BP OIL

BP Oil Company
2868 Prospect Park Drive, Suite 360
Rancho Cordova, California 95670-6020
(916) 631-0733

April 2, 1991

Ms. Cynthia Chapman
Alameda County Health Agency
80 Swan Way, Room 200
Oakland, CA 94621

RE: BP FACILITY #11109
4280 FOOTHILL BLVD.
OAKLAND, CALIFORNIA

Dear Ms. Chapman,

Attached please find results of the quarterly sampling and analysis performed at the above referenced facility.

Please call me at 916/631-6919 with any questions regarding this submission.

Respectfully,

Peter J. DeSantis
Environmental Resource Management

PJD:lk

cc: Richard Hiett - Regional Water Quality Control Board
David Noe - Mobil Oil Corporation
J.R. Rocco - BP Oil, Cleveland

ALTON GEOSCIENCE
THE RESULTS TEAM

March 25, 1991

Mr. Peter DeSantis
BP Oil Company
Aetna Building, Suite 360
2868 Prospect Park Drive
Rancho Cordova, California 95670-6020

30-0248

Subject: Quarterly Ground Water Monitoring and Sampling Report
BP Oil Service Station No. 11109
4280 Foothill Boulevard
Oakland, California

Dear Mr. DeSantis,

The enclosed report presents the results and findings of the February 1991 quarterly ground water monitoring and sampling performed by Alton Geoscience, Inc. at BP Oil Service Station No. 11109, located at 4280 Foothill Boulevard, Oakland, California.

The enclosed report should be submitted to the following regulatory agencies:

1. Ms. Cynthia Chapman
   Alameda County Health Agency
   80 Swan Way, Room 200
   Oakland, California 94621

2. Mr. Richard Hiett
   Regional Water Quality Control Board
   2101 Webster Street, Suite 500
   Oakland, California 94612

If there are any questions or comments regarding this report, please call the undersigned at (415) 682-1582.

Sincerely,

ALTON GEOSCIENCE, INC.

Brady Nagle
Project Manager

Enclosure

1000 Burnett Avenue, Suite 140
Concord, California 94520
(415) 682-1582 • FAX (415) 682-8921

QUARTERLY GROUND WATER MONITORING AND SAMPLING REPORT

BP Oil Company
BP Oil Service Station No. 11109
4280 Foothill Boulevard
Oakland, California

Project No. 30-0248

Prepared by:

Brady Nagle
Project Manager

Reviewed by:

Al Sevilla, P.E.
Regional Manager
R.C.E. 26392

March 21, 1991

QUARTERLY GROUND WATER MONITORING AND SAMPLING REPORT
for
BP Oil Company
BP Oil Service Station No. 11109
4280 Foothill Boulevard
Oakland, California

INTRODUCTION

This report presents the results and findings of the February 1991 quarterly ground water monitoring and sampling performed by Alton Geoscience, Inc. at BP Oil Service Station No. 11109, located at 4280 Foothill Boulevard, Oakland, California. A site vicinity map is shown in Figure 1, while a site plan is shown in Figure 2.

PROJECT BACKGROUND

Mobil Oil Corporation contracted Target Environmental Services to conduct a soil gas survey at the site, as part of a property transfer program to investigate the extent of hydrocarbons in the subsurface at the site (Target, 1989). The survey was conducted on March 10, 1989, and revealed the presence of detectable concentrations of petroleum hydrocarbon constituents in soil vapor samples.

Isoconcentration maps and chromatogram data generated during the soil gas survey suggested two areas of potential hydrocarbons in the subsurface soil: (1) west of the main building; and (2) between the eastern pump island and the tank field. The migration of hydrocarbon vapors in the soil to the southwest appeared to be limited. The southeastern extent of the hydrocarbon vapors in the soil was not defined since it extended beyond the limits of the survey.

In April 1989, two 2-inch-diameter ground water monitoring wells, MW-1 and MW-2, were installed by Rittenhouse-Zeman and Associates (RZA) of Bellevue, Washington. Soil samples collected from unspecified depths during well construction were analyzed for total petroleum hydrocarbons (TPH) with benzene, toluene, ethylbenzene, and total xylenes (BTEX) distinction. The results of the analysis showed 15 parts per million (ppm) TPH in the soil sample from Boring B-1. Borings B-1 and B-2 were converted into Monitoring Wells MW-1 and MW-2. The ground water sample from MW-1 was analyzed for BTEX constituents. The results of this analysis revealed

detectable concentrations of BTEX constituents in the ground water sample (RZA, 1989).

Mobil Oil Corporation authorized Alton Geoscience to conduct a site investigation at the site in January 1990, after submittal and regulatory approval of a work plan (Alton, 1990a). Two additional 4-inch-diameter ground water monitoring wells, MW-3 and MW-4, were installed onsite to define the extent of hydrocarbons in the subsurface, and a site investigation report was prepared and submitted to the appropriate regulatory agencies (Alton, 1990b). Hydrocarbon constituents were detected in ground water samples from all wells on the site, including the presence of free-floating product in Monitoring Well MW-1.

A work plan for a supplemental site investigation was subsequently prepared by Alton Geoscience for BP Oil Company (Alton, 1990c). Delays in proceeding with the proposed scope of work were experienced, however, due to tank replacement activities at the site.

On September 14, 1990, BP Oil Company retained Kaprealian Engineering, Inc. to conduct soil sampling during the removal of three underground gasoline storage tanks, dispenser islands, and associated piping from the site. Approximately 2,000 cubic yards of soil was excavated in the vicinity of the former tanks and dispenser islands. The results of the laboratory analysis revealed the presence of up to 140 ppm total petroleum hydrocarbons as gasoline (TPH-G) in a side wall soil sample from the fuel tank cavity, and up to 910 ppm TPH-G in a soil sample collected below a former dispenser island (Kaprealian, 1990a and 1990b). During tank removal activities, Monitoring Well MW-1 was destroyed.

FIELD PROCEDURES

On February 14, 1991, Alton Geoscience, Inc. monitored and sampled the ground water in Monitoring Wells MW-2, MW-3, and MW-4. All ground water monitoring and sampling were performed by Alton Geoscience, Inc. in accordance with the requirements and procedures of the California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB) (RWQCB, 1989).

Prior to purging and sampling, the ground water level in each well was measured to the nearest 0.01 foot from a permanent mark on the top of the casing using an electronic sounder. The top of the monitoring well casings were surveyed in reference to a City of Oakland survey station, with an elevation of 42.19 feet above mean sea level. The depth to

ground water prior to ground water purging for sample collection and the top of casing elevation data were used to calculate the ground water elevation above mean sea level within each well. The survey data and relative ground water elevation measurements at the site are presented in Table 1, while the ground water elevation contour map is shown in Figure 3.

Prior to sample collection, each well was purged of four casing volumes of water until pH, temperature, and conductivity stabilized. The ground water samples were collected using a clean hand bailer and observed for the presence of free product or sheen. Ground water samples for laboratory analysis were collected by lowering a clean 2-inch-diameter, bottom-fill, PVC bailer to just below the water level in the well. The samples were then carefully transferred from the bailer to the appropriate containers. All sample containers were inverted to ensure that entrapped air was not present. Each sample was labeled with sample number, well number, sample date, and sampler's initials. The samples were stored in an iced cooler for delivery to Superior Analytical Laboratories, Inc. of Martinez, California for analysis following proper sample preservation and chain of custody procedures. The water sampling field survey forms are presented in Appendix A and the laboratory report and chain of custody forms are presented in Appendix B.

ANALYTICAL METHODS

Ground water samples collected from all three wells at the site were analyzed for TPH-G using EPA Methods 5030/8015 and benzene, toluene, ethylbenzene, and total xylenes (BTEX) constituents using EPA Methods 5030/8020. In addition, the ground water sample from Monitoring Well MW-2 was analyzed for total oil and grease (TOG) using EPA Method 5520EF, total petroleum hydrocarbons as diesel (TPH-D) using EPA Method 8015, and halogenated volatile organic compounds (HVOC) using EPA Method 8010. The results of the analysis of ground water samples are presented in Table 2.

DISCUSSION OF RESULTS

The findings and conclusions from the February 1991 ground water sampling event are summarized below:

- No free product or sheen was observed in any of the existing onsite monitoring wells during this monitoring/sampling event.

- The calculated ground water flow direction at the site for this quarter is to the west, with an average hydraulic gradient of approximately 0.07 foot per foot across the site.

- Analysis of ground water samples from Monitoring Well MW-2 revealed no TPH-G, BTEX constituents, TPH-D, or TOG above reported detection limits. Methylene chloride, however, was detected in the sample from MW-2 at a concentration of 51 ppb. Methylene chloride is a common degreasing and cleaning agent (The Merck Index, 1983).

- TPH-G and BTEX constituents were detected in Monitoring Wells MW-3 and MW-4, however, the concentrations of these constituents have decreased since the last sampling event in February 1990.

TABLE 1

SURVEY AND WATER LEVEL MONITORING DATA

BP Oil Company
BP Oil Service Station No. 11109
4280 Foothill Boulevard
Oakland, California

Elevation and Depth Measurements in Feet

Well Number	Date of Measurement	Top of Casing Elevation[a]	Depth to Water Level	Water Level Elevation[b]
MW-1	01/31/90	38.19	15.41	22.78
MW-1	02/05/90		--[c]	--
MW-2	02/05/90	38.18	21.19	16.27
MW-2	02/14/91		21.16	17.02
MW-3	02/05/90	37.73	17.45	20.28
MW-3	02/14/91		18.52	19.21
MW-4	02/05/90	37.07	20.75	16.32
MW-4	02/14/91		21.73	15.34

[a]Top of casing elevations for all wells are surveyed relative to the City of Oakland survey station, with an elevation of 42.19 feet above mean sea level.

[b]Water level elevation in feet above mean sea level.

[c]Not measured due to the presence of free product.

TABLE 2

SUMMARY OF ANALYTICAL RESULTS OF GROUND WATER SAMPLES

BP Oil Company Service Station No. 11109
4280 Foothill Boulevard
Oakland, California

Concentrations in Parts Per Billion

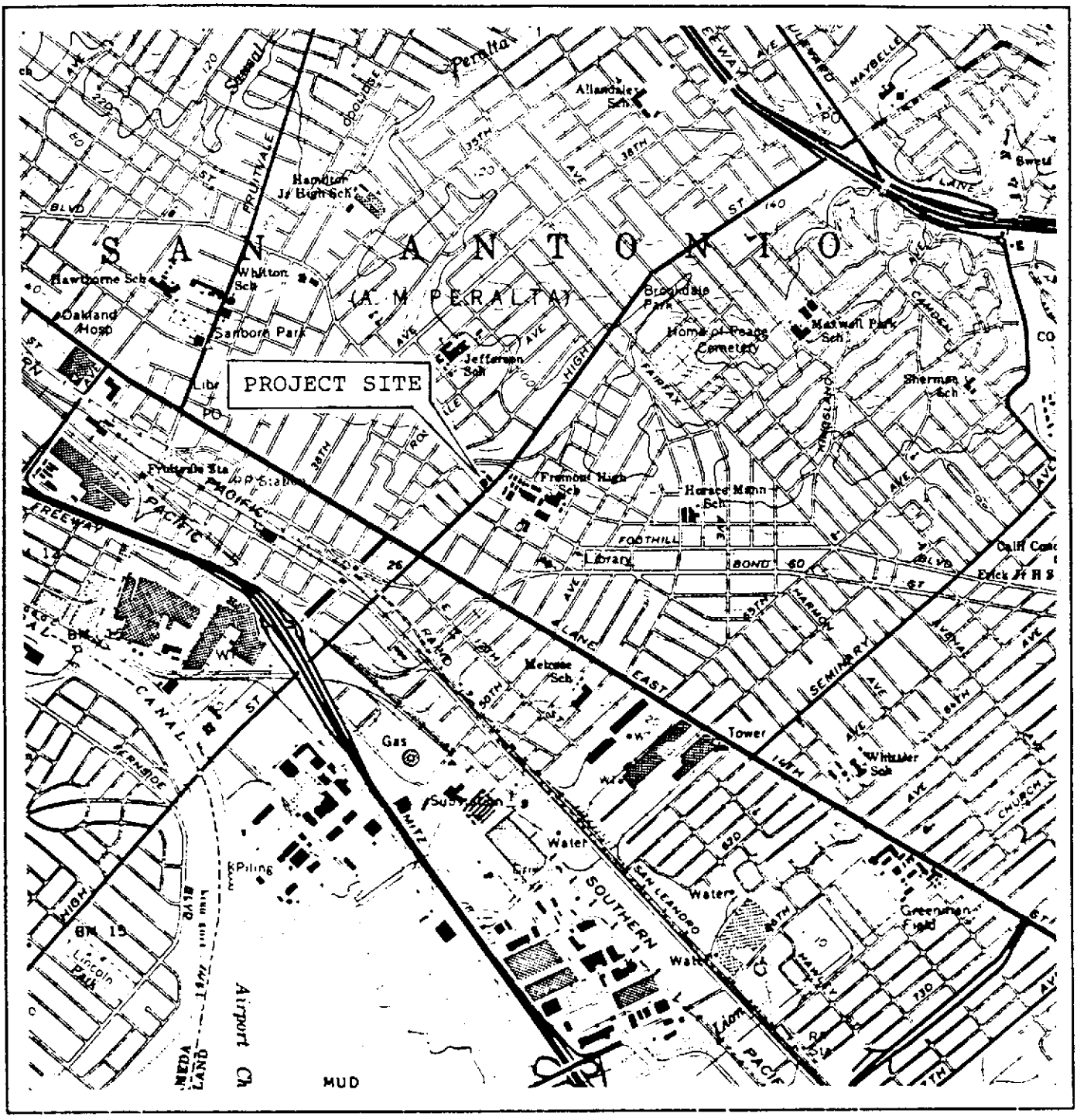
Well No.	Date of Sampling	TPH-G[a]	Benzene	Toluene	Ethyl-benzene	Xylenes
MW-1	02/05/90	--[b]	--	--	--	--
MW-2	02/05/90	1,300	14	ND<1.0	9	13
MW-2	02/14/91[c]	ND[d]<50	ND<0.3	ND<0.3	ND<0.3	ND<0.3
MW-3	02/05/90	1,400	15	ND<2.5	11	8.0
MW-3	02/14/9[1]	320	8.0	ND<0.3	8.0	1.0
MW-4	02/05/90	620	ND<0.5	9.0	ND<0.5	10
MW-4	02/14/91	180	ND<0.3	ND<0.3	0.4	2.0

[a]Total petroleum hydrocarbons

[b]Not analyzed due to the presence of free-floating product

[c]A ground water sample from MW-2 was additionally analyzed for TOG using EPA Method 5520F, TPH-D using EPA Method 8015, and halogenated volatile organic compounds using EPA Method 8010. The results showed 51 parts per billion methylene chloride only.

[d]Not detected above reported detection limits



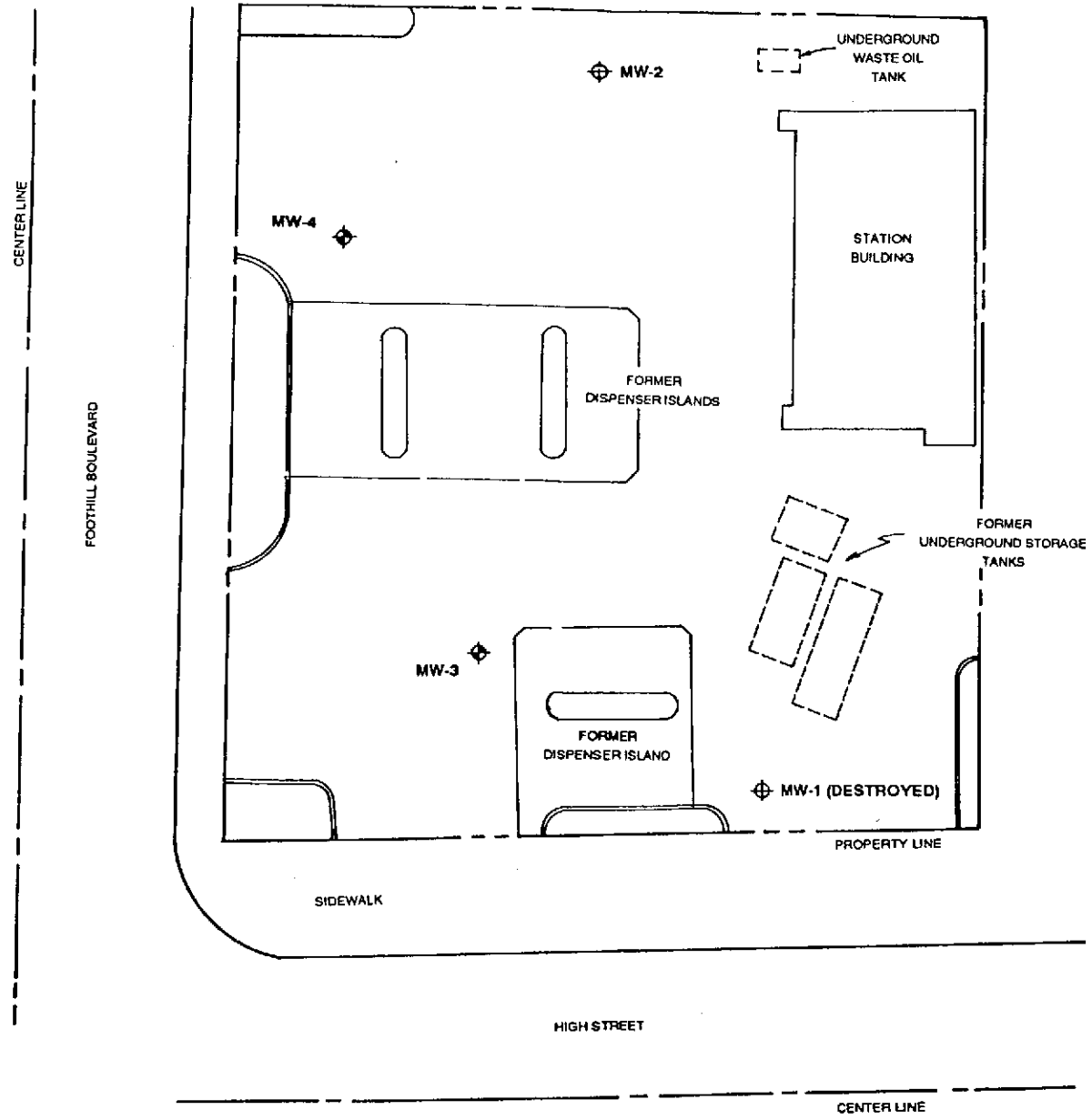
SOURCE: U.S. GEOLOGICAL MAP, OAKLAND EAST QUADRANGLE, CLAIFORNIA 7.5 MINUTE SERIES, 1959, PHOTOREVISED 1980.

FIGURE 1

SITE VICINITY MAP

BP OIL SERVICE STATION NO. 11109
4280 FOOTHILL BOULEVARD
OAKLAND, CALIFORNIA

ALTON GEOSCIENCE PROJECT NO. 30-0248



N

0 10 20

SCALE IN FEET

LEGEND

- GROUND WATER MONITORING WELL BY ALTON GEOSCIENCE
- GROUND WATER MONITORING WELL BY OTHERS

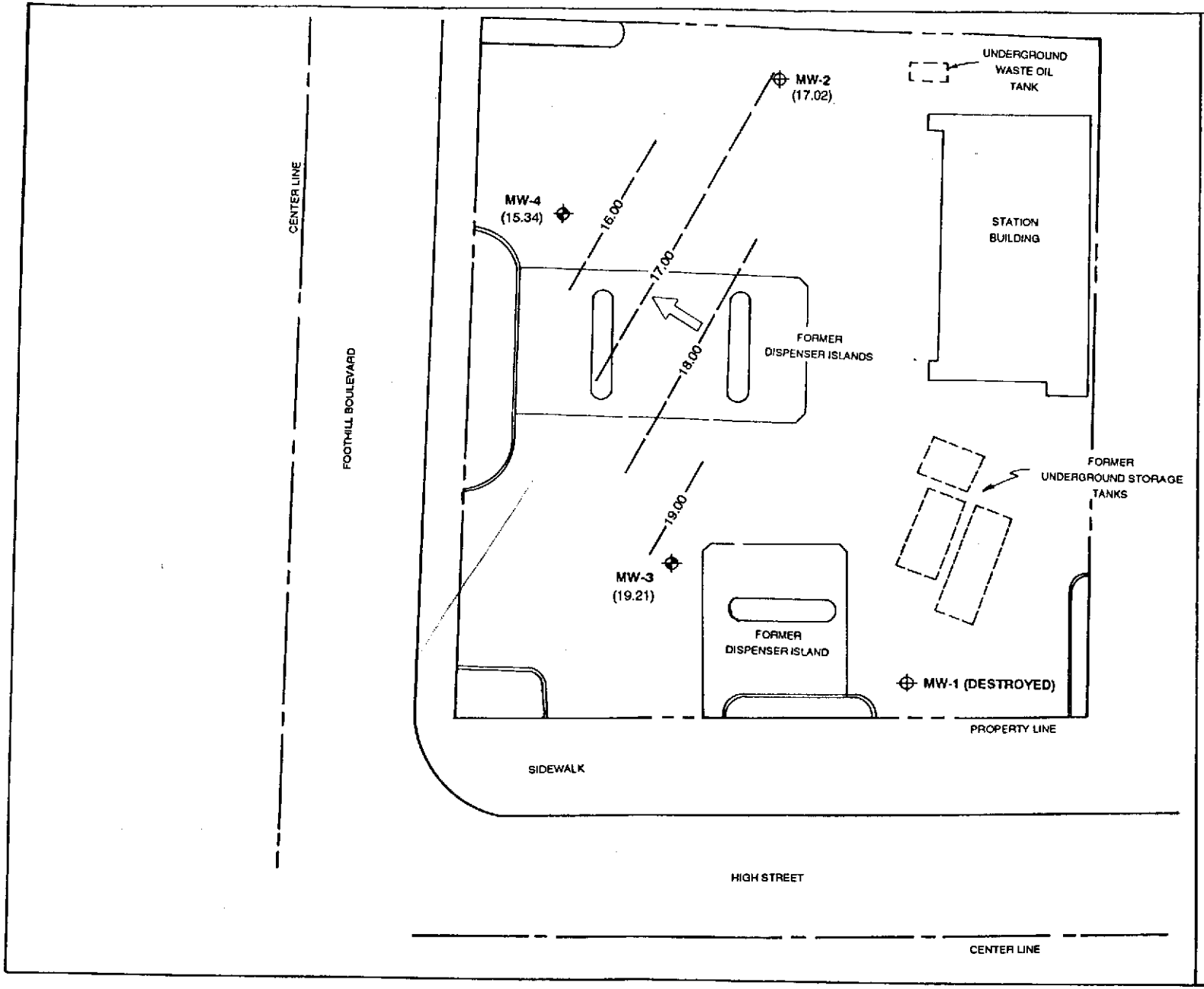
FIGURE 2

SITE PLAN

BP OIL SERVICE STATION NO. 11109
4280 FOOTHILL BOULEVARD
OAKLAND, CALIFORNIA

ALTON GEOSCIENCE PROJECT NO. 30-0248

ALTON GEOSCIENCE
1000 Burnett Ave., Ste 140
Concord, CA 94520



N

0 10 20
SCALE IN FEET

LEGEND

- GROUND WATER MONITORING WELL BY ALTON GEOSCIENCE
- GROUND WATER MONITORING WELL BY OTHERS
- (17.02) GROUND WATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
- —17.00— GROUND WATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL (CONTOUR INTERVAL 1 FOOT)
- GENERAL GROUND WATER FLOW DIRECTION

FIGURE 3

GROUND WATER ELEVATION CONTOUR MAP (FEBRUARY 14, 1991)

BP OIL SERVICE STATION NO. 11109
4280 FOOTHILL BOULEVARD
OAKLAND, CALIFORNIA

ALTON GEOSCIENCE PROJECT NO. 30-0248

ALTON GEOSCIENCE
1000 Burnett Ave., Ste 140
Concord, CA 94520

REFERENCES

Alton Geoscience, Inc., Work Plan for Site Investigation, January 9, 1990a.

Alton Geoscience, Inc., Site Investigation, February 16, 1990b.

Alton Geoscience, Inc., Work Plan for Supplemental Site Investigation, August 6, 1990c.

California Regional Water Quality Control Board, 1989. Regional Board Staff Recommendations for Initial Evaluation and Investigation of Underground Tanks, July 1, 1988 and revised April 3, 1989.

Kaprealian Engineering, Inc., Soil Sampling Report BP Service Station, November 1, 1990a.

Kaprealian Engineering, Inc., Soil Sampling Report for BP Service Station, November 1, 1990b.

Rittenhouse-Zeman & Associates, Limited Subsurface Petroleum Hydrocarbon Evaluation, April 24, 1989.

Target Environmental Services, Soil Gas Survey Mobil Service Station #10-H69, March 1989.

The Merck Index, Merck and Co., Inc., Rahway, New Jersey, 1983.

APPENDIX A

WATER SAMPLING FORMS

ALTON GEOSCIENCE, INC.
Water Sampling Field Survey

WELL # MW-2 PROJECT# 30-241 LOCATION Oakland DATE 2/14/91

SAMPLING TEAM LA SAMPLING METHOD: BAILER X PUMP ___

DECONTAMINATION METHOD: TRIPLE RINSE W/TSP AND DEIONIZED WATER X
STEAM CLEAN ___

WELL DATA:

DEPTH TO WATER 23.16 ft

TOTAL DEPTH 30.09 ft

HT. WATER COL 6.93 ft

CONVERSION	
diam	gal/ft
2 in	X0.16
3 in	X0.36
4 in	X0.65
6 in	X1.44

Volume of Water Column 1.11 gal

Volumes to Purge x 4 Vol

Total Volume to Purge 4.44 gal

Begin 1508

CHEMICAL DATA:

T (F)	SC/umhos	pH	Time	Comments	Volume (gal)
62.1	5.42	7.30	1509	Clear	.75
61.0	5.23	7.05	1511	" "	1.50
59.7	5.05	6.95	1512	" "	2.25
58.8	4.97	6.89	1514	" "	3.0
57.9	4.89	6.84	1516	" "	3.75

ACTUAL VOLUME PURGED 4.5 /gal

Sampled 1530

COMMENTS: meter x 100

ALTON GEOSCIENCE, INC.
Water Sampling Field Survey

WELL # MW-3 PROJECT# 30-248 LOCATION Oakland DATE 2/14/91

SAMPLING TEAM Lary SAMPLING METHOD: BAILER X PUMP ___

DECONTAMINATION METHOD: TRIPLE RINSE W/TSP AND DEIONIZED WATER X
STEAM CLEAN ___

WELL DATA:

DEPTH TO WATER 11.52 ft

TOTAL DEPTH 32.02 ft

HT. WATER COL 13.5 ft

CONVERSION	
diam	gal/ft
2 in	X0.16
3 in	X0.36
4 in	X0.65
6 in	X1.44

Volume of Water Column 8.78 gal

Volumes to Purge x 4 Vol

Total Volume to Purge 35.12 gal

Begin 1408

CHEMICAL DATA:

T (F)	SC/umhos	pH	Time	Comments	Volume (gal)
65.1	11.40	7.03	1413	clear	7
63.4	6.59	7.07	1417	" "	14
62.9	6.30	7.05	1420	" "	21
62.4	6.77	7.63	1422	" "	28
64.8	6.76	7.66	1424	" "	35

Sampled 1550 ACTUAL VOLUME PURGED 35.5/gal

COMMENTS: meter X100 Slow Producer!

ALTON GEOSCIENCE, INC.
Water Sampling Field Survey

WELL # MW-4 PROJECT# 30-248 LOCATION Oakland DATE 2/14/91

SAMPLING TEAM Lary SAMPLING METHOD: BAILER X PUMP ___

DECONTAMINATION METHOD: TRIPLE RINSE W/TSP AND DEIONIZED WATER X
STEAM CLEAN ___

WELL DATA:

DEPTH TO WATER 21.73 ft

TOTAL DEPTH 26.75 ft

HT. WATER COL 5.02 ft

CONVERSION	
diam	gal/ft
2 in	X0.16
3 in	X0.36
4 in	X0.65
6 in	X1.44

Volume of Water Column 3.26 gal

Volumes to Purge X 4 Vol

Total Volume to Purge 13.04 gal

Begin 1433

CHEMICAL DATA:

T (F)	SC/umhos	pH	Time	Comments	Volume (gal)
62.3	4.26	8.14	1445	Clear	2
61.6	4.03	7.72	1447	"	4
60.2	3.74	7.43	1450	"	6
58.7	3.67	7.37	1452	"	8
58.2	3.58	7.34	1454	cloudy	10

Sampled 1459 ACTUAL VOLUME PURGED 13.05 gal

COMMENTS: meter x 100, Slow Producer!

APPENDIX B

LABORATORY REPORTS AND CHAIN OF CUSTODY

FEB 27 1991

SUPERIOR ANALYTICAL LABORATORY, INC.
1555 BURKE, UNIT I • SAN FRANCISCO, CA 94124 • PHONE (415) 647-2081 DOHS #1332

CERTIFICATE OF ANALYSIS

LABORATORY NO.: 53180
CLIENT: Alton Geoscience
CLIENT JOB NO.: 30-248

DATE RECEIVED: 02/15/91
DATE REPORTED: 02/25/91

ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS
by Modified EPA SW-846 Method 5030 and 8015

LAB #	Sample Identification	Concentration (ug/L) Gasoline Range
1	MW2	ND<50
2	MW3	320
3	MW4	180

ug/L - parts per billion (ppb)
Minimum Detection Limit for Gasoline in Water: 50ug/L

QAQC Summary:
Daily Standard run at 2mg/L: %DIFF Gasoline = <15%
MS/MSD Average Recovery = 89%: Duplicate RPD = 1.2%

Richard Srna, Ph.D.

Cecilia F Jongsma (for)
Laboratory Director

FEB 27 1991

SUPERIOR ANALYTICAL LABORATORY, INC.
1555 BURKE, UNIT I · SAN FRANCISCO CA 94124 · PHONE (415) 647-2081 DOHS #1332

CERTIFICATE OF ANALYSIS

LABORATORY NO.: 53180
CLIENT: Alton Geoscience
CLIENT JOB NO.: 30-248

DATE RECEIVED: 02/15/91
DATE REPORTED: 02/25/91

ANALYSIS FOR BENZENE, TOLUENE, ETHYL BENZENE & XYLENES
by EPA SW-846 Methods 5030 and 8020

LAB #	Sample Identification	Concentration(ug/L) Benzene	Toluene	Ethyl Benzene	Xylenes
1	MW2	ND<0.3	ND<0.3	ND<0.3	ND<0.3
2	MW3	8	ND<0.3	8	1
3	MW4	ND<0.3	ND<0.3	0.4	2

ug/L - parts per billion (ppb)

Minimum Detection Limit in Water:0.3ug/L

QAQC Summary:
Daily Standard run at 20ug/L: %DIFF = <15%
MS/MSD Average Recovery = 97% : Duplicate RPD = 2%

Richard Srna, Ph.D.

Cecilia G Jorgen. (FOR)
Laboratory Director

FEB 27 1991

SUPERIOR ANALYTICAL LABORATORY, INC.
1555 BURKE, UNIT I · SAN FRANCISCO, CA 94124 · PHONE (415) 647-2081 DOHS #1332

CERTIFICATE OF ANALYSIS

LABORATORY NO.: 53180
CLIENT: Alton Geoscience
CLIENT JOB NO.: 30-248

DATE RECEIVED: 02/15/91
DATE REPORTED: 02/25/91

ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS
by Modified EPA SW-846 Method 8015

LAB #	Sample Identification	Concentration (mg/kg) Diesel Range
1	MW2	ND<10

Minimum Detection Limit for Gasoline and Diesel in Soil: 10mg/kg

QAQC Summary:

Daily Standard run at 200mg/L: %DIFF Diesel = <15%
MS/MSD Average Recovery = 86%: Duplicate RPD = 2%

Richard Srna, Ph.D.

Cecilia G. Jongsma (for)
Laboratory Director

FEB 27 1991

SUPERIOR ANALYTICAL LABORATORY, INC.
1555 BURKE. UNIT I • SAN FRANCISCO. CA 94124 • PHONE (415) 647-2081 DOHS #1332

CERTIFICATE OF ANALYSIS

LABORATORY NO.: 53180
CLIENT: Alton Geoscience
CLIENT JOB NO.: 30-248

DATE RECEIVED: 02/15/91
DATE REPORTED: 02/25/91

ANALYSIS FOR TOTAL PETROLEUM OIL AND GREASE
by Method 5520F (formerly 503E)

LAB #	Sample Identification	Concentration (mg/L) Total oil & grease
1	MW2	ND<5

mg/L - parts per million (ppm)

Minimum Detection Limit for oil & grease in Water: 5mg/L

QAQC Summary:
MS/MSD average recovery = 62%
Duplicate RPD = 3%

Richard Srna, Ph.D.
Cecile G Jongsma (for)
Laboratory Director

FEB 27 1991

SUPERIOR ANALYTICAL LABORATORY, INC.
1555 BURKE UNIT I · SAN FRANCISCO CA 94124 · PHONE (415) 647-2081 DOHS #1332

CERTIFICATE OF ANALYSIS

LABORATORY NO.: 53180-1
CLIENT: Alton Geoscience
JOB NO.: 30-248

DATE SAMPLED: 02/14/91
DATE RECEIVED: 02/15/91
DATE ANALYZED: 02/19/91

EPA SW-846 METHOD 8010
HALOGENATED VOLATILE ORGANICS
SAMPLE: MW2

Compound	MDL (ug/L)	RESULTS (ug/l)
Chloromethane/Vinyl Chloride	10	ND
Bromomethane/Chloroethane	10	ND
Trichlorofluoromethane	5.0	ND
1,1-Dichloroethene	5.0	ND
Methylene Chloride	5.0	51
trans-1,2-Dichloroethene	5.0	ND
1,1-Dichloroethane	5.0	ND
Chloroform	5.0	ND
1,1,1-Trichloroethane	5.0	ND
Carbon tetrachloride	5.0	ND
1,2-Dichloroethane	5.0	ND
Trichloroethylene	5.0	ND
1,2-Dichloropropane	5.0	ND
Bromodichloromethane	5.0	ND
Cis-1,3-Dichloropropene	5.0	ND
trans-1,3-Dichloropropene	5.0	ND
1,1,2-Trichloroethane	5.0	ND
Tetrachloroethene	5.0	ND
Dibromochloromethane	5.0	ND
Chlorobenzene	5.0	ND
Bromoform	5.0	ND
1,1,2,2-Tetrachloroethane	5.0	ND
1,3-Dichlorobenzene	5.0	ND
1,2-Dichlorobenzene	5.0	ND
1,4-Dichlorobenzene	5.0	ND
Cis-1,2-Dichloroethene	5.0	ND

MDL = Method Detection Limit
ug/l = parts per billion (ppb)
QA/QC Summary: Daily Standard %DIFF = <15%
MS/MSD average recovery = 84 % :MS/MSD RPD =< 3 %

Richard Srna, Ph.D.

Cecilia G. Jongsma (for)
Laboratory Director

SF # 53180

CHAIN of CUSTODY RECORD

ALTON GEOSCIENCE
16510 ASTON ST.
IRVINE, CA. (714) 261-0674

FEB 27 1991

PAGE 1 of 1

DATE: 2/15/91
RESULTS DUE BY: 1 week

PROJECT NUMBER: 30-248
PROJECT NAME AND ADDRESS: 4280 Foothill Blvd., Oakland BASS # 11109
PROJECT MANAGER: ~~30-248~~ Brady Wagle
SAMPLER'S SIGNATURE: Tony Buenrostro
LABORATORY: Superior

REMARKS OR SPECIAL INSTRUCTIONS: Please Run TPH-G + BTXE in series!

NOTE: PLEASE INDICATE VERBAL REQUESTS FOR ADDITIONAL ANALYSES IN THIS BOX.

SAMPLE NUMBER	SAMPLE DATE/TIME	LOCATION/ DESCRIPTION	SAMPLE MATERIAL	SAMPLE TYPE: GRAB	SAMPLE TYPE: COMP.	NUMBER OF CONTAINERS
MW2	12/14/91/1530		6 X 40ml VOAs 4 X 1 Liter	X		10
MW3	12/14/91/1550		3 X 40 ml VOAs	X		3
MW4	12/14/91/1459		3 X 40 ml VOAs	X		3
			TOTAL NO. OF CONTAINERS:			16

SAMPLE PREP.				SOIL ANALYSIS						WATER ANALYSIS					
3510: SOLV. EXTR.	3810: HEAD SPACE	5030: PURGE & TRAP		418.1: TPHC (IR)	8010: HALOCARBONS	8020: BTXE	DHS METHOD: TPHC (GC)	7420: TOTAL Pb	TPH-D	418.1: TPHC (IR)	601: HALOCARBONS	602: BTXE + TPH-G	DHS METHOD: TPHC (GC)	7421: TOTAL Pb	TOG 5520
									X			X			X
												X			
												X			

Please initial
Samples Stored in ice. Y
Appropriate containers. Y
Samples preserved. Y
VOA's without headspace. Y
Comments:

RELINQUISHED BY:	DATE/TIME:	RECEIVED BY:	DATE/TIME:	METHOD OF SHIPMENT:
Tony Buenrostro		Ken Brown	2/15 1100	Express H
RELINQUISHED BY: Ken Brown	DATE/TIME: 2/15/91 1354	RECEIVED BY:	DATE/TIME: 2/15/91 5:35P	SHIPPED BY:
RELINQUISHED BY:	DATE/TIME:	RECEIVED BY:	DATE/TIME:	COURIER: