



BP OIL

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

March 24, 1994

Alameda County Health Care Services Agency
Attention Mr. Barney Chan
80 Swan Way, Room 200
Oakland, CA 94621

RE: BP Oil Site No. 11117
7210 Bancroft Avenue
Oakland, CA

Dear Mr. Chan:

Scott Hooton

Enclosed please find a report entitled Groundwater Monitoring and Sampling Report, dated February 3, 1994. You should note that a product recovery canisters has been placed in MW-2, so that product may be collected as it accumulates in the well. We are currently emptying the canister every two to three weeks. We will include a summary of our product recovery efforts in the next quarterly report.

Please give me a call at your convenience should you have any additional questions or concerns. I can be reached at (206) 251-0689.

Sincerely,

Scott Hooton

Scott T. Hooton
Environmental Resources Management

attachment

cc: site file
B. Nagle - Alisto Engineering Group
S. Kellstedt - HETI
Mr. E. So, RWQCB, 2101 Webster Street, Suite 500,
Oakland, CA 94612 (w/attachment)
Mr. R.B. Barth, Bancroft Investment Co., 9454 Wilshire
Boulevard, Beverly Hills, CA 90212 (w/attachment)

FEB 11 1994

GROUNDWATER MONITORING AND SAMPLING REPORT

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

Project No. 10-018-02-002

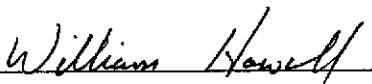
Prepared for:


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

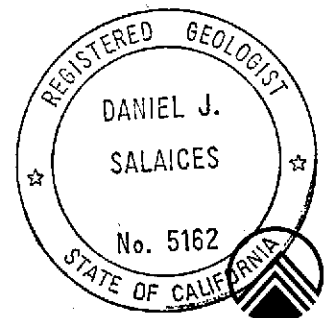
Prepared by:

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

February 3, 1994


**William Howell
Project Manager**


**Daniel Salaices
Registered Geologist**



GROUNDWATER MONITORING AND SAMPLING REPORT

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

Project No. 10-018-02-002

February 3, 1994

INTRODUCTION

This report presents the results and findings of the December 27, 1993 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.

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)	LAB
MW-1	01/05/92	49.81	33.16	0.00	18.65	57000	50000	2400	1000	1100	3100	ND	--
MW-1	01/10/92	49.81	33.16	0.00	18.65	--	--	--	--	--	--	--	--
MW-1	06/05/92	49.81	29.01	0.00	20.80	31000	--	2800	2100	800	2300	--	--
MW-1	07/24/92	49.80	29.45	0.00	20.35	--	--	--	--	--	--	--	--
MW-1	07/27/92	49.80	29.45	0.00	20.35	--	--	--	--	--	--	--	--
MW-1	09/15/92	49.80	30.53	0.00	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	0.00	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	0.00	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	0.00	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	0.00	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-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	0.00	21.01	11000	--	2000	180	490	1900	--	--
MW-2	07/24/92	51.07	30.72	0.00	20.35	--	--	--	--	--	--	--	--
MW-2	07/27/92	51.07	30.52	0.00	20.55	--	--	--	--	--	--	--	--
MW-2	09/15/92	51.07	31.56	0.00	19.51	75000	3200 (c)	2000	6500	2300	13000	--	ANA
MW-2	12/15/92	51.07	32.40	0.00	18.67	34000	1600 (c)	6200	8900	2000	7900	--	ANA
MW-2	03/15/93	51.07	25.14	0.00	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-3	01/05/92	49.95	33.69	0.00	16.26	7400	4000	790	23	210	40	ND	--
MW-3	01/10/92	50.00	33.74	0.00	16.26	--	--	--	--	--	--	--	--
MW-3	06/05/92	50.00	29.65	0.00	20.35	2000	--	130	5.3	93	20	--	--
MW-3	07/24/92	49.95	30.14	0.00	19.81	--	--	--	--	--	--	--	--
MW-3	07/27/92	49.95	30.14	0.00	19.81	--	--	--	--	--	--	--	--
MW-3	09/15/92	49.95	31.07	0.00	18.88	450	ND<50	56	3.1	34	7.1	--	ANA
MW-3	12/15/92	49.95	31.93	0.00	18.02	12000	710 (c)	940	ND<50	310	120	--	ANA
MW-3	03/15/93	49.95	25.71	0.00	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	0.00	24.15	150	ND<50	3.6	ND<0.5	0.9	1.3	--	PACE
MW-3	09/23/93	49.95	29.18	0.00	20.77	--	--	--	--	--	--	--	--
MW-3	09/24/93	--	--	--	--	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	--	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

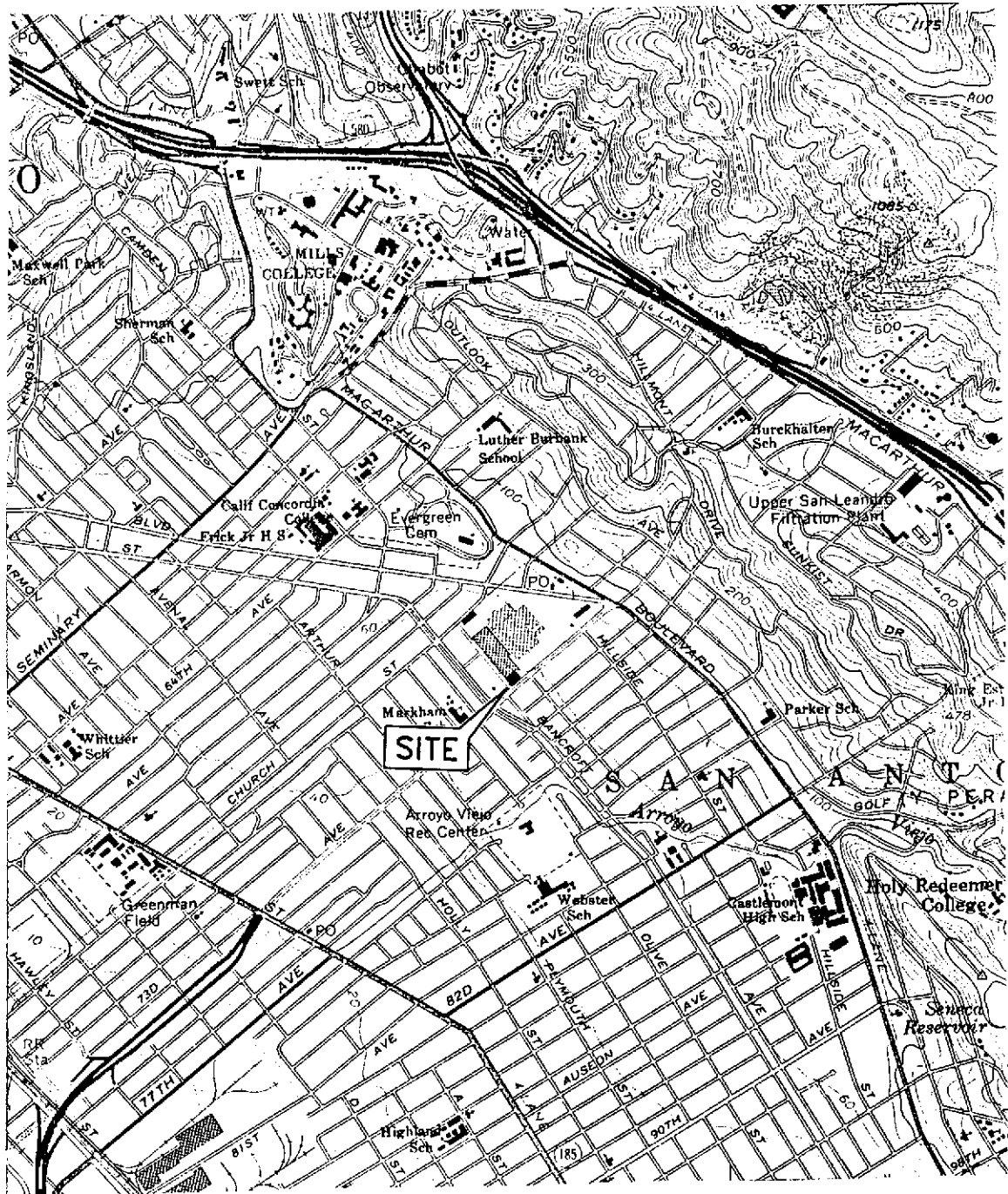
WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ppb)	TPH-D (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	Organic Lead (ppb)	LAB
MW-4	07/24/92	50.76	30.02	0.00	20.74	42000	---	3200	3600	1400	4100	---	---
MW-4	07/27/92	50.76	30.02	0.00	20.74	---	---	---	---	---	---	---	---
MW-4	09/15/92	50.76	31.14	0.00	19.62	55000	1700 (c)	7600	13000	2800	9500	---	ANA
MW-4	12/15/92	50.76	31.98	0.00	18.78	36000	2200 (c)	3700	4700	1200	4000	---	ANA
MW-4	03/15/93	50.76	25.34	0.00	25.42	69000	1200	7600	15000	2500	11000	---	PACE
MW-4	06/07/93	50.76	25.67	0.00	25.09	73000	2500	10000	19000	3400	14000	---	PACE
MW-4	09/23/93	50.76	29.37	0.00	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-6	07/24/92	50.32	30.63	0.00	19.69	ND	---	1.6	ND	ND	ND	---	---
MW-6	07/27/92	50.32	30.63	0.00	19.69	---	---	---	---	---	---	---	---
MW-6	09/15/92	50.32	31.52	0.00	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	0.00	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	0.00	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	0.00	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	0.00	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
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

ABBREVIATIONS:

TPH-G Total petroleum hydrocarbons as gasoline
 TPH-D Total petroleum hydrocarbons as diesel
 B Benzene
 T Toluene
 E Ethylbenzene
 X Total xylenes
 ppb Parts per billion
 ND Not detected above reported detection limit
 --- Not measured/analyzed/available
 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.



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

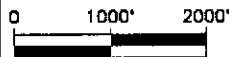


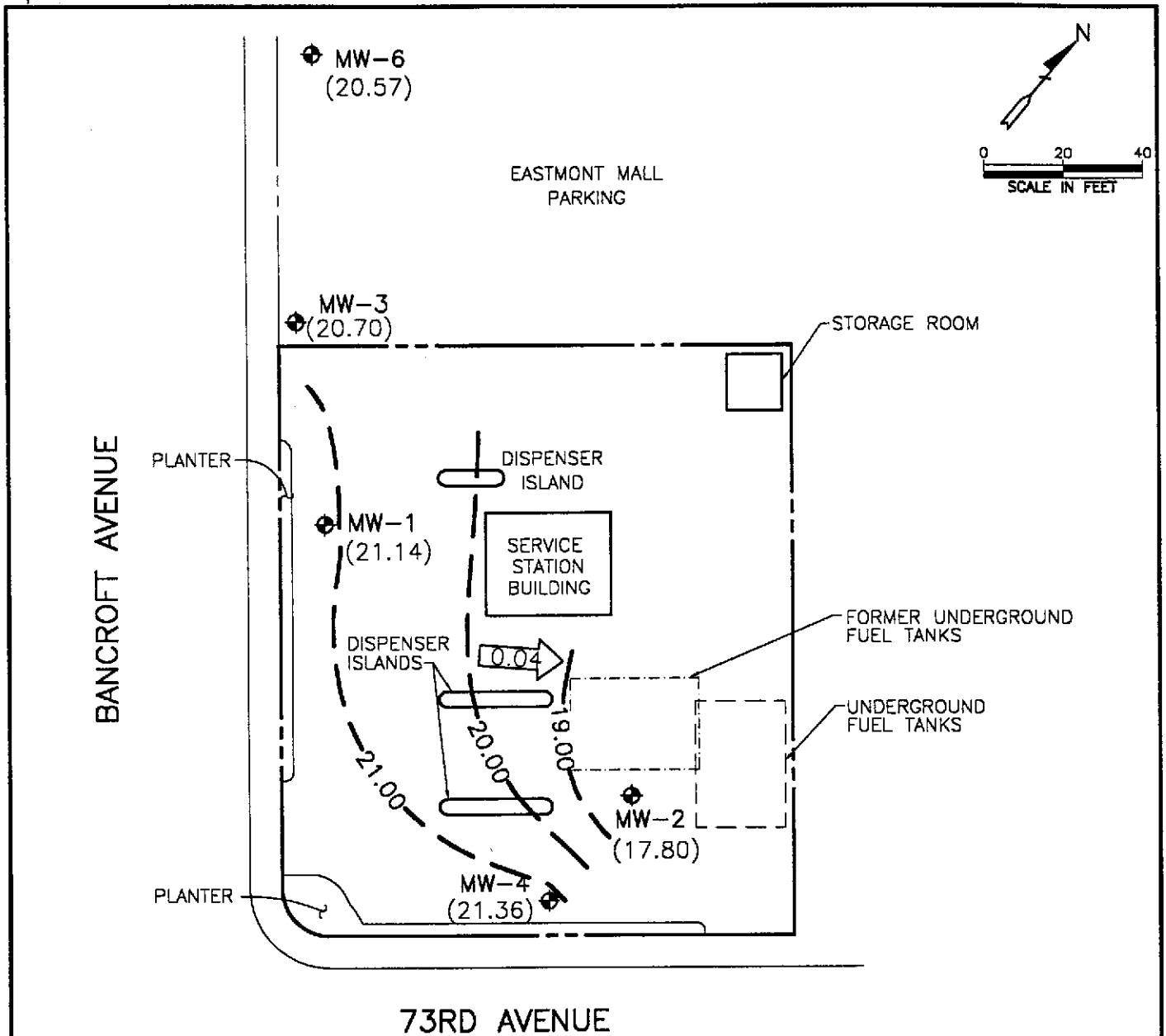
FIGURE 1

SITE VICINITY MAP

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



ALISTO ENGINEERING GROUP
 WALNUT CREEK, CALIFORNIA



LEGEND



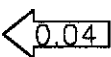
-  GROUNDWATER MONITORING WELL
 (17.80) GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
-  19.00 GROUNDWATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL (CONTOUR INTERVAL-1.00 FOOT)
-  0.04 CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT

FIGURE 2

POTENTIOMETRIC GROUNDWATER ELEVATION CONTOUR MAP

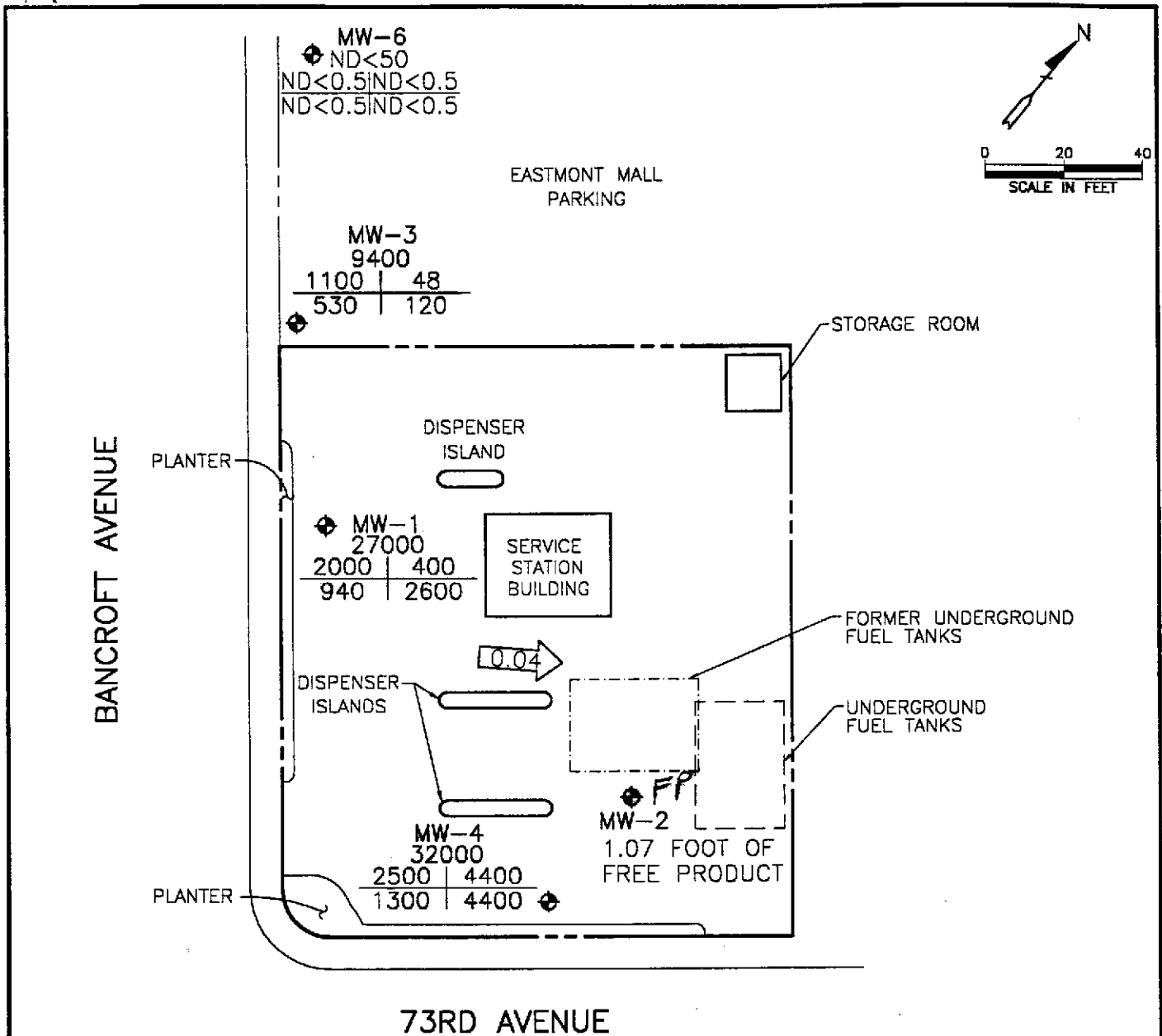
DECEMBER 27, 1993

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 CONCENTRATION OF CONSTITUENTS IN PARTS PER BILLION
- B | T
- E | X
- TPH-G TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
- B BENZENE
- T TOLUENE
- E ETHYLBENZENE
- X TOTAL XYLENES
- ND NOT DETECTED ABOVE REPORTED DETECTION LIMIT
- ← 0.04 CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT

FIGURE 3

CONCENTRATIONS OF PETROLEUM HYDROCARBONS IN GROUNDWATER

DECEMBER 27, 1993

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

B. i. r. c. h
 Technical
 Services

Field Report / Data Sheet

Groundwater Sampling Groundwater Monitoring Well Development Drill Support Stockpile Sampling

116 Liberty st Santa Cruz, Ca 95060 (408) 459-0718	Firm: ALISFD	Date: 12/27/93	Station #: B1117	Day: (M) Tu W Th F
	Project Number: 10-018-02-02	Field Technician: DJBRCI	Address: 7210 Bancroft Ave Oakland	Weather: Clear

DT Worder	Well ID	Lock	Exp Cap	Total Depth (feet)	1st Depth to Water (feet)	2nd Depth to Water (feet)	Depth to Product (feet)	Product Thickness	Comments
	5	MW-1	ck	ck	39.52	28.66	28.66		
3	MW-2	ck	ck	NM	34.07	34.07	33.00	1.07	Product 2"
2	MW-3	ck	ck		29.25	29.25			2
4	MW-4	ck	ck		29.40	29.40			2
									No MW-5
1	MW-6	ck	ck		29.75	29.75			2

Notes: 9 drums of soil cuttings dated 7-92 existed at site upon arrival. One drum of groundwater was left at the site upon completion.

CALIBRATION pH 7.00 7.00 pH 4.00 4.00 pH 10.00 _____ at 71 °F

Birch Technical Services

GROUNDWATER SAMPLING FORM

116 Liberty Street
 Santa Cruz, Ca 95060
 (408) 459-0718

Well Number: MW-4

Project Number: 10-018-02-02

Sample Type: Groundwater Trip Blank Duplicate of _____

Station Number: 1117

Date: 12/29/93

Sampled by: Dan Birch

WELL PURGING

PURGE VOLUME

Casing Diameter (inches)
 Volume Factors:

2" 03" 04" 04.5" 06" 0
 0.1632 0.3672 0.6528 0.826 1.469

Total Depth of Well 40.0

Initial Water Level: 29.40

PURGE METHOD:

Total Volume Purged: 5.25

Time Elapsed: 10 min

Honda Pump
 Disposable Poly Tubing (____ ft)
 Speed Winch
 Disposable PVC Bailer(s) (____)
 Other _____

Calculated Purge Volume:

$$\frac{40.0}{\text{Total Depth}} - \frac{29.40}{\text{Water Level}} = \frac{10.6}{\text{Well Vol. Fac.}} \times \frac{.16}{\text{Well Vol. Fac.}} = \frac{1.69}{\text{Well Vol. Fac.}} \times \frac{3}{\text{\# of vol. to Purge}} = \frac{5.08}{\text{Calculated Purge Volume}} \text{ (gallons)}$$

COMMENTS:

Subjective Analysis Prior to Purging

SHEEN Depth to Product Product Thickness
 O Yes No None (ft) None (ft)

SAMPLING METHOD

PVC Disposable Bailer
 Teflon Bailer
 Other: _____

Time Sampled,
 (24 hour clock)
1405

WELL SAMPLING PARAMETERS

Gallons Removed	Time	pH	Temp °F	Cond. (umhos/cm)
2	1356	6.59	60.2	1.10
3.5	1401	6.56	60.0	1.12
5.25	1405	6.51	59.9	1.14

Analysis Required	No. of	Container Type	Preservatives
EPA 601		VOA's	
<input checked="" type="checkbox"/> TPH-G/BTEX	3	VOA's	HCl
TPH- Diesel		Amber Liter	
TOG 5520 BF		Amber Liter	H ₂ SO ₄

APPENDIX B

LABORATORY REPORT AND CHAIN OF CUSTODY RECORD



REPORT OF LABORATORY ANALYSIS

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

January 07, 1994
 PACE Project Number: 431229504

Attn: Mr. Bill Howell

Client Reference: BP Station # 11117/10-018-02-02

PACE Sample Number: 70 0222214
 Date Collected: 12/27/93
 Date Received: 12/29/93
 Client Sample ID: MW-1

<u>Parameter</u>	<u>Units</u>	<u>MDL</u>	<u>DATE ANALYZED</u>
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ORGANIC ANALYSIS

<u>PURGEABLE FUELS AND AROMATICS</u>			
TOTAL FUEL HYDROCARBONS, (LIGHT):			12/30/93
Purgeable Fuels, as Gasoline (EPA 8015M)	ug/L	2500	27000
PURGEABLE AROMATICS (BTXE BY EPA 8020M):			12/30/93
Benzene	ug/L	25	2000
Toluene	ug/L	25	400
Ethylbenzene	ug/L	25	940
Xylenes, Total	ug/L	25	2600



REPORT OF LABORATORY ANALYSIS

Mr. Bill Howell
Page 2

January 07, 1994
PACE Project Number: 431229504

Client Reference: BP Station # 11117/10-018-02-02

PACE Sample Number: 70 0222222
Date Collected: 12/27/93
Date Received: 12/29/93
Client Sample ID: MW-3

<u>Parameter</u>	<u>Units</u>	<u>MDL</u>	<u>DATE ANALYZED</u>
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ORGANIC ANALYSIS

PURGEABLE FUELS AND AROMATICS				
TOTAL FUEL HYDROCARBONS, (LIGHT):				
Purgeable Fuels, as Gasoline (EPA 8015M)	ug/L	50	9400	01/04/94
PURGEABLE AROMATICS (BTXE BY EPA 8020M):				
Benzene	ug/L	5.0	1100	01/04/94
Toluene	ug/L	5.0	48	01/04/94
Ethylbenzene	ug/L	5.0	530	01/04/94
Xylenes, Total	ug/L	5.0	120	01/04/94

Mr. Bill Howell
 Page 3

January 07, 1994
 PACE Project Number: 431229504

Client Reference: BP Station # 11117/10-018-02-02

PACE Sample Number: 70 0222230
 Date Collected: 12/27/93
 Date Received: 12/29/93
 Client Sample ID: MW-4

<u>Parameter</u>	<u>Units</u>	<u>MDL</u>	<u>DATE ANALYZED</u>
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ORGANIC ANALYSIS

PURGEABLE FUELS AND AROMATICS			
TOTAL FUEL HYDROCARBONS, (LIGHT):		-	01/04/94
Purgeable Fuels, as Gasoline (EPA 8015M) ug/L	2500	32000	01/04/94
PURGEABLE AROMATICS (BTXE BY EPA 8020M):			
Benzene ug/L	25	2500	01/04/94
Toluene ug/L	25	4400	01/04/94
Ethylbenzene ug/L	25	1300	01/04/94
Xylenes, Total ug/L	25	4400	01/04/94



REPORT OF LABORATORY ANALYSIS

Mr. Bill Howell
Page 4

January 07, 1994
PACE Project Number: 431229504

Client Reference: BP Station # 11117/10-018-02-02

PACE Sample Number: 70 0222249
Date Collected: 12/27/93
Date Received: 12/29/93
Client Sample ID: MW-6

<u>Parameter</u>	<u>Units</u>	<u>MDL</u>	<u>DATE ANALYZED</u>
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ORGANIC ANALYSIS

PURGEABLE FUELS AND AROMATICS				
TOTAL FUEL HYDROCARBONS, (LIGHT):				
Purgeable Fuels, as Gasoline (EPA 8015M)	ug/L	50	ND	12/31/93
PURGEABLE AROMATICS (BTXE BY EPA 8020M):				
Benzene	ug/L	0.5	ND	12/31/93
Toluene	ug/L	0.5	ND	12/31/93
Ethylbenzene	ug/L	0.5	ND	12/31/93
Xylenes, Total	ug/L	0.5	ND	12/31/93

Mr. Bill Howell
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January 07, 1994
 PACE Project Number: 431229504

Client Reference: BP Station # 11117/10-018-02-02

PACE Sample Number: 70 0222257
 Date Collected: 12/27/93
 Date Received: 12/29/93
 Client Sample ID: QC-1

<u>Parameter</u>	<u>Units</u>	<u>MDL</u>	<u>DATE ANALYZED</u>
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ORGANIC ANALYSIS

PURGEABLE FUELS AND AROMATICS			
TOTAL FUEL HYDROCARBONS, (LIGHT):			
Purgeable Fuels, as Gasoline (EPA 8015M)	ug/L	500	21000
PURGEABLE AROMATICS (BTXE BY EPA 8020M):			
Benzene	ug/L	5.0	1700
Toluene	ug/L	5.0	380
Ethylbenzene	ug/L	5.0	830
Xylenes, Total	ug/L	5.0	2400

Mr. Bill Howell
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January 07, 1994
 PACE Project Number: 431229504

Client Reference: BP Station # 11117/10-018-02-02

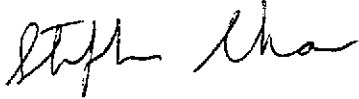
PACE Sample Number: 70 0222265
 Date Collected: 12/27/93
 Date Received: 12/29/93
 Client Sample ID: QC-2

<u>Parameter</u>	<u>Units</u>	<u>MDL</u>	<u>DATE ANALYZED</u>
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ORGANIC ANALYSIS

PURGEABLE FUELS AND AROMATICS			
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

These data have been reviewed and are approved for release.



for Darrell C. Cain
 Regional Director

Mr. Bill Howell
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FOOTNOTES
for pages 1 through 6

January 07, 1994
PACE Project Number: 431229504

Client Reference: BP Station # 11117/10-018-02-02

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

REPORT OF LABORATORY ANALYSIS

Mr. Bill Howell
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QUALITY CONTROL DATA

January 07, 1994
 PACE Project Number: 431229504

Client Reference: BP Station # 11117/10-018-02-02

PURGEABLE FUELS AND AROMATICS
 Batch: 70 27443
 Samples: 70 0222214, 70 0222249

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

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference Value	Recv	Dup1 Recv	RPD
Purgeable Fuels, as Gasoline (EPA 8015M)	ug/L	50	1000	102%	101%	0%
Benzene	ug/L	0.5	40	95%	93%	2%
Toluene	ug/L	0.5	40	100%	94%	6%
Ethylbenzene	ug/L	0.5	40	101%	93%	8%
Xylenes, Total	ug/L	0.5	120	99%	92%	7%

Mr. Bill Howell
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QUALITY CONTROL DATA

January 07, 1994
 PACE Project Number: 431229504

Client Reference: BP Station # 11117/10-018-02-02

PURGEABLE FUELS AND AROMATICS
 Batch: 70 27444
 Samples: 70 0222257, 70 0222265

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

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference	Dupl		
			Value	Recv	Recv	RPD
Purgeable Fuels, as Gasoline (EPA 8015M)	ug/L	50	1000	98%	85%	14%
Benzene	ug/L	0.5	100	88%	91%	3%
Toluene	ug/L	0.5	100	90%	93%	3%
Ethylbenzene	ug/L	0.5	100	87%	87%	0%
Xylenes, Total	ug/L	0.5	300	90%	91%	1%

Mr. Bill Howell
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QUALITY CONTROL DATA

January 07, 1994
 PACE Project Number: 431229504

Client Reference: BP Station # 11117/10-018-02-02

PURGEABLE FUELS AND AROMATICS

Batch: 70 27509
 Samples: 70 0222222, 70 0222230

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
Methyl tert-Butyl Ether (MTBE)	ug/L	5.0	ND
Xylene (total)	ug/L	0.5	ND

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference Value	Recv	Dupl Recv	RPD
Purgeable Fuels, as Gasoline (EPA 8015M)	ug/L	50	1000.0	98%	91%	7%
Benzene	ug/L	0.5	40.0	97%	94%	3%
Toluene	ug/L	0.5	40.0	99%	96%	3%
Ethylbenzene	ug/L	0.5	40.0	99%	97%	2%
Methyl tert-Butyl Ether (MTBE)	ug/L	5.0	40.0	94%	100%	6%
Xylene (total)	ug/L	0.5	120.0	97%	94%	3%

Mr. Bill Howell
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FOOTNOTES
for pages 8 through 10

January 07, 1994
PACE Project Number: 431229504

Client Reference: BP Station # 11117/10-018-02-02

MDL Method Detection Limit
ND Not detected at or above the MDL.
RPD Relative Percent Difference



CHAIN OF CUSTODY

No. 051372 Page 1 of 1 431229.504

CONSULTANT'S NAME: Alisto ADDRESS: 1777 OAKLAND Blvd. Suite 200 Walnut Creek CA CITY: Walnut Creek STATE: CA ZIP CODE:

BP SITE NUMBER: 4409 BPL1117 BP CORNER ADDRESS/CITY: 7210 Bancroft Ave OAKLAND CONSULTANT PROJECT NUMBER: 10-018-02-02

CONSULTANT PROJECT MANAGER: Bill Howell PHONE NUMBER: 510 295 1650 FAX NUMBER: 510 295 1825 CONSULTANT CONTRACT NUMBER:

BP CONTACT: Scott Hooten BP ADDRESS: 16400 South Center PHONE NUMBER: 206 394 5243 FAX NO.: 206-394-5280

LAB CONTACT: Jim Oyes LABORATORY ADDRESS: 11 Digital Drive Novato PHONE NUMBER: FAX NO.:

SAMPLED BY (Please Print Name): DAN BIECH SAMPLED BY (Signature): [Signature] SHIPMENT DATE: 12-29-93 SHIPMENT METHOD: COURIER

TAT: 24 Hours 48 Hours 1 Week Standard 2 Weeks ANALYSIS REQUIRED: AIRBILL NUMBER:

SAMPLE DESCRIPTION	COLLECTION DATE	MATRIX SOIL/WATER	CONTAINERS		PRESERVATIVE	TPH											COMMENTS		
			NO.	TYPE (VOL.)			LAB SAMPLE #	Gas											
MW-1	12/31	Water	3	VOL	HCL	X	22221.4												
MW-3	1257					X	22222.2												
MW-4	1405					X	22223.0												
MW-6	1260					X	22224.9												
QC-1	1335					X	22225.7												
QC-2						X	22226.5												

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	ADDITIONAL COMMENTS
<u>[Signature]</u> BTS	<u>12/29/93</u>	<u>0800</u>	<u>Marys Reid</u>	<u>12/29/93</u>	<u>0800</u>	<u>SP</u> <u>F973490 PAGE</u>
<u>Marys Reid</u>	<u>12/29/93</u>	<u>1417</u>	<u>Arthur Pace</u>	<u>12/29/93</u>	<u>1417</u>	