BP OIL

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

April 24, 1995

MR SCOTT SEERY
ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY
80 SWAN WAY ROOM 200
OAKLAND CA 94621

RE: BP OIL FACILITY #11105
3515 Castro Valley Blvd
Castro Valley, CA

Attached please find our **GROUNDWATER MONITORING AND SAMPLING REPORT DATED April 3, 1995** for the above referenced facility.

Please note that John Bates of the Alameda County Department of Public Works has agreed to forward test boring logs and associated data for right-of-way assessment work performed by ACC Environmental. I will send you a copy upon reciept. Confirming our previous discussion, this additional information may warrant modification of the workplan previously approved by the ACHCSA.

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\ERM11105

cc: Mr. Eddy So, CRWQCB, San Francisco Bay Region, 2101 Webster Street, Suite 200, Oakland, CA 94612

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

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

Site File

GROUNDWATER MONITORING AND SAMPLING REPORT

BP Oil Company Service Station No. 11105
3515 Castro Valley Boulevard
Castro Valley, California

Project No. 10-138-02-004

Prepared for:

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

Prepared by:

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

April 3, 1995

Brady Nagle
Project Manager

Al Sevilla, P.E.
Principal

GROUNDWATER MONITORING AND SAMPLING REPORT

BP Oil Company Service Station No. 11105
3515 Castro Valley Boulevard
Castro Valley, California

Project No. 10-138-02-004

April 3, 1995

INTRODUCTION

This report presents the results and findings of the January 19, 1995 groundwater monitoring and sampling conducted by Alisto Engineering Group at BP Oil Company Service Station No. 11105, 3515 Castro Valley Boulevard, Castro Valley, 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 collected during 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 laboratory 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. 11105
3515 CASTRO VALLEY BOULEVARD, CASTRO VALLEY, CALIFORNIA

ALISTO PROJECT NO. 10-138

WELL ID		DATE OF SAMPLING/ MONITORING	CASING ELEVATION (Feet)		DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ppb)	TPH-D (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	TOG (ppb)	1,2-DCA (ppb)	DO (ppm)	LAB
ESE-1		10/05/92	182.49		11.22	171.27	2100	96	370	150	17	110	ND	1.8	—	—
ESE-1D	(c)	10/05/92	—		—	—	2300	—	370	160	16	110	—	—	—	—
ESE-1		04/01/93	182.49		8.79	173.70	5900	—	1500	410	110	390	—	—	—	PACE
ESE-1		06/29/93	182.49		10.34	172.15	7600	—	2900	390	130	460	—	—	—	PACE
ESE-1		09/23/93	182.49		10.91	171.58	2000	—	490	40	20	56	—	—	—	PACE
QC-1	(c)	09/23/93	—		—	—	1500	—	420	39	19	56	—	—	—	PACE
ESE-1		12/10/93	182.49		9.93	172.56	1800	—	480	42	19	66	—	—	3.2	PACE
QC-1	(c)	12/10/93	—		—	—	1500	—	380	38	17	55	—	—	—	PACE
ESE-1		02/17/94	182.49		9.64	172.85	1900	—	380	48	24	80	—	—	—	PACE
QC-1	(c)	02/17/94	—		—	—	2200	—	430	42	19	65	—	—	—	PACE
ESE-1		08/08/94	177.69	(d)	11.72	165.97	2100	—	450	46	16	50	—	—	5.1	PACE
ESE-1		10/12/94	177.69		10.48	167.21	760	—	240	16	51	39	—	—	3.5	PACE
ESE-1		01/19/95	177.69		7.77	169.92	840	—	600	120	22	58	—	—	8.0	ATI
ESE-2		10/05/92	181.95		11.68	170.27	300	—	5.4	16	3.9	45	—	—	—	—
ESE-2		04/01/93	181.95		9.17	172.78	240	—	27	ND<0.5	17	2.6	—	—	—	PACE
ESE-2		06/29/93	181.95		10.88	171.07	1700	—	260	24	110	23	—	—	—	PACE
QC-1	(c)	06/29/93	—		—	—	1300	—	240	17	110	25	—	—	—	PACE
ESE-2		09/23/93	181.95		11.56	170.39	240	—	3.1	0.5	0.6	2.5	—	—	—	PACE
ESE-2		12/10/93	181.95		10.48	171.47	250	—	2.4	2.4	1.5	11	—	—	2.6	PACE
ESE-2		02/17/94	181.95		10.06	171.89	900	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—	PACE
ESE-2		08/08/94	178.23	(d)	11.11	167.12	750	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	5.1	PACE
ESE-2		10/12/94	178.23		11.31	166.92	1700	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	3.6	PACE
ESE-2		01/19/95	178.23		8.25	169.98	300	—	2	0.9	0.7	1	—	—	8.1	ATI
ESE-3		10/05/92	182.00		10.58	171.42	430	—	57	31	3.6	34	—	—	—	—
ESE-3		04/01/93	182.00		8.14	173.86	2400	—	460	220	74	210	—	—	—	PACE
ESE-3		06/29/93	182.00		9.72	172.28	280	—	56	14	15	13	—	—	—	PACE
ESE-3		09/23/93	182.00		10.46	171.54	72	—	13	3.5	1.7	4.1	—	—	—	PACE
ESE-3		12/10/93	182.00		9.30	172.70	270	—	71	32	6.1	33	—	—	2.7	PACE
ESE-3		02/17/94	182.00		8.97	173.03	520	—	140	10	20	33	—	—	—	PACE
ESE-3		08/08/94	178.20	(d)	10.02	168.18	ND<50	—	8.8	1.6	1.6	2.3	—	—	6.2	PACE
ESE-3		10/12/94	178.20		10.32	167.88	470	—	190	6.4	15	18	—	—	3.5	PACE
ESE-3		01/19/95	178.20		7.40	170.80	330	—	260	27	21	20	—	—	6.7	ATI
ESE-4		10/05/92	182.47		10.33	172.14	98	—	7.2	1.3	1.1	6.1	—	—	—	—
ESE-4		04/01/93	182.47		7.88	174.59	550	—	93	20	23	33	—	—	—	PACE
ESE-4		06/29/93	182.40	(e)	8.33	174.07	150	—	23	0.6	5.4	0.5	—	—	—	PACE
ESE-4		09/23/93	182.40		10.05	172.35	110	—	14	1.7	3.2	4.6	—	—	—	PACE
ESE-4		12/10/93	182.40		8.95	173.45	110	—	21	7.2	4.2	10	—	—	2.8	PACE
ESE-4		02/17/94	182.40		8.65	173.75	210	—	26	1.2	4.7	11	—	—	—	PACE
ESE-4		08/08/94	177.66	(d)	9.76	167.90	76	—	9.6	ND<0.5	2.0	ND<0.5	—	—	7.0	PACE
ESE-4		10/12/94	177.66		9.62	168.04	ND<50	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	3.2	PACE
ESE-4		01/19/95	177.66		6.97	170.69	140	—	58	14	24	23	—	—	6.9	ATI

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
BP OIL COMPANY SERVICE STATION NO. 11105
3515 CASTRO VALLEY BOULEVARD, CASTRO VALLEY, CALIFORNIA

ALISTO PROJECT NO. 10-138

WELL ID		DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)		DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ppb)	TPH-D (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	TOG (ppb)	1,2-DCA (ppb)	DO (ppm)	LAB
ESE-5		10/05/92	184.09		9.22	174.87	1300	—	200	3.8	1.2	18	---	---	---	---
ESE-5		04/01/93	184.09		7.02	177.07	13000	---	2200	26	730	1000	---	—	—	PACE
QC-1	(c)	04/01/93	---		---	---	13000	—	2500	25	740	1100	---	---	---	PACE
ESE-5		06/29/93	184.09		10.21	173.88	7600	---	1500	9.3	170	100	---	---	---	PACE
ESE-5		09/23/93	184.09		10.64	173.45	560	---	19	1.2	0.9	1.8	—	—	—	PACE
ESE-5		12/10/93	184.09		9.42	174.67	1700	—	300	3.0	76	110	---	---	2.5	PACE
ESE-5		02/07/94	184.09		9.35	174.74	3500	---	640	7.8	90	130	—	---	---	PACE
ESE-5		08/08/94	176.08	(d)	8.76	167.32	2600	—	210	4.6	9.4	4.4	---	---	5.8	PACE
QC-1	(c)	08/08/94	---		—	---	2500	---	230	4.6	13	4.8	---	---	---	PACE
ESE-5		10/12/94	176.08		8.95	167.13	5600	---	560	9.5	75	21	—	—	3.6	PACE
QC-1	(c)	10/12/94	—		---	---	6000	—	550	10	78	22	---	---	---	PACE
ESE-5		01/19/95	176.08		5.40	170.68	1900	---	620	ND<5	95	15	---	---	7.6	ATI
QC-1	(c)	01/19/95	---		---	---	1600	---	600	ND<5	93	17	—	—	—	ATI
QC-2	(f)	04/01/93	—		---	---	ND<50	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	—	—	PACE
QC-2	(f)	06/29/93	---		---	—	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
QC-2	(f)	09/23/93	—		---	—	ND<50	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
QC-2	(f)	12/10/93	—		---	—	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—	PACE
QC-2	(f)	02/17/94	—		---	---	ND<50	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
QC-2	(f)	08/08/94	---		---	—	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
QC-2	(f)	10/12/94	—		---	---	ND<50	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	—	—	PACE
QC-2	(f)	01/19/95	---		---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<1	---	---	---	ATI

ABBREVIATIONS:

TPH-G	Total petroleum hydrocarbons as gasoline
TPH-D	Total petroleum hydrocarbons as diesel
B	Benzene
T	Toluene
E	Ethylbenzene
X	Total xylenes
TOG	Total oil and grease
1,2-DCA	1,2-Dichloroethane
DO	Dissolved oxygen
ppb	Parts per billion
ppm	Parts per million
ND	Not detected above reported detection limit
—	Not applicable/measured/analyzed
PACE	Pace, Inc.
ATI	Analytical Technologies, Inc.

NOTES:

(a) Top of casing elevations relative to mean sea level.

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

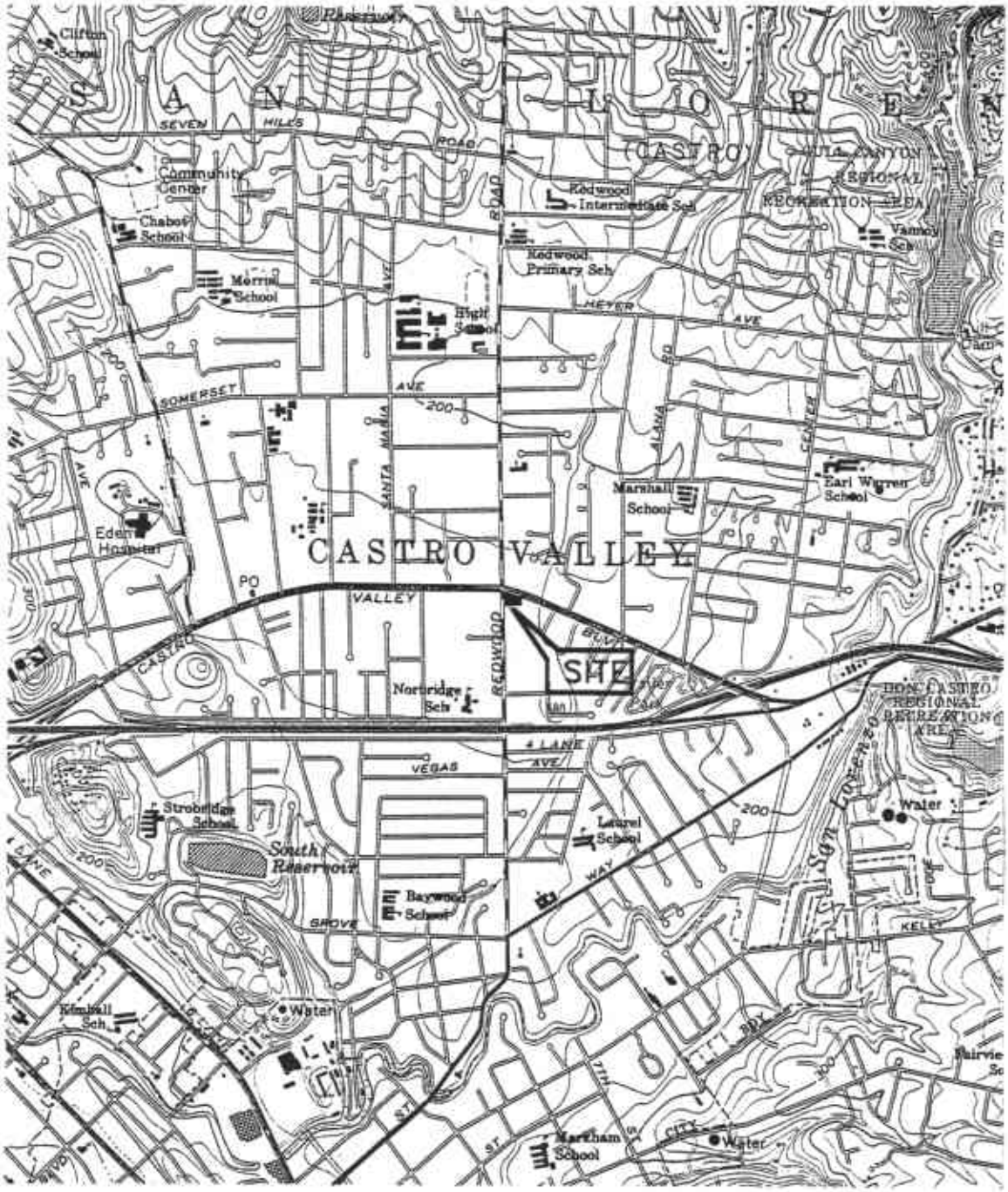
(c) Blind duplicate.

(d) Well resurveyed in March 1994.

(e) Top of casing lowered by 0.07 foot after the monitoring event on 4/01/93.

(f) Travel blank.

E:\0\10-138-2-4



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

N

0 1000' 2000'

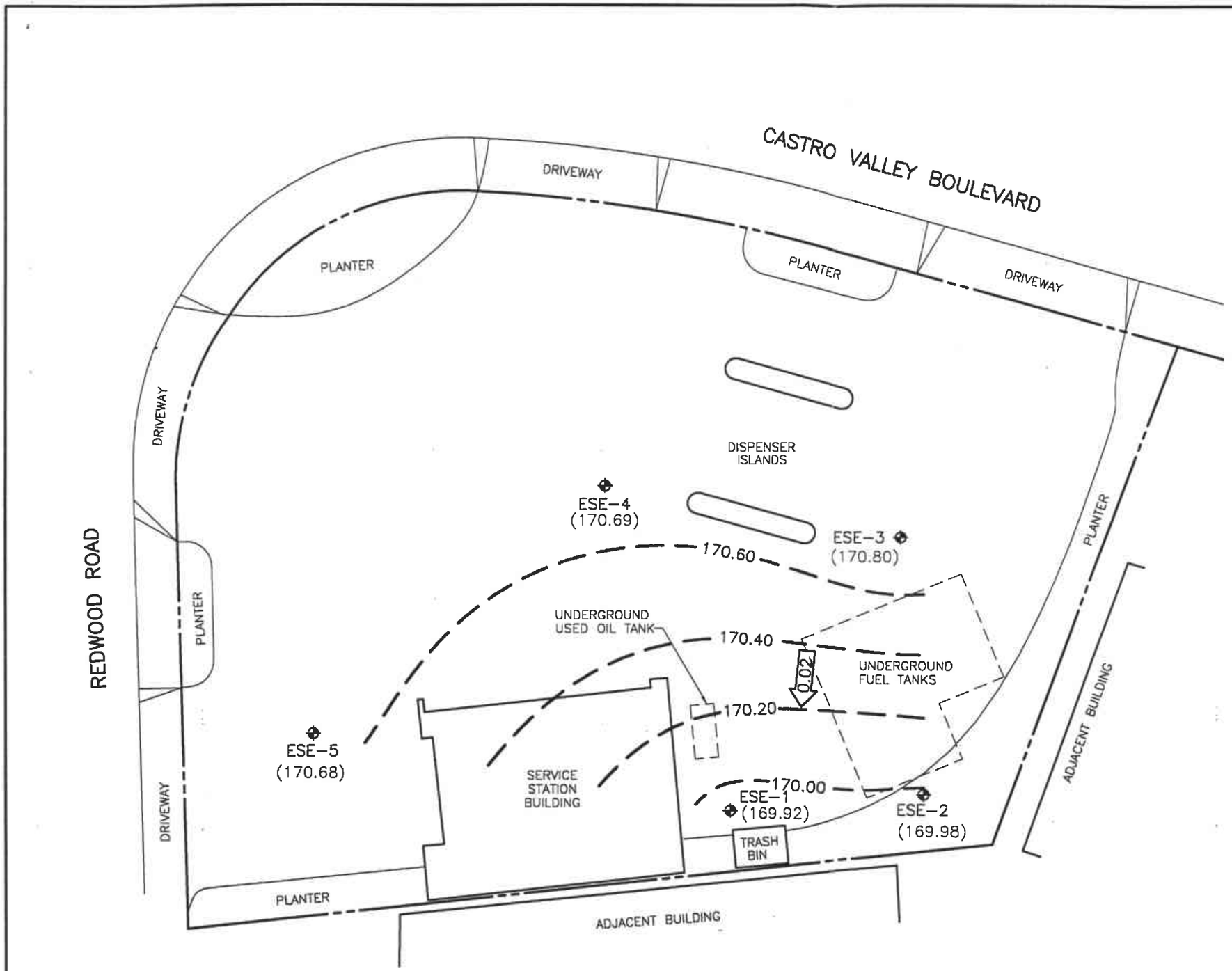
FIGURE 1

SITE VICINITY MAP

BP OIL SERVICE STATION NO. 11105
3515 CASTRO VALLEY BOULEVARD
CASTRO VALLEY, CALIFORNIA

PROJECT NO. 10-138

ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA



N

0 20 40

SCALE IN FEET

LEGEND

- GROUNDWATER MONITORING WELL
- (170.80) GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
- 170.80 GROUNDWATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL (CONTOUR INTERVAL–0.20 FOOT)
- 0.02 CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT

FIGURE 2

POTENTIOMETRIC GROUNDWATER ELEVATION CONTOUR MAP

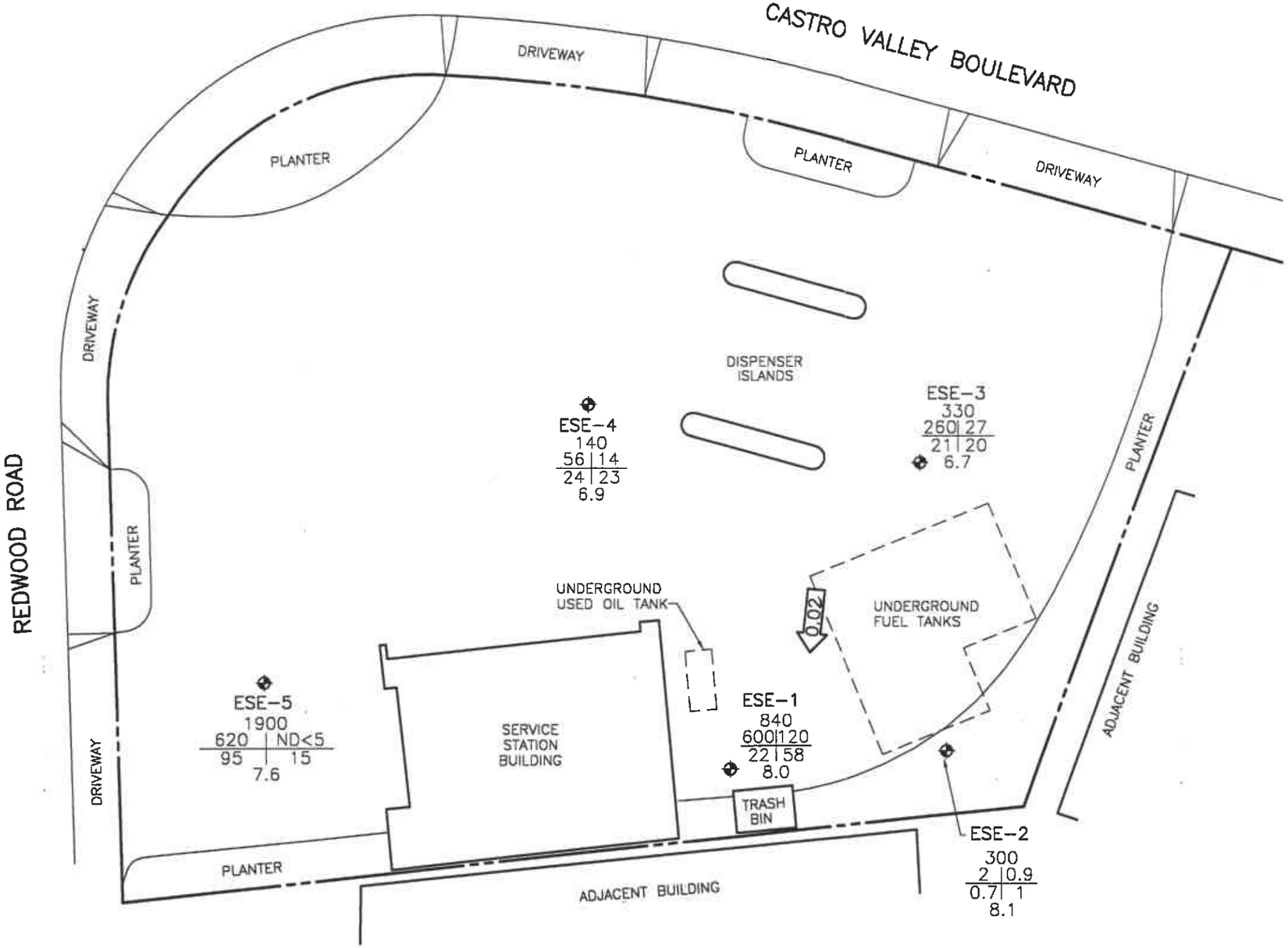
JANUARY 19, 1995

BP OIL SERVICE STATION NO. 11105
3515 CASTRO VALLEY BOULEVARD
CASTRO VALLEY, CALIFORNIA

PROJECT NO. 10–138

ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA

10138D-M.DWG 2-21-95 RDM 1=20



N

0 20 40

SCALE IN FEET

LEGEND

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

FIGURE 3

CONCENTRATIONS OF PETROLEUM HYDROCARBONS IN GROUNDWATER

JANUARY 19, 1995

BP OIL SERVICE STATION NO. 11105
3515 CASTRO VALLEY BOULEVARD
CASTRO VALLEY, CALIFORNIA

PROJECT NO. 10-138

ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA

10138C-ALDWG 2-21-95 RKW 1-20

APPENDIX A

WATER SAMPLING FIELD SURVEY FORMS

ALISTO ENGINEERING GROUP
GROUNDWATER MONITORING

Client: BP
Alisto Project No: 10-138
Service Station No: 11105

Date: 1/19/95
Field Personnel: LG
Site Address: Castro Valley, CA

FIELD ACTIVITY:

X Groundwater Monitoring
X Groundwater Sampling
___ Well Development

QUALITY CONTROL SAMPLES:

ESE-5 (S-6) QC-1 Sample Duplicate (Well ID)
X QC-2 Trip Blank (S-7)
___ QC-3 Rinsate Blank

Well ID	Well Diam	Order Measured/ Sampled	Total Depth	Depth to Water	Depth to Product	Product Thick-ness	Comments Sample ID
ESE MW-1	2"	4	30.00	7.77	Ø	Ø	S-4
ESE MW-2	"	3	30.00	8.25	"	"	S-3
ESE MW-3	"	2	30.00	7.40	"	"	S-2
ESE MW-4	"	1	25.00	6.97	"	"	S-1
ESE MW-5	↓	5	24.00	5.40	↓	↓	S-5

Notes:

FORM: FS2/121592

ALISTO

Field Report / Sampling Data Sheet

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

X Groundwater Sampling

Date: 1/19/95 Project No. 10-138
Day: Thurs Station No. 11105
Weather: Cloudy Address Castro Valley, Ca
SAMPLER: LB

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Thickness	Gal.	Time	Temp °F	pH	E.C.	D.O.
ESE-4	6.97	2"	OK	Ø	Ø	3	1100	67.8	6.98	1110	8.1
						6		67.9	7.11	1000	
						9	1115	68.1	7.24	930	6.9

Total Depth - Water Level = x Well Vol. Factor = x #vol. to Purge = PurgeVol.
25.00 - 6.97 = 18.03 X .16 = 2.88 X 3 = 8.64
Purge Method: X Surface Pump O Disp. Tube O Winch O Disp. Baller(s) ___ O Sys Port
Comments:

O EPA 601 ___
X TPH-G/BTEX HCl
O TPH Diesel ___
O TOG 5520 ___
Time Sampled 1120 / S-1

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Thickness	Gal.	Time	Temp °F	pH	E.C.	D.O.
ESE-3	7.40	2"	OK	Ø	Ø	3	1123	66.2	6.99	799	8.4
						6		67.1	7.41	540	
						11	1135	67.7	7.52	520	6.7

Total Depth - Water Level = x Well Vol. Factor = x #vol. to Purge = PurgeVol.
30.00 - 7.40 = 22.60 X .16 = 3.62 X 3 = 10.86
Purge Method: X Surface Pump O Disp. Tube O Winch O Disp. Baller(s) ___ O Sys Port
Comments:

O EPA 601 ___
X TPH-G/BTEX HCl
O TPH Diesel ___
O TOG 5520 ___
Time Sampled 1145 / S-2

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Thickness	Gal.	Time	Temp °F	pH	E.C.	D.O.
ESE-2	8.25	2"	OK	Ø	Ø	4	1149	64.9	7.19	766	7.6
						8		65.6	7.27	764	
						11	1209	67.1	7.36	764	8.1

Total Depth - Water Level = x Well Vol. Factor = x #vol. to Purge = PurgeVol.
30.00 - 8.25 = 21.75 X .16 = 3.48 X 3 = 10.44
Purge Method: X Surface Pump O Disp. Tube O Winch O Disp. Baller(s) ___ O Sys Port
Comments:

O EPA 601 ___
X TPH-G/BTEX HCl
O TPH Diesel ___
O TOG 5520 ___
Time Sampled 1215 / S-3

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Thickness	Gal.	Time	Temp °F	pH	E.C.	D.O.
ESE-1	7.77	2"	OK	Ø	Ø	4	1320	64.9	7.57	909	8.0
						8		65.5	7.41	960	
						11	1340	66.1	7.39	970	8.0

Total Depth - Water Level = x Well Vol. Factor = x #vol. to Purge = PurgeVol.
30.00 - 7.77 = 22.23 X .16 = 3.56 X 3 = 10.68
Purge Method: X Surface Pump O Disp. Tube O Winch O Disp. Baller(s) ___ O Sys Port
Comments:

O EPA 601 ___
X TPH-G/BTEX HCl
O TPH Diesel ___
O TOG 5520 ___
Time Sampled 1345 / S-4

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Thickness	Gal.	Time	Temp °F	pH	E.C.	D.O.
ESE-5	5.40	2"	OK	Ø	Ø	3	1400	62.9	7.57	1120	7.2
						6		64.7	7.63	760	
						9	1415	65.3	7.67	750	
											7.6

Total Depth - Water Level = x Well Vol. Factor = x #vol. to Purge = PurgeVol.
24.00 - 5.40 = 18.60 X .16 = 2.98 X 3 = 8.94
Purge Method: X Surface Pump O Disp. Tube O Winch O Disp. Baller(s) ___ O Sys Port
Comments: QC-1 taken from this well

O EPA 601 ___
X TPH-G/BTEX HCl
O TPH Diesel ___
O TOG 5520 ___
Time Sampled 1425 / S-5

APPENDIX B

LABORATORY REPORT AND CHAIN OF CUSTODY RECORD

Analytical**Technologies,**Inc. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

SIGNATURE PAGE

Reviewed by: Melissa L. Pope
ATI Project Manager

Client:	BP OIL COMPANY RENTON, WASHINGTON
Project Name:	BP SITE #11105
Project Number:	10-138-02-004
Project Location:	CASTRO VALLEY, CA
Accession Number:	501536
Project Manager:	BILL HOWELL (ALISTO ENG., CA), SCOTT HOOTON (BP OIL)
Sampled By:	LARRY BUENVEINDA

RECEIVED
FEB 10 1995

RECEIVED
FEB 09 1995

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Analysis Report

Analysis: CA-LUFT BETX AND TPH C6-C10 RANGE

Accession:	501536
Client:	BP OIL COMPANY
Project Number:	10-138-02-004
Project Name:	BP SITE #11105
Project Location:	CASTRO VALLEY, CA
Department:	GC/VOA

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"FINAL REPORT FORMAT - SINGLE"

Accession:	501536
Client:	BP OIL COMPANY
Project Number:	10-138-02-004
Project Name:	BP SITE #11105
Project Location:	CASTRO VALLEY, CA
Test:	CA-LUFT 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:	19-JAN-95 N/S
Client Sample Id:	S-1		Received Date:	21-JAN-95
Batch: GRW002			Extraction Date:	N/A
Blank: B	Dry Weight %:	N/A	Analysis Date:	02-FEB-95

Parameter:	Units:	Results:	Rpt Lmts:	Q:
BENZENE	UG/L	56	0.5	
TOLUENE	UG/L	14	0.5	
ETHYLBENZENE	UG/L	24	0.5	
XYLENES (TOTAL)	UG/L	23	1	
TOTAL PETROLEUM HYDROCARBON	MG/L	0.14	0.050	
TRIFLUOROTOLUENE (PID)	%REC/SURR	78	63-135	
TRIFLUOROTOLUENE (FID)	%REC/SURR	81	63-135	
ANALYST	INITIALS	KWS		

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"FINAL REPORT FORMAT - SINGLE"

Accession: 501536
Client: BP OIL COMPANY
Project Number: 10-138-02-004
Project Name: BP SITE #11105
Project Location: CASTRO VALLEY, CA
Test: CA-LUFT 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: 19-JAN-95 N/S
Client Sample Id: S-2 Received Date: 21-JAN-95

Batch: GRW002 Extraction Date: N/A
Blank: B Dry Weight %: N/A Analysis Date: 02-FEB-95

Parameter:	Units:	Results:	Rpt Lmts:	Q:
BENZENE	UG/L	260	0.5	
TOLUENE	UG/L	27	0.5	
ETHYLBENZENE	UG/L	21	0.5	
XYLENES (TOTAL)	UG/L	20	1	
TOTAL PETROLEUM HYDROCARBON	MG/L	0.33	0.050	
TRIFLUOROTOLUENE (PID)	%REC/SURR	75	63-135	
TRIFLUOROTOLUENE (FID)	%REC/SURR	70	63-135	
ANALYST	INITIALS	KWS		

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"FINAL REPORT FORMAT - SINGLE"

Accession:	501536
Client:	BP OIL COMPANY
Project Number:	10-138-02-004
Project Name:	BP SITE #11105
Project Location:	CASTRO VALLEY, CA
Test:	CA-LUFT 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:	19-JAN-95 N/S
Client Sample Id:	S-3	Received Date:	21-JAN-95
Batch: GRW002		Extraction Date:	N/A
Blank: B	Dry Weight %: N/A	Analysis Date:	02-FEB-95

Parameter:	Units:	Results:	Rpt Lmts:	Q:
BENZENE	UG/L	2	0.5	
TOLUENE	UG/L	0.9	0.5	
ETHYLBENZENE	UG/L	0.7	0.5	
XYLENES (TOTAL)	UG/L	1	1	
TOTAL PETROLEUM HYDROCARBON	MG/L	0.30	0.050	
TRIFLUOROTOLUENE (PID)	%REC/SURR	119	63-135	
TRIFLUOROTOLUENE (FID)	%REC/SURR	108	63-135	
ANALYST	INITIALS	KWS		

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"FINAL REPORT FORMAT - SINGLE"

Accession: 501536
Client: BP OIL COMPANY
Project Number: 10-138-02-004
Project Name: BP SITE #11105
Project Location: CASTRO VALLEY, CA
Test: CA-LUFT 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
Client Sample Id: S-4
Sample Date/Time: 19-JAN-95 N/S
Received Date: 21-JAN-95

Batch: GRW002
Blank: B
Dry Weight %: N/A
Extraction Date: N/A
Analysis Date: 02-FEB-95

Parameter:	Units:	Results:	Rpt Lmts:	Q:
BENZENE	UG/L	600	5	
TOLUENE	UG/L	120	5	
ETHYLBENZENE	UG/L	22	5	
XYLENES (TOTAL)	UG/L	58	10	
TOTAL PETROLEUM HYDROCARBON	MG/L	0.84	0.5	
TRIFLUOROTOLUENE (PID)	%REC/SURR	115	63-135	
TRIFLUOROTOLUENE (FID)	%REC/SURR	84	63-135	
ANALYST	INITIALS	KWS		

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"FINAL REPORT FORMAT - SINGLE"

Accession:	501536
Client:	BP OIL COMPANY
Project Number:	10-138-02-004
Project Name:	BP SITE #11105
Project Location:	CASTRO VALLEY, CA
Test:	CA-LUFT 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:	005		Sample Date/Time:	19-JAN-95 N/S
Client Sample Id:	S-5		Received Date:	21-JAN-95
Batch: GRW002			Extraction Date:	N/A
Blank: B	Dry Weight %:	N/A	Analysis Date:	02-FEB-95

Parameter:	Units:	Results:	Rpt Lmts:	Q:
BENZENE	UG/L	620	5	
TOLUENE	UG/L	ND	5	
ETHYLBENZENE	UG/L	95	5	
XYLENES (TOTAL)	UG/L	15	10	
TOTAL PETROLEUM HYDROCARBON	MG/L	1.9	0.5	
TRIFLUOROTOLUENE (PID)	%REC/SURR	102	63-135	
TRIFLUOROTOLUENE (FID)	%REC/SURR	85	63-135	
ANALYST	INITIALS	KWS		

Comments:

'ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"FINAL REPORT FORMAT - SINGLE"

Accession:	501536
Client:	BP OIL COMPANY
Project Number:	10-138-02-004
Project Name:	BP SITE #11105
Project Location:	CASTRO VALLEY, CA
Test:	CA-LUFT 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:	006	Sample Date/Time:	19-JAN-95 N/S
Client Sample Id:	S-6	Received Date:	21-JAN-95
Batch: GRW002		Extraction Date:	N/A
Blank: B	Dry Weight %: N/A	Analysis Date:	02-FEB-95

Parameter:	Units:	Results:	Rpt Lmts:	Q:
BENZENE	UG/L	620	5	
TOLUENE	UG/L	ND	5	
ETHYLBENZENE	UG/L	93	5	
XYLENES (TOTAL)	UG/L	17	10	
TOTAL PETROLEUM HYDROCARBON	MG/L	1.6	0.5	
TRIFLUOROTOLUENE (PID)	%REC/SURR	103	63-135	
TRIFLUOROTOLUENE (FID)	%REC/SURR	94	63-135	
ANALYST	INITIALS	KWS		

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"FINAL REPORT FORMAT - SINGLE"

Accession:	501536
Client:	BP OIL COMPANY
Project Number:	10-138-02-004
Project Name:	BP SITE #11105
Project Location:	CASTRO VALLEY, CA
Test:	CA-LUFT 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:	007		Sample Date/Time:	19-JAN-95 N/S
Client Sample Id:	S-7		Received Date:	21-JAN-95
Batch: GRW002			Extraction Date:	N/A
Blank: B	Dry Weight %:	N/A	Analysis Date:	02-FEB-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	110	63-135	
TRIFLUOROTOLUENE (FID)	%REC/SURR	110	63-135	
ANALYST	INITIALS	KWS		

Comments:

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"Method Report Summary"

Accession Number: 501536
Client: BP OIL COMPANY
Project Number: 10-138-02-004
Project Name: BP SITE #11105
Project Location: CASTRO VALLEY, CA
Test: CA-LUFT BETX AND TPH C6-C10 RANGE

Client Sample Id:	Parameter:	Unit:	Result:
S-1	BENZENE	UG/L	56
	TOLUENE	UG/L	14
	ETHYLBENZENE	UG/L	24
	XYLENES (TOTAL)	UG/L	23
	TOTAL PETROLEUM HYDROCARBON	MG/L	0.14
S-2	BENZENE	UG/L	260
	TOLUENE	UG/L	27
	ETHYLBENZENE	UG/L	21
	XYLENES (TOTAL)	UG/L	20
	TOTAL PETROLEUM HYDROCARBON	MG/L	0.33
S-3	BENZENE	UG/L	2
	TOLUENE	UG/L	0.9
	ETHYLBENZENE	UG/L	0.7
	XYLENES (TOTAL)	UG/L	1
	TOTAL PETROLEUM HYDROCARBON	MG/L	0.30
S-4	BENZENE	UG/L	600
	TOLUENE	UG/L	120
	ETHYLBENZENE	UG/L	22
	XYLENES (TOTAL)	UG/L	58
	TOTAL PETROLEUM HYDROCARBON	MG/L	0.84
S-5	BENZENE	UG/L	620
	ETHYLBENZENE	UG/L	95
	XYLENES (TOTAL)	UG/L	15
	TOTAL PETROLEUM HYDROCARBON	MG/L	1.9
S-6	BENZENE	UG/L	620
	ETHYLBENZENE	UG/L	93
	XYLENES (TOTAL)	UG/L	17
	TOTAL PETROLEUM HYDROCARBON	MG/L	1.6

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

BP

CHAIN OF CUSTODY 501536 No. 052508

Page 1 of 1

CONSULTANT'S NAME: Alisto Engineering	ADDRESS: 1777 Oakland Blvd #200	CITY: Walnut Creek	STATE: Ca ZIP CODE: 94596
BP SITE NUMBER: 11105	BP CORNER ADDRESS/CITY: Castro Valley, Ca		CONSULTANT PROJECT NUMBER: 10-138-02-004
CONSULTANT PROJECT MANAGER: Bill Howell	PHONE NUMBER: (510) 295-1650	FAX NUMBER: 295-1823	CONSULTANT CONTRACT NUMBER:
BP CONTACT: Scott Hooton	BP ADDRESS: Renton, WA	PHONE NUMBER:	FAX NO.:
LAB CONTACT: ATI	LABORATORY ADDRESS: Pensacola, Fl	PHONE NUMBER: (206) 228-8335	FAX NO.: (206) 363-1742
SAMPLED BY (Please Print Name): Larry Buenvenida	SAMPLED BY (Signature):	SHIPMENT DATE:	SHIPMENT METHOD: Fed. Express

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

ANALYSIS REQUIRED

AIRBILL NUMBER:

SAMPLE DESCRIPTION	COLLECTION DATE / TIME	MATRIX SOIL/WATER	CONTAINERS NO.	CONTAINERS TYPE (VOL.)	PRESERVATIVE LAB SAMPLE #	8015 Mod. Gas + BTEX	COMMENTS
S-1	1/19/95	W	2	HCl Pres.		X	
S-2							
S-3							
S-4							
S-5							
S-6							
S-7 (LB)	↓	↓	↓	↓		↓	S-7

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
	1/20/95			1-23-95	1007

ADDITIONAL COMMENTS: Cooler Temp. 4°C

CLV-16722

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