XTRA OIL COMPANY 2307 PACIFIC AVE. ALAMEDA, CA 94501 (510) 865-9503

January 22, 1996

Nove cancelled tile search Several times over 2-3 weeks PERP?

ALAMEDA COUNTY DEPT. OF ENVIRONMENTAL HEALTH HAZARDOUS MATERIALS DIVISION 1131 HARBOR BAY PKWY. ROOM 250 ALAMEDA, CA. 94502

ATTENTION:

EVA CHU

REGARDING:

1701 PARK ST.

ALAMEDA

DEAR MS. CHU,

PLEASE FIND ENCLOSED, THE GROUNDWATER MONITORING AND SAMPLING REPORT FOR THE ABOVE LOCATION. IF YOU HAVE ANY QUESTIONS FEEL FREE TO CONTACT ME.

SINCERELY,

ENCLOSURES

S. M. C. M.

GROUNDWATER MONITORING AND SAMPLING REPORT

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

Project No. 10-210-04-003

Prepared for:

Xtra Oil Company 2307 Pacific Avenue Alameda, California

Prepared by:

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

December 11, 1995

Dale Swain

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. 10-210-04-003

December 11, 1995

INTRODUCTION

This report presents the results and findings of the August 30, 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 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, 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 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 August 30, 1995 groundwater monitoring and sampling event are summarized as follows:

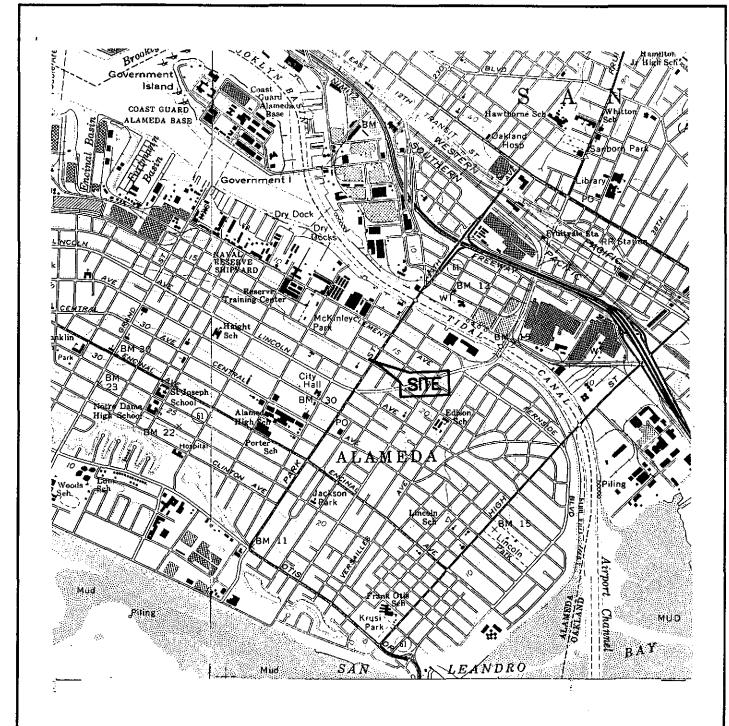
- Approximately 0.12 foot of free product was observed in Monitoring Well WW-2. Free product or sheen was not observed in MW-1 or MW-3.
- Groundwater elevation data indicate a gradient of approximately 0.006 foot per foot in a southeasterly direction across the site.
- Analysis of the groundwater samples detected 57000 micrograms per liter (ug/l) total petroleum hydrocarbons as gasoline (TPH-G), 3700 ug/l total petroleum hydrocarbons as diesel (TPH-D), and 17000 ug/l benzene in the sample collected from MW-1.
- Dissolved oxygen was measured at 2.8 and 4.6 parts per million in the groundwater samples collected from MW-1 and MW-3.

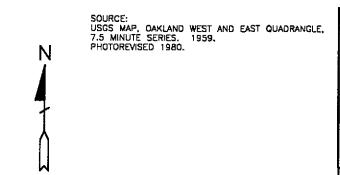


TABLE 1-SUMMARY OF RESULTS OF GROUNDWATER SAMPLING XTRA OIL COMPANY SERVICE STATION 1701 PARK STREET, ALAMEDA, CALIFORNIA

ALISTO PROJECT NO. 10-210

WELL ID	DATE OF MONITORING/ SAMPLING	TORING/ ELEVATION (a) WATER THICKNESS ELEVATION (b				TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	DO (ppm)	LA	
MW-1	11/04/94	19.49	8.64		10.85	60000	6400	13000	4900	1300	5500		MA
QC-1 (c)	11/04/94		P==	***	***	54000		12000	4500	1200	5200		MA
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		MA
QC-1 (c)	02/24/95	_	***			43000		8900	4600	970	3300		MA
MW-1	05/25/95	19.49	6.54		12.95	53000	4700	11000	5700	1200	4000	4.3	MA
QC-1 (c)	05/25/95					48000		11000	5300	1200	3800	***	MA
MW-1	08/30/95	19.49	8.15		11.34	14000	3700	5000	1100	3900	103	2.8	MA
QC-1 (c)	08/30/95					57000		17000	7000	1500	5200		MA
MW-2	11/04/94	20.29	9.12	0.16	11.29					***			
MW-2	01/11/95	20.29	6.75	-	13.54				844				
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	***					***		
мw-з	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		MA
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		MA
MW-3	05/25/95	20.58	6.24		14.34	91	ND<50	28	12	2.1	6.5		MA
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	MA
QC-2 (d)	11/04/94			_		ND<50		ND<0.5	ND<0.5	ND<0.5	ND<0.5	_	MA
QC-2 (d)	02/24/95	_				ND<50		ND<0.5	ND<0.5	ND<0.5	ND<0.5	_	MA
QC-2 (d)	05/25/95	•••				ND<50		ND<0.5	ND<0.5	ND<0.5	ND<0.5	•	MA
QC-2 (d)	08/30/95				***	ND<50		ND<0.5	ND<0.5	ND<0.5	ND<0.5		MA
ABBREVI/	ATIONS:				NOTES:				·				
TPH-G	Total petroleum h	ydrocarbons as gas	enilos		(a)	Top of casing	surveyed	relative to m	nean sea le	vel.			
TPH-D	Total petroleum h	ydrocarbons as die	sel										
8	Benzene				(b)	Groundwater	elevations	expressed	in feet				
Ţ	Toluene					above mean :	sea level, a	nd adjusted	l assuming				
Ę	Éthylbenzene	44-1				a specific gra	vity of 0.75	for free pro	duct.				
X	Total xylenes												
DO	Dissolved oxygen				(c)	Blind duplicat	Θ.						
ug/i	Micrograms per lit	er			4 B								
ppm	Parts per million		C		(d)	Trip blank.							
ND		ve reported detection	an umit										
D TB	Duplicate Trip blank												
MAI	McCampbell Anal												





1000'

20001

FIGURE 1

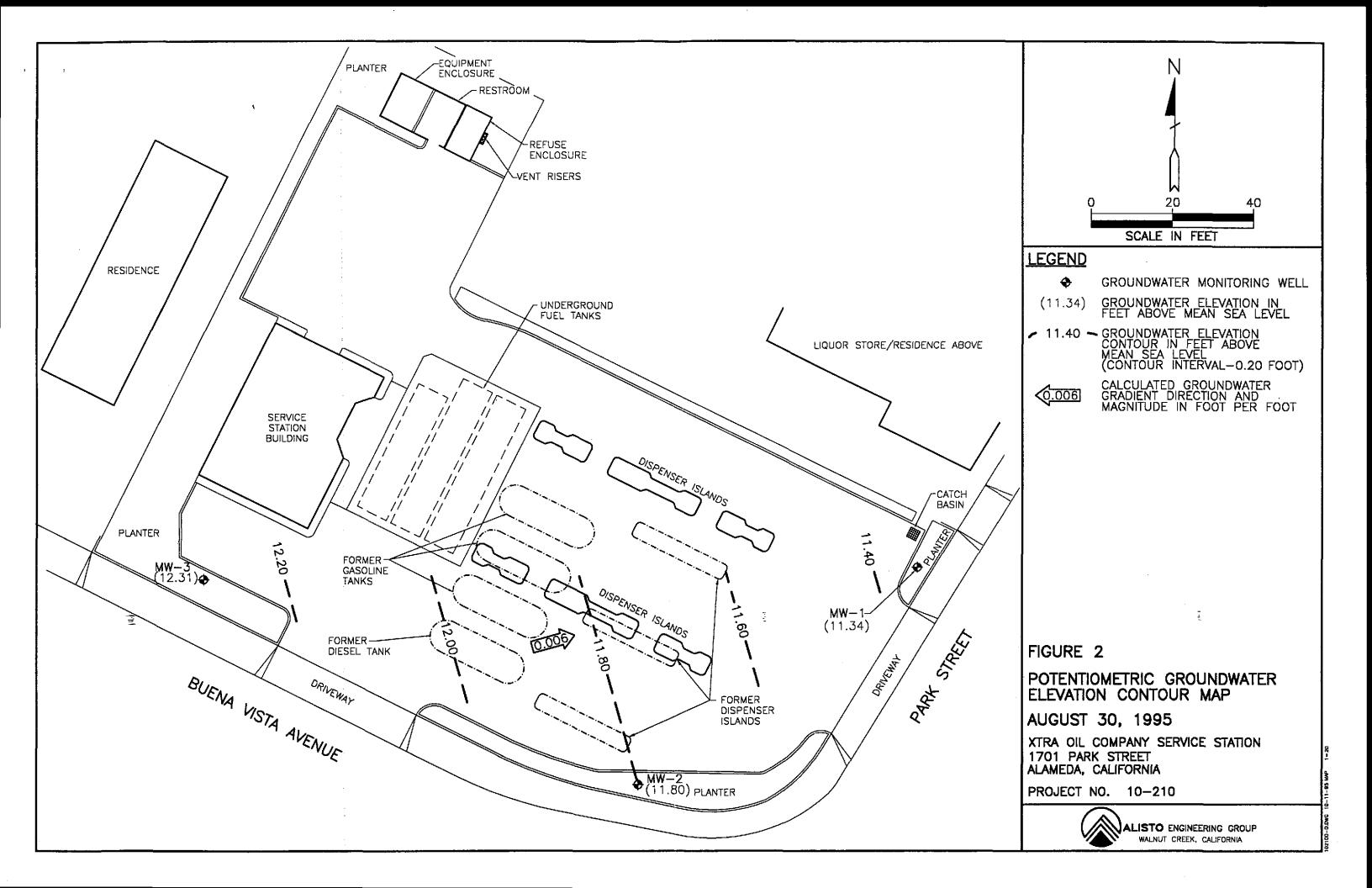
SITE VICINITY MAP

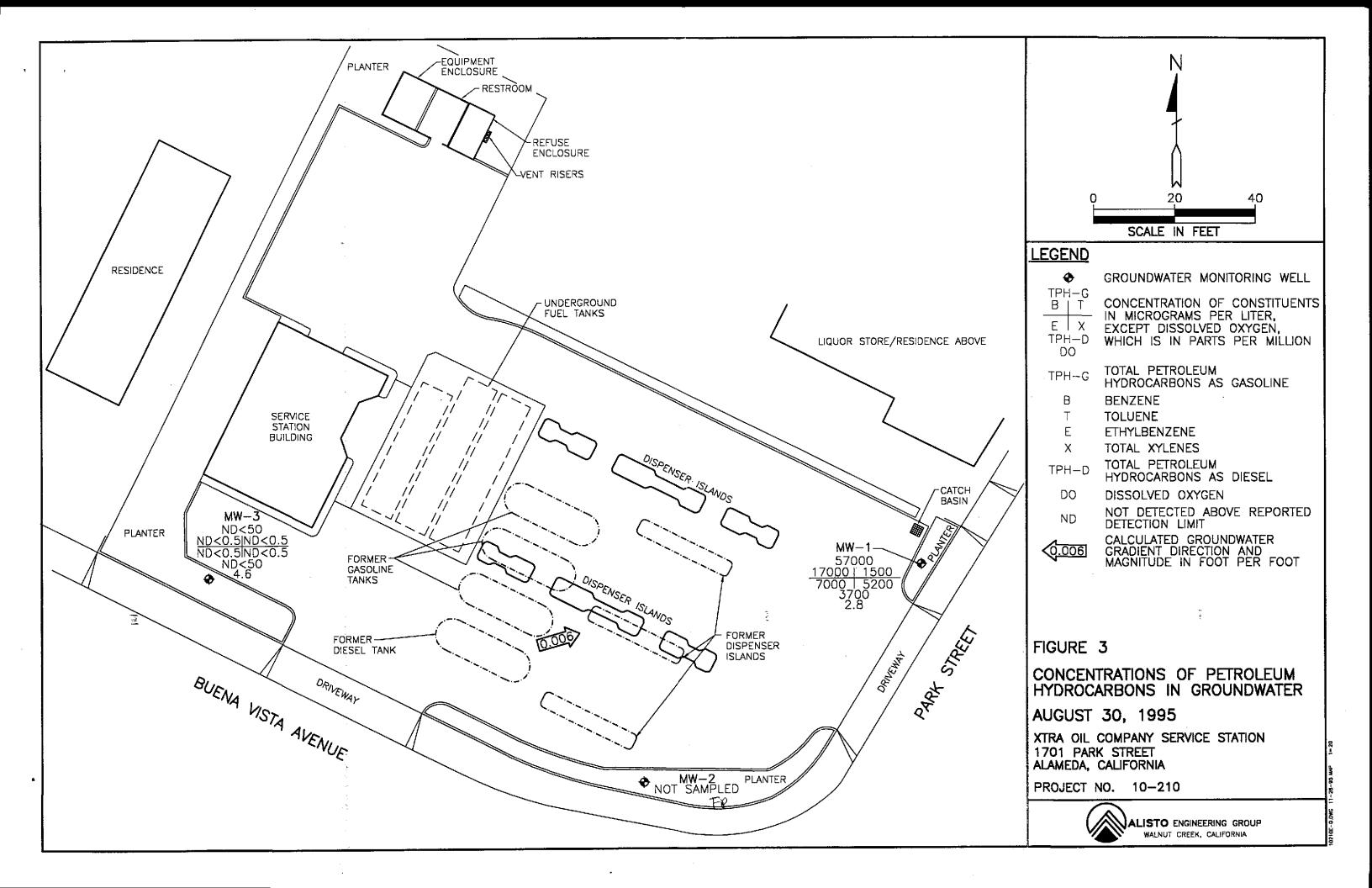
XTRA OIL COMPANY SERVICE STATION 1701 PARK STREET ALAMEDA, CALIFORNIA

PROJECT NO. 10-210



1--- DBG 6-3-94 RKW 1-1





APPENDIX A WATER SAMPLING FIELD SURVEY FORM

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ALISTO

Field Report / Sampling Data Sheet

ENGINEE	RING			Project N	io.	10-210	-04-003	}	Date:	8/30/95			
GROUP					Addre	ss -	1701 H	gh Stre	et	Day:	M T W TH F		
1575 TRE	AT BOULEVA	ARD, SUITE 201			Contract No	-	XTRA				Alameda		
		4598 (510) 295-1 6	50 FAX 295-1	823	Station N	-		Sampler:	i	Ŗ <u></u>			
WELL ID	SAMPLE ID	DEPTH TO WATER	TOTAL DEPTH	PRODUCT THICKNESS	TIME	COM	MENTS:						
MW-1	5-1	8.15	20.00	\mathcal{U}	1340								
MW-2		8.58	NM	. 13	1346		>= 8	<u>410'</u>					
MW-3	5.7	827	19.50	L. <i>1</i> 2	1343						,		
Ph METER TOM 4.00 7.00 7 10.00 10 TEMPERATURE COMPENSATED (Y)N TIME 0900 WEATHER COMPENSATED													
D.O. METE	R_T(M ZER	O d.O. SOLL	лонО		BAROME	TRIC PRE	SSURE _	760		TEMP <u>67</u>		
CONDUC	TIVITY METER	ICM	10,000 <u>l</u>	D,OOD TURBI	DITY METER			_ 5.0 NTU	J		OTHER		
Well ID		o Diam Cap/Loci				Temp *F		E.C.	D.O.	0	EPA 601		
<u>wm-3</u>	8.27	13" OK	l Ø	Y (N) 2		65.8		80Z45	4.3		IPH-G/BIEX!		
	- Water Level=	x Well Vol. Factor=			1409			63945		Ø	TPH Diesel HCL		
19.	30-8.2	1-11.23 X.11	- 1.80X:	3=5.40 5.5	1410	66.0	8.31	6364S	4.6	0	TOG 5520		
		ump ODIsp.Tube OV	Vinch ODisp. Bo	iler(s)OSys Port							TIME/SAMPLE ID		
Commen											<u>412</u>		
		Diam Cap/Lock				Temp *F	рН	E.C.	D.O.	_	EPA 601		
WM-1	8.15	a" ok		Y (N) 7				699 K			TPH-G/BTEX		
		x Well Vol. Factor=				68.9		24894		_	TPH Diesel		
		= 11.85 X.16			1430	68.0	7.81	682NS	2.8	0	TOG 5520		
		ump ODIsp.Tube OV						/			TIME/SAMPLE ID		
	ts: QC - \									1,	435		
		əı Dlam Cap/Locl			Time	Temp *F	рН	E.C.	D.O.	0	EPA 601		
	8.58	2" 01	8.46	Y) N						0	TPH-G/BTEX		
	<i>(</i> '	x Well Vol. Factor=	x#vol. to Purg	ge PurgeVol.						0	TPH Diesel		
Not	- Dung									0	TOG 5520		
	od: OSurface P	ump ODisp.Tube OV									TIME/SAMPLE ID		
Commen	ts: Puge	d agal TF	·02 gal 1	ρ									
	0	$c \cdot i \left(S - \frac{1}{2} \right)$	3)-	PAGEC) - \								

APPENDIX B LABORATORY REPORT AND CHAIN OF CUSTODY RECORD

09/08/95

Dear Brady:

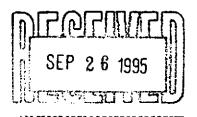
Enclosed are:

- 1). the results of 4 samples from your # 10-210-04/003; XTRA 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



Alisto Engineering Group Cli		Client Proje	ct ID: # 10-2	10-04/003;	XTRA	Date Sampled: 08/30/95										
1575 Treat Bl	vd. # 201					Date Received: 08/30/95										
Walnut Creek	k, CA 94598	Client Cont	act: Brady N	agle		Date Extracted: 09/07/95										
		Client P.O:				Date Analyzed: 09/07/95										
EPA methods 50				ydrocarbons as Gasoline*, with BTEX* OCB (SF Bay Region) method GCFID(5030)												
Lab ID	Client ID	Matrix	TPH(g) ⁺	Benzene	Toluen	Ethviban	Xylenes	% Rec. Surrogate								
55916	S-1	W	14,000,c	5000	1100	3900	103	98								
55917	S-2	W	ND	ND	ND	ND	ND	117								
55918	S-3	w	57,000,c	17,000	7000	1500	5200	104								
55919	S-4	w	ND	ND	ND	ND	ND	100								
								,								
	_															
				. —												
Reporting	Limit unless other ND means not de	- W	W 50 ug/L		0.5	0.5	- 0.5									
wise stated; tected above	ND means not de the reporting lin	e- nit S	1.0 mg/kg	0.005	0.005	0.005	0.005									

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

14	
14	Edward Hamilton, Lab Director

[#] cluttered chromatogram; sample peak coelutes with surrogate peak

⁺ The following descriptions of the TPH chromatogram are curriory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly mc dified 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.

^{*} water samples are reported in ug/L, soil samples in mg/kg, and all TCLP and STLC extracts in mg/L

[#] cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

⁺ 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) aged diesel? is 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 sheen is present; i) liquid sample that contains greater than ~ 5 vol. % sediment.

QC REPORT FOR HYDROCARBON ANALYSES

Date: 09/07/95

Matrix: Water

	Concent	ration	(ug	L)		% Reco	·	
Analyte	Sample	MS	Mi	\$D	Amount Spiked	MS	MSD	RPD
TPH (gas) Benzene	0.0	86.0 9.4		0.4	100 10	86 94.0	90 103.0	4.9 9.1
Toluene	0	9.3		10.3	10	93.0	103.0	10.2
Ethyl Benzene	0	9.3		9.8	10	93.0	98.0	5.2
Xylenes	0	30.2		32	30	100.7	106.7	5.8
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		'A	N/A	N/A	N/A	N/A

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

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

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

QC REPORT FOR HYDROCARBON ANALYSES

Date: 09/01/95-09/02/95

Matrix: Water

	Concent	ration	(ug	(L)		% Reco		
Analyte	Sample	MS	M	SD.	Amount Spiked	мѕ	MSD	RPD
TPH (gas) Benzene Toluene Ethyl Benzene Xylenes	N/A N/A N/A N/A	N/A N/A N/A N/A N/A	N N N	/A /A /A /A	N/A N/A N/A N/A	N/A N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A
TPH (diesel)	0	153		154	150	102	103	0.3
TRPH (oil & grease)	N/A	N/A	N,	'A	N/A	N/A	N/A	N/A

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

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

*4771 aargx32

	McCAMPBELL ANALYTICAL									•	CHAIN OF CUSTODY RECORD									COI		-:-										
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15	1575 Trent Blud # 201									_	80(5)					ĺ																
Wahut	Walut Creek La 945912									38		9																				
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PROJECT L	OCATION Alm	() '	SAMPL	ER SI	GNAT	URE	1	7	3			7	chine (6		Hydrocarpone				s Dity				Pollutant H	.2/601						co	MENT	S
		MAS	PLING		TYPE CONTAINERS		MA	TRIX	(HE PRE	SERV	ED.	as Gas	(S) (S)					- PC3s	EPA 624/8240/8260		als	y Pollu	(7240/7421/239.2/6010)								
SAMPLE	LOCATION	•		CONTAINERS	I K								H	Petrolem	Total Petroleum	601/8010	EPA 602/8020	EPA 608/8080	EPA 608/8080	82.45	625/8270	- 17 Metals	- Priority	\$	LEAD							
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