BP OIL

ALCO HAZMAT
94 SEP 20 AM 9:11

BP Oil Company
Environmental Resources Management
Building 13, Suite N
295 SW 41st Street
Renton, Washington 98055-4931
(206) 251-0667

September 26, 1994

STO 3960
JMS

Mr. Ed So
California Regional Water Quality Control Board
San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland CA 94612

RE: BP OIL FACILITY #11117
7210 Bancroft Avenue
Oakland, CA 94621 665

JMS

Dear Mr. So:

Attached please find our **GROUNDWATER MONITORING AND SAMPLING REPORT DATED SEPTEMBER 7, 1994** for the above referenced facility.

If you should have any questions regarding this site, I may be reached at (206) 251-0689.

Respectfully,

Scott T. Hooton
Environmental Resources Management
Group Leader

STH:mu msword\ERM11117

cc: Mr. Barney Chan, Alameda County Health Care Services Agency
1131 Harbour Bay Parkway, Room 250, Alameda CA 94502-6577

Hydro Environmental Technologies, Inc, 2363 Mariner Square Drive, Suite 243, Alameda, CA 94501

Mr. Brady Nagle, Alisto Engineering Group, 1777 Oakland Blvd., Suite 200, Walnut Creek, CA 94596

Mr. Robert K. Barth, Bancroft Oakland Investment Company, 9454 Wilshire Blvd, Suite 901, Beverly Hills, CA 98212

Mr. Larry Silva, TOSCO Northwest, 601 Union Street, Suite 2500, Seattle WA 98101

Site File

ALCO
HAZMAT
94 SEP 19 AM 9:11

GROUNDWATER MONITORING AND SAMPLING REPORT

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

Project No. 10-018-02-004

Prepared for:

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

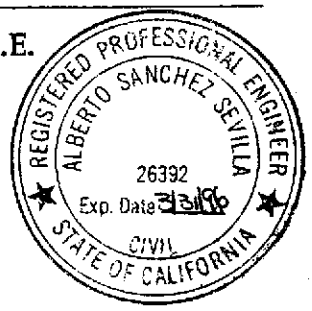
Prepared by:

Alisto Engineering Group
1777 Oakland Boulevard, Suite 200
Walnut Creek, California

September 7, 1994

Brady Nagle
Project Manager

Al Sevilla, P.E.
Principal



GROUNDWATER MONITORING AND SAMPLING REPORT

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

Project No. 10-018-02-004

September 7, 1994

INTRODUCTION

This report presents the results and findings of the July 22, 1994 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 in 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. 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, and electrical conductivity. 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 in Figure 2. The results of groundwater analysis are shown in 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 (ppb)	TPH-D (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	Organic Lead (ppb)	DO (ppm)	LAB
MW-1	01/05/92	49.81	33.16	---	16.65	57000	50000	2400	1000	1100	3100	ND	---	---
MW-1	01/10/92	49.81	33.16	---	16.65	---	---	---	---	---	---	---	---	---
MW-1	06/05/92	49.81	29.01	---	20.80	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	---	---	---	---	---	---	---	---	---
MW-1	09/23/93	---	---	---	---	40000	770	4000	500	920	3000	---	---	PACE
MW-1	12/27/93	49.80	28.66	---	21.14	27000	---	2000	400	940	2600	---	---	PACE
QC-1 (d)	12/27/93	---	---	---	---	21000	---	1700	380	830	2400	---	---	PACE
MW-1	04/05/94	49.80	26.37	---	23.43	27000	---	3400	930	950	2900	---	---	PACE
QC-1 (d)	04/05/94	---	---	---	---	29000	---	3700	1000	1000	3100	---	1.3	PACE
MW-1	07/22/94	49.80	26.54	---	23.26	1700	---	220	2.3	2.0	3.4	---	2.0	PACE
MW-2	01/05/92	51.07	DRY	---	DRY	---	---	---	---	---	---	---	---	---
MW-2	01/10/92	51.06	DRY	---	DRY	---	---	---	---	---	---	---	---	---
MW-2	06/05/92	51.06	30.05	---	21.01	11000	---	2000	160	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	---	---	PACE
MW-2 (e)	06/07/93	51.07	26.38	SHEEN	24.69	---	---	---	---	---	---	---	---	---
MW-2 (e)	09/23/93	51.07	31.43	1.92	21.08	---	---	---	---	---	---	---	---	---
MW-2 (e)	12/27/93	51.07	34.07	1.07	17.80	---	---	---	---	---	---	---	---	---
MW-2 (e)	04/05/94	51.07	30.44	3.30	23.11	---	---	---	---	---	---	---	---	---
MW-2 (e) FP	07/22/94	51.07	28.51	0.80	23.16	---	---	---	---	---	---	---	---	---
MW-3	01/05/92	49.95	33.69	---	16.26	7400	4000	790	23	210	40	ND	---	---
MW-3	01/10/92	50.00	33.74	---	16.26	---	---	---	---	---	---	---	---	---
MW-3	06/05/92	50.00	29.65	---	20.35	2000	---	130	5.3	93	20	---	---	---
MW-3	07/24/92	49.95	30.14	---	19.81	---	---	---	---	---	---	---	---	---
MW-3	07/27/92	49.95	30.14	---	19.81	---	---	---	---	---	---	---	---	---
MW-3	09/15/92	49.95	31.07	---	18.88	450	ND<50	55	3.1	34	7.1	---	---	ANA
MW-3	12/15/92	49.95	31.93	---	18.02	12000	710 (c)	940	ND<50	310	120	---	---	ANA
MW-3	03/15/93	49.95	25.71	---	24.24	ND<50	60	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
MW-3	06/07/93	49.95	25.80	---	24.15	150	ND<50	3.6	ND<0.5	0.9	1.3	---	---	PACE
MW-3	09/23/93	49.95	29.18	---	20.77	---	---	---	---	---	---	---	---	---
MW-3	09/24/93	---	---	---	---	160	ND<50	6.4	ND<0.5	3.7	1.3	---	---	PACE
MW-3	12/27/93	49.95	29.25	---	20.70	9400	---	1100	48	530	120	---	---	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

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 (ppb)	TPH-D (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	Organic Lead (ppb)	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	---	---	---	---	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-6	07/24/92	50.32	30.63	---	19.69	ND	---	1.6	ND	ND	ND	---	---	---
MW-6	07/27/92	50.32	30.63	---	19.69	---	---	---	---	---	---	---	---	---
MW-6	09/15/92	50.32	31.52	---	18.80	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	ANA
MW-6	12/15/92	50.32	32.42	---	17.90	58	ND<50	1.3	ND<0.5	ND<0.5	ND<0.5	---	---	ANA
MW-6	03/15/93	50.32	26.29	---	24.03	ND<50	ND<50	ND<0.5	0.6	ND<0.5	0.7	---	---	PACE
MW-6	06/07/93	50.32	26.33	---	23.99	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	1.5	---	---	PACE
MW-6	09/23/93	50.32	29.64	---	20.68	---	---	---	---	---	---	---	---	---
MW-6	09/24/93	---	---	---	---	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	---	---	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	---	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	---	4.5	PACE
QC-2 (f)	09/15/92	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	ANA
QC-2 (f)	12/15/92	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	ANA
QC-2 (f)	03/15/93	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (f)	06/07/93	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (f)	09/24/93	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (f)	12/27/93	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (f)	04/05/94	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE
QC-2 (f)	07/22/94	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	PACE

ABBREVIATIONS:

TPH-G	Total petroleum hydrocarbons as gasoline
TPH-D	Total petroleum hydrocarbons as diesel
B	Benzene
T	Toluene
E	Ethylbenzene
X	Total xylenes
DO	Dissolved oxygen
ppb	Parts per billion
ppm	Parts per million
ND	Not detected above reported detection limit
---	Not analyzed/applicable
ANA	Anametrix, Inc.
PACE	Pace, Inc.

NOTES:

(a) Casing elevations surveyed to the nearest 0.01 foot relative to mean sea level.

(b) Groundwater elevations in feet relative to mean sea level.

(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) Well not sampled due to presence of free product.

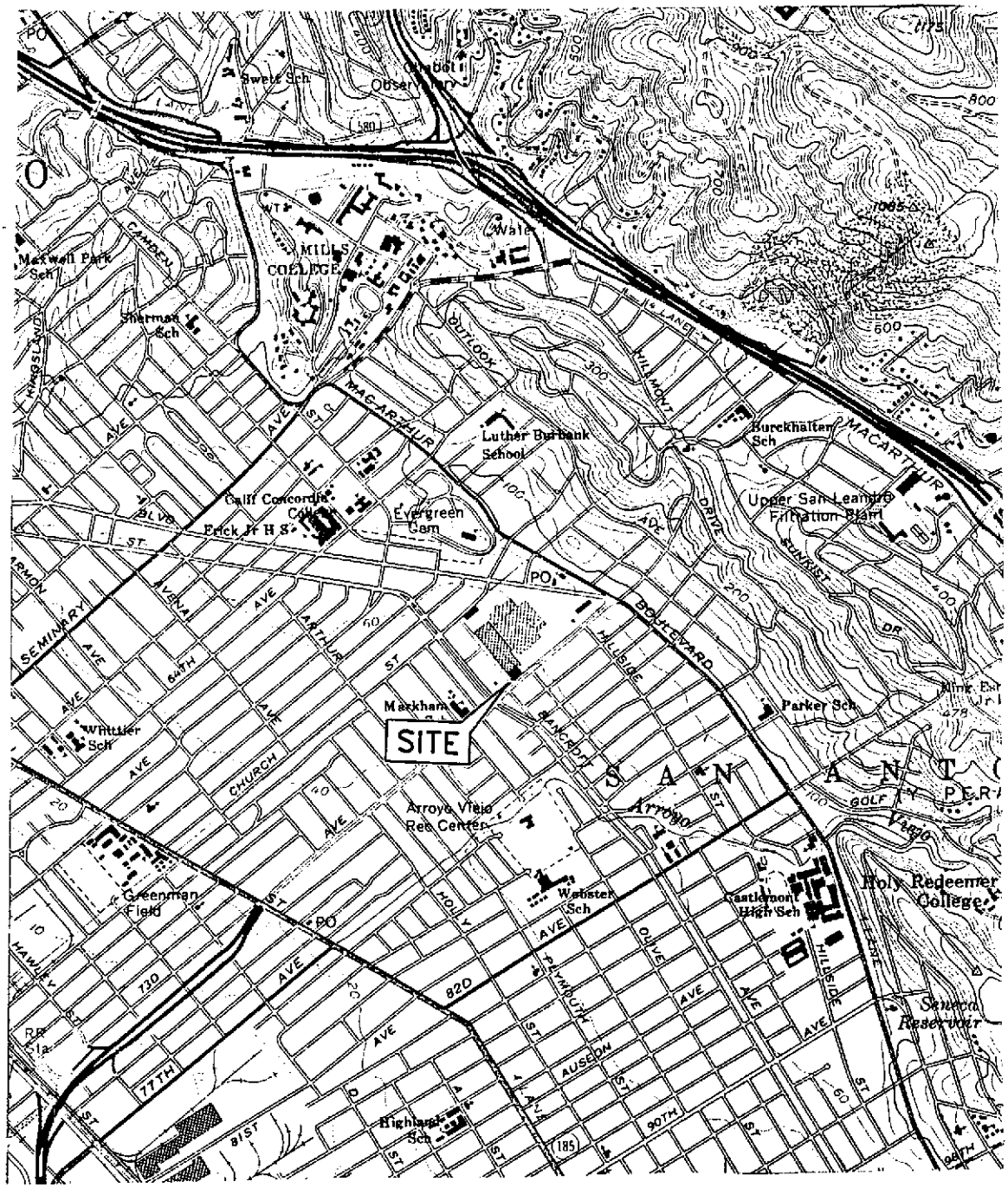
(f) Travel blank.

TABLE 2
PRODUCT REMOVAL STATUS

BP OIL COMPANY SERVICE STATION NO. 11117
7210 BANCROFT STREET, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-018

WELL ID	DATE	PRODUCT REMOVED (Gallons)	PRODUCT REMOVED CUMULATIVE (Gallons)
MW-2	02/11/94	0.1	0.1
	02/18/94	0.9	1.0
	02/25/94	0.1	1.1
	03/04/94	0.1	1.2
	03/30/94	2.6	3.8
	04/05/94	4.0	7.8
	04/13/94	0.1	7.9
	04/21/94	0.1	8.0
	04/29/94	0.3	8.3
	05/06/94	0.6	8.9
	05/13/94	0.1	9.0
	05/20/94	1.1	10.1
	05/26/94	2.0	12.1
	06/02/94	1.0	13.1
	06/09/94	1.0	14.1
	06/16/94	1.1	15.2
	06/23/94	0.9	16.1
	06/29/94	0.6	16.7
	07/07/94	0.5	17.2
	07/12/94	1.0	18.2
	07/20/94	0.7	18.9
	07/29/94	1.1	20.0
	08/05/94	0.7	20.7
	08/12/94	0.7	21.4
	08/18/94	0.4	21.8



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

N

0 1000' 2000'

FIGURE 1

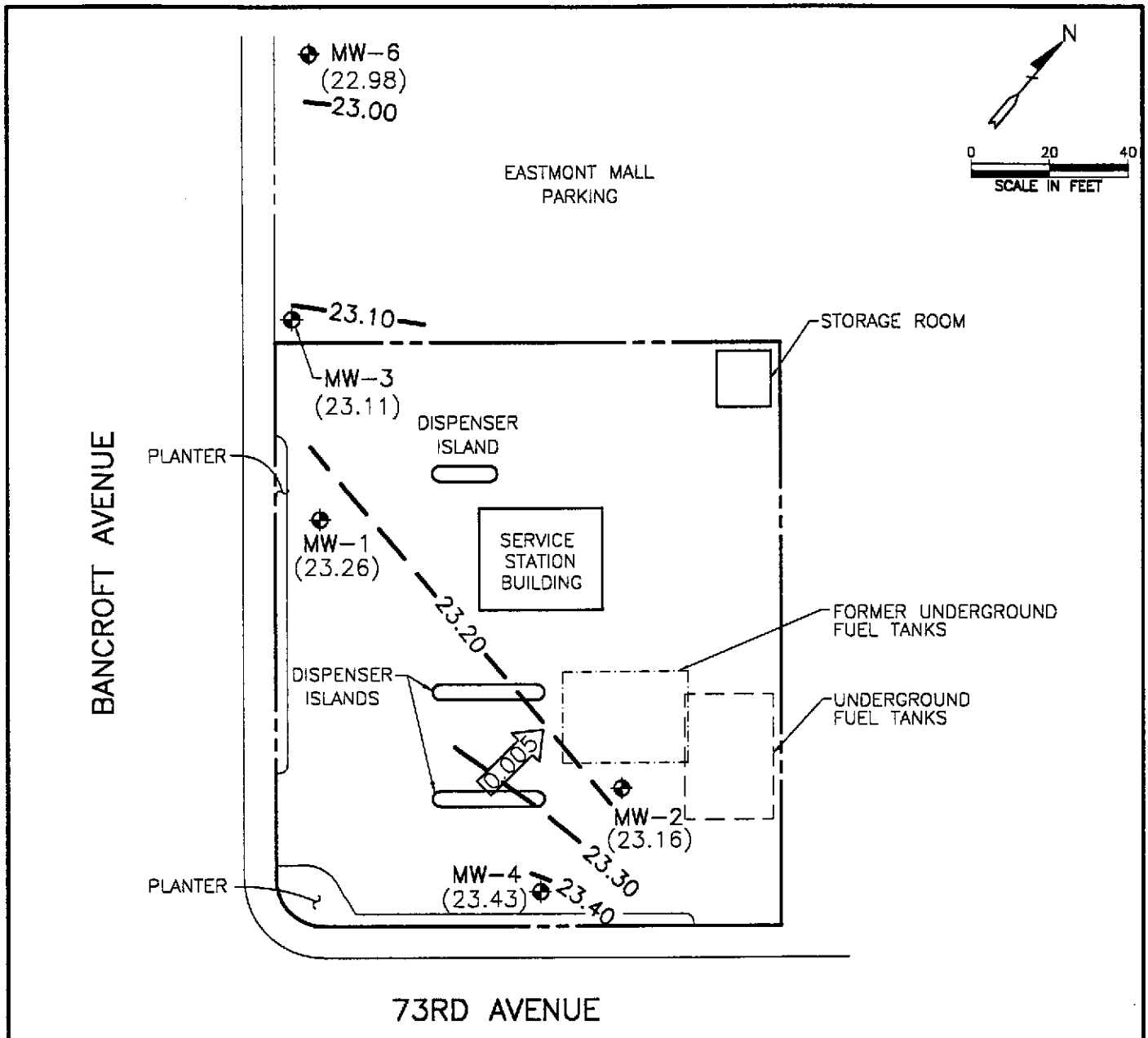
SITE VICINITY MAP

BP OIL SERVICE STATION NO. 11117
7210 BANCROFT AVENUE
OAKLAND, CALIFORNIA

PROJECT NO. 10-018

ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA

10018B---JWC 11-12-93 RNW 1=1



LEGEND

⊕	GROUNDWATER MONITORING WELL
(22.98)	GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
23.00	GROUNDWATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL (CONTOUR INTERVAL–0.10 FOOT)
0.005	CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT

FIGURE 2

POTENTIOMETRIC GROUNDWATER ELEVATION CONTOUR MAP

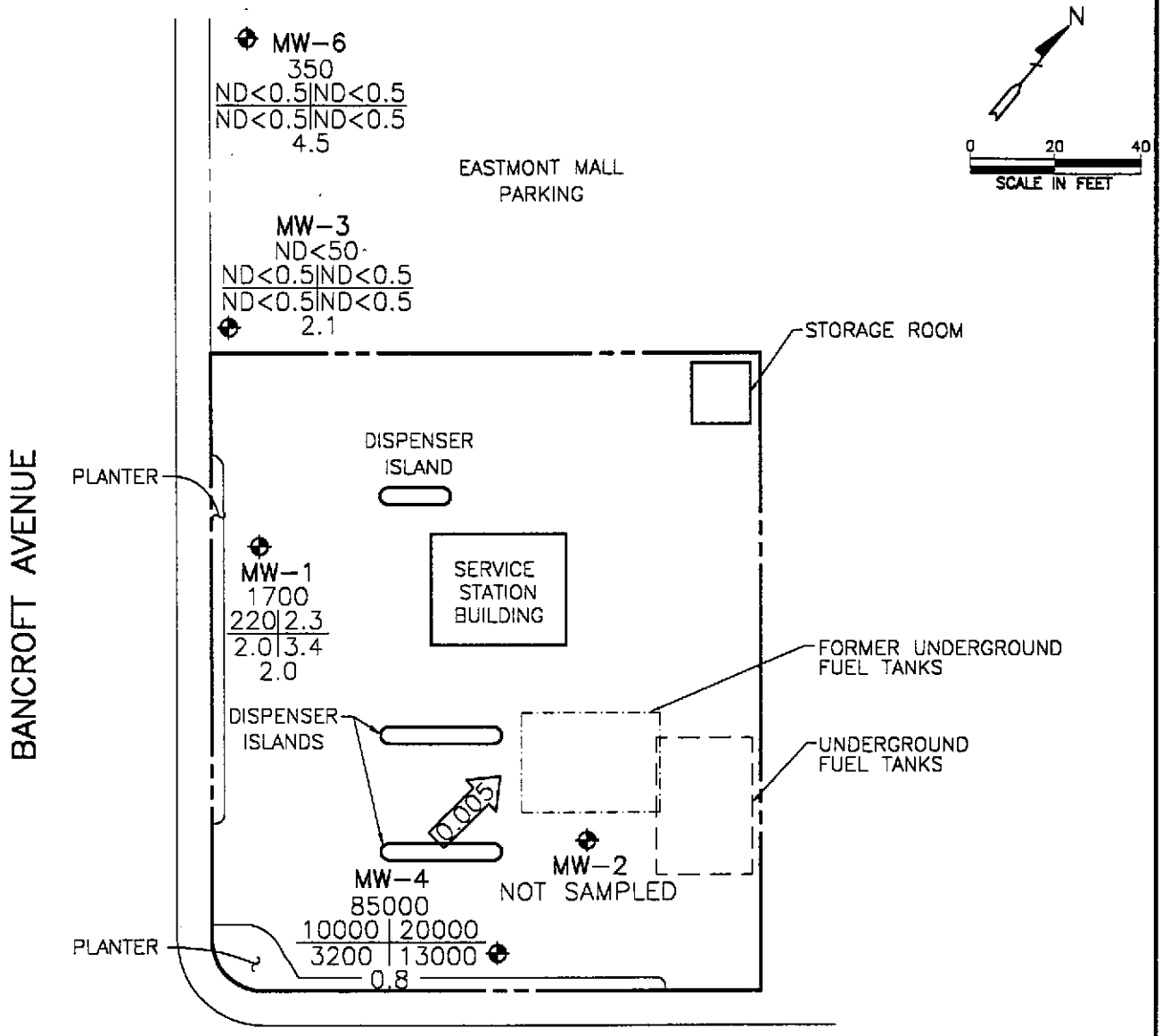
JULY 22, 1994

BP OIL SERVICE STATION NO. 11117
7210 BANCROFT AVENUE
OAKLAND, CALIFORNIA

PROJECT NO. 10–018

ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA

10016D-K.DWG 8-19-94 RKW 1=40



LEGEND

⊕	GROUNDWATER MONITORING WELL
TPH-G / B | T / E | X / DO	CONCENTRATION OF CONSTITUENTS IN PARTS PER BILLION, EXCEPT DISSOLVED OXYGEN, WHICH IS IN PARTS PER MILLION
TPH-G	TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
B	BENZENE
T	TOLUENE
E	ETHYLBENZENE
X	TOTAL XYLENES
DO	DISSOLVED OXYGEN
ND	NOT DETECTED ABOVE REPORTED DETECTION LIMIT
⟵ 0.005	CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT

FIGURE 3

CONCENTRATIONS OF PETROLEUM HYDROCARBONS IN GROUNDWATER

JULY 22, 1994

BP OIL SERVICE STATION NO. 11117
7210 BANCROFT AVENUE
OAKLAND, CALIFORNIA

PROJECT NO. 10-018

ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA

10018E-K.DWG 8-19-94 RKW 1=40

APPENDIX A

WATER SAMPLING FIELD SURVEY FORMS

ALISTO ENGINEERING GROUP

Field Report / Sampling Data Sheet

O Groundwater Sampling

Date: 7-22-94 Project No. 10-018-02-004

Day: FRIDAY Station No. BP11117

Weather: 30.15 in Hg. Address 7210 BANCROFT AVE.

SAMPLER: DJBirl OAKLAND

1777 OAKLAND BLVD, STE 200 20°C

WALNUT CREEK CA 94596 (510) 295-1650 FAX 295-1823

Well ID	SAMPLE #	WATER	DEPTH	TIME	COMMENTS
MW-1	S-3	26.54		1140	
MW-2	NOT	28.61		1149	0.80' PRODUCT
MW-3	S-2	26.90		1135	
MW-4	S-4,5	27.33		1143	DUPLICATE WELL
MW-6	S-1	27.34		1130	

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Thickness
MW-6	27.34	2	OK	None	

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

40.4 - 27.34 = 13.06 x .16 = 2.08 x 3 = 6.3

Purge Method: OSurface Pump ODisp.Tube OWinch ODisp. Bailer(s) OSys Port

Comments:

Gal.	Time	Temp °F	pH	E.C.	D.O.
5	1140	70.2	7.68	809	
7	1150	68.9	7.03	802	4.5

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

Time Sampled 1150 / S-1

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Thickness
MW-3	26.90	2"	OK	None	

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

43.36 - 26.90 = 16.46 x .16 = 2.6 x 3 = 7.9

Purge Method: OSurface Pump ODisp.Tube OWinch ODisp. Bailer(s) OSys Port

Comments:

Gal.	Time	Temp °F	pH	E.C.	D.O.
2	1157	72.7	7.01	701	3.8
5	1205	71.5	7.06	700	2.5
8	1212	71.7	7.08	695	2.1

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

Time Sampled 1212 / S-2

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Thickness
MW-1	26.54	2"	OK	None	

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

39.52' - 26.54 = 12.98 x .16 = 2.07 x 3 = 6.2

Purge Method: OSurface Pump ODisp.Tube OWinch ODisp. Bailer(s) OSys Port

Comments:

Gal.	Time	Temp °F	pH	E.C.	D.O.
2	1220	70.0	6.87	775	3.1
4	1227	69.3	6.82	752	
7	1235	69.5	6.81	750	2.0

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

Time Sampled 1235 / S-3

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Thickness
MW-4	27.33	2"	OK	None	

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

40.0 - 27.33 = 12.67 x .16 = 1.26 x 3 = 3.8

Purge Method: OSurface Pump ODisp.Tube OWinch ODisp. Bailer(s) OSys Port

Comments:

Gal.	Time	Temp °F	pH	E.C.	D.O.
1	1245	69.1	6.81	915	0.8
2	1249	66.9	6.85	909	
4	1255	66.7	6.83	912	

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

Time Sampled 1255 / S-4,5

13cp

ALISTO

Field Report / Sampling Data Sheet

ENGINEERING
GROUP
1777 OAKLAND BLVD, STE 200
WALNUT CREEK CA 94596 (510) 295-1650 FAX 295-1823

O Groundwater Sampling

Date: 7-22-94 Project No. 10-018-02-004
Day: FRIDAY Station No. BP11117
Weather: 20°C. Address 7210 BANCROFT AVE.
SAMPLER: JJ Bui OAKLAND

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Thickness	Gal.	Time	Temp °F	pH	E.C.	D.O.	Time Sampled
MW-2	28.51	2"	ok	~~product~~	~~none~~							Not Sampled
Total Depth - Water Level =	x Well Vol. Factor =	x#vol. to Purge =	PurgeVol.									
39.56 - 28.51 =		0.80' PRODUCT										
Purge Method: OSurface Pump ODisp.Tube OWinch ODisp. Bailer(s) OSys Port												
Comments:												

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

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Thickness	Gal.	Time	Temp °F	pH	E.C.	D.O.	Time Sampled
Total Depth - Water Level =	x Well Vol. Factor =	x#vol. to Purge =	PurgeVol.									
Purge Method: OSurface Pump ODisp.Tube OWinch ODisp. Bailer(s) OSys Port												
Comments:												

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

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Thickness	Gal.	Time	Temp °F	pH	E.C.	D.O.	Time Sampled
Total Depth - Water Level =	x Well Vol. Factor =	x#vol. to Purge =	PurgeVol.									
Purge Method: OSurface Pump ODisp.Tube OWinch ODisp. Bailer(s) OSys Port												
Comments:												

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

Instrument Calibration Data. Hydak 4.00, 7.00 Temp comp (y).
D.O. Irm meter 30.15 in Hg. barometric pressure, Temp 20°C.

APPENDIX B

LABORATORY REPORT AND CHAIN OF CUSTODY RECORD

pace INCORPORATED
THE ASSURANCE OF QUALITY

REPORT OF LABORATORY ANALYSIS

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

August 01, 1994
PACE Project Number: 440722510

Attn: Mr. Bill Howell

Client Reference: BP Site #11117/10-018-02-004

PACE Sample Number:			70 0359422	
Date Collected:			07/22/94	
Date Received:			07/22/94	
			S-1	
Parameter	Units	MDL		DATE ANALYZED
ORGANIC ANALYSIS				
PURGEABLE FUELS AND AROMATICS				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	07/26/94
Purgeable Fuels, as Gasoline (EPA 8015M)	ug/L	50	350	07/26/94
PURGEABLE AROMATICS (BTXE BY EPA 8020M):			-	07/26/94
Benzene	ug/L	0.5	ND	07/26/94
Toluene	ug/L	0.5	ND	07/26/94
Ethylbenzene	ug/L	0.5	ND	07/26/94
Xylenes, Total	ug/L	0.5	ND	07/26/94

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FAX: 415-883-2673

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REPORT OF LABORATORY ANALYSIS

August 01, 1994
PACE Project Number: 440722510

Client Reference: BP Site #11117/10-018-02-004

PACE Sample Number:			70 0359430	
Date Collected:			07/22/94	
Date Received:			07/22/94	
Client Sample ID:			S-2	
Parameter	Units	MDL		DATE ANALYZED
ORGANIC ANALYSIS				
PURGEABLE FUELS AND AROMATICS				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	07/26/94
Purgeable Fuels, as Gasoline (EPA 8015M)	ug/L	50	ND	07/26/94
PURGEABLE AROMATICS (BTXE BY EPA 8020M):			-	07/26/94
Benzene	ug/L	0.5	ND	07/26/94
Toluene	ug/L	0.5	ND	07/26/94
Ethylbenzene	ug/L	0.5	ND	07/26/94
Xylenes, Total	ug/L	0.5	ND	07/26/94

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REPORT OF LABORATORY ANALYSIS

August 01, 1994
PACE Project Number: 440722510

Client Reference: BP Site #11117/10-018-02-004

PACE Sample Number:			70 0359449	
Date Collected:			07/22/94	
Date Received:			07/22/94	
Client Sample ID:			S-3	
Parameter	Units	MDL		DATE ANALYZED
ORGANIC ANALYSIS				
PURGEABLE FUELS AND AROMATICS				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	07/27/94
Purgeable Fuels, as Gasoline (EPA 8015M)	ug/L	50	1700	07/27/94
PURGEABLE AROMATICS (BTXE BY EPA 8020M):			-	07/27/94
Benzene	ug/L	0.5	220	07/27/94
Toluene	ug/L	0.5	2.3	07/27/94
Ethylbenzene	ug/L	0.5	2.0	07/27/94
Xylenes, Total	ug/L	0.5	3.4	07/27/94

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REPORT OF LABORATORY ANALYSIS

August 01, 1994
PACE Project Number: 440722510

Client Reference: BP Site #11117/10-018-02-004

PACE Sample Number:			70 0359457	
Date Collected:			07/22/94	
Date Received:			07/22/94	
Client Sample ID:			S-4	
Parameter	Units	MDL		DATE ANALYZED
ORGANIC ANALYSIS				
PURGEABLE FUELS AND AROMATICS				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	07/27/94
Purgeable Fuels, as Gasoline (EPA 8015M)	ug/L	5000	85000	07/27/94
PURGEABLE AROMATICS (BTXE BY EPA 8020M):			-	07/27/94
Benzene	ug/L	50	10000	07/27/94
Toluene	ug/L	50	20000	07/27/94
Ethylbenzene	ug/L	50	3200	07/27/94
Xylenes, Total	ug/L	50	13000	07/27/94

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REPORT OF LABORATORY ANALYSIS

August 01, 1994
PACE Project Number: 440722510

Client Reference: BP Site #11117/10-018-02-004

PACE Sample Number:			70 0359465	
Date Collected:			07/22/94	
Date Received:			07/22/94	
Client Sample ID:			S-5	
Parameter	Units	MDL		DATE ANALYZED
ORGANIC ANALYSIS				
PURGEABLE FUELS AND AROMATICS				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	07/27/94
Purgeable Fuels, as Gasoline (EPA 8015M)	ug/L	5000	85000	07/27/94
PURGEABLE AROMATICS (BTXE BY EPA 8020M):			-	07/27/94
Benzene	ug/L	50	11000	07/27/94
Toluene	ug/L	50	21000	07/27/94
Ethylbenzene	ug/L	50	3300	07/27/94
Xylenes, Total	ug/L	50	14000	07/27/94

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REPORT OF LABORATORY ANALYSIS

Mr. Bill Howell
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August 01, 1994
PACE Project Number: 440722510

Client Reference: BP Site #11117/10-018-02-004

PACE Sample Number:			70 0359473	
Date Collected:			07/22/94	
Date Received:			07/22/94	
Client Sample ID:			S-6	
Parameter	Units	MDL		DATE ANALYZED
ORGANIC ANALYSIS				
PURGEABLE FUELS AND AROMATICS				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	07/26/94
Purgeable Fuels, as Gasoline (EPA 8015M)	ug/L	50	ND	07/26/94
PURGEABLE AROMATICS (BTXE BY EPA 8020M):			-	07/26/94
Benzene	ug/L	0.5	ND	07/26/94
Toluene	ug/L	0.5	ND	07/26/94
Ethylbenzene	ug/L	0.5	ND	07/26/94
Xylenes, Total	ug/L	0.5	ND	07/26/94

These data have been reviewed and are approved for release.

Darrell C. Cain
Regional Director

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Client Reference: BP Site #11117/10-018-02-004

MDL Method Detection Limit
ND Not detected at or above the MDL.

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QUALITY CONTROL DATA

August 01, 1994
PACE Project Number: 440722510

Client Reference: BP Site #11117/10-018-02-004

PURGEABLE FUELS AND AROMATICS
Batch: 70 32316
Samples: 70 0359422, 70 0359430, 70 0359473

METHOD BLANK:

Parameter	Units	MDL	Method Blank
TOTAL FUEL HYDROCARBONS, (LIGHT):			-
Purgeable Fuels, as Gasoline (EPA 8015M	ug/L	50	ND
PURGEABLE AROMATICS (BTXE BY EPA 8020M)			-
Benzene	ug/L	0.5	ND
Toluene	ug/L	0.5	ND
Ethylbenzene	ug/L	0.5	ND
Xylenes, Total	ug/L	0.5	ND

SPIKE AND SPIKE DUPLICATE:

Parameter	Units	MDL	700359775	Spike	Spike Recv	Spike Dupl Recv	RPD
			400 LB	1000			
Purgeable Fuels, as Gasoline (EPA 8015M	ug/L	50			86%	90%	5%

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference Value	Recv	Dupl Recv	RPD
			1000			
Purgeable Fuels, as Gasoline (EPA 8015M	ug/L	50		101%	96%	5%

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

August 01, 1994
PACE Project Number: 440722510

Client Reference: BP Site #11117/10-018-02-004

PURGEABLE FUELS AND AROMATICS
Batch: 70 32348
Samples: 70 0359449, 70 0359457, 70 0359465

METHOD BLANK:

Parameter	Units	MDL	Method Blank
TOTAL FUEL HYDROCARBONS, (LIGHT):			-
Purgeable Fuels, as Gasoline (EPA 8015M	ug/L	50	ND
PURGEABLE AROMATICS (BTXE BY EPA 8020M)			-
Benzene	ug/L	0.5	ND
Toluene	ug/L	0.5	ND
Ethylbenzene	ug/L	0.5	ND
Xylenes, Total	ug/L	0.5	ND

SPIKE AND SPIKE DUPLICATE:

Parameter	Units	MDL	700360072	Spike	Spike Recv	Spike Dupl Recv	RPD
Benzene	ug/L	0.5	0.6	100	100%	96%	4%
Toluene	ug/L	0.5	ND	100	98%	94%	4%
Ethylbenzene	ug/L	0.5	ND	100	96%	92%	4%
Xylenes, Total	ug/L	0.5	ND	300	96%	91%	5%

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference Value	Recv	Dupl Recv	RPD
Benzene	ug/L	0.5	100	103%	101%	2%
Toluene	ug/L	0.5	100	102%	99%	3%
Ethylbenzene	ug/L	0.5	100	101%	98%	3%
Xylenes, Total	ug/L	0.5	300	101%	98%	3%

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Mr. Bill Howell | FOOTNOTES | August 01, 1994
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Client Reference: BP Site #11117/10-018-02-004

LB	Low boiling point components are present in sample.
MDL	Method Detection Limit
ND	Not detected at or above the MDL.
RPD	Relative Percent Difference

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4407221510

CHAIN OF CUSTODY

No. 00300 Page 1 of 1

CONSULTANT'S NAME	ADDRESS	CITY	STATE	ZIP CODE
ACLSTO ENGINEERING	1777 Oakland Blvd Ste 200	Walnut Creek		94596

BP SITE NUMBER	BP CORNER ADDRESS/CITY	CONSULTANT PROJECT NUMBER
BP11117	7210 Bancroft Ave Oakland	10-018-02-004

CONSULTANT PROJECT MANAGER	PHONE NUMBER	FAX NUMBER	CONSULTANT CONTRACT NUMBER
Bill Howell	510 295 1650		
BP CONTACT	**BP ADDRESS**	**PHONE NUMBER**	**FAX NO.**
Scott Hooton			
LAB CONTACT	**LABORATORY ADDRESS**	**PHONE NUMBER**	**FAX NO.**

SAMPLED BY (Please Print Name)	SAMPLED BY (Signature)	SHIPMENT DATE	SHIPMENT METHOD
DAN Bird	D J Bird	7-22-94	Dave Courier

TAT: ☐ 24 Hours ☐ 48 Hours ☐ 1 Week ☐ Standard 2 Weeks

AIRBILL NUMBER

ANALYSIS REQUIRED

SAMPLE DESCRIPTION	COLLECTION DATE / TIME	MATRIX SOIL/WATER	CONTAINERS NO.	CONTAINERS TYPE (VOL.)	PRESERVATIVE LAB SAMPLE #	Acl	TPH GBTEX	COMMENTS
S-1 1150	7/22/94	W	3	VOA	35942.2		X	
S-2 1212					35943.0		X	
S-3 1235					35944.9		X	
S-4 1255					35945.7		X	
S-5 1300					35946.5		X	
S-6 1310			1		35947.3		X	

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
D J Bird	7/22/94	1400	Ed Kelly Roe	7/22/94	1400
Ed Kelly Roe	7/22/94	1800	D Q DALE	7/22/94	1800

ADDITIONAL COMMENTS

10/4

CLV-16722

Distribution: White - Original (with Data)
Yellow - BP
Pink - Lab
Blue - Consultant Field Staff