70 - 230 = 0.4

BP OIL

ONMENTAL
OTECTION

14 PM 2:45

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

April 10, 1995

100 days to receive QMP

Ms Eva Chu
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway Suite 250
Alameda, CA 94502-6577

RE: BP OIL FACILITY #11120
6400 Dublin Blvd
Dublin, CA

Dear Ms Chu:

Attached please find our **GROUNDWATER MONITORING AND SAMPLING REPORT DATED FEBRUARY 21, 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\ERM11120

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

Hydro Environmental Technologies Inc., 2363 Mariner Square Drive, Suite 243, Alameda CA 94501

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. 11120
6400 Dublin Boulevard
Dublin, California

Project No. 10-170-02-002

Prepared for:

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

Prepared by:

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

February 21, 1995

William Howell
Project Manager

Al Sevilla, P.E.
Principal

GROUNDWATER MONITORING AND SAMPLING REPORT

BP Oil Company Service Station No. 11120
6400 Dublin Boulevard
Dublin, California

Project No. 10-170-02-002

February 21, 1995

INTRODUCTION

This report presents the results and findings of the December 20, 1994 groundwater monitoring and sampling conducted by Alisto Engineering Group at BP Oil Company Service Station No. 11120, 6400 Dublin Boulevard, Dublin, 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 in reference to mean sea level. The survey data and groundwater elevation measurements collected to date are presented in Table 1.

Before sample collection, each well was purged of 3 casing volumes, while recording field readings of pH, temperature, and electrical conductivity. Groundwater samples were collected for laboratory analysis by lowering a bottom-fill, disposable bailer to just below the water level in the well. The samples were transferred from the bailer into laboratory-supplied containers. The water sampling field survey forms are presented in Appendix A.

SAMPLING AND ANALYTICAL RESULTS

The results of monitoring and laboratory analysis of the groundwater samples for this and previous quarters are summarized in Table 1. The potentiometric groundwater elevations as interpreted from the results of this monitoring event are shown in Figure 2. The results of groundwater analysis are shown in Figure 3. The laboratory report and chain of custody record are presented in Appendix B.

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
BP OIL COMPANY SERVICE STATION NO. 11120
6400 DUBLIN BOULEVARD, DUBLIN, CALIFORNIA

ALISTO PROJECT NO. 10-170

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)	HVOC (ppb)	DO (ppm)	LAB
MW-1	10/27/92	328.96	8.19	320.77	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5000	ND	—	PACE
MW-1	04/09/93	328.96	4.79	324.17	ND<50	100	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—	PACE
MW-1	08/25/93	328.96	6.85	322.11	ND<50	70	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—	PACE
MW-1	11/22/93	328.96	7.38	321.58	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—	PACE
MW-1	03/07/94	328.96	5.89	323.07	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	4.3	PACE
MW-1	06/09/94	328.96	6.42	322.54	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	8.8	PACE
MW-1	09/12/94	328.96	7.33	321.63	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	7.8	PACE
MW-1	12/20/94	328.96	6.34	322.62	—	—	—	—	—	—	—	—	—	—
MW-2	10/27/92	328.50	7.64	320.86	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—	PACE
MW-2	04/09/93	328.50	4.12	324.38	ND<50	80	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—	PACE
MW-2	08/25/93	328.50	6.31	322.19	ND<50	70	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—	PACE
MW-2	11/22/93	328.50	7.12	321.38	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—	PACE
MW-2	03/07/94	328.50	5.60	322.90	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	4.3	PACE
MW-2	06/09/94	328.50	5.91	322.59	ND<50	70	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	8.2	PACE
MW-2	09/12/94	328.50	6.87	321.63	ND<50	160	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	7.5	PACE
MW-2	12/20/94	328.50	5.86	322.64	—	—	—	—	—	—	—	—	—	—
MW-3	10/27/92	329.36	6.43	320.93	210	ND<50	3	0.7	0.9	30	—	—	—	PACE
MW-3	04/09/93	329.36	4.90	324.46	400	260	6.1	ND<0.5	ND<0.5	ND<0.5	—	—	—	PACE
MW-3	08/25/93	329.36	7.13	322.23	2000	440	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—	PACE
MW-3	11/22/93	329.36	7.60	321.76	1800	360	ND<2.5	ND<2.5	ND<2.5	ND<2.5	—	—	—	PACE
MW-3	03/07/94	329.36	6.08	323.28	1300	5000	22	4.0	2.2	3.8	—	—	3.7	PACE
MW-3	06/09/94	329.36	6.51	322.85	8500	2600	25	8.3	0.5	15	—	—	7.2	PACE
QC-1 (c)	06/09/94	—	—	—	8800	—	23	6.3	0.5	10	—	—	—	PACE
MW-3	09/12/94	329.36	7.63	321.73	2100	3200	ND<5.0	ND<5.0	8.8	20	—	—	7.3	PACE
QC-1 (c)	09/12/94	—	—	—	1800	—	ND<5.0	ND<5.0	8.0	10	—	—	—	PACE
MW-3	12/20/94	329.36	6.41	322.95	18000	9600	[illegible]	28	89	9.3	—	—	7.3	PACE
QC-1 (c)	12/20/94	—	—	—	17000	—	79	33	80	ND<2.5	—	—	—	PACE
MW-4	10/27/92	329.45	8.61	320.84	2300	190	23	54	50	320	—	—	—	PACE
MW-4	04/09/93	329.45	5.25	324.20	1600	500	78	3.5	68	1.0	—	—	—	PACE
MW-4	08/25/88	329.45	7.32	322.13	1800	380	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—	PACE
QC-1 (c)	08/25/93	—	—	—	1600	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—	PACE
MW-4	11/22/93	329.45	7.83	321.62	610	260	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—	PACE
QC-1 (c)	11/22/93	—	—	—	1700	—	ND<2.5	ND<2.5	ND<2.5	ND<2.5	—	—	—	PACE
MW-4	03/07/94	329.45	6.29	323.16	710	1400	0.5	0.8	ND<0.5	ND<0.5	—	—	3.8	PACE
QC-1 (c)	03/07/94	—	—	—	1600	—	ND<0.5	ND<0.5	1.4	0.6	—	—	—	PACE
MW-4	06/09/94	329.45	6.76	322.69	6400	1800	ND<10	ND<10	ND<10	ND<10	—	—	7.5	PACE
MW-4	09/12/94	329.45	7.83	321.62	2000	2700	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	7.2	PACE
MW-4	12/20/94	329.45	6.68	322.77	[illegible]	[illegible]	ND<5.0	ND<5.0	ND<5.0	ND<5.0	—	—	6.1	PACE
MW-5	04/09/93	329.60	5.18	324.42	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—	PACE
MW-5	08/25/93	329.60	7.28	322.32	ND<50	70	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—	PACE
MW-5	11/22/93	329.60	7.82	321.78	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—	PACE
MW-5	03/07/94	329.60	6.27	323.33	ND<50	120	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	5.7	PACE
MW-5	06/09/94	329.60	6.73	322.87	ND<50	70	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	7.7	PACE
MW-5	09/12/94	329.60	7.78	321.82	ND<50	120	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	7.2	PACE
MW-5	12/20/94	329.60	6.63	322.97	—	—	—	—	—	—	—	—	—	—

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
BP OIL COMPANY SERVICE STATION NO. 11120
6400 DUBLIN BOULEVARD, DUBLIN, CALIFORNIA

ALISTO PROJECT NO. 10-170

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)	HVOC (ppb)	DO (ppm)	LAB
MW-6	04/09/93	329.55	5.37	324.18	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—	PACE
MW-6	08/25/93	329.55	7.42	322.13	ND<50	170	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—	PACE
MW-6	11/22/93	329.55	7.93	321.62	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—	PACE
MW-6	03/07/94	329.55	6.25	323.30	ND<50	90 (d)	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	4.2	PACE
MW-6	06/09/94	329.55	6.85	322.70	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	7.0	PACE
MW-6	09/12/94	329.55	7.91	321.64	ND<50	240	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	6.7	PACE
MW-6	12/20/94	329.55	6.82	322.73	—	—	—	—	—	—	—	—	—	—
MW-7	04/09/93	329.49	5.36	324.13	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—	PACE
MW-7	08/25/93	329.49	7.44	322.05	ND<50	150	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—	PACE
MW-7	11/22/93	329.49	7.92	321.57	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—	PACE
MW-7	03/07/94	329.49	6.20	323.29	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	3.7	PACE
MW-7	06/09/94	329.49	6.89	322.60	ND<50	70	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	6.8	PACE
MW-7	09/12/94	329.49	7.87	321.62	ND<50	50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	6.8	PACE
MW-7	12/20/94	329.49	6.77	322.72	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	6.5	PACE
QC-2 (e)	08/25/93	—	—	—	ND<50	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—	PACE
QC-2 (e)	11/22/93	—	—	—	ND<50	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—	PACE
QC-2 (e)	03/07/94	—	—	—	ND<50	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—	PACE
QC-2 (e)	06/09/94	—	—	—	ND<50	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—	PACE
QC-2 (e)	09/12/94	—	—	—	ND<50	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—	PACE
QC-2 (e)	12/20/94	—	—	—	ND<50	—	ND<0.5	ND<0.5	ND<0.5	ND<0.5	—	—	—	PACE

ABBREVIATIONS:

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

NOTES:

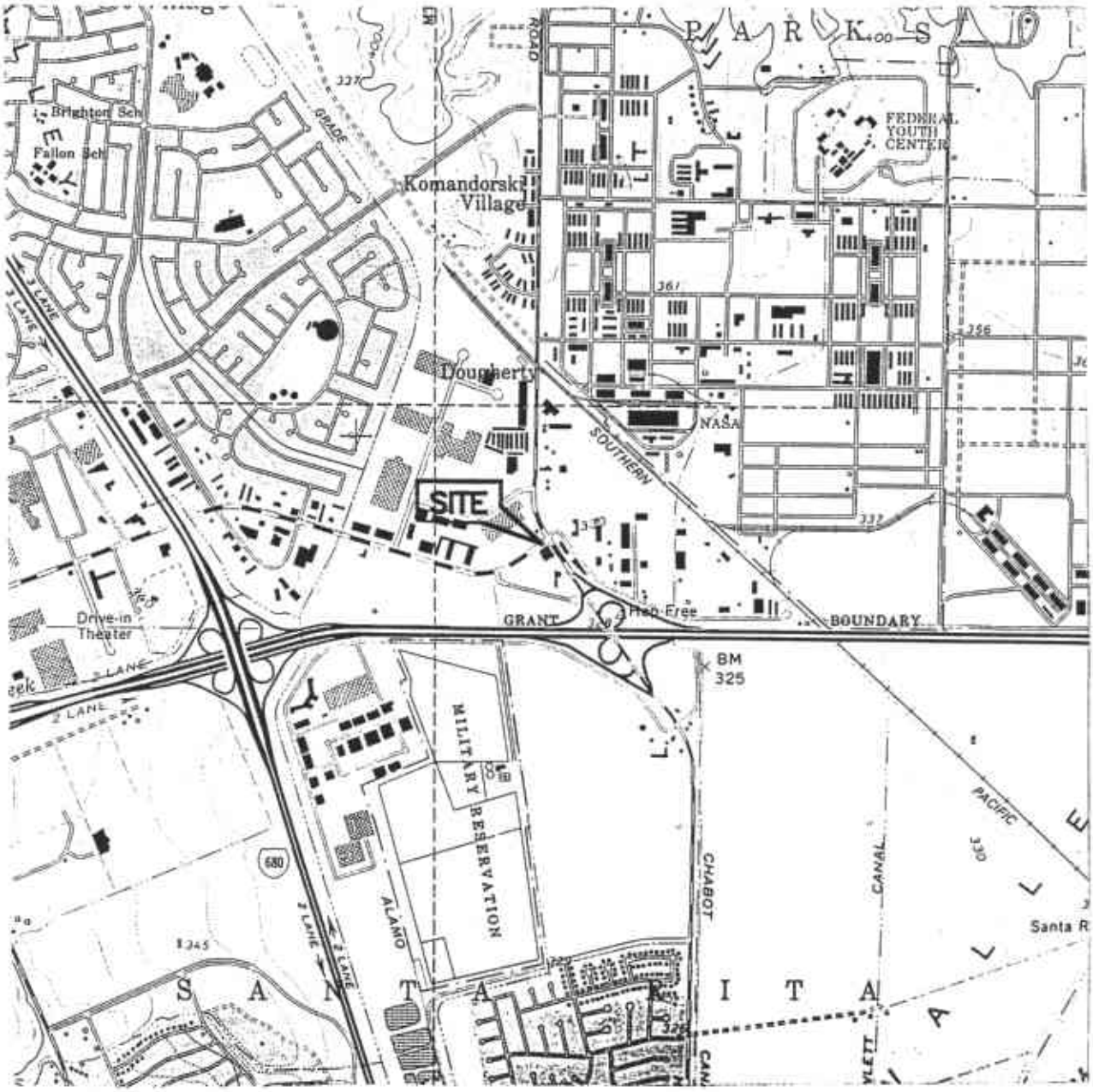
(a) Top of casing elevations surveyed to an arbitrary datum.

(b) Groundwater elevations relative to an arbitrary datum.

(c) Blind duplicate.

(d) Sample pattern does not match the diesel standard pattern.

(e) Travel blank.



SOURCE:
USGS MAP, DUBLIN QUADRANGLE, CALIFORNIA. 7.5 MINUTE SERIES. 1961. PHOTOREVISED 1980.

N

0 1000' 2000'

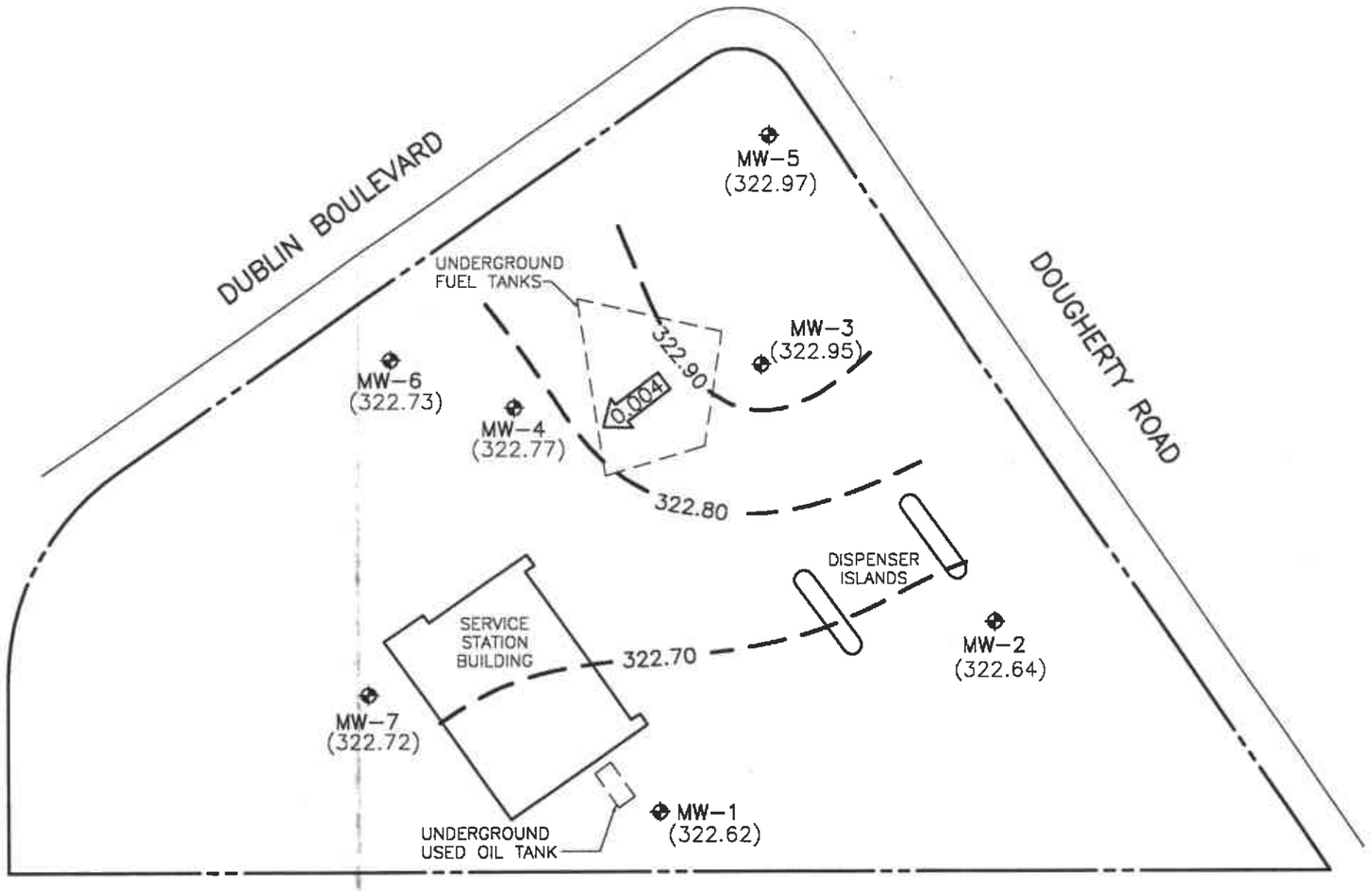
FIGURE 1

SITE VICINITY MAP

BP OIL SERVICE STATION NO. 11120
6400 DUBLIN BOULEVARD
DUBLIN, CALIFORNIA

PROJECT NO. 10–170

ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA



N

0 30 60

SCALE IN FEET

LEGEND

- ◆ GROUNDWATER MONITORING WELL
- (322.62) GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
- 322.70 GROUNDWATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL (CONTOUR INTERVAL–0.10 FOOT)
- 0.004 CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT

FIGURE 2

POTENTIOMETRIC GROUNDWATER ELEVATION CONTOUR MAP

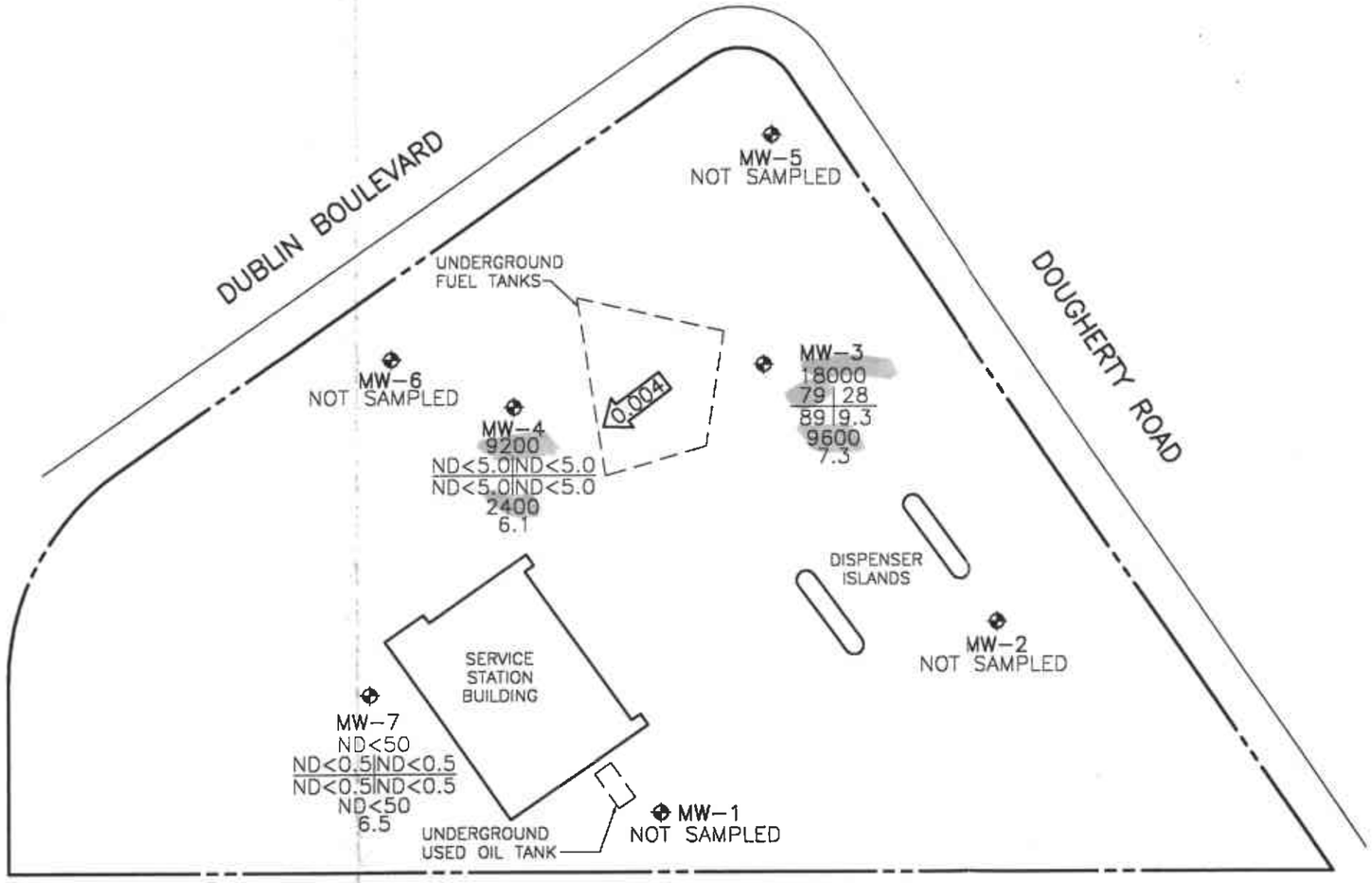
DECEMBER 20, 1994

BP OIL SERVICE STATION NO. 11120
6400 DUBLIN BOULEVARD
DUBLIN, CALIFORNIA

PROJECT NO. 10–170

ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA

10170D-1.DWG 2-3-95 RKW 1=30



N

0 30 60

SCALE IN FEET

LEGEND

◆	GROUNDWATER MONITORING WELL
TPH-G / B | T / E | X / TPH-D / 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
TPH-D	TOTAL PETROLEUM HYDROCARBONS AS DIESEL
DO	DISSOLVED OXYGEN
ND	NOT DETECTED ABOVE REPORTED DETECTION LIMIT
◁ 0.004	CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT

FIGURE 3

CONCENTRATIONS OF PETROLEUM HYDROCARBONS IN GROUNDWATER

DECEMBER 20, 1994

BP OIL SERVICE STATION NO. 11120
6400 DUBLIN BOULEVARD
DUBLIN, CALIFORNIA

PROJECT NO. 10-170

ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA

10170E-L.DWG 2-2-95 BW 1=30

APPENDIX A

WATER SAMPLING FIELD SURVEY FORMS

ALISTO ENGINEERING GROUP
GROUNDWATER MONITORING

Client: BP
Alisto Project No: 10-170-0.2-002
Service Station No: 11120

Date: 12/20/94
Field Personnel: DS
Site Address: I-580 & Dougherty

FIELD ACTIVITY:

X Groundwater Monitoring
X Groundwater Sampling
___ Well Development

QUALITY CONTROL SAMPLES:

5-4 QC-1 Sample Duplicate (Well ID)
5-5 QC-2 Trip Blank
___ QC-3 Rinsate Blank

Well ID	Well Diam	Order Measured/ Sampled	Total Depth	Depth to Water	Depth to Product	Product Thick-ness	Comments
MW-1	2	1	18.20	6.34	0	0	
MW-7	2	2	20.25	6.77			
MW-6	4	3	19.25	6.82			
MW-5	2	4	21.35	6.63			
MW-2	2	5	18.25	5.86			
MW-4	2	6	18.15	6.68			
MW-3	2	7	18.61	6.41	↓	↓	

Notes:
Need a drum(s) none now on site

FORM: FS2/121592

ALISTO

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

Field Report / Sampling Data Sheet

(X) Groundwater Sampling
Barometric pres. 760

Date: 12/20/94
Day: M (T) W Th F
Temp. 53.3

Project No. 10-10-02-002
Facility No. 11120
Address I-580 & Dougherty, Dublin
SAMPLER:

Well ID	SAMPLE #	WATER time	Well ID	SAMPLE #	WATER/ time	Well ID	SAMPLE	WATER / time
MW-7	S-1	6.77						
MW-4	S-2	6.68						
MW-3	S-3	6.41						
QC-1	S-4							
TB	S-5							

FIELD INSTRUMENT CALIBRATION DATA

Ph METER _____ 4.00 ✓ 7.00 ✓ 10.00 _____ TIME _____ TEMPERATURE COMPENSATED (Y) N
TURBIDI METER _____ 5.0 NTU STANDARD _____ OTHER _____
CONDUCTIVITY METER ✓ 10,000 _____ OTHER _____

Well ID	Depth to Water	Diam	Cap/Lock	Depth to prod.	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.
MW-7	6.77	2	Ok	Ø	Y (N)	2	11:03	63.5	8.47	4.52	6.3
Total Depth - Water Level =	x Well Vol. Factor =	x#vol. to Purge =	PurgeVol.			4	11:16	62.1	8.26	4.53	
20.25 - 6.77 = 13.48 x .16	= 2.2 x 3 =	6.6				6.6	11:21	61.7	8.31	4.51	6.5
Purge Method: OSurface Pump ODisp.Tube OWinch ODisp. Bailer(s) ___ OSye Port											
Comments:											

O EPA 601 _____
(X) TPH-G/BTEX ___
(X) TPH Diesel ___
O TOG 5520 ___
Time/Sample
S-1 / 11:27

Well ID	Depth to Water	Diam	Cap/Lock	Depth to prod.	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.
MW-4	6.68	2	Ok	Ø	Y (N)	2	11:37	65.3	8.04	4.16	5.7
Total Depth - Water Level =	x Well Vol. Factor =	x#vol. to Purge =	PurgeVol.			4	11:42	66.0	8.08	4.11	
18.15 - 6.68 = 11.47 x .16	= 1.8 x 3 =	5.5				5.5	11:48	66.3	8.10	3.97	6.1
Purge Method: OSurface Pump ODisp.Tube OWinch ODisp. Bailer(s) ___ OSye Port											
Comments:											

O EPA 601 _____
(X) TPH-G/BTEX ___
(X) TPH Diesel ___
O TOG 5520 ___
Time/ Sample
S-2 / 11:55

Well ID	Depth to Water	Diam	Cap/Lock	Depth to prod.	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.
MW-3	6.41	2	Ok	Ø	Y (N)	2	12:05	64.7	8.15	2.85	6.4
Total Depth - Water Level =	x Well Vol. Factor =	x#vol. to Purge =	PurgeVol.			4	12:12	64.4	8:07	2.77	
18.61 - 6.41 = 12.6 x .16	= 2.0 x 3 =	6				6	12:17	64.9	8.12	2.72	7.3
Purge Method: OSurface Pump ODisp.Tube OWinch ODisp. Bailer(s) ___ OSye Port											
Comments: QC-1 from this well (S-4)											

O EPA 601 _____
(X) TPH-G/BTEX ___
(X) TPH Diesel ___
O TOG 5520 ___
Time /Sample
S-3 / 12:25

APPENDIX B

LABORATORY REPORT AND CHAIN OF CUSTODY RECORD

PACE INCORPORATED
ENVIRONMENTAL LABORATORIES

REPORT OF LABORATORY ANALYSIS

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

January 04, 1995
PACE Project Number: 441221507

Attn: Mr. Bill Howell

Client Reference: BP# 11120 PROJ# 10-170-02-002

PACE Sample Number:			70 0455634	
Date Collected:			12/20/94	
Date Received:			12/21/94	
			S-1	
Parameter	Units	MDL		DATE ANALYZED
ORGANIC ANALYSIS				
PURGEABLE FUELS AND AROMATICS				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	12/23/94
Purgeable Fuels, as Gasoline (EPA 8015M)	ug/L	50	ND	12/23/94
PURGEABLE AROMATICS (BTXE BY EPA 8020M):			-	12/23/94
Benzene	ug/L	0.5	ND	12/23/94
Toluene	ug/L	0.5	ND	12/23/94
Ethylbenzene	ug/L	0.5	ND	12/23/94
Xylenes, Total	ug/L	0.5	ND	12/23/94
EXTRACTABLE FUELS EPA 3510/8015				
Extractable Fuels, as Diesel	mg/L	0.05	ND	12/31/94
Date Extracted			12/28/94	

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ENVIRONMENTAL LABORATORIES

REPORT OF LABORATORY ANALYSIS

January 04, 1995
PACE Project Number: 441221507

Client Reference: BP# 11120 PROJ# 10-170-02-002

PACE Sample Number:			70 0455642	
Date Collected:			12/20/94	
Date Received:			12/21/94	
Client Sample ID:			S-2	
Parameter	Units	MDL		DATE ANALYZED
ORGANIC ANALYSIS				
PURGEABLE FUELS AND AROMATICS				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	12/23/94
Purgeable Fuels, as Gasoline (EPA 8015M)	ug/L	500	9200	12/23/94
PURGEABLE AROMATICS (BTXE BY EPA 8020M):			-	12/23/94
Benzene	ug/L	5.0	ND	12/23/94
Toluene	ug/L	5.0	ND	12/23/94
Ethylbenzene	ug/L	5.0	ND	12/23/94
Xylenes, Total	ug/L	5.0	ND	12/23/94
EXTRACTABLE FUELS EPA 3510/8015				
Extractable Fuels, as Diesel	mg/L	0.05	2.4	12/31/94
Date Extracted			12/28/94	

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REPORT OF LABORATORY ANALYSIS

January 04, 1995
PACE Project Number: 441221507

Client Reference: BP# 11120 PROJ# 10-170-02-002

PACE Sample Number:			70 0455650	
Date Collected:			12/20/94	
Date Received:			12/21/94	
Client Sample ID:			S-3	
Parameter	Units	MDL		DATE ANALYZED
ORGANIC ANALYSIS				
PURGEABLE FUELS AND AROMATICS				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	12/23/94
Purgeable Fuels, as Gasoline (EPA 8015M)	ug/L	1000	18000	12/23/94
PURGEABLE AROMATICS (BTXE BY EPA 8020M):			-	12/23/94
Benzene	ug/L	2.5	79	12/23/94
Toluene	ug/L	2.5	28	12/23/94
Ethylbenzene	ug/L	2.5	89	12/23/94
Xylenes, Total	ug/L	2.5	9.3	12/23/94
EXTRACTABLE FUELS EPA 3510/8015				
Extractable Fuels, as Diesel	mg/L	0.25	9.6	01/04/95
Date Extracted			12/28/94	

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REPORT OF LABORATORY ANALYSIS

January 04, 1995
PACE Project Number: 441221507

Client Reference: BP# 11120 PROJ# 10-170-02-002

PACE Sample Number:			70 0455669	
Date Collected:			12/20/94	
Date Received:			12/21/94	
Client Sample ID:			S-4	
Parameter	Units	MDL		DATE ANALYZED
ORGANIC ANALYSIS				
PURGEABLE FUELS AND AROMATICS				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	12/28/94
Purgeable Fuels, as Gasoline (EPA 8015M)	ug/L	2500	17000	12/28/94
PURGEABLE AROMATICS (BTXE BY EPA 8020M):			-	12/28/94
Benzene	ug/L	2.5	79	12/28/94
Toluene	ug/L	2.5	33	12/28/94
Ethylbenzene	ug/L	2.5	80	12/28/94
Xylenes, Total	ug/L	2.5	ND	12/28/94

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REPORT OF LABORATORY ANALYSIS

Mr. Bill Howell
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January 04, 1995
PACE Project Number: 441221507

Client Reference: BP# 11120 PROJ# 10-170-02-002

PACE Sample Number:			70 0455677	
Date Collected:			12/20/94	
Date Received:			12/21/94	
Client Sample ID:			S-5	
Parameter	Units	MDL		DATE ANALYZED
ORGANIC ANALYSIS				
PURGEABLE FUELS AND AROMATICS				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	12/23/94
Purgeable Fuels, as Gasoline (EPA 8015M)	ug/L	50	ND	12/23/94
PURGEABLE AROMATICS (BTXE BY EPA 8020M):			-	12/23/94
Benzene	ug/L	0.5	ND	12/23/94
Toluene	ug/L	0.5	ND	12/23/94
Ethylbenzene	ug/L	0.5	ND	12/23/94
Xylenes, Total	ug/L	0.5	ND	12/23/94

These data have been reviewed and are approved for release.

Darrell C. Cain
Regional Director

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REPORT OF LABORATORY ANALYSIS

FOOTNOTES
for pages 1 through 5

January 04, 1995
PACE Project Number: 441221507

Client Reference: BP# 11120 PROJ# 10-170-02-002

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

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REPORT OF LABORATORY ANALYSIS

QUALITY CONTROL DATA

January 04, 1995
PACE Project Number: 441221507

Client Reference: BP# 11120 PROJ# 10-170-02-002

EXTRACTABLE FUELS EPA 3510/8015
Batch: 70 37385
Samples: 70 0455634, 70 0455642, 70 0455650

METHOD BLANK:

Parameter	Units	MDL	Method Blank
Extractable Fuels, as Diesel	mg/L	0.05	ND

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference Value	Recv	Dupl Recv	RPD
Extractable Fuels, as Diesel	mg/L	0.05	1.0	52%	75%	36%

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

January 04, 1995
PACE Project Number: 441221507

Client Reference: BP# 11120 PROJ#.10-170-02-002

PURGEABLE FUELS AND AROMATICS
Batch: 70 37306
Samples: 70 0455634, 70 0455642

METHOD BLANK:

Parameter	Units	MDL	Method Blank
INDIVIDUAL PARAMETERS			
Methyl tert-butyl ether	ug/L	5.0	ND
PURGEABLE FUELS AND AROMATICS			
TOTAL FUEL HYDROCARBONS, (LIGHT):			-
Purgeable Fuels, as Gasoline (EPA 8015M	ug/L	50	ND
PURGEABLE AROMATICS (BTXE BY EPA 8020M)			-
Benzene	ug/L	0.5	ND
Toluene	ug/L	0.5	ND
Ethylbenzene	ug/L	0.5	ND
Xylenes, Total	ug/L	0.5	ND

SPIKE AND SPIKE DUPLICATE:

Parameter	Units	MDL	700455324	Spike	Spike Recv	Spike Dupl Recv	RPD
Purgeable Fuels, as Gasoline (EPA 8015M	ug/L	50	ND				
Purgeable Fuels, as Gasoline (EPA 8015M	ug/L	250		1000	87%		
Purgeable Fuels, as Gasoline (EPA 8015M	ug/L	50		1000		100%	14%

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference Value	Recv	Dupl Recv	RPD
Purgeable Fuels, as Gasoline (EPA 8015M	ug/L	50	1000	95%	93%	2%

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REPORT OF LABORATORY ANALYSIS

QUALITY CONTROL DATA

Client Reference: BP# 11120 PROJ# 10-170-02-002

PURGEABLE FUELS AND AROMATICS
Batch: 70 37335
Samples: 70 0455650, 70 0455677

METHOD BLANK:

Parameter	Units	MDL	Method Blank
TOTAL FUEL HYDROCARBONS, (LIGHT):			-
Purgeable Fuels, as Gasoline (EPA 8015M	ug/L	50	ND
PURGEABLE AROMATICS (BTXE BY EPA 8020M)			-
Benzene	ug/L	0.5	ND
Toluene	ug/L	0.5	ND
Ethylbenzene	ug/L	0.5	ND
Xylenes, Total	ug/L	0.5	ND

SPIKE AND SPIKE DUPLICATE:

Parameter	Units	MDL	700455987	Spike	Spike Recv	Spike Dupl Recv	RPD
Benzene	ug/L	0.5	ND	100	97%	96%	1%
Toluene	ug/L	0.5	ND	100	96%	97%	1%
Ethylbenzene	ug/L	0.5	ND	100	94%	95%	1%
Xylenes, Total	ug/L	0.5	ND	300	100%	100%	0%

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference Value	Recv	Dupl Recv	RPD
Benzene	ug/L	0.5	100	97%	99%	2%
Toluene	ug/L	0.5	100	96%	96%	0%
Ethylbenzene	ug/L	0.5	100	94%	93%	1%
Xylenes, Total	ug/L	0.5	300	100%	97%	3%

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REPORT OF LABORATORY ANALYSIS

Mr. Bill Howell
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QUALITY CONTROL DATA

January 04, 1995
PACE Project Number: 441221507

Client Reference: BP# 11120 PROJ# 10-170-02-002

PURGEABLE FUELS AND AROMATICS
Batch: 70 37356
Samples: 70 0455669

METHOD BLANK:

Parameter	Units	MDL	Method Blank
INDIVIDUAL PARAMETERS			
Methyl tert-butyl ether	ug/L	5.0	ND
PURGEABLE FUELS AND AROMATICS			
TOTAL FUEL HYDROCARBONS, (LIGHT):			-
Purgeable Fuels, as Gasoline (EPA 8015M	ug/L	50	ND
PURGEABLE AROMATICS (BTXE BY EPA 8020M)			-
Benzene	ug/L	0.5	ND
Toluene	ug/L	0.5	ND
Ethylbenzene	ug/L	0.5	ND
Xylenes, Total	ug/L	0.5	ND

SPIKE AND SPIKE DUPLICATE:

Parameter	Units	MDL	700455987	Spike	Spike Recv	Spike Dupl Recv	RPD
Benzene	ug/L	0.5	ND	100	97%	96%	1%
Toluene	ug/L	0.5	ND	100	96%	97%	1%
Ethylbenzene	ug/L	0.5	ND	100	94%	95%	1%
Xylenes, Total	ug/L	0.5	ND	300	100%	100%	0%

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference Value	Recv	Dupl Recv	RPD
Benzene	ug/L	0.5	100	97%	99%	2%
Toluene	ug/L	0.5	100	96%	96%	0%
Ethylbenzene	ug/L	0.5	100	94%	93%	1%
Xylenes, Total	ug/L	0.5	300	100%	97%	3%

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REPORT OF LABORATORY ANALYSIS

FOOTNOTES
for pages 7 through 10

January 04, 1995
PACE Project Number: 441221507

Client Reference: BP# 11120 PROJ# 10-170-02-002

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

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BP

44122~~1~~.507

CHAIN OF CUSTODY

No.052512 Page ____ of ____

CONSULTANT'S NAME	ADDRESS	CITY	STATE	ZIP CODE
Alisto Engineering	1777 Oakland Blvd, Suite 200	Walnut Creek	CA	94596

BP SITE NUMBER	BP CORNER ADDRESS/CITY	CONSULTANT PROJECT NUMBER
11120	I-580 & Dougherty, Dublin	10-170-02-002

CONSULTANT PROJECT MANAGER	PHONE NUMBER	FAX NUMBER	CONSULTANT CONTRACT NUMBER
Bill Howell	(510) 295-1650	(510) 295-1823	

BP CONTACT	BP ADDRESS	PHONE NUMBER	FAX NO.
Scott Hooton	Renton WA	(415) 883-6100	(415) 883-2673

LAB CONTACT	LABORATORY ADDRESS	PHONE NUMBER	FAX NO.
Pace	Novato, CA		

SAMPLED BY (Please Print Name)	SAMPLED BY (Signature)	SHIPMENT DATE	SHIPMENT METHOD	AIRBILL NUMBER
Dale Swain	Dale Swain		Courier	

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

ANALYSIS REQUIRED

SAMPLE DESCRIPTION	COLLECTION DATE 12/20/94 / COLLECTION TIME	MATRIX SOIL/WATER	CONTAINERS NO.	TYPE (VOL.)	PRESERVATIVE / LAB SAMPLE #	HCL TPH-G BTEX	- TPH Diesel								COMMENTS
S-1	11:27	H_2O	5	3 VOA 2-L	45563.4	↓	↓								
S-2	11:55		5	↓	45564.2										
S-3	12:25		5	↓	45565.0		↓								
S-4	12:25		3	3 VOAs	45566.9										
S-5	12/20/94	↓	2	VOAs	45567.7	↓									

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Dale Swain	12/21/94	1615	Ed [illegible] - Pace	12/21/94	1615
[illegible] Pace	12/21/94	1830	[illegible]	12/21/94	1830

ADDITIONAL COMMENTS
1512
512

CLV-16722

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