

C A M B R I A

MAR 21 2002

SMO

March 15, 2002

Amir K. Gholami  
Alameda County Health Care Services  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502-8577

✓ 1780

Re: **First Quarter 2002 Groundwater Monitoring Report**  
BP Oil Site No. 11107  
18501 Hesperian Boulevard  
San Lorenzo, California  
Cambria Project No. 852-1512



Dear Mr. Gholami:

On behalf of BP Oil Company, Cambria Environmental Technology, Inc. has prepared this *First Quarter 2002 Groundwater Monitoring Report* for the above referenced site. This report summarizes chemical data collected since 1992 including analytical results associated with samples recently collected on January 15, 2002.

Water level and analytical results for this monitoring event are summarized in Figure 1 and on Table 1 of Appendix A. Based on the contoured elevations, water generally flowed toward the west. During this monitoring event, benzene was not reported in the analyzed samples. Only well MW-5 reported more than 100 micrograms per liter of methyl tert butyl ether (MTBE), with a concentration of 128  $\mu\text{g/L}$ .

Benzene and MTBE concentration and water level trends in well MW-5 are shown in Figure 2. Analytical results below method reporting limits are plotted at one half the detection limit (open symbol). The generally decreasing concentration trends depicted in well MW-5 are consistent with a petroleum release undergoing natural attenuation.

Oakland, CA  
San Ramon, CA  
Sonoma, CA

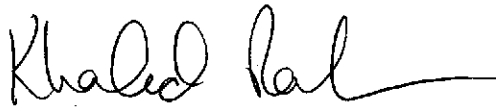
**Cambria  
Environmental  
Technology, Inc.**

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

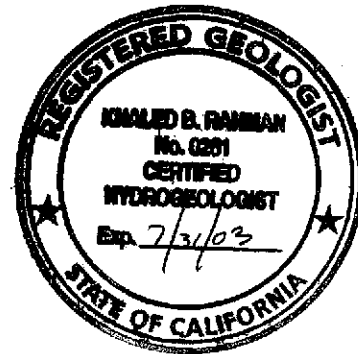
C A M B R I A

We appreciate the opportunity to work with you on this project. If you have any questions or comments, please don't hesitate to call me at (510) 450-1985.

Sincerely,  
**Cambria Environmental Technology, Inc.**



Khaled Rahman, R.G., C.H.G.  
Associate Geologist



Attachments

Figure 1 – Groundwater Elevation Contour Map

Figure 2 – Concentration and Water Level Trends – Well MW-5

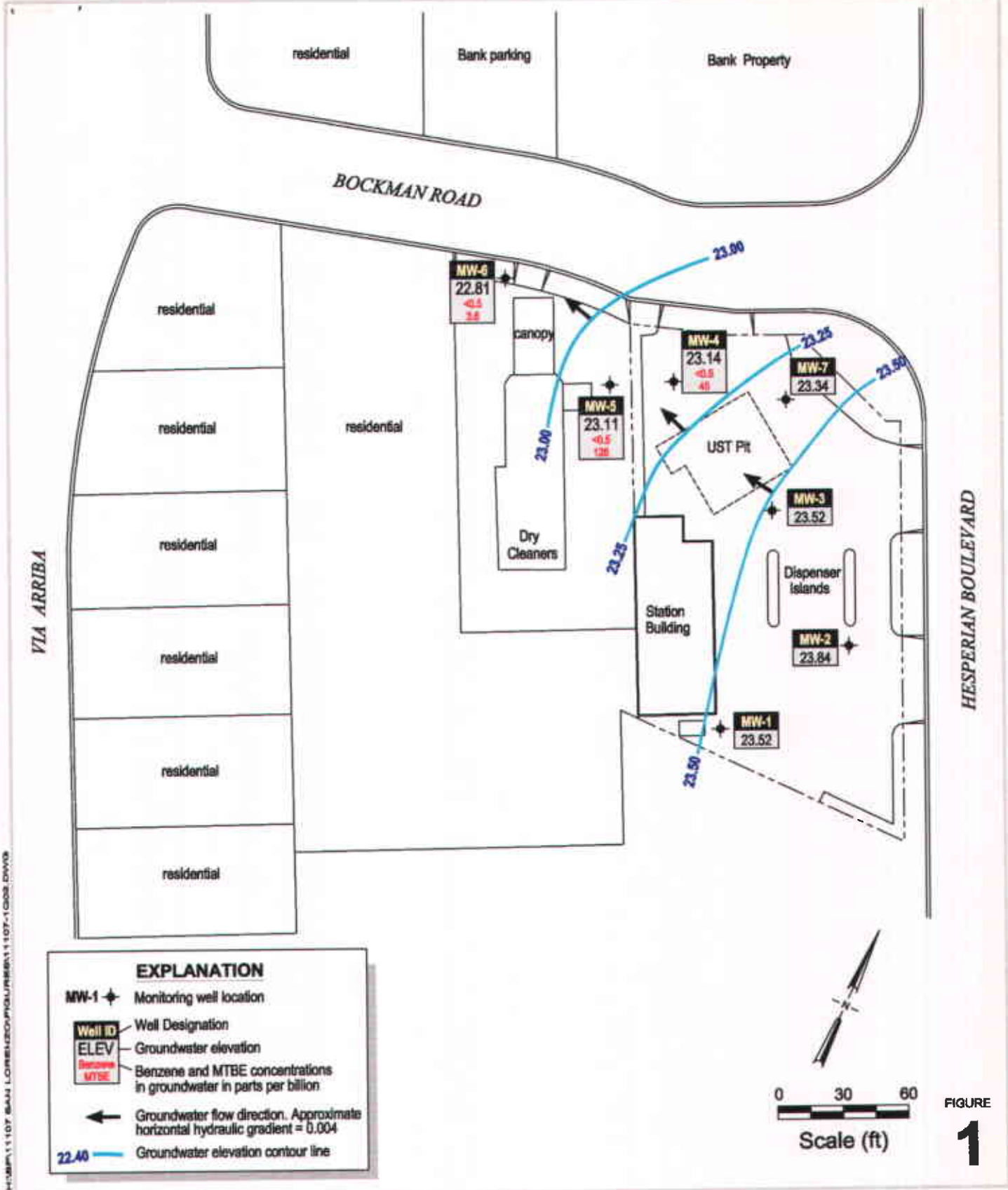
Appendix A – Blaine Tech Services, Inc., 1st Quarter 2002 Monitoring at 11107

cc: Scott Hooton, BP Oil Company, Environmental Resources Management, 295 SW 41<sup>st</sup>  
Street, Building 13, Suite N, Renton, Washington 98055-4931 (1 original)  
Dave Camille, Tosco Marketing Company, 2000 Crow Canyon Place, Suite 400, San  
Ramon, California 95118-3686 (1 copy)

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**FIGURES**



H:\BP\11107\8441\LORENZO\FIGURE\11107-1.GDW 2/28/02

**BP Oil Site No. 11107**  
 18501 Hesperian Boulevard  
 San Lorenzo, California



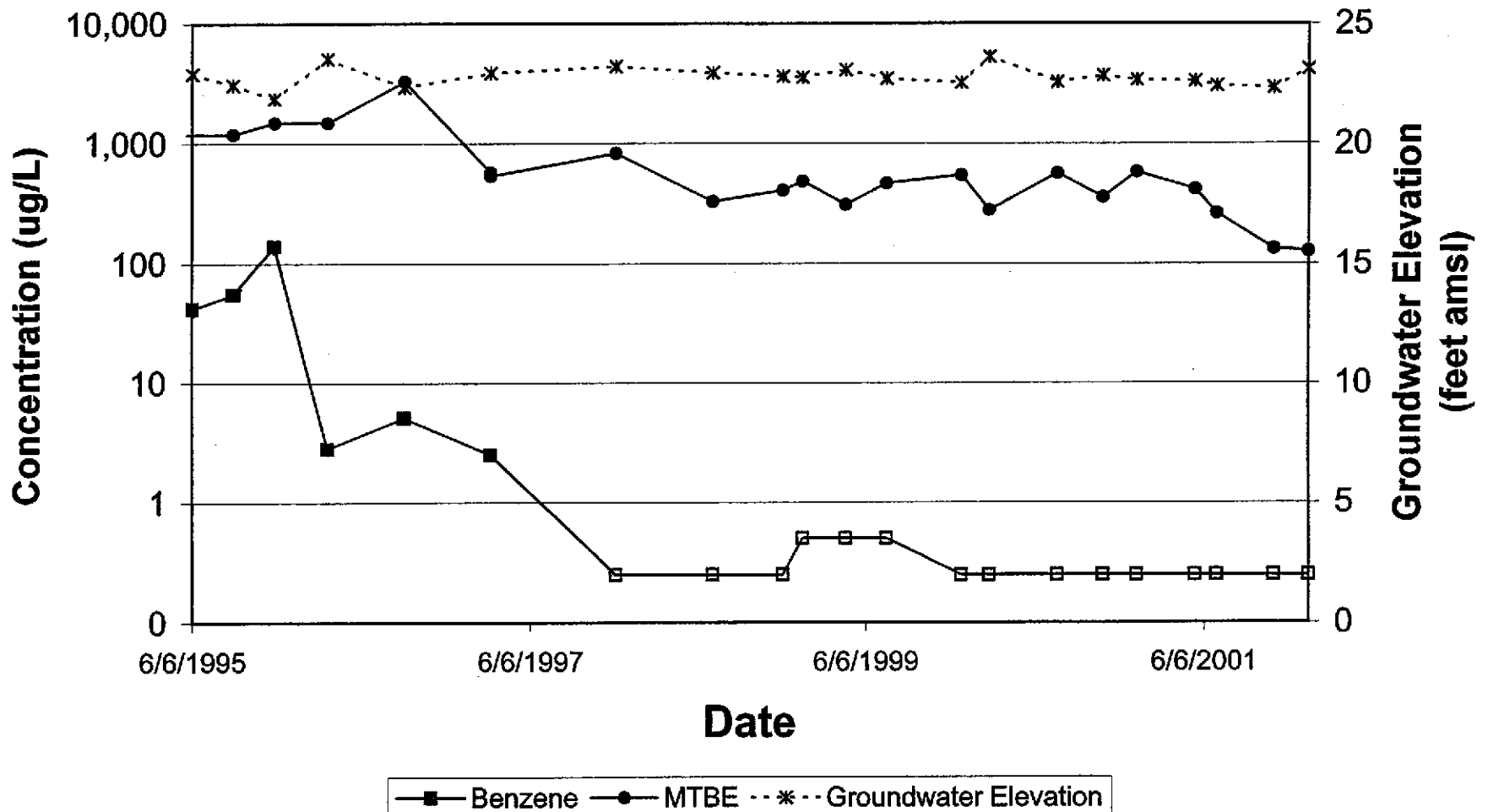
C A M B R I A

**Groundwater Elevation  
 Contour Map**  
 January 15, 2002

FIGURE

**1**

## Concentration and Water Level Trends Well MW-5



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## APPENDIX A

Blaine Tech Services, Inc.  
1<sup>st</sup> Quarter 2002 Monitoring

**BLAINE**  
TECH SERVICES, INC.



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

January 29, 2002

Scott Hooton  
BP Oil Company  
295 SW 41st Street, Bldg. 13, Suite N  
Renton, WA 98055-4931

### **1st Quarter 2002 Monitoring at 11107**

First Quarter 2002 Groundwater Monitoring  
BP Service Station Number 11107  
18501 Hesperian Boulevard  
San Lorenzo, CA

Monitoring Performed on January 15, 2002

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### **Groundwater Sampling Report 020115-SO-1**

This report covers the routine monitoring of groundwater wells at this BP facility. Blaine Tech Services, Inc.'s work at the site includes inspection, gauging, evacuation, purgewater containment, sample collection and sample handling in accordance with standard procedures that conform to Regional Water Quality Control Board requirements.

Routine field data collection includes depth to water, total well depth, thickness of any separate immiscible layer, water column volume, the appropriate calculated purge volume, elapsed evacuation time, total volume of water removed, and standard water parameter instrument readings. Sample material is collected, contained, stored, and transported to the laboratory in conformance with EPA standards. Purgewater is, likewise, collected and transported to Seaport Petroleum Corporation for disposal.

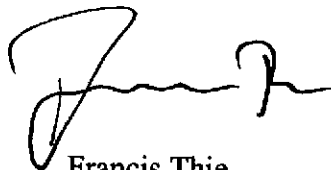
Basic field information is presented alongside analytical values excerpted from the laboratory report in the cumulative table of **WELL DATA AND ANALYTICAL RESULTS**. The full analytical report for the most recent samples is located in the **Analytical Appendix**.

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

Blaine Tech Services, Inc. conducts sampling and documentation assignments of this type as an independent third party. In order to avoid compromising the objectivity necessary for the proper and disinterested performance of this work, Blaine Tech Services, Inc. concentrates on objective data collection and does not participate in the interpretation of analytical results, the definition of geological or hydrological conditions, the formulation of recommendations, or the marketing of remedial systems.

Please call if you have any questions.

Yours truly,

A handwritten signature in black ink, appearing to read 'Francis Thie', written in a cursive style.

Francis Thie  
Vice President

FPT/mb

Cc: Khaled Rahman  
Cambria Environmental  
6262 Hollis Street  
Emeryville, CA 94608

attachments: Cumulative Table of Well Data and Analytical Results  
Analytical Appendix  
Field Data Sheets



**Table of  
Well Data and  
Analytical Results**

Table 1 - Summary of Results of Groundwater Sampling

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (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	11/04/92	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) 11/04/92	—	—	—	ND<50	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	(j) —	—	—	—	PACE
MW-1	02/24/94	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	05/12/94	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	09/09/94	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	11/03/94	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	03/01/95	41.07	17.44	23.63	ND<50	ND<500	ND<0.5	ND<0.50	ND<0.50	ND<1.0	—	420	0.54	0.3	2.3	ATI
MW-1	06/06/95	41.07	17.55	23.52	—	—	—	—	—	—	—	—	—	—	—	—
MW-1	09/01/95	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	03/23/96	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	09/05/96	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	03/11/97	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	12/08/97	41.07	16.30	24.77	ND<50	—	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	—	—	—	—	—
MW-1	07/08/98	41.07	16.66	24.41	—	—	—	—	—	—	—	—	—	—	—	—
MW-1	12/07/98	41.07	17.80	23.27	—	—	—	—	—	—	—	—	—	—	—	—
MW-1	01/19/99	41.07	17.18	23.89	—	—	—	—	—	—	—	—	—	—	—	—
MW-1	04/23/99	41.07	17.40	23.67	—	—	—	—	—	—	—	—	—	—	—	—
MW-1	07/20/99	41.07	17.76	23.31	—	—	—	—	—	—	—	—	—	—	—	—
MW-1	02/29/00	41.07	17.17	23.90	—	—	—	—	—	—	—	—	—	—	—	—
MW-1	04/14/00	41.07	17.22	23.85	—	—	—	—	—	—	—	—	—	—	—	—
MW-1	07/24/00	41.07	17.61	23.46	—	—	—	—	—	—	—	—	—	—	—	—
MW-1	10/30/00	41.07	17.76	23.31	—	—	—	—	—	—	—	—	—	—	—	—
MW-1	01/11/01	41.07	17.88	23.19	—	—	—	—	—	—	—	—	—	—	—	—
MW-1	05/17/01	41.07	17.82	23.25	—	—	—	—	—	—	—	—	—	—	—	—
MW-1	07/02/01	41.07	17.95	23.12	—	—	—	—	—	—	—	—	—	—	—	—
MW-1	11/02/01	41.07	18.25	22.82	—	—	—	—	—	—	—	—	—	—	—	—
MW-1	01/15/02	41.07	17.55	23.52	—	—	—	—	—	—	—	—	—	—	—	—

Table 1 - Summary of Results of Groundwater Sampling

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (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	11/04/92	40.56	20.16	20.40	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	(j)	--	--	--	PACE
MW-2	02/24/94	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	05/12/94	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	09/09/94	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	11/03/94	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	03/01/95	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	06/06/95	40.56	16.96	23.60	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	09/01/95	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	03/23/96	40.56	16.35	24.21	ND<50	--	ND<0.5	ND<1	ND<1	ND<1	ND<10	--	--	--	8.5	SPL
MW-2	09/05/96	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	03/11/97	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	12/08/97	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	07/08/98	40.56	16.41	24.15	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	12/07/98	40.56	17.15	23.41	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	01/19/99	40.56	17.15	23.41	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	04/23/99	40.56	16.89	23.67	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	07/20/99	40.56	17.25	23.31	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	12/30/99	40.56	17.44	23.12	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	02/29/00	40.56	16.13	24.43	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	04/14/00	40.56	16.88	23.68	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	07/24/00	40.56	17.11	23.45	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	10/30/00	40.56	17.12	23.44	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	01/11/01	40.56	17.28	23.28	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	05/17/01	40.56	17.20	23.36	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	07/02/01	40.56	17.45	23.11	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	11/02/01	40.56	17.62	22.94	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	01/15/02	40.56	16.72	23.84	--	--	--	--	--	--	--	--	--	--	--	--

Table 1 - Summary of Results of Groundwater Sampling

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (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	11/04/92	40.45	20.23	20.22	760	---	3.7	15	1.9	57	---	(j)	---	---	---	---	PACE
MW-3	02/24/94	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	05/12/94	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	09/09/94	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	11/03/94	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	03/01/95	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	06/06/95	40.45	17.21	23.24	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	09/01/95	40.45	17.69	22.76	200	---	2.7	33	7.2	43	ND<5.0	---	---	---	7.8	ATI	
MW-3	09/01/95	40.45	18.29	22.16	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	03/23/96	40.45	16.59	23.86	ND<50	---	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	---	---	7.3	SPL	
MW-3	09/05/96	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	03/11/97	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	12/08/97	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	07/08/98	40.45	16.40	24.05	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	12/07/98	40.45	17.32	23.13	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	01/19/99	40.45	17.30	23.15	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	04/23/99	40.45	17.07	23.38	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	07/20/99	40.45	17.47	22.98	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	12/30/99	40.45	17.60	22.85	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	02/29/00	40.45	16.43	24.02	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	04/14/00	40.45	17.09	23.36	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	07/24/00	40.45	17.44	23.01	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	10/30/00	40.45	17.29	23.16	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	01/11/01	40.45	17.49	22.96	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	05/17/01	40.45	17.45	23.00	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	07/02/01	40.45	17.70	22.75	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	11/02/01	40.45	17.82	22.63	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	01/15/02	40.45	16.93	23.52	---	---	---	---	---	---	---	---	---	---	---	---	---

Table 1 - Summary of Results of Groundwater Sampling

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (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	11/04/92	39.24	19.18	20.06	900	--	150	4.1	0.8	53	--	(j)	--	--	--	PACE
MW-4	02/24/94	39.24	19.22	20.02	240	--	110	3.8	1.8	11	1433	(d)(j)	--	--	--	PACE
QC-1	(c) 02/24/94	--	--	--	310	--	95	5.3	2.2	17	1479	(d)(j)	--	--	--	PACE
MW-4	05/12/94	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) 05/12/94	--	--	--	430	--	2.6	1.3	ND<0.5	ND<0.5	912	(d)(j)	--	--	--	PACE
MW-4	09/09/94	39.24	20.27	18.97	240	--	9.1	1.3	0.6	2.5	397	(j)	--	--	2.2	PACE
QC-1	(c) 09/09/94	--	--	--	57	--	1.7	ND<0.5	ND<0.5	0.5	83	(j)	--	--	--	PACE
MW-4	11/03/94	39.24	18.46	20.78	250	--	3.1	2.8	1.0	3.3	319	(j)	--	--	3.2	PACE
QC-1	(c) 11/03/94	--	--	--	110	--	2.4	ND<0.5	ND<0.5	ND<0.5	642	(j)	--	--	--	PACE
MW-4	03/01/95	39.24	16.15	23.09	8900	--	1800	26	450	400	--	--	--	--	2.0	ATI
QC-1	(c) 03/01/95	--	--	--	7600	--	1700	25	410	370	--	--	--	--	--	ATI
MW-4	06/06/95	39.24	16.28	22.96	3100	--	(e) 530	25	170	85	--	--	--	--	--	ATI
QC-1	(c) 06/06/95	--	--	--	3000	--	530	27	170	92	--	--	--	--	--	ATI
MW-4	(f) 09/01/95	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	03/23/96	39.24	15.74	23.50	2700	--	480	ND<25	180	176	13000	--	--	--	7.8	SPL
MW-4	09/05/96	39.24	16.75	22.49	1100	--	ND<12	ND<25	ND<25	ND<25	3200	--	--	--	4.0	SPL
MW-4	03/11/97	39.24	16.10	23.14	2400	--	46	ND<10	66	106	3400	--	--	--	4.0	SPL
MW-4	12/08/97	39.24	15.96	23.28	590	--	11	ND<1.0	ND<1.0	ND<1.0	1200	--	--	--	4.4	SPL
QC-1	(c) 12/08/97	--	--	--	620	--	11	ND<1.0	ND<1.0	ND<1.0	1100	--	--	--	--	SPL
MW-4	07/08/98	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) 07/08/98	--	--	--	1600	--	ND<0.5	ND<1.0	ND<1.0	ND<1.0	1100	--	--	--	--	SPL
MW-4	12/07/98	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	01/19/99	39.24	16.40	22.84	570	--	ND<1.0	ND<1.0	ND<1.0	ND<1.0	660	--	--	--	--	SPL
MW-4	04/23/99	39.24	16.17	23.07	ND<50	--	ND<1.0	ND<1.0	1.8	1.3	1100/810	(h)	--	--	--	SPL
MW-4	07/20/99	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	02/29/00	39.24	15.69	23.55	78	(i)	2.0	ND<0.5	0.77	2.8	1200	--	--	--	--	PACE
MW-4	04/14/00	39.24	16.21	23.03	300	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	800	--	--	--	--	PACE
MW-4	07/24/00	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	01/11/01	39.24	16.46	22.78	120	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	176	--	--	--	--	PACE
MW-4	05/17/01	39.24	16.40	22.84	99	--	ND<0.5	ND<0.5	ND<0.5	ND<1.5	119	--	--	--	--	PACE
MW-4	07/02/01	39.24	16.75	22.49	63	--	ND<0.5	ND<0.5	ND<0.5	ND<1.5	87.6	--	--	--	--	PACE
MW-4	11/02/01	39.24	16.80	22.44	56	--	ND<0.5	ND<0.5	ND<0.5	ND<1.5	49.6	--	--	--	--	PACE
MW-4	01/15/02	39.24	16.10	23.14	63	--	ND<0.5	ND<0.5	ND<0.5	ND<1.0	45	--	--	--	--	PACE

Table 1 - Summary of Results of Groundwater Sampling

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (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	06/06/95	39.07	16.16	22.91	1100	-- (e)	42	ND<2.5	15	4.0	--	--	--	--	--	ATI
MW-5	09/01/95	39.07	16.63	22.44	1600	--	55	ND<2.5	15	8.0	1200	--	--	--	7.4	ATI
QC-1 (c)	09/01/95	--	--	--	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	03/23/96	39.07	15.54	23.53	90	--	2.8	ND<1	ND<1	ND<1	1500	--	--	--	7.5	SPL
MW-5	09/05/96	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)	09/05/96	--	--	--	2000	--	4.9	ND<1.0	ND<1.0	ND<1.0	2900	--	--	--	--	SPL
MW-5	03/11/97	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)	03/11/97	--	--	--	460	--	ND<5.0	ND<5.0	ND<5.0	ND<5.0	540	--	--	--	--	SPL
MW-5	12/08/97	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	07/08/98	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	12/07/98	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	01/19/99	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	04/23/99	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	07/20/99	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	02/29/00	39.07	15.45	23.62	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	280	--	--	--	--	PACE
MW-5	04/14/00	39.07	16.10	22.97	81	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	240	--	--	--	--	PACE
MW-5	07/24/00	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	01/11/01	39.07	16.41	22.66	420	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	585	--	--	--	--	PACE
MW-5	05/17/01	39.07	16.45	22.62	360	--	ND<0.5	ND<0.5	ND<0.5	ND<1.5	419	--	--	--	--	PACE
MW-5	07/02/01	39.07	16.65	22.42	210	--	ND<0.5	ND<0.5	ND<0.5	ND<1.5	264	--	--	--	--	PACE
MW-5	11/02/01	39.07	16.73	22.34	130	--	ND<0.5	ND<0.5	ND<0.5	ND<1.5	134	--	--	--	--	PACE
MW-5	01/15/02	39.07	15.96	23.11	140	--	ND<0.5	ND<0.5	ND<0.5	ND<1.0	128	--	--	--	--	PACE

Table 1 - Summary of Results of Groundwater Sampling

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (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	03/01/95	38.46	15.66	22.80	270	--	11	ND<0.50	ND<0.50	ND<1.0	--	--	--	--	1.6	ATI
MW-6	06/06/95	38.46	15.82	22.64	220	--	(e) 2.3	ND<0.50	ND<0.50	ND<1.0	--	--	--	--	--	ATI
MW-6	09/01/95	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	03/23/96	38.46	15.27	23.19	50	--	ND<0.5	ND<1	ND<1	ND<1	910	--	--	--	8.0	SPL
MW-6	09/05/96	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	03/11/97	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	12/08/97	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	07/08/98	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	12/07/98	38.46	15.95	22.51	440	--	ND<1.0	ND<1.0	ND<1.0	ND<1.0	630/820	(h)	--	--	--	--
MW-6	01/19/99	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	04/23/99	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	07/20/99	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	02/29/00	38.46	15.08	23.38	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	340	--	--	--	--	PACE
MW-6	04/14/00	38.46	15.82	22.64	90	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	220	--	--	--	--	PACE
MW-6	07/24/00	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	01/11/01	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	05/17/01	38.46	16.05	22.41	140	--	ND<0.5	ND<0.5	ND<0.5	ND<1.5	169	--	--	--	--	PACE
MW-6	07/02/01	38.46	16.27	22.19	70	--	ND<0.5	ND<0.5	ND<0.5	ND<1.5	91.4	--	--	--	--	PACE
MW-6	11/02/01	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	01/15/02	38.46	15.65	22.81	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<1.0	3.6	--	--	--	--	PACE

Table 1 - Summary of Results of Groundwater Sampling

ABBREVIATIONS:		NOTES:	
TPH-G	Total petroleum hydrocarbons as gasoline	(a)	Top of casing elevations surveyed relative to an established benchmark with an elevation of 39.95 feet above mean sea level.
TPH-D	Total petroleum hydrocarbons as diesel		
B	Benzene	(b)	Groundwater elevations in feet above mean sea level.
T	Toluene	(c)	Blind duplicate.
E	Ethylbenzene		
X	Total xylenes	(d)	A copy of the documentation for this data is included in Alisto report 10-060-07-001.
MTBE	Methyl tert butyl ether	(e)	MTBE peak present. See documentation in Appendix C of Alisto report 10-060-07-001.
TOG	Total oil and grease	(f)	Well inaccessible.
1,1,1-TCA	1,1,1-Trichloroethane	(g)	Travel blank.
PCE	Tetrachloroethene	(h)	MTBE by 8020/8260.
1,2-DCA	1,2-Dichloroethane	(i)	Gasoline does not include MTBE.
EDB	1,2-Dibromoethane		
DIPE	Di-isopropyl Ether	(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.
ETBE	tert-Butyl Ethyl Ether		
TBA	t-Butyl Alcohol		
TAME	tert-Amyl Methyl Ether		
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		



# **Analytical Appendix**

Lab Project Number: 8525567  
Client Project ID: BP Site# 11107

Lab Sample No: 851735055      Project Sample Number: 8525567-002      Date Collected: 01/15/02 10:44  
Client Sample ID: MW-5      Matrix: Water      Date Received: 01/17/02 09:08

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Lim
<b>GC Volatiles</b>								
GAS by Mod 8015, Water      Prep/Method: EPA 8015 Modified / EPA 8015 Modified								
Gasoline Range Organics	140	ug/l	50.	1.0	01/18/02 20:03	WRIC		
1,4-Difluorobenzene (S)	91	%		1.0	01/18/02 20:03	WRIC		
4-Bromofluorobenzene (S)	92	%		1.0	01/18/02 20:03	WRIC	460-00-4	
SW8021 Aromatics, Water      Prep/Method: See analytical method / EPA 8021								
Benzene	ND	ug/l	0.500	1.0	01/18/02 20:03	WRIC	71-43-2	
Ethylbenzene	ND	ug/l	0.500	1.0	01/18/02 20:03	WRIC	100-41-4	
Toluene	ND	ug/l	0.500	1.0	01/18/02 20:03	WRIC	108-88-3	
Xylene (Total)	ND	ug/l	1.00	1.0	01/18/02 20:03	WRIC	1330-20-7	
Methyl-tert-butyl ether	128.	ug/l	0.500	1.0	01/18/02 20:03	WRIC	1634-04-4	
1,4-Difluorobenzene (S)	108	%		1.0	01/18/02 20:03	WRIC		
4-Bromofluorobenzene (S)	101	%		1.0	01/18/02 20:03	WRIC	460-00-4	

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Lab Project Number: 8525567  
Client Project ID: BP Site# 11107

Lab Sample No: 851735056      Project Sample Number: 8525567-003      Date Collected: 01/15/02 10:31  
Client Sample ID: MW-6      Matrix: Water      Date Received: 01/17/02 09:08

Parameters	Results	Units	Report Limit	Dilution	Analyzed	CAS No.	Ftnote	Reg Lim
<b>GC Volatiles</b>								
GAS by Mod 8015, Water      Prep/Method: EPA 8015 Modified / EPA 8015 Modified								
Gasoline Range Organics	ND	ug/l	50.	1.0	01/18/02 19:23	WRIC		
1,4-Difluorobenzene (S)	90	%		1.0	01/18/02 19:23	WRIC		
4-Bromofluorobenzene (S)	92	%		1.0	01/18/02 19:23	WRIC	460-00-4	
SW8021 Aromatics, Water      Prep/Method: See analytical method / EPA 8021								
Benzene	ND	ug/l	0.500	1.0	01/18/02 19:23	WRIC	71-43-2	
Ethylbenzene	ND	ug/l	0.500	1.0	01/18/02 19:23	WRIC	100-41-4	
Toluene	ND	ug/l	0.500	1.0	01/18/02 19:23	WRIC	108-88-3	
Xylene (Total)	ND	ug/l	1.00	1.0	01/18/02 19:23	WRIC	1330-20-7	
Methyl-tert-butyl ether	3.60	ug/l	0.500	1.0	01/18/02 19:23	WRIC	1634-04-4	
1,4-Difluorobenzene (S)	108	%		1.0	01/18/02 19:23	WRIC		
4-Bromofluorobenzene (S)	102	%		1.0	01/18/02 19:23	WRIC	460-00-4	

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**Pace Analytical Services, Inc.**

900 Gemini Avenue  
Houston, TX 77058

Phone: 281.488.1810

Fax: 281.488.4661

Lab Project Number: 8525567

Client Project ID: BP Site# 11107

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**PARAMETER FOOTNOTES**

- ND Not detected at or above adjusted reporting limit
- NC Not Calculable
- J Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
- (S) Surrogate

Date: 01/21/02

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**REPORT OF LABORATORY ANALYSIS**

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Lab Project Number: 8525567  
 Client Project ID: BP Site# 11107

QC Batch: 64439

Analysis Method: EPA 8021

QC Batch Method: See analytical method

Analysis Description: SW8021 Aromatics, Water

Associated Lab Samples: 851735054 851735055 851735056

METHOD BLANK: 851735495

Associated Lab Samples: 851735054 851735055 851735056

Parameter	Units	Blank	Reporting	Footnotes
		Result	Limit	
Benzene	ug/l	ND	0.500	
Ethylbenzene	ug/l	ND	0.500	
Toluene	ug/l	ND	0.500	
Xylene (Total)	ug/l	ND	1.00	
Methyl-tert-butyl ether	ug/l	ND	0.500	
1,4-Difluorobenzene (S)	%	100		
4-Bromofluorobenzene (S)	%	101		

LABORATORY CONTROL SAMPLE: 851735496

Parameter	Units	Spike	LCS	LCS	Footnotes
		Conc.	Result	% Rec	
Benzene	ug/l	50	51.54	103	
Ethylbenzene	ug/l	50	51.05	102	
Toluene	ug/l	50	49.83	100	
Xylene (Total)	ug/l	100	100.3	100	
Methyl-tert-butyl ether	ug/l	50	49.67	99	
1,4-Difluorobenzene (S)				101	
4-Bromofluorobenzene (S)				103	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 851735497 851735498

Parameter	Units	851735056	Spike	MS	MSD	MS	MSD	RPD	Footnotes
		Result	Conc.	Result	Result	% Rec	% Rec		
Benzene	ug/l	0	50.00	52.33	51.77	105	104	1	
Ethylbenzene	ug/l	0	50.00	51.84	51.30	104	103	1	
Toluene	ug/l	0	50.00	50.33	49.89	101	100	1	
Xylene (Total)	ug/l	0	100.00	101.4	100.2	101	100	1	

Date: 01/21/02

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## REPORT OF LABORATORY ANALYSIS

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Lab Project Number: 8525567

Client Project ID: BP Site# 11107

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 851735497 851735498

Parameter	Units	851735056	Spike	MS	MSD	MS	MSD	RPD	Footnotes
		Result	Conc.	Result	Result	% Rec	% Rec		
Methyl-tert-butyl ether	ug/l	3.600	50.00	52.75	51.19	98	95	3	
1,4-Difluorobenzene (S)						108	108		
4-Bromofluorobenzene (S)						104	103		

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Lab Project Number: 8525567

Client Project ID: BP Site# 11107

QC Batch: 64440

Analysis Method: EPA 8015 Modified

QC Batch Method: EPA 8015 Modified

Analysis Description: GAS by Mod 8015, Water

Associated Lab Samples: 851735054 851735055 851735056

METHOD BLANK: 851735499

Associated Lab Samples: 851735054 851735055 851735056

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Gasoline Range Organics	ug/l	ND	50.	
1,4-Difluorobenzene (S)	%	90		
4-Bromofluorobenzene (S)	%	93		

LABORATORY CONTROL SAMPLE: 851735500

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Gasoline Range Organics	ug/l	1000	932.9	93	
1,4-Difluorobenzene (S)				110	
4-Bromofluorobenzene (S)				94	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 851735501 851735502

Parameter	Units	851735056 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	RPD	Footnotes
Gasoline Range Organics	ug/l	21.23	1000.00	1033	982.3	101	96	5	
1,4-Difluorobenzene (S)						114	113		
4-Bromofluorobenzene (S)						93	91		

### REPORT OF LABORATORY ANALYSIS

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Lab Project Number: 8525567  
Client Project ID: BP Site# 11107

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**QUALITY CONTROL DATA PARAMETER FOOTNOTES**

Consistent with EPA guidelines, unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

LCS(D) Laboratory Control Sample (Duplicate)  
MS(D) Matrix Spike (Duplicate)  
DUP Sample Duplicate  
ND Not detected at or above adjusted reporting limit  
NC Not Calculable  
J Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit  
RPD Relative Percent Difference  
(S) Surrogate

**REPORT OF LABORATORY ANALYSIS**

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# CHAIN OF CUSTODY

8525567  
Page 1 of 1

CONSULTANT'S NAME Blaine Tech Services, Inc.		CONSULTANT'S ADDRESS 1680 Rogers Ave., San Jose CA 95112	
BP SITE NUMBER 11107	BP SITE / FACILITY ADDRESS 18501 Hesperian, San Lorenzo		CONSULTANT PROJECT NUMBER 020115-50-1
CONSULTANT PROJECT MANAGER <del>Scott Hooton</del> <i>Cindy Magyar</i>		PHONE NUMBER (408) 573-0555 x 223	FAX NUMBER (408) 573-7771
BP CONTACT Scott Hooton	BP ADDRESS 295 SW 41st Street, Suite N, Renton WA	PHONE NUMBER (425) 251-0689	FAX NO. (425) 251-0736
LAB CONTACT Pace - Paula Kirtley	LABORATORY ADDRESS 900 Gemini Ave., Houston, TX 77058	PHONE NUMBER (281) 488-1810	FAX NO. (281) 488-4661
BP CONTACT REQUESTING RUSH TAT (Print BP Contact Name)		RUSH REQUESTED OF (Print Consultant Contact Name)	DATE/TIME
			SHIPMENT DATE
			SHIPMENT METHOD

TAT:  24 HOURS  48 HOURS  72 HOURS  Standard 7 or 14 Days

ANALYSIS REQUIRED

AIRBILL NUMBER

SAMPLE DESCRIPTION	COLLECTION DATE	COLLECTION TIME	MATRIX SOIL/WATER	CONTAINERS		PRESERVATIVE	TPH-G + BTEX / MTBE (8015M)	TPH-D (8015M)	FUEL OXYGENATES (8260)	1,2 DCA + EDB (8010)							COMMENTS	
				NO.	TYPE (VOL)	LAB SAMPLE #												
MW-4	1/15/02	1013	W	3	VDA	HCL	X											851735054 (CAS)
MW-5	↓	1044	↓	↓	↓	↓	X											851735055
MW-6	↓	1031	↓	↓	↓	↓	X											056

SAMPLED BY (Please Print Name) <i>Shawn O'Bryan</i>			SAMPLED BY (Signature) <i>Shawn O'Bryan</i>			ADDITIONAL COMMENTS		
RELINQUISHED BY / AFFILIATION (Print Name / Signature) <i>Paula Kirtley</i>	DATE	TIME	ACCEPTED BY / AFFILIATION (Print Name / Signature)	DATE	TIME	cooler temp = 0.4°C		
	1/16/02	1145	AIRBORNE EXPRESS	1/16/02	1145			
	1/17/02	0908	Tracy Moody / Pace	1/17/02	0908			

# **Field Data Sheets**

WELL GAUGING DATA

Project # 020115-50-1 Date 1/15/02 Client BP

Site BP-11107 18501 Hesperian BLVD, 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					17.55	30.41	TOC		
MW-2	↓					16.72	24.77	↓		
MW-3						16.93	24.83			
MW-4						16.10	25.00			
MW-5						15.96	22.37			
MW-6						15.65	24.90			
MW-7		↓					16.10		24.26	↓

## BP WELL MONITORING DATA SHEET

Project #: <u>020115-50-1</u>	Station # <u>11107</u>
Sampler: <u>O'Bryan</u>	Date: <u>1/15/02</u>
Well I.D.: <u>MW-4</u>	Well Diameter: <u>(2)</u> 3 4 6 8
Total Well Depth: <u>25.00</u>	Depth to Water: <u>16.10</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: Bailer      Sampling Method: Bailer  
~~Disposable Bailer~~      ~~Disposable Bailer~~  
~~Middleburg~~      Extraction Port  
~~Electric Submersible~~      Other: \_\_\_\_\_  
~~Extraction Pump~~

<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	Cond.	Gals. Removed	Observations
<u>1005</u>	<u>66.6</u>	<u>6.3</u>	<u>800</u>	<u>1.5</u>	
<u>1007</u>	<u>67.1</u>	<u>6.5</u>	<u>803</u>	<u>3</u>	
<u>1009</u>	<u>66.9</u>	<u>6.6</u>	<u>800</u>	<u>4.25</u>	

Did well dewater? Yes  No       Gallons actually evacuated: 4.25

Sampling Time: 1013      Sampling Date: 1/15/02

Sample I.D. (Blind): MW-4      Laboratory: Pace      Other: \_\_\_\_\_

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

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

## BP WELL MONITORING DATA SHEET

Project #: <u>020115-50-1</u>	Station # <u>11107</u>
Sampler: <u>O'Bryan</u>	Date: <u>1/15/02</u>
Well I.D.: <u>MW-5</u>	Well Diameter: <u>(2)</u> 3 4 6 8
Total Well Depth: <u>22.37</u>	Depth to Water: <del>22.3</del> <u>15.96</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: Bailer      Sampling Method: Bailer

Disposable Bailer       Disposable Bailer  
 Middleburg       Extraction Port  
 Electric Submersible  
 Extraction Pump  
 Other: \_\_\_\_\_

<u>1.0</u>	X	<u>3</u>	=	<u>3</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
1038	58.9	6.7	808	1	
1039	64.1	6.7	803	2	
1040	65.3	6.7	805	3	

Did well dewater? Yes  No       Gallons actually evacuated: 3

Sampling Time: 1044      Sampling Date: 1/15/02

Sample I.D. (Blind): MW-5      Laboratory: Pace      Other: \_\_\_\_\_

Analyzed for: ~~TPH-G~~ ~~BTEX~~ ~~MYBE~~ ~~TPH-D~~ Other: \_\_\_\_\_

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

## BP WELL MONITORING DATA SHEET

Project #: <u>02015-50-1</u>	Station # <u>11107</u>
Sampler: <u>O'Bryan</u>	Date: <u>1/15/02</u>
Well I.D.: <u>MW-6</u>	Well Diameter: <u>3</u> 4 6 8
Total Well Depth: <u>24.90</u>	Depth to Water: <u>15.65</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:  Bailer      Sampling Method:  Bailer

Disposable Bailer       Disposable Bailer

Middleburg       Extraction Port

Electric Submersible      Other: \_\_\_\_\_

Extraction Pump

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

<u>1.5</u>	X	<u>3</u>	=	<u>4.5</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
1023	61.7	6.7	837	1.5	Turbid
1025	63.4	6.7	798	3	
1027	64.5	6.7	808	4.5	clearing

Did well dewater? Yes  No  Gallons actually evacuated: 4.5

Sampling Time: ~~1003~~ 1031      Sampling Date: 1/15/02

Sample I.D. (Blind): MW-6      Laboratory: Pace      Other: \_\_\_\_\_

Analyzed for:  TPH-g     BTEX     MPBE     TPH-D    Other: \_\_\_\_\_

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