

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

August 6, 1999

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

RE: Former BP Oil Site No. 11105
3159 Castro Valley Boulevard (at Redwood)
Castro Valley, CA

99 AUG -9 PM 4: 43
ENVIRONMENTAL
PROTECTION

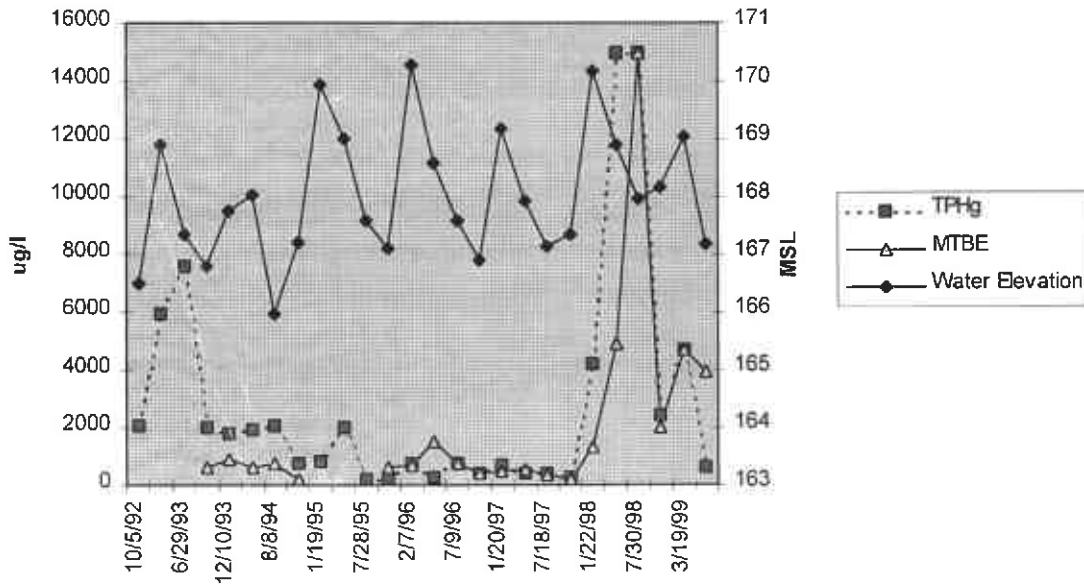
Dear Mr. Seery:

Enclosed find the 3 May 1999 report documenting groundwater monitoring data associated with 19 March 1999.

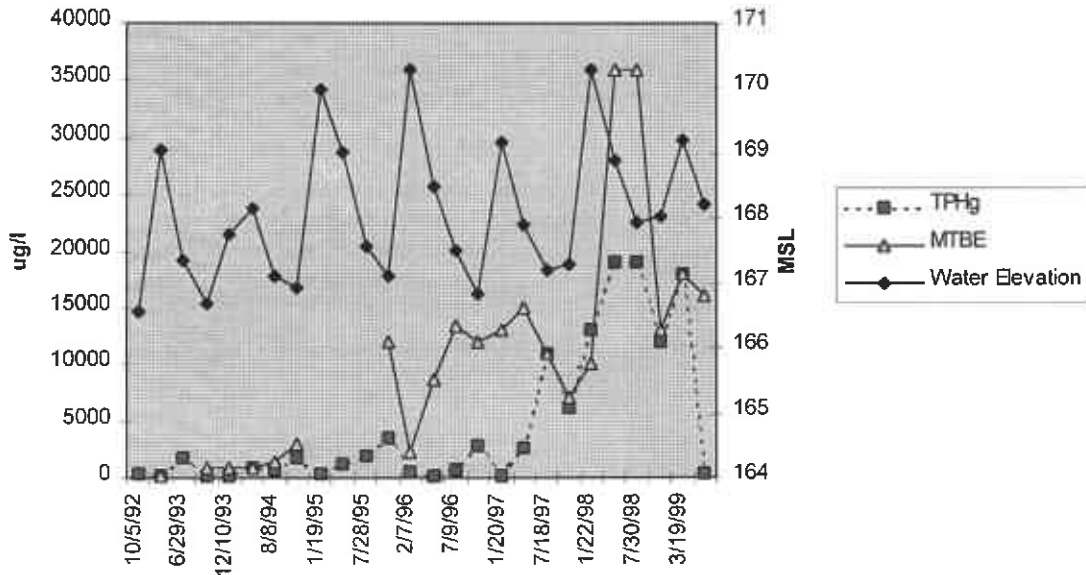
It is noted that petroleum hydrocarbons were reported to be present in the soil and groundwater at this site at the time the property was sold during 1994. Concentrations detected since that time have increased and raise the concern that petroleum releases have occurred subsequent to BP's operation of the facility.

To illustrate the basis for our concern, water elevation data, together with MTBE and TPHg concentration data for the two monitoring wells located nearest the underground storage tanks are depicted below.

ESE-1 TPHg, Benzene & Water Elevation

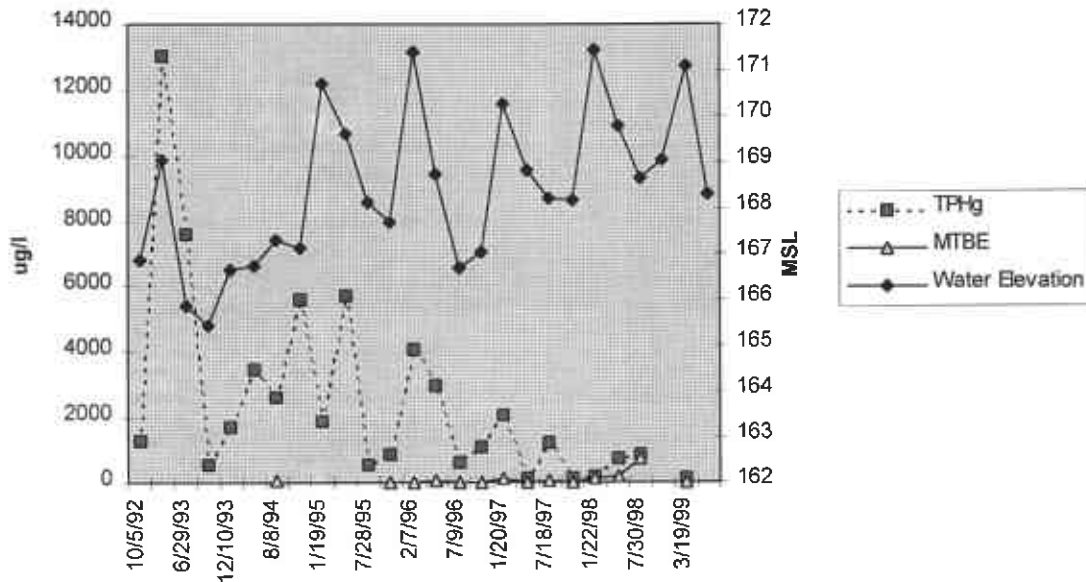


ESE-2 TPHg, MTBE & Water Elevation

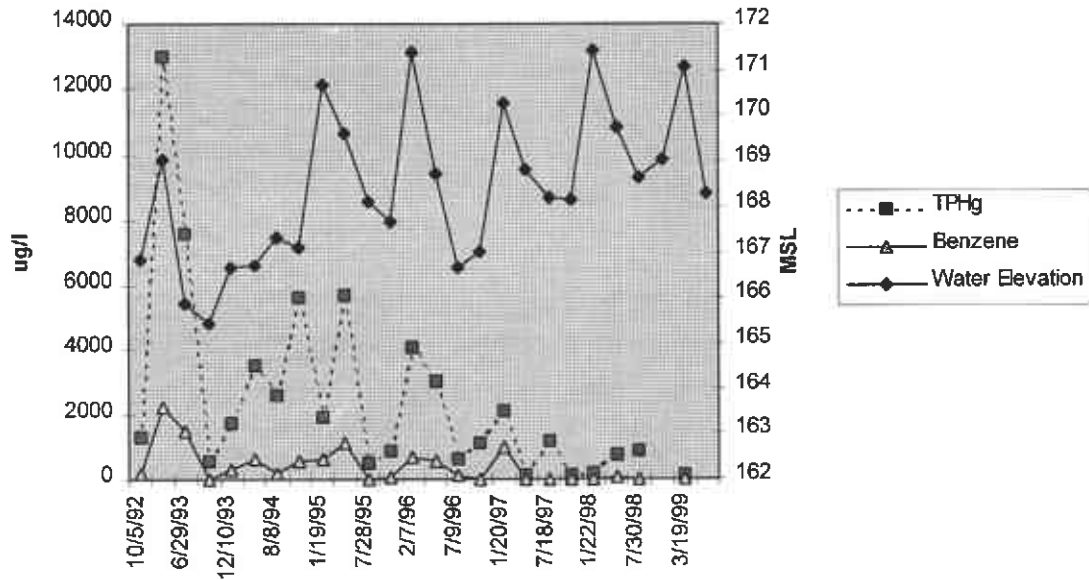


In contrast to the ESE-1 and ESE-2 data, well ESE-5 shows decreasing TPHg concentrations. Well ESE-5 is located south of a former dispenser island, and west of Redwood Road and the XTRA retail gasoline outlet.

ESE-5 TPHg, MTBE & Water Elevation



ESE-5 TPHg, Benzene & Water Elevation



Please contact me at (425) 251-0689 if you have any questions or concerns regarding this submittal.

Sincerely,

Scott Hooton

attachment

cc: site file
A. Fagorala - RWQCB-SFBR
Mr. Azim Shakoori, Castro Valley Chevron, 3519 Castro Valley Boulevard, Castro Valley, CA
94546 (w/attachment)



BP OIL

BP Oil Company
Environmental Remediation Management
295 SW 41st Street
Renton, Washington 98055-4931
(206) 251-0667
Fax No: (206) 251-0736

May 14, 1999

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

RE: Former BP Oil Site No. 11105
3159 Castro Valley Boulevard (at Redwood)
Castro Valley, CA

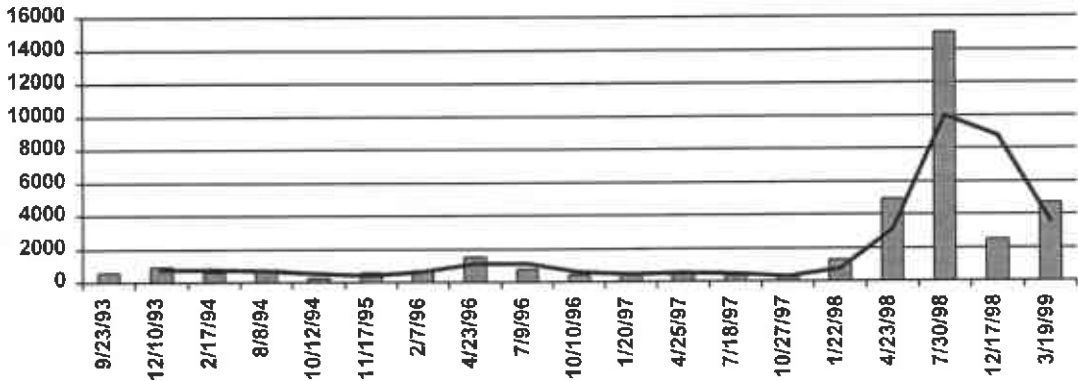
Dear Mr. Seery:

Enclosed find the 3 May 1999 report documenting groundwater monitoring data associated with 19 March 1999.

It is noted that petroleum hydrocarbons were reported to be present in the soil and groundwater at this site at the time the property was sold during 1994. Concentrations detected since that time have increased and raise the concern that petroleum releases have occurred subsequent to BP's operation of the facility.

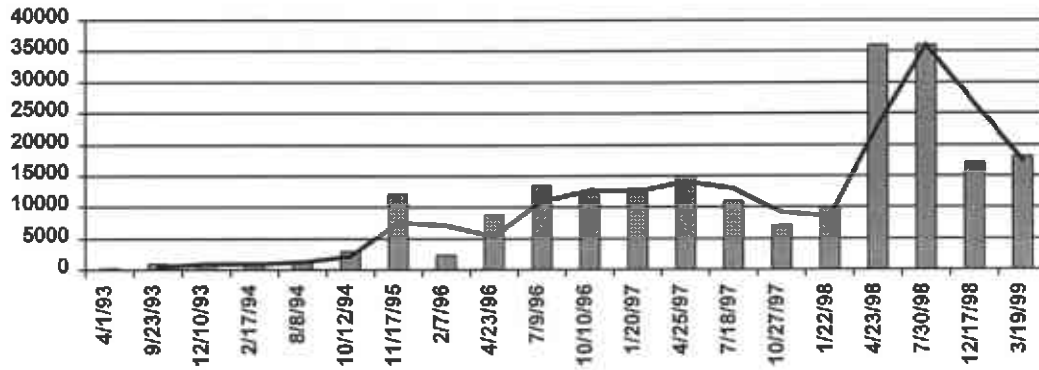
To illustrate the basis for our concern, MTBE concentration data for the two monitoring wells located nearest the underground storage tanks are depicted below. An averaging trend line has been added to the graphs.

ESE-1 MTBE Concentration Data



99 MAY 19 PM 4: 37
ENVIRONMENTAL PROTECTION

ESE-2 MTBE Concentration Data



These data clearly show MTBE concentration increases in groundwater after BP sold the site in 1994.

Please contact me at (425) 251-0689 if you have any questions or concerns regarding this submittal.

Sincerely,



Scott Hooton

attachment

cc: site file

A. Fagorala - RWQCB-SFBR

Mr. Azim Shakoori, Castro Valley Chevron, 3519 Castro Valley Boulevard, Castro Valley, CA
94546 (w/attachment)

BLAINE
TECH SERVICES, INC.



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

May 3, 1999

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

1st Quarter 1999 Monitoring at 11105

First Quarter 1999 Groundwater Monitoring at
BP Service Station Number 11105
3519 Castro Valley Blvd.
Castro Valley, CA

Monitoring Performed on March 19, 1999

Groundwater Sampling Report 990319-J-2

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.

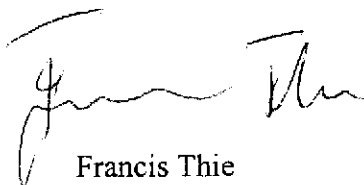
Basic field information is presented alongside analytical values excerpted from the laboratory report in the cumulative table of **WELL DATA AND ANALYTICAL RESULTS**. The full analytical report for the most recent samples is located in the **Analytical Appendix**. The table also contains new groundwater elevation calculations taken from the computer plotted gradient map which is located in the **Professional Engineering Appendix**.

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

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

Please call if you have any questions.

Yours truly,

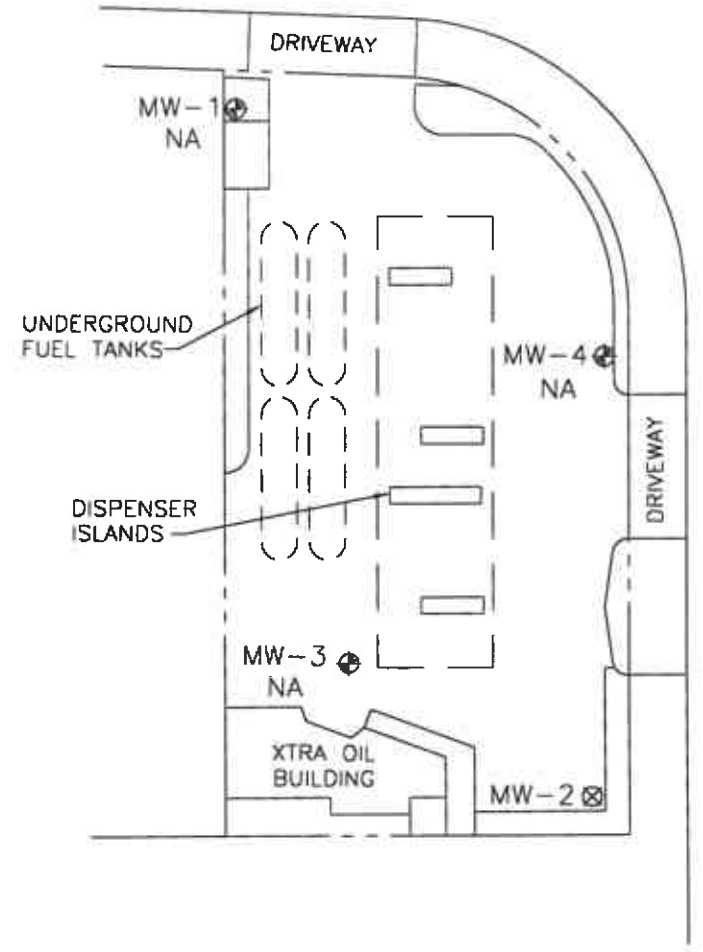
A handwritten signature in black ink, appearing to read "Francis Thie". The signature is fluid and cursive, with a large initial "F" and a distinct "Thie" at the end.

Francis Thie
Vice President

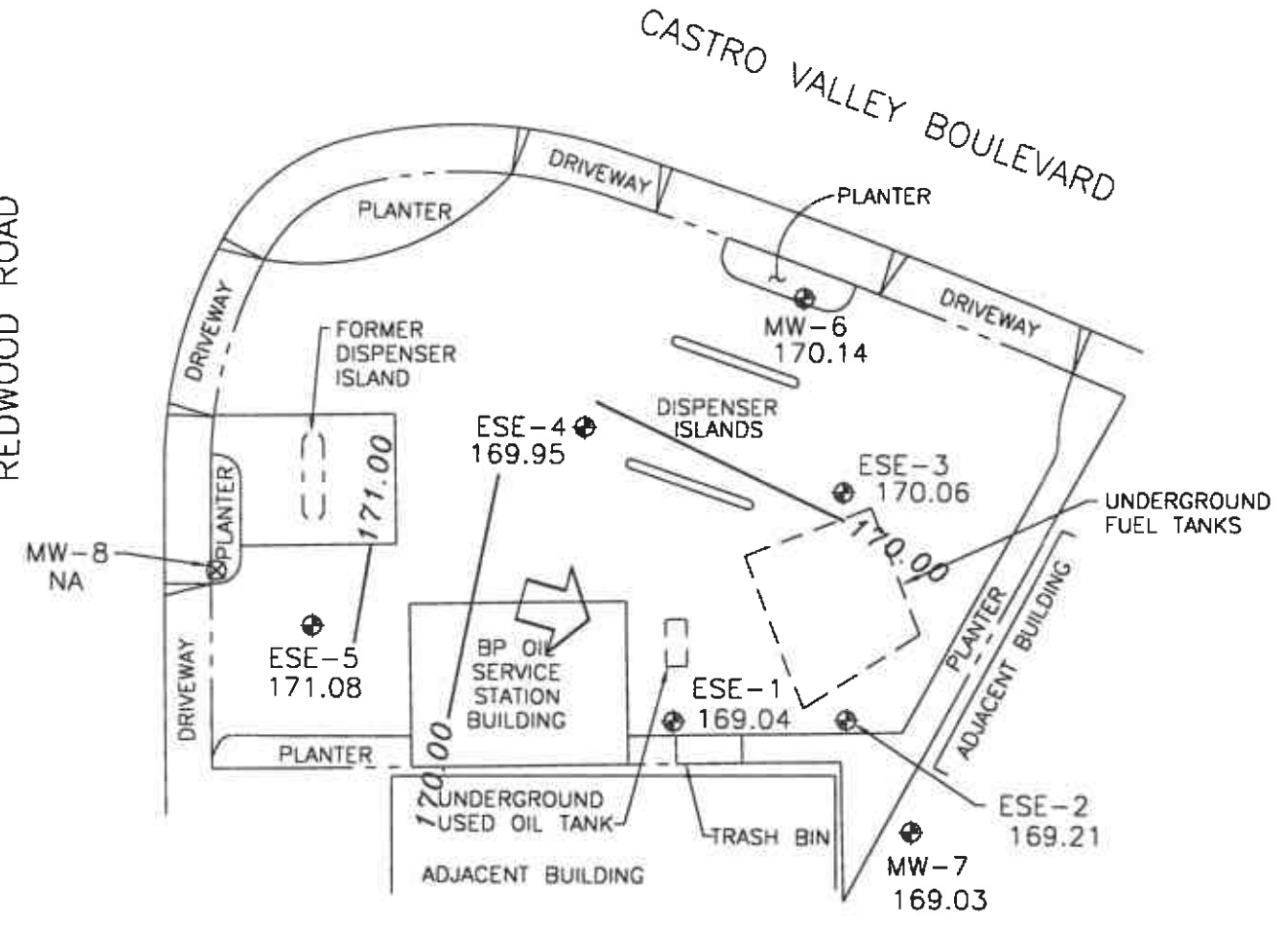
FPT/ck

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

Professional Engineering Appendix



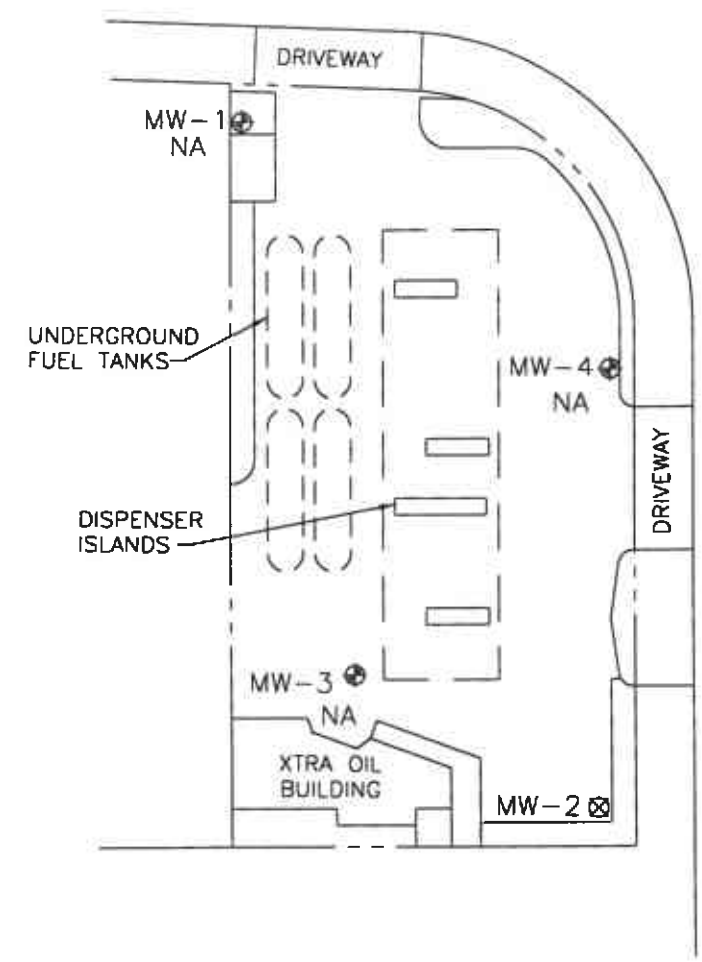
REDWOOD ROAD



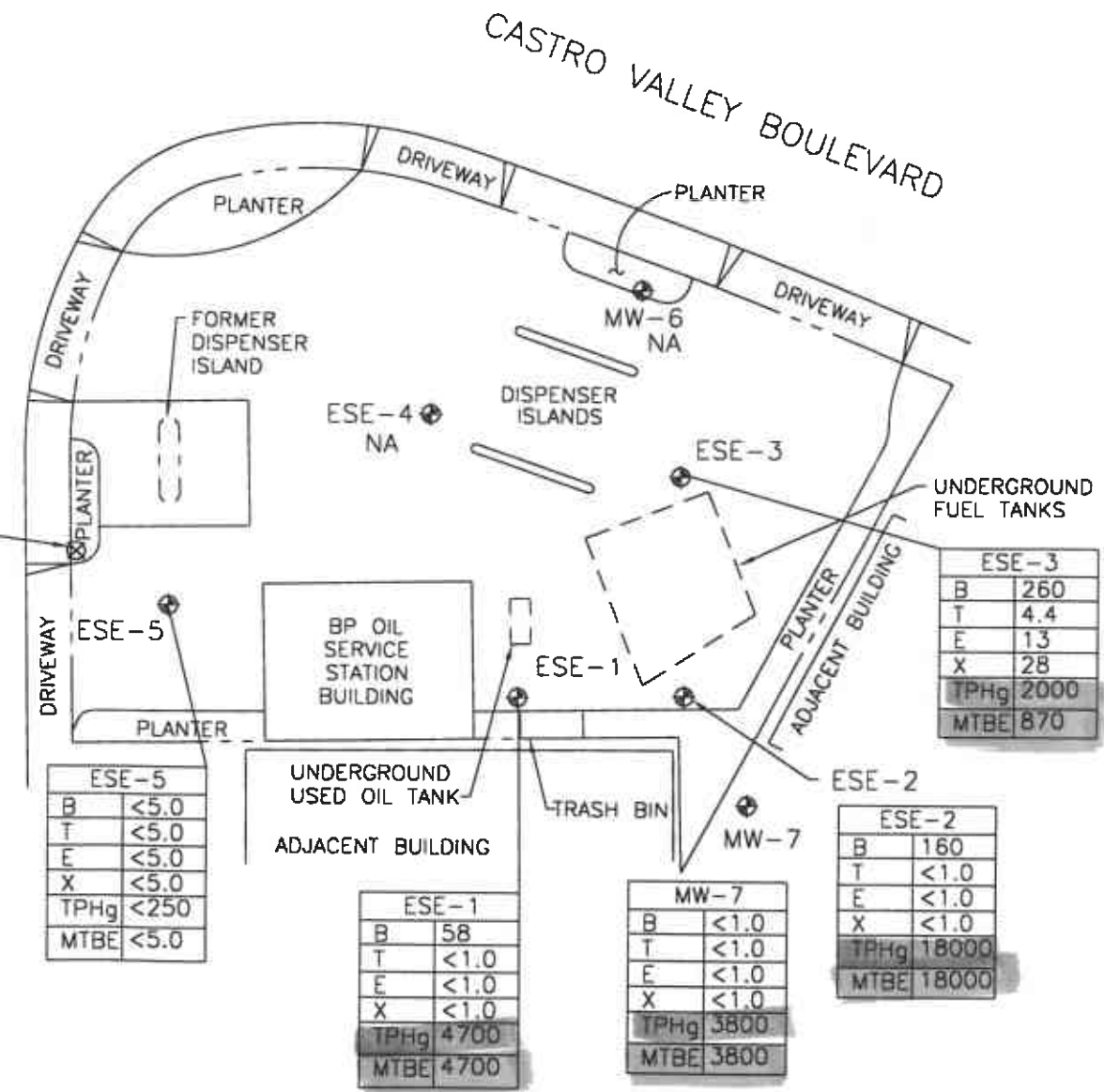
- EXPLANATION**
- ⊕ GROUNDWATER MONITORING WELL
 - ⊗ DESTROYED WELL
 - 169.03 GROUNDWATER ELEVATION (FT, MSL)
 - 170.00 — GROUNDWATER ELEVATION CONTOUR (FT, MSL)
 - NA DATA NOT AVAILABLE
 - ➔ APPROXIMATE GROUNDWATER FLOW DIRECTION; APPROXIMATE GRADIENT = 0.01



PREPARED BY RRM engineering contracting firm	GROUNDWATER ELEVATION CONTOUR MAP, MARCH 19, 1999	FIGURE: 1 PROJECT: DAC04
	BP Oil Service Station No. 11105 3519 Castro Valley Boulevard Castro Valley, California	



REDWOOD ROAD



- EXPLANATION**
- ⊕ GROUNDWATER MONITORING WELL
 - ⊗ DESTROYED 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
 - NA DATA NOT AVAILABLE

PREPARED BY  engineering contracting firm	HYDROCARBON CONCENTRATION MAP, MARCH 19, 1999	FIGURE: 2 PROJECT: DAC04
	BP Oil Service Station No. 1105 3519 Castro Valley Boulevard Castro Valley, California	

Ref. 11105brev.dwg
 Base map from Alisto Engineering Group

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 WATER (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
ESE-1 (c)	10/05/92	177.69	11.22	166.47	2100	370	150	17	110	---	---	---
ESE-1D (d)	10/05/92	---	---	---	2300	370	160	16	110	---	---	---
ESE-1	04/01/93	177.69	8.79	168.90	5900	1500	410	110	390	---	---	PACE
ESE-1	06/29/93	177.69	10.34	167.35	7600	2900	390	130	460	---	---	PACE
ESE-1	09/23/93	177.69	10.91	166.78	2000	490	40	20	56	600	(e) ---	PACE
QC-1 (d)	09/23/93	---	---	---	1500	420	39	19	56	550	(e) ---	PACE
ESE-1	12/10/93	177.69	9.93	167.76	1800	480	42	19	66	921	(e) 3.2	PACE
QC-1 (d)	12/10/93	---	---	---	1500	380	38	17	55	770	(e) ---	PACE
ESE-1	02/17/94	177.69	9.64	168.05	1900	380	48	24	80	590	(e) ---	PACE
QC-1 (d)	02/17/94	---	---	---	2200	430	42	19	65	680	(e) ---	PACE
ESE-1	08/08/94	177.69	11.72	165.97	2100	450	46	16	50	760	(e) 5.1	PACE
ESE-1	10/12/94	177.69	10.48	167.21	760	240	16	51	39	230	(e) 3.5	PACE
ESE-1	01/19/95	177.69	7.77	169.92	840	600	120	22	58	---	8.0	ATI
ESE-1	05/02/95	177.69	8.69	169.00	2000	640	67	24	98	---	8.5	ATI
ESE-1	07/28/95	177.69	10.12	167.57	190	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	7.9	ATI
ESE-1	11/17/95	177.69	10.57	167.12	200	3.4	ND<1.0	1	ND<2.0	600	7.7	ATI
ESE-1	02/07/96	177.69	7.41	170.28	750	370	23	21	64	680	2.5	SPL
ESE-1	04/23/96	177.69	9.12	168.57	310	100	ND<1	ND<1	ND<1	1500	6.3	SPL
ESE-1	07/09/96	177.69	10.12	167.57	730	230	74	13	63	750	2.9	SPL
ESE-1	10/10/96	177.69	10.80	166.89	420	26	1.6	7.3	12	430	7.4	SPL
ESE-1	01/20/97	177.69	8.52	169.17	660	290	4.2	13	36	450	5.9	SPL
ESE-1	04/25/97	177.69	9.77	167.92	410	ND<0.5	ND<1.0	ND<1.0	ND<1.0	580	5.3	SPL
ESE-1	07/18/97	177.69	10.55	167.14	420	ND<0.5	ND<1.0	ND<1.0	ND<1.0	370	5.0	SPL
ESE-1	10/27/97	177.69	10.36	167.33	300	56	ND<1.0	6.5	ND<1.0	220	4.8	SPL
ESE-1	01/22/98	177.69	7.52	170.17	4200	440	9	15	17.7	1300	4.2	SPL
ESE-1	04/23/98	177.69	8.80	168.89	15000	3400	190	910	900	4900	4.2	SPL
QC-1	04/23/98	---	---	---	15000	2800	140	730	730	4400	---	SPL
ESE-1	07/29/98	177.69	9.73	167.96	---	---	---	---	---	---	---	---
ESE-1	07/30/98	---	---	---	15000	ND<2.5	ND<5.0	ND<5.0	ND<5.0	15000	4.0	SPL
ESE-1	12/17/98	177.69	9.51	168.18	2400	73	1.0	2.8	4.6	2000/2500*	---	SPL
ESE-1	03/19/99	177.69	8.65	169.04	4700	58	ND<1.0	ND>1.0	ND<1.0	4700	---	SPL

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WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (Feet)	TPH-G (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
ESE-2	10/05/92	178.23	11.68	166.55	300	5.4	16	3.9	45	---	---	---
ESE-2	04/01/93	178.23	9.17	169.06	240	27	ND<0.5	17	2.6	123	(e) ---	PACE
ESE-2	06/29/93	178.23	10.88	167.35	1700	260	24	110	23	---	---	PACE
QC-1 (d)	06/29/93	---	---	---	1300	240	17	110	25	---	---	PACE
ESE-2	09/23/93	178.23	11.56	166.67	240	3.1	0.5	0.6	2.5	900	(e) ---	PACE
ESE-2	12/10/93	178.23	10.48	167.75	250	2.4	2.4	1.5	11	940	(e) 2.6	PACE
ESE-2	02/17/94	178.23	10.06	168.17	900	ND<0.5	ND<0.5	ND<0.5	ND<0.5	930	(e) ---	PACE
ESE-2	08/08/94	178.23	11.11	167.12	750	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1400	(e) 5.1	PACE
ESE-2	10/12/94	178.23	11.31	166.92	1700	ND<0.5	ND<0.5	ND<0.5	ND<0.5	3000	(e) 3.6	PACE
ESE-2	01/19/95	178.23	8.25	169.98	300	2	0.9	0.7	1	---	8.1	ATI
ESE-2	05/02/95	178.23	9.21	169.02	1200	4	ND<2.5	ND<2.5	ND<5.0	---	8.4	ATI
ESE-2	07/28/95	178.23	10.64	167.59	2000	ND<2.5	ND<2.5	ND<2.5	ND<5.0	---	7.7	ATI
ESE-2	11/17/95	178.23	11.13	167.10	3600	ND<25	ND<25	ND<25	ND<50	12000	7.4	ATI
QC-1 (d)	11/17/95	---	---	---	3400	ND<25	ND<25	ND<25	ND<50	12000	---	ATI
ESE-2	02/07/96	178.23	7.94	170.29	450	ND<0.5	ND<1	ND<1	ND<1	2300	1.8	SPL
ESE-2	04/23/96	178.23	9.73	168.50	260	0.9	ND<1	ND<1	ND<1	8600	7.2	SPL
ESE-2	07/09/96	178.23	10.70	167.53	780	ND<2.5	ND<5	ND<5	ND<5	13393	3.0	SPL
ESE-2	10/10/96	178.23	11.39	166.84	2900	ND<0.5	ND<1.0	ND<1.0	ND<1.0	12000	7.0	SPL
ESE-2	01/20/97	178.23	9.04	169.19	ND<250	ND<2.5	ND<5.0	ND<5.0	ND<5.0	13000	6.2	SPL
ESE-2	04/25/97	178.23	10.31	167.92	2700	ND<0.5	ND<1.0	ND<1.0	ND<1.0	15000	5.9	SPL
ESE-2	07/18/97	178.23	11.02	167.21	11000	ND<5	ND<10	ND<10	ND<10	11000	5.0	SPL
ESE-2	10/27/97	178.23	10.93	167.30	6100	ND<2.5	ND<5.0	ND<5.0	ND<5.0	7100	4.8	SPL
QC-1 (d)	10/27/97	---	---	---	6600	ND<2.5	ND<5.0	ND<5.0	ND<5.0	7400	---	SPL
ESE-2	01/22/98	178.23	7.93	170.30	13000	ND<0.5	ND<1.0	ND<1.0	ND<1.0	10000	4.6	SPL
QC-1 (d)	01/22/98	---	---	---	13000	ND<0.5	ND<1.0	ND<1.0	ND<1.0	10000	---	SPL
ESE-2	04/23/98	178.23	9.34	168.89	19000	ND<5	ND<10	ND<10	ND<10	36000	4.2	SPL
ESE-2	07/29/98	178.23	10.29	167.94	---	---	---	---	---	---	---	---
ESE-2	07/30/98	---	---	---	19000	ND<5	ND<10	ND<10	ND<10	36000	4.2	SPL
ESE-2	12/17/98	178.23	10.20	168.03	12000	ND<5.0	ND<5.0	ND<5.0	ND<5.0	13000/17000*	---	SPL
ESE-2	03/19/99	178.23	9.02	169.21	18000	160	ND<1.0	ND<1.0	ND<1.0	18000	---	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
ESE-3	10/05/92	178.20	10.58	167.62	430	57	31	3.6	34	---	---	---
ESE-3	04/01/93	178.20	8.14	170.06	2400	460	220	74	210	---	---	PACE
ESE-3	06/29/93	178.20	9.72	168.48	280	56	14	15	13	---	---	PACE
ESE-3	09/23/93	178.20	10.46	167.74	72	13	3.5	1.7	4.1	---	---	PACE
ESE-3	12/10/93	178.20	9.30	168.90	270	71	32	6.1	33	---	2.7	PACE
ESE-3	02/17/94	178.20	8.97	169.23	520	140	10	20	33	---	---	PACE
ESE-3	08/08/94	178.20	10.02	168.18	ND<50	8.8	1.6	1.6	2.3	---	6.2	PACE
ESE-3	10/12/94	178.20	10.32	167.88	470	190	6.4	15	18	---	3.5	PACE
ESE-3	01/19/95	178.20	7.40	170.80	330	260	27	21	20	---	6.7	ATI
ESE-3	05/02/95	178.20	8.26	169.94	530	180	30	23	44	---	8.6	ATI
ESE-3	07/28/95	178.20	9.54	168.66	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	8.8	ATI
ESE-3	11/17/95	178.20	10.04	168.16	ND<50	1.7	ND<0.50	ND<0.50	ND<1.0	ND<5.0	7.3	ATI
ESE-3	02/07/96	178.20	7.08	171.12	ND<50	8.6	ND<1	ND<1	ND<1	ND<10	3.9	SPL
ESE-3	04/23/96	178.20	8.79	169.41	ND<50	7.6	ND<1	ND<1	ND<1	65	6.9	SPL
ESE-3	07/09/96	178.20	10.09	168.11	ND<50	12	2.6	2	3.9	26	3.4	SPL
ESE-3	10/10/96	178.20	10.48	167.72	---	---	---	---	---	---	---	---
ESE-3	10/11/96	178.20	---	---	260	140	ND<1.0	ND<1.0	2.6	ND<10	7.2	SPL
ESE-3	01/20/97	178.20	8.65	169.55	ND<50	1.5	1.7	ND<1.0	ND<1.0	14	5.7	SPL
ESE-3	04/25/97	178.20	10.02	168.18	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	14	5.4	SPL
ESE-3	07/18/97	178.20	10.66	167.54	10000	1400	1400	300	1280	ND<250	5.2	SPL
ESE-3	10/27/97	178.20	9.83	168.37	ND<250	ND<2.5	ND<5.0	ND<5.0	36	ND<50	5.0	SPL
ESE-3	01/22/98	178.20	7.06	171.14	130	ND<0.5	ND<1.0	ND<1.0	ND<1.0	120	4.3	SPL
ESE-3	04/23/98	178.20	8.44	169.76	4800	560	ND<10	15	ND<10	4000	3.9	SPL
ESE-3	07/29/98	178.20	9.27	168.93	---	---	---	---	---	---	---	---
ESE-3	07/30/98	---	---	---	1800	6.2	ND<5.0	ND<5.0	ND<5.0	1700	4.1	SPL
ESE-3	12/17/98	178.20	9.15	169.05	600	54	ND<1.0	2.1	4.9	340/480*	---	SPL
ESE-3	03/19/99	178.20	8.14	170.06	2000	260	4.4	13	28	870	---	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
ESE-4	10/05/92	177.73	10.33	167.40	98	7.2	1.3	1.1	6.1	---	---	---
ESE-4	04/01/93	177.73	7.88	169.85	550	93	20	23	33	---	---	PACE
ESE-4	06/29/93	177.66	(f) 8.33	169.33	150	23	0.6	5.4	0.5	54	(e) ---	PACE
ESE-4	09/23/93	177.66	10.05	167.61	110	14	1.7	3.2	4.6	---	---	PACE
ESE-4	12/10/93	177.66	8.95	168.71	110	21	7.2	4.2	10	---	2.8	PACE
ESE-4	02/17/94	177.66	8.65	169.01	210	26	1.2	4.7	11	110	(e) ---	PACE
ESE-4	08/08/94	177.66	9.76	167.90	76	9.6	ND<0.5	2	ND<0.5	62	(e) 7.0	PACE
ESE-4	10/12/94	177.66	9.62	168.04	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	44	(e) 3.2	PACE
ESE-4	01/19/95	177.66	6.97	170.69	140	56	14	24	23	---	6.9	ATI
ESE-4	05/02/95	177.66	7.85	169.81	130	21	2.8	8.6	8.2	---	9.1	ATI
ESE-4	07/28/95	177.66	9.20	168.46	ND<50	ND<0.5	ND<0.50	ND<0.50	ND<1.0	---	8.1	ATI
ESE-4	11/17/95	177.66	9.68	167.98	ND<50	ND<0.5	0.6	ND<0.50	ND<1.0	18	5.7	ATI
ESE-4	02/07/96	177.66	6.59	171.07	100	2.6	ND<1	1.6	4.1	42	2.0	SPL
ESE-4	04/23/96	177.66	8.30	169.36	160	37	15	16	31	43	5.4	SPL
ESE-4	07/09/96	177.66	9.21	168.45	60	17	1.5	6.8	11.6	27	3.9	SPL
ESE-4	10/10/96	177.66	9.97	167.69	---	---	---	---	---	---	---	---
ESE-4	10/11/96	177.66	---	---	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	18	5.5	SPL
ESE-4	01/20/97	177.66	7.68	169.98	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	130	4.9	SPL
ESE-4	04/25/97	177.66	9.15	168.51	ND<250	ND<2.5	ND<5.0	ND<5.0	ND<5.0	ND<50	4.3	SPL
ESE-4	07/18/97	177.66	9.71	167.95	ND<50	15	ND<10	ND<10	ND<10	ND<100	4.5	SPL
ESE-4	10/27/97	177.66	9.38	168.28	ND<250	ND<2.5	ND<5.0	ND<5.0	ND<5.0	ND<50	4.9	SPL
ESE-4	01/22/97	177.66	6.59	171.07	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	4.3	SPL
ESE-4	04/23/98	177.66	7.90	169.76	ND<250	ND<2.5	ND<5.0	ND<5.0	ND<5.0	ND<50	4.0	SPL
ESE-4	07/29/98	177.66	8.96	168.70	---	---	---	---	---	---	---	---
ESE-4	07/30/98	---	---	---	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	4.2	SPL
ESE-4	12/17/98	177.66	8.32	169.34	---	---	---	---	---	---	---	---
ESE-4	03/19/99	177.66	7.71	169.95	---	---	---	---	---	---	---	---

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
ESE-5	10/05/92	176.08	9.22	166.86	1300	200	3.8	1.2	18	---	---	---
ESE-5	04/01/93	176.08	7.02	169.06	13000	2200	26	730	1000	---	---	PACE
QC-1 (d)	04/01/93	---	---	---	13000	2500	25	740	1100	---	---	PACE
ESE-5	06/29/93	176.08	10.21	165.87	7600	1500	9.3	170	100	---	---	PACE
ESE-5	09/23/93	176.08	10.64	165.44	560	19	1.2	0.9	1.8	---	---	PACE
ESE-5	12/10/93	176.08	9.42	166.66	1700	300	3	76	110	---	2.5	PACE
ESE-5	02/07/94	176.08	9.35	166.73	3500	640	7.8	90	130	---	---	PACE
ESE-5	08/08/94	176.08	8.76	167.32	2600	210	4.6	9.4	4.4	33	(e) 5.8	PACE
QC-1 (d)	08/08/94	---	---	---	2500	230	4.6	13	4.8	32	(e) ---	PACE
ESE-5	10/12/94	176.08	8.95	167.13	5600	560	9.5	75	21	---	3.6	PACE
QC-1 (d)	10/12/94	---	---	---	6000	550	10	78	22	77	(e) ---	PACE
ESE-5	01/19/95	176.08	5.40	170.68	1900	620	ND<5	95	15	---	7.6	ATI
QC-1 (d)	01/19/95	---	---	---	1600	620	ND<5	93	17	---	---	ATI
ESE-5	05/02/95	176.08	6.48	169.60	5700	1100	ND<10	180	58	---	8.2	ATI
QC-1 (d)	05/02/95	---	---	---	5300	1100	ND<10	180	58	---	---	ATI
ESE-5	07/28/95	176.08	7.97	168.11	520	15	ND<0.50	1.7	1.3	---	8.2	ATI
QC-1 (d)	07/28/95	---	---	---	460	7.2	ND<0.50	1.9	1.5	---	---	ATI
ESE-5	11/17/95	176.08	8.39	167.69	850	39	1.8	7.6	2.7	24	6.3	ATI
ESE-5	02/07/96	176.08	4.71	171.37	4100	670	6	190	140	ND<50	1.5	SPL
ESE-5	04/23/96	176.08	7.35	168.73	3000	570	ND<5	79	100	84	6.5	SPL
ESE-5	07/09/96	176.08	9.40	166.68	620	150	1.7	9.3	6.4	25	3.7	SPL
ESE-5	10/10/96	176.08	9.04	167.04	1100	29	ND<5.0	ND<5.0	ND<5.0	ND<50	6.3	SPL
QC-1 (d)	10/10/96	---	---	---	1100	31	ND<5.0	ND<5.0	ND<5.0	ND<50	---	SPL
ESE-5	01/20/97	176.08	5.82	170.26	2100	980	ND<25	280	80	ND<250	5.4	SPL
QC-1 (d)	01/20/97	---	---	---	2700	910	8.8	280	84	180	---	SPL
ESE-5	04/25/97	176.08	7.24	168.84	---	---	---	---	---	---	---	---
ESE-5	04/28/97	176.08	---	---	ND<250	7.9	ND<5.0	ND<5.0	ND<5.0	ND<50	4.9	SPL
ESE-5	07/18/97	176.08	7.86	168.22	1200	ND<5	ND<10	ND<10	ND<10	ND<100	5.0	SPL
QC-1 (d)	07/18/97	---	---	---	630	31	ND<5.0	ND<5.0	ND<5.0	130	---	SPL
ESE-5	10/27/97	176.08	7.91	168.17	ND<250	5.4	ND<5.0	ND<5.0	ND<5.0	ND<50	5.2	SPL
ESE-5	01/22/98	176.08	4.64	171.44	170	7.7	ND<1.0	ND<1.0	ND<1.0	130	4.6	SPL
ESE-5	04/23/98	176.08	6.31	169.77	720	79	ND<5.0	9.0	ND<5.0	180	4.6	SPL
ESE-5	07/29/98	176.08	7.43	168.65	---	---	---	---	---	---	---	---
ESE-5	07/30/98	---	---	---	840	9.8	ND<1.0	4.0	ND<1.0	710	4.3	SPL
ESE-5	12/17/98	176.08	7.05	169.03	---	---	---	---	---	---	---	---
ESE-5	03/19/99	176.08	5.00	171.08	ND<250	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	---	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
MW-6	07/28/95	179.24	10.00	169.24	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	8.1	ATI
MW-6	11/17/95	179.24	10.44	168.80	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	6.8	ATI
MW-6	02/07/96	179.24	7.68	171.56	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	2.4	SPL
MW-6	04/23/96	179.24	9.33	169.91	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	6.6	SPL
MW-6	07/09/96	179.24	10.10	169.14	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	2.7	SPL
MW-6	10/10/96	179.24	11.00	168.24	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	6.9	SPL
MW-6	01/20/97	179.24	8.70	170.54	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.5	SPL
MW-6	04/25/97	179.24	10.16	169.08	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.1	SPL
MW-6	07/18/97	179.24	10.66	168.58	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	4.8	SPL
MW-6	10/27/97	179.24	10.25	168.99	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	4.8	SPL
MW-6	01/22/98	179.24	7.76	171.48	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	4.0	SPL
MW-6	04/23/98	179.24	9.10	170.14	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	4.2	SPL
MW-6	07/29/98	179.24	10.40	168.84	---	---	---	---	---	---	---	---
MW-6	07/30/98	---	---	---	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	3.8	SPL
MW-6	12/17/98	179.24	9.40	169.84	---	---	---	---	---	---	---	---
MW-6	03/19/99	179.24	9.10	170.14	---	---	---	---	---	---	---	---

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
MW-7	07/28/95	176.55	9.25	167.30	ND<50	0.54 (g)	0.54	ND<0.50	ND<1.0	---	7.1	ATI
MW-7	11/17/95	176.55	9.73	166.82	1100	ND<10	ND<10	ND<10	ND<20	4000	6.3	ATI
MW-7	02/07/96	176.55	6.48	170.07	610	ND<0.5	ND<1	ND<1	ND<1	2500	4.1	SPL
QC-1 (d)	02/07/96	---	---	---	280	ND<0.5	ND<1	ND<1	ND<1	2600	---	SPL
MW-7	04/23/96	176.55	8.37	168.18	110	ND<0.5	ND<1	ND<1	ND<1	3500	6.4	SPL
QC-1 (d)	04/23/96	---	---	---	230	ND<0.5	ND<1	ND<1	ND<1	3500	---	SPL
MW-7	07/09/96	176.55	9.24	167.31	230	ND<0.5	ND<1	ND<1	ND<1	4296	3.1	SPL
QC-1 (d)	07/09/96	---	---	---	220	ND<0.5	ND<1	ND<1	ND<1	4400	---	SPL
MW-7	10/10/96	176.55	10.05	166.50	---	---	---	---	---	---	---	---
MW-7	10/11/96	176.55	---	---	1600	ND<0.5	ND<1.0	ND<1.0	ND<1.0	3000	6.9	SPL
MW-7	01/20/97	176.55	7.51	169.04	ND<50	0.63	1	ND<1.0	ND<1.0	2600	5.7	SPL
MW-7	04/25/97	176.55	8.79	167.76	---	---	---	---	---	---	---	---
MW-7	04/28/97	176.55	---	---	1500	ND<0.5	ND<1.0	ND<1.0	ND<1.0	3600	5.1	SPL
QC-1 (d)	04/28/97	---	---	---	7700	3500	ND<25	74	37	ND<250	---	SPL
MW-7	07/18/97	176.55	9.50	167.05	1400	ND<0.5	ND<1.0	ND<1.0	ND<1.0	2600	5.2	SPL
MW-7	10/27/97	176.55	9.19	167.36	420	ND<0.5	ND<1.0	ND<1.0	ND<1.0	560	4.9	SPL
MW-7	01/22/98	176.55	6.45	170.10	3100	ND<0.5	ND<1.0	ND<1.0	1.4	2300	4.2	SPL
MW-7	04/23/98	176.55	8.02	168.53	3800	ND<0.5	ND<1.0	ND<1.0	ND<1.0	3800	3.9	SPL
MW-7	07/29/98	176.55	8.88	167.67	---	---	---	---	---	---	---	---
MW-7	07/30/98	---	---	---	500	ND<2.5	ND<5.0	ND<5.0	ND<5.0	ND<50	4.1	SPL
QC-1 (d)	07/30/98	---	---	---	4700	ND<12	ND<25	ND<25	ND<25	4700	---	SPL
MW-7	12/17/98	176.55	8.62	167.93	---	---	---	---	---	---	---	---
MW-7	03/19/99	176.55	7.52	169.03	3800	ND<1.0	ND<1.0	ND<1.0	ND<1.0	3800	---	SPL
MW-8	07/28/95	176.34	7.80	168.54	1100	ND<2.5	ND<2.5	ND<2.5	ND<5.0	---	7.2	ATI
MW-8	11/17/95	176.34	8.29	168.05	8300	75	5.3	670	240	140	7.0	ATI
MW-8	02/07/96	176.34	4.99	171.35	2300	33	ND<10	190	216	ND<100	1.7	SPL
MW-8	04/23/96	176.34	6.09	170.25	2000	390	ND<20	150	26	ND<250	5.1	SPL
MW-8 (h)	07/09/96	---	---	---	---	---	---	---	---	---	---	---

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
QC-2	(i) 04/01/93	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2	(i) 06/29/93	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2	(i) 09/23/93	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2	(i) 12/10/93	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2	(i) 02/17/94	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2	(i) 08/08/94	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2	(i) 10/12/94	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2	(i) 01/19/95	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1	---	---	ATI
QC-2	(i) 05/02/95	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	ATI
QC-2	(i) 07/28/95	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	ATI
QC-2	(i) 11/17/95	---	---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	ATI
QC-2	(i) 02/07/96	---	---	---	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	SPL
QC-2	(i) 04/23/96	---	---	---	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	SPL
QC-2	(i) 07/09/96	---	---	---	ND<50	ND<0.5	ND<1	ND<1	ND<1	ND<10	---	SPL

ABBREVIATIONS:

TPH-G	Total petroleum hydrocarbons as gasoline
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 applicable/available/measured/analyzed
PACE	Pace, Inc.
ATI	Analytical Technologies, Inc.
SPL	Southern Petroleum Laboratories

NOTES:

- (a) Top of casing elevations surveyed relative to mean sea level.
- (b) Groundwater elevations in feet relative to mean sea level.
- (c) Additional analysis of the sample collected from ESE-1 on 10/5/92 detected 96 ug/l total petroleum hydrocarbons as diesel and 1.8 ug/l 1,2-dichloroethane.
- (d) Blind duplicate.
- (e) A copy of the documentation for this data is included in Appendix C of Alisto report 10-138-09-004.
- (f) Top of casing lowered by 0.07 foot after the monitoring event on 4/01/93.
- (g) Sample result may be falsely elevated due to matrix interference.
- (h) Well destroyed.
- (i) Travel blank.
- (*) MTBE by EPA 8020/8260



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 860-0901

March 29, 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 March 23, 1999. The sample(s) was assigned to Certificate of Analysis No. (s) 9903922 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 black 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: 99-03-922

Approved for Release by:

Sonia West

Sonia West, Senior Project Manager

3-29-99

Date

Greg Grandits
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. H9-9903922-01

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

P.O.#
 N/A, COC#118682
 DATE: 03/29/99

PROJECT: #11105, 3519 Castro Valley
 SITE: Castro Valley, CA
 SAMPLED BY: Blaine Tech Services
 SAMPLE ID: A

PROJECT NO: 990319-J2
 MATRIX: WATER
 DATE SAMPLED: 03/19/99 10:13:00
 DATE RECEIVED: 03/23/99

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	ND	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 100
 4-Bromofluorobenzene 100

Method 8020A ***

Analyzed by: CJ
 Date: 03/24/99

Gasoline Range Organics ND 0.250 P mg/L

Surrogate

% Recovery

1,4-Difluorobenzene 100
 4-Bromofluorobenzene 100

California LUFT Manual for Gasoline

Analyzed by: CJ
 Date: 03/24/99 20:36:00

ND - Not detected. (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



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

Certificate of Analysis No. H9-9903922-02

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

P.O.#
 N/A, COC#118682
 DATE: 03/29/99

PROJECT: #11105, 3519 Castro Valley
 SITE: Castro Valley, CA
 SAMPLED BY: Blaine Tech Services
 SAMPLE ID: B

PROJECT NO: 990319-J2
 MATRIX: WATER
 DATE SAMPLED: 03/19/99 10:35:00
 DATE RECEIVED: 03/23/99

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	870	5.0 P	ug/L
BENZENE	260	1.0 P	ug/L
TOLUENE	4.4	1.0 P	ug/L
ETHYLBENZENE	13	1.0 P	ug/L
TOTAL XYLENE	28	1.0 P	ug/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	305.4		ug/L

Surrogate % Recovery
 1,4-Difluorobenzene 100
 4-Bromofluorobenzene 100

Method 8020A ***
 Analyzed by: TB
 Date: 03/25/99

Gasoline Range Organics 2.0 0.050 P mg/L

Surrogate % Recovery
 1,4-Difluorobenzene 113
 4-Bromofluorobenzene 97

California LUFT Manual for Gasoline
 Analyzed by: CJ
 Date: 03/24/99 21:00:00

(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



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

Certificate of Analysis No. H9-9903922-03

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

P.O.#
 N/A, COC#118682
 DATE: 03/29/99

PROJECT: #11105, 3519 Castro Valley
SITE: Castro Valley, CA
SAMPLED BY: Blaine Tech Services
SAMPLE ID: C

PROJECT NO: 990319-J2
MATRIX: WATER
DATE SAMPLED: 03/19/99 10:57:00
DATE RECEIVED: 03/23/99

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	3800	10 P	ug/L
BENZENE	ND	1.0 P	ug/L
TOLUENE	ND	1.0 P	ug/L
ETHYLBENZENE	ND	1.0 P	ug/L
TOTAL XYLENE	ND	1.0 P	ug/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	ND		ug/L

Surrogate	% Recovery
1,4-Difluorobenzene	100
4-Bromofluorobenzene	100

Method 8020A ***

Analyzed by: TB

Date: 03/25/99

Gasoline Range Organics	3.8	0.50 P	mg/L
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Surrogate	% Recovery
1,4-Difluorobenzene	97
4-Bromofluorobenzene	100

California LUFT Manual for Gasoline

Analyzed by: TB

Date: 03/25/99 09:32:00

(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) 860-0901

Certificate of Analysis No. H9-9903922-04

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

P.O.#
N/A, COC#118682
DATE: 03/29/99

PROJECT: #11105, 3519 Castro Valley
SITE: Castro Valley, CA
SAMPLED BY: Blaine Tech Services
SAMPLE ID: D

PROJECT NO: 990319-J2
MATRIX: WATER
DATE SAMPLED: 03/19/99 11:20:00
DATE RECEIVED: 03/23/99

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	4700	25 P	ug/L
BENZENE	58	1.0 P	ug/L
TOLUENE	ND	1.0 P	ug/L
ETHYLBENZENE	ND	1.0 P	ug/L
TOTAL XYLENE	ND	1.0 P	ug/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	58		ug/L

Surrogate

% Recovery

1,4-Difluorobenzene 100
4-Bromofluorobenzene 100

Method 8020A ***

Analyzed by: TB
Date: 03/25/99

Gasoline Range Organics 4.7 1.25 P mg/L

Surrogate

% Recovery

1,4-Difluorobenzene 97
4-Bromofluorobenzene 99

California LUFT Manual for Gasoline

Analyzed by: TB
Date: 03/25/99 09:57:00

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

Certificate of Analysis No. H9-9903922-05

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

P.O.#
 N/A, COC#118682
 DATE: 03/29/99

PROJECT: #11105, 3519 Castro Valley
 SITE: Castro Valley, CA
 SAMPLED BY: Blaine Tech Services
 SAMPLE ID: E

PROJECT NO: 990319-J2
 MATRIX: WATER
 DATE SAMPLED: 03/19/99 11:41:00
 DATE RECEIVED: 03/23/99

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	18000	50 P	ug/L
BENZENE	160	1.0 P	ug/L
TOLUENE	ND	1.0 P	ug/L
ETHYLBENZENE	ND	1.0 P	ug/L
TOTAL XYLENE	ND	1.0 P	ug/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	160		ug/L

Surrogate	% Recovery
1,4-Difluorobenzene	100
4-Bromofluorobenzene	100

Method 8020A ***
 Analyzed by: TB

Date: 03/25/99

Gasoline Range Organics	18	2.50 P	mg/L
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Surrogate	% Recovery
1,4-Difluorobenzene	100
4-Bromofluorobenzene	100

California LUFT Manual for Gasoline
 Analyzed by: TB

Date: 03/25/99 10:21:00

(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

QUALITY CONTROL

DOCUMENTATION



HOUSTON LABORATORY
 8880 INTERCHANGE DRIVE
 HOUSTON, TEXAS 77054
 PHONE (713) 680-0901

** SPL BATCH QUALITY CONTROL REPORT **
 METHOD 8020

Matrix: Aqueous
 Units: ug/L

Batch Id: HP_N990324133900

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	48	96.0	72 - 128
Benzene	ND	50	51	102	61 - 119
Toluene	ND	50	52	104	65 - 125
EthylBenzene	ND	50	51	102	70 - 118
O Xylene	ND	50	50	100	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	19	95.0	19	95.0	0	20	39 - 150
BENZENE	ND	20	20	100	19	95.0	5.13	21	32 - 164
TOLUENE	ND	20	20	100	19	95.0	5.13	20	38 - 159
ETHYLBENZENE	ND	20	19	95.0	19	95.0	0	19	52 - 142
O XYLENE	ND	20	20	100	19	95.0	5.13	18	53 - 143
M & P XYLENE	ND	40	39	97.5	38	95.0	2.60	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: CJ

Sequence Date: 03/24/99

SPL ID of sample spiked: 9903935-01A

Sample File ID: N_C4081.TX0

Method Blank File ID:

Blank Spike File ID: N_C4072.TX0

Matrix Spike File ID: N_C4074.TX0

Matrix Spike Duplicate File ID: N_C4075.TX0

SAMPLES IN BATCH(SPL ID):

9903935-03A 9903922-01A 9903922-02A 9903922-03A
 9903922-04A 9903922-05A 9903923-03A 9903923-04A
 9903884-01A 9903884-02A 9903901-03A 9903935-01A
 9903923-02A 9903935-02A



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: HP_N990325064400

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	49	98.0	72 - 128
Benzene	ND	50	50	100	61 - 119
Toluene	ND	50	51	102	65 - 125
EthylBenzene	ND	50	50	100	70 - 118
O Xylene	ND	50	50	100	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	470	20	450	NC	460	NC	NC	20	39 - 150
BENZENE	ND	20	21	105	21	105	0	21	32 - 164
TOLUENE	ND	20	22	110	22	110	0	20	38 - 159
ETHYLBENZENE	ND	20	21	105	21	105	0	19	52 - 142
O XYLENE	ND	20	22	110	22	110	0	18	53 - 143
M & P XYLENE	ND	40	43	108	43	108	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 = $[(<1> - <2>) / <3>] \times 100$

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: TB

Sequence Date: 03/25/99

SPL ID of sample spiked: 9903901-02A

Sample File ID: N_C4126.TX0

Method Blank File ID:

Blank Spike File ID: N_C4106.TX0

Matrix Spike File ID: N_C4119.TX0

Matrix Spike Duplicate File ID: N_C4120.TX0

SAMPLES IN BATCH(SPL ID):

9903923-05A 9903901-02A 9903977-03A 9903990-24A
 9903923-01A 9903922-02A 9903922-03A 9903922-04A
 9903922-05A 9903923-02A

CHAIN OF CUSTODY
AND
SAMPLE RECEIPT CHECKLIST



9903922

CHAIN OF CUSTODY

No. 118682

Page 1 of 1

CONSULTANT'S NAME Blain Tech Services, Inc.		CONSULTANT'S ADDRESS 1680 Rogers Ave., San Jose, CA 95112	
BP SITE NUMBER 11105	BP SITE / FACILITY ADDRESS 3519 Castro Valley Blvd., Castro Valley		CONSULTANT PROJECT NUMBER 990319-52
CONSULTANT PROJECT MANGER Doug Sanders		PHONE NUMBER (408)573-0555 X218	FAX NUMBER (408)573-7771
BP CONTACT Scott Hooton	BP ADDRESS 295 SW 41st St., Renton, WA	PHONE NUMBER (425)251-0689	FAX NO. (425)251-0736
LAB CONTACT SPL - Sonia West	LABORATORY ADDRESS P.O. Box 20807, Houston, TX	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
			AMBILL NUMBER

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

ANALYSIS REQUIRED

SAMPLE DESCRIPTION	COLLECTION DATE	COLLECTION TIME	MATRIX SOIL/WATER	CONTAINERS		PRESERVATIVE LAB SAMPLE #	TPH-G	BTEX	MTBE											COMMENTS	
				NO.	TYPE (VOL.)																
A	3/19/99	1013	W	3	40ml		X	X	X												
B		1035		3			X	X	X												
C		1057		3			X	X	X												
D		1120		3			X	X	X												
E		1141		2			X	X	X												

SAMPLED BY (Please Print Name) Steve Smith			SAMPLED BY (Signature) <i>[Signature]</i>			ADDITIONAL COMMENTS 20					
RELINQUISHED BY / AFFILIATION (Print Name / Signature)	DATE	TIME	ACCEPTED BY / AFFILIATION (Print Name / Signature)	DATE	TIME						
Steve Smith / [Signature]	3/22/99	1620	Diana Kelly	3/23/99	1000						

SPL Houston Environmental Laboratory

Sample Login Checklist

Date: <u>3/23/99</u>	Time: <u>1000</u>
----------------------	-------------------

SPL Sample ID: <u>9903922</u>

		<u>Yes</u>	<u>No</u>
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:	<u>2°</u>	<u>C</u>
10	Method of sample delivery to SPL:		
	SPL Delivery		
	Client Delivery		
	FedEx Delivery (airbill #) <u>18040 39489584</u>		
	Other:		
11	Method of sample disposal:		
	SPL Disposal	✓	
	HOLD		
	Return to Client		

Name: <u>W. Bockrum</u>	Date: <u>3/23/99</u>
-------------------------	----------------------

Field Data Sheets

BP WELL MONITORING DATA SHEET

Project #: 990319-J2	Job #: BP
Sampler: <i>Stwr</i>	Date: 3/19/99
Well I.D.: <i>ESE-1</i>	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth: 29.42	Depth to Water: 8.65
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 ² * 0.163

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

<u>3.3</u>	x	<u>3</u>	=	<u>9.9</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
11 ⁰⁷	67.9	7.1	1120	—	3.5	
11 ¹¹	68.1	7.0	1050	—	7.0	
11 ¹⁵	68.2	7.0	1030	—	10.0	

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Gallons actually evacuated: 10.0
Sampling Time: 11 ²⁰	Sampling Date: 3/19/99
Sample I.D.: <u>D</u>	Laboratory: <u>SPL</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 #: 990319-J2	Job # BP
Sampler: Steve	Date: 3/19/99
Well I.D.: ESE-2	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth: 27.13	Depth to Water: 9.02
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 ² * 0.163

Purge Method: Bailer Sampling Method: Bailer

Disposable Bailer Disposable Bailer

Middleburg Extraction Port

Electric Submersible Other: _____

Extraction Pump

Other: _____

2.9	x	3	=	8.7	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
11:29	66.4	7.0	1290	—	3.0	
11:32	67.8	6.9	1110	—	6.0	
11:37	67.7	7.0	1100	—	9.0	

Did well dewater? Yes No Gallons actually evacuated: 9.0

Sampling Time: 1141 Sampling Date: 3/19/99

Sample I.D.: E Laboratory: SPL 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

BP WELL MONITORING DATA SHEET

Project #: 990319-52	Job # BP
Sampler: STEW	Date: 3/19/99
Well I.D.: ESE-5	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth: 23.72	Depth to Water: 5.00
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 ² * 0.163

Purge Method: Bailer Sampling Method: Bailer
 Disposable Bailer X Disposable Bailer X
 Middleburg Extraction Port
 Electric Submersible Other: _____
 Extraction Pump

<u>3.0</u>	x	<u>3</u>	=	<u>9.0</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
10 ⁰⁰	66.9	7.2	1200	—	3.0	
10 ⁰⁴	67.9	7.0	1180	—	6.0	
10 ⁰⁸	68.0	7.0	1175	—	9.0	

Did well dewater? Yes No Gallons actually evacuated: 9.0

Sampling Time: 10¹³ Sampling Date: 3/19/99

Sample I.D.: A Laboratory: SPL 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

BP WELL MONITORING DATA SHEET

Project #: 990319-52	Job # BP
Sampler: Stwe	Date: 3/19/99
Well I.D.: ESE-3	Well Diameter: <u>2</u> 3 4 6 8 _____
Total Well Depth: 29.81	Depth to Water: 8.14
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 ² * 0.163

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

<u>3.5</u>	x	<u>3</u>	=	7.5 <u>10.5</u> Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
10 ²²	69.2	7.1	1210	—	3.5	
10 ²⁶	69.5	7.0	1050	—	7.0	
10 ³⁰	69.7	7.0	1040	—	7.0 <u>10.5</u>	

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Gallons actually evacuated: 7.5 <u>10.5</u>
Sampling Time: 10 ³⁵	Sampling Date: 3/19/99
Sample I.D.: B	Laboratory: <u>(SPL)</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 #: 990319-52	Job # BP
Sampler: Steve	Date: 3/19/99
Well I.D.: MW-7	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth: 28.79	Depth to Water: 7.52
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 ² * 0.163

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

<u>3.4</u>	x	<u>3</u>	=	<u>10.2</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
10 ⁴⁴	67.5	6.9	1000	—	3.5	
10 ⁴⁸	68.2	7.0	990	—	7.0	
10 ⁵²	68.4	7.0	985	—	10.5	

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Gallons actually evacuated: 10.5
Sampling Time: 10 ⁵⁷	Sampling Date: 3/19/99
Sample I.D.: C	Laboratory: <u>SPL</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