

August 15, 2003

Ms. eva chu  
Alameda County Health Care Services  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577

Alameda County  
AUG 15 2003  
Environmental Health

**Re: Third Quarter 2003 Groundwater Monitoring Report  
Former BP Service Station #11107  
18501 Hesperian Blvd  
San Lorenzo, California  
URS Project #38486393**

Dear Ms. Chu:

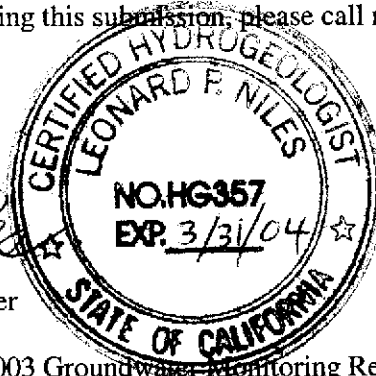
On behalf of the Group Environmental Management Company (an affiliated company of BP), URS Corporation (URS) is submitting the *Third Quarter 2003 Groundwater Monitoring Report* for the Former BP Service Station #11107, located at 18501 Hesperian Boulevard, San Lorenzo, California.

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/Project Manager



Attachment: Third Quarter 2003 Groundwater Monitoring Report

cc: Mr. Paul Supple, ARCO, (electronic copy uploaded to ENFOS)  
Ms. Liz Sewell, ConocoPhillips, 76 Broadway Avenue, Sacramento, CA 95818

**R E P O R T**

Alameda County  
August 15, 2003  
Environmental Health

**THIRD QUARTER 2003  
GROUNDWATER MONITORING**

**FORMER BP SERVICE STATION #11107  
18501 HESPERIAN BLVD  
SAN LORENZO, CALIFORNIA**

*Prepared for*  
BP GEM

August 15, 2003

**URS**

URS Corporation  
500 12<sup>th</sup> Street, Suite 200  
Oakland, California 94607

38486393

Date: August 15, 2003  
Quarter: 3Q 03

### BP GEM QUARTERLY GROUNDWATER MONITORING REPORT

Facility No.: 11107 Address: 18501 Hesperian Blvd, San Lorenzo, CA  
BP Environmental Engineer: Paul Supple  
Consulting Co./Contact Person: URS Corporation / Leonard Niles  
Consultant Project No.: 38486393  
Primary Agency/Regulatory ID No.: Alameda County Health Care Services / STID 780

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

1. Performed third quarter groundwater monitoring event on July 11, 2003.
3. Prepared and submitted third quarter 2003 groundwater monitoring report.

#### WORK PROPOSED FOR NEXT QUARTER (Fourth – 2003):

1. Perform fourth quarter 2003 groundwater monitoring event.
2. Prepare and submit fourth quarter 2003 groundwater monitoring report.

Current Phase of Project:	<u>GW monitoring/sampling</u>
Frequency of Groundwater Sampling:	<u>Wells MW-4 through MW-6, quarterly</u>
Frequency of Groundwater Monitoring:	<u>Quarterly</u>
Is Free Product (FP) Present On-Site:	<u>No</u>
Current Remediation Techniques:	<u>None currently</u>
Approximate Depth to Groundwater:	<u>16.03 (MW-6) to 17.80 (MW-1) feet</u>
Groundwater Gradient (direction):	<u>West-Northwest</u>
Groundwater Gradient (magnitude):	<u>0.004 feet per foot</u>

#### DISCUSSION:

TPH-g was detected in one of the three wells sampled this quarter at a concentration of 58 micrograms per liter ( $\mu\text{g/L}$ ) (MW-5). Benzene was not detected in any of the wells sampled this quarter. MTBE was detected in all three wells sampled this quarter at concentrations of 2.0  $\mu\text{g/L}$  (MW-4), 17  $\mu\text{g/L}$  (MW-6) and 19  $\mu\text{g/L}$  (MW-5). Groundwater elevations across the site decreased by an average of approximately 0.19 feet this quarter, and the groundwater flow direction was to the west-northwest at a calculated hydraulic gradient of 0.004 feet per foot.

#### ATTACHMENTS:

- Table 1 – Groundwater Elevation and Analytical Data
- Table 2 – Fuel Oxygenate Analytical Data
- Figure 1 – Groundwater Elevation Contour and Analytical Summary Map – July 11, 2003
- Attachment A – Concentration and Water Level Trends (MW-5)
- 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

**Table 1**  
**Groundwater Elevation and Analytical Data**  
Former BP Service Station #11107  
18501 Hesperian Boulevard  
San Lorenzo, CA

WELL ID	DATE OF SAMPLING/ MONITORING	TOC (a) (Feet)	DTW (Feet)	GWE (Feet)	TPH-G (b) (ug/L)	TPH-D (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	TOG (ug/L)	1,1,1-TCA (ug/L)	PCE (ug/L)	DO (ppm)	LAB
MW-1	11/4/92	41.07	20.78	20.29	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	(j) ND<5000	2.8	ND	---	PACE
QC-1	(c) 11/4/92	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	(j) ---	---	---	---	PACE
MW-1	2/24/94	41.07	20.70	20.37	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	(j) ND<5000	1.5	0.9	---	PACE
MW-1	5/12/94	41.07	18.12	22.95	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	(j) ND<5000	1.0	ND<0.5	7	PACE
MW-1	9/9/94	41.07	21.74	19.33	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	(j) ND<5000	ND<0.5	ND<0.5	2.3	PACE
MW-1	11/3/94	41.07	20.01	21.06	ND<50	50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	(j) ND<5000	ND<0.5	ND<0.5	4.3	PACE
MW-1	3/1/95	41.07	17.44	23.63	ND<50	ND<500	ND<50	ND<0.50	ND<0.50	ND<1.0	---	420	0.54	0.3	2.3	ATI
MW-1	6/6/95	41.07	17.55	23.52	---	---	---	---	---	---	---	---	---	---	---	---
MW-1	9/1/95	41.07	18.19	22.88	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	60	---	---	8.8	ATI
MW-1	11/29/95	41.07	18.84	22.23	---	---	---	---	---	---	---	---	---	---	---	---
MW-1	3/23/96	41.07	16.97	24.10	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---	---	9.6	SPL
MW-1	9/5/96	41.07	17.74	23.33	110	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---	---	3.6	SPL
MW-1	3/11/97	41.07	17.62	23.45	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---	---	5.2	SPL
MW-1	12/8/97	41.07	16.30	24.77	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---	---	---	---
MW-1	7/8/98	41.07	16.66	24.41	---	---	---	---	---	---	---	---	---	---	---	---
MW-1	12/7/98	41.07	17.80	23.27	---	---	---	---	---	---	---	---	---	---	---	---
MW-1	1/19/99	41.07	17.18	23.89	---	---	---	---	---	---	---	---	---	---	---	---
MW-1	4/23/99	41.07	17.40	23.67	---	---	---	---	---	---	---	---	---	---	---	---
MW-1	7/20/99	41.07	17.76	23.31	---	---	---	---	---	---	---	---	---	---	---	---
MW-1	2/29/00	41.07	17.17	23.90	---	---	---	---	---	---	---	---	---	---	---	---
MW-1	4/14/00	41.07	17.22	23.85	---	---	---	---	---	---	---	---	---	---	---	---
MW-1	7/24/00	41.07	17.61	23.46	---	---	---	---	---	---	---	---	---	---	---	---
MW-1	10/30/00	41.07	17.76	23.31	---	---	---	---	---	---	---	---	---	---	---	---
MW-1	1/11/01	41.07	17.88	23.19	---	---	---	---	---	---	---	---	---	---	---	---
MW-1	5/17/01	41.07	17.82	23.25	---	---	---	---	---	---	---	---	---	---	---	---
MW-1	7/2/01	41.07	17.95	23.12	---	---	---	---	---	---	---	---	---	---	---	---
MW-1	11/2/01	41.07	18.25	22.82	---	---	---	---	---	---	---	---	---	---	---	---
MW-1	8/6/2002*	41.07	17.93	23.14	---	---	---	---	---	---	---	---	---	---	---	---
MW-1	10/16/02	41.07	18.32	22.75	---	---	---	---	---	---	---	---	---	---	---	---
MW-1	1/13/03	41.07	17.31	23.76	---	---	---	---	---	---	---	---	---	---	---	---
MW-1	5/2/03	41.07	17.55	23.52	---	---	---	---	---	---	---	---	---	---	---	---
MW-1	7/11/03	41.07	17.80	23.27	---	---	---	---	---	---	---	---	---	---	---	---

**Table 1**  
**Groundwater Elevation and Analytical Data**  
Former BP Service Station #11107  
18501 Hesperian Boulevard  
San Lorenzo, CA

WELL ID	DATE OF SAMPLING/ MONITORING	TOC (a) (Feet)	DTW (Feet)	GWE (Feet)	TPH-G (b) (ug/L)	TPH-D (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	TOG (ug/L)	1,1,1-TCA (ug/L)	PCE (ug/L)	DO (ppm)	LAB	
MW-2	11/4/92	40.56	20.16	20.40	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	(j)	---	---	---	---	PACE
MW-2	2/24/94	40.56	20.12	20.44	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	(j)	---	---	---	---	PACE
MW-2	5/12/94	40.56	17.49	23.07	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	(j)	---	---	---	7.4	PACE
MW-2	9/9/94	40.56	21.12	19.44	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	(j)	---	---	---	2.1	PACE
MW-2	11/3/94	40.56	19.36	21.20	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	(j)	---	---	---	4.2	PACE
MW-2	3/1/95	40.56	16.83	23.73	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	---	---	---	2.2	ATI
MW-2	6/6/95	40.56	16.96	23.60	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-2	9/1/95	40.56	17.54	23.02	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	---	---	---	7.9	ATI
MW-2	11/29/95	40.56	18.19	22.37	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-2	3/23/96	40.56	16.35	24.21	ND<50	---	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	---	---	---	8.5	SPL
MW-2	9/5/96	40.56	17.55	23.01	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---	---	---	3.2	SPL
MW-2	3/11/97	40.56	16.95	23.61	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---	---	---	2.9	SPL
MW-2	12/8/97	40.56	16.01	24.55	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---	---	---	3.0	SPL
MW-2	7/8/98	40.56	16.41	24.15	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-2	12/7/98	40.56	17.15	23.41	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-2	1/19/99	40.56	17.15	23.41	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-2	4/23/99	40.56	16.89	23.67	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-2	7/20/99	40.56	17.25	23.31	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-2	12/30/99	40.56	17.44	23.12	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-2	2/29/00	40.56	16.13	24.43	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-2	4/14/00	40.56	16.88	23.68	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-2	7/24/00	40.56	17.11	23.45	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-2	10/30/00	40.56	17.12	23.44	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-2	1/11/01	40.56	17.28	23.28	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-2	5/17/01	40.56	17.20	23.36	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-2	7/2/01	40.56	17.45	23.11	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-2	11/2/01	40.56	17.62	22.94	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-2	8/6/2002*	40.56	17.42	23.14	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-2	10/16/02	40.56	17.74	22.82	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-2	1/13/03	40.56	16.74	23.82	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-2	5/2/03	40.56	17.00	23.56	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-2	7/11/03	40.56	17.29	23.27	---	---	---	---	---	---	---	---	---	---	---	---	---

**Table 1**  
**Groundwater Elevation and Analytical Data**  
Former BP Service Station #11107  
18501 Hesperian Boulevard  
San Lorenzo, CA

WELL ID	DATE OF SAMPLING/ MONITORING	TOC (a) (Feet)	DTW (Feet)	GWE (Feet)	TPH-G (b) (ug/L)	TPH-D (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	TOG (ug/L)	1,1,1-TCA (ug/L)	PCE (ug/L)	DO (ppm)	LAB	
MW-3	11/4/92	40.45	20.23	20.22	760	---	3.7	15	1.9	57	---	(j)	---	---	---	---	PACE
MW-3	2/24/94	40.45	20.24	20.21	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	30.66	(j)	---	---	---	---	PACE
MW-3	5/12/94	40.45	17.61	22.84	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	7.11	(j)	---	---	---	7.3	PACE
MW-3	9/9/94	40.45	21.22	19.23	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	(j)	---	---	---	2	PACE
MW-3	11/3/94	40.45	19.48	20.97	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	10.98	(j)	---	---	---	3.6	PACE
MW-3	3/1/95	40.45	17.08	23.37	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	---	---	---	1.9	ATI
MW-3	6/6/95	40.45	17.21	23.24	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	9/1/95	40.45	17.69	22.76	200	---	2.7	33	7.2	43	ND<5.0	---	---	---	---	7.8	ATI
MW-3	9/1/95	40.45	18.29	22.16	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	3/23/96	40.45	16.59	23.86	ND<50	---	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	---	---	---	7.3	SPL
MW-3	9/5/96	40.45	17.71	22.74	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---	---	---	3.2	SPL
MW-3	3/11/97	40.45	17.17	23.28	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---	---	---	1.5	SPL
MW-3	12/8/97	40.45	16.12	24.33	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---	---	---	1.9	SPL
MW-3	7/8/98	40.45	16.40	24.05	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	12/7/98	40.45	17.32	23.13	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	1/19/99	40.45	17.30	23.15	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	4/23/99	40.45	17.07	23.38	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	7/20/99	40.45	17.47	22.98	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	12/30/99	40.45	17.60	22.85	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	2/29/00	40.45	16.43	24.02	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	4/14/00	40.45	17.09	23.36	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	7/24/00	40.45	17.44	23.01	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	10/30/00	40.45	17.29	23.16	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	1/11/01	40.45	17.49	22.96	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	5/17/01	40.45	17.45	23.00	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	7/2/01	40.45	17.70	22.75	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	11/2/01	40.45	17.82	22.63	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	8/6/2002*	40.45	17.62	22.83	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	10/16/02	40.45	17.82	22.63	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	1/13/03	40.45	16.95	23.50	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	5/2/03	40.45	17.26	23.19	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	7/11/03	40.45	17.44	23.01	---	---	---	---	---	---	---	---	---	---	---	---	---

**Table 1**  
**Groundwater Elevation and Analytical Data**  
Former BP Service Station #11107  
18501 Hesperian Boulevard  
San Lorenzo, CA

WELL ID	DATE OF SAMPLING/ MONITORING	TOC (a) (Feet)	DTW (Feet)	GWE (Feet)	TPH-G (b) (ug/L)	TPH-D (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	TOG (ug/L)	1,1,1-TCA (ug/L)	PCE (ug/L)	DO (ppm)	LAB
MW-4	11/4/92	39.24	19.18	20.06	900	---	150	4.1	0.8	53	---	(j)	---	---	---	PACE
MW-4	2/24/94	39.24	19.22	20.02	240	---	110	3.8	1.8	11	1433	(d)(j)	---	---	---	PACE
QC-1	(c) 2/24/94	---	---	---	310	---	95	5.3	2.2	17	1479	(d)(j)	---	---	---	PACE
MW-4	5/12/94	39.24	16.62	22.62	ND<50	---	2.2	1.0	ND<0.5	ND<0.5	862	(d)(j)	---	---	7.3	PACE
QC-1	(c) 5/12/94	---	---	---	---	---	2.6	1.3	ND<0.5	ND<0.5	912	(d)(j)	---	---	---	PACE
MW-4	9/9/94	39.24	20.27	18.97	240	---	9.1	1.3	0.6	2.5	397	(j)	---	---	2.2	PACE
QC-1	(c) 9/9/94	---	---	---	57	---	1.7	ND<0.5	ND<0.5	0.5	83	(j)	---	---	---	PACE
MW-4	11/3/94	39.24	18.46	20.78	250	---	3.1	2.8	1.0	3.3	319	(j)	---	---	3.2	PACE
QC-1	(c) 11/3/94	---	---	---	110	---	2.4	ND<0.5	ND<0.5	ND<0.5	642	(j)	---	---	---	PACE
MW-4	3/1/95	39.24	16.15	23.09	8900	---	1800	26	450	400	---	---	---	---	2.0	ATI
QC-1	(c) 3/1/95	---	---	---	7600	---	1700	25	410	370	---	---	---	---	---	ATI
MW-4	6/6/95	39.24	16.28	22.96	3100	---	(e) 530	25	170	85	---	---	---	---	---	ATI
QC-1	(c) 6/6/95	---	---	---	3000	---	530	27	170	92	---	---	---	---	---	ATI
MW-4	(f) 9/1/95	39.24	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	11/29/95	39.24	17.31	21.93	ND<50	---	1.8	ND<0.50	ND<0.50	ND<1.0	440	---	---	---	3.2	ATI
QC-1	(c) 11/29/95	---	---	---	ND<50	---	1.5	ND<0.50	ND<0.50	ND<1.0	490	---	---	---	---	ATI
MW-4	3/23/96	39.24	15.74	23.50	2700	---	480	ND<25	180	176	13000	---	---	---	7.8	SPL
MW-4	9/5/96	39.24	16.75	22.49	1100	---	ND<12	ND<25	ND<25	ND<25	3200	---	---	---	4.0	SPL
MW-4	3/11/97	39.24	16.10	23.14	2400	---	46	ND<10	66	106	3400	---	---	---	4.0	SPL
MW-4	12/8/97	39.24	15.96	23.28	590	---	11	ND<1.0	ND<1.0	ND<1.0	1200	---	---	---	4.4	SPL
QC-1	(c) 12/8/97	---	---	---	620	---	11	ND<1.0	ND<1.0	ND<1.0	1100	---	---	---	---	SPL
MW-4	7/8/98	39.24	16.28	22.96	1700	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	1200	---	---	---	3.9	SPL
QC-1	(c) 7/8/98	---	---	---	1600	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	1100	---	---	---	---	SPL
MW-4	12/7/98	39.24	16.47	22.77	530	---	ND<2.5	ND<5.0	ND<5.0	ND<5.0	680/910	(h)	---	---	---	SPL
MW-4	1/19/99	39.24	16.40	22.84	570	---	ND<1.0	ND<1.0	ND<1.0	ND<1.0	660	---	---	---	---	SPL
MW-4	4/23/99	39.24	16.17	23.07	ND<50	---	ND<1.0	ND<1.0	1.8	1.3	1100/810	(h)	---	---	---	SPL
MW-4	7/20/99	39.24	16.39	22.85	ND<50	---	ND<1.0	ND<1.0	ND<1.0	ND<1.0	480	---	---	---	---	SPL
MW-4	12/30/99	39.24	16.56	22.68	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	410	---	---	---	---	PACE
MW-4	2/29/00	39.24	15.69	23.55	78	(i)	2.0	ND<0.5	0.77	2.8	1200	---	---	---	---	PACE
MW-4	4/14/00	39.24	16.21	23.03	300	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	800	---	---	---	---	PACE
MW-4	7/24/00	39.24	16.50	22.74	130	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	270	---	---	---	---	PACE
MW-4	10/30/00	39.24	16.35	22.89	73	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	210	---	---	---	---	PACE
MW-4	1/11/01	39.24	16.46	22.78	120	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	176	---	---	---	---	PACE
MW-4	5/17/01	39.24	16.40	22.84	99	---	ND<0.5	ND<0.5	ND<0.5	ND<1.5	119	---	---	---	---	PACE
MW-4	7/2/01	39.24	16.75	22.49	63	---	ND<0.5	ND<0.5	ND<0.5	ND<1.5	87.6	---	---	---	---	PACE
MW-4	11/2/01	39.24	16.80	22.44	56	---	ND<0.5	ND<0.5	ND<0.5	ND<1.5	49.6	---	---	---	---	PACE
MW-4	8/6/2002*	39.24	16.60	22.64	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<1.5	14.4	---	---	---	---	PACE
MW-4	10/16/02	39.24	16.86	22.38	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	16	---	---	---	---	SEQ
MW-4	1/13/03	39.24	16.13	23.11	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	21	---	---	---	---	SEQ
MW-4	5/2/03	39.24	16.38	22.86	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	7.2	---	---	---	---	SEQ
MW-4	7/11/03	39.24	16.50	22.74	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	2.0	---	---	---	---	SEQ

**Table 1**  
**Groundwater Elevation and Analytical Data**  
Former BP Service Station #11107  
18501 Hesperian Boulevard  
San Lorenzo, CA

WELL ID	DATE OF SAMPLING/ MONITORING	TOC (Feet)	DTW (a) (Feet)	GWE (Feet)	TPH-G (b) (ug/L)	TPH-D (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	TOG (ug/L)	1,1,1-TCA (ug/L)	PCE (ug/L)	DO (ppm)	LAB
MW-5	6/6/95	39.07	16.16	22.91	1100	---	(e) 42	ND<2.5	15	4.0	---	---	---	---	---	ATI
MW-5	9/1/95	39.07	16.63	22.44	1600	---	55	ND<2.5	15	8.0	1200	---	---	---	7.4	ATI
QC-1	(c) 9/1/95	---	---	---	1200	---	64	ND<2.5	14	3.1	---	---	---	---	---	ATI
MW-5	11/29/95	39.07	17.19	21.88	2300	---	140	4.0	36	11	1500	---	---	---	4.1	ATI
MW-5	3/23/96	39.07	15.54	23.53	90	---	2.8	ND<1	ND<1	ND<1	1500	---	---	---	7.5	SPL
MW-5	9/5/96	39.07	16.72	22.35	2300	---	5.1	ND<1.0	ND<1.0	ND<1.0	3300	---	---	---	3.2	SPL
QC-1	(c) 9/5/96	---	---	---	2000	---	4.9	ND<1.0	ND<1.0	ND<1.0	2900	---	---	---	---	SPL
MW-5	3/11/97	39.07	16.12	22.95	470	---	ND<5.0	ND<5.0	ND<5.0	ND<5.0	580	---	---	---	3.0	SPL
QC-1	(c) 3/11/97	---	---	---	460	---	ND<5.0	ND<5.0	ND<5.0	ND<5.0	540	---	---	---	---	SPL
MW-5	12/8/97	39.07	15.85	23.22	370	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	840	---	---	---	3.0	SPL
MW-5	7/8/98	39.07	16.11	22.96	430	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	330	---	---	---	2.5	SPL
MW-5	12/7/98	39.07	16.27	22.80	220	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	290/410	(h)	---	---	---	SPL
MW-5	1/19/99	39.07	16.31	22.76	490	---	ND<1.0	ND<1.0	ND<1.0	ND<1.0	490/440	(h)	---	---	---	SPL
MW-5	4/23/99	39.07	16.00	23.07	ND<50	---	ND<1.0	ND<1.0	ND<1.0	ND<1.0	310/210	(h)	---	---	---	SPL
MW-5	7/20/99	39.07	16.36	22.71	ND<50	---	ND<1.0	ND<1.0	ND<1.0	ND<1.0	470	---	---	---	---	SPL
MW-5	12/30/99	39.07	16.53	22.54	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	550	---	---	---	---	PACE
MW-5	2/29/00	39.07	15.45	23.62	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	280	---	---	---	---	PACE
MW-5	4/14/00	39.07	16.10	22.97	81	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	240	---	---	---	---	PACE
MW-5	7/24/00	39.07	16.50	22.57	250	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	570	---	---	---	---	PACE
MW-5	10/30/00	39.07	16.23	22.84	140	---	ND<0.5	0.7	ND<0.5	1.1	360	---	---	---	---	PACE
MW-5	1/11/01	39.07	16.41	22.66	420	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	585	---	---	---	---	PACE
MW-5	5/17/01	39.07	16.45	22.62	360	---	ND<0.5	ND<0.5	ND<0.5	ND<1.5	419	---	---	---	---	PACE
MW-5	7/2/01	39.07	16.65	22.42	210	---	ND<0.5	ND<0.5	ND<0.5	ND<1.5	264	---	---	---	---	PACE
MW-5	11/2/01	39.07	16.73	22.34	130	---	ND<0.5	ND<0.5	ND<0.5	ND<1.5	134	---	---	---	---	PACE
MW-5	8/6/2002*	39.07	16.57	22.50	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<1.5	57.6	---	---	---	---	PACE
MW-5	10/16/02	39.07	16.73	22.34	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	52	---	---	---	---	SEQ
MW-5	1/13/03	39.07	16.01	23.06	58	---	1.2	ND<0.50	ND<0.50	1.4	30	---	---	---	---	SEQ
MW-5	5/2/03	39.07	16.27	22.80	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	17	---	---	---	---	SEQ
MW-5	7/11/03	39.07	16.42	22.65	58	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	19	---	---	---	---	SEQ



**Table 1**  
**Groundwater Elevation and Analytical Data**  
Former BP Service Station #11107  
18501 Hesperian Boulevard  
San Lorenzo, CA

WELL ID	DATE OF SAMPLING/ MONITORING	TOC (a) (Feet)	DTW (Feet)	GWE (Feet)	TPH-G (b) (ug/L)	TPH-D (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	TOG (ug/L)	1,1,1-TCA (ug/L)	PCE (ug/L)	DO (ppm)	LAB
MW-6	3/1/95	38.46	15.66	22.80	270	---	11	ND<0.50	ND<0.50	ND<1.0	---	---	---	---	1.6	ATI
MW-6	6/6/95	38.46	15.82	22.64	220	---	(e) 2.3	ND<0.50	ND<0.50	ND<1.0	---	---	---	---	---	ATI
MW-6	9/1/95	38.46	16.25	22.21	780	---	ND<2.5	ND<2.5	ND<2.5	ND<5.0	2800	---	---	---	7.5	ATI
MW-6	11/29/95	38.46	16.80	21.66	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	1100	---	---	---	3.9	ATI
MW-6	3/23/96	38.46	15.27	23.19	50	---	ND<0.5	ND<1	ND<1	ND<1	910	---	---	---	8.0	SPL
MW-6	9/5/96	38.46	16.30	22.16	4400	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	7400	---	---	---	3.0	SPL
MW-6	3/11/97	38.46	15.75	22.71	1100	---	ND<5.0	ND<5.0	ND<5.0	ND<5.0	2000	---	---	---	3.1	SPL
MW-6	12/8/97	38.46	15.51	22.95	150	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	140	---	---	---	3.4	SPL
MW-6	7/8/98	38.46	15.78	22.68	370	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	250	---	---	---	3.6	SPL
MW-6	12/7/98	38.46	15.95	22.51	440	---	ND<1.0	ND<1.0	ND<1.0	ND<1.0	630/820	(h)	---	---	---	---
MW-6	1/19/99	38.46	15.97	22.49	950	---	ND<1.0	ND<1.0	ND<1.0	ND<1.0	950/810	(h)	---	---	---	SPL
MW-6	4/23/99	38.46	15.74	22.72	ND<50	---	ND<1.0	ND<1.0	ND<1.0	ND<1.0	310/220	(h)	---	---	---	SPL
MW-6	7/20/99	38.46	16.12	22.34	ND<50	---	ND<1.0	ND<1.0	ND<1.0	ND<1.0	1300	---	---	---	---	SPL
MW-6	12/30/99	38.46	16.16	22.30	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	360	---	---	---	---	PACE
MW-6	2/29/00	38.46	15.08	23.38	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	340	---	---	---	---	PACE
MW-6	4/14/00	38.46	15.82	22.64	90	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	220	---	---	---	---	PACE
MW-6	7/24/00	38.46	16.03	22.43	240	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	540	---	---	---	---	PACE
MW-6	10/30/00	38.46	15.83	22.63	120	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	380	---	---	---	---	PACE
MW-6	1/11/01	38.46	16.00	22.46	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.69	---	---	---	---	PACE
MW-6	5/17/01	38.46	16.05	22.41	140	---	ND<0.5	ND<0.5	ND<0.5	ND<1.5	169	---	---	---	---	PACE
MW-6	7/2/01	38.46	16.27	22.19	70	---	ND<0.5	ND<0.5	ND<0.5	ND<1.5	91.4	---	---	---	---	PACE
MW-6	11/2/01	38.46	16.31	22.15	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<1.5	32.3	---	---	---	---	PACE
MW-6	8/6/2002*	38.46	16.14	22.32	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<1.5	6.73	---	---	---	---	PACE
MW-6	10/16/02	38.46	16.38	22.08	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.50	---	---	---	---	SEQ
MW-6	1/13/03	38.46	15.66	22.80	ND<50	---	3.6	1.2	1.4	4.8	3.9	---	---	---	---	SEQ
MW-6	5/2/03	38.46	15.89	22.57	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	12	---	---	---	---	SEQ
MW-6	7/11/03	38.46	16.03	22.43	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	17	---	---	---	---	SEQ

**Table 1**  
**Groundwater Elevation and Analytical Data**  
Former BP Service Station #11107  
18501 Hesperian Boulevard  
San Lorenzo, CA

WELL ID	DATE OF SAMPLING/ MONITORING	TOC (a) (Feet)	DTW (Feet)	GWE (Feet)	TPH-G (b) (ug/L)	TPH-D (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	TOG (ug/L)	1,1,1-TCA (ug/L)	PCE (ug/L)	DO (ppm)	LAB
MW-7	3/1/95	39.50	16.21	23.29	1400	---	14	ND<1.0	14	27	---	---	---	---	1.8	ATI
MW-7	6/6/95	39.50	16.34	23.16	540	---	(e) 5.5	ND<0.50	15	1.1	---	---	---	---	---	ATI
MW-7	9/1/95	39.50	16.74	22.76	190	---	2.8	ND<0.50	5.0	ND<1.0	10	---	---	---	7.5	ATI
MW-7	11/29/95	39.50	17.33	22.17	230	---	31	ND<0.50	3.8	1.9	ND<5.0	---	---	---	4.6	ATI
MW-7	3/23/96	39.50	15.86	23.64	ND<50	---	5.0	ND<1	ND<1	ND<1	330	---	---	---	7.2	SPL
QC-1	(c) 3/23/96	---	---	---	60	---	7.6	ND<1	ND<1	ND<1	360	---	---	---	---	SPL
MW-7	9/5/96	39.50	16.80	22.70	200	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	430	---	---	---	3.1	SPL
MW-7	3/11/97	39.50	18.32	21.18	120	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	140	---	---	---	4.7	SPL
MW-7	12/8/97	39.50	16.02	23.48	240	---	0.8	ND<1.0	ND<1.0	ND<1.0	200	---	---	---	5.2	SPL
MW-7	7/8/98	39.50	16.32	23.18	270	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	170	---	---	---	4.8	SPL
MW-7	12/7/98	39.50	16.43	23.07	100	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	120	---	---	---	---	SPL
MW-7	1/19/99	39.50	16.41	23.09	80	---	ND<1.0	ND<1.0	ND<1.0	ND<1.0	80	---	---	---	---	SPL
MW-7	4/23/99	39.50	16.21	23.29	ND<50	---	ND<1.0	ND<1.0	ND<1.0	ND<1.0	20	---	---	---	---	SPL
MW-7	7/20/99	39.50	16.54	22.96	ND<50	---	ND<1.0	ND<1.0	ND<1.0	ND<1.0	24	---	---	---	---	SPL
MW-7	12/30/99	39.50	16.65	22.85	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	12	---	---	---	---	PACE
MW-7	2/29/00	39.50	15.71	23.79	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	7.0	---	---	---	---	PACE
MW-7	4/14/00	39.50	16.25	23.25	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	4.0	---	---	---	---	PACE
MW-7	7/24/00	39.50	16.63	22.87	ND<50	---	1.1	0.5	ND<0.5	ND<0.5	3.1	---	---	---	---	PACE
MW-7	10/30/00	39.50	16.35	23.15	ND<50	---	ND<0.5	ND<0.5	ND<0.5	1.1	ND<0.5	---	---	---	---	PACE
MW-7	1/11/01	39.50	16.52	22.98	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	PACE
MW-7	5/17/01	39.50	16.58	22.92	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<1.5	ND<0.5	---	---	---	---	PACE
MW-7	7/2/01	39.50	16.75	22.75	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<1.5	0.581	---	---	---	---	PACE
MW-7	11/2/01	39.50	16.89	22.61	---	---	---	---	---	---	---	---	---	---	---	PACE
MW-7	8/6/2002*	39.50	16.65	22.85	---	---	---	---	---	---	---	---	---	---	---	PACE
MW-7	10/16/02	39.50	16.86	22.64	---	---	---	---	---	---	---	---	---	---	---	---
MW-7	1/13/03	39.50	16.21	23.29	---	---	---	---	---	---	---	---	---	---	---	---
MW-7	5/2/03	39.50	16.37	23.13	---	---	---	---	---	---	---	---	---	---	---	---
MW-7	7/11/03	39.50	16.55	22.95	---	---	---	---	---	---	---	---	---	---	---	---

**Table 1**  
**Groundwater Elevation and Analytical Data**  
Former BP Service Station #11107  
18501 Hesperian Boulevard  
San Lorenzo, CA

WELL ID	DATE OF SAMPLING/ MONITORING	TOC (u) (Feet)	DTW (Feet)	GWE (Feet)	TPH-G (b) (ug/L)	TPH-D (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE (ug/L)	TOG (ug/L)	1,1,1-TCA (ug/L)	PCE (ug/L)	DO (ppm)	LAB	
QC-2	(g) 11/4/92	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	(j)	---	---	---	---	PACE
QC-2	(g) 11/4/92	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	(j)	---	---	---	---	PACE
QC-2	(g) 2/24/94	---	---	---	---	---	---	---	---	---	ND<5.0	(j)	---	---	---	---	PACE
QC-2	(g) 3/1/95	---	-22.80	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<1.0	---	---	---	---	---	---	PACE
QC-2	(g) 5/12/94	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	(j)	---	---	---	---	PACE
QC-2	(g) 9/9/94	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	(j)	---	---	---	---	PACE
QC-2	(g) 11/3/94	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	(j)	---	---	---	---	PACE
QC-2	(g) 6/6/95	---	---	---	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	---	---	---	---	ATI
QC-2	(g) 9/1/95	---	---	---	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	---	---	---	---	ATI
QC-2	(g) 11/29/95	---	---	---	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	---	---	---	---	ATI
QC-2	(g) 3/23/96	---	---	---	ND<50	---	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	---	---	---	---	SPL

**Table 1**  
**Groundwater Elevation and Analytical Data**  
Former BP Service Station #11107  
18501 Hesperian Boulevard  
San Lorenzo, CA

**ABBREVIATIONS:**

TPH-G	Total petroleum hydrocarbons as gasoline
TPH-D	Total petroleum hydrocarbons as diesel
B	Benzene
T	Toluene
E	Ethylbenzene
X	Total xylenes
MTBE	Methyl tert butyl ether
TOG	Total oil and grease
1,1,1-TCA	1,1,1-Trichloroethane
PCE	Tetrachloroethene
DO	Dissolved oxygen
ug/L	Micrograms per liter
ppm	Parts per million
ND	Not detected above reported detection limit
---	Not measured/analyzed/applicable
PACE	Pace, Inc.
ATI	Analytical Technologies, Inc.
SPL	Southern Petroleum Laboratories
SEQ	Sequoia Analytical Laboratories
TOC	Top of Casing
DTW	Depth to Water
GWE	Groundwater Elevation

**NOTES:**

- (a) Top of casing elevations surveyed relative to an established benchmark with an elevation of 39.95 feet above mean sea level.
  - (b) Groundwater elevations in feet above mean sea level.
  - (c) Blind duplicate.
  - (d) A copy of the documentation for this data is included in Alisto report 10-060-07-001.
  - (e) MTBE peak present. See documentation in Appendix C of Alisto report 10-060-07-001.
  - (f) Well inaccessible.
  - (g) Travel blank.
  - (h) MTBE by 8020/8260.
  - (i) Gasoline does not include MTBE.
  - (j) A copy of the documentation for this data is included in Blaine Tech Services report 010517-C-4. The MTBE data for the October 22 and 23, 1992 and November 4, 1992 sampling events have been destroyed.
- \* During the second quarter of 2002, URS Corporation assumed groundwater monitoring activities for BP. The data within this table collected prior to second quarter 2002 has not been verified by URS.

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 the accuracy of this information.

**Table 2**  
**Fuel Oxygenate Analytical Data**  
Former BP Service Station #11107  
18501 Hesperian Boulevard  
San Lorenzo, CA

WELL ID	DATE OF SAMPLING	Ethanol (µg/L)	TBA (µg/L)	MTBE (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	LAB
MW-4	7/20/99	---	ND<500	590	ND<10	ND<5.0	ND<5.0	ND<1.0	ND<1.0	SPL
MW-4	12/30/99	---	---	280	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	PACE
MW-4	2/29/00	---	---	870	ND<20	ND<20	ND<20	ND<20	ND<20	PACE
MW-4	4/14/00	---	---	730	ND<10	ND<10	ND<10	ND<10	ND<10	PACE
MW-4	7/24/00	---	ND<50	390	ND<5.0	ND<5.0	ND<5.0	ND<1.0	ND<1.0	PACE
MW-4	10/30/00	---	ND<50	160	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	PACE
MW-4	1/11/01	---	ND<10	170	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	PACE
MW-4	5/17/01	---	ND<10	91	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	PACE
MW-4	7/2/01	---	ND<10	66	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	PACE
MW-4	7/11/03	ND<100	ND<20	2.0	ND<0.50	ND<0.50	ND<0.50	---	---	SEQ
MW-5	7/20/99	---	ND<500	490	ND<10	ND<10	ND<10	---	---	SPL
MW-5	12/30/99	---	---	470	ND<10	ND<10	ND<10	---	---	PACE
MW-5	2/29/00	---	---	190	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	PACE
MW-5	4/14/00	---	---	200	ND<5.0	ND<5.0	ND<5.0	---	---	PACE
MW-5	7/24/00	---	ND<50	630	ND<5.0	ND<5.0	ND<5.0	---	---	PACE
MW-5	10/30/00	---	ND<100	260	ND<10	ND<10	ND<10	---	---	PACE
MW-5	1/11/01	---	110	540	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	PACE
MW-5	5/17/01	---	31	320	ND<1.0	ND<1.0	ND<1.0	---	---	PACE
MW-5	7/2/01	---	ND<10	290	ND<1.0	ND<1.0	ND<1.0	---	---	PACE
MW-5	7/11/03	ND<100	ND<20	19	ND<0.50	ND<0.50	ND<0.50	---	---	SEQ
MW-6	7/20/99	---	ND<500	1400	ND<10	ND<10	ND<10	---	---	SPL
MW-6	12/30/99	---	---	300	ND<5.0	ND<5.0	ND<5.0	---	---	PACE
MW-6	2/29/00	---	---	240	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	PACE
MW-6	4/14/00	---	---	200	ND<5.0	ND<5.0	ND<5.0	---	---	PACE
MW-6	7/24/00	---	62	600	ND<5.0	ND<5.0	ND<5.0	---	---	PACE
MW-6	10/30/00	---	ND<100	260	ND<10	ND<10	ND<10	---	---	PACE
MW-6	1/11/01	---	ND<10	2.4	ND<1.0	ND<1.0	ND<1.0	---	---	PACE
MW-6	5/17/01	---	ND<10	130	ND<1.0	ND<1.0	ND<1.0	---	---	PACE
MW-6	7/2/01	---	ND<10	80	ND<1.0	ND<1.0	ND<1.0	---	---	PACE
MW-6	7/11/03	ND<100	ND<20	17	ND<0.50	ND<0.50	ND<0.50	---	---	SEQ

**Table 2**  
**Fuel Oxygenate Analytical Data**  
Former BP Service Station #11107  
18501 Hesperian Boulevard  
San Lorenzo, CA

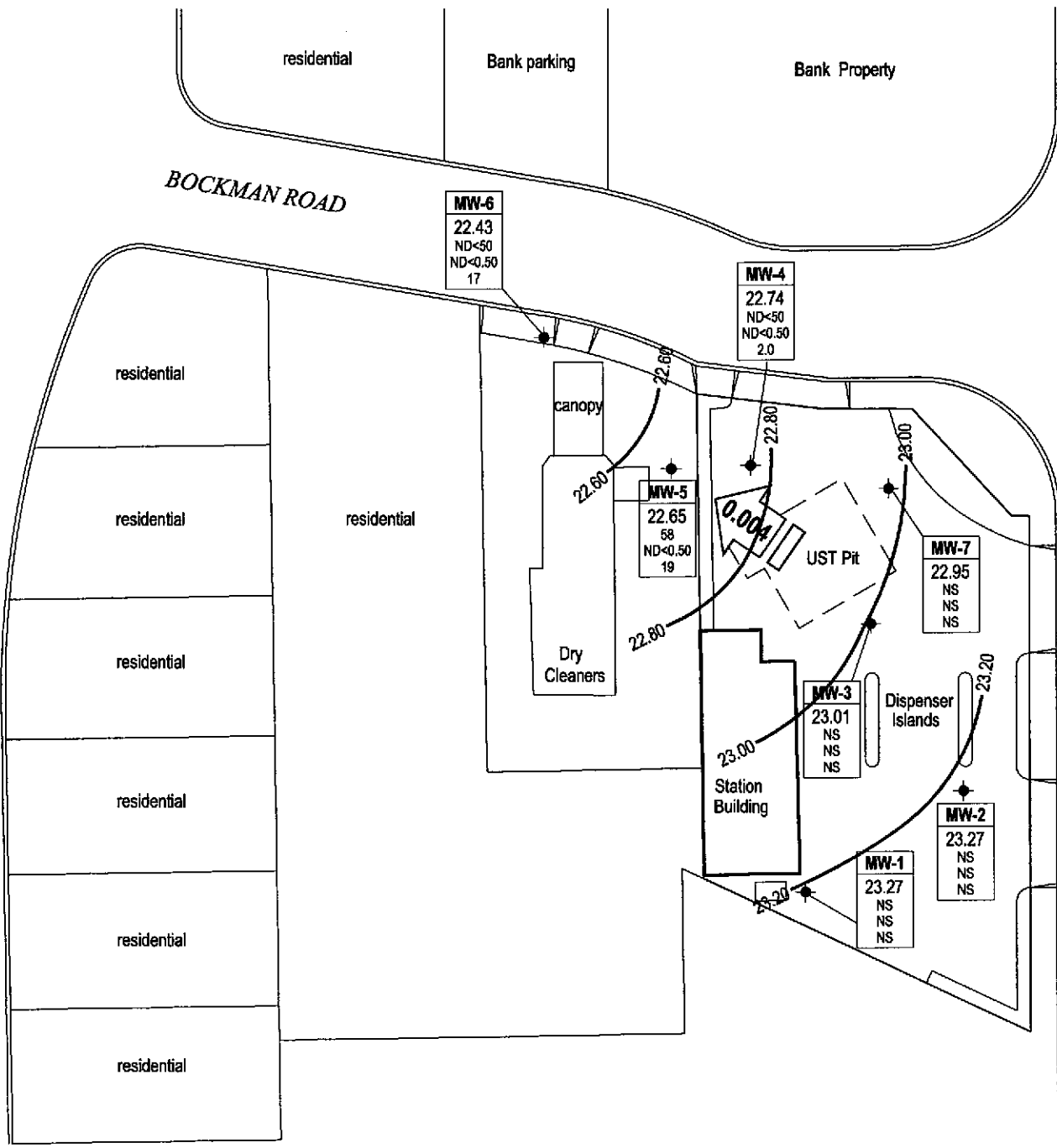
---

Note	= All fuel oxygenate compounds analyzed using EPA Method 8260B
TBA	= tert-Butyl alcohol
MTBE	= Methyl tert-butyl ether
DIPE	= Di-isopropyl ether
ETBE	= Ethyl tert butyl ether
TAME	= tert-Amyl methyl ether
1,2-DCA	= 1,2-Dichloroethane
EDB	= 1,2-Dibromoethane
µg/L	= micrograms per liter
ND<	= Less than or equal to the laboratory reporting limit
---	= Not sampled or analyzed
PACE	Pace, Inc.
SPL	Southern Petroleum Laboratories
SEQ	Sequoia Analytical Laboratories

Source: The data within this table collected prior to July 2003 was provided to URS by BP Group Environmental Management Company and their previous consultants. URS has not verified the accuracy of this information.

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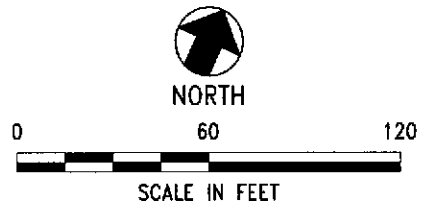
X:\x\_envl\_wastabf\GEMISites\Niles Sites\1107\Reports\Monitoring\Qtr. 3, 2003\Drawings\GWEC-AS\_7-11.dwg, 08/08/2003 03:38:09 PM, JKMT, URS



VIA ARRIBA

HESPERIAN BOULEVARD

BOCKMAN ROAD



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

EXPLANATION						
	Monitoring well location					
<table border="1"> <tr><td>Well</td></tr> <tr><td>ELEV</td></tr> <tr><td>TPH-g</td></tr> <tr><td>Benzene</td></tr> <tr><td>MTBE</td></tr> </table>	Well	ELEV	TPH-g	Benzene	MTBE	Well designation Groundwater elevation TPH-g, Benzene and MTBE concentrations in micrograms per liter (µg/L)
Well						
ELEV						
TPH-g						
Benzene						
MTBE						
ND<	Not detected					
NS	Not sampled					
	Approximate groundwater flow direction and gradient (feet/foot)					
	Groundwater elevation contour line (feet above MSL)					



**Project No. 38486393**  
**Former BP Service Station #11107**  
**18501 Hesperian Boulevard**  
**San Lorenzo, California**

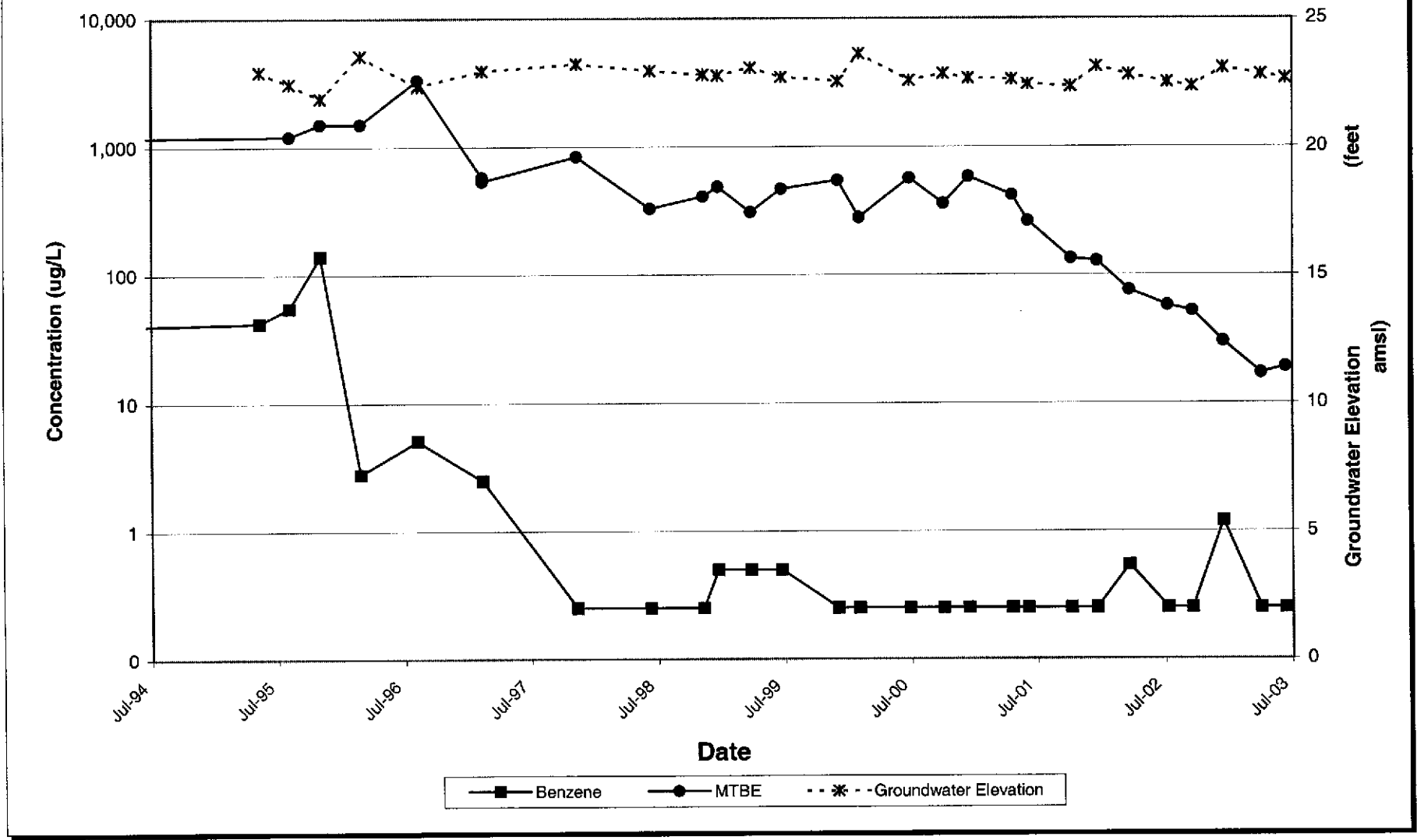
**GROUNDWATER ELEVATION CONTOUR**  
**AND ANALYTICAL SUMMARY MAP**  
**Third Quarter 2003 (July 11, 2003)**

FIGURE  
**1**

**ATTACHMENT A**  
**CONCENTRATION AND WATER LEVEL TRENDS**



### Concentration and Water Level Trends Well MW-5



Former BP Service Station #11107  
18501 Hesperian Blvd  
San Lorenzo, CA

**Graph 1**

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

## FIELD PROCEDURES

---

### 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 # 030711-ALZ Date 7/11/03 Client BP 11107

Site 18501 Hesperian San Lorenzo

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					17.80	30.73	TOC	
MW-2	2					17.29	24.88		
MW-3	2					17.44	24.84		
MW-4	2					16.50	25.14		S
MW-5	2					16.42	22.68		S
MW-6	2					16.03	25.08		S
MW-7	2					16.55	24.54		

## ARCO / BP WELL MONITORING DATA SHEET

BTS #: <u>030711-ALZ</u>	Station # <u>BP 11107</u>
Sampler: <u>AC</u>	Date: <u>7/11/03</u>
Well I.D.: <u>MW-4</u>	Well Diameter: <u>2</u> 3 4 6 8 _____
Total Well Depth: <u>25.14</u>	Depth to Water: <u>16.50</u>
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: <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Disposable Bailer <input type="checkbox"/> Middleburg <input type="checkbox"/> Electric Submersible <input type="checkbox"/> Extraction Pump Other: _____	Sampling Method: <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Disposable Bailer <input type="checkbox"/> 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.

<u>1.3</u>	x	<u>3</u>	=	<u>3.9</u> Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume

Time	Temp (°F)	pH	Conductivity (mS or $\mu$ S)	Gals. Removed	Observations
1026	71.1	6.9	798	1.5	clear
1028	69.9	6.8	768	3	"
1030	72.3	6.9	768	4.5	"

Did well dewater? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Gallons actually evacuated: <u>4.5</u>
Sampling Time: <u>1035</u>	Sampling Date: <u>7/11/03</u>
Sample I.D.: <u>MW-4</u>	Laboratory: Pace <u>(Sequoia)</u> Other _____
Analyzed for: <u>(TPH-C)</u> <u>(BTE)</u> MTBE TPH-D Other: <u>OXY'S (5), Ethanol (8260)</u>	
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 #: <u>030711-ALZ</u>	Station # <u>BP 11107</u>
Sampler: <u>AC</u>	Date: <u>7/11/03</u>
Well I.D.: <u>MW-5</u>	Well Diameter: <u>2</u> 3 4 6 8 <u>    </u>
Total Well Depth: <u>22.68</u>	Depth to Water: <u>16.42</u>
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: <u>Bailer</u>	Sampling Method: <u>Bailer</u>
<input checked="" type="checkbox"/> Disposable Bailer	<input checked="" type="checkbox"/> Disposable Bailer
<input type="checkbox"/> Middleburg	<input type="checkbox"/> Extraction Port
<input type="checkbox"/> Electric Submersible	Other: <u>                    </u>
<input type="checkbox"/> Extraction Pump	
Other: <u>                    </u>	

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.

<u>1</u>	x	<u>3</u>	=	<u>3</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or <u>µS</u> )	Gals. Removed	Observations
1054	71.1	6.7	555	1	cloudy
1057	70.6	6.9	708	2	"
1100	70.2	6.9	712	3	"

Did well dewater? Yes  No  Gallons actually evacuated: 3

Sampling Time: 1105 Sampling Date: 7/11/03

Sample I.D.: MW-5 Laboratory: Pace Sequoia Other                     

Analyzed for: TPH-D BTEX MTBE TPH-D Other: OXY'S (5), Ethanol (8260)

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 #: <u>030711-ALZ</u>	Station # <u>BP 11107</u>
Sampler: <u>AC</u>	Date: <u>7/11/03</u>
Well I.D.: <u>MW-6</u>	Well Diameter: <u>2</u> 3 4 6 8 _____
Total Well Depth: <u>25.08</u>	Depth to Water: <u>16.03</u>
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: <u>Bailer</u> <input checked="" type="checkbox"/> Disposable Bailer Middleburg Electric Submersible Extraction Pump Other: _____	Sampling Method: <u>Bailer</u> <input checked="" type="checkbox"/> 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.

<u>1.4</u>	x	<u>3</u>	=	<u>4.2</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or <u>µS</u> )	Gals. Removed	Observations
1042	73.2	6.9	763	1.5	cloudy
1045	73.9	6.9	764	3	"
1048	74.0	6.9	776	4.5	"

Did well dewater? Yes  No  Gallons actually evacuated: 4.5

Sampling Time: 1050 Sampling Date: 7/11/03

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

Analyzed for: TPH-O BTEX MTBE TPH-D Other: Oxy's (5), Ethanol (8260)

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 PLAINE 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:

BP 11107

Station #

18501 Hesperian San Lorenzo

Station Address

Total Gallons Collected From Groundwater Monitoring Wells:

15

added equip.

rinse water 10

any other

adjustments

TOTAL GALS.

RECOVERED 25

loaded onto

BTS vehicle # 23

BTS event #

030711-ACZ

time

date

7/11/03

signature

*[Signature]*

\*\*\*\*\*

REC'D AT

time

date

1/1

unloaded by

signature



# WELLHEAD INSPECTION CHECKLIST

Client BP 11107 Date 7/11/03

Site Address 18501 Hesperian San Lorenzo

Job Number 030711-ALZ Technician AC

Well ID	Well Inspected - No Corrective Action Required	Water Bailed From Wellbox	Wellbox Components Cleaned	Cap Replaced	Lock Replaced	Other Action Taken (explain below)	Well Not Inspected (explain below)	Repair Order Submitted
MW-1		X						
MW-2		X						
MW-3	X							
MW-4	X							
MW-5	X							
MW-6	X							
MW-7								

NOTES: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**ATTACHMENT C**

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

## **LABORATORY PROCEDURES**

---

### **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.



30 July, 2003

Leonard Niles  
URS Corporation [Arco]  
500 12th Street, Suite 100  
Oakland, CA 94607

RE: BP Heritage #11107, San Lorenzo, CA  
Work Order: MMG0340

Enclosed are the results of analyses for samples received by the laboratory on 07/14/03 18:40. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tim Costello For Theresa Allen  
Project Manager

CA ELAP Certificate #1210



URS Corporation [Arco]  
500 12th Street, Suite 100  
Oakland CA, 94607

Project: BP Heritage #11107, San Lorenzo, CA  
Project Number: N/P  
Project Manager: Leonard Niles

MMG0340  
**Reported:**  
07/30/03 15:51

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-4	MMG0340-01	Water	07/11/03 10:35	07/14/03 18:40
MW-5	MMG0340-02	Water	07/11/03 11:05	07/14/03 18:40
MW-6	MMG0340-03	Water	07/11/03 10:50	07/14/03 18:40

There were no custody seals that were received with this project.

URS Corporation [Arco]  
 500 12th Street, Suite 100  
 Oakland CA, 94607

 Project: BP Heritage #11107, San Lorenzo, CA  
 Project Number: N/P  
 Project Manager: Leonard Niles

 MMG0340  
 Reported:  
 07/30/03 15:51

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

**MW-4 (MMG0340-01) Water Sampled: 07/11/03 10:35 Received: 07/14/03 18:40**

Ethanol	ND	100	ug/l	1	3G24008	07/24/03	07/24/03	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
<b>Methyl tert-butyl ether</b>	<b>2.0</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 (C6-C10)	ND	50	"	"	"	"	"	"	

*Surrogate: 1,2-Dichloroethane-d4* 110 % 78-129 " " " "

**MW-5 (MMG0340-02) Water Sampled: 07/11/03 11:05 Received: 07/14/03 18:40**

Ethanol	ND	100	ug/l	1	3G24008	07/24/03	07/24/03	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
<b>Methyl tert-butyl ether</b>	<b>19</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	"	"	"	"	"	"	
<b>Gasoline Range Organics (C6-C10)</b>	<b>58</b>	50	"	"	"	"	"	"	

*Surrogate: 1,2-Dichloroethane-d4* 113 % 78-129 " " " "

URS Corporation [Arco]  
 500 12th Street, Suite 100  
 Oakland CA, 94607

 Project: BP Heritage #11107, San Lorenzo, CA  
 Project Number: N/P  
 Project Manager: Leonard Niles

 MMG0340  
 Reported:  
 07/30/03 15:51

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-6 (MMG0340-03) Water Sampled: 07/11/03 10:50 Received: 07/14/03 18:40</b>									
Ethanol	ND	100	ug/l	1	3G24008	07/24/03	07/24/03	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	"
<b>Methyl tert-butyl ether</b>	<b>17</b>	<b>0.50</b>	"	"	"	"	"	"	"
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 (C6-C10)	ND	50	"	"	"	"	"	"	"
<i>Surrogate: 1,2-Dichloroethane-d4</i>		<i>113 %</i>		<i>78-129</i>					

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 Oakland CA, 94607

 Project: BP Heritage #11107, San Lorenzo, CA  
 Project Number: N/P  
 Project Manager: Leonard Niles

 MMG0340  
 Reported:  
 07/30/03 15:51

### 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 3G24008 - EPA 5030B MeOH**
**Blank (3G24008-BLK1)**

Prepared &amp; Analyzed: 07/24/03

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 (C6-C10)	ND	50	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	5.22		"	5.00		104	78-129			

**Laboratory Control Sample (3G24008-BS1)**

Prepared &amp; Analyzed: 07/24/03

Methyl tert-butyl ether	10.0	0.50	ug/l	10.0		100	63-137			
Benzene	8.44	0.50	"	10.0		84.4	78-124			
Toluene	8.68	0.50	"	10.0		86.8	78-129			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	5.14		"	5.00		103	78-129			

**Laboratory Control Sample (3G24008-BS2)**

Prepared &amp; Analyzed: 07/24/03

Gasoline Range Organics (C6-C10)	483	50	ug/l	440		110	70-113			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	5.40		"	5.00		108	78-129			

**Matrix Spike (3G24008-MS1)**

Source: MMG0525-12

Prepared &amp; Analyzed: 07/24/03

Methyl tert-butyl ether	81.3	5.0	ug/l	99.2	ND	82.0	63-137			
Benzene	390	5.0	"	64.0	330	93.8	78-124			
Toluene	331	5.0	"	297	21	104	78-129			
Gasoline Range Organics (C6-C10)	7100	500	"	4400	2100	114	70-113			QM-07
<i>Surrogate: 1,2-Dichloroethane-d4</i>	5.66		"	5.00		113	78-129			



URS Corporation [Arco]  
500 12th Street, Suite 100  
Oakland CA, 94607

Project: BP Heritage #11107, San Lorenzo, CA  
Project Number: N/P  
Project Manager: Leonard Niles

MMG0340  
Reported:  
07/30/03 15:51

**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 3G24008 - EPA 5030B MeOH**

Matrix Spike Dup (3G24008-MSD1)	Source: MMG0525-12			Prepared & Analyzed: 07/24/03						
Methyl tert-butyl ether	78.1	5.0	ug/l	99.2	ND	78.7	63-137	4.02	13	
Benzene	359	5.0	"	64.0	330	45.3	78-124	8.28	12	QM-07
Toluene	328	5.0	"	297	21	103	78-129	0.910	10	
Gasoline Range Organics (C6-C10)	7010	500	"	4400	2100	112	70-113	1.28	9	
Surrogate: 1,2-Dichloroethane-d4	5.40		"	5.00		108	78-129			



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MMG0340  
**Reported:**  
07/30/03 15:51

### Notes and Definitions

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

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



# Chain of Custody Record

Project Name 030711-ACZ  
 BP BU/GEM CO Portfolio: \_\_\_\_\_  
 BP Laboratory Contract Number: \_\_\_\_\_

Date: 7/11/03

Requested Due Date (mm/dd/yy) MMG 0370

On-site Time:	Temp:
Off-site Time:	Temp:
Sky Conditions:	
Meteorological Events:	
Wind Speed:	Direction:

Send To:	BP/GEM Facility No.:	Consultant/Contractor: URS
Lab Name: SEQUOIA	BP/GEM Facility Address: 18501 HESPERIAN, SAN LORENZO, CA	Address: 500 12th St, Ste. 200
Lab Address: 885 Jarvis Dr. Morgan Hill, CA 95037	Site ID No. 11107	Oakland, CA 94609-4014
	Site Lat/Long:	e-mail EDD: syed_rehan@urscorp.com
	California Global ID #: TD600101885	Consultant/Contractor Project No.:
Lab PM: Latonya Pell	BP/GEM PM Contact: PAUL SUPPLE	Consultant Tele/Fax: 510-874-1720 / 510-874-3268
Tele/Fax: 408-778-9600 / 408-782-6308	Address: P.O. Box 6549 Moraga, CA 94570	Consultant/Contractor PM: Leonard Nilas
Report Type & QC Level: Send PDF Reports	Tele/Fax: 925-299-8891/925-299-8872	Invoice to: Consultant/Contractor or BP/GEM (Circle one)
BP/GEM Account No.: 400-6-21124		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	TPEG / BTEX (8015)	TPH -D (8015)	MTBE (8021)	MTBE (8260)	MTBE, TAME, ETBE (8260)		DIPE, TBA (8260)
1	MW-4	1035	X				3						X				X		
2	MW-5	1105	X				3						X				X		
3	MW-6	1050	X				3						X				X		
4																			
5																			
6																			
7																			
8																			
9																			
10																			

Sampler's Name: <u>Aaron Costa</u>	Relinquished By / Affiliation: <u>Aaron Costa Blaine Tech</u>	Date: <u>7/11/03</u>	Time: <u>1240</u>	Accepted By / Affiliation: <u>[Signature] SEQ M/H</u>	Date: <u>7/14/03</u>	Time: <u>1240</u>
Shipment Date:	Shipment Method:	Shipment Tracking No.:				

Special Instructions: Address Invoice to BP/GEM but send to URS for approval. Confirm any MTBE hits by (8260) in wells DW-2, DW-3, DW-4, BM-2 and BM-4

Seals in Place Yes  No  Temperature Blank Yes  No  Cooler Temperature on Receipt 4.8 °F (C) Trip Blank Yes  No

# SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

CLIENT NAME: URS  
 REC. BY (PRINT): AS  
 WORKORDER: MMG 0320

DATE REC'D AT LAB: 7-14-03  
 TIME REC'D AT LAB: 1840  
 DATE LOGGED IN: 7-15-03

Drinking water for regulatory purposes: YES /  NO  
 Wastewater for regulatory purposes: YES /  NO

CIRCLE THE APPROPRIATE RESPONSE	LAB SAMPLE #	DASH #	CLIENT ID	CONTAINER DESCRIPTION	PRESERVATIVE	SAMPLE MATRIX	DATE SAMPLED	REMARKS: CONDITION (°C)
1. Custody Seal(s) Present / <input checked="" type="radio"/> Absent Intact / Broken*	01		MW-4	(3) vials	HCl	L	7-11-03	
2. Chain-of-Custody <input checked="" type="radio"/> Present / Absent*	02		MW-5	↓	↓	↓	↓	
3. Traffic Reports or Packing List: Present / <input checked="" type="radio"/> Absent	03		MW-6					
4. Airbill: Airbill / Sticker Present / <input checked="" type="radio"/> Absent								
5. Airbill #:								
6. Sample Labels: <input checked="" type="radio"/> Present / Absent								
7. Sample IDs: <input checked="" type="radio"/> Listed / Not Listed on Chain-of-Custody								
8. Sample Condition: <input checked="" type="radio"/> Intact / Broken* / Leaking*								
9. Does information on custody reports, traffic reports and sample labels agree? <input checked="" type="radio"/> Yes / No*								
10. Sample received within hold time: <input checked="" type="radio"/> Yes / No*								
11. Proper Preservatives used: <input checked="" type="radio"/> Yes / No*								
12. Temp Rec. at Lab: Is temp $4 \pm 2^{\circ}\text{C}$ ? <input checked="" type="radio"/> Yes / No**								

7-14-03 AS

(Acceptance range for samples requiring thermal pres.)  
 \*\*Exception (if any): Metals / DPF (Direct From Field) or Problem COC

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

**ATTACHMENT D**

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

---

## Error Summary Log

08/04/03

EDF 1.2i All files present in deliverable.

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Laboratory:	Sequoia Analytical Laboratories, Inc., Morgan Hill, CA
Project Name:	BP Heritage #11107, San L
Work Order Number:	MMG0340
Global ID:	T0600101665
Lab Report Number:	MMG0340073020031551

## Report Summary

Labreport	Sampid	Labsampid	Mtrx	QC	Anmcode	Exmcode	Logdate	Extdate	Anadate	Lablotctf	Run	Sub
MMG03400730200MW-4 31551		MMG034001	W	CS	8260FAB	SW5030B	07/11/03	07/24/03	07/24/03	3G24008	1	
MMG03400730200MW-5 31551		MMG034002	W	CS	8260FAB	SW5030B	07/11/03	07/24/03	07/24/03	3G24008	1	
MMG03400730200MW-6 31551		MMG034003	W	CS	8260FAB	SW5030B	07/11/03	07/24/03	07/24/03	3G24008	1	
		MMG052512	W	NC	8260FAB	SW5030B	//	07/24/03	07/24/03	3G24008	1	
		3G24008BS1	WQ	BS1	8260FAB	SW5030B	//	07/24/03	07/24/03	3G24008	1	
		3G24008BS2	WQ	BS2	8260FAB	SW5030B	//	07/24/03	07/24/03	3G24008	1	
		3G24008BLK1	WQ	LB1	8260FAB	SW5030B	//	07/24/03	07/24/03	3G24008	1	
		3G24008MS1	W	MS1	8260FAB	SW5030B	//	07/24/03	07/24/03	3G24008	1	
		3G24008MSD1	W	SD1	8260FAB	SW5030B	//	07/24/03	07/24/03	3G24008	1	

# EDFSAMP: Error Summary Log

08/04/03

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



# EDFTEST: Error Summary Log

08/04/03

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

# EDFRES: Error Summary Log

08/04/03

Error type	Labsampid	Qccode	Matrix	Anmcode	Pvccode	Anadate	Run number	Parlabel
Warning: extra parameter	3G24008MS1	MS1	W	8260FAB	PR	07/24/03	1	DCA12D4
Warning: extra parameter	3G24008MS1	MS1	W	8260FAB	PR	07/24/03	1	GROC6C10
Warning: extra parameter	3G24008MSD1	SD1	W	8260FAB	PR	07/24/03	1	DCA12D4
Warning: extra parameter	3G24008MSD1	SD1	W	8260FAB	PR	07/24/03	1	GROC6C10
Warning: extra parameter	MMG034001	CS	W	8260FAB	PR	07/24/03	1	DCA12D4
Warning: extra parameter	MMG034001	CS	W	8260FAB	PR	07/24/03	1	GROC6C10
Warning: extra parameter	MMG034002	CS	W	8260FAB	PR	07/24/03	1	DCA12D4
Warning: extra parameter	MMG034002	CS	W	8260FAB	PR	07/24/03	1	GROC6C10
Warning: extra parameter	MMG034003	CS	W	8260FAB	PR	07/24/03	1	DCA12D4
Warning: extra parameter	MMG034003	CS	W	8260FAB	PR	07/24/03	1	GROC6C10
Warning: extra parameter	MMG052512	NC	W	8260FAB	PR	07/24/03	1	DCA12D4
Warning: extra parameter	MMG052512	NC	W	8260FAB	PR	07/24/03	1	GROC6C10
Warning: extra parameter	3G24008BLK1	LB1	WQ	8260FAB	PR	07/24/03	1	DCA12D4
Warning: extra parameter	3G24008BLK1	LB1	WQ	8260FAB	PR	07/24/03	1	GROC6C10
Warning: extra parameter	3G24008BS1	BS1	WQ	8260FAB	PR	07/24/03	1	DCA12D4
Warning: extra parameter	3G24008BS2	BS2	WQ	8260FAB	PR	07/24/03	1	DCA12D4
Warning: extra parameter	3G24008BS2	BS2	WQ	8260FAB	PR	07/24/03	1	GROC6C10

# EDFQC: Error Summary Log

08/04/03

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

# EDFCL: Error Summary Log

08/04/03

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

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**Date/Time of Submittal:** 8/4/2003 10:51:08 AM

**Facility Global ID:** T0600101665

**Facility Name:** BP

**Submittal Title:** Third Quarter 03 Ground Water Monitoring for site 11107

**Submittal Type:** GW Monitoring Report

Logged in as URSCORP-OAKLAND (CONTRACTOR)

CONTACT SITE [ADMINISTRATOR](#).

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**Submittal Date/Time: 8/4/2003 10:51:46 AM**

**Confirmation Number: 7266097843**

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