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Epigene International
CONSULTING GEOLOGISTS

May 10, 1994

Mr. Barney Chan
Alameda County Health Agency
Dept. of Environmental Health
80 Swan Way, Rm. 200
Oakland CA 94621

Subject: Progress Report for Soil and Groundwater Contamination Investigations for Site Located at 2301 East 12th Street, Oakland

Dear Mr. Chan;

The purpose of this report is to provide data regarding the results of investigations that have been carried out to date at the subject site as per the approved Workplan and amendments. The proposed pump test of the extraction well has not been completed and, therefore, the report is not considered final. 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.

As per the Workplan, three additional monitoring wells (MW-4, MW-5 and MW-6) and one extraction well were installed on and/or adjacent to the site in March of this year. Two borings were drilled and sampled in the area of the former gasoline and diesel tanks. Selected soil samples were collected for analysis. The new wells were developed. The three existing wells and the four new wells were purged and sampled on March 27, 1994.

SOIL BORINGS

Two soil borings, identified as B-1 and B-2, were drilled and sampled in the area of the former gasoline and diesel tanks. The locations of the two soil borings were selected based on the somewhat sketchy data available from the tank removal notes. Boring locations are shown on Figure 2. Soil samples were collected for analysis at intervals of

five feet beginning at a depth of five feet for both borings continuing to the termination depth of 20 feet.

The results of the soil sample analysis are summarized in Table 2. The Certified Laboratory data and chain-of-custody data are included in Appendix 1. The boring logs are included in Appendix 3. Boring B-2 appears to be location near the west edge of the tank excavation and the lower 10 feet encountered in the boring are interpreted to be native materials and not backfill.

INSTALLATION OF MONITORING AND EXTRACTION WELLS

Three additional monitoring wells and an extraction well were installed in the site area in March. Wells were drilled under Permit No. 93475 from Zone 7. As per their request, copies of the well logs and locations maps have been forwarded to them. The well locations are shown on Figure 2 and are generally consistent with the proposed well locations shown in the amendment to the Workplan. MW-4 had to be moved closer to the curb on the north side of 23rd Avenue to avoid a buried telephone line.

The wells were drilled and installed by Great Sierra Exploration using hollow stem augers and a Mobil B-53 drill rig. Monitoring wells MW-4, MW-5 and MW-6 are 20 feet deep and have 12 feet of screened section PVC casing. Extraction well EW-1 extends to a depth of 30 feet with 22 feet of screened PVC casing. Well completion details and a description of the geologic deposits encountered for each well are provided on the well logs included in Appendix 4.

Selected soil samples were retained for analysis as per the Workplan and Amendment. In addition, an OVA meter was used to field screen the samples from each sample run of five feet. Any sample that had a reading exceeding 100 PPM of total organic vapors

was also retained for analysis. The results of the soil sample analysis are summarized on tables 2 and 3. The Certified Laboratory Report and chain-of-custody documentation for the soil samples are presented in Appendix 1.

After the grout for the sanitary seal had cured (4 days), the wells were developed by pumping until the groundwater was relatively clear of sediment. The water from the development of the wells was placed in 55 gallon drums and left on the site.

GROUNDWATER GRADIENT

The relative elevation for the top of casing for each of the wells was established using a spirit level. Measurements were made to hundredths of a foot at a spot marked on the north side of each casing. An assumed elevation of 10 feet for the top of casing of MW-1 was used for the elevation control. There are no reported City of Oakland benchmarks in the vicinity of the site.

Gauging of the depth to groundwater was carried out for each well on March 27, 1994 prior to any pumping 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 relative groundwater elevations were calculated and are presented in Table 1. Groundwater elevation contours are plotted on Figure 2. The groundwater elevation for MW-2 (one of the existing wells) continues to be anomalous, which may explain the somewhat inconsistent gradients previously calculated using the three existing wells.

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 2. The direction

of the gradient is north-northwest and generally consistent with the contouring.

GROUNDWATER SAMPLING

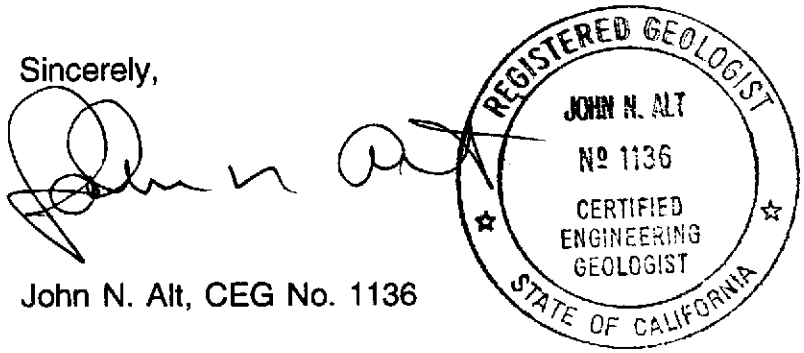
Groundwater samples were collected on March 27 from all of the project wells. The wells were purged prior to sampling. The samples were collected using a dedicated bailer for each well. The samples were placed in appropriate sample containers provided by the laboratory. After labeling each sample, it was placed 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 Workplan and Amendment. The results of the water samples are summarized in tables 4 and 5. The Certified Laboratory Report and chain-of custody documentation is included in Appendix 2.

Conclusions and proposed recommendations resulting from these investigations will be presented in a separate document. The proposed pump test of EW-1 will be carried out as soon as logistical concerns have been resolved. It was noted that during the development of EW-1, recovery of the well was relatively slow which may impact on the need for an additional extraction well during the remediation phase.

Should you have any questions, please contact the undersigned.

Sincerely,



John N. Alt, CEG No. 1136

Attachments

cc: Mr. J.W. Silveira
Mr. James Brinker
Mr. Robert Shapiro, Esq.

TABLE 2 - Summary of Results for Soil Sample Analysis in PPM
2301 East 12th Street, Oakland - March 1994

BORING NO.	DEPTH	TPH DIESEL	TPH GASOLINE	BENZENE	TOLUENE	ETHYL-BENZENE	XYLENES
B-1	5 ft.	ND	23	ND	0.017	0.030	0.070
	10 ft.	260	2500	ND	4.5	6.1	15
	15 ft.	ND	1.1	ND	ND	ND	0.009
	20 ft.	ND	5.	ND	0.008	0.009	0.033
B-2	5 ft.	120	60	0.038	0.053	0.35	0.31
	10 ft.	63	180	0.22	0.15	ND	1.1
	15 ft.	ND	3.3	0.045	0.007	ND	0.018
	20 ft.	ND	ND	ND	ND	ND	ND
EW-1	5 ft.	17	65	ND	0.14	ND	0.50
	10 ft.	270	550	ND	ND	ND	3.7
MW-4	10 ft.	82	270	ND	0.39	ND	1.8
MW-5	5 ft.	ND	19	0.036	0.043	0.031	0.088
MW-6	10 ft.	110	340	2.3	0.48	3.0	2.6

TABLE 3 - Summary of Additional Analysis for Soil Samples from EW-1:
Results in PPM

ANALYSIS	EW-1 5 ft.	EW-1 10 ft.
OIL & GREASE	ND	70
EPA 8010	All ND	All ND
LUFT METALS		
Lead	5.4	ND
Cadmium	ND	ND
Chromium	76	65
Nickel	49	54
Zinc	35	28

Note: ND is not detected; see Appendix 1 for detection limits
See Appendix 1 for complete listing of compounds included in EPA 8010 analysis

TABLE 4 - Summary of Groundwater Sample Analysis; 2301 East 12th Street, Oakland; March 27, 1994
Results Presented in PPB

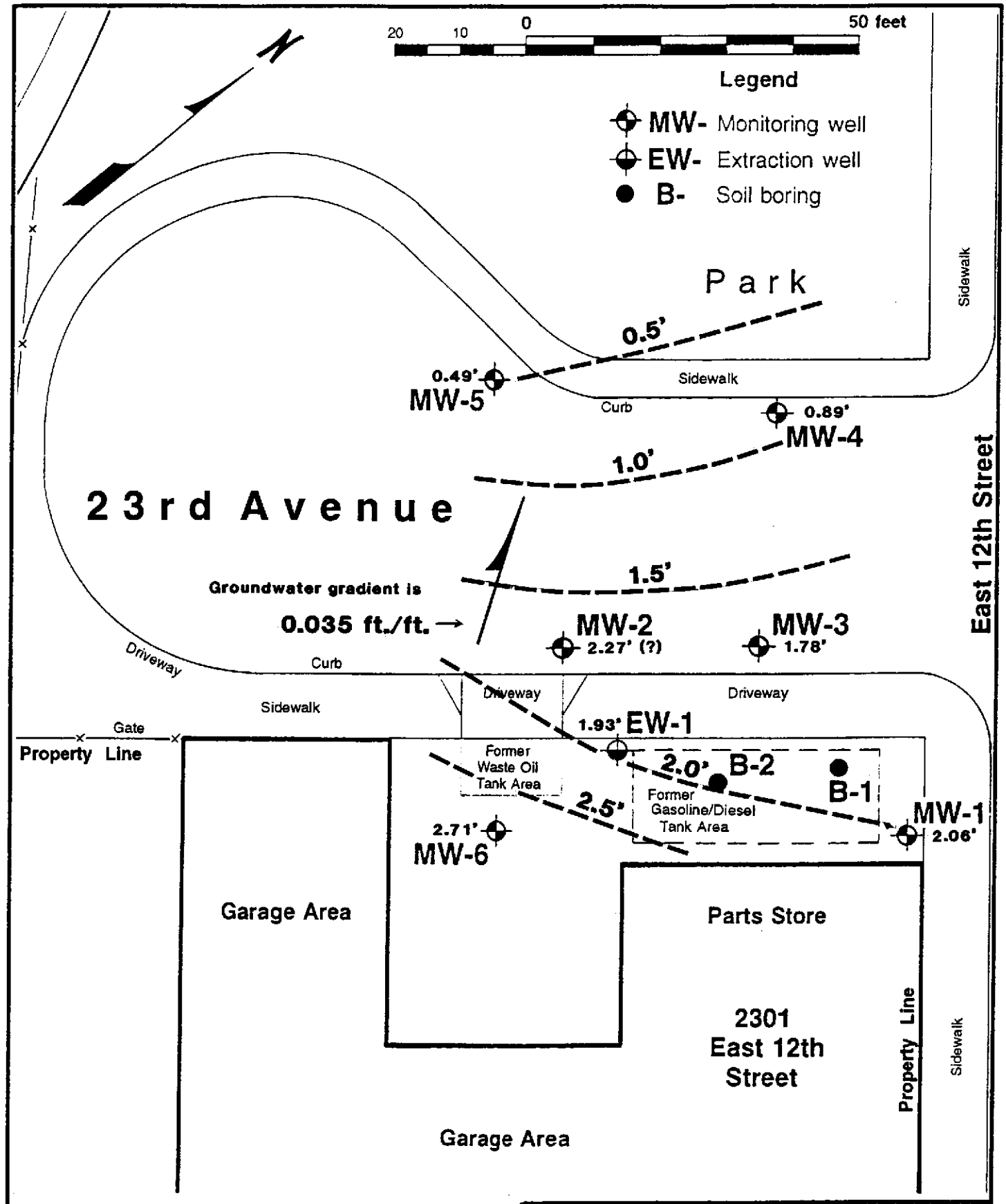
Analysis	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	EW-1
TPH Diesel	2600	6100	4300	1800	870	1000	920
TPH Gas	10,000	17,000	5700	2200	2900	5000	1200
Benzene	2400	2100	180	19	71	1100	270
Toluene	84	100	10	1.2	ND	17	6.2
Ethylben.	310	630	100	2.9	27	180	30
Xylenes	280	750	24	12	15	41	13
Oil/ Grease	NA	ND	ND	NA	NA	NA	ND

ND - Not detected (See Appendix A for detection limits)
NA - Not Analyzed

TABLE 5 - Summary of Additional Groundwater Analysis for Wells MW-2, MW-3 & EW-1
Results presented in PPB

Analysis (EPA 8240)	MW-2	MW-3	EW-1
Benzene	2100	87	300
cis - 1,2 - Dichloroethene	ND	ND	15
Ethylbenzene	680	83	19
Toluene	120	8	ND
Trichloroethane	ND	6	40
Xylenes, Total	900	10	ND
Analysis (EPA 8270)			
2 - Methylnaphthalene	42	ND	ND
Naphthalene	210	ND	ND
Luft Metals (TTLC)			
Lead	NA	NA	0.008
Cadmium	NA	NA	ND
Chromium	NA	NA	0.25
Nickel	NA	NA	0.35
Zinc	NA	NA	0.099

Note: Only compounds present are listed in Table; see Appendix 2 for complete listing of compounds included in 8240 and 8270 analysis
ND is not detected; see Appendix 2 for detection limits
NA is not analyzed



Groundwater elevations measured on
March 27, 1994

EPIGENE INTERNATIONAL

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

Fig. 3

GROUNDWATER GRADIENT

McCAMPBELL ANALYTICAL INC.

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

03/25/94

Dear John:

Enclosed are:

1). the results of **13** samples from your **# 94-008; 2301 E. 12th St.** 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, # B4 Fremont, CA 94536	Client Project ID: # 94-008; 2301 E. 12th St.	Date Sampled:03/16-03/18/94
		Date Received: 03/18/94
	Client Contact: John Alt	Date Extracted: 03/18/94
	Client P.O:	Date Analyzed: 03/19-03/20/94

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)+	Benzene	Toluene	Ethylben-zene	Xylenes	% Rec. Surrogate
34735	B-1-5'	S	23,d	ND	0.017	0.030	0.070	95
34736	B-1-10'	S	2500,d	ND< 0.5	4.5	6.1	15	96
34737	B-1-15'	S	1.1,d	ND	ND	ND	0.009	96
34738	B-1-20'	S	5.0,d	ND	0.008	0.009	0.033	95
34739	B-2-5'	S	60,d	0.038	0.053	0.35	0.31	87
34740	B-2-10'	S	180,d	0.22	0.15	ND< 0.05	1.1	97
34741	B-2-15'	S	3.3,d	0.045	0.007	ND	0.018	101
34742	B-2-19.5'	S	ND	ND	ND	ND	ND	100
34743	EW-1-5'	S	65,d	ND	0.14	ND	0.50	96
34744	EW-1-10'	S	550,d	ND< 0.1	ND< 0.1	ND< 0.1	3.7	112#
34745	MW-4-10'	S	270,d	ND< 0.05	0.39	ND< 0.05	1.8	91
34746	MW-5-5'	S	19,d	0.036	0.043	0.031	0.088	99
34747	MW-6-10'	S	340,d	2.3	0.48	3.0	2.6	104
Detection Limit unless other-wise stated; ND means Not Detected		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 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.

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

Epigene International 38750 Paseo Padre Pkwy, # B4 Fremont, CA 94536	Client Project ID: # 94-008; 2301 E. 12th St.	Date Sampled:03/16-03/18/94
		Date Received: 03/18/94
	Client Contact: John Alt	Date Extracted: 03/18/94
	Client P.O:	Date Analyzed: 03/18-03/19/94

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
34735	B-1-5'	S	ND,d	91
34736	B-1-10'	S	260,d,b	91
34737	B-1-15'	S	ND	91
34738	B-1-20'	S	ND,d	90
34739	B-2-5'	S	120,d,g	94
34740	B-2-10'	S	63,d	107
34741	B-2-15'	S	ND	90
34742	B-2-19.5'	S	ND	91
34743	EW-1-5'	S	17,d,a	95
34744	EW-1-10'	S	270,d,a	87
34745	MW-4-10'	S	82,d	86
34746	MW-5-5'	S	ND,d	90
34747	MW-6-10'	S	110,d,a	88
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

+ 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(C_L) or heavy(C_H) 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.

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Epigene International 38750 Paseo Padre Pkwy, # B4 Fremont, CA 94536	Client Project ID: # 94-008; 2301 E. 12th St.	Date Sampled:03/16-03/18/94
		Date Received: 03/18/94
	Client Contact: John Alt	Date Extracted: 03/21/94
	Client P.O:	Date Analyzed: 03/21/94

Petroleum Oil & Grease (with Silica Gel Clean-up) *

EPA methods 413.1, 9070 or 9071; Standard Methods 5520 B/E&F or 503 D&E for solids and 5520 B&F or 503 A&E for liquids

Lab ID	Client ID	Matrix	Oil & Grease
34743	EW-1-5'	S	ND
34744	EW-1-10'	S	70
Detection Limit unless otherwise stated; ND means Not Detected		W	5 mg/L
		S	50 mg/kg

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

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Epigene International 38750 Paseo Padre Pkwy, # B4 Fremont, CA 94536	Client Project ID: # 94-008; 2301 E. 12th St.	Date Sampled:03/16-03/18/94
		Date Received: 03/18/94
	Client Contact: John Alt	Date Extracted: 03/19/94
	Client P.O:	Date Analyzed: 03/19/94

Volatile Halocarbons

EPA method 601 or 8010

Lab ID	34743	34744		
Client ID	EW-1-5'	EW-1-10'		
Matrix	S	S		
Compound(1)	Concentration*	Concentration*	Concentration*	Concentration*
Bromodichloromethane	ND	ND		
Bromoform(2)	ND	ND		
Bromomethane	ND	ND		
Carbon Tetrachloride(3)	ND	ND		
Chlorobenzene	ND	ND		
Chloroethane	ND	ND		
2-Chloroethyl Vinyl Ether(4)	ND	ND		
Chloroform (5)	ND	ND		
Chloromethane	ND	ND		
Dibromochloromethane	ND	ND		
1,2-Dichlorobenzene	ND	ND		
1,3-Dichlorobenzene	ND	ND		
1,4-Dichlorobenzene	ND	ND		
1,1-Dichloroethane	ND	ND		
1,2-Dichloroethane	ND	ND		
1,1-Dichloroethene	ND	ND		
cis 1,2-Dichloroethene	ND	ND		
trans 1,2-Dichloroethene	ND	ND		
1,2-Dichloropropane	ND	ND		
cis 1,3-Dichloropropene	ND	ND		
trans 1,3-Dichloropropene	ND	ND		
Methylene Chloride(6)	ND< 100	ND< 100		
1,1,2,2-Tetrachloroethane	ND	ND		
Tetrachloroethene (7)	ND	ND		
1,1,1-Trichloroethane	ND< 100	ND< 100		
1,1,2-Trichloroethane	ND	ND		
Trichloroethene	ND	ND		
Trichlorofluoromethane	ND	ND		
Vinyl Chloride(8)	ND	ND		
% Recovery Surrogate	83	83		
Comments				

Detection limit unless otherwise stated: water, ND< 0.5ug/L; soil, ND< 20ug/kg.

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

(1) IUPAC allows "ylene" or "ene"; ex. ethylene or ethene; (2) tribromomethane; (3) tetrachloromethane; (4) (2-chloroethoxy) ethene; (5) trichlormethane; (6) dichloromethane; (7) perchlorethylene, PCE or perclor; (8) chloroethene; (9) unidentified peak(s) present.

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		Date Received: 03/18/94
	Client Contact: John Alt	Date Extracted: 03/21/94
	Client P.O:	Date Analyzed: 03/21/94

LUFT Metals*

EPA analytical methods				239.2,7420+	213.1,7130	218.1,7190	249.1,7520	289.1,7950
Lab ID	Client ID	Matrix	Extraction°	Lead*	Cadmium*	Chromium*	Nickel*	Zinc*
34743	EW-1-5'	S	TTLC	5.4	ND	76	49	35
34744	EW-1-10'	S	TTLC	ND	ND	65	54	28
Detection Limit unless otherwise stated; ND means Not Detected		W	TTLC	0.005mg/L	0.05	0.25	0.10	0.05
		S	TTLC	4.0 mg/kg	1.0	5.0	2.0	1.0
		---	STLC,TCLP	0.20 mg/L	0.05	0.25	0.10	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 7420 (AA Flame)for soils, STLC & TCLP extracts and method 239.2 (AA Furnace) for water samples

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

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QC REPORT FOR HYDROCARBON ANALYSES

Date: 03/18/94 Matrix: Soil

Analyte	Concentration (mg/kg)			Amount Spiked	% Recovery		RPD
	Sample	MS	MSD		MS	MSD	
TPH (gas)	0.000	2.185	1.882	2.03	108	93	14.9
Benzene	0.000	0.170	0.176	0.2	85	88	3.5
Toluene	0.000	0.194	0.180	0.2	97	90	7.5
Ethylbenzene	0.000	0.188	0.176	0.2	94	88	6.6
Xylenes	0.000	0.602	0.542	0.6	100	90	10.5
TPH (diesel)	0	292	289	300	97	96	1.0
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: 03/19/94 Matrix: Soil

Analyte	Concentration (mg/kg)			Amount Spiked	% Recovery		RPD
	Sample	MS	MSD		MS	MSD	
TPH (gas)	0.000	2.041	2.123	2.03	101	105	3.9
Benzene	0.000	0.170	0.178	0.2	85	89	4.6
Toluene	0.000	0.178	0.182	0.2	89	91	2.2
Ethylbenzene	0.000	0.180	0.184	0.2	90	92	2.2
Xylenes	0.000	0.540	0.546	0.6	90	91	1.1
TPH (diesel)	0	285	288	300	95	96	1.0
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

McCAMPBELL ANALYTICAL INC.
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Tele: 510-798-1620 Fax: 510-798-1622

QC REPORT FOR HYDROCARBON ANALYSES

Date: 03/21-03/22/94 Matrix: Soil

Analyte	Concentration (mg/kg)			Amount Spiked	% Recovery		RPD
	Sample	MS	MSD		MS	MSD	
TPH (gas)	0.000	1.972	1.664	2.03	97	82	17.0
Benzene	0.000	0.160	0.160	0.2	80	80	0.0
Toluene	0.000	0.174	0.190	0.2	87	95	8.8
Ethylbenzene	0.000	0.166	0.178	0.2	83	89	7.0
Xylenes	0.000	0.500	0.534	0.6	83	89	6.6
TPH (diesel)	0	311	324	300	104	108	4.2
TRPH (oil & grease)	0.0	16.6	16.6	20	83	83	0.0

% 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: 03/19/94 Matrix: Soil

Analyte	Concentration (ug/kg)				% Recovery		
	Sample	MS	MSD	Amount Spiked	MS	MSD	RPD
1,1-DCE	0	94	94	100	94	94	0.0
Trichloroethene	0	100	102	100	100	102	2.0
EDB	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chlorobenzene	0	100	102	100	100	102	2.0
Benzene	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Toluene	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chlorobz (PID)	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: 03/21/94 Matrix: Soil

Analyte	Concentration (mg/kg,mg/L) Sample	MS	MSD	Amount Spiked	% Recovery MS	MSD	RPD
Total Lead	0.0	93.0	96.0	100	93	96	3.2
Total Cadmium	0.0	118.0	106.0	100	118	106	10.7
Total Chromium	65.0	410.0	417.0	300	115	117	1.7
Total Nickel	54.0	161.0	161.0	100	107	107	0.0
Total Zinc	28.0	346.0	313.0	300	106	95	10.0
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

CHAIN OF CUSTODY

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
	110 2nd Ave. South, #D7
	Pacheco, CA
	796-1620
Contact:	Ed Hamilton

Contact:	John Hart	Sampler: J. Hart
Project Name:	2501 E. 12th St.	No. 94-008
Date:	3/16/94	

Sample I.D.	Date/Time Sampled	Matrix Desc.	Container No. of	Container Type	Lab. #	TPH/Gasoline	BTEX	TPH/Diesel	601/8010	602/8020	TOG 5520	5 metals (Cd, Cr, Pb, Ni, Zn)		Comments
1. B-1-5'	3/16 AM	Soil	1	tube		X	X	X						34735
2. B-1-10'	"	"	"	"		X	X	X						34736
3. B-1-15'	"	"	"	"		X	X	X						34737
4. B-1-20'	"	"	"	"		X	X	X						34738
5. B-2-5'	"	"	"	"		X	X	X						34739
6. B-2-10'	"	"	"	"		X	X	X						34740
7. B-2-15'	"	"	"	"		X	X	X						34741
8. B-2-19½'	"	"	"	"		X	X	X						34742
9. EW-1-5'	3/16 PM	"	"	"		X	X	X	+		+	+		34743
10. EW-1-10'	"	"	"	"		X	X	X	+		+	+		34744

Relinquished by:	Date: 3/16/94	Time: 1700	Received by:	Date: 3/18/94	Time: 1:20 PM
Relinquished by:	Date: 3/17/94	Time: 900	Received by:	Date: 3-18-94	Time: 1600
Relinquished by:	Date:	Time:	Received by:	Date:	Time:

VOAs: O&G: METALS: OTHER
PRESERVATIVE APPROPRIATE
CONTAINERS
GOOD CONDITION
HEAD SPACE ABSENT

Turnaround Time: Standard

Additional Comments: * 5 metals - cadmium, chromium, lead, nickle, zinc

CHAIN OF CUSTODY

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

Contact:

Contact: John Alt | Sampler: J. Alt

Project Name: 1350 E 12th St | No. 94-005

Date: 3/18/94

Sample I.D.	Date/Time Sampled	Matrix Desc.	Container No. of	Container Type	Lab. #	TPH/Gasoline	BTEX	TPH/Diesel	601/8010	602/8020	Comments
1. MW-4-10'	3/18 AM	Soil	1	2 brass tubes		X	X	X			34745
2. MW-5-5'	3/17 AM	"	"	"		X	X	X			34746
3. MW-6-10'	3/17 AM	"	"	"		X	X	X			34747
4.											
5.											
6.											
7.											
8.											
9.											
10.											

Relinquished by: John Alt	Date: 3/18/94	Time: 1:20 PM	Received by: J R Hamilton	Date: 3/18/94	Time: 1:20
Relinquished by: J R Hamilton	Date: 3/18/94	Time: 4:58	Received by: Vicki Ricca	Date: 3/18/94	Time: 1600
Relinquished by:	Date:	Time:	Received by:	Date:	Time:

Turnaround Time:

Additional Comments:

ICE ✓ GOOD CONDITION ✓ HEAD SPACE ABSENT ✓

PRESERVATIVE: VOAs | O&G | METALS | OTHER

APPROPRIATE CONTAINERS ✓

McCAMPBELL ANALYTICAL INC.

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

04/04/94

Dear John:

Enclosed are:

1). the results of **15** samples from your **# 94-008; 2301 E. 12th St., 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, # B4 Fremont, CA 94536	Client Project ID: # 94-008; 2301 E. 12th St., Oakland	Date Sampled: 03/27/94
		Date Received: 03/28/94
	Client Contact: John Alt	Date Extracted: 03/30-04/01/94
	Client P.O:	Date Analyzed: 03/30-04/01/94

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)+	Benzene	Toluene	Ethylbenzene	Xylenes	% Rec. Surrogate
34891	MW-1	W	10,000,a	2400	84	310	280	109
34893	MW-2	W	17,000,a	2100	100	630	750	123#
34895	MW-3	W	5700,a	180	10	100	24	109
34897	MW-4	W	2200,d	19	1.2	2.9	12	99
34899	MW-5	W	2900,c,d	71	ND	27	15	115#
34901	MW-6	W	5000,c,b	1100	17	180	41	123#
34903	EW-1	W	1200,d	270	6.2	30	13	103
Detection Limit unless otherwise stated; ND means Not Detected		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 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.

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

Epigene International 38750 Paseo Padre Pkwy, # B4 Fremont, CA 94536	Client Project ID: # 94-008; 2301 E. 12th St., Oakland	Date Sampled: 03/27/94
		Date Received: 03/28/94
	Client Contact: John Alt	Date Extracted: 03/28/94
	Client P.O:	Date Analyzed: 03/28-03/29/94

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
34892	MW-1	W	2600,d,h	100
34894	MW-2	W	6100,d,b,h	103
34896	MW-3	W	4300,d,a,h	103
34898	MW-4	W	1800,d	100
34900	MW-5	W	870,d	101
34902	MW-6	W	1000,d	101
34904	EW-1	W	920,b	102
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

+ 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(C_L) or heavy(C_H) 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 sheen is present.

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

Epigene International 38750 Paseo Padre Pkwy, # B4 Fremont, CA 94536	Client Project ID: # 94-008; 2301 E. 12th St., Oakland	Date Sampled: 03/27/94
		Date Received: 03/28/94
	Client Contact: John Alt	Date Extracted: 04/01-04/04/94
	Client P.O:	Date Analyzed: 04/01-04/04/94

Petroleum Oil & Grease (with Silica Gel Clean-up) *

EPA methods 413.1, 9070 or 9071; Standard Methods 5520 B/E&F or 503 D&E for solids and 5520 B&F or 503 A&E for liquids

Lab ID	Client ID	Matrix	Oil & Grease
34894	MW-2	W	ND
34896	MW-3	W	ND
34904	EW-1	W	ND
Detection Limit unless otherwise stated; ND means Not Detected		W	5 mg/L
		S	50 mg/kg

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

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

Epigene International 38750 Paseo Padre Pkwy, # B4 Fremont, CA 94536	Client Project ID: # 94-008; 2301 E. 12th St., Oakland	Date Sampled: 03/27/94
		Date Received: 03/28/94
	Client Contact: John Alt	Date Extracted: 03/29/94
	Client P.O:	Date Analyzed: 03/29-04/01/94

LUFT Metals*

EPA analytical methods				239.2,7420+	213.1,7130	218.1,7190	249.1,7520	289.1,7950
Lab ID	Client ID	Matrix	Extraction°	Lead*	Cadmium*	Chromium*	Nickel*	Zinc*
34905	EW-1	W	TTLC	0.008	ND	0.25	0.35	0.099
Detection Limit unless otherwise stated; ND means Not Detected		W	TTLC	0.005mg/L	0.05	0.25	0.10	0.05
		S	TTLC	4.0 mg/kg	1.0	5.0	2.0	1.0
		---	STLC,TCLP	0.20 mg/L	0.05	0.25	0.10	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 7420 (AA Flame)for soils, STLC & TCLP extracts and method 239.2 (AA Furnace) for water samples

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

DHS Certification No. 1644

Edward Hamilton, Lab Director

2229AE17

CHAIN OF CUSTODY

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 Ave. South, #D-7
Pacheco, CA 94553
(510) 798-1620
Contact: Ed Hamilton

Contact: John N. Alt | Sampler: JNA/JDA/AHA
Project Name: 2301 E. 12th St., Oakland | No. 94-008
Date: 3/27/94

Sample I.D.	Date/Time Sampled	Matrix Desc.	Container No. of	Container Type	Lab. #	TPH/Gasoline	BTEX	TRH/Diesel	8010/8010	602/8020	8240	8270	5520 F	5 metals	
1. MW-1	3/27 PM	H_2O	2	VOAs		X	X								34691
2. "	"	"	1	1 liter bottle				X							34692
3. MW-2	3/27 PM	"	4	VOAs		X	X				X	X			34693
4. "	"	"	2	1 liter bottles				X					X		34694
5. MW-3	3/27 PM	"	4	VOAs		X	X				X	X			34695
6. "	"	"	2	1 liter bottles				X					X		34696
7. MW-4	3/27 PM	"	2	VOAs		X	X								34697
8. "	3/27 PM	"	1	1 liter bottle				X							34698
9. MW-5	"	"	2	VOAs		X	X								34699
10.	"		1	1 liter bottle				X							34900

HEAT: ✓ GOOD CONDITION ✓ HEAD SPACE ABSENT ✓ PRESERVATIVE: VOA APPROPRIATE ✓ CONTAINERS ✓

Relinquished by: Glynn Ast	Date: 3/28/94	Time: 11:21 AM	Received by: J. Hamilton	Date: 3/28/94	Time: 1112
Relinquished by: J. Hamilton	Date: 3/28/94	Time: 12:25	Received by: Heidi Rica	Date: 3/28/94	Time: 12:25
Relinquished by:	Date:	Time:	Received by:	Date:	Time:

Turnaround Time: Standard

Additional Comments: ~~Filter~~ VOAs do not contain preservatives

Page 1 of 2

04-04-1994 09:28AM FROM McCampbell TO EPIGENE INTERNATIONAL 5107913306 P.01
7913306 P.03

2229 AE17

CHAIN OF CUSTODY

Epigene International
CONSULTING GEOLOGISTS
39750 Paseo Padre Parkway, Suite B-4
Fremont, California, 94538
Business: (510) 791-1988 FAX: (510) 791-3306

Laboratory:	
Contact:	

Contact: John Nalt	Sampler:
Project Name: 2301 E. 12th St., Oakland Proj. No. 94-008	
Date: 3/27/94	

Sample I.D.	Date/Time Sampled	Matrix Desc.	Container No. of	Container Type	Lab. #	TPH/Gasoline	BTEX	TPH/Diesel	8015/8010	602/8020	8240	8270	5520 F	5 metals *	Comments
1. MW-6	3/27 PM	H_2O	2	VOAs		X	X								34901
2. "	"	"	1	liter bottle				X							34902
3. EW-1	3/27 PM	"	4	VOAs		X	X				X	X			34903
4. "			2	liter bottles				X					X		34904
5. "			1	Plastic bottle										X	34905
6.															
7.															
8.															
9.															
10.															

ICE ✓ GOOD CONDITION ✓ HEAD SPACE ABSENT ✓ PRESERVATIVE ✓ APPROPRIATE ✓ CONTAINERS ✓ RECEIVED GOOD CONDITION ✓

Relinquished by: John Nalt	Date: 3/28/94	Time: 11:37 AM	Received by: J Hamilton	Date: 3/28/94	Time: 11:21
Relinquished by: J Hamilton	Date: 3/28/94	Time: 04:25	Received by: Heidi Ricca	Date: 3/28/94	Time: 16:25
Relinquished by:	Date:	Time:	Received by:	Date:	Time:

Turnaround Time: Standard

Additional Comments: * Cadmium, Chromium, Zinc, Lead, Nickle

Page 2 of 2

04-04-1994 09:21PM FROM McCampbell TO 5107913306 P.02
EPIGENE INTERNATIONAL 7913306 P.04

American Environmental Network

Certificate of Analysis

DOHS Certification: 1172 AIHA Accreditation: 11134

McCAMPBELL ANALYTICAL
110 2ND AVE. SOUTH, #D7
PACHECO, CA 94553

ATTN: EDWARD HAMILTON
CLIENT PROJ. ID: 2229
CLIENT PROJ. NAME: E/12 ST.

REPORT DATE: 04/11/94

DATE(S) SAMPLED: 03/27/94

DATE RECEIVED: 03/29/94

AEN WORK ORDER: 9403322

PROJECT SUMMARY:

On March 29, 1994, this laboratory received 3 water sample(s).

Client requested samples be analyzed for organic parameters. Sample identification, methodologies, results and dates analyzed are summarized on the following pages.

Please see quality control report for a summary of QC data pertaining to this project.

If you have any questions, please contact Client Services at (510) 930-9090.

Larry Klein
General Manager

McCAMPBELL ANALYTICAL

SAMPLE ID: MW-2
AEN LAB NO: 9403322-01
AEN WORK ORDER: 9403322
CLIENT PROJ. ID: 2229

DATE SAMPLED: 03/27/94
DATE RECEIVED: 03/29/94
REPORT DATE: 04/11/94

ANALYTE	METHOD/ CAS#	RESULT		REPORTING LIMIT	UNITS	DATE ANALYZED
VOCs in Water by 8240	**EPA 8240**					
Acetone	67-64-1	ND		500	ug/L	04/01/94
Benzene	71-43-2	2,100	*	30	ug/L	04/01/94
Bromodichloromethane	75-27-4	ND		30	ug/L	04/01/94
Bromoform	75-25-2	ND		30	ug/L	04/01/94
Bromomethane	74-83-9	ND		50	ug/L	04/01/94
2-Butanone	78-93-3	ND		500	ug/L	04/01/94
Carbon Disulfide	75-15-0	ND		50	ug/L	04/01/94
Carbon Tetrachloride	56-23-5	ND		30	ug/L	04/01/94
Chlorobenzene	108-90-7	ND		30	ug/L	04/01/94
Chloroethane	75-00-3	ND		50	ug/L	04/01/94
2-Chloroethyl Vinyl Ether	110-75-8	ND		50	ug/L	04/01/94
Chloroform	67-66-3	ND		30	ug/L	04/01/94
Chloromethane	74-87-3	ND		50	ug/L	04/01/94
Dibromochloromethane	124-48-1	ND		30	ug/L	04/01/94
1,1-Dichloroethane	75-34-3	ND		30	ug/L	04/01/94
1,2-Dichloroethane	107-06-2	ND		30	ug/L	04/01/94
1,1-Dichloroethene	75-35-4	ND		30	ug/L	04/01/94
cis-1,2-Dichloroethene	156-59-2	ND		30	ug/L	04/01/94
trans-1,2-Dichloroethene	156-60-5	ND		30	ug/L	04/01/94
1,2-Dichloropropane	78-87-5	ND		30	ug/L	04/01/94
cis-1,3-Dichloropropene	10061-01-5	ND		30	ug/L	04/01/94
trans-1,3-Dichloropropene	10061-02-6	ND		30	ug/L	04/01/94
Ethylbenzene	100-41-4	680	*	30	ug/L	04/01/94
2-Hexanone	591-78-6	ND		300	ug/L	04/01/94
Methylene Chloride	75-09-2	ND		30	ug/L	04/01/94
4-Methyl-2-pentanone	108-10-1	ND		300	ug/L	04/01/94
Styrene	100-42-5	ND		30	ug/L	04/01/94
1,1,2,2-Tetrachloroethane	79-34-5	ND		30	ug/L	04/01/94
Tetrachloroethene	127-18-4	ND		30	ug/L	04/01/94
Toluene	108-88-3	120	*	30	ug/L	04/01/94
1,1,1-Trichloroethane	71-55-6	ND		30	ug/L	04/01/94
1,1,2-Trichloroethane	79-00-5	ND		30	ug/L	04/01/94
Trichloroethene	79-01-6	ND		30	ug/L	04/01/94
Vinyl Acetate	108-05-4	ND		300	ug/L	04/01/94
Vinyl Chloride	75-01-4	ND		50	ug/L	04/01/94
Xylenes, Total	1330-20-7	900	*	50	ug/L	04/01/94
#Extraction for BNAs	**EPA 3520**	-			Extrn Date	03/29/94
Semi-Volatile Organics	**EPA 8270**					
Acenaphthene	83-32-9	ND		10	ug/L	04/01/94

McCAMPBELL ANALYTICAL

SAMPLE ID: MW-2
AEN LAB NO: 9403322-01
AEN WORK ORDER: 9403322
CLIENT PROJ. ID: 2229

DATE SAMPLED: 03/27/94
DATE RECEIVED: 03/29/94
REPORT DATE: 04/11/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Acenaphthylene	208-96-8	ND	10	ug/L	04/01/94
Anthracene	120-12-7	ND	10	ug/L	04/01/94
Benzidine	92-87-5	ND	50	ug/L	04/01/94
Benzoic Acid	65-85-0	ND	50	ug/L	04/01/94
Benzo(a)anthracene	56-55-3	ND	10	ug/L	04/01/94
Benzo(b)fluoranthene	205-99-2	ND	10	ug/L	04/01/94
Benzo(k)fluoranthene	207-08-9	ND	10	ug/L	04/01/94
Benzo(g,h,i)perylene	191-24-2	ND	10	ug/L	04/01/94
Benzo(a)pyrene	50-32-8	ND	10	ug/L	04/01/94
Benzyl Alcohol	100-51-6	ND	20	ug/L	04/01/94
Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/L	04/01/94
Bis(2-chloroethyl) Ether	111-44-4	ND	10	ug/L	04/01/94
Bis(2-chloroisopropyl) Ether	108-60-1	ND	10	ug/L	04/01/94
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	20	ug/L	04/01/94
4-Bromophenyl Phenyl Ether	101-55-3	ND	10	ug/L	04/01/94
Butylbenzyl Phthalate	85-68-7	ND	10	ug/L	04/01/94
4-Chloroaniline	106-47-8	ND	20	ug/L	04/01/94
2-Chloronapththalene	91-58-7	ND	10	ug/L	04/01/94
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	10	ug/L	04/01/94
Chrysene	218-01-9	ND	10	ug/L	04/01/94
Dibenzo(a,h)anthracene	53-70-3	ND	10	ug/L	04/01/94
Dibenzofuran	132-64-9	ND	10	ug/L	04/01/94
Di-n-butyl Phthalate	84-74-2	ND	10	ug/L	04/01/94
1,2-Dichlorobenzene	95-50-1	ND	10	ug/L	04/01/94
1,3-Dichlorobenzene	541-73-1	ND	10	ug/L	04/01/94
1,4-Dichlorobenzene	106-46-7	ND	10	ug/L	04/01/94
3,3'-Dichlorobenzidine	91-94-1	ND	20	ug/L	04/01/94
Diethyl Phthalate	84-66-2	ND	10	ug/L	04/01/94
Dimethyl Phthalate	131-11-3	ND	10	ug/L	04/01/94
2,4-Dinitrotoluene	121-14-2	ND	10	ug/L	04/01/94
2,6-Dinitrotoluene	606-20-2	ND	10	ug/L	04/01/94
Di-n-octyl Phthalate	117-84-0	ND	10	ug/L	04/01/94
1,2-Diphenylhydrazine	122-66-7	ND	10	ug/L	04/01/94
Fluoranthene	206-44-0	ND	10	ug/L	04/01/94
Fluorene	86-73-7	ND	10	ug/L	04/01/94
Hexachlorobenzene	118-74-1	ND	10	ug/L	04/01/94
Hexachlorobutadiene	87-68-3	ND	10	ug/L	04/01/94
Hexachlorocyclopentadiene	77-47-4	ND	10	ug/L	04/01/94
Hexachloroethane	67-72-1	ND	10	ug/L	04/01/94
Indeno(1,2,3-cd)pyrene	193-39-5	ND	10	ug/L	04/01/94
Isophorone	78-59-1	ND	10	ug/L	04/01/94
2-Methylnaphthalene	91-57-6	42 *	10	ug/L	04/01/94
Naphthalene	91-20-3	210 *	10	ug/L	04/01/94

McCAMPBELL ANALYTICAL

SAMPLE ID: MW-2
AEN LAB NO: 9403322-01
AEN WORK ORDER: 9403322
CLIENT PROJ. ID: 2229

DATE SAMPLED: 03/27/94
DATE RECEIVED: 03/29/94
REPORT DATE: 04/11/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
2-Nitroaniline	88-74-4	ND	50	ug/L	04/01/94
3-Nitroaniline	99-09-2	ND	50	ug/L	04/01/94
4-Nitroaniline	100-01-6	ND	50	ug/L	04/01/94
Nitrobenzene	98-95-3	ND	10	ug/L	04/01/94
N-Nitrosodimethylamine	62-75-9	ND	10	ug/L	04/01/94
N-Nitrosodiphenylamine	86-30-6	ND	10	ug/L	04/01/94
N-Nitrosodi-n-propylamine	621-64-7	ND	10	ug/L	04/01/94
Phenanthrene	85-01-8	ND	10	ug/L	04/01/94
Pyrene	129-00-0	ND	10	ug/L	04/01/94
1,2,4-Trichlorobenzene	120-82-1	ND	10	ug/L	04/01/94
4-Chloro-3-methylphenol	59-50-7	ND	10	ug/L	04/01/94
2-Chlorophenol	95-57-8	ND	10	ug/L	04/01/94
2,4-Dichlorophenol	120-83-2	ND	10	ug/L	04/01/94
2,4-Dimethylphenol	105-67-9	ND	10	ug/L	04/01/94
4,6-Dinitro-2-methylphenol	534-52-1	ND	50	ug/L	04/01/94
2,4-Dinitrophenol	51-28-5	ND	50	ug/L	04/01/94
2-Methylphenol	95-48-7	ND	10	ug/L	04/01/94
4-Methylphenol	106-44-5	ND	10	ug/L	04/01/94
2-Nitrophenol	88-75-5	ND	10	ug/L	04/01/94
4-Nitrophenol	100-02-7	ND	50	ug/L	04/01/94
Pentachlorophenol	87-86-5	ND	50	ug/L	04/01/94
Phenol	108-95-2	ND	10	ug/L	04/01/94
2,4,5-Trichlorophenol	95-95-4	ND	10	ug/L	04/01/94
2,4,6-Trichlorophenol	88-06-2	ND	10	ug/L	04/01/94

ND = Not detected at or above the reporting limit
* = Value above reporting limit

McCAMPBELL ANALYTICAL

SAMPLE ID: MW-3
AEN LAB NO: 9403322-02
AEN WORK ORDER: 9403322
CLIENT PROJ. ID: 2229

DATE SAMPLED: 03/27/94
DATE RECEIVED: 03/29/94
REPORT DATE: 04/11/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
VOCs in Water by 8240	**EPA 8240**				
Acetone	67-64-1	ND	100	ug/L	04/01/94
Benzene	71-43-2	87 *	5	ug/L	04/01/94
Bromodichloromethane	75-27-4	ND	5	ug/L	04/01/94
Bromoform	75-25-2	ND	5	ug/L	04/01/94
Bromomethane	74-83-9	ND	10	ug/L	04/01/94
2-Butanone	78-93-3	ND	100	ug/L	04/01/94
Carbon Disulfide	75-15-0	ND	10	ug/L	04/01/94
Carbon Tetrachloride	56-23-5	ND	5	ug/L	04/01/94
Chlorobenzene	108-90-7	ND	5	ug/L	04/01/94
Chloroethane	75-00-3	ND	10	ug/L	04/01/94
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/L	04/01/94
Chloroform	67-66-3	ND	5	ug/L	04/01/94
Chloromethane	74-87-3	ND	10	ug/L	04/01/94
Dibromochloromethane	124-48-1	ND	5	ug/L	04/01/94
1,1-Dichloroethane	75-34-3	ND	5	ug/L	04/01/94
1,2-Dichloroethane	107-06-2	ND	5	ug/L	04/01/94
1,1-Dichloroethene	75-35-4	ND	5	ug/L	04/01/94
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/L	04/01/94
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/L	04/01/94
1,2-Dichloropropane	78-87-5	ND	5	ug/L	04/01/94
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/L	04/01/94
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/L	04/01/94
Ethylbenzene	100-41-4	83 *	5	ug/L	04/01/94
2-Hexanone	591-78-6	ND	50	ug/L	04/01/94
Methylene Chloride	75-09-2	ND	5	ug/L	04/01/94
4-Methyl-2-pentanone	108-10-1	ND	50	ug/L	04/01/94
Styrene	100-42-5	ND	5	ug/L	04/01/94
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/L	04/01/94
Tetrachloroethene	127-18-4	ND	5	ug/L	04/01/94
Toluene	108-88-3	8 *	5	ug/L	04/01/94
1,1,1-Trichloroethane	71-55-6	ND	5	ug/L	04/01/94
1,1,2-Trichloroethane	79-00-5	ND	5	ug/L	04/01/94
Trichloroethene	79-01-6	6 *	5	ug/L	04/01/94
Vinyl Acetate	108-05-4	ND	50	ug/L	04/01/94
Vinyl Chloride	75-01-4	ND	10	ug/L	04/01/94
Xylenes, Total	1330-20-7	10 *	10	ug/L	04/01/94
#Extraction for BNAs	**EPA 3520**	-		Extrn Date	03/29/94
Semi-Volatile Organics	**EPA 8270**				
Acenaphthene	83-32-9	ND	10	ug/L	04/01/94

McCAMPBELL ANALYTICAL

SAMPLE ID: MW-3
AEN LAB NO: 9403322-02
AEN WORK ORDER: 9403322
CLIENT PROJ. ID: 2229

DATE SAMPLED: 03/27/94
DATE RECEIVED: 03/29/94
REPORT DATE: 04/11/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Acenaphthylene	208-96-8	ND	10	ug/L	04/01/94
Anthracene	120-12-7	ND	10	ug/L	04/01/94
Benzidine	92-87-5	ND	50	ug/L	04/01/94
Benzoic Acid	65-85-0	ND	50	ug/L	04/01/94
Benzo(a)anthracene	56-55-3	ND	10	ug/L	04/01/94
Benzo(b)fluoranthene	205-99-2	ND	10	ug/L	04/01/94
Benzo(k)fluoranthene	207-08-9	ND	10	ug/L	04/01/94
Benzo(g,h,i)perylene	191-24-2	ND	10	ug/L	04/01/94
Benzo(a)pyrene	50-32-8	ND	10	ug/L	04/01/94
Benzyl Alcohol	100-51-6	ND	20	ug/L	04/01/94
Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/L	04/01/94
Bis(2-chloroethyl) Ether	111-44-4	ND	10	ug/L	04/01/94
Bis(2-chloroisopropyl) Ether	108-60-1	ND	10	ug/L	04/01/94
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	10	ug/L	04/01/94
4-Bromophenyl Phenyl Ether	101-55-3	ND	10	ug/L	04/01/94
Butylbenzyl Phthalate	85-68-7	ND	10	ug/L	04/01/94
4-Chloroaniline	106-47-8	ND	20	ug/L	04/01/94
2-Chloronaphthalene	91-58-7	ND	10	ug/L	04/01/94
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	10	ug/L	04/01/94
Chrysene	218-01-9	ND	10	ug/L	04/01/94
Dibenzo(a,h)anthracene	53-70-3	ND	10	ug/L	04/01/94
Dibenzofuran	132-64-9	ND	10	ug/L	04/01/94
Di-n-butyl Phthalate	84-74-2	ND	10	ug/L	04/01/94
1,2-Dichlorobenzene	95-50-1	ND	10	ug/L	04/01/94
1,3-Dichlorobenzene	541-73-1	ND	10	ug/L	04/01/94
1,4-Dichlorobenzene	106-46-7	ND	10	ug/L	04/01/94
3,3'-Dichlorobenzidine	91-94-1	ND	20	ug/L	04/01/94
Diethyl Phthalate	84-66-2	ND	10	ug/L	04/01/94
Dimethyl Phthalate	131-11-3	ND	10	ug/L	04/01/94
2,4-Dinitrotoluene	121-14-2	ND	10	ug/L	04/01/94
2,6-Dinitrotoluene	606-20-2	ND	10	ug/L	04/01/94
Di-n-octyl Phthalate	117-84-0	ND	10	ug/L	04/01/94
1,2-Diphenylhydrazine	122-66-7	ND	10	ug/L	04/01/94
Fluoranthene	206-44-0	ND	10	ug/L	04/01/94
Fluorene	86-73-7	ND	10	ug/L	04/01/94
Hexachlorobenzene	118-74-1	ND	10	ug/L	04/01/94
Hexachlorobutadiene	87-68-3	ND	10	ug/L	04/01/94
Hexachlorocyclopentadiene	77-47-4	ND	10	ug/L	04/01/94
Hexachloroethane	67-72-1	ND	10	ug/L	04/01/94
Indeno(1,2,3-cd)pyrene	193-39-5	ND	10	ug/L	04/01/94
Isophorone	78-59-1	ND	10	ug/L	04/01/94
2-Methylnaphthalene	91-57-6	ND	10	ug/L	04/01/94
Naphthalene	91-20-3	ND	10	ug/L	04/01/94

McCAMPBELL ANALYTICAL

SAMPLE ID: MW-3
AEN LAB NO: 9403322-02
AEN WORK ORDER: 9403322
CLIENT PROJ. ID: 2229

DATE SAMPLED: 03/27/94
DATE RECEIVED: 03/29/94
REPORT DATE: 04/11/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
2-Nitroaniline	88-74-4	ND	50	ug/L	04/01/94
3-Nitroaniline	99-09-2	ND	50	ug/L	04/01/94
4-Nitroaniline	100-01-6	ND	50	ug/L	04/01/94
Nitrobenzene	98-95-3	ND	10	ug/L	04/01/94
N-Nitrosodimethylamine	62-75-9	ND	10	ug/L	04/01/94
N-Nitrosodiphenylamine	86-30-6	ND	10	ug/L	04/01/94
N-Nitrosodi-n-propylamine	621-64-7	ND	10	ug/L	04/01/94
Phenanthrene	85-01-8	ND	10	ug/L	04/01/94
Pyrene	129-00-0	ND	10	ug/L	04/01/94
1,2,4-Trichlorobenzene	120-82-1	ND	10	ug/L	04/01/94
4-Chloro-3-methylphenol	59-50-7	ND	10	ug/L	04/01/94
2-Chlorophenol	95-57-8	ND	10	ug/L	04/01/94
2,4-Dichlorophenol	120-83-2	ND	10	ug/L	04/01/94
2,4-Dimethylphenol	105-67-9	ND	10	ug/L	04/01/94
4,6-Dinitro-2-methylphenol	534-52-1	ND	50	ug/L	04/01/94
2,4-Dinitrophenol	51-28-5	ND	50	ug/L	04/01/94
2-Methylphenol	95-48-7	ND	10	ug/L	04/01/94
4-Methylphenol	106-44-5	ND	10	ug/L	04/01/94
2-Nitrophenol	88-75-5	ND	10	ug/L	04/01/94
4-Nitrophenol	100-02-7	ND	50	ug/L	04/01/94
Pentachlorophenol	87-86-5	ND	50	ug/L	04/01/94
Phenol	108-95-2	ND	10	ug/L	04/01/94
2,4,5-Trichlorophenol	95-95-4	ND	10	ug/L	04/01/94
2,4,6-Trichlorophenol	88-06-2	ND	10	ug/L	04/01/94

ND = Not detected at or above the reporting limit
* = Value above reporting limit

McCAMPBELL ANALYTICAL

SAMPLE ID: EW-1
AEN LAB NO: 9403322-03
AEN WORK ORDER: 9403322
CLIENT PROJ. ID: 2229

DATE SAMPLED: 03/27/94
DATE RECEIVED: 03/29/94
REPORT DATE: 04/11/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
VOCs in Water by 8240	**EPA 8240**				
Acetone	67-64-1	ND	100	ug/L	04/01/94
Benzene	71-43-2	300 *	5	ug/L	04/01/94
Bromodichloromethane	75-27-4	ND	5	ug/L	04/01/94
Bromoform	75-25-2	ND	5	ug/L	04/01/94
Bromomethane	74-83-9	ND	10	ug/L	04/01/94
2-Butanone	78-93-3	ND	100	ug/L	04/01/94
Carbon Disulfide	75-15-0	ND	10	ug/L	04/01/94
Carbon Tetrachloride	56-23-5	ND	5	ug/L	04/01/94
Chlorobenzene	108-90-7	ND	5	ug/L	04/01/94
Chloroethane	75-00-3	ND	10	ug/L	04/01/94
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/L	04/01/94
Chloroform	67-66-3	ND	5	ug/L	04/01/94
Chloromethane	74-87-3	ND	10	ug/L	04/01/94
Dibromochloromethane	124-48-1	ND	5	ug/L	04/01/94
1,1-Dichloroethane	75-34-3	ND	5	ug/L	04/01/94
1,2-Dichloroethane	107-06-2	ND	5	ug/L	04/01/94
1,1-Dichloroethene	75-35-4	ND	5	ug/L	04/01/94
cis-1,2-Dichloroethene	156-59-2	15 *	5	ug/L	04/01/94
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/L	04/01/94
1,2-Dichloropropane	78-87-5	ND	5	ug/L	04/01/94
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/L	04/01/94
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/L	04/01/94
Ethylbenzene	100-41-4	19 *	5	ug/L	04/01/94
2-Hexanone	591-78-6	ND	50	ug/L	04/01/94
Methylene Chloride	75-09-2	ND	5	ug/L	04/01/94
4-Methyl-2-pentanone	108-10-1	ND	50	ug/L	04/01/94
Styrene	100-42-5	ND	5	ug/L	04/01/94
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/L	04/01/94
Tetrachloroethene	127-18-4	ND	5	ug/L	04/01/94
Toluene	108-88-3	ND	5	ug/L	04/01/94
1,1,1-Trichloroethane	71-55-6	ND	5	ug/L	04/01/94
1,1,2-Trichloroethane	79-00-5	ND	5	ug/L	04/01/94
Trichloroethene	79-01-6	40 *	5	ug/L	04/01/94
Vinyl Acetate	108-05-4	ND	50	ug/L	04/01/94
Vinyl Chloride	75-01-4	ND	10	ug/L	04/01/94
Xylenes, Total	1330-20-7	ND	10	ug/L	04/01/94
#Extraction for BNAs	**EPA 3520**	-		Extrn Date	03/29/94
Semi-Volatile Organics	**EPA 8270**				
Acenaphthene	83-32-9	ND	10	ug/L	04/01/94

McCAMPBELL ANALYTICAL

SAMPLE ID: EW-1
AEN LAB NO: 9403322-03
AEN WORK ORDER: 9403322
CLIENT PROJ. ID: 2229

DATE SAMPLED: 03/27/94
DATE RECEIVED: 03/29/94
REPORT DATE: 04/11/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Acenaphthylene	208-96-8	ND	10	ug/L	04/01/94
Anthracene	120-12-7	ND	10	ug/L	04/01/94
Benzidine	92-87-5	ND	50	ug/L	04/01/94
Benzoic Acid	65-85-0	ND	50	ug/L	04/01/94
Benzo(a)anthracene	56-55-3	ND	10	ug/L	04/01/94
Benzo(b)fluoranthene	205-99-2	ND	10	ug/L	04/01/94
Benzo(k)fluoranthene	207-08-9	ND	10	ug/L	04/01/94
Benzo(g,h,i)perylene	191-24-2	ND	10	ug/L	04/01/94
Benzo(a)pyrene	50-32-8	ND	10	ug/L	04/01/94
Benzyl Alcohol	100-51-6	ND	20	ug/L	04/01/94
Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/L	04/01/94
Bis(2-chloroethyl) Ether	111-44-4	ND	10	ug/L	04/01/94
Bis(2-chloroisopropyl) Ether	108-60-1	ND	10	ug/L	04/01/94
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	10	ug/L	04/01/94
4-Bromophenyl Phenyl Ether	101-55-3	ND	10	ug/L	04/01/94
Butylbenzyl Phthalate	85-68-7	ND	10	ug/L	04/01/94
4-Chloroaniline	106-47-8	ND	20	ug/L	04/01/94
2-Chloronapthalene	91-58-7	ND	10	ug/L	04/01/94
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	10	ug/L	04/01/94
Chrysene	218-01-9	ND	10	ug/L	04/01/94
Dibenzo(a,h)anthracene	53-70-3	ND	10	ug/L	04/01/94
Dibenzofuran	132-64-9	ND	10	ug/L	04/01/94
Di-n-butyl Phthalate	84-74-2	ND	10	ug/L	04/01/94
1,2-Dichlorobenzene	95-50-1	ND	10	ug/L	04/01/94
1,3-Dichlorobenzene	541-73-1	ND	10	ug/L	04/01/94
1,4-Dichlorobenzene	106-46-7	ND	10	ug/L	04/01/94
3,3'-Dichlorobenzidine	91-94-1	ND	20	ug/L	04/01/94
Diethyl Phthalate	84-66-2	ND	10	ug/L	04/01/94
Dimethyl Phthalate	131-11-3	ND	10	ug/L	04/01/94
2,4-Dinitrotoluene	121-14-2	ND	10	ug/L	04/01/94
2,6-Dinitrotoluene	606-20-2	ND	10	ug/L	04/01/94
Di-n-octyl Phthalate	117-84-0	ND	10	ug/L	04/01/94
1,2-Diphenylhydrazine	122-66-7	ND	10	ug/L	04/01/94
Fluoranthene	206-44-0	ND	10	ug/L	04/01/94
Fluorene	86-73-7	ND	10	ug/L	04/01/94
Hexachlorobenzene	118-74-1	ND	10	ug/L	04/01/94
Hexachlorobutadiene	87-68-3	ND	10	ug/L	04/01/94
Hexachlorocyclopentadiene	77-47-4	ND	10	ug/L	04/01/94
Hexachloroethane	67-72-1	ND	10	ug/L	04/01/94
Indeno(1,2,3-cd)pyrene	193-39-5	ND	10	ug/L	04/01/94
Isophorone	78-59-1	ND	10	ug/L	04/01/94
2-Methylnaphthalene	91-57-6	ND	10	ug/L	04/01/94
Naphthalene	91-20-3	ND	10	ug/L	04/01/94

McCAMPBELL ANALYTICAL

SAMPLE ID: EW-1
AEN LAB NO: 9403322-03
AEN WORK ORDER: 9403322
CLIENT PROJ. ID: 2229

DATE SAMPLED: 03/27/94
DATE RECEIVED: 03/29/94
REPORT DATE: 04/11/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
2-Nitroaniline	88-74-4	ND	50	ug/L	04/01/94
3-Nitroaniline	99-09-2	ND	50	ug/L	04/01/94
4-Nitroaniline	100-01-6	ND	50	ug/L	04/01/94
Nitrobenzene	98-95-3	ND	10	ug/L	04/01/94
N-Nitrosodimethylamine	62-75-9	ND	10	ug/L	04/01/94
N-Nitrosodiphenylamine	86-30-6	ND	10	ug/L	04/01/94
N-Nitrosodi-n-propylamine	621-64-7	ND	10	ug/L	04/01/94
Phenanthrene	85-01-8	ND	10	ug/L	04/01/94
Pyrene	129-00-0	ND	10	ug/L	04/01/94
1,2,4-Trichlorobenzene	120-82-1	ND	10	ug/L	04/01/94
4-Chloro-3-methylphenol	59-50-7	ND	10	ug/L	04/01/94
2-Chlorophenol	95-57-8	ND	10	ug/L	04/01/94
2,4-Dichlorophenol	120-83-2	ND	10	ug/L	04/01/94
2,4-Dimethylphenol	105-67-9	ND	10	ug/L	04/01/94
4,6-Dinitro-2-methylphenol	534-52-1	ND	50	ug/L	04/01/94
2,4-Dinitrophenol	51-28-5	ND	50	ug/L	04/01/94
2-Methylphenol	95-48-7	ND	10	ug/L	04/01/94
4-Methylphenol	106-44-5	ND	10	ug/L	04/01/94
2-Nitrophenol	88-75-5	ND	10	ug/L	04/01/94
4-Nitrophenol	100-02-7	ND	50	ug/L	04/01/94
Pentachlorophenol	87-86-5	ND	50	ug/L	04/01/94
Phenol	108-95-2	ND	10	ug/L	04/01/94
2,4,5-Trichlorophenol	95-95-4	ND	10	ug/L	04/01/94
2,4,6-Trichlorophenol	88-06-2	ND	10	ug/L	04/01/94

ND = Not detected at or above the reporting limit
* = Value above reporting limit

AEN (CALIFORNIA)
QUALITY CONTROL REPORT

AEN JOB NUMBER: 9403322

CLIENT PROJECT ID: 2229

Quality Control Summary

All laboratory quality control parameters were found to be within established limits.

Definitions

The following abbreviations are found throughout the QC report:

ND = Not Detected at or above the reporting limit
RPD = Relative Percent Difference
< = Less Than

QUALITY CONTROL DATA

INSTRUMENT: 12

AEN JOB NO: 9403322

CLIENT PROJ. ID: 2229

SURROGATE STANDARD RECOVERY SUMMARY
METHOD: EPA 8240
(WATER MATRIX)

SAMPLE IDENTIFICATION			SURROGATE RECOVERY (PERCENT)		
Date Analyzed	Sample Id.	Lab Id.	1,2-Dichloro-ethane-d_4	Toluene-d_8	p-Bromofluoro-benzene
04/01/94	MW-2	01	96	101	99
04/01/94	MW-3	02	94	99	99
04/01/94	EW-1	03	93	96	101

CURRENT QC LIMITS

ANALYTE	PERCENT RECOVERY
1,2-Dichloroethane-d_4	(77-123)
Toluene-d_8	(90-108)
p-Bromofluorobenzene	(89-109)

QUALITY CONTROL DATA

DATE EXTRACTED: 03/23/94
DATE ANALYZED: 03/28/94
CLIENT PROJ. ID: 2229

AEN JOB NO: 9403322
SAMPLE SPIKED: DI WATER
INSTRUMENT: 11

METHOD SPIKE RECOVERY SUMMARY
METHOD: EPA 8270
(WATER MATRIX)

ANALYTE	Spike Added (ug/L)	Average Percent Recovery	RPD
Phenol	200	98	11
2-Chlorophenol	200	95	9
1,4-Dichlorobenzene	204	59	16
N-Nitroso-di-n-propylamine	199	101	10
1,2,4-Trichlorobenzene	200	68	2
4-Chloro-3-methylphenol	196	93	<1
Acenaphthene	200	97	4
4-Nitrophenol	198	66	<1
2,4-Dinitrotoluene	200	89	18
Pentachlorophenol	203	65	8
Pyrene	199	97	4

CURRENT QC LIMITS

Analyte	Percent Recovery	RPD
Phenol	(12-110)	42
2-Chlorophenol	(27-123)	40
1,4-Dichlorobenzene	(36- 97)	28
4-Nitroso-di-n-propylamine	(41-116)	38
1,2,4-Trichlorobenzene	(39- 98)	28
4-Chloro-3-methylphenol	(23- 97)	42
Acenaphthene	(46-118)	31
4-Nitrophenol	(10- 80)	50
2,4-Dinitrotoluene	(24- 96)	38
Pentachlorophenol	(9-103)	50
Pyrene	(26-127)	31

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

*** END OF REPORT ***

AE[redacted] [redacted] 9403322

CHAIN OF CUSTODY RECORD

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

REPORT TO: Ed Hamilton | BILL TO: McCampbell

PROJECT NUMBER: 2029 AEI | PROJECT NAME: E/12st.

PROJECT LOCATION: | SAMPLER SIGNATURE:

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

SAMPLE ID	LOCATION	SAMPLING DATE	SAMPLING TIME	# CONTAINERS	TYPE CONTAINERS	MATRIX: WATER	SOIL	AIR	SLUDGE	OTHER	PRESERVED: HCL	HNO3	OTHER
MW-2	01AB	3/27/94	PM	4	VOA Ltr	X							X
MW-3	02A-C	3/27/94	PM	2	VOA Ltr	X							X
EW-1	03A-C	3/27/94	PM	3	VOA Ltr	X							X

ANALYSIS REQUEST

BTEX & TPH as Gasoline (602/8020 + 8015)	TPH as Diesel (8015)	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 601/8010	EPA 602/8020	EPA 608/8080	EPA 624/8240/8260	EPA 625/8270	CAM - 17 Metals	EPA - Priority Pollutant Metals	LEAD (7240/7421/239.2/6010)	ORGANIC LEAD	RCI	OTHER			COMMENTS
							X	X									8283
							X	X									8281
							X	X									8285

RELINQUISHED BY: Heidi Rucia | DATE: 3/29/94 | TIME: 11:15 | RECEIVED BY:

RELINQUISHED BY: | DATE: 3/29/94 | TIME: 11:30 | RECEIVED BY:

RELINQUISHED BY: | DATE: 3/29/94 | TIME: 1130 | RECEIVED BY LABORATORY: Denise Harrington

REMARKS:
* VOA's Do Not Contain Preservatives

BORING LOCATION	2301 East 12th Street, Oakland, California.	ELEVATION AND DATUM	
DRILLING CONTRACTOR	Great Sierra Exploration	DRILLER Larry/Rick	DATE STARTED March 16,'94	DATE FINISHED Mar.16,'94
DRILLING EQUIPMENT	Mobil B-53	COMPLETION DEPTH (FT) 20	ROCK DEPTH (FT) NA
DIAMETER OF BORING	7 inches	NO. OF UNDIST. SAMPLES 4	CORE NA
PURPOSE OF BORING	soil sampling	WATER FIRST DEPTH(FT) 11	COMPL.
SAMPLING EQUIPMENT	modified California split spoon	LOGGED BY: J. Alt	CHECKED BY:
COMMENTS			

DEPTH (FEET)	DESCRIPTION	GRAPHIC LOG LITHOLOGY	SAMPLES NO.	SAMPLES TYPE	SAMPLES BLOW COUNT	SAMPLES DRILLING RATE/ TIME	REMARKS
5	gray CLAY with sand		1		4 6 4		
10	gray CLAY	▼	2		4 9 29		
15	tan CLAY with gray motteling.		3		8 8 26		
20	tan sandy CLAY to clayey sand with some gravel		4		9 29 33		
25							
30							

Project 2301 East 12th St.,Oakland.

Project No. 94008

LOG OF BORING B-1

BORING LOCATION	2301 East 12th Street, Oakland, California	ELEVATION AND DATUM	
DRILLING CONTRACTOR	Great Sierra Exploration	DRILLER Larry/Rick	DATE STARTED Mar. 16, 1994	DATE FINISHED Mar. 16, '94
DRILLING EQUIPMENT	Mobil B-53	COMPLETION DEPTH (FT) 20	ROCK DEPTH (FT) NA
DIAMETER OF BORING	7 inches	NO. OF UNDIST. SAMPLES 4	CORE NA
PURPOSE OF BORING	soil sampling	WATER FIRST DEPTH(FT) 11	COMPL.
SAMPLING EQUIPMENT	modified California split spoon	LOGGED BY: J. Alt	CHECKED BY:
COMMENTS			

DEPTH (FEET)	DESCRIPTION	GRAPHIC LOG LITHOLOGY	SAMPLES NO.	SAMPLES TYPE	BLOW COUNT	DRILLING RATE/ TIME	REMARKS
	brown SAND						
	gray CLAY						
5	brown sandy GRAVEL.		1		4 3 6		
10	gray CLAY, wet.	▼	2		4 4 5		
15	gray CLAY, wet.		3		8 10 14		
20	tan CLAY, moist, plastic, gray motteling.		4		9 10 17		
25							
30							

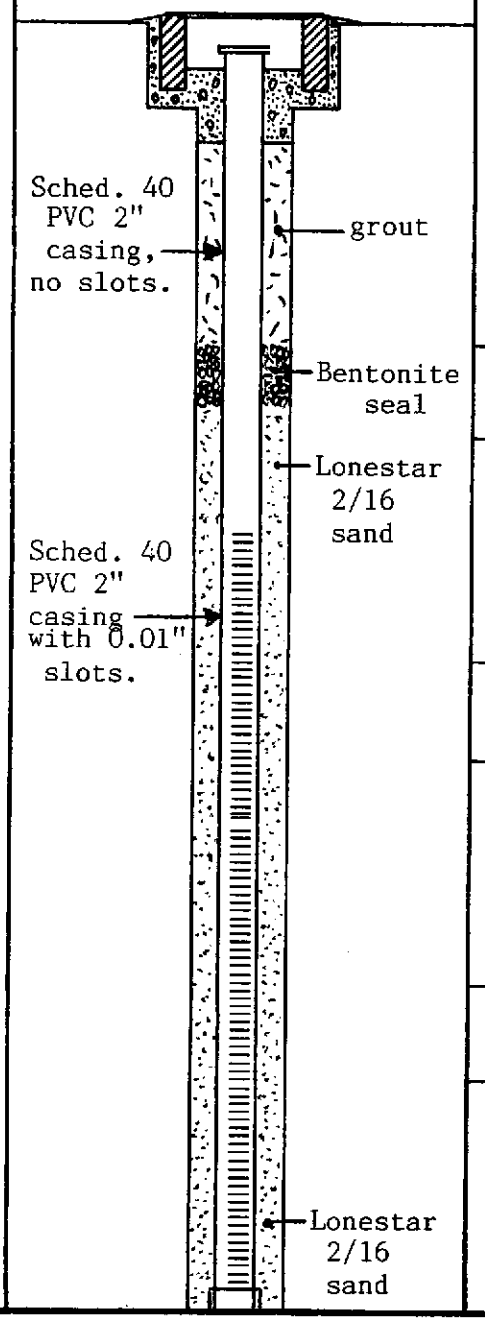
Project 2301 East 12th Street, Oakland

Project No. 94008

LOG OF BORING B-2

WELL LOG

Project	2301 East 12th St., Oakland	Well Number	MW-4
Location	same	Diameter of Boring	7 inches
Project #	94008	Total Depth of Boring	20 feet
Geologist	John Alt, CEG	Date Started	March 18, 1994
Drill Company	Great Sierra Exploration	Date Completed	March 18, 1994
Comments			



Depth in Feet	Sample #	Blow Counts	Graphic Log	DESCRIPTION
0				concrete
1				fill for roadbase.
2				
3				dark brown CLAY, moist, plastic.
4				
5				
6	1	9 14 23		dark brown CLAY, moist, plastic.
7				
8				
9				
10				
11	2	14 22 26	▼	gray silty CLAY, moist, moderate to low plasticity, grading to tan.
12				
13				
14				
15				
16	3	8 9 19		tan silty CLAY with fine sand, moist.
17				
18				
19				
20				bottom of boring.

EPIGENE INTERNATIONAL

WELL LOG

Project Name 2301 East 12th St., Oakland

Well Number MW-4

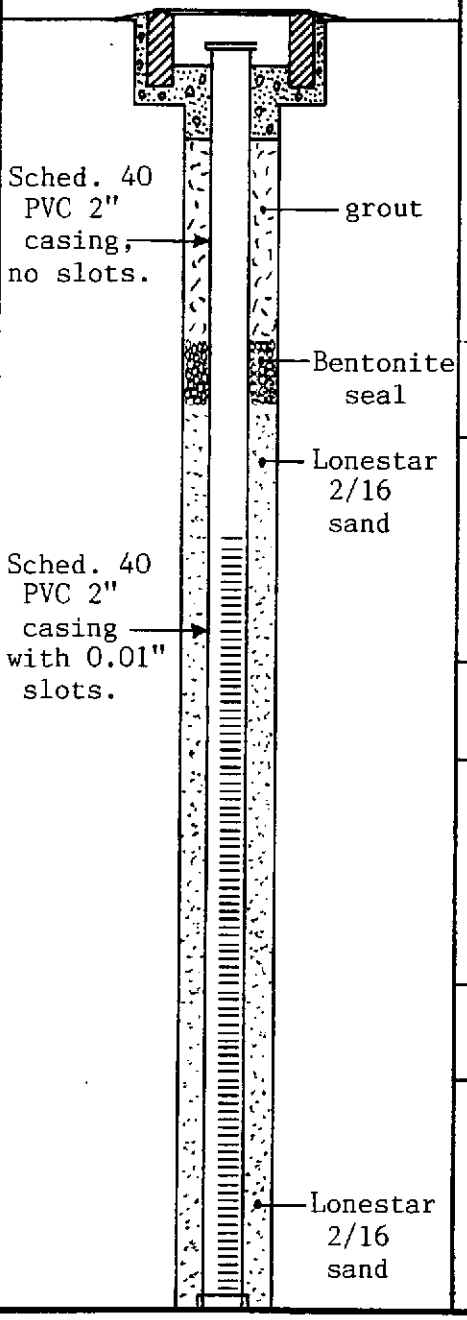
Project Number 94008

Page 2 of 2

Depth in Feet	WELL CONSTRUCTION DETAIL	Sample #	Blow Counts	Graphic Log	DESCRIPTION
20	 2/16 sand				
21	slip-on cap	4	15 17 17		tan sandy silty CLAY with thin beds of gravelly sand, moist.
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
41					
42					
43					
44					
45					

WELL LOG

Project	2301 East 12th Street, Oakland	Well Number	MW-5
Location	same	Diameter of Boring	7 inches
Project #	94008	Total Depth of Boring	20 feet
Geologist	John Alt, CEG	Date Started	March 17, 1994
Drill Company	Great Sierra Exploration	Date Completed	March 17, 1994
Comments			



Depth in Feet	Sample #	Blow Counts	Graphic Log	DESCRIPTION
0				
1				asphalt
2				road fill.
3				dark brown CLAY
4				
5				
6	1	5 5 6		dark gray CLAY, moist, plastic.
7				
8				
9				
10	2	30 16 22	▼	as above, grading to tan CLAY with gray motteling.
11				
12				
13				
14				
15				
16	3	6 10 17		tan sandy CLAY, moist, abundant gray motteling, (sand is very fine-grained).
17				
18				
19				
20				bottom of boring.

WELL LOG

Project Name 2301 East 12th Street, Oakland

Well Number MW-5

Project Number 94008

Page 2 of 2

Depth in Feet	WELL CONSTRUCTION DETAIL	Sample #	Blow Counts	Graphic Log	DESCRIPTION
20	 2/16 sand		7		tan CLAY, moist to wet.
21	slip-on cap	4	15		
22			20		
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
41					
42					
43					
44					
45					

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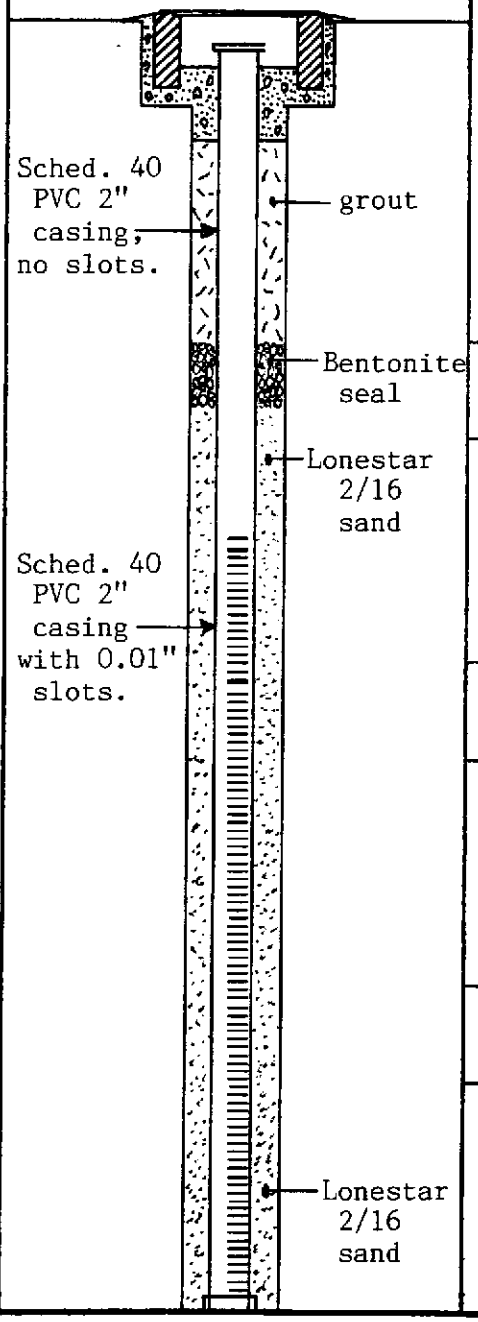
WELL LOG

Project	2301 East 12th Street, Oakland	Well Number	MW-6
Location	same	Diameter of Boring	7 inches
Project #	94008	Total Depth of Boring	20 feet
Geologist	John Alt, CEG	Date Started	March 17, 1994
Drill Company	Great Sierra Exploration	Date Completed	March 17, 1994
Comments			



Depth in Feet	Sample #	Blow Counts	Graphic Log	DESCRIPTION
0				
1				asphalt
2				road fill
3				dark brown CLAY, moist, plastic.
4				
5				
6	1	12 12 18		gray CLAY, moist, plastic.
7				
8				
9				
10				
11	2	9 14 30	▼	gray silty CLAY.
12				
13				
14				
15				
16	3	10 15 23		tan sandy CLAY, moist.
17				
18				
19				
20				bottom of boring.

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WELL LOG

Project Name 2301 East 12th Street, Oakland

Well Number MW-6

Project Number 94008

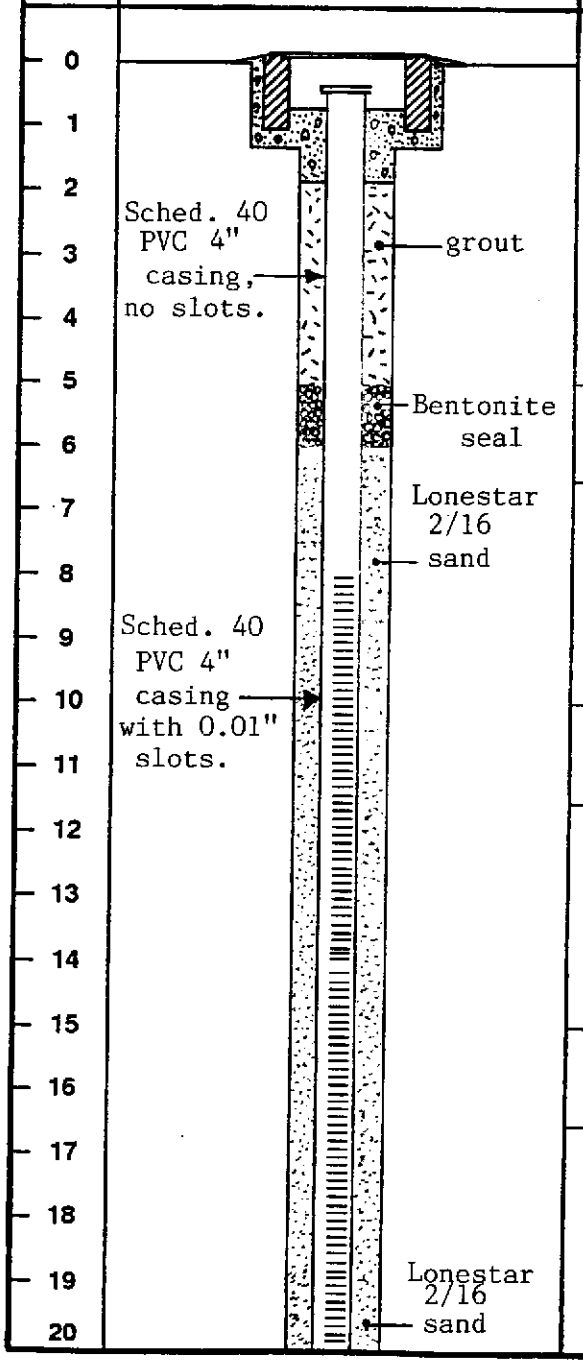
Page 2 of 2

Depth in Feet	WELL CONSTRUCTION DETAIL	Sample #	Blow Counts	Graphic Log	DESCRIPTION
20	2/16 sand		14		tan sandy CLAY, moist, with thin beds of sandy gravel several inches thick.
21	slip-on cap	4	17		
22			25		
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
41					
42					
43					
44					
45					

EPIGENE INTERNATIONAL

WELL LOG

Project	2301 East 12th St., Oakland	Well Number	EW-1
Location	same	Diameter of Boring	10 inches
Project #	94008	Total Depth of Boring	30 feet
Geologist	John Alt, CEG	Date Started	March 16, 1994
Drill Company	Great Sierra Exploration	Date Completed	March 16, 1994
Comments			



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WELL LOG

Project Name 2301 East 12th St., Oakland. Well Number EW-1

Project Number 94008 Page 2 of 2

Depth in Feet	WELL CONSTRUCTION DETAIL	Sample #	Blow Counts	Graphic Log	DESCRIPTION
20	Sched. 40 PVC 4" tube with 0.01" slots. Lonestar 2/16 sand				
21		4	15 18 29		as above, with fine-grained sand.
22					
23					
24					
25					
26		5	19 20 39		as above, with beds about 2"-3" thick of sandy gravel.
27					
28					
29					
30	screw-on end cap				bottom of boring
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
41					
42					
43					
44					
45					

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