



BP OIL

stID 2095

BP Oil Company
Environmental Remediation Management
295 SW 41st Street
Renton, Washington 98055-4931
(425) 251-0667
Fax No: (425) 251-0736

March 13, 1999

Alameda County Health Care Services Agency
Attention Ms. Eva Chu - Hazardous Materials Specialist
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

RE: Former BP Oil Site No. 11120
6400 Dublin Boulevard
Dublin, CA
StID 2095

Dear Ms. Chu:

Enclosed find the *Fourth Quarter 1998 Groundwater Monitoring* report prepared on behalf of BP by Blaine Tech Services.

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

Sincerely,

Scott Hooton

attachment

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

3/24/99 Spoke w/ P DeWitt re: 11000 TPTs + 16000 ~~RAMOSE~~
But case is closed. Ask him to confirm release
if so, I'll re-open case.

decom ltr issued 12/28/98

wells decom 2/26/99

QMP issued 2/22/99 for sampling in 12/98



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

February 23, 1999

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

4th Quarter 1998 Monitoring at 11120

Fourth Quarter 1998 Groundwater Monitoring
BP Service Station Number 11120
6400 Dublin Boulevard
Dublin, CA

Monitoring Performed on December 21, 1998

Groundwater Sampling Report 981221-Y-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.

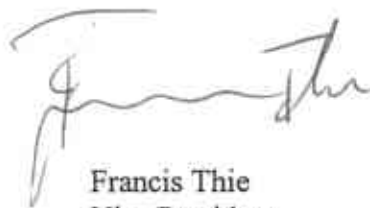
Basic field information is presented alongside analytical values excerpted from the laboratory report in the cumulative table of **WELL DATA AND ANALYTICAL RESULTS**. The full analytical report for the most recent samples is located in the **Analytical Appendix**. The **Professional Engineering Appendix**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

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

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

Please call if you have any questions.

Yours truly,

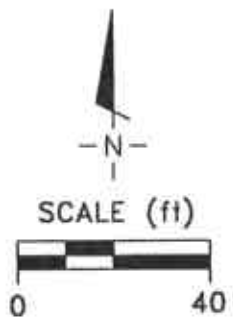
A handwritten signature in cursive script, appearing to read "Francis Thie".

Francis Thie
Vice President

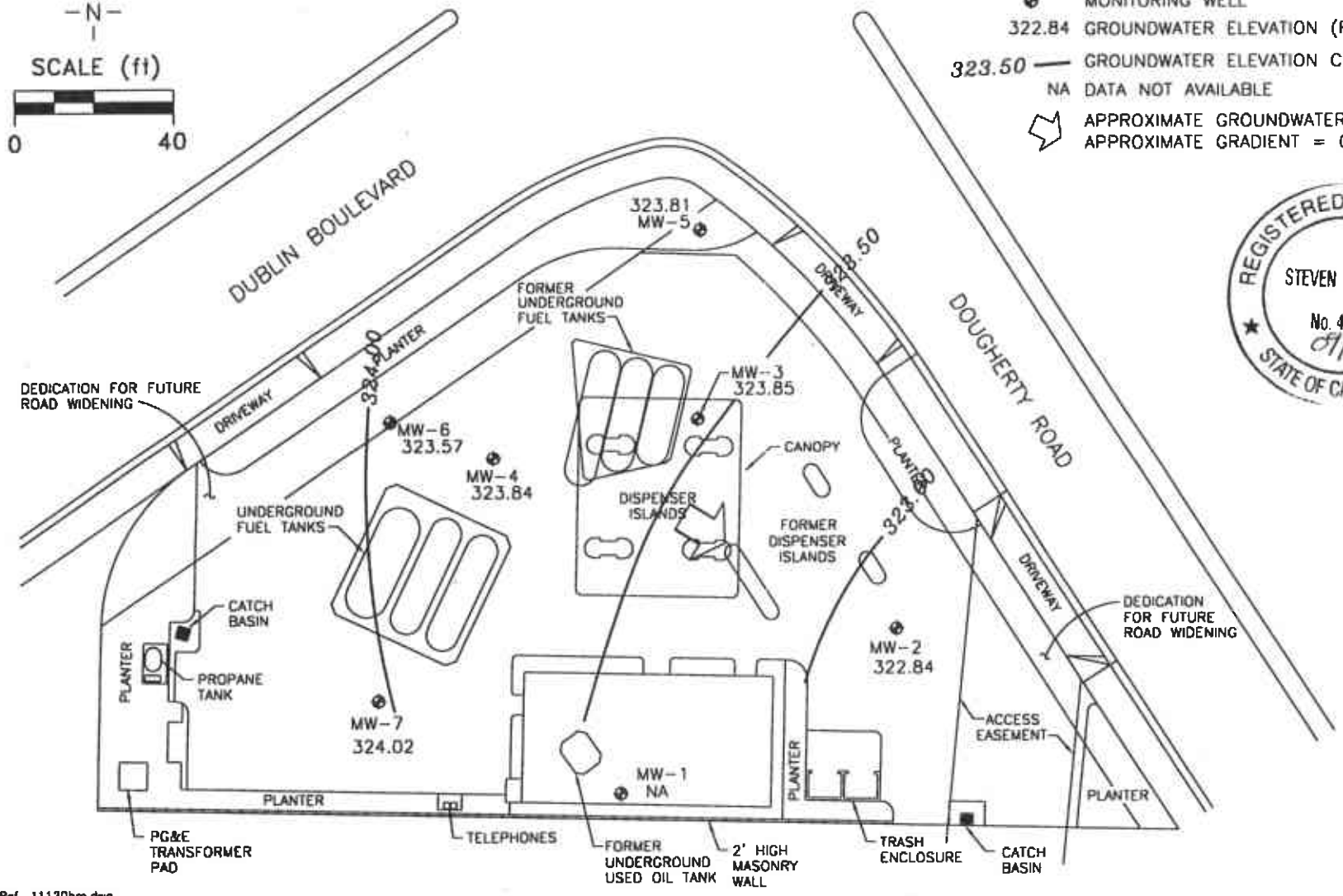
FPT/ld

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

Professional Engineering Appendix



- EXPLANATION**
- MONITORING WELL
 - 322.84 GROUNDWATER ELEVATION (FT, MSL)
 - 323.50 — GROUNDWATER ELEVATION CONTOUR (FT, MSL)
 - NA DATA NOT AVAILABLE
 - APPROXIMATE GROUNDWATER FLOW DIRECTION;
APPROXIMATE GRADIENT = 0.01



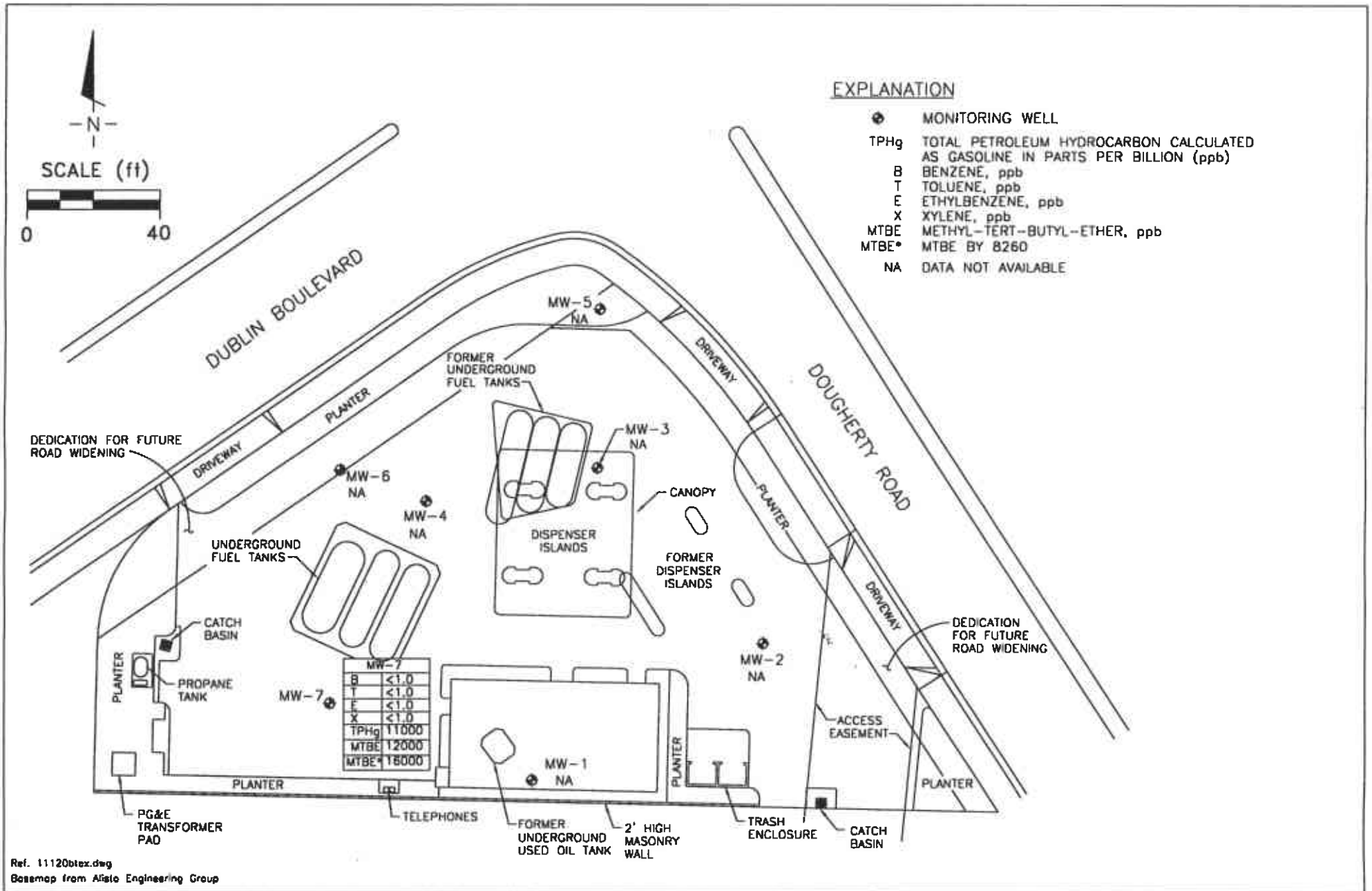
Ref. 11120bm.dwg
Basemap from Atlas Engineering Group

PREPARED BY
RRM
engineering contracting firm

BP Service Station No. 11120
6400 Dublin Boulevard
Dublin, California

GROUNDWATER ELEVATION CONTOUR MAP,
DECEMBER 21, 1998

FIGURE:
1
PROJECT:
DAC04



Ref. 11120btex.dwg
 Base map from Alate Engineering Group

PREPARED BY
RRM
 engineering contracting firm

BP Service Station No. 1120
 6400 Dublin Boulevard
 Dublin, California

HYDROCARBON CONCENTRATION MAP,
DECEMBER 21, 1998

FIGURE:
2
PROJECT:
 DAC04

**Table of
Well Data and
Analytical Results**

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (Feet)	DEPTH TO WATER (a) (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)	DO (ppm)	LAB
MW-1 (c)	10/27/92	328.96	8.19	320.77	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-1	04/09/93	328.96	4.79	324.17	ND<50	100	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-1	08/25/93	328.96	6.85	322.11	ND<50	70	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-1	11/22/93	328.96	7.38	321.58	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-1	03/07/94	328.96	5.89	323.07	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	4.3	PACE
MW-1	06/09/94	328.96	6.42	322.54	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	8.8	PACE
MW-1	09/12/94	328.96	7.33	321.63	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	7.8	PACE
MW-1	12/20/94	328.96	6.34	322.62	---	---	---	---	---	---	---	---	---
MW-1	03/16/95	328.96	4.37	324.59	ND<50	ND<500	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	5.6	ATI
MW-1	06/28/95	328.96	5.35	323.61	---	---	---	---	---	---	---	---	---
MW-1	09/06/95	328.96	6.44	322.52	ND<50	340	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	7.4	ATI
MW-1	12/22/95	328.96	6.04	322.92	---	---	---	---	---	---	---	---	---
MW-1	08/20/96	328.96	5.65	323.31	---	---	---	---	---	---	---	---	---
MW-1	08/21/96	328.96	---	---	ND<50	160	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	6.8	SPL
MW-1	10/31/96	328.96	5.99	322.97	---	---	---	---	---	---	---	---	---
MW-1 (d)	12/02/96	328.96	---	---	---	---	---	---	---	---	---	---	---
MW-1 (d)	06/26/98	328.96	---	---	---	---	---	---	---	---	---	---	---
MW-1 (d)	12/21/98	328.96	---	---	---	---	---	---	---	---	---	---	---

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (Feet)	DEPTH TO WATER (a) (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)	DO (ppm)	LAB
MW-2	10/27/92	328.50	7.64	320.86	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-2	04/09/93	328.50	4.12	324.38	ND<50	80	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-2	08/25/93	328.50	6.31	322.19	ND<50	70	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-2	11/22/93	328.50	7.12	321.38	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-2	03/07/94	328.50	5.60	322.90	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	4.3	PACE
MW-2	06/09/94	328.50	5.91	322.59	ND<50	70	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	8.2	PACE
MW-2	09/12/94	328.50	6.87	321.63	ND<50	160	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	7.5	PACE
MW-2	12/20/94	328.50	5.86	322.64	---	---	---	---	---	---	---	---	---
MW-2	03/16/95	328.50	3.77	324.73	ND<50	ND<500	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	6.6	ATI
MW-2	03/16/95	328.50	3.77	324.73	ND<50	ND<500	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	6.6	ATI
MW-2	06/28/95	328.50	4.33	324.17	---	---	---	---	---	---	---	---	---
MW-2	09/06/95	328.50	5.85	322.65	ND<50	210	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	7.0	ATI
MW-2	12/22/95	328.50	5.50	323.00	---	---	---	---	---	---	---	---	---
MW-2	08/20/96	328.50	5.07	323.43	---	---	---	---	---	---	---	---	---
MW-2	08/21/96	328.50	---	---	ND<50	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	7.0	SPL
MW-2	10/31/96	328.50	5.44	323.06	---	---	---	---	---	---	---	---	---
MW-2	12/02/96	328.50	5.50	323.00	---	---	---	---	---	---	---	---	---
MW-2	03/27/97	328.50	4.61	323.89	ND<50	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.8	SPL
MW-2	06/03/97	328.50	7.14	321.36	---	---	---	---	---	---	---	---	---
MW-2	09/16/97	328.50	6.10	322.40	ND<50	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.2	SPL
MW-2	12/03/97	328.50	6.22	322.28	---	---	---	---	---	---	---	---	---
MW-2	06/26/98	328.50	4.86	323.64	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	4.6	SPL
MW-2	12/21/98	328.50	5.66	322.84	---	---	---	---	---	---	---	---	---

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (Feet)	DEPTH TO WATER (a) (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B ₂ (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
MW-3	10/27/92	329.36	8.43	320.93	210	ND<50	3	0.7	0.9	30	---	---	PACE
MW-3	04/09/93	329.36	4.90	324.46	400	260	6.1	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-3	08/25/93	329.36	7.13	322.23	2000	440	ND<0.5	ND<0.5	ND<0.5	ND<0.5	3300	(e) ---	PACE
MW-3	11/22/93	329.36	7.60	321.76	1800	360	ND<2.5	ND<2.5	ND<2.5	ND<2.5	910	(e) ---	PACE
MW-3	03/07/94	329.36	6.08	323.28	1300	5000	22	4.0	2.2	3.8	7200	(e) 3.7	PACE
MW-3	06/09/94	329.36	6.51	322.85	8500	2600	25	8.3	0.5	15	13000	(e) 7.2	PACE
QC-1 (f)	06/09/94	---	---	---	8800	---	23	6.3	0.5	10	13000	(e) ---	PACE
MW-3	09/12/94	329.36	7.63	321.73	2100	3200	ND<5.0	ND<5.0	8.8	20	3800	(e) 7.3	PACE
QC-1 (f)	09/12/94	---	---	---	1800	---	ND<5.0	ND<5.0	8.0	10	3900	(e) ---	PACE
MW-3	12/20/94	329.36	6.41	322.95	18000	9600	79	28	89	9.3	---	7.3	PACE
QC-1 (f)	12/20/94	---	---	---	17000	---	79	33	80	ND<2.5	---	---	PACE
MW-3	03/16/95	329.36	4.39	324.97	6300	7000	470	ND<5.0	210	9.9	---	5.5	ATI
QC-1 (f)	03/16/95	---	---	---	6300	---	500	ND<5.0	230	13	---	---	ATI
MW-3	06/28/95	329.36	5.50	323.86	9000	3000	(g) ND<10	ND<10	ND<10	ND<20	---	7.4	ATI
QC-1 (f)	06/28/95	---	---	---	8800	---	(g) ND<10	ND<10	ND<10	ND<20	---	---	ATI
MW-3	09/06/95	329.36	6.66	322.70	10000	2800	ND<50	ND<50	ND<50	ND<100	37000	7.1	ATI
QC-1 (f)	09/06/95	---	---	---	9700	---	ND<50	ND<50	ND<50	ND<100	36000	---	ATI
MW-3	12/22/95	329.36	6.31	323.05	9200	2500	ND<50	ND<50	ND<50	ND<100	29000	6.7	ATI
MW-3	08/20/96	329.36	5.87	323.49	---	---	---	---	---	---	---	---	---
MW-3	08/21/96	329.36	---	---	3700	1900	ND<25	ND<50	ND<50	ND<50	4100	6.8	SPL
QC-1 (f)	08/21/96	---	---	---	3500	---	ND<25	ND<50	ND<50	ND<50	4000	---	SPL
MW-3	10/31/96	329.36	6.20	323.16	ND<250	ND<500	ND<2.5	ND<5.0	ND<5.0	ND<5.0	ND<50	6.8	SPL
QC-1 (f)	10/31/96	---	---	---	ND<250	---	ND<2.5	ND<5.0	ND<5.0	ND<5.0	ND<50	---	---
MW-3	12/02/96	329.36	6.27	323.09	ND<250	50	ND<2.5	ND<5.0	ND<5.0	ND<5.0	ND<50	6.4	SPL
QC-1 (f)	12/02/96	---	---	---	ND<250	---	ND<2.5	ND<5.0	ND<5.0	ND<5.0	ND<50	---	---
MW-3	03/27/97	329.36	5.39	323.97	470	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	490	6.2	SPL
MW-3	06/03/97	329.36	7.92	321.44	ND<250	100	ND<2.5	ND<5.0	ND<5.0	ND<5.0	84	5.9	SPL
QC-1 (f)	06/03/97	---	---	---	ND<250	---	ND<2.5	ND<5.0	ND<5.0	ND<5.0	74.0	---	---
MW-3	09/16/97	329.36	6.67	322.69	ND<50	330	ND<2.5	ND<5.0	ND<5.0	ND<5.0	ND<50	5.5	SPL
MW-3	12/03/97	329.36	6.81	322.55	ND<50	ND<200	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.0	SPL
QC-1 (f)	12/03/97	---	---	---	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	SPL
MW-3	06/26/98	329.36	5.08	324.28	ND<250	---	ND<2.5	ND<5.0	ND<5.0	ND<5.0	ND<50	4.8	SPL
MW-3	12/21/98	329.36	5.51	323.85	---	---	---	---	---	---	---	---	---

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (Feet)	DEPTH TO WATER (a) (Feet)	GROUNDWATER ELEVATION (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
MW-4	10/27/92	329.45	8.61	320.84	2300	190	23	54	50	320	---	---	PACE
MW-4	04/09/93	329.45	5.25	324.20	1600	500	78	3.5	68	1.0	---	---	PACE
MW-4	08/25/88	329.45	7.32	322.13	1800	380	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2100	(e) ---	PACE
QC-1 (f)	08/25/93	---	---	---	1600	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2100	(e) ---	PACE
MW-4	11/22/93	329.45	7.83	321.62	610	260	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-1 (f)	11/22/93	---	---	---	1700	---	ND<2.5	ND<2.5	ND<2.5	ND<2.5	3500	(e) ---	PACE
MW-4	03/07/94	329.45	6.29	323.16	710	1400	0.5	0.8	ND<0.5	ND<0.5	5900	(e) 3.8	PACE
QC-1 (f)	03/07/94	---	---	---	1600	---	ND<0.5	ND<0.5	1.4	0.6	4200	(e) ---	PACE
MW-4	06/09/94	329.45	6.76	322.69	6400	1800	ND<10	ND<10	ND<10	ND<10	10000	(e) 7.5	PACE
MW-4	09/12/94	329.45	7.83	321.62	2000	2700	ND<0.5	ND<0.5	ND<0.5	ND<0.5	4200	(e) 7.2	PACE
MW-4	12/20/94	329.45	6.68	322.77	9200	2400	ND<5.0	ND<5.0	ND<5.0	ND<5.0	---	6.1	PACE
MW-4	03/16/95	329.45	4.66	324.79	1400	960	140	ND<2.5	58	14	---	5.5	ATI
MW-4	06/28/95	329.45	5.93	323.52	5000	5400	(g) 240	ND<5.0	220	ND<10	---	7.4	ATI
MW-4	09/06/95	329.45	6.83	322.62	4400	4500	ND<13	ND<13	ND<13	ND<25	12000	7.6	ATI
MW-4	12/22/95	329.45	6.42	323.03	3800	4700	15	ND<13	ND<13	ND<25	9200	7.1	ATI
QC-1 (f)	12/22/95	---	---	---	3900	---	16	ND<13	ND<13	ND<25	8600	---	ATI
MW-4	08/20/96	329.45	6.01	323.44	---	---	---	---	---	---	---	---	---
MW-4	08/21/96	329.45	---	---	ND<250	470	ND<12	ND<25	ND<25	ND<25	ND<250	7.7	SPL
MW-4	10/31/96	329.45	6.37	323.08	ND<250	1600	ND<2.5	ND<5.0	ND<5.0	ND<5.0	ND<50	7.1	SPL
MW-4	12/02/96	329.45	6.71	322.74	ND<50	13000	ND<5	ND<10	ND<10	ND<10	2200	7.3	SPL
MW-4	03/27/97	329.45	5.70	323.75	8300	1500	44	ND<25	ND<25	ND<25	8000	6.2	SPL
QC-1 (f)	03/27/97	---	---	---	6900	---	51	ND<25	ND<25	ND<25	8500	---	SPL
MW-4	06/03/97	329.45	8.37	321.08	2800	270	62	ND<1.0	ND<1.0	ND<1.0	7000	7.1	SPL
MW-4	09/16/97	329.45	6.91	322.54	110	1800	0.80	ND<1.0	ND<1.0	ND<1.0	7700	6.2	SPL
QC-1 (f)	09/16/97	---	---	---	130	---	1.2	ND<1.0	ND<1.0	1.1	7100	---	SPL
MW-4	12/03/97	329.45	7.16	322.29	ND<50	ND<200	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	6.0	SPL
MW-4	06/26/98	329.45	5.15	324.30	520	---	0.52	ND<1.0	ND<1.0	ND<1.0	1100	5.3	SPL
MW-4 (d)	12/21/98	329.45	5.61	323.84	---	---	---	---	---	---	---	---	---

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
MW-5	04/09/93	329.60	5.18	324.42	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-5	08/25/93	329.60	7.28	322.32	ND<50	70	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-5	11/22/93	329.60	7.82	321.78	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-5	03/07/94	329.60	6.27	323.33	ND<50	120	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	5.7	PACE
MW-5	06/09/94	329.60	6.73	322.87	ND<50	70	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	7.7	PACE
MW-5	09/12/94	329.60	7.78	321.82	ND<50	120	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	7.2	PACE
MW-5	12/20/94	329.60	6.63	322.97	---	---	---	---	---	---	---	---	---
MW-5	03/16/95	329.60	4.65	324.95	ND<50	ND<500	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	4.9	ATI
MW-5	06/28/95	329.60	5.69	323.91	---	---	---	---	---	---	---	---	---
MW-5	09/06/95	329.60	6.82	322.78	ND<50	200	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	7.3	ATI
MW-5	12/22/95	329.60	6.40	323.20	---	---	---	---	---	---	---	---	---
MW-5	08/20/96	329.60	5.98	323.62	---	---	---	---	---	---	---	---	---
MW-5	08/21/96	329.60	---	---	ND<50	ND<50	ND<0.50	ND<1.0	ND<1.0	ND<1.0	ND<10	6.9	SPL
MW-5	10/31/96	329.60	6.29	323.31	---	---	---	---	---	---	---	---	---
MW-5	12/02/96	329.60	6.37	323.23	---	---	---	---	---	---	---	---	---
MW-5	03/27/97	329.60	5.33	324.27	ND<50	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.8	SPL
MW-5	06/03/97	329.60	8.00	321.60	---	---	---	---	---	---	---	---	---
MW-5	09/16/97	329.60	6.89	322.71	ND<50	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	27	5.4	SPL
MW-5	12/03/97	329.60	6.99	322.61	---	---	---	---	---	---	---	---	---
MW-5	06/26/98	329.60	5.11	324.49	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	4.7	SPL
MW-5	12/21/98	329.60	5.79	323.81	---	---	---	---	---	---	---	---	---

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
MW-6	04/09/93	329.55	5.37	324.18	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-6	08/25/93	329.55	7.42	322.13	ND<50	170	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-6	11/22/93	329.55	7.93	321.62	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-6	03/07/94	329.55	6.25	323.30	ND<50	90	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	4.2	PACE
MW-6	06/09/94	329.55	6.85	322.70	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	7.0	PACE
MW-6	09/12/94	329.55	7.91	321.64	ND<50	240	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	6.7	PACE
MW-6	12/20/94	329.55	6.82	322.73	---	---	---	---	---	---	---	---	---
MW-6	03/16/95	329.55	4.78	324.77	ND<50	ND<500	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	6.1	ATI
MW-6	06/28/95	329.55	5.97	323.58	---	---	---	---	---	---	---	---	---
MW-6	09/06/95	329.55	6.94	322.61	ND<50	340	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	7.2	ATI
MW-6	12/22/95	329.55	6.53	323.02	---	---	---	---	---	---	---	---	---
MW-6	08/20/96	329.55	6.18	323.37	---	---	---	---	---	---	---	---	---
MW-6	08/21/96	329.55	---	---	ND<50	120	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	SPL
MW-6	10/31/96	329.55	6.52	323.03	---	---	---	---	---	---	---	---	---
MW-6	12/02/96	329.55	6.55	323.00	---	---	---	---	---	---	---	---	---
MW-6	03/27/97	329.55	5.50	324.05	ND<50	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	6.3	SPL
MW-6	06/03/97	329.55	8.19	321.36	---	---	---	---	---	---	---	---	---
MW-6	09/16/97	329.55	6.95	322.60	ND<250	680	ND<2.5	ND<5.0	ND<5.0	ND<5.0	ND<50	5.5	SPL
MW-6	12/03/97	329.55	7.22	322.33	---	---	---	---	---	---	---	---	---
MW-6	06/26/98	329.55	5.20	324.35	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	4.6	SPL
MW-6	12/21/98	329.55	5.98	323.57	---	---	---	---	---	---	---	---	---

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (Feet)	DEPTH TO WATER (a) (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)	DO (ppm)	LAB
MW-7	04/09/93	329.49	5.36	324.13	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-7	08/25/93	329.49	7.44	322.05	ND<50	150	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-7	11/22/93	329.49	7.92	321.57	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-7	03/07/94	329.49	6.20	323.29	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	3.7	PACE
MW-7	06/09/94	329.49	6.89	322.60	ND<50	70	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	6.8	PACE
MW-7	09/12/94	329.49	7.87	321.62	ND<50	50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	6.8	PACE
MW-7	12/20/94	329.49	6.77	322.72	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	6.5	PACE
MW-7	03/16/95	329.49	4.77	324.72	ND<50	ND<500	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	5.9	ATI
MW-7	06/28/95	329.49	5.94	323.55	ND<50	320	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	7.8	ATI
MW-7	09/06/95	329.49	6.98	322.51	ND<50	240	ND<0.50	ND<0.50	ND<0.50	ND<1.0	8.5	7.5	ATI
MW-7	12/22/95	329.49	6.65	322.84	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	7.2	6.9	ATI
MW-7	08/20/96	329.49	6.22	323.27	---	---	---	---	---	---	---	---	---
MW-7	08/21/96	329.49	---	---	ND<50	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	SPL
MW-7	10/31/96	329.49	6.56	322.93	ND<50	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	86	6.8	SPL
MW-7	12/02/96	329.49	6.13	323.36	ND<50	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	59	7.3	SPL
MW-7	03/27/97	329.49	5.08	324.41	ND<50	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	6.6	SPL
MW-7	06/03/97	329.49	7.80	321.69	650	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	630	6.8	SPL
MW-7	09/16/97	329.49	6.50	322.99	120	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<1.0	2200	6.0	SPL
MW-7	12/03/97	329.49	6.66	322.83	ND<50	ND<200	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.0	SPL
MW-7 (h)	06/26/98	329.49	4.96	324.53	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	5.1	SPL
MW-7	12/21/98	329.49	5.47	324.02	11000	220	ND<1.0	ND<1.0	ND<1.0	ND<1.0	12000/16000*	---	SPL
QC-2 (l)	08/25/93	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (l)	11/22/93	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (l)	03/07/94	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (l)	06/09/94	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (l)	09/12/94	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (l)	12/20/94	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (l)	03/16/95	---	---	---	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	ATI
QC-2 (l)	06/28/95	---	---	---	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	ATI
QC-2 (l)	09/06/95	---	---	---	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	ATI
QC-2 (l)	12/22/95	---	---	---	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	ATI

ABBREVIATIONS:

TPH-G	Total petroleum hydrocarbons as gasoline
TPH-D	Total petroleum hydrocarbons as diesel
B	Benzene
T	Toluene
E	Ethylbenzene
X	Total xylenes
MTBE	Methyl tert butyl ether
DO	Dissolved oxygen
ug/l	Micrograms per liter
ppm	Parts per million
ND	Not detected above reported detection limit
---	Not analyzed/applicable/measured
PACE	Pace, Inc.
ATI	Analytical Technologies, Inc.
SPL	Southern Petroleum Laboratories

NOTES:

- (a) Top of casing elevations surveyed to an arbitrary datum.
 - (b) Groundwater elevations relative to an arbitrary datum.
 - (c) Analysis did not detect total oil and grease and halogenated volatile organic compounds above reported detection limits.
 - (d) Well inaccessible.
 - (e) A copy of the documentation for this data is included in Appendix C of Alisto report 10-170-05-001.
 - (f) Blind duplicate.
 - (g) MTBE peak. Refer to documentation for this data in Appendix C of Alisto report 10-170-05-001.
 - (h) Analysis did not detect volatile organic compounds above reported detection limits.
 - (i) Travel blank.
 - (*) MTBE by EPA 8020/8260.
-

Analytical Appendix



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

January 6, 1999

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

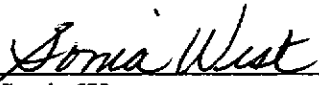
The following report contains analytical results for the sample(s) received at Southern Petroleum Laboratories (SPL) on December 23, 1998. The sample(s) was assigned to Certificate of Analysis No.(s) 9812A76 and analyzed for all parameters as listed on the chain of custody.

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

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

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

Southern Petroleum Laboratories



Sonia West
Senior Project Manager



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

Southern Petroleum Laboratories, Inc.

Certificate of Analysis Number: 98-12-A76

Approved for Release by:

Sonia West

Sonia West, Senior Project Manager

1-6-99

Date

Greg Grandits
Laboratory Director

Cynthia Schreiner
Quality Assurance Officer

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. H9-9812A76-01

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

P.O.#
 N/A , COC#100202
 DATE: 01/06/99

PROJECT: #11120, 6400 Dublin Blvd.
 SITE: Dublin, CA
 SAMPLED BY: Blaine Tech Services
 SAMPLE ID: A

PROJECT NO: 981221-Y2
 MATRIX: WATER
 DATE SAMPLED: 12/21/98 12:40:00
 DATE RECEIVED: 12/23/98

PARAMETER	ANALYTICAL DATA	RESULTS	DETECTION LIMIT	UNITS
MTBE		12000	100 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	110
4-Bromofluorobenzene	97
Method 8020A ***	
Analyzed by: CJ	
Date: 01/01/99	

Gasoline Range Organics	11	0.50 P	mg/L
-------------------------	----	--------	------

Surrogate	% Recovery
1,4-Difluorobenzene	83
4-Bromofluorobenzene	93
California LUFT Manual for Gasoline	
Analyzed by: CJ	
Date: 12/31/98 22:20:00	

(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.

COMMENTS: Sample contains petroleum hydrocarbons from C10-C24 that do not resemble a diesel pattern. (C10-C24) RR
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. H9-9812A76-01

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

P.O.#
N/A , COC#100202
DATE: 01/06/99

PROJECT: #11120, 6400 Dublin Blvd.
SITE: Dublin, CA
SAMPLED BY: Blaine Tech Services
SAMPLE ID: A

PROJECT NO: 981221-Y2
MATRIX: WATER
DATE SAMPLED: 12/21/98 12:40:00
DATE RECEIVED: 12/23/98

PARAMETER	ANALYTICAL DATA		RESULTS	DETECTION LIMIT	UNITS
MTBE			16000	2500 P	ug/L
Surrogate		% Recovery			
1,2-Dichloroethane-d4		96			
Toluene-d8		102			
4-Bromofluorobenzene		96			
Method 8260B ***					
Analyzed by: JC					
Date: 12/31/98					
Diesel Range Organics			0.22	0.10 P	mg/L
Surrogate		% Recovery			
n-Pentacosane		76			
California LUFT Manual for Diesel					
Analyzed by: RR					
Date: 12/30/98 08:58:00					

(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.

COMMENTS: Sample contains petroleum hydrocarbons from C10-C24
that do not resemble a diesel pattern.(C10-C24) RR

QUALITY ASSURANCE: These analyses are performed in accordance
with EPA guidelines for quality assurance.
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8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
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Certificate of Analysis No. H9-9812A76-01

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

P.O.#
N/A , COC#100202
DATE: 01/06/99

PROJECT: #11120, 6400 Dublin Blvd.
SITE: Dublin, CA
SAMPLED BY: Blaine Tech Services
SAMPLE ID: A

PROJECT NO: 981221-Y2
MATRIX: WATER
DATE SAMPLED: 12/21/98 12:40:00
DATE RECEIVED: 12/23/98

PARAMETER	ANALYTICAL DATA	RESULTS	DETECTION LIMIT	UNITS
California TPH-D Extraction Method 3510C *** Analyzed by: KL Date: 12/27/98 13:00:00		12/27/98		

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.

COMMENTS: Sample contains petroleum hydrocarbons from C10-C24
that do not resemble a diesel pattern.(C10-C24) RR

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

QUALITY CONTROL

DOCUMENTATION

3A
 WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SPL

Contract:

Lab Code:

Case No.: 9812C87 SAS No.:

SDG No.:

Matrix Spike - EPA Sample No.: W-1

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	50	0	58	116	61-145
Trichloroethene	50	0	50	100	71-120
Benzene	50	0	53	106	76-127
Toluene	50	0	52	104	76-125
Chlorobenzene	50	0	51	102	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS	
					RPD	REC.
1,1-Dichloroethene	50	56	112	4	14	61-145
Trichloroethene	50	50	100	0	14	71-120
Benzene	50	52	104	2	11	76-127
Toluene	50	51	102	2	13	76-125
Chlorobenzene	50	50	100	2	13	75-130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits

Spike Recovery: 0 out of 10 outside limits

SPL Houston Labs

RECOVERY REPORT

Client Name: Client SDG: n981231
Sample Matrix: LIQUID Fraction: VOA
Lab Smp Id: LCS Operator: JC
Level: LOW SampleType: LCS
Data Type: MS DATA Quant Type: ISTD
SpikeList File: 8260_water.spk
Sublist File: 8260.sub
Method File: /var/chem/n.i/n981231.b/n8260w.m
Misc Info: N365W1//N365CW1

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
8 1,1-Dichloroethene	50	60	120.00	61-145
29 Trichloroethene	50	49	98.00	71-120
25 Benzene	50	54	108.00	76-127
37 Toluene	50	55	110.00	76-125
45 Chlorobenzene	50	52	104.00	75-130

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 21 1,2-Dichloroethane	50	48	96.00	80-120
\$ 36 Toluene-d8	50	50	100.00	88-110
\$ 56 Bromofluorobenzene	50	47	94.00	86-115



SPL Blank QC Report

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 460-0900

Matrix: Aqueous
Sample ID: VLBLK
Batch: N981231122720

Reported on: 01/06/99 12:00
Analyzed on: 12/31/98 10:39
Analyst: JC

METHOD 8260/8240 N365B01

Compound	Result	Detection Limit	Units
Methyl t-Butyl Ether	ND	10	ug/L

Surrogate	Result	QC Criteria	Units
1,2-Dichloroethane-d4	92	80-120	% Recovery
Toluene-d8	100	88-110	% Recovery
Bromofluorobenzene	94	86-115	% Recovery

Samples in Batch 9812A76-01

Notes

ND - Not detected.



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: VARE990101031300

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	46	92.0	61 - 119
Toluene	ND	50	47	94.0	65 - 125
EthylBenzene	ND	50	46	92.0	70 - 118
O Xylene	ND	50	46	92.0	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	ND	20	20			
BENZENE	ND	20	22	110	22	110	0	21	32 - 164
TOLUENE	ND	20	22	110	22	110	0	20	38 - 159
ETHYLBENZENE	ND	20	22	110	22	110	0	19	52 - 142
O XYLENE	ND	20	22	110	22	110	0	18	53 - 143
M & P XYLENE	ND	40	45	112	44	110	1.80	17	53 - 144

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

Analyst: CJ

< = Data outside Method Specification limits.

Sequence Date: 01/01/99

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

SPL ID of sample spiked: 9812C65-06B

ND = Not Detected/Below Detection Limit

Sample File ID: E_L4180.TX0

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

Method Blank File ID:

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

Blank Spike File ID: E_L4171.TX0

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

Matrix Spike File ID: E_L4174.TX0

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

Matrix Spike Duplicate File ID: E_L4175.TX0

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

SAMPLES IN BATCH(SPL ID):

9812A76-01A 9812D06-01A 9812D03-27A 9812D27-03A
 9812D25-01A 9812D25-02A 9812D25-03A 9812D27-02A
 9812D25-04A 9812D27-01A 9812D25-03A 9812C63-03A
 9812C65-06B 9812A75-04A 9812A75-05A



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: VARE981231172600

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	1.0	100	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	0.47		52.2	0.49

Analyst: CJ
 Sequence Date: 12/31/98
 SPL ID of sample spiked: 9812C63-02A
 Sample File ID: EEL4160.TX0
 Method Blank File ID:
 Blank Spike File ID: EEL4148.TX0
 Matrix Spike File ID: EEL4152.TX0
 Matrix Spike Duplicate File ID: EEL4153.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
 $\% \text{ Recovery} = [(<1> - <2>) / <3>] \times 100$
 $\text{LCS } \% \text{ Recovery} = (<1> / <3>) \times 100$
 $\text{Relative Percent Difference} = [(<4> - <5>) / [(<4> + <5>) \times 0.5]] \times 100$
 (**) = Source: SPL-Houston Historical data (1st Q '97)
 (***) = Source: SPL-Houston Historical Data (1st Q '97)

SAMPLES IN BATCH(SPL ID): 9812A76-01A



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**** SPL BATCH QUALITY CONTROL REPORT ****

Method Modified 8015B*** for Diesel

Matrix: Aqueous
 Units: mg/L

Batch Id: HP_V981230081400

LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Spike		QC Limits(**) (Mandatory) % Recovery Range
			Result <1>	Recovery %	
Diesel	ND	5.0	4.7	94.0	53 - 148

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
DIESEL	0.22	10.0	8.9	86.7	9.8	95.7	9.87	39	21 - 175

Analyst: RR

Sequence Date: 12/30/98

SPL ID of sample spiked: 9812A76-01B

Sample File ID: V_L5025.TX0

Method Blank File ID:

Blank Spike File ID: V_L5024.TX0

Matrix Spike File ID: V_L5026.TX0

Matrix Spike Duplicate File ID: V_L5027.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>] 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 (4th Q '97)

(***) = Source: SPL-Houston Historical Data (4th Q '97)

SAMPLES IN BATCH(SPL ID):

9812A36-03C 9812A36-02A 9812A16-01C 9812A88-01C
 9812A36-02C 9812A36-04C 9812A76-01B 9812A36-01C

CHAIN OF CUSTODY
AND
SAMPLE RECEIPT CHECKLIST

SPL Houston Environmental Laboratory

Sample Login Checklist

Date: <i>10-23-98</i>	Time: <i>1600</i>
--------------------------	----------------------

SPL Sample ID: <i>9812A76</i>

		<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:		<i>3° C</i>
10	Method of sample delivery to SPL:	SPL Delivery	
		Client Delivery	
		FedEx Delivery (airbill #)	<i>804039443652</i>
		Other:	
11	Method of sample disposal:	SPL Disposal	✓
		HOLD	
		Return to Client	

Name: <i>Sonia Witt</i>	Date: <i>12-23-98</i>
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**Field
Data
Sheets**

WELL MONITORING DATA SHEET

Project #: 981221 YL	Client: BP
Sampler: B. TAYLOR	Start Date: 12/21/98
Well I.D.: AW4	Well Diameter: 2 3 4 6 8
Total Well Depth:	Depth to Water:
Before: After:	Before: After:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH

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

Sampling Method: Bailer Disposable Bailer Extraction Port Other: _____

_____ (Gals.) X _____ = _____ Gals.
 1 Case Volume Specified Volumes Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius ² * 0.165

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
		WELL	CASING	BENT	CAN	NOT SAMPLE

Did well dewater? Yes No Gallons actually evacuated: _____

Sampling Time: Sampling Date: _____

Sample I.D.: Laboratory: _____

Analyzed for: TPH-G BTEX MTBE TPH-D Other: _____

Equipment Blank I.D.: @ Time Duplicate I.D.: _____

Analyzed for: TPH-G BTEX MTBE TPH-D Other: _____

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

WELL MONITORING DATA SHEET

Project #: <u>981221 Y2</u>	Client: <u>BP</u>
Sampler: <u>B. TAYLOR</u>	Start Date: <u>12/21/98</u>
Well I.D.: <u>MINT</u>	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth: <u>20.62</u>	Depth to Water: <u>5.47</u>
Before: _____ After: _____	Before: _____ After: _____
Depth to Free Product: _____	Thickness of Free Product (feet): _____
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH

Purge Method: Bailer
Disposable Bailer
 Middleburg
 Electric Submersible
 Extraction Pump

Sampling Method: Bailer
Disposable Bailer
 Extraction Port
 Other: _____

$$2.5 \text{ (Gals.)} \times 3 = 7.5 \text{ Gals.}$$
 1 Case Volume Specified Volumes Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
2"	0.16	5"	1.02
3"	0.37	6"	1.47
4"	0.65	Other	radius ² * 0.165

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
12:31	60.3	7.2	503	10	3	
12:34	61.4	7.3	527	10	6	
12:37	61.7	7.3	533	10	8	

Did well dewater? Yes No Gallons actually evacuated: 8

Sampling Time: 12:40 A Sampling Date: 12/21

Sample I.D.: MINT A Laboratory: SPL

Analyzed for: TPH-G BTEX MTBE TPH-D Other: _____

Equipment Blank I.D.: _____ @ _____ Time Duplicate I.D.: _____

Analyzed for: TPH-G BTEX MTBE TPH-D Other: _____

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