

SB Management
CORPORATION
MANAGERS OF INCOME PROPERTIES

January 9, 1998

Alameda County Health Care Services Department
Attention Ms. Juliette Shin
1131 Harbor Bay Parkway, Room 250
Alameda, CA 94502-6577

RE: Change of Mailing Address for: BP Oil Site No. 11117
7210 Bancroft Avenue (at 73rd)
Oakland, CA

Dear Ms. Shin:

The intent of this letter is to notify you that our office has changed address.

Please send all payments, invoices and correspondence to our new address:

Bancroft Oakland Investment Company
433 North Camden Drive, Suite 1070
Beverly Hills, CA 90210
Attention: Mr. Robert K. Barth

If you have any questions or need further information, please feel free to call.

Thank you for your assistance and cooperation.

Sincerely,

Bancroft Oakland Investment Company



BP OIL

PE
5103960

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

April 2, 1998

Alameda County Health Care Services Department
Attention Ms. Juliette Shin
1131 Harbor Bay Parkway, Room 250
Alameda, CA 94502-6577

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

Dear Mr. Shin:

This letter transmits a Groundwater Monitoring and Sampling Report, dated 12 February 1998. A petroleum release was documented during 1991 when a site assessment was performed in support of the property owner's plans to refinance an adjacent shopping center property, which also includes the BP site. After BP performed several iterations of groundwater monitoring and site assessment, the business and related improvements were sold to the current operator (Tosco Corporation) in 1994. The UST system passed required precision tightness tests prior to the sale to Tosco. The single-wall-fiberglass tanks are believed to have been installed by Mobil Oil Corporation during 1984. Soil or groundwater data associated with the 1984 tank replacement was not reported to have been obtained when BP acquired the site from Mobil in 1989. The cause and origin of the petroleum release(s) at this site has not – to the best of my knowledge – been established. I understand that the double-walled tanks will be required at this site to comply with 1998 leak prevention requirements in Oakland.

The enclosed groundwater monitoring and sampling report includes laboratory data for samples collected on 9 January 1998. Upon review of the data, please note the following:

1. Petroleum hydrocarbons were not detected in a groundwater sample obtained from well MW-1, where petroleum concentrations have – with two exceptions – not been detected since the 12 January 1996 sampling event. Prior to 12 January 1996, petroleum hydrocarbons were reported to be present in every sample obtained from MW-1.
2. Accumulated liquid petroleum hydrocarbon was observed in well MW-2 (0.01 feet) on 1 January 1998. Liquid petroleum hydrocarbon was first observed in MW-2 on 7 June 1993 and has persisted since that time. Table 2 presents a tabular summary of product removed from MW-2, and shows that a cumulative volume of approximately 25 gallons has been removed to date.

3. Well MW-4, located south of the UST system and MW-2, has sampled petroleum hydrocarbon concentrations since 1992. Well MW-9, located south of MW-4 and 73rd Avenue, has – with three exceptions – not sampled petroleum hydrocarbons.
4. The extent of the release appears to have been established with the existing network of groundwater monitoring wells.

MTBE concentration data is now shown in Figure 3, replacing the dissolved oxygen measurements shown in past reports. You should note that estimated MTBE concentrations for samples analyzed during 1993 and 1994 are also shown on Table 1 - Summary of Results of Groundwater Sampling.

Please give me a call at (425) 251-0689 if you have any comments or questions regarding this submittal.

Sincerely,



Scott Hooton
Environmental Remediation Management

attachment

cc: site file
B. Nagle - AEG
T. Berry - Tosco (w/attachment)
Bancroft Oakland Investment Company, Attention Mr. Robert K. Barth, 9454
Wilshire Boulevard, Beverly Hills, CA 90212 (w/attachment)

GROUNDWATER MONITORING AND SAMPLING REPORT

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

FEB 17 1998

Project No. 10-018-06-002

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

February 12, 1998

Brady Nagle
Brady Nagle
Project Manager

Al Sevilla
Al Sevilla, P.E.
Principal



GROUNDWATER MONITORING AND SAMPLING REPORT

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

Project No. 10-018-06-002

February 12, 1998

INTRODUCTION

This report presents the results and findings of the January 9, 1998 groundwater monitoring and sampling conducted by Alisto Engineering Group at BP Oil Company Service Station No. 11117, 7210 Bancroft Avenue, 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 relative 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.

FREE PRODUCT MONITORING AND RECOVERY

A passive product recovery canister has been installed in Monitoring Well MW-2 to recover liquid-phase product. Product thicknesses for this and previous monitoring events are presented in Table 1. The volume of free product recovered from the wells is presented in Table 2.



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.



TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
 BP OIL COMPANY SERVICE STATION NO. 11117
 7210 BANCROFT AVENUE, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-018

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	Organic Lead (ug/l)	DO (ppm)	LAB
MW-1	01/05/92	49.80	33.16	--	16.64	57000	50000	2400	1000	1100	3100	--	ND	--	--
MW-1	01/10/92	49.80	33.16	--	16.64	--	--	--	--	--	--	--	--	--	--
MW-1	06/05/92	49.80	29.01	--	20.79	31000	--	2800	2100	800	2300	--	--	--	--
MW-1	07/24/92	49.80	29.45	--	20.35	--	--	--	--	--	--	--	--	--	--
MW-1	07/27/92	49.80	29.45	--	20.35	--	--	--	--	--	--	--	--	--	--
MW-1	09/15/92	49.80	30.53	--	19.27	40000	1200	(c)	3400	3000	1300	3400	--	--	ANA
QC-1 (d)	09/15/92	--	--	--	--	36000	--	3800	3400	1400	3800	--	--	--	ANA
MW-1	12/15/92	49.80	31.26	--	18.54	27000	1100	(c)	1700	580	700	1900	--	--	ANA
QC-1 (d)	12/15/92	--	--	--	--	22000	--	1500	440	510	1300	--	--	--	ANA
MW-1	03/15/93	49.80	24.80	--	25.00	17000	580	1700	1200	590	1800	--	--	--	PACE
QC-1 (d)	03/15/93	--	--	--	--	15000	--	1100	860	440	1400	--	--	--	PACE
MW-1	06/07/93	49.80	25.01	--	24.79	750	100	0.8	0.8	ND<0.5	ND<0.5	--	--	--	PACE
QC-1 (d)	06/07/93	--	--	--	--	720	--	0.7	0.7	ND<0.5	ND<0.5	--	--	--	PACE
MW-1	09/23/93	49.80	28.70	--	21.10	40000	770	4000	500	920	3000	6600	(e)	--	PACE
MW-1	12/27/93	49.80	28.66	--	21.14	27000	--	2000	400	940	2600	14000	(e)	--	PACE
QC-1 (d)	12/27/93	--	--	--	--	21000	--	1700	380	830	2400	9200	(e)	--	PACE
MW-1	04/05/94	49.80	26.37	--	23.43	27000	--	3400	930	950	2900	8600	(e)	--	PACE
QC-1 (d)	04/05/94	--	--	--	--	29000	--	3700	1000	1000	3100	9700	(e)	--	1.3 PACE
MW-1	07/22/94	49.80	26.54	--	23.26	1700	--	220	2.3	2.0	3.4	220	(e)	--	2.0 PACE
MW-1	10/13/94	49.80	27.46	--	22.34	1200	--	250	21	ND<0.5	3.2	320	(e)	--	2.6 PACE
MW-1	01/25/95	49.80	20.96	--	28.84	1000	--	420	8	13	4	--	--	--	ATTI
MW-1	04/19/95	49.80	19.59	--	30.21	5200	--	420	51	230	340	--	--	--	6.0 ATTI
MW-1	07/05/95	49.80	19.61	--	30.19	320	--	4.2	ND<0.50	ND<0.50	ND<1.0	--	--	--	4.6 ATTI
MW-1	10/05/95	49.80	24.40	--	25.40	5800	--	1000	40	31	180	7800	--	--	2.3 ATTI
MW-1	01/12/96	49.80	25.44	--	24.36	370	--	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	--	--	3.7 ATTI
MW-1	04/22/96	49.80	18.02	--	31.78	ND<50	--	ND<0.5	ND<1	ND<1	ND<1	ND<10	--	--	3.9 SPL
MW-1	07/02/96	49.80	19.72	--	30.08	--	--	--	--	--	--	--	--	--	--
MW-1	07/03/96	49.80	--	--	--	ND<250	--	ND<2.5	ND<5	ND<5	ND<5	ND<50	--	--	3.6 SPL
MW-1	11/08/96	49.80	19.98	--	29.82	ND<50	--	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	--	--	4.3 SPL
MW-1	01/03/97	49.80	19.49	--	30.31	ND<50	--	ND<0.5	14	ND<1.0	ND<1.0	ND<10	--	--	4.6 SPL
MW-1	04/28/97	49.80	20.20	--	29.60	ND<50	--	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	--	--	3.9 SPL
MW-1	07/01/97	49.80	22.53	--	27.27	ND<50	--	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	--	--	3.9 SPL
MW-1	10/02/97	49.80	24.27	--	25.53	ND<50	--	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	--	--	4.6 SPL
MW-1	01/09/98	49.80	21.07	--	28.73	ND<50	--	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	--	--	4.2 SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
 BP OIL COMPANY SERVICE STATION NO. 11117
 7210 BANCROFT AVENUE, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-018

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

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ALISTO PROJECT NO. 10-018

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

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
 BP OIL COMPANY SERVICE STATION NO. 11117
 7210 BANCROFT AVENUE, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-018

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	Organic Lead (ug/l)	DO (ppm)	LAB	
MW-4	07/24/92	50.76	30.02	—	20.74	42000	—	3200	3600	1400	4100	—	—	—	—	
MW-4	07/27/92	50.76	30.02	—	20.74	—	—	—	—	—	—	—	—	—	—	
MW-4	09/15/92	50.76	31.14	—	19.62	55000	1700	(c)	7600	13000	2800	9500	—	—	ANA	
MW-4	12/15/92	50.76	31.98	—	18.78	36000	2200	(c)	3700	4700	1200	4000	—	—	ANA	
MW-4	03/15/93	50.76	25.34	—	25.42	69000	1200	—	7600	15000	2500	11000	—	—	PACE	
MW-4	06/07/93	50.76	25.67	—	25.09	73000	2500	—	10000	19000	3400	14000	—	—	PACE	
MW-4	09/23/93	50.76	29.37	—	21.39	—	—	—	—	—	—	—	—	—	—	
MW-4	09/24/93	50.76	—	—	—	68000	5700	—	11000	2100	8600	990	—	—	PACE	
QC-1 (d)	09/24/93	—	—	—	—	59000	—	—	5300	10000	2200	8400	—	—	PACE	
MW-4	12/27/93	50.76	29.40	—	21.36	32000	—	—	2500	4400	1300	4400	—	—	PACE	
MW-4	04/05/94	50.76	27.09	—	23.67	64000	—	—	6500	14000	1900	9600	—	1.4	PACE	
MW-4	07/22/94	50.76	27.33	—	23.43	85000	—	—	10000	20000	3200	13000	—	0.8	PACE	
QC-1 (d)	07/22/94	—	—	—	—	85000	—	—	11000	21000	3300	14000	—	—	PACE	
MW-4	10/13/94	50.76	28.25	—	22.51	51000	—	—	7100	13000	2100	8900	790	(e)	2.9	PACE
QC-1 (d)	10/13/94	—	—	—	—	51000	—	—	7400	13000	2100	9100	—	—	PACE	
MW-4	01/25/95	50.76	21.85	—	28.91	26000	—	—	3600	9600	1200	6400	—	—	ATTI	
QC-1 (d)	01/25/95	—	—	—	—	28000	—	—	4200	12000	1500	7800	—	—	ATTI	
MW-4	04/19/95	50.76	19.44	—	31.32	89000	—	—	12000	24000	3500	18000	—	5.1	ATTI	
QC-1 (d)	04/19/95	—	—	—	—	100000	—	—	12000	26000	3800	21000	—	—	ATTI	
MW-4	07/05/95	50.76	20.52	—	30.24	130000	—	—	13000	29000	3300	25000	—	4.3	ATTI	
MW-4	10/05/95	50.76	24.23	—	26.53	110000	—	—	10000	23000	3600	17000	34000	—	2.1	ATTI
MW-4	01/12/96	50.76	25.34	—	25.42	46000	—	—	3500	8300	1100	8000	3000	—	3.3	ATTI
QC-1 (d)	01/12/96	—	—	—	—	40000	—	—	3500	9000	1200	8700	4300	—	—	ATTI
MW-4	04/22/96	50.76	19.13	—	31.63	40000	—	—	5100	9600	980	11800	29000	—	3.2	SPL
QC-1 (d)	04/22/96	—	—	—	—	61000	—	—	8300	16000	1600	15200	36000	—	—	SPL
MW-4	07/02/96	50.76	20.67	—	30.09	74000	—	—	9800	21000	2100	16600	41000	—	3.4	SPL
QC-1 (d)	07/02/96	—	—	—	—	78000	—	—	9800	21000	1900	15300	42000	—	—	SPL
MW-4	11/08/96	50.76	20.95	—	29.81	100000	—	—	7900	16000	2500	13700	37000	—	3.7	SPL
QC-1 (d)	11/08/96	—	—	—	—	110000	—	—	9100	20000	3000	15400	39000	—	—	SPL
MW-4	01/03/97	50.76	20.54	—	30.22	99000	—	—	17000	30000	4300	22700	79000	—	4.2	SPL
QC-1 (d)	01/03/97	—	—	—	—	66000	—	—	12000	19000	2800	15000	69000	—	—	SPL
MW-4	04/28/97	50.76	21.28	—	29.48	130000	—	—	12000	28000	3800	21000	37000	—	3.9	SPL
QC-1 (d)	04/28/97	—	—	—	—	110000	—	—	11000	26000	3200	18200	34000	—	—	SPL
MW-4	07/01/97	50.76	23.61	—	27.15	110000	—	—	16000	25000	4800	24400	37000	—	3.6	SPL
MW-4	10/02/97	50.76	25.39	—	25.37	—	—	—	—	—	—	—	—	—	—	
MW-4	10/03/97	50.76	—	—	—	66000	—	—	8200	8600	2700	13400	80000	—	4.4	SPL
QC-1 (d)	10/03/97	—	—	—	—	71000	—	—	8600	8700	2900	13500	84000	—	—	SPL
MW-4	01/09/98	50.76	21.25	—	29.51	100000	—	—	9700	3200	1500	4700	92000	—	3.8	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
 BP OIL COMPANY SERVICE STATION NO. 11117
 7210 BANCROFT AVENUE, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-018

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (Feet) (b)	TPH-G (ug/l)	TPH-HD (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	Organic Lead (ug/l)	DO (ppm)	LAB	
MW-6	07/24/92	50.32	30.63	--	19.69	ND	--	1.6	ND	ND	ND	--	--	--	--	
MW-6	07/27/92	50.32	30.63	--	19.69	--	--	--	--	--	--	--	--	--	--	
MW-6	09/15/92	50.32	31.52	--	18.80	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	ANA	
MW-6	12/15/92	50.32	32.42	--	17.90	58	ND<50	1.3	ND<0.5	ND<0.5	ND<0.5	--	--	--	ANA	
MW-6	03/15/93	50.32	26.29	--	24.03	ND<50	ND<50	ND<0.5	0.6	ND<0.5	0.7	--	--	--	PACE	
MW-6	06/07/93	50.32	26.33	--	23.99	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	1.5	--	--	--	PACE	
MW-6	09/23/93	50.32	29.64	--	20.68	--	--	--	--	--	--	--	--	--	PACE	
MW-6	09/24/93	50.32	--	--	--	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	PACE	
MW-6	12/27/93	50.32	29.75	--	20.57	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	55	(e)	--	PACE	
MW-6	04/05/94	50.32	27.26	--	23.06	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	300	(e)	1.7	PACE	
MW-6	07/22/94	50.32	27.34	--	22.98	350	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	800	(e)	--	4.5	PACE
MW-6 (g)	10/13/94	50.32	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-6	01/25/95	50.32	22.16	--	28.16	240	--	6	ND<0.5	ND<0.5	ND<1	--	--	--	--	
MW-6 (g)	04/19/95	50.32	--	--	--	--	--	--	--	--	--	--	--	--	ATI	
MW-6	07/05/95	50.32	20.80	--	29.52	180	--	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	--	--	4.9	ATI
MW-6	10/05/95	50.32	24.20	--	26.12	860	--	ND<5.0	ND<5.0	ND<5.0	ND<10	3600	--	--	2.8	ATI
MW-6	01/12/96	50.32	25.30	--	25.02	860	--	ND<5.0	ND<5.0	ND<5.0	ND<10	2800	--	--	4.2	ATI
MW-6	04/22/96	50.32	19.13	--	31.19	ND<50	--	ND<0.5	ND<1	ND<1	ND<1	470	--	--	4.3	SPL
MW-6	07/02/96	50.32	20.66	--	29.66	100	--	ND<0.5	ND<1	ND<1	ND<1	1100	--	--	4.2	SPL
MW-6	11/08/96	50.32	20.98	--	29.34	1100	--	ND<5	ND<10	ND<10	ND<10	1500	--	--	4.3	SPL
MW-6	01/03/97	50.32	20.53	--	29.79	ND<50	--	ND<0.5	ND<1.0	ND<1.0	ND<1.0	450	--	--	4.5	SPL
MW-6	04/28/97	50.32	21.25	--	29.07	1400	--	ND<0.5	ND<1.0	ND<1.0	ND<1.0	3500	--	--	4.4	SPL
MW-6	07/01/97	50.32	23.40	--	26.92	6100	--	ND<0.5	ND<1.0	ND<1.0	ND<1.0	9100	--	--	3.9	SPL
MW-6	10/02/97	50.32	25.16	--	25.16	--	--	--	--	--	--	--	--	--	--	
MW-6	10/03/97	50.32	--	--	--	330	--	ND<0.5	ND<1.0	ND<1.0	ND<1.0	2600	--	--	--	
MW-6	01/09/98	50.32	21.13	--	29.19	ND<50	--	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	--	--	4.4	SPL
MW-6	01/09/98	50.32	--	--	--	--	--	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	--	--	4.3	SPL
MW-7	01/25/95	51.40	21.67	--	29.73	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<1	--	--	--	7.0	ATI
MW-7	04/19/95	51.40	25.27	--	26.13	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<1	--	--	--	5.0	ATI
MW-7	07/05/95	51.40	24.63	--	26.77	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	--	--	4.2	ATI
MW-7	10/05/95	51.40	28.21	--	23.19	83	--	ND<0.50	ND<0.50	ND<0.50	ND<1.0	77	--	--	4.5	ATI
MW-7	01/12/96	51.40	29.29	--	22.11	63	--	ND<0.50	ND<0.50	ND<0.50	ND<1.0	120	--	--	4.8	ATI
MW-7	04/22/96	51.40	23.11	--	28.29	ND<50	--	ND<0.5	ND<1	ND<1	ND<1	13	--	--	4.8	SPL
MW-7	07/02/96	51.40	23.56	--	27.84	ND<50	--	ND<0.5	ND<1	ND<1	ND<1	ND<10	--	--	4.8	SPL
MW-7	11/08/96	51.40	20.06	--	31.34	ND<50	--	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	--	--	5.1	SPL
MW-7	01/03/97	51.40	23.42	--	27.98	ND<50	--	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	--	--	4.7	SPL
MW-7	04/28/97	51.40	24.12	--	27.28	ND<50	--	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	--	--	3.9	SPL
MW-7	07/01/97	51.40	26.40	--	25.00	ND<50	--	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	--	--	4.2	SPL
MW-7	10/02/97	51.40	28.14	--	23.26	ND<50	--	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	--	--	4.7	SPL
MW-7	01/09/98	51.40	24.02	--	27.38	ND<50	--	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	--	--	4.1	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
 BP OIL COMPANY SERVICE STATION NO. 11117
 7210 BANCROFT AVENUE, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-018

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (Feet) (b)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	Organic Lead (ug/l)	DO (ppm)	LAB
MW-8	01/25/95	50.88	31.59	--	19.29	54	--	ND<0.5	ND<0.5	ND<0.5	ND<1	--	--	7.1	ATI
MW-8	04/19/95	50.88	19.18	--	31.70	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<1	--	--	5.1	ATI
MW-8	07/05/95	50.88	19.03	--	31.85	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	--	4.5	ATI
MW-8	10/05/95	50.88	24.40	--	26.48	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	--	4.1	ATI
MW-8	01/12/96	50.88	25.51	--	25.37	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	--	4.6	ATI
MW-8	04/22/96	50.88	18.00	--	32.88	ND<50	--	ND<0.5	ND<1	ND<1	ND<1	ND<10	--	4.8	SPL
MW-8	07/02/96	50.88	19.83	--	31.05	ND<50	--	ND<0.5	ND<1	ND<1	ND<10	ND<10	--	4.5	SPL
MW-8	11/08/96	50.88	20.09	--	30.79	ND<50	--	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	--	4.7	SPL
MW-8	01/03/97	50.88	19.72	--	31.16	ND<50	--	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	--	4.4	SPL
MW-8	04/28/97	50.88	20.44	--	30.44	ND<50	--	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	--	4.1	SPL
MW-8	07/01/97	50.88	22.72	--	28.16	ND<50	--	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	--	3.8	SPL
MW-8	10/02/97	50.88	24.51	--	26.37	ND<50	--	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	--	4.2	SPL
MW-8	01/09/98	50.88	21.17	--	29.71	ND<50	--	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	--	3.5	SPL
MW-9	01/25/95	51.05	22.32	--	28.73	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<1	--	--	7.4	ATI
MW-9	04/19/95	51.05	19.86	--	31.19	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<1	--	--	5.2	ATI
MW-9	07/05/95	51.05	20.78	--	30.27	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	--	4.4	ATI
MW-9	10/05/95	51.05	24.33	--	26.72	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	--	2.3	ATI
QC-1 (d)	10/05/95	---	---	---	---	52	--	ND<0.50	ND<0.50	ND<0.50	ND<1.0	160	--	—	ATI
MW-9	01/12/96	51.05	25.44	--	25.61	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	--	3.2	ATI
MW-9	04/22/96	51.05	18.01	--	33.04	ND<50	--	ND<0.5	ND<1	ND<1	ND<1	11	--	3.5	SPL
MW-9	07/02/96	51.05	19.70	--	31.35	ND<50	--	ND<0.5	ND<1	ND<1	ND<1	ND<10	--	3.3	SPL
MW-9	11/08/96	51.05	19.96	--	31.09	ND<50	--	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	--	3.7	SPL
MW-9	01/03/97	51.05	19.52	--	31.53	ND<250	--	ND<2.5	ND<5.0	ND<5.0	ND<5.0	ND<50	--	4.4	SPL
MW-9	04/28/97	51.05	20.22	--	30.83	ND<50	--	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	--	4.0	SPL
MW-9	07/01/97	51.05	22.59	--	28.46	ND<50	--	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	--	3.9	SPL
MW-9	10/02/97	51.05	24.33	--	26.72	--	--	--	--	--	--	--	--	--	--
MW-9	10/03/97	51.05	--	--	--	ND<50	--	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	--	4.4	SPL
MW-9	01/09/98	51.05	21.11	--	29.94	ND<50	--	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	--	3.9	SPL
MW-10	01/09/98	--	(h)	20.97	--	--	ND<50	--	ND<0.5	ND<1.0	ND<1.0	ND<10	--	4.3	SPL

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
 BP OIL COMPANY SERVICE STATION NO. 11117
 7210 BANCROFT AVENUE, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-018

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

ABBREVIATIONS:

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

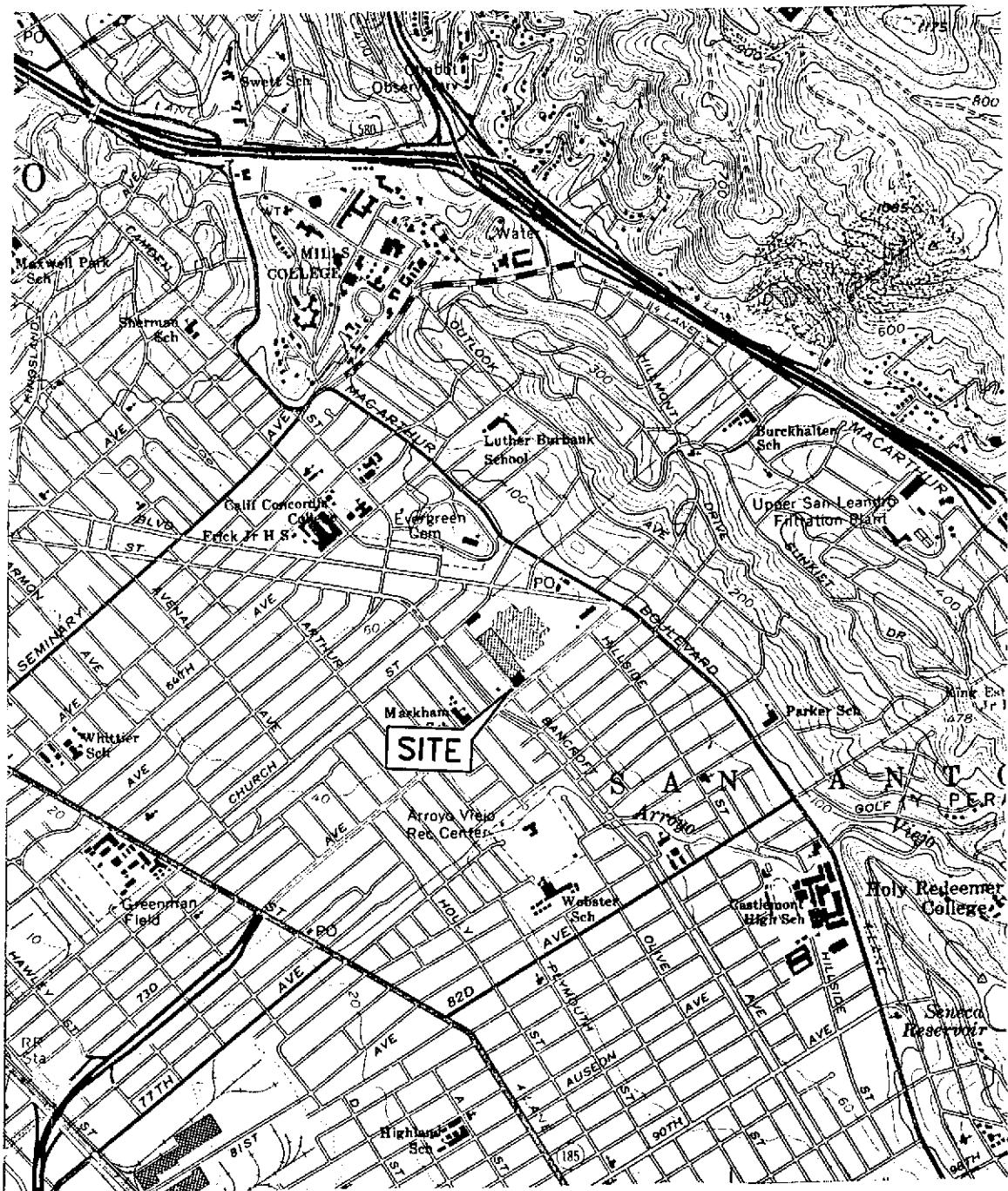
NOTES:

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

TABLE 2 - PRODUCT REMOVAL STATUS
 BP OIL COMPANY SERVICE STATION NO. 11117
 7210 BANCROFT AVENUE, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-018

WELL ID	DATE	PRODUCT THICKNESS	PRODUCT REMOVED (Gallons)	PRODUCT REMOVE CUMULATIVE (Gallons)
MW-2	02/01/94	1.78	<0.01	<0.01
MW-2	02/11/94	1.55	0.10	0.10
MW-2	02/18/94	1.62	0.90	1.00
MW-2	02/25/94	3.21	0.10	1.10
MW-2	03/04/94	3.92	0.10	1.20
MW-2	03/30/94	4.06	2.60	3.80
MW-2	04/13/95	3.10	0.10	3.90
MW-2	04/21/94	2.88	0.10	4.00
MW-2	04/24/95	6.00	0.10	4.10
MW-2	05/06/94	8.00	0.60	4.70
MW-2	05/13/94	7.00	0.10	4.80
MW-2	05/20/94	7.38	2.10	6.90
MW-2	05/26/94	2.00	2.00	8.90
MW-2	06/02/94	1.09	1.00	9.90
MW-2	06/09/94	1.70	1.00	10.90
MW-2	06/16/94	1.13	1.00	11.90
MW-2	06/23/94	1.24	0.75	12.65
MW-2	06/29/94	0.72	0.60	13.25
MW-2	07/07/94	0.56	0.50	13.75
MW-2	07/12/94	1.00	1.10	14.85
MW-2	07/20/94	0.72	0.75	15.60
MW-2	07/29/94	1.42	1.10	16.70
MW-2	08/05/94	1.04	0.76	17.46
MW-2	08/12/94	1.22	0.76	18.22
MW-2	08/18/94	1.33	0.43	18.65
MW-2	09/16/94	0.42	0.76	19.41
MW-2	09/23/94	0.19	0.17	19.58
MW-2	10/26/94	1.13	0.76	20.34
MW-2	11/03/94	0.77	1.10	21.44
MW-2	11/12/94	0.64	0.60	22.04
MW-2	11/16/94	0.67	0.67	22.71
MW-2	11/23/94	0.56	0.50	23.21
MW-2	12/01/94	0.49	0.60	23.81
MW-2	12/08/94	0.61	0.76	24.57
MW-2	04/19/05	0.12	<0.01	24.57
MW-2	05/23/95	SHEEN	<0.01	24.57
MW-2	06/15/95	0.10	<0.01	24.57
MW-2	10/05/95	0.10	0.25	24.82
MW-2	01/12/96	0.06	0.01	24.83
MW-2	02/08/96	0.06	0.01	24.84
MW-2	04/22/96	0.08	0.01	24.85
MW-2	07/02/96	0.04	<0.01	24.85
MW-2	11/08/96	0.01	<0.01	24.85
MW-2	01/03/97	0.02	<0.01	24.85
MW-2	04/28/97	0.01	<0.01	24.85
MW-2	07/01/97	0.26	0.05	24.90
MW-2	10/02/97	0.02	<0.01	24.90
MW-2	01/09/98	0.01	<0.01	24.90



SOURCE:
USGS MAP, OAKLAND EAST QUADRANGLE,
CALIFORNIA. 7.5 MINUTE SERIES. 1959.
PHOTOREVISED 1980.

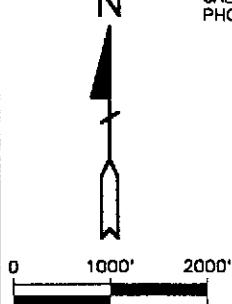
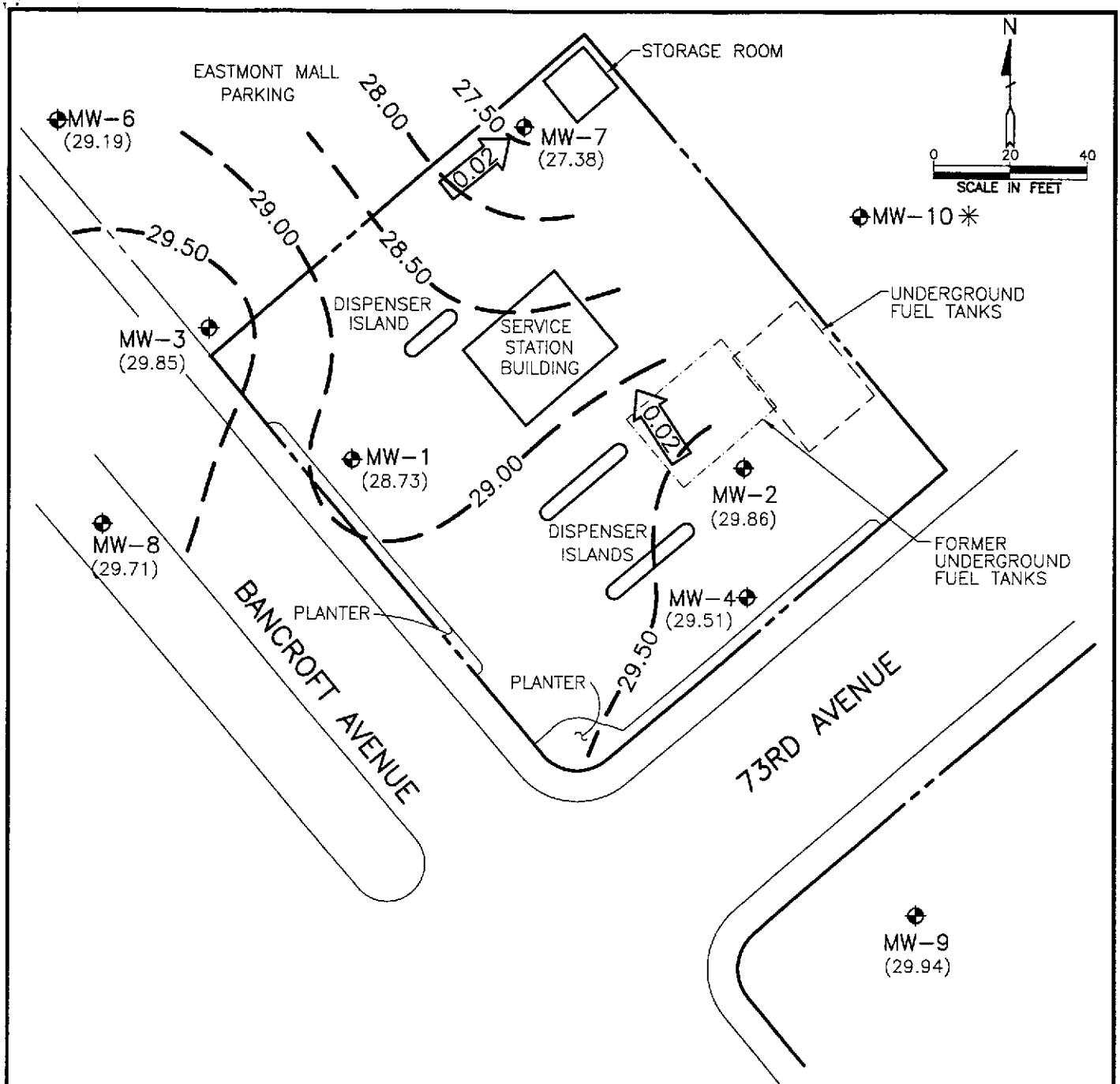


FIGURE 1
SITE VICINITY MAP

BP OIL SERVICE STATION NO. 11117
7210 BANCROFT AVENUE
OAKLAND, CALIFORNIA
PROJECT NO. 10-018





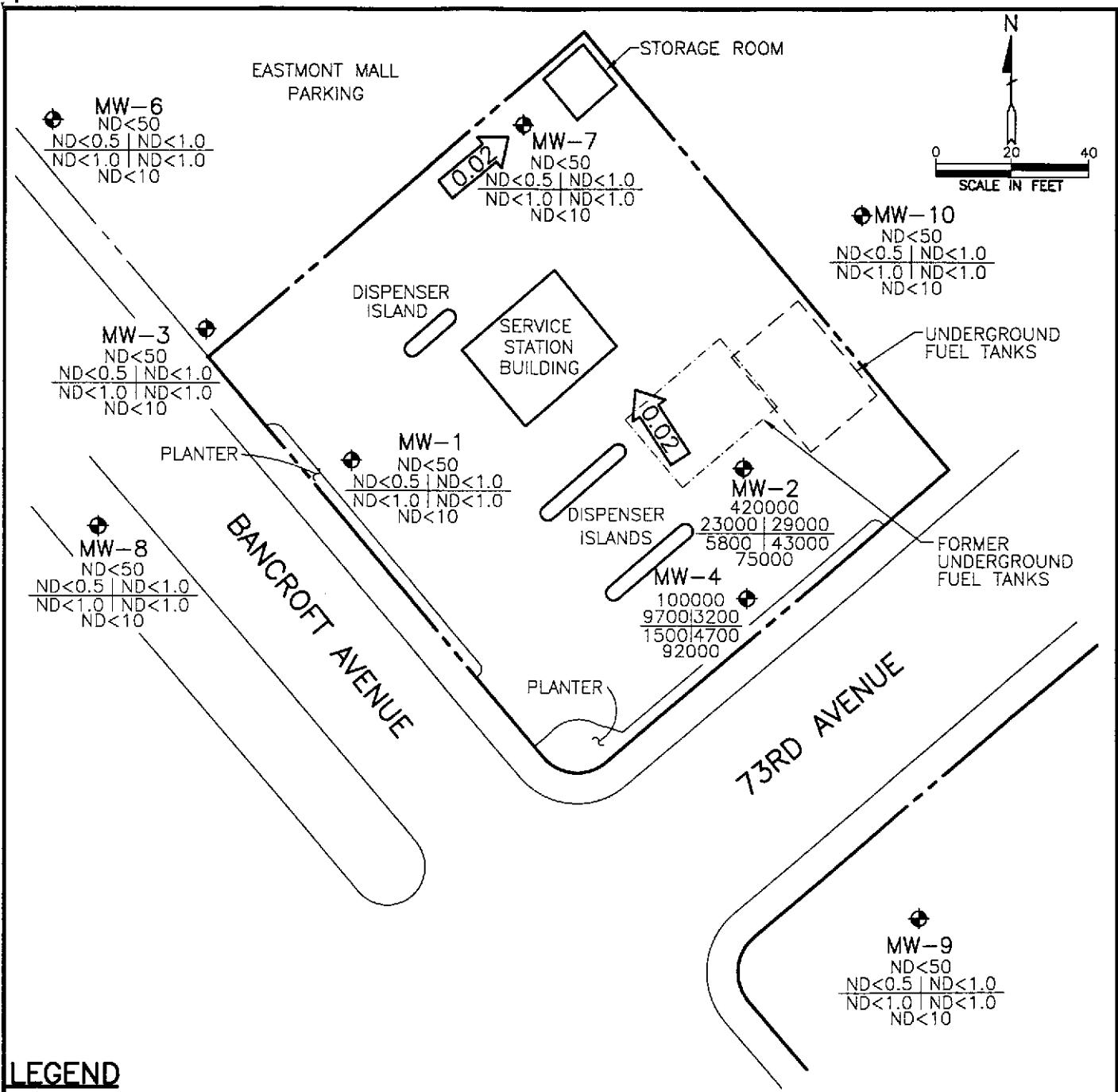
LEGEND

- ◆ GROUNDWATER MONITORING WELL
- (27.38) GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
- 27.50 — GROUNDWATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL (CONTOUR INTERVAL - 0.50 FOOT)
- CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT
- * TOP OF CASING NOT SURVEYED

FIGURE 2
POTENTIOMETRIC GROUNDWATER ELEVATION CONTOUR MAP
JANUARY 9, 1998
BP OIL SERVICE STATION NO. 11117
7210 BANCROFT AVENUE
OAKLAND, CALIFORNIA
PROJECT NO. 10-018



ALISTO ENGINEERING GROUP
 WALNUT CREEK, CALIFORNIA



LEGEND

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

FIGURE 3
CONCENTRATIONS OF PETROLEUM HYDROCARBONS IN GROUNDWATER
JANUARY 9, 1998
BP OIL SERVICE STATION NO. 11117
7210 BANCROFT AVENUE
OAKLAND, CALIFORNIA
PROJECT NO. 10-018



ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA

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.

10-018-06-002

Date:

1/9/98

Address

7210 Bancroft Ave.

Day:

M T W TH F

Contract No.

H177100

City:

Oakland

Station No.

BP 11117

Sampler:

LUB

DEPTH TO GROUNDWATER SUMMARY

WELL ID	SAMPLE ID	WELL DIAM	TOTAL DEPTH	DEPTH TO WATER	PRODUCT THICKNESS	TIME MONITORED	COMMENTS:
MW-1	S-5	2"	36.12'	21.07	0	1022	
MW-2	S-T69	2"	39.56'	21.22	.01	1041	
MW-3	S-6	2"	42.40'	20.10	0	1030	
MW-4	S-8	2"	44.72'	21.25		1036	
MW-6	S-1	2"	40.00'	21.13		1017	
MW-7	S-3	2"	44.72'	24.02		1012	
MW-8	S-2	2"	39.50'	21.17		1007	
MW-9	S-1	2"	38.86'	21.11		1002	
MW-10	S-7	2"	37.50'	20.97	0	1032	

FIELD INSTRUMENT CALIBRATION DATA

pH METER 4.00 7.00 10.00 TEMPERATURE COMPENSATED N TIME 1055

D.O. METER ZERO d.O. SOLUTION BAROMETRIC PRESSURE 760 TEMP 60 WEATHER cloudy

CONDUCTIVITY METER 10,000 TURBIDITY METER 5.0 NTU OTHER X

LEAK DETECTOR: ALARM MODE NON ALARM MODE

Well ID	Depth to Water	Diam	Cap/Lock	Product	Dept	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.	<input type="radio"/> EPA 601
MW-9	21.11	2"	0L	0	Y	N	3	1110	60.7	7.70	920µS	3.7	<input checked="" type="checkbox"/> TPH-G/BTEX
Total Depth - Water Level =	x Well Vol. Factor =	x#vol. to Purge	PurgeVol.				6		61.4	7.60	940µS		<input type="radio"/> TPH Diesel
$38.86 - 21.11 = 17.75 \times .16 = 2.84 \times 3 = 8.52$							9	1117	61.7	7.52	940µS	3.9	<input type="radio"/> TOG 5520
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:													1120
Well ID	Depth to Water	Diam	Cap/Lock	Product	Dept	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.	<input type="radio"/> EPA 601
MW-8	21.17	2"	0L	0	Y	N	3	1133	60.2	7.67	501µS	3.2	<input checked="" type="checkbox"/> TPH-G/BTEX
Total Depth - Water Level =	x Well Vol. Factor =	x#vol. to Purge	PurgeVol.				6		61.1	7.42	520µS		<input type="radio"/> TPH Diesel
$39.50 - 21.17 = 18.33 \times .16 = 2.93 \times 3 = 8.79$							9	1140	62.0	7.39	527µS	3.5	<input type="radio"/> TOG 5520
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:													1149

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. 10-018-06-002

Address 7210 Bancroft Ave.

Contract No. H177100

Station No. BP 11117

Date: 11/9/98

Day: M T W TH F

City: Oakland

Sampler: LCB

Well ID	Depth to Water	Diam	Cap/Lock	Product	Dept	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.
---------	----------------	------	----------	---------	------	-------------	------	------	---------	----	------	------

MW-7	24.02	2"	OK	X	Y (N)		3	1201	60.3	7.36	912 _{NS}	4.1
------	-------	----	----	---	-------	--	---	------	------	------	-------------------	-----

Total Depth - Water Level = x Well Vol. Factor = x#vol. to Purge PurgeVol.

44.72 - 24.02 = 20.70	X 16 = 3.12	X 3 = 9.38	10	1210	61.4	7.21	782 _{NS}	4.1
-----------------------	-------------	------------	----	------	------	------	-------------------	-----

Purge Method: Surface Pump ODisp.Tube OWInch ODisp. Bailer(s) OSys Port

Comments:

EPA 601 _____

TPH-G/BTEX _____

TPH Diesel _____

TOG 5520 _____

TIME/SAMPLE ID

1213

Well ID	Depth to Water	Diam	Cap/Lock	Product	Dept	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.
---------	----------------	------	----------	---------	------	-------------	------	------	---------	----	------	------

MW-6	21.13	2"	OK	X	Y (N)		3	1222	59.3	7.72	910 _{NS}	3.9
------	-------	----	----	---	-------	--	---	------	------	------	-------------------	-----

Total Depth - Water Level = x Well Vol. Factor = x#vol. to Purge PurgeVol.

40.00 - 21.13 = 18.87	X 16 = 3.02	X 3 = 9.06	10	1232	61.8	7.43	995 _{NS}	4.3
-----------------------	-------------	------------	----	------	------	------	-------------------	-----

Purge Method: Surface Pump ODisp.Tube OWInch ODisp. Bailer(s) OSys Port

Comments:

EPA 601 _____

TPH-G/BTEX _____

TPH Diesel _____

TOG 5520 _____

TIME/SAMPLE ID

1245

Well ID	Depth to Water	Diam	Cap/Lock	Product	Dept	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.
---------	----------------	------	----------	---------	------	-------------	------	------	---------	----	------	------

MW-1	21.07	2"	OK	X	Y (N)		3	1304	60.7	7.62	707 _{NS}	4.0
------	-------	----	----	---	-------	--	---	------	------	------	-------------------	-----

Total Depth - Water Level = x Well Vol. Factor = x#vol. to Purge PurgeVol.

36.12 - 21.07 = 15.05	X 16 = 2.41	X 3 = 7.23	8	1317	62.4	7.32	752 _{NS}	4.2
-----------------------	-------------	------------	---	------	------	------	-------------------	-----

Purge Method: Surface Pump ODisp.Tube OWInch ODisp. Bailer(s) OSys Port

Comments:

EPA 601 _____

TPH-G/BTEX _____

TPH Diesel _____

TOG 5520 _____

TIME/SAMPLE ID

1322

Well ID	Depth to Water	Diam	Cap/Lock	Product	Dept	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.
---------	----------------	------	----------	---------	------	-------------	------	------	---------	----	------	------

MW-3	20.10	2"	OK	X	Y (N)		4	1342	60.0	7.57	867 _{NS}	4.0
------	-------	----	----	---	-------	--	---	------	------	------	-------------------	-----

Total Depth - Water Level = x Well Vol. Factor = x#vol. to Purge PurgeVol.

42.40 - 20.10 = 22.30	X 16 = 3.57	X 3 = 10.71	11	1357	62.5	7.33	918 _{NS}	4.1
-----------------------	-------------	-------------	----	------	------	------	-------------------	-----

Purge Method: Surface Pump ODisp.Tube OWInch ODisp. Bailer(s) OSys Port

Comments:

EPA 601 _____

TPH-G/BTEX _____

TPH Diesel _____

TOG 5520 _____

TIME/SAMPLE ID

1402

Well ID	Depth to Water	Diam	Cap/Lock	Product	Dept	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.
---------	----------------	------	----------	---------	------	-------------	------	------	---------	----	------	------

MW-10	20.97	2"	OK	X	Y (N)		3	1417	58.7	7.71	712 _{NS}	3.9
-------	-------	----	----	---	-------	--	---	------	------	------	-------------------	-----

Total Depth - Water Level = x Well Vol. Factor = x#vol. to Purge PurgeVol.

37.50 - 20.97 = 16.53	X 16 = 2.64	X 3 = 7.92	8	1424	60.4	7.47	782 _{NS}	4.3
-----------------------	-------------	------------	---	------	------	------	-------------------	-----

Purge Method: Surface Pump ODisp.Tube OWInch ODisp. Bailer(s) OSys Port

Comments:

EPA 601 _____

TPH-G/BTEX _____

TPH Diesel _____

TOG 5520 _____

TIME/SAMPLE ID

1427

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.

10-018-06-002

Date:

1/9/98

Address

7210 Bancroft Ave.

Day:

M T W T H F

Contract No.

H177100

City:

Oakland

Station No.

BP 11117

Sampler:

LVB

Well ID	Depth to Water	Diam	Cap/Lock	Product	Dept	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.
MW-4	21.25	2"	0%	Ø	Y	(N)	4	1439	60.7	7.61	1.03 _{ms}	3.6
Total Depth - Water Level =	x Well Vol. Factor =	x#vol. to Purge	PurgeVol.				8	61.4	7.40	1.17 _{ms}		

$$44.72 - 21.25 = 23.47 \times .16 = 3.76 \times 3 = 11.28$$

Purge Method: Surface Pump ODlsp.Tube OWinch ODlsp. Bailer(s) OSys Port

Comments:

Well ID	Depth to Water	Diam	Cap/Lock	Product	Dept	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.
MW-2	21.22	2"	Leaked	Ø	Y	N	3	1503	58.3	7.71	811 _{ps}	4.0
Total Depth - Water Level =	x Well Vol. Factor =	x#vol. to Purge	PurgeVol.				6	59.6	7.60	742 _{ps}		

$$39.56 - 21.22 = 18.34 \times .16 = 2.93 \times 3 = 8.79$$

Purge Method: Surface Pump ODlsp.Tube OWinch ODlsp. Bailer(s) OSys Port

Comments: QC-1 (S-10) From this well

- EPA 601
- TPH-G/BTEX
- TPH Diesel
- TOG 5520

TIME/SAMPLE ID

1455

- EPA 601
- TPH-G/BTEX
- TPH Diesel
- TOG 5520

TIME/SAMPLE ID

1515

APPENDIX B

LABORATORY REPORT AND CHAIN OF CUSTODY RECORD



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

January 26, 1998

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

The following report contains analytical results for the sample(s) received at Southern Petroleum Laboratories (SPL) on January 15, 1998. The sample(s) was assigned to Certificate of Analysis No.(s) 9801583 and analyzed for all parameters as listed on the chain of custody.

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

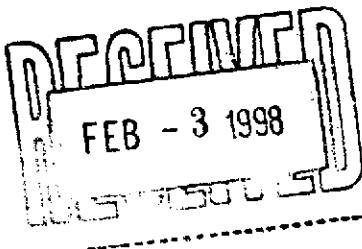
If you have any questions or comments pertaining to this data report, please do not hesitate to contact me. Please reference the above Certificate of Analysis No. during any inquiries.

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



Joel Grice
Project Manager





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

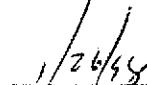
Southern Petroleum Laboratories, Inc.

Certificate of Analysis Number: 98-01-583

Approved for Release by:



Joel Grice, Project Manager

Date: 

1/26/95

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. H9-9801583-01

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.#
H177100, COC#055970
DATE: 01/26/98

PROJECT: #11117, N/A
SITE: Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: S-1

PROJECT NO: 10-018-6-2
MATRIX: WATER
DATE SAMPLED: 01/09/98
DATE RECEIVED: 01/15/98

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 97
4-Bromofluorobenzene 97

Method 8020A***

Analyzed by: DN

Date: 01/22/98

Gasoline Range Organics ND 0.05 P mg/L

Surrogate % Recovery
1,4-Difluorobenzene 73
4-Bromofluorobenzene 110

California LUFT Manual for Gasoline

Analyzed by: HS

Date: 01/18/98 12:47:00

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. H9-9801583-02

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.#
H177100, COC#055970
DATE: 01/26/98

PROJECT: #11117, N/A
SITE: Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: S-2

PROJECT NO: 10-018-6-2
MATRIX: WATER
DATE SAMPLED: 01/09/98
DATE RECEIVED: 01/15/98

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 100

Method 8020A***

Analyzed by: HS

Date: 01/18/98

Gasoline Range Organics ND 0.05 P mg/L

Surrogate % Recovery

1,4-Difluorobenzene 73
4-Bromofluorobenzene 110

California LUFT Manual for Gasoline

Analyzed by: HS

Date: 01/18/98 01:14:00

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. H9-9801583-03

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

P.O.#
H177100, COC#055970
DATE: 01/26/98

PROJECT: #11117, N/A
SITE: Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: S-3

PROJECT NO: 10-018-6-2
MATRIX: WATER
DATE SAMPLED: 01/09/98
DATE RECEIVED: 01/15/98

PARAMETER	ANALYTICAL DATA		DETECTION LIMIT	UNITS
	RESULTS	% Recovery		
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				
1,4-Difluorobenzene		97		
4-Bromofluorobenzene		97		
Method 8020A***				
Analyzed by: HS				
Date: 01/18/98				
 Gasoline Range Organics	ND	0.05 P		mg/L
 Surrogate		% Recovery		
1,4-Difluorobenzene		73		
4-Bromofluorobenzene		110		
California LUFT Manual for Gasoline				
Analyzed by: HS				
Date: 01/18/98 01:41:00				

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. H9-9801583-04

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. #
H177100, COC#055970
DATE: 01/26/98

PROJECT: #11117, N/A
SITE: Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: S-4

PROJECT NO: 10-018-6-2
MATRIX: WATER
DATE SAMPLED: 01/09/98
DATE RECEIVED: 01/15/98

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 100

Method 8020A***

Analyzed by: HS

Date: 01/18/98

Gasoline Range Organics ND 0.05 P mg/L

Surrogate % Recovery
1,4-Difluorobenzene 73
4-Bromofluorobenzene 107

California LUFT Manual for Gasoline

Analyzed by: HS

Date: 01/18/98 02:07:00

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. H9-9801583-05

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. #

H177100, COC#055970

DATE: 01/26/98

PROJECT: #11117, N/A
SITE: Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: S-5

PROJECT NO: 10-018-6-2
MATRIX: WATER
DATE SAMPLED: 01/09/98
DATE RECEIVED: 01/15/98

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
4-Bromofluorobenzene

97

97

Method 8020A***

Analyzed by: HS

Date: 01/18/98

Gasoline Range Organics

ND 0.05 P

mg/L

Surrogate

% Recovery

1,4-Difluorobenzene
4-Bromofluorobenzene

73

110

California LUFT Manual for Gasoline

Analyzed by: HS

Date: 01/18/98 02:34:00

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. H9-9801583-06

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.#

H177100, COC#055970
DATE: 01/26/98

PROJECT: #11117, N/A
SITE: Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: S-6

PROJECT NO: 10-018-6-2
MATRIX: WATER
DATE SAMPLED: 01/09/98
DATE RECEIVED: 01/15/98

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		97	
Method 8020A***			
Analyzed by: HS			
Date: 01/18/98			
Gasoline Range Organics	ND	0.05 P	mg/L
Surrogate		% Recovery	
1,4-Difluorobenzene		73	
4-Bromofluorobenzene		110	
California LUFT Manual for Gasoline			
Analyzed by: HS			
Date: 01/18/98 03:01:00			

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. H9-9801583-07

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

P.O.#

H177100, COC#055970
DATE: 01/26/98

PROJECT: #11117, N/A
SITE: Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: S-7

PROJECT NO: 10-018-6-2
MATRIX: WATER
DATE SAMPLED: 01/09/98
DATE RECEIVED: 01/15/98

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 97
4-Bromofluorobenzene 100

Method 8020A***

Analyzed by: HS

Date: 01/18/98

Gasoline Range Organics

ND 0.05 P

mg/L

Surrogate

% Recovery

1,4-Difluorobenzene 73
4-Bromofluorobenzene 110

California LUFT Manual for Gasoline

Analyzed by: HS

Date: 01/18/98 03:28:00

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. H9-9801583-08

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. #

H177100, COC#055970

DATE: 01/26/98

PROJECT: #11117, N/A
SITE: Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: S-8

PROJECT NO: 10-018-6-2
MATRIX: WATER
DATE SAMPLED: 01/09/98
DATE RECEIVED: 01/15/98

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	92000	5000 P	µg/L
Benzene	9700	12 P	µg/L
Toluene	3200	25 P	µg/L
Ethylbenzene	1500	25 P	µg/L
Total Xylene	4700	25 P	µg/L

Surrogate

% Recovery

1,4-Difluorobenzene 100
4-Bromofluorobenzene 100

Method 8020A***

Analyzed by: DN

Date: 01/22/98

Gasoline Range Organics

100 5 P

mg/L

Surrogate

% Recovery

1,4-Difluorobenzene 77
4-Bromofluorobenzene 103

California LUFT Manual for Gasoline

Analyzed by: DN

Date: 01/22/98 07:26:00

(P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA

**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.

***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

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



Certificate of Analysis No. H9-9801583-09

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.#
H177100, COC#055970
DATE: 01/26/98

PROJECT: #11117, N/A
SITE: Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: S-9

PROJECT NO: 10-018-6-2
MATRIX: WATER
DATE SAMPLED: 01/09/98
DATE RECEIVED: 01/15/98

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	75000	5000 P	µg/L
Benzene	23000	250 P	µg/L
Toluene	29000	500 P	µg/L
Ethylbenzene	5800	500 P	µg/L
Total Xylene	43000	500 P	µg/L

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

Method 8020A***

Analyzed by: HS

Date: 01/18/98

Gasoline Range Organics 420 25 P mg/L

Surrogate % Recovery
1,4-Difluorobenzene 87
4-Bromofluorobenzene 107

California LUFT Manual for Gasoline

Analyzed by: HS

Date: 01/18/98 09:02:00

(P) - Practical Quantitation Limit

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

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



Certificate of Analysis No. H9-9801583-10

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. #

H177100, COC#055970
DATE: 01/26/98

PROJECT: #11117, N/A
SITE: Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: S-10

PROJECT NO: 10-018-6-2
MATRIX: WATER
DATE SAMPLED: 01/09/98
DATE RECEIVED: 01/15/98

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	84000	10000 P	µg/L
Benzene	20000	120 P	µg/L
Toluene	25000	250 P	µg/L
Ethylbenzene	5200	250 P	µg/L
Total Xylene	37000	250 P	µg/L

Surrogate % Recovery
1,4-Difluorobenzene 100
4-Bromofluorobenzene 97

Method 8020A***

Analyzed by: DN

Date: 01/21/98

Gasoline Range Organics 300 12 P mg/L

Surrogate % Recovery
1,4-Difluorobenzene 80
4-Bromofluorobenzene 105

California LUFT Manual for Gasoline

Analyzed by: DN

Date: 01/20/98 04:06:00

(P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA

**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.

***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

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

QUALITY CONTROL

DOCUMENTATION



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

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

Matrix: Aqueous
Units: $\mu\text{g/L}$

Batch Id: HP_S980122074700

LABORATORY CONTROL SAMPLE

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

MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results <2>	Spike Added <3>	Matrix	Spike	Matrix	Spike	MS/MSD Relative % Difference	RPD Max.	QC Limits(***) (Advisory)
			Result <1>	Recovery <4>	Duplicate <1>	Recovery <5>			
MTBE	1200	1000	2300	110	2400	120	8.70	20	39 - 150
BENZENE	ND	1000	970	97.0	950	95.0	2.08	21	32 - 164
TOLUENE	ND	1000	940	94.0	910	91.0	3.24	20	38 - 159
ETHYL_BENZENE	ND	1000	860	86.0	840	84.0	2.35	19	52 - 142
O-XYLENE	ND	1000	1000	100	960	96.0	4.08	18	53 - 143
M AND P XYLENE	ND	2000	1800	90.0	1700	85.0	5.71	17	53 - 144

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

≤ = Data outside Method Specification Limits.

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

ND = Not Detected/Below Detection Limit

% Recovery = $\frac{(\text{Result} - \text{Blank})}{\text{Spike}} \times 100$

LCS % Recovery = $\frac{(\text{Result} - \text{Blank})}{\text{Spike}} \times 100$

Relative Percent Difference = $\frac{|(\text{Result} - \text{Spike})|}{[(\text{Result} + \text{Spike}) \times 0.5]} \times 100$

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

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

Analyst: DN

Sequence Date: 01/22/98

SPL ID of sample spiked: 9801744-03A

Sample File ID: S_A3089.TX0

Method Blank File ID:

Blank Spike File ID: S_A3081.TX0

Matrix Spike File ID: S_A3084.TX0

Matrix Spike Duplicate File ID: S_A3085.TX0

SAMPLES IN BATCH(SPL_ID):

9801744-02A 9801583-01A 9801743-01A 9801743-02A

9801743-03A 9801583-08A 9801744-05A 9801743-05A

9801685-03A 9801685-04A 9801685-02A 9801743-01A

9801744-03A 9801580-04A 9801580-05A



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

Matrix: Aqueous
Units: $\mu\text{g/L}$

Batch Id: HP_S980117124000

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

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	51	102	72 - 128
Benzene	ND	50	56	112	61 - 119
Toluene	ND	50	57	114	65 - 125
Ethyl_Benzene	ND	50	55	110	70 - 118
O-Xylene	ND	50	57	114	72 - 117
M and P Xylene	ND	100	110	110	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	23	115	21	105	9.09	20	39 - 150
BENZENE	ND	20	23	115	22	110	4.44	21	32 - 164
TOLUENE	ND	20	22	110	22	110	0	20	38 - 159
ETHYL_BENZENE	ND	20	21	105	21	105	0	19	52 - 142
O-XYLENE	ND	20	22	110	22	110	0	18	53 - 143
M AND P XYLENE	ND	40	43	108	43	108	0	17	53 - 144

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

** = Data outside Method Specification limits.

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

ND = Not Detected/Below Detection Limit

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

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

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

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

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

Analyst: HS

Sequence Date: 01/17/98

SPL ID of sample spiked: 9801580-02A

Sample File ID: S_A2166.TX0

Method Blank File ID:

Blank Spike File ID: S_A2159.TX0

Matrix Spike File ID: S_A2161.TX0

Matrix Spike Duplicate File ID: S_A2162.TX0

SAMPLES IN BATCH(SPL_ID):

9801579-05A 9801579-06A 9801545-04A 9801349-07A

9801580-03A 9801580-05A 9801583-02A 9801583-03A

9801583-04A 9801583-05A 9801583-06A 9801583-07A

9801580-04A 9801580-02A 9801579-04A 9801580-01A

9801579-03A



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

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

Matrix: Aqueous
Units: $\mu\text{g/L}$

Batch Id: NP_S980118134300

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	46	92.0	72 - 128
Benzene	ND	50	53	106	61 - 119
Toluene	ND	50	53	106	65 - 125
Ethyl_Benzene	ND	50	52	104	70 - 118
O-Xylene	ND	50	54	108	72 - 117
M and P Xylene	ND	100	110	110	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	22	110	21	105	4.65	20	39 - 150
BENZENE	ND	20	24	120	23	115	4.26	21	32 - 164
TOLUENE	ND	20	24	120	23	115	4.26	20	38 - 159
ETHYL_BENZENE	ND	20	23	115	23	115	0	19	52 - 142
O-XYLENE	ND	20	24	120	24	120	0	18	53 - 143
M AND P XYLENE	ND	40	48	120	47	118	1.68	17	53 - 144

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

** = Data outside Method Specification limits.

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

ND = Not Detected/Below Detection Limit

% Recovery = $\{(\text{<1>} - \text{<2>}) / \text{<3>} \} \times 100$

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

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

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

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

Analyst: HS

Sequence Date: 01/18/98

SPL ID of sample spiked: 9801585-01A

Sample File ID: S_A2205.TX0

Method Blank File ID:

Blank Spike File ID: S_A2197R.TX0

Matrix Spike File ID: S_A2199.TX0

Matrix Spike Duplicate File ID: S_A2200.TX0

SAMPLES IN BATCH(SPL ID):

9801585-04A 9801583-08A 9801583-10A 9801583-09A
9801545-02A 9801545-03A 9801585-06A 9801585-7A
9801585-08A 9801742-01A 9801742-02A 9801742-04A
9801585-05A 9801496-06A 9801585-01A 9801585-02A
9801585-03A



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

Matrix: Aqueous
Units: $\mu\text{g/L}$

Batch Id: HP_S980120194800

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

LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Spike		QC Limits(**) (Mandatory) % Recovery Range
			Result <1>	Recovery %	
MTBE	ND	50	49	98.0	72 - 128
Benzene	ND	50	51	102	61 - 119
Toluene	ND	50	51	102	65 - 125
Ethyl_Benzene	ND	50	49	98.0	70 - 118
O-Xylene	ND	50	51	102	72 - 117
M and P Xylene	ND	100	102	102	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	100	20	120	NC	120	NC	NC	20	39 - 150
BENZENE	4.1	20	29	124	29	124	0	21	32 - 164
TOLUENE	ND	20	25	125	25	125	0	20	38 - 159
ETHYL_BENZENE	ND	20	23	115	24	120	4.26	19	52 - 142
O-XYLENE	ND	20	24	120	25	125	4.08	18	53 - 143
M AND P XYLENE	ND	40	47	118	50	125	5.76	17	53 - 144

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

** = Data outside Method Specification limits.

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

ND = Not Detected/Below Detection Limit

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

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

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

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

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

SAMPLES IN BATCH(SPL_ID):

9801744-06A 9801744-07A 9801585-10A 9801583-10A
9801585-08A 9801585-09A 9801643-02A 9801643-01A
9801742-03A 9801744-01A 9801744-04A 9801744-05A



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

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

Matrix: Aqueous
Units: mg/L

Batch Id: HP_S980117124010

LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Spike		QC Limits(**) (Mandatory) % Recovery Range
			Result <1>	Recovery %	
Gasoline Range Organics	ND	1.0	0.92	92.0	64 - 131

MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results <2>	Spike Added <3>	Matrix Spike		Matrix Spike Duplicate		MS/MSD Relative % Difference	QC Limits(***) (Advisory)	
			Result <1>	Recovery <4>	Result <1>	Recovery <5>		RPD Max.	Recovery Range
GASOLINE RANGE ORGANICS	1.2	0.90	2.1	100	2.0	88.9	11.8	36	36 - 160

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

« = Data outside Method Specification limits.

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

ND = Not Detected/Below Detection Limit

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

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

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

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

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

Analyst: HS

Sequence Date: 01/18/98

SPL ID of sample spiked: 9801579-04A

Sample File ID: SSA2167.TX0

Method Blank File ID:

Blank Spike File ID: SSA2193.TX0

Matrix Spike File ID: SSA2163.TX0

Matrix Spike Duplicate File ID: SSA2164.TX0

SAMPLES IN BATCH(SPL ID):

9801579-06A	9801580-03A	9801583-01A	9801583-02A
9801583-03A	9801583-04A	9801583-05A	9801583-06A
9801583-07A	9801580-02A	9801579-04A	9801580-01A
9801579-05A			



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

Matrix: Aqueous
Units: mg/L

Batch Id: HP_S980122084100

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

LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Spike		QC Limits(**) (Mandatory) % Recovery Range
			Result <1>	Recovery %	
Gasoline Range Organics	ND	1.0	0.92	92.0	64 - 131

MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results <2>	Spike Added <3>	Matrix Spike		Matrix Spike Duplicate		MS/MSD Relative % Difference	QC Limits(***) (Advisory)	
			Result <1>	Recovery <4>	Result <1>	Recovery <5>		RPD Max.	Recovery Range
GASOLINE RANGE ORGANICS	ND	45	26	57.8	28	62.2	7.33	36	36 - 160

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

« = Data outside Method Specification limits.

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

ND = Not Detected/Below Detection Limit

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

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

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

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

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

Analyst: DN

Sequence Date: 01/22/98

SPL ID of sample spiked: 9801744-03A

Sample File ID: SSA3089.TX0

Method Blank File ID:

Blank Spike File ID: SSA3082.TX0

Matrix Spike File ID: SSA3086.TX0

Matrix Spike Duplicate File ID: SSA3087.TX0

SAMPLES IN BATCH(SPL ID):

9801743-02A 9801743-03A 9801583-08A 9801743-05A

9801685-03A 9801685-04A 9801744-03A 9801585-06A

9801743-01A



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

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

Matrix: Aqueous
Units: mg/L

Batch Id: HP_S980118113600

LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Spike		QC Limits(**) (Mandatory) % Recovery Range
			Result <1>	Recovery %	
Gasoline Range Organics	ND	1.0	0.9	90.0	64 - 131

MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results <2>	Spike Added <3>	Matrix Spike		Matrix Spike Duplicate		MS/MSD Relative % Difference	QC Limits(***) (Advisory)	
			Result <1>	Recovery <4>	Result <1>	Recovery <5>		RPD Max.	Recovery Range
GASOLINE RANGE ORGANICS	ND	0.90	1.1	122	1.0	111	9.44	36	36 - 160

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

** = Data outside Method Specification limits.

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

ND = Not Detected/Below Detection Limit

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

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

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

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

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

Analyst: HS

Sequence Date: 01/18/98

SPL ID of sample spiked: 9801585-02A

Sample File ID: SSA2206.TX0

Method Blank File ID:

Blank Spike File ID: SSA2198R.TX0

Matrix Spike File ID: SSA2201R.TX0

Matrix Spike Duplicate File ID: SSA2202R.TX0

SAMPLES IN BATCH(SPL ID):

9801583-10A 9801583-09A 9801585-05A 9801585-09A
9801585-10A 9801742-01A 9801742-02A 9801742-03A
9801742-04A 9801585-01A 9801585-02A 9801585-03A
9801585-04A



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

Matrix: Aqueous
Units: mg/L

Batch Id: HP_S980118160600

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

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	1.04	104	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	1.8	0.90	2.35	61.1	2.18	42.2	36.6 *	36	36 - 160

* = 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 = $(<1> / <3>) \times 100$

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

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

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

SAMPLES IN BATCH(SPL ID):

9801585-07A 9801585-08A 9801580-04A 9801742-05A

9801580-05A 9801583-10A 9801544-03B 9801544-04B

9801742-06A 9801744-01A 9801777-05A 9801585-06A

CHAIN OF CUSTODY

AND

SAMPLE RECEIPT CHECKLIST

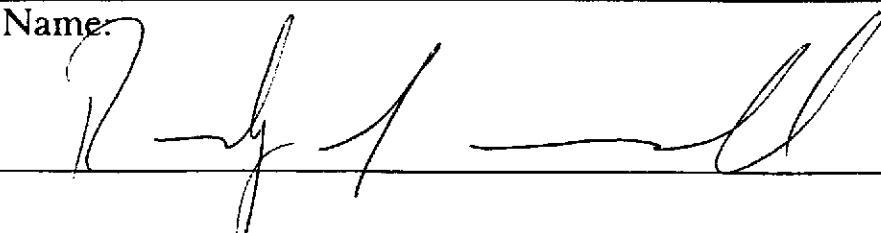
SPL Houston Environmental Laboratory

Sample Login Checklist

Date:	Time:
1-15-98	1235

SPL Sample ID:

		Yes	No
1	Chain-of-Custody (COC) form is present.	✓	
2	COC is properly completed.	✓	
3	If no, Non-Conformance Worksheet has been completed.		
4	Custody seals are present on the shipping container.	✓	
5	If yes, custody seals are intact.	✓	
6	All samples are tagged or labeled.	✓	
7	If no, Non-Conformance Worksheet has been completed.		
8	Sample containers arrived intact	✓	
9	Temperature of samples upon arrival:	3	C
10	Method of sample delivery to SPL:	SPL Delivery Client Delivery FedEx Delivery (airbill #) Other:	3848471314
11	Method of sample disposal:	SPL Disposal HOLD Return to Client	✓

Name:	Date:
	1-15-98



9801583

CHAIN OF CUSTODY

No.055970

Page _____ of _____

CONSULTANT'S NAME Auto Engineering	ADDRESS 1575 Treat Blvd #201 w.c. Oakland, CA	CITY C	STATE CA	ZIP CODE 94598			
BP SITE NUMBER 11117	BP CORNER ADDRESS/CITY Benton, WA	CONSULTANT PROJECT NUMBER 10-018-6-2					
CONSULTANT PROJECT MANAGER Bruce Nagle	PHONE NUMBER (510) 225-1650	FAX NUMBER 205-1823	CONSULTANT CONTRACT NUMBER A177100				
BP CONTACT Scott Hooton	BP ADDRESS Benton, WA	PHONE NUMBER	FAX NO.				
LAB CONTACT SPL	LABORATORY ADDRESS Texas	PHONE NUMBER	FAX NO.				
SAMPLED BY (Please Print Name) Larry Buenviaje	SAMPLED BY (Signature)	<i>L</i> <i>B</i> <i>P</i>	SHIPMENT DATE	SHIPMENT METHOD FJEX			
TAT: <input type="checkbox"/> 24 Hours <input type="checkbox"/> 48 Hours <input type="checkbox"/> 1 Week <input checked="" type="checkbox"/> Standard 2 Weeks	ANALYSIS REQUIRED						
SAMPLE DESCRIPTION	COLLECTION DATE	MATRIX SOIL/WATER	CONTAINERS		PRESERVATIVE	<i>1</i> <i>3</i> <i>5</i> <i>6</i> <i>8</i> <i>10</i> <i>11</i>	COMMENTS
	COLLECTION TIME		NO.	TYPE (VOL.)	LAB SAMPLE #		
S-1	11/18/98	W	3	HC	XX		
S-2							
S-3							
S-4							
S-5							
S-6							
S-7							
S-8							
S-9							
S-10							
S-11	2y						

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	ADDITIONAL COMMENTS
<i>Patricia Upton</i>	1/9/98		<i>Patricia Upton</i>	1/14/98	0800	Temp 30
<i>Patricia Upton</i>	1/14/98	1505	<i>Patricia Upton</i>	1/15/98	1000	

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

BP Site Number: 11117
ERM Contact: H177100
Sampling Date: 01/09/98
Matrix Description: Water
Date Final Report Received: 02/03/98
Laboratory & Location: SPL, Houston, Texas

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

MS/MSD recovery and relative % difference for MTBE not calculated due to sample exceeding spike by a factor of 4 or more; MS/MSD relative % difference values outside QC range due to matrix interference. MS/MSD limits are advisory only; as stated in SW-846, Section 8.7 to 8.8, if the MS/MSD results fall outside the advisable ranges, a laboratory control samples (LCS) must be analyzed and fall within those ranges. LCS results are within quality control limits.

Data Validation Completed by: Brady Nagle

(signature): Brady Nagle

Date: 2/10/98

08/18/95	DH	83	0.1	3960	replace map JS		
09/20/95	DH	35	1.	3960			
09/21/95	DH	15	0.4	3960			
09/22/95	DH	31	4.5	3960			
09/25/95	DH	35	0.2	3960			
09/26/95	DH	34	0.6	3960	sent 2643:non vis mon		
09/27/95	DH	35	0.4	3960	Tom King ph;JS		
10/24/95	DH	54	0.2	3960			
10/26/95	DH	54	0.6	3960			
11/03/95	DH	54	0.5	3960	forward		
12/08/95	DH	35	0.3	3960	fin resp 3/28/95, SIR 7/95, 8/95		
12/08/95	DH	135	0.3	3960	10/2/95		
12/08/95	DH	137	0.3	3960	6/20/95 & pipe		
01/10/96	BO	35	0.75	3960	review of submitted ust forms A, Bs		
01/11/96	DH	138	0.3	3960	10/13/95		
InspDat	Insp	Act	InspT	StID	DRPro	Comment	DailBDat
-----	-----	-----	-----	-----	-----	-----	-----
05/22/96	DH	137	0.3	3960	5/9		
06/26/97	DH	137	0.2	3960	07	4/14 line, LD	
03/19/98	PE	200	0.8	3960	00	Review latest submissions and evaluate case for whether further action is needed. They've been getting increasing conc. of MTBE in MW-2 & MW-4. Have defined plume in most directions except down gradient; put in MW-10 in 10/97 in dg direction, initial analytical showed soil ND, gw ND except 13 ppb MTBE. Their next QMR is due anytime, will see what their findings are. Not sure that this one well is adequate to define plume down gradient. Should hear by end of March.	

Complete

Listing of HAZMAT - FULL SITE HISTORY since 1987 for STID # 3960
 as of 03/19/98 all Activity Codes

SITE NAME & ADDRESS:

BP Oil Co. Site #111117 -- 7210 Bancroft Ave , Oakland CA 94605

InspDat	Insp	Act	InspT	STID	Proj#	COMMENTS	DailBDat
InspDat	Insp	Act	InspT	STID	DRPro	Comment	DailBDat
Archived Dailies:							
06/29/92	JE	200	0.2	3960			
06/30/92	JE	200	0.8	3960			
07/02/92	JE	200	0.6	3960			
07/07/92	JE	215	0.8	3960			
07/07/92	SH	215	0.6	3960		Discuss case with JE	
07/08/92	JE	215	0.2	3960			
07/24/92	BC	212	0.6	3960		conversation with M. Niebanck	
11/05/92	RO	35	1.	3960		UGT file review	
12/09/92	RO	35	1.	3960		UGT file review	
03/16/93	RO	35	0.5	3960		UGT file review	
01/28/94	RO	51	0.5	3960		HMBP inspection	
01/28/94	RO	120	2.	3960		Keep garbage dumspster covered. Clean up debris and spill stains in sames area. There are 12 (55 gallong drums) containing monitoring well waste soil and water dated 07/22/92 that will need to be removed ASAP. Another, empty corroded drum also needs to be removed. There is a low spot collecting runoff water near the air/water station that needs cleaning and regrading. Provide a wiping rags service and absorbent to clean spills as needed. Comments: An outer restroom was converted to a storeroom. The plumbing fixtures should be removed and sealed off to prevent sewer odor accumulation. There is unidentified storm drain full of dirt that may need cleaning if still operable. HMBP review	
03/04/94	RO	55	1.	3960			
09/12/94	BO	55	0.75	3960			
10/06/94	BO	35	0.5	3960			
10/06/94	JMS	212	0.1	3960		Received SCott Kelstad's message and returned call re alterations in w.p.	
10/31/94	JMS	215	0.7	3960		Reviewed September 26, 1994 Qtrly and spoke to Scott Hooton and logged conversation	
11/01/94	JMS	200	0.1	3960		Spoke to Scott Hooton in effort to locate proper address and contact name	
Current Dailies:							
03/30/95	JMS	215	2.	3960		Reviewed Jan 25, 1995 Qtrly and March 9, 1995 Site Assessment Report. Took notes and left message for Scott Hooton	
07/20/95	DH	137	0.1	3960		6/20/95	