April 30, 1996

LF 3042.95-002

Mr. Sumadhu Arigala
San Francisco Bay Region
Regional Water Quality Control Board
2101 Webster Street, Suite 500
Oakland, California 94612

Subject: January 9 and 10, 1996, Quarterly Ground-Water Monitoring Results, A Portion of the Rifkin Property, 4525-4563 Horton Street, Emeryville, California

Dear Mr. Arigala:

This letter transmits the results for January 9 and 10, 1996, quarterly monitoring on a portion of the Rifkin Property located at 4525-4563 Horton Street in Emeryville, California ("the Site") for the monitoring period of January 1 to March 31, 1996.

Quarterly ground-water monitoring was conducted at the Site, as proposed, in a letter dated October 26, 1994, from Dave Gustafson and Larry Mencin of The Sherwin-Williams Company to Sum Arigala of the California Regional Water Quality Control Board (RWQCB). This proposed quarterly ground-water monitoring program was approved by the RWQCB in a letter to Dave Gustafson from Steven Ritchie of the RWQCB dated November 4, 1994. In addition, wells MW-1 through MW-5 (installed by TMC Environmental) were included in this quarterly monitoring event.

On January 9 and 10, 1996, ground-water samples were collected from wells RP-1 through RP-5 and wells MW-1 through MW-5 (installed by TMC Environmental) and submitted to American Environmental Network (AEN), a California, state-certified laboratory for chemical analysis. In addition, on January 9, 1996, depth-to-water measurements were recorded in on-site wells RP-1 through RP-5 (installed by Levine-Fricke) and MW-1 through MW-5 (installed by TMC Environmental). The elevations of the top of casing (feet above mean sea level) for the monitoring wells were re-surveyed by Nolte and Associates, Inc., of San Jose, on April 24 and 25, 1996. The re-surveyed elevations were used for calculating ground-water elevations for this quarterly monitoring event. Locations of on-site wells are shown on Figure 1. Water level and sampling field forms are included in Appendix A.

Depth to ground water in the monitoring wells was measured using an electric water-level meter to the nearest 0.01 foot. Depth-to-water measurements and ground-water elevations in the monitoring wells are presented in Table 1. Ground-water contours are shown on Figure 1.

During sampling of the on-site wells, after the volume of water in each well was calculated, 3 to 5 well volumes of water were purged from each well using either a gasoline-powered, centrifugal pump equipped with a clean suction hose, or by hand bailing with a clean, Teflon bailer.

During purging of the wells, ground-water parameters (pH, specific conductance, and temperature) were monitored and recorded to aid in collecting samples that were representative of the ground water in surrounding sediments. Samples were collected after these parameters had stabilized. If a well did not sustain a constant yield (i.e., goes dry), the well was sampled after the water level had recovered to approximately 80 percent of the original water level or 2 hours after purging, whichever occurred first.

After purging, ground-water samples were collected using a clean, Teflon bailer fitted with a new rope. A duplicate sample collected from well RP-5 and a bailer field blank were submitted for chemical analysis to monitor laboratory and equipment decontamination quality assurance and quality control. Equipment used during ground-water sampling was cleaned with Alconox (a laboratory grade detergent) and/or steam cleaned. The samples were placed into the appropriate laboratory-supplied sample containers and placed in a chilled cooler for transportation to AEN for analysis following chain-of-custody procedures.

Water purged from each well during sampling was discharged into the ground-water extraction and treatment system located at the Sherwin-Williams site.

Ground-water samples were submitted to AEN for analysis of dissolved arsenic using EPA Method 7060, total petroleum hydrocarbons as gasoline using EPA Method 5030, total petroleum hydrocarbons as diesel using EPA Method 3510, volatile organic compounds using EPA Method 8240 and benzene, toluene, ethylbenzene, and total xylenes using EPA Method 8020. Analytical results for these samples are presented in Table 2. Analytical results for dissolved arsenic are shown on Figure 2. Laboratory certificates and chain-of-custody forms are included in Appendix B.

The next quarterly ground-water monitoring event was conducted on April 17 and 24, 1996. Results from this event will be reported in the quarterly ground-water monitoring report for the period from April 1 through June 30, 1996.

Please contact either of the undersigned at (510) 652-4500 or Larry Mencin of Sherwin-Williams at (216) 566-1768, if you have any questions or comments.

Sincerely,

Mark D. Knox

Mark D. Knox, P.E.
Principal Engineer

Kenton Gee

Kenton A. Gee
Project Hydrogeologist

enclosures

cc: Larry Mencin, Sherwin-Williams
Dave Gustafson, Sherwin-Williams
Allen Danzig, Sherwin-Williams
Susan Hugo, Alameda County
Ravi Arulanantham, Alameda County

CERTIFICATION

All information, conclusions, and recommendations in this document have been prepared under the supervision of and reviewed by a Levine-Fricke California Professional Engineer.

Mark D. Knox — 4/30/96
Date

Mark D. Knox
Principal Engineer
California Professional Engineer (33194)

Table 1
Historical Ground-Water Elevation Data
Rifkin Property, Emeryville, California

Well Number	Date	Elevation Top of Casing (msl)	Depth to Ground-Water (ft bgs)	Ground-Water Elevation (msl)
RP-1 [1]	8-Sep-94	15.12	8.65	6.47
	28-Feb-95		7.83	7.29
	10-May-95		7.53	7.59
	9-Aug-95		8.39	6.73
	17-Nov-95		8.91	6.21
	9-Jan-96	15.14 [3]	7.95	7.19
RP-2 [1]	8-Sep-94	15.23	8.99	6.24
	28-Feb-95		8.11	7.12
	10-May-95		7.77	7.46
	9-Aug-95		8.67	6.56
	17-Nov-95		9.27	5.96
	9-Jan-96	15.24 [3]	8.27	6.97
RP-3 [1]	8-Sep-94	15.15	8.80	6.35
	28-Feb-95		7.87	7.28
	10-May-95		7.61	7.54
	9-Aug-95		8.48	6.67
	17-Nov-95		9.09	6.06
	9-Jan-96	15.17 [3]	8.07	7.10
RP-4 [1]	8-Sep-94	15.10	9.02	6.08
	28-Feb-95		8.13	6.97
	10-May-95		7.77	7.33
	9-Aug-95		8.65	6.45
	17-Nov-95		9.28	5.82
	9-Jan-96	15.13 [3]	8.28	6.85
RP-5 [1]	8-Sep-94	15.03	8.95	6.08
	28-Feb-95		8.06	6.97
	10-May-95		7.69	7.34
	9-Aug-95		8.57	6.46
	17-Nov-95		9.23	5.80
	9-Jan-96	15.04 [3]	8.21	6.83
MW-1 [2]	9-Aug-95	13.79	7.50	6.29
	17-Nov-95		8.00	5.79
	9-Jan-96	13.78 [3]	7.19	6.59
MW-2 [2]	9-Aug-95	13.39	7.31	6.08
	17-Nov-95		8.12	5.27
	9-Jan-96	13.58 [3]	7.04	6.54
MW-3 [2]	9-Aug-95	14.64	7.89	6.75
	17-Nov-95		8.40	6.24
	9-Jan-96	14.60 [3]	7.48	7.12

Table 1
Historical Ground-Water Elevation Data
Rifkin Property, Emeryville, California

Well Number	Date	Elevation Top of Casing *(msl)*	Depth to Ground-Water *(ft bgs)*	Ground-Water Elevation *(msl)*
MW-4 [2]	9-Aug-95	15.35	7.93	7.42
	17-Nov-95		8.67	6.68
	9-Jan-96	15.53 [3]	8.12	7.41
MW-5 [2]	9-Aug-95	15.87	7.87	8.00
	17-Nov-95		8.65	7.22
	9-Jan-96	15.24 [3]	7.93	7.31

Data entered by PCA 20-Mar-96. Proofed by MPC

Notes

(1) Monitoring well installed by Levine-Fricke.

(2) Monitoring well installed by TMC Environmental.

(3) Elevation of top casing re-surveyed on April 24 and 25, 1996

msl = mean sea level

NM = not measured

bgs = below ground surface

Table 2
Chemicals Detected in Ground-Water Samples
Rifkin Property, Emeryville, California
Concentrations expressed in parts per million (ppm)

Sample ID	Sample Date	As	TPHg	TPHd	TPHo	Benzene	Toluene	Ethyl-benzene	Xylenes	Acetone	MEK	1,2-DCA	cis-1,2-DCE	trans-1,2-DCE	MIBK	TCE
RP-1	28-Jul-94	0.07	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	08-Sep-94	0.08	1.9	4.4	0.3	<0.005	<0.0005	<0.0005	<0.002	<0.100	<0.100	0.002	0.003	0.001	<0.050	<0.005
	28-Feb-95	0.046	0.3	1.8	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
(4)	29-Mar-95	0.035	<0.05	0.78	<0.5	<0.005	<0.005	<0.005	<0.01	<0.100	NA	<0.005	<0.005	<0.005	NA	<0.005
	10-May-95	0.095	2.6	1.4	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
	09-Aug-95	0.059	1.4	1.4	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
	17-Nov-95	0.086	1.2	0.96	NA	<0.0005	0.0008	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
	10-Jan-96	0.061	0.8	0.55	NA	<0.0005	0.001	<0.0005	<0.002	<0.100	<0.100	<0.005	<0.005	<0.005	<0.050	<0.005
RP-2	28-Jul-94	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	08-Sep-94	0.024	0.09	0.4	0.5	<0.005	0.0005	<0.005	<0.002	<0.100	<0.100	0.001	0.001	<0.0005	<0.050	0.0006
dup	08-Sep-94	0.020	0.09	0.3	0.6	<0.005	<0.0005	<0.005	<0.002	<0.100	<0.100	0.001	0.001	<0.0005	<0.050	0.0005
	28-Feb-95	0.013	0.09	<0.05	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
(3)	29-Mar-95	0.01	0.07	0.4	<0.5	<0.005	<0.005	<0.005	<0.01	<0.100	NA	<0.005	<0.005	<0.005	NA	<0.005
	10-May-95	0.029	<0.05	0.3	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
	09-Aug-95	0.01	<0.05	0.2	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
	17-Nov-95	0.011	0.1	0.2	NA	0.002	0.003	0.0009	0.004	NA	NA	NA	NA	NA	NA	NA
	10-Jan-96	0.031	0.05	0.1	NA	<0.0005	<0.0005	<0.0005	<0.002	<0.100	<0.100	<0.005	<0.005	<0.005	<0.050	<0.005
RP-3	28-Jul-94	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	08-Sep-94	0.004	0.1	0.7	0.2	<0.005	<0.0005	<0.005	<0.002	<0.100	<0.100	<0.005	<0.0005	<0.0005	<0.050	<0.0005
	28-Feb-95	0.004	0.2	1.2	NA	<0.0005	0.0007	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
(5)	29-Mar-95	0.004	0.3	1.9	0.6	<0.005	<0.005	<0.005	<0.01	<0.100	NA	<0.005	<0.005	<0.005	NA	<0.005
	10-May-95	0.013	0.1	1.7	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
	09-Aug-95	0.003	0.2	1.2	NA	<0.0005	0.0009	<0.0005	0.0094	NA	NA	NA	NA	NA	NA	NA
	17-Nov-95	0.006	0.1	1.1	NA	<0.0005	0.001	<0.0005	0.005	NA	NA	NA	NA	NA	NA	NA
	10-Jan-96	0.014	0.1	0.56	NA	<0.0005	0.0006	<0.0005	0.003	<0.100	NA	<0.005	<0.005	<0.005	NA	<0.005
RP-4	28-Jul-94	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	08-Sep-94	0.009	0.1	0.2	0.2	<0.005	<0.0005	<0.005	<0.002	<0.100	<0.100	0.001	0.007	0.004	<0.050	0.002
	28-Feb-95	0.007	0.08	0.07	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
dup	28-Feb-95	0.006	0.07	0.07	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
(2)	29-Mar-95	0.008	0.07	0.3	<0.5	<0.005	<0.005	<0.005	<0.01	<0.100	NA	<0.005	<0.005	<0.005	NA	<0.005
	10-May-95	0.013	<0.05	0.2	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
dup	10-May-95	0.011	<0.05	0.2	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
	09-Aug-95	0.007	<0.05	0.2	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
dup	09-Aug-95	0.007	<0.05	0.2	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
	17-Nov-95	0.011	<0.05	0.1	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA

Table 2
Chemicals Detected in Ground-Water Samples
Rifkin Property, Emeryville, California
Concentrations expressed in parts per million (ppm)

Sample ID		Sample Date	As	TPHg	TPHd	TPHo	Benzene	Toluene	Ethyl-benzene	Xylenes	Acetone	MEK	1,2-DCA	cis-1,2-DCE	trans-1,2-DCE	MIBK	TCE
RP-4	dup	17-Nov-95	0.011	<0.05	0.3	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
(contin.)		09-Jan-96	0.004	0.05	0.1	NA	<0.0005	<0.0005	0.0005	<0.002	<0.100	<0.100	<0.005	0.006	<0.005	<0.050	<0.005
RP-5		28-Jul-94	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
		08-Sep-94	0.003	0.09	0.6	2	<0.005	<0.0005	<0.005	<0.002	<0.100	<0.100	0.0008	0.0005	<0.0005	<0.050	<0.005
		28-Feb-95	0.007	0.06	0.2	NA	<0.0005	0.0009	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
	(1)	29-Mar-95	0.006	<0.05	0.8	<0.5	<0.005	<0.005	<0.005	<0.01	<0.100	NA	<0.005	<0.005	<0.005	NA	<0.005
		10-May-95	0.018	<0.05	1.1	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
		09-Aug-95	0.003	<0.05	0.69	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
		17-Nov-95	0.008	<0.05	0.5	NA	<0.0005	<0.0005	<0.0005	<0.010	NA	NA	NA	NA	NA	NA	NA
		09-Jan-96	0.005	<0.05	0.2	NA	<0.0005	<0.0005	<0.0005	<0.002	<0.100	<0.100	<0.005	<0.005	<0.005	<0.050	<0.005
	dup	09-Jan-96	0.004	<0.05	0.2	NA	<0.0005	<0.0005	<0.0005	<0.002	<0.100	<0.100	<0.005	<0.005	<0.005	<0.050	<0.005
MW-1	(6,7)	09-Jan-96	0.022	1.3	4	NA	0.053	0.003	0.002	0.006	<0.100	<0.100	0.052	0.012	<0.005	<0.050	<0.005
MW-2	(8)	09-Jan-96	0.016	0.9	2.5	NA	0.039	0.001	0.0009	0.002	<0.100	<0.100	0.007	0.023	0.008	<0.050	<0.005
MW-3		09-Jan-96	0.015	0.2	0.3	NA	<0.005	<0.005	<0.005	<0.002	<0.100	<0.100	0.01	0.037	0.029	<0.050	0.006
MW-4		10-Jan-96	15	0.7	6.3	NA	0.002	0.027	0.002	0.012	<0.100	<0.100	<0.005	<0.005	<0.005	<0.050	<0.005
MW-5		10-Jan-96	79	160	5.4	NA	0.95	100	3	15	130	<100	<5	<5	<5	<50	<5
Blanks																	
RP-3-FB		28-Feb-95	<0.002	<0.05	<0.05	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
RP-3-FB		10-May-95	<0.002	<0.05	<0.05	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
RP-3-FB		09-Aug-95	<0.002	<0.05	<0.05	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
RP-3-FB		17-Nov-95	<0.002	<0.05	<0.05	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
Trip Blank		17-Nov-95	NA	<0.05	NA	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
RP-5-FB		09-Jan-96	<0.002	<0.05	NA	NA	<0.0005	<0.0005	<0.0005	<0.002	<0.100	<0.100	<0.005	<0.005	<0.005	<0.050	<0.005
MCLS		-------	0.050	-------	-------	-------	0.005	1.000	0.700	10	-------	-------	0.0005	0.070	0.100	-------	0.005

Data entered by PCA 11-April-96. Data proofed by IDC. QA/QC by mbl

Notes

Table 2
Chemicals Detected in Ground-Water Samples
Rifkin Property, Emeryville, California
Concentrations expressed in parts per million (ppm)

Sample ID	Sample Date	As	TPHg	TPHd	TPHo	Benzene	Toluene	Ethyl-benzene	Xylenes	Acetone	MEK	1,2-DCA	cis-1,2-DCE	trans-1,2-DCE	MIBK	TCE

Analyses performed by American Environmental Network, Pleasant Hill, California by method cited in report.
If analyte is not listed, it was not present above laboratory detection limits.
NA = not analyzed
ND = not detected
As = arsenic
MEK = methyl ethyl ketone (2-Butanone)
MIBK = methyl isobutyl ketone (4-Methyl-2-pentanone)
TPHd = total petroleum hydrocarbons as diesel
TPHg = total petroleum hydrocarbons as gasoline
TPHo = total petroleum hydrocarbons as oil and grease
1,2-DCA = 1,2-dichloroethane
cis-1,2-DCE = cis-1,2-Dichloroethene
trans-1,2-DCE = trans-1,2-Dichloroethene
TCE = trichloroethene
(1) Barium detected at 0.04 mg/L, Zinc detected at 0.03 mg/L.
(2) Barium detected at 0.06 mg/L, Lead detected at 0.15 mg/L, Zinc detected at 0.16 mg/L.
(3) Carbon Disulfide detected at 0.015 mg/L, Barium detected at 0.08 mg/L, Zinc detected at 0.03 mg/L.
(4) Barium detected at 0.04 mg/L, Zinc detected at 0.01 mg/L.
(5) Barium detected at 0.18 mg/L, Vanadium 0.015 mg/L, Zinc detected at 0.01 mg/L.
(6) 1,2-Dichloropropane at 0.13 ppm.
(7) Vinyl chloride detected at 0.015 ppm.
(8) 1,2-Dichloropropane detected at 0.020 ppm.

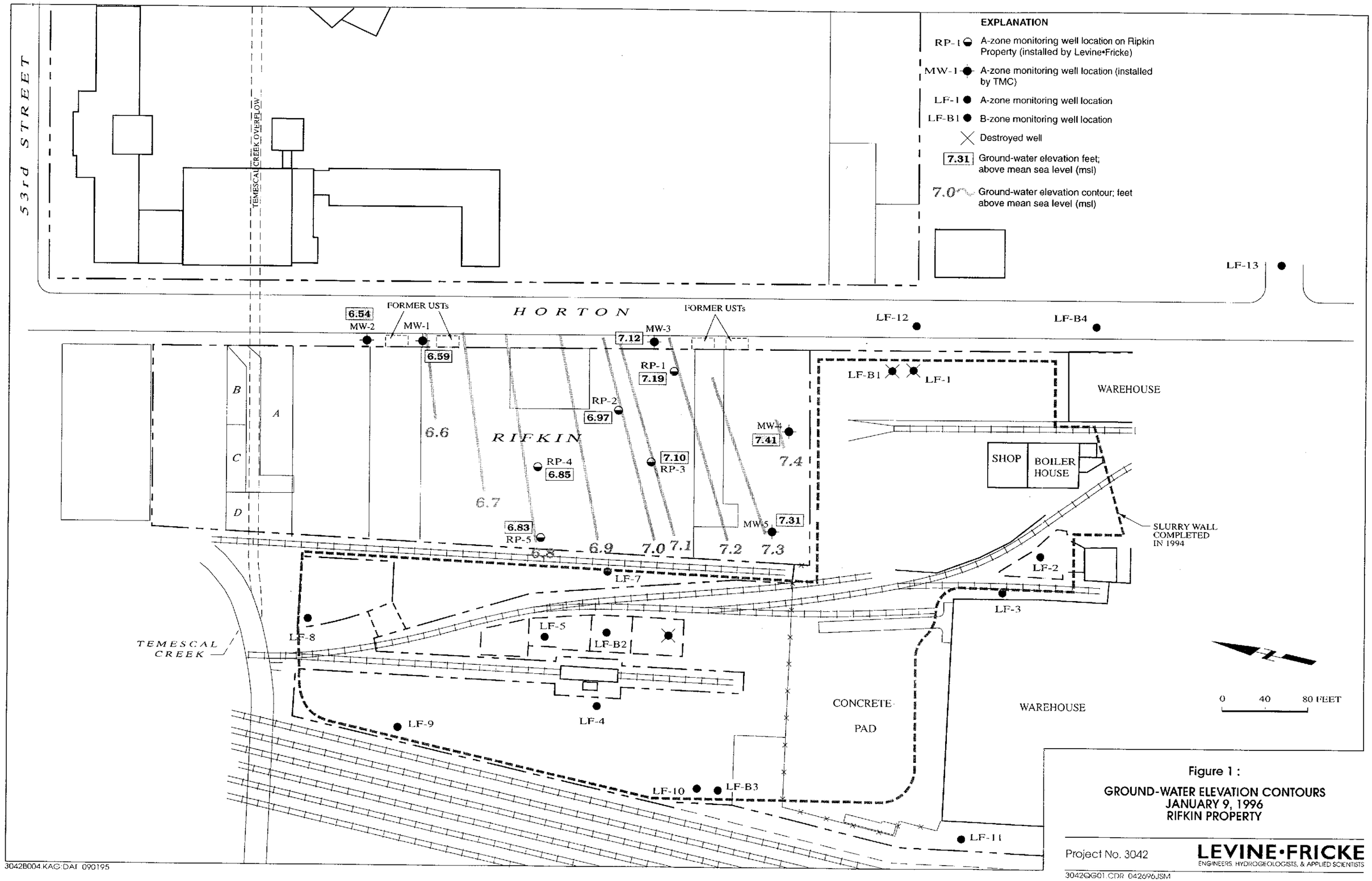

Figure 1 :

GROUND-WATER ELEVATION CONTOURS
JANUARY 9, 1996
RIFKIN PROPERTY

Project No. 3042

LEVINE•FRICKE
ENGINEERS, HYDROGEOLOGISTS, & APPLIED SCIENTISTS

3042QG01.CDR 042696JSM

3042B004.KAG:DAT 090195

3042GC01.CDR 042996RYL:EBK

53rd STREET

TEMESCAL CREEK OVERFLOW

HORTON

FORMER USTs

MW-2 0.016

MW-1 0.022

0.015 MW-3

FORMER USTs

LF-12

LF-B4

LF-13

RP-1 0.061

RP-2 0.031

MW-4 15

LF-B1

LF-1

WAREHOUSE

B

A

C

D

RIFKIN

RP-4 0.004

RP-3 0.014

SHOP

BOILER HOUSE

0.005/0.004 RP-5

MW-5 79

SLURRY WALL COMPLETED IN 1994

LF-7

LF-3

LF-8

LF-5

LF-B2

TEMESCAL CREEK

CONCRETE PAD

WAREHOUSE

LF-4

LF-9

LF-10

LF-B3

LF-11

0 40 80 FEET

EXPLANATION

RP-1 A-zone monitoring well location on Rifkin Property (installed by Levine•Fricke)

MW-1 A-zone monitoring well location (installed by TMC)

LF-1 A-zone monitoring well location

LF-B1 B-zone monitoring well location

Destroyed well

0.011/0.011 Arsenic detected in shallow ground water (milligrams per liter)

Duplicate sample

Primary sample

3042B004.CDR 040596DAT

Figure 2 :

CONCENTRATION OF ARSENIC IN SHALLOW GROUND WATER, JANUARY 9-10, 1996 RIFKIN PROPERTY

Project No. 3042

LEVINE•FRICKE

ENGINEERS, HYDROGEOLOGISTS, & APPLIED SCIENTISTS

APPENDIX A

WATER LEVEL AND SAMPLING FIELD FORMS

WATER-LEVEL MEASUREMENTS

Project Name: Rifle Project No.: 3042.02

Field Personnel: JPS Date: 1/1/16

General Observations:

WELL NO.	WELL ELEVATION	DEPTH TO WATER MEASUREMENTS 1	DEPTH TO WATER MEASUREMENTS 2	WATER ELEVATION	TIME	REMARKS (UNITS = FEET)
MW-1		7.19			9:14	
MW-2		7.04			9:11	
MW-3		7.48			9:03	
MW-4		8.12			9:49	
MW-5		7.93			9:52	
RP-1		7.95			9:44	
RP-2		8.27			9:39	
RP-3		8.07			9:35	
RP-4		8.28			9:30	
RP-5		8.21			9:24	
LF-12		6.75			8:59	

waterlevelmsr27oct89

LEVINE•FRICKE
CONSULTING ENGINEERS AND HYDROGEOLOGISTS

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3042.02
Project Name: Rifkin
Sample Location: Emeryville, CA.
Samplers Name: JDS
Sampling Plan Prepared By: KAG
Sampling Method:

Date: 1/10/96
Sample No.: RP-1
☐ FB:
☐ DUP:

☐ Centrifugal Pump ☑ Disposable Bailer
☐ Submersible Pump ☐ Teflon Bailer
☑ Hand Bail ☐ _____ (Other)

Analyses Requested	Number and Types of Bottle used
TPHg & BTEX; 8240	6 VOA/HCl
TPH d	2 amber l/HCl
Diss. Arsenic	1 250ml plas.

3.13

Method of Shipment
AEN (Lab Name)
☑ Courier _____
☐ Hand Deliver:

Well Number: RP-1
Depth of Water: 7.95
Well Depth: 11.86
Height of Water Column: 3.91
Volume in Well: 0.62 ~1gal

Well Diameter:
☑ 2" (0.16 Gallon/Feet)
☐ 4" (0.65 Gallon/Feet
☐ 5" (1.02 Gallon/Feet)
☐ 6" (1.47 Gallon/Feet)

80% DTW 8.73

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
11:02								begin hand bail
11:05		1		17.4	6.08	1167		sl. turbid, odor
11:09		2		17.6	6.13	1014		sl. turbid, odor
11:13		3		17.7	6.20	985		sl. turbid, odor
11:30	11.92							sampled

Inlet Depth: _____

Comments: _____
(Recommended Method For Purging Well)

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3042.02
Project Name: Rifkin
Sample Location: Emeryville, CA.
Samplers Name: JPS
Sampling Plan Prepared By: KAG
Sampling Method:

Date: 1/10/96
Sample No.: RP-2
☐ FB:
☐ DUP:

☐ Centrifugal Pump
☐ Submersible Pump
☑ Hand Bail
☑ Disposable Bailer
☐ Teflon Bailer
☐ _____ (Other)

Analyses Requested	Number and Types of Bottle used
TPHg + BTEX; 8240	6 VOA/HCl
TPHd	2 amber l/HCl
Diss. Arsenic	1 250 ml plas

4.93

Method of Shipment
AEN (Lab Name)
☑ Courier
☐ Hand Deliver:

Well Number: RP-2
Depth of Water: 8.27
Well Depth: 14.43
Height of Water Column: 6.16
Volume in Well: 0.98 ~ 1 gal

Well Diameter:
☑ 2" (0.16 Gallon/Feet)
☐ 4" (0.65 Gallon/Feet
☐ 5" (1.02 Gallon/Feet)
☐ 6" (1.47 Gallon/Feet)

80% DTW 9.50

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
11:56								begin hand bail
11:59		1		17.7	6.27	1349		turbid, odor
12:02		2		17.9	6.27	1363		turbid, odor
12:06		3		18.0	6.29	1377		turbid, odor
12:20	8.28							sampled

Inlet Depth:

Comments:
(Recommended Method For Purging Well)

WTR QTY SMPLNG INFO.22JUL94.RYL

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3042.02
Project Name: Rifkin
Sample Location: Emeryville, CA.
Samplers Name: JPS
Sampling Plan Prepared By: KAG
Sampling Method:

Date: 1/10/96
Sample No.: RP-3
☐ FB:
☐ DUP:

☐ Centrifugal Pump
☐ Submersible Pump
☑ Hand Bail
☑ Disposable Bailer
☐ Teflon Bailer
☐ _____ (Other)

Analyses Requested	Number and Types of Bottle used
TPHg + BTEX; 8240	6 VOA/HCl
TPHd	2 amber L/HCl
Diss. Arsenic	1 250ml plas.

3.77

Method of Shipment: AEN (Lab Name)
☑ Courier _____
☐ Hand Deliver:

Well Number: RP-3
Depth of Water: 8.07
Well Depth: 12.78
Height of Water Column: 4.71
Volume in Well: 0.75 ~ 1 gal

Well Diameter:
☑ 2" (0.16 Gallon/Feet)
☐ 4" (0.65 Gallon/Feet
☐ 5" (1.02 Gallon/Feet)
☐ 6" (1.47 Gallon/Feet)

80% DTW 9.01

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
12:38				17.2				start hand bail
12:41		1	[illegible]	[illegible]	6.21	3.16		turbid, odor
12:44		2		17.4	6.20	3.27		turbid, odor
12:49		3		17.6	6.20	3.32		turbid, odor
13:05	8.08							Sampled

Inlet Depth: _____

Comments: _____
(Recommended Method For Purging Well)

WTR QTY SMPLNG.INFO 2/2/96 RYL

Page ____ of ____

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3042.02

Date: 1/9/96

Project Name: Rifkin

Sample No.: RP-4

Sample Location: Emeryville, CA.

☐ FB:

Samplers Name: JPS

☐ DUP:

Sampling Plan Prepared By: KAG

Sampling Method:

☐ Centrifugal Pump ☑ Disposable Bailer

☐ Submersible Pump ☐ Teflon Bailer

☑ Hand Bail ☐ ________ (Other)

Analyses Requested	Number and Types of Bottle used
TPHg+BTEX; 8240	6 VOA's/HCl
TPHd	2 amber l/HCl
Diss. Arsenic	1 250ml plas.

6.3

Method of Shipment

AEN (Lab Name)

☑ Courier

☐ Hand Deliver:

Well Number: RP-4

Depth of Water: 8.28

Well Depth: 16.15

Height of Water Column: 7.87

Volume in Well: 1.25 ~1.5 gal

Well Diameter:

☑ 2" (0.16 Gallon/Feet)

☐ 4" (0.65 Gallon/Feet

☐ 5" (1.02 Gallon/Feet)

☐ 6" (1.47 Gallon/Feet)

80% DTW 9.85

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
15:15								begin hand bail
15:19		1.5		17.6	6.34	1064		turbid
15:23		3		17.9	6.35	1067		turbid
15:28		4.5		18.0	6.39	1064		turbid
15:40	8.30							sampled

Inlet Depth:

Comments:
(Recommended Method For Purging Well)

WTR QLTY SMPLNG INFO 7/JUL 94/RYL

WATER-QUALITY SAMPLING INFORMATION

Project No.: 304202
Project Name: Rafkin
Sample Location: Emeryville, CA
Samplers Name: JPS
Sampling Plan Prepared By: KAG
Sampling Method:

Date: 1/9/96
Sample No.: RP-5
☑ FB: ~~RP-5~~ RP-5-FB
☑ DUP: RP-105

☐ Centrifugal Pump
☐ Submersible Pump
☑ Hand Bail
☑ Disposable Bailer
☐ Teflon Bailer
☐ _____ (Other)

Analyses Requested	Number and Types of Bottle used
TPHg + BTEX; 8240	18 VOA/HCl
TPHd	4 amber l/HCl
Diss. Arsenic	3 250 ml plus

Method of Shipment: AEN (Lab Name)
☑ Courier _____
☐ Hand Deliver:

6.14

Well Number: RP-5
Depth of Water: 8.21
Well Depth: 15.88
Height of Water Column: 7.67
Volume in Well: 1.22 ~1.5 gal

Well Diameter:
☑ 2" (0.16 Gallon/Feet)
☐ 4" (0.65 Gallon/Feet
☐ 5" (1.02 Gallon/Feet)
☐ 6" (1.47 Gallon/Feet)

80% DTW 9.74

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
~~1800~~								
14:00								Field blank
14:10								begin hand bail
14:15		1.5		18.0	6.37	910		turbid
14:19		3		18.0	6.34	910		turbid
14:24		4.5		17.9	6.38	903		Turbid
14:50	8.26							sampled
15:50								duplicate

Inlet Depth: _____

Comments: _____
(Recommended Method For Purging Well)

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3042.02
Date: 1/9/96
Project Name: Rifkin
Sample No.: MW-1
Sample Location: Emeryville, CA.
☐ FB:
Samplers Name: JPS
☐ DUP:
Sampling Plan Prepared By: KAG
Sampling Method:

☐ Centrifugal Pump ☑ Disposable Bailer
☐ Submersible Pump ☐ Teflon Bailer
☑ Hand Bail ☐ _____ (Other)

Analyses Requested	Number and Types of Bottle used
PHg + BTEX; 8240	6 VoA/HCl
TPHd	2 amber l/HCl
Diss Arsenic	1 250 ml plas

7.21

Method of Shipment
AEN (Lab Name)
☑ Courier
☐ Hand Deliver:

Well Number: MW-1
Depth of Water: 7.19
Well Depth: 16.20
Height of Water Column: 9.01
Volume in Well: 1.44 ~ 1.5 gal

Well Diameter:
☑ 2" (0.16 Gallon/Feet)
☐ 4" (0.65 Gallon/Feet
☐ 5" (1.02 Gallon/Feet)
☐ 6" (1.47 Gallon/Feet)

80% DTW 8.99

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
1133								begin hand bail
1136		1.5		18.1	5.98	1397		turbid, odor, sheen
1139		3		18.1	6.01	1341		turbid, odor, sheen
1146		4.5		18.0	6.07	1278		turbid, odor, sheen
1210	7.29							Sampled

Well Depth:
Comments:
(Recommended Method For Purging Well)

WTR.QLTY.SMPLNG.INFO.22JUL94RYL

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3042.02
Project Name: Rifkin
Sample Location: Emeryville, CA.
Samplers Name: JPS
Sampling Plan Prepared By: KAG
Sampling Method:

Date: 1/9/26
Sample No.: MW-2
☐ FB:
☐ DUP:

☐ Centrifugal Pump
☐ Submersible Pump
☑ Hand Bail
☑ Disposable Bailer
☐ Teflon Bailer
☐ _____ (Other)

6.77

Analyses Requested	Number and Types of Bottle used
TPHg+BTEX; 8260	6 VOAs/HCl
TPHd	2 amber L/HCl
Diss. Arsenic	1 250 ml plas.

Method of Shipment: AEN (Lab Name)
☑ Courier
☐ Hand Deliver:

Well Number: MW-2
Depth of Water: 7.04
Well Depth: 15.50
Height of Water Column: 8.46
Volume in Well: 1.35 ~1.5 gal

Well Diameter:
☑ 2" (0.16 Gallon/Feet)
☐ 4" (0.65 Gallon/Feet
☐ 5" (1.02 Gallon/Feet)
☐ 6" (1.47 Gallon/Feet)

80% DTW 8.73

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
2:33								begin hand bail
12:37		1.5		17.8	6.49	1159		turbid, odor
2:45		3		17.8	6.40	1137		turbid, odor
12:51		4.5		17.8	6.32	1233		turbid, odor
3:10	7.50							sampled

Inlet Depth:

Comments:
(Recommended Method For Purging Well)

WTR.QLTY.SMPLNG.INFO.22JUL94RYL

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3042.02 Date: 1/9/95

Project Name: Rifkin Sample No.: MW-3

Sample Location: Emeryville, CA. ☐ FB: ____

Samplers Name: JPS ☐ DUP: ____

Sampling Plan Prepared By: KAG

Sampling Method: ____

☐ Centrifugal Pump ☑ Disposable Bailer

☐ Submersible Pump ☐ Teflon Bailer

☑ Hand Bail ☐ ____ (Other)

Analyses Requested	Number and Types of Bottle used
TPHg + BTEX; 8240	6 voa / HCl
TPHd	2 amber L / HCl
Diss As	1 250 ml plas.

9.10

Method of Shipment: AEN (Lab Name) ☑ Courier ____ ☐ Hand Deliver:

Well Number: MW-3

Depth of Water: 7.48

Well Depth: 18.86

Height of Water Column: 11.38

Volume in Well: 1.8 ~2 gal

Well Diameter:

☑ 2" (0.16 Gallon/Feet)

☐ 4" (0.65 Gallon/Feet

☐ 5" (1.02 Gallon/Feet)

☐ 6" (1.47 Gallon/Feet)

80% DTW 9.76

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
10:29								start 6 gal
10:33		2		17.3	6.55	675		sl. turbid, sl. odor
10:36		4		17.4	6.53	663		sl. turbid, sl. odor.
10:39		6		17.4	6.56	652		sl. turbid, sl. odor
11:00	7.53							sampled

Inlet Depth: ____

Comments: ____

(Recommended Method For Purging Well)

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3042.02
Date: 1/10/96
Project Name: Rifkin
Sample No.: MW-4
Sample Location: Emeryville, CA.
☐ FB:
Samplers Name: JPS
☐ DUP:
Sampling Plan Prepared By: KAG
Sampling Method:

8.22

☐ Centrifugal Pump ☑ Disposable Bailer
☐ Submersible Pump ☐ Teflon Bailer
☑ Hand Bail ☐ _____ (Other)

6.55

Analyses Requested	Number and Types of Bottle used
PHg + BTEX; 8240	6 VOA's / HCl
TPH1	2 amber l / HCl
Diss. Arsenic	1 250 ml plas.

Method of Shipment
AEN (Lab Name)
☑ Courier
☐ Hand Deliver:

Well Number: MW-4
Depth of Water: 8.12
Well Depth: 16.06
Height of Water Column: 7.94
Volume in Well: 1.27 ≈ 1.5 gal

Well Diameter:
☑ 2" (0.16 Gallon/Feet)
☐ 4" (0.65 Gallon/Feet
☐ 5" (1.02 Gallon/Feet)
☐ 6" (1.47 Gallon/Feet)

80% DTW 9.71

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
:57								begin hand bail
10:01		1.5		18.1	3.94	7.11		turbid, odor
:06		3		18.6	3.99	7.27		turbid, odor
10:11		4.5		18.4	4.04	7.63		turbid, odor
:30	8.14							sampled

Inlet Depth:
Comments:
(Recommended Method For Purging Well)

WTR.QLTY.SMPLNG.INFO.22JUL94AYL

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3042.02
Date: 1/10/96
Project Name: Rifkin
Sample No.: MW-5
Sample Location: Emeryville, CA.
☐ FB:
Samplers Name: JPS
☐ DUP:
Sampling Plan Prepared By: KAG
Sampling Method:

7.97

☐ Centrifugal Pump ☑ Disposable Bailer
☐ Submersible Pump ☐ Teflon Bailer
☑ Hand Bail ☐ _____ (Other)

Analyses Requested	Number and Types of Bottle used
PHg+BTEX; 8240	6 VOA/HCl
TPHd	2 amber L/HCl
Diss. Arsenic	1 250 ml plas.

6.93

Method of Shipment
AEN (Lab Name)
☑ Courier
☐ Hand Deliver:

Well Number: MW-5
Depth of Water: 7.93
Well Depth: 16.34
Height of Water Column: 8.41
Volume in Well: 1.34 ~1.5 gal

Well Diameter:
☑ 2" (0.16 Gallon/Feet)
☐ 4" (0.65 Gallon/Feet
☐ 5" (1.02 Gallon/Feet)
☐ 6" (1.47 Gallon/Feet)

80% DTW 9.61

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
9:01								Begin hand bail
9:05		1.5		17.2	4.70	3.11		turbid, odor, sl. sheen
9:09		3		17.3	4.62	3.61		turbid, odor, sl. sheen
9:15		4.5		17.3	4.63	3.61		turbid, odor, sl. sheen
9:30	7.96							sampled

Inlet Depth:
Comments:
(Recommended Method For Purging Well)

WTR.QLTY.SMPLNG.INFO.22JUL94RYL

APPENDIX B

LABORATORY CERTIFICATES

American Environmental Network

Certificate of Analysis

DOHS Certification: 1172 AIHA Accreditation: 11134

LEVINE-FRICKE
1900 POWELL ST. 12TH FL.
EMERYVILLE, CA 94608

ATTN: KENTON GEE
CLIENT PROJ. ID: 3042.02
CLIENT PROJ. NAME: RIFKIN
C.O.C. NUMBER: 19218

REPORT DATE: 01/15/96
DATE(S) SAMPLED: 01/09/96
DATE RECEIVED: 01/09/96
AEN WORK ORDER: 9601090

PROJECT SUMMARY:

On January 9, 1996, this laboratory received 7 water sample(s).

Client requested sample(s) be analyzed for inorganic parameters. Results of analysis are summarized on the following page(s). Please see quality control report for a summary of QC data pertaining to this project.

Samples will be stored for 30 days after completion of analysis, then disposed of in accordance with State and Federal regulations. Samples may be archived by prior arrangement.

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

Cheryl (Mc)Mullen for
Larry Klein
Laboratory Director

LEVINE-FRICKE

SAMPLE ID: MW-2
AEN LAB NO: 9601090-03
AEN WORK ORDER: 9601090
CLIENT PROJ. ID: 3042.02

DATE SAMPLED: 01/09/96
DATE RECEIVED: 01/09/96
REPORT DATE: 01/15/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	01/10/96
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	01/10/96
Arsenic	EPA 7060	0.016 *	0.002	mg/L	01/11/96

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

LEVINE-FRICKE

SAMPLE ID: RP-5-FB
AEN LAB NO: 9601090-04
AEN WORK ORDER: 9601090
CLIENT PROJ. ID: 3042.02

DATE SAMPLED: 01/09/96
DATE RECEIVED: 01/09/96
REPORT DATE: 01/15/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	01/10/96
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	01/10/96
Arsenic	EPA 7060	ND	0.002	mg/L	01/11/96

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

LEVINE-FRICKE

SAMPLE ID: RP-5
AEN LAB NO: 9601090-05
AEN WORK ORDER: 9601090
CLIENT PROJ. ID: 3042.02

DATE SAMPLED: 01/09/96
DATE RECEIVED: 01/09/96
REPORT DATE: 01/15/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	01/10/96
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	01/10/96
Arsenic	EPA 7060	0.005 *	0.002	mg/L	01/11/96

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

LEVINE-FRICKE

SAMPLE ID: RP-105
AEN LAB NO: 9601090-06
AEN WORK ORDER: 9601090
CLIENT PROJ. ID: 3042.02

DATE SAMPLED: 01/09/96
DATE RECEIVED: 01/09/96
REPORT DATE: 01/15/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	01/10/96
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	01/10/96
Arsenic	EPA 7060	0.004 *	0.002	mg/L	01/11/96

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

LEVINE-FRICKE

SAMPLE ID: RP-4
AEN LAB NO: 9601090-07
AEN WORK ORDER: 9601090
CLIENT PROJ. ID: 3042.02

DATE SAMPLED: 01/09/96
DATE RECEIVED: 01/09/96
REPORT DATE: 01/15/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	01/10/96
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	01/10/96
Arsenic	EPA 7060	0.004 *	0.002	mg/L	01/11/96

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

AEN (CALIFORNIA)
QUALITY CONTROL REPORT

AEN JOB NUMBER: 9601090
CLIENT PROJECT ID: 3042.02

Quality Control and Project Summary

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

Definitions

Laboratory Control Sample (LCS)/Method Spikes(s): Control samples of known composition. LCS and Method Spike data are used to validate batch analytical results.

Matrix Spike(s): Aliquot of a sample (aqueous or solid) with added quantities of specific compounds and subjected to the entire analytical procedure. Matrix spike and matrix spike duplicate QC data are advisory.

Method Blank: An analytical control consisting of all reagents, internal standards, and surrogate standards carried through the entire analytical process. Used to monitor laboratory background and reagent contamination.

Not Detected (ND): Not detected at or above the reporting limit.

Relative Percent Difference (RPD): An indication of method precision based on duplicate analyses.

Reporting Limit (RL): The lowest concentration routinely determined during laboratory operations. The RL is generally 1 to 10 times the Method Detection Limit (MDL). Reporting limits are matrix, method, and analyte dependent and take into account any dilutions performed as part of the analysis.

Surrogates: Organic compounds which are similar to analytes of interest in chemical behaviour, but are not found in environmental samples. Surrogates are added to all blanks, calibration and check standards, samples, and spiked samples. Surrogate recovery is monitored as an indication of acceptable sample preparation and instrument performance.

D: Surrogates diluted out.

!: Indicates result outside of established laboratory QC limits.

ANALYSIS: Arsenic

MATRIX: Water

METHOD BLANK SAMPLES

SAMPLE TYPE: Blank-Method/Media blank
INSTRUMENT: TJA 4000, GFAA
UNITS: mg/L
METHOD:

LAB ID: GFW_BLNK_T
PREPARED:
ANALYZED: 01/11/96

INSTR RUN: 4000\960111111600/1/
BATCH ID: GFW011096-T
DILUTION: 1.000000

ANALYTE	RESULT	REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Arsenic in water by GFAA	ND		0.002						

METHOD SPIKE SAMPLES

SAMPLE TYPE: Spike-Method/Media blank
INSTRUMENT: TJA 4000, GFAA
UNITS: mg/L
METHOD:

LAB ID: GFW_MD_T
PREPARED:
ANALYZED: 01/11/96

INSTR RUN: 4000\960111111600/3/1
BATCH ID: GFW011096-T
DILUTION: 1.000000

ANALYTE	RESULT	REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Arsenic in water by GFAA	0.0403	ND	0.002	0.0400	101	69	136		

SAMPLE TYPE: Spike-Method/Media blank
INSTRUMENT: TJA 4000, GFAA
UNITS: mg/L
METHOD:

LAB ID: GFW_MS_T
PREPARED:
ANALYZED: 01/11/96

INSTR RUN: 4000\960111111600/2/1
BATCH ID: GFW011096-T
DILUTION: 1.000000

ANALYTE	RESULT	REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Arsenic in water by GFAA	0.0378	ND	0.002	0.0400	94.5	69	136		

METHOD SPIKE DUPLICATES

SAMPLE TYPE: Method Spike Sample Duplicate
INSTRUMENT: TJA 4000, GFAA
UNITS: mg/L
METHOD:

LAB ID: GFW_MR_T
PREPARED:
ANALYZED: 01/11/96

INSTR RUN: 4000\960111111600/4/2
BATCH ID: GFW011096-T
DILUTION: 1.000000

ANALYTE	RESULT	REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Arsenic in water by GFAA	0.0403	0.0378	0.002					6.40	12.5

---------- End of Quality Control Report ----------

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

9601089

Project No.: 3042.02	Field Logbook No.:	Date: 1/9/96
Project Name: Rifkin	Project Location: Emeryville, CA	Serial No.: Nº 19218
Sampler (Signature):		Samplers: JPS

SAMPLES						ANALYSES							
SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CONTAINERS	SAMPLE TYPE	TPH g	BTEX	TPH d	8240	Diss. Arsenic	HOLD	RUSH	REMARKS
MW-3	1/9	11:00	01A	9	WATER	X	X	X	X	X			24 Hr TAT on Dissolved Arsenic ONLY
MW-1		12:10	02A	↓		↓	↓	↓	↓	↓			
MW-2		13:10	03A	↓									Normal TAT on other analyses
RP-5-FB		14:00	04A	7									
RP-5		14:50	05A	9				X					
RP-105		15:50	06A	↓				↓					
RP-4		15:40	07A	↓				↓					

all other samples on 9601089

Results to Fenton GEE

RELINQUISHED BY: (Signature)	DATE 1/9/96	TIME 16:16	RECEIVED BY: (Signature)	DATE 1.9.96	TIME 16:25
RELINQUISHED BY: (Signature)	DATE 1-9-96	TIME 17:20	RECEIVED BY: (Signature)	DATE 1/9/96	TIME 1720
RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME
METHOD OF SHIPMENT:	DATE	TIME	LAB COMMENTS:		

Sample Collector:

LEVINE-FRICKE
1900 Powell Street, 12th Floor
Emeryville, California 94608
(510) 652-4500

Analytical Laboratory: AEN

Shipping Copy (White) Lab Copy (Green) File Copy (Yellow) Field Copy (Pink)

FORM NO. 86/COC/ARF

American Environmental Network

Certificate of Analysis

DOHS Certification: 1172 AIHA Accreditation: 11134

LEVINE-FRICKE
1900 POWELL ST. 12TH FL.
EMERYVILLE, CA 94608

ATTN: KENTON GEE
CLIENT PROJ. ID: 3042.02
CLIENT PROJ. NAME: RIFKIN
C.O.C. NUMBER: 19219

REPORT DATE: 01/12/96
DATE(S) SAMPLED: 01/10/96
DATE RECEIVED: 01/10/96
AEN WORK ORDER: 9601106

PROJECT SUMMARY:

On January 10, 1996, this laboratory received 5 water sample(s).

Client requested sample(s) be analyzed for inorganic parameters. Results of analysis are summarized on the following page(s). Please see quality control report for a summary of QC data pertaining to this project.

Samples will be stored for 30 days after completion of analysis, then disposed of in accordance with State and Federal regulations. Samples may be archived by prior arrangement.

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

Larry Klein
Laboratory Director

LEVINE-FRICKE

SAMPLE ID: MW-5
AEN LAB NO: 9601106-01
AEN WORK ORDER: 9601106
CLIENT PROJ. ID: 3042.02

DATE SAMPLED: 01/10/96
DATE RECEIVED: 01/10/96
REPORT DATE: 01/12/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	01/10/96
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	01/10/96
Arsenic	EPA 7060	79 *	0.002	mg/L	01/11/96

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

LEVINE-FRICKE

SAMPLE ID: MW-4
AEN LAB NO: 9601106-02
AEN WORK ORDER: 9601106
CLIENT PROJ. ID: 3042.02

DATE SAMPLED: 01/10/96
DATE RECEIVED: 01/10/96
REPORT DATE: 01/12/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	01/10/96
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	01/10/96
Arsenic	EPA 7060	15 *	0.002	mg/L	01/11/96

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

LEVINE-FRICKE

SAMPLE ID: RP-1
AEN LAB NO: 9601106-03
AEN WORK ORDER: 9601106
CLIENT PROJ. ID: 3042.02

DATE SAMPLED: 01/10/96
DATE RECEIVED: 01/10/96
REPORT DATE: 01/12/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	01/10/96
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	01/10/96
Arsenic	EPA 7060	0.061 *	0.002	mg/L	01/11/96

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

LEVINE-FRICKE

SAMPLE ID: RP-2
AEN LAB NO: 9601106-04
AEN WORK ORDER: 9601106
CLIENT PROJ. ID: 3042.02

DATE SAMPLED: 01/10/96
DATE RECEIVED: 01/10/96
REPORT DATE: 01/12/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	01/10/96
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	01/10/96
Arsenic	EPA 7060	0.031 *	0.002	mg/L	01/11/96

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

LEVINE-FRICKE

SAMPLE ID: RP-3
AEN LAB NO: 9601106-05
AEN WORK ORDER: 9601106
CLIENT PROJ. ID: 3042.02

DATE SAMPLED: 01/10/96
DATE RECEIVED: 01/10/96
REPORT DATE: 01/12/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	01/10/96
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	01/10/96
Arsenic	EPA 7060	0.014 *	0.002	mg/L	01/11/96

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

AEN (CALIFORNIA)
QUALITY CONTROL REPORT

AEN JOB NUMBER: 9601106
CLIENT PROJECT ID: 3042.02

Quality Control and Project Summary

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

Definitions

Laboratory Control Sample (LCS)/Method Spikes(s): Control samples of known composition. LCS and Method Spike data are used to validate batch analytical results.

Matrix Spike(s): Aliquot of a sample (aqueous or solid) with added quantities of specific compounds and subjected to the entire analytical procedure. Matrix spike and matrix spike duplicate QC data are advisory.

Method Blank: An analytical control consisting of all reagents, internal standards, and surrogate standards carried through the entire analytical process. Used to monitor laboratory background and reagent contamination.

Not Detected (ND): Not detected at or above the reporting limit.

Relative Percent Difference (RPD): An indication of method precision based on duplicate analyses.

Reporting Limit (RL): The lowest concentration routinely determined during laboratory operations. The RL is generally 1 to 10 times the Method Detection Limit (MDL). Reporting limits are matrix, method, and analyte dependent and take into account any dilutions performed as part of the analysis.

Surrogates: Organic compounds which are similar to analytes of interest in chemical behaviour, but are not found in environmental samples. Surrogates are added to all blanks, calibration and check standards, samples, and spiked samples. Surrogate recovery is monitored as an indication of acceptable sample preparation and instrument performance.

D: Surrogates diluted out.

!: Indicates result outside of established laboratory QC limits.

ANALYSIS: Arsenic

MATRIX: Water

METHOD BLANK SAMPLES

SAMPLE TYPE: Blank-Method/Media blank
INSTRUMENT: TJA 4000, GFAA
UNITS: mg/L
METHOD:
LAB ID: GFW_BLNK_T
PREPARED:
ANALYZED: 01/11/96
INSTR RUN: 4000\960111111600/1/
BATCH ID: GFW011096-T
DILUTION: 1.000000

ANALYTE	RESULT	REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Arsenic in water by GFAA	ND		0.002						

METHOD SPIKE SAMPLES

SAMPLE TYPE: Spike-Method/Media blank
INSTRUMENT: TJA 4000, GFAA
UNITS: mg/L
METHOD:
LAB ID: GFW_MS_T
PREPARED:
ANALYZED: 01/11/96
INSTR RUN: 4000\960111111600/2/1
BATCH ID: GFW011096-T
DILUTION: 1.000000

ANALYTE	RESULT	REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Arsenic in water by GFAA	0.0378	ND	0.002	0.0400	94.5	69	136		

SAMPLE TYPE: Spike-Method/Media blank
INSTRUMENT: TJA 4000, GFAA
UNITS: mg/L
METHOD:
LAB ID: GFW_MD_T
PREPARED:
ANALYZED: 01/11/96
INSTR RUN: 4000\960111111600/3/1
BATCH ID: GFW011096-T
DILUTION: 1.000000

ANALYTE	RESULT	REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Arsenic in water by GFAA	0.0403	ND	0.002	0.0400	101	69	136		

METHOD SPIKE DUPLICATES

SAMPLE TYPE: Method Spike Sample Duplicate
INSTRUMENT: TJA 4000, GFAA
UNITS: mg/L
METHOD:
LAB ID: GFW_MR_T
PREPARED:
ANALYZED: 01/11/96
INSTR RUN: 4000\960111111600/4/2
BATCH ID: GFW011096-T
DILUTION: 1.000000

ANALYTE	RESULT	REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Arsenic in water by GFAA	0.0403	0.0378	0.002					6.40	12.5

MATRIX SPIKE SAMPLES

SAMPLE TYPE: Spike-Sample/Matrix
INSTRUMENT: TJA 4000, GFAA
UNITS: mg/L
METHOD:
LAB ID: MS01106-03A
PREPARED:
ANALYZED: 01/11/96
INSTR RUN: 4000\960111111600/12/11
BATCH ID: GFW011096-T
DILUTION: 1.000000

ANALYTE	RESULT	REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Arsenic in water by GFAA	0.0960	0.0614	0.002	0.0400	86.5	41	167		

SAMPLE TYPE: Spike-Sample/Matrix
INSTRUMENT: TJA 4000, GFAA
UNITS: mg/L
METHOD:
LAB ID: MD01106-03A
PREPARED:
ANALYZED: 01/11/96
INSTR RUN: 4000\960111111600/13/11
BATCH ID: GFW011096-T
DILUTION: 1.000000

ANALYTE	RESULT	REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Arsenic in water by GFAA	0.102	0.0614	0.002	0.0400	102	41	167		

WORK ORDER: 9601106

QUALITY CONTROL REPORT

ANALYSIS: Arsenic

MATRIX: Water

MATRIX SPIKE DUPLICATES

SAMPLE TYPE: Spiked Sample Duplicate
INSTRUMENT: TJA 4000, GFAA
UNITS: mg/L
METHOD:

LAB ID: MR01106-03A
PREPARED:
ANALYZED: 01/11/96

INSTR RUN: 4000\960111111600/14/12
BATCH ID: GFW011096-T
DILUTION: 1.000000

ANALYTE	RESULT	REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Arsenic in water by GFAA	0.102	0.0960	0.002					6.06	13

---------- End of Quality Control Report ----------

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

9601104

Project No.: 3042.02	Field Logbook No.:	Date: 1/10/96	Serial No.: № 19219
Project Name: Rifkin	Project Location: Emeryville, CA.		
Sampler (Signature):			Samplers: JPS

SAMPLES						ANALYSES							
SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CONTAINERS	SAMPLE TYPE	TPH g	BTEX	8240	TPH d	Diss. Arsenic		HOLD	RUSH
MW-5	1/10	9:30	01A	9	WATER	X	X	X	X	X			X
MW-4	↓	10:30	02A	↓	↓	↓	↓	↓	↓	↓			↓
RP-1		11:30	03A										
RP-2		12:20	04A										
RP-3	↓	13:05	05A	↓	↓	↓	↓	↓	↓	↓			↓

REMARKS

24 Hr TAT on Dissolved Arsenic ONLY.

Normal TAT on all other Analyses

Results to Kenton Gee

FOR REST OF samples see 9601108

RELINQUISHED BY: (Signature)	DATE 1/10/96	TIME 17:15	RECEIVED BY: (Signature)	DATE 1-10-96	TIME 17:15
RELINQUISHED BY: (Signature)	DATE 1-10-96	TIME 18:10	RECEIVED BY: (Signature)	DATE 1/10/96	TIME 1810
RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME
METHOD OF SHIPMENT:	DATE	TIME	LAB COMMENTS:		

Sample Collector:

LEVINE-FRICKE
1900 Powell Street, 12th Floor
Emeryville, California 94608
(510) 652-4500

Analytical Laboratory: AEN

Shipping Copy (White) Lab Copy (Green) File Copy (Yellow) Field Copy (Pink)

FORM NO. 86/COC/ARF

American Environmental Network

Certificate of Analysis

DOHS Certification: 1172 AIHA Accreditation: 11134

LEVINE-FRICKE
1900 POWELL ST. 12TH FL.
EMERYVILLE, CA 94608

ATTN: KENTON GEE
CLIENT PROJ. ID: 3042.02
CLIENT PROJ. NAME: RIFKIN
C.O.C. NUMBER: 19218

REPORT DATE: 01/22/96
DATE(S) SAMPLED: 01/09/96
DATE RECEIVED: 01/09/96
AEN WORK ORDER: 9601089

PROJECT SUMMARY:

On January 9, 1996, this laboratory received 7 water sample(s).

Client requested sample(s) be analyzed for inorganic and organic parameters. Results of analysis are summarized on the following page(s). Please see quality control report for a summary of QC data pertaining to this project.

Samples will be stored for 30 days after completion of analysis, then disposed of in accordance with State and Federal regulations. Samples may be archived by prior arrangement.

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

Larry Klein
Laboratory Director

LEVINE-FRICKE

SAMPLE ID: MW-3
AEN LAB NO: 9601089-01
AEN WORK ORDER: 9601089
CLIENT PROJ. ID: 3042.02

DATE SAMPLED: 01/09/96
DATE RECEIVED: 01/09/96
REPORT DATE: 01/22/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	**EPA 8020**				
Benzene	71-43-2	ND	0.5	ug/L	01/11/96
Toluene	108-88-3	ND	0.5	ug/L	01/11/96
Ethylbenzene	100-41-4	ND	0.5	ug/L	01/11/96
Xylenes, Total	1330-20-7	ND	2	ug/L	01/11/96
Purgeable HCs as Gasoline	5030/GCFID	0.2 *	0.05	mg/L	01/11/96
#Extraction for TPH	**EPA 3510**	-		Extrn Date	01/12/96
TPH as Diesel	**GC-FID**	0.3 *	0.05	mg/L	01/13/96
Volatile Organic Compounds	**EPA 8240**				
Acetone	67-64-1	ND	100	ug/L	01/16/96
Benzene	71-43-2	ND	5	ug/L	01/16/96
Bromodichloromethane	75-27-4	ND	5	ug/L	01/16/96
Bromoform	75-25-2	ND	5	ug/L	01/16/96
Bromomethane	74-83-9	ND	10	ug/L	01/16/96
2-Butanone	78-93-3	ND	100	ug/L	01/16/96
Carbon Disulfide	75-15-0	ND	10	ug/L	01/16/96
Carbon Tetrachloride	56-23-5	ND	5	ug/L	01/16/96
Chlorobenzene	108-90-7	ND	5	ug/L	01/16/96
Chloroethane	75-00-3	ND	10	ug/L	01/16/96
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/L	01/16/96
Chloroform	67-66-3	ND	5	ug/L	01/16/96
Chloromethane	74-87-3	ND	10	ug/L	01/16/96
Dibromochloromethane	124-48-1	ND	5	ug/L	01/16/96
1,1-Dichloroethane	75-34-3	ND	5	ug/L	01/16/96
1,2-Dichloroethane	107-06-2	10 *	5	ug/L	01/16/96
1,1-Dichloroethene	75-35-4	ND	5	ug/L	01/16/96
cis-1,2-Dichloroethene	156-59-2	37 *	5	ug/L	01/16/96
trans-1,2-Dichloroethene	156-60-5	29 *	5	ug/L	01/16/96
1,2-Dichloropropane	78-87-5	ND	5	ug/L	01/16/96
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/L	01/16/96
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/L	01/16/96
Ethylbenzene	100-41-4	ND	5	ug/L	01/16/96
2-Hexanone	591-78-6	ND	50	ug/L	01/16/96
Methylene Chloride	75-09-2	ND	20	ug/L	01/16/96
4-Methyl-2-pentanone	108-10-1	ND	50	ug/L	01/16/96
Styrene	100-42-5	ND	5	ug/L	01/16/96
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/L	01/16/96
Tetrachloroethene	127-18-4	ND	5	ug/L	01/16/96
Toluene	108-88-3	ND	5	ug/L	01/16/96

LEVINE-FRICKE

SAMPLE ID: MW-3
AEN LAB NO: 9601089-01
AEN WORK ORDER: 9601089
CLIENT PROJ. ID: 3042.02

DATE SAMPLED: 01/09/96
DATE RECEIVED: 01/09/96
REPORT DATE: 01/22/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
1,1,1-Trichloroethane	71-55-6	ND	5	ug/L	01/16/96
1,1,2-Trichloroethane	79-00-5	ND	5	ug/L	01/16/96
Trichloroethene	79-01-6	6 *	5	ug/L	01/16/96
Vinyl Acetate	108-05-4	ND	50	ug/L	01/16/96
Vinyl Chloride	75-01-4	ND	10	ug/L	01/16/96
Xylenes, Total	1330-20-7	ND	10	ug/L	01/16/96

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

LEVINE-FRICKE

SAMPLE ID: MW-1
AEN LAB NO: 9601089-02
AEN WORK ORDER: 9601089
CLIENT PROJ. ID: 3042.02

DATE SAMPLED: 01/09/96
DATE RECEIVED: 01/09/96
REPORT DATE: 01/22/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	**EPA 8020**				
Benzene	71-43-2	53 *	0.5	ug/L	01/15/96
Toluene	108-88-3	3 *	0.5	ug/L	01/15/96
Ethylbenzene	100-41-4	2 *	0.5	ug/L	01/15/96
Xylenes, Total	1330-20-7	6 *	2	ug/L	01/15/96
Purgeable HCs as Gasoline	5030/GCFID	1.3 *	0.05	mg/L	01/15/96
#Extraction for TPH	**EPA 3510**	-		Extrn Date	01/12/96
TPH as Diesel	**GC-FID**	4.0 *	0.3	mg/L	01/13/96
Volatile Organic Compounds	**EPA 8240**				
Acetone	67-64-1	ND	100	ug/L	01/17/96
Benzene	71-43-2	65 *	5	ug/L	01/17/96
Bromodichloromethane	75-27-4	ND	5	ug/L	01/17/96
Bromoform	75-25-2	ND	5	ug/L	01/17/96
Bromomethane	74-83-9	ND	10	ug/L	01/17/96
2-Butanone	78-93-3	ND	100	ug/L	01/17/96
Carbon Disulfide	75-15-0	ND	10	ug/L	01/17/96
Carbon Tetrachloride	56-23-5	ND	5	ug/L	01/17/96
Chlorobenzene	108-90-7	ND	5	ug/L	01/17/96
Chloroethane	75-00-3	ND	10	ug/L	01/17/96
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/L	01/17/96
Chloroform	67-66-3	ND	5	ug/L	01/17/96
Chloromethane	74-87-3	ND	10	ug/L	01/17/96
Dibromochloromethane	124-48-1	ND	5	ug/L	01/17/96
1,1-Dichloroethane	75-34-3	ND	5	ug/L	01/17/96
1,2-Dichloroethane	107-06-2	52 *	5	ug/L	01/17/96
1,1-Dichloroethene	75-35-4	ND	5	ug/L	01/17/96
cis-1,2-Dichloroethene	156-59-2	12 *	5	ug/L	01/17/96
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/L	01/17/96
1,2-Dichloropropane	78-87-5	130 *	5	ug/L	01/17/96
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/L	01/17/96
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/L	01/17/96
Ethylbenzene	100-41-4	ND	5	ug/L	01/17/96
2-Hexanone	591-78-6	ND	50	ug/L	01/17/96
Methylene Chloride	75-09-2	ND	20	ug/L	01/17/96
4-Methyl-2-pentanone	108-10-1	ND	50	ug/L	01/17/96
Styrene	100-42-5	ND	5	ug/L	01/17/96
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/L	01/17/96
Tetrachloroethene	127-18-4	ND	5	ug/L	01/17/96
Toluene	108-88-3	ND	5	ug/L	01/17/96

LEVINE-FRICKE

SAMPLE ID: MW-1
AEN LAB NO: 9601089-02
AEN WORK ORDER: 9601089
CLIENT PROJ. ID: 3042.02

DATE SAMPLED: 01/09/96
DATE RECEIVED: 01/09/96
REPORT DATE: 01/22/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
1,1,1-Trichloroethane	71-55-6	ND	5	ug/L	01/17/96
1,1,2-Trichloroethane	79-00-5	ND	5	ug/L	01/17/96
Trichloroethene	79-01-6	ND	5	ug/L	01/17/96
Vinyl Acetate	108-05-4	ND	50	ug/L	01/17/96
Vinyl Chloride	75-01-4	15 *	10	ug/L	01/17/96
Xylenes, Total	1330-20-7	ND	10	ug/L	01/17/96

Reporting limit elevated for diesel due to high levels of target compounds. Sample run at dilution.

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

LEVINE-FRICKE

SAMPLE ID: MW-2
AEN LAB NO: 9601089-03
AEN WORK ORDER: 9601089
CLIENT PROJ. ID: 3042.02

DATE SAMPLED: 01/09/96
DATE RECEIVED: 01/09/96
REPORT DATE: 01/22/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	**EPA 8020**				
Benzene	71-43-2	39 *	0.5	ug/L	01/11/96
Toluene	108-88-3	1 *	0.5	ug/L	01/11/96
Ethylbenzene	100-41-4	0.9 *	0.5	ug/L	01/11/96
Xylenes, Total	1330-20-7	2 *	2	ug/L	01/11/96
Purgeable HCs as Gasoline	5030/GCFID	0.90 *	0.05	mg/L	01/11/96
#Extraction for TPH	**EPA 3510**	-		Extrn Date	01/15/96
TPH as Diesel	**GC-FID**	2.5 *	0.05	mg/L	01/15/96
Volatile Organic Compounds	**EPA 8240**				
Acetone	67-64-1	ND	100	ug/L	01/16/96
Benzene	71-43-2	51 *	5	ug/L	01/16/96
Bromodichloromethane	75-27-4	ND	5	ug/L	01/16/96
Bromoform	75-25-2	ND	5	ug/L	01/16/96
Bromomethane	74-83-9	ND	10	ug/L	01/16/96
2-Butanone	78-93-3	ND	100	ug/L	01/16/96
Carbon Disulfide	75-15-0	ND	10	ug/L	01/16/96
Carbon Tetrachloride	56-23-5	ND	5	ug/L	01/16/96
Chlorobenzene	108-90-7	ND	5	ug/L	01/16/96
Chloroethane	75-00-3	ND	10	ug/L	01/16/96
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/L	01/16/96
Chloroform	67-66-3	ND	5	ug/L	01/16/96
Chloromethane	74-87-3	ND	10	ug/L	01/16/96
Dibromochloromethane	124-48-1	ND	5	ug/L	01/16/96
1,1-Dichloroethane	75-34-3	ND	5	ug/L	01/16/96
1,2-Dichloroethane	107-06-2	7 *	5	ug/L	01/16/96
1,1-Dichloroethene	75-35-4	ND	5	ug/L	01/16/96
cis-1,2-Dichloroethene	156-59-2	23 *	5	ug/L	01/16/96
trans-1,2-Dichloroethene	156-60-5	8 *	5	ug/L	01/16/96
1,2-Dichloropropane	78-87-5	20 *	5	ug/L	01/16/96
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/L	01/16/96
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/L	01/16/96
Ethylbenzene	100-41-4	ND	5	ug/L	01/16/96
2-Hexanone	591-78-6	ND	50	ug/L	01/16/96
Methylene Chloride	75-09-2	ND	20	ug/L	01/16/96
4-Methyl-2-pentanone	108-10-1	ND	50	ug/L	01/16/96
Styrene	100-42-5	ND	5	ug/L	01/16/96
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/L	01/16/96
Tetrachloroethene	127-18-4	ND	5	ug/L	01/16/96
Toluene	108-88-3	ND	5	ug/L	01/16/96

LEVINE-FRICKE

SAMPLE ID: MW-2
AEN LAB NO: 9601089-03
AEN WORK ORDER: 9601089
CLIENT PROJ. ID: 3042.02

DATE SAMPLED: 01/09/96
DATE RECEIVED: 01/09/96
REPORT DATE: 01/22/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
1,1,1-Trichloroethane	71-55-6	ND	5	ug/L	01/16/96
1,1,2-Trichloroethane	79-00-5	ND	5	ug/L	01/16/96
Trichloroethene	79-01-6	ND	5	ug/L	01/16/96
Vinyl Acetate	108-05-4	ND	50	ug/L	01/16/96
Vinyl Chloride	75-01-4	ND	10	ug/L	01/16/96
Xylenes, Total	1330-20-7	ND	10	ug/L	01/16/96

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

LEVINE-FRICKE

SAMPLE ID: RP-5-FB
AEN LAB NO: 9601089-04
AEN WORK ORDER: 9601089
CLIENT PROJ. ID: 3042.02

DATE SAMPLED: 01/09/96
DATE RECEIVED: 01/09/96
REPORT DATE: 01/22/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	**EPA 8020**				
Benzene	71-43-2	ND	0.5	ug/L	01/11/96
Toluene	108-88-3	ND	0.5	ug/L	01/11/96
Ethylbenzene	100-41-4	ND	0.5	ug/L	01/11/96
Xylenes, Total	1330-20-7	ND	2	ug/L	01/11/96
Purgeable HCs as Gasoline	5030/GCFID	ND	0.05	mg/L	01/11/96
Volatile Organic Compounds	**EPA 8240**				
Acetone	67-64-1	ND	100	ug/L	01/15/96
Benzene	71-43-2	ND	5	ug/L	01/15/96
Bromodichloromethane	75-27-4	ND	5	ug/L	01/15/96
Bromoform	75-25-2	ND	5	ug/L	01/15/96
Bromomethane	74-83-9	ND	10	ug/L	01/15/96
2-Butanone	78-93-3	ND	100	ug/L	01/15/96
Carbon Disulfide	75-15-0	ND	10	ug/L	01/15/96
Carbon Tetrachloride	56-23-5	ND	5	ug/L	01/15/96
Chlorobenzene	108-90-7	ND	5	ug/L	01/15/96
Chloroethane	75-00-3	ND	10	ug/L	01/15/96
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/L	01/15/96
Chloroform	67-66-3	ND	5	ug/L	01/15/96
Chloromethane	74-87-3	ND	10	ug/L	01/15/96
Dibromochloromethane	124-48-1	ND	5	ug/L	01/15/96
1,1-Dichloroethane	75-34-3	ND	5	ug/L	01/15/96
1,2-Dichloroethane	107-06-2	ND	5	ug/L	01/15/96
1,1-Dichloroethene	75-35-4	ND	5	ug/L	01/15/96
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/L	01/15/96
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/L	01/15/96
1,2-Dichloropropane	78-87-5	ND	5	ug/L	01/15/96
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/L	01/15/96
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/L	01/15/96
Ethylbenzene	100-41-4	ND	5	ug/L	01/15/96
2-Hexanone	591-78-6	ND	50	ug/L	01/15/96
Methylene Chloride	75-09-2	ND	20	ug/L	01/15/96
4-Methyl-2-pentanone	108-10-1	ND	50	ug/L	01/15/96
Styrene	100-42-5	ND	5	ug/L	01/15/96
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/L	01/15/96
Tetrachloroethene	127-18-4	ND	5	ug/L	01/15/96
Toluene	108-88-3	ND	5	ug/L	01/15/96
1,1,1-Trichloroethane	71-55-6	ND	5	ug/L	01/15/96
1,1,2-Trichloroethane	79-00-5	ND	5	ug/L	01/15/96
Trichloroethene	79-01-6	ND	5	ug/L	01/15/96
Vinyl Acetate	108-05-4	ND	50	ug/L	01/15/96

LEVINE-FRICKE

SAMPLE ID: RP-5-FB
AEN LAB NO: 9601089-04
AEN WORK ORDER: 9601089
CLIENT PROJ. ID: 3042.02

DATE SAMPLED: 01/09/96
DATE RECEIVED: 01/09/96
REPORT DATE: 01/22/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Vinyl Chloride	75-01-4	ND	10	ug/L	01/15/96
Xylenes, Total	1330-20-7	ND	10	ug/L	01/15/96

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

LEVINE-FRICKE

SAMPLE ID: RP-5
AEN LAB NO: 9601089-05
AEN WORK ORDER: 9601089
CLIENT PROJ. ID: 3042.02

DATE SAMPLED: 01/09/96
DATE RECEIVED: 01/09/96
REPORT DATE: 01/22/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	**EPA 8020**				
Benzene	71-43-2	ND	0.5	ug/L	01/11/96
Toluene	108-88-3	ND	0.5	ug/L	01/11/96
Ethylbenzene	100-41-4	ND	0.5	ug/L	01/11/96
Xylenes, Total	1330-20-7	ND	2	ug/L	01/11/96
Purgeable HCs as Gasoline	5030/GCFID	ND	0.05	mg/L	01/11/96
#Extraction for TPH	**EPA 3510**	-		Extrn Date	01/15/96
TPH as Diesel	**GC-FID**	0.2 *	0.05	mg/L	01/16/96
Volatile Organic Compounds	**EPA 8240**				
Acetone	67-64-1	ND	100	ug/L	01/15/96
Benzene	71-43-2	ND	5	ug/L	01/15/96
Bromodichloromethane	75-27-4	ND	5	ug/L	01/15/96
Bromoform	75-25-2	ND	5	ug/L	01/15/96
Bromomethane	74-83-9	ND	10	ug/L	01/15/96
2-Butanone	78-93-3	ND	100	ug/L	01/15/96
Carbon Disulfide	75-15-0	ND	10	ug/L	01/15/96
Carbon Tetrachloride	56-23-5	ND	5	ug/L	01/15/96
Chlorobenzene	108-90-7	ND	5	ug/L	01/15/96
Chloroethane	75-00-3	ND	10	ug/L	01/15/96
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/L	01/15/96
Chloroform	67-66-3	ND	5	ug/L	01/15/96
Chloromethane	74-87-3	ND	10	ug/L	01/15/96
Dibromochloromethane	124-48-1	ND	5	ug/L	01/15/96
1,1-Dichloroethane	75-34-3	ND	5	ug/L	01/15/96
1,2-Dichloroethane	107-06-2	ND	5	ug/L	01/15/96
1,1-Dichloroethene	75-35-4	ND	5	ug/L	01/15/96
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/L	01/15/96
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/L	01/15/96
1,2-Dichloropropane	78-87-5	ND	5	ug/L	01/15/96
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/L	01/15/96
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/L	01/15/96
Ethylbenzene	100-41-4	ND	5	ug/L	01/15/96
2-Hexanone	591-78-6	ND	50	ug/L	01/15/96
Methylene Chloride	75-09-2	ND	20	ug/L	01/15/96
4-Methyl-2-pentanone	108-10-1	ND	50	ug/L	01/15/96
Styrene	100-42-5	ND	5	ug/L	01/15/96
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/L	01/15/96
Tetrachloroethene	127-18-4	ND	5	ug/L	01/15/96
Toluene	108-88-3	ND	5	ug/L	01/15/96

LEVINE-FRICKE

SAMPLE ID: RP-5
AEN LAB NO: 9601089-05
AEN WORK ORDER: 9601089
CLIENT PROJ. ID: 3042.02

DATE SAMPLED: 01/09/96
DATE RECEIVED: 01/09/96
REPORT DATE: 01/22/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
1,1,1-Trichloroethane	71-55-6	ND	5	ug/L	01/15/96
1,1,2-Trichloroethane	79-00-5	ND	5	ug/L	01/15/96
Trichloroethene	79-01-6	ND	5	ug/L	01/15/96
Vinyl Acetate	108-05-4	ND	50	ug/L	01/15/96
Vinyl Chloride	75-01-4	ND	10	ug/L	01/15/96
Xylenes, Total	1330-20-7	ND	10	ug/L	01/15/96

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

LEVINE-FRICKE

SAMPLE ID: RP-105
AEN LAB NO: 9601089-06
AEN WORK ORDER: 9601089
CLIENT PROJ. ID: 3042.02

DATE SAMPLED: 01/09/96
DATE RECEIVED: 01/09/96
REPORT DATE: 01/22/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	**EPA 8020**				
Benzene	71-43-2	ND	0.5	ug/L	01/11/96
Toluene	108-88-3	ND	0.5	ug/L	01/11/96
Ethylbenzene	100-41-4	ND	0.5	ug/L	01/11/96
Xylenes, Total	1330-20-7	ND	2	ug/L	01/11/96
Purgeable HCs as Gasoline	5030/GCFID	ND	0.05	mg/L	01/11/96
#Extraction for TPH	**EPA 3510**	-		Extrn Date	01/15/96
TPH as Diesel	**GC-FID**	0.2 *	0.05	mg/L	01/16/96
Volatile Organic Compounds	**EPA 8240**				
Acetone	67-64-1	ND	100	ug/L	01/16/96
Benzene	71-43-2	ND	5	ug/L	01/16/96
Bromodichloromethane	75-27-4	ND	5	ug/L	01/16/96
Bromoform	75-25-2	ND	5	ug/L	01/16/96
Bromomethane	74-83-9	ND	10	ug/L	01/16/96
2-Butanone	78-93-3	ND	100	ug/L	01/16/96
Carbon Disulfide	75-15-0	ND	10	ug/L	01/16/96
Carbon Tetrachloride	56-23-5	ND	5	ug/L	01/16/96
Chlorobenzene	108-90-7	ND	5	ug/L	01/16/96
Chloroethane	75-00-3	ND	10	ug/L	01/16/96
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/L	01/16/96
Chloroform	67-66-3	ND	5	ug/L	01/16/96
Chloromethane	74-87-3	ND	10	ug/L	01/16/96
Dibromochloromethane	124-48-1	ND	5	ug/L	01/16/96
1,1-Dichloroethane	75-34-3	ND	5	ug/L	01/16/96
1,2-Dichloroethane	107-06-2	ND	5	ug/L	01/16/96
1,1-Dichloroethene	75-35-4	ND	5	ug/L	01/16/96
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/L	01/16/96
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/L	01/16/96
1,2-Dichloropropane	78-87-5	ND	5	ug/L	01/16/96
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/L	01/16/96
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/L	01/16/96
Ethylbenzene	100-41-4	ND	5	ug/L	01/16/96
2-Hexanone	591-78-6	ND	50	ug/L	01/16/96
Methylene Chloride	75-09-2	ND	20	ug/L	01/16/96
4-Methyl-2-pentanone	108-10-1	ND	50	ug/L	01/16/96
Styrene	100-42-5	ND	5	ug/L	01/16/96
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/L	01/16/96
Tetrachloroethene	127-18-4	ND	5	ug/L	01/16/96
Toluene	108-88-3	ND	5	ug/L	01/16/96

LEVINE-FRICKE

SAMPLE ID: RP-105
AEN LAB NO: 9601089-06
AEN WORK ORDER: 9601089
CLIENT PROJ. ID: 3042.02

DATE SAMPLED: 01/09/96
DATE RECEIVED: 01/09/96
REPORT DATE: 01/22/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
1,1,1-Trichloroethane	71-55-6	ND	5	ug/L	01/16/96
1,1,2-Trichloroethane	79-00-5	ND	5	ug/L	01/16/96
Trichloroethene	79-01-6	ND	5	ug/L	01/16/96
Vinyl Acetate	108-05-4	ND	50	ug/L	01/16/96
Vinyl Chloride	75-01-4	ND	10	ug/L	01/16/96
Xylenes, Total	1330-20-7	ND	10	ug/L	01/16/96

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

LEVINE-FRICKE

SAMPLE ID: RP-4
AEN LAB NO: 9601089-07
AEN WORK ORDER: 9601089
CLIENT PROJ. ID: 3042.02

DATE SAMPLED: 01/09/96
DATE RECEIVED: 01/09/96
REPORT DATE: 01/22/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	**EPA 8020**				
Benzene	71-43-2	ND	0.5	ug/L	01/12/96
Toluene	108-88-3	ND	0.5	ug/L	01/12/96
Ethylbenzene	100-41-4	0.5 *	0.5	ug/L	01/12/96
Xylenes, Total	1330-20-7	ND	2	ug/L	01/12/96
Purgeable HCs as Gasoline	5030/GCFID	0.05 *	0.05	mg/L	01/12/96
#Extraction for TPH	**EPA 3510**	-		Extrn Date	01/16/96
TPH as Diesel	**GC-FID**	0.1 *	0.05	mg/L	01/16/96
Volatile Organic Compounds	**EPA 8240**				
Acetone	67-64-1	ND	100	ug/L	01/15/96
Benzene	71-43-2	ND	5	ug/L	01/15/96
Bromodichloromethane	75-27-4	ND	5	ug/L	01/15/96
Bromoform	75-25-2	ND	5	ug/L	01/15/96
Bromomethane	74-83-9	ND	10	ug/L	01/15/96
2-Butanone	78-93-3	ND	100	ug/L	01/15/96
Carbon Disulfide	75-15-0	ND	10	ug/L	01/15/96
Carbon Tetrachloride	56-23-5	ND	5	ug/L	01/15/96
Chlorobenzene	108-90-7	ND	5	ug/L	01/15/96
Chloroethane	75-00-3	ND	10	ug/L	01/15/96
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/L	01/15/96
Chloroform	67-66-3	ND	5	ug/L	01/15/96
Chloromethane	74-87-3	ND	10	ug/L	01/15/96
Dibromochloromethane	124-48-1	ND	5	ug/L	01/15/96
1,1-Dichloroethane	75-34-3	ND	5	ug/L	01/15/96
1,2-Dichloroethane	107-06-2	ND	5	ug/L	01/15/96
1,1-Dichloroethene	75-35-4	ND	5	ug/L	01/15/96
cis-1,2-Dichloroethene	156-59-2	6 *	5	ug/L	01/15/96
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/L	01/15/96
1,2-Dichloropropane	78-87-5	ND	5	ug/L	01/15/96
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/L	01/15/96
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/L	01/15/96
Ethylbenzene	100-41-4	ND	5	ug/L	01/15/96
2-Hexanone	591-78-6	ND	50	ug/L	01/15/96
Methylene Chloride	75-09-2	ND	20	ug/L	01/15/96
4-Methyl-2-pentanone	108-10-1	ND	50	ug/L	01/15/96
Styrene	100-42-5	ND	5	ug/L	01/15/96
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/L	01/15/96
Tetrachloroethene	127-18-4	ND	5	ug/L	01/15/96
Toluene	108-88-3	ND	5	ug/L	01/15/96

LEVINE-FRICKE

SAMPLE ID: RP-4
AEN LAB NO: 9601089-07
AEN WORK ORDER: 9601089
CLIENT PROJ. ID: 3042.02

DATE SAMPLED: 01/09/96
DATE RECEIVED: 01/09/96
REPORT DATE: 01/22/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
1,1,1-Trichloroethane	71-55-6	ND	5	ug/L	01/15/96
1,1,2-Trichloroethane	79-00-5	ND	5	ug/L	01/15/96
Trichloroethene	79-01-6	ND	5	ug/L	01/15/96
Vinyl Acetate	108-05-4	ND	50	ug/L	01/15/96
Vinyl Chloride	75-01-4	ND	10	ug/L	01/15/96
Xylenes, Total	1330-20-7	ND	10	ug/L	01/15/96

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

AEN (CALIFORNIA)
QUALITY CONTROL REPORT

AEN JOB NUMBER: 9601089

CLIENT PROJECT ID: 3042.02

Quality Control Summary

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

Definitions

Laboratory Control Sample (LCS)/Method Spike(s): Control samples of known composition. LCS and Method Spike data are used to validate batch analytical results.

Matrix Spike(s): Aliquot of a sample (aqueous or solid) with added quantities of specific compounds and subjected to the entire analytical procedure. Matrix spike and matrix spike duplicate QC data are advisory.

Method Blank: An analytical control consisting of all reagents, internal standards, and surrogate standards carried through the entire analytical process. Used to monitor laboratory background and reagent contamination.

Not Detected (ND): Not detected at or above the reporting limit.

Relative Percent Difference (RPD): An indication of method precision based on duplicate analysis.

Reporting Limit (RL): The lowest concentration routinely determined during laboratory operations. The RL is generally 1 to 10 times the Method Detection Limit (MDL). Reporting limits are matrix, method, and analyte dependent and take into account any dilutions performed as part of the analysis.

Surrogates: Organic compounds which are similar to analytes of interest in chemical behavior, but are not found in environmental samples. Surrogates are added to all blanks, calibration and check standards, samples, and spiked samples. Surrogate recovery is monitored as an indication of acceptable sample preparation and instrumental performance.

D: Surrogates diluted out.

#: Indicates result outside of established laboratory QC limits.

QUALITY CONTROL DATA

METHOD: EPA 3510 GCFID

AEN JOB NO: 9601089
AEN LAB NO: 0112-BLANK
DATE EXTRACTED: 01/12/96
DATE ANALYZED: 01/13/96
INSTRUMENT: C
MATRIX: WATER

Method Blank

Analyte	Result (mg/L)	Reporting Limit (mg/L)
Diesel	ND	0.05

AEN LAB NO: 0115-BLANK
DATE EXTRACTED: 01/15/96
DATE ANALYZED: 01/15/96
INSTRUMENT: C
MATRIX: WATER

Method Blank

Analyte	Result (mg/L)	Reporting Limit (mg/L)
Diesel	ND	0.05

QUALITY CONTROL DATA

METHOD: EPA 3510 GCFID

AEN JOB NO: 9601089
AEN LAB NO: 0116-BLANK
DATE EXTRACTED: 01/16/96
DATE ANALYZED: 01/16/96
INSTRUMENT: C
MATRIX: WATER

Method Blank

Analyte	Result (mg/L)	Reporting Limit (mg/L)
Diesel	ND	0.05

QUALITY CONTROL DATA

METHOD: EPA 3510 GCFID

AEN JOB NO: 9601089
DATE(S) EXTRACTED: 01/12/96; 01/15/96; 01/16/96
INSTRUMENT: C
MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery n-Pentacosane
01/13/96	MW-3	01	90
01/13/96	MW-1	02	86
01/15/96	MW-2	03	98
01/16/96	RP-5	05	96
01/16/96	RP-105	06	95
01/16/96	RP-4	07	98
QC Limits:			59-118

DATE EXTRACTED: 01/11/96
DATE ANALYZED: 01/12/96
SAMPLE SPIKED: 9512194-20
INSTRUMENT: C

Matrix Spike Recovery Summary

Analyte	Spike Added (mg/L)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Diesel	2.00	92	2	58-107	15

QUALITY CONTROL DATA

METHOD: EPA 8020, 5030 GCFID

AEN JOB NO: 9601089
AEN LAB NO: 0111-BLANK
DATE ANALYZED: 01/11/96
INSTRUMENT: F
MATRIX: WATER

Method Blank

Analyte	CAS #	Result (ug/L)	Reporting Limit (ug/L)
Benzene	71-43-2	ND	0.5
Toluene	108-88-3	ND	0.5
Ethylbenzene	100-41-4	ND	0.5
Xylenes, Total	1330-20-7	ND	2
HCs as Gasoline		ND mg/L	0.05 mg/L

AEN LAB NO: 0112-BLANK
DATE ANALYZED: 01/12/96
INSTRUMENT: F
MATRIX: WATER

Method Blank

Analyte	CAS #	Result (ug/L)	Reporting Limit (ug/L)
Benzene	71-43-2	ND	0.5
Toluene	108-88-3	ND	0.5
Ethylbenzene	100-41-4	ND	0.5
Xylenes, Total	1330-20-7	ND	2
HCs as Gasoline		ND mg/L	0.05 mg/L

QUALITY CONTROL DATA

METHOD: EPA 8020, 5030 GCFID

AEN JOB NO: 9601089
AEN LAB NO: 0115-BLANK
DATE ANALYZED: 01/15/96
INSTRUMENT: F
MATRIX: WATER

Method Blank

Analyte	CAS #	Result (ug/L)	Reporting Limit (ug/L)
Benzene	71-43-2	ND	0.5
Toluene	108-88-3	ND	0.5
Ethylbenzene	100-41-4	ND	0.5
Xylenes, Total	1330-20-7	ND	2
HCs as Gasoline		ND mg/L	0.05 mg/L

QUALITY CONTROL DATA

METHOD: EPA 8020, 5030 GCFID

AEN JOB NO: 9601089
INSTRUMENT: F
MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery Fluorobenzene
01/11/96	MW-3	01	89
01/15/96	MW-1	02	81
01/11/96	MW-2	03	85
01/11/96	RP-5-FB	04	89
01/11/96	RP-5	05	89
01/11/96	RP-105	06	90
01/12/96	RP-4	07	88
QC Limits:			70-130

DATE ANALYZED: 01/11/96
SAMPLE SPIKED: 9601013-02
INSTRUMENT: F

Matrix Spike Recovery Summary

Analyte	Spike Added (ug/L)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Benzene	19.1	102	1	85-109	17
Toluene	63.4	102	3	87-111	16
HCs as Gasoline	500	114	1	66-117	19

QUALITY CONTROL DATA

METHOD: EPA 8240

AEN JOB NO: 9601089
AEN LAB NO: 0115-BLANK
DATE ANALYZED: 01/15/96
INSTRUMENT: 13
MATRIX: WATER

Method Blank

Analyte	CAS #	Result (ug/L)	Reporting Limit (ug/L)
Acetone	67-64-1	ND	100
Benzene	71-43-2	ND	5
Bromodichloromethane	75-27-4	ND	5
Bromoform	75-25-2	ND	5
Bromomethane	74-83-9	ND	10
2-Butanone	78-93-3	ND	100
Carbon Disulfide	75-15-0	ND	10
Carbon Tetrachloride	56-23-5	ND	5
Chlorobenzene	108-90-7	ND	5
Chloroethane	75-00-3	ND	10
2-Chloroethyl Vinyl Ether	110-75-8	ND	10
Chloroform	67-66-3	ND	5
Chloromethane	74-87-3	ND	10
Dibromochloromethane	124-48-1	ND	5
1,2-Dichlorobenzene	95-50-1	ND	5
1,3-Dichlorobenzene	541-73-1	ND	5
1,4-Dichlorobenzene	106-46-7	ND	5
1,1-Dichloroethane	75-34-3	ND	5
1,2-Dichloroethane	107-06-2	ND	5
1,1-Dichloroethene	75-35-4	ND	5
cis-1,2-Dichloroethene	156-59-2	ND	5
trans-1,2-Dichloroethene	156-60-5	ND	5
1,2-Dichloropropane	78-87-5	ND	5
cis-1,3-Dichloropropene	10061-01-5	ND	5
trans-1,3-Dichloropropene	10061-02-6	ND	5
Ethylbenzene	100-41-4	ND	5
2-Hexanone	591-78-6	ND	50
Methylene Chloride	75-09-2	ND	20
4-Methyl-2-pentanone	108-10-1	ND	50
Styrene	100-42-5	ND	5
1,1,2,2-Tetrachloroethane	79-34-5	ND	5
Tetrachloroethene	127-18-4	ND	5
Toluene	108-88-3	ND	5
1,1,1-Trichloroethane	71-55-6	ND	5
1,1,2-Trichloroethane	79-00-5	ND	5
Trichloroethene	79-01-6	ND	5
Vinyl Acetate	108-05-4	ND	50
Vinyl Chloride	75-01-4	ND	10
Xylenes, total	1330-20-7	ND	10

QUALITY CONTROL DATA

METHOD: EPA 8240

AEN JOB NO: 9601089
AEN LAB NO: 0116-BLANK
DATE ANALYZED: 01/16/96
INSTRUMENT: 13
MATRIX: WATER

Method Blank

Analyte	CAS #	Result (ug/L)	Reporting Limit (ug/L)
Acetone	67-64-1	ND	100
Benzene	71-43-2	ND	5
Bromodichloromethane	75-27-4	ND	5
Bromoform	75-25-2	ND	5
Bromomethane	74-83-9	ND	10
2-Butanone	78-93-3	ND	100
Carbon Disulfide	75-15-0	ND	10
Carbon Tetrachloride	56-23-5	ND	5
Chlorobenzene	108-90-7	ND	5
Chloroethane	75-00-3	ND	10
2-Chloroethyl Vinyl Ether	110-75-8	ND	10
Chloroform	67-66-3	ND	5
Chloromethane	74-87-3	ND	10
Dibromochloromethane	124-48-1	ND	5
1,2-Dichlorobenzene	95-50-1	ND	5
1,3-Dichlorobenzene	541-73-1	ND	5
1,4-Dichlorobenzene	106-46-7	ND	5
1,1-Dichloroethane	75-34-3	ND	5
1,2-Dichloroethane	107-06-2	ND	5
1,1-Dichloroethene	75-35-4	ND	5
cis-1,2-Dichloroethene	156-59-2	ND	5
trans-1,2-Dichloroethene	156-60-5	ND	5
1,2-Dichloropropane	78-87-5	ND	5
cis-1,3-Dichloropropene	10061-01-5	ND	5
trans-1,3-Dichloropropene	10061-02-6	ND	5
Ethylbenzene	100-41-4	ND	5
2-Hexanone	591-78-6	ND	50
Methylene Chloride	75-09-2	ND	20
4-Methyl-2-pentanone	108-10-1	ND	50
Styrene	100-42-5	ND	5
1,1,2,2-Tetrachloroethane	79-34-5	ND	5
Tetrachloroethene	127-18-4	ND	5
Toluene	108-88-3	ND	5
1,1,1-Trichloroethane	71-55-6	ND	5
1,1,2-Trichloroethane	79-00-5	ND	5
Trichloroethene	79-01-6	ND	5
Vinyl Acetate	108-05-4	ND	50
Vinyl Chloride	75-01-4	ND	10
Xylenes, total	1330-20-7	ND	10

QUALITY CONTROL DATA

METHOD: EPA 8240

AEN JOB NO: 9601089
AEN LAB NO: 0117-BLANK
DATE ANALYZED: 01/17/96
INSTRUMENT: 13
MATRIX: WATER

Method Blank

Analyte	CAS #	Result (ug/L)	Reporting Limit (ug/L)
Acetone	67-64-1	ND	100
Benzene	71-43-2	ND	5
Bromodichloromethane	75-27-4	ND	5
Bromoform	75-25-2	ND	5
Bromomethane	74-83-9	ND	10
2-Butanone	78-93-3	ND	100
Carbon Disulfide	75-15-0	ND	10
Carbon Tetrachloride	56-23-5	ND	5
Chlorobenzene	108-90-7	ND	5
Chloroethane	75-00-3	ND	10
2-Chloroethyl Vinyl Ether	110-75-8	ND	10
Chloroform	67-66-3	ND	5
Chloromethane	74-87-3	ND	10
Dibromochloromethane	124-48-1	ND	5
1,2-Dichlorobenzene	95-50-1	ND	5
1,3-Dichlorobenzene	541-73-1	ND	5
1,4-Dichlorobenzene	106-46-7	ND	5
1,1-Dichloroethane	75-34-3	ND	5
1,2-Dichloroethane	107-06-2	ND	5
1,1-Dichloroethene	75-35-4	ND	5
cis-1,2-Dichloroethene	156-59-2	ND	5
trans-1,2-Dichloroethene	156-60-5	ND	5
1,2-Dichloropropane	78-87-5	ND	5
cis-1,3-Dichloropropene	10061-01-5	ND	5
trans-1,3-Dichloropropene	10061-02-6	ND	5
Ethylbenzene	100-41-4	ND	5
2-Hexanone	591-78-6	ND	50
Methylene Chloride	75-09-2	ND	20
4-Methyl-2-pentanone	108-10-1	ND	50
Styrene	100-42-5	ND	5
1,1,2,2-Tetrachloroethane	79-34-5	ND	5
Tetrachloroethene	127-18-4	ND	5
Toluene	108-88-3	ND	5
1,1,1-Trichloroethane	71-55-6	ND	5
1,1,2-Trichloroethane	79-00-5	ND	5
Trichloroethene	79-01-6	ND	5
Vinyl Acetate	108-05-4	ND	50
Vinyl Chloride	75-01-4	ND	10
Xylenes, total	1330-20-7	ND	10

QUALITY CONTROL DATA

METHOD: EPA 8240

AEN JOB NO: 9601089
INSTRUMENT: 13
MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery 1,2-Dichloroethane-d_4	Toluene-d_8	p-Bromofluorobenzene
01/16/96	MW-3	01	107	96	96
01/17/96	MW-1	02	103	92	97
01/16/96	MW-2	03	104	92	96
01/15/96	RP-5-FB	04	103	94	93
01/15/96	RP-5	05	94	98	98
01/16/96	RP-105	06	108	99	96
01/15/96	RP-4	07	90	92	93
QC Limits:			76-114	88-110	86-115

DATE ANALYZED: 01/16/96
SAMPLE SPIKED: 9601089-05
INSTRUMENT: 13

Matrix Spike Recovery Summary

Analyte	Spike Added (ug/L)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
1,1-Dichloroethene	50	148	2	59-155	25
Trichloroethene	50	104	1	71-157	25
Benzene	50	130	<1	37-151	25
Toluene	50	116	2	47-150	25
Chlorobenzene	50	115	1	37-160	25

*** END OF REPORT ***

L-5, S-I R-3, S-4

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

9601089

Project No.: 3042.02	Field Logbook No.:	Date: 1/9/96	Serial No.: № 19218
Project Name: Rifkin	Project Location: Emeryville, CA.		
Sampler (Signature):			Samplers: JPS

SAMPLES						ANALYSES							REMARKS
SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CONTAINERS	SAMPLE TYPE	TPHg	BTEX	TPHd	8240	Diss. Arsenic	HOLD	RUSH	
MW-3	1/9	11:00	01A-H	9	WATER	X	X	X	X	X			24 Hr TAT on Dissolved Arsenic ONLY
MW-1		12:10	02A-H	↓		↓	↓	↓	↓	↓			
MW-2		13:10	03A-H	↓		↓	↓	↓	↓	↓			
RP-5-FB		14:00	04A-F	7									
RP-5		14:50	05A-H	9		↓	↓	X	↓	↓			Normal TAT on other analyses
RP-105		15:50	06A-H	↓		↓	↓	↓	↓	↓			
RP-4		15:40	07A-H	↓		↓	↓	↓	↓	↓			DISS. AS on 9601090

RELINQUISHED BY: (Signature)	DATE 1/9/96	TIME 16:16	RECEIVED BY: (Signature)	DATE 1-9-96	TIME 16:29
RELINQUISHED BY: (Signature)	DATE 1-9-96	TIME 17:20	RECEIVED BY: (Signature)	DATE 1/9/96	TIME 1720
RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME
METHOD OF SHIPMENT:	DATE	TIME	LAB COMMENTS:		

Sample Collector:

LEVINE-FRICKE
1900 Powell Street, 12th Floor
Emeryville, California 94608
(510) 652-4500

Analytical Laboratory: AEN

Shipping Copy (White) Lab Copy (Green) File Copy (Yellow) Field Copy (Pink)

FORM NO. 86/COC/ARF

American Environmental Network

Certificate of Analysis

DOHS Certification: 1172 AIHA Accreditation: 11134

LEVINE-FRICKE
1900 POWELL ST. 12TH FL.
EMERYVILLE, CA 94608

ATTN: KENTON GEE
CLIENT PROJ. ID: 3042.02
CLIENT PROJ. NAME: RIFKIN
C.O.C. NUMBER: 19219

REPORT DATE: 01/22/96
DATE(S) SAMPLED: 01/10/96
DATE RECEIVED: 01/10/96
AEN WORK ORDER: 9601108

PROJECT SUMMARY:

On January 10, 1996, this laboratory received 5 water sample(s).

Client requested sample(s) be analyzed for organic parameters. Results of analysis are summarized on the following page(s). Please see quality control report for a summary of QC data pertaining to this project.

Samples will be stored for 30 days after completion of analysis, then disposed of in accordance with State and Federal regulations. Samples may be archived by prior arrangement.

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

Larry Klein
Laboratory Director

RECEIVED
JAN 23

LEVINE-FRICKE

SAMPLE ID: MW-5
AEN LAB NO: 9601108-01
AEN WORK ORDER: 9601108
CLIENT PROJ. ID: 3042.02

DATE SAMPLED: 01/10/96
DATE RECEIVED: 01/10/96
REPORT DATE: 01/22/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	**EPA 8020**				
Benzene	71-43-2	950 *	50	ug/L	01/16/96
Toluene	108-88-3	100,000 *	50	ug/L	01/17/96
Ethylbenzene	100-41-4	3,000 *	50	ug/L	01/16/96
Xylenes, Total	1330-20-7	15,000 *	200	ug/L	01/16/96
Purgeable HCs as Gasoline	5030/GCFID	160 *	5	mg/L	01/17/96
#Extraction for TPH	**EPA 3510**	-		Extrn Date	01/15/96
TPH as Diesel	**GC-FID**	5.4 *	0.05	mg/L	01/16/96
Volatile Organic Compounds	**EPA 8240**				
Acetone	67-64-1	130,000 *	100000	ug/L	01/18/96
Benzene	71-43-2	ND	5000	ug/L	01/18/96
Bromodichloromethane	75-27-4	ND	5000	ug/L	01/18/96
Bromoform	75-25-2	ND	5000	ug/L	01/18/96
Bromomethane	74-83-9	ND	10000	ug/L	01/18/96
2-Butanone	78-93-3	ND	100000	ug/L	01/18/96
Carbon Disulfide	75-15-0	ND	10000	ug/L	01/18/96
Carbon Tetrachloride	56-23-5	ND	5000	ug/L	01/18/96
Chlorobenzene	108-90-7	ND	5000	ug/L	01/18/96
Chloroethane	75-00-3	ND	10000	ug/L	01/18/96
2-Chloroethyl Vinyl Ether	110-75-8	ND	10000	ug/L	01/18/96
Chloroform	67-66-3	ND	5000	ug/L	01/18/96
Chloromethane	74-87-3	ND	10000	ug/L	01/18/96
Dibromochloromethane	124-48-1	ND	5000	ug/L	01/18/96
1,1-Dichloroethane	75-34-3	ND	5000	ug/L	01/18/96
1,2-Dichloroethane	107-06-2	ND	5000	ug/L	01/18/96
1,1-Dichloroethene	75-35-4	ND	5000	ug/L	01/18/96
cis-1,2-Dichloroethene	156-59-2	ND	5000	ug/L	01/18/96
trans-1,2-Dichloroethene	156-60-5	ND	5000	ug/L	01/18/96
1,2-Dichloropropane	78-87-5	ND	5000	ug/L	01/18/96
cis-1,3-Dichloropropene	10061-01-5	ND	5000	ug/L	01/18/96
trans-1,3-Dichloropropene	10061-02-6	ND	5000	ug/L	01/18/96
Ethylbenzene	100-41-4	ND	5000	ug/L	01/18/96
2-Hexanone	591-78-6	ND	50000	ug/L	01/18/96
Methylene Chloride	75-09-2	ND	20000	ug/L	01/18/96
4-Methyl-2-pentanone	108-10-1	ND	50000	ug/L	01/18/96
Styrene	100-42-5	ND	5000	ug/L	01/18/96
1,1,2,2-Tetrachloroethane	79-34-5	ND	5000	ug/L	01/18/96
Tetrachloroethene	127-18-4	ND	5000	ug/L	01/18/96
Toluene	108-88-3	81,000 *	5000	ug/L	01/18/96

LEVINE-FRICKE

SAMPLE ID: MW-5
AEN LAB NO: 9601108-01
AEN WORK ORDER: 9601108
CLIENT PROJ. ID: 3042.02

DATE SAMPLED: 01/10/96
DATE RECEIVED: 01/10/96
REPORT DATE: 01/22/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
1,1,1-Trichloroethane	71-55-6	ND	5000	ug/L	01/18/96
1,1,2-Trichloroethane	79-00-5	ND	5000	ug/L	01/18/96
Trichloroethene	79-01-6	ND	5000	ug/L	01/18/96
Vinyl Acetate	108-05-4	ND	50000	ug/L	01/18/96
Vinyl Chloride	75-01-4	ND	10000	ug/L	01/18/96
Xylenes, Total	1330-20-7	ND	10000	ug/L	01/18/96

Reporting limits elevated for gasoline/BTEX and EPA 8240 due to high levels of target compounds. Sample run at dilution.

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

LEVINE-FRICKE

SAMPLE ID: MW-4
AEN LAB NO: 9601108-02
AEN WORK ORDER: 9601108
CLIENT PROJ. ID: 3042.02

DATE SAMPLED: 01/10/96
DATE RECEIVED: 01/10/96
REPORT DATE: 01/22/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	**EPA 8020**				
Benzene	71-43-2	2 *	0.5	ug/L	01/16/96
Toluene	108-88-3	27 *	0.5	ug/L	01/16/96
Ethylbenzene	100-41-4	2 *	0.5	ug/L	01/16/96
Xylenes, Total	1330-20-7	12 *	2	ug/L	01/16/96
Purgeable HCs as Gasoline	5030/GCFID	0.7 *	0.05	mg/L	01/16/96
#Extraction for TPH	**EPA 3510**	-		Extrn Date	01/16/96
TPH as Diesel	**GC-FID**	6.3 *	0.05	mg/L	01/17/96
Volatile Organic Compounds	**EPA 8240**				
Acetone	67-64-1	ND	100	ug/L	01/18/96
Benzene	71-43-2	ND	5	ug/L	01/18/96
Bromodichloromethane	75-27-4	ND	5	ug/L	01/18/96
Bromoform	75-25-2	ND	5	ug/L	01/18/96
Bromomethane	74-83-9	ND	10	ug/L	01/18/96
2-Butanone	78-93-3	ND	100	ug/L	01/18/96
Carbon Disulfide	75-15-0	ND	10	ug/L	01/18/96
Carbon Tetrachloride	56-23-5	ND	5	ug/L	01/18/96
Chlorobenzene	108-90-7	ND	5	ug/L	01/18/96
Chloroethane	75-00-3	ND	10	ug/L	01/18/96
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/L	01/18/96
Chloroform	67-66-3	ND	5	ug/L	01/18/96
Chloromethane	74-87-3	ND	10	ug/L	01/18/96
Dibromochloromethane	124-48-1	ND	5	ug/L	01/18/96
1,1-Dichloroethane	75-34-3	ND	5	ug/L	01/18/96
1,2-Dichloroethane	107-06-2	ND	5	ug/L	01/18/96
1,1-Dichloroethene	75-35-4	ND	5	ug/L	01/18/96
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/L	01/18/96
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/L	01/18/96
1,2-Dichloropropane	78-87-5	ND	5	ug/L	01/18/96
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/L	01/18/96
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/L	01/18/96
Ethylbenzene	100-41-4	ND	5	ug/L	01/18/96
2-Hexanone	591-78-6	ND	50	ug/L	01/18/96
Methylene Chloride	75-09-2	ND	20	ug/L	01/18/96
4-Methyl-2-pentanone	108-10-1	ND	50	ug/L	01/18/96
Styrene	100-42-5	ND	5	ug/L	01/18/96
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/L	01/18/96
Tetrachloroethene	127-18-4	ND	5	ug/L	01/18/96
Toluene	108-88-3	ND	5	ug/L	01/18/96

LEVINE-FRICKE

SAMPLE ID: MW-4
AEN LAB NO: 9601108-02
AEN WORK ORDER: 9601108
CLIENT PROJ. ID: 3042.02

DATE SAMPLED: 01/10/96
DATE RECEIVED: 01/10/96
REPORT DATE: 01/22/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
1,1,1-Trichloroethane	71-55-6	ND	5	ug/L	01/18/96
1,1,2-Trichloroethane	79-00-5	ND	5	ug/L	01/18/96
Trichloroethene	79-01-6	ND	5	ug/L	01/18/96
Vinyl Acetate	108-05-4	ND	50	ug/L	01/18/96
Vinyl Chloride	75-01-4	ND	10	ug/L	01/18/96
Xylenes, Total	1330-20-7	ND	10	ug/L	01/18/96

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

LEVINE-FRICKE

SAMPLE ID: RP-1
AEN LAB NO: 9601108-03
AEN WORK ORDER: 9601108
CLIENT PROJ. ID: 3042.02

DATE SAMPLED: 01/10/96
DATE RECEIVED: 01/10/96
REPORT DATE: 01/22/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	**EPA 8020**				
Benzene	71-43-2	ND	0.5	ug/L	01/16/96
Toluene	108-88-3	1 *	0.5	ug/L	01/16/96
Ethylbenzene	100-41-4	ND	0.5	ug/L	01/16/96
Xylenes, Total	1330-20-7	ND	2	ug/L	01/16/96
Purgeable HCs as Gasoline	5030/GCFID	0.8 *	0.05	mg/L	01/16/96
#Extraction for TPH	**EPA 3510**	-		Extrn Date	01/16/96
TPH as Diesel	**GC-FID**	0.55 *	0.05	mg/L	01/17/96
Volatile Organic Compounds	**EPA 8240**				
Acetone	67-64-1	ND	100	ug/L	01/18/96
Benzene	71-43-2	ND	5	ug/L	01/18/96
Bromodichloromethane	75-27-4	ND	5	ug/L	01/18/96
Bromoform	75-25-2	ND	5	ug/L	01/18/96
Bromomethane	74-83-9	ND	10	ug/L	01/18/96
2-Butanone	78-93-3	ND	100	ug/L	01/18/96
Carbon Disulfide	75-15-0	ND	10	ug/L	01/18/96
Carbon Tetrachloride	56-23-5	ND	5	ug/L	01/18/96
Chlorobenzene	108-90-7	ND	5	ug/L	01/18/96
Chloroethane	75-00-3	ND	10	ug/L	01/18/96
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/L	01/18/96
Chloroform	67-66-3	ND	5	ug/L	01/18/96
Chloromethane	74-87-3	ND	10	ug/L	01/18/96
Dibromochloromethane	124-48-1	ND	5	ug/L	01/18/96
1,1-Dichloroethane	75-34-3	ND	5	ug/L	01/18/96
1,2-Dichloroethane	107-06-2	ND	5	ug/L	01/18/96
1,1-Dichloroethene	75-35-4	ND	5	ug/L	01/18/96
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/L	01/18/96
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/L	01/18/96
1,2-Dichloropropane	78-87-5	ND	5	ug/L	01/18/96
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/L	01/18/96
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/L	01/18/96
Ethylbenzene	100-41-4	ND	5	ug/L	01/18/96
2-Hexanone	591-78-6	ND	50	ug/L	01/18/96
Methylene Chloride	75-09-2	ND	20	ug/L	01/18/96
4-Methyl-2-pentanone	108-10-1	ND	50	ug/L	01/18/96
Styrene	100-42-5	ND	5	ug/L	01/18/96
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/L	01/18/96
Tetrachloroethene	127-18-4	ND	5	ug/L	01/18/96
Toluene	108-88-3	ND	5	ug/L	01/18/96

LEVINE-FRICKE

SAMPLE ID: RP-1
AEN LAB NO: 9601108-03
AEN WORK ORDER: 9601108
CLIENT PROJ. ID: 3042.02

DATE SAMPLED: 01/10/96
DATE RECEIVED: 01/10/96
REPORT DATE: 01/22/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
1,1,1-Trichloroethane	71-55-6	ND	5	ug/L	01/18/96
1,1,2-Trichloroethane	79-00-5	ND	5	ug/L	01/18/96
Trichloroethene	79-01-6	ND	5	ug/L	01/18/96
Vinyl Acetate	108-05-4	ND	50	ug/L	01/18/96
Vinyl Chloride	75-01-4	ND	10	ug/L	01/18/96
Xylenes, Total	1330-20-7	ND	10	ug/L	01/18/96

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

LEVINE-FRICKE

SAMPLE ID: RP-2
AEN LAB NO: 9601108-04
AEN WORK ORDER: 9601108
CLIENT PROJ. ID: 3042.02

DATE SAMPLED: 01/10/96
DATE RECEIVED: 01/10/96
REPORT DATE: 01/22/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	**EPA 8020**				
Benzene	71-43-2	ND	0.5	ug/L	01/16/96
Toluene	108-88-3	ND	0.5	ug/L	01/16/96
Ethylbenzene	100-41-4	ND	0.5	ug/L	01/16/96
Xylenes, Total	1330-20-7	ND	2	ug/L	01/16/96
Purgeable HCs as Gasoline	5030/GCFID	0.05 *	0.05	mg/L	01/16/96
#Extraction for TPH	**EPA 3510**	-		Extrn Date	01/16/96
TPH as Diesel	**GC-FID**	0.1 *	0.05	mg/L	01/17/96
Volatile Organic Compounds	**EPA 8240**				
Acetone	67-64-1	ND	100	ug/L	01/18/96
Benzene	71-43-2	ND	5	ug/L	01/18/96
Bromodichloromethane	75-27-4	ND	5	ug/L	01/18/96
Bromoform	75-25-2	ND	5	ug/L	01/18/96
Bromomethane	74-83-9	ND	10	ug/L	01/18/96
2-Butanone	78-93-3	ND	100	ug/L	01/18/96
Carbon Disulfide	75-15-0	ND	10	ug/L	01/18/96
Carbon Tetrachloride	56-23-5	ND	5	ug/L	01/18/96
Chlorobenzene	108-90-7	ND	5	ug/L	01/18/96
Chloroethane	75-00-3	ND	10	ug/L	01/18/96
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/L	01/18/96
Chloroform	67-66-3	ND	5	ug/L	01/18/96
Chloromethane	74-87-3	ND	10	ug/L	01/18/96
Dibromochloromethane	124-48-1	ND	5	ug/L	01/18/96
1,1-Dichloroethane	75-34-3	ND	5	ug/L	01/18/96
1,2-Dichloroethane	107-06-2	ND	5	ug/L	01/18/96
1,1-Dichloroethene	75-35-4	ND	5	ug/L	01/18/96
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/L	01/18/96
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/L	01/18/96
1,2-Dichloropropane	78-87-5	ND	5	ug/L	01/18/96
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/L	01/18/96
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/L	01/18/96
Ethylbenzene	100-41-4	ND	5	ug/L	01/18/96
2-Hexanone	591-78-6	ND	50	ug/L	01/18/96
Methylene Chloride	75-09-2	ND	20	ug/L	01/18/96
4-Methyl-2-pentanone	108-10-1	ND	50	ug/L	01/18/96
Styrene	100-42-5	ND	5	ug/L	01/18/96
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/L	01/18/96
Tetrachloroethene	127-18-4	ND	5	ug/L	01/18/96
Toluene	108-88-3	ND	5	ug/L	01/18/96

LEVINE-FRICKE

SAMPLE ID: RP-2
AEN LAB NO: 9601108-04
AEN WORK ORDER: 9601108
CLIENT PROJ. ID: 3042.02

DATE SAMPLED: 01/10/96
DATE RECEIVED: 01/10/96
REPORT DATE: 01/22/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
1,1,1-Trichloroethane	71-55-6	ND	5	ug/L	01/18/96
1,1,2-Trichloroethane	79-00-5	ND	5	ug/L	01/18/96
Trichloroethene	79-01-6	ND	5	ug/L	01/18/96
Vinyl Acetate	108-05-4	ND	50	ug/L	01/18/96
Vinyl Chloride	75-01-4	ND	10	ug/L	01/18/96
Xylenes, Total	1330-20-7	ND	10	ug/L	01/18/96

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

LEVINE-FRICKE

SAMPLE ID: RP-3
AEN LAB NO: 9601108-05
AEN WORK ORDER: 9601108
CLIENT PROJ. ID: 3042.02

DATE SAMPLED: 01/10/96
DATE RECEIVED: 01/10/96
REPORT DATE: 01/22/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	**EPA 8020**				
Benzene	71-43-2	ND	0.5	ug/L	01/16/96
Toluene	108-88-3	0.6 *	0.5	ug/L	01/16/96
Ethylbenzene	100-41-4	ND	0.5	ug/L	01/16/96
Xylenes, Total	1330-20-7	3 *	2	ug/L	01/16/96
Purgeable HCs as Gasoline	5030/GCFID	0.1 *	0.05	mg/L	01/16/96
#Extraction for TPH	**EPA 3510**	-		Extrn Date	01/16/96
TPH as Diesel	**GC-FID**	0.56 *	0.05	mg/L	01/17/96
Volatile Organic Compounds	**EPA 8240**				
Acetone	67-64-1	ND	100	ug/L	01/18/96
Benzene	71-43-2	ND	5	ug/L	01/18/96
Bromodichloromethane	75-27-4	ND	5	ug/L	01/18/96
Bromoform	75-25-2	ND	5	ug/L	01/18/96
Bromomethane	74-83-9	ND	10	ug/L	01/18/96
2-Butanone	78-93-3	ND	100	ug/L	01/18/96
Carbon Disulfide	75-15-0	ND	10	ug/L	01/18/96
Carbon Tetrachloride	56-23-5	ND	5	ug/L	01/18/96
Chlorobenzene	108-90-7	ND	5	ug/L	01/18/96
Chloroethane	75-00-3	ND	10	ug/L	01/18/96
2-Chloroethyl Vinyl Ether	110-75-8	ND	10	ug/L	01/18/96
Chloroform	67-66-3	ND	5	ug/L	01/18/96
Chloromethane	74-87-3	ND	10	ug/L	01/18/96
Dibromochloromethane	124-48-1	ND	5	ug/L	01/18/96
1,1-Dichloroethane	75-34-3	ND	5	ug/L	01/18/96
1,2-Dichloroethane	107-06-2	ND	5	ug/L	01/18/96
1,1-Dichloroethene	75-35-4	ND	5	ug/L	01/18/96
cis-1,2-Dichloroethene	156-59-2	ND	5	ug/L	01/18/96
trans-1,2-Dichloroethene	156-60-5	ND	5	ug/L	01/18/96
1,2-Dichloropropane	78-87-5	ND	5	ug/L	01/18/96
cis-1,3-Dichloropropene	10061-01-5	ND	5	ug/L	01/18/96
trans-1,3-Dichloropropene	10061-02-6	ND	5	ug/L	01/18/96
Ethylbenzene	100-41-4	ND	5	ug/L	01/18/96
2-Hexanone	591-78-6	ND	50	ug/L	01/18/96
Methylene Chloride	75-09-2	ND	20	ug/L	01/18/96
4-Methyl-2-pentanone	108-10-1	ND	50	ug/L	01/18/96
Styrene	100-42-5	ND	5	ug/L	01/18/96
1,1,2,2-Tetrachloroethane	79-34-5	ND	5	ug/L	01/18/96
Tetrachloroethene	127-18-4	ND	5	ug/L	01/18/96
Toluene	108-88-3	ND	5	ug/L	01/18/96

LEVINE-FRICKE

SAMPLE ID: RP-3
AEN LAB NO: 9601108-05
AEN WORK ORDER: 9601108
CLIENT PROJ. ID: 3042.02

DATE SAMPLED: 01/10/96
DATE RECEIVED: 01/10/96
REPORT DATE: 01/22/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
1,1,1-Trichloroethane	71-55-6	ND	5	ug/L	01/18/96
1,1,2-Trichloroethane	79-00-5	ND	5	ug/L	01/18/96
Trichloroethene	79-01-6	ND	5	ug/L	01/18/96
Vinyl Acetate	108-05-4	ND	50	ug/L	01/18/96
Vinyl Chloride	75-01-4	ND	10	ug/L	01/18/96
Xylenes, Total	1330-20-7	ND	10	ug/L	01/18/96

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

AEN (CALIFORNIA)
QUALITY CONTROL REPORT

AEN JOB NUMBER: 9601108

CLIENT PROJECT ID: 3042.02

Quality Control Summary

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

Definitions

Laboratory Control Sample (LCS)/Method Spike(s): Control samples of known composition. LCS and Method Spike data are used to validate batch analytical results.

Matrix Spike(s): Aliquot of a sample (aqueous or solid) with added quantities of specific compounds and subjected to the entire analytical procedure. Matrix spike and matrix spike duplicate QC data are advisory.

Method Blank: An analytical control consisting of all reagents, internal standards, and surrogate standards carried through the entire analytical process. Used to monitor laboratory background and reagent contamination.

Not Detected (ND): Not detected at or above the reporting limit.

Relative Percent Difference (RPD): An indication of method precision based on duplicate analysis.

Reporting Limit (RL): The lowest concentration routinely determined during laboratory operations. The RL is generally 1 to 10 times the Method Detection Limit (MDL). Reporting limits are matrix, method, and analyte dependent and take into account any dilutions performed as part of the analysis.

Surrogates: Organic compounds which are similar to analytes of interest in chemical behavior, but are not found in environmental samples. Surrogates are added to all blanks, calibration and check standards, samples, and spiked samples. Surrogate recovery is monitored as an indication of acceptable sample preparation and instrumental performance.

D: Surrogates diluted out.

#: Indicates result outside of established laboratory QC limits.

QUALITY CONTROL DATA

METHOD: EPA 3510 GCFID

AEN JOB NO: 9601108
AEN LAB NO: 0115-BLANK
DATE EXTRACTED: 01/15/96
DATE ANALYZED: 01/16/96
INSTRUMENT: C
MATRIX: WATER

Method Blank

Analyte	Result (mg/L)	Reporting Limit (mg/L)
Diesel	ND	0.05

AEN LAB NO: 0116-BLANK
DATE EXTRACTED: 01/16/96
DATE ANALYZED: 01/17/96
INSTRUMENT: C
MATRIX: WATER

Method Blank

Analyte	Result (mg/L)	Reporting Limit (mg/L)
Diesel	ND	0.05

QUALITY CONTROL DATA

METHOD: EPA 3510 GCFID

AEN JOB NO: 9601108
DATE(S) EXTRACTED: 01/15/96; 01/16/96
INSTRUMENT: C
MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery n-Pentacosane
01/16/96	MW-5	01	107
01/17/96	MW-4	02	93
01/17/96	RP-1	03	91
01/17/96	RP-2	04	94
01/17/96	RP-3	05	82
QC Limits:			59-118

DATE EXTRACTED: 01/11/96
DATE ANALYZED: 01/12/96
SAMPLE SPIKED: 9512194-20
INSTRUMENT: C

Matrix Spike Recovery Summary

Analyte	Spike Added (mg/L)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Diesel	2.00	92	2	58-107	15

QUALITY CONTROL DATA

METHOD: EPA 8020, 5030 GCFID

AEN JOB NO: 9601108
AEN LAB NO: 0116-BLANK
DATE ANALYZED: 01/16/96
INSTRUMENT: F
MATRIX: WATER

Method Blank

Analyte	CAS #	Result (ug/L)	Reporting Limit (ug/L)
Benzene	71-43-2	ND	0.5
Toluene	108-88-3	ND	0.5
Ethylbenzene	100-41-4	ND	0.5
Xylenes, Total	1330-20-7	ND	2
HCs as Gasoline		ND mg/L	0.05 mg/L

QUALITY CONTROL DATA

METHOD: EPA 8020, 5030 GCFID

AEN JOB NO: 9601108
INSTRUMENT: F
MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery Fluorobenzene
01/16/96	MW-5	01	77
01/16/96	MW-4	02	87
01/16/96	RP-1	03	86
01/16/96	RP-2	04	85
01/16/96	RP-3	05	85
QC Limits:			70-130

DATE ANALYZED: 01/15/96
SAMPLE SPIKED: 9601089-07
INSTRUMENT: F

Matrix Spike Recovery Summary

Analyte	Spike Added (ug/L)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Benzene	19.1	106	3	85-109	17
Toluene	63.4	104	3	87-111	16
HCs as Gasoline	500	117	1	66-117	19

QUALITY CONTROL DATA

METHOD: EPA 8240

AEN JOB NO: 9601108
AEN LAB NO: 0118-BLANK
DATE ANALYZED: 01/18/96
INSTRUMENT: 13
MATRIX: WATER

Method Blank

Analyte	CAS #	Result (ug/L)	Reporting Limit (ug/L)
Acetone	67-64-1	ND	100
Benzene	71-43-2	ND	5
Bromodichloromethane	75-27-4	ND	5
Bromoform	75-25-2	ND	5
Bromomethane	74-83-9	ND	10
2-Butanone	78-93-3	ND	100
Carbon Disulfide	75-15-0	ND	10
Carbon Tetrachloride	56-23-5	ND	5
Chlorobenzene	108-90-7	ND	5
Chloroethane	75-00-3	ND	10
2-Chloroethyl Vinyl Ether	110-75-8	ND	10
Chloroform	67-66-3	ND	5
Chloromethane	74-87-3	ND	10
Dibromochloromethane	124-48-1	ND	5
1,2-Dichlorobenzene	95-50-1	ND	5
1,3-Dichlorobenzene	541-73-1	ND	5
1,4-Dichlorobenzene	106-46-7	ND	5
1,1-Dichloroethane	75-34-3	ND	5
1,2-Dichloroethane	107-06-2	ND	5
1,1-Dichloroethene	75-35-4	ND	5
cis-1,2-Dichloroethene	156-59-2	ND	5
trans-1,2-Dichloroethene	156-60-5	ND	5
1,2-Dichloropropane	78-87-5	ND	5
cis-1,3-Dichloropropene	10061-01-5	ND	5
trans-1,3-Dichloropropene	10061-02-6	ND	5
Ethylbenzene	100-41-4	ND	5
2-Hexanone	591-78-6	ND	50
Methylene Chloride	75-09-2	ND	20
4-Methyl-2-pentanone	108-10-1	ND	50
Styrene	100-42-5	ND	5
1,1,2,2-Tetrachloroethane	79-34-5	ND	5
Tetrachloroethene	127-18-4	ND	5
Toluene	108-88-3	ND	5
1,1,1-Trichloroethane	71-55-6	ND	5
1,1,2-Trichloroethane	79-00-5	ND	5
Trichloroethene	79-01-6	ND	5
Vinyl Acetate	108-05-4	ND	50
Vinyl Chloride	75-01-4	ND	10
Xylenes, total	1330-20-7	ND	10

QUALITY CONTROL DATA

METHOD: EPA 8240

AEN JOB NO: 9601108
INSTRUMENT: 13
MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery 1,2-Dichloroethane-d_4	Toluene-d_8	p-Bromofluorobenzene
01/18/96	MW-5	01	88	98	105
01/18/96	MW-4	02	96	90	105
01/18/96	RP-1	03	103	100	100
01/18/96	RP-2	04	99	97	96
01/18/96	RP-3	05	98	102	100
QC Limits:			76-114	88-110	86-115

DATE ANALYZED: 01/16/96
SAMPLE SPIKED: 9601108-05
INSTRUMENT: 13

Matrix Spike Recovery Summary

Analyte	Spike Added (ug/L)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
1,1-Dichloroethene	50	148	2	59-155	25
Trichloroethene	50	104	1	71-157	25
Benzene	50	130	<1	37-151	25
Toluene	50	116	2	47-150	25
Chlorobenzene	50	115	1	37-160	25

*** END OF REPORT ***

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

9601108

Project No.: 3042.02	Field Logbook No.:	Date: 1/10/96	Serial No.: № 19219
Project Name: Rifkin	Project Location: Emeryville, CA.		
Sampler (Signature): [signature]			Samplers: JPS

SAMPLES / **ANALYSES**

SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CON-TAINERS	SAMPLE TYPE	TPHg	BTEX	8240	TPHd	Diss. Arsenic		HOLD	RUSH	REMARKS
MW-5	1/10	9:30	01A-H	9	WATER	X	X	X	X	X		X		24 Hr TAT on
MW-4	↓	10:30	02A-H	↓	↓	↓	↓	↓	↓	↓		↓		Dissolved Arsenic
RP-1	↓	11:30	03A-H	↓	↓	↓	↓	↓	↓	↓		↓		ONLY. on 9601106
RP-2	↓	12:20	04A-H	↓	↓	↓	↓	↓	↓	↓		↓		
RP-3	↓	13:05	05A-H	↓	↓	↓	↓	↓	↓	↓		↓		Normal TAT on
														all other Analyses
														Results to
														Kenton Gee

RELINQUISHED BY: (Signature) [signature]	DATE 1/10/96	TIME 17:15	RECEIVED BY: (Signature) [signature]	DATE 1-10-96	TIME 17:15
RELINQUISHED BY: (Signature) [signature]	DATE 1-10-96	TIME 18:10	RECEIVED BY: (Signature) [signature]	DATE 1/10/96	TIME 1810
RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME
METHOD OF SHIPMENT:	DATE	TIME	LAB COMMENTS:		

Sample Collector: LEVINE-FRICKE
1900 Powell Street, 12th Floor
Emeryville, California 94608
(510) 652-4500

Analytical Laboratory: AEN

Shipping Copy (White) Lab Copy (Green) File Copy (Yellow) Field Copy (Pink)

FORM NO. 86/COC/ARF