



BP OIL

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

April 26, 1995

~~Mr. Brian Oliva~~ *Eva*
Alameda County Health Care Services Agency
1131 Harbour Bay Parkway Room 250
Oakland, CA 94502-6577

ENVIRONMENTAL
PROTECTION
95 APR 27 AM 9:27

**RE: BP OIL FACILITY #11104
1716 Webster Street
Alameda, CA**

Dear Mr Oliva:

Attached please find our **GROUNDWATER MONITORING AND SAMPLING REPORT DATED March 25, 1995** 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\ERM11104

cc: Mr. Eddy So, CRWQCB, San Francisco Bay Region, 2101 Webster Street, Suite 500,
Oakland, CA 94612

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

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

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

Site File

MAR 2 1995

GROUNDWATER MONITORING AND SAMPLING REPORT

**BP Oil Company Service Station No. 11104
1716 Webster Street
Alameda, California**

BP OIL CO.
ENVIRONMENTAL
WEST COAST REGION
OFFICE

Project No. 10-155-03-003

Prepared for:

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

Prepared by:

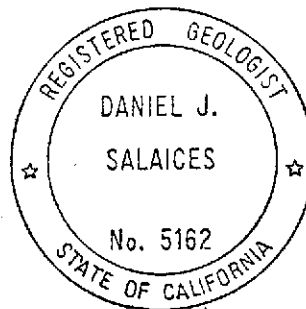
**Alisto Engineering Group
1777 Oakland Boulevard, Suite 200
Walnut Creek, California**

ENVIRONMENTAL
PROTECTION
95 APR 27 AM 9:28

March 22, 1995

**Brady Nagle
Project Manager**

**Daniel Salaires
Registered Geologist**



GROUNDWATER MONITORING AND SAMPLING REPORT

BP Oil Company Service Station No. 11104
1716 Webster Street
Alameda, California

Project No. 10-155-03-003

March 22, 1995

INTRODUCTION

This report presents the results and findings of the January 17, 1995 groundwater monitoring and sampling conducted by Alisto Engineering Group at BP Oil Company Service Station No. 11104, 1716 Webster Street, Alameda, 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, electrical conductivity, and dissolved oxygen. Groundwater samples were collected for laboratory analysis by lowering a bottom-fill, disposable bailer to just below the water level in the well. The samples were transferred from the bailer into laboratory-supplied containers. The water sampling field survey forms are presented in Appendix A.

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. 11104
 1716 WEBSTER STREET, ALAMEDA, CALIFORNIA

ALISTO PROJECT NO. 10-155

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (Feet)	TPH-G (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	DO (ppm)	LAB
MW-1	07/21/92	8.51	5.91	2.60	34000	7000	1700	2500	6900	---	---
MW-1	10/20/92	8.51	6.66	1.85	---	---	---	---	---	---	---
MW-1	03/05/93	8.51	4.58	3.95	---	---	---	---	---	---	---
MW-1	04/01/93	8.51	4.57	3.94	---	---	---	---	---	---	---
MW-1	07/09/93	8.51	5.25	3.26	77000	15000	1400	2100	7400	---	PACE
QC-1 (c)	07/09/93	8.51	---	---	79000	16000	1500	2200	7700	---	PACE
MW-1	10/08/93	8.51	6.01	2.50	42000	7100	270	2700	4700	---	PACE
MW-1	01/06/94	8.51	6.24	2.27	45000	12000	4300	3000	6700	---	PACE
MW-1	04/26/94	8.51	5.26	3.25	39000	6500	500	1800	1200	6.3	PACE
MW-1	07/25/94	8.51	5.60	2.91	38000	6300	240	1500	1100	1.7	PACE
MW-1	10/13/94	8.51	6.15	2.36	25000	6300	130	1300	830	2.3	PACE
QC-1 (c)	10/13/94	8.51	---	---	25000	7300	120	1200	740	---	PACE
MW-1	01/17/95	8.51	4.19	4.32	7800	3100	1100	460	850	7.9	ATI
QC-1 (c)	01/17/95	8.51	---	---	8400	3100	1200	470	1000	---	ATI
MW-2	07/21/92	9.41	8.44	2.97	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---
MW-2	10/20/92	9.41	7.39	2.02	---	---	---	---	---	---	---
MW-2	03/05/93	9.41	4.91	4.50	---	---	---	---	---	---	---
MW-2	04/01/93	9.41	4.92	4.49	---	---	---	---	---	---	---
MW-2	07/09/93	9.41	5.60	3.81	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	PACE
MW-2	10/08/93	9.41	6.50	2.91	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	PACE
QC-1 (c)	10/08/93	9.41	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	PACE
MW-2	01/06/94	9.41	6.25	3.16	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	PACE
MW-2	04/26/94	9.41	5.73	3.68	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	7.5	PACE
MW-2	07/25/94	9.41	6.07	3.34	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.4	PACE
MW-2	10/13/94	9.41	6.80	2.61	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.4	PACE
MW-2	01/17/95	9.41	5.10	4.31	---	---	---	---	---	---	---
MW-3 (d)	07/21/92	9.91	7.07	2.84	ND<50	0.95	ND<0.5	ND<0.5	ND<0.5	---	---
MW-3	10/20/92	9.91	8.06	1.85	---	---	---	---	---	---	---
MW-3	03/05/93	9.91	5.16	4.75	---	---	---	---	---	---	---
MW-3	04/01/93	9.91	5.25	4.66	---	---	---	---	---	---	---
MW-3	07/09/93	9.91	5.80	4.11	ND<50	0.6	ND<0.5	ND<0.5	ND<0.5	---	PACE
MW-3	10/08/93	9.91	7.17	2.74	ND<50	0.6	ND<0.5	ND<0.5	ND<0.5	---	PACE
MW-3	01/06/94	9.91	6.94	2.97	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	PACE
MW-3	04/26/94	9.91	6.18	3.73	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	3.1	PACE
MW-3	07/25/94	9.91	6.67	3.24	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.2	PACE
MW-3	10/13/94	9.91	7.43	2.48	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.1	PACE
MW-3	01/17/95	9.91	5.07	4.84	---	---	---	---	---	---	---
MW-4	03/05/93	8.33	4.81	3.52	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---
MW-4	04/01/93	8.33	4.80	3.53	---	---	---	---	---	---	---
MW-4	07/09/93	8.33	5.54	2.79	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	PACE
MW-4	10/08/93	8.33	6.28	2.05	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	PACE
MW-4	01/06/94	8.33	5.82	2.51	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	PACE
MW-4	04/26/94	8.33	5.50	2.83	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	7.4	PACE
MW-4	07/25/94	8.33	5.83	2.50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	7.2	PACE
MW-4	10/13/94	8.33	6.26	2.07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	6.7	PACE
MW-4	01/17/95	8.33	4.19	4.14	---	---	---	---	---	---	---

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
 BP OIL COMPANY SERVICE STATION NO. 11104
 1716 WEBSTER STREET, ALAMEDA, CALIFORNIA

ALISTO PROJECT NO. 10-155

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	DO (ppm)	LAB
MW-5	04/01/93	8.17	4.77	3.40	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---
MW-5	07/03/93	8.17	5.40	2.77	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	PACE
MW-5	10/03/93	8.17	5.67	2.30	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	PACE
MW-5	01/06/94	8.17	5.75	2.42	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	PACE
MW-5	04/26/94	8.17	5.49	2.68	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	7.1	PACE
MW-5	07/25/94	8.17	5.69	2.48	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	6.6	PACE
MW-5	10/13/94	8.17	6.03	2.14	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	3.0	PACE
MW-5	01/17/95	8.17	4.74	3.43	---	---	---	---	---	---	---
RW-1	01/06/94	8.37	5.59	2.78	23000	3800	210	840	2100	---	PACE
QC-1 (c)	01/06/94	---	---	---	24000	3700	210	830	2000	---	PACE
RW-1	04/26/94	8.37	5.21	3.16	24000	3500	120	800	1700	6.4	PACE
QC-1 (c)	04/26/94	---	---	---	22000	3300	110	700	1700	---	PACE
RW-1	07/25/94	8.37	5.52	2.85	31000	4800	290	1100	1700	5.5	PACE
QC-1 (c)	07/25/94	---	---	---	28000	4400	240	960	1400	---	PACE
RW-1	10/13/94	8.37	6.05	2.32	20000	4300	46	990	440	6.8	PACE
RW-1	01/17/95	8.37	4.02	4.35	9600	1600	65	300	2700	7.7	ATI
QC-2 (e)	07/09/93	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	PACE
QC-2 (e)	10/08/93	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	PACE
QC-2 (e)	01/06/94	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	PACE
QC-2 (e)	04/26/94	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	PACE
QC-2 (e)	07/25/94	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	PACE
QC-2 (e)	10/13/94	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	PACE
QC-2 (e)	01/17/95	---	---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1	---	ATI

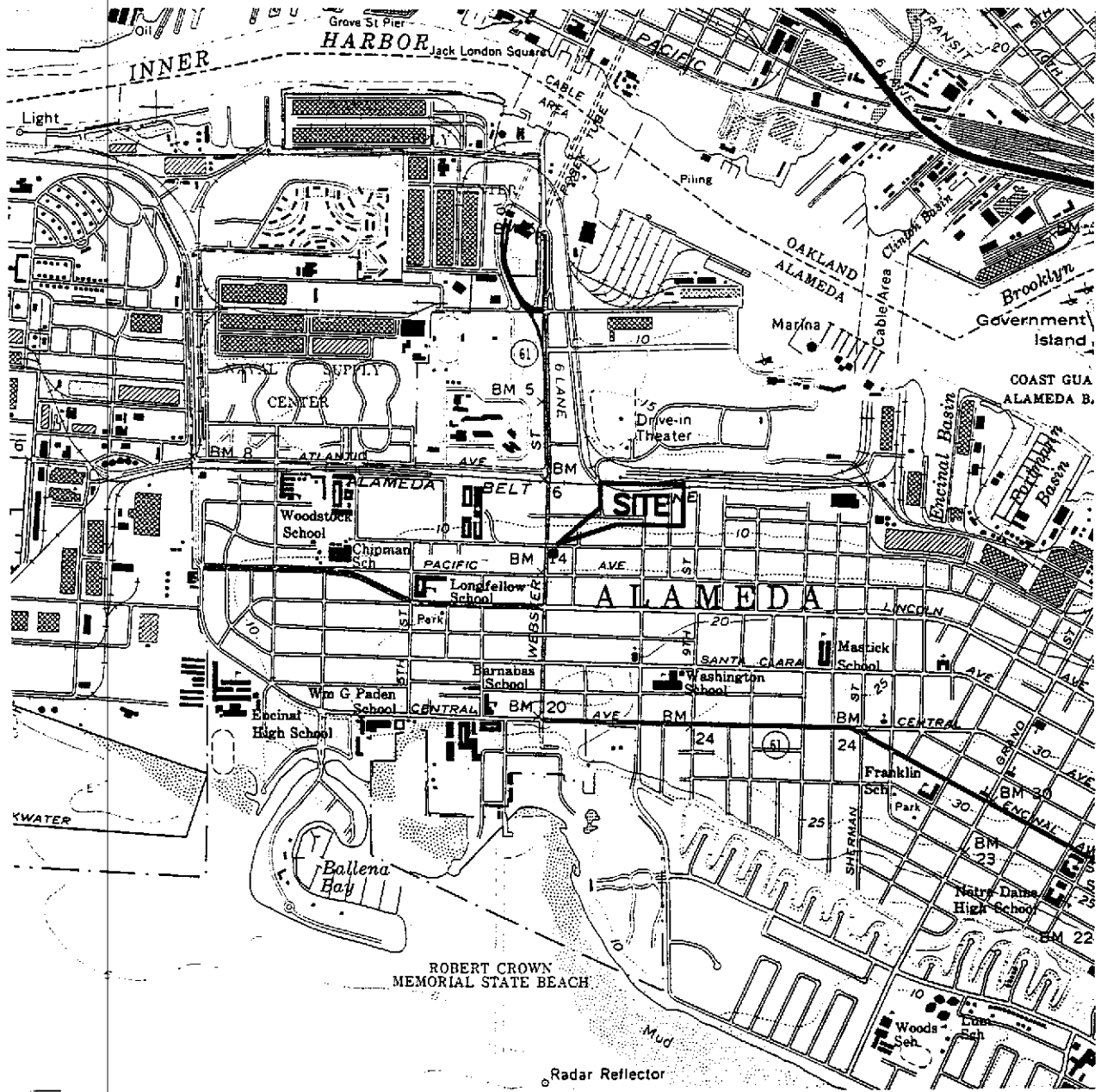
ABBREVIATIONS:

TPH-G	Total petroleum hydrocarbons as gasoline
B	Benzene
T	Toluene
E	Ethylbenzene
X	Total xylenes
DO	Dissolved oxygen
ug/L	Micrograms per liter
ppm	Parts per million
---	Not applicable/available/analyzed/measured
ND	Not detected above reported detection limit
PACE	Pace, Inc.
ATI	Analytical Technologies, Inc.

NOTES:

- (a) Top of casing elevations surveyed in reference to USGS benchmark (7.68 feet above mean sea level) at northwest corner of Webster Street and Buena Vista Avenue.
- (b) Groundwater elevations in feet above mean sea level.
- (c) Blind duplicate.
- (d) Sample also analyzed for cadmium, nickel, chromium, lead, and zinc. None were detected above the reported detection limit.
- (e) Travel blank.

E:\010\155-3-3



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



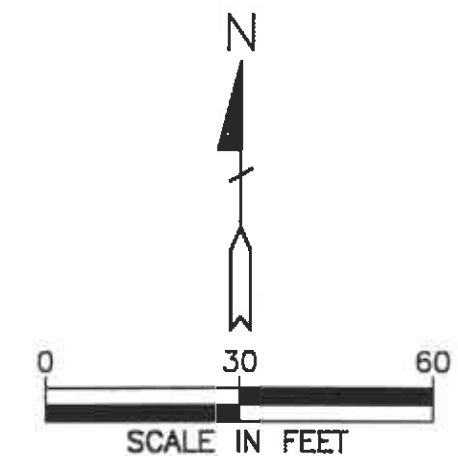
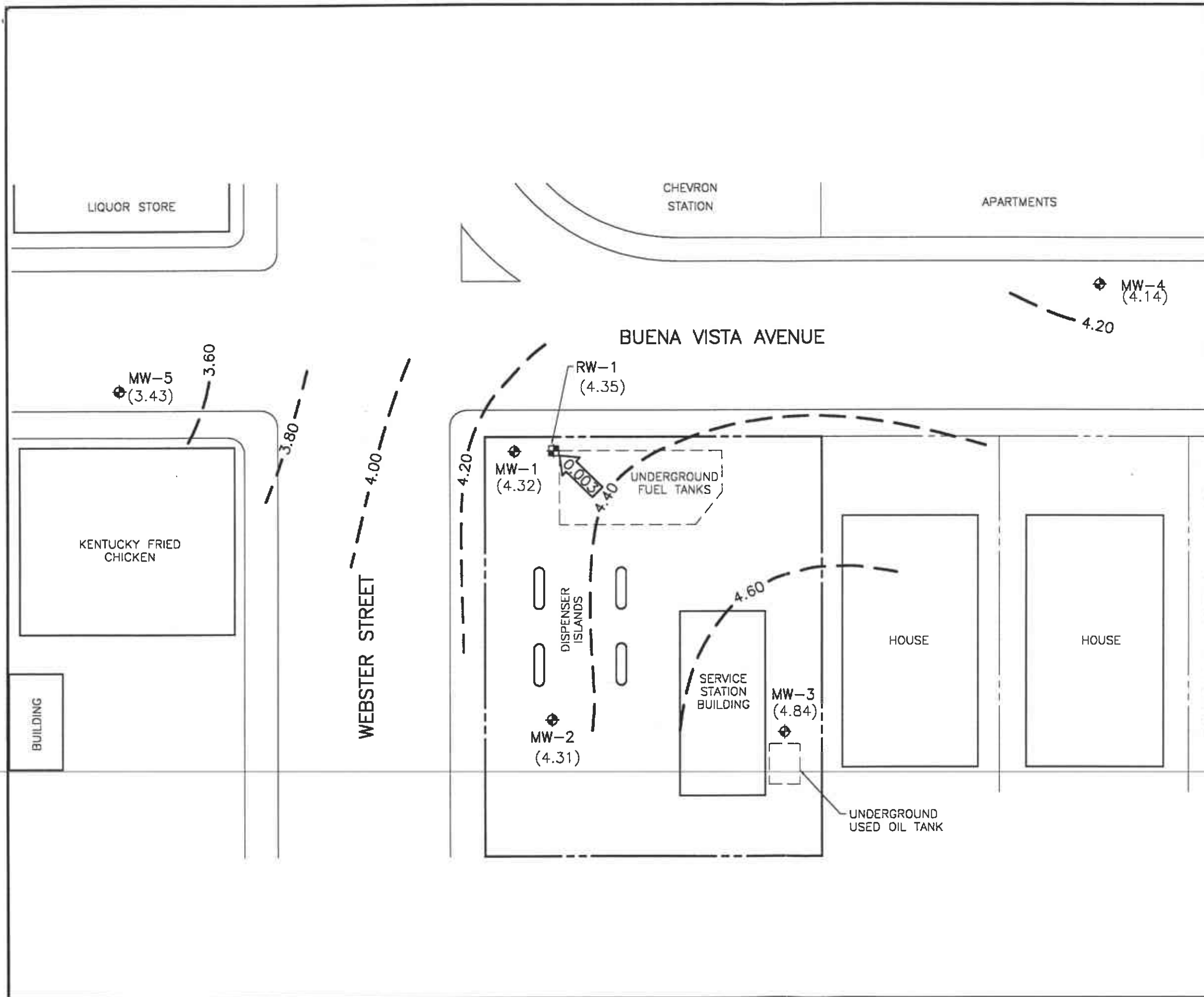
FIGURE 1

SITE VICINITY MAP

BP OIL SERVICE STATION NO. 11104
 1716 WEBSTER STREET
 ALAMEDA, CALIFORNIA
 PROJECT NO. 10-155



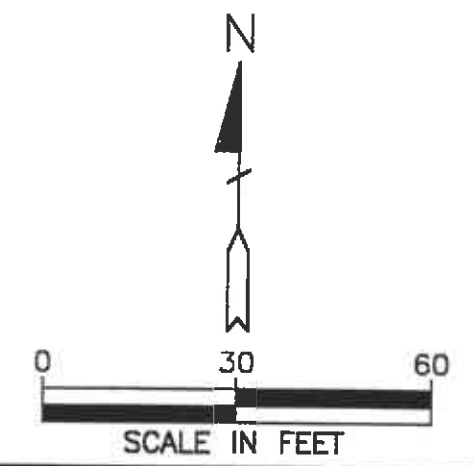
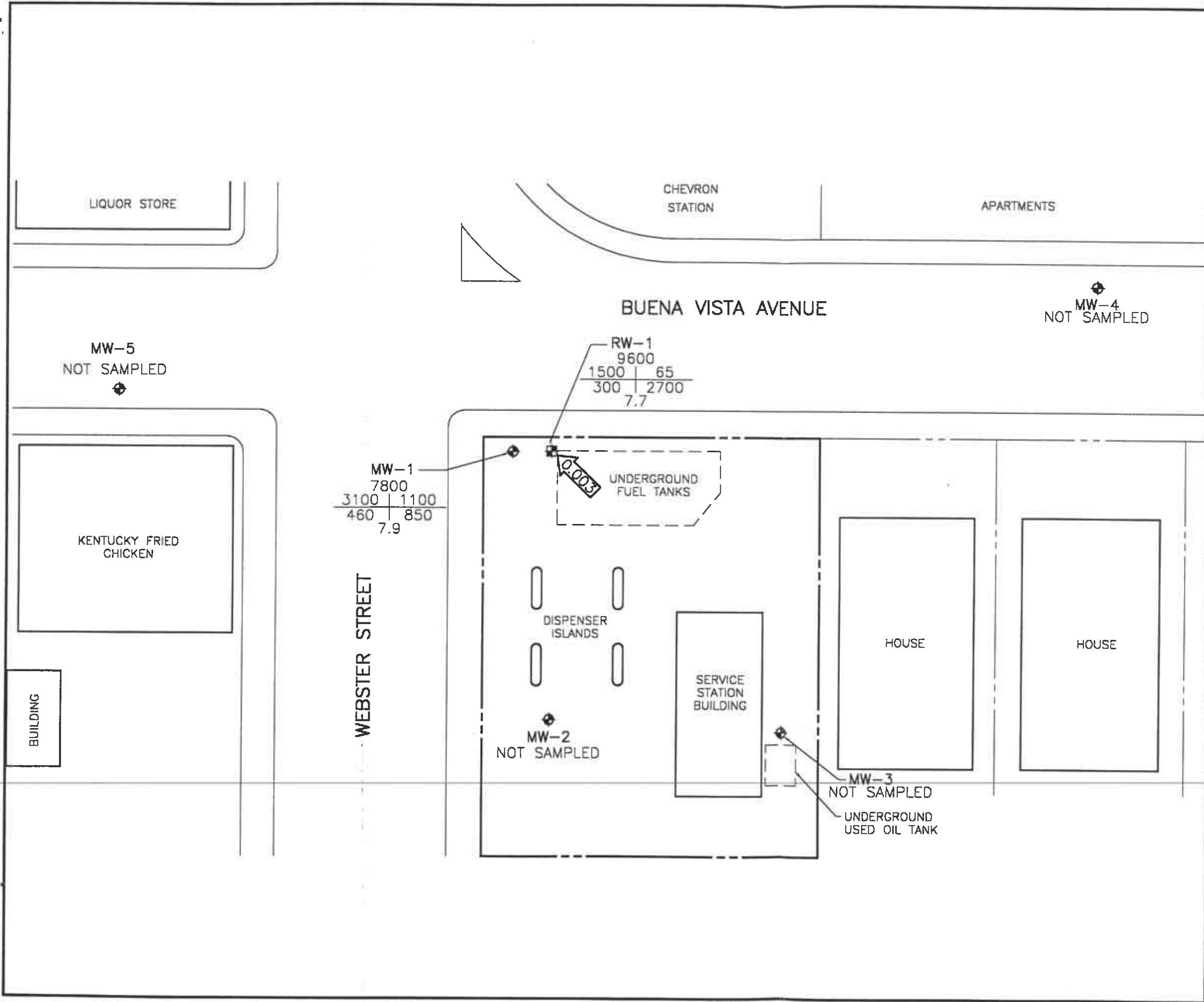
ALISTO ENGINEERING GROUP
 WALNUT CREEK, CALIFORNIA



- LEGEND**
- ◆ GROUNDWATER MONITORING WELL
 - ⊕ GROUNDWATER RECOVERY WELL
 - (3.43) GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
 - 3.60 - GROUNDWATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL (CONTOUR INTERVAL - 0.20 FOOT)
 - ← 0.003 CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT

FIGURE 2
POTENTIOMETRIC GROUNDWATER ELEVATION CONTOUR MAP
JANUARY 17, 1995
 BP OIL SERVICE STATION NO. 11104
 1716 WEBSTER STREET
 ALAMEDA, CALIFORNIA
 PROJECT NO. 10-155

101533-M-0000 10-155-2 08/95



LEGEND

- GROUNDWATER MONITORING WELL
- GROUNDWATER RECOVERY 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
B
T
E
X
DO
TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
- B
T
E
X
DO
BENZENE
- T
TOLUENE
- E
ETHYLBENZENE
- X
TOTAL XYLENES
- DO
DISSOLVED OXYGEN
- ND
NOT DETECTED ABOVE REPORTED DETECTION LIMIT
- 0.003**
CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT

FIGURE 3
CONCENTRATIONS OF PETROLEUM HYDROCARBONS IN GROUNDWATER
JANUARY 17, 1995
BP OIL SERVICE STATION NO. 11104
1716 WEBSTER STREET
ALAMEDA, CALIFORNIA
PROJECT NO. 10-155

APPENDIX A
WATER SAMPLING FIELD SURVEY FORMS

ALISTO

ENGINEERING
GROUP

Field Report / Sampling Data Sheet

Groundwater Sampling

Date: 1/17/95 Project No. 10-155-03-003
 Day: M (T) W Th F Facility No. 11104
 Temp. 58°F Address 1716 Webster St, Alameda, CA
 SAMPLER: DC

1777 OAKLAND BLVD, STE 200 Barometric pres. 761
 WALNUT CREEK CA 94596 (510) 295-1650 FAX 295-1823

Well ID	SAMPLE #	WATER	time	Well ID	SAMPLE #	WATER	time	Well ID	SAMPLE	WATER / time
MW-5	not	4.74/1101		MW-1	S-2	4.84/1117				
MW-4	not	4.19/1107				4.19 BH 2/1/95				
MW-3	not	5.07/1110								
MW-2	not	5.10/1112								
RW-1	S-1	4.02/1115								

FIELD INSTRUMENT CALIBRATION DATA

PH METER Hydac 4.00 7.00 10.00 TIME 1137 TEMPERATURE COMPENSATED Y N
 TURBIDI METER 5.0 NTU STANDARD OTHER Icm DO meter OSD in 1.2 @ 1145
 CONDUCTIVITY METER Hydac 10,000 OTHER

Well ID	Depth to Water	Diam	Cap/Lock	Depth to prod.	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.	
RW-1	4.02	6"	OK	Φ	Y <input checked="" type="radio"/> N	20	1155	60.0	7.34	0.38	7.0	<input type="radio"/> EPA 801
Total Depth - Water Level =						30	1202	60.4	7.30	0.28		<input checked="" type="radio"/> TPH-G/BTEX <u>HU</u>
x Well Vol. Factor =						50	1210	60.5	7.28	0.30		<input type="radio"/> TPH Dissol
x/vol. to Purge =						70	1220	60.2	7.33	0.31		<input type="radio"/> TOG 6620
Purge Vol. =						78	1227	60.0	7.39	0.31	7.7	Time/Sample
Purge Method: <input checked="" type="checkbox"/> Surface Pump <input type="checkbox"/> Disp. Tube <input type="checkbox"/> Winch <input type="checkbox"/> Disp. Bailer(s) <input type="checkbox"/> Sys Port												1235/S-1
Comments: <u>4.19 BH 2/1/95</u>												
MW-1	4.19	2"	OK		Y <input type="radio"/> N	2	1243	56.4	7.50	0.32	8.8	<input type="radio"/> EPA 801
Total Depth - Water Level =						4	1246	58.4	7.53	0.33		<input checked="" type="radio"/> TPH-G/BTEX <u>HU</u>
x Well Vol. Factor =						6.25	1251	58.9	7.54	0.33	7.9	<input type="radio"/> TPH Dissol
x/vol. to Purge =												<input type="radio"/> TOG 6520
Purge Vol. =												Time/Sample
Purge Method: <input checked="" type="checkbox"/> Surface Pump <input type="checkbox"/> Disp. Tube <input type="checkbox"/> Winch <input type="checkbox"/> Disp. Bailer(s) <input type="checkbox"/> Sys Port												1257/S-2
Comments: <u>Cal-1 from this well (S-3)</u>												
Well ID	Depth to Water	Diam	Cap/Lock	Depth to prod.	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.	<input type="radio"/> EPA 801
					Y <input type="radio"/> N							<input type="radio"/> TPH-G/BTEX
Total Depth - Water Level =												<input type="radio"/> TPH Dissol
x Well Vol. Factor =												<input type="radio"/> TOG 6520
x/vol. to Purge =												Time/Sample
Purge Vol. =												
Purge Method: <input type="checkbox"/> Surface Pump <input type="checkbox"/> Disp. Tube <input type="checkbox"/> Winch <input type="checkbox"/> Disp. Bailer(s) <input type="checkbox"/> Sys Port												
Comments:												

APPENDIX B

LABORATORY REPORT AND CHAIN OF CUSTODY RECORD

"FINAL REPORT FORMAT - SINGLE"

Accession: 501451
 Client: BP OIL COMPANY
 Project Number: 10-155-03-003
 Project Name: BP SITE #11104
 Project Location: 1716 WEBSTER ST., ALAMEDA, CA
 Test: BETX AND TPH C6-C10 RANGE
 Analysis Method: 5030/8020/8015/SW 846, 3rd Edition, Sep. 1986 and Rev. 1, July 1992
 Extraction Method: N/A
 Matrix: WATER
 QC Level: N

Lab Id: 001 Sample Date/Time: 17-JAN-95 1235
 Client Sample Id: S-1 Received Date: 19-JAN-95
 Batch: BEW025 Extraction Date: N/A
 Blank: B Dry Weight %: N/A Analysis Date: 26-JAN-95

Parameter:	Units:	Results:	Rpt Lmts:	Q:
BENZENE	UG/L	1500	5	
TOLUENE	UG/L	65	5	
ETHYLBENZENE	UG/L	300	5	
XYLENES (TOTAL)	UG/L	2700	10	
TOTAL PETROLEUM HYDROCARBON	MG/L	9.6	0.50	
TRIFLUOROTOLUENE (PID)	%REC/SURR	94.	63-135	
TRIFLUOROTOLUENE (FID)	%REC/SURR	109	63-135	
ANALYST	INITIALS	LKD		

Comments:

"FINAL REPORT FORMAT - SINGLE"

Accession: 501451
 Client: BP OIL COMPANY
 Project Number: 10-155-03-003
 Project Name: BP SITE #11104
 Project Location: 1716 WEBSTER ST., ALAMEDA, CA
 Test: BETX AND TPH C6-C10 RANGE
 Analysis Method: 5030/8020/8015/SW 846, 3rd Edition, Sep. 1986 and Rev. 1, July 1992
 Extraction Method: N/A
 Matrix: WATER
 QC Level: N

Lab Id: 002 Sample Date/Time: 17-JAN-95 1257
 Client Sample Id: S-2 Received Date: 19-JAN-95
 Batch: CAW020 Extraction Date: N/A
 Blank: C Dry Weight %: N/A Analysis Date: 29-JAN-95

Parameter:	Units:	Results:	Rpt Lmts:	Q:
BENZENE	UG/L	3100	50	
TOLUENE	UG/L	1100	50	
ETHYLBENZENE	UG/L	460	50	
XYLENES (TOTAL)	UG/L	850	100	
TOTAL PETROLEUM HYDROCARBON	MG/L	7.8	5.0	
TRIFLUOROTOLUENE (PID)	%REC/SURR	97	63-135	
TRIFLUOROTOLUENE (FID)	%REC/SURR	103	63-135	
ANALYST	INITIALS	KKS		

Comments:

"FINAL REPORT FORMAT - SINGLE"

Accession: 501451
Client: BP OIL COMPANY
Project Number: 10-155-03-003
Project Name: BP SITE #11104
Project Location: 1716 WEBSTER ST., ALAMEDA, CA
Test: BETX AND TPH C6-C10 RANGE
Analysis Method: 5030/8020/8015/SW 846, 3rd Edition, Sep. 1986 and Rev. 1, July 1992
Extraction Method: N/A
Matrix: WATER
QC Level: N

Lab Id: 003 Sample Date/Time: 17-JAN-95 N/S
Client Sample Id: S-3 Received Date: 19-JAN-95
Batch: CAW020 Extraction Date: N/A
Blank: C Dry Weight %: N/A Analysis Date: 29-JAN-95

Parameter:	Units:	Results:	Rpt Lmts:	Q:
BENZENE	UG/L	3100	50	
TOLUENE	UG/L	1200	50	
ETHYLBENZENE	UG/L	470	50	
XYLENES (TOTAL)	UG/L	1000	100	
TOTAL PETROLEUM HYDROCARBON	MG/L	8.4	5.0	
TRIFLUOROTOLUENE (PID)	%REC/SURR	97	63-135	
TRIFLUOROTOLUENE (FID)	%REC/SURR	102	63-135	
ANALYST	INITIALS	KKS		

Comments:

"FINAL REPORT FORMAT - SINGLE"

Accession: 501451
 Client: BP OIL COMPANY
 Project Number: 10-155-03-003
 Project Name: BP SITE #11104
 Project Location: 1716 WEBSTER ST., ALAMEDA, CA
 Test: BETX AND TPH C6-C10 RANGE
 Analysis Method: 5030/8020/8015/SW 846, 3rd Edition, Sep. 1986 and Rev. 1, July 1992
 Extraction Method: N/A
 Matrix: WATER
 QC Level: N

Lab Id: 004 Sample Date/Time: 17-JAN-95 N/S
 Client Sample Id: S-4 Received Date: 19-JAN-95
 Batch: CAW020 Extraction Date: N/A
 Blank: C Dry Weight %: N/A Analysis Date: 29-JAN-95

Parameter:	Units:	Results:	Rpt Lmts:	Q:
BENZENE	UG/L	ND	0.5	
TOLUENE	UG/L	ND	0.5	
ETHYLBENZENE	UG/L	ND	0.5	
XYLENES (TOTAL)	UG/L	ND	1	
TOTAL PETROLEUM HYDROCARBON	MG/L	ND	0.050	
TRIFLUOROTOLUENE (PID)	%REC/SURR	99	63-135	
TRIFLUOROTOLUENE (FID)	%REC/SURR	103	63-135	
ANALYST	INITIALS	KKS		

Comments:

"Method Report Summary"

Accession Number: 501451
Client: BP OIL COMPANY
Project Number: 10-155-03-003
Project Name: BP SITE #11104
Project Location: 1716 WEBSTER ST., ALAMEDA, CA
Test: BETX AND TPH C6-C10 RANGE

Client Sample Id:	Parameter:	Unit:	Result:
S-1	BENZENE	UG/L	1500
	TOLUENE	UG/L	65
	ETHYLBENZENE	UG/L	300
	XYLENES (TOTAL)	UG/L	2700
	TOTAL PETROLEUM HYDROCARBON	MG/L	9.6
S-2	BENZENE	UG/L	3100
	TOLUENE	UG/L	1100
	ETHYLBENZENE	UG/L	460
	XYLENES (TOTAL)	UG/L	850
	TOTAL PETROLEUM HYDROCARBON	MG/L	7.8
S-3	BENZENE	UG/L	3100
	TOLUENE	UG/L	1200
	ETHYLBENZENE	UG/L	470
	XYLENES (TOTAL)	UG/L	1000
	TOTAL PETROLEUM HYDROCARBON	MG/L	8.4

Common notation for Organic reporting

N/S = NOT SUBMITTED
N/A = NOT APPLICABLE
D = DILUTED OUT
UG/L = PARTS PER BILLION.
UG/KG = PARTS PER BILLION.
MG/KG = PARTS PER MILLION.
MG/L = PARTS PER MILLION.
< = LESS THAN DETECTION LIMIT.
* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS
SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM
AND REFERENCED METHOD.
ORGANIC SOILS ARE REPORTED ON A DRY WEIGHT BASIS.
** COMPOUNDS FLAGGED IN METHOD ARE NOT WITHIN THE FIVE POINT CURVE. THEY
ARE SEARCHED FOR QUALITATIVELY.
ND = NOT DETECTED ABOVE REPORTING LIMIT.

SR-SHELLEY REAMSMA
DC-DAVID CELESTIAL
LKD-LEIGH DUVALL
MM-MIKE MCKENZIE
KWS-KENDALL SMITH
KKS-KIMBERLY SMITH
GF-GREG FOOTE
NC-NICOLE CALL
JA-JENNIFER ALEXANDER
PAM-PENNY A. MALOUIN
MCW-MARIE CLAUDIA WALTON
SB-SHARON BRADDOCK
KF-KAROLE FERGUSON
SC-SCOTT CLARK
AM-AMANDA MCCRAY



CHAIN OF CUSTODY

501451
No. 052525

Page 1 of 1

CONSULTANT'S NAME <i>Aristo Engineering</i>		ADDRESS <i>1777 Oakland Blvd</i>		CITY <i>Walnut Creek</i>	STATE <i>CA</i>	ZIP CODE <i>94596</i>
BP SITE NUMBER <i>11104</i>	BP CORNER ADDRESS/CITY <i>1716 Webster St, Alameda CA</i>			CONSULTANT PROJECT NUMBER <i>10-155-03-003</i>		
CONSULTANT PROJECT MANAGER <i>Bill Howell</i>		PHONE NUMBER <i>(510) 295 1650</i>	FAX NUMBER <i>(510) 295 1823</i>		CONSULTANT CONTRACT NUMBER <i>6317830</i>	
BP CONTACT <i>Scott Hooton</i>	BP ADDRESS <i>Renton WA</i>		PHONE NUMBER	FAX NO.		
LAB CONTACT <i>Diana Spence</i>	LABORATORY ADDRESS <i>Pensacola, FL</i>		PHONE NUMBER <i>904-474-1001</i>	FAX NO.		
SAMPLED BY (Please Print Name) <i>David Wsack</i>		SAMPLED BY (Signature) <i>[Signature]</i>		SHIPMENT DATE		SHIPMENT METHOD <i>Courier</i>

TAT: 24 Hours 48 Hours 1 Week Standard 2 Weeks

ANALYSIS REQUIRED

AIRBILL NUMBER

SAMPLE DESCRIPTION	COLLECTION DATE	MATRIX SOIL/WATER	CONTAINERS		PRESERVATIVE	H ₂ O TPH GAS BTEX														COMMENTS
	COLLECTION TIME		NO.	TYPE (VOL.)	LAB SAMPLE #															
S-1 1235	1/17/95	420	2	Voa	1	X														
S-2 1257	↓	↓	↓	↓	2	↓														
S-3 -	↓	↓	↓	↓	3	↓														
S-4 -	↓	↓	↓	↓	4	↓														

RELINQUISHED BY / AFFILIATION <i>Fos Wsack Aristo</i>	DATE <i>1/18</i>	TIME <i>1530</i>	ACCEPTED BY / AFFILIATION <i>Sally G. Wells / ATC</i>	DATE <i>1/19/95</i>	TIME <i>0909</i>	ADDITIONAL COMMENTS
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