BP OIL

– Eva

BP Oil Marketing Co.
Aetna Bldg., Suite 360
2868 Prospect Park Drive
Rancho Cordova, CA 95670-6020
(916) 631-0733

August 27, 1992

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

RE: BP OIL FACILITY #11133
2220 98TH AVENUE
OAKLAND, CA

Dear Mr. Hiett,

Attached please find the Quarterly Monitoring and Sampling Report for the above referenced facility. The sampling activity occurred on July 6, 1992.

Please call me at (206) 394-5246 with any questions regarding this submission.

Respectfully,

Peter J. DeSantis

Peter J. DeSantis SML
Environmental Resources Management

PJD:sml

cc: **Barney Chan** - Alameda County Dept. of Environmental Health Services
Brady Nagle - Alisto Engineering
David Baker - Mobil Oil
Site File

TABLE 2

RESULTS OF
LABORATORY ANALYSIS OF GROUND WATER SAMPLES
September 1991

Well ID	Date	TPH-G	B	T	E	X
		(Concentrations in Parts per Billion)				
MW-1	1-24-90	---	---	---	---	---
MW-1	7-09-90	---	---	---	---	---
MW-1	3-08-91	---	---	---	---	---
MW-1	6-28-91	---	---	---	---	---
MW-1	9-26-91	---	---	---	---	---
MW-2	1-24-90	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5
MW-2	7-09-90	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5
MW-2	3-08-91	ND<50	0.6	0.9	ND<0.3	ND<0.3
MW-2	6-28-91	ND<50	1.2	0.7	ND<0.3	0.5
MW-2	9-26-91	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.3
MW-3	1-24-90	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5
MW-3	7-09-90	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5
MW-3	3-08-91	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.3
MW-3	6-28-91	ND<50	2.1	1.1	ND<0.3	0.7
MW-3	9-26-91	ND<50	0.4	1.3	0.4	1.6
AW-1	7-09-90	66	1	ND<0.5	ND<0.5	ND<0.5
AW-1	3-08-91	ND<50	1,500	69	100	83
AW-1	6-28-91	1,700	860	53	38	51
AW-1	9-26-91	3,500	1,500	120	100	170

Notes:

TPH-G = Total Petroleum Hydrocarbons as Gasoline
B = Benzene
T = Toluene
E = Ethylbenzene
X = Total Xylenes
ND = Not Detected at Method Detection Limit
--- = No sample collected from MW-1 and RW-1 due to the presence of free product

Free Product in well MW-1 and RW-1

1-24-90

7-9-90

3-8-91

6-28-91

9-28-91

4-1-92

7-6-92

8/26/92

BP · 2220 - 98thV

GRS passive removal system.

like a wide -

VET

Zone of influence

RAP - finalize in 2 months.

forms, and copies of manifests and/or bill of lading.

4. Recommendations or plans for additional investigative work or remediation.

All reports and proposals must be submitted under seal of a California Registered Geologist, Certified Engineering Geologist, or Registered Civil Engineer. Please include a statement of qualifications for each lead professional involved with this project.

Please be advised that this is a formal request for technical reports pursuant to California Water Code Section 13267(b). Any extensions of the stated deadlines, or modifications of the required tasks, must be confirmed in writing by either this agency or the RWQCB.

If you have any questions about the contents of this letter, please contact Ms. Eva Chu at (510) 271-4530.

Sincerely,

Scott O. Seery, CHMM
Senior Hazardous Materials Specialist

cc: Richard Hiett, RWQCB
Mark Thomson, Alameda County District Attorney's Office
Edgar Howell/files

Melrose

QUARTERLY GROUNDWATER MONITORING AND SAMPLING REPORT

Prepared for

BP Oil Company Service Station No. 11133
2220 98th Avenue
Oakland, California

Project No. 10-025

Prepared by

Alisto Engineering Group
1000 Burnett Avenue, Suite 150
Concord, California
(510) 798-4070

July 29, 1992

Ted Morse (for)

Brady Nagle
Project Manager

Al Sevilla, P.E.
Principal

QUARTERLY GROUNDWATER MONITORING AND SAMPLING REPORT

BP Oil Company Service Station No. 11133
2220 98th Avenue
Oakland, California

Project No. 10-025

July 29, 1992

INTRODUCTION

This report presents the results and findings of the July 6, 1992 quarterly groundwater monitoring and sampling conducted by Alisto Engineering Group at BP Oil Service Station No. 11133, located at 2220 98th Avenue, Oakland, California. A site vicinity map is shown in Figure 1.

FIELD PROCEDURES

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

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

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

SAMPLING AND ANALYTICAL RESULTS

The results of the monitoring and laboratory analyses 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 quarterly monitoring event are depicted in Figure 2. Isoconcentration maps of total petroleum hydrocarbons as gasoline (TPH-G) and

benzene are shown in Figures 3 and 4. Laboratory reports and the chain of custody record are presented in Appendix B.

SUMMARY OF FINDINGS

The findings of the July 3, 1992 ground water monitoring and sampling event are summarized below:

- Free product of up to a thickness of 0.41 foot was detected in wells MW-1 and RW-1.
- Groundwater elevation data indicate a gradient of approximately 0.04 ft./ft. toward the center of the site.
- Dissolved-phase TPH-G and benzene, toluene, ethylbenzene, and total xylenes (BTEX) constituents were detected in Monitoring Wells AW-1, AW-3, AW-4, and AW-5 at concentrations of up to 38,000 parts per billion (ppb) TPH-G and 16,000 ppb benzene.
- TPH-G and BTEX constituents were not detected above reported detection limits in samples collected from Monitoring Wells MW-2, MW-3, AW-2, and AW-6 through AW-8.

N

0 1000' 2000'

SOURCE:
USGS MAP, OAKLAND EAST AND SAN LEANDRO QUADRANGLE, CALIFORNIA. 7.5 MINUTE SERIES. 1959. PHOTOREVERSED 1980.

FIGURE 1

SITE VICINITY MAP

BP OIL SERVICE STATION NO. 11133
2220 98TH AVENUE
OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-025

ALISTO ENGINEERING GROUP
CONCORD, CALIFORNIA

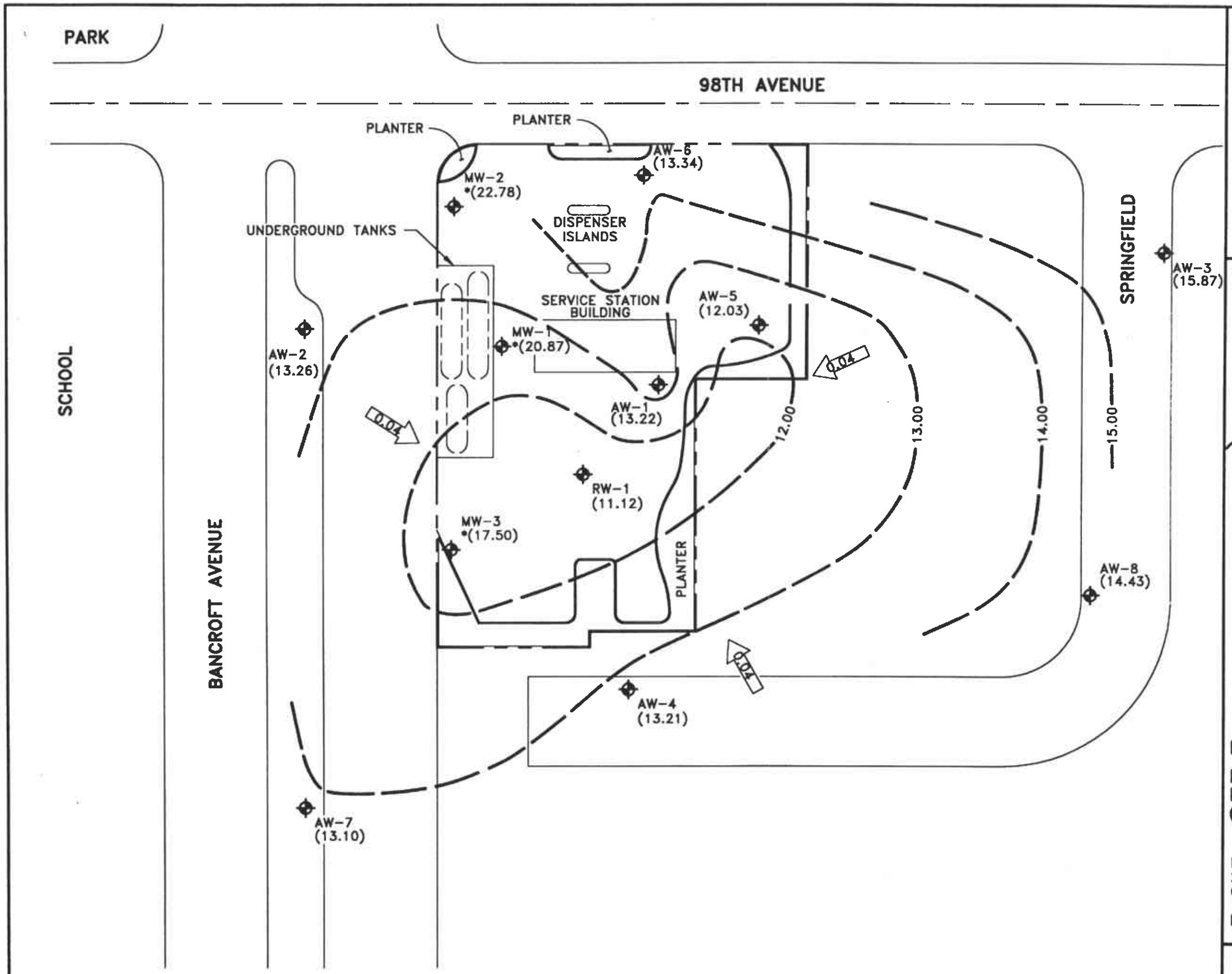


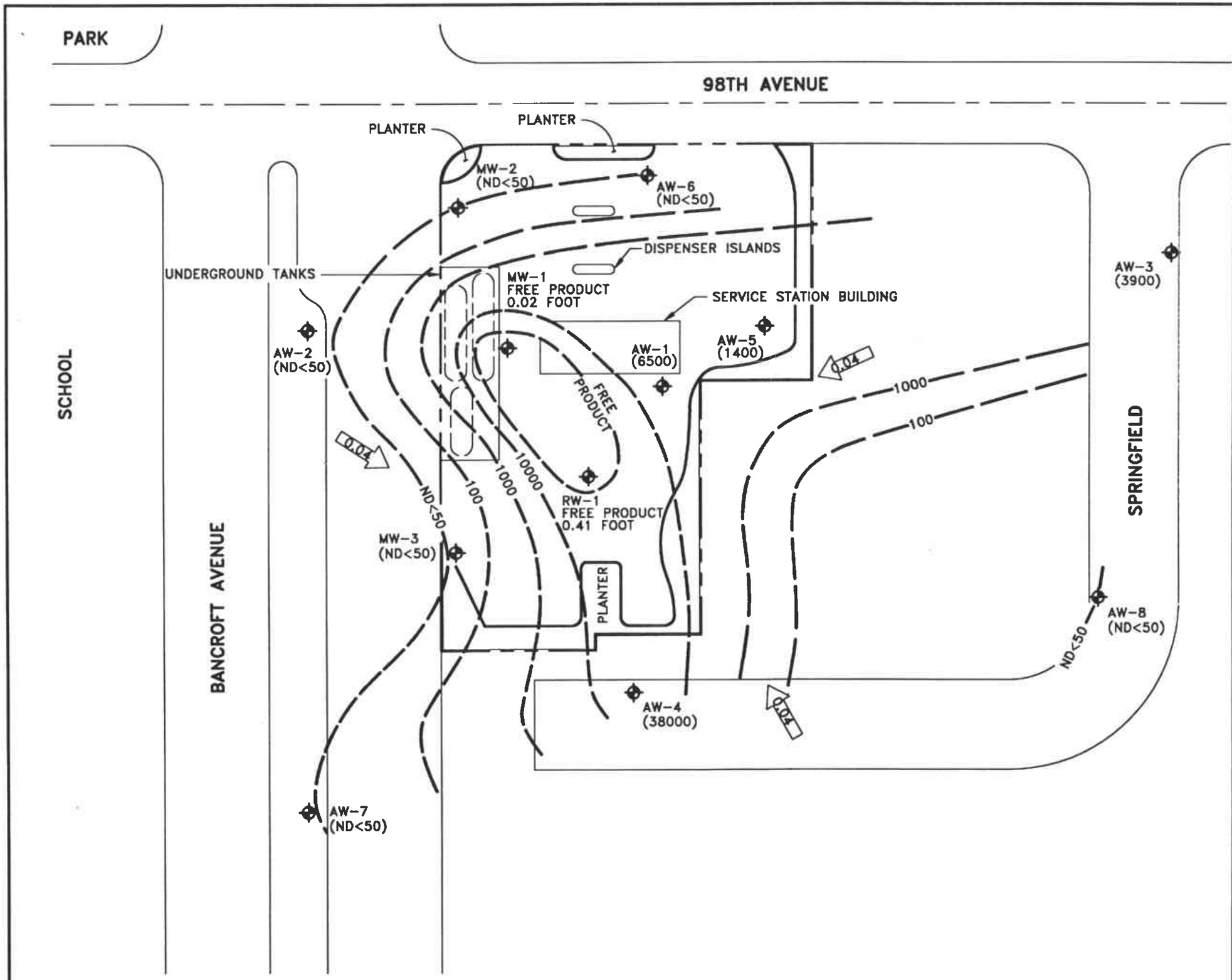
FIGURE 2

POTENTIOMETRIC GROUNDWATER ELEVATION CONTOUR MAP (JULY 6, 1992)

BP OIL SERVICE STATION NO. 11133
2220 98TH AVENUE
OAKLAND, CALIFORNIA

PROJECT NO. 10-025

ALISTO ENGINEERING GROUP
CONCORD, CALIFORNIA



N

0 30 60

SCALE IN FEET

LEGEND:

- ◈ GROUNDWATER MONITORING WELLS
- (3900) TOTAL PETROLEUM HYDROCARBONS AS GASOLINE CONCENTRATION IN PARTS PER BILLION
- 1000 TOTAL PETROLEUM HYDROCARBONS AS GASOLINE ISOCONCENTRATION CONTOUR IN PARTS PER BILLION
- 0.04 CALCULATED GROUNDWATER GRADIENT DRECTION AND MAGNITUDE IN FOOT PER FOOT

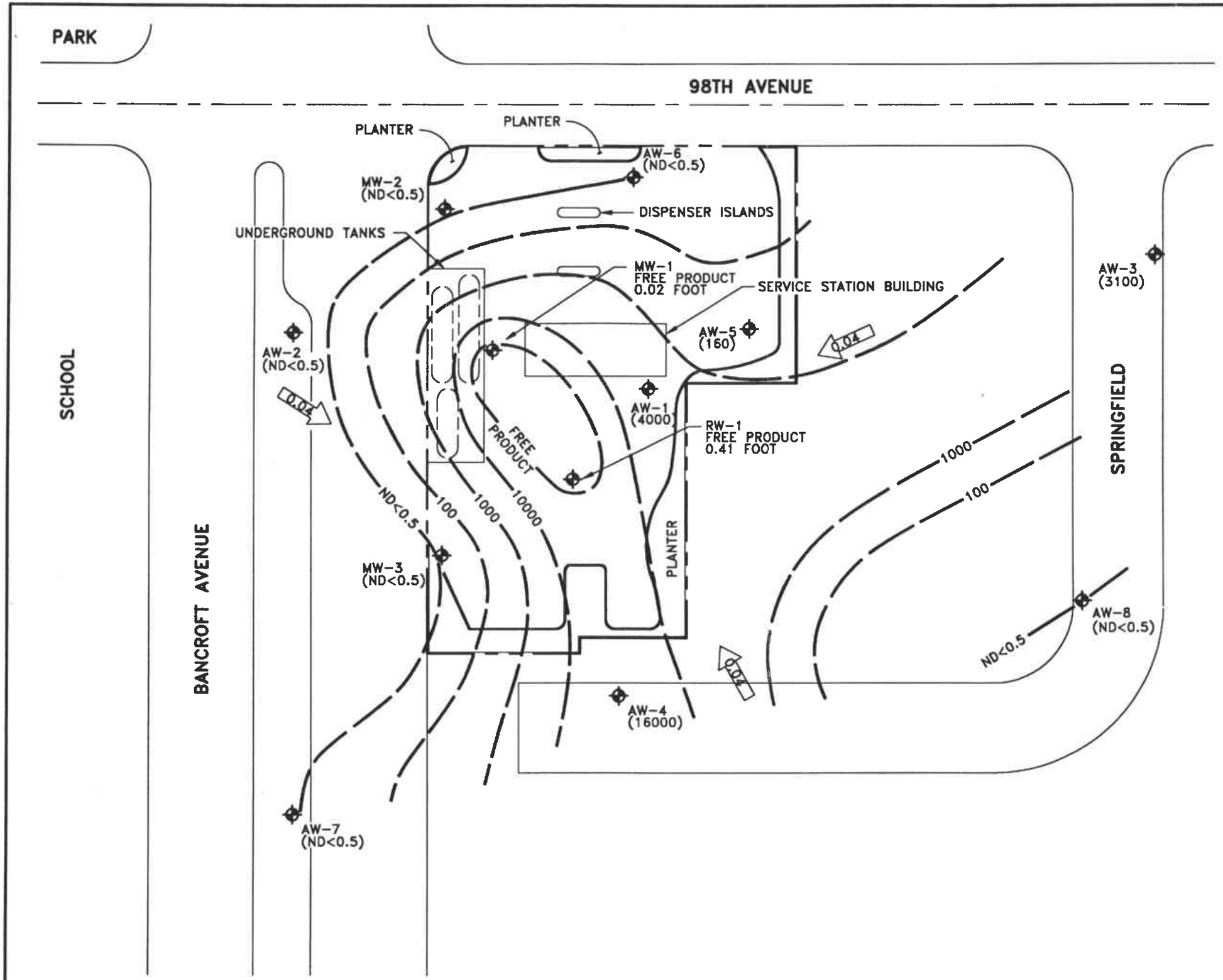
FIGURE 3

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE ISOCONCENTRATION MAP (JULY 6, 1992)

BP OIL SERVICE STATION NO. 11133
2220 98TH AVENUE
OAKLAND, CALIFORNIA

PROJECT NO. 10-025

ALISTO ENGINEERING GROUP
CONCORD, CALIFORNIA



N

0 30 60

SCALE IN FEET

LEGEND:

- ◆ GROUNDWATER MONITORING WELLS
- (3100) BENZENE CONCENTRATION IN PARTS PER BILLION
- 100 BENZENE ISOCONCENTRATION CONTOUR IN PARTS PER BILLION
- 0.04 CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT

FIGURE 4

BENZENE ISOCONCENTRATION CONTOUR MAP (JULY 6, 1992)

BP OIL SERVICE STATION NO. 11133
2220 98TH AVENUE
OAKLAND, CALIFORNIA

PROJECT NO. 10-025

ALISTO ENGINEERING GROUP
CONCORD, CALIFORNIA

R11133-4.DWG 7-23-92 .AW1 1=30

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
BP OIL COMPANY SERVICE STATION NO. 11133
2220 98th AVENUE, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-025

WELL ID	DATE OF SAMPLING/	CASING ELEVATION (a)	DEPTH TO WATER	PRODUCT THICKNESS	GROUNDWATER ELEVATION (b)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	LAB
MW-1	04/05/91	34.46	----	----	---	----	----	----	----	----	---
MW-1	04/01/92	34.46	11.25	0.01	23.22	FP	FP	FP	FP	FP	---
MW-1	07/06/92	34.46	13.61	0.02	20.87	FP	FP	FP	FP	FP	---
MW-2	04/05/91	35.50	16.62	0.00	18.88	ND<50	0.6	0.9	ND<0.3	ND<0.3	SUP
MW-2 (c)	04/01/92	35.50	11.25	0.00	24.25	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	APP
MW-2	07/06/92	35.50	12.72	0.00	22.78	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ANA
MW-3	04/05/91	36.53	17.84	0.00	18.69	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.3	SUP
MW-3 (c)	04/01/92	36.53	15.64	0.00	20.89	ND<50	1.4	ND<0.5	ND<0.5	ND<0.5	APP
MW-3	07/06/92	36.53	19.03	0.00	17.50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ANA
AW-1	04/05/91	38.11	25.44	0.00	12.67	4100	1500	69	100	83	SUP
AW-1 (c)	04/01/92	38.11	23.22	0.00	14.89	11000	1800	210	210	490	APP
AW-1	07/06/92	38.11	24.89	0.00	13.22	6500	4000	40	290	530	ANA
AW-2	04/05/91	36.83	22.36	0.00	14.47	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.3	SUP
AW-2 (c)	04/01/92	36.83	20.81	0.00	16.02	130	25	2.3	0.7	2.1	APP
AW-2	07/06/92	36.83	23.57	0.00	13.26	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ANA
AW-3	04/05/91	39.13	23.90	0.00	15.23	5200	980	450	95	310	SUP
AW-3	04/01/92	39.13	22.50	0.00	16.63	4700	890	47	43	110	APP
AW-3	07/06/92	39.13	23.26	0.00	15.87	3900	3100	30	80	99	ANA
AW-4	04/05/91	39.08	25.12	0.00	13.96	110000	40000	13000	2000	5500	SUP
AW-4	04/01/92	39.08	23.56	0.00	15.52	230000	57000	31000	2900	7600	APP
AW-4 (d)	04/01/92	39.08	23.56	0.00	15.52	210000	55000	23000	2900	7000	APP
AW-4	07/06/92	39.08	25.87	0.00	13.21	38000	16000	5400	2000	6100	ANA
AW-5	04/05/91	38.51	25.48	0.00	13.03	420	31	7.5	20	68	SUP
AW-5 (c)	04/01/92	38.51	23.95	0.00	14.56	4000	270	63	190	290	APP
AW-5	07/06/92	38.51	26.48	0.00	12.03	1400	160	ND<2.5	250	58	ANA

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
BP OIL COMPANY SERVICE STATION NO. 11133
2220 98th AVENUE, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-025

WELL ID		DATE OF SAMPLING/	CASING ELEVATION (a)	DEPTH TO WATER	PRODUCT THICKNESS	GROUNDWATER ELEVATION (b)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	LAB
AW-6		04/05/91	37.08	22.48	0.00	14.60	1100	80	19	1.4	230	SUP
AW-6	(c)	04/01/92	37.08	22.50	0.00	14.58	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	APP
AW-6		07/06/92	37.08	22.74	0.00	14.34	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ANA
AW-7		04/05/91	37.60	23.38	0.00	14.22	ND<50	0.4	0.7	ND<0.3	ND<0.3	SUP
AW-7	(c)	04/01/92	37.60	21.92	0.00	15.68	ND<50	ND<0.5	3.2	1.0	5.4	APP
AW-7		07/06/92	37.60	24.50	0.00	13.10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ANA
AW-8		04/05/91	40.86	26.68	0.00	14.18	80	1.9	2.2	0.5	1.3	SUP
AW-8		04/01/92	40.86	25.11	0.00	15.75	73	ND<0.5	0.7	ND<0.5	0.6	APP
AW-8		07/06/92	40.86	26.43	0.00	14.43	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ANA
RW-1		04/05/91	37.73	----	0.00	----	----	----	----	----	----	SUP
RW-1		04/01/92	37.73	22.81	0.30	15.14	FP	FP	FP	FP	FP	---
RW-1		07/06/92	37.73	26.92	0.41	11.12	FP	FP	FP	FP	FP	---

ABBREVIATIONS:

TPH-G	Total Petroleum Hydrocarbons as Gasoline
B	Benzene
T	Toluene
E	Ethylbenzene
X	Xylenes
(ppb)	Parts per Billion
FP	Not sampled due to the presence of free product.
----	Not analyzed/ not available
ND	Not detected above reported detection limits
SUP	Superior Analytical Laboratories, Inc.
APP	Applied Analytical
ANA	Anametrix, Inc.

NOTES:

(a) Top of casing elevations were surveyed to the nearest 0.01 foot above Mean Sea Level.

(b) Groundwater elevations were adjusted assuming a specific gravity of 0.75 for the free product.

(c) Groundwater was monitored on April 1, 1992 and sampled on April 2, 1992.

(d) Duplicate sample.

APPENDIX A

WATER SAMPLING FORMS

Birch Technical Services

Field Report / Data Sheet

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

X Groundwater Sampling O Groundwater Monitoring O Well Development O Drill Support O Stockpile Sampling

Firm:	Date:	Station #:	Day:
ALISTO	7/6/92	BP11133	(M) Tu W Th F
Project Number:	**Field Technician:**	**Address:**	**Weather:**
10-025	DAN BIRCL	2220 98th Ave OAKLAND	High clouds
			Milage: 147 mi

Equipment List:

- X Water Guage (1) day
- X Parameter Kit (1) day
- X Disposable Bailers (14)
- O _____ ( )
- O _____ ( )
- O Plug(s) ( ) (in)
- X Honda Pump (1) day
- X Poly Tubing (69 ft)
- X Dolphin Lock(s) (4)
- O Nitrile Gloves (pair)

Travel Time: 4 hrs
Time at Site: 9 hrs
Total Time: 13 hrs

DTWorder	Well ID	Diam	Lock	Exp Cap	Total Depth (feet)	1st Depth to Water (feet)	2nd Depth to Water (feet)	Depth to Product (feet)	Product Thickness	Comments
	AW-1	2	OK	OK	38.6	24.89	24.89			
	AW-2	2	ok	ok	35.2'	23.57	23.57			
	AW-3	2	ok	ok	35.8'	23.26	2326			
	AW-4	2	ok	ok	32.9'	25.87	25.87			Replaced lock.
	AW-5	4	ok	ok	42.9	26.48	26.48			
	AW-6	4	ok	ok	34.2'	22.74	22.74			
	AW-7	2	ok	ok	32.3'	24.50	24.50'			
	AW-8	2	ok	ok	39.2'	26.43'	26.43			
	MW-1	2	ok	ok	NM	13.61	13.61	13.59	0.02'	Dark oily product. Replaced lock.
	MW-2	2	ok	ok	31.4'	12.72'	12.72'			Replaced lock
	MW-3	2	ok	ok	34.1'	19.03'	19.03'			Replaced lock
	RW-1	6	NO	NO	NM	26.92	26.92		0.41'	PPRS downhole.

Notes:

8:00 - 9:45 Travel to site. Open wells, let breathe, measure DTW, Sample. leave site at 6:30. travel to lab then to office at 9:00

Inv#:

Birch Technical Services

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

GROUND-WATER SAMPLING FORM

Well Number: MW-3

Project Number: 10-025
Station Number: BP11133
Date: 7/6/92

Well Type: XMonitor OExtraction O_____

Sampled by: DAN BIRCH

WELL PURGING

PURGE VOLUME

Casing Diameter (inches)	X2"	O3"	O4"	O4.5"	O6"	O____
Volume Factors:	0.1632	0.3672	0.6528	0.826	1.469	_____

Total Depth of Well (BOW) 34.1
Initial Water Level: 19.03
Total Volume Purged: 9
Time Elapsed: 10

PURGE METHOD:
XHonda Pump
XDisposable PolyTubing(36 ft)
ODisposable PVC Bailer(s)(____)
OOther_____

Calculated Purge Volume:

34.1 (Total Depth) - 19.03 (Water Level) = 15.07 x .16 (Well Vol. Fac.) = 2.4 x 3 (#of vol. to Purge) = 7.2 (gallons) Calculated Purge Volume

Subjective Analysis Prior to Purging

SHEEN OYes XNo
Depth of Product _____(ft)
Emulsion OYes XNo

COMMENTS:

PARAMETER EQUIPMENT CALIBRATION

pH Meter #: 9112 Time: 1300
Solution pH 4.00 4 at 67.1 °C
Solution pH 10.00 10 at 67.1 °C
Solution pH 7.00 7 at 67.1 °C
Water Level Meter#: 10337

SAMPLING METHOD

XPVC Disposable Bailer
OTeflon Bailer
OOther:_____

Time Sampled (24 hr): 1610

WELL SAMPLING PARAMETERS

Gallons Removed	Time	Temp °C	pH	Cond. (umhos/cm)
3	1600	70.8	6.54	0.35
6	1603	70.2	6.51	0.35
8	1608	70.2	6.51	0.33

	Analysis Required	No. of	Container Type	Preservatives
	EPA 601		VOA's	
X	TPH-G/BTEX	3	VOA's	HCl
	TPH- Diesel		Amber Liter	
	TOG 5520 BF		Amber Liter	H_2NO_3

Birch Technical Services

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

Project Number: 10-025
Station Number: BP 11133
Date: 7/6/92

GROUND-WATER SAMPLING FORM

Well Number: MW-2

Well Type: XMonitor OExtraction O_____

Sampled by: DAN BIRCH

WELL PURGING

PURGE VOLUME

Casing Diameter (inches) / Volume Factors:

X2"	O3"	O4"	O4.5"	O6"	O____
0.1632	0.3672	0.6528	0.826	1.469	_____

Total Depth of Well (BOW) 31.4

Initial Water Level: 12.72

Total Volume Purged: 9

Time Elapsed: 9

PURGE METHOD:
XHonda Pump
XDisposable PolyTubing(3.3 ft)
ODisposable PVC Bailer(s)(____)
OOther_____

Calculated Purge Volume:

31.4 (Total Depth) - 12.72 (Water Level) = 18.7 x .16 (Well Vol. Fac.) = 2.9 x 3 (#of vol. to Purge) = 9 (gallons) (Calculated Purge Volume)

Subjective Analysis Prior to Purging

SHEEN OYes XNo | Depth of Product _____(ft) | Emulsion OYes XNo

COMMENTS:

PARAMETER EQUIPMENT CALIBRATION

pH Meter #: 9112 Time: 1300

Solution pH 4.00 4 at 67.1 °C
Solution pH 10.00 10 at 67.1 °C
Solution pH 7.00 7 at 67.1 °C
Water Level Meter#: 10337

SAMPLING METHOD

XPVC Disposable Bailer
OTeflon Bailer
OOther:_____

Time Sampled (24 hr): 1545

WELL SAMPLING PARAMETERS

Gallons Removed	Time	Temp °C	pH	Cond. (umhos/cm)
3	1530	70.1	6.81	0.91
6	1533	71.1	6.80	0.92
9	1539	71.1	6.80	0.93

	Analysis Required	No. of	Container Type	Preservatives
	EPA 601		VOA's	
X	TPH-G/BTEX	3	VOA's	HCl
	TPH- Diesel		Amber Liter	
	TOG 5520 BF		Amber Liter	H_2NO_3

Birch Technical Services

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

Project Number: 10-025
Station Number: BP11133
Date: 7/6/92

GROUND-WATER SAMPLING FORM

Well Number: AW-8

Well Type: XMonitor OExtraction O_____

Sampled by: Dan Birch

WELL PURGING

PURGE VOLUME

Casing Diameter (inches) / Volume Factors:

X2"	O3"	O4"	O4.5"	O6"	O____
0.1632	0.3672	0.6528	0.826	1.469	_____

Total Depth of Well (BOW) 39.2 Initial Water Level: 26.43

Total Volume Purged: 6 Time Elapsed: 9

PURGE METHOD:
O Honda Pump
ODisposable PolyTubing(____ft)
XDisposable PVC Bailer(s)(____)
OOther_____

Calculated Purge Volume:

39.2 (Total Depth) - 26.43 (Water Level) = 12.77 x .16 (Well Vol. Fac.) = 2.0 x 3 (#of vol. to Purge) = 6 (gallons) Calculated Purge Volume

Subjective Analysis Prior to Purging

SHEEN OYes XNo | Depth of Product _____(ft) | Emulsion OYes XNo

COMMENTS:

PARAMETER EQUIPMENT CALIBRATION

pH Meter #: 9112 Time: 1300
Solution pH 4.00 4 at 67.1 °C
Solution pH 10.00 10 at 67.1 °C
Solution pH 7.00 7 at 67.1 °C
Water Level Meter#: 10337

SAMPLING METHOD

XPVC Disposable Bailer
OTeflon Bailer
OOther:_____

Time Sampled (24 hr): 1330

WELL SAMPLING PARAMETERS

Gallons Removed	Time	Temp °C	pH	Cond. (umhos/cm)
2	1321	72.1	6.55	1.09
4	1325	71.1	6.53	1.47
6	1330	71.0	6.53	1.42

	Analysis Required	No. of	Container Type	Preservatives
	EPA 601		VOA's	
X	TPH-G/BTEX		VOA's	HCl
	TPH- Diesel		Amber Liter	
	TOG 5520 BF		Amber Liter	H_2NO_3

Birch Technical Services

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

GROUND-WATER SAMPLING FORM

Well Number: AW-7

Project Number: 10-025
Station Number: BP11133
Date: 7/6/92

Well Type: XMonitor OExtraction O_____

Sampled by: Dan Birch

WELL PURGING

PURGE VOLUME

Casing Diameter (inches) / Volume Factors:

X2"	O3"	O4"	O4.5"	O6"	O____
0.1632	0.3672	0.6528	0.826	1.469	_____

Total Depth of Well (BOW) 32.3 Initial Water Level: 24.50

Total Volume Purged: 5 Time Elapsed: 9

PURGE METHOD:
O Honda Pump
ODisposable PolyTubing(____ft)
XDisposable PVC Bailer(s)(1)
OOther_____

Calculated Purge Volume:

32.3 (Total Depth) - 24.5 (Water Level) = 7.8 x .16 (Well Vol. Fac.) = 1.2 x 3 (#of vol. to Purge) = 4 (gallons) Calculated Purge Volume

Subjective Analysis Prior to Purging

SHEEN OYes XNo | Depth of Product _____(ft) | Emulsion OYes XNo

COMMENTS:

PARAMETER EQUIPMENT CALIBRATION

pH Meter #: 9112 Time: 1300
Solution pH 4.00 4 at 67.1 °C
Solution pH 10.00 10 at 67.1 °C
Solution pH 7.00 7 at 67.1 °C
Water Level Meter#: 10337

SAMPLING METHOD

XPVC Disposable Bailer
OTeflon Bailer
OOther:_____

Time Sampled (24 hr): 1740

WELL SAMPLING PARAMETERS

Gallons Removed	Time	Temp °C	pH	Cond. (umhos/cm)
2	1730	74.1	6.71	0.63
4	1733	72.3	6.40	0.62
5	1739	72.4	6.41	0.64

	Analysis Required	No. of	Container Type	Preservatives
	EPA 601		VOA's	
X	TPH-G/BTEX	3	VOA's	HCl
	TPH- Diesel		Amber Liter	
	TOG 5520 BF		Amber Liter	H_2NO_3

Birch Technical Services

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

GROUND-WATER SAMPLING FORM

Well Number: AW-6

Project Number: 10-025
Station Number: BP11133
Date: 7/16/92

Well Type: XMonitor OExtraction O_____

Sampled by: DAN BIRCH

WELL PURGING

PURGE VOLUME

Casing Diameter (inches)	O 2"	O3"	X4"	O4.5"	O6"	O____
Volume Factors:	0.1632	0.3672	0.6528	0.826	1.469	_____

Total Depth of Well (BOW) 34.2 Initial Water Level: 22.74

Total Volume Purged: 23 Time Elapsed: 13

PURGE METHOD:
O Honda Pump
ODisposable PolyTubing(____ft)
XDisposable PVC Bailer(s)(3)
OOther_____

Calculated Purge Volume:

34.2 (Total Depth) - 22.74 (Water Level) = 11.46 x .66 (Well Vol. Fac.) = 7.6 x 3 (#of vol. to Purge) = 22.8 (gallons) Calculated Purge Volume

Subjective Analysis Prior to Purging

SHEEN OYes XNo | Depth of Product _____(ft) | Emulsion OYes XNo

COMMENTS:

PARAMETER EQUIPMENT CALIBRATION

pH Meter #: 9112 Time: 1300
Solution pH 4.00 4 at 67.1 °C
Solution pH 10.00 10 at 67.1 °C
Solution pH 7.00 7 at 67.1 °C
Water Level Meter#: 10337

SAMPLING METHOD

XPVC Disposable Bailer
OTeflon Bailer
OOther:_____

Time Sampled (24 hr): 1514

WELL SAMPLING PARAMETERS

Gallons Removed	Time	Temp °C	pH	Cond. (umhos/cm)
5	1501	67.1	6.51	0.87
10	1505	70.3	6.77	0.81
15	1511	70.0	6.72	0.81
23	1514	70.1	6.71	0.81

	Analysis Required	No. of	Container Type	Preservatives
	EPA 601		VOA's	
X	TPH-G/BTEX	3	VOA's	HCl
	TPH- Diesel		Amber Liter	
	TOG 5520 BF		Amber Liter	H_2NO_3

Birch Technical Services

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

GROUND-WATER SAMPLING FORM

Well Number: AW-5

Project Number: 10-025
Station Number: BP11133
Date: 7/6/92

Well Type: XMonitor OExtraction O_____

Sampled by: DAN BIRCH

WELL PURGING

PURGE VOLUME

Casing Diameter (inches)	O 2"	O3"	X4"	O4.5"	O6"	O____
Volume Factors:	0.1632	0.3672	0.6528	0.826	1.469	_____

Total Depth of Well (BOW) 42.9
Initial Water Level: 26.48
Total Volume Purged: 32
Time Elapsed: 30

PURGE METHOD:
O Honda Pump
ODisposable PolyTubing(____ft)
XDisposable PVC Bailer(s)(3)
OOther_____

Calculated Purge Volume:

42.9 (Total Depth) - 26.48 (Water Level) = 16.42 x .66 (Well Vol. Fac.) = 10.8 x 3 (#of vol. to Purge) = 32.5 (gallons) Calculated Purge Volume

Subjective Analysis Prior to Purging

SHEEN OYes XNo
Depth of Product _____(ft)
Emulsion OYes XNo

COMMENTS:

PARAMETER EQUIPMENT CALIBRATION

pH Meter #: 9112 Time: 1300
Solution pH 4.00 4 at 67.1 °C
Solution pH 10.00 10 at 67.1 °C
Solution pH 7.00 7 at 67.1 °C
Water Level Meter#: 10337

SAMPLING METHOD

XPVC Disposable Bailer
OTeflon Bailer
OOther:_____

Time Sampled (24 hr): 1435

WELL SAMPLING PARAMETERS

Gallons Removed	Time	Temp °C	pH	Cond. (umhos/cm)
10	1405	73.7	6.51	0.87
15	1420	71.9	6.48	0.85
20	1430	71.6	6.49	0.82
32	1435	71.5	6.49	0.82

	Analysis Required	No. of	Container Type	Preservatives
	EPA 601		VOA's	
X	TPH-G/BTEX	3	VOA's	HCl
	TPH- Diesel		Amber Liter	
	TOG 5520 BF		Amber Liter	H_2NO_3

Birch Technical Services

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

GROUND-WATER SAMPLING FORM

Well Number: AW-3

Project Number: 10-025
Station Number: BP11133
Date: 7/6/92

Well Type: XMonitor OExtraction O_____

Sampled by: DAN BIRCH

WELL PURGING

PURGE VOLUME

Casing Diameter (inches) / Volume Factors:

X2"	O3"	O4"	O4.5"	O6"	O____
0.1632	0.3672	0.6528	0.826	1.469	_____

Total Depth of Well (BOW) 35.8

Initial Water Level: 23.26

Total Volume Purged: 6

Time Elapsed: 30

PURGE METHOD:
O Honda Pump
ODisposable PolyTubing(____ft)
XDisposable PVC Bailer(s)(1)
OOther_____

Calculated Purge Volume:

35.8 (Total Depth) - 23.26 (Water Level) = 12.5 x .16 (Well Vol. Fac.) = 2 x 3 (#of vol. to Purge) = 6 (gallons) Calculated Purge Volume

Subjective Analysis Prior to Purging

SHEEN OYes XNo | Depth of Product _____(ft) | Emulsion OYes XNo

COMMENTS: Car parked partially over well making it difficult to purge.

PARAMETER EQUIPMENT CALIBRATION

pH Meter #: 9112 Time: 1300
Solution pH 4.00 4 at 71.6 °C
Solution pH 10.00 10 at 71.6 °C
Solution pH 7.00 7 at 71.6 °C
Water Level Meter#: 10337

SAMPLING METHOD

XPVC Disposable Bailer
OTeflon Bailer
OOther:_____

Time Sampled (24 hr): 1300

WELL SAMPLING PARAMETERS

Gallons Removed	Time	Temp °C	pH	Cond. (umhos/cm)
2	1220	69.7	6.85	1.66
4	1240	68.5	6.81	1.63
6	1250	68.7	6.80	1.64

	Analysis Required	No. of	Container Type	Preservatives
	EPA 601		VOA's	
X	TPH-G/BTEX	3	VOA's	HCl
	TPH- Diesel		Amber Liter	
	TOG 5520 BF		Amber Liter	H_2NO_3

Birch Technical Services

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

GROUND-WATER SAMPLING FORM

Well Number: AW-2

Project Number: 10-025
Station Number: BP11133
Date: 7/6/92

Well Type: XMonitor OExtraction O_____

Sampled by: DAN BIRCH

WELL PURGING

PURGE VOLUME

Casing Diameter (inches) X2" O3" O4" O4.5" O6" O____
Volume Factors: 0.1632 0.3672 0.6528 0.826 1.469 _____

Total Depth of Well (BOW) 35.2
Initial Water Level: 23.57
Total Volume Purged: 6
Time Elapsed: 10

PURGE METHOD:
O Honda Pump
ODisposable PolyTubing(____ft)
XDisposable PVC Bailer(s)(1)
OOther_____

Calculated Purge Volume:

35.2 - 23.57 = 11.63 x .16 = 1.9 x 53 = 5.7 (gallons)

Total Depth - Water Level = Well Vol. Fac. = #of vol. to Purge = Calculated Purge Volume

Subjective Analysis Prior to Purging

SHEEN OYes XNo
Depth of Product _____(ft)
Emulsion OYes XNo

COMMENTS:

PARAMETER EQUIPMENT CALIBRATION

pH Meter #: 9112 Time: 1300
Solution pH 4.00 4 at 67.1 °C
Solution pH 10.00 10 at 67.1 °C
Solution pH 7.00 7 at 67.1 °C
Water Level Meter#: 10337

SAMPLING METHOD

XPVC Disposable Bailer
OTeflon Bailer
OOther:_____

Time Sampled (24 hr): 1706

WELL SAMPLING PARAMETERS

Gallons Removed	Time	Temp °C	pH	Cond. (umhos/cm)
2	1655	68.1	6.71	0.53
4	1700	68.7	6.39	0.59
6	1705	69.8	6.38	0.54

	Analysis Required	No. of	Container Type	Preservatives
	EPA 601		VOA's	
X	TPH-G/BTEX	3	VOA's	HCl
	TPH- Diesel		Amber Liter	
	TOG 5520 BF		Amber Liter	H_2NO_3

Birch Technical Services

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

GROUND-WATER SAMPLING FORM

Well Number: AW-1

Project Number: 10-025
Station Number: BP 11133
Date: 7/6/92

Well Type: ☒Monitor OExtraction O_____

Sampled by: DAN BIRCH

WELL PURGING

PURGE VOLUME

Casing Diameter (inches)	☒2"	O3"	O4"	O4.5"	O6"	O____
Volume Factors:	0.1632	0.3672	0.6528	0.826	1.469	_____

Total Depth of Well (BOW) 38.6 Initial Water Level: 29.89

Total Volume Purged: 7 Time Elapsed: 8

PURGE METHOD:
O Honda Pump
ODisposable PolyTubing(____ft)
☒Disposable PVC Bailer(s)(1)
OOther_____

Calculated Purge Volume:

38.6 (Total Depth) - 29.89 (Water Level) = 13.7 x .16 (Well Vol. Fac.) = 2.2 x 3 (#of vol. to Purge) = 6.6 (gallons) Calculated Purge Volume

Subjective Analysis Prior to Purging

SHEEN OYes ☒No Depth of Product _____(ft) Emulsion OYes ☒No

COMMENTS:

PARAMETER EQUIPMENT CALIBRATION

pH Meter #: 9112 Time: 1300

Solution pH 4.00 4 at 67.1 °C
Solution pH 10.00 10 at 67.1 °C
Solution pH 7.00 7 at 67.1 °C
Water Level Meter#: 10337

SAMPLING METHOD

☒PVC Disposable Bailer
OTeflon Bailer
OOther:_____

Time Sampled (24 hr) 1635

WELL SAMPLING PARAMETERS

Gallons Removed	Time	Temp °C	pH	Cond. (umhos/cm)
3	1645	75.1	6.21	1.07
5	1650	73.7	6.22	1.01
7	1653	74.0	6.23	1.00

	Analysis Required	No. of	Container Type	Preservatives
	EPA 601		VOA's	
X	TPH-G/BTEX	3	VOA's	HCl
	TPH- Diesel		Amber Liter	
	TOG 5520 BF		Amber Liter	H_2NO_3

Birch Technical Services

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

GROUND-WATER SAMPLING FORM

Well Number: AW-4

Project Number: 10-025
Station Number: BP11133
Date: 7/6/92

Well Type: XMonitor OExtraction O_____

Sampled by: Dan Birch

WELL PURGING

PURGE VOLUME

Casing Diameter (inches)	X2"	O3"	O4"	O4.5"	O6"	O____
Volume Factors:	0.1632	0.3672	0.6528	0.826	1.469	_____

Total Depth of Well (BOW) 32.9 Initial Water Level: 25.87

Total Volume Purged:_____ Time Elapsed:_____

PURGE METHOD:
O Honda Pump
ODisposable PolyTubing(____ft)
XDisposable PVC Bailer(s)(1)
OOther_____

Calculated Purge Volume:

32.9 (Total Depth) - 25.87 (Water Level) = 7.03 x .16 (Well Vol. Fac.) = 1.1 x 3 (#of vol. to Purge) = 3.4 (gallons) Calculated Purge Volume

Subjective Analysis Prior to Purging

SHEEN OYes XNo | Depth of Product _____(ft) | Emulsion OYes XNo

COMMENTS:

PARAMETER EQUIPMENT CALIBRATION

pH Meter #: 9112 Time: 1300
Solution pH 4.00 4 at 71.6 °C
Solution pH 10.00 10 at 71.6 °C
Solution pH 7.00 7 at 71.6 °C
Water Level Meter#: 10337

SAMPLING METHOD

XPVC Disposable Bailer
OTeflon Bailer
OOther:_____

Time Sampled (24 hr): 1815

WELL SAMPLING PARAMETERS

Gallons Removed	Time	Temp °C	pH	Cond. (umhos/cm)
0	1800	69.7	6.53	0.96
1	1803	69.8	6.58	0.91
4	1809	70.1	6.59	0.90

	Analysis Required	No. of	Container Type	Preservatives
	EPA 601		VOA's	
X	TPH-G/BTEX	3	VOA's	HCl
	TPH- Diesel		Amber Liter	
	TOG 5520 BF		Amber Liter	H_2NO_3

APPENDIX B

LABORATORY REPORTS AND CHAIN OF CUSTODY RECORDS

ANAMETRIX INC

RECEIVED
JUL 21 1992

REPORT

MR. BRADY NAGLE
ALISTO ENGINEERING GROUP
1000 BURNETT AVENUE, SUITE 150
CONCORD, CA 94520

Workorder # : 9207047
Date Received : 07/06/92
Project ID : 10-025
Purchase Order: N/A

The following samples were received at Anametrix, Inc. for analysis :

ANAMETRIX ID	CLIENT SAMPLE ID
9207047- 1	AW-1
9207047- 2	AW-2
9207047- 3	AW-3
9207047- 4	AW-4
9207047- 5	AW-5
9207047- 6	AW-6
9207047- 7	AW-7
9207047- 8	AW-8
9207047- 9	MW-2
9207047-10	MW-3

This report consists of 6 pages not including the cover letter, and is organized in sections according to the specific Anametrix laboratory group or section which performed the analysis(es) and generated the data. The Report Summary that precedes each section will help you determine which Anametrix group is responsible for those test results, and will bear the signatures of the department supervisor and the chemist who have reviewed the analytical data. Please refer all questions to the department supervisor who signed the form.

Anametrix is certified by the California Department of Health Services (DHS) to perform environmental testing under Certificate Number 1234. A detailed list of the approved fields of testing can be obtained by calling our office, or the DHS Environmental Laboratory Accreditation Program at (415)540-2800.

If you have any further questions or comments on this report, please give us a call as soon as possible. Thank you for using Anametrix.

Sarah Schoen, Ph.D.
Laboratory Director

07-20-92
Date

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. BRADY NAGLE
ALISTO ENGINEERING GROUP
1000 BURNETT AVENUE, SUITE 150
CONCORD, CA 94520

Workorder # : 9207047
Date Received : 07/06/92
Project ID : 10-025
Purchase Order: N/A
Department : GC
Sub-Department: TPH

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9207047- 1	AW-1	WATER	07/06/92	TPHg/BTEX
9207047- 2	AW-2	WATER	07/06/92	TPHg/BTEX
9207047- 3	AW-3	WATER	07/06/92	TPHg/BTEX
9207047- 4	AW-4	WATER	07/06/92	TPHg/BTEX
9207047- 5	AW-5	WATER	07/06/92	TPHg/BTEX
9207047- 6	AW-6	WATER	07/06/92	TPHg/BTEX
9207047- 7	AW-7	WATER	07/06/92	TPHg/BTEX
9207047- 8	AW-8	WATER	07/06/92	TPHg/BTEX
9207047- 9	MW-2	WATER	07/06/92	TPHg/BTEX
9207047-10	MW-3	WATER	07/06/92	TPHg/BTEX

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. BRADY NAGLE
ALISTO ENGINEERING GROUP
1000 BURNETT AVENUE, SUITE 150
CONCORD, CA 94520

Workorder # : 9207047
Date Received : 07/06/92
Project ID : 10-025
Purchase Order: N/A
Department : GC
Sub-Department: tph

QA/QC SUMMARY :

- No QA/QC problems encountered for these samples.

Cheryl Bellmer 7/20/92
Department Supervisor Date

Anna Shor 7/20/92
Chemist Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS
(GASOLINE WITH BTEX)
ANAMETRIX, INC. - (408) 432-8192

Anametrix W.O.: 9207047
Matrix : WATER
Date Sampled : 07/06/92

Project Number : 10-025
Date Released : 07/16/92

COMPOUNDS	Reporting Limit (ug/L)	Sample I.D.# AW-1 -01	Sample I.D.# AW-2 -02	Sample I.D.# AW-3 -03	Sample I.D.# AW-4 -04	Sample I.D.# AW-5 -05
Benzene	0.5	4000	ND	3100	16000	160
Toluene	0.5	40	ND	30	5400	ND
Ethylbenzene	0.5	290	ND	80	2000	250
Total Xylenes	0.5	530	ND	99	6100	58
TPH as Gasoline	50	6500	ND	3900	38000	1400
% Surrogate Recovery		101%	88%	109%	111%	90%
Instrument I.D.		HP4	HP4	HP4	HP4	HP4
Date Analyzed		07/10/92	07/10/92	07/13/92	07/10/92	07/10/92
RLMF		50	1	50	500	5

ND - Not detected at or above the practical quantitation limit for the method.
TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using modified EPA Method 8015 following sample purge and trap by EPA Method 5030.
BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA Method 8020 following sample purge and trap by EPA Method 5030.
RLMF - Reporting Limit Multiplication Factor.

Anametrix control limits for surrogate p-Bromofluorobenzene recovery are 53-147%.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Analyst Date

Supervisor Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS
(GASOLINE WITH BTEX)
ANAMETRIX, INC. - (408) 432-8192

Anametrix W.O.: 9207047
Matrix : WATER
Date Sampled : 07/06/92

Project Number : 10-025
Date Released : 07/16/92

COMPOUNDS	Reporting Limit (ug/L)	Sample I.D.# AW-6 -06	Sample I.D.# AW-7 -07	Sample I.D.# AW-8 -08	Sample I.D.# MW-2 -09	Sample I.D.# MW-3 -10
Benzene	0.5	ND	ND	ND	ND	ND
Toluene	0.5	ND	ND	ND	ND	ND
Ethylbenzene	0.5	ND	ND	ND	ND	ND
Total Xylenes	0.5	ND	ND	ND	ND	ND
TPH as Gasoline	50	ND	ND	ND	ND	ND
% Surrogate Recovery		108%	107%	98%	130%	107%
Instrument I.D.		HP4	HP4	HP4	HP4	HP4
Date Analyzed		07/09/92	07/09/92	07/09/92	07/10/92	07/09/92
RLMF		1	1	1	1	1

ND - Not detected at or above the practical quantitation limit for the method.
TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using modified EPA Method 8015 following sample purge and trap by EPA Method 5030.
BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA Method 8020 following sample purge and trap by EPA Method 5030.
RLMF - Reporting Limit Multiplication Factor.

Anametrix control limits for surrogate p-Bromofluorobenzene recovery are 53-147%.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Analyst 7/20/92 Date

Supervisor 7/20/92 Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS
(GASOLINE WITH BTEX)
ANAMETRIX, INC. - (408) 432-8192

Anametrix W.O.: 9207047
Matrix : WATER
Date Sampled : N/A

Project Number : 10-025
Date Released : 07/16/92

COMPOUNDS	Reporting Limit (ug/L)	Sample I.D.# BL0902E2 BLANK	Sample I.D.# BL1001E2 BLANK	Sample I.D.# BL1301E2 BLANK
Benzene	0.5	ND	ND	ND
Toluene	0.5	ND	ND	ND
Ethylbenzene	0.5	ND	ND	ND
Total Xylenes	0.5	ND	ND	ND
TPH as Gasoline	50	ND	ND	ND
% Surrogate Recovery		109%	113%	107%
Instrument I.D.		HP4	HP4	HP4
Date Analyzed		07/09/92	07/10/92	07/13/92
RLMF		1	1	1

ND - Not detected at or above the practical quantitation limit for the method.
TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using modified EPA Method 8015 following sample purge and trap by EPA Method 5030.
BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA Method 8020 following sample purge and trap by EPA Method 5030.
RLMF - Reporting Limit Multiplication Factor.

Anametrix control limits for surrogate p-Bromofluorobenzene recovery are 53-147%.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Analyst 7/20/92 Date

Supervisor 7/20/92 Date

TOTAL VOLATILE HYDROCARBON MATRIX SPIKE REPORT
EPA METHOD 5030 WITH GC/FID
ANAMETRIX, INC. (408) 432-8192

Sample I.D. : 10-025 AW-8
Matrix : WATER
Date Sampled : 07/06/92
Date Analyzed : 07/09/92

Anametrix I.D. : 9207047-08
Analyst : IS
Supervisor : CB
Date Released : 07/16/92
Instrument ID : HP4

COMPOUND	SPIKE AMT. (ug/L)	MS (ug/L)	%REC MS	MSD (ug/L)	%REC MSD	RPD	%REC LIMITS
GASOLINE	0.50	0.48	108%	0.42	84%	-13%	48-145
P-BFB		100%		94%			53-147

* Limits established by Anametrix, Inc.

ANAMETRIX INC
Environmental & Analytical Chemistry
1961 Concourse Drive, Suite E, San Jose, CA 95131
(408) 432-8192 • Fax (408) 432-8198

9207047 (19) 20:20 MA

CHAIN-OF-CUSTODY RECORD

PROJECT NUMBER	PROJECT NAME
10-025	BP 11133

Send Report Attention of:	Report Due	Verbal Due
BRADY NAGLE	7/20/92	7/20/92

	Sample Number	Date	Time	Comp	Matrix	Station Location	Number of Cntnrs	Type of Containers	Type of Analysis: TPH/BTEX	Condition of Samples	Initial
(1)	AW-1	7/6/92	1635		W		3	VOA's	X		
(2)	AW-2	7/6/92	1706		"		"	"	X		
(3)	AW-3	"	1300		"		"	"	X		
(4)	AW-4	"	1815		"		"	"	X		
(5)	AW-5	"	1435		"		"	"	X		
(6)	AW-6	"	1514		"		"	"	X		
(7)	AW-7	"	1740		"		"	"	X		
(8)	AW-8	"	1330		"		"	"	X		
(9)	MW-2	"	1545		"		"	"	X		
(10)	MW-3	"	1610		"		"	"	X		

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
Relinquished by: (Signature)	Date/Time	Received by Lab:	Date/Time
[signature]	7/6/92 2000	[signature]	7/6/92 2000

Remarks: Please fax a copy of this chain of custody to Brady @ 510 798 4099

COMPANY: ALISTO ENGINEERING GROUP
ADDRESS:
PHONE : 510 798 4070 FAX : 510 798 4095