991	140,000	1,800	26,000	16,000	2,200	14,000	NA	NA	7.44	4.13	3.31	NA
MW-7	07/12/1991	79,000	1,100	7,700	7,200	2,300	10,000	NA	NA	7.44	4.98	2.46	NA
MW-7	10/08/1991	55,000	390 a	29,000	7,500	1,800	9,300	NA	NA	7.44	5.48	1.96	NA
MW-7	02/06/1992	63,000	9,600 a	16,000	8,700	1,600	7,400	NA	NA	7.44	5.05	2.39	NA
MW-7	05/04/1992	67,000	9,800 a	22,000	13,000	1,800	9,400	NA	NA	7.44	4.43	3.01	NA
MW-7	07/28/1992	85,000	13,000 a	26,000	17,000	2,900	15,000	NA	NA	7.44	4.88	2.56	NA
MW-7	10/27/1992	63,000	1,900 a	21,000	11,000	3,000	11,000	NA	NA	7.44	5.39	2.05	NA
MW-7	01/14/1993	120,000	2,300 a	28,000	21,000	1,600	15,000	NA	NA	7.44	4.26	3.18	NA
MW-7	04/23/1993	60,000	12,000 a	17,000	3,700	2,200	11,000	NA	NA	7.44	4.04	3.40	NA
MW-7 (D)	04/23/1993	50,000	14,000 a	17,000	4,200	2,200	11,000	NA	NA	7.44	4.04	3.40	NA
MW-7	07/20/1993	47,000	13,000	23,000	9,900	2,200	12,000	NA	NA	10.28	4.36	5.92	NA
MW-7	10/18/1993	44,000	10,000 a	22,000	3,800	2,600	10,000	NA	NA	10.28	5.14	5.14	NA
MW-7	01/06/1994	65,000	5,200 a	16,000	4,900	1,900	8,500	NA	NA	10.28	4.83	5.45	NA
MW-7	04/12/1994	68,000	3,400	12,000	2,000	580	6,400	NA	NA	10.28	4.24	6.04	NA
MW-7	07/25/1994	63,000	4,200 a	16,000	5,800	300	8,300	NA	NA	10.28	4.58	5.70	NA
MW-7	10/25/1994	46,000	3,800 a	16,000	3,700	1,200	7,300	NA	NA	10.28	5.07	5.21	NA
MW-7	01/09/1995	62,000	3,300 a	24,000	8,500	1,100	9,400	NA	NA	10.28	3.38	6.90	NA
MW-7 (D)	01/11/1995	57,000	3,200 a	9,500	7,900	620	8,000	NA	NA	10.28	3.38	6.90	NA
MW-7	04/11/1995	53,000	7,000	13,000	4,200	1,500	7,700	NA	NA	10.28	3.52	6.76	NA
MW-7 (D)	04/12/1995	55,000	7,600	11,000	3,700	1,300	6,400	NA	NA	10.28	3.52	6.76	NA

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**285 Hegenberger Road**  
**Oakland, CA**

Well ID	Date	TPPH (ug/L)	TEPH (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-7	07/18/1995	95,000	2,700	24,000	8,000	2,100	12,000	NA	NA	10.28	4.70	5.58	NA
MW-7	10/18/1995	Well abandoned		NA	NA	NA	NA	NA	NA	10.28	5.25	5.03	NA

MW-8	05/23/1989	ND	100	ND	ND	ND	ND	NA	NA	7.79	6.62	1.17	NA
MW-8	08/03/1989	ND	75	ND	ND	ND	ND	NA	NA	7.79	6.62	1.17	NA
MW-8	12/15/1989	ND	ND	ND	ND	ND	ND	NA	NA	7.79	6.71	1.08	NA
MW-8	03/08/1990	ND	ND	ND	ND	ND	ND	NA	NA	7.79	4.95	2.84	NA
MW-8	04/18/1990	NA	NA	NA	NA	NA	NA	NA	NA	7.79	6.40	1.89	NA
MW-8	07/23/1990	ND	ND	ND	ND	ND	ND	NA	NA	7.79	6.62	1.17	NA
MW-8	09/27/1990	ND	1,100	ND	ND	ND	ND	NA	NA	7.79	6.98	0.81	NA
MW-8	01/03/1991	ND	ND	1.3	ND	ND	ND	NA	NA	7.79	7.03	0.76	NA
MW-8	04/10/1991	50	ND	0.7	1.1	0.8	1	NA	NA	7.79	4.40	3.39	NA
MW-8	07/12/1991	ND	ND	ND	ND	ND	ND	NA	NA	7.79	6.80	0.99	NA
MW-8	10/08/1991	ND	ND	1.4	ND	ND	ND	NA	NA	7.79	7.56	0.23	NA
MW-8	02/06/1992	ND	60 a	ND	0.7	ND	ND	NA	NA	7.79	6.94	0.85	NA
MW-8	05/04/1992	ND	210 a	ND	ND	ND	ND	NA	NA	7.79	5.86	1.93	NA
MW-8	07/28/1992	51	ND	ND	ND	1	0.6	NA	NA	7.79	6.94	0.85	NA
MW-8	10/27/1992	ND	ND	ND	6.6	ND	ND	NA	NA	7.79	7.83	-0.04	NA
MW-8	01/14/1993	ND	64a	ND	ND	ND	ND	NA	NA	7.79	3.60	4.19	NA
MW-8 (D)	01/14/1993	ND	NA	ND	ND	ND	ND	NA	NA	7.79	3.60	4.19	NA
MW-8	04/23/1993	ND	ND	ND	ND	ND	ND	NA	NA	7.79	4.12	3.67	NA
MW-8	07/20/1993	ND	ND	0.7	0.7	0.8	4.1	NA	NA	10.61	6.38	4.23	NA
MW-8	10/18/1993	ND	ND	ND	800	ND	ND	NA	NA	10.61	7.47	3.14	NA
MW-8	01/06/1994	ND	ND	ND	ND	ND	ND	NA	NA	10.61	7.20	3.41	NA
MW-8	04/12/1994	ND	ND	ND	ND	ND	ND	NA	NA	10.61	6.16	4.45	NA
MW-8	07/25/1994	ND	ND	ND	ND	ND	ND	NA	NA	10.61	6.94	3.67	NA

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**285 Hegenberger Road**  
**Oakland, CA**

Well ID	Date	TPPH (ug/L)	TEPH (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-8	10/25/1994	ND	ND	ND	1	ND	ND	NA	NA	10.61	7.43	3.18	NA
MW-8	01/09/1995	ND	70 a	ND	ND	ND	ND	NA	NA	10.61	3.98	6.63	NA
MW-8	04/11/1995	ND	78	0.63	1.3	ND	0.75	NA	NA	10.61	4.12	6.49	NA
MW-8	07/18/1995	ND	130	ND	ND	ND	ND	NA	NA	10.61	5.21	5.40	NA
MW-8	10/18/1995	NA	NA	NA	NA	NA	NA	NA	NA	10.61	5.58	5.03	NA
MW-8	01/09/1996	<50	ND	<0.5	<0.5	<0.5	<0.5	ND	NA	10.61	5.09	5.52	NA
MW-8	04/02/1996	<50	NA	<0.5	<0.5	<0.5	<0.5	<2.5	NA	10.61	3.42	7.19	NA
MW-8	10/03/1996	<50	<69	<0.5	<0.5	<0.5	<0.5	<2.5	NA	10.61	4.30	6.31	NA
MW-8	04/03/1997	<50	62	<0.50	<0.50	<0.50	0.91	<2.5	NA	10.61	4.58	6.03	2.6
MW-8	10/08/1997	<50	57	<0.50	<0.50	<0.50	<0.50	<2.5	NA	10.61	3.00	7.61	3.6
MW-8	06/10/1998	NA	NA	NA	NA	NA	NA	NA	NA	10.61	2.88	7.73	NA
MW-8	12/30/1998	<50.0	<50.0	<0.500	<0.500	<0.500	<0.500	<2.00	NA	10.61	5.38	5.23	0.8/0.9
MW-8	06/25/1999	NA	NA	NA	NA	NA	NA	NA	NA	10.61	4.53	6.08	NA
MW-8	12/28/1999	<50.0	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	NA	10.61	4.93	5.68	1.0/0.9
MW-8	05/31/2000	NA	NA	NA	NA	NA	NA	NA	NA	10.61	4.02	6.59	NA
MW-8	10/17/2000	<50.0	143a	<0.500	<0.500	<0.500	<0.500	<2.50	NA	10.61	3.10	7.51	4.0/4.1
MW-8	05/01/2001	NA	NA	NA	NA	NA	NA	NA	NA	10.61	4.12	6.49	NA
MW-8	11/05/2001	<50	<50	<0.50	0.99	<0.50	<0.50	NA	<5.0	10.61	5.00	5.61	0.6/1.3
MW-8	05/01/2002	<50	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	10.61	3.25	7.36	0.6/3.6
<b>MW-8</b>	<b>07/16/2002</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>10.61</b>	<b>3.64</b>	<b>6.97</b>	<b>NA</b>

MW-9	08/03/1989	47,000	12,000	5,600	6,600	1,500	8,500	NA	NA	7.63	5.78	1.85	NA
MW-9	12/15/1989	88,000	9,200	4,300	5,400	140	5,600	NA	NA	7.63	5.24	2.39	NA
MW-9	02/07/1990	50,000	7,400	1,800	1,400	3,200	1,800	NA	NA	7.63	5.23	2.40	NA
MW-9	04/18/1990	50,000	7,500	14,000	11,000	730	10,000	NA	NA	7.63	5.34	2.29	NA
MW-9	07/23/1990	62,000	3,200	19,000	16,000	950	15,000	NA	NA	7.63	5.65	1.98	NA

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**285 Hegenberger Road**  
**Oakland, CA**

Well ID	Date	TPPH (ug/L)	TEPH (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-9	09/27/1990	30,000	2,700	16,000	6,500	980	11,000	NA	NA	7.63	5.96	1.67	NA
MW-9	01/03/1991	34,000	2,500	9,200	3,200	770	7,000	NA	NA	7.63	6.23	1.40	NA
MW-9	04/10/1991	66,000	2,200	17,000	13,000	1,400	14,000	NA	NA	7.63	4.65	2.98	NA
MW-9	07/12/1991	40,000	2,000	7,700	3,200	1,100	9,400	NA	NA	7.63	5.65	1.98	NA
MW-9	10/08/1991	20,000	4,700 a	11,000	640	240	6,000	NA	NA	7.63	6.08	1.55	NA
MW-9	02/06/1992	36,000	6,600 a	11,000	490	1,100	6,700	NA	NA	7.63	5.92	1.71	NA
MW-9	05/04/1992	31,000	5,800 a	11,000	1,700	1,200	8,700	NA	NA	7.63	4.80	2.83	NA
MW-9	07/28/1992	50,000	14,000	17,000	1,200	1,500	12,000	NA	NA	7.63	5.61	2.02	NA
MW-9	10/27/1992	43,000	880 a	15,000	680	1,700	8,100	NA	NA	7.63	6.24	1.39	NA
MW-9	01/14/1993	52,000	730 a	9,600	1,100	1,100	7,000	NA	NA	7.63	4.95	2.68	NA
MW-9	04/23/1993	45,000	8,000 a	11,000	1,400	1,500	10,000	NA	NA	7.63	4.54	3.09	NA
MW-9	07/20/1993	25,000	5,100	10,000	320	1,100	7,100	NA	NA	10.48	5.25	5.23	NA
MW-9	10/18/1993	32,000	4,900 a	14,000	530	2,000	10,000	NA	NA	10.48	6.00	4.48	NA
MW-9	01/06/1994	41,000	7,700 a	15,000	810	1,400	9,000	NA	NA	10.48	5.62	4.86	NA
MW-9 (D)	01/06/1994	43,000	8,300 a	15,000	920	1,300	8,000	NA	NA	10.48	5.62	4.86	NA
MW-9	04/12/1994	39,000	2,000	8,300	ND	ND	4,000	NA	NA	10.48	4.31	6.17	NA
MW-9	07/25/1994	22,000	3,600 a	7,500	150	ND	4,100	NA	NA	10.48	5.43	5.05	NA
MW-9	10/25/1994	31,000	3,200 a	13,000	240	1,000	8,500	NA	NA	10.48	6.00	4.48	NA
MW-9 (D)	10/26/1994	31,000	3,500 a	13,000	220	1,100	8,300	NA	NA	10.48	6.00	4.48	NA
MW-9	01/09/1995	4,800	2,300 a	1,200	510	42	1,400	NA	NA	10.48	4.26	6.22	NA
MW-9	04/11/1995	20,000	3,400	5,100	460	400	3,400	NA	NA	10.48	4.08	6.40	NA
MW-9	07/18/1995	43,000	2,900	12,000	1,800	960	9,100	NA	NA	10.48	5.07	5.41	NA
MW-9	10/18/1995	NA	NA	NA	NA	NA	NA	NA	NA	10.48	5.82	4.66	NA
MW-9	01/09/1996	64,000	2,800	12,000	5,400	1,800	10,000	2100	NA	10.48	4.36	6.12	NA
MW-9	04/02/1996	39,000	NA	10,000	100	520	4,100	<500	NA	10.48	3.86	6.62	NA
MW-9	10/03/1996	46,000	3,100	12,000	180	1,400	6,700	2,300	NA	10.48	4.90	5.58	1.4

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**285 Hegenberger Road**  
**Oakland, CA**

Well ID	Date	TPPH (ug/L)	TEPH (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-9	04/03/1997	36,000	2,300	9,700	140	580	3,900	<500	NA	10.48	3.98	6.50	1.8
MW-9	10/08/1997	34,000	3,500	6,900	<100	830	4,500	<125	NA	10.48	4.17	6.31	0.8
MW-9	06/10/1998	20,000	2,500	9,900	250	3,100	170	460	NA	10.48	3.84	6.64	0.3/0.4
MW-9	12/30/1998	30,100	1,900	8,500	166	603	3,340	<100	NA	10.48	4.72	5.76	1.1/1.2
MW-9 *	06/25/1999	26,300	NA	8,090	73.5	409	2,730	<100	NA	10.48	4.47	6.01	1.2/2.4
MW-9	12/28/1999	4,130	839	1,260	57.9	103	213	1,470	NA	10.48	4.82	5.66	1.0/1.1
MW-9	05/31/2000	8,210	1,300	9,290	62.3	141	908	565	NA	10.48	3.87	6.61	2.8/c
MW-9	10/17/2000	19,000	1,510 a	5,420	54.5	479	2,680	<250	NA	10.48	3.87	6.61	3.0/3.5
MW-9	05/01/2001	24,300	976	11,200	52.9	159	1,610	<250	NA	10.48	4.44	6.04	1.6/1.0
MW-9	05/29/2001	NA	NA	NA	NA	NA	NA	NA	NA	10.48	3.99	6.49	1.9/1.5
MW-9	11/05/2001	NA	NA	NA	NA	NA	NA	NA	NA	10.48	5.41	5.07	0.7
MW-9	11/07/2001	25,000	<1,000	7,300	85	630	4,100	NA	<250	10.48	5.60	4.88	1.4/1.1
MW-9	05/01/2002	27,000	<700	11,000	79	260	1,300	NA	<500	10.48	3.38	7.10	2.9/1.1
<b>MW-9</b>	<b>07/16/2002</b>	<b>29,000</b>	<b>&lt;700</b>	<b>12,000</b>	<b>&lt;50</b>	<b>74</b>	<b>810</b>	<b>NA</b>	<b>&lt;500</b>	<b>10.48</b>	<b>4.04</b>	<b>6.44</b>	<b>0.7/0.4</b>

MW-10	12/15/1989	ND	3,100	1,500	ND	ND	ND	NA	NA	7.45	6.33	0.82	NA
MW-10	03/08/1990	25,000	1,800	17,000	330	2,100	1,400	NA	NA	7.45	5.41	2.00	NA
MW-10	04/18/1990	23,000	3,600	15,000	1,200	190	3,300	NA	NA	7.45	5.60	1.85	NA
MW-10	07/23/1990	18,000	1,900	12,000	380	ND	1,400	NA	NA	7.45	5.81	1.64	NA
MW-10	09/27/1990	9,500	430	13,000	100	1,800	230	NA	NA	7.45	6.64	0.81	NA
MW-10	01/03/1991	4,300	630	3,700	10	ND	110	NA	NA	7.45	6.96	0.49	NA
MW-10	04/10/1991	45,000	1,400	16,000	4,600	3,000	6,900	NA	NA	7.45	4.70	2.75	NA
MW-10	07/12/1991	ND	ND	ND	ND	ND	ND	NA	NA	7.45	5.90	1.55	NA
MW-10	10/08/1991	3,800	1,500 a	13,000	82	9	500	NA	NA	7.45	6.68	0.77	NA
MW-10	02/06/1992	22,000	1,600 a	12,000	ND	600	170	NA	NA	7.45	7.04	0.41	NA
MW-10	05/04/1992	39,000	8,000 a	14,000	5,000	1,800	5,000	NA	NA	7.45	4.69	2.76	NA

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**285 Hegenberger Road**  
**Oakland, CA**

Well ID	Date	TPPH (ug/L)	TEPH (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-10	07/28/1992	38,000	8,700 a	17,000	2,800	1,500	4,000	NA	NA	7.45	6.00	1.45	NA
MW-10	10/27/1992b	NA	NA	NA	NA	NA	NA	NA	NA	7.45	NA	NA	NA
MW-10	01/14/1993	26,000	950 a	10,000	ND	ND	160	NA	NA	7.45	6.07	1.38	NA
MW-10	04/23/1993	80,000	1,900 a	21,000	13,000	3,400	12,000	NA	NA	7.45	4.14	3.31	NA
MW-10	07/20/1993	31,000	4,800	14,000	4,200	1,700	5,500	NA	NA	10.61	5.62	4.99	NA
MW-10	10/18/1993	13,000	1,200 a	8,600	220	ND	450	NA	NA	10.61	6.43	4.18	NA
MW-10	01/06/1994	16,000	670 a	9,700	<125	<125	210	NA	NA	10.61	6.74	3.87	NA
MW-10	04/12/1994	16,000	860	5,600	ND	ND	ND	NA	NA	10.61	5.98	4.63	NA
MW-10	07/25/1994	2,300	2,100 a	1,400	26	25	51	NA	NA	10.61	6.31	4.30	NA
MW-10	10/25/1994	1,400	1,000 a	290	5	2	38	NA	NA	10.61	6.64	3.97	NA
MW-10	01/09/1995	16,000	2,300 a	7,500	1,400	230	1,500	NA	NA	10.61	5.70	4.91	NA
MW-10	04/11/1995	54,000	5,000	13,000	4,500	1,500	4,500	NA	NA	10.61	5.82	4.79	NA
MW-10	07/18/1995	72,000	2,600	20,000	7,200	2,800	9,000	NA	NA	10.61	6.79	3.82	NA
MW-10	10/18/1995	NA	NA	NA	NA	NA	NA	NA	NA	10.61	5.31	5.30	NA
MW-10	01/09/1996	32,000	2,100	8,000	1,600	880	3,200	12,000	NA	10.61	5.92	4.69	NA
MW-10	04/02/1996	68,000	NA	9,100	2,300	1,100	3,700	3,300	NA	10.61	5.43	5.18	NA
MW-10	10/03/1996	33,000	2,900	11,000	1,300	830	2,400	7,300	NA	10.61	6.07	4.54	1.7
MW-10 (D)	10/03/1996	40,000	3,300	12,000	1,700	1,100	3,100	6,500	NA	10.61	6.07	4.54	1.7
MW-10	04/03/1997	36,000	3,400	12,000	2,300	1,400	4,500	2,300	NA	10.61	3.45	7.16	1.8
MW-10 (D)	04/03/1997	52,000	3,000	12,000	2,300	1,400	4,500	2,100	NA	10.61	3.45	7.16	1.8
MW-10	10/08/1997	20,000	3,100	7,500	420	470	1,300	1,500	NA	10.61	3.72	6.89	1.2
MW-10	06/10/1998	48,000	2,500	14,000	2,600	1,500	4,800	1,800	NA	10.61	4.00	6.61	0.7/0.5
MW-10	12/30/1998	17,800	2,820	6,000	136	344	639	1,250	NA	10.61	5.26	5.35	1.0/0.7
MW-10 *	06/25/1999	17,600	NA	6,150	212	287	687	1,740	NA	10.61	4.49	6.12	0.9/2.5
MW-10	12/28/1999	10,800	1,400	3,370	155	321	626	3,740	NA	10.61	4.87	5.74	1.2/1.4
MW-10	05/31/2000	3,020	2,270	1,080	34.3	118	251	775	NA	10.61	3.48	7.13	2.8/3.9

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**285 Hegenberger Road**  
**Oakland, CA**

Well ID	Date	TPPH (ug/L)	TEPH (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-10	10/17/2000	15,500	1,750 a	7,450	54.7	387	308	3,840	4,300	10.61	4.25	6.36	2.3/3.0
MW-10	05/01/2001	27,900	2,260	9,920	1,050	1,020	2,370	2,180	NA	10.61	5.40	5.21	2.0/1.1
MW-10	05/29/2001	NA	NA	NA	NA	NA	NA	NA	NA	10.61	3.74	6.87	3.70/1.8
MW-10	11/05/2001	NA	NA	NA	NA	NA	NA	NA	NA	10.61	6.08	4.53	0.6
MW-10	11/07/2001	14,000	360	5,300	260	430	810	NA	1,700	10.61	5.45	5.16	1.8/1.0
MW-10	05/01/2002	79,000	<1,500	16,000	4,400	3,300	8,800	NA	890	10.61	4.62	5.99	4.0/0.5
<b>MW-10</b>	<b>07/16/2002</b>	<b>21,000</b>	<b>&lt;1,000</b>	<b>6,500</b>	<b>350</b>	<b>460</b>	<b>1,000</b>	<b>NA</b>	<b>1,200</b>	<b>10.61</b>	<b>5.80</b>	<b>4.81</b>	<b>0.5/1.5</b>

MW-11	07/20/1993	50	ND	2.5	1.9	3.9	18	NA	NA	10.56	8.08	2.48	NA
MW-11	10/18/1993	ND	65	ND	ND	ND	ND	NA	NA	10.56	8.24	2.32	NA
MW-11	01/06/1994	ND	ND	ND	ND	ND	ND	NA	NA	10.56	8.47	2.09	NA
MW-11	04/12/1994	ND	ND	1.1	0.87	ND	1.5	NA	NA	10.56	8.44	2.12	NA
MW-11	07/25/1994	ND	ND	ND	ND	ND	ND	NA	NA	10.56	8.20	2.36	NA
MW-11	10/25/1994	ND	100	ND	ND	ND	ND	NA	NA	10.56	8.67	1.89	NA
MW-11	01/09/1995	ND	ND	ND	ND	ND	ND	NA	NA	10.56	7.63	2.93	NA
MW-11	04/11/1995	ND	140	ND	0.7	ND	0.5	NA	NA	10.56	8.06	2.50	NA
MW-11	07/18/1995	ND	50	ND	ND	ND	ND	NA	NA	10.56	9.31	1.25	NA
MW-11	10/18/1995	NA	NA	NA	NA	NA	NA	NA	NA	10.56	8.34	2.22	NA
MW-11	01/09/1996	<50	ND	<0.5	<0.5	<0.5	<0.5	ND	NA	10.56	8.22	2.34	NA
MW-11	04/02/1996	<50	NA	<0.5	<0.5	<0.5	<0.5	<2.5	NA	10.56	7.97	2.59	NA
MW-11	10/03/1996	<50	<50	<0.5	<0.5	<0.5	<0.5	<2.5	NA	10.56	8.37	2.19	3.6
MW-11	04/03/1997	<50	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	10.56	8.31	2.25	2.2
MW-11	10/08/1997	<50	54	<0.50	<0.50	<0.50	<0.50	<2.5	NA	10.56	8.56	2.00	1.2
MW-11	06/10/1998	NA	NA	NA	NA	NA	NA	NA	NA	10.56	7.85	2.71	NA
MW-11	12/30/1998	<50.0	66.2	<0.500	<0.500	<0.500	<0.500	<2.00	NA	10.56	8.51	2.05	0.7/0.6
MW-11	06/25/1999	NA	NA	NA	NA	NA	NA	NA	NA	10.56	8.01	2.55	NA

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**285 Hegenberger Road**  
**Oakland, CA**

Well ID	Date	TPPH (ug/L)	TEPH (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-11	12/28/1999	<50.0	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	NA	10.56	8.39	2.17	0.8/1.0
MW-11	05/31/2000	NA	NA	NA	NA	NA	NA	NA	NA	10.56	7.38	3.18	NA
MW-11	10/17/2000	<50.0	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	NA	10.56	8.35	2.21	4.1/4.0
MW-11	05/01/2001	NA	NA	NA	NA	NA	NA	NA	NA	10.56	8.15	2.41	NA
MW-11	11/05/2001	Unable to locate		NA	NA	NA	NA	NA	NA	10.56	NA	NA	NA
MW-11	05/01/2002	Unable to locate		NA	NA	NA	NA	NA	NA	10.56	NA	NA	NA
MW-11	05/08/2002	<50	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	10.56	7.82	2.74	1.0/1.1
<b>MW-11</b>	<b>07/16/2002</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>10.56</b>	<b>7.64</b>	<b>2.92</b>	<b>NA</b>
MW-12	07/20/1993	ND	1,500	2.8	1.9	3.2	ND	NA	NA	9.56	6.76	2.80	NA
MW-12	10/18/1993	ND	ND	ND	ND	ND	ND	NA	NA	9.56	7.12	2.44	NA
MW-12	01/06/1994	ND	ND	ND	ND	ND	ND	NA	NA	9.56	7.15	2.41	NA
MW-12	04/12/1994	ND	ND	0.61	ND	ND	1.1	NA	NA	9.56	6.68	2.88	NA
MW-12	07/25/1994	ND	ND	ND	ND	ND	ND	NA	NA	9.56	6.83	2.73	NA
MW-12	10/25/1994	ND	ND	ND	ND	ND	ND	NA	NA	9.56	7.34	2.22	NA
MW-12	01/09/1995	ND	80 a	ND	ND	ND	ND	NA	NA	9.56	5.02	4.54	NA
MW-12	04/11/1995	ND	200	ND	ND	ND	ND	NA	NA	9.56	7.38	2.18	NA
MW-12	07/18/1995	ND	90	ND	ND	ND	ND	NA	NA	9.56	8.50	1.06	NA
MW-12	10/18/1995	NA	NA	NA	NA	NA	NA	NA	NA	9.56	6.63	2.93	NA
MW-12	01/09/1996	<50	ND	<0.5	<0.5	<0.5	<0.5	ND	NA	9.56	6.32	3.24	NA
MW-12	04/02/1996	<50	NA	<0.5	<0.5	<0.5	<0.5	<2.5	NA	9.56	5.60	3.96	NA
MW-12	10/03/1996	<50	72	<0.5	<0.5	<0.5	<0.5	<2.5	NA	9.56	3.30	6.26	2.5
MW-12	04/03/1997	<50	74	<0.50	<0.50	<0.50	<0.50	<2.5	NA	9.56	6.13	3.43	2.2
MW-12	10/08/1997	<50	73	<0.50	<0.50	<0.50	<0.50	<2.5	NA	9.56	6.49	3.07	3.0
MW-12	06/10/1998	NA	NA	NA	NA	NA	NA	NA	NA	9.56	5.85	3.71	NA
MW-12	12/30/1998	<50.0	<50.0	<0.500	<0.500	<0.500	<0.500	<2.00	NA	9.56	8.42	1.14	1.3/0.9



**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**285 Hegenberger Road**  
**Oakland, CA**

Well ID	Date	TPPH (ug/L)	TEPH (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-12	06/25/1999	NA	NA	NA	NA	NA	NA	NA	NA	9.56	7.89	1.67	NA
MW-12	12/28/1999	<50.0	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	NA	9.56	8.26	1.30	1.0/1.2
MW-12	05/31/2000	NA	NA	NA	NA	NA	NA	NA	NA	9.56	7.21	2.35	NA
MW-12	10/17/2000	<50.0	82.9 a	<0.500	<0.500	<0.500	<0.500	<2.50	NA	9.56	6.80	2.76	5.1/3.0
MW-12	05/01/2001	NA	NA	NA	NA	NA	NA	NA	NA	9.56	5.95	3.61	NA
MW-12	11/05/2001	Unable to locate		NA	NA	NA	NA	NA	NA	9.56	NA	NA	NA
MW-12	05/01/2002	Unable to locate		NA	NA	NA	NA	NA	NA	9.56	NA	NA	NA
MW-12	05/08/2002	<50	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	9.56	4.75	4.81	1.2/0.9
MW-12	07/16/2002	NA	NA	NA	NA	NA	NA	NA	NA	9.56	4.88	4.68	NA
MW-13	07/20/1993	ND	1,500	ND	ND	ND	ND	NA	NA	10.10	8.32	1.78	NA
MW-13 (D)	07/21/1993	ND	1,000	ND	ND	ND	ND	NA	NA	10.10	8.32	1.78	NA
MW-13	10/18/1993	ND	ND	ND	ND	ND	ND	NA	NA	10.10	8.66	1.44	NA
MW-13	01/06/1994	ND	ND	ND	ND	ND	ND	NA	NA	10.10	8.70	1.40	NA
MW-13	04/12/1994	ND	100	1.7	1.2	0.59	2.4	NA	NA	10.10	8.20	1.90	NA
MW-13	07/25/1994	ND	ND	ND	ND	ND	ND	NA	NA	10.10	8.39	1.71	NA
MW-13	10/25/1994	ND	ND	ND	ND	ND	ND	NA	NA	10.10	8.70	1.40	NA
MW-13	01/09/1995	ND	ND	ND	ND	ND	ND	NA	NA	10.10	7.35	2.75	NA
MW-13	04/11/1995	ND	320	ND	ND	ND	ND	NA	NA	10.10	5.50	4.60	NA
MW-13	07/18/1995	ND	ND	ND	ND	ND	ND	NA	NA	10.10	6.63	3.47	NA
MW-13	10/18/1995	NA	NA	NA	NA	NA	NA	NA	NA	10.10	8.12	1.98	NA
MW-13	01/09/1996	<50	ND	<0.5	<0.5	<0.5	<0.5	ND	NA	10.10	7.74	2.36	NA
MW-13	04/02/1996	<50	NA	<0.5	<0.5	<0.5	<0.5	<2.5	NA	10.10	6.30	3.80	NA
MW-13	10/03/1996	<50	<50	<0.5	<0.5	<0.5	<0.5	<2.5	NA	10.10	6.50	3.60	3.0
MW-13	04/03/1997	<50	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	10.10	7.58	2.52	2.0
MW-13	10/08/1997	<50	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	10.10	8.17	1.93	1.0

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**285 Hegenberger Road**  
**Oakland, CA**

Well ID	Date	TPPH (ug/L)	TEPH (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-13	06/10/1998	NA	NA	NA	NA	NA	NA	NA	NA	10.10	7.54	2.56	NA
MW-13	12/30/1998	<50.0	69.0	<0.500	<0.500	<0.500	<0.500	<2.00	NA	10.10	6.91	3.19	1.1/0.8
MW-13	06/25/1999	NA	NA	NA	NA	NA	NA	NA	NA	10.10	6.31	3.79	NA
MW-13	12/28/1999	<50.0	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	NA	10.10	6.65	3.45	0.8/1.0
MW-13	05/31/2000	NA	NA	NA	NA	NA	NA	NA	NA	10.10	5.94	4.16	NA
MW-13	10/17/2000	<50.0	121 a	<0.500	<0.500	<0.500	<0.500	<2.50	NA	10.10	8.38	1.72	2.5/2.8
MW-13	05/01/2001	NA	NA	NA	NA	NA	NA	NA	NA	10.10	7.65	2.45	NA
MW-13	11/05/2001	Unable to locate		NA	NA	NA	NA	NA	NA	10.10	NA	NA	NA
MW-13	05/01/2002	<50	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	10.10	6.80	3.30	3.5/3.5
<b>MW-13</b>	<b>07/16/2002</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>10.10</b>	<b>6.84</b>	<b>3.26</b>	<b>NA</b>

VEW-5	09/26/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.91	NA	NA
VEW-5	10/17/2000	74,800	4,180 a	9,090	14,600	2,630	14,500	632	NA	NA	2.65	NA	3.0/3.1
VEW-5	05/01/2001	94,800	5,350	11,300	12,900	4,520	22,200	419	NA	NA	2.86	NA	0.4/0.6
VEW-5	11/05/2001	82,000	<1,600	14,000	7,400	2,900	15,000	NA	740	NA	4.11	NA	0.6/c
VEW-5	05/01/2002	16,000	<3,000	610	320	7.9	3,600	NA	310	NA	2.63	NA	4.7/2.9
<b>VEW-5</b>	<b>07/16/2002</b>	<b>45,000</b>	<b>&lt;3,000</b>	<b>7,900</b>	<b>2,700</b>	<b>1,000</b>	<b>4,600</b>	<b>NA</b>	<b>920</b>	<b>NA</b>	<b>2.96</b>	<b>NA</b>	<b>0.4/0.3</b>

VEW-6	09/26/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.94	NA	NA
VEW-6	10/17/2000	63,800	4,820 a	6,940	2,750	2,760	18,700	3,700	NA	NA	3.13	NA	2.0/2.1
VEW-6	05/01/2001	57,000	3,460	6,280	697	2,640	15,800	6,240	NA	NA	3.25	NA	0.8/1.2
VEW-6	05/29/2001	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.17	NA	3.0/1.7
VEW-6	11/05/2001	39,000	<1,300	6,800	380	1,900	7,900	NA	8,800	NA	4.35	NA	0.8/1.3
VEW-6	05/01/2002	24,000	<4,500	1,800	270	470	3,700	NA	3,100	NA	2.73	NA	0.2/0.4
<b>VEW-6</b>	<b>07/16/2002</b>	<b>19,000</b>	<b>&lt;2,700</b>	<b>1,900</b>	<b>250</b>	<b>140</b>	<b>3,500</b>	<b>NA</b>	<b>2,900</b>	<b>NA</b>	<b>3.59</b>	<b>NA</b>	<b>0.3/0.2</b>

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**285 Hegenberger Road**  
**Oakland, CA**

Well ID	Date	TPPH (ug/L)	TEPH (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)
VEW-7	09/26/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.59	NA	NA
VEW-7	10/17/2000	74,300	3,990 a	11,900	12,500	1,640	15,500	36,600	NA	NA	3.72	NA	3.5/4.1
VEW-7	05/01/2001	46,000	1,930	7,250	5,300	1,960	9,820	15,600	16,900	NA	3.40	NA	0.8/0.8
VEW-7	05/29/2001	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.54	NA	2.5/1.4
VEW-7	11/05/2001	38,000	<900	9,300	610	1,700	6,000	NA	21,000	NA	4.85	NA	3.52/c
VEW-7	05/01/2002	590	<600	6.3	7.2	<2.5	81	NA	1,100	NA	2.62	NA	2.9/3.3
VEW-7	07/16/2002	95	54	1.5	<0.50	1.5	6.1	NA	100	NA	3.84	NA	3.6/2.5
AS-1	09/26/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.67	NA	NA
AS-1	10/17/2000	13,400	3,280 a	1,600	82.8	<20.0	2,600	498	NA	NA	5.50	NA	2.0/2.5
AS-1	05/01/2001	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AS-1	11/05/2001	5,300	<900	85	26	46	120	NA	190	NA	6.11	NA	0.4/0.5
AS-1	05/01/2002	Insufficient water		NA	NA	NA	NA	NA	NA	NA	14.73	NA	NA
AS-1	07/16/2002	210	<150	8.2	<0.50	7.9	3.5	NA	25	NA	5.59	NA	4.6/2.8
AS-2	09/26/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.38	NA	NA
AS-2	10/17/2000	4,380	1,380 a	167	<10.0	225	680	315	NA	NA	5.50	NA	3.1/3.0
AS-2	05/01/2001	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AS-2	11/05/2001	2,200	<300	100	0.99	91	21	NA	220	NA	5.99	NA	0.8/0.6
AS-2	05/01/2002	880	<300	19	<0.50	31	22	NA	57	NA	5.25	NA	1.0/0.8
AS-2	07/16/2002	910	<200	40	4.1	39	43	NA	78	NA	5.53	NA	0.7/0.9
AS-3	09/26/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.75	NA	NA
AS-3	10/17/2000	3,520	942 a	588	521	41.2	566	1,740	NA	NA	6.18	NA	3.1/3.0
AS-3	05/01/2001	Well inaccessible		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
AS-3	11/05/2001	1,600	110	41	4.9	8.2	30	NA	240	NA	6.41	NA	1.1/3.2

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**285 Hegenberger Road**  
**Oakland, CA**

Well ID	Date	TPPH (ug/L)	TEPH (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)
AS-3	05/01/2002	Insufficient water		NA	NA	NA	NA	NA	NA	NA	14.90	NA	NA
AS-3	07/16/2002	Well dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Abbreviations:

TPPH = Total petroleum hydrocarbons as gasoline by EPA Method 8260B; prior to November 5, 2001, analyzed by EPA Method 8015.

TEPH = Total petroleum hydrocarbons as diesel by modified EPA Method 8015.

BTEX = Benzene, toluene, ethylbenzene, xylenes by EPA Method 8260B; prior to November 5, 2001, analyzed by EPA Method 8020.

MTBE = Methyl-tertiary-butyl ether

TOC = Top of Casing Elevation

TOB = Top of Wellbox

GW = Groundwater

DO = Dissolved Oxygen

ug/L = Parts per billion

ppm = Parts per million

MSL = Mean sea level

ft = Feet

<n = Below detection limit

D = Duplicate sample

n/n = Dissolved oxygen reading; pre-purge/post-purge.

NA = Not applicable

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**285 Hegenberger Road**  
**Oakland, CA**

Well ID	Date	TPPH (ug/L)	TEPH (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)
---------	------	----------------	----------------	-------------	-------------	-------------	-------------	------------------------	------------------------	--------------	----------------------------	--------------------------	------------------------

Notes:

a = Chromatogram pattern indicates an unidentified hydrocarbon.

b = Sample was analyzed outside of EPA recommended holding time.

c = Post-purge DO reading not taken.

d = Lab did not record detected result.

e = Change in casing elevation due to wellhead maintenance.

\* All diesel and motor oil samples for this event were lost in laboratory fire.



Report Number : 27528

Date : 07/27/2002

Leon Gearhart  
Blaine Tech Services  
1680 Rogers Avenue  
San Jose, CA 95112-1105

Subject : 11 Water Samples  
Project Name : 285 Hegenberger Road, Oakland  
Project Number : 020716-DA-1  
P.O. Number : 98995749

Dear Mr. Gearhart,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

A handwritten signature in black ink that reads "Joel Kiff". The signature is written in a cursive style with a large, stylized "J" and "K".

Joel Kiff



Report Number : 27528

Date : 07/27/2002

Subject : 11 Water Samples  
Project Name : 285 Hegenberger Road, Oakland  
Project Number : 020716-DA-1  
P.O. Number : 98995749

## Case Narrative

The Method Reporting Limits for samples MW-3 are increased due to the presence of Tert-Butanol. The Method Reporting Limit for TPH as Diesel is increased due to interference from Gasoline-Range Hydrocarbons for samples MW-1, MW-6, MW-9, MW-10, VEW-5, VEW-6, AS-1 and AS-2. Hydrocarbons reported as TPH as Diesel do not exhibit a typical Diesel chromatographic pattern for sample MW-3. Matrix Spike/Matrix Spike Duplicate Results associated with sample MW-6 for the analyte Methyl-t-butyl ether were affected by the analyte concentrations already present in the un-spiked sample.

Approved By:  \_\_\_\_\_  
Joel Kiff



Report Number : 27528

Date : 07/27/2002

Project Name : 285 Hegenberger Road, Oakland

Project Number : 020716-DA-1

Sample : MW-1

Matrix : Water

Lab Number : 27528-01

Sample Date :07/16/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	1200	5.0	ug/L	EPA 8260B	07/22/2002
Toluene	22	5.0	ug/L	EPA 8260B	07/22/2002
Ethylbenzene	37	5.0	ug/L	EPA 8260B	07/22/2002
Total Xylenes	24	5.0	ug/L	EPA 8260B	07/22/2002
Methyl-t-butyl ether (MTBE)	1900	50	ug/L	EPA 8260B	07/22/2002
TPH as Gasoline	7400	500	ug/L	EPA 8260B	07/22/2002
Toluene - d8 (Surr)	102		% Recovery	EPA 8260B	07/22/2002
4-Bromofluorobenzene (Surr)	92.4		% Recovery	EPA 8260B	07/22/2002
TPH as Diesel	< 1500	1500	ug/L	M EPA 8015	07/19/2002
TPH as Motor Oil	< 5000	5000	ug/L	M EPA 8015	07/19/2002

Approved By:  Joel Kiff





Report Number : 27528

Date : 07/27/2002

Project Name : 285 Hegenberger Road, Oakland

Project Number : 020716-DA-1

Sample : MW-2

Matrix : Water

Lab Number : 27528-02

Sample Date :07/16/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 5.0	5.0	ug/L	EPA 8260B	07/22/2002
Toluene	< 5.0	5.0	ug/L	EPA 8260B	07/22/2002
Ethylbenzene	< 5.0	5.0	ug/L	EPA 8260B	07/22/2002
Total Xylenes	< 5.0	5.0	ug/L	EPA 8260B	07/22/2002
Methyl-t-butyl ether (MTBE)	2100	50	ug/L	EPA 8260B	07/22/2002
TPH as Gasoline	< 500	500	ug/L	EPA 8260B	07/22/2002
Toluene - d8 (Surr)	104		% Recovery	EPA 8260B	07/22/2002
4-Bromofluorobenzene (Surr)	90.4		% Recovery	EPA 8260B	07/22/2002
TPH as Diesel	250	50	ug/L	M EPA 8015	07/19/2002
TPH as Motor Oil	< 5000	5000	ug/L	M EPA 8015	07/19/2002

Approved By: Joel Kiff



Report Number : 27528

Date : 07/27/2002

Project Name : 285 Hegenberger Road, Oakland

Project Number : 020716-DA-1

Sample : MW-3

Matrix : Water

Lab Number : 27528-03

Sample Date :07/16/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	12	2.0	ug/L	EPA 8260B	07/24/2002
Toluene	2.0	2.0	ug/L	EPA 8260B	07/24/2002
Ethylbenzene	< 2.0	2.0	ug/L	EPA 8260B	07/24/2002
Total Xylenes	3.5	2.0	ug/L	EPA 8260B	07/24/2002
Methyl-t-butyl ether (MTBE)	530	20	ug/L	EPA 8260B	07/24/2002
TPH as Gasoline	410	200	ug/L	EPA 8260B	07/24/2002
Toluene - d8 (Surr)	104		% Recovery	EPA 8260B	07/24/2002
4-Bromofluorobenzene (Surr)	88.8		% Recovery	EPA 8260B	07/24/2002
TPH as Diesel	340	50	ug/L	M EPA 8015	07/19/2002
TPH as Motor Oil	< 5000	5000	ug/L	M EPA 8015	07/19/2002

Approved By:  Joel Kiff



Report Number : 27528

Date : 07/27/2002

Project Name : 285 Hegenberger Road, Oakland

Project Number : 020716-DA-1

Sample : MW-6

Matrix : Water

Lab Number : 27528-04

Sample Date :07/16/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	31	0.50	ug/L	EPA 8260B	07/19/2002
Toluene	1.5	0.50	ug/L	EPA 8260B	07/19/2002
Ethylbenzene	5.7	0.50	ug/L	EPA 8260B	07/19/2002
Total Xylenes	1.2	0.50	ug/L	EPA 8260B	07/19/2002
Methyl-t-butyl ether (MTBE)	220	5.0	ug/L	EPA 8260B	07/19/2002
TPH as Gasoline	3500	50	ug/L	EPA 8260B	07/19/2002
Toluene - d8 (Surr)	95.0		% Recovery	EPA 8260B	07/19/2002
4-Bromofluorobenzene (Surr)	99.8		% Recovery	EPA 8260B	07/19/2002
TPH as Diesel	< 600	600	ug/L	M EPA 8015	07/21/2002
TPH as Motor Oil	< 5000	5000	ug/L	M EPA 8015	07/21/2002

Approved By:  Joel Kiff



Report Number : 27528

Date : 07/27/2002

Project Name : 285 Hegenberger Road, Oakland

Project Number : 020716-DA-1

Sample : MW-9

Matrix : Water

Lab Number : 27528-05

Sample Date :07/16/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	12000	50	ug/L	EPA 8260B	07/22/2002
Toluene	< 50	50	ug/L	EPA 8260B	07/22/2002
Ethylbenzene	74	50	ug/L	EPA 8260B	07/22/2002
Total Xylenes	810	50	ug/L	EPA 8260B	07/22/2002
Methyl-t-butyl ether (MTBE)	< 500	500	ug/L	EPA 8260B	07/22/2002
TPH as Gasoline	29000	5000	ug/L	EPA 8260B	07/22/2002
Toluene - d8 (Surr)	95.6		% Recovery	EPA 8260B	07/22/2002
4-Bromofluorobenzene (Surr)	110		% Recovery	EPA 8260B	07/22/2002
TPH as Diesel	< 700	700	ug/L	M EPA 8015	07/19/2002
TPH as Motor Oil	< 5000	5000	ug/L	M EPA 8015	07/19/2002

Approved By:  Joel Kiff



Report Number : 27528

Date : 07/27/2002

Project Name : 285 Hegenberger Road, Oakland

Project Number : 020716-DA-1

Sample : MW-10

Matrix : Water

Lab Number : 27528-06

Sample Date :07/16/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	6500	25	ug/L	EPA 8260B	07/21/2002
Toluene	350	25	ug/L	EPA 8260B	07/21/2002
Ethylbenzene	460	25	ug/L	EPA 8260B	07/21/2002
Total Xylenes	1000	25	ug/L	EPA 8260B	07/21/2002
Methyl-t-butyl ether (MTBE)	1200	250	ug/L	EPA 8260B	07/21/2002
TPH as Gasoline	21000	2500	ug/L	EPA 8260B	07/21/2002
Toluene - d8 (Surr)	95.1		% Recovery	EPA 8260B	07/21/2002
4-Bromofluorobenzene (Surr)	111		% Recovery	EPA 8260B	07/21/2002
TPH as Diesel	< 1000	1000	ug/L	M EPA 8015	07/19/2002
TPH as Motor Oil	< 5000	5000	ug/L	M EPA 8015	07/19/2002

Approved By:  Joel Kiff



Report Number : 27528

Date : 07/27/2002

Project Name : 285 Hegenberger Road, Oakland

Project Number : 020716-DA-1


Sample : VEW-5

Matrix : Water

Lab Number : 27528-07

Sample Date :07/16/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	7900	25	ug/L	EPA 8260B	07/23/2002
Toluene	2700	10	ug/L	EPA 8260B	07/23/2002
Ethylbenzene	1000	10	ug/L	EPA 8260B	07/23/2002
Total Xylenes	4600	10	ug/L	EPA 8260B	07/23/2002
Methyl-t-butyl ether (MTBE)	920	100	ug/L	EPA 8260B	07/23/2002
TPH as Gasoline	45000	1000	ug/L	EPA 8260B	07/23/2002
Toluene - d8 (Surr)	103		% Recovery	EPA 8260B	07/23/2002
4-Bromofluorobenzene (Surr)	93.0		% Recovery	EPA 8260B	07/23/2002
TPH as Diesel	< 3000	3000	ug/L	M EPA 8015	07/19/2002
TPH as Motor Oil	< 5000	5000	ug/L	M EPA 8015	07/19/2002

Approved By:  Joel Kiff

Report Number : 27528


Date : 07/27/2002

**QC Report : Matrix Spike/ Matrix Spike Duplicate**

Project Name : **285 Hegenberger Road,**

Project Number : **020716-DA-1**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Benzene	27645-01	<0.50	40.0	40.0	42.0	40.3	ug/L	EPA 8260B	7/25/02	105	101	4.16	70-130	25
Toluene	27645-01	<0.50	40.0	40.0	35.0	33.6	ug/L	EPA 8260B	7/25/02	87.6	83.9	4.26	70-130	25
Tert-Butanol	27645-01	<5.0	200	200	199	199	ug/L	EPA 8260B	7/25/02	99.5	99.6	0.136	70-130	25
Methyl-t-Butyl Ether	27645-01	6.8	40.0	40.0	57.6	57.5	ug/L	EPA 8260B	7/25/02	127	127	0.0986	70-130	25

Approved By:  Joel Kiff

KIFF ANALYTICAL, LLC

720 Olive Drive, Suite D Davis, CA 95616 530-297-4800

Report Number : 27528

Date : 07/27/2002

**QC Report : Laboratory Control Sample (LCS)**

Project Name : **285 Hegenberger Road,**  
 Project Number : **020716-DA-1**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	40.0	ug/L	EPA 8260B	7/21/02	100	70-130
Toluene	40.0	ug/L	EPA 8260B	7/21/02	104	70-130
Tert-Butanol	200	ug/L	EPA 8260B	7/21/02	96.1	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	7/21/02	102	70-130
Benzene	40.0	ug/L	EPA 8260B	7/19/02	102	70-130
Toluene	40.0	ug/L	EPA 8260B	7/19/02	100	70-130
Tert-Butanol	200	ug/L	EPA 8260B	7/19/02	97.3	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	7/19/02	94.6	70-130
Benzene	40.0	ug/L	EPA 8260B	7/19/02	104	70-130
Toluene	40.0	ug/L	EPA 8260B	7/19/02	90.1	70-130
Tert-Butanol	200	ug/L	EPA 8260B	7/19/02	96.5	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	7/19/02	110	70-130
Benzene	40.0	ug/L	EPA 8260B	7/19/02	104	70-130
Toluene	40.0	ug/L	EPA 8260B	7/19/02	87.2	70-130
Tert-Butanol	200	ug/L	EPA 8260B	7/19/02	95.3	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	7/19/02	107	70-130
Benzene	40.0	ug/L	EPA 8260B	7/25/02	107	70-130

KIFF ANALYTICAL, LLC

Approved By:  Joel Kiff

720 Olive Drive, Suite D Davis, CA 95616 530-297-4800



Report Number : 27528

Date : 07/27/2002

**QC Report : Laboratory Control Sample (LCS)**

Project Name : **285 Hegenberger Road,**

Project Number : **020716-DA-1**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Toluene	40.0	ug/L	EPA 8260B	7/25/02	82.4	70-130
Tert-Butanol	200	ug/L	EPA 8260B	7/25/02	96.2	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	7/25/02	112	70-130

KIFF ANALYTICAL, LLC

720 Olive Drive, Suite D Davis, CA 95616 530-297-4800

Approved By:  \_\_\_\_\_  
Joel Kiff

LAB: K144

# SHELL Chain Of Custody Record

Lab Identification (if necessary):

Address:

City, State, Zip:

Shell Project Manager to be invoiced:

SCIENCE & ENGINEERING

TECHNICAL SERVICES

CRMT HOUSTON

**Karen Petryna**

27528

INCIDENT NUMBER (S&E ONLY)

9 8 9 9 5 7 4 9

SAP or CRMT NUMBER (TS/CRMT)

DATE: 7/16/02

PAGE: 1 of 2

SAMPLING COMPANY: <b>Blaine Tech Services</b>		LOG CODE: <b>BTSS</b>	SITE ADDRESS (Street and City): <b>285 Hegenberger Road, Oakland</b>		GLOBAL ID NO.: <b>T0600101245</b>
ADDRESS: <b>1680 Rogers Avenue, San Jose, CA 95112</b>		EDF DELIVERABLE TO (Responsible Party or Designer): <b>Anni Kreaml</b>		PHONE NO.: <b>510-420-3335</b>	CONSULTANT PROJECT NO.: <b>BTS # 020716-DA-1</b>
PROJECT CONTACT (Hardcopy or PDF Report to): <b>Leon Gearhart</b>		SAMPLER NAME(S) (Print): <b>David Allbut</b>		E-MAIL: <b>akreaml@cambria-env.com</b>	LAB USE ONLY
TELEPHONE: <b>408-573-0555</b>	FAX: <b>408-573-7771</b>	E-MAIL: <b>lgearhart@blainetech.com</b>			

TURNAROUND TIME (BUSINESS DAYS):  
 10 DAYS  5 DAYS  72 HOURS  48 HOURS  24 HOURS  LESS THAN 24 HOURS

LA - RWQCB REPORT FORMAT  UST AGENCY: \_\_\_\_\_

GC/MS MTBE CONFIRMATION: HIGHEST \_\_\_\_\_ HIGHEST per BORING \_\_\_\_\_ ALL \_\_\_\_\_

SPECIAL INSTRUCTIONS OR NOTES: CHECK BOX IF EDD IS NOT NEEDED

### REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING		MATRIX	NO. OF CONT.	TPH - Gas, Purgeable	BTEX	MTBE (8021B - 5ppb RL)	MTBE (8260B - 0.5ppb RL)	Oxygenates (5) by (8260B)	Ethanol (8260B)	Methanol	1,2-DCA (8260B)	EDB (8260B)	TPH - Diesel, Extractable (8015m)	TPH-Motor Oil	Nitrate	Sulfate	Ferrous Iron	MTBE (8260B) Confirmation, See Note	FIELD NOTES: Container/Preservative or PID Readings or Laboratory Notes	
		DATE	TIME																			
	Mw-1	7/16/02	1410	W	6	X	X	X							X	X						-01
	Mw-2		1015			X	X	X							X	X						-02
	Mw-3		1053			X	X	X							X	X						-03
	Mw-6		1205			X	X	X							X	X						-04
	Mw-9		1350			X	X	X							X	X						-05
	Mw-10		1436			X	X	X							X	X						-06
	VEW-5		1508			X	X	X							X	X						CRMP VOA AS (Non-Preservative)
	VEW-6		1600			X	X	X							X	X						CRMP VOA AS "
	VEW-7		1240			X	X	X							X	X						-09
	AG-1		1320			X	X	X							X	X						-10

Relinquished by: (Signature) <b>David Allbut</b>	Received by: (Signature) _____	Date: _____	Time: _____
Relinquished by: (Signature) _____	Received by: (Signature) _____	Date: _____	Time: _____
Relinquished by: (Signature) _____	Received by: (Signature) <b>John Kiff</b>	Date: <b>07/17/02</b>	Time: <b>1335</b>

DISTRIBUTION: White with final report, Green to File, Yellow and Pink to Client.

O&G Graphic (714) 898-9702

LAB: KIFC

# SHELL Chain Of Custody Record

Lab Identification (if necessary):

Address:

City, State, Zip:

Shell Project Manager to be invoiced:

SCIENCE & ENGINEERING  
 TECHNICAL SERVICES  
 CRMT-HOUSTON

Karen Petryna

27528

INCIDENT NUMBER (SEE ONLY)

9 8 9 9 5 7 4 9

SAP or CRMT NUMBER (TS/CRMT)

DATE: 7/16/02

PAGE: 2 of 2

SAMPLING COMPANY: <b>Blaine Tech Services</b>		LOG CODE: <b>BTSS</b>	SITE ADDRESS (Street and City): <b>285 Hegenberger Road, Oakland</b>		GLOBAL ID NO.: <b>T0600101245</b>
ADDRESS: <b>1680 Rogers Avenue, San Jose, CA 95112</b>		EDF DELIVERABLE TO (Responsible Party or Designee): <b>Anni Kreml</b>		PHONE NO.: <b>510-420-3335</b>	E-MAIL: <b>akreml@cambria-env.com</b>
PROJECT CONTACT (Hardcopy or PDF Report to): <b>Leon Gearhart</b>		SAMPLER NAME(S) (Print): <b>David Allbut</b>		CONSULTANT PROJECT NO.: <b>BTS # 020716-DA-0</b>	
TELEPHONE: <b>408-573-0555</b>	FAX: <b>408-573-7771</b>	E-MAIL: <b>lgearhart@blainetech.com</b>	LAB USE ONLY		

TURNAROUND TIME (BUSINESS DAYS):  
 10 DAYS  5 DAYS  72 HOURS  48 HOURS  24 HOURS  LESS THAN 24 HOURS

LA - RWQCB REPORT FORMAT  UST AGENCY: \_\_\_\_\_

GC/MS MTBE CONFIRMATION: HIGHEST \_\_\_\_\_ HIGHEST per BORING \_\_\_\_\_ ALL \_\_\_\_\_

SPECIAL INSTRUCTIONS OR NOTES: CHECK BOX IF EDD IS NOT NEEDED

### REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING		MATRIX	NO. OF CONT.	TPH - Gas, Purgeable	BTEX	MTBE (8021B - 5ppb RL)	MTBE (8260B - 0.5ppb RL)	Oxygenates (5) by (8260B)	Ethanol (8260B)	Methanol	1,2-DCA (8260B)	EDB (8260B)	TPH - Diesel, Extractable (8015m)	TPH-Motor Oil	Nitrate	Sulfate	Ferrous Iron	MTBE (8260B) Confirmation, See Note	TEMPERATURE ON RECEIPT C°	FIELD NOTES: Container/Preservative or PID Readings or Laboratory Notes	
		DATE	TIME																				
	<u>AS-2</u>	<u>7/16/02</u>	<u>1130</u>	<u>W</u>	<u>6</u>	X	X	X							X	X						<u>-11</u>	

Relinquished by: (Signature) <u>David Allbut</u>	Received by: (Signature) _____	Date: _____	Time: _____
Relinquished by: (Signature) _____	Received by: (Signature) _____	Date: _____	Time: _____
Relinquished by: (Signature) _____	Received by: (Signature) <u>PL Day / KIFC</u>	Date: <u>07/17/02</u>	Time: <u>1355</u>

DISTRIBUTION: White with final report, Green to File, Yellow and Pink to Client.

10/16/00 Revision

C&Q Graphic (714) 958-9702

## California Laboratory Services

**E**nvironmental  
**L**aboratory  
**I**nformation  
**S**ystem

*Automated Facsimile Reporting Module  
Call (916)638-7301 to have this report  
re-transmitted.*

This facsimile was using recycled materials

---

**To: Joel Kiff**

**Date: 7-24-102**

**From: California Laboratory Services**

**Page 001 of 004**

---

**This report is also available via E-MAIL.**

**You may request individual or all reports also be sent to you via e-mail directly to your desk. You may also request that you would like both fax and e-mail reports sent to you.**

**For more information, send an e-mail request to [reports@californialab.com](mailto:reports@californialab.com)**

**The Following facsimile report is of a preliminary nature and as such, does not include data that will be forthcoming in the complete report package. Interpretation of the report results should be made only after the complete report package has been delivered.**

---

Analysis Report: Anion Analysis by EPA Method 300.0

Client: Joel Kiff  
720 Olive Drive,  
Suite D  
Davis, CA 95616

Project No.: 020716-DA-1  
Contact: Joel Kiff  
Phone: (530)297-4800

Project: 285 Hegenberger Road, Oakland

Lab Contact: James Liang  
Lab ID No.: T9626  
Job No.: 849626  
COC Log No.: NO NUMBER  
Batch No.: IC2020718  
Instrument ID: IC002  
Analyst ID: POMGC  
Matrix: WA

Date Sampled: 07/16/2002  
Date Received: 07/17/2002  
Date Extracted: N/A  
Date Analyzed: 07/18/2002  
Date Reported: 07/24/2002

ANALYTICAL RESULTS

Lab / Client ID Analyte	CAS No.	Results (mg/L)	Rep. Limit (mg/L)	Dilution (factor)
1A / MW-1 Nitrate (as NO3)	N/A	ND	0.50	1.0
Sulfate	14808798	2.0	0.50	1.0
2A / MW-2 Nitrate (as NO3)	N/A	0.60	0.50	1.0
Sulfate	14808798	62	2.5	5.0
3A / MW-3 Nitrate (as NO3)	N/A	ND	0.50	1.0
Sulfate	14808798	2.5	0.50	1.0
4A / MW-6 Nitrate (as NO3)	N/A	ND	0.50	1.0
Sulfate	14808798	1.7	0.50	1.0
5A / MW-9 Nitrate (as NO3)	N/A	ND	0.50	1.0
Sulfate	14808798	1.4	0.50	1.0
6A / MW-10 Nitrate (as NO3)	N/A	ND	0.50	1.0
Sulfate	14808798	0.82	0.50	1.0
7A / UEW-5 Nitrate (as NO3)	N/A	ND	0.50	1.0
Sulfate	14808798	3.0	0.50	1.0
8A / UEW-6 Nitrate (as NO3)	N/A	ND	0.50	1.0
Sulfate	14808798	41	0.50	1.0

Analysis Report: Anion Analysis by EPA Method 300.0

Client: Joel Kiff  
720 Olive Drive,  
Suite D  
Davis, CA 95616

Project No.: 020716-DA-1  
Contact: Joel Kiff  
Phone: (530)297-4800

Project: 285 Hegenberger Road, Oakland

Lab Contact: James Liang  
Lab ID No.: T9626  
Job No.: 849626  
COC Log No.: NO NUMBER  
Batch No.: IC2020718  
Instrument ID: IC002  
Analyst ID: PONGC  
Matrix: WA

Date Sampled: 07/16/2002  
Date Received: 07/17/2002  
Date Extracted: N/A  
Date Analyzed: 07/18/2002  
Date Reported: 07/24/2002

ANALYTICAL RESULTS

Lab / Client ID Analyte	CAS No.	Results (mg/L)	Rep. Limit (mg/L)	Dilution (factor)
9A / VEW-7				
Nitrate (as NO3)	N/A	25	2.5	5.0
Sulfate	14808798	240	5.0	10
10A / AS-1				
Nitrate (as NO3)	N/A	ND	0.50	1.0
Sulfate	14808798	1800	50	100
11A / AS-2				
Nitrate (as NO3)	N/A	ND	2.5	5.0
Sulfate	14808798	5300	250	500

ND = Not detected at or above indicated Reporting Limit

**Analysis Report: Ferrous Iron, SM 3500 Fe D**

**Client: Joel Kiff**  
720 Olive Drive,  
Suite D  
Davis, CA 95616

**Project No.:** 020716-DA-1  
**Contact:** Joel Kiff  
**Phone:** (530)297-4800

**Project:** 285 Hegenberger Road, Oakland

**Lab Contact:** James Liang  
**Lab ID No.:** T9626  
**Job No.:** 849626  
**CDC Log No.:** NO NUMBER  
**Batch No.:** W020717E  
**Instrument ID:** UU002  
**Analyst ID:** CINDYG  
**Matrix:** WA

**Date Sampled:** 07/16/2002  
**Date Received:** 07/17/2002  
**Date Extracted:** N/A  
**Date Analyzed:** 07/18/2002  
**Date Reported:** 07/24/2002

**ANALYTICAL RESULTS**

Lab / Client ID Analyte	CAS No.	Results (mg/L)	Rep. Limit (mg/L)	Dilution (factor)
1B / MW-1 Ferrous Iron	5352	ND	0.10	1.0
2B / MW-2 Ferrous Iron	5352	ND	0.10	1.0
3B / MW-3 Ferrous Iron	5352	ND	0.10	1.0
4B / MW-6 Ferrous Iron	5352	ND	0.10	1.0
5B / MW-9 Ferrous Iron	5352	0.12	0.10	1.0
6B / MW-10 Ferrous Iron	5352	ND	0.10	1.0
7B / VEW-5 Ferrous Iron	5352	0.61	0.10	1.0
8B / VEW-6 Ferrous Iron	5352	ND	0.10	1.0
9B / VEW-7 Ferrous Iron	5352	ND	0.10	1.0
10B / AS-1 Ferrous Iron	5352	ND	0.10	1.0
11B / AS-2 Ferrous Iron	5352	ND	0.10	1.0

ND = Not detected at or above indicated Reporting Limit

LAB: KITT

# SHELL Chain Of Custody Record

Lab Identification (if necessary):

Address:

City, State, Zip:

Shell Project Manager to be invoiced:

- SCIENCE & ENGINEERING
- TECHNICAL SERVICES
- CRMT HOUSTON

Karen Petryna

27512

INCIDENT NUMBER (S&E ONLY)

9 8 9 9 5 7 4 9

SAP or CRMT NUMBER (TS/CRMT)

DATE: 7/16/02

PAGE: 1 of 2

SAMPLING COMPANY: <b>Blaine Tech Services</b>		LOG CODE: <b>BTSS</b>	SITE ADDRESS (Street and City): <b>285 Hegenberger Road, Oakland</b>		GLOBAL ID NO.: <b>T0600101245</b>
ADDRESS: <b>1680 Rogers Avenue, San Jose, CA 95112</b>		EDF DELIVERABLE TO (Responsible Party or Designee): <b>Anni Kreml</b>		PHONE NO.: <b>510-420-3335</b>	E-MAIL: <b>akreml@cambria-env.com</b>
PROJECT CONTACT (Hierarchy or PDF Report to): <b>Leon Gearhart</b>		SAMPLER NAME(S) (Print): <b>David Allbut</b>		CONSULTANT PROJECT NO.: <b>BTS# 020716-07-1</b>	
TELEPHONE: <b>408-573-0555</b>	FAX: <b>408-573-7771</b>	E-MAIL: <b>lgearhart@blainetech.com</b>		LAB USE ONLY	

TURNAROUND TIME (BUSINESS DAYS):  
 10 DAYS  5 DAYS  72 HOURS  48 HOURS  24 HOURS  LESS THAN 24 HOURS

LA - RWQCB REPORT FORMAT  UST AGENCY:

GC/MS MTBE CONFIRMATION: HIGHEST \_\_\_\_\_ HIGHEST per BORING \_\_\_\_\_ ALL \_\_\_\_\_

SPECIAL INSTRUCTIONS OR NOTES: CHECK BOX IF EOD IS NOT NEEDED

Fax copy of the COC to  
Leon Gearhart  
@ (408) 573-7771 ASAP

**REQUESTED ANALYSIS**

TPH - Gas, Purgeable	BTEX	MTBE (8021B - 5ppb RL)	MTBE (8260B - 0.5ppb RL)	Oxygenates (S) by (8260B)	Ethanol (8280B)	Methanol	1,2-DCA (8280B)	EDB (8280B)	TPH - Diesel, Extractable (8015m)	TPH - Motor Oil	Nitrate	Sulfate	Ferrous Iron	MTBE (8260B) Confirmation; See Note
											X	X	X	
											X	X	X	
											X	X	X	
											X	X	X	
											X	X	X	
											X	X	X	
											X	X	X	
											X	X	X	
											X	X	X	
											X	X	X	

**FIELD NOTES:**  
Container/Preservative or PID Readings or Laboratory Notes

TEMPERATURE ON RECEIPT °C

LAB USE ONLY	Field Sample Identification		MATRIX	NO. OF CONT.
	DATE	TIME		
	Mw-1	7/16/02 1417	w	2
	Mw-2	1019		
	Mw-3	1053		
	Mw-6	1205		
	Mw-9	1350		
	Mw-10	1438		
	VEW-5	1508		
	VEW-6	1600		
	VEW-7	1240		
	AS-1	1320		

Relinquished by: (Signature) <i>David Allbut</i>	Received by: (Signature) _____	Date: _____	Time: _____
Relinquished by: (Signature) _____	Received by: (Signature) _____	Date: _____	Time: _____
Relinquished by: (Signature) _____	Received by: (Signature) <i>PK-LF</i>	Date: <u>07/16/02</u>	Time: <u>1625</u>

DISTRIBUTION: White with final report, Green to File, Yellow and Pink to Client

10/18/00 Revision

O&G Graphic (714) 958-9702



LAB: KIPP

# SHELL Chain Of Custody Record

Lab Identification (if necessary):

Address:

City, State, Zip:

Shell Project Manager to be invoiced:

- SCIENCE & ENGINEERING
- TECHNICAL SERVICES
- CRMT: HOUSTON

Karen Petryna

*27512*

INCIDENT NUMBER (S&E ONLY)

9 8 9 9 5 7 4 9

SAP or CRMT NUMBER (TS/CRMT)

DATE: 7/16/02  
PAGE: 2 of 2

SAMPLING COMPANY: <b>Blaine Tech Services</b>		LOG CODE: <b>BTSS</b>	SITE ADDRESS (Street and City): <b>285 Hegenberger Road, Oakland</b>		GLOBAL ID NO.: <b>T0600101245</b>
ADDRESS: <b>1680 Rogers Avenue, San Jose, CA 95112</b>			EDF DELIVERABLE TO (Responsible Party or Designee): <b>Annal Kremi</b>	PHONE NO.: <b>510-420-3335</b>	E-MAIL: <b>akremi@cambria-env.com</b>
PROJECT CONTACT (hardcopy or PDF Report to): <b>Leon Gearhart</b>			CONSULTANT PROJECT NO.: <b>BTS # 025 716-0A</b>		
TELEPHONE: <b>408-573-0555</b>	FAX: <b>408-573-7771</b>	E-MAIL: <b>lgearhart@blainetech.com</b>	SAMPLER NAME(S) (Print): <i>David Allbut</i>		LAB USE ONLY

TURNAROUND TIME (BUSINESS DAYS):  
 10 DAYS  5 DAYS  72 HOURS  48 HOURS  24 HOURS  LESS THAN 24 HOURS

LA - RWQCB REPORT FORMAT  UST AGENCY:

GC/MS MTBE CONFIRMATION: HIGHEST \_\_\_\_\_ HIGHEST per BORING \_\_\_\_\_ ALL \_\_\_\_\_

SPECIAL INSTRUCTIONS OR NOTES: CHECK BOX IF EDD IS NOT NEEDED   
*See page 1*

### REQUESTED ANALYSIS

TPH - Gas, Purgeable	BTEX	MTBE (8021B - 5ppb RL)	MTBE (8260B - 0.5ppb RL)	Oxygenates (5) by (8260B)	Ethanol (8260B)	Methanol	1,2-DCA (8260B)	EDB (8260B)	TPH - Diesel, Extractable (8015m)	TPH-Motor Oil	Nitrate	Sulfate	Ferrous Iron	MTBE (8260B) Confirmation, See Note
											X	X	X	
											X	X	X	

*48hr hold*

*24hr hold*

FIELD NOTES:  
Container/Preservative or PID Readings or Laboratory Notes

LAB USE ONLY	Field Sample Identification	SAMPLING		MATRIX	NO. OF CONT.	TEMPERATURE ON RECEIPT C°
		DATE	TIME			
	<i>AS-2</i>		<i>1130</i>	<i>w</i>	<i>2</i>	<i>-11</i>
	<i>AS-3</i>		<i>-</i>	<i>↓</i>	<i>↓</i>	

Relinquished by: (Signature) <i>David Allbut</i>	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature) <i>[Signature]</i>	Date: <i>07/16/02</i>	Time: <i>1625</i>

DISTRIBUTION: White with final report, Green to File, Yellow and Pink to Client.

10/16/00 Revision

Q&G Graphic (714) 696-9702

## WELL GAUGING DATA

Project # D20716-0A-1      Date 7/16/02      Client Shell

Site 285 Hegenberger, Oakland

Well ID	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	
MW-1	4					3.69	9.36	TOC	
MW-2	4					4.56	9.60	↓	
MW-3	4					5.44	10.11	TOB	
MW-4	4					3.87	10.17	TOC	G
MW-6	4					5.05	10.97		
MW-8	4					3.64	9.88		G
MW-9	4					4.04	10.76		
MW-10	4	0				5.80	10.03		
MW-11	4					7.64	13.86		G
MW-12	4					4.88	14.41		G
MW-13	4					6.84	14.65		G
VEW-5	4					2.96	9.54		
AS-1	1					5.59	14.78		
VEW-6	4					3.59	9.94		
AS-2	1					5.53	15.00		
VEW-7	4					3.84	9.76		
AS-3	1	Well Dry				—	14.91	↓	

## SHELL WELL MONITORING DATA SHEET

BTS #: 020716-DA-1	Site: 285 Heegenberger, Oakland
Sampler: David A.	Date: 7/16/02
Well I.D.: MW-1	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth: 9.36	Depth to Water: 3.69
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <u>YSI</u> HACH

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

$3.7 \text{ (Gals.)} \times 3 = 11.1 \text{ Gals.}$	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td><u>4"</u></td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius<sup>2</sup> * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	<u>4"</u>	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius <sup>2</sup> * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	<u>4"</u>	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius <sup>2</sup> * 0.163														

Time	Temp (°F)	pH	Cond. (mS or <u>µS</u> )	Turbidity (NTUs)	Gals. Removed	Observations
1408	73.1	6.8	1535	23	4	clear, odor
1409	73.7	6.8	1607	14	8	"
1413	73.8	6.9	1705	11	12	"

Did well dewater? Yes  No

Gallons actually evacuated: 12

Sampling Time: 1417      Sampling Date: 7/16/02

Sample I.D.: ~~HH~~ MW-1      Laboratory: KIT SPL Other

Analyzed for: TPH-G BTEX MTBE TPH-D      Other: Motor oil, Nitrate, Sulfate, Ferrous Iron

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

Analyzed for: TPH-G BTEX MTBE TPH-D      Other:

D.O. (if req'd):	Pre-purge:	0.9 <sup>mg/L</sup>	Post-purge:	0.8 <sup>mg/L</sup>
O.R.P. (if req'd):	Pre-purge:	-120 mV	Post-purge:	-134 mV

## SHELL WELL MONITORING DATA SHEET

BTS #: 020716-DA-1	Site: 285 Heegenberger, Oakland
Sampler: David A.	Date: 7/16/02
Well I.D.: MW-2	Well Diameter: 2 3 ④ 6 8
Total Well Depth: 9.60	Depth to Water: 4.56
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <u>YSI</u> HACH

Purge Method: <u>Bailer</u> Disposable Bailer Middleburg <u>Electric Submersible</u>	Waterra Peristaltic Extraction Pump Other _____	Sampling Method: <u>Bailer</u> Disposable Bailer Extraction Port Dedicated Tubing Other: _____
---	--	--

$3.3 \text{ (Gals.)} \times 3 = 9.9 \text{ Gals.}$ 1 Case Volume      Specified Volumes      Calculated Volume	<table border="1" style="width: 100%; border-collapse: collapse; font-size: small;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>④</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius<sup>2</sup> * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	④	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius <sup>2</sup> * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	④	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius <sup>2</sup> * 0.163														

Time	Temp (°F)	pH	Cond. (mS or <u>µS</u> )	Turbidity (NTUs)	Gals. Removed	Observations
1010	69.5	6.7	1399	65	4	clear
1011	71.5	6.8	1374	9	8	clear
1014	71.2	6.7	1441	9	10	"

Did well dewater? Yes No      Gallons actually evacuated: 10

Sampling Time: 1017      Sampling Date: 7/16/02

Sample I.D.: MW-2      Laboratory: KIP SPL Other \_\_\_\_\_

Analyzed for: TPH-G BTEX MTBE TPH-D Other: Motor oil, Nitrate, Sulfate, Ferrous Iron

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

Analyzed for: TPH-G BTEX MTBE TPH-D Other: \_\_\_\_\_

D.O. (if req'd):	Pre-purge:	0.9 <sup>mg/L</sup>	Post-purge:	1.3 <sup>mg/L</sup>
O.R.P. (if req'd):	Pre-purge:	-79 mV	Post-purge:	-67 mV

## SHELL WELL MONITORING DATA SHEET

BTS #: 020716-DA-1	Site: 285 Heegenberger, Oakland
Sampler: David A.	Date: 7/16/02
Well I.D.: MW-3	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth: 10.11	Depth to Water: 5.44
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <u>YSI</u> HACH

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

$$3.0 \text{ (Gals.)} \times 3 = 9.0 \text{ Gals.}$$
 Case Volume      Specified Volumes      Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	<u>4"</u>	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Time	Temp (°F)	pH	Cond. (mS or <u>µS</u> )	Turbidity (NTUs)	Gals. Removed	Observations
1044	71.9	7.0	1528	20	3	clear
1046	71.9	7.0	1438	17	6	"
1050	71.7	7.0	1458	11	9	"

Did well dewater? Yes  No      Gallons actually evacuated: 9

Sampling Time: 1053      Sampling Date: 7/16/02

Sample I.D.: MW-3      Laboratory: KIT SPL Other \_\_\_\_\_

Analyzed for: TPH-G BTEX MTBE TPH-D Other: Motor oil, Nitrate, Sulfate, Ferrous Iron

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

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

D.O. (if req'd):	Pre-purge:	0.3 <sup>mg/L</sup>	Post-purge:	1.7 <sup>mg/L</sup>
O.R.P. (if req'd):	Pre-purge:	-95 mV	Post-purge:	-112 mV

## SHELL WELL MONITORING DATA SHEET

BTS #: 020716-DA-1	Site: 285 Heegenberger, Oakland
Sampler: David A.	Date: 7/16/02
Well I.D.: MW-6	Well Diameter: 2 3 ④ 6 8
Total Well Depth: 10.97	Depth to Water: 5.05
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <u>YSI</u> HACH

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

3.8 (Gals.) X 3 = 11.4 Gals. 1 Case Volume      Specified Volumes      Calculated Volume	<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>④ 4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius<sup>2</sup> * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	④ 4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius <sup>2</sup> * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	④ 4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius <sup>2</sup> * 0.163														

Time	Temp (°F)	pH	Cond. (mS or <u>µS</u> )	Turbidity (NTUs)	Gals. Removed	Observations
1158	68.2	7.0	2322	58	4	clear, odor
1159	68.4	7.0	1159	15	8	"
1201	68.3	7.0	1061	12	12	"

Did well dewater? Yes <input type="checkbox"/> <u>No</u>	Gallons actually evacuated: 12
Sampling Time: 1205	Sampling Date: 7/16/02

Sample I.D.: MW-6	Laboratory: <u>KITP</u> SPL Other _____
Analyzed for: <u>TPH-G BTEX MTBE TPH-D</u>	Other: Motor oil, Nitrate, Sulfate, Ferrous Iron

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

Analyzed for: TPH-G BTEX MTBE TPH-D Other:			
D.O. (if req'd):	Pre-purge:	0.6 mg/L	Post-purge: 0.6 mg/L
O.R.P. (if req'd):	Pre-purge:	-108 mV	Post-purge: -105 mV

## SHELL WELL MONITORING DATA SHEET

WTS #: 020716-DA-1	Site: 285 Heegenberger, Oakland
Sampler: David A.	Date: 7/16/02
Well I.D.: MW-9	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth: 10.76	Depth to Water: 4.04
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <u>YSI</u> HACH

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

$4.4 \text{ (Gals.)} \times 3 = 13.2 \text{ Gals.}$ Case Volume      Specified Volumes      Calculated Volume	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td><u>4"</u></td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius<sup>2</sup> * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	<u>4"</u>	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius <sup>2</sup> * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	<u>4"</u>	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius <sup>2</sup> * 0.163														

Time	Temp (°F)	pH	Cond. (mS or <u>µS</u> )	Turbidity (NTUs)	Gals. Removed	Observations
1338	67.7	6.8	1387	107	5	yellow tint, odor
1341	68.2	6.8	1630	43	10	"
1347	69.2	6.8	1723	36	14	"
Could Not Stop reaction in sample vials						

Did well dewater? Yes  No      Gallons actually evacuated: 14

Sampling Time: 1350      Sampling Date: 7/16/02

Sample I.D.: MW-9      Laboratory: KIP SPL Other \_\_\_\_\_

Analyzed for: TPH-G BTEX MTBE TPH-D Other: Motor oil, Nitrate, Sulfate, Ferrous Iron

EB I.D. (if applicable): @ \_\_\_\_\_      Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

D.O. (if req'd):	Pre-purge:	0.7 mg/L	Post-purge:	0.4 mg/L
O.R.P. (if req'd):	Pre-purge:	-54 mV	Post-purge:	-121 mV

## SHELL WELL MONITORING DATA SHEET

BTS #: 020716-DA-1	Site: 285 Heegenberger, Oakland
Sampler: David A.	Date: 7/16/02
Well I.D.: MW-10	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth: 10.03	Depth to Water: 5.70
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <u>YSI</u> HACH

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

$2.7 \text{ (Gals.)} \times 3 = 8.1 \text{ Gals.}$ 1 Case Volume      Specified Volumes      Calculated Volume	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td><u>4"</u></td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius<sup>2</sup> * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	<u>4"</u>	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius <sup>2</sup> * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	<u>4"</u>	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius <sup>2</sup> * 0.163														

Time	Temp (°F)	pH	Cond. (mS or <u>µS</u> )	Turbidity (NTUs)	Gals. Removed	Observations
1428	75.5	7.2	2622	12	3	yellow tint, clear
1430	75.7	6.9	2936	10	6	"
1435	75.5	6.9	2999	9	9	"
Note: Unable to stop reaction in vials; large bubbles						

Did well dewater? Yes <input checked="" type="checkbox"/> No	Gallons actually evacuated: 8
Sampling Time: 1438	Sampling Date: 7/16/02
Sample I.D.: MW-10	Laboratory: <u>KIT</u> SPL Other _____
Analyzed for: <u>TPH-G</u> BTEX MTBE <u>TPH-D</u>	Other: Motor Oil, Nitrate, Sulfate, Ferrous Iron
EB I.D. (if applicable): @ _____	Duplicate I.D. (if applicable):
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: _____
D.O. (if req'd): Pre-purge: 0.5 mg/L	Post-purge: 1.5 mg/L
O.R.P. (if req'd): Pre-purge: -126 mV	Post-purge: -118 mV



## SHELL WELL MONITORING DATA SHEET

BTS #: 020716-DA-1	Site: 285 Heegenberger, Oakland
Sampler: David A.	Date: 7/16/02
Well I.D.: VEW-5	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth: 9.54	Depth to Water: 2.96
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <u>YSI</u> HACH

Purge Method: Bailer	Waterra	Sampling Method: Bailer
Disposable Bailer	Peristaltic	Disposable Bailer
Middleburg	Extraction Pump	Extraction Port
Electric Submersible	Other <u>5/8" tubing w/ check valve</u>	Dedicated Tubing
		Other: <u>Same</u>

$2.4 \text{ (Gals.)} \times 3 = 7.2 \text{ Gals.}$	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td><u>3"</u></td> <td>0.37</td> <td>Other</td> <td>radius<sup>2</sup> * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	<u>3"</u>	0.37	Other	radius <sup>2</sup> * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
<u>3"</u>	0.37	Other	radius <sup>2</sup> * 0.163														
Case Volume	Specified Volumes	Calculated Volume															

Time	Temp (°F)	pH	Cond. (mS or <u>µS</u> )	Turbidity (NTUs)	Gals. Removed	Observations
1455	72.1	7.0	1892	7200	2.5	dark grey, turbid, strong odor
1459	71.5	7.1	1937	7200	5	"
1508	72.2	7.0	2170	7200	7.5	"

Did well dewater? Yes No      Gallons actually evacuated: 7.5

Sampling Time: 1508      NP Vials      Sampling Date: 7/16/02

Sample I.D.: VEW-5      Laboratory: KIP SPL Other \_\_\_\_\_

Analyzed for: TPH-G BTEX MTBE TPH-D      Other: Motor oil, Nitrate, Sulfate, Ferrous Iron

EB I.D. (if applicable): @ \_\_\_\_\_      Duplicate I.D. (if applicable): \_\_\_\_\_

Analyzed for: TPH-G BTEX MTBE TPH-D Other: \_\_\_\_\_

D.O. (if req'd):	Pre-purge: 0.4 <sup>mg/L</sup>	Post-purge: 0.3 <sup>mg/L</sup>
O.R.P. (if req'd):	Pre-purge: -96 mV	Post-purge: -185 mV

## SHELL WELL MONITORING DATA SHEET

BTS #: 020716-DA-1	Site: 285 Heegenberger, Oakland
Sampler: David A.	Date: 7/16/02
Well I.D.: VEW-6	Well Diameter: 2 3 ④ 6 8
Total Well Depth: 9.94	Depth to Water: 3.59
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <u>YSI</u> HACH

Purge Method: Bailer Disposable Bailer Middleburg Electric Submersible	Waterra Peristaltic Extraction Pump Other <u>5/8" tubing w/ check valve</u>	Sampling Method: Bailer Disposable Bailer Extraction Port Dedicated Tubing Other: <u>Same as purge</u>
---	--	--

$2.3 \text{ (Gals.)} \times 3 = 6.9 \text{ Gals.}$ 1 Case Volume      Specified Volumes      Calculated Volume	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>④</td> <td>0.37</td> <td>Other</td> <td>radius<sup>2</sup> * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	④	0.37	Other	radius <sup>2</sup> * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
④	0.37	Other	radius <sup>2</sup> * 0.163														

Time	Temp (°F)	pH	Cond. (mS or <u>µS</u> )	Turbidity (NTUs)	Gals. Removed	Observations
1545	70.1	7.0	3447	7200	2.5	grey, strong odor
1550	70.0	7.0	3394	7200	5	"
1555	69.5	7.0	3237	7200	7	"

Did well dewater? Yes  No  Gallons actually evacuated: 7

Sampling Time: 1600 NP VOLCS Sampling Date: 7/16/02

Sample I.D.: VEW-6 Laboratory: RTD SPL Other \_\_\_\_\_

Analyzed for: TPH-G BTEX MTBE TPH-D Other: Motor oil, Nitrate, Sulfate, Ferrous Iron

EB I.D. (if applicable): @ \_\_\_\_\_ Duplicate I.D. (if applicable): \_\_\_\_\_

Analyzed for: TPH-G BTEX MTBE TPH-D Other: \_\_\_\_\_

D.O. (if req'd):	Pre-purge: <u>0.3</u> mg/L	Post-purge: <u>0.2</u> mg/L
O.R.P. (if req'd):	Pre-purge: <u>-125</u> mV	Post-purge: <u>-108</u> mV

## SHELL WELL MONITORING DATA SHEET

BTS #: 020716-DA-1	Site: 285 Heegenberger, Oakland
Sampler: David A.	Date: 7/16/02
Well I.D.: VEW-7	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth: 9.76	Depth to Water: 3.84
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <u>YSI</u> HACH

Purge Method: Bailer Disposable Bailer Middleburg Electric Submersible	Waterra Peristaltic Extraction Pump Other: <u>5/8" Tubing w/ check valve</u> 6.6	Sampling Method: Bailer Disposable Bailer Extraction Port Dedicated Tubing Other: <u>Same as purge</u>
---	--	--

$\frac{2.2}{3.8} \text{ (Gals.)} \times 3 = 1.74 \text{ Gals.}$	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td><u>3"</u></td> <td>0.37</td> <td>Other</td> <td>radius<sup>2</sup> * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	<u>3"</u>	0.37	Other	radius <sup>2</sup> * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
<u>3"</u>	0.37	Other	radius <sup>2</sup> * 0.163														
I Case Volume	Specified Volumes	Calculated Volume															

Time	Temp (°F)	pH	Cond. (mS or <u>µS</u> )	Turbidity (NTUs)	Gals. Removed	Observations
1230	75.4	7.6	2882	7200	2.5	dark grey, strong odor
1233	76.0	7.7	2716	7200	5	"
1236	76.3	7.7	2663	7200	7.0	"

Did well dewater? Yes  No  Gallons actually evacuated: 7

Sampling Time: 1240 Sampling Date: 7/16/02

Sample I.D.: VEW-7 Laboratory: KIT SPL Other: \_\_\_\_\_

Analyzed for: TPH-G BTEX MTBE TPH-D Other: Motor oil, Nitrate, Sulfate, Ferrous Iron

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

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

D.O. (if req'd):	Pre-purge:	3.6 <sup>mg/L</sup>	Post-purge:	2.5 <sup>mg/L</sup>
------------------	------------	---------------------	-------------	---------------------

O.R.P. (if req'd):	Pre-purge:	-102 mV	Post-purge:	-36 mV
--------------------	------------	---------	-------------	--------

## SHELL WELL MONITORING DATA SHEET

3TS #: 020716-DA-1	Site: 285 Hegeberger, Oakland
Sampler: David A.	Date: 7/16/02
Well I.D.: AS-1	Well Diameter: 2 3 4 6 8 <u>1</u>
Total Well Depth: 14.78	Depth to Water: 5.59
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <u>YSI</u> HACH

Purge Method: Bailer Disposable Bailer Middleburg Electric Submersible	Water: Peristaltic Extraction Pump Other <u>5/8" tubing w/ check valve</u>	Sampling Method: Bailer Disposable Bailer Extraction Port Dedicated Tubing Other: <u>Same as Purge</u>
---	--	--

$0.4 \text{ (Gals.)} \times \underline{3} = \underline{1.2} \text{ Gals.}$ Case Volume      Specified Volumes      Calculated Volume	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td><u>1"</u></td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius<sup>2</sup> * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	<u>1"</u>	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius <sup>2</sup> * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
<u>1"</u>	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius <sup>2</sup> * 0.163														

Time	Temp (°F)	pH	Cond. (mS or <u>µS</u> )	Turbidity (NTUs)	Gals. Removed	Observations
1310	70.2	7.4	7798	>200	0.4	grey, cloudy, odor
1312	68.8	7.5	8741	134	0.8	"
1314	68.9	7.6	8820	171	1.2	"

Did well dewater? Yes  No  Gallons actually evacuated: 1.2

Sampling Time: 1320 Sampling Date: 7/16/02

Sample I.D.: AS-1 Laboratory: KIPP SPL Other: \_\_\_\_\_

Analyzed for: TPH-G BTEX MTBE TPH-D Other: Motor oil, Nitrate, Sulfate, Ferrous Iron

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

Analyzed for: TPH-G BTEX MTBE TPH-D Other: \_\_\_\_\_

D.O. (if req'd): Pre-purge: <u>1/4 cup</u> <u>4.6</u> mg/L	Post-purge: <u>2.8</u> mg/L
O.R.P. (if req'd): Pre-purge: <u>inc. cup</u> <u>-51</u> mV	Post-purge: <u>1/4 cup</u> <u>-95</u> mV

## SHELL WELL MONITORING DATA SHEET

3TS #: 020716-DA-1	Site: 285 Heegenberger, Oakland
Sampler: David A.	Date: 7/16/02
Well I.D.: AS-2	Well Diameter: 2 3 4 6 8 <u>1</u>
Total Well Depth: 15.00	Depth to Water: 5.53
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <u>YSI</u> HACH

Purge Method: Bailer Disposable Bailer Middleburg Electric Submersible	Water: Peristaltic Extraction Pump Other: <u>5/8" tubing w/ check valve</u>	Sampling Method: Bailer Disposable Bailer Extraction Port Dedicated Tubing Other: <u>Same as purge</u>
---	---	--

$\frac{0.4 \text{ (Gals.)} \times 3}{\text{Case Volume} \quad \text{Specified Volumes}} = \frac{1.2}{\text{Calculated Volume}} \text{ Gals.}$	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius<sup>2</sup> * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius <sup>2</sup> * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius <sup>2</sup> * 0.163														

Time	Temp (°F)	pH	Cond. (mS or <u>µS</u> )	Turbidity (NTUs)	Gals. Removed	Observations
1125	69.8	6.8	36	100	0.4	light grey tint, odor
1126	68.8	6.9	38	7200	0.8	grey, turbid
1127	68.0	6.9	38	> 200	1.2	"
Note: unable to stop reaction in sample vials						

Did well dewater? Yes  No  Gallons actually evacuated: 1.2

Sampling Time: 1130 Sampling Date: 7/16/02

Sample I.D.: AS-2 Laboratory:  KIPP SPL Other \_\_\_\_\_

Analyzed for:  TPH-G  BTEX  MTBE  TPH-D Other: Motor Oil, Nitrate, Sulfate, Ferrous Iron

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

Analyzed for: TPH-G BTEX MTBE TPH-D Other: \_\_\_\_\_

D.O. (if req'd): Pre-purge: in cup 0.7 mg/L Post-purge: in cup 0.9 mg/L

O.R.P. (if req'd): Pre-purge: -71 mV Post-purge: -93 mV

## SHELL WELL MONITORING DATA SHEET

BTS #: 020716-DA-1	Site: 285 Heegenberger, Oakland
Sampler: David A.	Date: 7/16/02
Well I.D.: AS-3	Well Diameter: 2 3 4 6 8 <u>1</u>
Total Well Depth:	Depth to Water:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <u>YSI</u> HACH

Purge Method: <del>Bailer</del> Disposable Bailer Middleburg Electric Submersible	Water Peristaltic Extraction Pump Other _____	Sampling Method: <del>Bailer</del> Disposable Bailer Extraction Port Dedicated Tubing Other: _____
--	--	--

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

Time	Temp (°F)	pH	Cond. (mS or <u>µS</u> )	Turbidity (NTUs)	Gals. Removed	Observations
						Well Dry - No Purge - No Sample.

Did well dewater?    Yes    No	Gallons actually evacuated:
Sampling Time:	Sampling Date: 7/16/02

Sample I.D.:	Laboratory: <u>KIT</u> SPL Other _____
Analyzed for: <u>TPH-G</u> BTEX MTBE TPH-D	Other: Motor oil, Nitrate, Sulfate, Ferrous Iron
EB I.D. (if applicable): @ _____	Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D	Other: _____
D.O. (if req'd): Pre-purge: _____ mg/L	Post-purge: _____ mg/L
O.R.P. (if req'd): Pre-purge: _____ mV	Post-purge: _____ mV

**ATTACHMENT B**  
**AS/SVE System Analytical Results**  
**and Vapor Monitoring Data**



Report Number : 27746

Date : 8/6/02

Melody Munz  
Cambria Environmental Technology, Inc.  
1144 65th Street, Suite B  
Oakland, CA 94608

Subject : 3 Air Samples  
Project Name : 285 Hegenberger Rd. Oakland, Ca  
Project Number : 244-0734  
P.O. Number : 98995142

Dear Ms. Munz,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

A handwritten signature in black ink that reads "Joel Kiff". The signature is written in a cursive style with a large, stylized "J" and "K".

Joel Kiff





Report Number : 27746

Date : 8/6/02

Project Name : 285 Hegenberger Rd. Oakland, Ca

Project Number : 244-0734

Sample : In

Matrix : Air

Lab Number : 27746-01

Sample Date :7/30/02

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	1.5	0.050	ppmv	EPA 8260B	8/1/02
<b>Toluene</b>	1.4	0.050	ppmv	EPA 8260B	8/1/02
<b>Ethylbenzene</b>	0.79	0.050	ppmv	EPA 8260B	8/1/02
<b>Total Xylenes</b>	3.5	0.050	ppmv	EPA 8260B	8/1/02
<b>Methyl-t-butyl ether</b>	0.16	0.10	ppmv	EPA 8260B	8/1/02
<b>TPH as Gasoline</b>	120	5.0	ppmv	EPA 8260B	8/1/02
Toluene - d8 (Surr)	96.6		% Recovery	EPA 8260B	8/1/02
4-Bromofluorobenzene (Surr)	102		% Recovery	EPA 8260B	8/1/02

Sample : Mid

Matrix : Air

Lab Number : 27746-02

Sample Date :7/30/02

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	< 0.050	0.050	ppmv	EPA 8260B	8/1/02
<b>Toluene</b>	0.055	0.050	ppmv	EPA 8260B	8/1/02
<b>Ethylbenzene</b>	0.058	0.050	ppmv	EPA 8260B	8/1/02
<b>Total Xylenes</b>	0.28	0.050	ppmv	EPA 8260B	8/1/02
<b>Methyl-t-butyl ether</b>	< 0.10	0.10	ppmv	EPA 8260B	8/1/02
<b>TPH as Gasoline</b>	< 5.0	5.0	ppmv	EPA 8260B	8/1/02
Toluene - d8 (Surr)	99.8		% Recovery	EPA 8260B	8/1/02
4-Bromofluorobenzene (Surr)	102		% Recovery	EPA 8260B	8/1/02

Approved By:  Joel Kiff



Report Number : 27746

Date : 8/6/02

Project Name : 285 Hegenberger Rd. Oakland, Ca

Project Number : 244-0734

Sample : EFF

Matrix : Air

Lab Number : 27746-03

Sample Date : 7/30/02

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.050	0.050	ppmv	EPA 8260B	8/1/02
Toluene	< 0.050	0.050	ppmv	EPA 8260B	8/1/02
Ethylbenzene	< 0.050	0.050	ppmv	EPA 8260B	8/1/02
Total Xylenes	< 0.050	0.050	ppmv	EPA 8260B	8/1/02
Methyl-t-butyl ether	1.4	0.10	ppmv	EPA 8260B	8/1/02
TPH as Gasoline	20	5.0	ppmv	EPA 8260B	8/1/02
Toluene - d8 (Surr)	102		% Recovery	EPA 8260B	8/1/02
4-Bromofluorobenzene (Surr)	101		% Recovery	EPA 8260B	8/1/02

Approved By:  Joel Kiff

720 Olive Drive, Suite D  
Davis, CA 95616

(530) 297-4800 (530) 297-4803 fax

Equiva Project Manager to be Invoiced:

- SCIENCE & ENGINEERING
- TECHNICAL SERVICES
- CBMT HOUSTON

Karen Petryna

27746

INCIDENT NUMBER (S&E ONLY)

98995142

SAP or CBMT NUMBER (S&E ONLY)

DATE: 7-30-02

PAGE: 1 of 1

SAMPLING COMPANY: Cambria Environmental Technology		LOG CODE:	SITE ADDRESS (Street and City): 285 Heegenberger Rd. Oakland, Ca		GLOBAL ID NO.:																																																																																																																							
ADDRESS: 1144 65th St. Oakland, Ca		EDF DELIVERABLE TO (Responsible Party of Damages):		PHONE NO.:	CONSULTANT PROJECT NO.: 244-0734																																																																																																																							
PROJECT CONTACT (Hardcopy or PDF Report to): Melody Munz		SAMPLER NAME(S) (Part): Sanjiv Gill		E-MAIL:																																																																																																																								
TELEPHONE: 510-420-3324	FAX: 510-420-9170	TURNAROUND TIME (BUSINESS DAYS): <input checked="" type="checkbox"/> 10 DAYS <input type="checkbox"/> 5 DAYS <input type="checkbox"/> 72 HOURS <input type="checkbox"/> 48 HOURS <input type="checkbox"/> 24 HOURS <input type="checkbox"/> LESS THAN 24 HOURS		REQUESTED ANALYSIS																																																																																																																								
<input type="checkbox"/> LA - RWQCB REPORT FORMAT <input checked="" type="checkbox"/> UST AGENCY: <u>ACHESA</u> GCAMS MTBE CONFIRMATION: HIGHEST _____ HIGHEST per BORING _____ ALL _____ SPECIAL INSTRUCTIONS OR NOTES: TEMPERATURE ON RECEIPT C <sup>o</sup>		TPH - Gas, Purgeable BTEX MTBE (8021B - 5ppb RL) MTBE (8260B - 0.5ppb RL) Oxygenates (5) by (8260B) Ethanol (8260B) Methanol EDB & 1,2-DCA (8260B) EPA 5035 Extraction for Volatiles VOCs Halogenated/Aromatic (8021B) TRPH (418.1) Vapor VOCs BTEX / MTBE (70-15) Vapor VOCs Full List (70-15) Vapor TPH (ASTM 3416m) Vapor Fixed Gases (ASTM D1946) Test for Disposal (4B-_____) TPH - Diesel, Extractable (8015m) MTBE (8260B) Confirmation, See Note				FIELD NOTES: Container/Preservative or PID Readings or Laboratory Notes																																																																																																																						
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">LAB USE ONLY</th> <th colspan="2" rowspan="2">Field Sample Identification</th> <th colspan="2">SAMPLING</th> <th rowspan="2">MATRIX</th> <th rowspan="2">NO. OF CONT.</th> <th rowspan="2">TPH</th> <th rowspan="2">BTEX</th> <th rowspan="2">MTBE (8021B - 5ppb RL)</th> <th rowspan="2">MTBE (8260B - 0.5ppb RL)</th> <th rowspan="2">Oxygenates (5) by (8260B)</th> <th rowspan="2">Ethanol (8260B)</th> <th rowspan="2">Methanol</th> <th rowspan="2">EDB &amp; 1,2-DCA (8260B)</th> <th rowspan="2">EPA 5035 Extraction for Volatiles</th> <th rowspan="2">VOCs Halogenated/Aromatic (8021B)</th> <th rowspan="2">TRPH (418.1)</th> <th rowspan="2">Vapor VOCs BTEX / MTBE (70-15)</th> <th rowspan="2">Vapor VOCs Full List (70-15)</th> <th rowspan="2">Vapor TPH (ASTM 3416m)</th> <th rowspan="2">Vapor Fixed Gases (ASTM D1946)</th> <th rowspan="2">Test for Disposal (4B-_____)</th> <th rowspan="2">TPH - Diesel, Extractable (8015m)</th> <th rowspan="2">MTBE (8260B) Confirmation, See Note</th> <th colspan="2">UST REPORTING REQUIRED</th> </tr> <tr> <th>DATE</th> <th>TIME</th> <th>1</th> <th>2</th> </tr> </thead> <tbody> <tr> <td></td> <td>In</td> <td></td> <td>7-30-02</td> <td>2:30</td> <td>air</td> <td>1</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>01</td> </tr> <tr> <td></td> <td>Mid</td> <td></td> <td>7-30-02</td> <td>2:30</td> <td>air</td> <td>1</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>02</td> </tr> <tr> <td></td> <td>EEF</td> <td></td> <td>7-30-02</td> <td>2:30</td> <td>air</td> <td>1</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>03</td> </tr> </tbody> </table>		LAB USE ONLY	Field Sample Identification		SAMPLING		MATRIX	NO. OF CONT.	TPH	BTEX	MTBE (8021B - 5ppb RL)	MTBE (8260B - 0.5ppb RL)	Oxygenates (5) by (8260B)	Ethanol (8260B)	Methanol	EDB & 1,2-DCA (8260B)	EPA 5035 Extraction for Volatiles	VOCs Halogenated/Aromatic (8021B)	TRPH (418.1)	Vapor VOCs BTEX / MTBE (70-15)	Vapor VOCs Full List (70-15)	Vapor TPH (ASTM 3416m)	Vapor Fixed Gases (ASTM D1946)	Test for Disposal (4B-_____)	TPH - Diesel, Extractable (8015m)	MTBE (8260B) Confirmation, See Note	UST REPORTING REQUIRED		DATE	TIME	1	2		In		7-30-02	2:30	air	1	X	X	X																				01		Mid		7-30-02	2:30	air	1	X	X	X																				02		EEF		7-30-02	2:30	air	1	X	X	X																				03	Received by: (Signature) Secure location Date: 7-31-02 Time: 5:00	
LAB USE ONLY	Field Sample Identification				SAMPLING																						MATRIX	NO. OF CONT.	TPH	BTEX	MTBE (8021B - 5ppb RL)	MTBE (8260B - 0.5ppb RL)	Oxygenates (5) by (8260B)	Ethanol (8260B)	Methanol	EDB & 1,2-DCA (8260B)	EPA 5035 Extraction for Volatiles	VOCs Halogenated/Aromatic (8021B)	TRPH (418.1)	Vapor VOCs BTEX / MTBE (70-15)	Vapor VOCs Full List (70-15)	Vapor TPH (ASTM 3416m)	Vapor Fixed Gases (ASTM D1946)	Test for Disposal (4B-_____)	TPH - Diesel, Extractable (8015m)	MTBE (8260B) Confirmation, See Note	UST REPORTING REQUIRED																																																																													
			DATE	TIME	1	2																																																																																																																						
	In		7-30-02	2:30	air	1	X	X	X																				01																																																																																															
	Mid		7-30-02	2:30	air	1	X	X	X																				02																																																																																															
	EEF		7-30-02	2:30	air	1	X	X	X																				03																																																																																															
Received by: (Signature) Date: 073102 Time: 1105		Received by: (Signature) Date: 073102 Time: 1105																																																																																																																										

# O&M Form Site: 285 Hegenberger Rd, Oakland, CA

Technician: SG Date: 7-5-02  
 Project Mgr/Eng: Melody Munz (510) 420-3324

Incident # 98995142  
 Project #243-0734-003

## VAPOR EXTRACTION / BIOSPARGE SYSTEM

General Parameters	ARRIVAL	DEPART
Time:	<u>12:00</u>	<u>13:55</u>
System Operation	<u>ON</u> (on/off)	<u>on</u> (on/off)
KWH Reading:	<u>5422</u> (KWH)	<u>5422</u> (KWH)
Air Compressor Operation:	<u>ok</u> (ok)	<u>ok</u> (ok)
Air Compressor Pressure:	<u>150</u> (psi)	<u>150</u> (psi)
Change AC Oil:	<u>n</u> (y/n)	
Blower Op:	<u>ok</u> (ok)	<u>ok</u> (ok)
Blower Vacuum:	<u>100+</u> (inHg)	<u>100+</u> (inHg)
Storage Tank H2O Level:	<u>0</u> (% full)	
KO H2O Level:	<u>1/2</u> (% full)	<u>1/2</u> (% full)
Transfer Pump Op:	<u>ok</u> (ok)	<u>ok</u> (ok)
Container Clean:	<u>Y</u> (y/n)	Vaults Secured: <u>Y</u> (y/n)
Electrical Panel Secured:	<u>X</u> (y/n)	Container Secured: <u>Y</u> (y/n)

### Well Field and Operational Data:

Well (id)	Status (on/off)	Pressure (psi/inH2O)	Flow (cfm)	OVA (ppm)	DTW (ftg)	Notes:
AS				NA	NA	
AS-1	on	12	.5	NA	N/A	
AS-2	off	N/A	N/A	NA	N/A	
AS-3	on	9	.5	NA	N/A	
VE-5	on	<sup>saves</sup> not working	3123		3.70	
VE-6	off	N/A	1892		4.10	
VE-7	on	35	2870		4.37	
INF	ok	41	N/A	1724	NA	sampled
MID	ok	71.0	N/A	129	NA	sampled
EFF	ok	51.0	N/A	0	NA	sampled

Background = 0

total flow vloci check 38894

Analyzer for temperature  
 Measured with PID  
 Temp 89°F inside container

Note: Complete new form for every site visit. Attach Daily Field Reports for non-routine items. Attach copy of COC.  
 \\SERVERSHELL\OAKLAND 285 HEGENBERGER\O&M\O&M FIELD DATA SHEET.DOC

# O&M Form Site: 285 Hegenberger Rd, Oakland, CA

Technician: SG Date: 7-16-02  
 Project Mgr/Eng: Melody Munz (510) 420-3324

Incident # 98995142  
 Project #243-0734-003

## VAPOR EXTRACTION / BIOSPARGE SYSTEM

### General Parameters

#### ARRIVAL

#### DEPART

Time: 3:45 5:00  
 System Operation: on (on/off) on (on/off)  
 KWH Reading: 6479 (KWH) 6479 (KWH)  
 Air Compressor Operation: ok (ok) ok (ok)  
 Air Compressor Pressure: 150 (psi) 150 (psi)  
 Change AC Oil: n (y/n)  
 Blower Op: ok (ok) ok (ok)  
 Blower Vacuum: 100+ (inHg) 100+ (inHg)  
 Storage Tank H2O Level: 0 (% full) 0 (% full)  
 KO H2O Level: 1/2 (% full) 1/2 (% full)  
 Transfer Pump Op: ok (ok) ok (ok)  
 Container Clean: y (y/n) Vaults Secured: y (y/n)  
 Electrical Panel Secured: y (y/n) Container Secured: y (y/n)

### Well Field and Operational Data:

Well (id)	Status (on/off)	Pressure (psi/inH2O)	Flow (cfm)	OVA (ppm)	DTW (ftg)	Notes:
AS				NA	NA	
AS-1	on	12	.5	NA	N/A	
AS-2	off	N/A	N/A	NA	N/A	
AS-3	on	7	.5	NA	N/A	
VE-5	on	gauge not working	3109		4.07	
VE-6	off	N/A	1680		4.13	
VE-7	on	32	2429		4.22	
INF	ok	37	N/A	1611	NA	
MID	ok	71.0	N/A	150	NA	
EFF	ok	71.0	N/A	0	NA	

Back ground total flow 0  
 3999+ veloci ✓  
 Analyze for permit required

Note: Complete new form for every site visit. Attach Daily Field Reports for non-routine items. Attach copy of COC.  
 \\SERVER\SHELLOAKLAND\285 HEGENBERGER\O&M\FIELD DATA SHEET.DOC

# Q&M Form Site: 285 Hegenberger Rd, Oakland, CA

Technician: J. M. [Signature] Date: 7-30-02  
 Project Mgr/Eng: Melody Munz (510) 420-3324

Incident # 98995142  
 Project #243-0734-003

## VAPOR EXTRACTION / BIOSPARGE SYSTEM

### General Parameters

#### ARRIVAL

#### DEPART

Time: 5:00 7:00  
 System Operation: on (on/off) on (on/off)  
 KWH Reading: 07543 (KWH) 07543 (KWH)  
 Air Compressor Operation: ok (ok) ok (ok)  
 Air Compressor Pressure: 152 (psi) 152 (psi)  
 Change AC Oil: Y (y/n) Y (y/n)  
 Blower Op: ok (ok) ok (ok)  
 Blower Vacuum: 100+ (inHg) 100+ (inHg)  
 Storage Tank H2O Level: 0 (% full) 1/2 (% full)  
 KO H2O Level: 1/2 (% full) 1/2 (% full)  
 Transfer Pump Op: ok (ok) ok (ok)  
 Container Clean: Y (y/n) Vaults Secured: Y (y/n)  
 Electrical Panel Secured: Y (y/n) Container Secured: Y (y/n)

### Well Field and Operational Data:

Well (id)	Status (on/off)	Pressure (psi/inH2O)	Flow (cfm)	OVA (ppm)	DTW (fbg)	Notes:
AS				NA	NA	
AS-1	on	10	.5	NA	N/A	
AS-2	off	N/A	N/A	NA	N/A	
AS-3	on	9	.5	NA	N/A	
VE-5	on	gauge not working	3529		4.29	
VE-6	off	N/A	2012		4.53	
VE-7	on	38	2422		4.70	
INF	OK	39	N/A	1470	NA	sampled
MID	OK	>1.0	N/A	110	NA	sampled
EFF	OK	>1.0	N/A	0	NA	sampled

Background  
 total flow 3999 + volaci ✓  
 Analyze for [unclear]  
 PID constantly had to be calibrated

Note: Complete new form for every site visit. Attach Daily Field Reports for non-routine items. Attach copy of COC.  
 WSERVER\SHHELL\OAKLAND 285 HEGENBERGER\O&M\O&M FIELD DATA SHEET.DOC

# O&M Form Site: 285 Hegenberger Rd, Oakland, CA

Technician: SG Date: 8-13-02  
 Project Mgr/Eng: Melody Munz (510) 420-3324

Incident # 98995142  
 Project #243-0734-003

## VAPOR EXTRACTION / BIOSPARGE SYSTEM

### General Parameters

	<u>ARRIVAL</u>	<u>DEPART</u>
Time:	<u>8:30</u>	<u>9:45</u>
System Operation	<u>on</u> (on/off)	<u>off</u> (on/off)
KWH Reading:	<u>08622</u> (KWH)	<u>          </u> (KWH)
Air Compressor Operation:	<u>ok</u> (ok)	<u>NA</u> (ok)
Air Compressor Pressure:	<u>148</u> (psi)	<u>N/A</u> (psi)
Change AC Oil:	<u>N</u> (y/n)	<u>          </u> (y/n)
Blower Op:	<u>OK</u> (ok)	<u>NA</u> (ok)
Blower Vacuum:	<u>120+</u> (inHg)	<u>NA</u> (inHg)
Storage Tank H2O Level:	<u>1/2</u> (% full)	<u>1/2 NA</u> (% full)
KO H2O Level:	<u>1/2</u> (% full)	<u>NA</u> (% full)
Transfer Pump Op:	<u>ok</u> (ok)	<u>NA</u> (ok)
Container Clean:	<u>Y</u> (y/n)	Vaults Secured: <u>Y</u> (y/n)
Electrical Panel Secured:	<u>Y</u> (y/n)	Container Secured: <u>Y</u> (y/n)

### Well Field and Operational Data:

Well (a)	Status (on/off)	Pressure (psi/H2O)	Flow (cfm)	OVA (ppm)	DTW (ft)	Notes:
AS				NA	NA	
AS-1	on	7	.5	NA	N/A	
AS-2	off	N/A	N/A	NA	N/A	
AS-3	on	9	.5	NA	N/A	
VE-5	on	NA	4000		4.78	
VE-6	off	N/A	1255		4.95	
VE-7	on	35	2790		5.14	
INF	ok	37	N/A	1941	NA	
MID	ok	71.0	N/A	142	NA	
EFF	ok	71.0	N/A	0	NA	

Carbon samples taken vessels 1 & 2

- Analyze for [petroleum req. etc]  
 system turned off

Note: Complete new form for every site visit. Attach Daily Field Reports for non-routine items. Attach copy of COC.  
 \SERVERSHELL\OAKLAND\285 HEGENBERGER\O&M\O&M FIELD DATA SHEET.DOC

# O&M Form Site: 285 Hegenberger Rd, Oakland, CA

Technician: DAN/JL/EML Date: 9/23/02  
 Project Mgr/Eng: Melody Munz (510) 420-3324

Incident # 98995142  
 Project #243-0734-003

## VAPOR EXTRACTION / BIOSPARGE SYSTEM

### General Parameters

#### ARRIVAL

#### DEPART

Time: 4:55 PM 7:45 PM  
 System Operation: OFF (on/off) ON (on/off)  
 KWH Reading: 8674 (KWH) 8680 (KWH)  
 Hour Meter Reading: 2055 (hours) 2096.7 (hours)  
 Air Compressor Operation: OFF (ok) OK-ON (ok)  
 Air Compressor Pressure: NA (psi) 130 (psi)  
 Change AC Oil: NA (y/n)  
 Blower Op: OFF (ok) OFF (ok)  
 Blower Vacuum: OFF (inHg) OFF (inHg)  
 Storage Tank H2O Level: 0 (% full) 0 (% full)  
 KO H2O Level: 75 (% full) 0 (% full)  
 Transfer Pump Op: UNPLUGGED (ok) OK (ok)

150 PSI IN SUOT OFF  
 130 PSI LO SUOT OFF

GAUGE BROKEN (inHg) IN H2O  
 10 AMP - OK < 20 AMPS

Container Clean: Y (y/n) Vaults Secured: NEED GAUGE  
 Electrical Panel Secured: Y (y/n) Container Secured: Y (y/n)

VACUUM PANEL NEEDS LOCK-OUT TAG

### Well Field and Operational Data:

Well (id)	Status (on/off)	Pressure (psi/inH2O)	Flow (cfm)	OVA (ppm)	DTW (ftg)	Notes:
V001	ON	13.6 inH2O	5.5 cfm	188	NA	NA = NOT MEASURED
AS-1	OFF - BROKEN @ WELLHEAD					JB TO REPAIR NEXT VISIT (2002)
AS-2	OFF - BROKEN @ WELLHEAD					JB TO REPAIR NEXT VISIT (5002)
AS-3	ON	7 PSI	1.5 cfm	NA	NA	
VE-5	ON	19.5 inH2O	35.5 cfm	249	NA	
VE-6	ON	*13.6	*3.5 cfm	16	NA	
VE-7	ON	13.5 inH2O	2.7 cfm	21	4.24'	
INF*	ON	13.5 inH2O	39.9 cfm	223/24	NA	1.1 inH2O @ GRI / SAMPLE
MID*	ON	0.5 inH2O		0	NA	NO SAMPLE
EFF*	ON	0 inH2O	37.9 cfm	0	NA	NO SAMPLE

10 INF  
 205 INF

\* monthly PID monitoring required under Bay Area Air Quality Management District Permit to Operate # 3356  
 Breakthrough defined as the detection at is outlet of the higher of the following:

- 10% of the inlet stream concentration to the carbon vessel
- 10 ppmv measured as C6

Note: Complete new form for every site visit. Attach Daily Field Reports for non-routine items. Attach copy of COC.

USER\VERISHELL\OAKLAND 285 HEGENBERGER\O&M\MOM FIELD DATA SHEET.DOC

\* NEED TO RELOCATE PUMP. CAN'T ACCESS W/ METE



720 Olive Drive, Suite D  
 Davis, CA 95616

(530) 297-4800 (530) 297-4803 fax

Equiva Project Manager to be Invoiced:

- SCIENCE & ENGINEERING
- TECHNICAL SERVICES
- OAKLAND/HOUSTON

KAREN PETRYMA

INCIDENT NUMBER (SEE ONLY)

98995142

SAMPLE NUMBER(S) (SEE ONLY)

DATE: 9-23-02

PAGE: 1 of 1

SAAMPLING COMPANY: **CAMBRIA**

ADDRESS: **1144 65th ST, SUITE E, OAKLAND, CA 94608**

PROJECT CONTACT (Name/Address of POP Report to): **MELODY MUNZ**

TELEPHONE: **510 420 3924** FAX: **510 420 9170** EMAIL: **MMUNZ@CAMBRIA-ENV.COM**

SITE ADDRESS (Street and City): **295 HEGENBERG ROAD, OAKLAND**

EDF DELIVERABLE TO (Responsible Party or Design):

PHONE NO.:

EMAIL:

CONSULTANT PROJECT NO.: **244-DT34-003**

SAMPLER NAME(S) (Print): **(JR)**

LAB USE ONLY:

TURNAROUND TIME (BUSINESS DAYS):

10 DAYS  5 DAYS  72 HOURS  48 HOURS  24 HOURS  LESS THAN 24 HOURS

LA - RWQOB REPORT FORMAT  UST AGENCY:

GC/MS MTBE CONFIRMATION: HIGHEST \_\_\_\_\_ HIGHEST per BORING \_\_\_\_\_ ALL \_\_\_\_\_

SPECIAL INSTRUCTIONS OR NOTES: \_\_\_\_\_ TEMPERATURE ON RECEIPT C# \_\_\_\_\_

REQUESTED ANALYSIS													FIELD NOTES: Container/Preservative or PID Readings or Laboratory Notes				
TPH - Gas, Purgeable	BTEX	MTBE (8021B - 5ppb RL)	MTBE (8260B - 0.5ppb RL)	Oxygenates (S) by (8260B)	Ethanol (8260B)	Methanol	EDB & 1,2-DCA (8260B)	EPA 5035 Extraction for Volatiles	VOCs Halogenated/Aromatic (8021B)	TPH (418.1)	Vapor VOCs BTEX/MTBE (TO-15)	Vapor VOCs Full List (TO-15)		Vapor TPH (ASTM 3416m)	Vapor Fixed Gases (ASTM D1946)	Test for Disposal (48-)	TPH - Diesel, Extractable (8015m)

LAB USE ONLY	Field Sample Identification	SAMPLING		MATRIX	NO. OF CONT.	TPH - Gas, Purgeable	BTEX	MTBE (8021B - 5ppb RL)	MTBE (8260B - 0.5ppb RL)	Oxygenates (S) by (8260B)	Ethanol (8260B)	Methanol	EDB & 1,2-DCA (8260B)	EPA 5035 Extraction for Volatiles	VOCs Halogenated/Aromatic (8021B)	TPH (418.1)	Vapor VOCs BTEX/MTBE (TO-15)	Vapor VOCs Full List (TO-15)	Vapor TPH (ASTM 3416m)	Vapor Fixed Gases (ASTM D1946)	Test for Disposal (48-)	TPH - Diesel, Extractable (8015m)	MTBE (8260B) Confirmation, See Note	UST REPORTING REQUIRED	
		DATE	TIME																						
	INFLOWNT	9/23	7:30 AM	AWL	1	X	X	X																	TEDEAR 8469

Requested by: (Signature) <i>[Signature]</i>	Received by: (Signature) <b>SECURED LOCATION</b>	Date: 9/23/02	Time: 8:20 AM
Requested by: (Signature)	Received by: (Signature)	Date:	Time:
Requested by: (Signature)	Received by: (Signature)	Date:	Time:

TOTAL P. 03

SEP-23-2002 20:19 CAMBRIA P. 03/03 2026830 (P/L) (M) (S) (X)



Report Number : 28808

Date : 10/1/02

Melody Munz  
Cambria Environmental Technology, Inc.  
1144 65th Street, Suite B  
Oakland, CA 94608

Subject : 1 Air Sample  
Project Name : 285 HEGENBERGER ROAD, OAKLAND  
Project Number : 244-0734-003  
P.O. Number : 98995142

Dear Ms. Munz,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

A handwritten signature in black ink that reads "Joel Kiff". The signature is written in a cursive style with a large initial "J".

Joel Kiff



Report Number : 28808

Date : 10/1/02

Project Name : 285 HEGENBERGER ROAD, OAKLAND

Project Number : 244-0734-003

Sample : INFLUENT

Matrix : Air

Lab Number : 28808-01

Sample Date :9/23/02

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	5.6	2.0	ppmv	EPA 8260B	9/25/02
Toluene	3.6	2.0	ppmv	EPA 8260B	9/25/02
Ethylbenzene	3.6	2.0	ppmv	EPA 8260B	9/25/02
Total Xylenes	12	2.0	ppmv	EPA 8260B	9/25/02
Methyl-t-butyl ether	< 4.0	4.0	ppmv	EPA 8260B	9/25/02
TPH as Gasoline	930	200	ppmv	EPA 8260B	9/25/02
Toluene - d8 (Surr)	94.0		% Recovery	EPA 8260B	9/25/02
4-Bromofluorobenzene (Surr)	97.9		% Recovery	EPA 8260B	9/25/02

Approved By:  Joel Kiff

