



*MAY 28 2002*

May 22, 2002

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

**RE: EQUILON ENTERPRISES LLC / Equiva Services LLC dba SHELL OIL PRODUCTS US**

Dear Sir or Madam:

The Shell purchase of Texaco's interest in Equilon Enterprises LLC and Equiva Services LLC has been approved by government authorities and was completed in early February.

Please be advised that effective March 1, 2002, Equilon Enterprises LLC and Equiva Services LLC will begin doing business as (DBA) "Shell Oil Products US." Since Equilon Enterprises LLC will remain the owner and/or the responsible Party of remediation activities at 2120 Montana Street, Oakland, California, no changes are needed or requested for permits.

If you have any questions please contact Ms. Karen Petryna at 559.645.9306.

Yours truly,

*Karen Petryna (Signature)*

Karen Petryna  
Sr. Environmental Engineer

# C A M B R I A

May 22, 2002

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

MAY 28 2002

Re: **First Quarter 2002 Monitoring Report and  
Notification to Proceed with Proposed Investigation**  
Shell-branded Service Station  
2120 Montana Street  
Oakland, California  
Incident #98995740  
Cambria Project #244-0733-002



Dear Mr. Gholami:

On behalf of 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. The site is located at the northwest corner of Montana Street and Fruitvale Avenue in Oakland, California (Figures 1 and 2).

## REMEDIATION SUMMARY

**Mobile Groundwater Extraction (GWE):** As recommended in our August 15, 2001 *Agency Response*, Cambria began weekly GWE in August 2001 from wells MW-1 and TBW-N using a vacuum truck. Based on the lack of significant separate-phase hydrocarbons (SPH) in the wells, the mobile GWE frequency was reduced from weekly to biweekly in November 2001 and to monthly in January 2002. Cumulative groundwater purge volume and estimated mass removal data are presented in Table 1. Figures 3 and 4 show methyl tertiary butyl ether (MTBE) concentrations and mass removal estimates over time for wells MW-1 and TBW-N, respectively. The cumulative estimated mass of total petroleum hydrocarbons as gasoline and MTBE removed by GWE to date at the site is 7.29 pounds and 4.88 pounds, respectively. Cambria also coordinated periodic SPH thickness gauging. Table 2 summarizes SPH thicknesses in wells MW-1 and TBW-N, and estimated SPH removed by manual bailing and/or GWE. Approximately 2.68 pounds of SPH have been removed at the site through manual bailing and GWE.

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

**FIRST QUARTER 2002 ACTIVITIES**

**Groundwater Monitoring:** Blaine Tech Services, Inc. (Blaine) of San Jose, California gauged and sampled the site wells, calculated groundwater elevations, and compiled the analytical data. Cambria prepared a vicinity map which includes previously submitted well survey information (Figure 1) and a groundwater elevation contour map (Figure 2). Blaine's report, presenting the laboratory report and supporting field documents, is included as Attachment A.

**Investigation and Pilot Test Status:** On March 25, 2002, Cambria submitted a *Subsurface Investigation and Pilot Test Work Plan* for the site. As requested during an April 23, 2002 telephone conversation between Jacquelyn Jones of Cambria and Amir Gholami of the Alameda County Health Care Services Agency, an additional copy of the work plan was submitted via facsimile on April 23, 2002. Shell voluntarily submitted the work plan without a regulatory request for work, and is anxious to move forward with the proposed scope. Cambria will initiate the investigation immediately.

**ANTICIPATED SECOND QUARTER 2002 ACTIVITIES**

**Groundwater Monitoring:** Blaine will check for SPH, gauge and sample all wells, and tabulate the data. Cambria will prepare a monitoring report.

**Mobile GWE:** Mobile GWE will be continued through the second quarter 2002.

**Investigation Status:** As discussed above, Shell is anxious to move forward with the scope described in our March 25, 2002 work plan. Cambria will proceed with obtaining the necessary permits and scheduling the field work.

## CLOSING

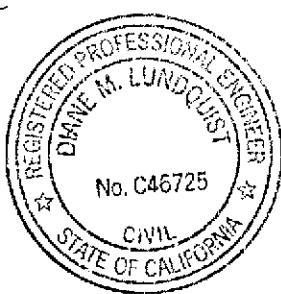
We appreciate the opportunity to work with you on this project. Please call Jacquelyn Jones at (510) 420-3316 if you have any questions or comments.

Sincerely,  
**Cambria Environmental Technology, Inc**



Jacquelyn L. Jones  
Project Geologist

Diane M. Lundquist, P.E.  
Principal Engineer



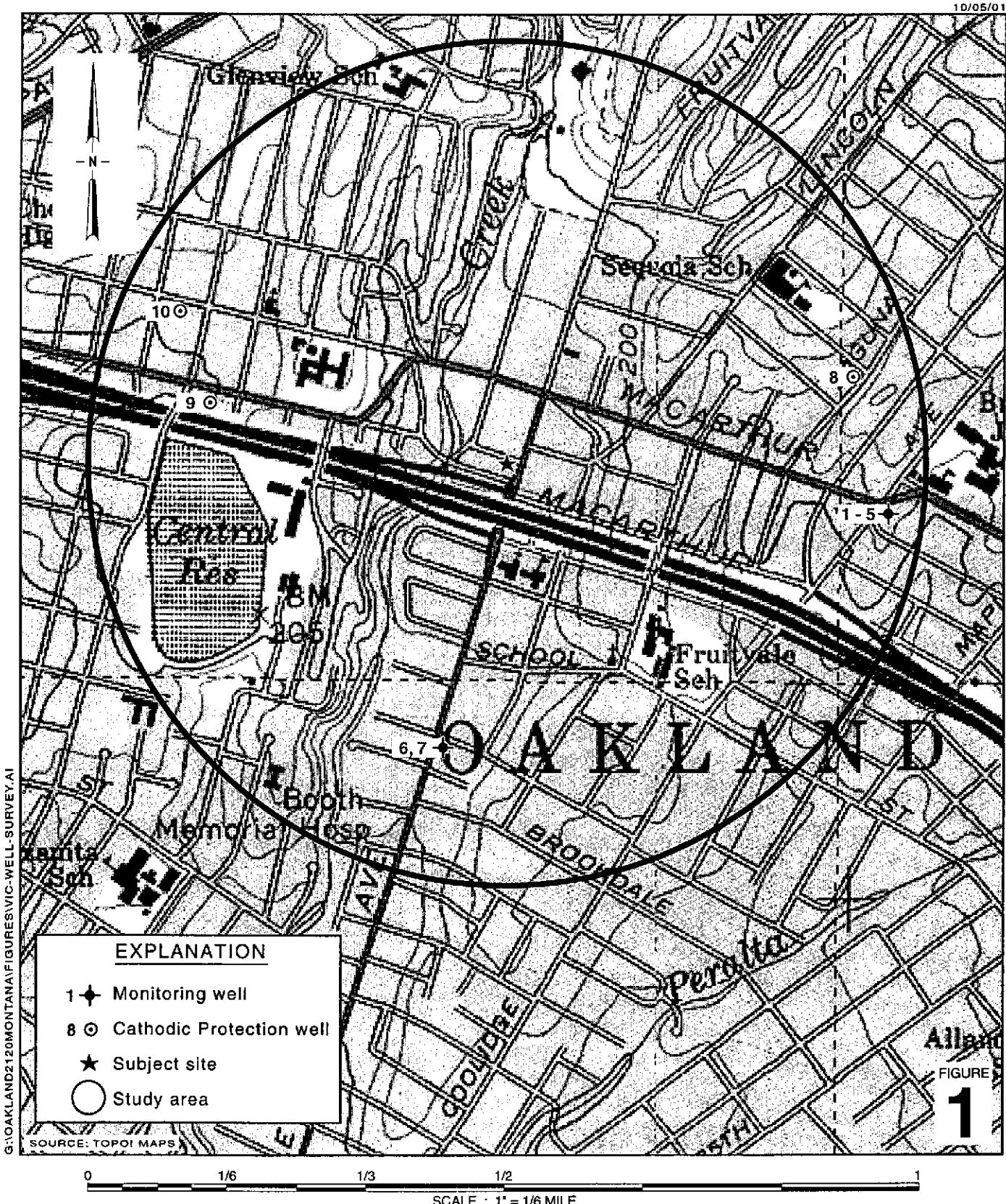
- Figures:
- 1 - Vicinity/Area Well Survey Map
  - 2 - Groundwater Elevation Contour Map
  - 3 - MTBE and Mass Removal – Well MW-1
  - 4 - MTBE and Mass Removal – Well TBW-N

- Tables:
- 1 - Groundwater Extraction – Mass Removal Data
  - 2 - Separate-Phase Hydrocarbon Removal Data

Attachment: A - Blaine Groundwater Monitoring Report and Field Notes

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

G:\Oakland 2120 Montana\Qm\1q02\1q02qm.doc



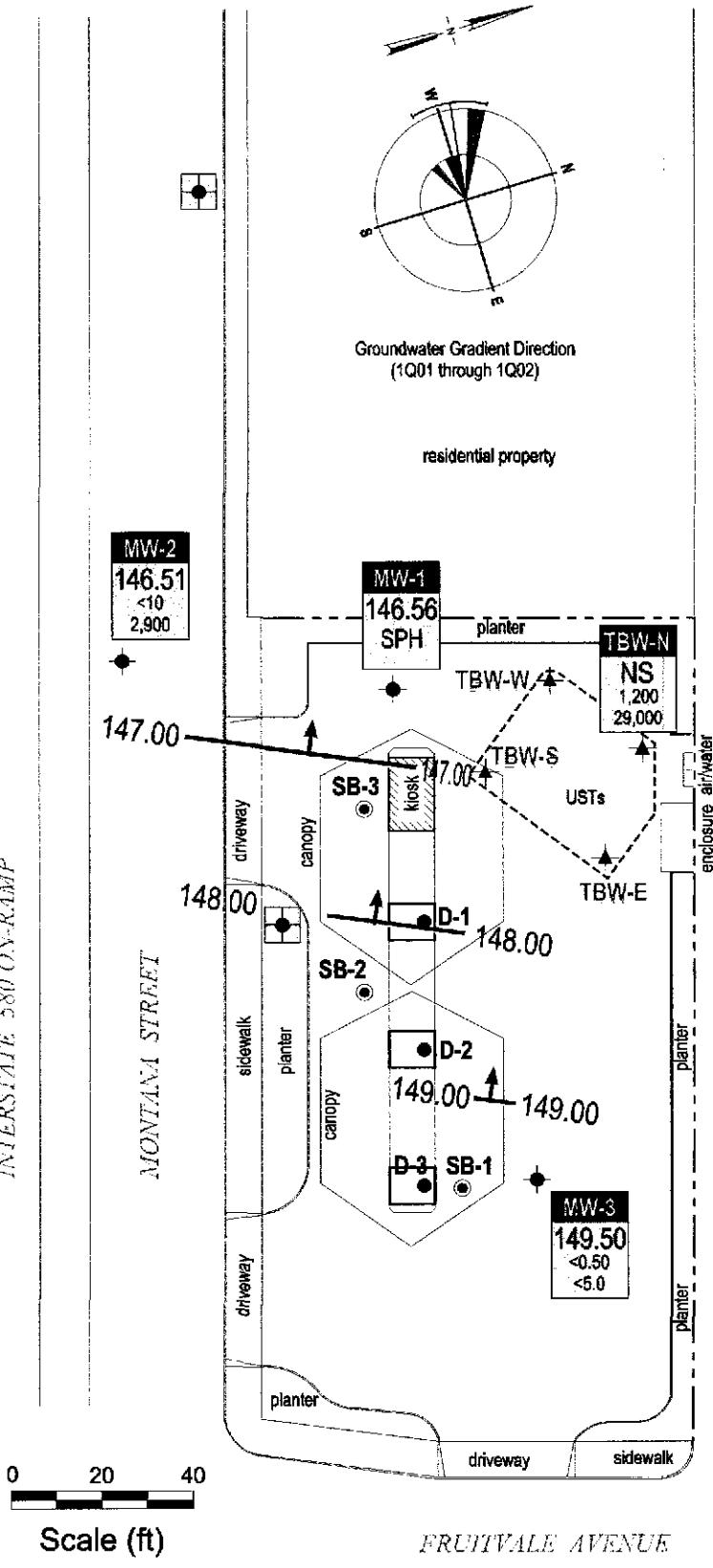
**Shell-branded Service Station**  
 2120 Montana Street  
 Oakland, California  
 Incident #98995740

  
**C A M B R I A**

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

## INTERSTATE 580 O.N.R.4MP

© 2002 OAKLAND 2120 MONTANA FIGURE 8V1QMO2-MP-DWG  
This drawing is the property of the City of Oakland. It is to be used only for the purpose indicated on the title block. Any other use is unauthorized.

**Shell-branded Service Station**

2120 Montana Street  
Oakland, California  
Incident #98995740



C A M B R I A

**EXPLANATION**

- Proposed monitoring well location
- Monitoring well location
- Soil boring location
- ▲ Tank backfill well location
- Cambria soil boring location (10/99)
- Cambria soil sampling location (11/97)
- NS Not surveyed
- SPH Separate-phase hydrocarbons present in well, not sampled
- Groundwater flow direction
- XX.XX Groundwater elevation contour, in feet above mean sea level (msl), dashed where inferred
- Well designation
- ELEV Benzene MTBE
- Benzene and MTBE concentrations are in parts per billion and are analyzed by EPA Method 8260.

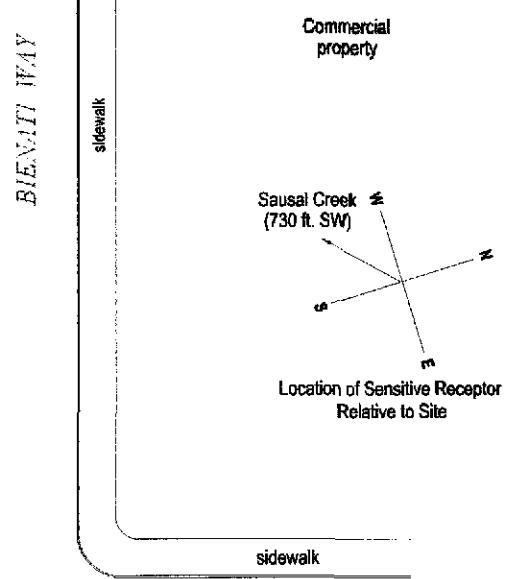
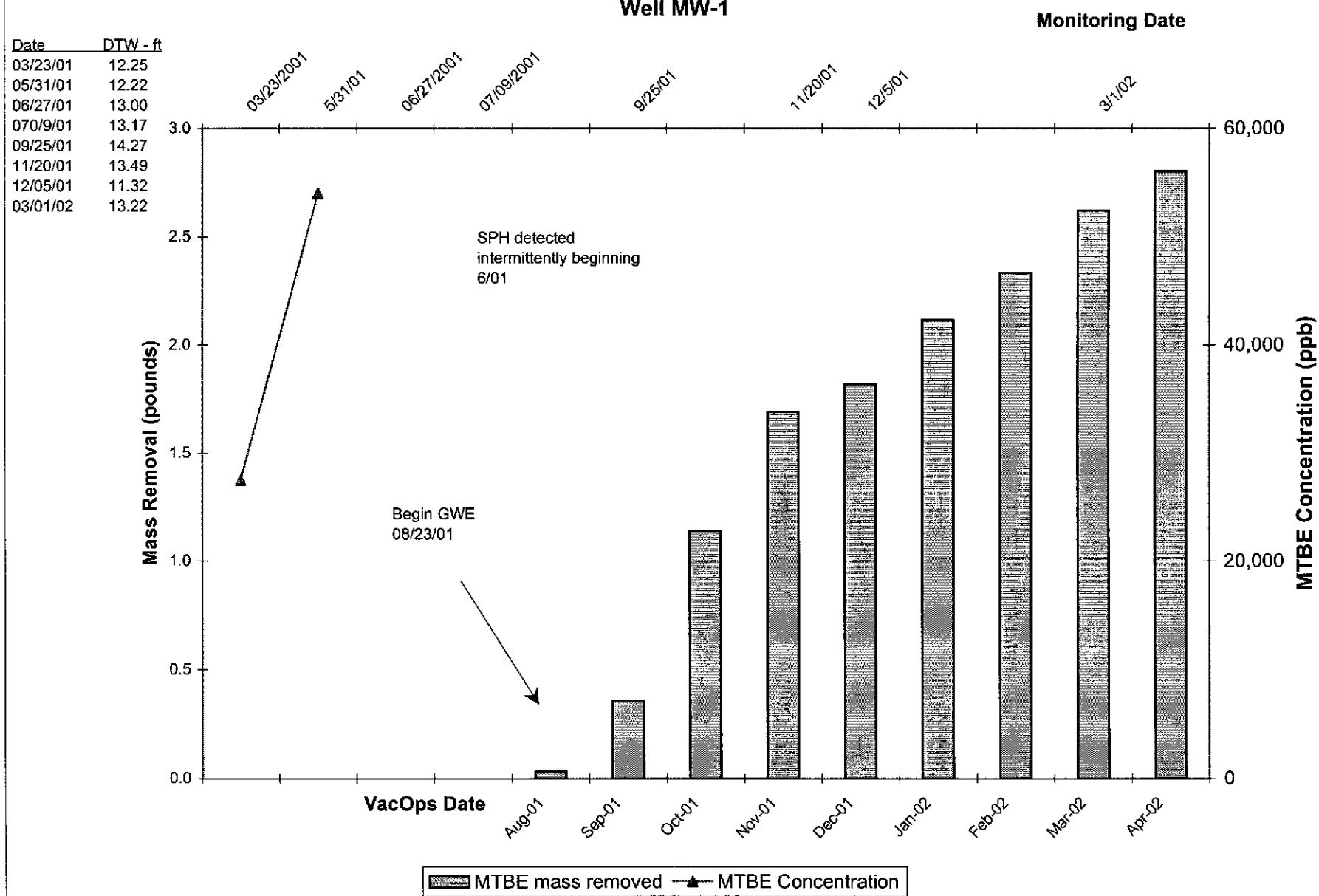


FIGURE  
**2**

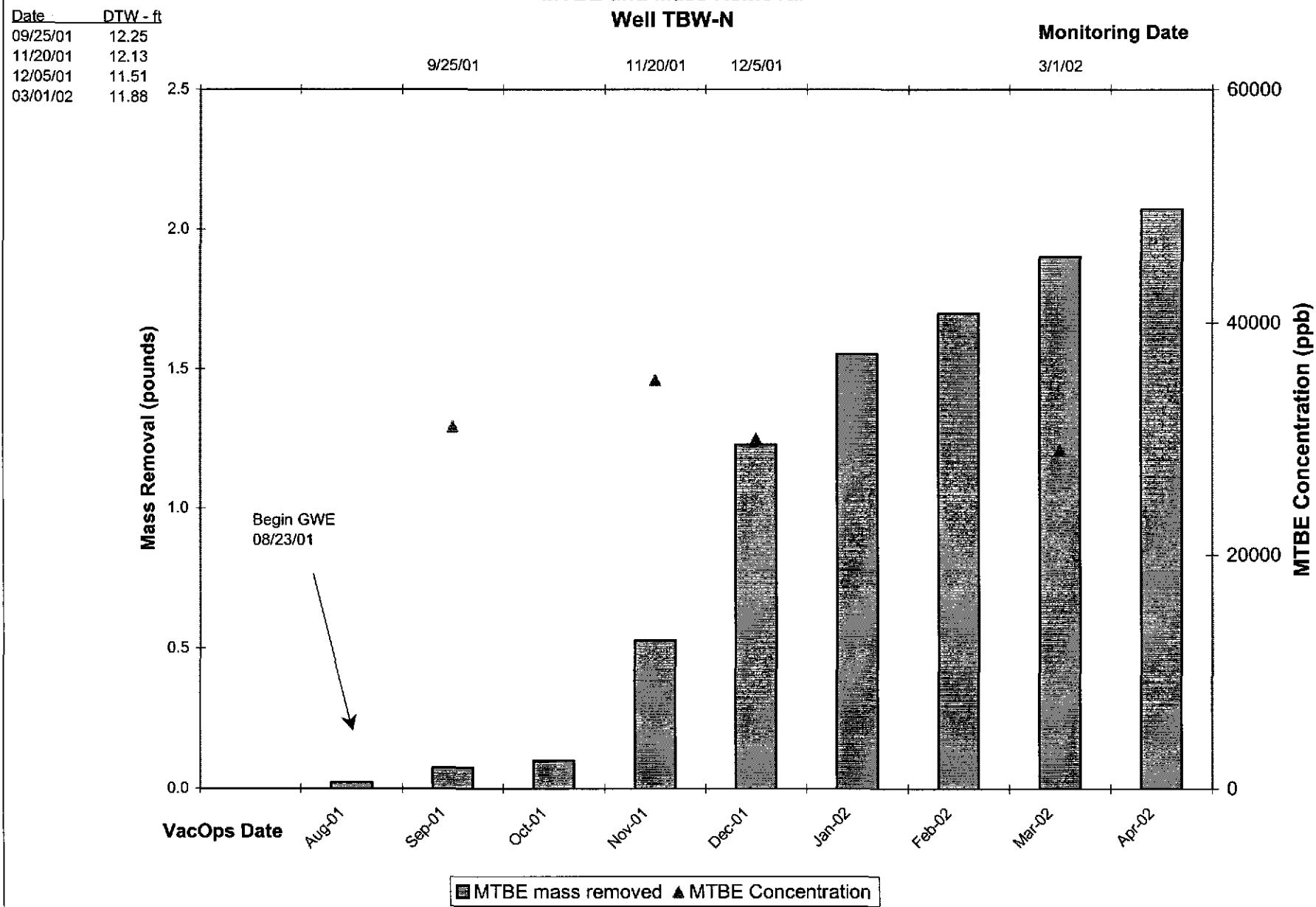
**Groundwater Elevation Contour Map**

March 1, 2002

**Figure 3**  
**MTBE and Mass Removal**  
**Well MW-1**



**Figure 4**  
**MTBE and Mass Removal**  
**Well TBW-N**



**Table 1: Groundwater Extraction - Mass Removal Data - Shell-branded Service Station, Incident #98995740, 2120 Montana St., Oakland, California**

Date Purged	Well ID	Cumulative			TPPH			Benzene			MTBE		
		Volume Pumped	Volume Pumped	Date Sampled	TPPH Concentration (ppb)	TPPH Removed (pounds)	TPPH Removed To Date (pounds)	Benzene Concentration (ppb)	Benzene Removed (pounds)	Benzene To Date (pounds)	MTBE Concentration (ppb)	MTBE Removed (pounds)	MTBE To Date (pounds)
08/23/01	MW-1	100	100	03/23/01	16,600	0.01385	0.01385	753	0.00063	0.00063	27,500	0.02295	0.02295
08/30/01	MW-1	40	140	03/23/01	16,600	0.00554	0.01939	753	0.00025	0.00088	27,500	0.00918	0.03213
09/09/01	MW-1	500	640	03/23/01	16,600	0.06926	0.08865	753	0.00314	0.00402	27,500	0.11473	0.14686
09/21/01	MW-1	320	960	03/23/01	16,600	0.04433	0.13298	753	0.00201	0.00603	27,500	0.07343	0.22029
09/29/01	MW-1	600	1,560	03/23/01	16,600	0.08311	0.21609	753	0.00377	0.00980	27,500	0.13768	0.35797
10/05/01	MW-1	362	1,922	03/23/01	16,600	0.05014	0.26623	753	0.00227	0.01208	27,500	0.08307	0.44104
10/12/01	MW-1	700	2,622	03/23/01	16,600	0.09696	0.36319	753	0.00440	0.01647	27,500	0.16063	0.60167
10/19/01	MW-1	350	2,972	03/23/01	16,600	0.04848	0.41167	753	0.00220	0.01867	27,500	0.08031	0.68198
10/29/01	MW-1	1,995	4,967	03/23/01	16,600	0.27634	0.68801	753	0.01254	0.03121	27,500	0.45779	1.13978
11/02/01	MW-1	700	5,667	03/23/01	16,600	0.09696	0.78497	753	0.00440	0.03561	27,500	0.16063	1.30041
11/16/01	MW-1	800	6,467	03/23/01	16,600	0.11081	0.89579	753	0.00503	0.04063	27,500	0.18358	1.48398
11/30/01	MW-1	900	7,367	03/23/01	16,600	0.12466	1.02045	753	0.00565	0.04629	27,500	0.20652	1.69050
12/14/01	MW-1	300	7,667	03/23/01	16,600	0.04155	1.06200	753	0.00188	0.04817	27,500	0.06884	1.75934
12/28/01	MW-1	250	7,917	03/23/01	16,600	0.03463	1.09663	753	0.00157	0.04974	27,500	0.05737	1.81671
01/12/02	MW-1	1,300	9,217	03/23/01	16,600	0.18007	1.27670	753	0.00817	0.05791	27,500	0.29831	2.11502
02/14/02	MW-1	950	10,167	03/23/01	16,600	0.13159	1.40830	753	0.00597	0.06388	27,500	0.21800	2.33302
03/11/02*	MW-1	1,258	11,425	03/23/01	16,600	0.17425	1.58255	753	0.00790	0.07179	27,500	0.28867	2.62169
04/01/02	MW-1	791	12,216	03/23/01	16,600	0.10957	1.69212	753	0.00497	0.07676	27,500	0.18151	2.80320
08/23/01	TBW-N	85	85	09/25/01	120,000	0.08511	0.08511	3,200	0.00227	0.00227	31,000	0.02199	0.02199
08/30/01	TBW-N	0	85	09/25/01	120,000	0.00000	0.08511	3,200	0.00000	0.00227	31,000	0.00000	0.02199
09/09/01	TBW-N	0	85	09/25/01	120,000	0.00000	0.08511	3,200	0.00000	0.00227	31,000	0.00000	0.02199
09/21/01	TBW-N	200	285	09/25/01	120,000	0.20026	0.28538	3,200	0.00534	0.00761	31,000	0.05174	0.07372
09/29/01	TBW-N	0	285	09/25/01	120,000	0.00000	0.28538	3,200	0.00000	0.00761	31,000	0.00000	0.07372
10/05/01	TBW-N	0	285	09/25/01	120,000	0.00000	0.28538	3,200	0.00000	0.00761	31,000	0.00000	0.07372
10/12/01	TBW-N	100	385	09/25/01	120,000	0.10013	0.38551	3,200	0.00267	0.01028	31,000	0.02587	0.09959
10/19/01	TBW-N	0	385	09/25/01	120,000	0.00000	0.38551	3,200	0.00000	0.01028	31,000	0.00000	0.09959
10/29/01	TBW-N	5	390	09/25/01	120,000	0.00501	0.39052	3,200	0.00013	0.01041	31,000	0.00129	0.10088

**Table 1: Groundwater Extraction - Mass Removal Data - Shell-branded Service Station, Incident #98995740, 2120 Montana St., Oakland, California**

Date Purged	Well ID	Cumulative			TPPH			Benzene			MTBE		
		Date Sampled	Volume Pumped (gal)	Volume Pumped (gal)	Concentration (ppb)	TPPH Removed (pounds)	TPPH To Date (pounds)	Benzene Concentration (ppb)	Benzene Removed (pounds)	Benzene To Date (pounds)	MTBE Concentration (ppb)	MTBE Removed (pounds)	MTBE To Date (pounds)
11/02/01	TBW-N	10	400	09/25/01	120,000	0.01001	0.40053	3,200	0.00027	0.01068	31,000	0.00259	0.10347
11/16/01	TBW-N	400	800	09/25/01	120,000	0.40053	0.80106	3,200	0.01068	0.02136	31,000	0.10347	0.20694
11/30/01	TBW-N	1,100	1,900	11/20/01	72,000	0.66087	1.46193	2,200	0.02019	0.04155	35,000	0.32126	0.52820
12/14/01	TBW-N	2,000	3,900	12/05/01	76,000	1.26834	2.73027	1,600	0.02670	0.06826	30,000	0.50066	1.02886
12/28/01	TBW-N	800	4,700	12/05/01	76,000	0.50734	3.23761	1,600	0.01068	0.07894	30,000	0.20026	1.22912
01/12/02	TBW-N	1,300	6,000	12/05/01	76,000	0.82442	4.06203	1,600	0.01736	0.09629	30,000	0.32543	1.55455
02/14/02	TBW-N	582	6,582	12/05/01	76,000	0.36909	4.43112	1,600	0.00777	0.10406	30,000	0.14569	1.70025
03/11/02*	TBW-N	838	7,420	03/01/02	91,000	0.63632	5.06744	1,200	0.00839	0.11246	29,000	0.20278	1.90303
04/01/02	TBW-N	700	8,120	03/01/02	91,000	0.53154	5.59898	1,200	0.00701	0.11946	29,000	0.16939	2.07242
<b>Total Gallons Extracted:</b>			<b>20,336</b>		<b>Total Pounds Removed:</b>			<b>7,29109</b>			<b>0.19622</b>		<b>4.87562</b>
					<b>Total Gallons Removed:</b>			<b>1,19526</b>			<b>0.02688</b>		<b>0.78639</b>

**Abbreviations & Notes:**

TPPH = Total purgeable hydrocarbons as gasoline

MTBE = Methyl tert-butyl ether

ppb = Parts per billion

gal = Gallon

\* = Volume pumped estimated.

Mass removed based on the formula: volume extracted (gal) x concentration ( $\mu\text{g}/\text{L}$ ) x ( $\text{g}/10^6\mu\text{g}$ ) x (pound/453.6g) x (3.785 L/gal)

Volume removal data based on the formula: density (in gms/cc) x 9.339 (ccxlbs/gmsxgals)

TPPH, benzene, and MTBE analyzed by EPA Method 8260

Concentrations based on most recent groundwater monitoring results

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

Groundwater extracted by vacuum trucks provided by Onyx. Water disposed of at a Martinez Refinery.

# CAMBRIA

**Table 2. Separate-Phase Hydrocarbon Removal Data - Shell-branded Service Station, 2120 Montana Street, Oakland, California, Incident # 98995740**

Well ID	Date	SPH Thickness (ft)	SPH Removed (lbs)	Cumulative SPH Removed (lbs)
MW-1	06/27/01	0.15	1.61	1.61
MW-1	07/09/01	0.31	0.00	1.61
MW-1	08/10/01	0.30	0.00	1.61
MW-1	08/17/01	0.00	0.00	1.61
MW-1	08/31/01	0.44	0.00	1.61
MW-1	09/25/01	0.43	0.32	1.93
MW-1	09/28/01	0.17	0.00	1.93
MW-1	10/01/01	0.00	0.67	2.60
MW-1	10/19/01	0.00	0.00	2.60
MW-1	10/22/01	0.00	0.00	2.60
MW-1	10/26/01	0.00	0.00	2.60
MW-1	10/29/01	0.00	0.00	2.60
MW-1	11/02/01	0.00	0.00	2.60
MW-1	11/05/00	0.00	0.00	2.60
MW-1	11/09/01	0.00	0.00	2.60
MW-1	11/16/01	0.00	0.00	2.60
MW-1	11/19/01	0.00	0.00	2.60
MW-1	11/20/01	0.05	0.00	2.60
MW-1	11/30/01	0.05	0.00	2.60
MW-1	12/03/01	0.00	0.00	2.60
MW-1	12/05/01	0.05	0.00	2.60
MW-1	02/07/02	0.00	0.00	2.60
MW-1	02/25/02	0.00	0.00	2.60
MW-1	03/01/02	0.24	0.00	2.60
MW-1	05/14/02	0.00	0.00	2.60
TBW-N	08/10/01	0.11	0.00	0.00
TBW-N	08/17/01	0.00	0.00	0.00
TBW-N	08/31/01	0.35	0.00	0.00
TBW-N	09/25/01	0.00	0.00	0.00
TBW-N	10/01/01	0.00	0.00	0.00
TBW-N	10/19/01	0.08	0.00	0.00
TBW-N	10/22/01	0.06	0.08	0.08
TBW-N	10/26/01	0.06	0.00	0.08
TBW-N	10/29/01	0.03	0.00	0.08
TBW-N	11/02/01	0.00	0.00	0.08
TBW-N	11/05/01	0.00	0.00	0.08
TBW-N	11/09/01	0.00	0.00	0.08

# CAMBRIA

**Table 2. Separate-Phase Hydrocarbon Removal Data - Shell-branded Service Station, 2120 Montana Street, Oakland, California, Incident # 98995740**

Well ID	Date	SPH Thickness (ft)	SPH Removed (lbs)	Cumulative SPH Removed (lbs)
TBW-N	11/16/01	0.00	0.00	0.08
TBW-N	11/19/01	0.00	0.00	0.08
TBW-N	11/20/01	0.00	0.00	0.08
TBW-N	12/03/01	0.02	0.00	0.08
TBW-N	12/05/01	0.00	0.00	0.08
TBW-N	02/07/02	0.00	0.00	0.08
TBW-N	02/25/02	0.02	0.00	0.08
TBW-N	03/01/02	0.00	0.00	0.08
TBW-N	05/14/02	0.00	0.00	0.08
Total Pounds Removed:				2.68

**Abbreviations and Notes:**

SPH = Separate-phase hydrocarbons

ft = Feet

lbs = Pounds

SPH removal based on the following conversions:

1 liter equals 1.61 pounds

A 4"-inch diameter well contains 0.65 gallons per foot

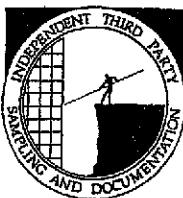
1 gallon equals 3.79 liters

All mass removal data estimated.

**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](http://www.blainetech.com)

March 21, 2002

Karen Petryna  
Equiva Services LLC  
P.O. Box 7869  
Burbank, CA 91510-7869

First Quarter 2002 Groundwater Monitoring at  
Shell-branded Service Station  
2120 Montana Street  
Oakland, CA

Monitoring performed on March 1, 2002

---

#### Groundwater Monitoring Report 020301-SO-3

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.  
1144 65<sup>th</sup> Street, Suite C  
Oakland, CA 94608-2411

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**2120 Montana Street**  
**Oakland, CA**

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)
MW-1	03/19/3001	NA	NA	NA	NA	NA	NA	NA	159.59	12.14	147.45	ND
MW-1	03/23/2001	16,600	753	1,720	407	2,330	NA	27,500	159.59	12.25	147.34	ND
MW-1	05/31/2001	<20,000d	1,000d	920d	490d	2,000d	NA	54,000d	161.13	12.22	148.91	ND
MW-1	06/27/2001	NA	NA	NA	NA	NA	NA	NA	159.59	13.00b	NA	ND
MW-1	07/09/2001	NA	NA	NA	NA	NA	NA	NA	159.59	13.17	146.67	0.31
MW-1	09/25/2001	NA	NA	NA	NA	NA	NA	NA	159.59	14.27	145.66	0.43
MW-1	11/20/2001	NA	NA	NA	NA	NA	NA	NA	159.59	13.49	146.14	0.05
MW-1	12/05/2001	NA	NA	NA	NA	NA	NA	NA	159.59	11.32	148.31	0.05
MW-1	03/01/2002	NA	NA	NA	NA	NA	NA	NA	159.59	13.22	146.56	0.24
MW-2	03/19/3001	NA	NA	NA	NA	NA	NA	NA	158.03	11.60	146.43	ND
MW-2	03/23/2001	4,450	280	41.0	62.1	63.0	NA	16,600	158.03	11.76	146.27	ND
MW-2	05/31/2001	<20,000a	820a	<200a	<200a	<200a	NA	63,000a	158.03	11.40	146.63	ND
MW-2	06/27/2001	<50,000	610	4.0	13	9.2	NA	47,000	158.03	12.65	145.38	ND
MW-2	09/25/2001	<2,000	41	<20	<20	<20	NA	6,400	158.03	12.89	145.14	ND
MW-2	12/05/2001	<2,000	74	<20	<20	<20	NA	8,400	158.03	10.40	147.63	ND
MW-2	03/01/2002	<1,000	<10	<10	<10	<10	NA	2,900	158.03	11.52	146.51	ND
MW-3	03/19/3001	NA	NA	NA	NA	NA	NA	NA	161.13	11.42	149.71	ND
MW-3	03/23/2001	<50.0	<0.500	<0.500	<0.500	<0.500	NA	1.26	161.13	11.42	149.71	ND
MW-3	05/31/2001	<50e	<0.50e	<0.50e	<0.50e	<0.50e	NA	<5.0e	159.59	13.00	146.59	ND
MW-3	06/27/2001	<50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	161.13	12.32	148.81	ND
MW-3	09/25/2001	<50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	161.13	12.50	148.63	ND
MW-3	12/05/2001	<50	<0.50	<0.50	<0.50	<0.50	NA	<5.0	161.13	10.13	151.00	ND
MW-3	03/01/2002	<50	<0.50	<0.50	<0.50	0.73	NA	<5.0	161.13	11.63	149.50	ND
TBW-N	09/25/2001 c	120,000	3,200	2,800	4,000	18,000	NA	31,000	NM	12.25	NM	ND
TBW-N	11/20/2001	72,000	2,200	3,600	2,600	14,000	NA	35,000	NM	12.13	NM	ND

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**2120 Montana Street**  
**Oakland, CA**

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)
TBW-N	12/05/2001	76,000	1,600	3,200	2,900	15,000	NA	30,000	NM	11.51	NM	ND
TBW-N	03/01/2002	91,000	1,200	4,200	2,800	14,000	NA	29,000	NM	11.88	NM	ND

Abbreviations:

TPPH = Total petroleum hydrocarbons as gasoline by EPA Method 8260B; prior to May 31, 2001, analyzed by EPA Method 8015.

BTEX = Benzene, toluene, ethylbenzene, xylenes by EPA Method 8260B; prior to May 31, 2001, analyzed by EPA Method 8020.

MTBE = Methyl-tertiary-butyl ether

TOC = Top of Casing Elevation

GW = Groundwater

TBW-N = tank backfill well-north

NA = Not analyzed

ND = Not detected

NM = Not measured

ug/L = parts per billion

msl = Mean sea level

ft = Feet

<n = Below detection limit

Notes:

a = Resampled on June 27, 2001, due to possible mislabeling.

b = Separate phase hydrocarbons encountered during purge; groundwater elevation may not be accurate.

c = Sample TBW-N was analyzed once within hold time, but the analyte concentrations all exceeded the instrument working ranges. The sample was diluted and re-analyzed out of hold time. The diluted analysis is reported because it more accurately reflects the concentrations present.

d = These results are listed as MW-3 on analytical report due to possible mislabeling in field or laboratory. Resampled on June 27, 2001, to confirm mislabeling.

e = These results are listed as MW-1 on analytical report due to possible mislabeling in field or laboratory. Resampled on June 27, 2001, to confirm mislabeling.

Survey data provided by Cambria Environmental Technology, May 2001.

When separate phase hydrocarbons are present, ground water elevation is adjusted using the relation:

corrected ground water elevation = Top-of-casing elevation - depth to water + (0.8 x hydrocarbon thickness).



Report Number : 25104

Date : 3/18/2002

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

Subject : 3 Water Samples  
Project Name : 2120 Montana Street, Oakland  
Project Number : 020301-SO-3  
P.O. Number : 98995740

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". Below the signature, the name "Joel Kiff" is printed in a smaller, black, sans-serif font.



Report Number : 25104

Date : 3/18/2002

Project Name : 2120 Montana Street, Oakland

Project Number : 020301-SO-3

Sample : MW-2

Matrix : Water

Lab Number : 25104-01

Sample Date : 3/1/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 10	10	ug/L	EPA 8260B	3/15/2002
Toluene	< 10	10	ug/L	EPA 8260B	3/15/2002
Ethylbenzene	< 10	10	ug/L	EPA 8260B	3/15/2002
Total Xylenes	< 10	10	ug/L	EPA 8260B	3/15/2002
Methyl-t-butyl ether (MTBE)	2900	100	ug/L	EPA 8260B	3/15/2002
TPH as Gasoline	< 1000	1000	ug/L	EPA 8260B	3/15/2002
Toluene - d8 (Surr)	94.3		% Recovery	EPA 8260B	3/15/2002
4-Bromofluorobenzene (Surr)	105		% Recovery	EPA 8260B	3/15/2002

Sample : MW-3

Matrix : Water

Lab Number : 25104-02

Sample Date : 3/1/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	3/15/2002
Toluene	< 0.50	0.50	ug/L	EPA 8260B	3/15/2002
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	3/15/2002
Total Xylenes	0.73	0.50	ug/L	EPA 8260B	3/15/2002
Methyl-t-butyl ether (MTBE)	< 5.0	5.0	ug/L	EPA 8260B	3/15/2002
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	3/15/2002
Toluene - d8 (Surr)	93.7		% Recovery	EPA 8260B	3/15/2002
4-Bromofluorobenzene (Surr)	102		% Recovery	EPA 8260B	3/15/2002

Approved By: Joel Kiff



Report Number : 25104

Date : 3/18/2002

Project Name : 2120 Montana Street, Oakland

Project Number : 020301-SO-3

Sample : TBW-N

Matrix : Water

Lab Number : 25104-03

Sample Date : 3/1/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	1200	50	ug/L	EPA 8260B	3/15/2002
Toluene	4200	50	ug/L	EPA 8260B	3/15/2002
Ethylbenzene	2800	50	ug/L	EPA 8260B	3/15/2002
Total Xylenes	14000	50	ug/L	EPA 8260B	3/15/2002
Methyl-t-butyl ether (MTBE)	29000	1000	ug/L	EPA 8260B	3/15/2002
TPH as Gasoline	91000	5000	ug/L	EPA 8260B	3/15/2002
Toluene - d8 (Surr)	98.0		% Recovery	EPA 8260B	3/15/2002
4-Bromofluorobenzene (Surr)	96.9		% Recovery	EPA 8260B	3/15/2002

Approved By: Joel Kiff

Report Number : 25104

Date : 3/18/2002

**QC Report : Method Blank Data**

Project Name : **2120 Montana Street, Oakland**

Project Number : **020301-SO-3**

Parameter	Measured Value	Reporting Limit	Method Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	3/16/2002
Toluene	< 0.50	0.50	ug/L	EPA 8260B	3/16/2002
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	3/16/2002
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	3/16/2002
Methyl-t-butyl ether (MTBE)	< 5.0	5.0	ug/L	EPA 8260B	3/16/2002
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	3/16/2002
Toluene - d8 (Surr)	101	%		EPA 8260B	3/16/2002
4-Bromofluorobenzene (Surr)	103	%		EPA 8260B	3/16/2002

Parameter	Measured Value	Reporting Limit	Method Units	Analysis Method	Date Analyzed

KIFF ANALYTICAL, LLC

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

Approved By: Joel Kiff



## QC Report : Matrix Spike/ Matrix Spike Duplicate

Report Number : 25104

Date : 3/18/2002

Project Name : 2120 Montana Street,

Project Number : 020301-SO-3

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	25166-01	<0.50	19.2	19.5	19.7	18.0	ug/L	EPA 8260B	3/16/2002102	92.4	10.0	70-130	25	
Toluene	25166-01	<0.50	19.2	19.5	19.6	17.9	ug/L	EPA 8260B	3/16/2002102	91.9	10.0	70-130	25	
Tert-Butanol	25166-01	<5.0	96.2	97.5	89.4	91.8	ug/L	EPA 8260B	3/16/200292.9	94.2	1.41	70-130	25	
Methyl-t-Butyl Ether	25166-01	<0.50	19.2	19.5	19.2	19.2	ug/L	EPA 8260B	3/16/2002100	98.7	1.26	70-130	25	

KIFF ANALYTICAL, LLC

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

Approved By: Joel Kiff



Report Number : 25104

Date : 3/18/2002

QC Report : Laboratory Control Sample (LCS)

Project Name : **2120 Montana Street,**

Project Number : **020301-SO-3**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	20.0	ug/L	EPA 8260B	3/16/2002	100	70-130
Toluene	20.0	ug/L	EPA 8260B	3/16/2002	99.8	70-130
Tert-Butanol	100	ug/L	EPA 8260B	3/16/2002	91.8	70-130
Methyl-t-Butyl Ether	20.0	ug/L	EPA 8260B	3/16/2002	100	70-130

KIFF ANALYTICAL, LLC

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

Approved By:

Joel Kiff

# EQUIVA Services LLC Chain Of Custody Record

Lab Identification (if necessary):

Address:

City, State, Zip:

## Equiva Project Manager to be Involved:

<input checked="" type="checkbox"/> SCIENCE & ENGINEERING
<input type="checkbox"/> TECHNICAL SERVICES
<input type="checkbox"/> CRMT-HOUSTON

Karen Petryna

25104

INCIDENT NUMBER (S/C/E ONLY):

9 8 9 9 5 7 4 0

LAB & CRMT NUMBER (S/CRMT):

DATE: 3/1/02

PAGE: 1 of 7

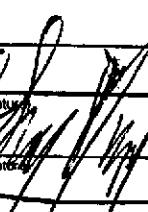
SAMPLING COMPANY Blaine Tech Services		LOG CODE: BTSS	SITE ADDRESS (Street and City): <b>2120 Montana Street, Oakland</b>	GLOBAL ID NO.: <b>T0600101805</b>
ADDRESS: 1680 Rogers Avenue, San Jose, CA 95112		EDF DELIVERABLE TO (Responsible Party or Designer): Anni Kreml		PHONE NO.: 510-420-3335
PROJECT CONTACT (Handcopy or PDF Report to): Leon Gearhart		E-MAIL: gearhart@blainetech.com		CONSULTANT PROJECT NO.: BTS # 020301-S0-7
TELEPHONE: 408-573-#555	FAX: 408-573-7771	LAB USE ONLY <i>Shawn O'Bryan</i>		
TURN AROUND TIME (BUSINESS DAYS): <input 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				
<input type="checkbox"/> LA - RWQCB REPORT FORMAT <input type="checkbox"/> UST AGENCY:				
GC/MSC MTBE CONFIRMATION: HIGHEST _____ HIGHEST per BORING _____ ALL _____				
SPECIAL INSTRUCTIONS OR NOTES: CHECK BOX IF EDD IS NEEDED <input checked="" type="checkbox"/>				

## REQUESTED ANALYSIS

### FIELD NOTES:

Container/Preservative  
or PID Readings  
or Laboratory Notes

LAB USE ONLY	Field Sample Identification	SAMPLING		MATRIX	NO. OF CONT.	TPH - Gas, Purgeable										TEMPERATURE ON RECEIPT C°	
		DATE	TIME			BTEX	MTBE (8221B - 5ppb RL)	MTBE (8280B - 0.5ppb RL)	Oxygenates (S) by (8220B)	Ethanol (8260B)	Methanol	1,2-DCA (8260B)	EDB (8260B)	TPH - Diesel, Extractable (8015m)	MTBE (8280B) Confirmation, See Note		
	MW-2	3/1/02	1234	W	3	X	X	X									-01
	MW-3		1249	1		X	X	X									-02
	TBW-N		1300	1		X	X	X									-03

Relinquished by: (Signature) 	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
John Cutty/Kiff Analytical		030402	1116

## WELL GAUGING DATA

Project # 020301-50-3

Date 3/1/02

Client Equiv

Site: 2120 Montanna St., Oakland 98995740

# EQUIVA WELL MONITORING DATA SHEET

BTS #: 020301-50-3	Site: 98995740
Sampler: O'Bryan	Date: 3/1/02
Well I.D.: MW-1	Well Diameter: 2 3 4 6 8
Total Well Depth: 14.27	Depth to Water: 13.22
Depth to Free Product: 12.98	Thickness of Free Product (feet): 2.1
Referenced to: PVC	Grade D.O. Meter (if req'd): YSI HACH

Purge Method: Bailer  
 Disposable Bailer  
 Middleburg  
 Electric Submersible

Waterra  
 Peristaltic  
 Extraction Pump  
 Other \_\_\_\_\_

Sampling Method: Bailer  
 Disposable Bailer  
 Extraction Port  
 Dedicated Tubing

Other: \_\_\_\_\_

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	5"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.16

(Gals.) X \_\_\_\_\_ = \_\_\_\_\_ Gals.  
 1 Case Volume Specified Volumes Calculated Volume

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations

Did well dewater? Yes No Gallons actually evacuated:

Sampling Time: Sampling Date: 3/1/02

Sample I.D.: Laboratory: Kiff Sequoia Other \_\_\_\_\_

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

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: mg/L Post-purge: mg/L

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

BLAINE

TECH SERVICES, 1680 ROGERS AVE. • SAN JOSE, CA 95112-1105 • (408) 573-0666 • FAX (408) 573-7771 • CONTRACTOR'S LICENSE #746664

# EQUIVA WELL MONITORING DATA SHEET

BTS #: 020301-50-3	Site: 98995740
Sampler: O'Bryan	Date: 3/1/02
Well I.D.: MW-2	Well Diameter: 2 3 4 6 8
Total Well Depth: 12.871	Depth to Water: 11.52
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC	D.O. Meter (if req'd): YSI HACH

Purge Method: Bailer      Water: Peristaltic      Sampling Method: Bailer  
 Disposable Bailer      Extraction Pump      Disposable Bailer  
 Middleburg      Other \_\_\_\_\_      Extraction Port  
 Electric Submersible      Other \_\_\_\_\_      Dedicated Tubing

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

.2 (Gals.) X 3 = 6 Gals.  
 1 Case Volume Specified Volumes Calculated Volume

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1230	63.6	7.0	762	>200	.25	
1231	63.7	7.0	764	>200	.5	Grey
1232	63.7	7.1	763	>200	.75	.

Did well dewater? Yes No Gallons actually evacuated: 75

Sampling Time: 1234 Sampling Date: 3/1/02

Sample I.D.: MW-2 Laboratory: Kiff Sequoia Other \_\_\_\_\_

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

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

# EQUIVA WELL MONITORING DATA SHEET

BTS #: 020301-50-3	Site: 98995740	
Sampler: O'Bryan	Date: 3/1/02	
Well I.D.: MW-3	Well Diameter: (2) 3 4 6 8	
Total Well Depth: 12.50	Depth to Water: 11.63	
Depth to Free Product:	Thickness of Free Product (feet):	
Referenced to: PVC	Grade	D.O. Meter (if req'd): YSI HACH

Purge Method:  Baile  Waterra  Sampling Method:  Baile   
 Disposable Baile  Peristaltic  Disposable Baile   
 Middleburg  Extraction Pump  Extraction Port   
 Electric Submersible  Other \_\_\_\_\_  Dedicated Tubing

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

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

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1245	64.3	7.2	690	>200	.25	Grey
1246	65.8	7.0	645	>200	.5	Brown-Grey
1247	65.2	6.9	642	>200	.75	Brown

Did well dewater? Yes  No  Gallons actually evacuated: .75

Sampling Time: 1247 Sampling Date: 3/1/02

Sample I.D.: MW-3 Laboratory:  Kiff  Sequoia  Other \_\_\_\_\_

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

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

BLAINE

TECH SERVICES.. 1680 ROGERS AVE. • SAN JOSE, CA 95112-1105 • (408) 573-0555 • FAX (408) 573-7771 • CONTRACTOR'S LICENSE #746684

# EQUIVA WELL MONITORING DATA SHEET

BTS #: 020301-50-3	Site: 98995740
Sampler: O'Bryan	Date: 3/1/02
Well I.D.: T-BW-N	Well Diameter: 2 3 4 6 8
Total Well Depth: 12.25	Depth to Water: 11.88
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC	D.O. Meter (if req'd): YSI HACH

Purge Method:  Bailer  
 Disposable Bailer  
 Middleburg  
 Electric Submersible      Water:  Peristaltic  
 Extraction Pump  
 Other      Sampling Method:  Bailer  
 Disposable Bailer  
 Extraction Port  
 Dedicated Tubing  
 Other:

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

=  $\frac{(\text{Case Volume}) \times (\text{Specified Volumes})}{\text{Calculated Volume}}$

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1256	64.0	6.8	1097	32	.25	Oder / Sheen
1257	64.3	6.7	1243	67	.5	" " "
1258	64.3	7.0	1257	112	.75	" " "

Did well dewater? Yes  Gallons actually evacuated: 7.5

Sampling Time: 13:00 Sampling Date: 3/1/02

Sample I.D.: T-BW-N Laboratory:  Kiff  Sequoia  Other

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

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: mg/L Post-purge: mg/L

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

BLAINE

TECH SERVICES, 1680 ROGERS AVE. • SAN JOSE, CA 95112-1105 • (408) 573-0556 • FAX (408) 573-7771 • CONTRACTOR'S LICENSE #746664