

October 31, 1996

3042.95-002

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

Subject: Quarterly Groundwater Monitoring Results for July 1 to September 30, 1996,
A Portion of the Rifkin Property, 4525-4563 Horton Street, Emeryville, California

EMERYVILLE
PROJECT LOCATION
06 NOV -5 AM 9:21

Dear Mr. Arigala:

This letter transmits the results for quarterly monitoring on a portion of the Rifkin Property located at 4525-4563 Horton Street in Emeryville, California ("the Site") for the monitoring period from July 1 to September 30, 1996.

Quarterly groundwater 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 groundwater monitoring program was approved by the RWQCB in a letter to Dave Gustafson from Steven Ritchie, dated November 4, 1994. In addition, wells MW-1 through MW-3 (installed by TMC Environmental) were included in this quarterly monitoring event.

On July 29, 1996, depth-to-water measurements were recorded in on-site wells RP-1 through RP-5 (installed by Levine-Fricke-Recon Inc. [LFR; formerly Levine-Fricke, Inc. and Recon]) and MW-1 through MW-5. On July 31, 1996, groundwater samples were collected from wells RP-1 through RP-5 and wells MW-1 through MW-3 and submitted to American Environmental Network (AEN), a California state-certified laboratory, for chemical analysis. Locations of on-site wells are shown on Figure 1. Water level and sampling field forms are included in Appendix A.

Depth to groundwater in the monitoring wells was measured using an electric water-level meter to the nearest 0.01 foot. Depth-to-water measurements and groundwater elevations in the monitoring wells are presented in Table 1. Groundwater 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 were purged from each well either using 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, groundwater parameters (pH, specific conductance, and temperature) were monitored and recorded to aid in collecting samples that were representative of the groundwater in surrounding sediments. Samples were collected after these parameters had

stabilized. If a well did not sustain a constant yield (i.e., went dry), the well was sampled after the water level had recovered to approximately 80 percent of the original level or two hours after purging, whichever occurred first.

After purging, groundwater samples were collected using a clean Teflon bailer fitted with a new rope. A duplicate sample collected from well RP-4 and a bailer field blank were submitted for chemical analysis to monitor laboratory and equipment decontamination quality assurance and quality control. Equipment used during groundwater 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 groundwater extraction and treatment system located at the Sherwin-Williams site.

Groundwater 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; 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.

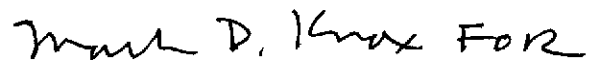
The next quarterly groundwater monitoring event will be conducted in November 1996 after site access is approved. Results from this event will be reported in the quarterly groundwater monitoring report for the period from October 1 through December 31, 1996.

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

Sincerely,



Mark D. Knox, P.E.
Principal Engineer



Kenton A. Gee
Project Hydrogeologist

Enclosures

cc: Larry Mencin, The Sherwin-Williams Company
Allen Danzig, The Sherwin-Williams Company
Susan Hugo, Alameda County
Ravi Arulanantham, Alameda County
Ric Notini, Chiron Corporation

CERTIFICATION

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

Mark D. Knox

10/31/96

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

Date

Table 1
Historical Groundwater Elevation Data
Rifkin Property, Emeryville, California

Well Number	Date	Elevation Top of Casing (msl)	Depth to Groundwater (ft bgs)	Groundwater 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
	24-Apr-96		7.81	7.33
	29-Jul-96		8.58	6.56
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
	24-Apr-96		8.04	7.20
	29-Jul-96		8.89	6.35
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
	24-Apr-96		7.92	7.25
	29-Jul-96		8.71	6.46
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
	24-Apr-96		8.05	7.08
	29-Jul-96		8.88	6.25
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
	24-Apr-96		7.96	7.08
	29-Jul-96		8.81	6.23
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-1	24-Apr-96		6.93	6.85
	29-Jul-96		7.76	6.02
MW-2 ⁽²⁾	9-Aug-95	13.39	7.31	6.08

**Table 1
Historical Groundwater Elevation Data
Rifkin Property, Emeryville, California**

Well Number	Date	Elevation Top of Casing (msl)	Depth to Groundwater (ft bgs)	Groundwater Elevation (msl)
	17-Nov-95		8.12	5.27
	9-Jan-96	13.58 ⁽³⁾	7.04	6.54
	24-Apr-96		6.56	7.02
	29-Jul-96		7.59	5.99
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
	24-Apr-96		7.19	7.41
	29-Jul-96		8.08	6.52
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
	24-Apr-96		7.72	7.81
	29-Jul-96		8.29	7.24
MW-5				
⁽²⁾	9-Aug-95	15.87	7.87	8.00
	17-Nov-96		8.65	7.22
	9-Jan-96		7.93	7.94
	24-Apr-96		7.49	8.38
	29-Jul-96		8.24	7.63

Data entered by DEB . Proofed by KAG .

Notes

- (1) Monitoring well installed by LFR.
 - (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 Groundwater 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
	17-Apr-96	0.058	0.12	0.59	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
	dup 17-Apr-96	0.069	0.15	0.72	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
31-Jul-96	0.068	1.4	1.1	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA	
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
	17-Apr-96	0.010	<0.05	0.17	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
31-Jul-96	0.007	<0.05	<0.05	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA	
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
	17-Apr-96	0.006	0.13	0.42	NA	<0.0005	<0.0005	0.0006	0.0008	NA	NA	NA	NA	NA	NA	NA
	31-Jul-96	0.009	0.1	0.39	NA	<0.0005	0.0005	0.0005	0.007	NA	NA	NA	NA	NA	NA	NA
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

Table 2
Chemicals Detected in Groundwater 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	
(contin.)	RP-4 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	
	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	
	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	
	17-Apr-96	0.009	<0.05	0.14	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA	
	31-Jul-96	0.005	<0.05	0.24	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA	
	dup 31-Jul-96	0.003	<0.05	0.21	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA	
	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	
17-Apr-96		0.008	<0.05	0.64	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA	
31-Jul-96	<0.002	<0.05	0.79	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA		
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	
	17-Apr-96	0.034	1.7	1.1	NA	0.065	0.0035	0.0055	0.007	NA	NA	NA	NA	NA	NA	NA	
	31-Jul-96	0.037	2.4	12	NA	0.053	0.0098	0.012	0.014	NA	NA	NA	NA	NA	NA	NA	
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	
	17-Apr-96	0.028	0.62	4.6	NA	0.032	0.0013	0.008	<0.002	NA	NA	NA	NA	NA	NA	NA	
	31-Jul-96	0.037	0.71	3.2	NA	0.042	0.0016	0.0009	<0.002	NA	NA	NA	NA	NA	NA	NA	
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	
	17-Apr-96	0.018	0.16	0.18	NA	<0.005	<0.005	<0.005	<0.002	NA	NA	NA	NA	NA	NA	NA	
	31-Jul-96	0.059	9.4	0.42	NA	<0.005	<0.005	<0.005	<0.002	NA	NA	NA	NA	NA	NA	NA	
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	

Table 2
Chemicals Detected in Groundwater 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
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
RP-4-FB	17-Apr-96	NA	<0.05	NA	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
RP-1-FB	31-Jul-96	<0.002	<0.05	<0.05	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
MCLS	-----	0.050	-----	-----	-----	0.005	1.000	0.700	10	-----	-----	0.0005	0.070	0.100	-----	0.005

Data entered by DEB. Data proofed by KAG. QA/QC by SVS.

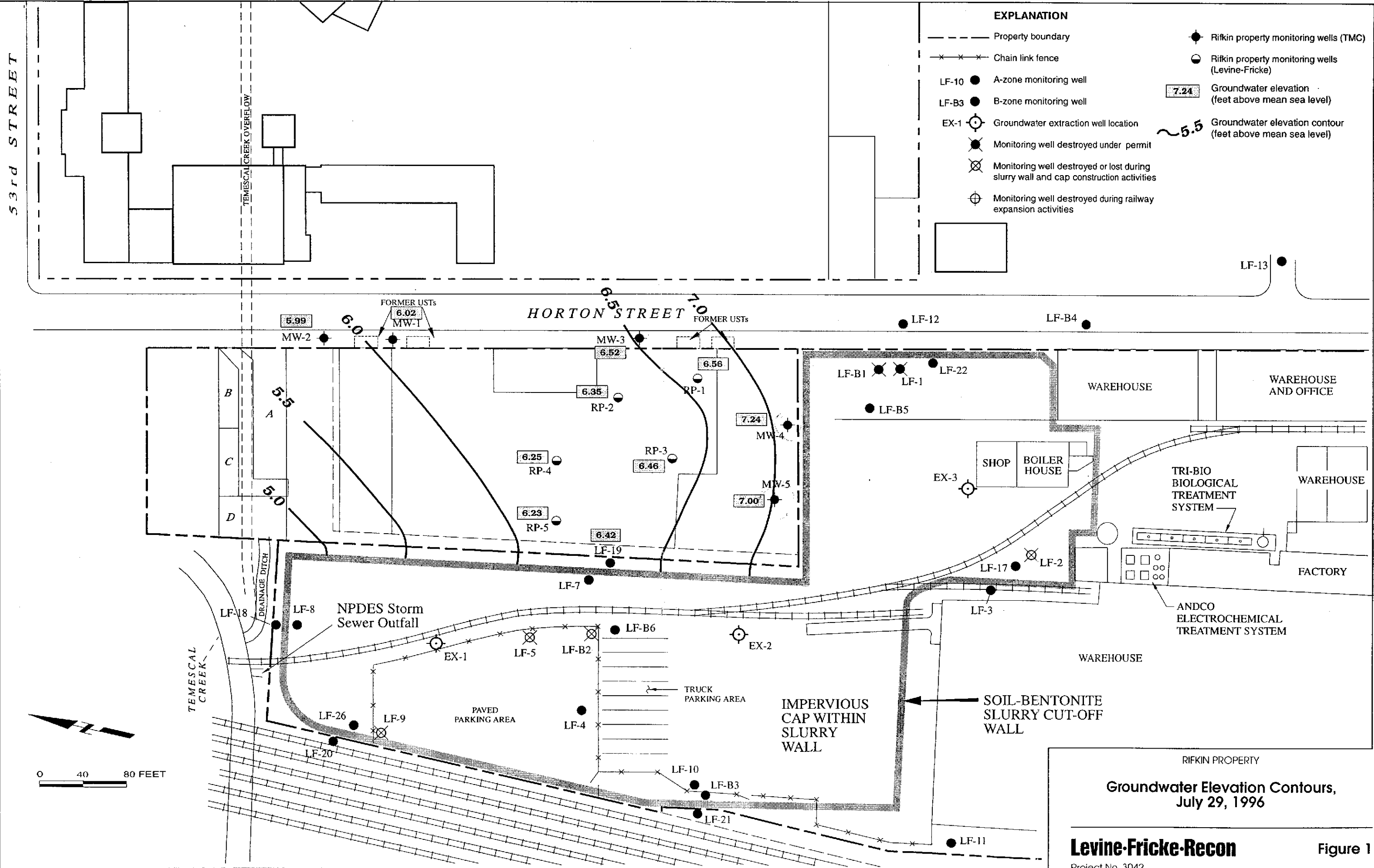
Notes:

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.

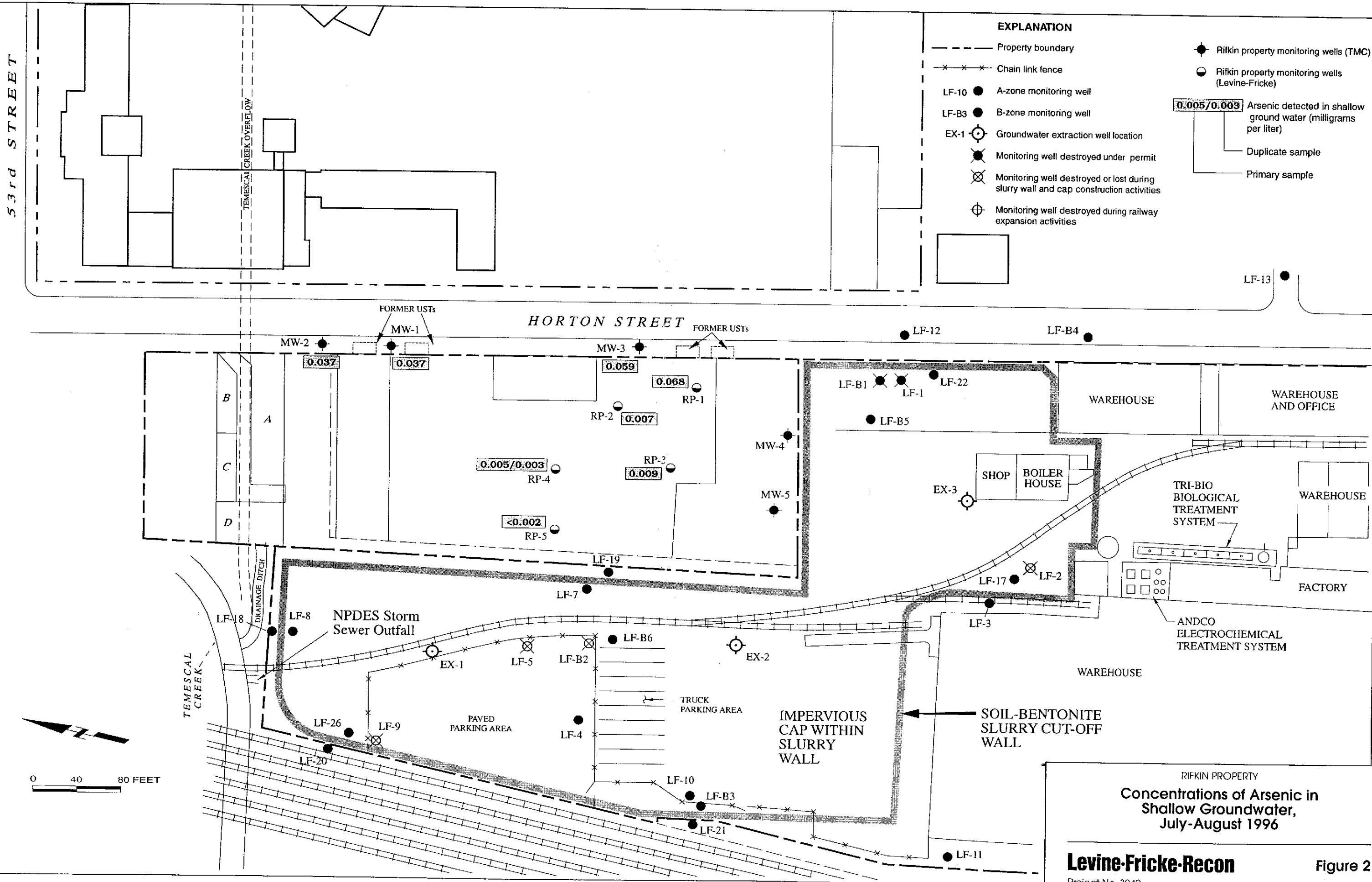
NA = not analyzed
 ND = not detected

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.



RIFKIN PROPERTY
Groundwater Elevation Contours,
July 29, 1996



RIFKIN PROPERTY
Concentrations of Arsenic in Shallow Groundwater, July-August 1996

Levine-Fricke-Recon

Figure 2

Project No. 3042

APPENDIX A

Water Level and Sampling Field Forms

WATER-LEVEL MEASUREMENTS

Project Name: Sherwin Williams Project No.: 34357/309296.0
 Field Personnel: JMR Date: 7-27-96
 General Observations: Sandy lot

WELL NO.	WELL ELEVATION	DEPTH TO WATER MEASUREMENTS		WATER ELEVATION	REMARKS (UNITS = FEET)
		1	2		
LF-3		5.57	5.57		10:16
LF-4		NM	NM		unable to access
LF-7		9.70	9.70		9:50 - No well cap
LF-8		8.21	8.21		9:55 - Tape for well cap
LF-10		NM	NM	5.99 (8-1-96) OTW	unable to locate / covered
LF-11		3.93	3.93		10:58
LF-12		7.29	7.29		9:31
LF-13		6.96	6.96		9:39
LF-17		6.10	6.10		10:13
LF-18		8.65	8.65		9:57
LF-20		7.91	7.91		10:03
LF-21		4.61	4.61		10:52
LF-22		12.22	12.22		10:22
LF-23		5.28	5.28		11:41
LF-24		5.24	5.24		11:44
LF-25		7.66	7.66		11:47
LF-26		8.08	8.08		10:00
LF-B3		4.12	4.12		10:55
LF-B4		6.97	6.97		4:35
LF-B5		11.03	11.03		10:20 - Meas. from North Side
LF-B6		5.81	5.81		9:45
MW-1		7.76	7.76		9:20
MW-2		7.59	7.59		9:24
MW-3		8.08	8.08		9:27
MW-4		8.29	8.29		11:28
MW-5		8.24	8.24		11:20
RP-1		8.58	8.58		11:14
RP-2		8.89	8.89		11:17
RP-3		8.71	8.71		11:24
RP-4		8.88	8.88		11:19
RP-5		8.81	8.81		11:21
LF-19		7.76	7.76		9:49
EX-1		15.70	15.70		11:59
EX-2		14.50	14.50		11:55
EX-3		17.20	17.20		12:03

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3042.96.02
 Project Name: Rifkin (Shorwin Williams)
 Sample Location: Emeryville
 Samplers Name: JMR
 Sampling Plan Prepared By: KAG
 Sampling Method: _____

Date: 7-3-96
 Sample No.: RP-1
 FB: RP-1-FB
 DUP: _____

- | | |
|---|---|
| <input type="checkbox"/> Centrifugal Pump | <input type="checkbox"/> Disposable Bailer |
| <input type="checkbox"/> Submersible Pump | <input checked="" type="checkbox"/> Teflon Bailer |
| <input checked="" type="checkbox"/> Hand Bail | <input type="checkbox"/> _____ |
- (Other) _____

Analyses Requested
TPHg, BTEX
TPHd
Dissolved As

Number and Types of Bottle used
5 ~~6~~ 1/2" VOA/HCL
3 amber litre
2 500ml plastic

```

11.86
 8.59
-----
 3.27
  .16
-----
19.62
 32.70
-----
52.32

      3.27
        .2
-----
      3.49
 8.59
-----
 12.08
 9.24 4
-----
21.32

80% BTW 9.24
    
```

Method of Shipment

AEN
 (Lab Name)

- Courier _____
 Hand Deliver: _____

Well Number: RP-1
 Depth of Water: 8.59
 Well Depth: 11.86
 Height of Water Column: 3.27
 Volume in Well: 1

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

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temperature °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
9:40								Field Blank
9:55								Start
9:56		1		18.5	6.37	679		Sl. turbid / sl. odor
9:57		2		18.4	6.35	692		
9:58		3		18.4	6.36	669		↓ ↓
	9.24							
10:05								SAMPLE

Inlet Depth: _____

Comments: _____
 (Recommended Method For Purging Well)

WATER-QUALITY SAMPLING INFORMATION

Project No.: ~~JMR 3495.00-04~~ 3042.96.02
 Project Name: Sherwin Williams - Rifkin
 Sample Location: Emeryville
 Samplers Name: JMR
 Sampling Plan Prepared By: KAG
 Sampling Method: _____

Date: 7-31-96
 Sample No.: RP-2
 FB: _____
 DUP: _____

- | | |
|---|---|
| <input type="checkbox"/> Centrifugal Pump | <input type="checkbox"/> Disposable Bailer |
| <input type="checkbox"/> Submersible Pump | <input checked="" type="checkbox"/> Teflon Bailer |
| <input checked="" type="checkbox"/> Hand Bail | <input type="checkbox"/> _____
(Other) |

Analyses Requested
TPHg, BTEX
TPHd
Dissolved As

Number and Types of Bottle used
3 VOA/HCL
2 amber litre
1 500ml plastic

```

14.43
 8.90
-----
 5.53
  .10
-----
 33.18
 5530
-----
 8848

      5.53
       .2
-----
      5.73
  8.90
-----
 10.006

80% DTW 10.00
    
```

Method of Shipment

AEN

(Lab Name)

Courier

Hand Deliver:

Well Number: RP-2
 Depth of Water: 8.90
 Well Depth: 14.43
 Height of Water Column: 5.53
 Volume in Well: 1

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

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temperature °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
9:21								Start
9:23		1		18.3	6.32	946		Turbid / sl. odor
9:25		2		18.3	6.34	956		↓
9:27		3		18.3	6.39	962		↓
	9.05							
9:30								SAMPLE

Inlet Depth: _____

Comments:
 (Recommended Method For Purging Well)

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3042.96.02
 Project Name: Rifkin (Shorwin Williams)
 Sample Location: Emeryville
 Samplers Name: JMR
 Sampling Plan Prepared By: KAG
 Sampling Method: _____

Date: 7-31-96
 Sample No.: RP-3
 FB: _____
 DUP: _____

- | | |
|---|---|
| <input type="checkbox"/> Centrifugal Pump | <input type="checkbox"/> Disposable Bailer |
| <input type="checkbox"/> Submersible Pump | <input checked="" type="checkbox"/> Teflon Bailer |
| <input checked="" type="checkbox"/> Hand Bail | <input type="checkbox"/> _____ |

Analyses Requested
TPH_g, BTEX
TPH_d
Dissolved As

Number and Types of Bottle used
3 VOA/HCL
2 amber litre
1 500ml plastic

12.78
 8.73

 4.05
 .16

 2430
 4050

 6480

 4.05
 .2

 810
 8.73

 9.540

 80% DTW 9.54

Method of Shipment
AEN
 (Lab Name)

- Courier _____
 Hand Deliver: _____

Well Number: RP-3
 Depth of Water: 8.73
 Well Depth: 12.78
 Height of Water Column: 4.05
 Volume in Well: 1

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

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temperature °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
10:17								Start
10:18		1		18.2	6.13	2.47		turbid / odor
10:19		2		18.2	6.19	2.49		
10:20		3		18.2	6.19	2.58		↓ ↓
	9.25							
10:30								SAMPLE

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

SAMPLE

WATER-QUALITY SAMPLING INFORMATION

Project No.: ~~JMR 3435.00.04~~ 3042:96.02
 Project Name: Sherwin Williams - Rifkin
 Sample Location: Emeryville
 Samplers Name: JMR
 Sampling Plan Prepared By: KAG

Date: 7-31-96
 Sample No.: RP-4
 FB: _____
 DUP: RP-104

Sampling Method: _____
 Centrifugal Pump Disposable Bailer
 Submersible Pump Teflon Bailer
 Hand Bail _____
 (Other)

Analyses Requested: TPHq, BTEX
TPHd
Dissolved AS
 Number and Types of Bottle used:
6 VOA/Hcl
4 Amber litre
2 soom plastic

16.15
 8.90

 7.25
 .16

 4350
 7250

 11600

80% DTW _____

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

Well Number: RP-4 Well Diameter: _____
 Depth of Water: 8.90 2" (0.16 Gallon/Feet)
 Well Depth: 16.15 4" (0.65 Gallon/Feet)
 Height of Water Column: _____ 5" (1.02 Gallon/Feet)
 Volume in Well: 1.25 6" (1.47 Gallon/Feet)

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temperature °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
8:50								Start
8:52		1.25		18.3	6.25	868		turbid / sl. odor
8:54		2.5		18.1	6.24	909		
8:56		3.75		18.1	6.23	906		↓ ↓
	8.95							
9:05								Sample
10:05								Dep

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

WATER-QUALITY SAMPLING INFORMATION

Project No.: MP 3435-00-04 3042.96.02
 Project Name: Sherwin Williams - Rifkin
 Sample Location: Emeryville
 Samplers Name: MP
 Sampling Plan Prepared By: KAG
 Sampling Method: _____

Date: 7-31-96
 Sample No.: RP-5
 FB: _____
 DUP: _____

- | | |
|---|---|
| <input type="checkbox"/> Centrifugal Pump | <input type="checkbox"/> Disposable Bailer |
| <input type="checkbox"/> Submersible Pump | <input checked="" type="checkbox"/> Teflon Bailer |
| <input checked="" type="checkbox"/> Hand Bail | <input type="checkbox"/> _____ |

Analyses Requested: TPH, BTEX, TPHd, Dissolved As
 Number and Types of Bottle used: 3 VOA / Hel, 2 amber litre, 1 500ml plastic

15.88
 8.82

 7.06
 .16

 4236
 7060

 11296

 7.06
 .2

 1.412
 8.82

 10.232

 80% BTW 10.23

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

Well Number: RP-5 Well Diameter: _____
 Depth of Water: 8.82
 Well Depth: 15.88
 Height of Water Column: 7.06
 Volume in Well: 1.25

- Well Diameter:
- | |
|---|
| <input checked="" type="checkbox"/> 2" (0.16 Gallon/Feet) |
| <input type="checkbox"/> 4" (0.65 Gallon/Feet) |
| <input type="checkbox"/> 5" (1.02 Gallon/Feet) |
| <input type="checkbox"/> 6" (1.47 Gallon/Feet) |

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temperature °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
8:23								Start
8:25		1.25		18.3	6.19	784		turbid / sl. odor
8:27		2.5		18.3	6.15	780		
8:30		3.75		18.3	6.14	761		↓ ↓
	8.82							
8:40								SAMPLE

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

SAMPLES

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3042.96.02
 Project Name: Rifkin (Shorwin Williams)
 Sample Location: Emeryville
 Samplers Name: JMR
 Sampling Plan Prepared By: KAG
 Sampling Method: _____

Date: 7-31-96
 Sample No.: MW-1
 FB: _____
 DUP: _____

- | | |
|---|---|
| <input type="checkbox"/> Centrifugal Pump | <input type="checkbox"/> Disposable Bailer |
| <input type="checkbox"/> Submersible Pump | <input checked="" type="checkbox"/> Teflon Bailer |
| <input checked="" type="checkbox"/> Hand Bail | <input type="checkbox"/> _____ |

Analyses Requested
TPHg, BTEX
TPHd
Dissolved As

Number and Types of Bottle used
3 VOA/Hcl
2 amber litre
1 500ml plastic

```

15.90
 7.75
-----
 8.15
  .16
-----
 4890
 8150
-----
13040

      8.15
       .2
-----
     1630
      7.75
-----
     9.380

80% DTW 9.38
    
```

Method of Shipment

AEN
 (Lab Name)

- Courier _____
 Hand Deliver _____

Well Number: MW-1
 Depth of Water: 7.75
 Well Depth: 15.90
 Height of Water Column: 8.15
 Volume in Well: 1.5

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

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temperature °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
10:47								Start
10:49		1.5		19.6	6.25	1205		turbid/odor/product sheen
10:51		3		19.6	6.11	1181		↓ ↓ ↓
10:53		4.5		19.7	6.08	1163		
	7.90							
11:00								Sample

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

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3042.96.02
 Project Name: Rifkin (Shorwin Williams)
 Sample Location: Emeryville
 Samplers Name: JNR
 Sampling Plan Prepared By: KAG
 Sampling Method: _____

Date: 7-31-96
 Sample No.: MW-2
 FB: _____
 DUP: _____

- | | |
|---|---|
| <input type="checkbox"/> Centrifugal Pump | <input type="checkbox"/> Disposable Bailer |
| <input type="checkbox"/> Submersible Pump | <input checked="" type="checkbox"/> Teflon Bailer |
| <input checked="" type="checkbox"/> Hand Bail | <input type="checkbox"/> _____ |

Analyses Requested: TPHg, BTEX
TPHd
Dissolved As

Number and Types of Bottle used: 3 VOA/HCL
2 amber litre
1 500ml plastic

15.00
 7.60

 7.40
 .16

 44.40
 74.00

 118.40

7.40
 .2

 1.480
 7.60

 9.080

80% BTW 9.08

Method of Shipment: AEN
 (Lab Name)

Courier _____
 Hand Deliver _____

Well Number: MW-2 Well Diameter: _____
 Depth of Water: 7.60
 Well Depth: 15.00
 Height of Water Column: 7.40
 Volume in Well: 1.25

2" (0.16 Gallon/Feet)
 4" (0.65 Gallon/Feet)
 5" (1.02 Gallon/Feet)
 6" (1.47 Gallon/Feet)

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temperature °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
11:13								Start
11:15		1.25		19.6	6.04	1213		turbid/sl. odor/sl. sheen
11:17		2.5		19.2	6.04	1185		↓ ↓ ↓
11:19		3.75		19.0	6.10	1181		
	9.08							
11:30								SAMPLE

Inlet Depth: _____
 Comments: Silt was present in water
 (Recommended Method For Purging Well)

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3042.96.02
 Project Name: Rifkin (Shorwin Williams)
 Sample Location: Emeryville
 Samplers Name: JMR
 Sampling Plan Prepared By: KAG
 Sampling Method: _____

Date: 7-31-96
 Sample No.: MW-3
 FB: _____
 DUP: _____

- | | |
|---|---|
| <input type="checkbox"/> Centrifugal Pump | <input type="checkbox"/> Disposable Bailer |
| <input type="checkbox"/> Submersible Pump | <input checked="" type="checkbox"/> Teflon Bailer |
| <input checked="" type="checkbox"/> Hand Bail | <input type="checkbox"/> _____ |

Analyses Requested

TPH_g, BTEX
TPH_d
Dissolved As

Number and Types of Bottle used

3 VOA/HEL
2 amber litre
1 500ml plastic

Method of Shipment

AEN
 (Lab Name)

- Courier _____
 Hand Deliver: _____

Well Number: MW-3
 Depth of Water: 8.07
 Well Depth: 19.20
 Height of Water Column: 11.13
 Volume in Well: 2

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

19.20
 8.07

 11.13
 .16

 6.678
 11130

 1.7808

 11.13
 .2

 2.226
 8.07

 10.296

 80% DTW 10.29

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temperature °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
11:43								Start
11:45		2		18.9	6.52	603		turbid / sl. odor
11:47		4		19.0	6.56	558		
11:49		6		19.0	6.61	504		↓ ↓
	8.55							
12:00								Sample

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

APPENDIX B

Laboratory Certificates

American Environmental Network

Certificate of Analysis

DOHS Certification: 1172

AIHA Accreditation: 11134

PAGE 1

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

REPORT DATE: 08/13/96

DATE(S) SAMPLED: 07/31/96

DATE RECEIVED: 07/31/96

AEN WORK ORDER: 9607415

ATTN: KENTON GEE
CLIENT PROJ. ID: 3042.96.02
CLIENT PROJ. NAME: SHERWIN WMS.
C.O.C. NUMBER: 15039

PROJECT SUMMARY:

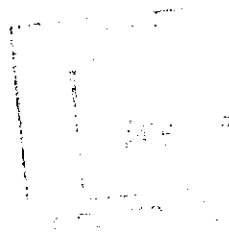
On July 31, 1996, this laboratory received 5 water sample(s).

Client requested sample(s) be analyzed for chemical 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: RP-5
AEN LAB NO: 9607415-01A
AEN WORK ORDER: 9607415
CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 07/31/96
DATE RECEIVED: 07/31/96
REPORT DATE: 08/13/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	ND	0.5	ug/L	08/09/96
Toluene	108-88-3	ND	0.5	ug/L	08/09/96
Ethylbenzene	100-41-4	ND	0.5	ug/L	08/09/96
Xylenes, Total	1330-20-7	ND	2	ug/L	08/09/96
Purgeable HCs as Gasoline	5030/GCFID	ND	0.05	mg/L	08/09/96

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

LEVINE-FRICKE

SAMPLE ID: RP-5
AEN LAB NO: 9607415-01D
AEN WORK ORDER: 9607415
CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 07/31/96
DATE RECEIVED: 07/31/96
REPORT DATE: 08/13/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	08/07/96
TPH as Diesel	GC-FID	0.79 *	0.05	mg/L	08/09/96

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

LEVINE-FRICKE

SAMPLE ID: RP-5
AEN LAB NO: 9607415-01F
AEN WORK ORDER: 9607415
CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 07/31/96
DATE RECEIVED: 07/31/96
REPORT DATE: 08/13/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	07/31/96
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	08/05/96
Arsenic	EPA 7060	ND	0.002	mg/L	08/06/96

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

LEVINE-FRICKE

SAMPLE ID: RP-4
AEN LAB NO: 9607415.02A
AEN WORK ORDER: 9607415
CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 07/31/96
DATE RECEIVED: 07/31/96
REPORT DATE: 08/13/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	ND	0.5	ug/L	08/09/96
Toluene	108-88-3	ND	0.5	ug/L	08/09/96
Ethylbenzene	100-41-4	ND	0.5	ug/L	08/09/96
Xylenes, Total	1330-20-7	ND	2	ug/L	08/09/96
Purgeable HCs as Gasoline	5030/GCFID	ND	0.05	mg/L	08/09/96

ND = Not detected at or above the reporting limit

* = Value at or above reporting limit

LEVINE-FRICKE

SAMPLE ID: RP-4
AEN LAB NO: 9607415-02D
AEN WORK ORDER: 9607415
CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 07/31/96
DATE RECEIVED: 07/31/96
REPORT DATE: 08/13/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	08/07/96
TPH as Diesel	GC-FID	0.24 *	0.05	mg/L	08/09/96

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

LEVINE-FRICKE

SAMPLE ID: RP-4
 AEN LAB NO: 9607415-02F
 AEN WORK ORDER: 9607415
 CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 07/31/96
 DATE RECEIVED: 07/31/96
 REPORT DATE: 08/13/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	07/31/96
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	08/05/96
Arsenic	EPA 7060	0.005 *	0.002	mg/L	08/06/96

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

LEVINE-FRICKE

SAMPLE ID: RP-104
AEN LAB NO: 9607415-03A
AEN WORK ORDER: 9607415
CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 07/31/96
DATE RECEIVED: 07/31/96
REPORT DATE: 08/13/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	ND	0.5	ug/L	08/09/96
Toluene	108-88-3	ND	0.5	ug/L	08/09/96
Ethylbenzene	100-41-4	ND	0.5	ug/L	08/09/96
Xylenes, Total	1330-20-7	ND	2	ug/L	08/09/96
Purgeable HCs as Gasoline	5030/GCFID	ND	0.05	mg/L	08/09/96

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

LEVINE-FRICKE

SAMPLE ID: RP-104
AEN LAB NO: 9607415-03D
AEN WORK ORDER: 9607415
CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 07/31/96
DATE RECEIVED: 07/31/96
REPORT DATE: 08/13/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	08/07/96
TPH as Diesel	GC-FID	0.21 *	0.05	mg/L	08/09/96

ND = Not detected at or above the reporting limit

* = Value at or above reporting limit

LEVINE-FRICKE

SAMPLE ID: RP-104
 AEN LAB NO: 9607415-03F
 AEN WORK ORDER: 9607415
 CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 07/31/96
 DATE RECEIVED: 07/31/96
 REPORT DATE: 08/13/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	07/31/96
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	08/05/96
Arsenic	EPA 7060	0.003 *	0.002	mg/L	08/06/96

ND = Not detected at or above the reporting limit

* = Value at or above reporting limit

LEVINE-FRICKE

SAMPLE ID: RP-2
AEN LAB NO: 9607415-04A
AEN WORK ORDER: 9607415
CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 07/31/96
DATE RECEIVED: 07/31/96
REPORT DATE: 08/13/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	ND	0.5	ug/L	08/09/96
Toluene	108-88-3	ND	0.5	ug/L	08/09/96
Ethylbenzene	100-41-4	ND	0.5	ug/L	08/09/96
Xylenes, Total	1330-20-7	ND	2	ug/L	08/09/96
Purgeable HCs as Gasoline	5030/GCFID	ND	0.05	mg/L	08/09/96

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

LEVINE-FRICKE

SAMPLE ID: RP-2
AEN LAB NO: 9607415-04D
AEN WORK ORDER: 9607415
CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 07/31/96
DATE RECEIVED: 07/31/96
REPORT DATE: 08/13/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-			Extrn Date 08/07/96
TPH as Diesel	GC-FID	ND	0.05	mg/L	08/09/96

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

LEVINE-FRICKE

SAMPLE ID: RP-2
AEN LAB NO: 9607415-04F
AEN WORK ORDER: 9607415
CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 07/31/96
DATE RECEIVED: 07/31/96
REPORT DATE: 08/13/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	07/31/96
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	08/05/96
Arsenic	EPA 7060	0.007 *	0.002	mg/L	08/06/96

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

LEVINE-FRICKE

SAMPLE ID: RP-1-FB
 AEN LAB NO: 9607415-05A
 AEN WORK ORDER: 9607415
 CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 07/31/96
 DATE RECEIVED: 07/31/96
 REPORT DATE: 08/13/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	ND	0.5	ug/L	08/09/96
Toluene	108-88-3	ND	0.5	ug/L	08/09/96
Ethylbenzene	100-41-4	ND	0.5	ug/L	08/09/96
Xylenes, Total	1330-20-7	ND	2	ug/L	08/09/96
Purgeable HCs as Gasoline	5030/GCFID	ND	0.05	mg/L	08/09/96

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

LEVINE-FRICKE

SAMPLE ID: RP-1-FB
AEN LAB NO: 9607415-05C
AEN WORK ORDER: 9607415
CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 07/31/96
DATE RECEIVED: 07/31/96
REPORT DATE: 08/13/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	08/07/96
TPH as Diesel	GC-FID	ND	0.05	mg/L	08/09/96

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

LEVINE-FRICKE

SAMPLE ID: RP-1-FB
 AEN LAB NO: 9607415-05D
 AEN WORK ORDER: 9607415
 CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 07/31/96
 DATE RECEIVED: 07/31/96
 REPORT DATE: 08/13/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	07/31/96
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	08/05/96
Arsenic	EPA 7060	ND	0.002	mg/L	08/06/96

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

AEN (CALIFORNIA)
QUALITY CONTROL REPORT

AEN JOB NUMBER: 9607415

CLIENT PROJECT ID: 3042.96.02

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: 9607415
AEN LAB NO: 0807-BLANK
DATE EXTRACTED: 08/07/96
DATE ANALYZED: 08/08/96
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: 9607415
 DATE(S) EXTRACTED: 08/07/96
 INSTRUMENT: C
 MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery	
			n-Pentacosane	
08/09/96	RP-5	01	93	
08/09/96	RP-4	02	94	
08/09/96	RP-104	03	97	
08/09/96	RP-2	04	95	
08/09/96	RP-1-FB	05	100	
QC Limits:			65-125	

DATE EXTRACTED: 08/07/96
 DATE ANALYZED: 08/08/96
 SAMPLE SPIKED: 9607293-01
 INSTRUMENT: C

Matrix Spike Recovery Summary

Analyte	Spike Added (mg/L)	Average Percent Recovery	RPD	QC Limits	
				Percent Recovery	RPD
Diesel	4.00	101	<1	60-110	15

QUALITY CONTROL DATA

METHOD: EPA 8020, 5030 GCFID

AEN JOB NO: 9607415
AEN LAB NO: 0809-BLANK
DATE ANALYZED: 08/09/96
INSTRUMENT: F
MATRIX: WATER

Method Blank

	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: 9607415
 INSTRUMENT: F
 MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery	
			Fluorobenzene	
08/09/96	RP-5	01	101	
08/09/96	RP-4	02	101	
08/09/96	RP-104	03	101	
08/09/96	RP-2	04	101	
08/09/96	RP-1-FB	05	99	
QC Limits:			70-130	

DATE ANALYZED: 08/09/96
 SAMPLE SPIKED: LCS
 INSTRUMENT: F

Laboratory Control Sample Recovery

Analyte	Spike Added (ug/L)	Average Percent Recovery	RPD	QC Limits	
				Percent Recovery	RPD
Benzene	18.6	91	16	60-120	20
Toluene	61.3	92	17	60-120	20
Hydrocarbons as Gasoline	500	109	18	60-120	20

QUALITY CONTROL DATA

AEN JOB NO: 9607415
 SAMPLE SPIKED: DI WATER
 DATE(S) ANALYZED: 08/06/96
 MATRIX: WATER

Method Blank and Spike Recovery Summary

Analyte	Inst./ Method	Blank Result (mg/L)	Spike Added (mg/L)	MS Percent Recovery	RPD	QC Limits	
						Percent Recovery	RPD
As, Arsenic	4000/7060	ND	0.04	102	12	69-136	13

END OF REPORT

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

R-5, S-B

9607415

Project No.: 3042-7602	Field Logbook No.:	Date: 7-31-96	Serial No.:
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Project Name: <i>Shoreline Environmental</i>	Project Location: <i>San Francisco Bay</i>	No 15039
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Sampler (Signature): <i>[Signature]</i>					ANALYSES										Samplers: <i>412</i>										
SAMPLES																									
SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CON-TAINERS	SAMPLE TYPE	ANALYSES										REMARKS									
						PHOSPHORUS	NITROGEN	AMMONIA	AMMONIUM	PHOSPHATE	NITRATE	NITRITE	AMMONIUM	PHOSPHATE	NITRATE		NITRITE	HOLD	RUSH						
RP-5	7-31-96	8:40	01A-F	6	H2O	X	X	X																	
RP-4		9:05	02A-F	6																					
RP-104		10:05	03A-F	6																					
RP-2		9:30	04A-F	6																					
RP-103		9:40	05A-D	4																					
RP-1		10:05		6																					
RP-3		10:2		6																					
RP-1		11:02		6																					
RP-2		11:30		6																					
RP-3	✓	12:02		6	✓	✓	✓	✓																	

RELINQUISHED BY: (Signature) <i>[Signature]</i>	DATE: 7-31-96	TIME: 15:15	RECEIVED BY: (Signature) <i>[Signature]</i>	DATE: 7-31-96	TIME: 15:15
RELINQUISHED BY: (Signature) <i>[Signature]</i>	DATE: 7-31-96	TIME: 16:00	RECEIVED BY: (Signature) <i>[Signature]</i>	DATE: 7-31-96	TIME: 16:00
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:
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American Environmental Network

Certificate of Analysis

DOHS Certification: 1172

AIHA Accreditation: 11134

PAGE 1

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

REPORT DATE: 08/15/96

DATE(S) SAMPLED: 07/31/96

DATE RECEIVED: 07/31/96

ATTN: KENTON GEE
CLIENT PROJ. ID: 3042.96.02
CLIENT PROJ. NAME: SHERWIN WMS.
C.O.C. NUMBER: 15039

AEN WORK ORDER: 9607416

PROJECT SUMMARY:

On July 31, 1996, this laboratory received 5 water sample(s).

Client requested sample(s) be analyzed for chemical 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: RP-1
AEN LAB NO: 9607416-01A
AEN WORK ORDER: 9607416
CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 07/31/96
DATE RECEIVED: 07/31/96
REPORT DATE: 08/15/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	ND	0.5	ug/L	08/09/96
Toluene	108-88-3	ND	0.5	ug/L	08/09/96
Ethylbenzene	100-41-4	ND	0.5	ug/L	08/09/96
Xylenes, Total	1330-20-7	ND	2	ug/L	08/09/96
Purgeable HCs as Gasoline	5030/GCFID	1.4 *	0.05	mg/L	08/09/96

ND = Not detected at or above the reporting limit

* = Value at or above reporting limit

LEVINE-FRICKE

SAMPLE ID: RP-1
AEN LAB NO: 9607416-01D
AEN WORK ORDER: 9607416
CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 07/31/96
DATE RECEIVED: 07/31/96
REPORT DATE: 08/15/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	08/08/96
TPH as Diesel	GC-FID	1.1 *	0.05	mg/L	08/09/96

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

LEVINE-FRICKE

SAMPLE ID: RP-1
AEN LAB NO: 9607416-01F
AEN WORK ORDER: 9607416
CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 07/31/96
DATE RECEIVED: 07/31/96
REPORT DATE: 08/15/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	07/31/96
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	08/05/96
Arsenic	EPA 7060	0.068 *	0.002	mg/L	08/06/96

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

LEVINE-FRICKE

SAMPLE ID: RP-3
AEN LAB NO: 9607416-02A
AEN WORK ORDER: 9607416
CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 07/31/96
DATE RECEIVED: 07/31/96
REPORT DATE: 08/15/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	ND	0.5	ug/L	08/09/96
Toluene	108-88-3	0.5 *	0.5	ug/L	08/09/96
Ethylbenzene	100-41-4	0.5 *	0.5	ug/L	08/09/96
Xylenes, Total	1330-20-7	7 *	2	ug/L	08/09/96
Purgeable HCs as Gasoline	5030/GCFID	0.10 *	0.05	mg/L	08/09/96

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

LEVINE-FRICKE

SAMPLE ID: RP-3
AEN LAB NO: 9607416-02D
AEN WORK ORDER: 9607416
CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 07/31/96
DATE RECEIVED: 07/31/96
REPORT DATE: 08/15/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	08/08/96
TPH as Diesel	GC-FID	0.39 *	0.05	mg/L	08/09/96

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

LEVINE-FRICKE

SAMPLE ID: RP-3
 AEN LAB NO: 9607416-02F
 AEN WORK ORDER: 9607416
 CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 07/31/96
 DATE RECEIVED: 07/31/96
 REPORT DATE: 08/15/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	07/31/96
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	08/05/96
Arsenic	EPA 7060	0.009 *	0.002	mg/L	08/06/96

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

LEVINE-FRICKE

SAMPLE ID: MW-1
 AEN LAB NO: 9607416-03A
 AEN WORK ORDER: 9607416
 CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 07/31/96
 DATE RECEIVED: 07/31/96
 REPORT DATE: 08/15/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	53 *	0.5	ug/L	08/09/96
Toluene	108-88-3	9.8 *	0.5	ug/L	08/09/96
Ethylbenzene	100-41-4	12 *	0.5	ug/L	08/09/96
Xylenes, Total	1330-20-7	14 *	2	ug/L	08/09/96
Purgeable HCs as Gasoline	5030/GCFID	2.4 *	0.05	mg/L	08/09/96

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

LEVINE-FRICKE

SAMPLE ID: MW-1
AEN LAB NO: 9607416-03D
AEN WORK ORDER: 9607416
CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 07/31/96
DATE RECEIVED: 07/31/96
REPORT DATE: 08/15/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	08/08/96
TPH as Diesel	GC-FID	12 *	0.2	mg/L	08/09/96

Reporting limit elevated due to high level of target compound. Sample run at dilution.

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

LEVINE-FRICKE

SAMPLE ID: MW-1
 AEN LAB NO: 9607416-03F
 AEN WORK ORDER: 9607416
 CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 07/31/96
 DATE RECEIVED: 07/31/96
 REPORT DATE: 08/15/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	07/31/96
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	08/05/96
Arsenic	EPA 7060	0.037 *	0.002	mg/L	08/06/96

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

LEVINE-FRICKE

SAMPLE ID: MW-2
AEN LAB NO: 9607416-04A
AEN WORK ORDER: 9607416
CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 07/31/96
DATE RECEIVED: 07/31/96
REPORT DATE: 08/15/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	42 *	0.5	ug/L	08/09/96
Toluene	108-88-3	1.6 *	0.5	ug/L	08/09/96
Ethylbenzene	100-41-4	0.9 *	0.5	ug/L	08/09/96
Xylenes, Total	1330-20-7	ND	2	ug/L	08/09/96
Purgeable HCs as Gasoline	5030/GCFID	0.71 *	0.05	mg/L	08/09/96

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

LEVINE-FRICKE

SAMPLE ID: MW-2
AEN LAB NO: 9607416-04D
AEN WORK ORDER: 9607416
CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 07/31/96
DATE RECEIVED: 07/31/96
REPORT DATE: 08/15/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	08/08/96
TPH as Diesel	GC-FID	3.2 *	0.05	mg/L	08/09/96

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

LEVINE-FRICKE

SAMPLE ID: MW-2
AEN LAB NO: 9607416-04F
AEN WORK ORDER: 9607416
CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 07/31/96
DATE RECEIVED: 07/31/96
REPORT DATE: 08/15/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	07/31/96
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	08/05/96
Arsenic	EPA 7060	0.037 *	0.002	mg/L	08/06/96

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

LEVINE-FRICKE

SAMPLE ID: MW-3
 AEN LAB NO: 9607416-05A
 AEN WORK ORDER: 9607416
 CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 07/31/96
 DATE RECEIVED: 07/31/96
 REPORT DATE: 08/15/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs					
	EPA 8020				
Benzene	71-43-2	ND	5	ug/L	08/10/96
Toluene	108-88-3	ND	5	ug/L	08/10/96
Ethylbenzene	100-41-4	ND	5	ug/L	08/10/96
Xylenes, Total	1330-20-7	ND	20	ug/L	08/10/96
Purgeable HCs as Gasoline	5030/GCFID	9.4 *	0.5	mg/L	08/10/96

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

LEVINE - FRICKE

SAMPLE ID: MW-3
 AEN LAB NO: 9607416-05D
 AEN WORK ORDER: 9607416
 CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 07/31/96
 DATE RECEIVED: 07/31/96
 REPORT DATE: 08/15/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	08/08/96
TPH as Diesel	GC-FID	0.42 *	0.05	mg/L	08/09/96

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

LEVINE-FRICKE

SAMPLE ID: MW-3
 AEN LAB NO: 9607416-05F
 AEN WORK ORDER: 9607416
 CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 07/31/96
 DATE RECEIVED: 07/31/96
 REPORT DATE: 08/15/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	07/31/96
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	08/05/96
Arsenic	EPA 7060	0.059 *	0.002	mg/L	08/06/96

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

AEN (CALIFORNIA)
QUALITY CONTROL REPORT

AEN JOB NUMBER: 9607416

CLIENT PROJECT ID: 3042.96.02

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: 9607416
AEN LAB NO: 0808-BLANK
DATE EXTRACTED: 08/08/96
DATE ANALYZED: 08/08/96
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: 9607416
 DATE(S) EXTRACTED: 08/08/96
 INSTRUMENT: C
 MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery n-Pentacosane
08/09/96	RP-1	01	92
08/09/96	RP-3	02	93
08/09/96	MW-1	03	101
08/09/96	MW-2	04	93
08/09/96	MW-3	05	92
QC Limits:			65-125

DATE EXTRACTED: 08/08/96
 DATE ANALYZED: 08/09/96
 SAMPLE SPIKED: 9607420-04
 INSTRUMENT: C

Matrix Spike Recovery Summary

Analyte	Spike Added (mg/L)	Average Percent Recovery	RPD	QC Limits	
				Percent Recovery	RPD
Diesel	4.00	71	10	60-110	15

QUALITY CONTROL DATA

METHOD: EPA 8020, 5030 GCFID

AEN JOB NO: 9607416
AEN LAB NO: 0809-BLANK
DATE ANALYZED: 08/09/96
INSTRUMENT: H
MATRIX: WATER

Method Blank

	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: 0810-BLANK
DATE ANALYZED: 08/10/96
INSTRUMENT: H
MATRIX: WATER

Method Blank

	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: 9607416
 INSTRUMENT: H
 MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery Fluorobenzene
08/09/96	RP-1	01	100
08/09/96	RP-3	02	105
08/09/96	MW-1	03	94
08/09/96	MW-2	04	109
08/10/96	MW-3	05	104
QC Limits:			70-130

DATE ANALYZED: 08/08/96
 SAMPLE SPIKED: 9607422-04
 INSTRUMENT: H

Matrix Spike Recovery Summary

Analyte	Spike Added (ug/L)	Average Percent Recovery	RPD	QC Limits	
				Percent Recovery	RPD
Benzene	22.0	102	4	85-109	17
Toluene	74.9	96	9	87-111	16
Hydrocarbons as Gasoline	500	109	3	66-117	19

QUALITY CONTROL DATA

AEN JOB NO: 9607416
 SAMPLE SPIKED: DI WATER
 DATE(S) ANALYZED: 08/06/96
 MATRIX: WATER

Method Blank and Spike Recovery Summary

Analyte	Inst./ Method	Blank Result (mg/L)	Spike Added (mg/L)	MS Percent Recovery	RPD	QC Limits	
						Percent Recovery	RPD
As, Arsenic	4000/7060	ND	0.04	102	12	69-136	13

END OF REPORT

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

9607416

Project No.: 3042-76-02	Field Logbook No.:	Date: 7-31-96	Serial No.: No 15039
Project Name: Sherman Williams Risk	Project Location: Emeryville		

SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CON-TAINERS	SAMPLE TYPE	ANALYSES								HOLD	RUSH	REMARKS
						TPH ₅	TPH ₁₅	TPH ₃₀	TPH ₄₅	TPH ₆₀	TPH ₇₅	TPH ₉₀	TPH ₁₀₅			
RP-5	7-31-96	8:40		6	H ₂ O	X	X	X							STD TAT	
RP-4		9:05	9607416	6												
RP-104		10:05		6											Preserve & filter	
RP-2		9:30		6											dissolved AS in lab	
RP-1-1B		9:40		4												
RP-1		10:05		01AF	6										Results to Ken	
RP-3		10:30		02AF	6											
MW-1		11:00		03AF	6											
MW-2		11:30		04AF	6											
MW-3	✓	12:00		05AF	6	✓	✓	✓	✓							

RELINQUISHED BY: (Signature) <i>[Signature]</i>	DATE	TIME	RECEIVED BY: (Signature) <i>[Signature]</i>	DATE	TIME
RELINQUISHED BY: (Signature) <i>[Signature]</i>	7-31-96	15:15	RECEIVED BY: (Signature) <i>[Signature]</i>	7-31-96	15:15
RELINQUISHED BY: (Signature) <i>[Signature]</i>	7-31-96	16:00	RECEIVED BY: (Signature) <i>[Signature]</i>	7-31-96	16:00
METHOD OF SHIPMENT:	DATE	TIME	LAB COMMENTS:		

Sample Collector: LEVINE-FRICKE 1900 Powell Street, 12th Floor Emeryville, California 94608 (510) 652-4500	Analytical Laboratory: <div style="font-size: 2em; text-align: center;">AEIV</div>
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