



# Xtra Oil Company

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

✓  
3/24/95

March 29, 1995

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

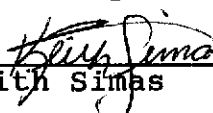
Regarding: 1701 Park St.  
STID 3836

Dear Ms. Chu,

Please find enclosed correspondence from our consultant Alisto Engineering regarding continued investigation at the above referenced site. This letter serves as a response to your January 27, 1995 request.

Also enclosed is the monitoring report for the first quarter of 1995, and free product disposal documentation (note: most of the 60 gallons was purged groundwater).

Sincerely,

  
Keith Simas

- ① Superimpose former UST + product line (dispenser on site plan).
- ② Call John DeGeorge to do site search.
- ③ Have FP removal plan, not just ~~st~~ being sampling. Keith has FP removal plan monitor weekly - pull out 20% have absorption pump

6/26/95 - still no review of other sites or of utility trenches - John DeGeorge will contact Keith Simas and get back to me in a couple of weeks

**GROUNDWATER MONITORING AND SAMPLING REPORT**

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

**Project No. 10-210-04-001**

**Prepared for:**

**Xtra Oil Company  
2307 Pacific Avenue  
Alameda, California**

**Prepared by:**

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

**March 24, 1995**



**John DeGeorge  
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. 10-210-04-001

March 24, 1995

## INTRODUCTION

This report presents the results and findings of the February 24, 1995 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 in 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 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.



## SUMMARY OF FINDINGS

The findings of the February 24, 1995 groundwater monitoring and sampling event are summarized as follows:

- Approximately 0.18<sup>~2'</sup> foot of free product was observed in MW-2. Free product or sheen was not observed in MW-1 or MW-3.
- Groundwater elevation data indicate a gradient of approximately 0.005 foot per foot in an easterly direction across the site.
- Groundwater analysis detected 56000 micrograms per liter (ug/l) total petroleum hydrocarbons as gasoline (TPH-G), 4400 ug/l total petroleum hydrocarbons as diesel (TPH-D), and 13000 ug/l benzene in MW-1.
- Dissolved-phase petroleum hydrocarbons were not detected in MW-3.



TABLE 2  
SUMMARY OF RESULTS OF GROUNDWATER SAMPLING  
XTRA OIL COMPANY SERVICE STATION  
1701 PARK STREET, ALAMEDA, CALIFORNIA

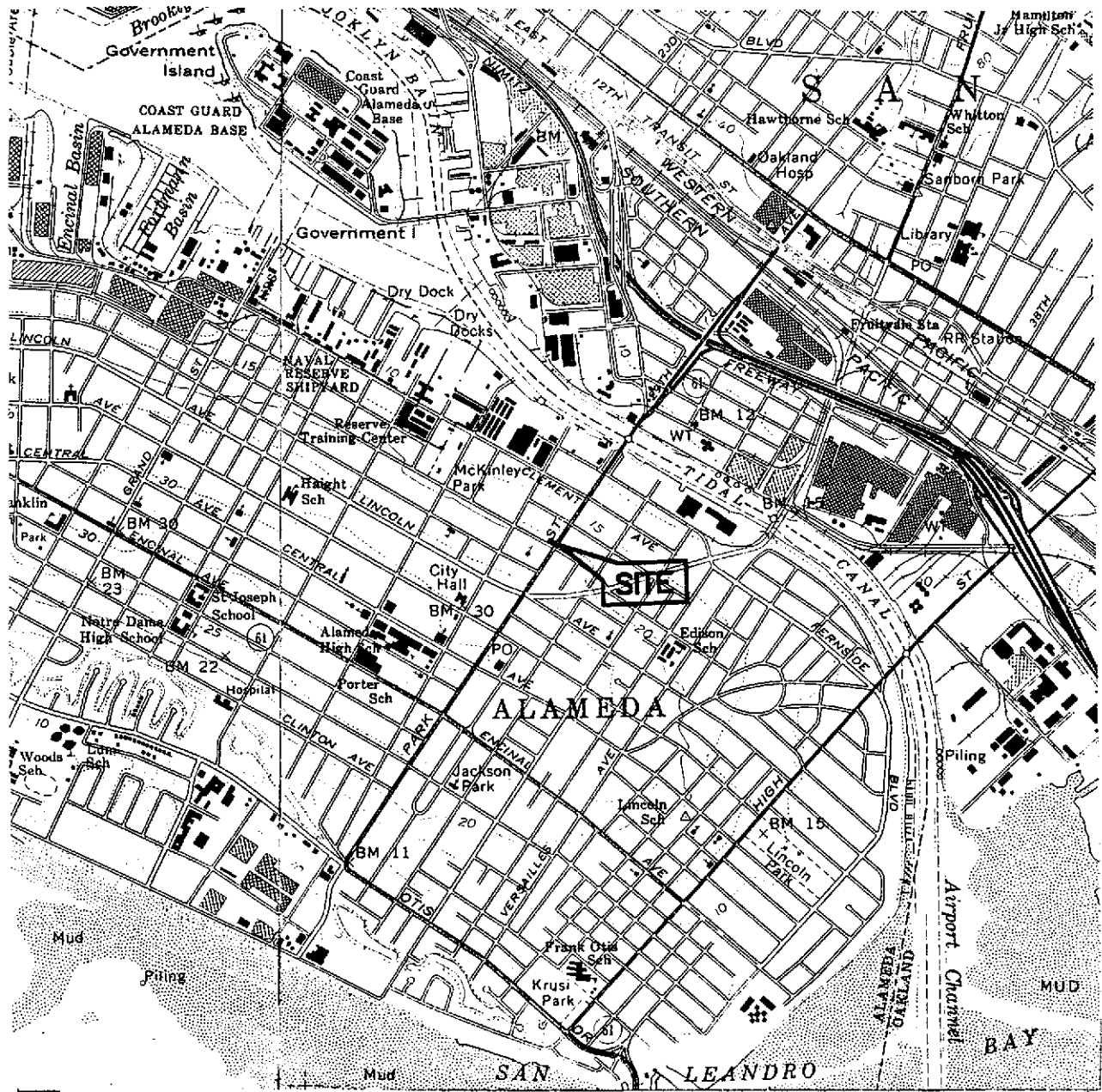
WELL ID	DATE OF MONITORING/ SAMPLING	TOP OF CASING ELEVATION	DEPTH TO GROUND WATER	FREE PRODUCT THICKNESS (a)	GROUND WATER ELEVATION (b)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	LAB
MW-1	11/04/94	19.49	8.64	---	10.85	60000	6400	13000	4900	1300	5500	MAI
MW-1D	11/04/94	---	---	---	---	54000	---	12000	4500	1200	5200	MAI
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	MAI
MW-1D	02/24/95	---	---	---	---	43000	---	8900	4600	970	3300	MAI
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-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	MAI
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	MAI
TB	11/04/94	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	MAI
TB	02/24/95	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	MAI

ABBREVIATIONS:

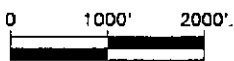
TPH-G Total petroleum hydrocarbons as gasoline  
 TPH-D Total petroleum hydrocarbons as diesel  
 B Benzene  
 T Toluene  
 E Ethylbenzene  
 X Total xylenes  
 ug/l Micrograms per liter.  
 ND Not detected above reported detection limit  
 D Duplicate  
 TB Trip blank  
 MAI McCampbell Analytical, Inc.

NOTES:

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



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



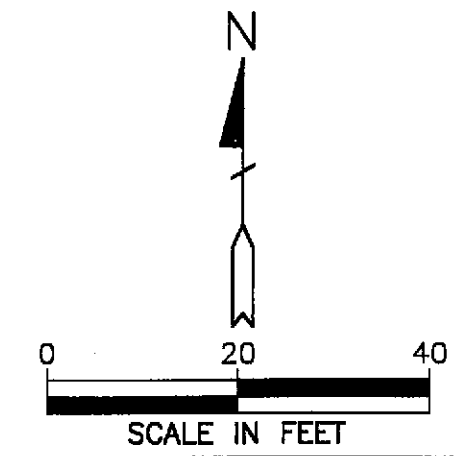
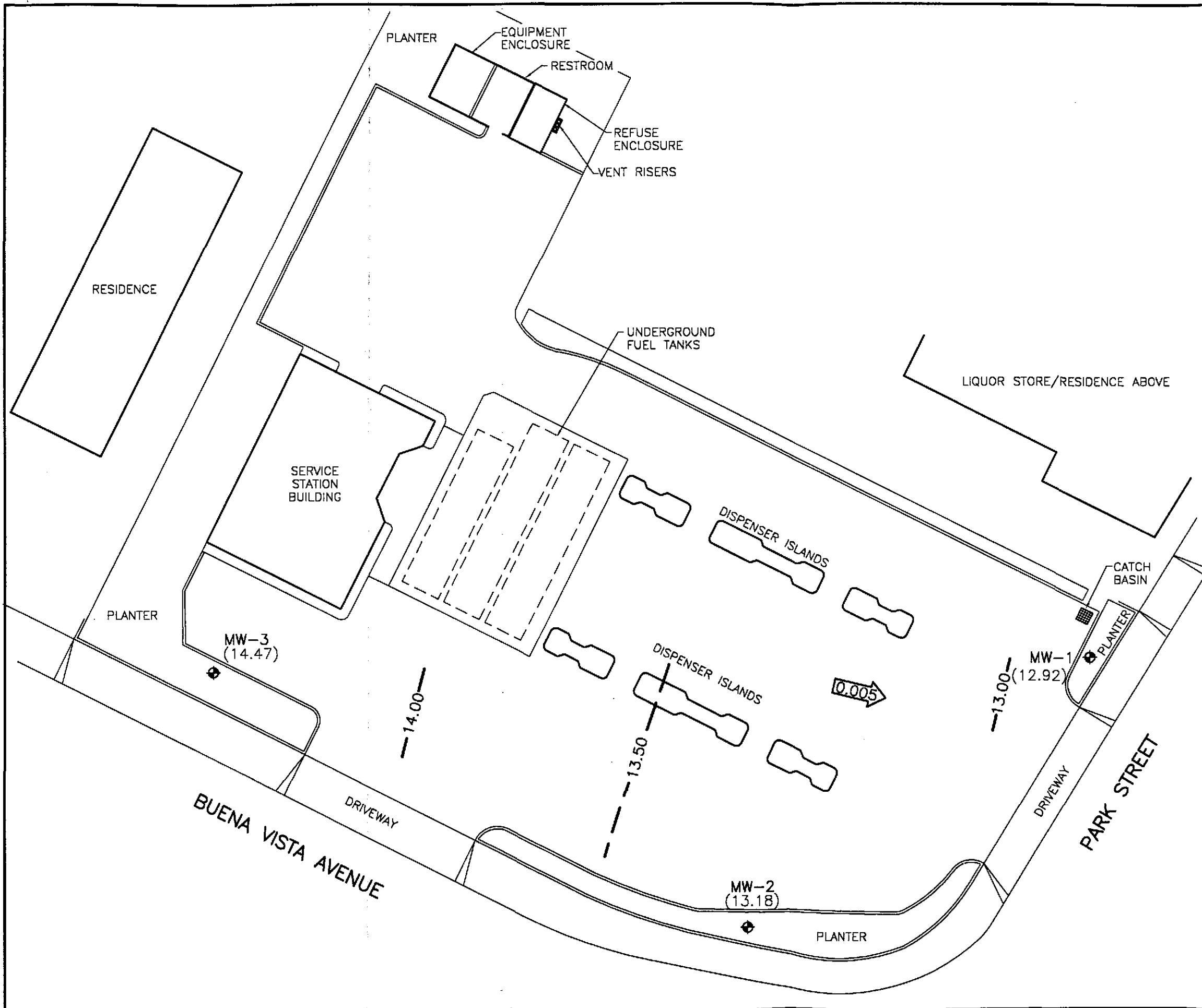
**FIGURE 1**  
**SITE VICINITY MAP**

**XTRA OIL COMPANY SERVICE STATION**  
**1701 PARK STREET**  
**ALAMEDA, CALIFORNIA**

**PROJECT NO. 10-210**



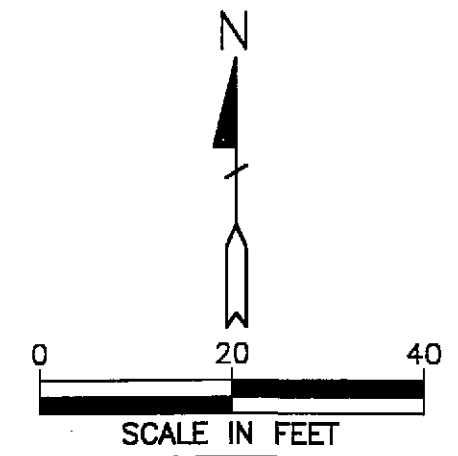
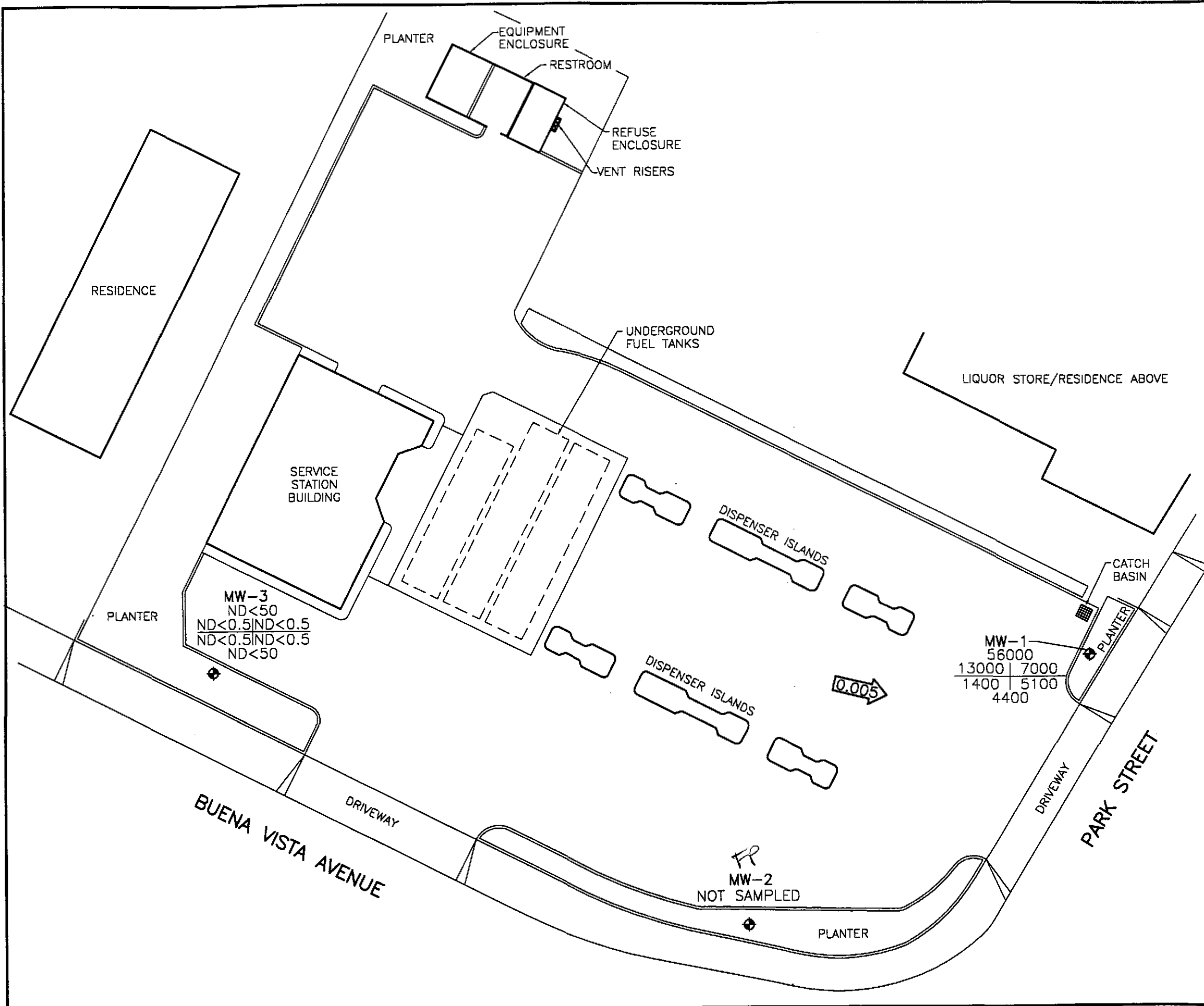
**ALISTO ENGINEERING GROUP**  
 WALNUT CREEK, CALIFORNIA



- LEGEND**
- ◆ GROUNDWATER MONITORING WELL
  - (12.92) GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
  - 13.00 - GROUNDWATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL (CONTOUR INTERVAL-0.50 FOOT)
  - ← 0.004 → CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT

**FIGURE 2**  
**POTENTIOMETRIC GROUNDWATER ELEVATION CONTOUR MAP**  
**FEBRUARY 24, 1995**  
 XTRA OIL COMPANY SERVICE STATION  
 1701 PARK STREET  
 ALAMEDA, CALIFORNIA  
 PROJECT NO. 10-210

102100-M.DWG 3-10-95 RHW 1-20



**LEGEND**

◆	GROUNDWATER MONITORING WELL
TPH-G B   T E   X TPH-D	CONCENTRATION OF CONSTITUENTS IN MICROGRAMS PER LITER
TPH-G	TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
B	BENZENE
T	TOLUENE
E	ETHYLBENZENE
X	TOTAL XYLENES
TPH-D	TOTAL PETROLEUM HYDROCARBONS AS DIESEL
ND	NOT DETECTED ABOVE REPORTED DETECTION LIMIT
←0.005→	CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT

**FIGURE 3**  
**CONCENTRATIONS OF PETROLEUM  
 HYDROCARBONS IN GROUNDWATER**  
**FEBRUARY 24, 1995**  
 XTRA OIL COMPANY SERVICE STATION  
 1701 PARK STREET  
 ALAMEDA, CALIFORNIA  
 PROJECT NO. 10-210



**APPENDIX A**

**WATER SAMPLING FIELD SURVEY FORMS**

# ALISTO

ENGINEERING  
GROUP

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

## Field Report / Sampling Data Sheet

Groundwater Sampling

Date: 2/24/95 Project No. 10-210-04-001

Day: M T W Th (F) Facility No. \_\_\_\_\_

Temp. 65°F Address 1701 Park St, Alameda, CA

SAMPLER: M. Killoran

Barometric pres. 758

Well ID	SAMPLE #	WATER	time	Well ID	SAMPLE #	WATER/	time	Well ID	SAMPLE	WATER / time
MW-3	MW-3	6.11	12:10							
MW-1	MW-1	6.57	12:15							
MW-2	(NONE)	7.11	12:19							
MW-1D										
TB										

### FIELD INSTRUMENT CALIBRATION DATA

Ph METER \_\_\_\_\_ 4.00 \_\_\_\_\_ 7.00  10.00 \_\_\_\_\_ TIME 12:50 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-3	6.11	2"	OK	None	Y (N)	2	1:02	65.3	7.25	750	—	<input type="checkbox"/> EPA 601 _____
Total Depth - Water Level = x Well Vol. Factor = x#vol. to Purge = Purge Vol.						4	1:06	63.5	7.15	760		<input checked="" type="checkbox"/> TPH-G/BTEX _____
$19.50 - 6.11 = 13.39 \times 0.16 = 2.14 \times 3 = 6.42 \text{ gal}$						6	1:10	63.1	7.00	750		<input checked="" type="checkbox"/> TPH Diesel _____
Purge Method: <input type="checkbox"/> Surface Pump <input type="checkbox"/> Disp. Tube <input type="checkbox"/> Winch <input checked="" type="checkbox"/> Disp. Bailer(s) <input type="checkbox"/> Sys Port												<input type="checkbox"/> TOG 5520 _____
Comments: _____												Time/Sample <u>1:20/MW-3</u>

Well ID	Depth to Water	Diam	Cap/Lock	Depth to prod.	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.	
MW-1	6.57	2"	OK	None	Y (N)	2	1:43	62.2	7.06	980		<input type="checkbox"/> EPA 601 _____
Total Depth - Water Level = x Well Vol. Factor = x#vol. to Purge = Purge Vol.						4	1:47	63.3	6.90	990		<input checked="" type="checkbox"/> TPH-G/BTEX _____
$20.00 - 6.57 = 13.43 \times 0.16 = 2.15 \times 3 = 6.5 \text{ gal}$						6	1:50	63.1	6.84	1000		<input checked="" type="checkbox"/> TPH Diesel _____
Purge Method: <input type="checkbox"/> Surface Pump <input type="checkbox"/> Disp. Tube <input type="checkbox"/> Winch <input checked="" type="checkbox"/> Disp. Bailer(s) <input type="checkbox"/> Sys Port												<input checked="" type="checkbox"/> TOG 5520 Dissolved O <sub>2</sub> _____
Comments: <u>QC-1 from MW-1 @ 2:00</u>												Time/Sample <u>1:55/MW-1</u>

Well ID	Depth to Water	Diam	Cap/Lock	Depth to prod.	Iridescence	Gal.	Time	Temp *F	pH	E.C.	D.O.	
MW-2	7.11	2"	OK	6.93	(N)							<input type="checkbox"/> EPA 601 _____
Total Depth - Water Level = x Well Vol. Factor = x#vol. to Purge = Purge Vol.												<input checked="" type="checkbox"/> TPH-G/BTEX _____
Purge Method: <input type="checkbox"/> Surface Pump <input type="checkbox"/> Disp. Tube <input type="checkbox"/> Winch <input checked="" type="checkbox"/> Disp. Bailer(s) <input type="checkbox"/> Sys Port												<input checked="" type="checkbox"/> TPH Diesel _____
Comments: <u>No sample taken due to presence of 0.18 feet of dark brown floating hydrocarbon product.</u>												<input type="checkbox"/> TOG 5520 _____
												Time/Sample

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

Alisto Engineering Group 1777 Oakland Blvd., # 200 Walnut Creek, Ca 94596	Client Project ID: # 10-210-04-001; 1701	Date Sampled: 02/24/95
	Park St., Alameda	Date Received: 02/24/95
	Client Contact: John DeGeorge	Date Extracted: 02/24-02/26/95
	Client P.O. #                      MSA: # S9402	Date Analyzed: 02/24-02/26/95

**Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline\*, with 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) <sup>+</sup>	Benzene	Toluene	Ethylbenzene	Xylenes	% Rec. Surrogate
50450	MW-3	W	ND	ND	ND	ND	ND	94
50451	MW-1	W	56,000,a	13,000	7000	1400	5100	93
50452	MW-ID	W	43,000,a	8900	4600	970	3300	97
50453	TB	W	ND	ND	ND	ND	ND	96
Detection Limit unless otherwise stated; ND means Not Detected	W	50 ug/L	0.5	0.5	0.5	0.5	0.5	
	S	1.0 mg/kg	0.005	0.005	0.005	0.005	0.005	

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

# cluttered chromatogram; sample peak co-elutes 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 are significant; no recognizable pattern; 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 phase is present.

McCAMPBELL ANALYTICAL INC.

110 2nd Avenue South, #D7, Pacheco, CA 94553

Tele: 510-798-1620 Fax: 510-798-1622

Alisto Engineering Group 1777 Oakland Blvd., # 200 Walnut Creek, Ca 94596	Client Project ID: # 10-210-04-001; 1701 Park St., Alameda	Date Sampled: 02/24/95
		Date Received: 02/24/95
	Client Contact: John DeGeorge	Date Extracted: 02/24/95
	Client P.O.: #                      MSA: # S9402	Date Analyzed: 02/24-02/25/95

**Diesel Range (C10-C23) Extractable Hydrocarbons as Diesel \***

EPA methods modified 8015, and 3550 or 3510; California RWQCB (SF Bay Region) method GCFID(3550) or GCFID(3510)

Lab ID	Client ID	Matrix	TPH(d) <sup>+</sup>	% Recovery Surrogate
50450	MW-3	W	ND	97
50451	MW-1	W	4400,d,b	98
Detection Limit unless otherwise stated; ND means Not Detected	W		50 ug/L	
	S		10 mg/kg	

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

# cluttered chromatogram; surrogate and sample peaks co-elute or surrogate peak is on elevated baseline

<sup>+</sup> 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 diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) modified diesel?; light(CL) or heavy(CH) diesel compounds are significant; d) gasoline range compounds are significant; e) medium boiling point pattern that does not match diesel(?); f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible phase is present.

## QC REPORT FOR HYDROCARBON ANALYSES

Date: 02/24-02/25/95

Matrix: Water

Analyte	Concentration (ug/L)			Amount Spiked	% Recovery		
	Sample	MS	MSD		MS	MSD	RPD
TPH (gas)	0.0	101.3	101.4	100	101.3	101.4	0.1
Benzene	0	9.9	9.9	10	99.0	99.0	0.0
Toluene	0	9.9	9.8	10	99.0	98.0	1.0
Ethyl Benzene	0	9.9	9.7	10	99.0	97.0	2.0
Xylenes	0	30.8	30	30	102.7	100.0	2.6
TPH (diesel)	0	153	145	150	102	97	5.3
TRPH (oil & grease)	N/A	N/A	N/A	N/A	N/A	N/A	N/A

$$\% \text{ Rec.} = (\text{MS} - \text{Sample}) / \text{amount spiked} \times 100$$

$$\text{RPD} = (\text{MS} - \text{MSD}) / (\text{MS} + \text{MSD}) \times 2 \times 100$$

# ALISTO ENGINEERING GROUP

## CHAIN OF CUSTODY

3717AEG15

Consultant's Name: Alisto Engineering  
 Address: 1777 Oakland Blvd, Walnut Creek, CA  
 Project Contact: John DeGeorge Consultant Project #: 10-210-04-001 Phone #: 510-295-1650 Fax #: 510-275-1823  
 Sampled by (print): Michael J. Killoran Sampler's Signature: [Signature]  
 Shipment Method: Hand delivered Site Location #: \_\_\_\_\_ Site Location: 1701 Park St, Alameda, CA

TAT:  24 hr  48 hr  72 hr  Standard (10 day)

**ANALYSIS REQUIRED**

Sample Description	Collection Date/Time	Matrix Soil/Water	Prsv	# of Cont	Sample #	TPH/GAS/TEX EPA 8015/8020	TPH/Diesel EPA 8015	Oil & Grease SM 5520	HVOC 8010	Dissolved 2-28	Organic metals inorganic	Other	Other
Water MW 3	1:20	Water		2	MW-3	X	X						
Water MW 1	1:55			4	MW-1	X	X			X			
Duplicate MW 1	1:55			2	<del>MW-1</del>	X	X						
Trip Blank	2:00	↓		2	TB	X							

Sample Condition as Received  
 Temperature °C: \_\_\_\_\_  
 Cooler #: \_\_\_\_\_  
 Inbound Seal Yes No  
 Outbound Seal Yes No

**COMMENTS**

50450  
 50451  
 50452  
 50453

ICE/GOOD HEAD SPACE  **CONDITION**   
 PRESERVATIVE APPROPRIATE CONTAINERS

Relinquished by/Affiliation	Date	Time	Accepted by/Affiliation	Date	Time	Additional Comments:
<u>[Signature]</u> / Alisto Engineering	<u>2/24/95</u>	<u>3:40 P</u>	<u>Erinn Mahoney MAE</u>	<u>2/24/95</u>	<u>3:40 P</u>	<u>Direct bill Xtra Oil Co.</u>