



BP OIL

September 2, 1997

to TP
for JE
ST10 1108

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

ENVIRONMENTAL
PROTECTION

97 SEP 10 AM 11:22

PE

Ms. Jennifer Eberle; Hazardous Materials Specialist
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway # 250
Alameda CA 94502-6577

RE: BP OIL FACILITY #11102
100 MacArthur Blvd
Oakland CA

Dear Ms. Eberle:

Attached please find our **GROUNDWATER MONITORING AND SAMPLING REPORT DATED AUGUST 5, 1997** for the above referenced facility. Plans for the site include semi-annual groundwater monitoring.

If you should have any questions regarding this site, I may be reached at (425) 251-0689.

Sincerely,

Scott T. Hooton
Environmental Remediation Management

STH:sb msword\ERM11102

cc: Mr. Richard Hiett, CRWQCB, San Francisco Bay Region, 2101 Webster Street, Suite 500
Oakland CA 94612 (without attachment)

Mr. Brady Nagle, Alisto Engineering Group, 1575 Treat Blvd., Suite 201, Walnut Creek,
CA 94598

Ms. Tina Berry, TOSCO, 2000 Crow Canyon Place, Suite 400, San Ramon, CA 94583

Site File

GROUNDWATER MONITORING AND SAMPLING REPORT

AUG 12 1997

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

**BP OIL CO.
ENVIRONMENTAL
WEST COAST**

Project No. 10-076-06-002

**ENVIRONMENTAL
PROTECTION
97 SEP 10 AM 11:22**

Prepared for:

**BP Oil Company
Environmental Resources Management
295 S.W. 41st Street
Building 13, Suite N
Renton, Washington**

Prepared by:

**Alisto Engineering Group
1575 Treat Boulevard, Suite 201
Walnut Creek, California**

August 5, 1997

William Howell

**William Howell
Project Manager**

Al Sevilla

**Al Sevilla, P.E.
Principal**



GROUNDWATER MONITORING AND SAMPLING REPORT

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

Project No. 10-076-06-002

August 5, 1997

ENVIRONMENTAL
PROTECTION
97 SEP 10 AM 11:22

INTRODUCTION

This report presents the results and findings of the June 10, 1997 groundwater monitoring and sampling conducted by Alisto Engineering Group at BP Oil Company Service Station No. 11102, 100 MacArthur Boulevard, Oakland, California. A site vicinity map is shown on Figure 1.

FIELD PROCEDURES

Field activities were performed in accordance with the procedures and guidelines of the Alameda County Health Care Services Agency and the California Regional Water Quality Control Board, San Francisco Bay Region.

Before purging and sampling, the groundwater level in each well was measured from a permanent mark on top of the casing to the nearest 0.01 foot using an electronic sounder. The depth to groundwater and top of casing elevation data were used to calculate the groundwater elevation in each well in reference to mean sea level. The survey data and groundwater elevation measurements collected to date are presented in Table 1.

Before sample collection, each well was purged of 3 casing volumes, while recording field readings of pH, temperature, electrical conductivity, and dissolved oxygen. Groundwater samples were collected for laboratory analysis by lowering a bottom-fill, disposable bailer to just below the water level in the well. The samples were transferred from the bailer into laboratory-supplied containers. The water sampling field survey forms are presented in Appendix A.

SAMPLING AND ANALYTICAL RESULTS

The results of monitoring and laboratory analysis of the groundwater samples for this and previous quarters are summarized in Table 1. The potentiometric groundwater elevations as interpreted from the results of this monitoring event are shown on Figure 2. The results of groundwater analysis are shown on Figure 3. The laboratory report and chain of custody record are presented in Appendix B. Historical methyl tert butyl ether (MTBE) laboratory analysis data not previously tabulated are now included in Table 1. Copies of the MTBE documentation are included in Appendix C of this report only.



TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
 BP OIL COMPANY SERVICE STATION NO. 11102
 100 MACARTHUR BOULEVARD, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-076

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	TOG (ug/l)	1,1-DCA (ug/l)	1,2-DCA (ug/l)	VOC (ug/l)	MTEB (ug/l)	DO (ppm)	LAB
MW-1	11/04/89	90.20	13.21	76.99	ND<500	ND<50	3.4	0.6	ND<0.3	ND<0.3	ND<5000	--	0.9	--	--	--	SAL
MW-1	11/11/89	90.20	13.32	76.88	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	04/03/90	90.20	12.46	77.74	820	--	64	1.9	23	34	--	--	--	--	--	--	ANA
MW-1	07/30/90	90.20	12.92	77.28	190	ND<50	11	ND<5.0	ND<5.0	ND<5.0	ND<5000	--	ND	--	--	--	ANA
MW-1	11/20/90	90.20	14.08	76.12	50	78	2.4	ND<0.3	ND<0.3	ND<0.3	ND<5000	--	4.0	--	--	--	SAL
MW-1	03/01/91	90.20	13.61	76.59	ND<100	ND<1000	0.9	ND<0.3	ND<0.3	0.3	14000	--	ND	--	--	--	SAL
MW-1	08/19/91	90.20	15.74	74.46	370	ND<80	35	0.73	6.4	5.6	ND<5000	--	1.4	--	--	--	SEQ
MW-1	11/13/91	90.20	14.08	76.12	60	ND<50	0.68	ND<0.3	ND<0.3	ND<0.3	ND<5000	--	1.0	--	--	--	SEQ
MW-1	02/24/92	90.20	12.52	77.68	140	100	3.9	0.66	1.2	3.8	ND<5000	--	1.7	--	--	--	SEQ
MW-1	05/19/92	90.20	11.80	78.40	4200	910	440	21	250	37	ND<5000	--	ND	--	--	--	SEQ
MW-1	06/17/92	90.20	12.01	78.19	4000	560	350	14	150	17	ND<5000	--	ND	--	--	--	SEQ
MW-1	07/22/92	90.20	12.42	77.78	4000	--	ND<5.0	19	210	91	--	--	--	--	--	--	ANA
MW-1	08/14/92	90.20	12.75	77.45	2400	1700	330	20	150	47	ND<5000	--	ND<2.5	--	--	--	SEQ
MW-1	11/11/92	90.20	13.69	76.51	260	92	30	3.4	7.8	6.8	ND<5000	--	ND<2.5	--	--	--	ANA
MW-1	06/07/93	90.20	10.93	79.27	3400	440	98	11	21	7.8	--	6.2	0.9	--	--	--	PACE
QC-1 (c)	06/07/93	--	--	--	3700	--	120	12	26	9.5	--	--	--	--	--	--	PACE
MW-1	12/02/93	90.20	12.72	77.48	1100	120	8.3	3.6	0.6	1.5	ND<5000	2.6	1.8	--	--	--	PACE
MW-1	06/22/94	90.20	11.81	78.39	2100	ND<50	32	3.8	2.2	17	ND<5000	2.3	3.3	--	4000 (d)	3.2	PACE
QC-1 (c)	06/22/94	--	--	--	2100	--	30	3.2	2.0	16	--	--	--	--	2000 (d)	--	PACE
MW-1	01/10/95	90.20	10.97	79.23	ND<500	420	120	ND<5	ND<5	ND<10	--	ND<1	1	--	--	3.9	ATI
QC-1 (c)	01/10/95	--	--	--	ND<500	--	120	ND<5	5	ND<10	--	--	--	--	--	--	ATI
MW-1	06/21/95	90.20	9.38	80.82	4700	1300	16	ND<5.0	ND<5.0	ND<10	2900	2.0	0.38	0.90 (e)	--	6.7	ATI
QC-1 (c)	06/21/95	--	--	--	3800	--	ND<13	ND<5.0	ND<5.0	ND<10	--	--	--	--	--	--	ATI
MW-1	12/27/95	90.20	11.55	78.65	430	2100	ND<2.5	ND<2.5	ND<2.5	ND<5.0	640	0.67	ND<0.20	--	1200	6.3	ATI
MW-1	06/13/96	90.20	9.28	80.92	3200	920	51	ND<12	ND<12	ND<12	2000	--	--	--	4000	6.3	SPL
MW-1	12/04/96	90.20	11.91	78.29	1400	280	6.2	ND<5	ND<5	ND<5	2000	ND<5.0	ND<5.0	6.0 (f)	2600	6.7	SPL
MW-1	06/10/97	90.20	8.97	81.23	7900	1700	12	ND<10	ND<10	ND<10	ND<5	ND<250	ND<250	ND	15000	6.0	SPL
QC-1 (c)	06/10/97	--	--	--	7700	--	14	ND<25	ND<25	ND<25	--	--	--	--	13000	--	SPL
MW-2	11/04/89	87.91	15.64	72.07	ND<500	--	6.5	ND<0.3	ND<0.3	ND<0.3	--	--	--	--	--	--	SAL
MW-2	11/11/89	87.91	14.75	73.16	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	04/03/90	87.91	15.25	72.56	ND<500	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--	--	ANA
MW-2	07/30/90	87.91	15.69	72.32	81	--	6.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--	--	ANA
MW-2	11/20/90	87.91	17.81	70.10	ND<50	--	0.3	ND<0.3	ND<0.3	ND<0.3	--	--	--	--	--	--	SAL
MW-2	03/01/91	87.91	17.11	70.80	ND<100	--	0.4	ND<0.3	ND<0.3	ND<0.3	--	--	4.0	--	--	--	SAL
MW-2	08/19/91	87.91	17.97	69.94	ND<30	--	ND<0.3	ND<0.3	ND<0.3	ND<0.3	--	--	--	--	--	--	SEQ
MW-2	11/13/91	87.91	16.76	71.15	38	--	0.32	ND<0.3	ND<0.3	ND<0.3	--	--	--	--	--	--	SEQ
MW-2	02/24/92	87.91	15.07	72.84	ND<50	--	ND<0.5	ND<0.5	ND<0.5	0.68	--	--	16	--	--	--	SEQ
MW-2	05/19/92	87.91	14.70	73.21	ND<50	--	0.55	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--	--	SEQ
MW-2	07/22/92	87.91	15.60	72.31	90	--	1.3	0.6	0.9	1.9	--	--	--	--	--	--	ANA
MW-2	08/14/92	87.91	15.68	72.03	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	11/11/92	87.91	16.19	71.72	62	--	2.8	ND<0.5	ND<0.5	0.9	--	--	--	--	--	--	ANA
QC-1 (c)	11/11/92	--	--	--	65	--	3.2	ND<0.5	ND<0.5	1.0	--	--	--	--	--	--	ANA
MW-2	06/07/93	87.91	14.42	73.49	1200	--	14	2.6	1.9	1.7	--	--	--	--	--	--	PACE
MW-2	12/02/93	87.91	14.94	72.97	790	--	3.4	0.5	10	ND<0.5	--	--	--	3700 (d)	--	--	PACE
QC-1 (c)	12/02/93	--	--	--	2100	--	32	3.8	2.2	17.00	--	2.3	--	3700 (d)	--	--	PACE
MW-2	06/22/94	87.91	14.25	73.66	110	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	120 (d)	3.9	--	PACE
MW-2	01/10/95	87.91	13.64	74.27	ND<50	--	ND<0.5	ND<0.5	0.6	1	--	--	--	--	4.3	--	ATI
MW-2	06/21/95	87.91	11.66	78.25	4700	--	ND<10	ND<10	ND<10	ND<20	--	--	--	--	7.8	--	ATI
MW-2	12/27/95	87.91	13.11	74.80	6100	--	ND<25	ND<25	ND<25	ND<50	--	--	--	--	20000	6.7	ATI
QC-1 (c)	12/27/95	--	--	--	6300	--	ND<25	ND<25	ND<25	ND<50	--	--	--	--	19000	--	ATI
MW-2	06/13/96	87.91	10.68	77.05	8300	--	ND<2.5	ND<2.5	ND<2.5	ND<2.5	--	--	--	--	13000	6.5	SPL
QC-1 (c)	06/13/96	--	--	--	8700	--	ND<5	ND<5	ND<5	ND<5	--	--	--	--	13000	--	SPL
MW-2	12/04/96	87.91	13.03	74.88	5900	--	ND<2.5	ND<2.5	ND<5	ND<5	--	--	--	--	11000	6.3	SPL
QC-1 (c)	12/04/96	--	--	--	5900	--	ND<2.5	ND<5	ND<5	ND<5	--	--	--	--	11000	--	SPL
MW-2	06/10/97	87.91	10.04	77.87	ND<50	--	ND<0.5	ND<1.0	ND<1.0	ND<1.0	--	--	--	--	ND<10	5.8	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
 BP OIL COMPANY SERVICE STATION NO. 11102
 100 MACARTHUR BOULEVARD, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-076

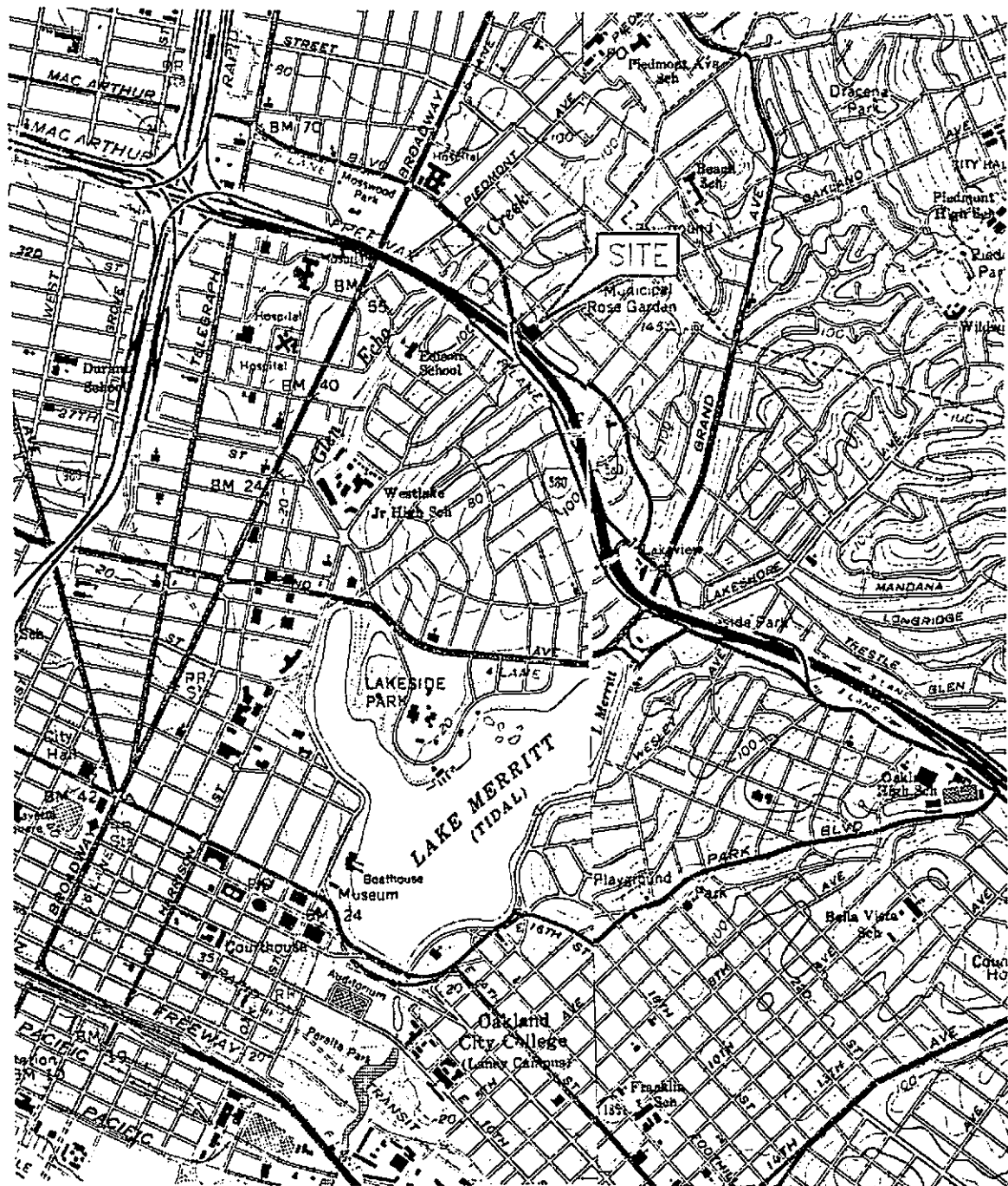
WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	TOG (ug/l)	1,1-DCA (ug/l)	1,2-DCA (ug/l)	VOC (ug/l)	MTBE (ug/l)	DO (ppm)	LAB
MW-3	11/04/89	87.02	15.40	71.62	ND<500	--	ND<0.3	ND<0.3	ND<0.3	ND<0.3	--	--	--	--	--	--	SAL
MW-3	11/11/89	87.02	14.10	72.92	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	04/03/90	87.02	13.90	73.12	ND<100	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--	--	ANA
MW-3	07/30/90	87.02	13.77	73.25	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5000	--	--	--	--	--	ANA
MW-3	11/20/90	87.02	14.67	72.35	ND<50	--	0.3	0.8	0.4	1.5	--	--	--	--	--	--	SAL
MW-3	03/01/91	87.02	15.22	71.80	ND<100	--	0.4	ND<0.3	ND<0.3	ND<0.3	--	--	ND	--	--	--	SAL
MW-3	08/19/91	87.02	13.15	73.87	ND<30	--	ND<0.3	ND<0.3	ND<0.3	ND<0.3	--	--	--	--	--	--	SEQ
MW-3	11/13/91	87.02	15.66	71.36	ND<30	--	ND<0.3	ND<0.3	ND<0.3	ND<0.3	--	--	--	--	--	--	SEQ
MW-3	02/24/92	87.02	15.01	72.01	ND<50	--	0.65	1.4	0.86	4.4	--	--	ND	--	--	--	SEQ
MW-3	05/13/92	87.02	15.52	71.50	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--	--	SEQ
MW-3	07/22/92	87.02	15.63	71.39	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5000	--	ND<0.50	--	--	--	ANA
MW-3	08/14/92	87.02	13.57	73.45	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	11/11/92	87.02	14.13	72.89	ND<50	--	ND<0.5	0.7	ND<0.5	1.3	--	--	--	--	--	--	ANA
MW-3	06/07/93	87.02	12.13	74.89	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--	--	PACE
MW-3	12/02/93	87.02	13.29	73.73	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--	--	PACE
MW-3	06/22/94	87.02	12.78	74.24	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--	--	PACE
MW-3	01/10/95	87.02	12.01	75.01	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<1	--	--	1	--	--	--	ATI
MW-3	06/21/95	87.02	11.57	75.45	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	--	--	--	--	--	ATI
MW-3	12/27/95	87.02	13.47	73.55	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	--	--	--	5.7	--	ATI
MW-3	08/13/96	87.02	11.22	75.80	60	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	ND<10	6.8	SPL
MW-3	12/04/96	87.02	13.28	73.74	ND<50	--	ND<0.5	ND<1	ND<1	ND<1	--	--	--	--	ND<10	6.7	SPL
MW-3	06/10/97	87.02	10.22	76.80	ND<50	--	ND<0.5	ND<1.0	ND<1.0	ND<1.0	--	--	--	--	ND<10	6.1	SPL
QC-2 (g)	11/11/92	--	--	--	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--	--	ANA
QC-2 (g)	06/07/93	--	--	--	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--	--	PACE
QC-2 (g)	12/02/93	--	--	--	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--	--	PACE
QC-2 (g)	06/22/94	--	--	--	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--	--	PACE
QC-2 (g)	01/10/95	--	--	--	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<1	--	--	--	--	--	--	ATI
QC-2 (g)	06/21/95	--	--	--	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	--	--	--	--	--	ATI
QC-2 (g)	12/27/95	--	--	--	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	--	--	--	ND<5.0	--	ATI
QC-2 (g)	08/13/96	--	--	--	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	ND<10	--	SPL

ABBREVIATIONS:

TPH-G	Total petroleum hydrocarbons as gasoline
TPH-D	Total petroleum hydrocarbons as diesel
B	Benzene
T	Toluene
E	Ethylbenzene
X	Total xylenes
TOG	Total oil and grease
1,1-DCA	1,1-Dichloroethane
1,2-DCA	1,2-Dichloroethane
VOC	Volatile organic compounds
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/measured/applicable
SAL	Superior Analytical Laboratory
ANA	Anamatrix, Inc.
SEQ	Sequoia Analytical Laboratory
PACE	Pace, Inc.
ATI	Analytical Technologies, Inc.
SPL	Southern Petroleum Laboratories

NOTES:

- (e) Top of casing elevations surveyed to the nearest 0.01 foot above mean sea level.
- (b) Groundwater elevations in feet above mean sea level.
- (c) Blind duplicate.
- (d) A copy of the documentation for this data is included in Appendix C of Alisto report 10-076-06-002.
- (e) Tetrachloroethene.
- (f) Trans-1,2-Dichloroethene
- (g) Travel blank.



SOURCE:
 USGS MAP, OAKLAND EAST & WEST QUADRANGLES,
 CALIFORNIA, 7.5 MINUTE SERIES, 1958.
 PHOTOREVISED 1980.

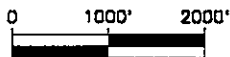


FIGURE 1

SITE VICINITY MAP

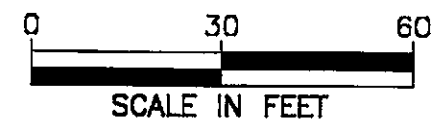
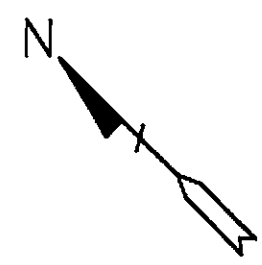
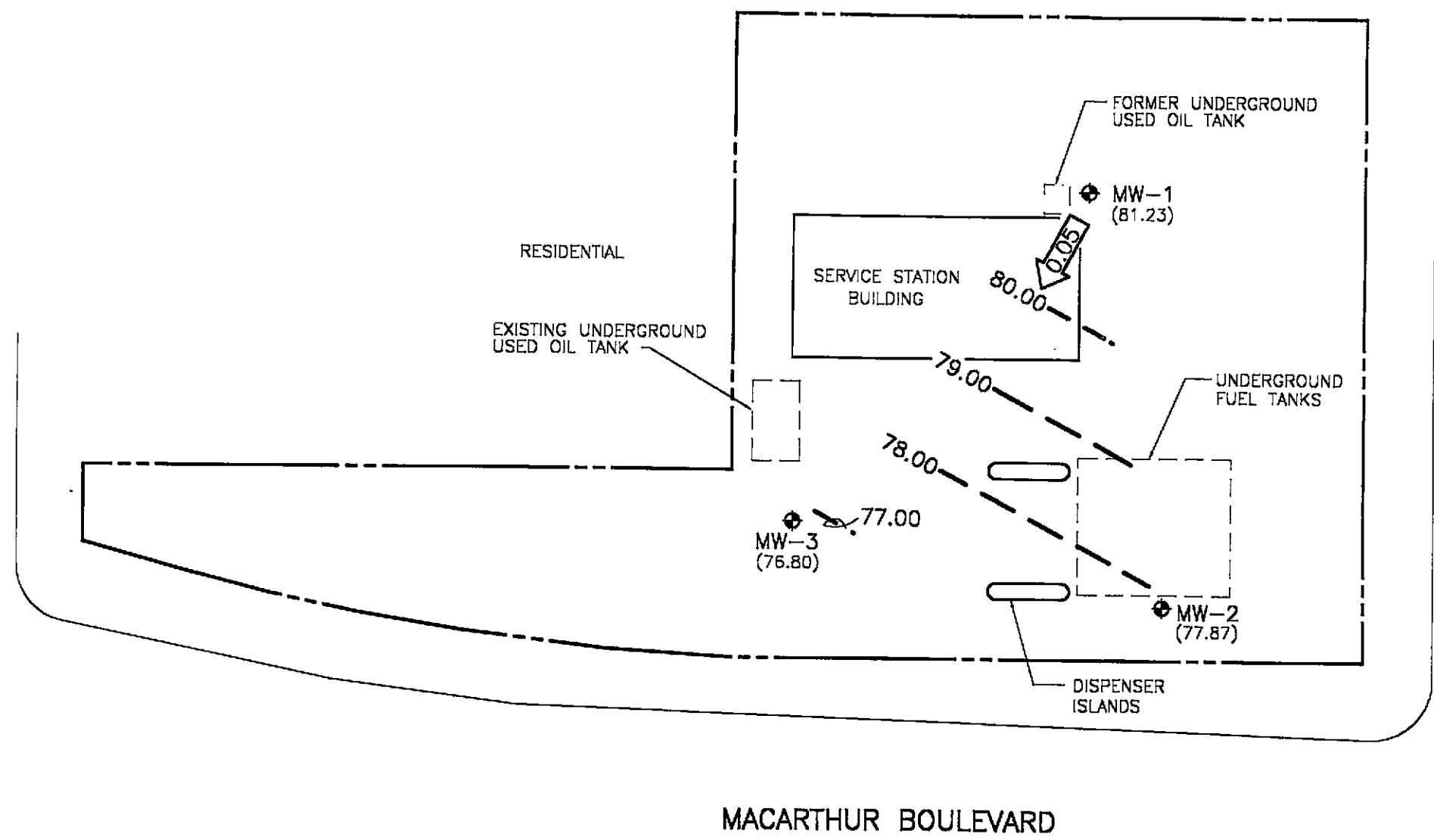
BP OIL SERVICE STATION NO. 11102
100 MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA

PROJECT NO. 10-076



ALISTO ENGINEERING GROUP
 WALNUT CREEK, CALIFORNIA

Unocal

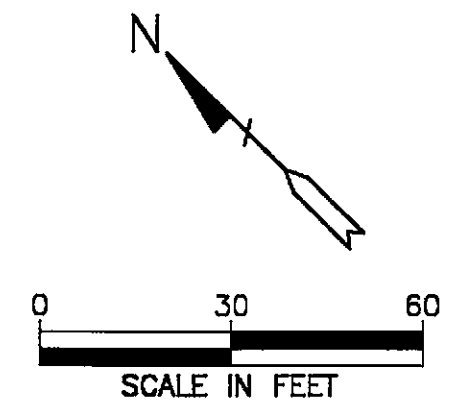
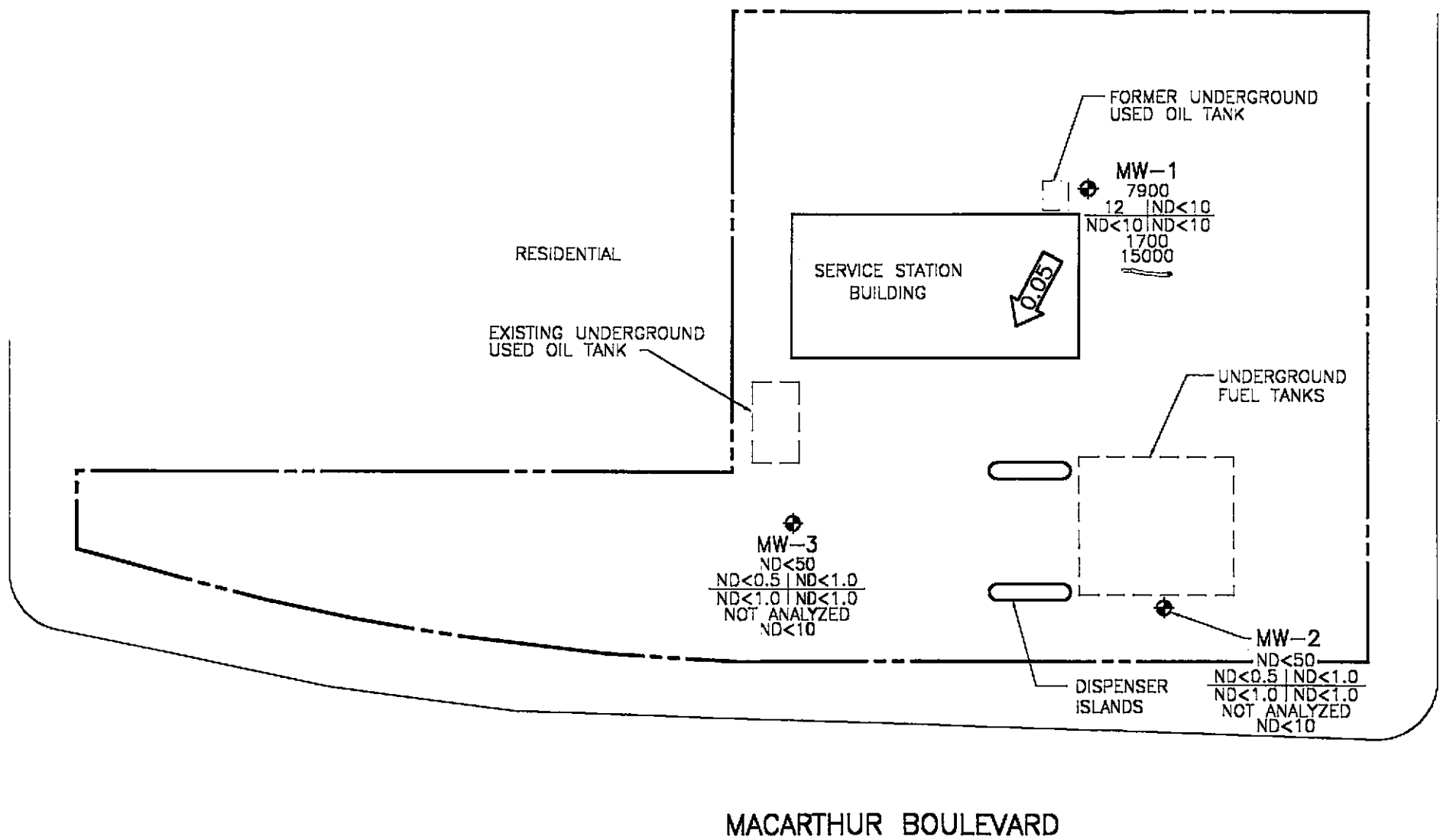


- LEGEND**
- ◆ GROUNDWATER MONITORING WELL
 - (81.23) GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
 - 80.00 - GROUNDWATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL (CONTOUR INTERVAL - 1.00 FOOT)
 - ← 0.05 → CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT

FIGURE 2
POTENTIOMETRIC GROUNDWATER ELEVATION CONTOUR MAP
 JUNE 10, 1997
 BP OIL SERVICE STATION NO. 11102
 100 MACARTHUR BOULEVARD
 OAKLAND, CALIFORNIA
 PROJECT NO. 10-076



100780-01.DWG 7-8-97 WJ



LEGEND

- ◆ GROUNDWATER MONITORING WELL
- TPH-G
B | T
E | X
TPH-D
MTBE
CONCENTRATION OF CONSTITUENTS IN MICROGRAMS PER LITER,
- TPH-G TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
- B BENZENE
- T TOLUENE
- E ETHYLBENZENE
- X TOTAL XYLENES
- TPH-D TOTAL PETROLEUM HYDROCARBONS AS DIESEL
- MTBE METHYL TERT BUTYL ETHER
- ND NOT DETECTED ABOVE REPORTED DETECTION LIMIT
- ← 0.05 CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT

FIGURE 3
CONCENTRATIONS OF PETROLEUM HYDROCARBONS IN GROUNDWATER
JUNE 10, 1997
 BP OIL SERVICE STATION NO. 11102
 100 MACARTHUR BOULEVARD
 OAKLAND, CALIFORNIA
 PROJECT NO. 10-076

APPENDIX A
WATER SAMPLING FIELD SURVEY FORMS

ALISTO

Field Report / Sampling Data Sheet

ENGINEERING

GROUP

1575 TREAT BOULEVARD, SUITE 201

WALNUT CREEK CA 94598 (510) 295-1650 FAX 295-1823

Project No. 10-076-06-0042 *ry*

Address 100 MacArthur Blvd

Contract No. G797420

Station No. BP 11102

Date: 6/10/97

Day: M T W T H F

City: Oakland

Sampler: *UES*

DEPTH TO GROUNDWATER SUMMARY

WELL ID	SAMPLE ID	WELL DIAM	TOTAL DEPTH	DEPTH TO WATER	PRODUCT THICKNESS	TIME MONITORED	COMMENTS:
MW-1	S-3	4"	23.20	8.97	Ø	1433	Semi-June/Dec <i>Ac-1 S-4 From this well</i>
MW-2	MW-2	4"	24.80	10.04	↓	1430	Semi-June/Dec <i>(S-2)</i>
MW-3	MW-3	4"	23.60	10.22	↓	1422	Semi-June/Dec <i>(S-1)</i>

FIELD INSTRUMENT CALIBRATION DATA

pH METER *Jim* 4.00 4 7.00 7 10.00 10 TEMPERATURE COMPENSATED Y N TIME 1410 WEATHER Clear
 D.O. METER *Jim* ZERO d.O. SOLUTION _____ BAROMETRIC PRESSURE 760 TEMP 70
 CONDUCTIVITY METER *Jim* 10,000 _____ TURBIDITY METER _____ 5.0 NTU _____ OTHER X
 LEAK DETECTOR: _____ ALARM MODE X NON ALARM MODE _____

Well ID	Depth to Water	Diam	Cap/Lock	Product Dept	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.	
MW-3	10.22	4"	O/C	Ø	Y (N)	9	1450	74.2	7.71	1.02ms	6.1	<input checked="" type="checkbox"/> EPA 601 _____
Total Depth - Water Level=						x Well Vol. Factor=	x#vol. to Purge	PurgeVol.				<input checked="" type="checkbox"/> TPH-G/BTEX _____
23.60 - 10.22 = 13.38						X .65 = 8.70	X 3 = 26.10					<input type="checkbox"/> TPH Diesel _____
Purge Method: <input checked="" type="checkbox"/> Surface Pump						<input type="checkbox"/> Disp. Tube	<input type="checkbox"/> Winch	<input type="checkbox"/> Disp. Bailer(s)	<input type="checkbox"/> Sys Port			<input type="checkbox"/> TOG 5520 _____
Comments:												TIME/SAMPLE ID
												<u>1515</u>
MW-2	10.04	4"	O/C	Ø	Y (N)	10	1530	73.3	7.44	1.21ms	5.8	<input type="checkbox"/> EPA 601 _____
Total Depth - Water Level=						x Well Vol. Factor=	x#vol. to Purge	PurgeVol.				<input checked="" type="checkbox"/> TPH-G/BTEX _____
24.80 - 10.04 = 14.76						X .65 = 9.59	X 3 = 28.77					<input type="checkbox"/> TPH Diesel _____
Purge Method: <input checked="" type="checkbox"/> Surface Pump						<input type="checkbox"/> Disp. Tube	<input type="checkbox"/> Winch	<input type="checkbox"/> Disp. Bailer(s)	<input type="checkbox"/> Sys Port			<input type="checkbox"/> TOG 5520 _____
Comments:												TIME/SAMPLE ID
												<u>1610</u>

ALISTO

Field Report / Sampling Data Sheet

ENGINEERING

GROUP

1575 TREAT BOULEVARD, SUITE 201

WALNUT CREEK CA 94598 (510) 295-1650 FAX 295-1823

Project No.

10-076-06-004

Date:

6/10/97

Address

100 MacArthur Blvd

Day:

MON TH F

Contract No.

G797420

City:

Oakland

Station No.

BP 11102

Sampler:

UB

Well ID	Depth to Water	Diam	Cap/Lock	Product Dept	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.	
MW-1	8.97	4"	OIL	Ø	Y (N)	9	1621	73.9	7.61	1.11ms	5.7	<input checked="" type="checkbox"/> EPA 601 <u>Hu</u>
Total Depth - Water Level=						18		71.7	7.33	1.47ms		<input checked="" type="checkbox"/> TPH-G/BTEX <u>Hu</u>
x Well Vol. Factor=						28	1650	71.2	7.24	1.42ms	6.0	<input checked="" type="checkbox"/> TPH Diesel <u>Hu</u>
x#vol. to Purge PurgeVol.												<input checked="" type="checkbox"/> TOG 5520 <u>itcl</u>
Purge Method: <input checked="" type="checkbox"/> Surface Pump <input type="checkbox"/> Disp. Tube <input type="checkbox"/> Winch <input type="checkbox"/> Disp. Bailer(s) <input type="checkbox"/> Sys Port												TIME/SAMPLE ID
Comments: <u>OC-1 (S-4) From this well</u>												1655

APPENDIX B

LABORATORY REPORT AND CHAIN OF CUSTODY RECORD



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

June 24, 1997

Mr. Scott Hooton
BP Oil Company
295 SW 41st St, Bldg13, Ste N
Renton, WA 98055

The following report contains analytical results for samples received at Southern Petroleum Laboratories (SPL) on June 13, 1997. The samples were assigned to Certificate of Analysis No(s).9706662 and analyzed for the parameters specified on the chain of custody.

There were no analytical problems encountered with this group of samples and all quality control data was within acceptance limits.

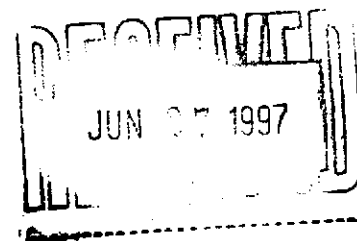
If you have any questions or comments pertaining to this data report, please do not hesitate to contact me. Please reference the above Certificate of Analysis Number(s) during any inquiries.

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



Ed Fry
Project Manager





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


Southern Petroleum Laboratories, Inc.

Certificate of Analysis Number: 97-06-662

Approved for Release by:



Ed Fry, Project Manager



Date:

Greg Grandits
Laboratory Director

Idelis Williams
Quality Assurance Officer

The attached analytical data package may not be reproduced except in full without the express written approval of this laboratory.



Certificate of Analysis No. H9-9706662-01

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

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

P.O.#
G797420, COC#077264
DATE: 06/24/97

PROJECT: BP Oil #11102
SITE: Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: S-1

PROJECT NO: 10-076-6-2
MATRIX: WATER
DATE SAMPLED: 06/10/97
DATE RECEIVED: 06/13/97

ANALYTICAL DATA

Table with 5 columns: PARAMETER, RESULTS, DETECTION LIMIT, UNITS. Rows include MTBE, Benzene, Toluene, Ethylbenzene, Total Xylene.

Table with 2 columns: Surrogate, % Recovery. Rows include 1,4-Difluorobenzene, 4-Bromofluorobenzene.

Method 8020A***
Analyzed by: HS
Date: 06/22/97

Table with 5 columns: PARAMETER, RESULTS, DETECTION LIMIT, UNITS. Row: Total Petroleum Hydrocarbons-Gasoline.

Table with 2 columns: Surrogate, % Recovery. Rows include 1,4-Difluorobenzene, 4-Bromofluorobenzene.

California LUFT Manual
Analyzed by: HS
Date: 06/22/97 04:36:00

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. H9-9706662-02

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

P.O.#
 G797420, COC#077264
 DATE: 06/24/97

PROJECT: BP Oil #11102
 SITE: Oakland, CA
 SAMPLED BY: Alisto Engineering
 SAMPLE ID: S-2

PROJECT NO: 10-076-6-2
 MATRIX: WATER
 DATE SAMPLED: 06/10/97
 DATE RECEIVED: 06/13/97

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	ND	10 P	µg/L
Benzene	ND	0.5 P	µg/L
Toluene	ND	1.0 P	µg/L
Ethylbenzene	ND	1.0 P	µg/L
Total Xylene	ND	1.0 P	µg/L

Surrogate % Recovery
 1,4-Difluorobenzene 100
 4-Bromofluorobenzene 113
 Method 8020A***
 Analyzed by: HS
 Date: 06/22/97

Total Petroleum Hydrocarbons-Gasoline ND 0.05 P mg/L

Surrogate % Recovery
 1,4-Difluorobenzene 110
 4-Bromofluorobenzene 107
 California LUFT Manual
 Analyzed by: HS
 Date: 06/22/97 05:03:00

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



Certificate of Analysis No. H9-9706662-03

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

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

P.O.#
G797420, COC#077264
DATE: 06/24/97

PROJECT: BP Oil #11102
SITE: Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: S-3

PROJECT NO: 10-076-6-2
MATRIX: WATER
DATE SAMPLED: 06/10/97
DATE RECEIVED: 06/13/97

ANALYTICAL DATA

Table with 5 columns: PARAMETER, RESULTS, DETECTION LIMIT, UNITS. Rows include MTBE, Benzene, Toluene, Ethylbenzene, Total Xylene.

Surrogate

% Recovery

1,4-Difluorobenzene
4-Bromofluorobenzene

100
117

Method 8020A***

Analyzed by: DN

Date: 06/23/97

Total Petroleum Hydrocarbons-Gasoline 7.9 0.5 P mg/L

Surrogate

% Recovery

1,4-Difluorobenzene
4-Bromofluorobenzene

100
110

California LUFT Manual

Analyzed by: HS

Date: 06/22/97 05:31:00

Diesel Range Organics 0.17 0.1 P mg/L

(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 hydroc.in the C10-C24 range. Hydroc.
were quantified against Diesel std ranging frm C10-C24
Sample was not similar to Diesel pattern. APR 6-20-97

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



Certificate of Analysis No. H9-9706662-03

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

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

P.O.#
G797420, COC#077264
DATE: 06/24/97

PROJECT: BP Oil #11102
SITE: Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: S-3

PROJECT NO: 10-076-6-2
MATRIX: WATER
DATE SAMPLED: 06/10/97
DATE RECEIVED: 06/13/97

Table with 5 columns: PARAMETER, ANALYTICAL DATA, RESULTS, DETECTION LIMIT, UNITS. Rows include Surrogate n-Pentacosane, Hydrocarbons by Gravimetry, and California TPH-D Extraction.

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 hydroc.in the C10-C24 range. Hydroc.
were quantified against Diesel std ranging frm C10-C24
Sample was not similar to Diesel pattern. APR 6-20-97

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



Certificate of Analysis No. H9-9706662-03

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

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

P.O.#
G797420, COC#077264
06/24/97

PROJECT: BP Oil #11102
SITE: Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: S-3

PROJECT NO: 10-076-6-2
MATRIX: WATER
DATE SAMPLED: 06/10/97
DATE RECEIVED: 06/13/97

ANALYTICAL DATA

PARAMETER	RESULTS	PQL*	UNITS
Dichlorodifluoromethane	ND	250	µg/L
Chloromethane	ND	250	µg/L
Vinyl chloride	ND	250	µg/L
Bromomethane	ND	250	µg/L
Chloroethane	ND	250	µg/L
Trichlorofluoromethane	ND	250	µg/L
1,1-Dichloroethene	ND	250	µg/L
Methylene chloride	ND	250	µg/L
Trans-1,2-Dichloroethene	ND	250	µg/L
1,1-Dichloroethane	ND	250	µg/L
Chloroform	ND	250	µg/L
1,1,1-Trichloroethane	ND	250	µg/L
Carbon tetrachloride	ND	250	µg/L
1,2-Dichloroethane	ND	250	µg/L
2-Chloroethylvinyl ether	ND	250	µg/L
Trichloroethene	ND	250	µg/L
1,2-Dichloropropane	ND	250	µg/L
Bromodichloromethane	ND	250	µg/L
cis-1,3-Dichloropropene	ND	250	µg/L
trans-1,3-Dichloropropene	ND	250	µg/L
1,1,2-Trichloroethane	ND	250	µg/L
Tetrachloroethene	ND	250	µg/L
Dibromochloromethane	ND	250	µg/L
Chlorobenzene	ND	250	µg/L
Bromoform	ND	250	µg/L
1,1,2,2-Tetrachloroethane	ND	250	µg/L
1,3-Dichlorobenzene	ND	250	µg/L
1,4-Dichlorobenzene	ND	250	µg/L
1,2-Dichlorobenzene	ND	250	µg/L

METHOD: 601, Halogenated Volatile Organics
(continued on next page)



HOUSTON LABORATORY

8880 INTERCHANGE DRIVE

HOUSTON, TEXAS 77054

PHONE (713) 660-0901

Certificate of Analysis No. H9-9706662-03

BP Oil Company

SAMPLE ID: S-3

SURROGATES
1-Chloro-2-Fluorobenzene

% RECOVERY
94

ANALYZED BY: WK

DATE/TIME: 06/21/97 09:43:00

METHOD: 601, Halogenated Volatile Organics

NOTES: * - Practical Quantitation Limit

ND - Not Detected

NA - Not Analyzed

COMMENTS:

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



Certificate of Analysis No. H9-9706662-04

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

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

P.O.#
G797420, COC#077264
DATE: 06/24/97

PROJECT: BP Oil #11102
SITE: Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: S-4

PROJECT NO: 10-076-6-2
MATRIX: WATER
DATE SAMPLED: 06/10/97
DATE RECEIVED: 06/13/97

ANALYTICAL DATA

Table with 5 columns: PARAMETER, RESULTS, DETECTION LIMIT, UNITS. Rows include MTBE, Benzene, Toluene, Ethylbenzene, Total Xylene.

Surrogate % Recovery
1,4-Difluorobenzene 100
4-Bromofluorobenzene 113

Method 8020A***
Analyzed by: DN
Date: 06/23/97

Total Petroleum Hydrocarbons-Gasoline 7.7 1.2 P mg/L

Surrogate % Recovery
1,4-Difluorobenzene 95
4-Bromofluorobenzene 105

California LUFT Manual
Analyzed by: HS
Date: 06/22/97 05:58:00

(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



06/24/97 09:30:12

HOUSTON LABORATORY

8880 INTERCHANGE DRIVE

HOUSTON, TEXAS 77054

PHONE (713) 660-0901

AMOUNT ADDED	CONC. MEASURED	RECOVERY	LIMITS
-----------------	-------------------	----------	--------

Method 601 40 CFR PART 136
WORK ORDER: 9706662-03B

BATCH#:HP_F970620101700
CLIENT SAMPLE ID:S-3

1-Chloro-2-Fluorobenzene	100	94.0000	94	56- 130
--------------------------	-----	---------	----	---------

Method 8010B ***
WORK ORDER: Method Blank

BATCH#:HP_F970620101700
CLIENT SAMPLE ID:

1-Chloro-2-Fluorobenzene		94		56- 130
--------------------------	--	----	--	---------

Method 8020A***
WORK ORDER: 9706662-01A

BATCH#:HP_J970622074600
CLIENT SAMPLE ID:S-1

1,4-Difluorobenzene	30	30	100	70- 131
4-Bromofluorobenzene	30	36	120	43- 135

Method 8020A***
WORK ORDER: 9706662-02A

BATCH#:HP_J970622074600
CLIENT SAMPLE ID:S-2

1,4-Difluorobenzene	30	30	100	70- 131
4-Bromofluorobenzene	30	34	113	43- 135

Method 8020A***
WORK ORDER: 9706662-03A

BATCH#:HP_J970622074600
CLIENT SAMPLE ID:S-3

1,4-Difluorobenzene	30	30.0000	100	70- 131
4-Bromofluorobenzene	30	35.0000	117	43- 135

Method 8020A***
WORK ORDER: 9706662-04A

BATCH#:HP_J970622074600
CLIENT SAMPLE ID:S-4

1,4-Difluorobenzene	30	30.0000	100	70- 131
4-Bromofluorobenzene	30	34.0000	113	43- 135

Method 8020A ***
WORK ORDER: Method Blank

BATCH#:HP_J970622074600
CLIENT SAMPLE ID:

1,4-Difluorobenzene	30	30		74- 131
4-Bromofluorobenzene	30	34		43- 135

Method 8020A ***
WORK ORDER: LCS

BATCH#:HP_J970622074600
CLIENT SAMPLE ID:

1,4-Difluorobenzene	30	30	100	70- 131
4-Bromofluorobenzene	30	34	113	43- 135



SURROGATE RECOVERY SUMMARY

06/24/97 09:30:12

HOUSTON LABORATORY

8880 INTERCHANGE DRIVE

HOUSTON, TEXAS 77054

PHONE (713) 660-0901

AMOUNT CONC. RECOVERY
ADDED MEASURED

LIMITS

Method 8020A ***

BATCH#:HP_J970622074600

WORK ORDER: Matrix Spike

CLIENT SAMPLE ID:9706814-04A

1,4-DIFLUOROBENZENE	30	30	100	70- 131
4-BROMOFLUOROBENZENE	30	35	117	43- 135

Method 8020A ***

BATCH#:HP_J970622074600

WORK ORDER: Matrix Spike Dup.

CLIENT SAMPLE ID:9706814-04A

1,4-Difluorobenzene	30	30	100	70- 131
4-Bromofluorobenzene	30	35	117	43- 135

California LUFT Manual

BATCH#:HP_J970622114400

WORK ORDER: 9706662-01A

CLIENT SAMPLE ID:S-1

1,4-Difluorobenzene	30	30	100	50- 150
4-Bromofluorobenzene	30	33	110	50- 150

California LUFT Manual

BATCH#:HP_J970622114400

WORK ORDER: 9706662-02A

CLIENT SAMPLE ID:S-2

1,4-Difluorobenzene	30	33	110	50- 150
4-Bromofluorobenzene	30	32	107	50- 150

California LUFT Manual

BATCH#:HP_J970622114400

WORK ORDER: 9706662-03A

CLIENT SAMPLE ID:S-3

1,4-Difluorobenzene	30	30.0000	100	50- 150
4-Bromofluorobenzene	30	33.0000	110	50- 150

California LUFT Manual

BATCH#:HP_J970622114400

WORK ORDER: 9706662-04A

CLIENT SAMPLE ID:S-4

1,4-Difluorobenzene	30	28.4000	95	50- 150
4-Bromofluorobenzene	30	31.6000	105	50- 150

California LUFT Manual

BATCH#:HP_J970622114400

WORK ORDER: Method Blank

CLIENT SAMPLE ID:

1,4-Difluorobenzene	30	29	97	50- 150
4-Bromofluorobenzene	30	32	107	50- 150

California LUFT Manual

BATCH#:HP_J970622114400

WORK ORDER: Matrix Spike

CLIENT SAMPLE ID:9706544-01B

1,4-Difluorobenzene	30	31	103	50- 150
---------------------	----	----	-----	---------



AMOUNT CONC. RECOVERY LIMITS
ADDED MEASURED

4-Bromofluorobenzene	30	43	143	50- 150
----------------------	----	----	-----	---------

California LUFT Manual BATCH#:HP_J970622114400
WORK ORDER: Matrix Spike Dup. CLIENT SAMPLE ID:9706544-01B

1,4-Difluorobenzene	30	30	100	50- 150
4-Bromofluorobenzene	30	42	140	50- 150

Method Modified 8015A*** for Gasoline BATCH#:HP_S970621005300
WORK ORDER: Method Blank CLIENT SAMPLE ID:

4-Bromofluorobenzene	30	29	97	52- 152
1,4-Difluorobenzene	30	22	73	54- 137

Method Modified 8015A*** for Gasoline BATCH#:HP_S970621005300
WORK ORDER: Matrix Spike CLIENT SAMPLE ID:9706706-06A

4-Bromofluorobenzene	30	30	100	52- 152
1,4-Difluorobenzene	30	31	103	54- 137

Method Modified 8015A*** for Gasoline BATCH#:HP_S970621005300
WORK ORDER: Matrix Spike Dup. CLIENT SAMPLE ID:9706706-06A

4-Bromofluorobenzene	30	30	100	52- 152
1,4-Difluorobenzene	30	31	103	54- 137

Method 8020A *** BATCH#:HP_S970623010000
WORK ORDER: Method Blank CLIENT SAMPLE ID:

1,4-Difluorobenzene	30	30		74- 131
4-Bromofluorobenzene	30	29		43- 135

Method 8020A *** BATCH#:HP_S970623010000
WORK ORDER: LCS CLIENT SAMPLE ID:

1,4-Difluorobenzene	30	29	96.7	70- 131
4-Bromofluorobenzene	30	30	100	43- 135

Method 8020A *** BATCH#:HP_S970623010000
WORK ORDER: Matrix Spike CLIENT SAMPLE ID:9706802-11A

1,4-DIFLUOROBENZENE	30	30	100	70- 131
4-BROMOFLUOROBENZENE	30	39	130	43- 135



AMOUNT CONC. RECOVERY
ADDED MEASURED

LIMITS

Method 8020A ***

BATCH#:HP_S970623010000

WORK ORDER: Matrix Spike Dup.

CLIENT SAMPLE ID:9706802-11A

1,4-Difluorobenzene	30	31	103	70-	131
4-Bromofluorobenzene	30	39	130	43-	135

California LUFT Manual for Diesel

BATCH#:HP_T970617131100

WORK ORDER: 9706662-03D

CLIENT SAMPLE ID:S-3

n-Pentacosane	50	44	88	20-	150
---------------	----	----	----	-----	-----

Modified 8015A - Diesel ***

BATCH#:HP_T970617131100

WORK ORDER: Matrix Spike

CLIENT SAMPLE ID:970613SFBS

n-Pentacosane	50	0.0	0 <	50-	150
---------------	----	-----	-----	-----	-----

Modified 8015A - Diesel ***

BATCH#:HP_T970617131100

WORK ORDER: Method Blank

CLIENT SAMPLE ID:

n-Pentacosane	50	48.5		50-	150
---------------	----	------	--	-----	-----

< = Recovery outside of control limits

* = Methods for Chemical Analysis of Water & Wastes, 1983, EPA

** = Standard Methods for Examination of Water & Wastewater, 17th

*** = Test Methods for Evaluating Solid Waste, EPA SW846, 3rd



Matrix: Aqueous
Units: µg/L

Batch Id: HP_J970622074600

LABORATORY CONTROL SAMPLE

S P I K E C O M P O U N D S	Method Blank Result <2>	Spike Added <3>	Blank Spike		QC Limits(**) (Mandatory) % Recovery Range
			Result <1>	Recovery %	
MTBE	ND	50	40	80.0	63 - 120
Benzene	ND	50	45	90.0	62 - 121
Toluene	ND	50	49	98.0	66 - 136
EthylBenzene	ND	50	47	94.0	70 - 136
O Xylene	ND	50	49	98.0	74 - 134
M & P Xylene	ND	100	99	99.0	77 - 140

MATRIX SPIKES

S P I K E C O M P O U N D S	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	7200	20	6740		NC	7000
BENZENE	1.3	20	19	88.5	18	83.5	5.81	25	39 - 150
TOLUENE	ND	20	17	85.0	17	85.0	0	26	56 - 134
ETHYLBENZENE	ND	20	16	80.0	16	80.0	0	38	61 - 128
O XYLENE	ND	20	17	85.0	17	85.0	0	29	40 - 130
M & P XYLENE	ND	40	33	82.5	33	82.5	0	20	43 - 152

Analyst: HS

Sequence Date: 06/22/97

SPL ID of sample spiked: 9706814-04A

Sample File ID: J_F7779.TX0

Method Blank File ID:

Blank Spike File ID: J_F7775.TX0

Matrix Spike File ID: J_F7776.TX0

Matrix Spike Duplicate File ID: J_F7777.TX0

* = Values Outside QC Range. * = 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 (3rd Q '95)

(***) = Source: SPL-Houston Historical Data (2nd Q '95)

SAMPLES IN BATCH(SPL ID): 9706982-01A 9706814-04A 9706662-01A 9706662-02A
9706662-03A 9706662-04A



Matrix: Aqueous
Units: µg/L

Batch Id: HP_S970623010000

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	40	80.0	63 - 120
Benzene	ND	50	45	90.0	62 - 121
Toluene	ND	50	50	100	66 - 136
EthylBenzene	ND	50	50	100	70 - 136
O Xylene	ND	50	51	102	74 - 134
M & P Xylene	ND	100	100	100	77 - 140

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	28		140	27
BENZENE	ND	20	26	130	27	135	3.77	25	39 - 150
TOLUENE	ND	20	24	120	25	125	4.08	26	56 - 134
ETHYLBENZENE	ND	20	22	110	23	115	4.44	38	61 - 128
O XYLENE	ND	20	26	130	26	130	0	29	40 - 130
M & P XYLENE	ND	40	47	118	50	125	5.76	20	43 - 152

Analyst: fab

Sequence Date: 06/23/97

SPL ID of sample spiked: 9706802-11A

Sample File ID: S_F7861.TX0

Method Blank File ID:

Blank Spike File ID: S_F7891.TX0

Matrix Spike File ID: S_F7822.TX0

Matrix Spike Duplicate File ID: S_F7823.TX0

* = Values Outside QC Range. * = 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 (3rd Q '95)

(***) = Source: SPL-Houston Historical Data (2nd Q '95)

SAMPLES IN BATCH(SPL ID):

9706807-03A 9706807-02A 9706807-01A 9706734-13A
9706734-11A 9706734-12A 9706662-03A 9706662-04A
9706989-01A 9706735-28A 9706A75-01A 9706A73-01A
9706695-06A 9706802-11A 9706990-01A 9706807-05A
9706807-04A



* SPL BATCH QUALITY CONTROL REPORT **
CA LUFT

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0907

Matrix: Aqueous
Units: mg/L

Batch Id: HP_J970622114400

LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Spike		QC Limits(**) (Mandatory) % Recovery Range
			Result <1>	Recovery %	
Petroleum Hydrocarbons-Gas	ND	1.0	0.81	81.0	50 - 150

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
			PETROLEUM HYDROCARBONS-GAS	ND	0.9	1.11			

Analyst: HS

Sequence Date: 06/22/97

SPL ID of sample spiked: 9706544-01B

Sample File ID: JJF7786.TX0

Method Blank File ID:

Blank Spike File ID: JJF7783.TX0

Matrix Spike File ID: JJF7784.TX0

Matrix Spike Duplicate File ID: JJF7785.TX0

* = Values Outside QC Range. * = Data outside Method Specification limits.

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

ND = Not Detected/Below Detection Limit

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

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

Relative Percent Difference = $\frac{|\langle 4 \rangle - \langle 5 \rangle|}{\left[(\langle 4 \rangle + \langle 5 \rangle) \times 0.5 \right]} \times 100$

(**) = Source: Temporary Limits

(***) = Source: Temporary Limits

SAMPLES IN BATCH(SPL ID):

9706662-01A 9706662-02A 9706662-03A 9706662-04A
 9706804-01A 9706804-02A 9706802-06A 9706802-07A
 9706802-08A 9706802-09A 9706802-10A 9706544-01B
 9706544-02B 9706544-03B 9706545-01B 9706545-02B



Matrix: Aqueous
 Units: mg/L

Batch Id: HP_T970617131100

B L A N K S P I K E S

S P I K E C O M P O U N D S	Sample Results <2>	Spike Added <3>	Matrix Spike		Matrix Spike Duplicate		MS/MSD Relative % Difference	QC Limits(**) (Advisory)	
			Result	Recovery	Result	Recovery		RPD Max.	Recovery Range
			<1>	<4>	<1>	<5>			
DIESEL PETR. HYDROCARBONS	ND	5.0	4.69	93.2	4.87	96.8	3.79	43	60 - 139

Analyst: RR
 Sequence Date: 06/13/97
 Method Blank File ID:
 Sample File ID:
 Blank Spike File ID: TTF7194.TX0
 Matrix Spike File ID:
 Matrix Spike Duplicate File ID:

* = Values Outside QC Range. * = Data outside Method Specification limits.
 NC = Not Calculated (Sample exceeds spike by factor of 4 or more)
 ND = Not Detected/Below Detection Limit
 $\% \text{ Recovery} = [(<1> - <2>) / <3>] \times 100$
 $\text{Relative Percent Difference} = [(<4> - <5>) / [(<4> + <5>) \times 0.5]] \times 100$
 (**) = Source: SPL-Houston Historical Data (2nd Q '97)

SAMPLES IN BATCH(SPL ID):

9706587-01D 9706587-02D 9706544-01C 9706544-02C
 9706544-03C 9706662-03D 9706545-01C 9706545-02C
 9706586-04B 9706586-05B 9706586-06B 9706586-01B
 9706586-02B 9706586-03B



* SPL BATCH QUALITY CONTROL REPORT **
 Mod. 8015 - Diesel

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

Matrix: Aqueous
 Units: mg/L

Batch Id: HP_T970617131100

LABORATORY CONTROL SAMPLE

S P I K E C O M P O U N D S	Method Blank Result <2>	Spike Added <3>	Blank Spike		QC Limits(**) (Mandatory) ‡ Recovery Range
			Result <1>	Recovery ‡	
Diesel Petr. Hydrocarbons	ND	5.0	5.48	110	60 - 139

Analyst: RR

Sequence Date: 06/17/97

SPL ID of sample spiked: 970616SPLCS

Sample File ID:

Method Blank File ID:

Blank Spike File ID: T_F7234.TX0

Matrix Spike File ID:

Matrix Spike Duplicate File ID: T_F7234.TX0

* = Values Outside QC Range. * = 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 '96)

(***) = Source: SPL-Houston Historical Data (1st Q '96)

SAMPLES IN BATCH (SPL ID):

9706587-01D 9706587-02D 9706544-01C 9706544-02C
 9706544-03C 9706662-03D 9706545-01C 9706545-02C
 9706586-04B 9706586-05B 9706586-06B 9706586-01B
 9706586-02B 9706586-03B



* SPL BATCH QUALITY CONTROL REPORT **
METHOD 8010***

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

Matrix: Aqueous
Units: µg/L

Batch Id: HP_F970620101700

LABORATORY CONTROL SAMPLE

S P I K E C O M P O U N D S	Method Blank Result <2>	Spike Added <3>	Blank Spike		QC Limits(**) (Mandatory) ‡ Recovery Range
			Result <1>	Recovery ‡	
Dichlorodifluoromethane	ND	20	14	70.0	1 - 170
Chloromethane	ND	20	20	100	47 - 138
Vinyl chloride	ND	20	20	100	39 - 121
Bromomethane	ND	20	23	115	43 - 155
Chloroethane	ND	20	19	95.0	49 - 137
Trichlorofluoromethane	ND	20	19	95.0	40 - 149
1,1-Dichloroethene	ND	20	15	75.0	28 - 167
Methylene chloride	ND	20	19	95.0	50 - 162
Trans-1,2-Dichloroethene	ND	20	19	95.0	38 - 155
1,1-Dichloroethane	ND	20	19	95.0	52 - 132
Chloroform	ND	20	20	100	67 - 133
1,1,1-Trichloroethane	ND	20	18	90.0	54 - 138
Carbon tetrachloride	ND	20	17	85.0	56 - 143
1,2-Dichloroethane	ND	20	21	105	51 - 147
2-Chloroethylvinyl ether	ND	20	21	105	68 - 125
Trichloroethene	ND	20	20	100	46 - 146
1,2-Dichloropropane	ND	20	21	105	61 - 156
Bromodichloromethane	ND	20	21	105	52 - 155
cis-1,3-Dichloropropene	ND	20	22	110	60 - 160
trans-1,3-Dichloropropene	ND	20	23	115	44 - 161
1,1,2-Trichloroethane	ND	20	23	115	48 - 136
Tetrachloroethene	ND	20	19	95.0	32 - 162
Dibromochloromethane	ND	20	21	105	52 - 148
Chlorobenzene	ND	20	20	100	38 - 150
Bromoform	ND	20	21	105	49 - 149
1,1,2,2-Tetrachloroethane	ND	20	23	115	21 - 167
1,3-Dichlorobenzene	ND	20	21	105	46 - 162
1,4-Dichlorobenzene	ND	20	21	105	45 - 143
1,2-Dichlorobenzene	ND	20	21	105	45 - 158

MATRIX SPIKES

S P I K E C O M P O U N D S	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
			DICHLORODIFLUOROMETHANE	ND	20	14		70.0	15
CHLOROMETHANE	ND	20	19	95.0	19	95.0	0	20	1 - 193
VINYL CHLORIDE	ND	20	20	100	20	100	0	20	28 - 163
BROMOMETHANE	ND	20	23	115	23	115	0	20	1 - 144
CHLOROETHANE	ND	20	19	95.0	19	95.0	0	20	46 - 137



Matrix: Aqueous
Units: µg/L

Batch Id: HP_F970620101700

MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results <2>	Spike Added <3>	Matrix Spike		Matrix Spike Duplicate		MS/MSD Relative % Difference	QC Limits(***) (Advisory)	
			Result	Recovery	Result	Recovery		RPD Max.	Recovery Range
			<1>	<4>	<1>	<5>			
TRICHLOROFLUOROMETHANE	ND	20	19	95.0	20	100	5.13	20	21 - 156
1,1-DICHLOROETHENE	ND	20	20	100	21	105	4.88	20	28 - 167
METHYLENE CHLORIDE	ND	20	19	95.0	20	100	5.13	20	25 - 162
TRANS-1,2-DICHLOROETHENE	ND	20	20	100	20	100	0	20	38 - 155
1,1-DICHLOROETHANE	ND	20	20	100	20	100	0	20	47 - 132
CHLOROFORM	ND	20	21	105	20	100	4.88	20	49 - 133
1,1,1-TRICHLOROETHANE	ND	20	22	110	22	110	0	20	41 - 138
CARBON TETRACHLORIDE	ND	20	22	110	21	105	4.65	20	43 - 143
1,2-DICHLOROETHANE	ND	20	21	105	20	100	4.88	20	51 - 147
2-CHLOROETHYL VINYL ETHER	ND	20	0	0 *	0	0 *	0	20	14 - 186
TRICHLOROETHENE	ND	20	22	110	21	105	4.65	20	35 - 146
1,2-DICHLOROPROPANE	ND	20	21	105	20	100	4.88	20	44 - 156
BROMODICHLOROMETHANE	ND	20	21	105	20	100	4.88	20	42 - 172
CIS-1,3-DICHLOROPROPENE	ND	20	21	105	20	100	4.88	20	22 - 178
TRANS-1,3-DICHLOROPROPENE	ND	20	21	105	20	100	4.88	20	33 - 178
1,1,2-TRICHLOROETHANE	ND	20	21	105	20	100	4.88	20	39 - 136
TETRACHLOROETHENE	ND	20	21	105	20	100	4.88	20	26 - 162
DIBROMOCHLOROMETHANE	ND	20	20	100	20	100	0	20	24 - 191
CHLOROBENZENE	ND	20	19	95.0	21	105	10.0	20	38 - 150
BROMOFORM	ND	20	20	100	21	105	4.88	20	13 - 159
1,1,2,2-TETRACHLOROETHANE	ND	20	20	100	21	105	4.88	20	8 - 184
1,3-DICHLOROBENZENE	ND	20	20	100	20	100	0	20	7 - 187
1,4-DICHLOROBENZENE	ND	20	19	95.0	20	100	5.13	20	42 - 143
1,2-DICHLOROBENZENE	ND	20	19	95.0	20	100	5.13	20	1 - 208

Analyst: WK

Sequence Date: 06/21/97

SPL ID of sample spiked: 9706544-03A

Sample File ID: PFF7425.TX0

Method Blank File ID:

Blank Spike File ID: PFF7435.TX0

Matrix Spike File ID: PFF7432.TX0

Matrix Spike Duplicate File ID: PFF7433.TX0

* = Values Outside QC Range. * = 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 Limits (3rd Q '95)

(***) = Source: SPL-Houston Historical Data

SAMPLES IN BATCH(SPL ID):

9706458-06B 9706458-05B 9706705-12D 9706455-03C
 9706545-03A 9706544-01A 9706544-02A 9706544-03A
 9706545-01A 9706545-02A 9706662-03B 9706544-04A
 9706547-01B 9706479-01A 9706479-02A 9706705-03D
 9706705-06D 9706705-07D 9706705-12D

CHAIN OF CUSTODY

AND

SAMPLE RECEIPT CHECKLIST



9706662
6/11/97

CHAIN OF CUSTODY

No. 077264 Page 1 of 1
ZIP CODE 94598

CONSULTANT'S NAME: Alisto Engineering ADDRESS: 1575 Treat Blvd # 201 CITY: W.C. STATE: CA ZIP CODE: 94598

BP SITE NUMBER: 11102 BP CORNER ADDRESS/CITY: Oakland, CA CONSULTANT PROJECT NUMBER: 10-076-6-2

CONSULTANT PROJECT MANAGER: Brady Nagle PHONE NUMBER: (510) 295-1650 FAX NUMBER: 215-1823 CONSULTANT CONTRACT NUMBER: 6797420

BP CONTACT: Scott Horton BP ADDRESS: Renton, WA PHONE NUMBER: - FAX NO.: -

LAB CONTACT: SPR LABORATORY ADDRESS: Texas PHONE NUMBER: (800) 969-6775 FAX NO.: -

SAMPLED BY (Please Print Name): Larry Buenavida SAMPLED BY (Signature): [Signature] SHIPMENT DATE: 6/12/97 SHIPMENT METHOD: FedEx

TAT: 24 Hours 48 Hours 1 Week Standard 2 Weeks

ANALYSIS REQUIRED

AIRBILL NUMBER

SAMPLE DESCRIPTION	COLLECTION DATE	MATRIX SOIL/WATER	CONTAINERS		PRESERVATIVE	ANALYSIS REQUIRED					COMMENTS
			NO.	TYPE (VOL.)		LAB SAMPLE #	T06	5520	T04-D	601	
S-1	6/10/97	W	3			X	X	X	X	X	
S-2	↓	↓	3			X	X	X	X	X	
S-3	↓	↓	3			X	X	X	X	X	
S-4	↓	↓	3			X	X	X	X	X	

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	ADDITIONAL COMMENTS
<u>[Signature]</u>	<u>6/11/97</u>		<u>Patricia Lynton</u>	<u>6/12/97</u>	<u>0830</u>	<u>3°C CPOI</u>
<u>Patricia Lynton</u>	<u>6/12/97</u>	<u>1500</u>	<u>1500 Pur [unclear] / BPL</u>	<u>6/13/97</u>	<u>0945</u>	

SPL Houston Environmental Laboratory

Sample Login Checklist

Date: 6/13/97	Time: 0945
-------------------------------------------------------------------------------	----------------------------------------------------------------------------

SPL Sample ID:
9706662

		<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:	30	C
10	Method of sample delivery to SPL:	SPL Delivery	
		Client Delivery	
		FedEx Delivery (airbill #)	3848471126
		Other:	
11	Method of sample disposal:	SPL Disposal	
		HOLD	
		Return to Client	

Name: Glen Coats	Date: 6/13/97
-----------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------

**BP EXPLORATION & OIL, INC.
ENVIRONMENTAL REMEDIATION MANAGEMENT
DATA REVIEW CHECKLIST**

BP Site Number: 11102
ERM Contact: G797420
Sampling Date: 06/10/97
Matrix Description: Water
Date Final Report Received: 06/27/97
Laboratory & Location: SPL, Houston, Texas

	Yes	No	N/A
1. Is BP contract release number consistent with analytical report?	/	___	___
2. Was report submitted within the specified timeframe?	/	___	___
3. Does report agree with the COC?	/	___	___
4. Are units consistent with the given matrix?	/	___	___
5. Were any target analytes/compounds detected in blanks (i.e., trip or equipment)?	___	___	/
6. Are duplicate water samples within <u>30</u> %?	___	___	___
7. Are holding times met?	/	___	___
8. Are surrogates within limits using laboratory criteria?	/	___	___
9. Are MS/MSD acceptable using laboratory criteria?	/ (1)	___	___
10. Are LCS results acceptable using laboratory criteria?	/	___	___

Notes: (1) No flags but not calculated for MTRBF for 1 Sample

Data Validation Completed by: Bill Howell
Ken Simas
(signature): Bill Howell
Date: 7/31/97

APPENDIX C

HISTORICAL MTBE LABORATORY ANALYSIS DOCUMENTATION

RECEIVED

DEC 17 1993

December 15, 1993

Mr. Bill Howell
Alisto Engineering Group
1777 Oakland Blvd., Ste. 200
Walnut Creek, CA 94596

RE: PACE Project No. 431206.510
Client Reference: BP Station # 11102

Dear Mr. Howell:

Enclosed is the report of laboratory analyses for samples received December 06, 1993.

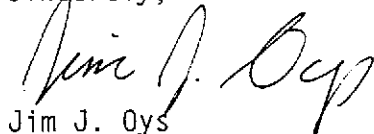
Please note that methyl tertiary butyl ether (MTBE) was detected in the following samples at the approximate level:

70 0204950/QC-1	3700ug/L
70 0204976/MW-2	3700ug/L

Footnotes are given at the end of the report.

If you have any questions concerning this report, please feel free to contact us.

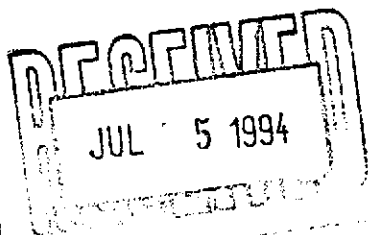
Sincerely,



Jim J. Oys
Project Manager

Enclosures

July 01, 1994



Mr. Bill Howell
Alisto Engineering Group
1777 Oakland Blvd., Ste. 200
Walnut Creek, CA 94596

RE: PACE Project No. 440623.508
Client Reference: BP Site #11102/10-076-03-003 ✓

Dear Mr. Howell:

Enclosed is the report of laboratory analyses for samples received June 23, 1994.

Please note that a peak eluting earlier than Benzene and suspected to be Methyl Tert Butyl Ether was detected in the following samples at the approximated levels:

700345863/S-2	2	120 ug/L	✓
700345871/S-3	1	4000 ug/L	
700345880/S-4	200	2000 ug/L	

Footnotes are given at the end of the report.

If you have any questions concerning this report, please feel free to contact us.

Sincerely,

Ronald M. Chew
Project Manager

Enclosures