August 26, 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: April 1996, Quarterly Groundwater Monitoring Results, A Portion of the Rifkin Property, 4525-4563 Horton Street, Emeryville, California

Dear Mr. Arigala:

This letter transmits the results for April 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 April 1 to June 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 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 April 17, 1996, groundwater samples were collected from wells RP-1 through RP-5 and wells MW-1 through MW-3 (installed by TMC Environmental) and submitted to American Environmental Network (AEN), a California, state-certified laboratory for chemical analysis. In addition, on April 24, 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). 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 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, 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., 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, groundwater samples were collected using a clean, Teflon bailer fitted with a new rope. A duplicate sample collected from well RP-1 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 was conducted in August 1996 after site access was approved. Results from this event will be reported in the quarterly groundwater monitoring report for the period from July 1 through September 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 A. Gee

Kenton A. Gee
Project Hydrogeologist

enclosures

cc: Larry Mencin, Sherwin-Williams
Allen Danzig, Sherwin-Williams
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 California Professional Engineer.

Mark D. Knox 8/26/96

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
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
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
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
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
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
	24-Apr-96		6.93	6.85

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
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
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
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
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
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
	24-Apr-96		6.93	6.85

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)
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
	24-Apr-96		6.56	7.02
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
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
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

Data entered by _____. Proofed by _____.

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
	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
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
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
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

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	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
(contin.)		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
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
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
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
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
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

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-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
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 _____. QA/QC by _____.

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.

3042QG02 072396KAG-ecm

53rd STREET

TEMESCAL CREEK OVERFLOW

HORTON STREET

EXPLANATION

- Property boundary
- Chain link fence
- LF-10 A-zone monitoring well
- LF-B3 B-zone monitoring well
- EX-1 Groundwater extraction well location
- Monitoring well destroyed under permit
- Monitoring well destroyed or lost during slurry wall and cap construction activities
- Monitoring well destroyed during railway expansion activities
- Rifkin property monitoring wells (TMC)
- Rifkin property monitoring wells (Levine-Fricke)
- 5.89 Groundwater elevation (feet above mean sea level)
- 5.5 Groundwater elevation contour (feet above mean sea level)
- * Water level not used in contouring

LF-13

7.5

7.0

6.5

6.0

5.5

?

MW-2 7.02

MW-1 6.85

MW-3 7.41

RP-1 7.33

7.20 RP-2

7.81 MW-4

7.08 RP-4

RP-3 7.25

7.75 MW-5

7.08 RP-5

6.26 * LF-19

LF-7

IMPERVIOUS CAP WITHIN SLURRY WALL

LF-12

LF-B4

LF-B1

LF-1

LF-22

LF-B5

WAREHOUSE

WAREHOUSE AND OFFICE

SHOP

BOILER HOUSE

EX-3

TRI-BIO BIOLOGICAL TREATMENT SYSTEM

WAREHOUSE

LF-17

LF-2

FACTORY

LF-3

ANDCO ELECTROCHEMICAL TREATMENT SYSTEM

WAREHOUSE

SOIL-BENTONITE SLURRY CUT-OFF WALL

DRAINAGE DITCH

LF-18

LF-8

NPDES Storm Sewer Outfall

TEMESCAL CREEK

EX-1

LF-5

LF-B2

LF-B6

EX-2

TRUCK PARKING AREA

PAVED PARKING AREA

LF-26

LF-9

LF-4

LF-20

LF-10

LF-B3

LF-21

LF-11

0 40 80 FEET

30428D05.CDR 072396KAG-ecm

Figure 1 :

GROUNDWATER ELEVATION CONTOURS
APRIL 24, 1996
RIFKIN PROPERTY

Project No. 3042

LEVINE•FRICKE
ENGINEERS, HYDROGEOLOGISTS, & APPLIED SCIENTISTS

3042QC02 072396KAG:ecm

53rd STREET

TEMESCAL CREEK OVERFLOW

HORTON STREET

EXPLANATION

- Property boundary
- Chain link fence
- LF-10 A-zone monitoring well
- LF-B3 B-zone monitoring well
- EX-1 Groundwater extraction well location
- Monitoring well destroyed under permit
- Monitoring well destroyed or lost during slurry wall and cap construction activities
- Monitoring well destroyed during railway expansion activities
- Rifkin property monitoring wells (TMC)
- Rifkin property monitoring wells (Levine-Fricke)
- 0.058/0.069 Arsenic detected in shallow groundwater (milligrams per liter)
  - Duplicate sample
  - Primary sample

MW-2 0.028
MW-1 0.034
MW-3 0.018
RP-1 0.058/0.069
RP-2 0.010
RP-3 0.006
RP-4 0.009
MW-4
MW-5
0.008 RP-5

IMPERVIOUS CAP WITHIN SLURRY WALL

LF-19
LF-7
LF-18
LF-8
NPDES Storm Sewer Outfall
DRAINAGE DITCH
TEMESCAL CREEK
LF-B6
EX-1
LF-5
LF-B2
EX-2
TRUCK PARKING AREA
PAVED PARKING AREA
LF-26
LF-9
LF-4
LF-20
LF-10
LF-B3
LF-21
LF-11

LF-12
LF-B4
LF-B1
LF-1
LF-22
LF-B5
LF-13

WAREHOUSE
WAREHOUSE AND OFFICE
SHOP
BOILER HOUSE
EX-3
TRI-BIO BIOLOGICAL TREATMENT SYSTEM
WAREHOUSE
FACTORY
LF-17
LF-2
LF-3
ANDCO ELECTROCHEMICAL TREATMENT SYSTEM
WAREHOUSE

SOIL-BENTONITE SLURRY CUT-OFF WALL

0 40 80 FEET

3042B005.CDR 072396KAG:ecm

Figure 2 :

CONCENTRATION OF ARSENIC IN SHALLOW GROUNDWATER, APRIL 17, 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: Sherwin Williams **Project No.:** 3435.00
Field Personnel: Brian Keating **Date:** 4/24/96
General Observations: Rainy in AM / Clearing in PM

WELL NO.	WELL ELEVATION	DEPTH TO WATER MEASUREMENTS 1	DEPTH TO WATER MEASUREMENTS 2 (4)	WATER ELEVATION	REMARKS (UNITS = FEET)
LF-21	N/A	3.65	3.66		* All Wells being surveyed for elevation today
LF-23	↓	4.08	4.10		
LF-24		4.42	4.35		
LF-25		7.15	7.16		
LF-63		3.44	3.45		
LF-10		5.10	5.10		
LF-19		7.92	7.65		
LF-7		8.65	8.67		
LF-B6		5.12	5.11		
EX-1		15.42	15.41		Extraction Well
LF-4		6.72	6.72		
LF-26		7.90	7.76		
LF-20		7.55	7.49		
LF-18		9.21	8.20		
LF-8		7.14	7.15		
[illegible]		10.35	[illegible]		Cap on well [illegible]
[illegible]		[illegible]	[illegible]		
[illegible]		[illegible]	[illegible]		Extraction Well
[illegible]		4.87	[illegible]		
[illegible]		5.35	5.31		
EX-2		14.87	14.92		Extraction Well
MW-2		6.56	6.57		
MW-1		6.93	6.93		
MW-3		7.19	7.20		
MW-5		7.49	7.48		
MW-4		7.72	7.71		
RP-1		7.81	7.80		
RP-2		8.04	8.05		
RP-3		7.92	7.91		
RP-4		8.05	8.04		
RP-5		7.96	7.95		
LF-12		6.57	6.58		
LF-B4		6.39	6.37		
LF-13		6.21	6.19		
LF-11	↓	3.19	3.18		

NA = Not Available

LEVINE•FRICKE
CONSULTING ENGINEERS AND HYDROGEOLOGISTS

WATER-QUALITY SAMPLING INFORMATION

oject No.: 3042.00.02
Date: 4/17/96
o[illegible] Name: Sherwin Williams (Rifkin)
Sample No.: RP-1
mple Location: EMERYVILLE
☐ FB:
[illegible]ers Name: JNR
☒ DUP: RP-101
mpling Plan Prepared By: KAG
[illegible]ng Method:

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

Analyses Requested
[illegible]g. BTEX
TPH d
[illegible] - dissolved

Number and Types of Bottle used
6 VOA/HCl
4 Amber litre/~~HCl~~
2 ~~500~~ 250 ml plastic

Method of Shipment
[illegible]AEN (Lab Name)
☒ Courier
☐ Hand Deliver:

[illegible]ell number: RP-1
[illegible]pth of Water: 7.78
[illegible]ell depth: 11.86
[illegible]ight of Water Column: 4.08
[illegible]ume 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)

11.86
7.78
4.08
.16
2448
4080
.6528

4.08
.2
.816
7.78
8.596

80% DTW 8.59

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
[illegible]:12								Start Bailing
[illegible]:34		1		16.9	5.97	676		Sl. turbid/Odor
[illegible]:36		2		17.0	5.93	675		↓ ↓
[illegible]:38		3		17.0	5.90	675		↓ / Sl. odor
[illegible]	8.50							
[illegible]:45								SAMPLE
4:45								DUP

Inlet Depth:
[illegible]mments:
(Recommended Method For Purging Well)

WTR.QLTY.SMPLNG.INFO.22JUL94.YL

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3042.00.02
Project Name: Sherwin Williams (Rifkin)
Sample Location: EMERYVILLE
Samplers Name: JMR
Sampling Plan Prepared By: KAG
Sampling Method:

Date: 4/17/96
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
[illegible]g, BTEX	3 VOA/HCL
TPH'd	2 Amber litre /HCL
[illegible] - dissolved	1x 250 ~~500~~ ml plastic

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

Well Number: RP-2
Depth of Water: 8.05
Well Depth: 14.43
Height of Water Column: 6.38
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)

14.43
8.05
6.38
.16
3828
6380
1.0208

6.38
.2
1.276
8.05
9.326

80% DTW 9.32

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
3[illegible]0								start Bailing
3:02		1		17.3	6.30	906		turbid / sl. odor
[illegible]:04		2		17.3	6.25	897		↓ ↓
3:06		3		17.3	6.22	880		↓ ↓
	8.11							
3[illegible]0								Sample

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

WTR.QLTY.SMPLNG.INFO.22JUL94.RYL

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3042.00.02
Project Name: Sherwin Williams (Rifkin)
Sample Location: EMERYVILLE
Samplers Name: JMR
Sampling Plan Prepared By: KAG
Sampling Method:

Date: 4/17/96
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
Pkg, BTEX	3 VOA/HCL
TPH d	2 Amberlitre/Hcl
A - dissolved	1 ~~500~~ 250 ml plastic

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

Well Number: RP-3
Depth of Water: 7.88
Well Depth: 12.78
Height of Water Column: 4.90
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)

12.78
7.88
4.90
.16
2940
4900
.7840

4.90
.2
.980
7.88
8.860

80% DTW 8.86

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
[illegible]4								start Bailing
4.06		1		16.7	5.87	1683		mod. turbid/sl. odor
[illegible]8		2		16.8	5.91	1693		↓ ↓
4.10		3		16.8	5.94	1681		↓ ↓
	8.05							
4.15								SAMPLE

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

WTR.QLTY.SMPLNG.INFO.22JUL94RYL

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3042.00.02
Project Name: Sherwin Williams (Rifkin)
Sample Location: EMERYVILLE
Samplers Name: JMR
Sampling Plan Prepared By: KAG
Sampling Method:

Date: 4/ /96
Sample No.: RP-4
☒ FB: RP-4-FB
☐ DUP:

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

Analyses Requested
TPHg, BTEX
TPHd
All - dissolved

Number and Types of Bottle used
6 VOA/HCL
2 Amberlitre/HCL
1 ~~500~~ 250 ml plastic

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

Well Number: RP-4
Depth of Water: 8.05
Well Depth: 16.15
Height of Water Column: 8.10
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)

16.15
8.05
8.10
.16
4860
8100
1.296 0

8.10
.2
1.620
8.05
9.670

80% DTW 9.67

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
2:20								Field Blank
2:24								Start Bailing
2:26		1.5		17.5	6.15	946		mod. turbid/sl. odor
2:28		3		17.5	6.10	976		↓ ↓
2:30		4.5		17.5	6.09	970		↓ ↓
	8.07							
2:35								Sample

Inlet Depth:
Comments: RP-4-FB → TPHg, BTEX only
(Recommended Method For Purging Well)

WTR.QLTY.SMPLNG.INFO 22JUL94RYL

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3042.00.02
Project Name: Sherwin Williams (Rifkin)
Sample Location: EMERYVILLE
Samplers Name: JMR
Sampling Plan Prepared By: KAG
Sampling Method:

Date: 4/17/96
Sample No.: RP-5
☐ FB:
☐ DUP:

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

Analyses Requested
Hg, BTEX
TPH d
- dissolved

Number and Types of Bottle used
3 VOA/HCL
2 Amberlitre/~~Het~~
1 ~~250~~ 500 ml plastic

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

Well Number: RP-5
Depth of Water: 7.94
Well Depth: 15.88
Height of Water Column: 7.94
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)

15.88
7.94
7.94
7.16
4764
7940
12704

7.94
.2
1.588
7.94
9.528

80% DTW 9.52

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
1150								Start Bailing
1152		1.5		17.3	6.23	628		mod. turb. d/ sl. odor
1154		3		17.3	6.19	654		↓ ↓
1157		4.5		17.3	6.14	657		↓ ↓
	8.25							
1205								SAMPLE

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

WTR.QLTY.SMPLNG.INFO.22JUL94/YL

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3042.00.02
Date: 4/17/96
Project Name: Sherwin Williams (Rifkin)
Sample No.: MW-1
Sample Location: EMERYVILLE
☐ FB:
Samplers Name: JMR
☐ DUP:
Sampling Plan Prepared By: KAG
Sampling Method:

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

Analyses Requested
Mtbe, BTEX
pH d
T - dissolved

Number and Types of Bottle used
3 VOA/HCl
2 Amberlitre/HCl
1 250 ~~500~~ ml plastic

16.00
6.92
9.08
.16
5448
9080
1.4528

9.08
.2
1.816
6.92
8.736

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

Well Number: MW-1
Depth of Water: 6.92
Well Depth: 16.00
Height of Water Column: 9.08
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)

80% DTW 8.73

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
[redacted]								Start Bailing
.19		1.5		17.4	6.05	1096		turbid/odor/light sheen
[redacted]		3		17.4	6.18	1022		↓ ↓ ↓
1.24		4.5		17.1	6.20	973		↓ ↓ ↓
[redacted]	6.95							
1.30								SAMPLE

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

WTR.QLTY.SMPLNG.INFO.22JUL94.RYL

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3042.00.02
Project Name: Sherwin Williams (Rifkin)
Sample Location: EMERYVILLE
Samplers Name: JMR
Sampling Plan Prepared By: KAG
Sampling Method:

Date: 4/17/96
Sample No.: MW-2
☐ FB:
☐ DUP:

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

Analyses Requested
TPH, BTEX
TPH d
As - dissolved

Number and Types of Bottle used
3 VOA/HCl
2 Amber litre /HCl
1 ~~500~~ 250 ml plastic

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

Well Number: MW-2
Depth of Water: 6.63
Well Depth: 15.00
Height of Water Column: 8.37
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)

15.00
6.63
8.37
.16
5022
8370
1.3392

8.37
.2
1.674
6.63
8.304

80% DTW 8.30

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
10:35								Start Bailing
10:37		1.5		17.1	6.30	1013		turbid / odor / light sheen
10:39		3		17.1	6.22	1002		turbid / odor / light sheen
10:42		4.5		16.9	6.11	918		↓ ↓ ↓
10:45		6		17.0	6.09	928		↓ ↓ ↓
	8.30							
10:55								SAMPLE

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

WTR QUALITY SAMPLING INFO.22JUL94.FYL

WATER-QUALITY SAMPLING INFORMATION

oject No.: 3042.00.02

ct Name: Sherwin Williams (Rifkin)

mple Location: EMERYVILLE

lers Name: JMR

mpling Plan Prepared By: KAG

ling Method:

- [ ] Centrifugal Pump
- [ ] Submersible Pump
- [x] Hand Bail
- [x] Disposable Bailer
- [ ] Teflon Bailer
- [ ] ______ (Other)

Date: 4/17/96

Sample No.: MW-3

- [ ] FB:
- [ ] DUP:

19.20
7.23
11.97
.16
7182
11970
1.9152

11.97
.2
2.394
7.23
9.624

80% DTW 9.62

Analyses Requested	Number and Types of Bottle used
g, BTEX	3 VOA/HCL
PH d	2 Amberlitre/~~HCL~~
- dissolved	1 ~~500~~ 250 ml plastic

Method of Shipment

AEN (Lab Name)

- [x] Courier
- [ ] Hand Deliver

l Number: MW-3

pth of Water: 7.23

l Depth: 19.20

ight of Water Column: 11.97

me in Well: 2

Well Diameter:

- [x] 2" (0.16 Gallon/Feet)
- [ ] 4" (0.65 Gallon/Feet)
- [ ] 5" (1.02 Gallon/Feet)
- [ ] 6" (1.47 Gallon/Feet)

IME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
36								Start Bailing
:39		2		16.5	6.65	597		Sl. turbid/sl. odor
42		4		16.4	6.62	438		↓ ↓
:45		6		16.3	6.54	412		↓ ↓
	7.55							
50								SAMple

WTR.QLTY.SMPLNG.INFO.22JUL94.RYL

Inlet Depth:

Comments:
(Recommended Method For Purging Well)

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: 3042.00.02
CLIENT PROJ. NAME: SHERWIN WMS.
C.O.C. NUMBER: 14920

REPORT DATE: 05/01/96
DATE(S) SAMPLED: 04/17/96
DATE RECEIVED: 04/17/96
AEN WORK ORDER: 9604240

PROJECT SUMMARY:

On April 17, 1996, this laboratory received 10 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: MW-2
AEN LAB NO: 9604240-01A
AEN WORK ORDER: 9604240
CLIENT PROJ. ID: 3042.00.02

DATE SAMPLED: 04/17/96
DATE RECEIVED: 04/17/96
REPORT DATE: 05/01/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	**EPA 8020**				
Benzene	71-43-2	32 *	0.5	ug/L	04/23/96
Toluene	108-88-3	1.3 *	0.5	ug/L	04/23/96
Ethylbenzene	100-41-4	0.8 *	0.5	ug/L	04/23/96
Xylenes, Total	1330-20-7	ND	2	ug/L	04/23/96
Purgeable HCs as Gasoline	5030/GCFID	0.62 *	0.05	mg/L	04/23/96

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

LEVINE-FRICKE

SAMPLE ID: MW-2
AEN LAB NO: 9604240-01D
AEN WORK ORDER: 9604240
CLIENT PROJ. ID: 3042.00.02

DATE SAMPLED: 04/17/96
DATE RECEIVED: 04/17/96
REPORT DATE: 05/01/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	04/23/96
TPH as Diesel	GC-FID	4.6 *	0.05	mg/L	04/24/96

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

LEVINE-FRICKE

SAMPLE ID: MW-2
AEN LAB NO: 9604240-01F
AEN WORK ORDER: 9604240
CLIENT PROJ. ID: 3042.00.02

DATE SAMPLED: 04/17/96
DATE RECEIVED: 04/17/96
REPORT DATE: 05/01/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	04/17/96
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	04/25/96
Arsenic	EPA 7060	0.028 *	0.002	mg/L	04/29/96

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

LEVINE-FRICKE

SAMPLE ID: MW-1
AEN LAB NO: 9604240-02A
AEN WORK ORDER: 9604240
CLIENT PROJ. ID: 3042.00.02

DATE SAMPLED: 04/17/96
DATE RECEIVED: 04/17/96
REPORT DATE: 05/01/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	**EPA 8020**				
Benzene	71-43-2	65 *	0.5	ug/L	04/23/96
Toluene	108-88-3	3.5 *	0.5	ug/L	04/23/96
Ethylbenzene	100-41-4	5.5 *	0.5	ug/L	04/23/96
Xylenes, Total	1330-20-7	7 *	2	ug/L	04/23/96
Purgeable HCs as Gasoline	5030/GCFID	1.7 *	0.05	mg/L	04/23/96

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

LEVINE-FRICKE

SAMPLE ID: MW-1
AEN LAB NO: 9604240-02D
AEN WORK ORDER: 9604240
CLIENT PROJ. ID: 3042.00.02

DATE SAMPLED: 04/17/96
DATE RECEIVED: 04/17/96
REPORT DATE: 05/01/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	04/23/96
TPH as Diesel	GC-FID	1.1 *	0.05	mg/L	04/24/96

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

LEVINE-FRICKE

SAMPLE ID: MW-1
AEN LAB NO: 9604240-02F
AEN WORK ORDER: 9604240
CLIENT PROJ. ID: 3042.00.02

DATE SAMPLED: 04/17/96
DATE RECEIVED: 04/17/96
REPORT DATE: 05/01/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	04/17/96
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	04/25/96
Arsenic	EPA 7060	0.034 *	0.002	mg/L	04/29/96

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

LEVINE-FRICKE

SAMPLE ID: RP-5
AEN LAB NO: 9604240-03A
AEN WORK ORDER: 9604240
CLIENT PROJ. ID: 3042.00.02

DATE SAMPLED: 04/17/96
DATE RECEIVED: 04/17/96
REPORT DATE: 05/01/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	**EPA 8020**				
Benzene	71-43-2	ND	0.5	ug/L	04/22/96
Toluene	108-88-3	ND	0.5	ug/L	04/22/96
Ethylbenzene	100-41-4	ND	0.5	ug/L	04/22/96
Xylenes, Total	1330-20-7	ND	2	ug/L	04/22/96
Purgeable HCs as Gasoline	5030/GCFID	ND	0.05	mg/L	04/22/96

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

LEVINE-FRICKE

SAMPLE ID: RP-5
AEN LAB NO: 9604240-03D
AEN WORK ORDER: 9604240
CLIENT PROJ. ID: 3042.00.02

DATE SAMPLED: 04/17/96
DATE RECEIVED: 04/17/96
REPORT DATE: 05/01/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	04/23/96
TPH as Diesel	GC-FID	0.64 *	0.05	mg/L	04/24/96

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

LEVINE-FRICKE

SAMPLE ID: RP-5
AEN LAB NO: 9604240-03F
AEN WORK ORDER: 9604240
CLIENT PROJ. ID: 3042.00.02

DATE SAMPLED: 04/17/96
DATE RECEIVED: 04/17/96
REPORT DATE: 05/01/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	04/17/96
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	04/25/96
Arsenic	EPA 7060	0.008 *	0.002	mg/L	04/25/96

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

LEVINE-FRICKE

SAMPLE ID: RP-4-FB
AEN LAB NO: 9604240-04A
AEN WORK ORDER: 9604240
CLIENT PROJ. ID: 3042.00.02

DATE SAMPLED: 04/17/96
DATE RECEIVED: 04/17/96
REPORT DATE: 05/01/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	**EPA 8020**				
Benzene	71-43-2	ND	0.5	ug/L	04/22/96
Toluene	108-88-3	ND	0.5	ug/L	04/22/96
Ethylbenzene	100-41-4	ND	0.5	ug/L	04/22/96
Xylenes, Total	1330-20-7	ND	2	ug/L	04/22/96
Purgeable HCs as Gasoline	5030/GCFID	ND	0.05	mg/L	04/22/96

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

LEVINE-FRICKE

SAMPLE ID: RP-4
AEN LAB NO: 9604240-05A
AEN WORK ORDER: 9604240
CLIENT PROJ. ID: 3042.00.02

DATE SAMPLED: 04/17/96
DATE RECEIVED: 04/17/96
REPORT DATE: 05/01/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	**EPA 8020**				
Benzene	71-43-2	ND	0.5	ug/L	04/22/96
Toluene	108-88-3	ND	0.5	ug/L	04/22/96
Ethylbenzene	100-41-4	ND	0.5	ug/L	04/22/96
Xylenes, Total	1330-20-7	ND	2	ug/L	04/22/96
Purgeable HCs as Gasoline	5030/GCFID	ND	0.05	mg/L	04/22/96

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

LEVINE-FRICKE

SAMPLE ID: RP-4
AEN LAB NO: 9604240-05D
AEN WORK ORDER: 9604240
CLIENT PROJ. ID: 3042.00.02

DATE SAMPLED: 04/17/96
DATE RECEIVED: 04/17/96
REPORT DATE: 05/01/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	04/23/96
TPH as Diesel	GC-FID	0.14 *	0.05	mg/L	04/24/96

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

LEVINE-FRICKE

SAMPLE ID: RP-4
AEN LAB NO: 9604240-05F
AEN WORK ORDER: 9604240
CLIENT PROJ. ID: 3042.00.02

DATE SAMPLED: 04/17/96
DATE RECEIVED: 04/17/96
REPORT DATE: 05/01/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	04/17/96
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	04/25/96
Arsenic	EPA 7060	0.009 *	0.002	mg/L	04/25/96

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

LEVINE-FRICKE

SAMPLE ID: RP-2
AEN LAB NO: 9604240-06A
AEN WORK ORDER: 9604240
CLIENT PROJ. ID: 3042.00.02

DATE SAMPLED: 04/17/96
DATE RECEIVED: 04/17/96
REPORT DATE: 05/01/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	**EPA 8020**				
Benzene	71-43-2	ND	0.5	ug/L	04/23/96
Toluene	108-88-3	ND	0.5	ug/L	04/23/96
Ethylbenzene	100-41-4	ND	0.5	ug/L	04/23/96
Xylenes, Total	1330-20-7	ND	2	ug/L	04/23/96
Purgeable HCs as Gasoline	5030/GCFID	ND	0.05	mg/L	04/23/96

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

LEVINE-FRICKE

SAMPLE ID: RP-2
AEN LAB NO: 9604240-06D
AEN WORK ORDER: 9604240
CLIENT PROJ. ID: 3042.00.02

DATE SAMPLED: 04/17/96
DATE RECEIVED: 04/17/96
REPORT DATE: 05/01/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	04/23/96
TPH as Diesel	GC-FID	0.17 *	0.05	mg/L	04/24/96

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

LEVINE-FRICKE

SAMPLE ID: RP-2
AEN LAB NO: 9604240-06F
AEN WORK ORDER: 9604240
CLIENT PROJ. ID: 3042.00.02

DATE SAMPLED: 04/17/96
DATE RECEIVED: 04/17/96
REPORT DATE: 05/01/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	04/17/96
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	04/25/96
Arsenic	EPA 7060	0.010 *	0.002	mg/L	04/25/96

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

LEVINE-FRICKE

SAMPLE ID: RP-1
AEN LAB NO: 9604240-07A
AEN WORK ORDER: 9604240
CLIENT PROJ. ID: 3042.00.02

DATE SAMPLED: 04/17/96
DATE RECEIVED: 04/17/96
REPORT DATE: 05/01/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	**EPA 8020**				
Benzene	71-43-2	ND	0.5	ug/L	04/23/96
Toluene	108-88-3	ND	0.5	ug/L	04/23/96
Ethylbenzene	100-41-4	ND	0.5	ug/L	04/23/96
Xylenes, Total	1330-20-7	ND	2	ug/L	04/23/96
Purgeable HCs as Gasoline	5030/GCFID	0.12 *	0.05	mg/L	04/23/96

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

LEVINE-FRICKE

SAMPLE ID: RP-1
AEN LAB NO: 9604240-07D
AEN WORK ORDER: 9604240
CLIENT PROJ. ID: 3042.00.02

DATE SAMPLED: 04/17/96
DATE RECEIVED: 04/17/96
REPORT DATE: 05/01/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	04/23/96
TPH as Diesel	GC-FID	0.59 *	0.05	mg/L	04/24/96

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

LEVINE-FRICKE

SAMPLE ID: RP-1
AEN LAB NO: 9604240-07F
AEN WORK ORDER: 9604240
CLIENT PROJ. ID: 3042.00.02

DATE SAMPLED: 04/17/96
DATE RECEIVED: 04/17/96
REPORT DATE: 05/01/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	04/17/96
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	04/25/96
Arsenic	EPA 7060	0.058 *	0.002	mg/L	04/29/96

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

QUALITY CONTROL DATA

METHOD: EPA 8020, 5030 GCFID

AEN JOB NO: 9604240
AEN LAB NO: 0422-BLANK
DATE ANALYZED: 04/22/96
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: 0423-BLANK
DATE ANALYZED: 04/23/96
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: 9604240
INSTRUMENT: H
MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery Fluorobenzene
04/23/96	MW-2	01	112
04/23/96	MW-1	02	109
04/22/96	RP-5	03	106
04/22/96	RP-4-FB	04	103
04/22/96	RP-4	05	108
04/23/96	RP-2	06	106
04/23/96	RP-1	07	102
04/23/96	RP-101	08	102
04/23/96	RP-3	09	107
04/23/96	MW-3	10	103
QC Limits:			70-130

DATE ANALYZED: 04/22/96
SAMPLE SPIKED: 9604240-04
INSTRUMENT: H

Matrix Spike Recovery Summary

Analyte	Spike Added (ug/L)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Benzene	22.2	95	10	85-109	17
Toluene	73.9	90	1	87-111	16
Hydrocarbons as Gasoline	500	106	5	66-117	19

QUALITY CONTROL DATA

AEN JOB NO: 9604240
SAMPLE SPIKED: DI WATER
DATE ANALYZED: 04/25-29/96
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	QC Limits RPD
As, Arsenic	4000/7060	ND	0.04	93	2	69-136	13

*** END OF REPORT ***

CHAIN OF CUSTODY / ANALYSES REQUEST FORM 9604240

Project No.: 3042.00.02	Field Logbook No.:	Date: 4-17-96	Serial No.: № 14920
Project Name: Sherwin Williams (Rifkin)	Project Location: Emeryville		
Sampler (Signature): [signature]			Samplers: JMR

SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CONTAINERS	SAMPLE TYPE	TPH g, BTEX	TPH d	Dissolved As					HOLD	RUSH	REMARKS
MW-2	4-17-96	10:55	01A-F	6	H_2O	X	X	X							
mw-1		11:30	02A-F	6		X	X	X							STD TAT
RP-5		12:05	03A-F	6		X	X	X							
RP-4-FB		12:20	04A-C	3		X									Dissolved As to be filtered in Lab
RP-4		12:35	05A-F	6		X	X	X							
RP-2		13:10	06A-F	6		X	X	X							
RP-1		13:45	07A-F	6		X	X	X							
RP-101		14:45	08A-F	6		X	X	X							
RP-3		14:15	09A-F	6		X	X	X							
MW-3		14:50	10A-F	6		X	X	X							Results to Kenton Gee

RELINQUISHED BY: (Signature) [signature]	DATE 4-17-96	TIME 15:40	RECEIVED BY: (Signature) [signature]	DATE 4-17-96	TIME 15:40
RELINQUISHED BY: (Signature) [signature]	DATE 4-17-96	TIME 16:40	RECEIVED BY: (Signature) [signature]	DATE 4/17/96	TIME 1640
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

LEVINE-FRICKE

SAMPLE ID: RP-101
AEN LAB NO: 9604240-08A
AEN WORK ORDER: 9604240
CLIENT PROJ. ID: 3042.00.02

DATE SAMPLED: 04/17/96
DATE RECEIVED: 04/17/96
REPORT DATE: 05/01/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	**EPA 8020**				
Benzene	71-43-2	ND	0.5	ug/L	04/23/96
Toluene	108-88-3	ND	0.5	ug/L	04/23/96
Ethylbenzene	100-41-4	ND	0.5	ug/L	04/23/96
Xylenes, Total	1330-20-7	ND	2	ug/L	04/23/96
Purgeable HCs as Gasoline	5030/GCFID	0.15 *	0.05	mg/L	04/23/96

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

LEVINE-FRICKE

SAMPLE ID: RP-101
AEN LAB NO: 9604240-08D
AEN WORK ORDER: 9604240
CLIENT PROJ. ID: 3042.00.02

DATE SAMPLED: 04/17/96
DATE RECEIVED: 04/17/96
REPORT DATE: 05/01/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	04/23/96
TPH as Diesel	GC-FID	0.72 *	0.05	mg/L	04/24/96

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

LEVINE-FRICKE

SAMPLE ID: RP-101
AEN LAB NO: 9604240-08F
AEN WORK ORDER: 9604240
CLIENT PROJ. ID: 3042.00.02

DATE SAMPLED: 04/17/96
DATE RECEIVED: 04/17/96
REPORT DATE: 05/01/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	04/17/96
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	04/25/96
Arsenic	EPA 7060	0.069 *	0.002	mg/L	04/29/96

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

LEVINE-FRICKE

SAMPLE ID: RP-3
AEN LAB NO: 9604240-09A
AEN WORK ORDER: 9604240
CLIENT PROJ. ID: 3042.00.02

DATE SAMPLED: 04/17/96
DATE RECEIVED: 04/17/96
REPORT DATE: 05/01/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	**EPA 8020**				
Benzene	71-43-2	ND	0.5	ug/L	04/23/96
Toluene	108-88-3	ND	0.5	ug/L	04/23/96
Ethylbenzene	100-41-4	0.6 *	0.5	ug/L	04/23/96
Xylenes, Total	1330-20-7	8 *	2	ug/L	04/23/96
Purgeable HCs as Gasoline	5030/GCFID	0.13 *	0.05	mg/L	04/23/96

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

LEVINE-FRICKE

SAMPLE ID: RP-3
AEN LAB NO: 9604240-09D
AEN WORK ORDER: 9604240
CLIENT PROJ. ID: 3042.00.02

DATE SAMPLED: 04/17/96
DATE RECEIVED: 04/17/96
REPORT DATE: 05/01/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	04/23/96
TPH as Diesel	GC-FID	0.42 *	0.05	mg/L	04/24/96

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

LEVINE-FRICKE

SAMPLE ID: RP-3
AEN LAB NO: 9604240-09F
AEN WORK ORDER: 9604240
CLIENT PROJ. ID: 3042.00.02

DATE SAMPLED: 04/17/96
DATE RECEIVED: 04/17/96
REPORT DATE: 05/01/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	04/17/96
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	04/25/96
Arsenic	EPA 7060	0.006 *	0.002	mg/L	04/25/96

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

LEVINE-FRICKE

SAMPLE ID: MW-3
AEN LAB NO: 9604240-10A
AEN WORK ORDER: 9604240
CLIENT PROJ. ID: 3042.00.02

DATE SAMPLED: 04/17/96
DATE RECEIVED: 04/17/96
REPORT DATE: 05/01/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	**EPA 8020**				
Benzene	71-43-2	ND	0.5	ug/L	04/23/96
Toluene	108-88-3	ND	0.5	ug/L	04/23/96
Ethylbenzene	100-41-4	ND	0.5	ug/L	04/23/96
Xylenes, Total	1330-20-7	ND	2	ug/L	04/23/96
Purgeable HCs as Gasoline	5030/GCFID	0.16 *	0.05	mg/L	04/23/96

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

LEVINE-FRICKE

SAMPLE ID: MW-3
AEN LAB NO: 9604240-10D
AEN WORK ORDER: 9604240
CLIENT PROJ. ID: 3042.00.02

DATE SAMPLED: 04/17/96
DATE RECEIVED: 04/17/96
REPORT DATE: 05/01/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	04/23/96
TPH as Diesel	GC-FID	0.18 *	0.05	mg/L	04/24/96

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

LEVINE-FRICKE

SAMPLE ID: MW-3
AEN LAB NO: 9604240-10F
AEN WORK ORDER: 9604240
CLIENT PROJ. ID: 3042.00.02

DATE SAMPLED: 04/17/96
DATE RECEIVED: 04/17/96
REPORT DATE: 05/01/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	04/17/96
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	04/25/96
Arsenic	EPA 7060	0.018 *	0.002	mg/L	04/25/96

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

AEN (CALIFORNIA)
QUALITY CONTROL REPORT

AEN JOB NUMBER: 9604240

CLIENT PROJECT ID: 3042.00.02

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: 9604240
AEN LAB NO: 0423-BLANK
DATE EXTRACTED: 04/23/96
DATE ANALYZED: 04/23/96
INSTRUMENT: A
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: 9604240
DATE EXTRACTED: 04/23/96
INSTRUMENT: A
MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery n-Pentacosane
04/24/96	MW-2	01	82
04/24/96	MW-1	02	89
04/24/96	RP-5	03	88
04/24/96	RP-4	05	88
04/24/96	RP-2	06	93
04/24/96	RP-1	07	94
04/24/96	RP-101	08	95
04/24/96	RP-3	09	91
04/24/96	MW-3	10	94
QC Limits:			59-118

DATE EXTRACTED: 04/22/96
DATE ANALYZED: 04/22/96
SAMPLE SPIKED: 9604077-02
INSTRUMENT: A

Matrix Spike Recovery Summary

Analyte	Spike Added (mg/L)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Diesel	4.00	91	1	58-107	15