Epigene International
CONSULTING GEOLOGISTS

July 18, 1995

Mr. J. W. Silveira
J. W. Silveira Company
499 Embarcadero
Oakland, CA 94606

Subject: Quarterly Monitoring Report for Site Located at 2301 East 12th Street, Oakland, Second Quarter 1995

Dear Mr. Silveira,

The purpose of this report is to provide data regarding the results of investigations that have been carried out at the subject site during the second quarter of 1995. The site is located at the southwest corner of the intersection of East 12th Street and 23rd Ave. in Oakland. The location of the site is shown on Figure 1. A site plan is shown on Figure 2. The former tenant at the site, Alejo Auto Repair Shop vacated the property in June 1994 and the site continues to be vacant.

GROUNDWATER GRADIENT

In the past, groundwater elevations for the project wells were relative to an assumed elevation for the top of casing of MW-1. The top of casing elevations were resurveyed on June 20, 1995 using an automatic level. The elevations are now tied to a City of Oakland sea level datum. The revised elevations are tabulated in Appendix C. The data from previous gauging events were recalculated using the new datum and are also presented in Appendix C. A summary of groundwater gradient directions from March 1994 to June 1995 is shown on a Figure in Appendix C.

Gauging of the depth to groundwater was carried out for each project well on June 20, 1995 prior to any purging of the wells. An electronic probe was used to measure the depth to groundwater from the surveyed mark on the top of the casing. The probe is calibrated to hundredths of a foot. The groundwater elevations were calculated and are presented on Figure 3. Groundwater elevation contours are also plotted on Figure 3.

In addition to the contouring, a direction and slope of the gradient was also calculated by a graphical solution to a three-point problem based on the groundwater elevations of MW-1, MW-5 and MW-6. The results of this calculation are plotted on Figure 3. The direction of the gradient is generally consistent with the groundwater elevation contouring. The direction of the gradient is more northwesterly than the calculation for February and consistent with most of the previous calculations.

GROUNDWATER SAMPLING

Groundwater samples were collected on June 20 from all of the project wells. The wells were purged of approximately five casing volumes prior to sampling by bailing or pumping with a purge pump. Purge water was placed in new 55 gallon drums and left on the site. The samples were collected using a dedicated bailer for each well. The samples were placed in appropriate sample containers provided by the laboratory. After labeling each sample, it was stored in a cooled ice chest and transferred to a State certified laboratory under chain-of-custody control.

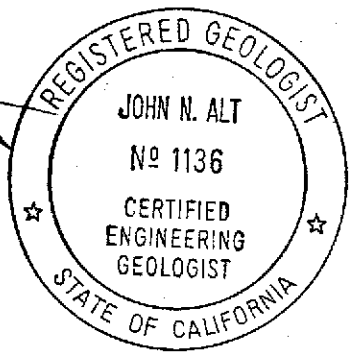
The requested analysis for each sample was based on the original Workplan, amendment and the results of the past quarter sampling and analysis. The results of the water samples are summarized for each well in Appendix B which also includes the results of previous data for each well. In addition, LUFT metals were run for the samples from MW-2, MW-3 and EW-1. These results are presented in Appendix A. The Certified Laboratory

Report and chain-of custody documentation are included in Appendix A. Significant levels of contamination continue to be present in all of the project wells. Summary graphs showing concentrations of gasoline, diesel, benzene and ethylbenzene for each well through time are presented on Figures 5 and 6.

The Remedial Action Plan was prepared during this quarter and sent to Mr. Barney Chan at the Alameda County Department of Environmental Health on June 9, 1995. Mr. Chan subsequently requested summary data inadvertently omitted from the tables included in the Remedial Action Plan. These data are included in the new summary tables for each well in Appendix B. Mr. Chan also requested a location map of the proposed new wells. The proposed well locations are shown on Figure 4 of this report.

Should you have any questions, please contact the undersigned.

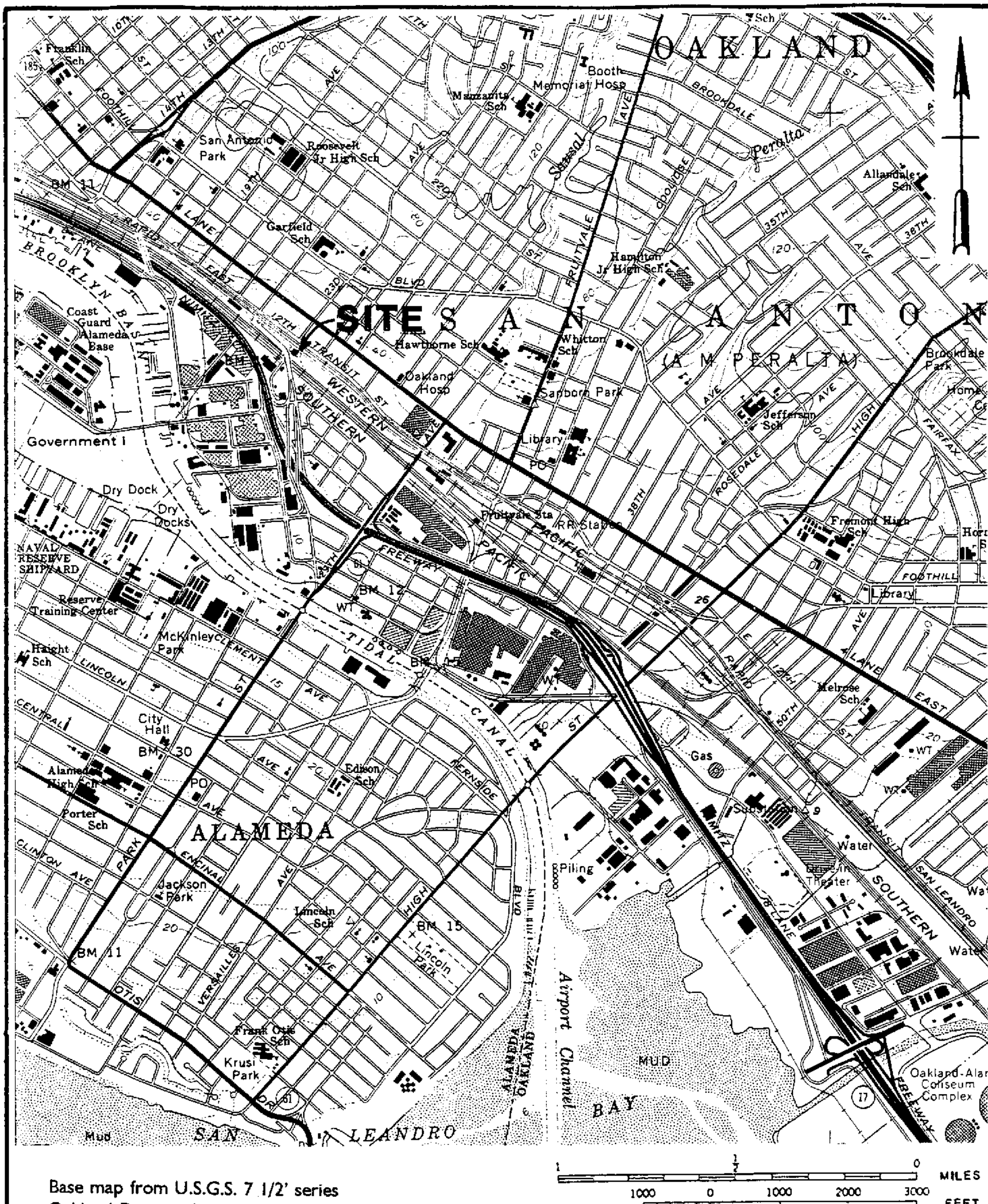
Sincerely,



John N. Alt, CEG No. 1136

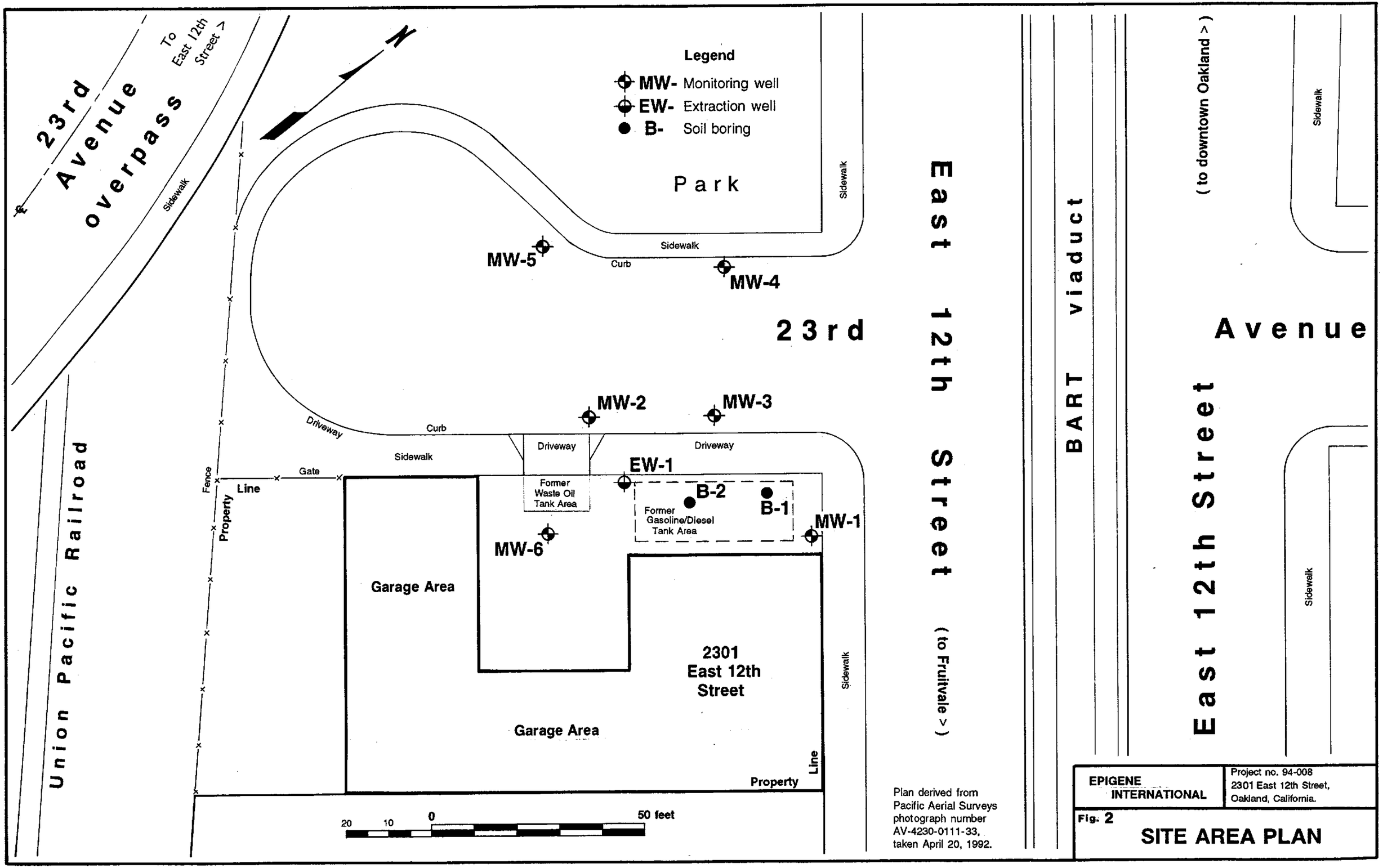
Attachments

cc: Mr. Barney Chan, Alameda County Dept. of Environmental Health
Mr. Robert Shapiro, Esq.



Base map from U.S.G.S. 7 1/2' series
Oakland East quadrangle, 1980.

EPIGENE INTERNATIONAL	East 12th Street, Oakland, California
Fig. 1	SITE LOCATION MAP



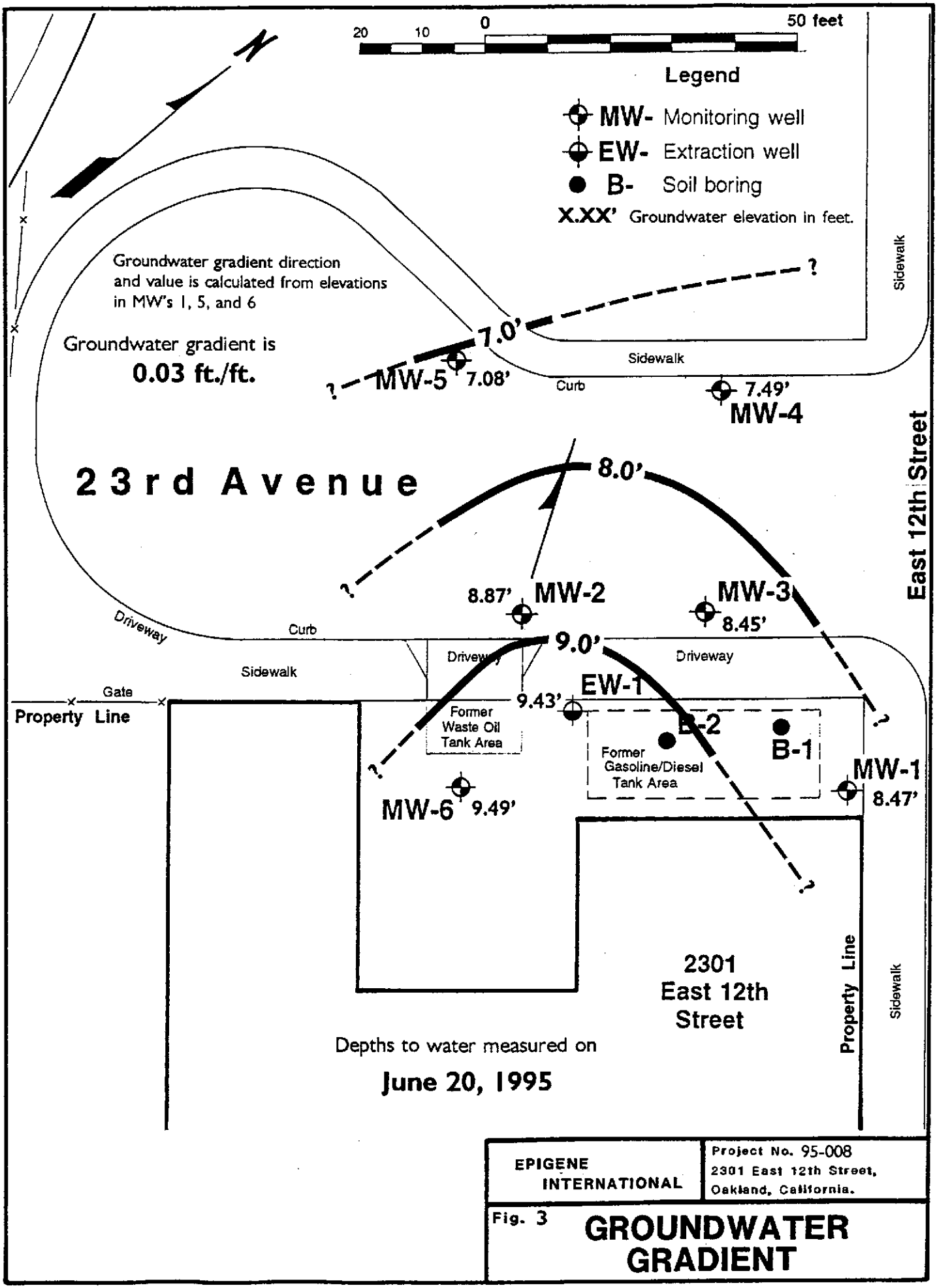
Plan derived from Pacific Aerial Surveys photograph number AV-4230-0111-33, taken April 20, 1992.

EPIGENE INTERNATIONAL

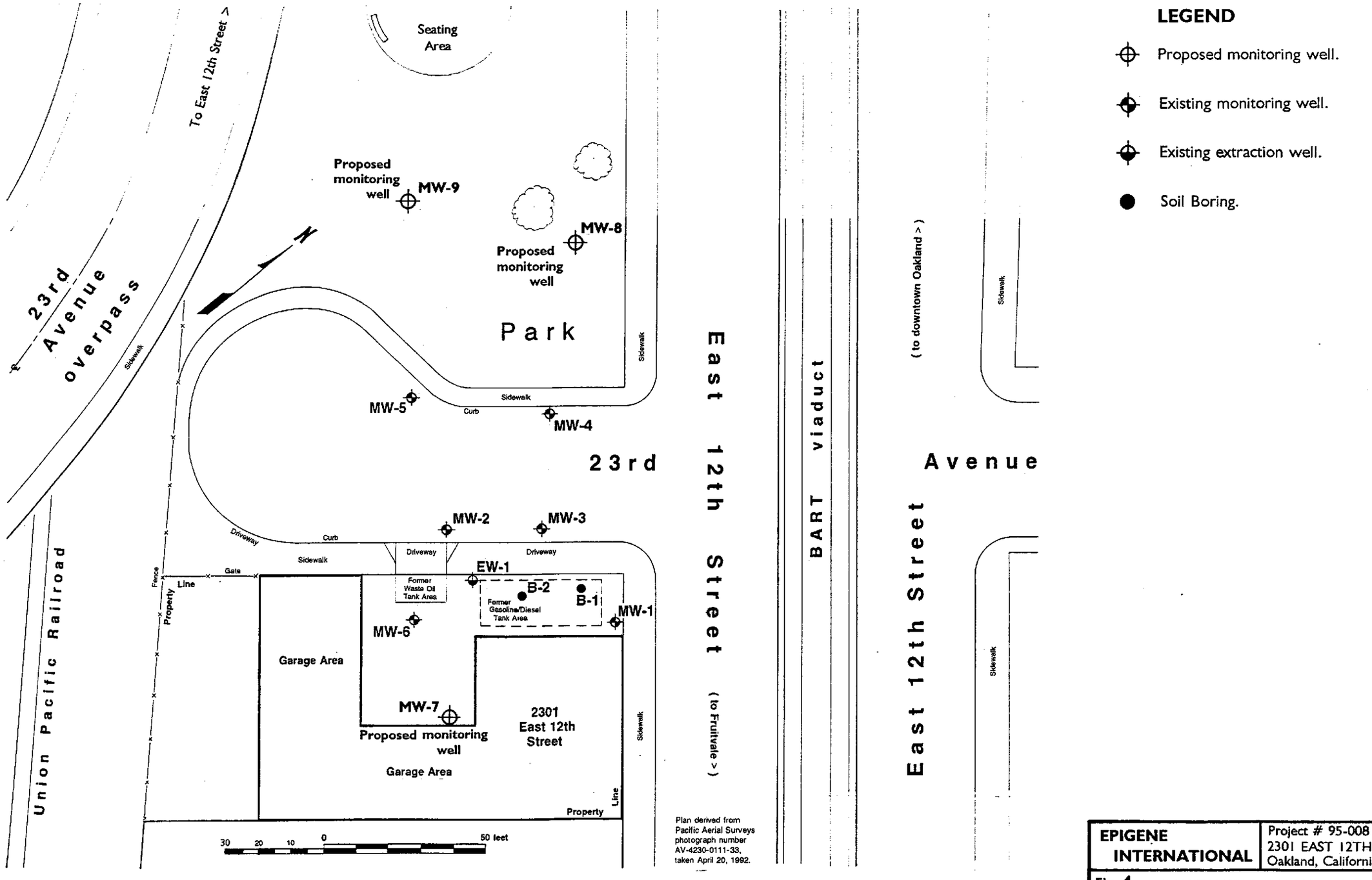
Project no. 94-008
2301 East 12th Street,
Oakland, California.

Fig. 2

SITE AREA PLAN



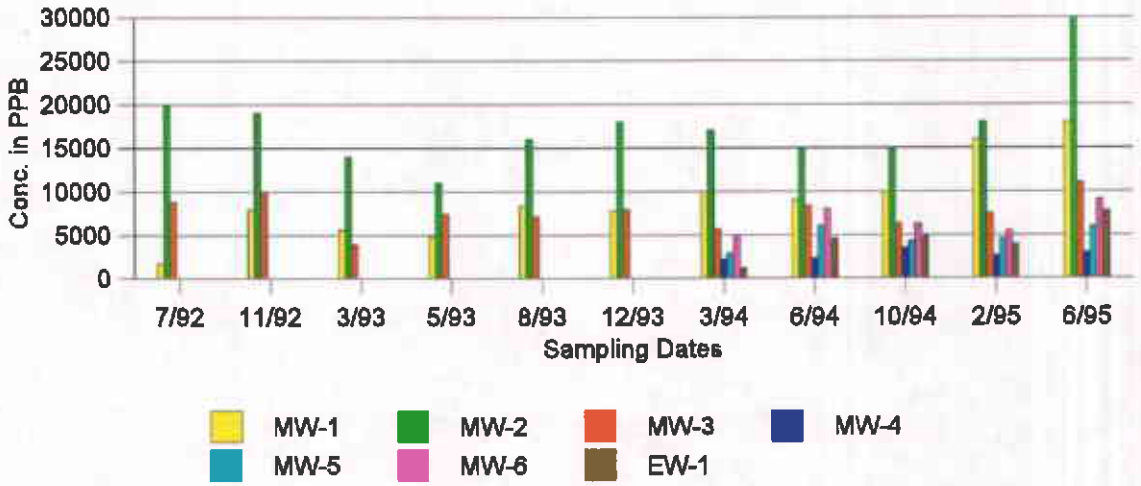
EPIGENE INTERNATIONAL	Project No. 95-008 2301 East 12th Street, Oakland, California.
Fig. 3	**GROUNDWATER GRADIENT**



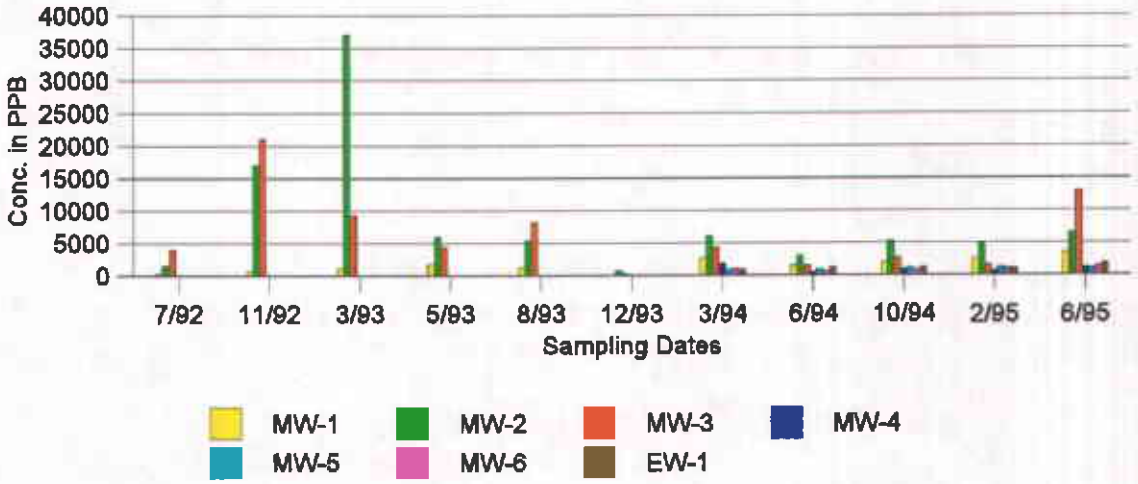
EPIGENE INTERNATIONAL	Project # 95-008 2301 EAST 12TH STREET, Oakland, California.

Fig. 4 **PROPOSED LOCATIONS OF ADDITIONAL MONITORING WELLS**

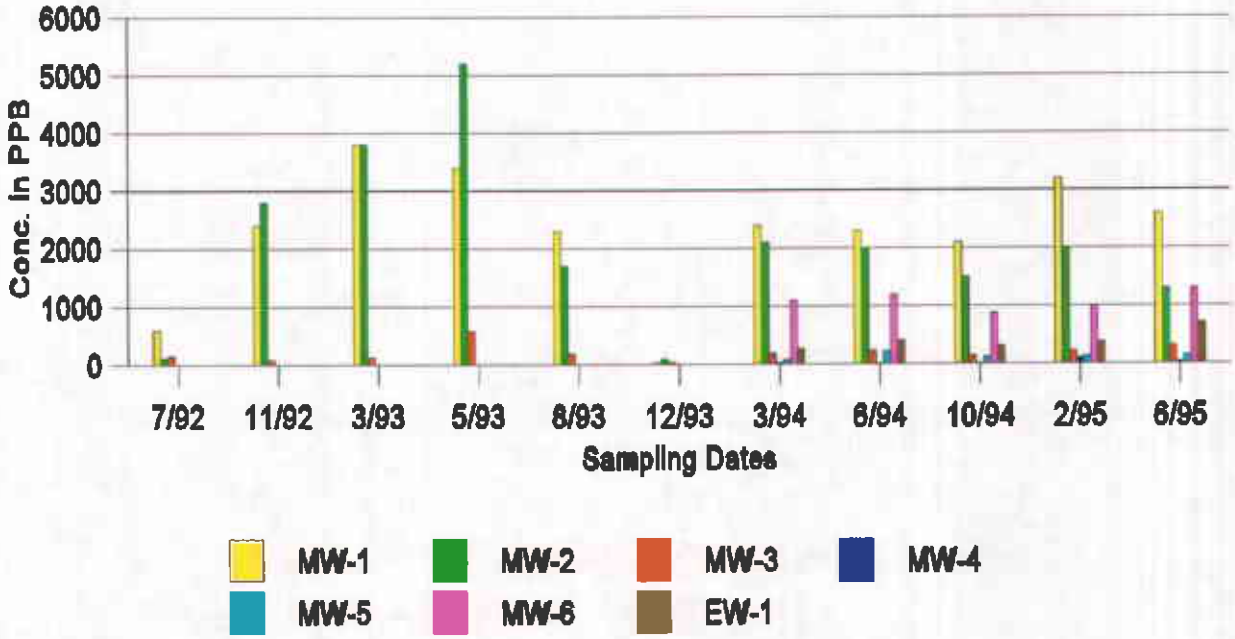
Gasoline Concentrations



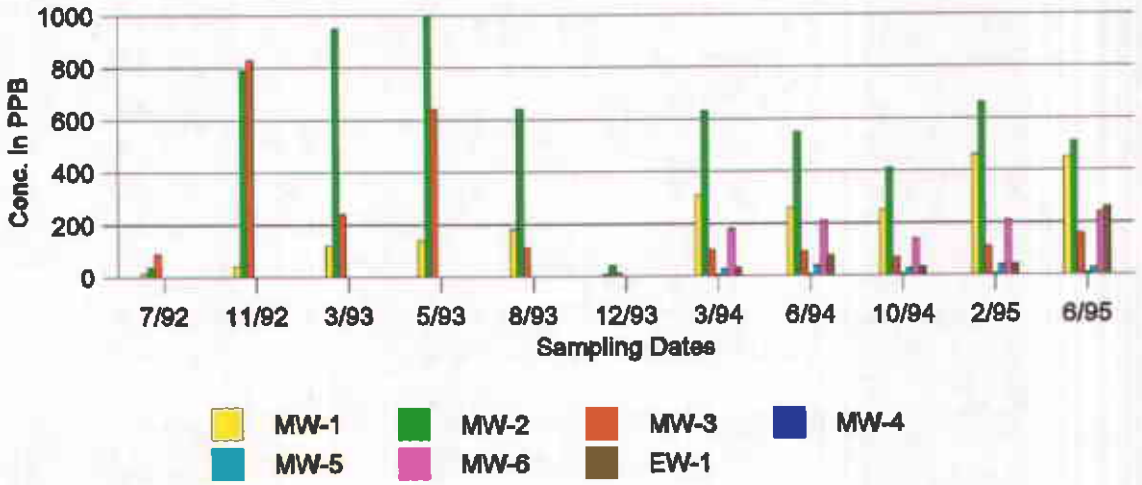
Diesel Concentrations



Benzene Concentrations



Ethylbenzene Concentrations



APPENDIX A

CERTIFIED LABORATORY REPORT

McCAMPBELL ANALYTICAL INC.

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

07/07/95

Dear John:

Enclosed are:

1). the results of 7 samples from your **# 95-008; 2301 E. 12th Street, Oakland** 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

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

Epigene International 38750 Paseo Padre Pkwy, # A11 Fremont, CA 94536	Client Project ID: # 95-008; 2301 E. 12th Street, Oakland	Date Sampled: 06/20/95
		Date Received: 06/22/95
	Client Contact: John Alt	Date Extracted: 06/24-06/29/95
	Client P.O:	Date Analyzed: 06/24-06/29/95

Gaso line 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)+	Benzene	Toluene	Ethylbenzene	Xylenes	% Rec. Surrogate
53558	EW-1	W	7800,a	710	14	260	52	116#
53559	MW-1	W	18,000,c,a,h	2600	87	450	220	102
53560	MW-2	W	30,000,b,c	1300	85	510	520	109
53561	MW-3	W	11,000,c,b,h	310	23	160	63	107
53562	MW-4	W	3000,b,d	31	3.4	6.1	12	104
53563	MW-5	W	6000,b,c	140	6.7	27	29	116#
53564	MW-6	W	9100,a	1300	24	240	79	101
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	0.5	0.5	0.5	0.5	
		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

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

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

Epigene International 38750 Paseo Padre Pkwy, # A11 Fremont, CA 94536	Client Project ID: # 95-008; 2301 E. 12th Street, Oakland	Date Sampled: 06/20/95
		Date Received: 06/22/95
	Client Contact: John Alt	Date Extracted: 06/22-06/28/95
	Client P.O:	Date Analyzed: 06/22-06/28/95

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)+	% Recovery Surrogate
53558	EW-1	W	1800,d	101
53559	MW-1	W	3500,d,h	102
53560	MW-2	W	6600,d,a	108
53561	MW-3	W	13,000,d,a,h	104
53562	MW-4	W	1100,d	107
53563	MW-5	W	1000,d	104
53564	MW-6	W	1400,d	105
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	
		S	1.0 mg/kg	

* 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.

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	Client Contact: John Alt	Date Extracted: 06/23/95
	Client P.O:	Date Analyzed: 06/23/95

Total Recoverable Petroleum Hydrocarbons as Oil & Grease (with Silica Gel Clean-up) by Scanning IR Spectrometry*

EPA method 418.1 or 9073; Standard Methods 5520 C&F

Lab ID	Client ID	Matrix	TRPH+
53558	EW-1	W	6.5
53560	MW-2	W	11
53561	MW-3	W	8.5
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	1.0 mg/L
		S	10 mg/kg

* water samples are reported in mg/L and soils in mg/kg

surrogate diluted out of range

+ At the laboratory's discretion, one positive sample may be run by direct injection chromatography with FID detection. The following comments pertain to this GC result: a) gasoline-range compounds (C6-C12) are present; b) diesel range compounds (C10-C23) are present; c) oil-range compounds (> C18) are present; d) other patterned solvent (?); e) isolated peaks; f) GC compounds are absent or insignificant relative to TRPH inferring that complex biologically derived molecules (lipids?)are the source of IR absorption; h) a lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~ 5 vol. % sediment.

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	Client Contact: John Alt	Date Extracted: 06/23/95
	Client P.O:	Date Analyzed: 06/23/95

Volatile Halocarbons

EPA method 601 or 8010

Lab ID	53558	53559	53560	53561
Client ID	EW-1	MW-1	MW-2	MW-3
Matrix	W	W	W	W
Compound	Concentration*			
Bromodichloromethane	ND	ND	ND	ND
Bromoform[(b)]	ND	ND	ND	ND
Bromomethane	ND	ND	ND	ND
Carbon Tetrachloride[(c)]	ND	ND	ND	ND
Chlorobenzene	ND	ND	7.9	ND
Chloroethane	2.0	1.1	1.5	0.5
2-Chloroethyl Vinyl Ether[(d)]	ND	ND	ND	ND
Chloroform[(e)]	ND	ND	ND	ND
Chloromethane	ND	ND	ND	ND
Dibromochloromethane	ND	ND	ND	ND
1,2-Dichlorobenzene	ND	ND	ND	ND
1,3-Dichlorobenzene	ND	ND	ND	ND
1,4-Dichlorobenzene	ND	ND	ND	ND
Dichlorodifluoromethane	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	1.4	ND
1,1-Dichloroethene	ND	ND	ND	ND
cis 1,2-Dichloroethene	4.3	1.1	1.0	4.9
trans 1,2-Dichloroethene	2.0	ND	ND	1.7
1,2-Dichloropropane	ND	ND	ND	ND
cis 1,3-Dichloropropene	ND	ND	ND	ND
trans 1,3-Dichloropropene	ND	ND	ND	ND
Methylene Chloride[(f)]	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND
Tetrachloroethene	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND
Trichloroethene	6.0	6.5	ND	5.7
Trichlorofluoromethane	ND	ND	ND	ND
Vinyl Chloride[(g)]	2.8	ND	2.1	ND
% Recovery Surrogate	101	104	119	109
Comments		h		h

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

Reporting limit unless otherwise stated: water/TCLP extracts, ND< 0.5ug/L; soil, ND< 5ug/kg

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

(b) tribromomethane; (c) tetrachloromethane; (d) (2-chloroethoxy) ethene; (e) trichloromethane; (f) dichloromethane; (g) chloroethene; (h) a lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~ 5 vol. % sediment.

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		Date Received: 06/22/95
	Client Contact: John Alt	Date Extracted: 06/23/95
	Client P.O:	Date Analyzed: 06/23/95

Volatile Halocarbons

EPA method 601 or 8010

Lab ID	53562	53563	53564	
Client ID	MW-4	MW-5	MW-6	
Matrix	W	W	W	
Compound	Concentration*			
Bromodichloromethane	ND	ND	ND< 5	
Bromoform(b)	ND	ND	ND< 5	
Bromomethane	ND	ND	ND< 5	
Carbon Tetrachloride(c)	ND	ND	ND< 5	
Chlorobenzene	ND	0.95	ND< 5	
Chloroethane	ND	ND	ND< 5	
2-Chloroethyl Vinyl Ether(d)	ND	ND	ND< 5	
Chloroform (e)	ND	ND	ND< 5	
Chloromethane	ND	ND	ND< 5	
Dibromochloromethane	ND	ND	ND< 5	
1,2-Dichlorobenzene	ND	ND	ND< 5	
1,3-Dichlorobenzene	ND	ND	ND< 5	
1,4-Dichlorobenzene	ND	ND	ND< 5	
Dichlorodifluoromethane	ND	ND	ND< 5	
1,1-Dichloroethane	ND	ND	ND< 5	
1,2-Dichloroethane	ND	ND	ND< 5	
1,1-Dichloroethene	ND	ND	ND< 5	
cis 1,2-Dichloroethene	2.2	12	26	
trans 1,2-Dichloroethene	1.0	4.1	17	
1,2-Dichloropropane	ND	ND	ND< 5	
cis 1,3-Dichloropropene	ND	ND	ND< 5	
trans 1,3-Dichloropropene	ND	ND	ND< 5	
Methylene Chloride(f)	ND	ND	ND< 5	
1,1,2,2-Tetrachloroethane	ND	ND	ND< 5	
Tetrachloroethene	ND	ND	ND< 5	
1,1,1-Trichloroethane	ND	ND	ND< 5	
1,1,2-Trichloroethane	ND	ND	ND< 5	
Trichloroethene	ND	ND	29	
Trichlorofluoromethane	ND	ND	ND< 5	
Vinyl Chloride(g)	ND	10	130	
% Recovery Surrogate	108	95	109	
Comments				

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

Reporting limit unless otherwise stated: water/TCLP extracts, ND< 0.5ug/L; soil, ND< 5ug/kg

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

(b) tribromomethane; (c) tetrachloromethane; (d) (2-chloroethoxy) ethene; (e) trichloromethane; (f) dichloromethane; (g) chloroethene; (h) a lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~ 5 vol. % sediment.

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		Date Received: 06/22/95
	Client Contact: John Alt	Date Extracted: 06/22/95
	Client P.O:	Date Analyzed: 06/22-06/27/95

LUFT Metals*

EPA analytical methods 6010/200.7, 239.2+

Lab ID	Client ID	Matrix	Extraction°	Cadmium	Chromium	Lead	Nickel	Zinc	% Rec. Surrogate
53558	EW-1	W	TTLC	ND	ND	ND	0.065	ND	95
53560	MW-2	W	TTLC	ND	ND	0.007	ND	ND	94
53561	MW-3	W	TTLC	ND	0.078	0.044	0.16	0.10	97
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		S	TTLC	0.5 mg/L	0.5	3.0	2.0	1.0	
		W	TTLC	0.01 mg/kg	0.005	0.005	0.05	0.01	
		---	STLC,TCLP	0.01 mg/L	0.05	0.2	0.05	0.05	

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

+ Lead is analysed using EPA method 6010 (ICP)for soils, STLC & TCLP extracts and method 239.2 (AA Furnace) for water samples

o EPA extraction methods 1311(TCLP), 3010/3020(water,TTLC), 3040(organic matrices,TTLC), 3050(solids,TTLC); STLC from CA Title 22

surrogate diluted out of range; N/A means surrogate not applicable to this analysis

i) liquid sample that contains greater than ~ 2 vol. % sediment; this sediment is extracted with the liquid, in accordance with EPA methodologies and can significantly effect reported metal concentrations.

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QC REPORT FOR HYDROCARBON ANALYSES

Date: 06/22/95-06/23/95 Matrix: Water

Analyte	Concentration (ug/L)			Amount Spiked	% Recovery		RPD
	Sample	MS	MSD		MS	MSD	
TPH (gas)	0.0	96.0	92.0	100	96.0	92.0	4.3
Benzene	0	9	8.9	10	90.0	89.0	1.1
Toluene	0	9.4	9.1	10	94.0	91.0	3.2
Ethyl Benzene	0	9.6	9.2	10	96.0	92.0	4.3
Xylenes	0	30.6	28.8	30	102.0	96.0	6.1
TPH (diesel)	0	173	173	150	115	115	0.1
TRPH (oil & grease)	0	20200	21300	23700	85	90	5.3

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

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

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

QC REPORT FOR HYDROCARBON ANALYSES

Date: 06/25/95 Matrix: Water

Analyte	Concentration (ug/L)			Amount Spiked	% Recovery		RPD
	Sample	MS	MSD		MS	MSD	
TPH (gas)	0.0	100.8	102.3	100	100.8	102.3	1.4
Benzene	0	10.6	11.2	10	106.0	112.0	5.5
Toluene	0	10.1	11.4	10	101.0	114.0	12.1
Ethyl Benzene	0	10.4	10.3	10	104.0	103.0	1.0
Xylenes	0	32.1	33.9	30	107.0	113.0	5.5
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

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QC REPORT FOR HYDROCARBON ANALYSES

Date: 06/28/95 Matrix: Water

Analyte	Concentration (ug/L)			Amount Spiked	% Recovery		RPD
	Sample	MS	MSD		MS	MSD	
TPH (gas)	0.0	99.2	99.3	100	99.2	99.3	0.1
Benzene	0	10.4	10.7	10	104.0	107.0	2.8
Toluene	0	10.2	10.4	10	102.0	104.0	1.9
Ethyl Benzene	0	10.2	10.5	10	102.0	105.0	2.9
Xylenes	0	31.9	32.7	30	106.3	109.0	2.5
TPH (diesel)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TRPH (oil & grease)	0	21600	21100	23700	91	89	2.3

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

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

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

QC REPORT FOR EPA 8010/8020/EDB

Date: 06/23/95 Matrix: Water

Analyte	Concentration (ug/L)				% Recovery		
	Sample	MS	MSD	Amount Spiked	MS	MSD	RPD
1,1-DCE	0.0	9.8	10.4	10.0	98	104	5.9
Trichloroethene	0.0	9.1	9.6	10.0	91	96	5.3
EDB	0.0	9.4	9.7	10.0	94	97	3.1
Chlorobenzene	0.0	10.4	11.0	10.0	104	110	5.6
Benzene	0.0	11.8	11.7	10.0	118	117	0.9
Toluene	0.0	10.2	10.9	10.0	102	109	6.6
Chlorobz (PID)	0.0	11.3	11.1	10.0	113	111	1.8

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

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

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

QC REPORT FOR AA METALS

Date: 06/22/95 Matrix: Water

Analyte	Concentration (mg/L)			Amount	% Recovery		RPD
	Sample	MS	MSD		MS	MSD	
Total Lead	0.00	4.99	4.76	1.00	499	476	4.7
Total Cadmium	0.00	4.91	4.72	1.00	491	472	3.9
Total Chromium	0.00	4.73	4.62	3.00	158	154	2.4
Total Nickel	0.00	4.77	4.49	1.00	477	449	6.0
Total Zinc	0.00	4.64	4.53	3.00	155	151	2.4
STLC Lead	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Organic Lead	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

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

QC REPORT FOR AA METALS

Date: 06/27/95-06/28/95 Matrix: Water

Analyte	Concentration (mg/L)			Amount	% Recovery		RPD
	Sample	MS	MSD		MS	MSD	
Total Calcium	0.00	0.99	0.984	1	99	98	0.6
Total Magnesium	0.00	1.03	1.044	1	103	104	1.4
Total Sodium	0.00	10.23	10.42	10	102	104	1.8
Total Potassium	0.00	9.66	10.00	10.00	97	100	3.5
Total Chromium	0.00	5.91	5.76	5.00	118	115	2.6
Total Iron	0.00	0.97	1.02	1	97	102	5.0
Organic Lead	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

CHAIN OF CUSTODY

4354AEIX47

Laboratory:	McCampbell Analytical Inc.
	110 2nd Avenue South #D7
	Pacheco, CA 94553
	(510) 798-1620
Contact:	Ed Hamilton

Epigene International
CONSULTING GEOLOGISTS
A-11
38750 Paseo Padre Parkway, Suite [redacted]
Fremont, California, 94536
Business: (510) 791-1986 FAX: (510) 791-3306

Contact: John Alt	**Sampler:** JNA/APA/MD
Project Name: 2301 E. 12th Street, OAKLAND, CA.	
Project no. 95-008	**Date:** 6/20/95

ICE/T ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓
PRESERVATIVE ✓
APPROPRIATE ✓
CONTAINERS ✓
VOAS ✓ O&G ✓ METALS ✓ OTHER
L.H. Received upon arrival in Lab.

	Sample I.D.	Date/Time Sampled	Matrix Desc.	Container No. of	Container Type	Lab. #	TPH/Gasoline	BTEX	TPH/Diesel	601/8010	602/8020	5 CAM	Oil & Grease			Comments
(1)	1. EW-1	6/20/95/12:40 PM	H_2O	4	VOAs		X	X		X						
	2. "	"	"	1	liter Bottle				X							53558
	3. "	"	"	1	Plastic Bottle							X				
	4. "	↓	↓	1	liter Bottle								X			
	5. MW-1	6/20/95/1:25 PM	H_2O	4	VOAs		X	X		X						
	6. "	↓	↓	1	liter Bottle				X							53559
	7. MW-2	6/20/95/1:53 PM	H_2O	4	VOAs		X	X		X						
	8.			1	liter Bottle				X			[redacted]				
	9.			1	Plastic Bottle							X				53560
	10.	↓	↓	1	liter Bottle								X			

Relinquished by: M. Dzugaj	**Date:** 6/21/95	**Time:** 3:25 pm	**Received by:** Bob Hamilton
Relinquished by: Bob Hamilton	**Date:** 6/22/95	**Time:** 5:30	**Received by:** [illegible]
Relinquished by: [illegible]	**Date:** 6/23/95	**Time:** 1055	**Received by:** Heidi Rice

		Date: 6/21/95	**Time:** 3:25
		Date: 6/23/95	**Time:** [illegible]
		Date: 6/23/95	**Time:** 1055

Turnaround Time: STANDARD

Additional Comments: Note: All VOAs contain HCl as a preservative, all plastic bottles contain HNO_3 as a preservative

CHAIN OF CUSTODY

4354AEIX47

Epigene International
CONSULTING GEOLOGISTS
38750 Paseo Padre Parkway, Suite B-4
Fremont, California, 94536
Business: (510) 791-1986 FAX: (510) 791-3306

Laboratory:	McCampbell Analytical Inc.
	110 2nd Avenue South #D7
	Pacheco, CA 94553
	(510) 798-1620
Contact:	Ed Hamilton

Contact: John Alt	Sampler: JNA/APA/MD
Project Name: 2301 E. 12th Street Oakland CA	
Project no. 95-008	Date: 6/20/95

Analyses Requested

	Sample I.D.	Date/Time Sampled	Matrix Desc.	Container No. of	Container Type	Lab. #	TPH/Gasoline	BTEX	TPH/Diesel	601/8010	602/8020	5 CAM	Oil & Grease			Comments
(+)	1. MW-3	6/20/95 / 1:10 PM	H_2O	4	VOAS		X	X		X						53561
	2. ↓	↓ ↓	↓	1	liter Bottle				X							
	3.			1	Plastic Bottle							X				
	4. ↓	↓ ↓	↓	1	liter Bottle								X			
(+)	5. MW-4	6/20/95 / 1:45 PM	H_2O	4	VOAS		X	X		X						53562
	6. ↓	↓ ↓	↓	1	liter Bottle				X							
(+)	7. MW-5	6/20/95 11:34 PM	H_2O	4	VOAS		X	X		X						53563
	8. ↓	↓ ↓	↓	1	liter Bottle				X							
	9. MW-6	6/20/95 / 1:16 PM	H_2O	4	VOAS		X	X		X						53564
	10. ↓	↓ ↓	↓	1	liter Bottle				X							

Relinquished by: M. Dzugaj	Date: 6/21/95	Time: 3:25 pm	Received by: Bob [illegible]	Date: 6/21/95	Time: 3:28
Relinquished by: Bob [illegible]	Date: 6/21/95	Time: 5:30	Received by: Jon Silva [illegible]	Date: 6/22/95	Time: 8:00
Relinquished by: Jon Silva	Date: 6/22/95	Time: 1055	Received by: [illegible]	Date: 6/22/95	Time: 1055

Turnaround Time: STANDARD

Additional Comments: See page 1

ICE/T° ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓

	VOAS	O&G	METALS	OTHER
PRESERVATION	✓	✓	✓	

APPROPRIATE CONTAINERS ✓

preserved upon arrival In Lab.

APPENDIX B

SUMMARY TABLES

Table 1A-Summary of Hydrocarbon Concentrations (in PPB) Detected in MW-1

Sampling Date	TPH Diesel	TPH Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes	TRPH*
7/27/92	360	1800	600	5.1	13	18	ND
11/6/92	670	8000	2400	6.1	41	ND	NA
3/2/93	1100	5600	3800	ND	120	ND	NA
5/26/93	1700	4800	3400	44	140	150	NA
8/27/93	1200	8400	2300	35	180	57	ND
12/23/93	ND	7800	29	16	5.8	26	NA
3/27/94	2600	10,000	2400	84	310	280	NA
6/24/94	1500	9000	2300	44	260	170	NA
10/16/94	2000	10,000	2100	35	250	140	NA
2/13/95	2500	16,000	3200	110	460	260	NA
6/20/95	3500	18,000	2600	87	450	220	NA

MW-1 is a 2 inch PVC well installed 12/23/91 to a total depth of 28 feet.

NOTE: NA is not analyzed; ND is not detected above detection limits which are typically 50 PPB for diesel and gasoline and 0.5 PPB for BTEX; *TRPH is Total Recoverable Petroleum Hydrocarbons as oil and grease. Results for TRPH is presented in PPM with a detection limit of 5 PPM.

Table 1B-Summary of Volatile Halocarbon Concentrations (in PPB) Detected in MW-1

Sampling Date	Chloro-benzene	Chloro-ethane	1,2-Di Chloro-ethane	Cis 1,2 Dichloro-ethene	Trans 1,2 Dichloro-ethene	PCE	TCE	Vinyl Chloride
7/27/92	NA	NA	NA	NA	NA	NA	NA	NA
11/6/92	NA	NA	NA	NA	NA	NA	NA	NA
3/2/93	ND	ND	ND	ND	ND	ND	5.8	ND
5/26/93	ND	ND	ND	ND	ND	ND	6.8	ND
8/27/93	ND	ND	ND	1.1	ND	5.4	ND	ND
12/23/94	NA	NA	NA	NA	NA	NA	NA	NA
3/27/94	NA	NA	NA	NA	NA	NA	NA	NA
6/24/94	NA	NA	NA	NA	NA	NA	NA	NA
10/16/94	NA	NA	NA	NA	NA	NA	NA	NA
2/13/95	ND	ND	ND	1.3	ND	ND	ND	ND
6/20/95	ND	1.1	ND	1.1	ND	ND	6.5	ND

NOTE: Table presents only those compounds that have been detected in any of the site wells; data from EPA Method either 8010 or 8240; NA is not analyzed; ND is not detected above detection limits which are typically 0.5 PPB.

Table 2A-Summary of Hydrocarbon Concentrations (in PPB) Detected in MW-2

Sampling Date	TPH Diesel	TPH Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes	TRPH*
7/27/92	1500	20,000	110	6	37	39	ND
11/6/92	17,000	19,000	2800	120	790	1100	NA
3/2/93	37,000	14,000	3800	110	950	1100	NA
5/26/93	6000	11,000	5200	140	1000	990	32
8/27/93	5400	16,000	1700	120	640	710	ND
12/23/93	720	18,000	87	79	42	400	NA
3/27/94	6100	17,000	2100	100	630	750	ND
6/24/94	3000	15,000	2000	72	550	520	7.9
10/16/94	5300	15,000	1500	81	410	520	13
2/13/95	4900	18,000	2000	120	660	900	20
6/20/95	6600	30,000	1300	85	510	520	11

MW- 2 is a 2 inch PVC well installed 7/8/92 to a total depth of 19 feet.

NOTE: NA is not analyzed; ND is not detected above detection limits which are typically 50 PPB for diesel and gasoline and 0.5 PPB for BTEX; *TRPH is Total Recoverable Petroleum Hydrocarbons as oil and grease. Results for TRPH is presented in PPM with a detection limit of 5 PPM.

Table 2B-Summary of Volatile Halocarbons Concentrations (in PPB) Detected in MW-2

Sampling Date	Chloro-benzene	Chloro-ethane	1,2-Di Chloro-ethane	Cis 1,2 Dichloro-ethene	Trans 1,2 Dichloro-ethene	PCE	TCE	Vinyl Chloride
7/27/92	NA	NA	NA	NA	NA	NA	NA	NA
11/6/92	NA	NA	NA	NA	NA	NA	NA	NA
3/2/93	ND	ND	ND	ND	ND	ND	ND	ND
5/26/93	9.8	ND	ND	2.7	2.7	ND	ND	ND
8/27/93	10	1.3	0.66	3.2	ND	ND	ND	2.2
12/23/93	4.3	ND	ND	1.0	ND	ND	ND	1.5
3/27/94	ND	ND	ND	ND	ND	ND	ND	ND
6/24/94	6.5	ND	ND	ND	ND	ND	ND	ND
10/16/94	5.7	1.1	ND	0.73	ND	ND	ND	1.0
2/13/95	12	ND	ND	ND	ND	ND	ND	ND
6/20/95	7.9	1.5	1.4	1.0	ND	ND	ND	2.1

NOTE: Table presents only those compounds that have been detected in any of the site wells; data from EPA Method either 8010 or 8240; NA is not analyzed; ND is not detected above detection limits which are typically 0.5 PPB.

Table 3A-Summary of Hydrocarbon Concentrations (in PPB) Detected in MW-3

Sampling Date	TPH Diesel	TPH Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes	TRPH*
7/27/92	4000	8800	150	8.6	88	13	ND
11/6/92	21,000	10,000	78	3.1	830	13	NA
3/2/93	9300	3900	120	ND	240	37	NA
5/26/93	4400	7400	570	4.1	640	8.4	ND
8/27/93	8200	7100	180	15	110	9.4	ND
12/23/93	230	7900	30	14	12	62	NA
3/27/94	4300	5700	180	10	100	24	ND
6/24/94	1500	8400	230	13	93	7.6	NA
10/16/94	2700	6300	140	8.7	68	25	7.3
2/13/95	1600	7500	220	17	110	22	8.3
6/20/95	13,000	11,000	310	23	160	63	8.5

MW-3 is a 2 inch PVC well installed 7/8/92 to a total depth of 19 feet.

NOTE: NA is not analyzed; ND is not detected above detection limits which are typically 50 PPB for diesel and gasoline and 0.5 PPB for BTEX; *TRPH is Total Recoverable Petroleum Hydrocarbons as oil and grease. Results for TRPH is presented in PPM with a detection limit of 5 PPM.

Table 3B-Summary of Volatile Halocarbons Concentrations (in PPB) Detected in MW-3

Sampling Date	Chloro-benzene	Chloro-ethane	1,2 Di Chloro-ethane	Cis 1,2 Dichloro-ethene	Trans 1,2 Dichloro-ethene	PCE	TCE	Vinyl Chloride
7/27/92	NA	NA	NA	NA	NA	NA	NA	NA
11/6/92	NA	NA	NA	NA	NA	NA	NA	NA
3/2/93	ND	ND	ND	ND	ND	ND	ND	ND
5/26/93	NA	NA	NA	NA	NA	NA	NA	NA
8/27/93	ND	ND	ND	ND	ND	ND	16	ND
12/23/93	NA	NA	NA	NA	NA	NA	NA	NA
3/27/94	ND	ND	ND	ND	ND	ND	6	ND
6/24/94	ND	ND	ND	6.0	1.5	ND	ND	ND
10/16/94	ND	ND	ND	8.4	2.1	ND	12	ND
2/13/95	ND	ND	ND	4.3	1.3	ND	5.1	ND
6/20/95	ND	0.5	ND	4.9	1.7	ND	5.7	ND

NOTE: Table presents only those compounds that have been detected in any of the site wells; data from EPA Method either 8010 or 8240; NA is not analyzed; ND is not detected above detection limits which are typically 0.5 PPB.

Table 4A-Summary of Hydrocarbon Concentrations (in PPB) Detected in MW-4

Sampling Date	TPH Diesel	TPH Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes	TRPH*
3/27/94	1800	2200	19	1.2	2.9	12	NA
6/24/94	420	2300	2.9	1.6	2.8	4.6	NA
10/16/94	900	3500	3.8	2	5.2	24	NA
2/13/95	630	2600	100	100	3.8	7.1	NA
6/20/95	1100	3000	31	3.4	6.1	12	NA

MW-4 is a 2 inch PVC well installed 3/18/94 to a total depth of 20 feet.

NOTE: NA is not analyzed; ND is not detected above detection limits which are typically 50 PPB for diesel and gasoline and 0.5 PPB for BTEX; *TRPH is Total Recoverable Petroleum Hydrocarbons as oil and grease. Results for TRPH is presented in PPM with a detection limit of 5 PPM.

Table 4B-Summary of Volatile Halocarbons Concentrations (in PPB) Detected in MW-4

Sampling Date	Chloro-benzene	Chloro-ethane	1,2 Di Chloro-ethane	Cis 1,2 Dichloro-ethene	Trans 1,2 Dichloro-ethene	PCE	TCE	Vinyl Chloride
3/27/94	NA	NA	NA	NA	NA	NA	NA	NA
6/24/94	NA	NA	NA	NA	NA	NA	NA	NA
10/16/94	ND	ND	0.67	0.71	ND	ND	ND	ND
2/13/95	ND	ND	ND	ND	ND	ND	ND	ND
6/20/95	ND	ND	ND	2.2	1.0	ND	ND	ND

NOTE: Table presents only those compounds that have been detected in any of the site wells; data from EPA Method either 8010 or 8240; NA is not analyzed; ND is not detected above detection limits which are typically 0.5 PPB.

Table 5A-Summary of Hydrocarbon Concentrations (in PPB) Detected in MW-5

Sampling Date	TPH Diesel	TPH Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes	TRPH*
3/27/94	870	2900	71	ND	27	15	NA
6/24/94	950	6100	220	12	38	24	NA
10/16/94	1100	4300	120	5.1	27	13	NA
2/13/95	1200	4600	130	7.9	38	29	NA
6/20/95	1000	6000	140	6.7	27	29	NA

MW-5 is a 2 inch PVC well installed 3/17/94 to a total depth of 20 feet.

NOTE: NA is not analyzed; ND is not detected above detection limits which are typically 50 PPB for diesel and gasoline and 0.5 PPB for BTEX; *TRPH is Total Recoverable Petroleum Hydrocarbons as oil and grease. Results for TRPH is presented in PPM with a detection limit of 5 PPM.

Table 5B-Summary of Volatile Haolcarbons Concentrations (in PPB) Detected in MW-5

Sampling Date	Chloro-benzene	Chloro-ethane	1,2-Di Chloro-ethane	Cis 1,2 Dichloro-ethene	Trans 1,2 Dichloro-ethene	PCE	TCE	Vinyl Chloride
3/27/94	NA	NA	NA	NA	NA	NA	NA	NA
6/24/94	0.53	ND	ND	11	3.1	ND	ND	7.5
10/16/94	0.66	ND	ND	16	4.2	ND	ND	9.6
2/13/95	ND	ND	ND	20	5.1	ND	ND	8.4
6/20/95	0.95	ND	ND	12	4.1	ND	ND	10

NOTE: Table presents only those compounds that have been detected in any of the site wells; data from EPA Method either 8010 or 8240; NA is not analyzed; ND is not detected above detection limits which are typically 0.5 PPB.

Table 6A-Summary of Hydrocarbon Concentrations (in PPB) Detected in MW-6

Sampling Date	TPH Diesel	TPH Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes	TRPH*
3/27/94	1000	5000	1100	17	180	41	NA
6/24/94	660	8000	1200	21	210	54	NA
10/16/94	850	6300	870	14	140	49	NA
2/13/95	1000	5500	1000	17	210	55	NA
6/20/95	1400	9100	1300	24	240	79	NA

MW-6 is a 2 inch PVC well installed 3/17/94 to a total depth of 20 feet.

NOTE: NA is not analyzed; ND is not detected above detection limits which are typically 50 PPB for diesel and gasoline and 0.5 PPB for BTEX; *TRPH is Total Recoverable Petroleum Hydrocarbons as oil and grease. Results for TRPH is presented in PPM with a detection limit of 5 PPM.

Table 6B-Summary of Volatile Halocarbons Concentrations (in PPB) Detected in MW-6

Sampling Date	Chloro-benzene	Chloro-ethane	1,2-Di Chloro-ethane	Cis 1,2 Dichloro-ethene	Trans 1,2 Dichloro-ethene	PCE	TCE	Vinyl Chloride
3/27/94	NA	NA	NA	NA	NA	NA	NA	NA
6/24/94	NA	NA	NA	NA	NA	NA	NA	NA
10/16/94	NA	NA	NA	NA	NA	NA	NA	NA
2/13/95	ND	ND	ND	40	13	ND	99	87
6/20/95	ND	ND	ND	26	17	ND	29	130

NOTE: Table presents only those compounds that have been detected in any of the site wells; data from EPA Method either 8010 or 8240; NA is not analyzed; ND is not detected above detection limits which are typically 0.5 PPB.

Table 7A-Summary of Hydrocarbon Concentrations (in PPB) Detected in EW-1

Sampling Date	TPH Diesel	TPH Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes	TRPH*
3/27/94	920	1200	270	6.2	30	13	ND
6/24/94	1200	4600	410	5.6	78	22	NA
10/16/94	1200	4900	310	5.2	30	32	6.4
2/13/95	1000	3900	380	5.9	41	22	ND
6/20/95	1800	7800	710	14	260	52	6.5

EW-1 is a 4 inch PVC well installed 3/16/94 to a total depth of 30 feet.

NOTE: NA is not analyzed; ND is not detected above detection limits which are typically 50 PPB for diesel and gasoline and 0.5 PPB for BTEX; *TRPH is Total Recoverable Petroleum Hydrocarbons as oil and grease. Results for TRPH is presented in PPM with a detection limit of 5 PPM.

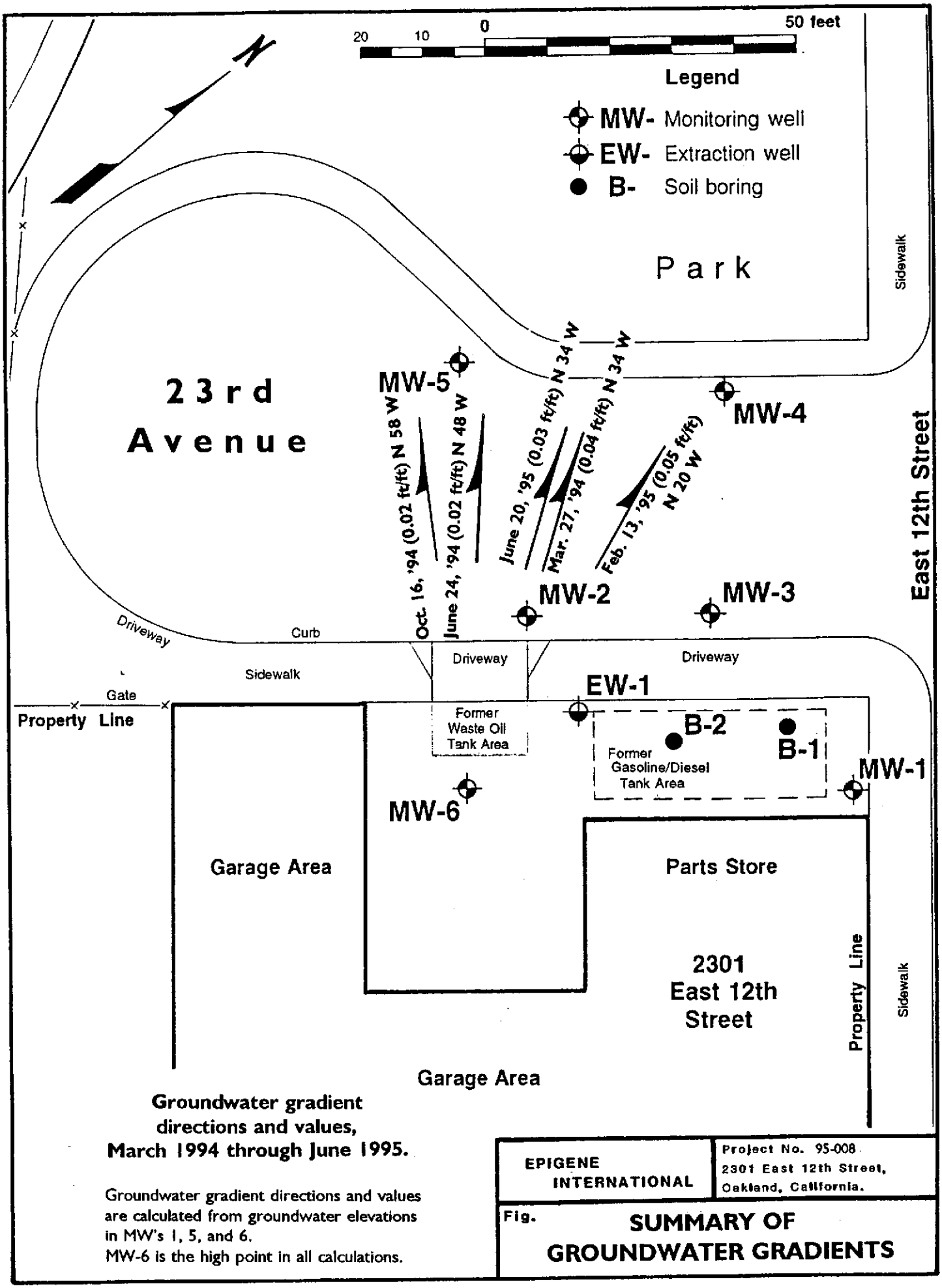
Table 7B-Summary of Volatile Halocarbons Concentrations (in PPB) Detected in EW-1

Sampling Date	Chloro-benzene	Chloro-ethane	1,2-Di Chloro-ethane	Cis 1,2 Dichloro-ethene	Trans 1,2 Dichloro-ethene	PCE	TCE	Vinyl Chloride
3/27/94	ND	ND	ND	ND	ND	ND	40	ND
6/24/94	ND	ND	1.3	42	11	ND	68	3.2
10/16/94	ND	ND	ND	36	ND	ND	74	ND
2/13/95	ND	ND	ND	13	4.4	ND	53	ND
6/20/95	ND	2.0	ND	4.3	2.0	ND	6.0	2.8

NOTE: Table presents only those compounds that have been detected in any of the site wells; data from EPA Method either 8010 or 8240; NA is not analyzed; ND is not detected above detection limits which are typically 0.5 PPB.

APPENDIX C

SUMMARY OF GRADIENT DATA



Groundwater gradient directions and values, March 1994 through June 1995.

Groundwater gradient directions and values are calculated from groundwater elevations in MW's 1, 5, and 6.
MW-6 is the high point in all calculations.

EPIGENE INTERNATIONAL

Project No. 95-008
2301 East 12th Street,
Oakland, California.

Fig. **SUMMARY OF GROUNDWATER GRADIENTS**

Summary of Groundwater Elevations and Gradients for site at 2301 East 12th Street, Oakland. March 27, 1994 through June 20, 1995

Well Number	March 27, '94	June 24, 1994		October 16, 1994		February 13, 1995		June 20, 1995	
	Groundwater Elevation	Change in GW elevation	Groundwater Elevation	Change in GW elevation	Groundwater Elevation	Change in GW elevation	Groundwater Elevation	Change in GW elevation	Groundwater Elevation
MW-1	8.27'	- 0.28'	7.99'	- 0.89'	7.10'	+1.44'	8.54'	- 0.07'	8.47'
MW-2	8.48'	- 1.75'(?)	6.73'	- 0.07'	6.66'	+2.46'	9.12'	- 0.25'	8.87'
MW-3	8.02'	- 0.28'	7.74'	- 0.02'	6.72'	+1.71'	8.43'	+0.02'	8.45'
MW-4	7.09'	+0.04'	7.13'	- 0.84'	6.29'	+1.38'	7.67'	- 0.18'	7.49'
MW-5	6.68'	+0.16'	6.84'	- 0.98'	5.86'	+1.41'	7.27'	- 0.19'	7.08'
MW-6	8.94'	- 0.88'	8.06'	- 0.98'	7.08'	+2.81'	9.89'	- 0.40'	9.49'
EW-1	8.66'	- 0.76'	7.90'	- 1.00'	6.90'	+2.58'	9.48'	- 0.05'	9.43'
Average	8.02'	- 0.54'	7.48'	- 0.82'	6.66'	+1.97'	8.63'	- 0.16'	8.47'

	March 27, '94	June 24, 1994		October 16, 1994		February 13, 1995		June 20, 1995	
		Change		Change		Change		Change	
Groundwater Gradient	0.04 ft./ft.	- 0.02	0.02 ft./ft.	nihl	0.02 ft./ft.	+0.03	0.05 ft./ft.	- 0.02	0.03 ft./ft.
Gradient Direction	N 34 W	14 deg. W	N 48 W	10 deg. W	N 58 W	38 deg. N	N 20 W	14 deg. W	N 34 W

NOTE: Groundwater elevations for March 27, 1994 through February 13, 1995 have been adjusted from the elevations given in the reports for this period. They are based on the Top Of Casing elevations surveyed by Epigene International on June 20, 1995.