Xtra Oil Company
2307 Pacific Avenue, Alameda, CA 94501
Tel. (510) 865-9503, Fax (510) 865-1889

0.4

Need addl MW. (Cap needed)
and RBCA

February 27, 1997

Ms. Eva Chu
Hazardous Materials Program
Department of Environmental Health
1131 Harbor Bay Pkwy. 2nd floor
Alameda, Ca. 94502-6577

Regarding: 1701 Park St.
STID 3836

Dear Ms. Chu,

Please find enclosed the quarterly report for the above location. If you have any questions feel free to contact us.

Sincerely,

Keith Simas

GROUNDWATER MONITORING AND SAMPLING REPORT

Xtra Oil Company Service Station (dba Shell)
1701 Park Street
Alameda, California

Project No. 10-210-05-004

9/15/97
Note: catch basin next to well MW-1. Could this act as preferential pathway for contaminants?

Prepared for:

Xtra Oil Company
2307 Pacific Avenue
Alameda, California

Prepared by:

Alisto Engineering Group
1575 Treat Boulevard, Suite 201
Walnut Creek, California

February 3, 1997

Brady Nagle
Project Manager

Al Sevilla, P.E.
Principal

GROUNDWATER MONITORING AND SAMPLING REPORT

Xtra Oil Company Service Station (dba Shell)
1701 Park Street
Alameda, California

Project No. 10-210-05-004

February 3, 1997

INTRODUCTION

This report presents the results and findings of the December 19, 1996 groundwater monitoring and sampling conducted by Alisto Engineering Group at the Xtra Oil Company service station (dba Shell), 1701 Park Street, Alameda, California. A site vicinity map is shown on Figure 1.

FIELD PROCEDURES

Field activities were performed in accordance with the procedures and guidelines of 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 each 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 events are summarized in Table 1. The potentiometric groundwater elevations as interpreted from the results of this monitoring event are shown on Figure 2. The results of laboratory analysis are shown on Figure 3. The laboratory report and chain of custody record are presented in Appendix B.

FINDINGS

The findings of the December 19, 1996 groundwater monitoring and sampling event are summarized as follows:

- Approximately 0.01 foot of free product was observed in Monitoring Well MW-2. Free product or sheen was not observed in MW-1 or MW-3.
- Groundwater elevation data indicate a gradient of approximately 0.01 foot per foot in a southeasterly direction across the site.
- Analysis of the groundwater samples detected up to 46000 micrograms per liter (ug/l) total petroleum hydrocarbons as gasoline and up to 12000 ug/l benzene in the samples collected from MW-1 and MW-2.

TABLE 1-SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
XTRA OIL COMPANY SERVICE STATION
1701 PARK STREET, ALAMEDA, CALIFORNIA

ALISTO PROJECT NO. 10-210

WELL ID	DATE OF MONITORING/ SAMPLING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	SVOC (ug/l)	DO (ppm)	LAB
MW-1	11/04/94	19.49	8.64	---	10.85	60000	6400	13000	4900	1300	5500	---	---	---	MCC
QC-1 (c)	11/04/94	---	---	---	---	54000	---	12000	4500	1200	5200	---	---	---	MCC
MW-1	01/11/95	19.49	6.10	---	13.39	---	---	---	---	---	---	---	---	---	---
MW-1	02/24/95	19.49	6.57	---	12.92	56000	4400	13000	7000	1400	5100	---	---	---	MCC
QC-1 (c)	02/24/95	---	---	---	---	43000	---	8900	4600	970	3300	---	---	---	MCC
MW-1	05/25/95	19.49	6.54	---	12.95	53000	4700	11000	5700	1200	4000	---	---	4.3	MCC
QC-1 (c)	05/25/95	---	---	---	---	48000	---	11000	5300	1200	3800	---	---	---	MCC
MW-1	08/30/95	19.49	8.15	---	11.34	14000	3700	5000	1100	3900	103	---	---	2.8	MCC
QC-1 (c)	08/30/95	---	---	---	---	57000	---	17000	7000	1500	5200	---	---	---	MCC
MW-1	11/16/95	19.49	8.79	---	10.70	100000	5900	22000	17000	2100	8500	---	---	---	MCC
QC-1 (c)	11/16/95	---	---	---	---	95000	---	20000	15000	1800	7800	---	---	---	MCC
MW-1	03/20/96	19.49	6.45	---	13.04	46000	3300	10000	6200	1100	3200	---	---	---	MCC
QC-1 (c)	03/20/96	---	---	---	---	42000	---	9800	5800	970	3000	---	---	---	MCC
MW-1	06/13/96	19.49	7.14	---	12.35	44000	5400	9500	5500	1100	4000	19000	---	---	MCC
QC-1 (c)	06/13/96	---	---	---	---	48000	---	9300	5600	1000	3800	17000	---	---	MCC
MW-1	09/23/96	19.49	7.56	---	11.93	76000	14000	14000	11000	1600	7100	17000	---	6.1	MCC
MW-1	12/19/96	19.49	7.08	---	12.41	46000	---	12000	5500	1200	4100	---	---	---	MCC
MW-2	11/04/94	20.29	9.12	0.16	11.29	---	---	---	---	---	---	---	---	---	---
MW-2	01/11/95	20.29	6.75	---	13.54	---	---	---	---	---	---	---	---	---	---
MW-2	02/24/95	20.29	7.11	0.18	13.32	---	---	---	---	---	---	---	---	---	---
MW-2	05/25/95	20.29	7.01	0.01	13.29	---	---	---	---	---	---	---	---	---	---
MW-2	08/30/95	20.29	8.58	0.12	11.80	---	---	---	---	---	---	---	---	---	---
MW-2	11/16/95	20.29	9.07	0.01	11.23	---	---	---	---	---	---	---	---	---	---
MW-2	11/16/95	20.29	9.07	0.01	11.23	---	---	---	---	---	---	---	---	---	---
MW-2	03/20/96	20.29	6.79	0.01	13.51	---	---	---	---	---	---	---	---	---	---
MW-2	06/13/96	20.29	7.41	0.01	12.89	---	---	---	---	---	---	---	---	---	---
MW-2	09/23/96	20.29	7.83	0.01	12.47	30000	19000	4600	180	1500	4100	2600	---	5.5	MCC
QC-1 (c)	09/23/96	---	---	---	---	33000	---	4700	170	1600	3900	2400	---	---	MCC
MW-2	12/19/96	20.29	7.37	0.01	12.93	29000	---	1800	240	1400	5400	---	(d)	---	MCC
QC-1 (c)	12/19/96	---	---	---	---	29000	---	580	210	1300	5100	---	---	---	MCC
MW-3	11/04/94	20.58	8.92	---	11.66	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	MCC
MW-3	01/11/95	20.58	5.67	---	14.91	---	---	---	---	---	---	---	---	---	---
MW-3	02/24/95	20.58	6.11	---	14.47	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	MCC
MW-3	05/25/95	20.58	6.24	---	14.34	91	ND<50	28	12	2.1	6.5	---	---	---	MCC
MW-3	08/30/95	20.58	8.27	---	12.31	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	4.6	MCC
MW-3	11/16/95	20.58	8.82	---	11.76	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	MCC
MW-3	11/16/95	20.58	8.82	---	11.76	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	MCC
MW-3	03/20/96	20.58	5.44	---	15.14	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	MCC
MW-3	06/13/96	20.58	6.17	---	14.41	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	---	---	MCC
MW-3	09/23/96	20.58	6.57	---	14.01	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	---	4.9	MCC
MW-3	12/19/96	20.58	6.59	---	13.99	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	MCC

TABLE 1-SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
XTRA OIL COMPANY SERVICE STATION
1701 PARK STREET, ALAMEDA, CALIFORNIA

ALISTO PROJECT NO. 10-210

WELL ID	DATE OF MONITORING/ SAMPLING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	SVOC (ug/l)	DO (ppm)	LAB
QC-2 (e)	11/04/94	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	MCC
QC-2 (e)	02/24/95	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	MCC
QC-2 (e)	05/25/95	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	MCC
QC-2 (e)	08/30/95	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	MCC
QC-2 (e)	11/16/95	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	MCC
QC-2 (e)	11/16/95	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	MCC
QC-2 (e)	03/20/96	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	MCC
QC-2 (e)	06/13/96	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	MCC

ABBREVIATIONS:

TPH-G	Total petroleum hydrocarbons as gasoline
TPH-D	Total petroleum hydrocarbons as diesel
B	Benzene
T	Toluene
E	Ethylbenzene
X	Total xylenes
MTBE	Methyl tert butyl ether
SVOC	Semivolatile organic compound
DO	Dissolved oxygen
ug/l	Micrograms per liter
ppm	Parts per million
---	Not analyzed/applicable/measurable
ND	Not detected above reported detection limit
MCC	McCampbell Analytical, Inc.

NOTES:

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

(b) Groundwater elevations expressed in feet above mean sea level, and adjusted assuming a specific gravity of 0.75 for free product.

(c) Blind duplicate.

(d) **SVOCs detected at concentrations of 420 ug/l naphthalene, 200 ug/l 2-methylnaphthalene and 14 ug/l phenanthrene.**

(e) Travel blank.

F:\0\10-210\210-5-4.WQ2

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

N

0 1000' 2000'

FIGURE 1

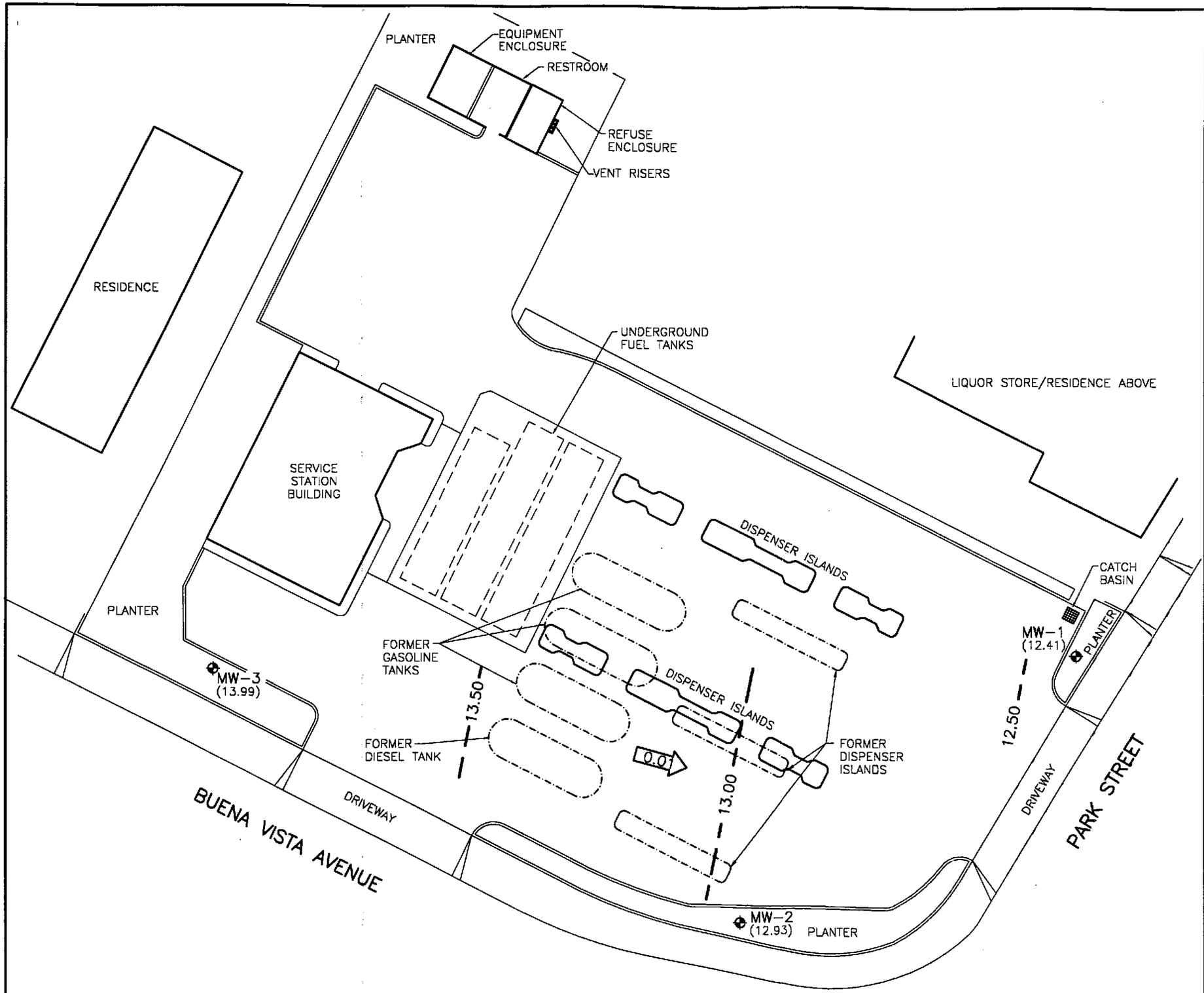
SITE VICINITY MAP

XTRA OIL COMPANY SERVICE STATION
1701 PARK STREET
ALAMEDA, CALIFORNIA

PROJECT NO. 10-210

ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA

10210B---DWG 8-3-94 RKW 1=1



N

0 20 40

SCALE IN FEET

LEGEND

- ◆ GROUNDWATER MONITORING WELL
- (12.41) GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
- 12.50 — GROUNDWATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL (CONTOUR INTERVAL–0.50 FOOT)
- 0.01 CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT

FIGURE 2

POTENTIOMETRIC GROUNDWATER ELEVATION CONTOUR MAP

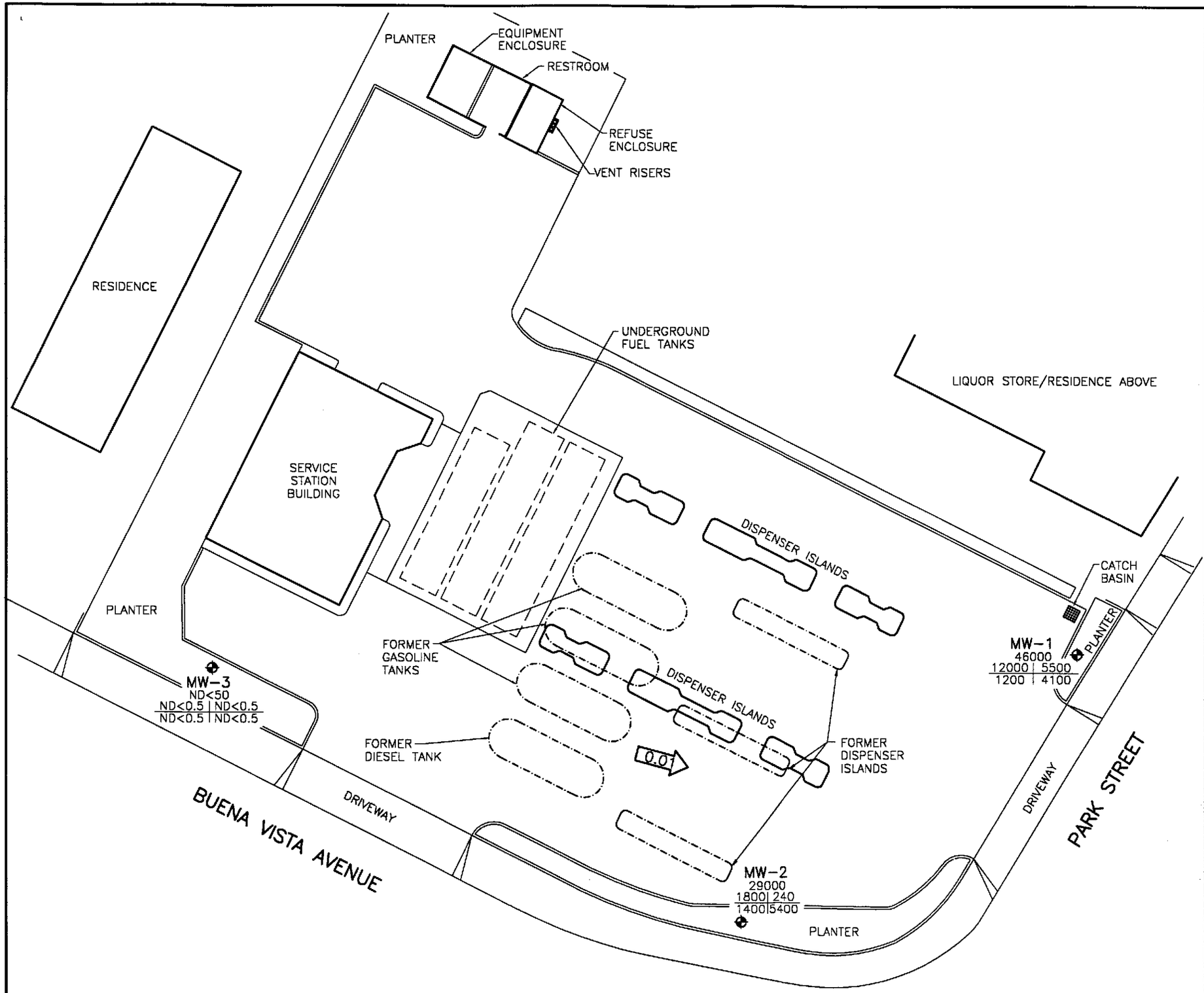
DECEMBER 19, 1996

XTRA OIL COMPANY SERVICE STATION
1701 PARK STREET
ALAMEDA, CALIFORNIA

PROJECT NO. 10–210

ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA

102100-1.DWG 1-24-97 DSM 1=20



N

0 20 40

SCALE IN FEET

LEGEND

⊕	GROUNDWATER MONITORING WELL
TPH-G / B | T / E | X	CONCENTRATION OF CONSTITUENTS IN MICROGRAMS PER LITER
TPH-G	TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
B	BENZENE
T	TOLUENE
E	ETHYLBENZENE
X	TOTAL XYLENES
ND	NOT DETECTED ABOVE REPORTED DETECTION LIMIT
0.01	CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT

FIGURE 3

CONCENTRATIONS OF PETROLEUM HYDROCARBONS IN GROUNDWATER

DECEMBER 19, 1996

XTRA OIL COMPANY SERVICE STATION
1701 PARK STREET
ALAMEDA, CALIFORNIA

PROJECT NO. 10-210

ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA

10210E-T.DWG 1-24-97 DJM 1=20

APPENDIX A

WATER SAMPLING FIELD SURVEY FORMS

ALISTO

Field Report / Sampling Data Sheet

ENGINEERING
GROUP
1575 TREAT BOULEVARD, SUITE 201
WALNUT CREEK CA 94598 (510) 295-1650 FAX 295-1823

Project No. 10-210-05-004 Date: 12/19/96
Address 1701 Park Street Day: M T W TH F
Contract No. Pending City: Alameda
Station No. XTRA Sampler: TM

DEPTH TO GROUNDWATER SUMMARY

WELL ID	SAMPLE ID	WELL DIAM	TOTAL DEPTH	DEPTH TO WATER	PRODUCT THICKNESS	TIME MONITORED	COMMENTS:
MW-1	S-3	2"	20	~~6.59~~ 7.08	0	~~12:34~~ 12:10	
MW-2	S-2	2"		~~7.37~~ 7.37	.01	12:06	Xtra VOAs (3) (PNA Method 8270)
MW-3	S-1	2"		6.59	0	12.01	

FIELD INSTRUMENT CALIBRATION DATA

pH METER 1 cm 4.00 4 7.00 7 10.00 10 TEMPERATURE COMPENSATED (Y) N TIME 12:05 WEATHER clear
D.O. METER 1 cm ZERO d.O. SOLUTION _____ BAROMETRIC PRESSURE 760 TEMP 64
CONDUCTIVITY METER 1 cm 10,000 _____ TURBIDITY METER _____ 5.0 NTU _____ OTHER ✓
LEAK DETECTOR : _____ ALARM MODE ✓ NON ALARM MODE

MW-3

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.
~~MW~~-3	6.59	2"	OK	-0-	Y (N)	2	12.50	12.8°C	7.00	694 µs	10.00 ppm
Total Depth - Water Level=	x Well Vol. Factor=	x#vol. to Purge	PurgeVol.			4	12.55	14.0C	7.00	655 µs	
20.00 - 6.59 = 12.90	X .16 = 2.04	X3 = 6.19				6	13.05	15C	7.00	634 µs	9.7 ppm

Purge Method: ⊘Surface Pump ODisp.Tube OWinch ODisp. Bailer(s)___ OSys Port
Comments:

EPA 601 ____
TPH-G/BTEX ✓ HCl
TPH Diesel ____
TOG 5520 ____
TIME/SAMPLE ID
~~S-3~~ 13:07 S-3

MW-2

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.
MW-2	7.37	2"	OK	DTP: 7.38	(Y) N	2	13.33	16.6°C	7.00	1031 µs	9.3 ppm
Total Depth - Water Level=	x Well Vol. Factor=	x#vol. to Purge	PurgeVol.			4	13.90	16.7°C	7.00	971 µs	8.7 ppm
20.00 - 7.37 = 12.63	X .16 = 2.02	X3 = 6.06				6	13.94	16.9°C	7.00	945 µs	9.1 ppm

Purge Method: ⊘Surface Pump ODisp.Tube OWinch ODisp. Bailer(s)___ OSys Port
Comments:

EPA 601 ____
TPH-G/BTEX ✓ HCl
TPH Diesel ____
TOG 5520 ____
TIME/SAMPLE ID
~~S-2~~ 13.47 S-2

ALISTO

Field Report / Sampling Data Sheet

ENGINEERING
GROUP
1575 TREAT BOULEVARD, SUITE 201
WALNUT CREEK CA 94598 (510) 295-1650 FAX 295-1823

Project No. 10-210-05-004 Date: 12-19-96
Address 1701 Park Street Day: M T W TH F
Contract No. Pending City: Alameda
Station No. XTRA Sampler:

Well ID	Depth to Water	Diam	Cap/Lock	Product Depth	Iridescence	Gal.	Time	Temp °F	pH	E.C.	D.O.
MW-1	7.08	2"	BK	-0-	Y N	2	14.05	16.9°c	7.00	873 us	7.4 ppm
Total Depth - Water Level= x Well Vol. Factor= x#vol. to Purge PurgeVol.						4	14.10	16.9°c	7.00	873 us	8.6 ppm
10.00 - 7.04 = 12.92 X .16 = 1.97 x 3 = 5.91						6	14.13	16.6°c	7.00	893 us	9.1 ppm
Purge Method: ⊗Surface Pump ODisp.Tube OWinch ODisp. Bailer(s)___ OSys Port											
Comments:											

- O EPA 601_____
- ⊗ TPH-G/BTEX__ HCl
- O TPH Diesel____
- O TOG 5520 ___

TIME/SAMPLE ID
14:14 S-1

PAGE_____ OF_____

APPENDIX B

LABORATORY REPORT AND CHAIN OF CUSTODY RECORD

McCAMPBELL ANALYTICAL INC.

110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

01/03/97

Dear Brady:

Enclosed are:

1). the results of 4 samples from your # **10-210-05-004** project,

2). a QC report for the above samples

3). a copy of the chain of custody, and

4). a bill for analytical services.

If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

Alisto Engineering Group 1575 Treat Blvd., Suite 201 Walnut Creek, CA 94598	Client Project ID: # 10-210-05-004	Date Sampled: 12/19/96
		Date Received: 12/20/96
	Client Contact: Brady Nagle	Date Extracted: 12/20/96
	Client P.O:	Date Analyzed: 12/20/96

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & BTEX*

EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(g)+	MTBE	Benzene	Toluene	Ethylben-zene	Xylenes	% Rec. Surrogate
72405	MW-2	W	29,000,a,h	---	1800	240	1400	5400	105
72406	MW-3	W	ND	---	ND	ND	ND	ND	106
72407	MW-1	W	46,000,a,h	---	12,000	5500	1200	4100	105
72408	MW-4	W	29,000,a,h	---	580	210	1300	5100	104
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	5.0	0.5	0.5	0.5	0.5	
		S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	

* water and vapor samples are reported in ug/L, soil and sludge samples in mg/kg, and all TCLP extracts in mg/L

cluttered chromatogram; sample peak coelutes with surrogate peak

+ The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~ 5 vol. % sediment; j) no recognizable pattern.

DHS Certification No. 1644

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

QC REPORT FOR HYDROCARBON ANALYSES

Date: 12/20/96 Matrix: Water

Analyte	Concentration (mg/L) Sample (#72119)	MS	MSD	Amount Spiked	% Recovery MS	MSD	RPD
TPH (gas)	0.0	0.1	0.1	100.0	0.1	0.1	9.3
Benzene	0.0	10.2	10.0	10.0	102.0	100.0	2.0
Toluene	0.0	10.2	10.1	10.0	102.0	101.0	1.0
Ethyl Benzene	0.0	9.8	10.0	10.0	98.0	100.0	2.0
Xylenes	0.0	28.2	28.6	30.0	94.0	95.3	1.4
TPH (diesel)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TRPH (oil & grease)	N/A	N/A	N/A	N/A	N/A	N/A	N/A

% Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

CHROMALAB, INC.

Environmental Services (SDB)

January 2, 1997 *Submission #:* 9612336

MCCAMPBELL ANALYTICAL, INC.

Atten: Ed Hamilton

Project: 10-210-05-004 *Project#:* 7854
Received: December 24, 1996

re: One sample for Semivolatile Organic Compounds (B/NAs) analysis.
Method: *SW846 Method 8270A Nov 1990*

Client Sample ID: **MW-2**
Spl#: 112222 *Matrix:* WATER *Extracted:* December 27, 1996
Sampled: December 19, 1996 *Run#:* 4697 *Analyzed:* January 2, 1996

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
PHENOL	N.D.	10	N.D.	14.9	5
BIS(2-CHLOROETHYL)ETHER	N.D.	10	N.D.	--	5
2-CHLOROPHENOL	N.D.	10	N.D.	39.5	5
1,3-DICHLOROBENZENE	N.D.	10	N.D.	--	5
1,4-DICHLOROBENZENE	N.D.	10	N.D.	44.0	5
BENZYL ALCOHOL	N.D.	25	N.D.	--	5
1,2-DICHLOROBENZENE	N.D.	10	N.D.	--	5
2-METHYLPHENOL	N.D.	10	N.D.	--	5
BIS(2-CHLOROISOPROPYL)ETHER	N.D.	10	N.D.	--	5
4-METHYLPHENOL	N.D.	10	N.D.	--	5
N-NITROSO-DI-N-PROPYLAMINE	N.D.	10	N.D.	43.7	5
HEXACHLOROETHANE	N.D.	10	N.D.	--	5
NITROBENZENE	N.D.	10	N.D.	--	5
ISOPHORONE	N.D.	10	N.D.	--	5
2-NITROPHENOL	N.D.	10	N.D.	--	5
2,4-DIMETHYLPHENOL	N.D.	10	N.D.	--	5
BIS(2-CHLOROETHOXY)METHANE	N.D.	25	N.D.	--	5
2,4-DICHLOROPHENOL	N.D.	10	N.D.	--	5
1,2,4-TRICHLOROBENZENE	N.D.	10	N.D.	50.7	5
NAPHTHALENE	420	10	N.D.	--	5
4-CHLOROANILINE	N.D.	10	N.D.	--	5
HEXACHLOROBUTADIENE	N.D.	10	N.D.	--	5
4-CHLORO-3-METHYLPHENOL	N.D.	25	N.D.	51.3	5
2-METHYLNAPHTHALENE	200	10	N.D.	--	5
HEXACHLOROCYCLOPENTADIENE	N.D.	10	N.D.	--	5
2,4,6-TRICHLOROPHENOL	N.D.	10	N.D.	--	5
2,4,5-TRICHLOROPHENOL	N.D.	10	N.D.	--	5
2-CHLORONAPHTHALENE	N.D.	10	N.D.	--	5
2-NITROANILINE	N.D.	50	N.D.	--	5
DIMETHYL PHTHALATE	N.D.	25	N.D.	--	5
ACENAPHTHYLENE	N.D.	10	N.D.	--	5
3-NITROANILINE	N.D.	50	N.D.	--	5
ACENAPHTHENE	N.D.	10	N.D.	55.3	5
2,4-DINITROPHENOL	N.D.	50	N.D.	--	5
4-NITROPHENOL	N.D.	50	N.D.	13.0	5
DIBENZOFURAN	N.D.	10	N.D.	--	5
2,4-DINITROTOLUENE	N.D.	10	N.D.	35.0	5
2,6-DINITROTOLUENE	N.D.	25	N.D.	--	5
DIETHYL PHTHALATE	N.D.	25	N.D.	--	5
4-CHLOROPHENYL PHENYL ETHER	N.D.	10	N.D.	--	5

CHROMALAB, INC.

Environmental Services (SDB)

January 2, 1997 *Submission #:* 9612336

MCCAMPBELL ANALYTICAL, INC.

Atten: Ed Hamilton

Project: 10-210-05-004 *Project#:* 7854
Received: December 24, 1996

re: One sample for Semivolatile Organic Compounds (B/NAs) analysis, continued.
Method: *SW846 Method 8270A Nov 1990*

Client Sample ID: **MW-2**
Spl#: 112222 *Matrix:* WATER *Extracted:* December 27, 1996
Sampled: December 19, 1996 *Run#:* 4697 *Analyzed:* January 2, 1996

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
FLUORENE	N.D.	25	N.D.	--	5
4-NITROANILINE	N.D.	50	N.D.	--	5
2-METHYL-4,6-DINITROPHENOL	N.D.	50	N.D.	--	5
N-NITROSO-DI-N-PHENYLAMINE	N.D.	10	N.D.	--	5
4-BROMOPHENYL PHENYL ETHER	N.D.	25	N.D.	--	5
HEXACHLOROBENZENE	N.D.	10	N.D.	--	5
PENTACHLOROPHENOL	N.D.	50	N.D.	40.0	5
PHENANTHRENE	14	10	N.D.	--	5
ANTHRACENE	N.D.	10	N.D.	--	5
DI-N-BUTYL PHTHALATE	N.D.	25	N.D.	--	5
FLUORANTHENE	N.D.	10	N.D.	--	5
PYRENE	N.D.	10	N.D.	71.0	5
BUTYL BENZYL PHTHALATE	N.D.	25	N.D.	--	5
3,3'-DICHLOROBENZIDINE	N.D.	25	N.D.	--	5
BENZO(A)ANTHRACENE	N.D.	10	N.D.	--	5
BIS(2-ETHYLHEXYL)PHTHALATE	N.D.	25	N.D.	--	5
CHRYSENE	N.D.	10	N.D.	--	5
DI-N-OCTYL PHTHALATE	N.D.	25	N.D.	--	5
BENZO(B)FLUORANTHENE	N.D.	10	N.D.	--	5
BENZO(K)FLUORANTHENE	N.D.	10	N.D.	--	5
BENZO(A)PYRENE	N.D.	10	N.D.	--	5
INDENO(1,2,3 C,D)PYRENE	N.D.	10	N.D.	--	5
DIBENZO(A,H)ANTHRACENE	N.D.	10	N.D.	--	5
BENZO(G,H,I)PERYLENE	N.D.	10	N.D.	--	5
BENZOIC ACID	N.D.	50	N.D.	--	5

Note: Reporting limits raised and nitrobenzene-d5 (surrogate) outside of QA/QC limit due to matrix interferences.See surrogate summary page.

Alex Tam for
Chemist

Chip Poalinelli
Operations Manager

CHROMALAB, INC.

Environmental Services (SDB)

January 2, 1997 *Submission #:* 9612336

MCCAMPBELL ANALYTICAL, INC.

Atten: Ed Hamilton

Project: 10-210-05-004 *Project#:* 7854
Received: December 24, 1996

re: **Surrogate** report for 1 sample for Semivolatile Organic Compounds
Method: SW846 Method 8270A Nov 1990
Lab Run#: 4697
Matrix: WATER

Sample#	Client Sample ID	Surrogate	% Recovered	Recovery Limits
112222-1	MW-2	NITROBENZENE-D5	115	35-114
112222-1	MW-2	2-FLUOROBIPHENYL	72.0	43-116
112222-1	MW-2	P-TERPHENYL-D14	81.6	33-141
112222-1	MW-2	PHENOL-D5	20.7	10-110
112222-1	MW-2	2-FLUOROPHENOL	27.4	25-100
112222-1	MW-2	2,4,6-TRIBROMOPHENOL	89.7	10-123

Sample#	QC Sample Type	Surrogate	% Recovered	Recovery Limits
112599-1	*Reagent blank (MDB)*	NITROBENZENE-D5	49.3	35-114
112599-1	*Reagent blank (MDB)*	2-FLUOROBIPHENYL	49.4	43-116
112599-1	*Reagent blank (MDB)*	P-TERPHENYL-D14	80.4	33-141
112599-1	*Reagent blank (MDB)*	PHENOL-D5	17.4	10-110
112599-1	*Reagent blank (MDB)*	2-FLUOROPHENOL	25.0	25-100
112599-1	*Reagent blank (MDB)*	2,4,6-TRIBROMOPHENOL	53.4	10-123
112600-1	*Spiked blank (BSP)*	NITROBENZENE-D5	47.2	35-114
112600-1	*Spiked blank (BSP)*	2-FLUOROBIPHENYL	52.7	43-116
112600-1	*Spiked blank (BSP)*	P-TERPHENYL-D14	78.1	33-141
112600-1	*Spiked blank (BSP)*	PHENOL-D5	17.0	10-110
112600-1	*Spiked blank (BSP)*	2-FLUOROPHENOL	26.9	25-100
112600-1	*Spiked blank (BSP)*	2,4,6-TRIBROMOPHENOL	53.5	10-123
112601-1	*Spiked blank duplicate (BSD)*	NITROBENZENE-D5	65.4	35-114
112601-1	*Spiked blank duplicate (BSD)*	2-FLUOROBIPHENYL	71.7	43-116
112601-1	*Spiked blank duplicate (BSD)*	P-TERPHENYL-D14	84.6	33-141
112601-1	*Spiked blank duplicate (BSD)*	PHENOL-D5	20.3	10-110
112601-1	*Spiked blank duplicate (BSD)*	2-FLUOROPHENOL	32.9	25-100
112601-1	*Spiked blank duplicate (BSD)*	2,4,6-TRIBROMOPHENOL	72.9	10-123

5101
QCSURR1229 MIKELEE 02-Jan-97 17

1220 Quarry Lane • Pleasanton, California 94566-4756
(510) 484-1919 • Facsimile (510) 484-1096
Federal ID #68-0140157

7854AAEG99

McCAMPBELL ANALYTICAL

110 2nd AVENUE, # D7
PACHECO, CA 94553
(510) 798-1620 FAX (510) 798-1622

CHAIN OF CUSTODY RECORD

TURN AROUND TIME: ☐ RUSH ☐ 24 HOUR ☐ 48 HOUR ☒ 5 DAY

REPORT TO: Brady Nagle BILL TO:
COMPANY: Alisto Engineering

TEL: (510) 295-1650 FAX #: 295-1823
PROJECT NUMBER: 10-210-05-004 PROJECT NAME:
PROJECT LOCATION: Alameda SAMPLER SIGNATURE: Jeffrey Hanafin

SAMPLE ID	LOCATION	SAMPLING DATE	SAMPLING TIME	# CONTAINERS	TYPE CONTAINER	MATRIX: WATER	SOIL	AIR	SLUDGE	OTHER	METHOD PRESERVED: HCL	HNO3	OTHER
MW-2	S-2	12/19/96				X							
MW-3	~~S-3~~ S-1												
MW-1	~~S-1~~ S-3												
MW-4	S-4												
	changed per Patty 12/26/96												

ANALYSIS REQUEST

8015 + TPH as Gasoline (602/8020 + 8015)	TPH as Diesel (8015)	Total Petroleum Oil & Grease (5520 D&F/5520 B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 601/8010	EPA 602/8020	EPA 608/8080	EPA 608/8080 - PCBs Only	EPA 624/8240/8260	EPA 625/8270	CAM - 17 Metals	EPA - Priority Pollutant Metals	LEAD (7420/7421/239.2/6010)	ORGANIC LEAD	RCI	OTHER	COMMENTS
X									X							72405
									X	NO						72406
																72407
																72408

RELINQUISHED BY: Jeffrey Hanafin DATE 12/19/96 TIME
RECEIVED BY: 12/20/96 1720
RELINQUISHED BY: DATE TIME RECEIVED BY:
RELINQUISHED BY: DATE TIME RECEIVED BY LABORATORY:

REMARKS: Revised Chain
OFF Hold 12/23/96 per P.Y

DEC.-23'96 (MON) 12:40 ALISTO ENGINEERING TEL:510 295 1823 P.002

07-15-1996 09:27AM FROM McCampbell 2951823 P.02

C.L.

336/112222

31373

McCAMPBELL ANALYTICAL

110 2nd AVENUE, # D7
PACHECO, CA 94553

(510) 798-1620 FAX (510) 798-1622

CHAIN OF CUSTODY RECORD

TURN AROUND TIME: ☐ RUSH ☐ 24 HOUR ☐ 48 HOUR ☒ 5 DAY ☐ ROUTINE

REPORT TO: Ed HAMILTON BILL TO: MAI

PROJECT NUMBER: 7854 PROJECT NAME: 10-210-05-004

PROJECT LOCATION: ALAMEDA

ANALYSIS REQUEST | OTHER

SUBM #: 9612336 REP: MV
CLIENT: MCCAM
DUE: 01/02/97
REF #: 31373

SAMPLE ID	LOCATION	SAMPLING DATE	SAMPLING TIME	# CONTAINERS	TYPE CONTAINERS	MATRIX: WATER	SOIL	AIR	SLUDGE	OTHER	METHOD PRESERVED: HCL	HNO_3	ICE	OTHER	EPA 601/8010	EPA 602/8020	EPA 608/8080	EPA 608/8080 – PCBs Only	EPA 624/8240/8260	EPA 625/8270	CAM – 17 Metals	EPA – Priority Pollutant Metals	LUFT Metals	LEAD (7240/7421/239.2/6010)	ORGANIC LEAD	RCI	COMMENTS
MW-2	S-2	12/19/96		1	4tr	X					X		X							X							72405

RELINQUISHED BY: Nicki Ricca DATE 12/24/96 TIME 1055 RECEIVED BY:

RELINQUISHED BY: DATE TIME RECEIVED BY:

RELINQUISHED BY: DATE 12/24 TIME 1497 RECEIVED BY LABORATORY:

REMARKS: