



Scott T. Hooton  
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BP Oil Company  
Midwest Environmental Services  
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Bldg. 13, Suite N  
Renton, WA 98055

Switchboard: 425/251-0867  
Central Fax: 425/251-0738

December 13, 2000

Alameda County Health Care Services  
Agency  
1131 Harbor Bay Parkway, Room 250  
Alameda, CA 94502-6577

RE: Former BP Oil Site No. 11102  
100 McArthur Boulevard  
Oakland, CA

ENVIRONMENTAL  
PROTECTION  
00 DEC 19 PM 3:51

LOP 1108  
PH

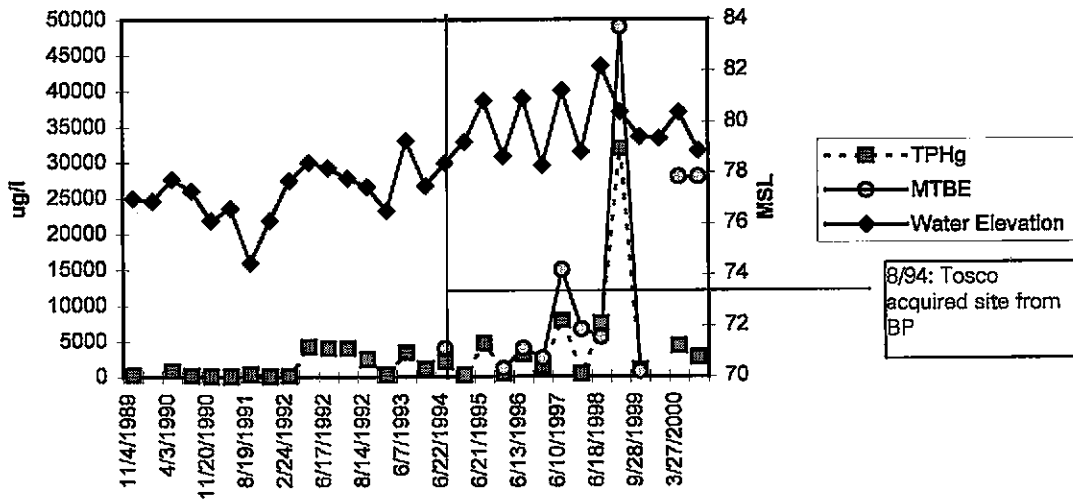
Direct: 425/251-0689  
Cell: 206/919-5029  
hootonst@bp.com  
www.bp.com

Dear Ladies and Gentlemen:

This transmits the 28 September 2000 *Third Quarter 2000 Groundwater Monitoring* report prepared by Blaine Tech Services on behalf of BP. The report summarizes chemical data obtained since 1989, including results for samples recently obtained on 28 September 2000.

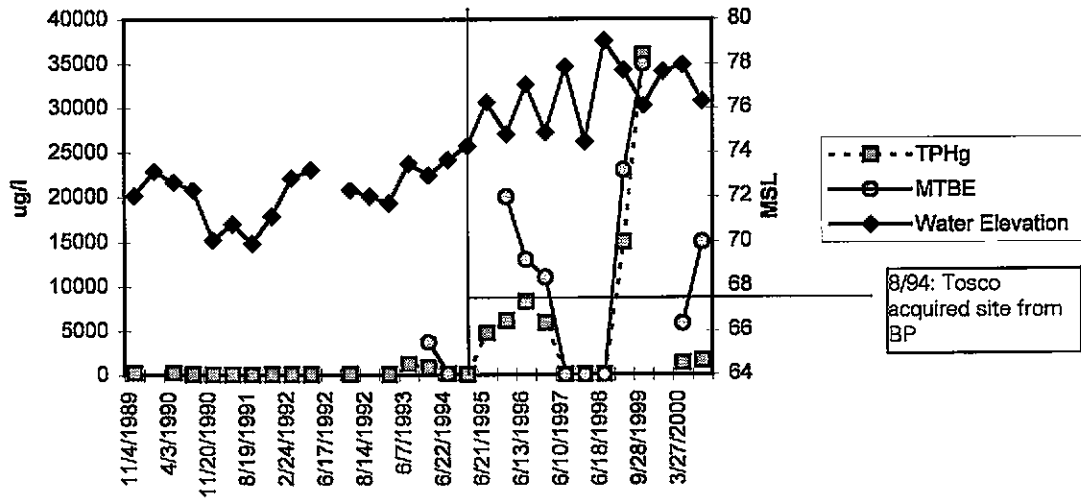
The report shows that aromatic hydrocarbons and MTBE were detected in samples obtained from all of the monitoring wells sampled on 28 September 2000, with the highest concentrations associated with wells MW-1 and MW-2. MTBE, TPHg and water elevation data for these wells is shown on the following graphs.

MW-1 TPHg, MTBE & Water Elevation



8/94: Tosco  
acquired site from  
BP

### MW-2 TPHg, MTBE & Water Elevation



Please give me a call at (425) 251-0689 if you have any questions or comments.

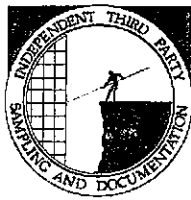
Sincerely,

  
Scott Footon

attachment

cc: site file  
David Camille - Tosco (w/attachment)

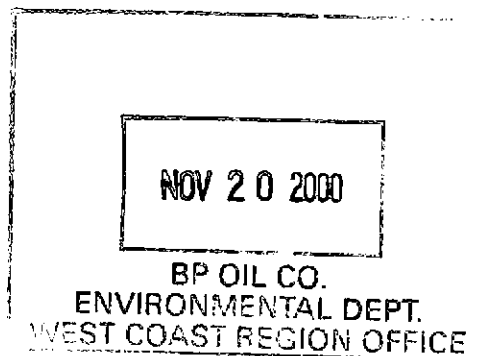
BLAINE  
TECH SERVICES INC.



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

November 15, 2000

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



### 3rd Quarter 2000 Monitoring at 11102

Third Quarter 2000 Groundwater Monitoring  
BP Service Station Number 11102  
100 MacArthur Blvd.  
Oakland, CA

Monitoring Performed on September 28, 2000

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### Groundwater Sampling Report 000928-Z-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.

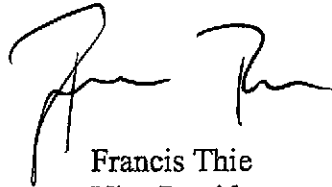
Basic field information is presented alongside analytical values excerpted from the laboratory report in the cumulative table of **WELL DATA AND ANALYTICAL RESULTS**. The full analytical report for the most recent samples is located in the **Analytical Appendix**. The **Professional Engineering Appendix** contains a **Groundwater Elevation Map** and a **Dissolved Petroleum Hydrocarbon Concentration Map**.

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,

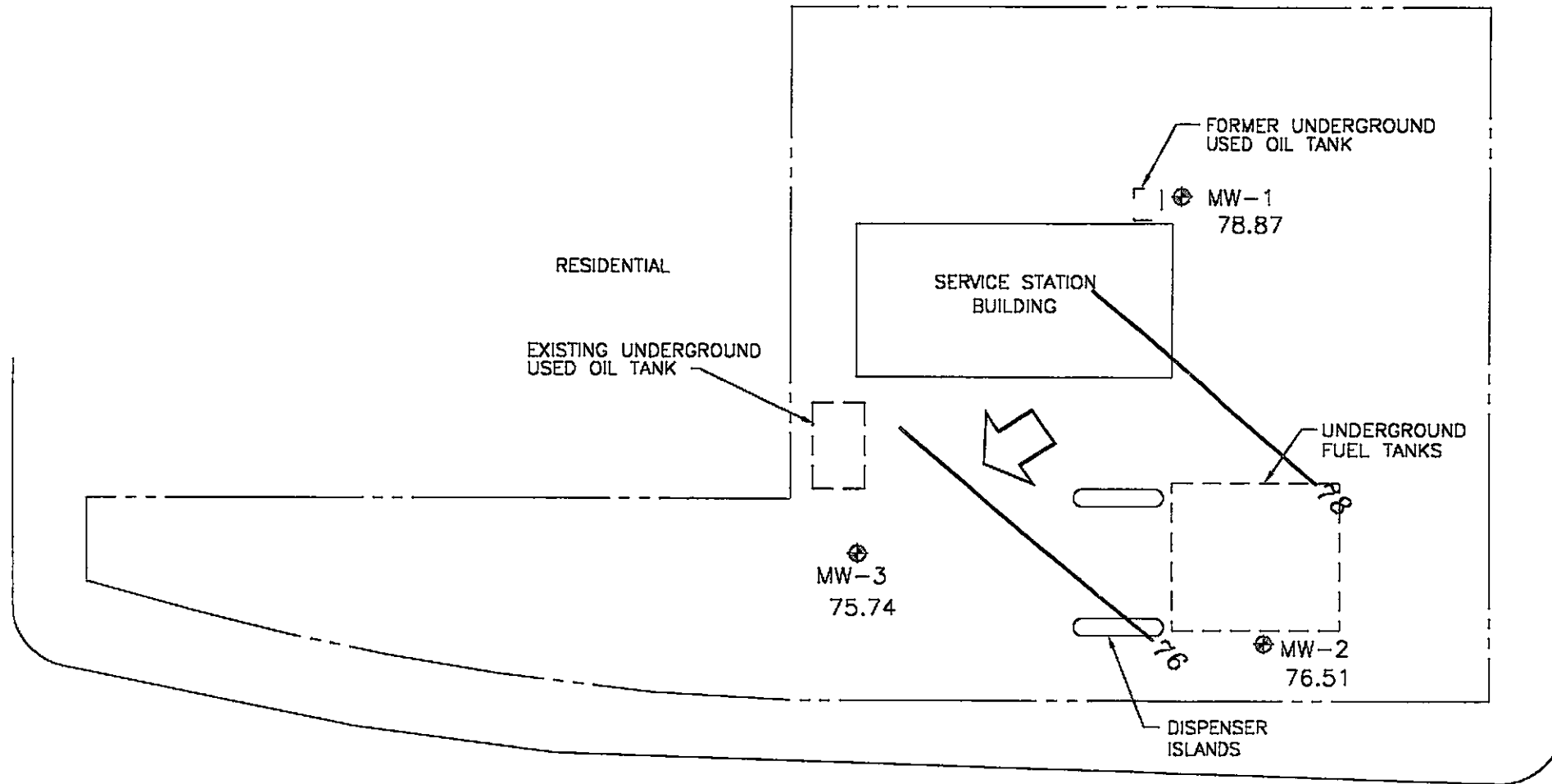
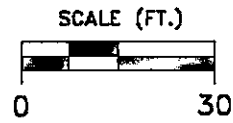
A handwritten signature in black ink, appearing to read 'Francis Thie', is written over a horizontal line.

Francis Thie  
Vice President

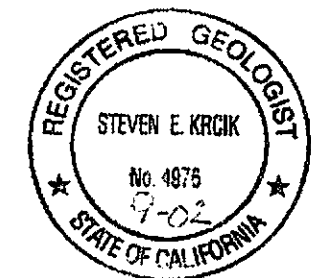
FPT/cm

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

# **Professional Engineering Appendix**



- EXPLANATION**
- ⊕ GROUNDWATER MONITORING WELL
  - 78.87 GROUNDWATER ELEVATION (FT, MSL)
  - 78— GROUNDWATER ELEVATION CONTOUR (FT, MSL)
  - ↗ APPROXIMATE GROUNDWATER FLOW DIRECTION;  
APPROXIMATE GRADIENT = 0.03



MACARTHUR BOULEVARD

OAKLAND AVENUE

PREPARED BY

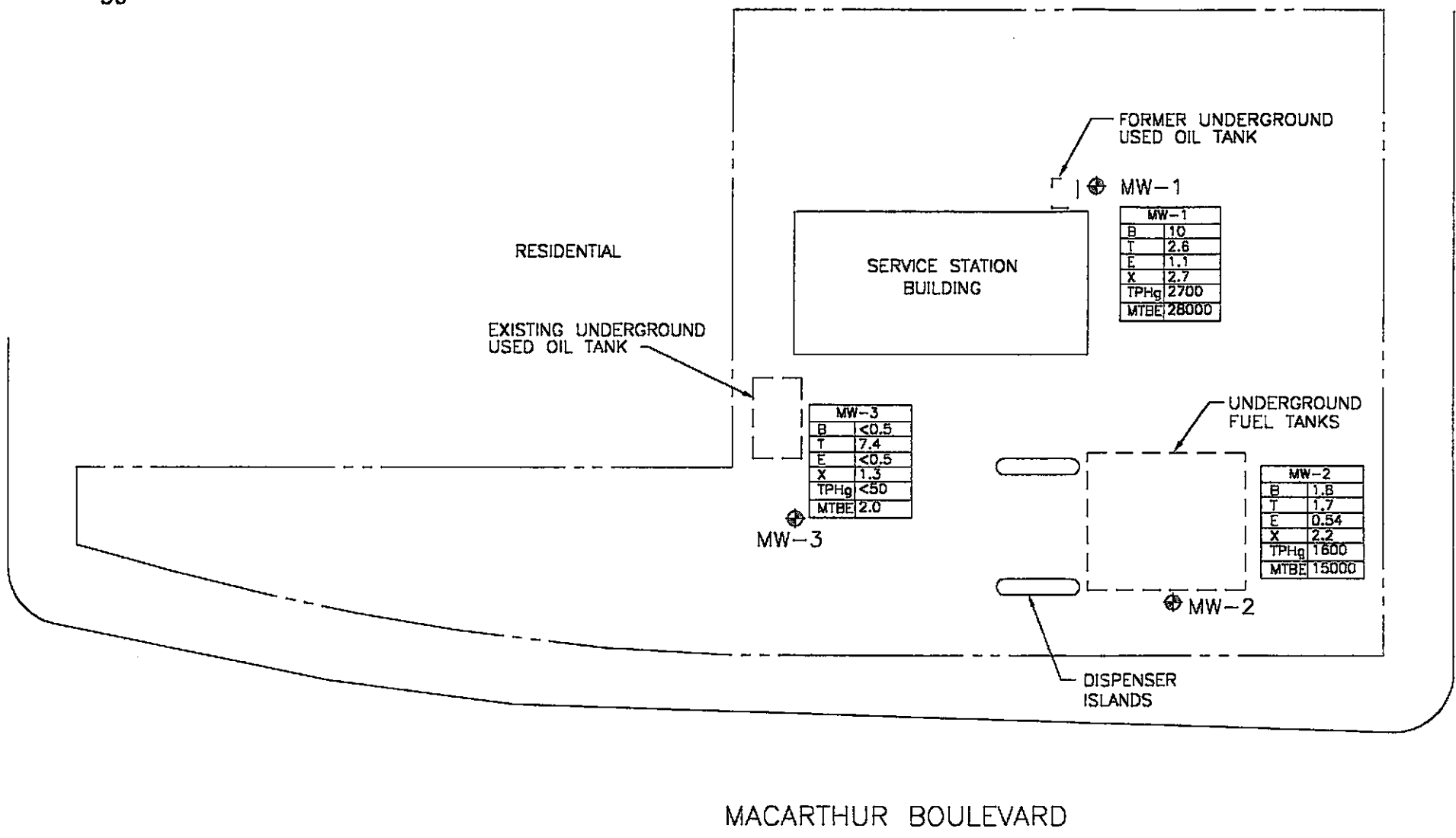
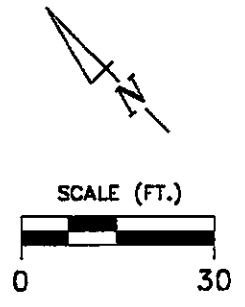
**RRM**  
engineering contracting firm

GROUNDWATER ELEVATION CONTOUR MAP,  
SEPTEMBER 28, 2000

BP Oil Service Station No. 11102  
100 MacArthur Boulevard  
Oakland, California

FIGURE:

**1**  
PROJECT:  
DAC04



- EXPLANATION**
- ⊕ GROUNDWATER MONITORING WELL
  - TPHg TOTAL PETROLEUM HYDROCARBON CALCULATED AS GASOLINE IN PARTS PER BILLION (ppb)
  - B BENZENE, ppb
  - T TOLUENE, ppb
  - E ETHYLBENZENE, ppb
  - X XYLENE, ppb
  - MTBE METHYL-TERT-BUTYL-ETHER, ppb
  - MTBE\* MTBE BY EPA 8260

MW-1

B	10
T	2.6
E	1.1
X	2.7
TPHg	2700
MTBE	28000

MW-3

B	<0.5
T	7.4
E	<0.5
X	1.3
TPHg	<50
MTBE	2.0

MW-2

B	1.8
T	1.7
E	0.54
X	2.2
TPHg	1600
MTBE	15000

# **Table of Well Data and Analytical Results**



TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER RESULTS

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (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-DCA (ug/l)	1,2-DCA (ug/l)	HVOC's (ug/l)	DO (ppm)	LAB
MW-1	11/04/89	90.20	13.21	76.99	ND<500	ND<50	3.4	0.6	ND<0.3	ND<0.3	--	ND<5000	--	0.9	--	--	SAL
MW-1	11/11/89	90.20	13.32	76.88	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	04/03/90	90.20	12.46	77.74	820	--	64	1.9	23	34	--	--	--	--	--	--	ANA
MW-1	07/30/90	90.20	12.92	77.28	190	ND<50	11	ND<5.0	ND<5.0	ND<5.0	--	ND<5000	--	ND	--	--	ANA
MW-1	11/20/90	90.20	14.08	76.12	50	79	2.4	ND<0.3	ND<0.3	ND<0.3	--	ND<5000	--	4.0	--	--	SAL
MW-1	03/01/91	90.20	13.61	76.59	ND<100	ND<100	0.9	ND<0.3	ND<0.3	0.3	--	14000	--	ND	--	--	SAL
MW-1	08/19/91	90.20	15.74	74.46	370	ND<50	35	0.73	6.4	5.6	--	ND<5000	--	1.4	--	--	SEQ
MW-1	11/13/91	90.20	14.08	76.12	60	ND<50	0.68	ND<0.3	ND<0.3	ND<0.3	--	ND<5000	--	1.0	--	--	SEQ
MW-1	02/24/92	90.20	12.52	77.68	140	100	3.9	0.66	1.2	3.8	--	ND<5000	--	1.7	--	--	SEQ
MW-1	05/19/92	90.20	11.8	78.40	4200	910	440	21	250	37	--	ND<5000	--	ND	--	--	SEQ
MW-1	06/17/92	90.20	12.01	78.19	4000	560	350	14	150	17	--	ND<5000	--	ND	--	--	SEQ
MW-1	07/22/92	90.20	12.42	77.78	4000	--	ND<5.0	19	210	61	--	--	--	--	--	--	ANA
MW-1	08/14/92	90.20	12.75	77.45	2400	1700	330	20	150	47	--	ND<5000	--	ND<2.5	--	--	SEQ
MW-1	11/11/92	90.20	13.69	76.51	260	92	30	3.4	7.6	6.8	--	ND<5000	--	ND<2.5	--	--	ANA
MW-1	06/07/93	90.20	10.93	79.27	3400	440	98	11	21	7.6	--	--	6.2	0.9	--	--	PACE
QC-1 (c)	06/07/93	--	--	--	3700	--	120	12	26	9.5	--	--	--	--	--	--	PACE
MW-1	12/02/93	90.20	12.72	77.48	1100	120	8.3	3.6	0.6	1.5	--	ND<5000	2.6	1.8	--	--	PACE
MW-1	06/22/94	90.20	11.81	78.39	2100	ND<50	32	3.8	2.2	17	4000 (d)	ND<5000	2.3	3.3	--	3.2	PACE
QC-1 (c)	06/22/94	--	--	--	2100	--	30	3.2	2.0	15	2000 (d)	--	--	--	--	--	PACE
MW-1	01/10/95	90.20	10.97	79.23	ND<500	420	120	ND<5	ND<5	ND<10	--	--	ND<1	1	--	3.9	ATI
QC-1 (c)	01/10/95	--	--	--	ND<500	--	120	ND<5	5	ND<10	--	--	--	--	--	--	ATI
MW-1	06/21/95	90.20	9.38	80.82	4700	1300	16	ND<5.0	ND<5.0	ND<10	--	2900	2.0	0.38	0.6 (e)	6.7	ATI
QC-1 (c)	06/21/95	--	--	--	3600	--	ND<13	ND<5.0	ND<5.0	ND<10	--	--	--	--	--	--	ATI
MW-1	12/27/95	90.20	11.55	78.65	430	2100	ND<2.5	ND<2.5	ND<2.5	ND<5.0	1200	640	0.67	ND<0.20	--	6.3	ATI
MW-1	06/13/96	90.20	9.28	80.92	3200	920	51	ND<12	ND<12	ND<12	4000	2000	--	--	--	6.3	SPL
MW-1	12/04/96	90.20	11.91	78.29	1400	280	6.2	ND<5	ND<5	ND<5	2600	2000	ND<5.0	ND<5.0	6.0 (f)	6.7	SPL
MW-1	06/10/97	90.20	8.97	81.23	7900	1700	12	ND<10	ND<10	ND<10	15000	ND<5	ND<250	ND<250	ND	6.0	SPL
QC-1 (c)	06/10/97	--	--	--	7700	--	14	ND<25	ND<25	ND<25	13000	--	--	--	--	--	SPL
MW-1	12/12/97	90.20	11.37	78.83	440	760	8.8	ND<1.0	2.6	9.4	6700	1200	ND<1.0	ND<1.0	ND	5.5	SPL
MW-1	06/18/98	90.20	8.02	82.18	7500	2900	ND<2.5	ND<5.0	ND<5.0	ND<5.0	5600	ND<5	ND<5.0	ND<5.0	ND	4.9	SPL
MW-1	03/09/99	90.20	9.80	80.40	32000	--	100	16	72	110	49000	--	--	--	--	--	SPL
MW-1	09/28/99	90.20	10.78	79.42	1000	--	ND<5.0	ND<5.0	ND<5.0	ND<5.0	730	--	ND<1.0	ND<1.0	ND<1.0	--	SPL
MW-1	10/14/99	90.20	10.84	79.36	--	660	--	--	--	--	--	--	--	--	--	--	SPL
MW-1	03/27/00	90.20	9.83	80.37	4300	--	160	19	37	43	28000	--	--	ND<500	--	--	PACE
MW-1	09/28/00	90.20	11.33	78.87	2700	--	10	2.6	1.1	2.7	28000	--	--	--	--	--	PACE

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER RESULTS

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (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-DCA (ug/l)	1,2-DCA (ug/l)	HVOC's (ug/l)	DO (ppm)	LAB
MW-2	11/04/89	87.91	15.84	72.07	ND<500	---	6.5	ND<0.3	ND<0.3	ND<0.3	---	---	---	---	---	---	SAL
MW-2	11/11/89	87.91	14.75	73.16	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-2	04/03/90	87.91	15.25	72.66	ND<500	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	---	ANA
MW-2	07/30/90	87.91	15.59	72.32	61	---	6.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	---	ANA
MW-2	11/20/90	87.91	17.81	70.10	ND<50	---	0.3	ND<0.3	ND<0.3	ND<0.3	---	---	---	---	---	---	SAL
MW-2	03/01/91	87.91	17.11	70.80	ND<100	---	0.4	ND<0.3	ND<0.3	ND<0.3	---	---	---	4.0	---	---	SAL
MW-2	08/19/91	87.91	17.97	69.94	ND<30	---	ND<0.3	ND<0.3	ND<0.3	ND<0.3	---	---	---	---	---	---	SEQ
MW-2	11/13/91	87.91	16.76	71.15	38	---	0.32	ND<0.3	ND<0.3	ND<0.3	---	---	---	---	---	---	SEQ
MW-2	02/24/92	87.91	15.07	72.84	ND<50	---	ND<0.5	ND<0.5	ND<0.5	0.58	---	---	---	16	---	---	SEQ
MW-2	05/19/92	87.91	14.7	73.21	ND<50	---	0.55	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	---	SEQ
MW-2	07/22/92	87.91	15.6	72.31	90	---	1.3	0.6	0.9	1.9	---	---	---	---	---	---	ANA
MW-2	08/14/92	87.91	15.88	72.03	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-2	11/11/92	87.91	16.19	71.72	52	---	2.8	ND<0.5	ND<0.5	0.9	---	---	---	---	---	---	ANA
QC-1 (c)	11/11/92	---	---	---	65	---	3.2	ND<0.5	ND<0.5	1.0	---	---	---	---	---	---	ANA
MW-2	06/07/93	87.91	14.42	73.49	1200	---	14	2.8	1.9	1.7	---	---	---	---	---	---	PAGE
MW-2	12/02/93	87.91	14.94	72.97	790	---	3.4	0.5	10	ND<0.5	3700 (d)	---	---	---	---	---	PAGE
QC-1 (c)	12/02/93	---	---	---	2100	---	32	3.8	2.2	17	3700 (d)	---	2.3	---	---	---	PAGE
MW-2	06/22/94	87.91	14.25	73.66	110	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	120 (d)	---	---	---	---	3.9	PAGE
MW-2	01/10/95	87.91	13.64	74.27	ND<50	---	ND<0.5	ND<0.5	0.6	1	---	---	---	---	---	4.3	ATI
MW-2	06/21/95	87.91	11.66	76.25	4700	---	ND<10	ND<10	ND<10	ND<20	---	---	---	---	---	7.8	ATI
MW-2	12/27/95	87.91	13.11	74.80	6100	---	ND<25	ND<25	ND<25	ND<50	20000	---	---	---	---	6.7	ATI
QC-1 (c)	12/27/95	---	---	---	6300	---	ND<25	ND<25	ND<25	ND<50	19000	---	---	---	---	---	ATI
MW-2	06/13/96	87.91	10.86	77.05	8300	---	ND<2.5	ND<2.5	ND<2.5	ND<2.5	13000	---	---	---	---	6.5	SPL
QC-1 (c)	06/13/96	---	---	---	8700	---	ND<5	ND<5	ND<5	ND<5	13000	---	---	---	---	---	SPL
MW-2	12/04/96	87.91	13.03	74.88	5900	---	ND<2.5	ND<5	ND<5	ND<5	11000	---	---	---	---	6.3	SPL
QC-1 (c)	12/04/96	---	---	---	5900	---	ND<2.5	ND<5	ND<5	ND<5	11000	---	---	---	---	---	SPL
MW-2	06/10/97	87.91	10.04	77.87	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---	---	---	5.8	SPL
MW-2	12/12/97	87.91	12.44	75.47	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---	---	---	5.7	SPL
MW-2	06/18/98	87.91	8.89	79.02	50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---	---	---	5.3	SPL
QC-1 (c)	06/18/98	---	---	---	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---	---	---	---	SPL
MW-2	03/09/99	87.91	10.20	77.71	15000	---	ND<5.0	ND<5.0	ND<5.0	ND<5.0	23000	---	---	---	---	---	SPL
MW-2	09/28/99	87.91	11.81	76.10	36000	---	ND<5.0	12	7.0	26	35000	---	ND<5.0	7.7	ND<5.0	---	SPL
MW-2	10/14/99	87.91	10.27	77.64	---	100	---	---	---	---	---	---	---	---	---	---	SPL
MW-2	03/27/00	87.91	9.98	77.93	1300	---	ND<0.5	ND<0.5	0.51	ND<0.5	5800	---	---	ND<100	---	---	PAGE
MW-2	09/28/00	87.91	11.40	76.51	1600	---	1.8	1.7	0.54	2.2	15000	---	---	---	---	---	PAGE

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER RESULTS

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (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-DCA (ug/l)	1,2-DCA (ug/l)	HVOC's (ug/l)	DO (ppm)	LAB
MW-3	11/04/89	87.02	15.4	71.62	ND<500	---	ND<0.3	ND<0.3	ND<0.3	ND<0.3	---	---	---	---	---	---	SAL
MW-3	11/11/89	87.02	14.1	72.92	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	04/03/90	87.02	13.90	73.12	ND<100	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	---	ANA
MW-3	07/30/90	87.02	13.77	73.25	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	ND<5000	---	---	---	---	ANA
MW-3	11/20/90	87.02	14.67	72.35	ND<50	---	0.3	0.8	0.4	1.5	---	---	---	---	---	---	SAL
MW-3	03/01/91	87.02	15.22	71.80	ND<100	---	0.4	ND<0.3	ND<0.3	ND<0.3	---	---	---	ND	---	---	SAL
MW-3	08/19/91	87.02	13.15	73.87	ND<30	---	ND<0.3	ND<0.3	ND<0.3	ND<0.3	---	---	---	---	---	---	SEQ
MW-3	11/13/91	87.02	15.66	71.36	ND<30	---	ND<0.3	ND<0.3	ND<0.3	ND<0.3	---	---	---	---	---	---	SEQ
MW-3	02/24/92	87.02	15.01	72.01	ND<50	---	0.65	1.4	0.66	4.4	---	---	---	ND	---	---	SEQ
MW-3	05/19/92	87.02	15.52	71.50	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	---	SEQ
MW-3	07/22/92	87.02	15.63	71.39	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	ND<5000	---	ND<0.50	---	---	ANA
MW-3	08/14/92	87.02	13.57	73.45	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	11/11/92	87.02	14.13	72.89	ND<50	---	ND<0.5	0.7	ND<0.5	1.3	---	---	---	---	---	---	ANA
MW-3	06/07/93	87.02	12.13	74.89	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	---	PACE
MW-3	12/02/93	87.02	13.29	73.73	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	---	PACE
MW-3	06/22/94	87.02	12.78	74.24	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	---	2.9 PACE
MW-3	01/10/95	87.02	12.01	75.01	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<1	---	---	---	1	---	---	3.8 ATI
MW-3	06/21/95	87.02	11.57	75.45	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	---	---	---	---	7.4 ATI
MW-3	12/27/95	87.02	13.47	73.55	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	5.7	---	---	---	---	---	7.3 ATI
MW-3	06/13/96	87.02	11.22	75.80	60	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<10	---	---	---	---	---	6.8 SPL
MW-3	12/04/96	87.02	13.28	73.74	ND<50	---	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	---	---	---	---	6.7 SPL
MW-3	06/10/97	87.02	10.22	76.80	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---	---	---	---	6.1 SPL
MW-3	12/12/97	87.02	12.61	74.41	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---	---	---	---	5.6 SPL
QC-1 (c)	12/12/97	---	---	---	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---	---	---	---	---
MW-3	06/18/98	87.02	9.07	77.95	50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---	---	---	---	5.3 SPL
MW-3	06/18/98	87.02	12.80	74.22	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	09/28/99	87.02	13.76	73.26	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	03/27/00	87.02	13.77	73.25	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.6	---	---	---	---	---	PACE
MW-3	09/28/00	87.02	11.28	75.74	ND<50	---	ND<0.5	7.4	ND<0.5	1.3	2.0	---	---	---	---	---	PACE
QC-2 (g)	11/11/92	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	---	ANA
QC-2 (g)	06/07/93	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	---	PACE
QC-2 (g)	12/02/93	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	---	PACE
QC-2 (g)	06/22/94	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	---	PACE
QC-2 (g)	01/10/95	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<1	---	---	---	---	---	---	ATI
QC-2 (g)	06/21/95	---	---	---	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	---	---	---	---	ATI
QC-2 (g)	12/27/95	---	---	---	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	---	---	---	---	ATI
QC-2 (g)	06/13/96	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<10	---	---	---	---	---	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER RESULTS

ADDITIONAL ANALYSES

Well ID	DATE OF SAMPLING/ MONITORING	MTBE (ug/l)	DIPE (ug/l)	ETBE (ug/l)	TAME (ug/l)	1,2-DBA (ug/l)
MW-1	03/27/00	26000	ND<500	ND<500	ND<500	ND<500
MW-2	03/27/00	6000	ND<100	ND<100	190	ND<100

ABBREVIATIONS:

TPH-G	Total petroleum hydrocarbons as gasoline	(a)	Top of casing elevations surveyed to the nearest 0.01 foot above mean sea level.
TPH-D	Total petroleum hydrocarbons as diesel	(b)	Groundwater elevations in feet above mean sea level.
B	Benzene	(c)	Blind duplicate.
T	Toluene	(d)	A copy of the documentation for this data is included in Appendix C of Alisto report 10-076-06-002.
E	Ethylbenzene	(e)	Tetrachloroethene.
X	Total xylenes	(f)	Trans-1,2-Dichloroethene
TOG	Total oil and grease	(g)	Travel blank.
1,1-DCA	1,1-Dichloroethane		
1,2-DCA	1,2-Dichloroethane		
1,2-DBA	1,2-Dibromoethane		
HVOC's	Halogenated volatile organic compounds		
MTBE	Methyl tert butyl ether		
DIPE	Di-Isopropyl Ether		
ETBE	Ethyl t-Butyl Ether		
TAME	t-Amyl Methyl Ether		
DO	Dissolved oxygen		
ug/l	Micrograms per liter		
ppm	Parts per million		
ND	Not detected above reported detection limit		
---	Not analyzed/measured/applicable		
SAL	Superior Analytical Laboratory		
ANA	Anametrix, Inc.		
SEQ	Sequoia Analytical Laboratory		
PACE	Pace, Inc.		
ATI	Analytical Technologies, Inc.		
SPL	Southern Petroleum Laboratories		

# Analytical Appendix



**Pace Analytical Services, Inc.**  
3970 Gilman Street  
Long Beach, CA 90815  
Phone: 562.498.9515  
Fax: 562.597.0786

October 16, 2000

Mr. MORGAN HARGRAVE  
BLAINE TECH SERVICES, INC.  
1680 ROGERS AVE.  
SAN JOSE, CA 95112

RE: Pace Project Number: 6045363  
Client Project ID: BP 11102

Dear Mr. HARGRAVE:

Enclosed are the analytical results for sample(s) received by the laboratory on October 3, 2000. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Lily Bayati  
Project Manager

Enclosures

## **REPORT OF LABORATORY ANALYSIS**

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**Pace Analytical Services, Inc.**  
 3970 Gilman Street  
 Long Beach, CA 90815  
 Phone: 562.498.9515  
 Fax: 562.597.0786

DATE: 10/16/00  
 PAGE: 1

BLAINE TECH SERVICES, INC.  
 1680 ROGERS AVE.  
 SAN JOSE, CA 95112

Pace Project Number: 6045363  
 Client Project ID: BP 11102

Attn: Mr. MORGAN HARGRAVE  
 Phone: (408)573-0555 x218

Solid results are reported on a wet weight basis

Pace Sample No:	603866716	Date Collected:	09/28/00	Matrix:	Water
Client Sample ID:	A	Date Received:	10/03/00		

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
------------	---------	-------	-----	----------	---------	------	-----------

Long Beach Lab

GAS BTEX by 8015, Water		Method: EPA 8015/8020 Modif			Prep Method: EPA 8015/8020 Modif		
Gasoline	ND	ug/l	50	10/07/00	VN		
Benzene	ND	ug/l	0.5	10/07/00	VN	71-43-2	
Toluene	7.4	ug/l	0.5	10/07/00	VN	108-88-3	
Ethylbenzene	ND	ug/l	0.5	10/07/00	VN	100-41-4	
Methyl-tert-butyl Ether	2.0	ug/l	0.5	10/07/00	VN	1634-04-4	
Xylene (Total)	1.3	ug/l	0.5	10/07/00	VN	1330-20-7	
a,a,a-Trifluorotoluene (S)	126	%		10/07/00	VN	2164-17-2	

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DATE: 10/16/00  
 PAGE: 2

Pace Project Number: 6045363  
 Client Project ID: BP 11102

Pace Sample No: 603866724 Date Collected: 09/28/00 Matrix: Water  
 Client Sample ID: B Date Received: 10/03/00

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
------------	---------	-------	-----	----------	---------	------	-----------

Long Beach Lab

GAS BTEX by 8015, Water		Method: EPA 8015/8020 Modif			Prep Method: EPA 8015/8020 Modif		
Gasoline	1600	ug/l	50	10/07/00	VN		
Benzene	1.8	ug/l	0.5	10/07/00	VN	71-43-2	
Toluene	1.7	ug/l	0.5	10/07/00	VN	108-88-3	
Ethylbenzene	0.54	ug/l	0.5	10/07/00	VN	100-41-4	
Methyl-tert-butyl Ether	15000	ug/l	150	10/07/00	VN	1634-04-4	
Xylene (Total)	2.2	ug/l	0.5	10/07/00	VN	1330-20-7	
a,a,a-Trifluorotoluene (S)	116	%		10/07/00	VN	2164-17-2	

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 Fax: 562.597.0786

DATE: 10/16/00  
 PAGE: 3

Pace Project Number: 6045363  
 Client Project ID: BP 11102

Pace Sample No: 603866732 Date Collected: 09/28/00 Matrix: Water  
 Client Sample ID: C Date Received: 10/03/00

Parameters	Results	Units	PRL	Analyzed	Analyst	CAS#	Footnotes
------------	---------	-------	-----	----------	---------	------	-----------

Long Beach Lab

GAS BTEX by 8015, Water		Method: EPA 8015/8020 Modif			Prep Method: EPA 8015/8020 Modif		
Gasoline	2700	ug/l	50	10/07/00	VN		
Benzene	10	ug/l	0.5	10/07/00	VN	71-43-2	
Toluene	2.6	ug/l	0.5	10/07/00	VN	108-88-3	
Ethylbenzene	1.1	ug/l	0.5	10/07/00	VN	100-41-4	
Methyl-tert-butyl Ether	28000	ug/l	75	10/07/00	VN	1634-04-4	
Xylene (Total)	2.7	ug/l	0.5	10/07/00	VN	1330-20-7	
a,a,a-Trifluorotoluene (S)	186	%		10/07/00	VN	2164-17-2	1

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3970 Gilman Street  
Long Beach, CA 90815

Phone: 562.498.9515  
Fax: 562.597.0786

DATE: 10/16/00

PAGE: 4

Pace Project Number: 6045363

Client Project ID: BP 11102

---

PARAMETER FOOTNOTES

ND Not Detected  
NC Not Calculable  
PRL Pace Reporting Limit  
(S) Surrogate  
[1] Matrix Effect

## **REPORT OF LABORATORY ANALYSIS**

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**Pace Analytical Services, Inc.**  
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 Long Beach, CA 90815  
 Phone: 562.498.9515  
 Fax: 562.597.0786

QUALITY CONTROL DATA

DATE: 10/16/00  
 PAGE: 5

BLAINE TECH SERVICES, INC.  
 1680 ROGERS AVE.  
 SAN JOSE, CA 95112

Pace Project Number: 6045363  
 Client Project ID: BP 11102

Attn: Mr. MORGAN HARGRAVE  
 Phone: (408)573-0555 x218

QC Batch ID: 92033                      QC Batch Method: EPA 8015/8020 Modif  
 Analysis Method: EPA 8015/8020 Modif      Analysis Description: GAS BTEX by 8015, Water  
 Associated Pace Samples:              603866716      603866724      603866732

METHOD BLANK: 603877960  
 Associated Pace Samples:

Parameter	Units	603866716	603866724	603866732	Footnotes
			Method Blank Result	PRL	
Gasoline	ug/l		ND	12	
Benzene	ug/l		ND	0.05	
Toluene	ug/l		ND	0.05	
Ethylbenzene	ug/l		ND	0.05	
Methyl-tert-butyl Ether	ug/l		ND	0.05	
Xylene (Total)	ug/l		ND	0.05	
a.a.a-Trifluorotoluene (S)	%		120		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 603877978 603877986

Parameter	Units	603866682		Matrix	Matrix	Spike	RPD	Footnotes
		Conc.	Spike	Spike	Sp. Dup.	Dup		
			Conc.	Result	% Rec	Result	% Rec	
Gasoline	ug/l	0	40	38.90	97.3	38.70	96.8	1
Benzene	ug/l	0	6.667	6.850	103	6.890	103	1
Toluene	ug/l	0	6.667	6.760	101	6.860	103	1
Ethylbenzene	ug/l	0	6.667	6.963	104	7.050	106	1
Methyl-tert-butyl Ether	ug/l	0.4778	6.667	7.890	111	8.190	116	4
Xylene (Total)	ug/l	0	20	20.34	102	20.49	102	1
a.a.a-Trifluorotoluene (S)					111		114	

**REPORT OF LABORATORY ANALYSIS**

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**Pace Analytical Services, Inc.**

3970 Gilman Street  
Long Beach, CA 90815

Phone: 562.498.9515  
Fax: 562.597.0786

DATE: 10/16/00

PAGE: 6

Pace Project Number: 6045363

Client Project ID: BP 11102

---

QUALITY CONTROL DATA PARAMETER FOOTNOTES

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

ND Not Detected  
NC Not Calculable  
PRL Pace Reporting Limit  
RPD Relative Percent Difference  
(S) Surrogate

## **REPORT OF LABORATORY ANALYSIS**

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# CHAIN OF CUSTODY

17121A 604 5363

Page 1 of 1

CONSULTANT'S NAME Blaine Tech Services, Inc.		CONSULTANT'S ADDRESS 1680 Rogers Ave., San Jose CA 95112	
BP SITE NUMBER 11102	BP SITE / FACILITY ADDRESS 100 MacArthur Blvd., Oakland		
CONSULTANT PROJECT MANAGER Morgan Hargrave	PHONE NUMBER (408) 573-0555 x 218	FAX NUMBER (408) 573-7771	CONSULTANT PROJECT NUMBER 000928-21
BP CONTACT Scott Hooton	BP ADDRESS 295 SW 41st Street, Suite N, Renton WA	PHONE NUMBER (425) 251-0689	CONSULTANT CONTRACT NUMBER J264047
LAD CONTACT Pace - Lily Bayati	LABORATORY ADDRESS 3970 Gilman Street, Long Beach, CA	PHONE NUMBER (562) 498-9515	FAX NO. (425) 251-0736
BP CONTACT REQUESTING RUSH TAT (Print BP Contact Name)	RUSH REQUESTED OF (Print Consultant Contact Name)	DATE/TIME	SHIPMENT DATE

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

### ANALYSIS REQUIRED

SHIPMENT METHOD  
Airborn

AIRBILL NUMBER  
3361332155

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 #																
A	9-28-00	953	W	3	VOA		X															
B	9-28-00	1015	W	3	VOA		X															
C	9-28-00	1039	W	3	VOA		X															

SAMPLED BY (Please Print Name) AIDAN METZGER			SAMPLED BY (Signature) <i>Aidan Metzger</i>				ADDITIONAL COMMENTS 4.8°C			
RELINQUISHED BY / AFFILIATION (Print Name / Signature)	DATE	TIME	ACCEPTED BY / AFFILIATION (Print Name / Signature)		DATE	TIME				
AIDAN METZGER <i>Aidan Metzger</i>	9-29-00	1:00	NJSK		10/8/00	12:00				

# Field Data Sheets



## BP WELL MONITORING DATA SHEET

Project #: <u>000928-Z1</u>	Station # <u>11102</u>
Sampler: <u>Aidan M</u>	Date: <u>9-28-00</u>
Well I.D.: <u>MW-1</u>	Well Diameter: 2 3 <u>4</u> 6 8 _____
Total Well Depth: <u>32.00</u>	Depth to Water: <u>11.33</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
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius <sup>2</sup> * 0.163

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

<u>13.4</u>	x	<u>3</u>	=	<u>40.2</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
<u>1029</u>	<u>68.6</u>	<u>6.7</u>	<u>775</u>	<u>14</u>	
<u>1031</u>	<u>67.8</u>	<u>6.7</u>	<u>789</u>	<u>27</u>	
<u>1034</u>	<u>68.5</u>	<u>6.8</u>	<u>815</u>	<u>40</u>	

Did well dewater? Yes <u>No</u>	Gallons actually evacuated: <u>40</u>
Sampling Time: <u>1039</u>	Sampling Date: <u>9-28-00</u>
Sample I.D. (Blind): <u>C</u>	Laboratory: <u>Pace</u> Other _____
Analyzed for: <u>TPH-G</u> <u>BTEX</u> <u>MTBE</u> 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 #: <b>000928-Z1</b>	Station # <b>11102</b>
Sampler: <b>Aidan M</b>	Date: <b>9-28-00</b>
Well I.D.: <b>MW-3</b>	Well Diameter: 2 3 <b>4</b> 6 8 _____
Total Well Depth: <b>32.55</b>	Depth to Water: <b>11.28</b>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <b>PVC</b> Grade	D.O. Meter (if req'd): YSI HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	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: \_\_\_\_\_

<b>13.8</b>	x	<b>3</b>	=	<b>41.4</b>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Gals. Removed	Observations
945	69.4	7.0	905	14	
947	69.2	7.0	996	28	
950	69.2	7.1	957	42	

Did well dewater? Yes  **No**      Gallons actually evacuated: **42**  
 Sampling Time: **953**      Sampling Date: **9-28-00**  
 Sample I.D. (Blind): **A**      Laboratory: **Pace**      Other: \_\_\_\_\_

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

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