

S. T. Hooton  
Team Leader  
Environmental Remediation Management



**BP OIL**

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

August 3, 1999

Alameda County Health Care Services Department  
Attention Mr. Scott Seerey  
1131 Harbor Bay Parkway, Room 250  
Alameda, CA 94502-6577

RE: BP Oil Site No. 11117  
7210 Bancroft Avenue (at 73<sup>rd</sup>)  
Oakland, CA

Dear Mr. Serrey:

This letter transmits the *Second Quarter 1999 Groundwater Monitoring* report dated 9 July 1999. A petroleum release was documented during 1991 when a site assessment was performed in support of the property owner's plans to refinance an adjacent shopping center property, which also includes the BP site. After BP performed several iterations of groundwater monitoring and site assessment, the business and related improvements were sold to the current operator (Tosco Corporation) in 1994.

Confirming the 8 June 1999 Alameda County Healthy Care Services Agency letter, following is the current monitoring and sampling schedule for this site:

Sample Source	Sampling Frequency	Monitoring Frequency
MW-1	Semi-annual	Quarterly
MW-2	Quarterly	Quarterly
MW-3	Annually	Quarterly
MW-4	Quarterly	Quarterly
MW-6	Semi-annual	Quarterly
MW-7	Semi-annual	Quarterly
MW-8	Annually	Quarterly
MW-9	Annually	Quarterly
MW-10	Semi-annual	Quarterly

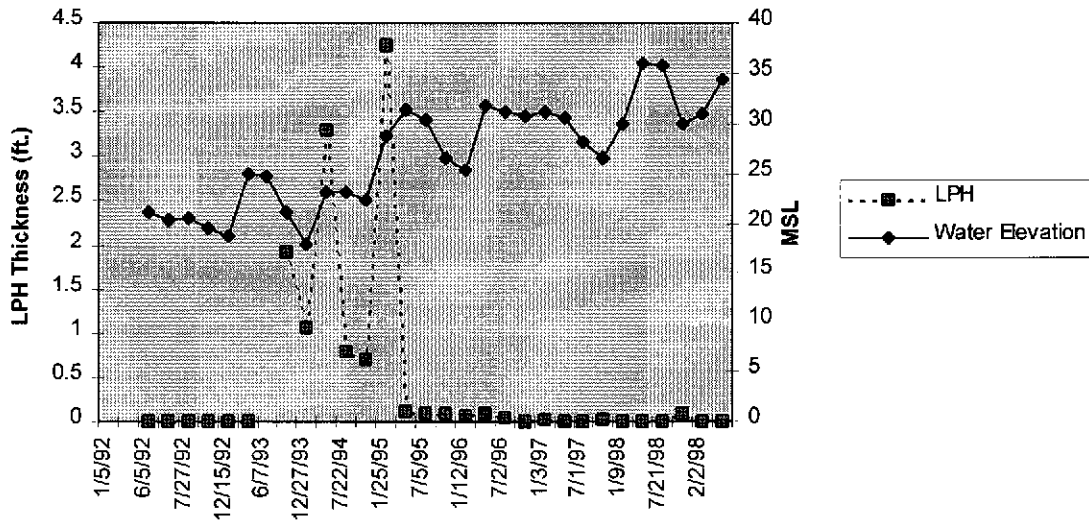
The enclosed groundwater monitoring and sampling report includes laboratory data for samples collected on 10 May 1999. Upon review of the data, please note the following:

1. Aromatic petroleum hydrocarbons were detected groundwater samples obtained from wells MW-2 and MW-4.
2. Accumulated liquid petroleum hydrocarbon was not observed in well MW-2. A graph depicting water elevation and product thickness measurements obtained from well MW-2 follows.

99 AUG -6 AM 8:57

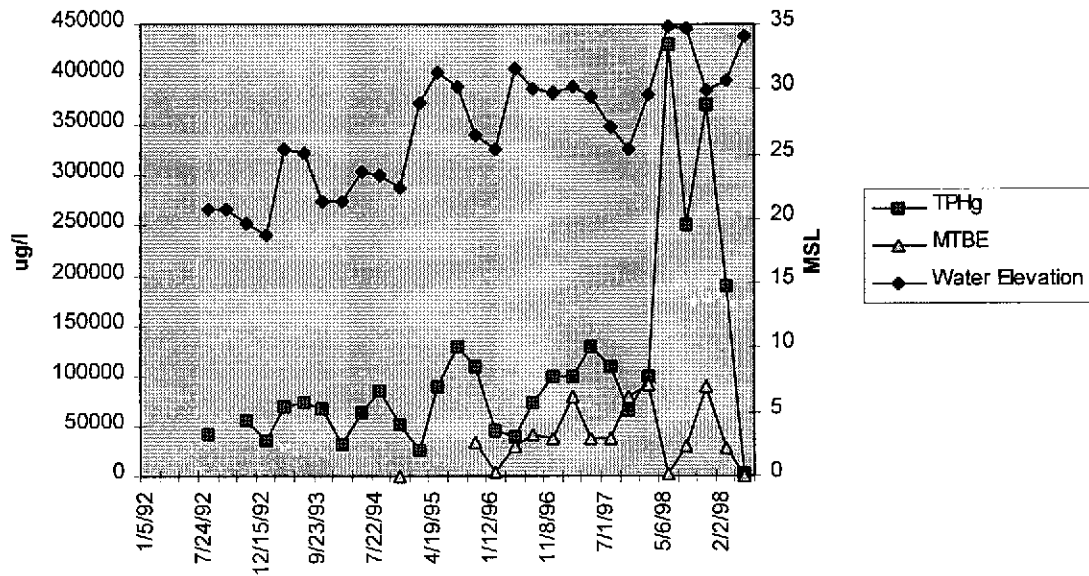
ENVIRONMENTAL PROTECTION

**MW-2 LPH & Water Elevation**



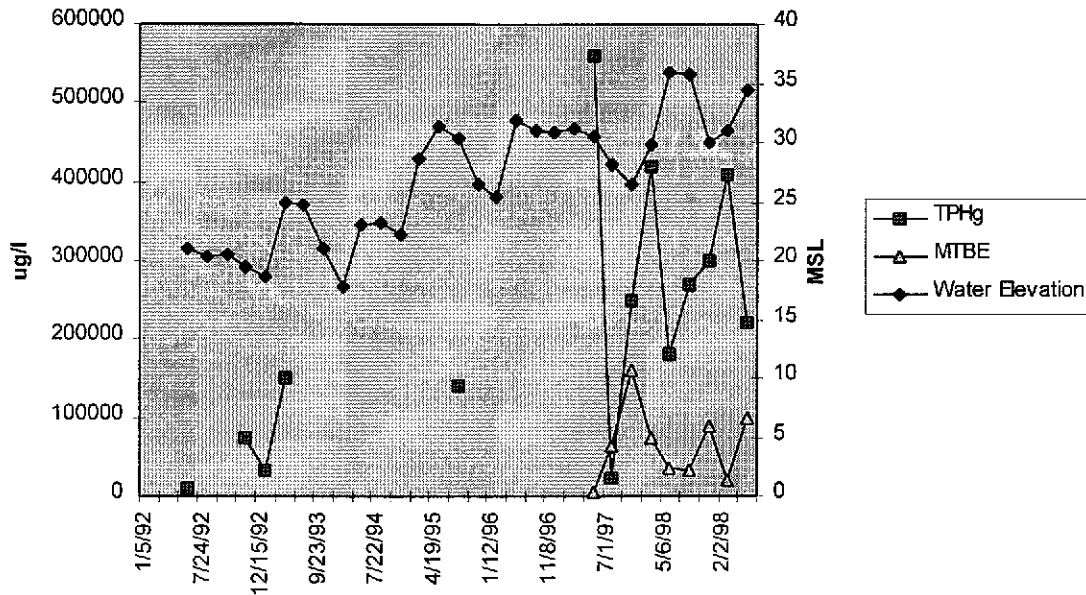
- TPHg and MTBE concentrations reported for well MW-4 appear to have decreased in comparison with the previous sampling event during February, 1998. A graph depicting concentration and water elevation data follows.

**MW-4 TPHg, MTBE & Water Elevation**



- TPHg and MTBE concentrations reported for well MW-2 for the January and May 1999 sampling events appear more constant than the MW-4 data. A graph depicting concentration and water elevation data follows.

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



At this time, BP is soliciting proposals for a technical approach and schedule to reduce hydrocarbon concentrations associated with well MW-2. **The scope of work will include establishing the elevation of the MW-10 top-of-casing. A workplan will be forwarded to the Alameda County Health Care Services Agency in the near future.** Please give me a call at (425) 251-0689 if you have any comments or questions.

Sincerely,

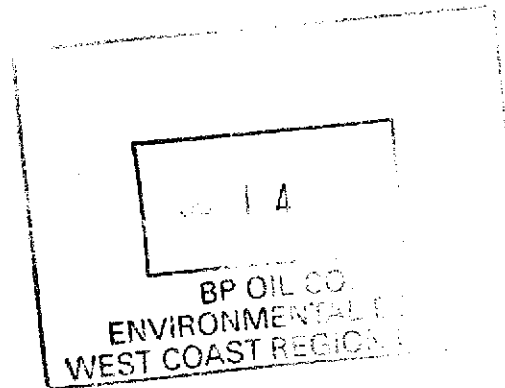
Scott Hooton

attachment

cc: site file  
D. Camille - Tosco (w/attachment)  
Bancroft Oakland Investment Company, c/o SB Management Corporation, Attention Ms. K. R.  
Stimson, 422 North Camden Drive, STE#1070, Beverly Hills, CA 90210 (w/attachment)

5710 3960

AVENUE  
CALIFORNIA 95112-1105  
FAX  
PHONE



Suite N

**2nd Quarter 1999 Monitoring at 11117**

Second Quarter 1999 Groundwater Monitoring  
BP Service Station Number 11117  
7210 Bancroft Avenue  
Oakland, CA

**Monitoring Performed on May 10, 1999**

**990510-P-1**

Monitoring of groundwater wells at this BP facility. Blaine Tech includes inspection, gauging, evacuation, purgewater and sample handling in accordance with standard procedures that satisfy Control Board requirements.

Includes depth to water, total well depth, thickness of any separate volume, the appropriate calculated purge volume, elapsed time of water removed, and standard water parameter instrument collected, contained, stored, and transported to the laboratory in accordance with standard procedures. Purgewater is, likewise, collected and transported to Seaport Environmental Services.

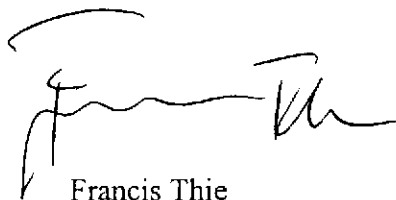
Presented alongside analytical values excerpted from the laboratory report are **WELL DATA AND ANALYTICAL RESULTS**. The full report is located in the **Analytical Appendix**. The Appendix contains a **Groundwater Elevation Map** and a **Dissolved Concentration Map**.

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,

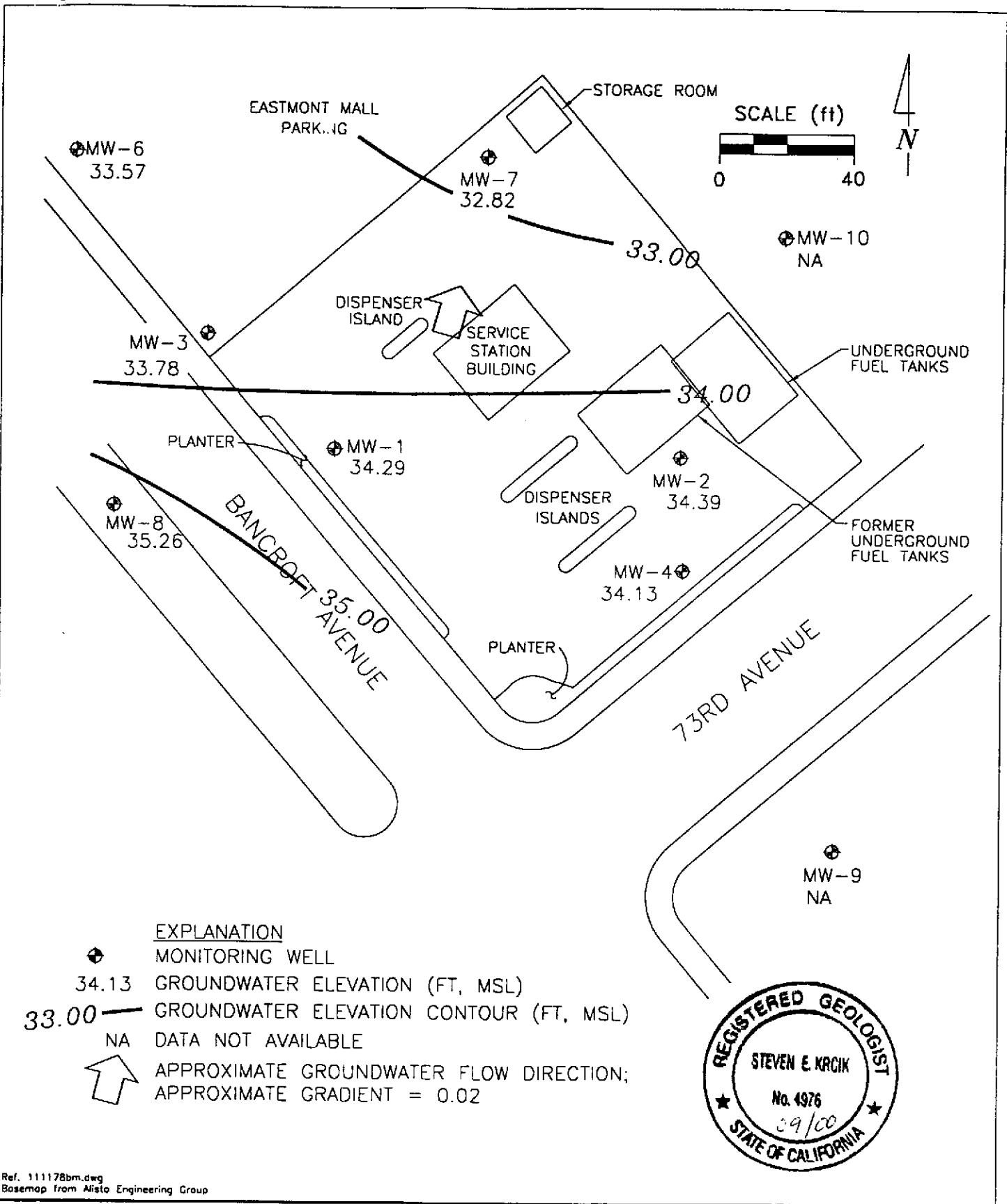
A handwritten signature in black ink, appearing to read 'Francis Thie', written over a horizontal line.

Francis Thie  
Vice President

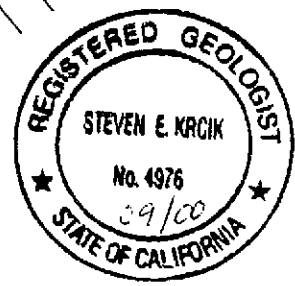
FPT/lid

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

# **Professional Engineering Appendix**



Ref. 111178bm.dwg  
 Basemap from Alisto Engineering Group



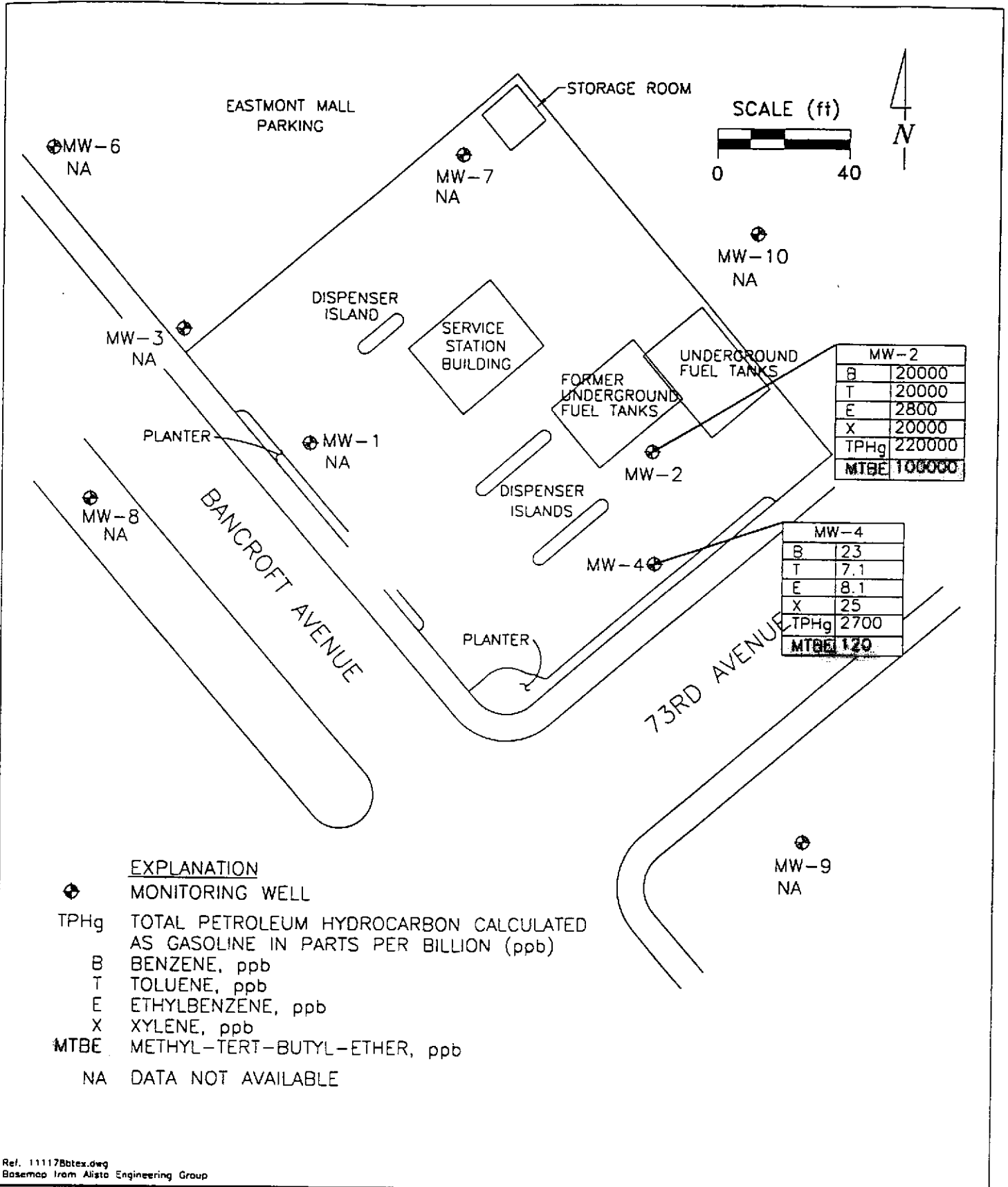
PREPARED BY



BP Oil Service Station No. 11117  
 7210 Bancroft Avenue  
 Oakland, California

GROUNDWATER ELEVATION CONTOUR MAP,  
 MAY 10, 1999

FIGURE:  
**1**  
 PROJECT:  
 DAC04



Ref. 11117Bates.dwg  
 Base map from Alisto Engineering Group

PREPARED BY



BP Oil Service Station No. 1117  
 7210 Bancroft Avenue  
 Oakland, California

HYDROCARBON CONCENTRATION MAP,  
 MAY 10, 1999

FIGURE:  
 2

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 (a) (Feet)	DEPTH TO PRODUCT WATER (Feet)	GROUNDWATER THICKNESS (Feet)	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)	Organic Lead (ug/l)	DO (ppm)	LAB
MW-1	01/05/92	49.80	33.16	---	16.64	57000	50000	2400	1000	1100	3100	---	ND	---	---
MW-1	01/10/92	49.80	33.16	---	16.64	---	---	---	---	---	---	---	---	---	---
MW-1	06/05/92	49.80	29.01	---	20.79	31000	---	2800	2100	800	2300	---	---	---	---
MW-1	07/24/92	49.80	29.45	---	20.35	---	---	---	---	---	---	---	---	---	---
MW-1	07/27/92	49.80	29.45	---	20.35	---	---	---	---	---	---	---	---	---	---
MW-1	09/15/92	49.80	30.53	---	19.27	40000	1200 (c)	3400	3000	1300	3400	---	---	---	ANA
QC-1 (d)	09/15/92	---	---	---	---	36000	---	3800	3400	1400	3800	---	---	---	ANA
MW-1	12/15/92	49.80	31.26	---	18.54	27000	1100 (c)	1700	580	700	1900	---	---	---	ANA
QC-1 (d)	12/15/92	---	---	---	---	22000	---	1500	440	510	1300	---	---	---	ANA
MW-1	03/15/93	49.80	24.80	---	25.00	17000	580	1700	1200	590	1800	---	---	---	PACE
QC-1 (d)	03/15/93	---	---	---	---	15000	---	1100	860	440	1400	---	---	---	PACE
MW-1	06/07/93	49.80	25.01	---	24.79	750	100	0.8	0.8	ND<0.5	ND<0.5	---	---	---	PACE
QC-1 (d)	06/07/93	---	---	---	---	720	---	0.7	0.7	ND<0.5	ND<0.5	---	---	---	PACE
MW-1	09/23/93	49.80	28.70	---	21.10	40000	770	4000	500	920	3000	6600	(e)	---	PACE
MW-1	12/27/93	49.80	28.66	---	21.14	27000	---	2000	400	940	2600	14000	(e)	---	PACE
QC-1 (d)	12/27/93	---	---	---	---	21000	---	1700	380	830	2400	9200	(e)	---	PACE
MW-1	04/05/94	49.80	26.37	---	23.43	27000	---	3400	930	950	2900	8600	(e)	---	PACE
QC-1 (d)	04/05/94	---	---	---	---	29000	---	3700	1000	1000	3100	9700	(e)	---	PACE
MW-1	07/22/94	49.80	26.54	---	23.26	1700	---	220	2.3	2.0	3.4	220	(e)	1.3	PACE
MW-1	10/13/94	49.80	27.46	---	22.34	1200	---	250	21	ND<0.5	3.2	320	(e)	---	PACE
MW-1	01/25/95	49.80	20.96	---	28.84	1000	---	420	8	13	4	---	---	---	ATI
MW-1	04/19/95	49.80	19.59	---	30.21	5200	---	420	51	230	340	---	---	6.0	ATI
MW-1	07/05/95	49.80	19.61	---	30.19	320	---	4.2	ND<0.50	ND<0.50	ND<1.0	---	---	4.6	ATI
MW-1	10/05/95	49.80	24.40	---	25.40	5800	---	1000	40	31	180	7800	---	2.3	ATI
MW-1	01/12/96	49.80	25.44	---	24.36	370	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	3.7	ATI
MW-1	04/22/96	49.80	18.02	---	31.78	ND<50	---	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	3.9	SPL
MW-1	07/02/96	49.80	19.72	---	30.08	---	---	---	---	---	---	---	---	---	---
MW-1	07/03/96	49.80	---	---	---	ND<250	---	ND<2.5	ND<5	ND<5	ND<5	ND<50	---	3.6	SPL
MW-1	11/08/96	49.80	19.98	---	29.82	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	4.3	SPL
MW-1	01/03/97	49.80	19.49	---	30.31	ND<50	---	ND<0.5	14	ND<1.0	ND<1.0	ND<10	---	4.6	SPL
MW-1	04/28/97	49.80	20.20	---	29.60	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	3.9	SPL
MW-1	07/01/97	49.80	22.53	---	27.27	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	3.9	SPL
MW-1	10/02/97	49.80	24.27	---	25.53	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	4.6	SPL
MW-1	01/09/98	49.80	21.07	---	28.73	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	4.2	SPL
MW-1	05/06/98	49.80	14.94	---	34.86	60	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	3.8	SPL
MW-1	07/21/98	49.80	15.11	---	34.69	70	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	3.8	SPL
MW-1	12/30/98	49.80	19.95	---	29.85	---	---	---	---	---	---	---	---	---	---
MW-1	02/02/99	49.80	19.12	---	30.68	420	---	ND<1.0	ND<1.0	ND<1.0	ND<1.0	390	---	---	SPL
MW-1	05/10/99	49.80	15.51	---	34.29	---	---	---	---	---	---	---	---	---	---

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO PRODUCT WATER (Feet)	GROUNDWATER THICKNESS (Feet)	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)	Organic Lead (ug/l)	DO (ppm)	LAB
MW-2	01/05/92	51.07	DRY	---	DRY	---	---	---	---	---	---	---	---	---	---
MW-2	01/10/92	51.07	DRY	---	DRY	---	---	---	---	---	---	---	---	---	---
MW-2	06/05/92	51.07	30.05	---	21.02	11000	---	2000	180	490	1900	---	---	---	---
MW-2	07/24/92	51.07	30.72	---	20.35	---	---	---	---	---	---	---	---	---	---
MW-2	07/27/92	51.07	30.52	---	20.55	---	---	---	---	---	---	---	---	---	---
MW-2	09/15/92	51.07	31.56	---	19.51	75000	3200	(c) 2000	6500	2300	13000	---	---	---	ANA
MW-2	12/15/92	51.07	32.40	---	18.67	34000	1600	(c) 6200	8900	2000	7900	---	---	---	ANA
MW-2	03/15/93	51.07	26.14	---	24.93	150000	8400	12000	18000	3200	22000	82000	(e)	---	PACE
MW-2 (f)	06/07/93	51.07	26.38	SHEEN	24.69	---	---	---	---	---	---	---	---	---	---
MW-2 (f)	09/23/93	51.07	31.43	1.92	21.08	---	---	---	---	---	---	---	---	---	---
MW-2 (f)	12/27/93	51.07	34.07	1.07	17.80	---	---	---	---	---	---	---	---	---	---
MW-2 (f)	04/05/94	51.07	30.44	3.30	23.11	---	---	---	---	---	---	---	---	---	---
MW-2 (f)	07/22/94	51.07	28.51	0.80	23.16	---	---	---	---	---	---	---	---	---	---
MW-2 (f)	10/13/94	51.07	29.33	0.70	22.27	---	---	---	---	---	---	---	---	---	---
MW-2 (f)	01/25/95	51.07	25.55	4.25	28.71	---	---	---	---	---	---	---	---	---	---
MW-2 (f)	04/19/95	51.07	19.78	0.12	31.38	---	---	---	---	---	---	---	---	---	---
MW-2	07/05/95	51.07	20.88	0.09	30.26	140000	---	14000	30000	3500	26000	---	---	---	ATI
MW-2 (f)	10/05/95	51.07	24.68	0.10	26.47	---	---	---	---	---	---	---	---	---	---
MW-2 (f)	01/12/96	51.07	25.72	0.06	25.40	---	---	---	---	---	---	---	---	---	---
MW-2 (f)	04/22/96	51.07	19.33	0.08	31.80	---	---	---	---	---	---	---	---	---	---
MW-2 (f)	07/02/96	51.07	20.01	0.04	31.09	---	---	---	---	---	---	---	---	---	---
MW-2 (f)	11/08/96	51.07	20.28	0.01	30.80	---	---	---	---	---	---	---	---	---	---
MW-2 (f)	01/03/97	51.07	19.87	0.02	31.22	---	---	---	---	---	---	---	---	---	---
MW-2	04/28/97	51.07	20.59	0.01	30.49	560000	---	1200	1300	290	2310	6100	---	3.9	SPL
MW-2	07/01/97	51.07	22.90	0.01	28.18	24000	---	15000	16000	4900	24400	63000	---	3.7	SPL
QC-1 (d)	07/01/97	---	---	---	---	150000	---	14000	13000	1800	14200	57000	---	---	SPL
MW-2	10/02/97	51.07	24.65	0.02	26.44	---	---	---	---	---	---	---	---	---	---
MW-2	10/03/97	51.07	---	---	---	250000	---	32000	39000	6000	42000	160000	---	4.5	SPL
MW-2	01/09/98	51.07	21.22	0.01	29.86	420000	---	23000	29000	5800	43000	75000	---	4.0	SPL
QC-1 (d)	01/09/98	---	---	---	---	300000	---	20000	25000	5200	37000	84000	---	---	SPL
MW-2	05/06/98	51.07	15.10	0.01	35.98	180000	---	25000	26000	3400	22900	35000	---	3.7	SPL
MW-2	07/21/98	51.07	15.31	0.01	35.77	270000	---	21000	20000	2700	18800	34000	---	3.8	SPL
MW-2	12/30/98	51.07	21.10	0.10	30.05	300000	---	22000	24000	4200	26000	89000/95000 (j)	---	---	SPL
MW-2	02/02/98	51.07	20.11	---	30.96	410000	---	27000	43000	6700	50000	20000	---	---	SPL
MW-2	05/10/99	51.07	16.68	---	34.39	220000	---	20000	20000	2800	20000	100000	---	---	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO PRODUCT WATER THICKNESS (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)	Organic Lead (ug/l)	DO (ppm)	LAB
MW-3	01/05/92	49.95	33.69	---	16.26	7400	4000	790	23	210	40	---	ND	---
MW-3	01/10/92	49.95	33.74	---	16.21	---	---	---	---	---	---	---	---	---
MW-3	06/05/92	49.95	29.65	---	20.30	2000	---	130	5.3	93	20	---	---	---
MW-3	07/24/92	49.95	30.14	---	19.81	---	---	---	---	---	---	---	---	---
MW-3	07/27/92	49.95	30.14	---	19.81	---	---	---	---	---	---	---	---	---
MW-3	09/15/92	49.95	31.07	---	18.88	450	ND<50	55	3.1	34	7.1	---	---	ANA
MW-3	12/15/92	49.95	31.93	---	18.02	12000	710 (c)	940	ND<50	310	120	---	---	ANA
MW-3	03/15/93	49.95	25.71	---	24.24	ND<50	60	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-3	06/07/93	49.95	25.80	---	24.15	150	ND<50	3.6	ND<0.5	0.9	1.3	---	---	PACE
MW-3	09/23/93	49.95	29.18	---	20.77	---	---	---	---	---	---	---	---	---
MW-3	09/24/93	49.95	---	---	---	160	ND<50	8.4	ND<0.5	3.7	1.3	---	---	PACE
MW-3	12/27/93	49.95	29.25	---	20.70	9400	---	1100	48	530	120	2700 (e)	---	PACE
MW-3	04/05/94	49.95	26.84	---	23.11	7000	---	860	19	330	52	---	2.0	PACE
MW-3	07/22/94	49.95	26.90	---	23.11	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	2.1	PACE
MW-3	10/13/94	49.95	27.83	---	22.12	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	2.6	PACE
MW-3	01/25/95	49.95	21.65	---	28.30	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<1	---	---	ATI
MW-3	04/19/95	49.95	19.33	---	30.62	2400	---	170	8.0	130	27	---	5.0	ATI
MW-3	07/05/95	49.95	20.27	---	29.68	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	4.4	ATI
MW-3	10/05/95	49.95	23.73	---	26.22	2300	---	210	3.1	10	5.1	2400	4.2	ATI
MW-3	01/12/96	49.95	24.84	---	25.11	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	4.1	ATI
MW-3	04/22/96	49.95	18.60	---	31.35	ND<50	---	ND<0.5	ND<1	ND<1	ND<1	ND<10	4.4	SPL
MW-3	07/02/96	49.95	18.88	---	31.07	ND<50	---	ND<0.5	ND<1	ND<1	ND<1	ND<10	4.2	SPL
MW-3	11/08/96	49.95	19.14	---	30.81	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	4.4	SPL
MW-3	01/03/97	49.95	18.72	---	31.23	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	4.6	SPL
MW-3	04/28/97	49.95	19.38	---	30.57	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	4.2	SPL
MW-3	07/01/97	49.95	21.65	---	28.30	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	3.8	SPL
MW-3	10/02/97	49.95	23.45	---	26.50	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	4.5	SPL
MW-3	01/09/98	49.95	20.10	---	29.85	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	4.1	SPL
MW-3	05/06/98	49.95	15.57	---	34.38	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	3.8	SPL
MW-3	07/21/98	49.95	15.88	---	34.07	51	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	3.8	SPL
QC-1 (d)	07/21/98	---	---	---	---	60	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	SPL
MW-3	12/30/98	49.95	20.30	---	29.65	---	---	---	---	---	---	---	---	SPL
MW-3	02/02/99	49.95	19.75	---	30.20	ND<50	---	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<10	---	SPL
MW-3	05/10/99	49.95	16.17	---	33.78	---	---	---	---	---	---	---	---	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (Feet)	DEPTH TO WATER (Feet)	PRODUCT WATER THICKNESS (Feet)	GROUNDWATER ELEVATION (Feet) (b)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	Organic Lead (ug/l)	DO (ppm)	LAB
MW-4	07/24/92	50.76	30.02	---	20.74	42000	---	3200	3600	1400	4100	---	---	---	---
MW-4	07/27/92	50.76	30.02	---	20.74	---	---	---	---	---	---	---	---	---	---
MW-4	09/15/92	50.76	31.14	---	19.62	55000	---	---	---	---	---	---	---	---	---
MW-4	12/15/92	50.76	31.98	---	18.78	36000	1700 (c)	7600	13000	2800	9500	---	---	---	ANA
MW-4	03/15/93	50.76	25.34	---	25.42	69000	2200 (c)	3700	4700	1200	4000	---	---	---	ANA
MW-4	06/07/93	50.76	25.67	---	25.09	73000	1200	7600	15000	2500	11000	---	---	---	PACE
MW-4	09/23/93	50.76	29.37	---	21.39	---	---	10000	19000	3400	14000	---	---	---	PACE
MW-4	09/24/93	50.76	---	---	---	68000	---	---	---	---	---	---	---	---	---
QC-1 (d)	09/24/93	---	---	---	---	59000	5700	11000	2100	8600	990	---	---	---	PACE
MW-4	12/27/93	50.76	29.40	---	21.36	32000	---	5300	10000	2200	8400	---	---	---	PACE
MW-4	04/05/94	50.76	27.09	---	23.67	64000	---	2500	4400	1300	4400	---	---	---	PACE
MW-4	07/22/94	50.76	27.33	---	23.43	85000	---	6500	14000	1900	9600	---	---	1.4	PACE
QC-1 (d)	07/22/94	---	---	---	---	85000	---	10000	20000	3200	13000	---	---	0.8	PACE
MW-4	10/13/94	50.76	28.25	---	22.51	51000	---	11000	21000	3300	14000	---	---	---	PACE
QC-1 (d)	10/13/94	---	---	---	---	51000	---	7100	13000	2100	8900	790	(e)	2.9	PACE
MW-4	01/25/95	50.76	21.85	---	28.91	26000	---	7400	13000	2100	9100	---	---	---	PACE
QC-1 (d)	01/25/95	---	---	---	---	28000	---	3600	9600	1200	6400	---	---	---	ATI
MW-4	04/19/95	50.76	19.44	---	31.32	89000	---	4200	12000	1500	7800	---	---	---	ATI
QC-1 (d)	04/19/95	---	---	---	---	100000	---	12000	24000	3500	18000	---	---	5.1	ATI
MW-4	07/05/95	50.76	20.52	---	30.24	130000	---	12000	26000	3800	21000	---	---	---	ATI
MW-4	10/05/95	50.76	24.23	---	26.53	110000	---	13000	29000	3300	25000	---	---	4.3	ATI
MW-4	01/12/96	50.76	25.34	---	25.42	46000	---	10000	23000	3600	17000	34000	---	2.1	ATI
QC-1 (d)	01/12/96	---	---	---	---	40000	---	3500	8300	1100	8000	3000	---	3.3	ATI
MW-4	04/22/96	50.76	19.13	---	31.63	40000	---	4200	12000	1500	7800	---	---	---	ATI
QC-1 (d)	04/22/96	---	---	---	---	61000	---	12000	26000	3800	21000	---	---	---	ATI
MW-4	07/02/96	50.76	20.67	---	30.09	74000	---	12000	29000	3300	25000	---	---	4.3	ATI
QC-1 (d)	07/02/96	---	---	---	---	78000	---	13000	29000	3300	25000	---	---	2.1	ATI
MW-4	11/08/96	50.76	20.95	---	29.81	100000	---	10000	23000	3600	17000	34000	---	3.3	ATI
QC-1 (d)	11/08/96	---	---	---	---	110000	---	3500	8300	1100	8000	3000	---	3.3	ATI
MW-4	01/03/97	50.76	20.54	---	30.22	99000	---	12000	29000	3300	25000	---	---	4.3	ATI
QC-1 (d)	01/03/97	---	---	---	---	66000	---	13000	29000	3300	25000	---	---	2.1	ATI
MW-4	04/28/97	50.76	21.28	---	29.48	130000	---	10000	23000	3600	17000	34000	---	3.3	ATI
QC-1 (d)	04/28/97	---	---	---	---	110000	---	12000	28000	3800	21000	37000	---	3.9	SPL
MW-4	07/01/97	50.76	23.61	---	27.15	110000	---	11000	26000	3200	18200	34000	---	---	SPL
MW-4	10/02/97	50.76	25.39	---	25.37	---	---	16000	25000	4900	24400	37000	---	3.6	SPL
MW-4	10/03/97	50.76	---	---	---	66000	---	---	---	---	---	---	---	---	---
QC-1 (d)	10/03/97	---	---	---	---	71000	---	8200	8600	2700	13400	80000	---	4.4	SPL
MW-4	01/09/98	50.76	21.25	---	29.51	100000	---	8600	8700	2900	13500	84000	---	---	SPL
MW-4	05/06/98	50.76	15.96	---	34.80	430000	---	9700	3200	1500	4700	92000	---	3.8	SPL
								6900	31000	11000	56000	ND<5000	---	3.9	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT GROUNDWATER THICKNESS (Feet)	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)	Organic Lead (ug/l)	DO (ppm)	LAB
QC-1 (d)	05/06/98	---	---	---	---	440000	---	8000	39000	14000	70000	ND<5000	---	---	SPL
MW-4	07/21/98	50.76	16.1	---	34.66	250000	---	11000	26000	5500	26900	29000	---	3.7	SPL
QC-1 (d)	07/21/98	---	---	---	---	210000	---	11000	27000	5600	26800	29000	---	---	SPL
MW-4	12/30/98	50.76	20.91	---	29.85	370000	---	11000	22000	8500	40000	90000/92000 (j)	---	---	SPL
MW-4	02/02/99	50.76	20.13	---	30.63	190000	---	4100	19000	4800	32000	28000	---	---	SPL
MW-4	05/10/99	50.76	16.63	---	34.13	2700	---	23	7.1	8.1	25	120	---	---	SPL
MW-6	07/24/92	50.32	30.63	---	19.69	ND	---	1.6	ND	ND	ND	---	---	---	---
MW-6	07/27/92	50.32	30.63	---	19.69	---	---	---	---	---	---	---	---	---	---
MW-6	09/15/92	50.32	31.52	---	18.80	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	ANA
MW-6	12/15/92	50.32	32.42	---	17.90	58	ND<50	1.3	ND<0.5	ND<0.5	ND<0.5	---	---	---	ANA
MW-6	03/15/93	50.32	26.29	---	24.03	ND<50	ND<50	ND<0.5	0.6	ND<0.5	0.7	---	---	---	PACE
MW-6	06/07/93	50.32	26.33	---	23.99	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	1.5	---	---	---	PACE
MW-6	09/23/93	50.32	29.64	---	20.68	---	---	---	---	---	---	---	---	---	---
MW-6	09/24/93	50.32	---	---	---	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
MW-6	12/27/93	50.32	29.75	---	20.57	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	55	(e)	---	PACE
MW-6	04/05/94	50.32	27.26	---	23.06	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	300	(e)	1.7	PACE
MW-6	07/22/94	50.32	27.34	---	22.98	350	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	800	(e)	4.5	PACE
MW-6 (g)	10/13/94	50.32	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-6	01/25/95	50.32	22.16	---	28.16	240	---	6	ND<0.5	ND<0.5	ND<1	---	---	---	ATI
MW-6 (g)	04/19/95	50.32	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-6	07/05/95	50.32	20.80	---	29.52	180	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	---	ATI
MW-6	10/05/95	50.32	24.20	---	26.12	860	---	ND<5.0	ND<5.0	ND<5.0	ND<10	3600	---	2.8	ATI
MW-6	01/12/96	50.32	25.30	---	25.02	860	---	ND<5.0	ND<5.0	ND<5.0	ND<10	2800	---	4.2	ATI
MW-6	04/22/96	50.32	19.13	---	31.19	ND<50	---	ND<0.5	ND<1	ND<1	ND<1	470	---	4.3	SPL
MW-6	07/02/96	50.32	20.66	---	29.66	100	---	ND<0.5	ND<1	ND<1	ND<1	1100	---	4.2	SPL
MW-6	11/08/96	50.32	20.98	---	29.34	1100	---	ND<5	ND<10	ND<10	ND<10	1500	---	4.3	SPL
MW-6	01/03/97	50.32	20.53	---	29.79	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	450	---	4.5	SPL
MW-6	04/28/97	50.32	21.25	---	29.07	1400	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	3500	---	4.4	SPL
MW-6	07/01/97	50.32	23.40	---	26.92	6100	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	9100	---	3.9	SPL
MW-6	10/02/97	50.32	25.16	---	25.16	---	---	---	---	---	---	---	---	---	---
MW-6	10/03/97	50.32	---	---	---	330	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	2600	---	4.4	SPL
MW-6	01/09/98	50.32	21.13	---	29.19	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	4.3	SPL
MW-6	05/06/98	50.32	16.11	---	34.21	410	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	500	---	3.6	SPL
MW-6	07/21/98	50.32	16.33	---	33.99	4300	---	ND<5	ND<10	ND<10	ND<10	3800	---	4.0	SPL
MW-6	12/30/98	50.32	20.89	---	29.43	---	---	---	---	---	---	---	---	---	---
MW-6	02/02/99	50.32	20.20	---	30.12	---	---	---	---	---	---	---	---	---	---
MW-6	05/10/99	50.32	16.75	---	33.57	---	---	---	---	---	---	---	---	---	---

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (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)	Organic Lead (ug/l)	DO (ppm)	LAB
MW-7	01/25/95	51.40	21.67	---	29.73	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<1	---	---	7.0	ATI
MW-7	04/19/95	51.40	25.27	---	26.13	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<1	---	---	5.0	ATI
MW-7	07/05/95	51.40	24.63	---	26.77	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	4.2	ATI
MW-7	10/05/95	51.40	28.21	---	23.19	83	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	77	---	4.5	ATI
MW-7	01/12/96	51.40	29.29	---	22.11	63	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	120	---	4.8	ATI
MW-7	04/22/96	51.40	23.11	---	28.29	ND<50	---	ND<0.5	ND<1	ND<1	ND<1	13	---	4.8	SPL
MW-7	07/02/96	51.40	23.56	---	27.84	ND<50	---	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	4.8	SPL
MW-7	11/08/96	51.40	20.06	---	31.34	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	5.1	SPL
MW-7	01/03/97	51.40	23.42	---	27.98	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	4.7	SPL
MW-7	04/28/97	51.40	24.12	---	27.28	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	3.9	SPL
MW-7	07/01/97	51.40	26.40	---	25.00	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	4.2	SPL
MW-7	10/02/97	51.40	28.14	---	23.26	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	4.7	SPL
MW-7	01/09/98	51.40	24.02	---	27.38	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	4.1	SPL
MW-7	05/06/98	51.40	21.00	---	30.40	1900	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	1800	---	3.5	SPL
MW-7	07/21/98	51.40	21.17	---	30.23	50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	3.7	SPL
MW-7	12/30/98	51.40	22.13	---	29.27	---	---	---	---	---	---	---	---	---	---
MW-7	02/02/99	51.40	22.08	---	29.32	---	---	---	---	---	---	---	---	---	---
MW-7	05/10/99	51.40	18.58	---	32.82	---	---	---	---	---	---	---	---	---	---
MW-8	01/25/95	50.88	31.59	---	19.29	54	---	ND<0.5	ND<0.5	ND<0.5	ND<1	---	---	7.1	ATI
MW-8	04/19/95	50.88	19.18	---	31.70	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<1	---	---	5.1	ATI
MW-8	07/05/95	50.88	19.03	---	31.85	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	4.5	ATI
MW-8	10/05/95	50.88	24.40	---	26.48	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	4.1	ATI
MW-8	01/12/96	50.88	25.51	---	25.37	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	4.6	ATI
MW-8	04/22/96	50.88	18.00	---	32.88	ND<50	---	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	4.8	SPL
MW-8	07/02/96	50.88	19.83	---	31.05	ND<50	---	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	4.5	SPL
MW-8	11/08/96	50.88	20.09	---	30.79	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	4.7	SPL
MW-8	01/03/97	50.88	19.72	---	31.16	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	4.4	SPL
MW-8	04/28/97	50.88	20.44	---	30.44	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	4.1	SPL
MW-8	07/01/97	50.88	22.72	---	28.16	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	3.8	SPL
MW-8	10/02/97	50.88	24.51	---	26.37	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	4.2	SPL
MW-8	01/09/98	50.88	21.17	---	29.71	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	3.5	SPL
MW-8	05/06/98	50.88	18.34	---	32.54	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	3.6	SPL
MW-8	07/21/98	50.88	18.55	---	32.33	90	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	3.3	SPL
MW-8	12/30/98	50.88	20.40	---	30.48	---	---	---	---	---	---	---	---	---	---
MW-8	02/02/99	50.88	19.28	---	31.60	---	---	---	---	---	---	---	---	---	---
MW-8	05/10/99	50.88	15.62	---	35.26	---	---	---	---	---	---	---	---	---	---

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT GROUNDWATER THICKNESS (Feet)	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)	Organic Lead (ug/l)	DO (ppm)	LAB
MW-9	01/25/95	51.05	22.32	---	28.73	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<1	---	---	7.4	ATI
MW-9	04/19/95	51.05	19.86	---	31.19	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<1	---	---	5.2	ATI
MW-9	07/05/95	51.05	20.78	---	30.27	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	4.4	ATI
MW-9	10/05/95	51.05	24.33	---	26.72	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	2.3	ATI
QC-1 (d)	10/05/95	---	---	---	---	52	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	160	---	---	ATI
MW-9	01/12/96	51.05	25.44	---	25.61	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	3.2	ATI
MW-9	04/22/96	51.05	18.01	---	33.04	ND<50	---	ND<0.5	ND<1	ND<1	ND<1	11	---	3.5	SPL
MW-9	07/02/96	51.05	19.70	---	31.35	ND<50	---	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	3.3	SPL
MW-9	11/08/96	51.05	19.96	---	31.09	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	3.7	SPL
MW-9	01/03/97	51.05	19.52	---	31.53	ND<250	---	ND<2.5	ND<5.0	ND<5.0	ND<5.0	ND<50	---	4.4	SPL
MW-9	04/28/97	51.05	20.22	---	30.83	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	4.0	SPL
MW-9	07/01/97	51.05	22.59	---	28.46	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	3.9	SPL
MW-9	10/02/97	51.05	24.33	---	26.72	---	---	---	---	---	---	---	---	---	---
MW-9	10/03/97	51.05	---	---	---	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	4.4	SPL
MW-9	01/09/98	51.05	21.11	---	29.94	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	3.9	SPL
MW-9	05/06/98	51.05	18.26	---	32.79	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	4.0	SPL
MW-9	07/21/98	51.05	18.46	---	32.59	70	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	3.7	SPL
MW-9 (g)	12/30/98	51.05	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-9 (g)	02/02/99	51.05	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-9 (g)	05/10/99	51.05	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-10	01/09/98	---	(h) 20.97	---	---	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	4.3	SPL
MW-10	05/06/98	---	(h) 18.07	---	---	800	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	980	---	3.9	SPL
MW-10	07/21/98	---	(h) 18.28	---	---	80	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	4.0	SPL
MW-10	12/30/98	---	(h) 22.22	---	---	---	---	---	---	---	---	---	---	---	---
MW-10	02/02/99	---	(h) 21.83	---	---	940	---	ND<10	ND<10	ND<10	ND<10	690	---	---	SPL
MW-10	05/10/99	---	(h) 17.99	---	---	---	---	---	---	---	---	---	---	---	---



TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT GROUNDWATER THICKNESS (Feet)	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)	Organic Lead (ug/l)	DO (ppm)	LAB
QC-2 (i)	09/15/92	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	ANA
QC-2 (i)	12/15/92	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	ANA
QC-2 (i)	03/15/93	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
QC-2 (i)	06/07/93	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
QC-2 (i)	09/24/93	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
QC-2 (i)	12/27/93	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
QC-2 (i)	04/05/94	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
QC-2 (i)	07/22/94	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
QC-2 (i)	10/13/94	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
QC-2 (i)	01/25/95	---	---	---	---	ND<50	---	ND<0.5	2	0.6	1	---	---	---	ATI
QC-2 (i)	04/19/95	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	ATI
QC-2 (i)	07/05/95	---	---	---	---	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	---	ATI
QC-2 (i)	10/05/95	---	---	---	---	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	---	ATI
QC-2 (i)	01/12/96	---	---	---	---	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	---	ATI
QC-2 (i)	04/22/96	---	---	---	---	ND<50	---	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	---	SPL
QC-2 (i)	07/02/96	---	---	---	---	ND<50	---	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	---	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

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
DO	Dissolved oxygen
ug/l	Micrograms per liter
ppm	Parts per million
ND	Not detected above reported detection limit
---	Not analyzed/applicable/measurable
ANA	Anametrix, Inc.
PACE	Pace, Inc.
ATI	Analytical Technologies, Inc.
SPL	Southern Petroleum Laboratories

NOTES:

- (a) Casing elevations surveyed to the nearest 0.01 foot relative to mean sea level.
- (b) Groundwater elevations adjusted assuming a specific gravity of 0.75 for free product.
- (c) Concentrations reported as diesel from MW-1, MW-2 and MW-4 are primarily due to the presence of a lighter petroleum product, possibly gasoline or kerosene.
- (d) Blind duplicate.
- (e) A copy of the documentation for this data is included in Appendix C of Alisto report 10-018-05-004.
- (f) Well not sampled due to presence of free product.
- (g) Well inaccessible.
- (h) Top of casing not surveyed.
- (i) Travel blank.
- (j) EPA method by 8020\8260

# **Analytical Appendix**



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

May 17, 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 May 12, 1999. The sample(s) was assigned to Certificate of Analysis No. (s) 9905432 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

A handwritten signature in cursive script that reads 'Sonia West'. The signature is written in dark ink and is positioned above a horizontal line.

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: 99-05-432**

Approved for Release by:

*Sonia West*

\_\_\_\_\_  
Sonia West, Senior Project Manager

*5-17-99*

\_\_\_\_\_  
Date

Joel Grice  
Laboratory Director

Idelis Williams  
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. H9-9905432-01

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

P.O.#  
 N/A, COC#118682  
 DATE: 05/17/99

PROJECT: #11117, 7210 Bancroft  
 SITE: Oakland  
 SAMPLED BY: Blaine Tech Services  
 SAMPLE ID: D

PROJECT NO: 990510-P1  
 MATRIX: WATER  
 DATE SAMPLED: 05/10/99  
 DATE RECEIVED: 05/12/99

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	100000	250 P	ug/L
BENZENE	20000	250 P	ug/L
TOLUENE	20000	250 P	ug/L
ETHYLBENZENE	2800	250 P	ug/L
TOTAL XYLENE	20000	250 P	ug/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	62800		ug/L

<b>Surrogate</b>	<b>% Recovery</b>
1,4-Difluorobenzene	100
4-Bromofluorobenzene	105

Method 8020A \*\*\*

Analyzed by: LJ

Date: 05/14/99

Gasoline Range Organics	220	12.5 P	mg/L
-------------------------	-----	--------	------

<b>Surrogate</b>	<b>% Recovery</b>
1,4-Difluorobenzene	79
4-Bromofluorobenzene	97

California LUFT Manual for Gasoline

Analyzed by: LJ

Date: 05/14/99 08:26:00

(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*





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

**\*\* SPL BATCH QUALITY CONTROL REPORT \*\***  
 METHOD 8020

Matrix: Aqueous  
 Units: ug/L

Batch Id: VARE990514021300

**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	41	82.0	72 - 128
Benzene	ND	50	44	88.0	61 - 119
Toluene	ND	50	44	88.0	65 - 125
EthylBenzene	ND	50	45	90.0	70 - 118
O Xylene	ND	50	45	90.0	72 - 117
M & P Xylene	ND	100	91	91.0	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	15	20	35	100	35	100	0	20	39 - 150
BENZENE	ND	20	21	105	20	100	4.88	21	32 - 164
TOLUENE	ND	20	21	105	21	105	0	20	38 - 159
ETHYLBENZENE	ND	20	20	100	21	105	4.88	19	52 - 142
O XYLENE	ND	20	22	110	22	110	0	18	53 - 143
M & P XYLENE	ND	40	42	105	43	108	2.82	17	53 - 144

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

Analyst: LJ

< = Data outside Method Specification limits.

Sequence Date: 05/14/99

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

SPL ID of sample spiked: 9905434-01A

ND = Not Detected/Below Detection Limit

Sample File ID: E\_E2153.TX0

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

Method Blank File ID:

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

Blank Spike File ID: E\_E2146.TX0

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

Matrix Spike File ID: E\_E2148.TX0

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

Matrix Spike Duplicate File ID: E\_E2149.TX0

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

**SAMPLES IN BATCH(SPL ID):**

9905432-01A 9905432-02A 9905434-03A 9905434-04A  
 9905434-05A 9905434-06A 9905434-07A 9905434-09A  
 9905434-01A 9905434-02A 9905450-04A 9905450-05A



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

\*\* SPL BATCH QUALITY CONTROL REPORT \*\*  
 California LUFT Manual for Gasoline

Matrix: Aqueous  
 Units: mg/L

Batch Id: VARE990514024000

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	0.84	84.0	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	0.77	85.6	0.76	84.4	1.41	36	36 - 160

Analyst: LJ

Sequence Date: 05/14/99

SPL ID of sample spiked: 9905434-02A

Sample File ID: EEE2154.TX0

Method Blank File ID:

Blank Spike File ID: EEE2147.TX0

Matrix Spike File ID: EEE2150.TX0

Matrix Spike Duplicate File ID: EEE2151.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 =  $[( <1> - <2> ) / <3> ] \times 100$

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)

SAMPLES IN BATCH(SPL ID):

9905432-01A	9905432-02A	9905434-03A	9905434-04A
9905434-05A	9905434-06A	9905434-07A	9905434-09A
9905434-01A	9905434-02A	9905450-04A	9905450-05A

*CHAIN OF CUSTODY*  
*AND*  
*SAMPLE RECEIPT CHECKLIST*



9905132



# CHAIN OF CUSTODY

No. 118682

Page 1 of 1

CONSULTANT'S NAME <u>Blain Tech Services, Inc.</u>		CONSULTANT'S ADDRESS <u>1680 Rogers Ave., San Jose, CA 95112</u>	
BP SITE NUMBER <u>11117</u>	BP SITE / FACILITY ADDRESS <u>7210 Bancroft, Oakland</u>		CONSULTANT PROJECT NUMBER <u>990510-P1</u>
CONSULTANT PROJECT MANGER <u>Doug Sanders</u>		PHONE NUMBER <u>(408)573-0555 X218</u>	FAX NUMBER <u>(408)573-7771</u>
BP CONTACT <u>Scott Hooton</u>	BP ADDRESS <u>295 SW 41st St., Renton, WA</u>		PHONE NUMBER <u>(425)251-0689</u>
LAB CONTACT <u>SPL - Sonia West</u>	LABORATORY ADDRESS <u>P.O. Box 20807, Houston, TX</u>		PHONE NUMBER <u>(800)969-6775</u>
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

INVOICE NUMBER 804039490658

SAMPLE DESCRIPTION	COLLECTION DATE	COLLECTION TIME	MATRIX SOIL/WATER	CONTAINERS		PRESERVATIVE LAB SAMPLE #	KNO <sub>3</sub>	SILICATE	NITRATE										COMMENTS
				NO.	TYPE (VOL.)														
<u>D</u>	<u>5/10</u>		<u>W</u>	<u>3</u>	<u>100</u>	<u>10:05</u>	<u>X</u>	<u>X</u>	<u>X</u>										
<u>E</u>	<u>↓</u>		<u>↓</u>	<u>↓</u>	<u>↓</u>	<u>10:30</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>										

SAMPLED BY (Please Print Name) <u>PAUL SANNA</u>			SAMPLED BY (Signature) <u>Paul Sanna</u>			ADDITIONAL COMMENTS <u>2°C</u>		
RELINQUISHED BY / AFFILIATION (Print Name / Signature)	DATE	TIME	ACCEPTED BY / AFFILIATION (Print Name / Signature)	DATE	TIME			
<u>Paul Sanna / PLS</u>	<u>5/11/99</u>	<u>4:11 PM</u>						
			<u>McCormick / SPL</u>	<u>5/12/99</u>	<u>1000</u>			

# SPL Houston Environmental Laboratory

## Sample Login Checklist

Date: 5/12/99	Time: 1000
---------------	------------

SPL Sample ID: <div style="text-align: center; font-size: 1.2em; margin-top: 10px;">9905432</div>
--

		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:	2°	C
10	Method of sample delivery to SPL:	SPL Delivery	
		Client Delivery	
		FedEx Delivery (airbill #) 804039490058	
		Other:	
11	Method of sample disposal:	SPL Disposal	
		HOLD	
		Return to Client	

Name: <i>W. Cockrum</i>	Date: 5/12/99
-------------------------	---------------



## BP WELL MONITORING DATA SHEET

Project #: <u>990510-P1</u>	Job #: <u>11117</u>
Sampler: <u>PA-1</u>	Date: <u>5-10-99</u>
Well I.D.: <u>MW-2</u>	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth: <u>39.55</u>	Depth to Water: <u>16.68</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
<u>2"</u>	0.16	5"	1.02
3"	0.37	5"	1.47
4"	0.65	Other:	radius * 1.163

Purge Method: Barrier      Sampling Method: Barrier

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

$$\frac{3.6 \text{ Case Volume (Gals.)}}{1} \times \frac{3 \text{ Specified Volumes}}{1} = 0.9 \text{ Gals. Calculated Volume}$$

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
9:52	68.8	7.0	1021	/	4	odor
9:56	68.6	7.0	988	/	8	
10:00	68.4	6.9	956	/	11	

Did well dewater? Yes  No       Gallons actually evacuated: 11

Sampling Time: 10:05      Sampling Date: 5-10-99

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

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

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

## BP WELL MONITORING DATA SHEET

Project #: <b>990510-P1</b>	Job #: <b>11117</b>
Sampler: <b>Paul</b>	Date: <b>5-10-99</b>
Well I.D.: <b>MW-4</b>	Well Diameter: <b>(2)</b> 3 4 6 8
Total Well Depth: <b>39.70</b>	Depth to Water: <b>16.63</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	Multplier	Well Diameter	Multplier
<b>2"</b>	0.16	3"	1.02
3"	0.37	4"	1.47
4"	0.65	Other	radius * 2.163

Purge Method: Barrier Disposable Barrier Middleburg <input checked="" type="checkbox"/> Electric Submersible Extraction Pump Other: _____	Sampling Method: Barrier Disposable Barrier <input checked="" type="checkbox"/> Extraction Port Other: _____
--	---

$$\frac{3.6 \text{ (Case Volume (Gals.))} \times 3 \text{ (Specified Volumes)}}{11.0 \text{ (Calculated Volume)}} = \text{Gals}$$

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
10:10	67.6	7.0	654	/	4	
10:20	67.4	7.0	629	/	8	
10:25	66.8	7.1	611	/	11	

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Gallons actually evacuated: <b>11</b>
Sampling Time: <b>10:30</b>	Sampling Date: <b>5-10-99</b>
Sample I.D.: <b>MW-4 E</b>	Laboratory: <b>(SPD)</b> Other: _____

Analyzed for: <b>(TPH-G BTEX MTBE TPH-D)</b> 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