

**URS**

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Alameda County  
DEC 23 2003  
Environmental Health

December 19, 2003

Mr. Don Hwang  
Alameda County Health Care Service Agency  
1131 Harbor Bay Parkway, Room 250  
Alameda, California 94502-6577

Re: **Fourth Quarter 2003 Groundwater Monitoring Report  
Former BP Service Station #11117  
7210 Bancroft Avenue  
Oakland, California  
URS Project #38486396**

Dear Mr. Hwang:

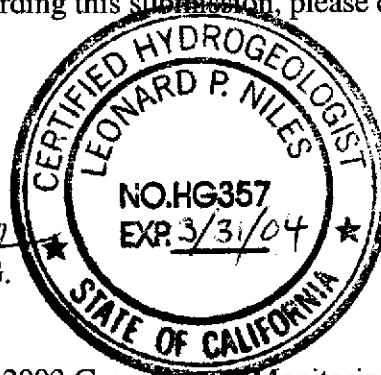
On behalf of the Atlantic Richfield Company (ARCO – a BP affiliated company), URS Corporation (URS) is submitting the *Fourth Quarter 2003 Groundwater Monitoring Report* for the Former BP Service Station #11117, located at 7210 Bancroft Avenue, Oakland, California. Due to the lack of detected hydrocarbons in the previous four quarterly monitoring events, URS requests reducing the sampling frequency of wells MW-1 and MW-6 to an annual basis.

If you have any questions regarding this submission, please call me at (510) 874-1720.

Sincerely,

**URS CORPORATION**

*Leonard P. Niles*  
Leonard P. Niles, R.G./C.H.G.  
Senior Geologist



Enclosure: Fourth Quarter 2003 Groundwater Monitoring Report

cc: Mr. Paul Supple, ARCO, (electronic copy uploaded to ENFOS)  
Ms. Liz Sewell, ConocoPhillips, 76 Broadway, Sacramento, CA 95818  
Diane Clark, One Eastmont Town Center, 7200 Bancroft Avenue, Oakland, CA 94605-1907

URS Corporation  
500 12th Street, Suite 200  
Oakland, CA 94607-4014  
Tel: 510.893.3600  
Fax: 510.874.3268



Atlantic Richfield Company  
(a BP affiliated company)

P.O. Box 6549  
Moraga, California 94570  
Phone: (925) 299-8891  
Fax: (925) 299-8872

December 19, 2003

RE: Fourth Quarter 2003 Groundwater Monitoring Report  
Former BP Service Station #11117  
7210 Bancorft Avenue  
Oakland, CA  
URS Project #38486396

I declare, that to the best of my knowledge at the present time, that the information and/or recommendations contained in the attached document are true and correct.

Submitted by:

Paul Supple  
Environmental Business Manager

**R E P O R T**

**FOURTH QUARTER 2003  
GROUNDWATER MONITORING**

**FORMER BP SERVICE STATION #11117  
7210 BANCROFT AVENUE  
OAKLAND, CALIFORNIA**

*Prepared for*  
**ARCO**

December 19, 2003

**URS**

URS Corporation  
500 12th Street, Suite 200  
Oakland, California 94607

38486396

Date: December 19, 2003

Quarter: 4Q 03

### BP GEM QUARTERLY GROUNDWATER MONITORING REPORT

Facility No.: 11117 Address: 7210 Bancroft Avenue, Oakland, CA  
BP Environmental Business Manager: Paul Supple  
Consulting Co./Contact Person: URS Corporation / Leonard Niles  
Consultant Project No.: 38486396  
Primary Agency: Alameda County Health Care Service Agency

#### WORK PERFORMED THIS QUARTER (Fourth – 2003):

1. Performed fourth quarter groundwater monitoring event on November 10, 2003.
2. Prepare and submit fourth quarter 2003 groundwater monitoring report.
3. Prepared and submitted work plan for soil and groundwater investigation.

#### WORK PROPOSED FOR NEXT QUARTER (First – 2004):

1. Perform first quarter 2004 groundwater monitoring event.
2. Prepare and submit first quarter 2004 groundwater monitoring report.
3. Perform soil and groundwater investigation, pending ACHCSA approval of workplan.

Current Phase of Project:	<u>GW monitoring/sampling</u>
Frequency of Groundwater Sampling:	<u>Wells MW-1, -2, -4, -6, -7, -10 quarterly; Wells MW-3 and MW-9 semi-annually (1<sup>st</sup> and 3<sup>rd</sup> quarters); Well MW-8 annually (1<sup>st</sup> quarter). Anomalously</u>
Frequency of Groundwater Monitoring:	<u>Quarterly</u>
Is Free Product (FP) Present On-Site:	<u>No</u>
Current Remediation Techniques:	<u>Monitored Natural Attenuation</u>
Approximate Depth to Groundwater:	<u>19.24 (MW-1) to 21.92 (MW-10) feet</u>
Groundwater Gradient (direction):	<u>North-Northeast</u>
Groundwater Gradient (magnitude):	<u>0.013 feet per foot</u>

#### DISCUSSION:

During the fourth quarter monitoring event, groundwater samples were analyzed by EPA Method 8260B for TPH-g, BTEX and fuel oxygenates. TPH-g was detected above laboratory reporting limits in three out of six wells sampled at concentrations ranging from 230 µg/L (MW-7) to 110,000 µg/L (MW-4). Benzene was detected above laboratory reporting limits in two wells at concentrations of 7,100 µg/L (MW-4) to 12,000 µg/L (MW-2). MTBE was detected above laboratory reporting limits in all six wells at concentrations ranging from 0.51 µg/L (MW-1) to 25,000 µg/L (MW-4). No other fuel oxygenates were detected above laboratory reporting limits.

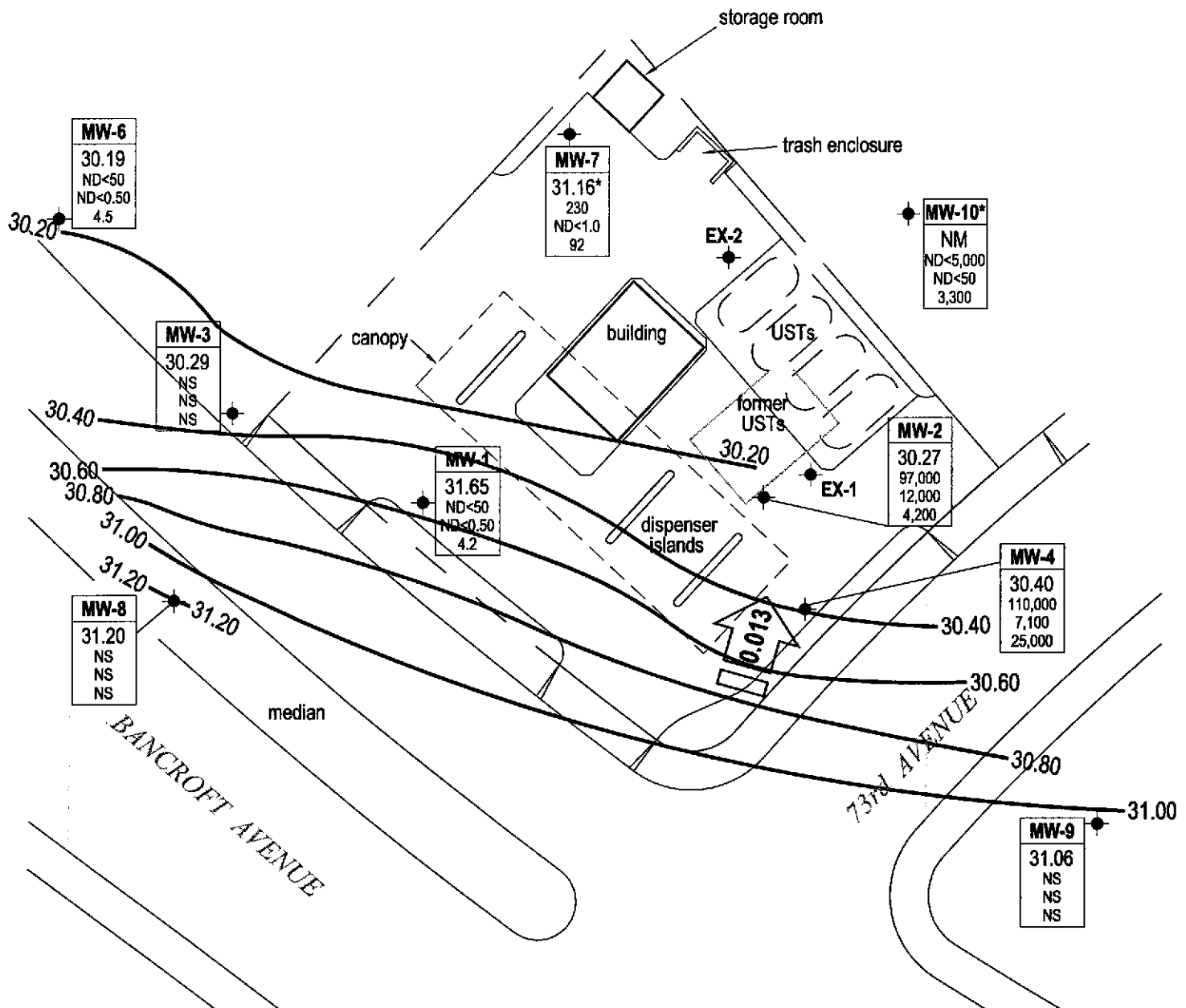
The groundwater elevation measured in MW-7 appeared to be anomalous and was not used in gradient calculations. URS recommends reducing the sampling frequency of wells MW-1 and MW-6 to a semi-annual basis, due to their

upgradient location and relatively low hydrocarbon concentrations detected in the last several sampling events. URS recommends adding wells EX-1 and EX-2 to the quarterly monitoring schedule.

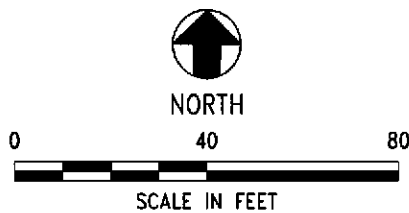
**ATTACHMENTS:**

- Figure 1 – Groundwater Elevation Contour and Analytical Summary Map – November 10, 2003
- Table 1 – Groundwater Elevation and Analytical Data
- Table 2 – Groundwater Flow Direction and Gradient
- Table 3 – Fuel Oxygenate Analytical Data
- Attachment A – Concentration and Water Level Trends (MW-4, MW-2, MW-10)
- Attachment B – Field Procedures and Field Data Sheets
- Attachment C – Laboratory Procedures, Certified Analytical Reports, and Chain-of-Custody Records
- Attachment D – EDCC Report and EDF/Geowell Submittal Confirmation

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Chevron-branded site



NOTE: SITE MAP ADAPTED FROM CAMBRIA ENVIRONMENTAL FIGURES. SITE DIMENSIONS AND FACILITY LOCATIONS NOT VERIFIED.

**EXPLANATION**

-  Monitoring well location
- Well** Well designation
- ELEV** Groundwater elevation (ft above MSL)
- TPH-g** TPH-g, Benzene and MTBE concentrations in micrograms per liter (µg/L)
- Benzene**
- MTBE**
-  Groundwater flow gradient and direction (ft/ft)
- 31.00** Groundwater elevation contour (ft above MSL)
- ND<** Not detected at or above laboratory reporting limit
- NM** Not measured      **NS** Not sampled
- \*** Anomalous groundwater elevation, not used in contouring



Project No. 38486396  
Former BP Service Station #11117  
7210 Bancroft Avenue  
Oakland, California

**GROUNDWATER ELEVATION CONTOUR  
AND ANALYTICAL SUMMARY MAP  
Fourth Quarter 2003 (November 10, 2003)**

**Table 1**  
**Groundwater Elevation and Analytical Data**  
Former BP Service Station #11117  
7210 Bancroft Avenue, Oakland, CA

WELL ID	DATE OF SAMPLING/ MONITORING	TOC (Feet)	DTW (a) (Feet)	PRODUCT THICKNESS (Feet)	GWE (Feet)	TPH-G (b) (ug/L)	TPH-D (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl- benzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)	Organic Lead (ug/L)	DO (ppm)	pH
MW-1	1/5/1992	49.80	33.16	---	16.64	57000	50000	2400	1000	1100	3100	---	ND	---	---
MW-1	1/10/1992	49.80	33.16	---	16.64	---	---	---	---	---	---	---	---	---	---
MW-1	6/5/1992	49.80	29.01	---	20.79	31000	---	2800	2100	800	2300	---	---	---	---
MW-1	7/24/1992	49.80	29.45	---	20.35	---	---	---	---	---	---	---	---	---	---
MW-1	7/27/1992	49.80	29.45	---	20.35	---	---	---	---	---	---	---	---	---	---
MW-1	9/15/1992	49.80	30.53	---	19.27	40000	1200 (c)	3400	3000	1300	3400	---	---	---	---
QC-1 (d)	9/15/1992	---	---	---	---	36000	---	3800	3400	1400	3800	---	---	---	---
MW-1	12/15/1992	49.80	31.26	---	18.54	27000	1100 (c)	1700	580	700	1900	---	---	---	---
QC-1 (d)	12/15/1992	---	---	---	---	22000	---	1500	440	510	1300	---	---	---	---
MW-1	3/15/1993	49.80	24.80	---	25.00	17000	580	1700	1200	590	1800	---	(l)	---	---
QC-1 (d)	3/15/1993	---	---	---	---	15000	---	1100	860	440	1400	---	(l)	---	---
MW-1	6/7/1993	49.80	25.01	---	24.79	750	100	0.8	0.8	ND<0.5	ND<0.5	---	(l)	---	---
QC-1 (d)	6/7/1993	---	---	---	---	720	---	0.7	0.7	ND<0.5	ND<0.5	---	(l)	---	---
MW-1	9/23/1993	49.80	28.70	---	21.10	40000	770	4000	500	920	3000	6619	(e)(l)	---	---
MW-1	12/27/1993	49.80	28.66	---	21.14	27000	---	2000	400	940	2600	13558	(e)(l)	---	---
QC-1 (d)	12/27/1993	---	---	---	---	21000	---	1700	380	830	2400	9219	(e)(l)	---	---
MW-1	4/5/1994	49.80	26.37	---	23.43	27000	---	3400	930	950	2900	8595	(e)(l)	---	---
QC-1 (d)	4/5/1994	---	---	---	---	29000	---	3700	1000	1000	3100	9672	(e)(l)	1.3	---
MW-1	7/22/1994	49.80	26.54	---	23.26	1700	---	220	2.3	2.0	3.4	262	(e)(l)	2.0	---
MW-1	10/13/1994	49.80	27.46	---	22.34	1200	---	250	21	ND<0.5	3.2	321	(e)(l)	2.6	---
MW-1	1/25/1995	49.80	20.96	---	28.84	1000	---	420	8	13	4	---	---	---	---
MW-1	4/19/1995	49.80	19.59	---	30.21	5200	---	420	51	230	340	---	---	6.0	---
MW-1	7/5/1995	49.80	19.61	---	30.19	320	---	4.2	ND<0.50	ND<0.50	ND<1.0	---	---	4.6	---
MW-1	10/5/1995	49.80	24.40	---	25.40	5800	---	1000	40	31	180	7800	---	2.3	---
MW-1	1/12/1996	49.80	25.44	---	24.36	370	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	3.7	---
MW-1	4/22/1996	49.80	18.02	---	31.78	ND<50	---	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	3.9	---
MW-1	7/2/1996	49.80	19.72	---	30.08	---	---	---	---	---	---	---	---	---	---
MW-1	7/3/1996	49.80	---	---	---	ND<250	---	ND<2.5	ND<5	ND<5	ND<5	ND<50	---	3.6	---
MW-1	11/8/1996	49.80	19.98	---	29.82	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	4.3	---
MW-1	1/3/1997	49.80	19.49	---	30.31	ND<50	---	ND<0.5	14	ND<1.0	ND<1.0	ND<10	---	4.6	---
MW-1	4/28/1997	49.80	20.20	---	29.60	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	3.9	---
MW-1	7/1/1997	49.80	22.53	---	27.27	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	3.9	---
MW-1	10/2/1997	49.80	24.27	---	25.53	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	4.6	---
MW-1	1/9/1998	49.80	21.07	---	28.73	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	4.2	---
MW-1	5/6/1998	49.80	14.94	---	34.86	60	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	3.8	---
MW-1	7/21/1998	49.80	15.11	---	34.69	70	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	3.8	---
MW-1	12/30/1998	49.80	19.95	---	29.85	---	---	---	---	---	---	---	---	---	---
MW-1	2/2/1999	49.80	19.12	---	30.68	420	---	ND<1.0	ND<1.0	ND<1.0	ND<1.0	390	---	---	---
MW-1	5/10/1999	49.80	15.51	---	34.29	---	---	---	---	---	---	---	---	---	---
MW-1	9/23/1999	49.80	21.65	---	28.15	440	---	49	ND<1.0	ND<1.0	ND<1.0	910	---	---	---

**Table 1**  
**Groundwater Elevation and Analytical Data**  
**Former BP Service Station #11117**  
**7210 Bancroft Avenue, Oakland, CA**

WELL ID	DATE OF SAMPLING/ MONITORING	TOC (Feet)	DTW (a) (Feet)	PRODUCT THICKNESS (Feet)	GWE (Feet)	TPH-G (b) (ug/L)	TPH-D (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl- benzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)	Organic Lead (ug/L)	DO (ppm)	pH
MW-1	12/23/1999	49.80	22.32	---	27.48	---	---	---	---	---	---	---	---	---	---
MW-1	3/27/2000	49.80	15.72	---	34.08	2500	---	230	3.0	83	36	4400	---	---	---
MW-1	5/22/2000	49.80	16.92	---	32.88	---	---	---	---	---	---	---	---	---	---
MW-1	8/31/2000	49.80	20.12	---	29.68	1700	---	18	5.5	7.9	5.0	510	---	---	---
MW-1	12/11/2000	49.80	20.72	---	29.08	---	---	---	---	---	---	---	---	---	---
MW-1	3/20/2001	49.80	15.91	---	33.89	880	---	38.2	ND<0.5	24.1	ND<1.5	391	---	---	---
MW-1	6/19/2001	49.80	18.38	---	31.42	---	---	---	---	---	---	---	---	---	---
MW-1	9/20/2001	49.80	21.23	---	28.57	3200	---	400	19.8	42	32.5	2510	---	---	---
MW-1	12/27/2001	49.80	16.72	---	33.08	750	---	70.1	0.536	4.74	3.76	649	---	---	---
MW-1	2/28/2002	49.80	15.25	---	34.55	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<1.0	8.7	---	---	---
MW-1	6/28/2002	49.80	16.57	---	33.23	110	---	0.977	ND<0.5	0.818	ND<1.0	8.35	---	---	---
MW-1	9/12/2002*	49.80	18.41	---	31.39	98	---	2.7	1.5	1.5	5.4	48	---	---	6.9
MW-1	12/12/2002	49.80	20.26	---	29.54	210	---	1.9	ND<0.50	ND<0.50	ND<0.50	32	---	---	6.8
MW-1	3/10/2003	49.80	16.22	---	33.58	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	3.2	---	---	6.9
MW-1	5/12/2003	49.80	14.30	---	35.50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5	---	---	7.1
MW-1 (n)	8/27/2003	49.80	18.15	---	31.65	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	4.2	---	---	7.1
MW-1 (n)	11/10/2003	49.80	19.24	---	30.56	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	0.51	---	---	6.8



**Table 1**  
**Groundwater Elevation and Analytical Data**  
 Former BP Service Station #11117  
 7210 Bancroft Avenue, Oakland, CA

WELL ID	DATE OF SAMPLING/ MONITORING	TOC (Feet)	DTW (Feet) (a)	PRODUCT THICKNESS (Feet)	GWE (Feet) (b)	TPH-G (ug/L)	TPH-D (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl- benzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)	Organic Lead (ug/L)	DO (ppm)	pH
MW-2	1/5/1992	51.07	DRY	---	DRY	---	---	---	---	---	---	---	---	---	---
MW-2	1/10/1992	51.07	DRY	---	DRY	---	---	---	---	---	---	---	---	---	---
MW-2	6/5/1992	51.07	30.05	---	21.02	11000	---	2000	180	490	1900	---	---	---	---
MW-2	7/24/1992	51.07	30.72	---	20.35	---	---	---	---	---	---	---	---	---	---
MW-2	7/27/1992	51.07	30.52	---	20.55	---	---	---	---	---	---	---	---	---	---
MW-2	9/15/1992	51.07	31.56	---	19.51	75000	3200 (c)	2000	6500	2300	13000	---	---	---	---
MW-2	12/15/1992	51.07	32.40	---	18.67	34000	1600 (c)	6200	8900	2000	7900	---	---	---	---
MW-2	3/15/1993	51.07	26.14	---	24.93	150000	8400	12000	18000	3200	22000	82000	(e)	---	---
MW-2 (f)	6/7/1993	51.07	26.38	SHEEN	24.69	---	---	---	---	---	---	---	---	---	---
MW-2 (f)	9/23/1993	51.07	31.43	1.92	21.08	---	---	---	---	---	---	---	---	---	---
MW-2 (f)	12/27/1993	51.07	34.07	1.07	17.80	---	---	---	---	---	---	---	---	---	---
MW-2 (f)	4/5/1994	51.07	30.44	3.30	23.11	---	---	---	---	---	---	---	---	---	---
MW-2 (f)	7/22/1994	51.07	28.51	0.80	23.16	---	---	---	---	---	---	---	---	---	---
MW-2 (f)	10/13/1994	51.07	29.33	0.70	22.27	---	---	---	---	---	---	---	---	---	---
MW-2 (f)	1/25/1995	51.07	25.55	4.25	28.71	---	---	---	---	---	---	---	---	---	---
MW-2 (f)	4/19/1995	51.07	19.78	0.12	31.38	---	---	---	---	---	---	---	---	---	---
MW-2	7/5/1995	51.07	20.88	0.09	30.26	140000	---	14000	30000	3500	26000	---	---	---	---
MW-2 (f)	10/5/1995	51.07	24.68	0.10	26.47	---	---	---	---	---	---	---	---	---	---
MW-2 (f)	1/12/1996	51.07	25.72	0.06	25.40	---	---	---	---	---	---	---	---	---	---
MW-2 (f)	4/22/1996	51.07	19.33	0.08	31.80	---	---	---	---	---	---	---	---	---	---
MW-2 (f)	7/2/1996	51.07	20.01	0.04	31.09	---	---	---	---	---	---	---	---	---	---
MW-2 (f)	11/8/1996	51.07	20.28	0.01	30.80	---	---	---	---	---	---	---	---	---	---
MW-2 (f)	1/3/1997	51.07	19.87	0.02	31.22	---	---	---	---	---	---	---	---	---	---
MW-2	4/28/1997	51.07	20.59	0.01	30.49	560000	---	1200	1300	290	2310	6100	---	3.9	---
MW-2	7/1/1997	51.07	22.90	0.01	28.18	24000	---	15000	16000	4900	24400	63000	---	3.7	---
QC-1 (d)	7/1/1997	---	---	---	---	150000	---	14000	13000	1800	14200	57000	---	---	---
MW-2	10/2/1997	51.07	24.65	0.02	26.44	---	---	---	---	---	---	---	---	---	---
MW-2	10/3/1997	51.07	---	---	---	250000	---	32000	39000	6000	42000	160000	---	4.5	---
MW-2	1/9/1998	51.07	21.22	0.01	29.86	420000	---	23000	29000	5800	43000	75000	---	4.0	---
QC-1 (d)	1/9/1998	---	---	---	---	300000	---	20000	25000	5200	37000	84000	---	---	---
MW-2	5/6/1998	51.07	15.10	0.01	35.98	180000	---	25000	26000	3400	22900	35000	---	3.7	---
MW-2	7/21/1998	51.07	15.31	0.01	35.77	270000	---	21000	20000	2700	18800	34000	---	3.8	---
MW-2	12/30/1998	51.07	21.10	0.10	30.05	300000	---	22000	24000	4200	26000	89000/95000 (j)	---	---	---
MW-2	2/2/1998	51.07	20.11	---	30.96	410000	---	27000	43000	6700	50000	20000	---	---	---
MW-2	5/10/1999	51.07	16.68	---	34.39	220000	---	20000	20000	2800	20000	100000	---	---	---
MW-2	9/23/1999	51.07	22.50	---	28.57	160000	---	21000	24000	2900	20000	44000	---	---	---
MW-2 (k)	12/23/1999	51.07	22.64	---	28.43	170000	---	25000	41000	3100	24000	40000	---	---	---
MW-2	3/27/2000	51.07	16.88	---	34.19	140000	---	15000	25000	3400	21000	19000	---	---	---
MW-2	5/22/2000	51.07	17.75	---	33.32	150000	---	18000	31000	3500	22000	26000	---	---	---
MW-2	8/31/2000	51.07	21.97	---	29.10	200000	---	16000	26000	2500	16000	38000	---	---	---

**Table 1**  
**Groundwater Elevation and Analytical Data**  
Former BP Service Station #11117  
7210 Bancroft Avenue, Oakland, CA

WELL ID	DATE OF SAMPLING/ MONITORING	TOC (Feet)	DTW (a) (Feet)	PRODUCT THICKNESS (Feet)	GWE (Feet)	(b)	TPH-G (ug/L)	TPH-D (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl-benzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)	Organic Lead (ug/L)	DO (ppm)	pH
MW-2	12/11/2000	51.07	22.05	---	29.02		130000	---	18600	30000	3250	20600	21700	---	---	---
MW-2	3/20/2001	51.07	17.75	---	33.32		140000	---	15900	24800	3700	22100	12900	---	---	---
MW-2	6/19/2001	51.07	20.15	---	30.92		130000	---	15100	19500	3300	21400	20300	---	---	---
MW-2	9/20/2001	51.07	22.14	---	28.93		110000	---	12400	12600	2230	13000	39500	---	---	---
MW-2	12/27/2001	51.07	18.17	---	32.90		150000	---	17500	26000	3050	19500	27500	---	---	---
MW-2	2/28/2002	51.07	17.42	---	33.65		120000	---	13900	18800	3030	19600	17300	---	---	---
MW-2	6/28/2002***	51.07	17.04	---	34.03		3700	---	190	23.3	139	287	826	---	---	---
MW-2	9/12/2002*	51.07	19.52	---	31.55		100,000	---	13,000	22,000	3,600	20,000	18,000	---	---	6.6
MW-2	12/12/2002	51.07	21.08	---	29.99		120,000	---	13,000	21,000	4,400	25,000	16,000	---	---	6.6
MW-2	3/10/2003	51.07	17.84	---	33.23		100,000	---	17,000	21,000	3,400	20,000	4,400	---	---	6.8
MW-2	5/12/2003	51.07	16.66	---	34.41		150,000	---	16,000	24,000	3,500	22,000	3,600	---	---	7.1
MW-2 (n)	8/27/2003	51.07	19.65	---	31.42		120,000	---	14,000	12,000	3,900	20,000	5,100	---	---	6.9
MW-2 (n)	11/10/2003	51.07	20.80	---	30.27		97,000	---	12,000	9,500	3,600	15,000	4,200	---	---	6.7

**Table 1**  
**Groundwater Elevation and Analytical Data**  
Former BP Service Station #11117  
7210 Bancroft Avenue, Oakland, CA

WELL ID	DATE OF SAMPLING/ MONITORING	TOC (Feet)	DTW (a) (Feet)	PRODUCT THICKNESS (Feet)	GWE (Feet)	(b)	TPH-G (ug/L)	TPH-D (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl-benzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)	Organic Lead (ug/L)	DO (ppm)	pH
MW-3	1/5/1992	49.95	33.69	---	16.26		7400	4000	790	23	210	40	---	ND	---	---
MW-3	1/10/1992	49.95	33.74	---	16.21		---	---	---	---	---	---	---	---	---	---
MW-3	6/5/1992	49.95	29.65	---	20.30		2000	---	130	5.3	93	20	---	---	---	---
MW-3	7/24/1992	49.95	30.14	---	19.81		---	---	---	---	---	---	---	---	---	---
MW-3	7/27/1992	49.95	30.14	---	19.81		---	---	---	---	---	---	---	---	---	---
MW-3	9/15/1992	49.95	31.07	---	18.88		450	ND<50	55	3.1	34	7.1	---	---	---	---
MW-3	12/15/1992	49.95	31.93	---	18.02		12000	710 (c)	940	ND<50	310	120	---	---	---	---
MW-3	3/15/1993	49.95	25.71	---	24.24		ND<50	60	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	(I)	---	---
MW-3	6/7/1993	49.95	25.80	---	24.15		150	ND<50	3.6	ND<0.5	0.9	1.3	---	(I)	---	---
MW-3	9/23/1993	49.95	29.18	---	20.77		---	---	---	---	---	---	---	---	---	---
MW-3	9/24/1993	49.95	---	---	---		160	ND<50	8.4	ND<0.5	3.7	1.3	15.3	(I)	---	---
MW-3	12/27/1993	49.95	29.25	---	20.70		9400	---	1100	48	530	120	2871	(c)(I)	---	---
MW-3	4/5/1994	49.95	26.84	---	23.11		7000	---	860	19	330	52	10414	(I)	2.0	---
MW-3	7/22/1994	49.95	26.90	---	23.11		ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	(I)	2.1	---
MW-3	10/13/1994	49.95	27.83	---	22.12		ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	(I)	2.6	---
MW-3	1/25/1995	49.95	21.65	---	28.30		ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<1	---	---	---	---
MW-3	4/19/1995	49.95	19.33	---	30.62		2400	---	170	8.0	130	27	---	---	5.0	---
MW-3	7/5/1995	49.95	20.27	---	29.68		ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	4.4	---
MW-3	10/5/1995	49.95	23.73	---	26.22		2300	---	210	3.1	10	5.1	2400	---	4.2	---
MW-3	1/12/1996	49.95	24.84	---	25.11		ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	4.1	---
MW-3	4/22/1996	49.95	18.60	---	31.35		ND<50	---	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	4.4	---
MW-3	7/2/1996	49.95	18.88	---	31.07		ND<50	---	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	4.2	---
MW-3	11/8/1996	49.95	19.14	---	30.81		ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	4.4	---
MW-3	1/3/1997	49.95	18.72	---	31.23		ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	4.6	---
MW-3	4/28/1997	49.95	19.38	---	30.57		ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	4.2	---
MW-3	7/1/1997	49.95	21.65	---	28.30		ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	3.8	---
MW-3	10/2/1997	49.95	23.45	---	26.50		ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	4.5	---
MW-3	1/9/1998	49.95	20.10	---	29.85		ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	4.1	---
MW-3	5/6/1998	49.95	15.57	---	34.38		ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	3.8	---
MW-3	7/21/1998	49.95	15.88	---	34.07		51	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	3.8	---
QC-1 (d)	7/21/1998	---	---	---	---		60	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---	---
MW-3	12/30/1998	49.95	20.30	---	29.65		---	---	---	---	---	---	---	---	---	---
MW-3	2/2/1999	49.95	19.75	---	30.20		ND<50	---	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---	---
MW-3	5/10/1999	49.95	16.17	---	33.78		---	---	---	---	---	---	---	---	---	---
MW-3	9/23/1999	49.95	22.05	---	27.90		---	---	---	---	---	---	---	---	---	---
MW-3	12/23/1999	49.95	22.55	---	27.40		---	---	---	---	---	---	---	---	---	---
MW-3	3/27/2000	49.95	16.40	---	33.55		350	---	22	ND<0.5	ND<0.5	ND<0.5	580	---	---	---
MW-3	5/22/2000	49.95	9.49**	---	40.46		---	---	---	---	---	---	---	---	---	---
MW-3	8/31/2000	49.95	13.02**	---	36.93		---	---	---	---	---	---	---	---	---	---
MW-3	12/11/2000	49.95	13.30**	---	36.65		---	---	---	---	---	---	---	---	---	---

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**Groundwater Elevation and Analytical Data**  
**Former BP Service Station #11117**  
**7210 Bancroft Avenue, Oakland, CA**

WELL ID	DATE OF SAMPLING/ MONITORING	TOC (Feet)	DTW (a) (Feet)	PRODUCT THICKNESS (Feet)	GWE (Feet)	TPH-G (b) (ug/L)	TPH-D (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl-benzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)	Organic Lead (ug/L)	DO (ppm)	pH
MW-3	3/20/2001	49.95	16.49	---	33.46	1000	---	66.4	0.597	6.96	ND<1.5	398	---	---	---
MW-3	6/19/2001	49.95	18.82	---	31.13	---	---	---	---	---	---	---	---	---	---
MW-3	9/20/2001	49.95	21.59	---	28.36	230	---	ND<0.5	0.593	ND<0.5	ND<1.5	289	---	---	---
MW-3	12/27/2001	49.95	17.37	---	32.58	---	---	---	---	---	---	---	---	---	---
MW-3	2/28/2002	49.95	15.81	---	34.14	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<1.0	0.58	---	---	---
MW-3	6/28/2002	49.95	17.09	---	32.86	---	---	---	---	---	---	---	---	---	---
MW-3	9/12/2002*	49.95	18.80	---	31.15	52	---	3.3	8.6	1.7	12	11	---	---	7.0
MW-3	12/12/2002	49.95	20.57	---	29.38	---	---	---	---	---	---	---	---	---	---
MW-3	3/10/2003	49.95	16.68	---	33.27	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5	---	---	7.0
MW-3	5/12/2003	49.95	14.72	---	35.23	---	---	---	---	---	---	---	---	---	---
MW-3 (n)	8/27/2003	49.95	18.50	---	31.45	ND<50	---	ND<0.50	ND<0.50	ND<0.50	0.50	ND<0.50	---	---	7.1
<b>MW-3</b>	<b>11/10/2003</b>	<b>49.95</b>	<b>19.66</b>	<b>---</b>	<b>30.29</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>	<b>---</b>

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**Groundwater Elevation and Analytical Data**  
**Former BP Service Station #11117**  
**7210 Bancroft Avenue, Oakland, CA**

WELL ID	DATE OF SAMPLING/ MONITORING	TOC (Feet)	DTW (Feet) (a)	PRODUCT THICKNESS (Feet)	GWE (Feet)	TPH-G (ug/L) (b)	TPH-D (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl- benzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)	Organic Lead (ug/L)	DO (ppm)	pH
MW-4	7/24/1992	50.76	30.02	---	20.74	42000	---	3200	3600	1400	4100	---	---	---	---
MW-4	7/27/1992	50.76	30.02	---	20.74	---	---	---	---	---	---	---	---	---	---
MW-4	9/15/1992	50.76	31.14	---	19.62	55000	1700 (c)	7600	13000	2800	9500	---	---	---	---
MW-4	12/15/1992	50.76	31.98	---	18.78	36000	2200 (c)	3700	4700	1200	4000	---	---	---	---
MW-4	3/15/1993	50.76	25.34	---	25.42	69000	1200	7600	15000	2500	11000	---	(I)	---	---
MW-4	6/7/1993	50.76	25.67	---	25.09	73000	2500	10000	19000	3400	14000	---	(I)	---	---
MW-4	9/23/1993	50.76	29.37	---	21.39	---	---	---	---	---	---	---	---	---	---
MW-4	9/24/1993	50.76	---	---	---	68000	5700	11000	2100	8600	990	390	(I)	---	---
QC-1 (d)	9/24/1993	---	---	---	---	59000	---	5300	10000	2200	8400	309	(I)	---	---
MW-4	12/27/1993	50.76	29.40	---	21.36	32000	---	2500	4400	1300	4400	387	(I)	---	---
MW-4	4/5/1994	50.76	27.09	---	23.67	64000	---	6500	14000	1900	9600	413	(I)	1.4	---
MW-4	7/22/1994	50.76	27.33	---	23.43	85000	---	10000	20000	3200	13000	796	(I)	0.8	---
QC-1 (d)	7/22/1994	---	---	---	---	85000	---	11000	21000	3300	14000	435	(I)	---	---
MW-4	10/13/1994	50.76	28.25	---	22.51	51000	---	7100	13000	2100	8900	506	(e)(I)	2.9	---
QC-1 (d)	10/13/1994	---	---	---	---	51000	---	7400	13000	2100	9100	773	(I)	---	---
MW-4	1/25/1995	50.76	21.85	---	28.91	26000	---	3600	9600	1200	6400	---	---	---	---
QC-1 (d)	1/25/1995	---	---	---	---	28000	---	4200	12000	1500	7800	---	---	---	---
MW-4	4/19/1995	50.76	19.44	---	31.32	89000	---	12000	24000	3500	18000	---	---	5.1	---
QC-1 (d)	4/19/1995	---	---	---	---	100000	---	12000	26000	3800	21000	---	---	---	---
MW-4	7/5/1995	50.76	20.52	---	30.24	130000	---	13000	29000	3300	25000	---	---	4.3	---
MW-4	10/5/1995	50.76	24.23	---	26.53	110000	---	10000	23000	3600	17000	34000	---	2.1	---
MW-4	1/12/1996	50.76	25.34	---	25.42	46000	---	3500	8300	1100	8000	3000	---	3.3	---
QC-1 (d)	1/12/1996	---	---	---	---	40000	---	3500	9000	1200	8700	4300	---	---	---
MW-4	4/22/1996	50.76	19.13	---	31.63	40000	---	5100	9600	980	11800	29000	---	3.2	---
QC-1 (d)	4/22/1996	---	---	---	---	61000	---	8300	16000	1600	15200	36000	---	---	---
MW-4	7/2/1996	50.76	20.67	---	30.09	74000	---	9800	21000	2100	16600	41000	---	3.4	---
QC-1 (d)	7/2/1996	---	---	---	---	78000	---	9800	21000	1900	15300	42000	---	---	---
MW-4	11/8/1996	50.76	20.95	---	29.81	100000	---	7900	16000	2500	13700	37000	---	3.7	---
QC-1 (d)	11/8/1996	---	---	---	---	110000	---	9100	20000	3000	15400	39000	---	---	---
MW-4	1/3/1997	50.76	20.54	---	30.22	99000	---	17000	30000	4300	22700	79000	---	4.2	---
QC-1 (d)	1/3/1997	---	---	---	---	66000	---	12000	19000	2900	15000	69000	---	---	---
MW-4	4/28/1997	50.76	21.28	---	29.48	130000	---	12000	28000	3800	21000	37000	---	3.9	---
QC-1 (d)	4/28/1997	---	---	---	---	110000	---	11000	26000	3200	18200	34000	---	---	---
MW-4	7/1/1997	50.76	23.61	---	27.15	110000	---	16000	25000	4900	24400	37000	---	3.6	---
MW-4	10/2/1997	50.76	25.39	---	25.37	---	---	---	---	---	---	---	---	---	---
MW-4	10/3/1997	50.76	---	---	---	66000	---	8200	8600	2700	13400	80000	---	4.4	---
QC-1 (d)	10/3/1997	---	---	---	---	71000	---	8600	8700	2900	13500	84000	---	---	---
MW-4	1/9/1998	50.76	21.25	---	29.51	100000	---	9700	3200	1500	4700	92000	---	3.8	---
MW-4	5/6/1998	50.76	15.96	---	34.80	430000	---	6900	31000	11000	56000	ND<5000	---	3.9	---
QC-1 (d)	5/6/1998	---	---	---	---	440000	---	8000	39000	14000	70000	ND<5000	---	---	---

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WELL ID	DATE OF SAMPLING/ MONITORING	TOC (Feet)	DTW (a) (Feet)	PRODUCT THICKNESS (Feet)	GWE (Feet)	TPH-G (b) (ug/L)	TPH-D (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl-benzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)	Organic Lead (ug/L)	DO (ppm)	pH
MW-4	7/21/1998	50.76	16.1	---	34.66	250000	---	11000	26000	5500	26900	29000	---	3.7	---
QC-1 (d)	7/21/1998	---	---	---	---	210000	---	11000	27000	5600	26800	29000	---	---	---
MW-4	12/30/1998	50.76	20.91	---	29.85	370000	---	11000	22000	8500	40000	90000/92000 (j)	---	---	---
MW-4	2/2/1999	50.76	20.13	---	30.63	190000	---	4100	19000	4800	32000	28000	---	---	---
MW-4	5/10/1999	50.76	16.63	---	34.13	2700	---	23	7.1	8.1	25	120	---	---	---
MW-4	9/23/1999	50.76	22.48	---	28.28	180000	---	11000	29000	7000	38000	12000	---	---	---
MW-4 (k)	12/23/1999	50.76	22.94	---	27.82	66000	---	6300	5200	2200	7800	35000	---	---	---
MW-4	3/27/2000	50.76	16.84	---	33.92	120000	---	8700	12000	3800	16000	27000	---	---	---
MW-4	5/22/2000	50.76	17.85	---	32.91	110000	---	7600	16000	4400	20000	25000	---	---	---
MW-4	8/31/2000	50.76	21.71	---	29.05	110000	---	8800	7600	3400	14000	18000	---	---	---
MW-4	12/11/2000	50.76	22.05	---	28.71	70000	---	4580	3480	2550	9220	24400	---	---	---
MW-4	3/20/2001	50.76	17.68	---	33.08	100000	---	7100	4530	2540	9370	63100	---	---	---
MW-4	6/19/2001	50.76	19.40	---	31.36	180000	---	7430	14600	5400	25300	36100	---	---	---
MW-4 (f)	9/20/2001	50.76	22.01	0.03 (m)	28.75	---	---	---	---	---	---	---	---	---	---
MW-4	12/27/2001	50.76	17.96	---	32.80	120000	---	6880	9030	2840	14600	32300	---	---	---
MW-4	2/28/2002	50.76	17.06	---	33.70	80000	---	4920	5450	2220	12300	35900	---	---	---
MW-4	6/28/2002	50.76	17.76	---	33.00	48000	---	2780	2770	1530	6790	25100	---	---	---
MW-4	9/12/2002*	50.76	19.45	---	31.31	46,000	---	4,500	6,800	2,600	10,000	9,100	---	---	6.8
MW-4	12/12/2002	50.76	21.29	---	29.47	36,000	---	5,200	3,400	2,000	6,500	12,000	---	---	6.7
MW-4	3/10/2003	50.76	17.16	---	33.60	70,000	---	7,000	4,800	3,300	13,000	29,000	---	---	6.7
MW-4	5/12/2003	50.76	14.51	---	36.25	75,000	---	7,600	3,700	3,400	13,000	26,000	---	---	6.8
MW-4 (n)	8/27/2003	50.76	19.32	SHEEN	31.44	77,000	---	7,500	1,300	2,100	4,000	32,000	---	---	6.8
MW-4 (n)	11/10/2003	50.76	20.36	---	30.40	110,000	---	7,100	3,100	2,100	5,800	25,000	---	---	6.6

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MW-6	7/24/1992	50.32	30.63	---	19.69	ND	---	1.6	ND	ND	ND	---	---	---	---
MW-6	7/27/1992	50.32	30.63	---	19.69	---	---	---	---	---	---	---	---	---	---
MW-6	9/15/1992	50.32	31.52	---	18.80	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---
MW-6	12/15/1992	50.32	32.42	---	17.90	58	ND<50	1.3	ND<0.5	ND<0.5	ND<0.5	---	---	---	---
MW-6	3/15/1993	50.32	26.29	---	24.03	ND<50	ND<50	ND<0.5	0.6	ND<0.5	0.7	---	(l)	---	---
MW-6	6/7/1993	50.32	26.33	---	23.99	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	1.5	---	(l)	---	---
MW-6	9/23/1993	50.32	29.64	---	20.68	---	---	---	---	---	---	---	---	---	---
MW-6	9/24/1993	50.32	---	---	---	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	28.5	(l)	---	---
MW-6	12/27/1993	50.32	29.75	---	20.57	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	55.4	(e)(l)	---	---
MW-6	4/5/1994	50.32	27.26	---	23.06	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	295	(e)(l)	1.7	---
MW-6	7/22/1994	50.32	27.34	---	22.98	350	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	419	(e)(l)	4.5	---
MW-6 (g)	10/13/1994	50.32	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-6	1/25/1995	50.32	22.16	---	28.16	240	---	6	ND<0.5	ND<0.5	ND<1	---	---	---	---
MW-6 (g)	4/19/1995	50.32	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-6	7/5/1995	50.32	20.80	---	29.52	180	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	4.9	---
MW-6	10/5/1995	50.32	24.20	---	26.12	860	---	ND<5.0	ND<5.0	ND<5.0	ND<10	3600	---	2.8	---
MW-6	1/12/1996	50.32	25.30	---	25.02	860	---	ND<5.0	ND<5.0	ND<5.0	ND<10	2800	---	4.2	---
MW-6	4/22/1996	50.32	19.13	---	31.19	ND<50	---	ND<0.5	ND<1	ND<1	ND<1	470	---	4.3	---
MW-6	7/2/1996	50.32	20.66	---	29.66	100	---	ND<0.5	ND<1	ND<1	ND<1	1100	---	4.2	---
MW-6	11/8/1996	50.32	20.98	---	29.34	1100	---	ND<5	ND<10	ND<10	ND<10	1500	---	4.3	---
MW-6	1/3/1997	50.32	20.53	---	29.79	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	450	---	4.5	---
MW-6	4/28/1997	50.32	21.25	---	29.07	1400	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	3500	---	4.4	---
MW-6	7/1/1997	50.32	23.40	---	26.92	6100	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	9100	---	3.9	---
MW-6	10/2/1997	50.32	25.16	---	25.16	---	---	---	---	---	---	---	---	---	---
MW-6	10/3/1997	50.32	---	---	---	330	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	2600	---	4.4	---
MW-6	1/9/1998	50.32	21.13	---	29.19	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	4.3	---
MW-6	5/6/1998	50.32	16.11	---	34.21	410	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	500	---	3.6	---
MW-6	7/21/1998	50.32	16.33	---	33.99	4300	---	ND<5	ND<10	ND<10	ND<10	3800	---	4.0	---
MW-6	12/30/1998	50.32	20.89	---	29.43	---	---	---	---	---	---	---	---	---	---
MW-6	2/2/1999	50.32	20.20	---	30.12	---	---	---	---	---	---	---	---	---	---
MW-6	5/10/1999	50.32	16.75	---	33.57	---	---	---	---	---	---	---	---	---	---
MW-6	9/23/1999	50.32	22.55	---	27.77	ND<50	---	ND<1.0	ND<1.0	ND<1.0	ND<1.0	1600	---	---	---
MW-6	12/23/1999	50.32	23.00	---	27.32	---	---	---	---	---	---	---	---	---	---
MW-6	3/27/2000	50.32	16.89	---	33.43	1700	---	4.4	0.54	ND<0.5	1.0	14000	---	---	---
MW-6	5/22/2000	50.32	18.02	---	32.30	---	---	---	---	---	---	---	---	---	---
MW-6	8/31/2000	50.32	21.62	---	28.70	1200	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	3900	---	---	---
MW-6	12/11/2000	50.32	21.81	---	28.51	---	---	---	---	---	---	---	---	---	---
MW-6	3/20/2001	50.32	16.97	---	33.35	3300	---	ND<0.5	ND<0.5	ND<0.5	ND<1.5	3760	---	---	---
MW-6	6/19/2001	50.32	19.30	---	31.02	---	---	---	---	---	---	---	---	---	---
MW-6	9/20/2001	50.32	22.00	---	28.32	2200	---	2.04	8.1	3.62	13.7	2460	---	---	---

**Table 1**  
**Groundwater Elevation and Analytical Data**  
Former BP Service Station #11117  
7210 Bancroft Avenue, Oakland, CA

WELL ID	DATE OF SAMPLING/ MONITORING	TOC (Feet)	DTW (a) (Feet)	PRODUCT THICKNESS (Feet)	GWE (Feet) (b)	TPH-G (ug/L)	TPH-D (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl-benzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)	Organic Lead (ug/L)	DO (ppm)	pH
MW-6	12/27/2001	50.32	17.85	---	32.47	830	---	0.59	ND<0.5	ND<0.5	ND<1.0	1040	---	---	---
MW-6	2/28/2002	50.32	16.31	---	34.01	1100	---	ND<0.5	ND<0.5	ND<0.5	ND<1.0	1450	---	---	---
MW-6	6/28/2002	50.32	17.57	---	32.75	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<1.0	1020	---	---	---
MW-6	9/12/2002*	50.32	19.27	---	31.05	190	---	1.9	4.6	1	7.3	480	---	---	7.1
MW-6	12/12/2002	50.32	20.94	---	29.38	270	---	ND<2.5	ND<2.5	ND<2.5	ND<2.5	500	---	---	6.9
MW-6	3/10/2003	50.32	17.11	---	33.21	110	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	190	---	---	7.0
MW-6	5/12/2003	50.32	15.18	---	35.14	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	36	---	---	7.0
MW-6 (n)	8/27/2003	50.32	18.90	---	31.42	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	8.9	---	---	7.0
MW-6 (n)	11/10/2003	50.32	20.13	---	30.19	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	4.5	---	---	6.8



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**Groundwater Elevation and Analytical Data**  
Former BP Service Station #11117  
7210 Bancroft Avenue, Oakland, CA

WELL ID	DATE OF SAMPLING/ MONITORING	TOC (Feet)	DTW (a) (Feet)	PRODUCT THICKNESS (Feet)	GWE (Feet)	TPH-G (b) (ug/L)	TPH-D (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl-benzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)	Organic Lead (ug/L)	DO (ppm)	pH
MW-7	1/25/1995	51.40	21.67	--	29.73	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<1	--	--	7.0	--
MW-7	4/19/1995	51.40	25.27	--	26.13	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<1	--	--	5.0	--
MW-7	7/5/1995	51.40	24.63	--	26.77	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	--	4.2	--
MW-7	10/5/1995	51.40	28.21	--	23.19	83	--	ND<0.50	ND<0.50	ND<0.50	ND<1.0	77	--	4.5	--
MW-7	1/12/1996	51.40	29.29	--	22.11	63	--	ND<0.50	ND<0.50	ND<0.50	ND<1.0	120	--	4.8	--
MW-7	4/22/1996	51.40	23.11	--	28.29	ND<50	--	ND<0.5	ND<1	ND<1	ND<1	13	--	4.8	--
MW-7	7/2/1996	51.40	23.56	--	27.84	ND<50	--	ND<0.5	ND<1	ND<1	ND<1	ND<10	--	4.8	--
MW-7	11/8/1996	51.40	20.06	--	31.34	ND<50	--	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	--	5.1	--
MW-7	1/3/1997	51.40	23.42	--	27.98	ND<50	--	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	--	4.7	--
MW-7	4/28/1997	51.40	24.12	--	27.28	ND<50	--	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	--	3.9	--
MW-7	7/1/1997	51.40	26.40	--	25.00	ND<50	--	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	--	4.2	--
MW-7	10/2/1997	51.40	28.14	--	23.26	ND<50	--	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	--	4.7	--
MW-7	1/9/1998	51.40	24.02	--	27.38	ND<50	--	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	--	4.1	--
MW-7	5/6/1998	51.40	21.00	--	30.40	1900	--	ND<0.5	ND<1.0	ND<1.0	ND<1.0	1800	--	3.5	--
MW-7	7/21/1998	51.40	21.17	--	30.23	50	--	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	--	3.7	--
MW-7	12/30/1998	51.40	22.13	--	29.27	--	--	--	--	--	--	--	--	--	--
MW-7	2/2/1999	51.40	22.08	--	29.32	--	--	--	--	--	--	--	--	--	--
MW-7	5/10/1999	51.40	18.58	--	32.82	--	--	--	--	--	--	--	--	--	--
MW-7	9/23/1999	51.40	24.29	--	27.11	70	--	ND<1.0	ND<1.0	ND<1.0	ND<1.0	4700	--	--	--
MW-7	12/23/1999	51.40	24.53	--	26.87	--	--	--	--	--	--	--	--	--	--
MW-7	3/27/2000	51.40	18.58	--	32.82	910	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2600	--	--	--
MW-7	5/22/2000	51.40	19.49	--	31.91	--	--	--	--	--	--	--	--	--	--
MW-7	8/31/2000	51.40	22.53	--	28.87	440	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	900	--	--	--
MW-7	12/11/2000	51.40	22.75	--	28.65	--	--	--	--	--	--	--	--	--	--
MW-7	3/20/2001	51.40	18.79	--	32.61	1100	--	ND<0.5	ND<0.5	ND<0.5	ND<1.5	1210	--	--	--
MW-7	6/19/2001	51.40	19.82	--	31.58	--	--	--	--	--	--	--	--	--	--
MW-7	9/20/2001	51.40	21.35	--	30.05	1300	--	1.21	ND<0.5	ND<0.5	ND<1.5	1550	--	--	--
MW-7	12/27/2001	51.40	20.36	--	31.04	510	--	ND<0.5	ND<0.5	ND<0.5	ND<1.0	643	--	--	--
MW-7	2/28/2002	51.40	21.86	--	29.54	250	--	ND<0.5	ND<0.5	ND<0.5	ND<1.0	317	--	--	--
MW-7	6/28/2002	51.40	22.64	--	28.76	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<1.0	102	--	--	--
MW-7	9/12/2002*	51.40	23.51	--	27.89	ND<50	--	ND<0.5	ND<0.5	ND<0.5	1	14	--	--	7.5
MW-7	12/12/2002	51.40	23.75	--	27.65	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	--	--	7.5
MW-7	3/10/2003	51.40	21.25	--	30.15	61	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	99	--	--	7.6
MW-7	5/12/2003	51.40	21.44	--	29.96	ND<100	--	ND<1.0	ND<1.0	ND<1.0	ND<1.0	120	--	--	7.6
MW-7 (n)	8/27/2003	51.40	23.30	--	28.10	120	--	ND<0.50	ND<0.50	ND<0.50	ND<0.50	84	--	--	7.6
MW-7 (n)	11/10/2003	51.40	20.24	--	31.16	230	(o)	ND<1.0	ND<1.0	ND<1.0	ND<1.0	92	--	--	6.7

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**Groundwater Elevation and Analytical Data**  
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**7210 Bancroft Avenue, Oakland, CA**

WELL ID	DATE OF SAMPLING/ MONITORING	TOC (Feet)	DTW (a) (Feet)	PRODUCT THICKNESS (Feet)	GWE (Feet)	TPH-G (b) (ug/L)	TPH-D (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl-benzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)	Organic Lead (ug/L)	DO (ppm)	pH
MW-8	1/25/1995	50.88	31.59	---	19.29	54	---	ND<0.5	ND<0.5	ND<0.5	ND<1	---	---	7.1	---
MW-8	4/19/1995	50.88	19.18	---	31.70	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<1	---	---	5.1	---
MW-8	7/5/1995	50.88	19.03	---	31.85	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	4.5	---
MW-8	10/5/1995	50.88	24.40	---	26.48	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	4.1	---
MW-8	1/12/1996	50.88	25.51	---	25.37	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	4.6	---
MW-8	4/22/1996	50.88	18.00	---	32.88	ND<50	---	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	4.8	---
MW-8	7/2/1996	50.88	19.83	---	31.05	ND<50	---	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	4.5	---
MW-8	11/8/1996	50.88	20.09	---	30.79	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	4.7	---
MW-8	1/3/1997	50.88	19.72	---	31.16	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	4.4	---
MW-8	4/28/1997	50.88	20.44	---	30.44	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	4.1	---
MW-8	7/1/1997	50.88	22.72	---	28.16	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	3.8	---
MW-8	10/2/1997	50.88	24.51	---	26.37	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	4.2	---
MW-8	1/9/1998	50.88	21.17	---	29.71	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	3.5	---
MW-8	5/6/1998	50.88	18.34	---	32.54	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	3.6	---
MW-8	7/21/1998	50.88	18.55	---	32.33	90	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	3.3	---
MW-8	12/30/1998	50.88	20.40	---	30.48	---	---	---	---	---	---	---	---	---	---
MW-8	2/2/1999	50.88	19.28	---	31.60	---	---	---	---	---	---	---	---	---	---
MW-8	5/10/1999	50.88	15.62	---	35.26	---	---	---	---	---	---	---	---	---	---
MW-8	9/23/1999	50.88	21.74	---	29.14	---	---	---	---	---	---	---	---	---	---
MW-8	12/23/1999	50.88	22.83	---	28.05	---	---	---	---	---	---	---	---	---	---
MW-8	3/27/2000	50.88	16.25	---	34.63	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---
MW-8	5/22/2000	50.88	17.06	---	33.82	---	---	---	---	---	---	---	---	---	---
MW-8	8/31/2000	50.88	21.72	---	29.16	---	---	---	---	---	---	---	---	---	---
MW-8	12/11/2000	50.88	22.03	---	28.85	---	---	---	---	---	---	---	---	---	---
MW-8	3/20/2001	50.88	16.23	---	34.65	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<1.5	0.991	---	---	---
MW-8	6/19/2001	50.88	19.35	---	31.53	---	---	---	---	---	---	---	---	---	---
MW-8	9/20/2001	50.88	21.95	---	28.93	---	---	---	---	---	---	---	---	---	---
MW-8	12/27/2001	50.88	16.98	---	33.90	---	---	---	---	---	---	---	---	---	---
MW-8	2/28/2002	50.88	15.38	---	35.50	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<0.5	---	---	---
MW-8	6/28/2002	50.88	16.97	---	33.91	---	---	---	---	---	---	---	---	---	---
MW-8	9/12/2002*	50.88	19.47	---	31.41	---	---	---	---	---	---	---	---	---	---
MW-8	12/12/2002	50.88	20.84	---	30.04	---	---	---	---	---	---	---	---	---	---
MW-8	3/10/2003	50.88	16.56	---	34.32	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	3.0	---	---	7.1
MW-8	5/12/2003	50.88	13.63	---	37.25	---	---	---	---	---	---	---	---	---	---
MW-8	(n) 8/27/2003	50.88	18.90	---	31.98	---	---	---	---	---	---	---	---	---	---
MW-8	11/10/2003	50.88	19.68	---	31.20	---	---	---	---	---	---	---	---	---	---

**Table 1**  
**Groundwater Elevation and Analytical Data**  
Former BP Service Station #11117  
7210 Bancroft Avenue, Oakland, CA

WELL ID	DATE OF SAMPLING/ MONITORING	TOC (Feet)	DTW (a) (Feet)	PRODUCT THICKNESS (Feet)	GWE (Feet)	TPH-G (b) (ug/L)	TPH-D (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl-benzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)	Organic Lead (ug/L)	DO (ppm)	pH
MW-9	1/25/1995	51.05	22.32	--	28.73	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<1	---	---	7.4	---
MW-9	4/19/1995	51.05	19.86	--	31.19	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<1	---	---	5.2	---
MW-9	7/5/1995	51.05	20.78	--	30.27	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	4.4	---
MW-9	10/5/1995	51.05	24.33	--	26.72	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	2.3	---
QC-1 (d)	10/5/1995	---	---	---	---	52	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	160	---	---	---
MW-9	1/12/1996	51.05	25.44	--	25.61	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	3.2	---
MW-9	4/22/1996	51.05	18.01	--	33.04	ND<50	---	ND<0.5	ND<1	ND<1	ND<1	11	---	3.5	---
MW-9	7/2/1996	51.05	19.70	--	31.35	ND<50	---	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	3.3	---
MW-9	11/8/1996	51.05	19.96	--	31.09	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	3.7	---
MW-9	1/3/1997	51.05	19.52	---	31.53	ND<250	---	ND<2.5	ND<5.0	ND<5.0	ND<5.0	ND<50	---	4.4	---
MW-9	4/28/1997	51.05	20.22	---	30.83	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	4.0	---
MW-9	7/1/1997	51.05	22.59	---	28.46	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	3.9	---
MW-9	10/2/1997	51.05	24.33	---	26.72	---	---	---	---	---	---	---	---	---	---
MW-9	10/3/1997	51.05	---	---	---	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	4.4	---
MW-9	1/9/1998	51.05	21.11	---	29.94	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	3.9	---
MW-9	5/6/1998	51.05	18.26	---	32.79	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	4.0	---
MW-9	7/21/1998	51.05	18.46	---	32.59	70	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	3.7	---
MW-9 (g)	12/30/1998	51.05	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-9 (g)	2/2/1999	51.05	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-9 (g)	5/10/1999	51.05	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-9 (g)	9/23/1999	51.05	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-9 (g)	12/23/1999	51.05	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-9 (g)	3/27/2000	51.05	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-9 (g)	5/22/2000	51.05	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-9 (g)	8/31/2000	51.05	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-9 (g)	12/11/2000	51.05	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-9 (g)	3/20/2001	51.05	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-9 (g)	6/19/2001	51.05	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-9	9/20/2001	51.05	22.20	---	28.85	6300	---	2.87	ND<0.5	ND<0.5	ND<1.5	8640	---	---	---
MW-9	12/27/2001	51.05	18.92	---	32.13	---	---	---	---	---	---	---	---	---	---
MW-9	2/28/2002	51.05	17.22	---	33.83	19000	---	1560	61.3	84	111	20200	---	---	---
MW-9	6/28/2002	51.05	18.20	---	32.85	---	---	---	---	---	---	---	---	---	---
MW-9	9/12/2002*	51.05	19.92	---	31.13	5100	---	570	180	ND<25	220	6400	---	---	6.8
MW-9	12/12/2002	51.05	21.78	---	29.27	---	---	---	---	---	---	---	---	---	---
MW-9	3/10/2003	51.05	18.25	---	32.80	26,000	---	2,500	ND<100	ND<100	ND<100	33,000	---	---	6.9
MW-9	5/12/2003	51.05	16.29	---	34.76	---	---	---	---	---	---	---	---	---	---
MW-9 (n)	8/27/2003	51.05	19.69	---	31.36	11,000	---	830	ND<50	ND<50	ND<50	6,300	---	---	7.1
MW-9	11/10/2003	51.05	19.94	---	31.11	---	---	---	---	---	---	---	---	---	---

**Table 1**  
**Groundwater Elevation and Analytical Data**  
Former BP Service Station #11117  
7210 Bancroft Avenue, Oakland, CA

WELL ID	DATE OF SAMPLING/ MONITORING	TOC (Feet)	DTW (a) (Feet)	PRODUCT THICKNESS (Feet)	GWE (Feet) (b)	TPH-G (ug/L)	TPH-D (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl-benzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)	Organic Lead (ug/L)	DO (ppm)	pH
MW-10	1/9/1998	---	(h) 20.97	---	---	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	4.3	---
MW-10	5/6/1998	---	(h) 18.07	---	---	800	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	980	---	3.9	---
MW-10	7/21/1998	---	(h) 18.28	---	---	80	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	4.0	---
MW-10	12/30/1998	---	(h) 22.22	---	---	---	---	---	---	---	---	---	---	---	---
MW-10	2/2/1999	---	(h) 21.83	---	---	940	---	ND<10	ND<10	ND<10	ND<10	690	---	---	---
MW-10	5/10/1999	---	(h) 17.99	---	---	---	---	---	---	---	---	---	---	---	---
MW-10	9/23/1999	---	(h) 22.61	---	---	ND<50	---	ND<1.0	ND<1.0	ND<1.0	1.4	1000	---	---	---
MW-10	12/23/1999	---	(h) 23.75	---	---	---	---	---	---	---	---	---	---	---	---
MW-10	3/27/2000	---	(h) 18.83	---	---	1900	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	28000	---	---	---
MW-10	5/22/2000	---	(h) 19.47	---	---	---	---	---	---	---	---	---	---	---	---
MW-10	8/31/2000	---	(h) 22.64	---	---	1700	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	13000	---	---	---
MW-10	12/11/2000	---	(h) 22.84	---	---	---	---	---	---	---	---	---	---	---	---
MW-10	3/20/2001	---	(h) 19.57	---	---	16000	---	ND<0.5	ND<0.5	ND<0.5	ND<1.5	11900	---	---	---
MW-10	6/19/2001	---	(h) 20.63	---	---	---	---	---	---	---	---	---	---	---	---
MW-10	9/20/2001	---	(h) 23.07	---	---	5800	---	ND<0.5	ND<0.5	ND<0.5	ND<1.5	8160	---	---	---
MW-10	12/27/2001	---	(h) 20.92	---	---	6600	---	17.3	14.5	ND<12.5	ND<25	7750	---	---	---
MW-10	2/28/2002	---	(h) 18.52	---	---	3600	---	10.8	ND<0.5	ND<0.5	ND<1.0	5380	---	---	---
MW-10	6/28/2002	---	(h) 18.41	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<1.0	2570	---	---	---
MW-10	9/12/2002*	---	(h) 20.57	---	---	660	---	ND<5.0	ND<5.0	ND<5.0	ND<5.0	3300	---	---	7.2
MW-10	12/12/2002	---	(h) 22.80	---	---	1400	---	ND<5.0	ND<5.0	ND<5.0	ND<5.0	3300	---	---	6.9
MW-10	3/10/2003	---	(h) 19.26	---	---	1,700	---	ND<5.0	ND<5.0	5.3	15	2,800	---	---	6.9
MW-10	5/12/2003	---	(h) 17.90	---	---	1,500	---	ND<12	ND<12	ND<12	ND<12	2,200	---	---	6.9
MW-10 (n)	8/27/2003	---	(h) 20.82	---	---	4,100	---	ND<25	ND<25	ND<25	ND<25	2,800	---	---	7.0
MW-10 (n)	11/10/2003	---	(h) 21.92	---	---	ND<5,000	---	ND<50	ND<50	ND<50	ND<50	3,300	---	---	6.8

**Table 1**  
**Groundwater Elevation and Analytical Data**  
**Former BP Service Station #11117**  
**7210 Bancroft Avenue, Oakland, CA**

WELL ID	DATE OF SAMPLING/ MONITORING	TOC (Feet)	DTW (a) (Feet)	PRODUCT THICKNESS (Feet)	GWE (Feet)	(b)	TPH-G (ug/L)	TPH-D (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl-benzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)	Organic Lead (ug/L)	DO (ppm)	pH
QC-2	(i) 9/15/1992	---	---	---	---		ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---
QC-2	(i) 12/15/1992	---	---	---	---		ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---
QC-2	(i) 3/15/1993	---	---	---	---		ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	(1)	---	---
QC-2	(i) 6/7/1993	---	---	---	---		ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	(1)	---	---
QC-2	(i) 9/24/1993	---	---	---	---		ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	(1)	---	---
QC-2	(i) 12/27/1993	---	---	---	---		ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	(1)	---	---
QC-2	(i) 4/5/1994	---	---	---	---		ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	(1)	---	---
QC-2	(i) 7/22/1994	---	---	---	---		ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	(1)	---	---
QC-2	(i) 10/13/1994	---	---	---	---		ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	(1)	---	---
QC-2	(i) 1/25/1995	---	---	---	---		ND<50	---	ND<0.5	2	0.6	1	---	---	---	---
QC-2	(i) 4/19/1995	---	---	---	---		ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---
QC-2	(i) 7/5/1995	---	---	---	---		ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	---	---
QC-2	(i) 10/5/1995	---	---	---	---		ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	---	---
QC-2	(i) 1/12/1996	---	---	---	---		ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	---	---
QC-2	(i) 4/22/1996	---	---	---	---		ND<50	---	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	---	---
QC-2	(i) 7/2/1996	---	---	---	---		ND<50	---	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	---	---

**Table 1**  
**Groundwater Elevation and Analytical Data**  
 Former BP Service Station #11117  
 7210 Bancroft Avenue, Oakland, CA

ABBREVIATIONS:

TPH-G	Total petroleum hydrocarbons as gasoline
TPH-D	Total petroleum hydrocarbons as diesel
MTBE	Methyl tert butyl ether
DO	Dissolved Oxygen - field measurement
pH	pH Level - field measurement
ug/L	Micrograms per liter
ppm	Parts per million
ND	Not detected above reported detection limit
--	Not analyzed/applicable/measurable
TOC	Top of casing
DTW	Depth to water

NOTES:

- (a) Casing elevations surveyed to the nearest 0.01 foot relative to mean sea level.
  - (b) Groundwater elevations adjusted assuming a specific gravity of 0.75 for free product.
  - (c) Concentrations reported as diesel from MW-1, MW-2 and MW-4 are primarily due to the presence of a lighter petroleum product, possibly gasoline or kerosene.
  - (d) Blind duplicate.
  - (e) A copy of the documentation for this data is included in Appendix C of Alisto report 10-018-05-004.
  - (f) Well not sampled due to presence of free product.
  - (g) Well inaccessible.
  - (h) Top of casing not surveyed.
  - (i) Travel blank.
  - (j) EPA method by 8020/8260.
  - (k) Samples ran outside of EPA recommended hold time.
  - (l) A copy of the documentation for this data can be found in Blaine Tech Services report 010619-C-2. The MTBE data for the March 15, 1993 and June 7, 1993 events have been destroyed.
  - (m) Thickness of SPH is only an estimate. The resulting groundwater elevation will not be used in contouring.
  - (n) Samples analyzed by EPA Method 8260B for TPH-g, BTEX, and fuel oxygenates
  - (o) Discrete Peak @ C6-C7
- \* During the third quarter of 2002, URS Corporation assumed groundwater monitoring activities for BP  
 \*\* Depth to water and resulting groundwater elevation is anomalous and not used in groundwater contouring.  
 \*\*\* Anomalously low concentrations reported from Cambria. Do not appear to support historic trends.

Source: The data within this table collected prior to June 2002 was provided to URS by BP Group Environmental Management Company and their previous consultants. URS has not verified tenaccuracy of this information.

**Table 2**  
**Groundwater Flow Direction and Gradient**

Former BP Service Station #11117  
7210 Bancroft Avenue  
Oakland, CA

<b>Date Measured</b>	<b>Average Flow Direction</b>	<b>Average Hydraulic Gradient</b>
09/12/02	Northeast	0.03
12/12/02	Northeast	0.02
03/10/03	Northeast	0.03
05/12/03	North-Northeast	0.055
08/27/03	North-Northeast	0.036
11/10/03	North-Northeast	0.012

**Table 3**  
**Fuel Oxygenate Analytical Data**  
**Former BP Service Station #11117**  
**7210 Bancroft Avenue, Oakland, CA**

Well Number	Date Sampled	Ethanol (µg/L)	TBA (µg/L)	MTBE (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)
MW-1	8/27/2003	ND<100	ND<20	4.2	ND<0.50	ND<0.50	ND<0.50
MW-1	11/10/2003	ND<100	ND<20	0.51	ND<0.50	ND<0.50	ND<0.50
MW-2	8/27/2003	ND<25,000	ND<5,000	5,100	ND<120	ND<120	140
MW-2	11/10/2003	ND<50,000	ND<10,000	4,200	ND<250	ND<250	ND<250
MW-3	8/27/2003	ND<100	ND<20	ND<0.50	ND<0.50	ND<0.50	ND<0.50
MW-4	8/27/2003	ND<50,000	ND<10,000	32,000	ND<250	ND<250	250
MW-4	11/10/2003	ND<100,000	ND<20,000	25,000	ND<500	ND<500	ND<500
MW-6	8/27/2003	ND<100	ND<20	8.9	ND<0.50	ND<0.50	ND<0.50
MW-6	11/10/2003	ND<100	ND<20	4.5	ND<0.50	ND<0.50	ND<0.50
MW-7	8/27/2003	ND<100	ND<20	84	ND<0.50	ND<0.50	ND<0.50
MW-7	11/10/2003	ND<200	ND<40	92	ND<1.0	ND<1.0	ND<1.0
MW-9	8/27/2003	ND<10,000	ND<2,000	6,300	ND<50	ND<50	ND<50
MW-10	8/27/2003	ND<5,000	ND<1,000	2,800	ND<25	ND<25	ND<25
MW-10	11/10/2003	ND<10,000	ND<2,000	3,300	ND<50	ND<50	ND<50

NOTES:

All volatile organic compounds (Ethanol, TBA, MTBE, DIPE, ETBE, and TAME) analyzed using EPA Method 8260B

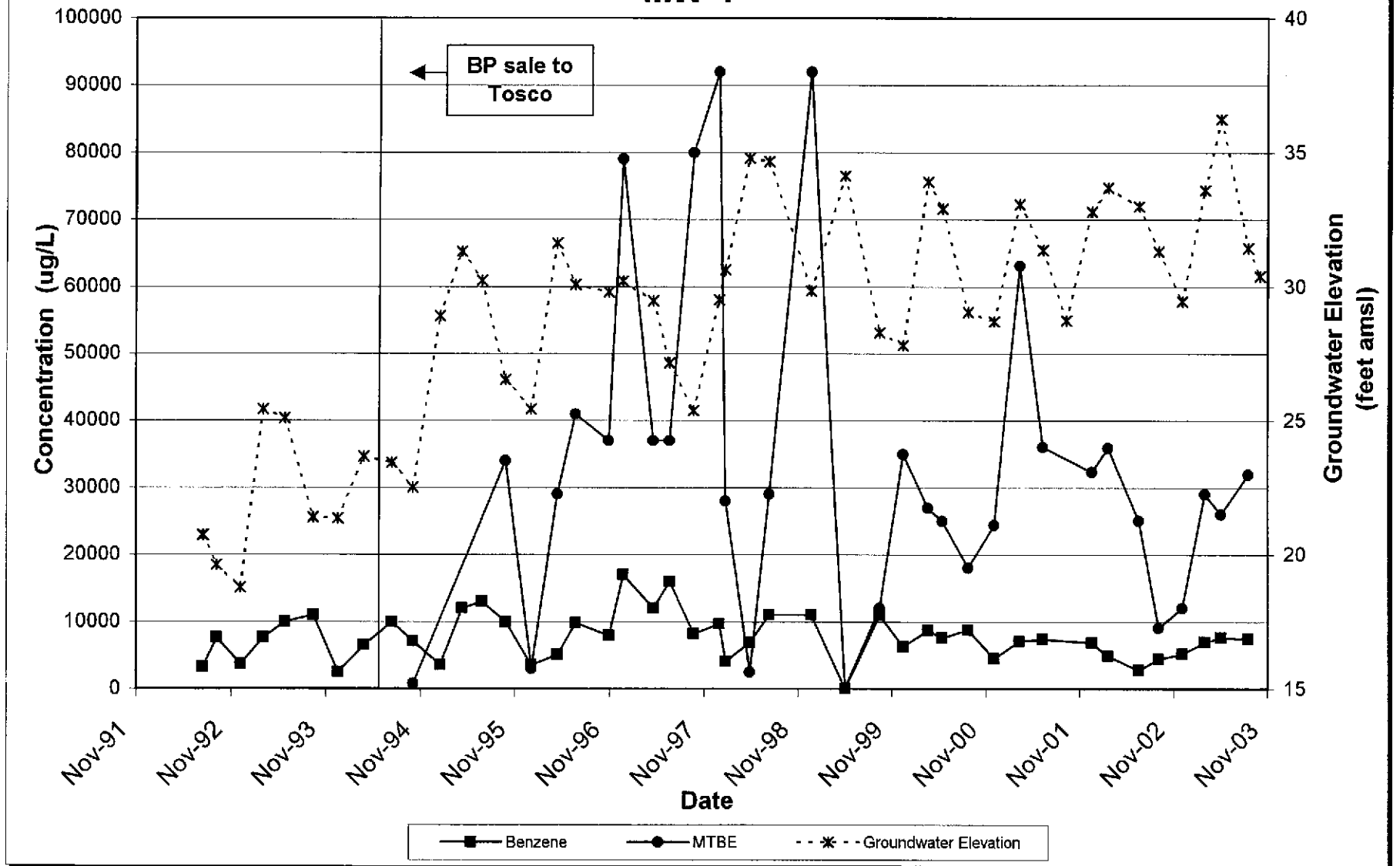
- TBA = tert-Butyl alcohol
- MTBE = Methyl tert-butyl ether
- DIPE = Di-isopropyl ether
- TAME = tert-Amyl methyl ether
- ETBE = Ethyl tert-butyl ether
- µg/L = Micrograms per Liter
- ND< = Not detected above laboratory detection limits



**ATTACHMENT A**

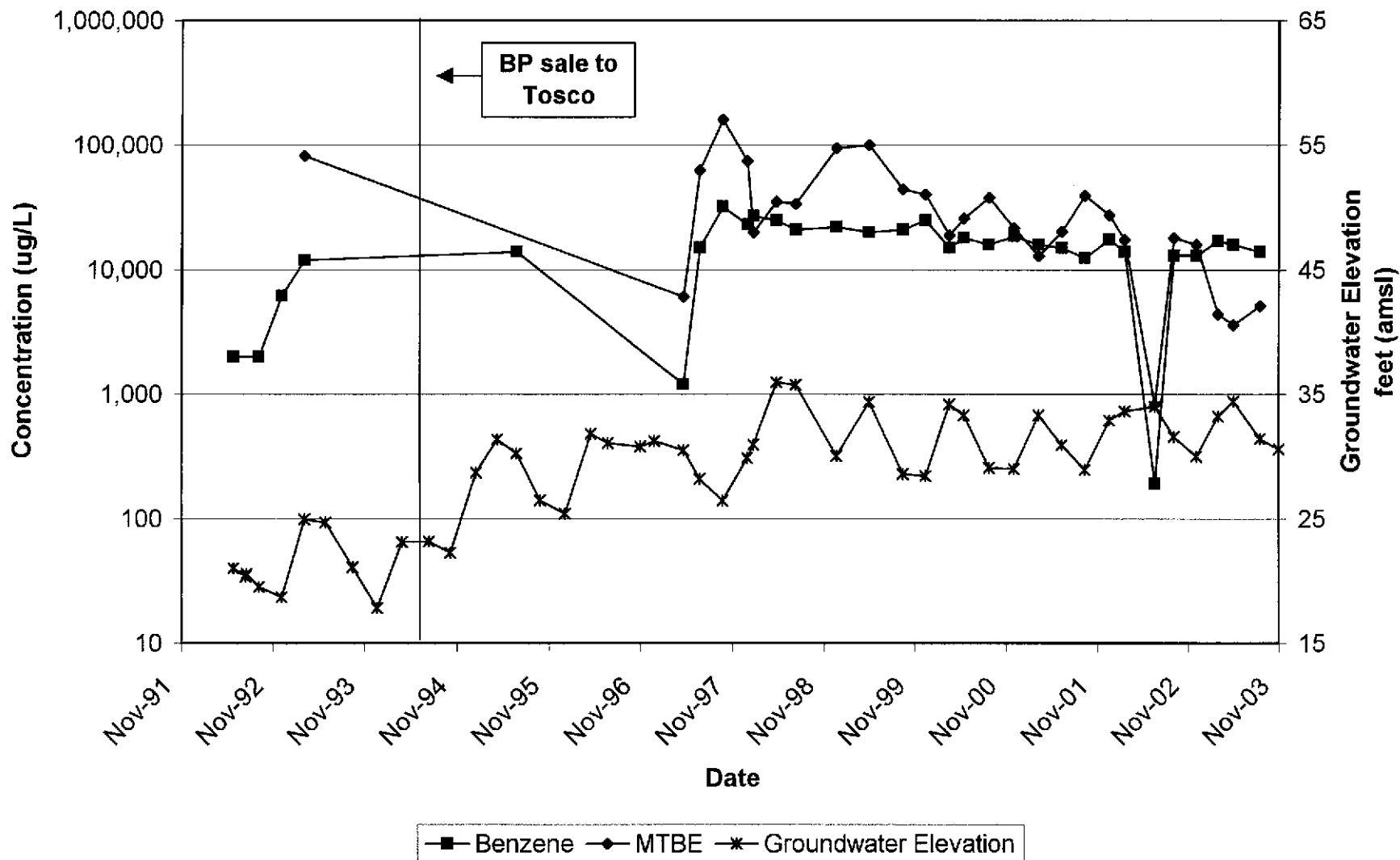
**CONCENTRATION AND WATER LEVEL TRENDS  
(MW-4, MW-2, MW-10)**

# Concentration and Water Elevation Trends MW-4



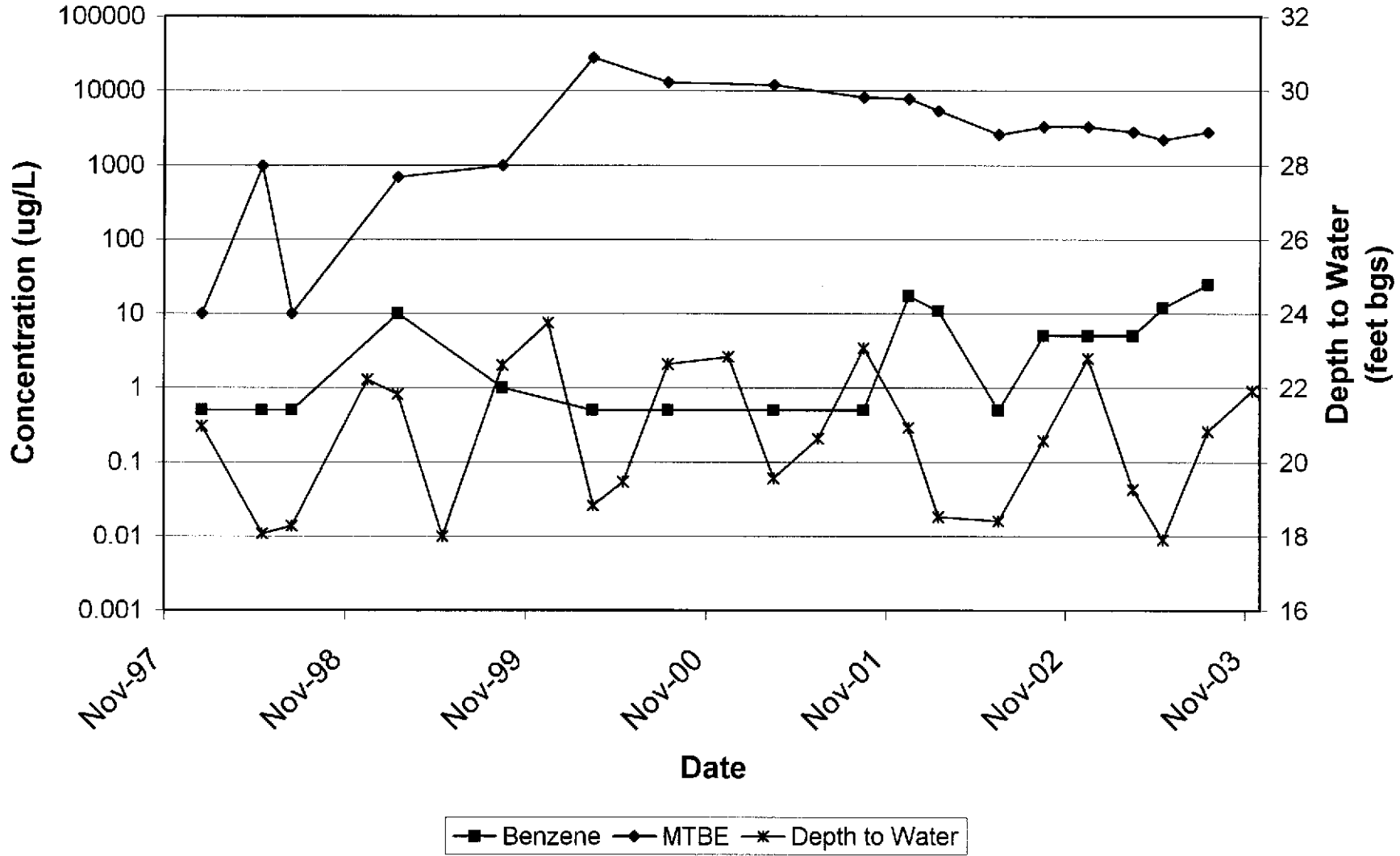
Former BP Service Station #11117  
7210 Bancroft Avenue  
Oakland, CA

## Concentration and Water Elevation Trends Well MW-2



Former BP Service Station #11117  
7210 Bancroft Avenue  
Oakland, CA

## Concentration and Water Elevation Trends Well MW-10



Former BP Service Station #11117  
7210 Bancroft Avenue  
Oakland, CA

**ATTACHMENT B**  
**FIELD PROCEDURES AND FIELD DATA SHEETS**

## **FIELD PROCEDURES**

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### **Sampling Procedures**

The sampling procedure for each well consists first of measuring the water level and depth to bottom, and checking for the presence of free phase petroleum product (free product), using either an electronic indicator and a clear Teflon™ bailer or an oil-water interface probe. Wells not containing free product are purged approximately three casing volumes of water (or until dewatered) using a centrifugal pump, gas displacement pump, or bailer. Equipment and purging method used for the current sampling event is noted on the attached field data sheets. During purging, temperature, pH, and electrical conductivity are monitored to document that these parameters are stable prior to collecting samples. After purging, water levels are allowed to partially (approximately 80%) recover. Groundwater samples (both purge and no purge) are collected using a Teflon bailer, placed into appropriate Environmental Protection Agency- (EPA) approved containers, labeled, logged onto chain-of-custody records, and transported on ice to a California State-certified laboratory. Wells with free product are not sampled and free product is removed according to California Code of Regulation, Title 23, Div. 3, Chap. 16, Section 2655, UST Regulations.

## WELL GAUGING DATA

Project # 031110-DA1      Date 11/10/03      Client 1117

Site 7210 Bancroft, 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	2					19.24	36.66		
MW-2	2	0				20.80	39.48		
MW-3	2					19.66	40.61		G
MW-4	2					20.36	39.60		
MW-6	2					20.13	39.30		
MW-7	2					<del>20.24</del> 23.11	44.75		
MW-8	2					19.68	39.56		G
MW-9	2					19.97	38.66		G
MW-10	2					21.92	35.78	✓	

# ARCO / BP WELL MONITORING DATA SHEET

BTS #: 031110-DA1	Station # 1117
Sampler: DA	Date: 11/10/03
Well I.D.: AA MW-1	Well Diameter: ② 3 4 6 8
Total Well Depth: 36.66	Depth to Water: 19.24
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH

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

Purge Method:  Bailer      Sampling Method:  Bailer  
 Disposable Bailer  
 Positive Air Displacement       Disposable Bailer  
 Electric Submersible      Extraction Port  
 Extraction Pump      Other: \_\_\_\_\_  
 Other: \_\_\_\_\_

Top of Screen: \_\_\_\_\_ If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

2.8	x	3	=	8.4	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or <u>uS</u> )	Gals. Removed	Observations
0939	66.2	6.8	494	3	grey tint, slight odor
0941	65.9	6.9	493	6	"
0944	65.6	6.8	490	8.5	"

Did well dewater? Yes  No  Gallons actually evacuated: 8.5

Sampling Time: 0947      Sampling Date: 11/10/03

Sample I.D.: MW-1      Laboratory: Pace Sequoia Other \_\_\_\_\_

Analyzed for: TPH-G BTX MTBE TPH-D Other: Oxy's, Ethanol

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



# ARCO / BP WELL MONITORING DATA SHEET

BTS #: 03110-DA1	Station # 1117
Sampler: DA	Date: 11/10/03
Well I.D.: MW-2	Well Diameter: <input checked="" type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 6 <input type="radio"/> 8
Total Well Depth: 39.48	Depth to Water: 20.50
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <input checked="" type="checkbox"/> YSI <input type="checkbox"/> HACH	D.O. Meter (if req'd):

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
<input checked="" type="radio"/> 2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Purge Method:                      Bailer                      Sampling Method:                      Bailer

Disposable Bailer                       Disposable Bailer

Positive Air Displacement                      Extraction Port

Electric Submersible

Extraction Pump                      Other: \_\_\_\_\_

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

Top of Screen: \_\_\_\_\_ If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

3.0	x	3	=	9.0	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or $\mu$ S)	Gals. Removed	Observations
1022	68.8	6.6	623	3	clear, strong gas odor
1024	68.7	6.7	602	6	"
1025	69.6	6.7	575	9	"

Did well dewater? Yes                       Gallons actually evacuated: 9

Sampling Time: 1028                      Sampling Date: 11/10/03

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

Analyzed for:  TPH-G     BTEX    MTBE    TPH-D    Other: Oxy's, Ethanol

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

## ARCO / BP WELL MONITORING DATA SHEET

BTS #: 031110-DA1	Station # 1117
Sampler: DA	Date: 11/10/03
Well I.D.: MW-4	Well Diameter: ② 3 4 6 8
Total Well Depth: 39.60	Depth to Water: 20.36
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH

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

Purge Method:  Bailer  Disposable Bailer  Positive Air Displacement  Electric Submersible Extraction Pump  Other: \_\_\_\_\_

Sampling Method:  Bailer  Disposable Bailer  Extraction Port  Other: \_\_\_\_\_

Top of Screen: \_\_\_\_\_ If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

3.1	x	3	=	9.3	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or $\mu$ S)	Gals. Removed	Observations
1044	68.3	6.6	1004	3.5	clear, strong gas odor
1047	68.9	6.6	1025	7	
1050	68.7	6.6	1033	9.5	

Did well dewater? Yes  No  Gallons actually evacuated: 9.5

Sampling Time: 1052 Sampling Date: 11/10/03

Sample I.D.: MW-4 Laboratory: Pace Sequoia Other \_\_\_\_\_

Analyzed for: TPH-G BTEX MTBE TPH-D Other: Oxy's, Ethanol

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

# ARCO / BP WELL MONITORING DATA SHEET

BTS #: 03110-DA1	Station # 1117
Sampler: OA	Date: 11/10/03
Well I.D.: Mw-6	Well Diameter: ② 3 4 6 8
Total Well Depth: 39.30	Depth to Water: 20.13
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH

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

Purge Method:  Bailer  Disposable Bailer  Positive Air Displacement  Electric Submersible Extraction Pump  Other: \_\_\_\_\_

Sampling Method:  Bailer  Disposable Bailer  Extraction Port  Other: \_\_\_\_\_

Top of Screen: \_\_\_\_\_ If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

3.1	x	3	=	9.3	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or $\mu$ S)	Gals. Removed	Observations
0919	66.8	6.6	778	3.5	tan, cloudy
0922	67.6	6.8	816	7	"
0924	68.0	6.8	827	9.5	"

Did well dewater? Yes  No  Gallons actually evacuated: 9.5

Sampling Time: ~~11/10/03~~ 0927 Sampling Date: 11/10/03

Sample I.D.: Mw-6 Laboratory: Pace Sequoia Other \_\_\_\_\_

Analyzed for: TPH-G BTEX MTBE TPH-D Other: Oxy's, Ethanol

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

## ARCO / BP WELL MONITORING DATA SHEET

BTS #: 031110-DA1	Station # 11117
Sampler: DA	Date: 11/10/03
Well I.D.: MW-7	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth: 44.75	Depth to Water: 20.24
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVD</u> Grade	D.O. Meter (if req'd): YSI HACH

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

Purge Method:  Bailer  Disposable Bailer  Positive Air Displacement  Electric Submersible Extraction Pump  Other: \_\_\_\_\_

Sampling Method:  Bailer  Disposable Bailer  Extraction Port  Other: \_\_\_\_\_

Top of Screen: \_\_\_\_\_ If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

3.9	x	3	=	11.7	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or μS)	Gals. Removed	Observations
0852	67.4	6.2	680	4	clear
0855	69.8	6.4	483	8	"
0858	68.1	6.7	473	12	"

Did well dewater? Yes  No  Gallons actually evacuated: 12

Sampling Time: 0902 Sampling Date: 11/10/03

Sample I.D.: MW-7 Laboratory: Pace Sequoia Other: \_\_\_\_\_

Analyzed for: <u>IPH-G BTEX</u> MTBE TPH-D Other: <u>Ox-y's Ethanol</u>			
D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:
			mV

# ARCO / BP WELL MONITORING DATA SHEET

BTS #: 031110-DA1	Station # 1117
Sampler: NA	Date: 11/10/03
Well I.D.: MW-10	Well Diameter: (2) 3 4 6 8
Total Well Depth: 35.78	Depth to Water: 21.92
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

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

Purge Method:

- Bailer
- Disposable Bailer
- Positive Air Displacement
- Electric Submersible Extraction Pump
- Other: \_\_\_\_\_

Sampling Method:

- Bailer
- Disposable Bailer
- Extraction Port
- Other: \_\_\_\_\_

Top of Screen: \_\_\_\_\_

If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

$\frac{2.2}{1 \text{ Case Volume (Gals.)}}$	x	$\frac{3}{\text{Specified Volumes}}$	=	$\frac{6.6}{\text{Calculated Volume}}$ Gals.
---	---	--------------------------------------	---	--

Time	Temp (°F)	pH	Conductivity (mS or $\mu\text{S}$ )	Gals. Removed	Observations
0958	68.7	7.1	850	2.5	tan, cloudy
0959	70.2	6.9	914	5	"
1001	71.0	6.8	935	7	"

Did well dewater? Yes  No  Gallons actually evacuated: 7

Sampling Time: 1004 Sampling Date: 11/10/03

Sample I.D.: MW-10 Laboratory: Pace (Sequoia) Other: \_\_\_\_\_

Analyzed for: (PH-G BTEX) MTBE TPH-D Other: Oxy's, Ethano?

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

**BP GEM OIL COMPANY TYPE A BILL OF LADING**

SOURCE RECORD **BILL OF LADING** FOR NON-HAZARDOUS PURGEWATER RECOVERED FROM GROUNDWATER WELLS AT BP GEM OIL COMPANY FACILITIES IN THE STATE OF CALIFORNIA. THE NON-HAZARDOUS PURGE- WATER WHICH HAS BEEN RECOVERED FROM GROUND- WATER WELLS IS COLLECTED BY THE CONTRACTOR, MADE UP INTO LOADS OF APPROPRIATE SIZE AND HAULED BY DILLARD ENVIRONMENTAL TO THE ALTAMONT LANDFILL AND RESOURCE RECOVERY FACILITY IN LIVERMORE, CALIFORNIA.

The contractor performing this work is BLAINE TECH SERVICES, INC. (BTS), 1680 Rogers Avenue, San Jose, CA 95112 (phone [408] 573-0555). Blaine Tech Services, Inc. is authorized by BP GEM OIL COMPANY to recover, collect, apportion into loads the Non-Hazardous Well Purgewater that is drawn from wells at the BP GEM Oil Company facility indicated below and deliver that purgewater to BTS. Transport routing of the Non-Hazardous Well Purgewater may be direct from one BP GEM facility to the designated destination point; from one BP GEM facility to the designated destination point via another BP GEM facility; from a BP GEM facility to the designated destination point via the contractor's facility, or any combination thereof. The Non-Hazardous Well Purgewater is and remains the property of BP GEM Oil Company.

This **Source Record BILL OF LADING** was initiated to cover the recovery of Non-Hazardous Well Purgewater from wells at the BP GEM Oil Company facility described below:

1117

Station #

7210 Bancroft Oakland, CA

Station Address

Total Gallons Collected From Groundwater Monitoring Wells:

55.5

added equip. rinse water 10

any other adjustments \_\_\_\_\_

TOTAL GALS. RECOVERED 65.5

loaded onto BTS vehicle # 49

BTS event # 03110-DA1

time 0830 date 11/10/03

signature David Adibant

\*\*\*\*\*

REC'D AT \_\_\_\_\_ time \_\_\_\_\_ date 1/1

unloaded by signature \_\_\_\_\_

**ATTACHMENT C**  
**LABORATORY PROCEDURES,**  
**CERTIFIED ANALYTICAL REPORTS,**  
**AND CHAIN-OF-CUSTODY RECORDS**

## **LABORATORY PROCEDURES**

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### **Laboratory Procedures**

The groundwater samples were analyzed for the presence of the chemicals mentioned in the chain of custody using standard EPA methods. The methods of analysis for the groundwater samples are documented in the certified analytical report. The certified analytical reports and chain-of-custody record are presented in this attachment. The analytical data provided by the laboratory approved by Group Environmental Management Company have been reviewed and verified by that laboratory.





**Sequoia  
Analytical**

885 Jarvis Drive  
Morgan Hill, CA 95037  
(408) 776-9600  
FAX (408) 782-6308  
www.sequoialabs.com

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1 December, 2003

Leonard Niles  
URS Corporation [Arco]  
500 12th Street, Suite 200  
Oakland, CA 94607

RE: BP Heritage #11117, Oakland, CA  
Work Order: MMK0368

Enclosed are the results of analyses for samples received by the laboratory on 11/11/03 12:45. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Theresa Allen  
Project Manager

CA ELAP Certificate #1210



URS Corporation [Arco]  
500 12th Street, Suite 200  
Oakland CA, 94607

Project: BP Heritage #11117, Oakland, CA  
Project Number: N/P  
Project Manager: Leonard Niles

MMK0368  
**Reported:**  
12/01/03 18:52

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	MMK0368-01	Water	11/10/03 09:47	11/11/03 12:45
MW-2	MMK0368-02	Water	11/10/03 10:28	11/11/03 12:45
MW-4	MMK0368-03	Water	11/10/03 10:52	11/11/03 12:45
MW-6	MMK0368-04	Water	11/10/03 09:27	11/11/03 12:45
MW-7	MMK0368-05	Water	11/10/03 09:02	11/11/03 12:45
MW-10	MMK0368-06	Water	11/10/03 10:04	11/11/03 12:45
TB	MMK0368-07	Water	11/10/03 00:00	11/11/03 12:45

There were custody seals received with this project.

URS Corporation [Arco]  
500 12th Street, Suite 200  
Oakland CA, 94607

Project: BP Heritage #11117, Oakland, CA  
Project Number: N/P  
Project Manager: Leonard Niles

MMK0368  
Reported:  
12/01/03 18:52

**Volatile Organic Compounds by EPA Method 8260B  
Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-1 (MMK0368-01) Water</b> Sampled: 11/10/03 09:47 Received: 11/11/03 12:45									
Ethanol	ND	100	ug/l	1	3K20005	11/20/03	11/20/03	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
<b>Methyl tert-butyl ether</b>	<b>0.51</b>	0.50	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics	ND	50	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		103 %	78-129	"	"	"	"	"	
<b>MW-2 (MMK0368-02) Water</b> Sampled: 11/10/03 10:28 Received: 11/11/03 12:45									
Ethanol	ND	50000	ug/l	500	3K23001	11/23/03	11/23/03	EPA 8260B	
tert-Butyl alcohol	ND	10000	"	"	"	"	"	"	
<b>Methyl tert-butyl ether</b>	<b>4200</b>	250	"	"	"	"	"	"	
Di-isopropyl ether	ND	250	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	250	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	250	"	"	"	"	"	"	
<b>Benzene</b>	<b>12000</b>	250	"	"	"	"	"	"	
<b>Toluene</b>	<b>9500</b>	250	"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>3600</b>	250	"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>15000</b>	250	"	"	"	"	"	"	
<b>Gasoline Range Organics</b>	<b>97000</b>	25000	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		104 %	78-129	"	"	"	"	"	

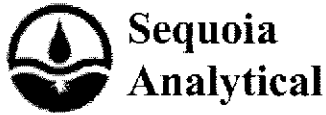
URS Corporation [Arco]  
500 12th Street, Suite 200  
Oakland CA, 94607

Project: BP Heritage #11117, Oakland, CA  
Project Number: N/P  
Project Manager: Leonard Niles

MMK0368  
Reported:  
12/01/03 18:52

**Volatile Organic Compounds by EPA Method 8260B  
Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-4 (MMK0368-03) Water</b> <b>Sampled: 11/10/03 10:52</b> <b>Received: 11/11/03 12:45</b>									
Ethanol	ND	100000	ug/l	1000	3K20006	11/20/03	11/20/03	EPA 8260B	
tert-Butyl alcohol	ND	20000	"	"	"	"	"	"	
<b>Methyl tert-butyl ether</b>	<b>25000</b>	500	"	"	"	"	"	"	
Di-isopropyl ether	ND	500	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	500	"	"	"	"	"	"	O-09
tert-Amyl methyl ether	ND	500	"	"	"	"	"	"	
<b>Benzene</b>	<b>7100</b>	500	"	"	"	"	"	"	
<b>Toluene</b>	<b>3100</b>	500	"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>2100</b>	500	"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>5800</b>	500	"	"	"	"	"	"	
<b>Gasoline Range Organics</b>	<b>110000</b>	50000	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		106 %	78-129	"	"	"	"	"	
<b>MW-6 (MMK0368-04) Water</b> <b>Sampled: 11/10/03 09:27</b> <b>Received: 11/11/03 12:45</b>									
Ethanol	ND	100	ug/l	1	3K20006	11/20/03	11/21/03	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
<b>Methyl tert-butyl ether</b>	<b>4.5</b>	0.50	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	O-09
tert-Amyl methyl ether	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics	ND	50	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		109 %	78-129	"	"	"	"	"	



URS Corporation [Arco]  
 500 12th Street, Suite 200  
 Oakland CA, 94607

Project: BP Heritage #11117, Oakland, CA  
 Project Number: N/P  
 Project Manager: Leonard Niles

MMK0368  
**Reported:**  
 12/01/03 18:52

**Volatile Organic Compounds by EPA Method 8260B**  
**Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-7 (MMK0368-05) Water    Sampled: 11/10/03 09:02    Received: 11/11/03 12:45</b>									
Ethanol	ND	200	ug/l	2	3K20006	11/20/03	11/21/03	EPA 8260B	
tert-Butyl alcohol	ND	40	"	"	"	"	"	"	
<b>Methyl tert-butyl ether</b>	<b>92</b>	1.0	"	"	"	"	"	"	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	O-09
tert-Amyl methyl ether	ND	1.0	"	"	"	"	"	"	
Benzene	ND	1.0	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	
<b>Gasoline Range Organics</b>	<b>230</b>	100	"	"	"	"	"	"	HC-19
<i>Surrogate: 1,2-Dichloroethane-d4</i>		<i>111 %</i>	<i>78-129</i>						
<b>MW-10 (MMK0368-06) Water    Sampled: 11/10/03 10:04    Received: 11/11/03 12:45</b>									
Ethanol	ND	10000	ug/l	100	3K23001	11/23/03	11/23/03	EPA 8260B	
tert-Butyl alcohol	ND	2000	"	"	"	"	"	"	
<b>Methyl tert-butyl ether</b>	<b>3300</b>	50	"	"	"	"	"	"	
Di-isopropyl ether	ND	50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	50	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	50	"	"	"	"	"	"	
Benzene	ND	50	"	"	"	"	"	"	
Toluene	ND	50	"	"	"	"	"	"	
Ethylbenzene	ND	50	"	"	"	"	"	"	
Xylenes (total)	ND	50	"	"	"	"	"	"	
<b>Gasoline Range Organics</b>	<b>ND</b>	5000	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		<i>107 %</i>	<i>78-129</i>						

URS Corporation [Arco]  
500 12th Street, Suite 200  
Oakland CA, 94607

Project: BP Heritage #11117, Oakland, CA  
Project Number: N/P  
Project Manager: Leonard Niles

MMK0368  
Reported:  
12/01/03 18:52

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Notes
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**Batch 3K20005 - EPA 5030B P/T**

**Blank (3K20005-BLK1)**

Prepared & Analyzed: 11/20/03

Ethanol	ND	100	ug/l							
tert-Butyl alcohol	ND	5.0	"							
Methyl tert-butyl ether	ND	0.50	"							
Di-isopropyl ether	ND	0.50	"							
Ethyl tert-butyl ether	ND	0.50	"							
tert-Amyl methyl ether	ND	0.50	"							
1,2-Dichloroethane	ND	0.50	"							
1,2-Dibromoethane (EDB)	ND	0.50	"							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Gasoline Range Organics	ND	50	"							

Surrogate: 1,2-Dichloroethane-d4

5.27

"

5.00

105

78-129

**Laboratory Control Sample (3K20005-BS1)**

Prepared & Analyzed: 11/20/03

Ethanol	224	100	ug/l	200		112	31-186			
tert-Butyl alcohol	49.5	20	"	50.0		99.0	0-206			
Methyl tert-butyl ether	10.3	0.50	"	10.0		103	63-137			
Di-isopropyl ether	10.1	0.50	"	10.0		101	76-130			
Ethyl tert-butyl ether	10.2	0.50	"	10.0		102	61-141			
tert-Amyl methyl ether	10.3	0.50	"	10.0		103	56-140			
1,2-Dichloroethane	10.5	0.50	"	10.0		105	77-136			
1,2-Dibromoethane (EDB)	9.67	0.50	"	10.0		96.7	77-132			
Benzene	10.6	0.50	"	10.0		106	78-124			
Toluene	9.75	0.50	"	10.0		97.5	78-129			
Ethylbenzene	9.36	0.50	"	10.0		93.6	84-117			
Xylenes (total)	28.3	0.50	"	30.0		94.3	83-125			

Surrogate: 1,2-Dichloroethane-d4

5.27

"

5.00

105

78-129

URS Corporation [Arco]  
 500 12th Street, Suite 200  
 Oakland CA, 94607

 Project: BP Heritage #11117, Oakland, CA  
 Project Number: N/P  
 Project Manager: Leonard Niles

 MMK0368  
 Reported:  
 12/01/03 18:52

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 3K20005 - EPA 5030B P/T**
**Laboratory Control Sample (3K20005-BS2)**

Prepared &amp; Analyzed: 11/20/03

Methyl tert-butyl ether	8.25	0.50	ug/l	10.1		81.7	63-137			
Benzene	5.63	0.50	"	6.48		86.9	78-124			
Toluene	29.8	0.50	"	29.7		100	78-129			
Ethylbenzene	7.16	0.50	"	7.20		99.4	84-117			
Xylenes (total)	34.7	0.50	"	33.7		103	83-125			
Gasoline Range Organics	411	50	"	440		93.4	70-113			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>5.37</i>		<i>"</i>	<i>5.00</i>		<i>107</i>	<i>78-129</i>			

**Laboratory Control Sample Dup (3K20005-BSD1)**

Prepared &amp; Analyzed: 11/20/03

Ethanol	217	100	ug/l	200		108	31-186	3.17	37	
tert-Butyl alcohol	47.2	20	"	50.0		94.4	0-206	4.76	22	
Methyl tert-butyl ether	10.1	0.50	"	10.0		101	63-137	1.96	13	
Di-isopropyl ether	9.96	0.50	"	10.0		99.6	76-130	1.40	9	
Ethyl tert-butyl ether	9.98	0.50	"	10.0		99.8	61-141	2.18	9	
tert-Amyl methyl ether	10.1	0.50	"	10.0		101	56-140	1.96	12	
1,2-Dichloroethane	10.4	0.50	"	10.0		104	77-136	0.957	13	
1,2-Dibromoethane (EDB)	9.67	0.50	"	10.0		96.7	77-132	0.00	9	
Benzene	10.6	0.50	"	10.0		106	78-124	0.00	12	
Toluene	9.89	0.50	"	10.0		98.9	78-129	1.43	10	
Ethylbenzene	9.57	0.50	"	10.0		95.7	84-117	2.22	10	
Xylenes (total)	28.3	0.50	"	30.0		94.3	83-125	0.00	11	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>5.26</i>		<i>"</i>	<i>5.00</i>		<i>105</i>	<i>78-129</i>			

**Laboratory Control Sample Dup (3K20005-BSD2)**

Prepared &amp; Analyzed: 11/20/03

Methyl tert-butyl ether	8.34	0.50	ug/l	10.1		82.6	63-137	1.08	13	
Benzene	5.42	0.50	"	6.48		83.6	78-124	3.80	12	
Toluene	29.9	0.50	"	29.7		101	78-129	0.335	10	
Ethylbenzene	7.22	0.50	"	7.20		100	84-117	0.834	10	
Xylenes (total)	34.6	0.50	"	33.7		103	83-125	0.289	11	
Gasoline Range Organics	392	50	"	440		89.1	70-113	4.73	9	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>5.19</i>		<i>"</i>	<i>5.00</i>		<i>104</i>	<i>78-129</i>			

Sequoia Analytical - Morgan Hill

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URS Corporation [Arco] 500 12th Street, Suite 200 Oakland CA, 94607	Project: BP Heritage #11117, Oakland, CA Project Number: N/P Project Manager: Leonard Niles	MMK0368 Reported: 12/01/03 18:52
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**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 3K20006 - EPA 5030B P/T**

**Blank (3K20006-BLK1)**

Prepared & Analyzed: 11/20/03

Ethanol	ND	100	ug/l							
tert-Butyl alcohol	ND	20	"							
Methyl tert-butyl ether	ND	0.50	"							
Di-isopropyl ether	ND	0.50	"							O-09
Ethyl tert-butyl ether	ND	0.50	"							
tert-Amyl methyl ether	ND	0.50	"							
1,2-Dichloroethane	ND	0.50	"							
1,2-Dibromoethane (EDB)	ND	0.50	"							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Gasoline Range Organics	ND	50	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	5.27		"	5.00		105	78-129			

**Laboratory Control Sample (3K20006-BS1)**

Prepared & Analyzed: 11/20/03

Ethanol	234	100	ug/l	200		117	31-186			
tert-Butyl alcohol	54.5	20	"	50.0		109	0-206			
Methyl tert-butyl ether	10.6	0.50	"	10.0		106	63-137			
Di-isopropyl ether	12.8	0.50	"	10.0		128	76-130			O-09
Ethyl tert-butyl ether	15.7	0.50	"	10.0		157	61-141			Q-LIM
tert-Amyl methyl ether	8.53	0.50	"	10.0		85.3	56-140			
1,2-Dichloroethane	10.6	0.50	"	10.0		106	77-136			
1,2-Dibromoethane (EDB)	9.51	0.50	"	10.0		95.1	77-132			
Benzene	10.7	0.50	"	10.0		107	78-124			
Toluene	8.90	0.50	"	10.0		89.0	78-129			
Ethylbenzene	9.33	0.50	"	10.0		93.3	84-117			
Xylenes (total)	26.6	0.50	"	30.0		88.7	83-125			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	5.32		"	5.00		106	78-129			

Sequoia Analytical - Morgan Hill

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URS Corporation [Arco]  
 500 12th Street, Suite 200  
 Oakland CA, 94607

 Project: BP Heritage #11117, Oakland, CA  
 Project Number: N/P  
 Project Manager: Leonard Niles

 MMK0368  
 Reported:  
 12/01/03 18:52

### Volatile Organic Compounds by EPA Method 8260B - Quality Control Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 3K20006 - EPA 5030B P/T**
**Laboratory Control Sample (3K20006-BS2)**

Prepared &amp; Analyzed: 11/20/03

Methyl tert-butyl ether	8.89	0.50	ug/l	10.1		88.0	63-137			
Benzene	5.67	0.50	"	6.48		87.5	78-124			
Toluene	32.1	0.50	"	29.7		108	78-129			
Ethylbenzene	6.17	0.50	"	7.20		85.7	84-117			
Xylenes (total)	30.8	0.50	"	33.7		91.4	83-125			
Gasoline Range Organics	373	50	"	440		84.8	70-113			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>5.04</i>		<i>"</i>	<i>5.00</i>		<i>101</i>	<i>78-129</i>			

**Laboratory Control Sample Dup (3K20006-BSD1)**

Prepared &amp; Analyzed: 11/20/03

Ethanol	259	100	ug/l	200		130	31-186	10.1	37	
tert-Butyl alcohol	56.0	20	"	50.0		112	0-206	2.71	22	
Methyl tert-butyl ether	10.9	0.50	"	10.0		109	63-137	2.79	13	
Di-isopropyl ether	13.6	0.50	"	10.0		136	76-130	6.06	9	O-09, Q-LIM
Ethyl tert-butyl ether	16.3	0.50	"	10.0		163	61-141	3.75	9	Q-LIM
tert-Amyl methyl ether	8.39	0.50	"	10.0		83.9	56-140	1.65	12	
1,2-Dichloroethane	11.1	0.50	"	10.0		111	77-136	4.61	13	
1,2-Dibromoethane (EDB)	10.0	0.50	"	10.0		100	77-132	5.02	9	
Benzene	10.7	0.50	"	10.0		107	78-124	0.00	12	
Toluene	9.23	0.50	"	10.0		92.3	78-129	3.64	10	
Ethylbenzene	9.40	0.50	"	10.0		94.0	84-117	0.747	10	
Xylenes (total)	26.4	0.50	"	30.0		88.0	83-125	0.755	11	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>5.47</i>		<i>"</i>	<i>5.00</i>		<i>109</i>	<i>78-129</i>			

**Laboratory Control Sample Dup (3K20006-BSD2)**

Prepared &amp; Analyzed: 11/20/03

Methyl tert-butyl ether	8.77	0.50	ug/l	10.1		86.8	63-137	1.36	13	
Benzene	6.03	0.50	"	6.48		93.1	78-124	6.15	12	
Toluene	34.6	0.50	"	29.7		116	78-129	7.50	10	
Ethylbenzene	6.98	0.50	"	7.20		96.9	84-117	12.3	10	QR-02
Xylenes (total)	34.2	0.50	"	33.7		101	83-125	10.5	11	
Gasoline Range Organics	506	50	"	440		115	70-113	30.3	9	Q-LIM, QR-07
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>5.36</i>		<i>"</i>	<i>5.00</i>		<i>107</i>	<i>78-129</i>			



URS Corporation [Arco]  
500 12th Street, Suite 200  
Oakland CA, 94607

Project: BP Heritage #11117, Oakland, CA  
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Project Manager: Leonard Niles

MMK0368  
Reported:  
12/01/03 18:52

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 3K20006 - EPA 5030B P/T**

Matrix Spike (3K20006-MS1)	Source: MMK0368-03			Prepared: 11/20/03		Analyzed: 11/21/03				
Methyl tert-butyl ether	25300	500	ug/l	10100	25000	2.97	63-137			QM-07
Benzene	12600	500	"	6480	7100	84.9	78-124			
Toluene	34700	500	"	29700	3100	106	78-129			
Ethylbenzene	8950	500	"	7200	2100	95.1	84-117			
Xylenes (total)	39600	500	"	33700	5800	100	83-125			
Gasoline Range Organics	509000	50000	"	440000	110000	90.7	70-113			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>4.93</i>		<i>"</i>	<i>5.00</i>		<i>98.6</i>	<i>78-129</i>			

Matrix Spike Dup (3K20006-MSD1)	Source: MMK0368-03			Prepared: 11/20/03		Analyzed: 11/21/03				
Methyl tert-butyl ether	29800	500	ug/l	10100	25000	47.5	63-137	16.3	13	QM-07, QR-07
Benzene	12200	500	"	6480	7100	78.7	78-124	3.23	12	
Toluene	33500	500	"	29700	3100	102	78-129	3.52	10	
Ethylbenzene	9150	500	"	7200	2100	97.9	84-117	2.21	10	
Xylenes (total)	39000	500	"	33700	5800	98.5	83-125	1.53	11	
Gasoline Range Organics	520000	50000	"	440000	110000	93.2	70-113	2.14	9	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>4.85</i>		<i>"</i>	<i>5.00</i>		<i>97.0</i>	<i>78-129</i>			

**Batch 3K23001 - EPA 5030B P/T**

Blank (3K23001-BLK1)	Prepared & Analyzed: 11/23/03									
Ethanol	ND	100	ug/l							
tert-Butyl alcohol	ND	20	"							
Methyl tert-butyl ether	ND	0.50	"							
Di-isopropyl ether	ND	0.50	"							
Ethyl tert-butyl ether	ND	0.50	"							
tert-Amyl methyl ether	ND	0.50	"							
1,2-Dichloroethane	ND	0.50	"							
1,2-Dibromoethane (EDB)	ND	0.50	"							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Gasoline Range Organics	ND	50	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>5.13</i>		<i>"</i>	<i>5.00</i>		<i>103</i>	<i>78-129</i>			

Sequoia Analytical - Morgan Hill

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 500 12th Street, Suite 200  
 Oakland CA, 94607

 Project: BP Heritage #11117, Oakland, CA  
 Project Number: N/P  
 Project Manager: Leonard Niles

 MMK0368  
 Reported:  
 12/01/03 18:52

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limits	RPD	RPD Limit	Notes
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**Batch 3K23001 - EPA 5030B P/T**
**Laboratory Control Sample (3K23001-BS1)**

Prepared &amp; Analyzed: 11/23/03

Ethanol	225	100	ug/l	200		112	31-186			
tert-Butyl alcohol	49.0	20	"	50.0		98.0	0-206			
Methyl tert-butyl ether	9.75	0.50	"	10.0		97.5	63-137			
Di-isopropyl ether	9.79	0.50	"	10.0		97.9	76-130			
Ethyl tert-butyl ether	9.90	0.50	"	10.0		99.0	61-141			
tert-Amyl methyl ether	10.1	0.50	"	10.0		101	56-140			
1,2-Dichloroethane	10.2	0.50	"	10.0		102	77-136			
1,2-Dibromoethane (EDB)	9.48	0.50	"	10.0		94.8	77-132			
Benzene	10.1	0.50	"	10.0		101	78-124			
Toluene	9.54	0.50	"	10.0		95.4	78-129			
Ethylbenzene	9.29	0.50	"	10.0		92.9	84-117			
Xylenes (total)	28.0	0.50	"	30.0		93.3	83-125			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	5.25		"	5.00		105	78-129			

**Laboratory Control Sample (3K23001-BS2)**

Prepared &amp; Analyzed: 11/23/03

Methyl tert-butyl ether	8.24	0.50	ug/l	9.92		83.1	63-137			
Benzene	5.44	0.50	"	6.40		85.0	78-124			
Toluene	29.6	0.50	"	29.7		99.7	78-129			
Ethylbenzene	7.11	0.50	"	6.96		102	84-117			
Xylenes (total)	34.1	0.50	"	33.7		101	83-125			
Gasoline Range Organics	405	50	"	440		92.0	70-113			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	5.44		"	5.00		109	78-129			

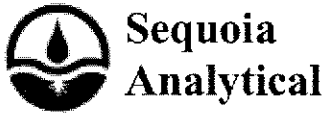
**Laboratory Control Sample Dup (3K23001-BSD1)**

Prepared &amp; Analyzed: 11/23/03

Ethanol	160	100	ug/l	200		80.0	31-186	33.8	37	
tert-Butyl alcohol	35.7	20	"	50.0		71.4	0-206	31.4	22	O-10, QR-02
Methyl tert-butyl ether	9.13	0.50	"	10.0		91.3	63-137	6.57	13	
Di-isopropyl ether	9.59	0.50	"	10.0		95.9	76-130	2.06	9	
Ethyl tert-butyl ether	9.57	0.50	"	10.0		95.7	61-141	3.39	9	
tert-Amyl methyl ether	9.48	0.50	"	10.0		94.8	56-140	6.33	12	
1,2-Dichloroethane	9.96	0.50	"	10.0		99.6	77-136	2.38	13	
1,2-Dibromoethane (EDB)	9.12	0.50	"	10.0		91.2	77-132	3.87	9	
Benzene	9.99	0.50	"	10.0		99.9	78-124	1.10	12	
Toluene	9.24	0.50	"	10.0		92.4	78-129	3.19	10	
Ethylbenzene	9.23	0.50	"	10.0		92.3	84-117	0.648	10	
Xylenes (total)	27.3	0.50	"	30.0		91.0	83-125	2.53	11	

Sequoia Analytical - Morgan Hill

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URS Corporation [Arco] 500 12th Street, Suite 200 Oakland CA, 94607	Project: BP Heritage #11117, Oakland, CA Project Number: N/P Project Manager: Leonard Niles	MMK0368 Reported: 12/01/03 18:52
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**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 3K23001 - EPA 5030B P/T**

Laboratory Control Sample Dup (3K23001-BSD1)		Prepared & Analyzed: 11/23/03								
<i>Surrogate: 1,2-Dichloroethane-d4</i>	5.08		ug/l	5.00		102	78-129			
Laboratory Control Sample Dup (3K23001-BSD2)		Prepared & Analyzed: 11/23/03								
Methyl tert-butyl ether	8.22	0.50	ug/l	9.92		82.9	63-137	0.243	13	
Benzene	5.52	0.50	"	6.40		86.2	78-124	1.46	12	
Toluene	29.6	0.50	"	29.7		99.7	78-129	0.00	10	
Ethylbenzene	7.01	0.50	"	6.96		101	84-117	1.42	10	
Xylenes (total)	34.1	0.50	"	33.7		101	83-125	0.00	11	
Gasoline Range Organics	405	50	"	440		92.0	70-113	0.00	9	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	5.34		"	5.00		107	78-129			

URS Corporation [Arco]  
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Oakland CA, 94607

Project: BP Heritage #11117, Oakland, CA  
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Project Manager: Leonard Niles

MMK0368  
**Reported:**  
12/01/03 18:52

### Notes and Definitions

HC-19 Discrete peak @ C6-C7.

O-09 The result was reported with a possible high bias due to the continuing calibration verification falling outside acceptance criteria.

O-10 The result was reported with a possible low bias due to the continuing calibration verification falling outside the acceptance criteria.

Q-LIM The percent recovery was outside of the control limits. The samples results may still be useful for their intended purpose.

QM-07 The spike recovery was outside control limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

QR-02 The RPD result exceeded the control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.

QR-07 The RPD was outside control limits. The results may still be useful for their intended purpose.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

# SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

CLIENT NAME: BR  
 REC. BY (PRINT): TL  
 WORKORDER: MNK0368

DATE REC'D AT LAB: 11/11/03  
 TIME REC'D AT LAB: 1:245  
 DATE LOGGED IN: 1-12-03

Drinking water for  
 regulatory purposes: YRS /  
 Wastewater for  
 regulatory purposes: YES /

CIRCLE THE APPROPRIATE RESPONSE		LAB SAMPLE #	DASH #	CLIENT ID	CONTAINER DESCRIPTION	PRESERVATIVE	SAMPLE MATRIX	DATE SAMPLED	REMARKS: CONDITION (ETC)
1. Custody Seal(s)	<input checked="" type="checkbox"/> Present / <input checked="" type="checkbox"/> Absent Intact / Broken*			MW-1	(3) Vials	HCL	2	11/10/03	
2. Chain-of-Custody	<input checked="" type="checkbox"/> Present / <input checked="" type="checkbox"/> Absent*			-2					
3. Traffic Reports or Packing List:	<input checked="" type="checkbox"/> Present / <input checked="" type="checkbox"/> Absent*			-4					
4. Airbill:	Airbill / Sticker <input checked="" type="checkbox"/> Present / <input checked="" type="checkbox"/> Absent*			-6					
5. Airbill #:				-7					
6. Sample Labels:	<input checked="" type="checkbox"/> Present / <input checked="" type="checkbox"/> Absent			-10					
7. Sample IDs:	<input checked="" type="checkbox"/> Listed / <input checked="" type="checkbox"/> Not Listed on Chain-of-Custody			TB	(2)				
8. Sample Condition:	<input checked="" type="checkbox"/> Intact / <input checked="" type="checkbox"/> Broken* / Leaking*								
9. Does information on custody reports, traffic reports and sample labels agree?	<input checked="" type="checkbox"/> Yes / <input checked="" type="checkbox"/> No*								
10. Sample received within hold time:	<input checked="" type="checkbox"/> Yes / <input checked="" type="checkbox"/> No*								
11. Proper Preservatives used:	<input checked="" type="checkbox"/> Yes / <input checked="" type="checkbox"/> No*								
12. Temp Rec. at Lab: -Is temp 4 +/- 2°C? (Acceptance range for samples requiring thermal pres.)	<input checked="" type="checkbox"/> Yes / <input checked="" type="checkbox"/> No**								
**Exception (if any): Metals / DFF (Direct From Field) or Problem COC									

**\*IF CIRCLED, CONTACT PROJECT MANAGER AND ATTACH RECORD OF RESOLUTION.**



# Chain of Custody Record

Project Name 1117 GWM  
 BP BU/GEM CO Portfolio Retail

MMK0368

BP Laboratory Contract Number: Atlantic Richfield Company

Date: 11/10/03

Requested Due Date (mm/dd/yy) 14 day lat

On-site Time: <u>0850</u>	Temp: <u>62.6</u>
Off-site Time: <u>1130</u>	Temp: <u>63.1</u>
Sky Conditions: <u>clear</u>	
Meteorological Events: <u>-</u>	
Wind Speed: <u>15</u>	Direction: <u>E</u>

Send To:	BP/GEM Facility No.: <u>1117</u>	Consultant/Contractor: <u>URS</u>
Lab Name: <u>SEQUOIA</u>	BP/GEM Facility Address: <u>7210 BANCROFT, OAKLAND, CA</u>	Address: <u>500 12th St., Ste. 200</u>
Lab Address: <u>885 Jarvis Dr.</u>	Site ID No.: <u>1117</u>	<u>Oakland, CA 94609-4014</u>
<u>Morgan Hill, CA 95037</u>	Site Lat/Long:	e-mail EDD: <u>donna.casper@URSCorp.com</u>
	California Global ID #: <u>T0600100201</u>	Consultant/Contractor Project No.:
Lab PM: <u>Theresa Allen</u>	BP/GEM PM Contact: <u>PAUL SUPPLE</u>	Consultant Tele/Fax: <u>510-893-3600/510-674-3268</u>
Tele/Fax: <u>408-776-9600 / 408-782-6308</u>	Address: <u>P.O. Box 6549</u>	Consultant/Contractor PM: <u>Leonard Niles</u>
Report Type & QC Level: <u>I Send EDF Reports</u>	<u>Moraga, CA 94570</u>	Invoice to: Consultant/Contractor of <u>BP/GEM</u> (Circle one)
BP/GEM Account No.: <u>400-6-21124</u>	Tele/Fax: <u>925-299-8891/925-299-8872</u>	BP/GEM Work Release No:

Item No.	Sample Description	Time	Matrix				Laboratory No.	No. of containers	Preservatives				Requested Analysis						Sample Point Lat/Long and Comments
			Soil/Solid	Water/Liquid	Sediments	Air			Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	TPH-G/BTEX (\$015/\$021/\$026)	TPH-D (\$015)	MTBE (\$021)	MTBE (\$260)	MTBE, TAME, ETBE, DPE, TBA (\$260)	1,2-DCA & EDB (\$260)	
1	✓ MW-1	0947		X			01	2				X			X				
2	✓ MW-2	1078		X			02	2				X			X				
3	✓ MW-4	1052		X			03	2				X			X				
4	✓ MW-6	0927		X			04	2				X			X				
5	✓ MW-7	0902		X			05	2				X			X				
6	✓ MW-10	1004		X			06	2				X			X				on hold
7	✓ TB	-		X			07	2											
8																			
9																			
10																			

Sampler's Name: <u>David Allbut</u>	Relinquished By / Affiliation: <u>David Allbut / BTS</u>	Date: <u>11/10/03</u>	Time: <u>1153</u>	Accepted By / Affiliation: <u>[Signature]</u>	Date: <u>11/10/03</u>	Time: <u>1153</u>
Sampler's Company: <u>Blaine Tech</u>		Date: <u>11/10/03</u>	Time: <u>1245</u>	Accepted By / Affiliation: <u>[Signature]</u>	Date: <u>11/10/03</u>	Time: <u>1245</u>
Shipment Date:						
Shipment Method:						
Shipment Tracking No:						

Special Instructions: Address Invoice to BP/GEM but send to URS for approval

dry Seals In Place Yes  No  Temperature Blank Yes  No  Cooler Temperature on Receipt 2 °C Trip Blank Yes  No

**ATTACHMENT D**

**EDCC REPORT AND EDF/GEOWELL SUBMITTAL CONFIRMATION**



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## Error Summary Log

12/08/03

EDF 1.2i All files present in deliverable.

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Laboratory:	Sequoia Analytical Laboratories, Inc., Morgan Hill, CA
Project Name:	BP Heritage #11117, Oaklan
Work Order Number:	MMK0368
Global ID:	T0600100201
Lab Report Number:	MMK0368120120031852

## Report Summary

Labreport	Sampid	Labsampid	Mtrx	QC	Anmcode	Exmcode	Logdate	Extdate	Anadate	Lablotctl	Run	Sub
MMK03681201200	MW-1	MMK036801	W	CS	8260TPH	SW5030B	11/10/03	11/20/03	11/20/03	3K20005	1	
31852												
MMK03681201200	MW-10	MMK036806	W	CS	8260TPH	SW5030B	11/10/03	11/23/03	11/23/03	3K23001	1	
31852												
MMK03681201200	MW-2	MMK036802	W	CS	8260TPH	SW5030B	11/10/03	11/23/03	11/23/03	3K23001	1	
31852												
MMK03681201200	MW-4	MMK036803	W	CS	8260TPH	SW5030B	11/10/03	11/20/03	11/20/03	3K20006	1	
31852												
MMK03681201200	MW-6	MMK036804	W	CS	8260TPH	SW5030B	11/10/03	11/20/03	11/21/03	3K20006	1	
31852												
MMK03681201200	MW-7	MMK036805	W	CS	8260TPH	SW5030B	11/10/03	11/20/03	11/21/03	3K20006	1	
31852												
		3K20005BSD1	WQ	BD1	8260TPH	SW5030B	//	11/20/03	11/20/03	3K20005	1	
		3K20005BSD2	WQ	BD2	8260TPH	SW5030B	//	11/20/03	11/20/03	3K20005	1	
		3K20005BS1	WQ	BS1	8260TPH	SW5030B	//	11/20/03	11/20/03	3K20005	1	
		3K20005BS2	WQ	BS2	8260TPH	SW5030B	//	11/20/03	11/20/03	3K20005	1	
		3K20005BLK1	WQ	LB1	8260TPH	SW5030B	//	11/20/03	11/20/03	3K20005	1	
		3K20006BSD1	WQ	BD1	8260TPH	SW5030B	//	11/20/03	11/20/03	3K20006	1	
		3K20006BSD2	WQ	BD2	8260TPH	SW5030B	//	11/20/03	11/20/03	3K20006	1	
		3K20006BS1	WQ	BS1	8260TPH	SW5030B	//	11/20/03	11/20/03	3K20006	1	
		3K20006BS2	WQ	BS2	8260TPH	SW5030B	//	11/20/03	11/20/03	3K20006	1	
		3K20006BLK1	WQ	LB1	8260TPH	SW5030B	//	11/20/03	11/20/03	3K20006	1	
		3K20006MS1	W	MS1	8260TPH	SW5030B	//	11/20/03	11/21/03	3K20006	1	
		3K20006MSD1	W	SD1	8260TPH	SW5030B	//	11/20/03	11/21/03	3K20006	1	
		3K23001BSD1	WQ	BD1	8260TPH	SW5030B	//	11/23/03	11/23/03	3K23001	1	
		3K23001BSD2	WQ	BD2	8260TPH	SW5030B	//	11/23/03	11/23/03	3K23001	1	
		3K23001BS1	WQ	BS1	8260TPH	SW5030B	//	11/23/03	11/23/03	3K23001	1	
		3K23001BS2	WQ	BS2	8260TPH	SW5030B	//	11/23/03	11/23/03	3K23001	1	
		3K23001BLK1	WQ	LB1	8260TPH	SW5030B	//	11/23/03	11/23/03	3K23001	1	

# EDFSAMP: Error Summary Log

12/08/03

Error type	Logcode	Projname	Npdlwo	Sampid	Matrix
There are no errors in this data file					

## EDFTEST: Error Summary Log

12/08/03

Error type	Labsampid	Qccode	Anmcode	Exmcode	Anadate	Run number
There are no errors in this data file					//	0

# EDFRES: Error Summary Log

12/08/03

Error type	Labsampid	Qccode	Matrix	Anmcode	Pvccode	Anadate	Run number	Parlabel
There are no errors in this data file						//	0	

# EDFQC: Error Summary Log

12/08/03

Error type	Labioccti	Anmcode	Parlabel	Qccode	Labqid
There are no errors in this data files					

# EDFCL: Error Summary Log

12/08/03

Error type	Cirevdate	Anmcode	Exmcode	Parlabel	Cicode
There are no errors in this data file	//				

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Your EDF file has been successfully uploaded!

**Confirmation Number:** 4712495386

**Date/Time of Submittal:** 12/8/2003 8:55:36 AM

**Facility Global ID:** T0600100201

**Facility Name:** BP

**Submittal Title:** 4th Qtr 2003 Monitoring Report

**Submittal Type:** GW Monitoring Report

Logged in as URSCORP-OAKLAND  
(CONTRACTOR)

CONTACT SITE [ADMINISTRATOR](#).



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### UPLOADING A GEO\_WELL FILE

Processing is complete. No errors were found!  
Your file has been successfully submitted!

**Submittal Title:** 4th Qtr 2003 Geowell for #11117

**Submittal Date/Time:** 12/8/2003 8:56:25 AM

**Confirmation Number:** 6468922257

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