

1) Used to show stable plan
very near further investigation
2) CUST
3) CUP
4) Determine if any downgradient
injection (by injection or supply
well)
MTBE plume has been defined.

S. T. Hooton
Team Leader
Environmental Remediation Management



BP OIL

BP Exploration & Oil Inc.
295 SW 41st Street, Bldg., 13, STE N
Renton, WA 98055-4931
Phone: 425-251-0689
Fax: 425-251-0736

October 11, 1999

Alameda County Health Care Services Agency
Attention Mr. Larry Seto - Sr. Hazardous Materials Specialist
1131 Harbor Bay Parkway, STE 250
Alameda, CA 94502-6577

STED 10/1

RE: Former BP Oil Site No. 11270
3255 McCartney Road (at Island)
Alameda, CA

99 OCT 18 PM 4: 52
ENVIRONMENTAL
PROTECTION

Dear Mr. Seto:

Enclosed find the 30 September 1999 *Third Quarter 1999 Groundwater Monitoring* report prepared on behalf of BP by Blaine Tech Services. **BP sold this site to the current operator, Tosco, in 1994.** The report summarizes chemical data obtained since 1992, including results associated with samples obtained on 29 July 1999.

The Alameda County Health Care Services Agency previously raised concerns regarding **MTBE concentrations in wells MW-6, MW-7, and XW-3.** Attached find a graphical representation of the groundwater data. You may note that MTBE concentrations and water elevations show little -- if any -- correlation. The highest reported MTBE concentration associated with samples obtained on 29 July 1999 is 200 ug/l detected in a sample obtained from well MW-7.

You should also note that the monitoring wells have been previously sampled for total dissolved solids (TDS). I believe that you can agree that the TDS concentrations show that groundwater in the vicinity of the site should not be considered to be of present or future beneficial use. You will note that the averaged TDS concentrations (including upgradient well XW-1) are over two times higher than the 3,000 mg/l TDS ceiling that defines a present or future beneficial use aquifer. It seems reasonable, then, to conclude that the petroleum release at this site has not affected groundwater with a present or future beneficial use.

The UST system at site was upgraded by Tosco last year. Since MTBE concentration data obtained since that time shows lower concentrations, a finding for "no further action" and "case closure" seems consistent with water quality objectives in the basin plan. If, on the other hand, the ACHSA finds that further activities are warranted, please let me know. This information is relevant to BP's efforts to reconcile contractual issues

with the current operator.

Please contact me at (425) 251-0689 if you have questions.

Sincerely,

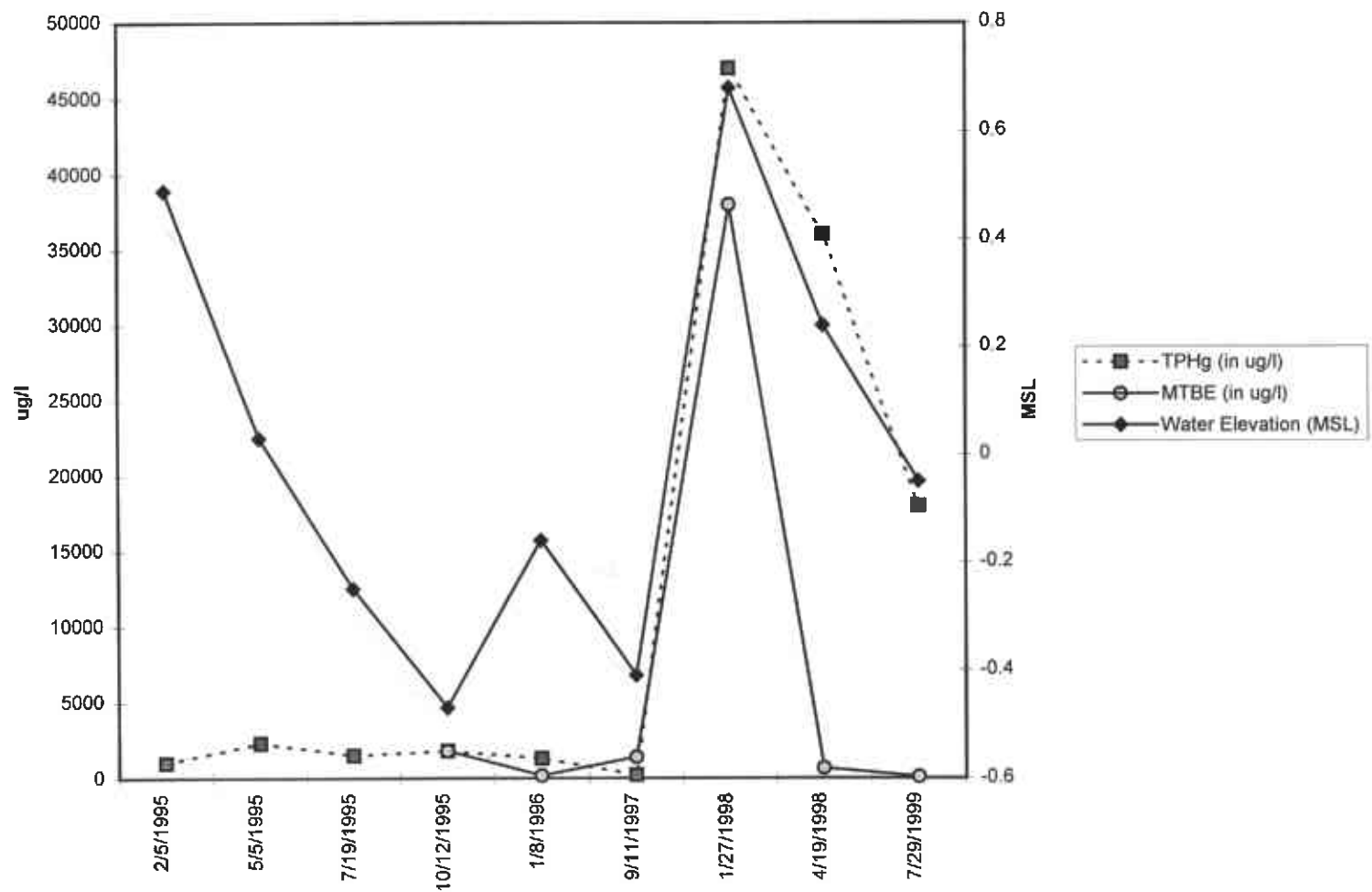


Scott Hooton

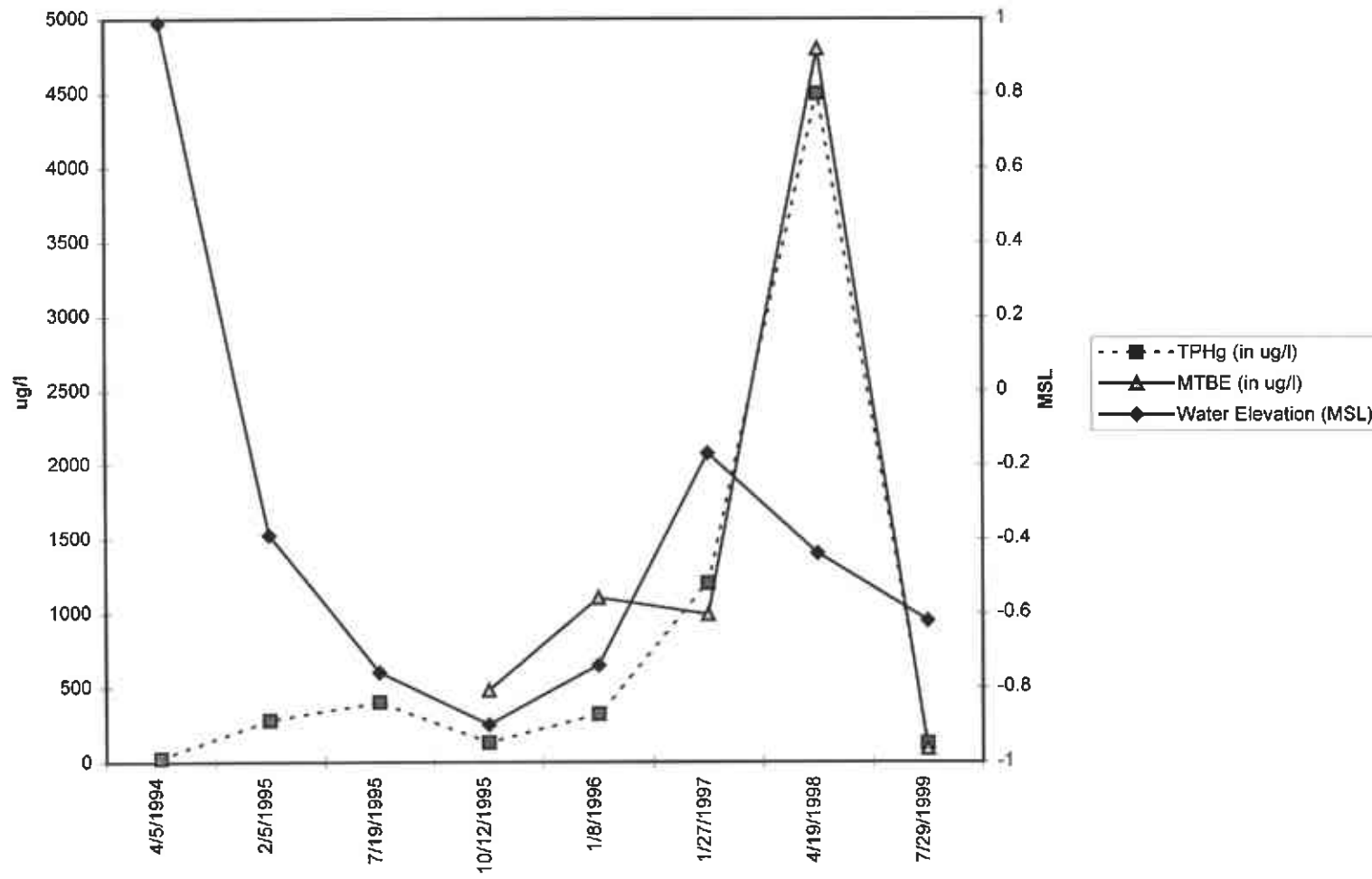
attachments

cc: site file
D. Camille - Tosco (w/attachments)

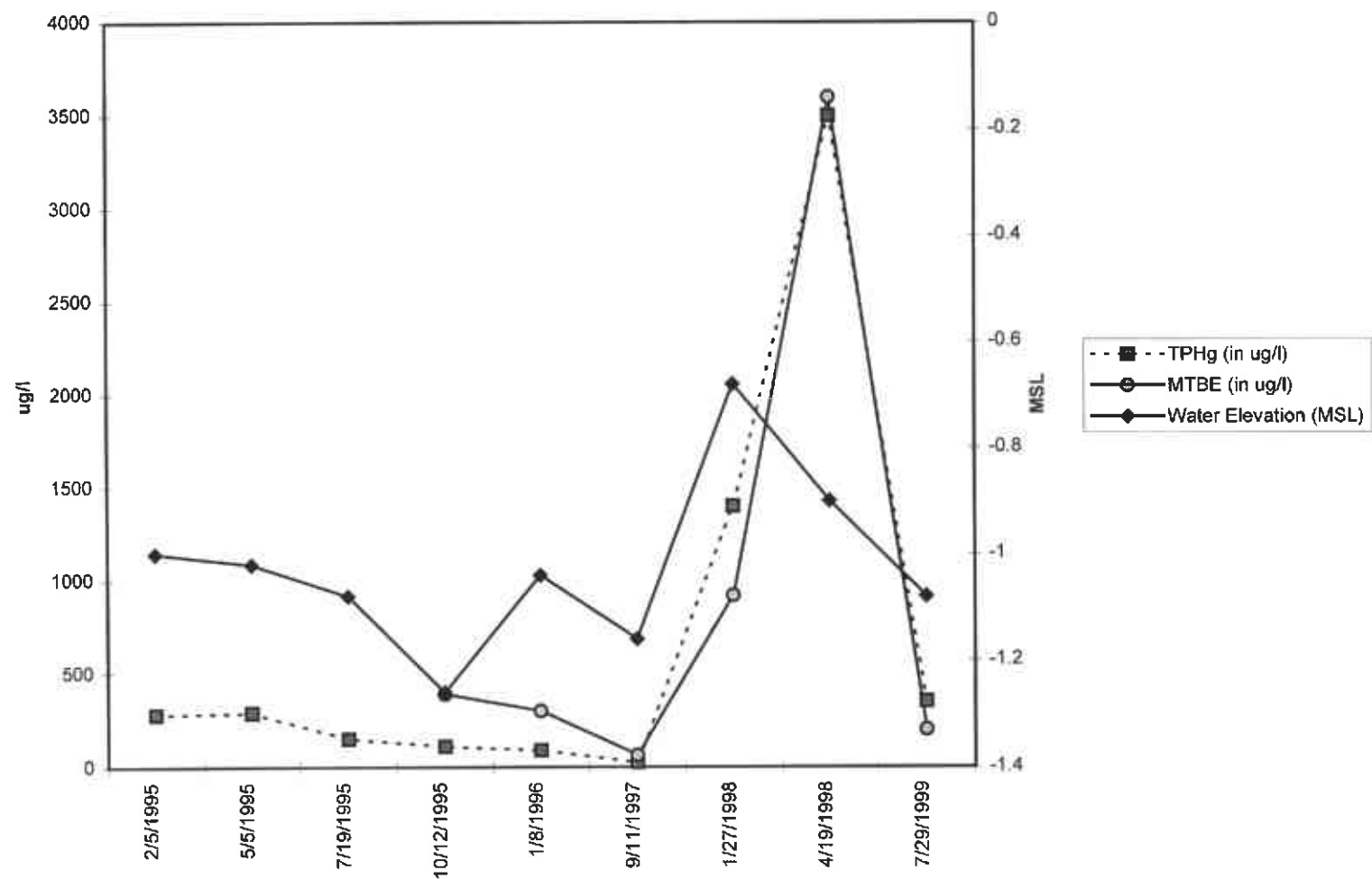
MW-6 TPHg, MTBE & Water Elevation



XW-3 TPHg, MTBE & Water Elevation



MW-7 TPHg, MTBE & Water Elevation



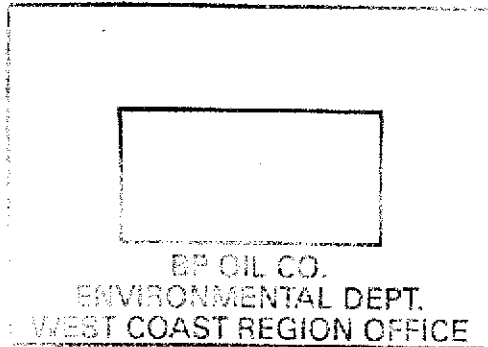
BLAINE
TECH SERVICES INC.

1680 ROGERS AVENUE
SAN JOSE, CALIFORNIA 95112-1105
(408) 573-7771 FAX
(408) 573-0555 PHONE



September 30, 1999

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



3rd Quarter 1999 Monitoring at 11270

Third Quarter 1999 Groundwater Monitoring
BP Service Station Number 11270
3255 Mecartney Rd.
Alameda, CA

Monitoring Performed on July 29, 1999

Groundwater Sampling Report 990729-L-3

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.

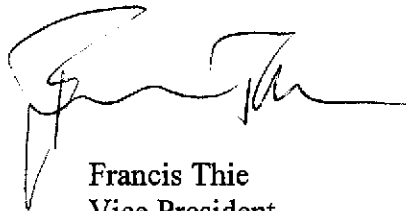
Basic field information is presented alongside analytical values excerpted from the laboratory report in the cumulative table of **WELL DATA AND ANALYTICAL RESULTS**. The full analytical report for the most recent samples is located in the **Analytical Appendix**. The **Professional Engineering Appendix**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

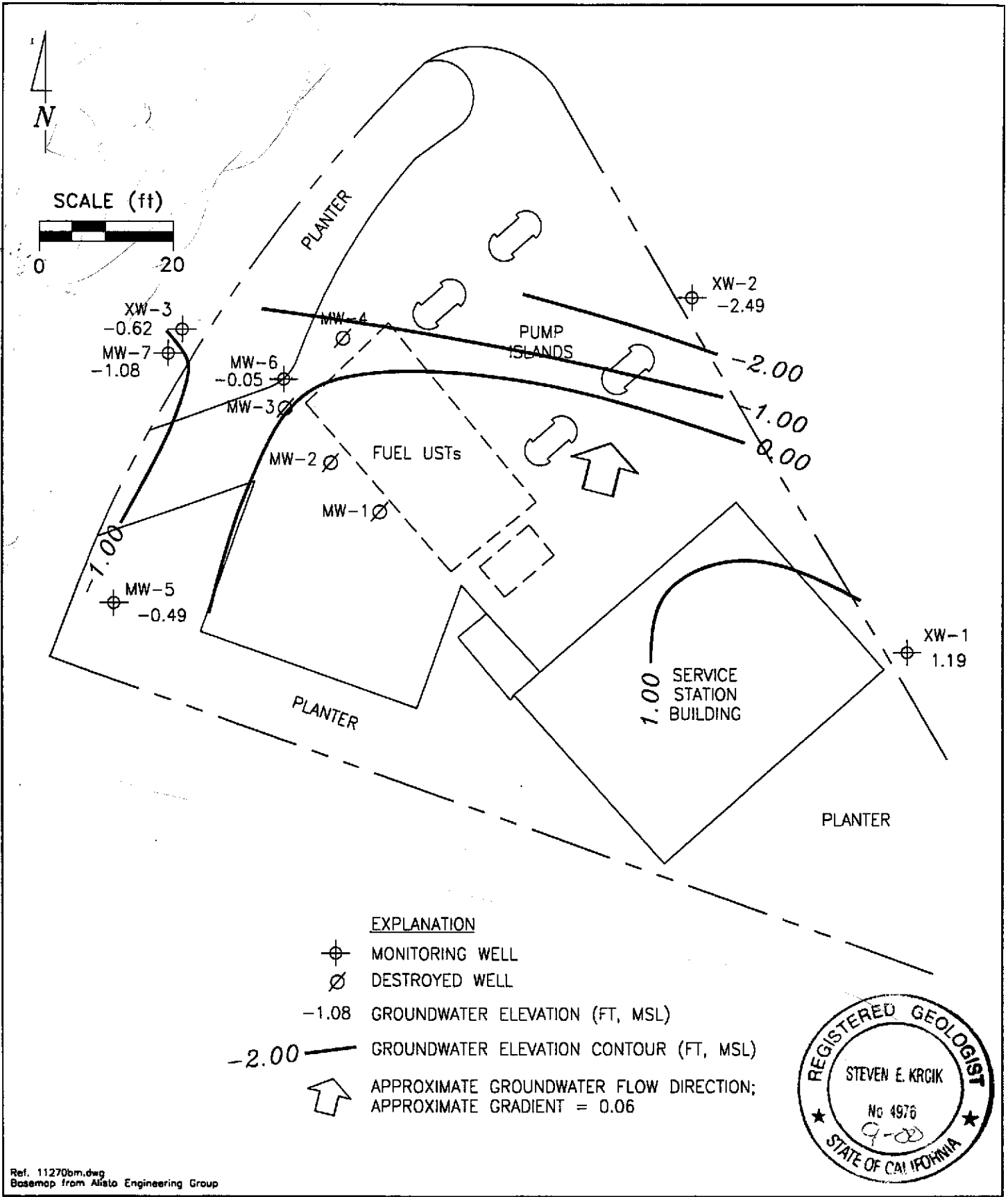
A handwritten signature in black ink, appearing to read 'Francis Thie', written over a horizontal line.

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



PREPARED BY

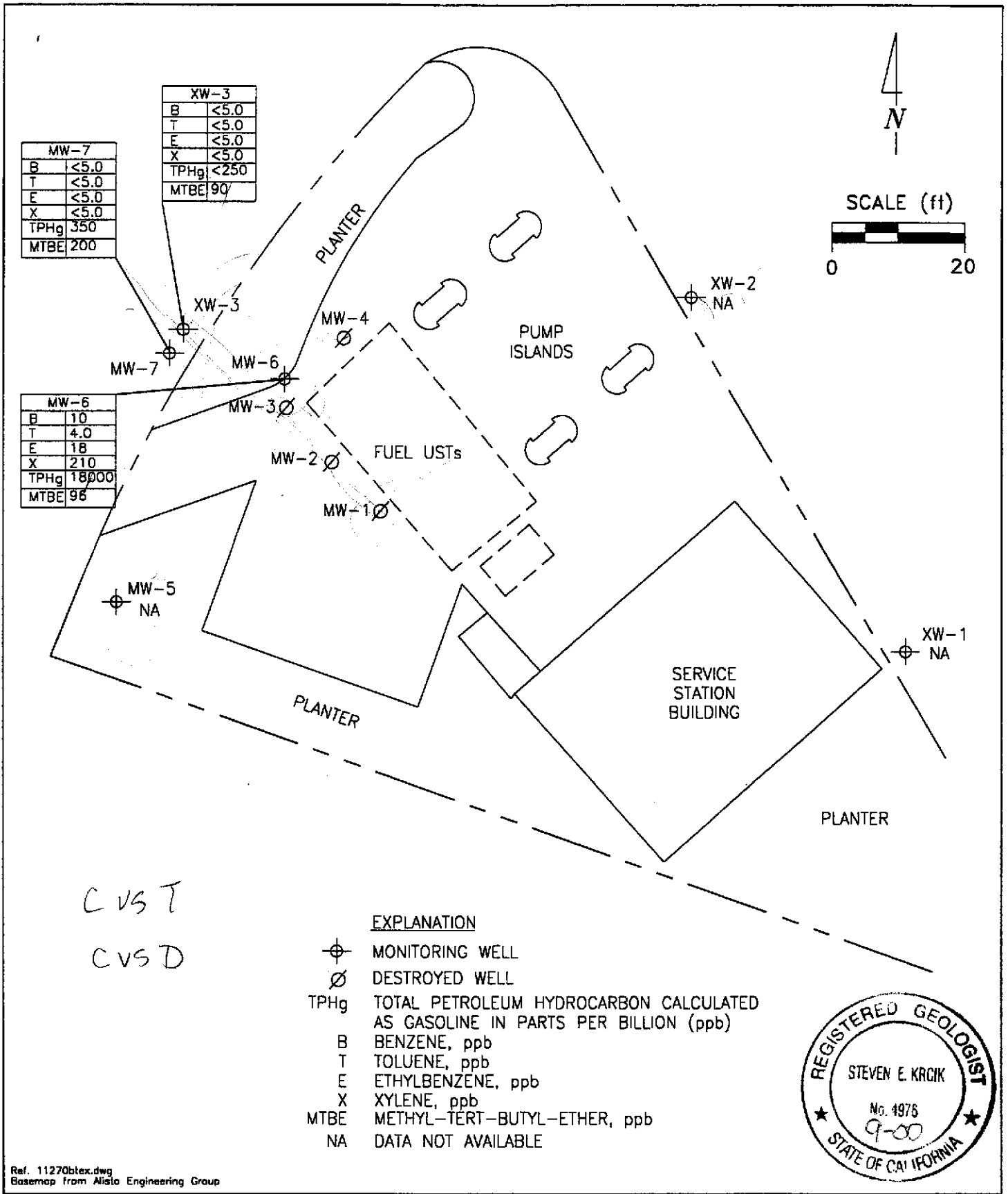
RRM
engineering contracting firm


BP Oil Service Station No. 11270
3255 Mecartney Road
Alameda, California

GROUNDWATER ELEVATION CONTOUR MAP,
JULY 29, 1999

FIGURE:
1

PROJECT:
DAC04



PREPARED BY  engineering contracting firm	BP Oil Service Station No. 11270 3255 Mecartney Road Alameda, California	FIGURE: 2
	HYDROCARBON CONCENTRATION MAP, JULY 29, 1999	PROJECT: DAC04

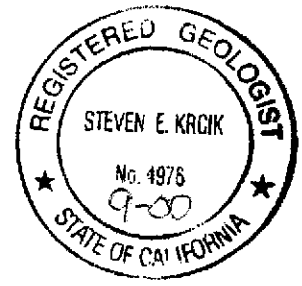


Table of Well Data and Analytical Results

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	TDS (mg/l)	DO (ppm)	LAB
MW-1	(c) 10/29/92	7.49	7.28	0.21	---	---	---	---	---	---	---	---	---	---
MW-1	(c) 06/21/93	7.49	5.40	2.09	---	---	---	---	---	---	---	---	---	---
MW-1	04/05/94	7.49	5.64	1.85	1700	---	20	1.1	3.9	7.6	---	---	---	PACE
MW-1	07/28/94	7.49	6.22	1.27	---	---	---	---	---	---	---	---	---	PACE
MW-1	10/26/94	7.49	6.40	1.09	---	---	---	---	---	---	---	---	---	---
MW-1	(d) 02/05/95	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-2	10/29/92	7.07	6.84	0.23	2500	3900	140	ND<10	65	22	---	---	---	---
MW-2	06/21/93	7.07	5.49	1.58	720	770	12	1.5	11	12	---	---	---	---
MW-2	04/05/94	7.07	5.40	1.67	420	1300	ND<0.5	ND<0.5	ND<0.5	4	4500 (e)	---	1.8	PACE
MW-2	07/28/94	7.07	5.97	1.10	---	---	---	---	---	---	---	---	---	PACE
MW-2	10/26/94	7.07	6.10	0.97	---	---	---	---	---	---	---	---	---	---
MW-2	(d) 02/05/95	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	(c) 10/29/92	7.08	7.14	-0.06	---	---	---	---	---	---	---	---	---	---
MW-3	(c) 06/21/93	7.08	5.84	1.24	---	---	---	---	---	---	---	---	---	---
MW-3	04/05/94	7.08	5.83	1.25	990	4300	3.2	ND<0.5	ND<0.5	1.3	790 (e)	---	---	PACE
MW-3	07/28/94	7.08	6.32	0.76	---	---	---	---	---	---	---	---	---	PACE
MW-3	10/26/94	7.08	6.42	0.66	---	---	---	---	---	---	---	---	---	---
MW-3	(d) 02/05/95	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	10/29/92	7.13	6.90	0.23	2600	---	250	2.5	74	6.6	---	---	---	---
MW-4	06/21/93	7.13	5.54	1.59	1400	1100	24	2.9	2.6	7.9	---	---	---	---
MW-4	04/05/94	7.13	5.46	1.67	930	940	33	0.8	ND<0.5	2.8	8700 (e)	---	2.7	PACE
MW-4	07/28/94	7.13	6.02	1.11	2400	1400	19	1.8	0.5	8	---	---	6.7	PACE
QC-1	(f) 07/28/94	---	---	---	2300	---	19	1.7	0.5	7.4	---	---	---	PACE
MW-4	10/26/94	7.13	6.13	1.00	---	---	---	---	---	---	---	---	---	---
MW-4	(d) 02/05/95	---	---	---	---	---	---	---	---	---	---	---	---	---

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (Feet)	DEPTH TO WATER (a) (Feet)	GROUNDWATER ELEVATION (Feet)	TPH-G (ug/l) (b)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	TDS (mg/l)	DO (ppm)	LAB
MW-5	06/21/93	8.36	7.44	0.92	ND<50	100	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---
MW-5	04/05/94	8.36	7.42	0.94	ND<50	100	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	2.5	PACE
QC-1 (f)	04/05/94	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
MW-5	07/28/94	8.36	7.88	0.48	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	7.4	PACE
MW-5	10/26/94	8.36	7.92	0.44	ND<50	160	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	5.5	PACE
QC-1 (f)	10/26/94	---	---	---	ND<50	---	ND<0.5	0.5	ND<0.5	ND<0.5	---	---	---	PACE
MW-5	02/05/95	8.36	7.83	0.53	ND<50	ND<500	ND<0.25	ND<0.25	ND<0.25	ND<0.50	---	---	---	ATI
QC-1 (f)	02/05/95	---	---	---	ND<50	---	ND<0.25	ND<0.25	ND<0.25	ND<0.50	---	---	---	ATI
MW-5	05/05/95	8.36	9.00	-0.64	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	3.1	ATI
MW-5	07/19/95	8.36	9.03	-0.67	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	14700	4.6	ATI
MW-5	10/12/95	8.36	9.15	-0.79	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	8490	4.3	ATI
MW-5	01/08/96	8.36	9.04	-0.68	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	10000	4.9	ATI
MW-5	09/11/97	8.36	8.90	-0.54	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	4	SPL
MW-5	01/27/98	8.36	8.27	0.09	---	---	---	---	---	---	---	---	---	---
MW-5	04/19/98	8.36	8.60	-0.24	---	---	---	---	---	---	---	---	---	---
MW-5	07/29/99	8.36	8.85	-0.49	---	---	---	---	---	---	---	---	---	---

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (Feet)	DEPTH TO WATER (a) (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)	TDS (mg/l)	DO (ppm)	LAB
MW-6	02/05/95	6.88	6.39	0.49	1000	1000	7.6	19	9.1	96	---	(g) ---	5	ATI
MW-6	05/05/95	6.88	6.85	0.03	2300	---	49	9	130	46	---	---	3.3	ATI
QC-1 (f)	05/05/95	---	---	---	2400	---	49	9.2	140	48	---	---	---	ATI
MW-6	07/19/95	6.88	7.13	-0.25	1500	---	84	3.3	28	24	---	(g) 818	3.7	ATI
QC-1 (f)	07/19/95	---	---	---	1500	---	89	3.8	30	26	---	(g) ---	---	ATI
MW-6	10/12/95	6.88	7.35	-0.47	1800	---	38	13	38	86	2500	868	4.1	ATI
QC-1 (f)	10/12/95	---	---	---	1100	---	33	7	18	44	2200	---	---	ATI
MW-6	01/08/96	6.88	7.04	-0.16	1300	---	31	4.7	60	53	170	474	4.2	ATI
QC-1 (f)	01/08/96	---	---	---	1000	---	27	4	49	44	150	---	---	ATI
MW-6	09/11/97	6.88	7.29	-0.41	ND<250	---	8.5	ND<5.0	11	6	1400	---	3.5	SPL
QC-1 (f)	09/11/97	---	---	---	210	---	8.7	ND<5.0	14	8	1400	---	---	SPL
MW-6	01/27/98	6.88	6.20	0.68	47000	---	350	150	360	690	38000	---	4.6	SPL
QC-1 (f)	01/27/98	---	---	---	51000	---	290	120	300	580	35000	---	---	SPL
MW-6	04/19/98	6.88	6.64	0.24	36000	---	40	510	140	10500	660	---	4	SPL
QC-1 (f)	04/19/98	---	---	---	24000	---	20	360	81	7100	480	---	---	SPL
MW-6	07/29/99	6.88	6.93	-0.05	18000	---	10	4.0	18	210	96	---	---	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (b) (Feet)	GROUNDWATER ELEVATION (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	TDS (mg/l)	DO (ppm)	LAB
MW-7	02/05/95	6.62	7.62	-1.00	280	ND<500	ND<0.25	ND<0.25	ND<0.25	ND<0.50	---	(g) ---	5.1	ATI
MW-7	05/05/95	6.62	7.64	-1.02	290	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	3.6	ATI
MW-7	07/19/95	6.62	7.70	-1.08	150	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	(g) 12100	4.6	ATI
MW-7	10/12/95	6.62	7.88	-1.26	110	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	390	14000	4.7	ATI
MW-7	01/08/96	6.62	7.66	-1.04	90	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	300	12060	4.9	ATI
MW-7	09/11/97	6.62	7.78	-1.16	ND<50	---	ND<2.5	ND<5.0	ND<5.0	ND<5.0	63	---	3.8	SPL
MW-7	01/27/98	6.62	7.30	-0.68	1400	---	7.7	ND<1.0	ND<1.0	ND<1.0	920	---	4.4	SPL
MW-7	04/19/98	6.62	7.52	-0.90	3500	---	15	7.7	11	19.3	3600	---	4.7	SPL
MW-7	07/29/99	6.62	7.70	-1.08	350	---	ND<5.0	ND<5.0	ND<5.0	ND<5.0	200	---	---	SPL
XW-1	06/21/93	---	---	---	---	---	---	---	---	---	---	---	---	---
XW-1	04/05/94	---	5.36	---	ND<50	70	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	3	PACE
XW-1	07/28/94	---	5.92	---	---	---	---	---	---	---	---	---	---	PACE
XW-1	10/26/94	---	6.05	---	---	---	---	---	---	---	---	---	---	---
XW-1	02/05/95	7.49	5.82	1.67	ND<50	ND<500	ND<0.25	ND<0.25	ND<0.25	ND<0.50	---	---	4.9	ATI
XW-1	05/05/95	7.49	5.57	1.92	---	---	---	---	---	---	---	---	---	---
XW-1	07/19/95	7.49	6.12	1.37	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	1680	4.3	ATI
XW-1	10/12/95	7.49	6.82	0.67	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	1150	3.8	ATI
XW-1	01/08/96	7.49	6.11	1.38	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	1300	4.7	ATI
XW-1	09/11/97	7.49	6.57	0.92	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	3.3	SPL
XW-1	01/27/98	7.49	5.27	2.22	---	---	---	---	---	---	---	---	---	---
XW-1	04/19/98	7.49	5.24	2.25	---	---	---	---	---	---	---	---	---	---
XW-1	07/29/99	7.49	6.30	1.19	---	---	---	---	---	---	---	---	---	---

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (Feet)	DEPTH TO WATER (a) (Feet)	GROUNDWATER ELEVATION (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	TDS (mg/l)	DO (ppm)	LAB
XW-2	06/21/93	7.48	5.89	1.59	---	---	---	---	---	---	---	---	---	---
XW-2	04/05/94	7.48	5.77	1.71	ND<50	160	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	3	PACE
XW-2	07/28/94	7.48	6.25	1.23	---	---	---	---	---	---	---	---	---	PACE
XW-2	10/26/94	7.48	6.39	1.09	---	---	---	---	---	---	---	---	---	---
XW-2	02/05/95	7.48	5.62	1.86	ND<50	ND<500	ND<0.25	0.38	ND<0.25	ND<0.50	---	---	5.2	ATI
XW-2	05/05/95	7.48	5.66	1.82	---	---	---	---	---	---	---	---	---	---
XW-2	07/19/95	7.48	6.8	0.68	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	4750	3.9	ATI
XW-2	10/12/95	7.48	7.21	0.27	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	3630	4.3	ATI
XW-2	01/08/96	7.48	6.79	0.69	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	3440	4.2	ATI
XW-2	09/11/97	7.48	6.86	0.62	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	3.6	SPL
XW-2	01/27/98	7.48	5.88	1.60	---	---	---	---	---	---	---	---	---	---
XW-2	04/19/98	7.48	5.42	2.06	---	---	---	---	---	---	---	---	---	---
XW-2	07/29/99	7.48	9.97	-2.49	---	---	---	---	---	---	---	---	---	---
XW-3	06/21/93	6.84	5.85	0.99	---	---	---	---	---	---	---	---	---	---
XW-3	04/05/94	6.84	5.85	0.99	ND<50	150	ND<0.5	0.7	ND<0.5	ND<0.5	---	---	3.1	PACE
XW-3	07/28/94	6.84	6.28	0.56	---	---	---	---	---	---	---	---	---	PACE
XW-3	10/26/94	6.84	6.4	0.44	---	---	---	---	---	---	---	---	---	---
XW-3	02/05/95	6.84	7.23	-0.39	280	ND<500	ND<0.50	ND<0.50	0.63	ND<1.0	---	(g)	4.9	ATI
XW-3	05/05/95	6.84	7.43	-0.59	---	---	---	---	---	---	---	---	---	---
XW-3	07/19/95	6.84	7.6	-0.76	400	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	10400	4.3	ATI
XW-3	10/12/95	6.84	7.74	-0.90	130	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	480	(e) 8430	4.7	ATI
XW-3	01/08/96	6.84	7.58	-0.74	320	---	ND<2.5	ND<2.5	ND<2.5	ND<5.0	1100	10000	4.4	ATI
XW-3	01/27/98	6.84	7.01	-0.17	1200	---	2.8	ND<1.0	ND<1.0	ND<1.0	990	---	4.3	SPL
XW-3	04/19/98	6.84	7.28	-0.44	4500	---	ND<2.5	ND<5.0	ND<5.0	ND<5.0	4800	---	4.3	SPL
XW-3	07/29/99	6.84	7.46	-0.62	ND<250	---	ND<5.0	ND<5.0	ND<5.0	ND<5.0	90	---	---	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	TDS (mg/l)	DO (ppm)	LAB
QC-2	(h) 04/05/94	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
QC-2	(h) 07/28/94	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
QC-2	(h) 10/26/94	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
QC-2	(h) 02/05/95	---	---	---	ND<50	---	ND<0.25	ND<0.25	ND<0.25	ND<0.50	---	---	---	ATI
QC-2	(h) 05/05/95	---	---	---	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	---	ATI
QC-2	(h) 07/19/95	---	---	---	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	---	ATI
QC-2	(h) 10/12/95	---	---	---	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	---	ATI
QC-2	(h) 01/08/96	---	---	---	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	---	ATI

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
 TDS Total dissolved solids
 DO Dissolved oxygen
 ug/l Micrograms per liter
 mg/l Milligrams per liter
 ppm Parts per million
 --- Not analyzed/measured/applicable
 ND Not detected above reported detection limit
 PACE Pace, Inc.
 ATI Analytical Technologies, Inc.
 SPL Southern Petroleum Laboratories

NOTES:

- (a) Casing elevations surveyed to nearest 0.01 foot relative to an arbitrary datum.
- (b) Groundwater elevations in feet above an arbitrary datum.
- (c) Not sampled due to inadequate recharge.
- (d) Wells destroyed by HETI on January 18 and 19, 1995.
- (e) A copy of the documentation for this data is included in Appendix C of Alisto report 10-206-04-001.
- (f) Blind duplicate.
- (g) MTBE peak present. See documentation for this data included in Appendix C of Alisto report 10-206-04-001.
- (h) Travel blank.

Analytical Appendix



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

August 9, 1999

Mr. Scott Hooton
BP OIL COMPANY
295 SW 41 Street Bldg. 13, Ste N
Renton, WA 98055


The following report contains analytical results for the sample(s) received at Southern Petroleum Laboratories (SPL) on July 31, 1999. The sample(s) was assigned to Certificate of Analysis No. (s) 9907B88 and analyzed for all parameters as listed on the chain of custody.

Any data flags or quality control exceptions associated with this report will be footnoted in the analytical result page(s) or the quality control summary page(s).

If you have any questions or comments pertaining to this data report, please do not hesitate to contact me. Please reference the above Certificate of Analysis No. during any inquiries.

Again, SPL is pleased to be of service to you. We anticipate working with you in fulfilling all your current and future analytical needs.

Southern Petroleum Laboratories



Sonia West
Senior Project Manager



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Southern Petroleum Laboratories, Inc.

Certificate of Analysis Number: 99-07-B88

Approved for Release by:

Sonia West

Sonia West, Senior Project Manager

8-9-99

Date

Joel Grice
Laboratory Director

Ted Yen
Corporate Quality Assurance Director

The attached analytical data package may not be reproduced except in full without the express written approval of this laboratory.
The results relate only to the samples tested.
Results reported on a Wet Weight Basis unless otherwise noted.



HOUSTON LABORATORY

8880 INTERCHANGE DRIVE

HOUSTON, TEXAS 77054

PHONE (713) 660-0901

Certificate of Analysis No. H9-9907B88-01

BP Oil Company
295 SW 41 Street Bldg.13,SteN
Renton, WA 98055
ATTN: Scott Hooton

P.O.#
N/A , COC#118657
DATE: 08/06/99

PROJECT: #11270, 3255 Mecartney Road
SITE:
SAMPLED BY: Blaine Tech Services
SAMPLE ID: A

PROJECT NO: 990729-L3
MATRIX: WATER
DATE SAMPLED: 07/29/99 14:41:00
DATE RECEIVED: 07/31/99

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	200	5.0 P	ug/L
BENZENE	ND	5.0 P	ug/L
TOLUENE	ND	5.0 P	ug/L
ETHYLBENZENE	ND	5.0 P	ug/L
TOTAL XYLENE	ND	5.0 P	ug/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	ND		ug/L

Surrogate

% Recovery

1,4-Difluorobenzene

87

4-Bromofluorobenzene

100

Method 8020A ***

Analyzed by: WLR

Date: 08/05/99

Gasoline Range Organics

0.35

0.25 P

mg/L

Surrogate

% Recovery

1,4-Difluorobenzene

93

4-Bromofluorobenzene

100

California LUFT Manual for Gasoline

Analyzed by: WLR

Date: 08/05/99 00:17:00

(P) - Practical Quantitation Limit ND - Not detected.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
SPL California License # 1903



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TEXAS 77054
 PHONE (713) 660-0901

Certificate of Analysis No. H9-9907B88-02

BP Oil Company
 295 SW 41 Street Bldg.13, SteN
 Renton, WA 98055
 ATTN: Scott Hooton

P.O.#
 N/A , COC#118657
 DATE: 08/06/99

PROJECT: #11270, 3255 Mecartney Road
 SITE:
 SAMPLED BY: Blaine Tech Services
 SAMPLE ID: B

PROJECT NO: 990729-L3
 MATRIX: WATER
 DATE SAMPLED: 07/29/99 14:32:00
 DATE RECEIVED: 07/31/99

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	90	5.0 P	ug/L
BENZENE	ND	5.0 P	ug/L
TOLUENE	ND	5.0 P	ug/L
ETHYLBENZENE	ND	5.0 P	ug/L
TOTAL XYLENE	ND	5.0 P	ug/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	ND		ug/L

Surrogate % Recovery
 1,4-Difluorobenzene 87
 4-Bromofluorobenzene 100
 Method 8020A ***
 Analyzed by: WLR
 Date: 08/05/99

Gasoline Range Organics ND 0.25 P mg/L

Surrogate % Recovery
 1,4-Difluorobenzene 87
 4-Bromofluorobenzene 87
 California LUFT Manual for Gasoline
 Analyzed by: WLR
 Date: 08/05/99 00:41:00

(P) - Practical Quantitation Limit ND - Not detected.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
 **Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
 ***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
 SPL California License # 1903



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TEXAS 77054
 PHONE (713) 660-0901

Certificate of Analysis No. H9-9907B88-03

BP Oil Company
 295 SW 41 Street Bldg.13,SteN
 Renton, WA 98055
 ATTN: Scott Hooton

P.O.#
 N/A , COC#118657
 DATE: 08/06/99

PROJECT: #11270, 3255 Mecartney Road
 SITE:
 SAMPLED BY: Blaine Tech Services
 SAMPLE ID: C

PROJECT NO: 990729-L3
 MATRIX: WATER
 DATE SAMPLED: 07/29/99 14:53:00
 DATE RECEIVED: 07/31/99

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	96	1.0 P	ug/L
BENZENE	10	1.0 P	ug/L
TOLUENE	4.0	1.0 P	ug/L
ETHYLBENZENE	18	1.0 P	ug/L
TOTAL XYLENE	210	1.0 P	ug/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	242		ug/L

Surrogate

% Recovery

1,4-Difluorobenzene

83

4-Bromofluorobenzene

80

Method 8020A ***

Analyzed by: WLR

Date: 08/05/99

Gasoline Range Organics

18

2.5 P

mg/L

Surrogate

% Recovery

1,4-Difluorobenzene

93

4-Bromofluorobenzene

87

California LUFT Manual for Gasoline

Analyzed by: WLR

Date: 08/05/99 01:05:00

(P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
 **Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
 ***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
 SPL California License # 1903

QUALITY CONTROL
DOCUMENTATION



Matrix: Aqueous
Units: ug/L

Batch Id: HP_N990804121400

LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Spike		QC Limits(**) (Mandatory) % Recovery Range
			Result <1>	Recovery %	
MTBE	ND	50	50	100	72 - 128
Benzene	ND	50	51	102	61 - 119
Toluene	ND	50	51	102	65 - 125
EthylBenzene	ND	50	49	98.0	70 - 118
O Xylene	ND	50	48	96.0	72 - 117
M & P Xylene	ND	100	100	100	72 - 116

MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results <2>	Spike Added <3>	Matrix Spike		Matrix Spike Duplicate		MS/MSD Relative % Difference	QC Limits(***) (Advisory)	
			Result <1>	Recovery <4>	Result <1>	Recovery <5>		RPD Max.	Recovery Range
			MTBE	ND	20	24	120	23	115
BENZENE	ND	20	23	115	23	115	0	21	32 - 164
TOLUENE	ND	20	24	120	23	115	4.26	20	38 - 159
ETHYLBENZENE	ND	20	23	115	22	110	4.44	19	52 - 142
O XYLENE	ND	20	22	110	22	110	0	18	53 - 143
M & P XYLENE	ND	40	47	118	46	115	2.58	17	53 - 144

* = Values outside QC Range due to Matrix Interference (except RPD)

< = Data outside Method Specification limits.

NC = Not Calculated (Sample exceeds spike by factor of 4 or more)

ND = Not Detected/Below Detection Limit

% Recovery = $[(<1> - <2>) / <3>] \times 100$

LCS % Recovery = $(<1> / <3>) \times 100$

Relative Percent Difference = $|(<4> - <5> | / [(<4> + <5>) \times 0.5] \times 100$

(**) = Source: SPL-Houston Historical Data (1st Q '97)

(***) = Source: SPL-Houston Historical Data (1st Q '97)

Analyst: WLR

Sequence Date: 08/04/99

SPL ID of sample spiked: 9908070-01A

Sample File ID: N_H1113.TX0

Method Blank File ID:

Blank Spike File ID: N_H1104.TX0

Matrix Spike File ID: N_H1107.TX0

Matrix Spike Duplicate File ID: N_H1108.TX0

SAMPLES IN BATCH(SPL ID):

9907B91-04A	9907B91-10A	9907B88-01A	9907B88-02A
9907B89-02A	9907B91-03A	9907B91-05A	9907B91-06A
9907B91-07A	9907B91-08A	9907B91-09A	9907B91-11A
9907B91-12A	9907B89-01A	9907B91-13A	9907B91-01A
9907B91-02A			



Matrix: Aqueous
Units: ug/L

Batch Id: HP_N990805151101

LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Spike		QC Limits(**) (Mandatory) % Recovery Range
			Result <1>	Recovery %	
MTBE	ND	50	47	94.0	72 - 128
Benzene	ND	50	51	102	61 - 119
Toluene	ND	50	50	100	65 - 125
EthylBenzene	ND	50	47	94.0	70 - 118
O Xylene	ND	50	48	96.0	72 - 117
M & P Xylene	ND	100	99	99.0	72 - 116

MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results <2>	Spike Added <3>	Matrix Spike		Matrix Spike Duplicate		MS/MSD Relative % Difference	QC Limits(***) (Advisory)	
			Result <1>	Recovery <4>	Result <1>	Recovery <5>		RPD Max.	Recovery Range
			MTBE	ND	20	19	95.0	18	90.0
BENZENE	1.5	20	21	97.5	21	97.5	0	21	32 - 164
TOLUENE	ND	20	19	95.0	22	110	14.6	20	38 - 159
ETHYLBENZENE	ND	20	20	100	20	100	0	19	52 - 142
O XYLENE	ND	20	19	95.0	18	90.0	5.41	18	53 - 143
M & P XYLENE	ND	40	40	100	40	100	0	17	53 - 144

* = Values outside QC Range due to Matrix Interference (except RPD)

* = Data outside Method Specification limits.

NC = Not Calculated (Sample exceeds spike by factor of 4 or more)

ND = Not Detected/Below Detection Limit

% Recovery = [(<1> - <2>) / <3>] x 100

LCS % Recovery = (<1> / <3>) x 100

Relative Percent Difference = |(<4> - <5> | / [(<4> + <5>) x 0.5] x 100

(**) = Source: SPL-Houston Historical Data (1st Q '97)

(***) = Source: SPL-Houston Historical Data (1st Q '97)

Analyst: WLR

Sequence Date: 08/05/99

SPL ID of sample spiked: 9908081-09A

Sample File ID: N_H1172.TX0

Method Blank File ID:

Blank Spike File ID: N_H1152.TX0

Matrix Spike File ID: N_H1186.TX0

Matrix Spike Duplicate File ID: N_H1187.TX0

SAMPLES IN BATCH(SPL ID):

9908081-01A 9908081-02A 9908081-03A 9908081-06A
9908081-07A 9908081-05A 9908082-31A 9908081-11A
9907B88-03A 9908081-09A 9908081-10A



Matrix: Aqueous
Units: mg/L

Batch Id: HP_N990804125100

LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Spike		QC Limits(**) (Mandatory) % Recovery Range
			Result <1>	Recovery &	
Gasoline Range Organics	ND	1.0	0.87	87.0	64 - 131

MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results <2>	Spike Added <3>	Matrix Spike		Matrix Spike Duplicate		MS/MSD Relative % Difference	QC Limits(***) (Advisory)	
			Result <1>	Recovery <4>	Result <1>	Recovery <5>		RPD Max.	Recovery Range
GASOLINE RANGE ORGANICS	ND	0.90	0.96	107	0.89	98.9	7.87	36	36 - 160

Analyst: WLR

Sequence Date: 08/04/99

SPL ID of sample spiked: 9907B85-02A

Sample File ID: NNH1114.TX0

Method Blank File ID:

Blank Spike File ID: NNH1105.TX0

Matrix Spike File ID: NNH1109.TX0

Matrix Spike Duplicate File ID: NNH1110.TX0

* = Values outside QC Range due to Matrix Interference (except RPD)

< = Data outside Method Specification limits.

NC = Not Calculated (Sample exceeds spike by factor of 4 or more)

ND = Not Detected/Below Detection Limit

% Recovery = $\left(\frac{\langle 1 \rangle - \langle 2 \rangle}{\langle 3 \rangle} \right) \times 100$

LCS % Recovery = $\left(\frac{\langle 1 \rangle}{\langle 3 \rangle} \right) \times 100$

Relative Percent Difference = $\left| \frac{\langle 4 \rangle - \langle 5 \rangle}{\left[\frac{\langle 4 \rangle + \langle 5 \rangle}{2} \right]} \right| \times 100$

(**) = Source: SPL-Houston Historical data (1st Q '97)

(***) = Source: SPL-Houston Historical Data (1st Q '97)

SAMPLES IN BATCH(SPL ID):

9907B91-03A 9907B91-04A 9907B91-05A 9907B91-06A
9907B91-07A 9907B91-08A 9907B91-09A 9907B91-10A
9907B91-11A 9907B91-12A 9907B88-01A 9907B88-02A
9907B88-03A 9907B89-01A 9907B89-02A 9907B91-13A
9907B91-01A 9907B91-02A

CHAIN OF CUSTODY
AND
SAMPLE RECEIPT CHECKLIST



9907B88

CHAIN OF CUSTODY

No. 118657

Page 1 of 1

CONSULTANT'S NAME: **Blaine Tech Services** CONSULTANT'S ADDRESS: **1680 Rogers Avenue, San Jose, CA 95112**

BP SITE NUMBER: **11270** BP SITE / FACILITY ADDRESS: **3255 Mecartney Road** CONSULTANT PROJECT NUMBER: **990729-43**

CONSULTANT PROJECT MANGER: **Morgan Hargrave** PHONE NUMBER: **(408) 573-0555 X218** FAX NUMBER: **(408) 573-7771** CONSULTANT CONTRACT NUMBER:

BP CONTACT: **Scott Hooton** BP ADDRESS: **295 SW 41st St., Renton, WA** PHONE NUMBER: **(425) 251-0689** FAX NO.: **(425) 251-0736**

LAB CONTACT: **SPI - Sonia West** LABORATORY ADDRESS: **P.O. Box 20807, Houston, WA** PHONE NUMBER: **(800) 969-6775** FAX NO.: **(713) 660-8975**

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	TPH _d	BTX	MTBE	8260							COMMENTS	
				NO.	TYPE (VOL.)	LAB SAMPLE #														
A	7-29-99	1441	water	3	40ml			X		X	X									
B	7-29-99	1432	↓	3	HCL			X		X	X									
C	7-29-99	1453	↓	3	VOAG			X		X	X									

SAMPLED BY (Please Print Name): **Patrick Flaherty** SAMPLED BY (Signature): *Patrick Flaherty*

RELINQUISHED BY / AFFILIATION (Print Name / Signature): **Patrick Flaherty Patino Hales** DATE: **7-30-99** TIME: **4:00**

ACCEPTED BY / AFFILIATION (Print Name / Signature): **Randy Trull** DATE: **7-31-99** TIME: **10:00**

ADDITIONAL COMMENTS: **YOC**

SPL Houston Environmental Laboratory

Sample Login Checklist

Date: 7-31-99	Time: 1000
---	--

SPL Sample ID:
9907B88

		Yes	No	
1	Chain-of-Custody (COC) form is present.	—		
2	COC is properly completed.	—		
3	If no, Non-Conformance Worksheet has been completed.			
4	Custody seals are present on the shipping container.	—		
5	If yes, custody seals are intact.	—		
6	All samples are tagged or labeled.	—		
7	If no, Non-Conformance Worksheet has been completed.			
8	Sample containers arrived intact	—		
9	Temperature of samples upon arrival:	4	C	
10	Method of sample delivery to SPL:	SPL Delivery		
		Client Delivery		
		FedEx Delivery (airbill #)	81463468046-	
		Other:		
11	Method of sample disposal:	SPL Disposal		
		HOLD		
		Return to Client		

Name: R. J. Hall	Date: 7-31-99
--	---

Field Data Sheets