LEVINE•FRICKE
ENGINEERS, HYDROGEOLOGISTS & APPLIED SCIENTISTS

January 11, 1995 LF-3018.00-11

Ms. Madhulla Logan
Alameda County Health Care Services Agency
Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, California 94501

Subject: Quarterly Ground-Water Monitoring Report for the Period from July 1 through September 30, 1994, 5050 Coliseum Way and 750-50th Avenue, Oakland, California

Dear Ms. Logan:

This quarterly report is submitted by Levine•Fricke on behalf of Volvo GM Heavy Truck Corporation for the subject site. During this quarterly round, depth-to-water measurements were collected in all 22 monitoring wells and ground-water samples were collected from 21 wells.

If you have any questions regarding this report, please call me (510-652-4500) or Mr. Robert Whelen of Volvo GM (910-279-2544).

Sincerely,

Kathleen A. Isaacson, R.G.
Senior Hydrogeologist

Enclosure

cc: Kevin Graves, Regional Water Quality Control Board
Bob Whelen, Volvo GM Heavy Truck Corp.
Martha Boyd, Volvo GM Heavy Truck Corp.

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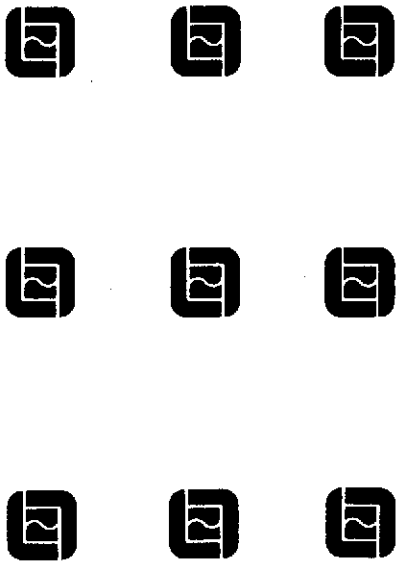

Quarterly Ground-Water Monitoring Report for the Period from July 1 through September 30, 1994
5050 Coliseum Way and 750-50th Avenue
Oakland, California

January 11, 1995
3018.00-11

Prepared for
Volvo GM Heavy Truck Corporation
7900 National Service Road
P.O. Box 26115
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LEVINE·FRICKE

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CERTIFICATION

All hydrogeologic and geologic information, conclusions, and recommendations have been prepared under the supervision of and reviewed by a Levine·Fricke California Registered Geologist.

Kathleen A. Isaacson
Senior Hydrogeologist
California Registered Geologist (5106)

1/10/95
Date

January 11, 1995 3018.00-11

QUARTERLY GROUND-WATER MONITORING REPORT FOR THE PERIOD FROM JULY 1 THROUGH SEPTEMBER 30, 1994 5050 COLISEUM WAY AND 750-50TH AVENUE OAKLAND, CALIFORNIA

1.0 INTRODUCTION

This report presents results of quarterly ground-water monitoring activities conducted during the period from July 1 through September 30, 1994, for the properties located at 5050 Coliseum Way and 750-50th Avenue, Oakland, California (collectively referenced as "the Site"; Figure 1). This report was prepared on behalf of Volvo GM Heavy Truck Corporation ("Volvo GM") in accordance with our work plan dated January 6, 1993 and submitted to the Alameda County Health Care Services Agency (ACHCSA). This report includes graphic illustrations of potentiometric head (water-level) data and presents historical summaries of ground-water elevation and ground-water quality data collected at the Site.

2.0 MONTHLY WATER-LEVEL MEASUREMENTS AND GROUND-WATER FLOW DIRECTION

The top of each well casing at the Site has been surveyed relative to mean sea level by a state-licensed land surveyor. Water-level measurements were collected from all wells at the Site on September 21, 1994. A historical summary of depth-to-water measurements and ground-water elevations for the Site is presented in Table 1.

Depth-to-water measurements collected at the Site in September 1994 indicated that ground-water elevations were similar or had decreased relative to elevations in May 1994. Ground-water elevation decreases were variable across the Site and ranged from 0.01 foot in well LF-14 to 2.06 foot in well MW-4.

Approximately 1.15 feet of free product was measured in well LF-13 using an oil-water interface probe. However, it is likely that this is an overestimate of product thickness because of the viscous nature of the petroleum hydrocarbons, which tend to coat the oil/water interface probe and interfere with the measurement. Product thickness in this well will be checked carefully next quarter using at least two measurement methods.

Ground-water elevation contours for September 21, 1994 are presented in Figure 2. Ground-water elevation data indicated that the ground-water flow direction was generally toward the west and northwest, consistent with historical ground-water data. Ground-water flow indicated a lateral hydraulic gradient which ranged from approximately 0.001 foot per foot (ft/ft; as calculated between wells LF-7 and LF-1) to 0.014 ft/ft (as calculated between wells LF-1 and LF-5).

3.0 GROUND-WATER QUALITY

Ground-water samples were collected from 21 monitoring wells (LF-1 through LF-12, LF-14 through LF-17, LF-F1, and MW-1 through MW-4) on September 21 through 23, 1994. Well LF-13 contained free product, approximately 1.15 feet thick, and the well was not sampled.

Ground-water samples collected from all wells were submitted to the laboratory for metals analysis using EPA Method 6010/7000 series. Samples collected from wells LF-3, LF-8, and LF-14 were submitted for analysis of total petroleum hydrocarbons (TPH) as gasoline (TPHg) by EPA Method 3550, and as diesel (TPHd) and oil (TPHo) by EPA Method 3510. Ground-water samples collected from wells LF-8 and LF-9 were analyzed for volatile organic compounds (VOCs; by EPA Method 8240) and semivolatile organic compounds (SVOCs; by EPA Method 8270), respectively.

Analytical results for ground-water samples collected during the recent round of sampling were generally consistent with results reported previously for the Site. Analytical results for metals analysis are presented in Figure 3 and Table 2. Analytical results for TPHg and benzene, toluene, ethylbenzene, and total xylenes (BTEX) are presented on Table 3, and results for TPHd and TPHo are presented on Table 4. Laboratory certificates are presented in Appendix A.

3.1 Sampling Procedures

Before ground-water samples were collected, approximately 3 to 5 well casing volumes of water was removed from each well using a Teflon bailer. Specific conductance, pH, and temperature of the purged water were measured during this purging process to aid in evaluating overall ground-water quality. These parameters were recorded in the field on water-quality sampling forms. Copies of these forms are included in Appendix B. Ground-water samples were collected

after these parameters stabilized to within 15 percent of the previous measurement.

Ground-water samples were collected using the same Teflon bailer used to purge the well. Ground-water samples for metals analysis were filtered in the field and preserved with nitric acid. Samples were placed in an ice-chilled cooler immediately after collection for transportation to the analytical laboratory.

Samples were submitted to American Environmental Network, Inc. (formerly Quanteq Laboratories) of Pleasant Hill, California, a state-certified laboratory. The pH values for ground-water samples collected from each monitoring well were measured and recorded in the field during sampling activities.

For quality assurance/quality control measures, a duplicate sample and a field blank were collected for well LF-3. The duplicate sample was submitted for Title 22 metals, TPHg, TPHd, and TPHo analyses and the field blank was submitted to the laboratory on a hold basis, pending analytical results.

3.2 Ground-Water Quality Results

3.2.1 Metals

Analytical results for Title 22 metals in ground-water samples collected during the recent round of sampling were generally consistent with results reported previously for those wells.

No mercury was detected in samples collected during this round of sampling. Chromium was detected in only one well (LF-3) at a concentration of 0.007 parts per million (ppm) in the duplicate sample. Silver, barium, beryllium, molybdenum, antimony, selenium, thallium, and vanadium were generally reported at concentrations below 0.2 ppm when detected in samples.

Zinc was detected in all wells sampled at concentrations ranging from 0.012 ppm in well LF-7 to 33,000 ppm in well LF-11. The highest concentration of lead (0.91 ppm) was detected in the sample from well LF-1. Of the downgradient wells that were sampled, only the sample from well LF-12 contained lead (0.02 ppm).

The highest concentrations of cadmium (11 ppm) and copper (22 ppm) were detected in the sample collected from well LF-16. The highest concentration of cobalt (11 ppm) and nickel (32 ppm) were detected in the samples collected from LF-15 and LF-

11, respectively. Of the downgradient wells that were sampled, well LF-12 contained the highest concentrations of those metals (cadmium, 3.4 ppm; cobalt, 2.2 ppm; copper, 1.1 ppm; nickel, 6.7 ppm).

Arsenic was detected in the samples from eight of the wells, with the highest concentration of 3.1 ppm reported for well LF-8. Arsenic was not detected in downgradient wells LF-12 or MW-3 above laboratory detection limits.

3.2.2 Petroleum Hydrocarbons

Samples collected from wells LF-3, LF-8, and LF-14 were analyzed for TPHg, TPHd, and TPHo (Tables 3 and 4 and Figure 4). TPHg was not detected in the sample collected from well LF-3, but was reported at concentrations of 0.4 ppm and 1.4 ppm in wells LF-8 and LF-14, respectively. TPHd was detected only in wells LF-3 and LF-8 at concentrations of 1.2 ppm and 6.7 ppm, respectively. TPHo was not detected in any of the wells sampled and analyzed for this compound.

3.2.3 Volatile Organic Compounds

Analytical results for the sample collected from well LF-9 and submitted for analysis of VOCs did not indicate the presence of VOCs above laboratory detection limits.

3.2.4 Semivolatile Organic Compounds

Results of SVOC analysis for the sample collected from well LF-8 were similar to those previously reported. Compounds reported included acenaphthene (0.39 ppm), acenaphthylene (0.011 ppm), anthracene (0.29 ppm), dibenzofuran (0.2 ppm), fluoranthene (0.016 ppm), fluorene (0.17 ppm), naphthalene (0.033 ppm), phenanthrene (0.026 ppm), and pyrene (0.022 ppm).

3.2.5 Measurements of pH

Measurements of ground-water pH were generally consistent with values previously reported for the Site. Recent monitoring indicates that pH values for shallow ground water beneath the Site are variable. The lowest pH (3.96) was measured in the sample from well LF-11. A pH value above 6.4 was measured for samples from only five wells, four of which are located along the southeastern property boundary (LF-3, LF-4, LF-7, and LF-8).

3.2.6 Quality Assurance/Quality Control

Analytical results for the duplicate sample collected from well LF-3 (LF-103) generally showed similar metals and TPH concentrations when compared to the primary sample collected from that well (LF-3). The bailer blank prepared with distilled water before well LF-3 was sampled was submitted to the laboratory on a hold basis pending receipt of analytical results.

4.0 REFERENCE

Levine·Fricke, Inc. 1993. Quarterly Ground-Water Monitoring Report for the Period January 1 through March 31, 1993, 5050 Coliseum Way and 750-50th Avenue, Oakland, California. April 27.

TABLE 1
HISTORICAL SUMMARY OF GROUND-WATER ELEVATION DATA
5050 COLISEUM WAY AND 750-50TH AVENUE
OAKLAND, CALIFORNIA

Well Number	Top of PVC Casing Elevation (feet msl)	Date Measured	Depth to Water (feet msl)	Ground-Water Elevation (feet msl)
LF-1	7.56	07-Nov-91	6.79	0.77
		26-Oct-92	4.69	2.87
		04-Mar-93	3.94	3.62
		14-Apr-93	3.41	4.15
		24-May-93	3.07	4.49
		14-Jun-93	3.41	4.15
		30-Jul-93	3.46	4.10
		31-Aug-93	3.67	3.89
		27-Sep-93	3.76	3.80
		25-Oct-93	3.74	3.82
		02-Nov-93	4.26	3.30
		08-Dec-93	4.42	3.14
		28-Jan-94	4.06	3.50
		15-Feb-94	3.94	3.62
		24-May-94	3.81	3.75
		21-Sep-94	3.75	3.81
LF-2	9.84	07-Nov-91	7.26	2.58
		26-Oct-92	6.28	3.56
		04-Mar-93	5.14	4.70
		14-Apr-93	4.95	4.89
		24-May-93	5.09	4.75
		14-Jun-93	5.21	4.63
		30-Jul-93	5.38	4.46
		31-Aug-93	5.57	4.27
		27-Sep-93	5.70	4.14
		25-Oct-93	5.80	4.04
		02-Nov-93	5.86	3.98
		08-Dec-93	6.21	3.63
		28-Jan-94	6.12	3.72
		15-Feb-94	6.07	3.77
		24-May-94	5.65	4.19
		21-Sep-94	6.00	3.84
LF-3	10.98	07-Nov-91	7.55	3.43
		26-Oct-92	7.05	3.93
		04-Mar-93	5.83	5.15
		14-Apr-93	5.48	5.50
		24-May-93	5.61	5.37
		14-Jun-93	5.75	5.23
		30-Jul-93	5.96	5.02
		31-Aug-93	6.18	4.80
		27-Sep-93	6.33	4.65
		25-Oct-93	6.46	4.52
		02-Nov-93	6.62	4.36
		08-Dec-93	6.71	4.27
		28-Jan-94	6.72	4.26
		15-Feb-94	6.50	4.48
		24-May-94	6.15	4.83
		21-Sep-94	6.56	4.42

TABLE 1
HISTORICAL SUMMARY OF GROUND-WATER ELEVATION DATA
5050 COLISEUM WAY AND 750-50TH AVENUE
OAKLAND, CALIFORNIA

Well Number	Top of PVC Casing Elevation (feet msl)	Date Measured	Depth to Water (feet msl)	Ground-Water Elevation (feet msl)
LF-4	10.36	07-Nov-91	11.63	-1.27
		26-Oct-92	7.31	3.05
		04-Mar-93	5.58	4.78
		14-Apr-93	5.21	5.15
		24-May-93	5.48	4.88
		14-Jun-93	5.63	4.73
		30-Jul-93	5.92	4.44
		31-Aug-93	6.16	4.20
		27-Sep-93	6.36	4.00
		25-Oct-93	6.54	3.82
		02-Nov-93	7.00	3.36
		08-Dec-93	6.96	3.40
		28-Jan-94	7.04	3.32
		15-Feb-94	6.84	3.52
		24-May-94	5.99	4.37
		21-Sep-94	6.62	3.74
LF-5	8.03	07-Nov-91	7.34	0.69
		26-Oct-92	7.05	0.98
		04-Mar-93	6.05	1.98
		14-Apr-93	6.25	1.78
		24-May-93	6.61	1.42
		14-Jun-93	6.97	1.06
		30-Jul-93	6.72	1.31
		31-Aug-93	6.84	1.19
		27-Sep-93	7.10	0.93
		25-Oct-93	7.11	0.92
		02-Nov-93	7.04	0.99
		08-Dec-93	7.27	0.76
		28-Jan-94	6.82	1.21
		15-Feb-94	6.85	1.18
		24-May-94	6.76	1.27
		21-Sep-94	7.05	0.98
LF-6	11.59	07-Nov-91	8.59	3.00
		26-Oct-92	8.82	2.77
		04-Mar-93	5.79	5.80
		14-Apr-93	5.41	6.18
		24-May-93	6.05	5.54
		14-Jun-93	6.29	5.30
		30-Jul-93	6.83	4.76
		31-Aug-93	7.27	4.32
		27-Sep-93	7.61	3.98
		25-Oct-93	7.79	3.80
		02-Nov-93	8.07	3.52
		08-Dec-93	7.34	4.25
		28-Jan-94	6.37	5.22
		15-Feb-94	5.98	5.61
		24-May-94	6.14	5.45
		21-Sep-94	7.39	4.20

TABLE 1
HISTORICAL SUMMARY OF GROUND-WATER ELEVATION DATA
5050 COLISEUM WAY AND 750-50TH AVENUE
OAKLAND, CALIFORNIA

Well Number	Top of PVC Casing Elevation (feet msl)	Date Measured	Depth to Water (feet msl)	Ground-Water Elevation (feet msl)
LF-7	10.65	07-Nov-91	8.54	2.11
		26-Oct-92	7.98	2.67
		04-Mar-93	4.92	5.73
		14-Apr-93	4.80	5.85
		24-May-93	5.03	5.62
		14-Jun-93	5.18	5.47
		30-Jul-93	5.51	5.14
		31-Aug-93	5.82	4.83
		27-Sep-93	6.14	4.51
		25-Oct-93	6.39	4.26
		02-Nov-93	6.60	4.05
		08-Dec-93	6.74	3.91
		28-Jan-94	6.03	4.62
		15-Feb-94	5.59	5.06
		24-May-94	5.46	5.19
		21-Sep-94	6.40	4.25
LF-8	10.91	02-Nov-93	6.18	4.73
		08-Dec-93	6.29	4.62
		28-Jan-94	6.38	4.53
		15-Feb-94	6.37	4.54
		24-May-94	6.15	4.76
		21-Sep-94	6.33	4.58
LF-9	11.70	02-Nov-93	6.76	4.94
		08-Dec-93	6.91	4.79
		28-Jan-94	6.88	4.82
		15-Feb-94	6.80	4.90
		24-May-94	6.80	4.90
		21-Sep-94	6.98	4.72
LF-10	9.43	02-Nov-93	8.14	1.29
		08-Dec-93	7.82	1.61
		28-Jan-94	NM	NM
		15-Feb-94	7.47	1.96
		24-May-94	7.11	2.32
		21-Sep-94	7.90	1.53
LF-11	9.07	02-Nov-93	11.68	-2.61
		08-Dec-93	5.35	3.72
		28-Jan-94	5.27	3.8
		15-Feb-94	5.04	4.03
		24-May-94	4.20	4.87
		21-Sep-94	4.70	4.37
LF-12	8.70	02-Nov-93	7.87	0.83
		08-Dec-93	7.90	0.80
		28-Jan-94	7.46	1.24
		15-Feb-94	7.66	1.04
		21-Sep-94	7.80	0.90

TABLE 1
HISTORICAL SUMMARY OF GROUND-WATER ELEVATION DATA
5050 COLISEUM WAY AND 750-50TH AVENUE
OAKLAND, CALIFORNIA

Well Number	Top of PVC Casing Elevation (feet msl)	Date Measured	Depth to Water (feet msl)	Ground-Water Elevation (feet msl)
LF-13 (1)	9.75	08-Dec-93	5.94	3.81
		28-Jan-94	4.94	4.81
		15-Feb-94	4.84	4.91
		24-May-94	4.81	4.99
		21-Sep-94	6.32	4.41
LF-14	11.72	08-Dec-93	7.96	3.76
		28-Jan-94	8.02	3.7
		15-Feb-94	7.85	3.87
		24-May-94	7.68	4.04
		21-Sep-94	7.69	4.03
LF-15	11.62	08-Dec-93	7.91	3.71
		28-Jan-94	7.74	3.88
		15-Feb-94	7.58	4.04
		24-May-94	8.07	3.55
		21-Sep-94	8.58	3.04
LF-16	11.56	08-Dec-93	8.35	3.21
		28-Jan-94	8.40	3.16
		15-Feb-94	8.21	3.35
		24-May-94	8.01	3.55
		21-Sep-94	7.64	3.92
LF-17	9.71	08-Dec-93	6.72	2.99
		28-Jan-94	5.86	3.85
		15-Feb-94	5.87	3.84
		24-May-94	6.00	3.71
		21-Sep-94	6.88	2.83
LF-F1	8.82	08-Dec-93	4.08	4.74
		28-Jan-94	4.03	4.79
		15-Feb-94	3.90	4.92
		24-May-94	3.60	5.22
		21-Sep-94	4.05	4.77
MW-1	10.21	07-Nov-91	6.29	4.24
		26-Oct-92	6.38	2.63
		04-Mar-93	3.57	6.64
		14-Apr-93	3.57	6.64
		24-May-93	4.59	5.62
		14-Jun-93	4.86	5.35
		30-Jul-93	5.72	4.49
		31-Aug-93	6.38	3.83
		27-Sep-93	6.85	3.36
		25-Oct-93	7.03	3.18
		02-Nov-93	7.30	2.91
		08-Dec-93	6.51	3.70
		28-Jan-94	5.00	5.21
		15-Feb-94	4.46	5.75
		24-May-94	4.65	5.56

TABLE 1
HISTORICAL SUMMARY OF GROUND-WATER ELEVATION DATA
5050 COLISEUM WAY AND 750-50TH AVENUE
OAKLAND, CALIFORNIA

Well Number	Top of PVC Casing Elevation (feet msl)	Date Measured	Depth to Water (feet msl)	Ground-Water Elevation (feet msl)
		21-Sep-94	6.35	3.86
MW-2	8.86	07-Nov-91	5.93	2.93
		26-Oct-92	5.41	3.45
		04-Mar-93	4.26	4.60
		14-Apr-93	3.83	5.03
		24-May-93	3.78	5.08
		14-Jun-93	3.89	4.97
		30-Jul-93	4.10	4.76
		31-Aug-93	4.37	4.49
		27-Sep-93	4.72	4.14
		25-Oct-93	4.81	4.05
		02-Nov-93	4.96	3.90
		08-Dec-93	5.13	3.73
		28-Jan-94	5.18	3.68
		15-Feb-94	5.02	3.84
		24-May-94	4.43	4.43
		21-Sep-94	5.82	3.04
MW-3	9.01	07-Nov-91	6.94	2.07
		26-Oct-92	7.29	1.72
		04-Mar-93	5.07	3.94
		14-Apr-93	5.21	3.80
		24-May-93	5.95	3.06
		14-Jun-93	6.23	2.78
		27-Sep-93	6.46	2.55
		25-Oct-93	6.47	2.54
		02-Nov-93	6.62	2.39
		08-Dec-93	6.23	2.78
		28-Jan-94	5.58	3.43
		15-Feb-94	5.70	3.31
		24-May-94	5.59	3.42
		21-Sep-94	6.46	2.55
MW-4	10.75	07-Nov-91	10.26	0.49
		26-Oct-92	9.04	1.71
		04-Mar-93	5.77	4.98
		14-Apr-93	4.71	6.04
		24-May-93	5.60	5.15
		14-Jun-93	5.94	4.81
		30-Jul-93	6.72	4.03
		31-Aug-93	7.25	3.50
		27-Sep-93	7.66	3.09
		25-Oct-93	7.79	2.96
		02-Nov-93	7.97	2.78
		08-Dec-93	7.18	3.57
		28-Jan-94	5.50	5.25
		15-Feb-94	5.17	5.58
		24-May-94	5.46	5.29
		21-Sep-94	7.52	3.23

TABLE 1
HISTORICAL SUMMARY OF GROUND-WATER ELEVATION DATA
5050 COLISEUM WAY AND 750-50TH AVENUE
OAKLAND, CALIFORNIA

Well Number	Top of PVC Casing Elevation (feet msl)	Date Measured	Depth to Water (feet msl)	Ground-Water Elevation (feet msl)

Data entered by DLM/19 Oct 94 Data proofed by JTE

NOTES

All elevations are measured relative to the mean-sea-level (msl) datum.
The top of casing elevations were measured from the north side of each PVC casing.

(1) Ground-water elevation corrected for the presence of free product as shown in Table 1A.

Table 1A

Well Number	Top of PVC Casing Elevation (feet msl)	Date Measured	Depth to Water (feet msl)	Depth to Product (feet msl)	Product Thickness* (ft)	Ground-Water Elevation** (feet msl)
LF-13	9.75	15-Feb-94	4.84	4.83	0.01	4.91
LF-13*	9.75	24-May-94	4.81	4.75	0.06	4.99
LF-13	9.75	21-Sep-94	6.32	5.17	1.15	4.41

*Product thickness measurement is approximate due to viscous liquid.
*Ground-water elevation corrected for the presence of free product using the following equation: G = W + [(PT*D) - DW] where G is the ground-water elevation, W is the well elevation, PT is the product thickness, D is the product density (g/ml), and DW is the depth to water. For purposes of this calculation, D = 0.85 will be used.

TABLE 2
METALS DETECTED IN GROUND-WATER SAMPLES
5050 COLISEUM WAY AND 750-50TH AVENUE
OAKLAND, CALIFORNIA
(concentrations reported in parts per million (ppm))

Sample ID	Sample Date	Silver	Arsenic	Barium	Beryllium	Cadmium	Cobalt	Chromium	Copper	Mercury	Molybdenum	Nickel	Lead	Antimony	Selenium	Thallium	Vanadium	Zinc
LF-1	04-Nov-91	0.054	0.004	0.046	0.11	130	5.7	<0.01	1.9	<0.0003	0.11	20	0.5	<0.2	<0.004	<1	<0.005	40000
LF-1	27-Oct-92	<0.5	0.007	<0.5	<0.2	57	4.1	<1	1	<0.0003	<1	19	<4	<2	0.027	<10	<0.5	16000
LF-1	05-Mar-93	<0.5	0.22	<0.05	<0.2	43	3.6	<1	0.47	<0.0003	<1	11	<4	<2	<0.01	<10	<0.5	14000
Duplicate	05-Mar-93	<0.5	0.26	<0.05	<0.2	44	3.9	<1	0.50	<0.0003	<1	11	<4	<2	<0.01	<10	<0.5	14000
LF-1	25-May-93	<0.5	0.12	<0.05	<0.2	40	4.7	<1	1	<0.0003	<1	16	<0.4	<2	<0.004	<10	<0.5	19000
Duplicate	25-May-93	<0.03	0.36	<0.05	0.02	9.6	0.81	<0.05	0.15	<0.0003	<0.05	3	0.3	<0.1	<0.004	<0.5	<0.03	4700
LF-1	31-Aug-93	<0.5	0.072	<0.05	<0.2	32	2.3	<1	<1	<0.0003	<1	9	<4	<2	<0.004	<10	<0.5	13000
Duplicate	31-Aug-93	<0.5	0.66	<0.05	<0.2	13	1	<1	<1	<0.0003	<1	5	<4	<2	<0.004	<10	<0.5	7200
LF-1	26-Oct-93	<0.05	0.4	<0.5	0.02	15	1.3	0.6	0.9	<0.0003	<0.1	4.9	0.4	<0.2	<0.04	<1	<0.05	7100
LF-101 (dup)	26-Oct-93	<0.1	1.3	<1	<0.04	12	1	<0.2	0.3	<0.0003	<0.2	3.7	<0.8	<0.4	<0.08	<2	<0.1	5900
LF-1	18-Feb-94	<0.05	0.57	<0.5	<0.02	2.6	0.33	<0.1	<0.1	<0.0002	<0.1	1.4	0.8	<0.2	<0.004	<1	<0.05	2600
LF-1	25-May-94	<0.05	0.49	<0.05	<0.2	7.9	0.9	<1	<1	<0.0002	<1	3	0.79	<3	<0.004	<10	<0.5	5000
LF-1	22-Sep-94	<0.05	0.77	<0.05	<0.02	6.1	0.67	<0.1	<0.1	<0.0002	<0.1	2.5	0.91	<0.2	<0.02	<1	<0.05	4100
LF-2	04-Nov-91	<0.002	0.028	0.026	<0.001	0.009	0.18	<0.01	0.008	<0.0003	<0.01	0.52	<0.005	<0.02	<0.004	<0.1	<0.005	4.2
LF-2	27-Oct-92	0.006	0.007	<0.05	<0.002	0.006	0.12	<0.01	0.02	<0.0003	<0.01	0.22	<0.04	<0.02	0.005	<0.1	<0.005	3.3
LF-2	04-Mar-93	<0.005	0.003	<0.05	<0.002	<0.005	0.10	<0.01	<0.01	<0.0003	<0.01	0.12	<0.04	<0.02	<0.004	<0.1	<0.005	1.9
LF-2	24-May-93	<0.005	0.005	<0.05	<0.002	<0.005	0.061	<0.01	<0.01	<0.0003	<0.01	0.08	<0.04	<0.02	<0.004	<0.1	<0.005	1.4
LF-2	31-Aug-93	<0.005	5	<0.05	0.003	0.021	0.016	<0.01	<0.01	<0.0003	0.14	<0.01	<0.04	<0.02	<0.004	<0.1	<0.005	8.6
LF-2	25-Oct-93	<0.005	0.004	<0.05	<0.002	0.009	0.055	<0.01	0.02	<0.0003	<0.01	0.11	<0.04	<0.02	<0.004	<0.1	<0.005	1.9
LF-2	16-Feb-94	<0.005	<0.002	<0.05	<0.002	<0.005	<0.005	<0.1	<0.01	<0.0002	<0.01	0.04	<0.04	<0.02	<0.004	<0.1	<0.005	0.41
LF-2	24-May-94	<0.001	<0.002	0.02	<0.0005	<0.001	0.037	<0.002	0.003	<0.0002	<0.002	0.024	<0.003	<0.005	<0.004	<0.02	<0.001	0.3
LF-2	22-Sep-94	<0.001	<0.002	0.02	<0.0005	<0.001	0.038	<0.002	0.006	<0.0002	<0.002	0.038	<0.005	0.007	<0.004	<0.02	0.001	0.59
LF-3	04-Nov-91	<0.002	3.1	0.077	0.001	<0.005	0.016	<0.01	<0.004	<0.0003	0.16	0.012	<0.005	<0.02	<0.004	<0.1	0.006	3.1
LF-3	27-Oct-92	<0.005	3.6	0.11	0.004	0.013	0.029	<0.01	<0.01	<0.0003	0.22	0.02	<0.04	<0.02	0.018	<0.1	<0.005	12
LF-3	04-Mar-93	<0.005	4.9	0.07	0.003	0.012	0.023	<0.01	<0.01	<0.0003	0.18	0.04	<0.04	<0.02	<0.02	<0.1	<0.005	15
LF-3	25-May-93	<0.005	3.4	0.11	<0.002	0.04	0.01	<0.01	<0.01	<0.0003	0.13	0.01	<0.04	<0.02	<0.004	<0.1	<0.005	5.8
LF-3	31-Aug-93	<0.005	4.9	<0.05	0.003	0.023	0.019	<0.01	<0.01	<0.0003	0.15	0.01	<0.04	<0.02	<0.004	<0.1	<0.005	8.6
LF-3	25-Oct-93	<0.005	7.3	0.08	<0.002	0.005	0.013	<0.01	<0.01	<0.0003	0.13	0.02	<0.04	<0.02	<0.02	<0.1	<0.005	6.2
LF-3	16-Feb-94	<0.005	3.4	0.1	<0.002	<0.005	0.012	<0.01	<0.01	<0.0002	0.11	0.01	<0.04	<0.02	<0.01	<0.1	<0.005	5
LF-3	25-May-94	<0.001	2.4	0.08	0.0009	<0.001	0.009	0.002	<0.002	<0.0002	0.091	0.006	<0.003	<0.005	<0.02	<0.02	<0.001	4.1
LF-103 (dup)	25-May-94	0.001	2.8	0.08	0.0013	<0.001	0.011	<0.002	<0.002	<0.0002	0.11	0.008	<0.003	<0.005	<0.02	<0.02	<0.001	5.2
LF-3	23-Sep-94	<0.001	2.2	0.05	0.0014	<0.001	0.011	0.002	<0.002	<0.0002	0.11	0.008	<0.005	<0.005	<0.2	<0.02	0.004	5.5
LF-103 (dup)	23-Sep-94	<0.001	2.3	0.06	0.0010	<0.001	0.009	0.004	0.007	<0.0002	0.095	0.007	<0.005	<0.005	<0.2	<0.02	0.003	4.1
LF-4	04-Nov-91	<0.002	0.026	0.082	<0.001	<0.005	<0.005	<0.01	<0.004	<0.0003	<0.01	0.013	<0.005	0.03	<0.004	<0.1	0.01	0.034
LF-4	27-Oct-92	<0.005	0.034	<0.05	<0.002	<0.005	<0.005	<0.01	<0.01	<0.0003	<0.01	0.03	<0.04	<0.02	<0.004	<0.1	<0.005	0.012
LF-4	04-Mar-93	<0.005	0.017	0.11	<0.002	<0.005	<0.005	<0.01	<0.01	<0.0003	<0.01	0.05	<0.04	0.02	<0.004	<0.1	0.008	0.04
LF-4	24-May-93	<0.005	0.013	0.22	<0.002	<0.005	<0.005	<0.01	<0.01	<0.0003	<0.01	0.03	<0.04	<0.02	<0.004	<0.1	<0.005	0.035
LF-4	31-Aug-93	<0.005	0.052	0.08	<0.002	<0.005	0.006	<0.01	<0.01	<0.0003	<0.01	0.04	<0.04	<0.02	<0.004	<0.1	0.009	0.038
LF-4	25-Oct-93	<0.005	0.014	0.12	<0.002	<0.005	<0.005	<0.01	<0.01	<0.0003	<0.01	0.04	<0.04	<0.02	<0.004	<0.1	0.015	0.068
LF-4	16-Feb-94	<0.005	0.008	0.29	<0.002	<0.005	0.006	<0.01	<0.01	<0.0002	<0.01	0.04	<0.04	<0.02	<0.004	<0.1	<0.005	0.05
LF-4	22-Sep-94	<0.001	0.005	0.19	<0.0005	0.001	0.003	<0.002	0.003	<0.0002	<0.002	0.037	<0.005	0.007	<0.004	<0.02	0.007	0.067
LF-5	04-Nov-91	0.004	<0.002	0.018	<0.001	0.049	0.03	<0.01	<0.005	0.0004	<0.01	0.23	<0.005	<0.02	<0.004	<0.1	<0.005	11
LF-5	27-Oct-92	0.022	0.005	<0.05	<0.002	0.24	1.4	<0.01	<0.01	<0.0003	<0.01	5.4	<0.04	<0.02	0.017	<0.1	<0.005	35
LF-5	04-Mar-93	0.021	<0.005	<0.05	<0.002	0.21	1.1	<0.01	<0.01	<0.0003	<0.01	5.0	<0.04	<0.02	<0.010	<0.1	<0.005	36
LF-5	25-May-93	0.01	<0.002	<0.05	<0.002	0.17	0.84	<0.01	<0.01	<0.0003	<0.01	3.2	<0.04	<0.02	<0.004	0.2	<0.005	23
LF-5	31-Aug-93	0.013	0.02	<0.05	<0.002	0.25	1.3	<0.01	<0.01	<0.0003	<0.01	4.6	<0.04	<0.02	<0.02	0.2	<0.005	38

TABLE 2
METALS DETECTED IN GROUND-WATER SAMPLES
5050 COLISEUM WAY AND 750-50TH AVENUE
OAKLAND, CALIFORNIA
(concentrations reported in parts per million [ppm])

Sample ID	Sample Date	Silver	Arsenic	Barium	Beryllium	Cadmium	Cobalt	Chromium	Copper	Mercury	Molybdenum	Nickel	Lead	Antimony	Selenium	Thallium	Vanadium	Zinc
LF-5	26-Oct-93	0.011	0.052	<0.05	<0.002	0.28	1.4	<0.01	0.01	<0.0003	<0.01	5.3	0.07	<0.02	<0.04	0.3	0.01	51
LF-5	16-Feb-94	0.009	<0.02	<0.05	<0.002	0.16	0.95	<0.01	<0.01	<0.0002	<0.01	3.3	<0.04	<0.02	<0.04	0.1	<0.005	28
LF-5	24-May-94	0.008	<0.005	0.01	<0.0005	0.14	0.71	<0.002	<0.002	<0.0002	<0.002	2.4	<0.010	<0.005	<0.01	0.09	0.002	23
LF-5	21-Sep-94	0.006	<0.01	0.01	<0.0005	0.17	0.81	0.003	0.003	<0.0002	<0.002	2.5	<0.010	<0.005	<0.02	0.03	<0.001	25
LF-6	05-Nov-91	0.011	0.008	0.019	<0.001	0.079	0.58	<0.01	<0.005	0.0009	<0.01	2.1	0.009	<0.02	<0.004	<0.1	<0.005	8.1
LF-6	27-Oct-92	0.020	0.022	<0.05	<0.002	0.17	1.6	<0.01	<0.01	<0.0003	<0.01	5.5	<0.04	<0.02	0.012	<0.1	<0.005	23
LF-6	04-Mar-93	0.013	0.007	<0.05	0.003	0.13	1.2	<0.01	<0.01	<0.0003	<0.01	4.2	<0.04	<0.02	<0.004	<0.1	<0.005	17
LF-6	24-May-93	0.008	<0.002	<0.05	<0.002	0.13	0.97	<0.01	0.01	<0.0003	<0.01	3.4	<0.04	<0.02	<0.004	0.1	<0.005	13
LF-6	31-Aug-93	0.009	0.014	<0.05	0.003	0.13	1	<0.01	0.01	<0.0003	<0.01	3.7	<0.04	<0.02	<0.004	0.1	<0.005	14
LF-6	26-Oct-93	0.005	<0.002	<0.05	0.003	0.15	1	<0.01	0.02	<0.0003	<0.01	3.7	<0.04	<0.02	<0.004	0.1	<0.005	17
LF-6	16-Feb-94	0.007	0.016	<0.05	0.003	0.11	0.97	<0.01	<0.01	<0.0002	<0.01	3.4	<0.04	<0.02	<0.004	0.1	<0.005	13
LF-6	21-Sep-94	0.004	<0.002	0.01	0.0023	0.099	0.84	<0.002	0.011	<0.0002	<0.002	2.8	<0.005	<0.005	<0.004	0.02	<0.001	11
LF-7	05-Nov-91	<0.002	0.004	0.13	<0.001	<0.005	<0.005	<0.01	0.006	0.0011	<0.01	0.01	<0.005	<0.02	<0.004	<0.1	0.006	<0.005
LF-7	27-Oct-92	<0.005	0.03	0.11	<0.002	<0.005	<0.005	<0.01	<0.01	<0.0003	0.01	0.01	<0.04	<0.02	<0.004	<0.1	0.008	0.021
LF-7	04-Mar-93	<0.005	0.025	0.08	<0.002	<0.005	<0.005	<0.01	<0.01	<0.0003	0.01	0.01	<0.04	<0.02	<0.010	<0.1	0.009	0.01
LF-7	24-May-93	<0.005	0.003	0.08	<0.002	<0.005	<0.005	<0.01	<0.01	<0.0003	<0.01	<0.01	<0.04	<0.02	<0.004	<0.1	0.006	0.007
LF-7	31-Aug-93	<0.005	0.013	0.08	<0.002	<0.005	<0.005	<0.01	<0.01	<0.0003	<0.01	<0.01	<0.04	<0.02	<0.004	<0.1	0.006	0.021
LF-7	25-Oct-93	<0.005	<0.002	0.09	<0.002	<0.005	<0.005	<0.01	<0.01	<0.0003	<0.01	<0.01	<0.04	<0.02	<0.004	<0.1	0.006	0.011
LF-7	16-Feb-94	<0.005	0.014	0.12	<0.002	<0.005	<0.005	<0.01	<0.01	<0.0002	<0.01	0.02	<0.04	<0.02	<0.004	<0.1	0.005	0.01
LF-7	21-Sep-94	<0.001	<0.002	0.10	<0.0005	<0.001	<0.001	<0.002	<0.002	<0.0002	0.006	0.010	<0.005	0.005	<0.004	<0.02	0.006	0.012
LF-8	27-Oct-93	<0.005	2.6	0.16	<0.002	<0.005	0.005	<0.01	<0.01	<0.0003	<0.01	0.01	<0.04	<0.02	<0.004	<0.1	<0.005	0.022
LF-8	16-Feb-94	<0.005	2.3	0.33	<0.002	<0.005	<0.005	<0.01	<0.01	<0.0002	<0.01	<0.01	<0.04	<0.02	<0.004	<0.1	<0.005	<0.01
LF-8	24-May-94	<0.001	2.5	0.2	<0.0005	<0.001	<0.001	<0.002	<0.002	<0.0002	0.004	<0.003	<0.003	<0.005	<0.02	<0.02	0.004	0.015
LF-8	23-Sep-94	<0.001	3.4	0.32	<0.0005	0.002	<0.001	<0.002	<0.002	<0.0002	<0.002	0.003	<0.005	0.005	<0.004	<0.02	0.005	0.024
LF-9	01-Nov-93	<0.005	0.009	<0.05	<0.002	0.041	0.56	<0.01	0.02	<0.0003	<0.01	0.86	<0.04	<0.02	<0.02	<0.1	<0.005	14
LF-109 (dup)	01-Nov-93	<0.005	0.015	<0.05	<0.002	0.034	0.46	<0.01	<0.01	<0.0003	<0.01	0.71	<0.04	<0.02	<0.02	<0.1	<0.005	14
LF-9	17-Feb-94	<0.005	0.064	<0.05	<0.002	0.12	0.016	<0.01	<0.01	<0.0002	<0.01	0.1	<0.04	<0.02	<0.004	<0.1	<0.005	31
LF-9	21-Sep-94	<0.001	0.18	0.02	<0.0005	0.008	0.023	<0.002	<0.002	<0.0002	0.004	0.072	<0.005	0.006	<0.01	<0.02	0.002	20
LF-10	28-Oct-93	<0.005	0.04	0.77	<0.002	0.02	0.019	0.07	0.04	<0.0003	<0.01	0.17	<0.04	<0.02	<0.04	<0.1	0.048	2
LF-10	16-Feb-94	<0.005	<0.005	<0.05	<0.002	0.005	0.018	<0.01	<0.01	<0.0002	<0.01	0.12	<0.04	<0.02	<0.01	<0.1	0.008	0.21
LF-10	22-Sep-94	0.001	<0.005	0.02	<0.0005	0.002	0.008	<0.002	0.005	<0.0002	<0.002	0.083	<0.010	<0.005	<0.01	<0.02	0.006	0.075
LF-11	28-Oct-93	<0.005	0.07	0.1	<0.002	120	5.9	<0.01	3	<0.0003	<0.01	28	6	<0.02	<0.04	<0.1	2	47000
LF-11	18-Feb-94	<0.5	<0.02	<5	<0.2	140	8.4	<1	4	<0.0002	<1	37	<4	<2	<0.02	<10	<0.5	44000
LF-111 (dup)	18-Feb-94	<0.5	<0.02	<5	<0.2	140	9.4	<1	4	<0.0002	<1	40	<4	<2	<0.02	<10	<0.5	46000
LF-11	23-Sep-94	0.5	<0.02	<0.01	0.2	130	7.1	<1	5	<0.0002	<1	32	0.41	<2	<0.04	<10	<0.5	33000
LF-12	01-Nov-93	<0.05	0.022	<0.5	<0.02	3.7	2.7	<0.1	0.9	<0.0003	<0.1	8.1	<0.4	<0.2	0.014	<1	<0.05	3400
LF-12	17-Feb-94	<0.05	0.004	<0.5	<0.02	2.9	1.9	<0.1	0.7	<0.0002	<0.1	5.9	<0.4	<0.2	0.014	<1	<0.05	2700
LF-12	24-May-94	<0.05	0.008	<0.05	<0.02	3.6	2.4	<0.1	1	<0.0002	<0.1	7.1	0.049	<0.3	0.017	<1	<0.05	3100
LF-12	22-Sep-94	<0.05	<0.005	<0.05	0.02	3.4	2.2	<0.1	1.1	<0.0002	<0.1	6.7	0.02	<0.2	0.02	<1	<0.05	3100
LF-13	06-Dec-93	<0.005	3.3	0.24	<0.002	<0.005	0.007	<0.01	<0.01	<0.0003	0.04	0.03	<0.04	<0.02	<0.2	<0.1	0.061	0.03
LF-14	08-Dec-93	<0.005	0.005	<0.05	<0.002	0.12	0.67	<0.01	0.68	0.0016	<0.01	1.6	<0.04	<0.02	<0.02	<0.1	<0.005	230
LF-14	17-Feb-94	<0.005	<0.002	<0.05	0.002	0.16	0.96	<0.01	2.1	<0.0002	<0.01	2.4	<0.04	<0.02	<0.004	<0.1	<0.005	300

TABLE 2
METALS DETECTED IN GROUND-WATER SAMPLES
5050 COLISEUM WAY AND 750-50TH AVENUE
OAKLAND, CALIFORNIA
(concentrations reported in parts per million [ppm])

Sample ID	Sample Date	Silver	Arsenic	Barium	Beryllium	Cadmium	Cobalt	Chromium	Copper	Mercury	Molybdenum	Nickel	Lead	Antimony	Selenium	Thallium	Vanadium	Zinc
LF-14	25-May-94	<0.005	0.004	<0.05	0.002	0.14	1	<0.01	3.5	<0.0002	<0.01	2.4	0.027	<0.03	<0.004	0.1	<0.005	340
LF-14	21-Sep-94	<0.005	<0.002	<0.05	<0.002	0.065	0.59	<0.01	1.1	<0.0002	<0.01	1.4	0.022	<0.02	<0.004	<0.1	<0.005	240
LF-15	06-Dec-93	0.032	<0.05	0.28	0.017	1.7	8.1	<0.01	0.14	<0.0003	<0.01	23	1.1	<0.02	<0.1	0.9	<0.005	640
LF-15	18-Feb-94	<0.05	0.006	<0.5	<0.02	1.7	7.4	<0.1	<0.1	<0.0002	<0.1	20	0.6	<0.2	<0.04	<1	<0.05	660
LF-15	21-Sep-94	0.020	<0.01	<0.05	0.027	2.0	11	<0.01	<0.01	<0.0002	<0.01	29	0.21	<0.02	<0.02	1.1	<0.005	620
LF-16	07-Dec-93	<0.05	<0.05	<0.5	<0.02	10	5.9	<0.1	0.4	<0.003	<0.1	16	<0.4	<0.2	<0.1	<1	<0.05	3400
LF-16	17-Feb-94	<0.05	<0.002	<0.5	0.04	15	8.3	<0.1	21	<0.0002	<0.1	24	<0.4	<0.2	<0.04	<1	<0.05	5200
LF-16	25-May-94	<0.05	<0.002	<0.5	0.02	12	7.0	<0.1	25	<0.0002	<0.1	20	<0.01	<0.3	<0.004	<1	<0.05	4100
LF-16	21-Sep-94	<0.05	<0.005	<0.05	0.03	11	6.2	<0.1	22	<0.0002	<0.1	17	<0.05	<0.2	<0.01	<1	<0.05	3700
LF-17	08-Dec-93	<0.005	0.004	0.11	<0.002	<0.005	0.011	<0.01	<0.01	<0.0003	<0.01	0.04	<0.04	<0.02	<0.004	<0.1	0.008	0.1
LF-17	15-Feb-94	<0.005	<0.002	0.05	<0.002	<0.005	0.009	<0.01	<0.01	<0.0002	<0.01	0.03	<0.04	<0.02	<0.004	<0.1	0.007	0.05
LF-17	22-Sep-94	<0.001	<0.002	0.06	<0.0005	<0.001	0.005	<0.002	<0.002	<0.0002	0.003	0.015	<0.005	0.005	<0.004	<0.02	0.006	0.035
LF-F1	08-Dec-93	<0.005	0.012	0.07	<0.002	0.049	0.055	<0.01	<0.01	<0.0003	<0.01	0.07	<0.04	<0.02	<0.04	<0.1	0.008	13
LF-F1	18-Feb-94	<0.005	0.004	<0.05	<0.002	0.065	0.062	<0.01	<0.01	<0.0002	0.02	0.07	<0.04	<0.02	<0.004	<0.1	<0.005	20
	23-Sep-94	0.002	0.21	0.02	<0.0005	<0.005	0.2	<0.002	<0.002	<0.0002	0.006	0.13	<0.005	<0.02	<0.004	<0.1	<0.005	39
MW-1	05-Nov-91	<0.002	0.073	0.085	<0.001	<0.005	0.008	<0.01	<0.005	<0.0003	0.02	0.032	<0.005	<0.02	<0.004	<0.1	<0.005	2.7
MW-1	27-Oct-92	<0.005	0.084	0.09	<0.002	0.031	0.052	<0.01	<0.01	<0.0003	<0.01	0.3	<0.04	<0.02	<0.004	<0.1	0.007	42
MW-1	05-Mar-93	<0.005	0.024	0.05	<0.002	0.008	0.015	<0.01	<0.01	<0.0003	<0.01	0.11	<0.04	<0.02	<0.004	<0.1	0.006	16
MW-1	25-May-93	<0.005	0.064	0.06	<0.002	<0.005	0.008	<0.01	<0.01	<0.0003	0.02	0.02	<0.04	0.03	<0.004	<0.1	0.007	1.6
MW-1	01-Sep-93	<0.005	0.097	0.07	<0.002	<0.005	0.009	<0.01	<0.01	<0.0003	0.02	0.02	<0.04	<0.02	<0.004	<0.1	0.005	2.3
MW-1	26-Oct-93	<0.005	0.03	0.08	<0.002	0.009	0.012	<0.01	<0.01	<0.0003	<0.01	0.1	<0.04	<0.02	<0.004	<0.1	<0.005	13
MW-1	18-Feb-94	<0.005	0.052	0.1	<0.002	<0.005	0.011	<0.01	<0.01	<0.0002	0.01	0.02	<0.04	<0.02	<0.004	<0.1	0.007	2.8
MW-1	22-Sep-94	<0.001	0.029	0.08	<0.0005	0.005	0.009	<0.002	<0.002	<0.0002	0.007	0.051	<0.005	0.017	<0.01	<0.02	0.010	5.0
MW-2	05-Nov-92	0.008	2.1	0.013	0.002	7	0.42	<0.01	0.093	0.0055	0.01	1.2	<0.2	<0.2	<0.004	<0.1	<0.005	4200
MW-2	27-Oct-92	<0.05	1.5	<0.5	<0.02	10	1.5	<0.1	0.2	<0.0003	<0.1	4.9	<0.4	<0.2	0.014	<1	<0.05	6000
MW-2 (1)	05-Mar-93	<0.005	0.011	<0.05	<0.002	0.28	0.24	<0.01	0.14	<0.0003	<0.1	1.0	<0.04	<0.02	<0.01	<0.1	<0.005	290
MW-2	25-May-93	<0.05	1.8	<0.05	<0.02	5.2	0.85	<0.1	<0.1	<0.0003	<0.1	2.4	<0.4	<0.2	<0.004	<1	<0.05	3000
MW-2	01-Sep-93	<0.05	2.1	<0.05	<0.02	5.2	0.77	<0.1	<0.1	<0.0003	<0.1	2.3	<0.4	<0.2	<0.004	<1	<0.05	2700
MW-2	26-Oct-93	<0.05	4	<0.5	<0.02	5.1	0.73	0.3	0.3	<0.0003	<0.1	2.2	<0.4	<0.2	<0.04	<1	<0.05	2600
MW-2	18-Feb-94	<0.05	1.5	<0.5	<0.02	4.6	0.62	<0.1	<0.1	<0.0002	<0.1	2	<0.4	<0.2	<0.004	<1	<0.05	2600
MW-2	22-Sep-94	<0.05	2.1	<0.05	<0.02	5.0	0.65	<0.1	0.1	<0.0002	<0.1	2	<0.010	<0.2	<0.2	<1	<0.05	2300
MW-3	05-Nov-92	0.005	<0.002	0.017	0.001	0.57	0.42	<0.01	0.28	0.0028	<0.01	1.2	0.005	<0.02	<0.004	<0.1	<0.005	600
MW-3	27-Oct-92	0.009	0.004	<0.05	0.003	0.73	0.74	<0.01	0.3	<0.0003	<0.01	2.6	<0.04	<0.02	0.011	<0.1	<0.005	730
MW-3 (1)	05-Mar-93	<0.05	1.6	<0.05	<0.02	5.8	1.0	<0.1	0.07	<0.0003	<0.1	3.1	<0.4	<0.2	<0.02	<1	<0.05	3000
MW-3	25-May-93	<0.005	<0.002	<0.05	<0.002	0.28	0.24	<0.01	0.07	<0.0003	<0.01	0.83	<0.04	<0.02	<0.004	<0.1	<0.005	260
MW-3	01-Sep-93	<0.005	0.011	<0.05	<0.002	0.32	0.3	<0.01	0.2	<0.0003	<0.01	1.1	<0.04	<0.02	<0.004	<0.1	<0.005	360
MW-3	26-Oct-93	<0.005	<0.002	<0.05	0.002	0.44	0.49	<0.01	0.32	<0.0003	<0.01	1.7	<0.04	<0.02	<0.004	<0.1	<0.005	560
MW-3	18-Feb-94	<0.005	<0.002	<0.05	<0.002	0.22	0.25	<0.01	0.19	<0.0002	<0.01	0.77	<0.04	<0.02	<0.004	<0.1	<0.005	230
MW-3	24-May-94	<0.005	<0.002	<0.05	<0.002	0.1	0.14	<0.01	0.12	<0.0002	<0.01	0.42	<0.003	<0.03	<0.004	<0.1	<0.005	120
MW-3	22-Sep-94	<0.005	<0.002	<0.05	<0.002	0.21	0.25	<0.01	0.2	<0.0002	<0.01	0.75	<0.005	<0.02	<0.004	<0.1	<0.005	230
MW-4	05-Nov-92	<0.002	0.007	0.017	<0.001	<0.005	<0.005	<0.01	<0.005	0.0027	<0.01	0.012	<0.005	<0.02	<0.004	<0.1	<0.005	<0.005
MW-4	27-Oct-92	<0.005	<0.002	<0.05	<0.002	0.006	<0.005	<0.01	0.02	<0.0003	<0.01	0.02	<0.04	<0.02	0.004	<0.1	0.011	0.047
MW-4	04-Mar-93	<0.005	<0.002	<0.05	<0.002	<0.005	<0.005	<0.01	<0.01	<0.0003	<0.01	0.02	<0.04	<0.02	<0.004	<0.1	0.010	0.03

TABLE 2
METALS DETECTED IN GROUND-WATER SAMPLES
5050 COLISEUM WAY AND 750-50TH AVENUE
OAKLAND, CALIFORNIA
(concentrations reported in parts per million [ppm])

Sample ID	Sample Date	Silver	Arsenic	Barium	Beryllium	Cadmium	Cobalt	Chromium	Copper	Mercury	Molybdenum	Nickel	Lead	Antimony	Selenium	Thallium	Vanadium	Zinc
MW-4	25-May-93	<0.005	<0.002	<0.05	<0.002	<0.005	<0.005	<0.01	<0.01	<0.0003	<0.01	<0.01	<0.04	<0.02	<0.004	<0.1	0.006	0.008
MW-4	01-Sep-93	<0.005	0.009	<0.05	<0.002	<0.005	<0.005	<0.01	<0.01	<0.0003	<0.01	<0.01	<0.04	<0.02	<0.004	<0.1	<0.005	0.016
MW-4	26-Oct-93	<0.005	0.003	<0.05	<0.002	<0.005	<0.005	<0.01	<0.01	<0.0003	<0.01	<0.01	<0.04	<0.02	<0.004	<0.1	<0.005	0.15
MW-4	18-Feb-94	<0.005	<0.002	<0.05	<0.002	<0.005	<0.005	<0.01	<0.01	<0.0002	<0.01	0.02	<0.04	<0.02	<0.004	<0.1	<0.005	0.17
MW-4	22-Sep-94	<0.001	<0.002	0.02	<0.0005	<0.001	<0.001	<0.002	<0.002	<0.0002	<0.002	0.025	<0.005	<0.005	<0.004	<0.02	0.004	0.039
LF-1-FB	26-Oct-93	<0.005	<0.002	<0.05	<0.002	<0.005	<0.005	<0.01	<0.01	<0.0003	<0.01	<0.01	<0.04	<0.02	<0.004	<0.1	<0.005	0.035
LF-9-FB	01-Nov-93	<0.005	<0.002	<0.05	<0.002	<0.005	<0.005	<0.01	<0.01	<0.0003	<0.01	<0.01	<0.04	<0.02	<0.004	<0.1	<0.005	0.038
LF-17-FB	08-Dec-93	<0.005	<0.002	<0.05	<0.002	<0.005	<0.005	<0.01	<0.01	<0.0003	<0.01	<0.01	<0.04	<0.02	<0.004	<0.1	<0.005	0.1
LF-11-FB	18-Feb-94	<0.005	<0.002	<0.05	<0.002	<0.005	<0.005	<0.01	<0.01	<0.0002	<0.01	<0.01	<0.04	<0.02	<0.004	<0.1	<0.005	0.05
LF-3-BB	25-May-94	<0.001	<0.002	<0.01	<0.0005	<0.001	<0.001	<0.002	<0.002	<0.0002	<0.002	<0.002	<0.003	<0.005	<0.004	<0.02	<0.001	0.015

Data entered by DLM/20 Oct 94 Data proofed by JTB QA/QC by N.

(1) Labeling errors in the field or laboratory may account for the anomalous data reported for wells MW-2 and MW-3.

Analyses performed by American Environmental Network, Pleasant Hill, California.
FB/BB - Field Blank

TABLE 3
GASOLINE HYDROCARBONS AND BTEX DETECTED IN GROUND-WATER SAMPLES
5050 COLISEUM WAY AND 750-50TH AVENUE
OAKLAND, CALIFORNIA
(concentrations reported in parts per million [ppm])

Sample ID	Sample date	TPHg	Benzene	Ethyl-benzene	Toluene	Xylenes
LF-1	04-Nov-91	<0.05	<0.005	<0.005	<0.005	<0.01
LF-2	04-Nov-91	<0.05	<0.005	<0.005	<0.005	<0.01
LF-3	04-Nov-91	<0.05	<0.005	<0.005	<0.005	<0.01
	25-May-94	<0.05	NA	NA	NA	NA
LF-103 (dup)	25-May-94	<0.05	NA	NA	NA	NA
LF-3	23-Sep-94	<0.05	NA	NA	NA	NA
LF-103 (dup)	23-Sep-94	<0.05	NA	NA	NA	NA
LF-4	04-Nov-91	0.59	<0.005	<0.005	<0.005	<0.01
LF-5	04-Nov-91	NA	<0.005	<0.005	<0.005	<0.01
LF-6	04-Nov-91	NA	<0.005	<0.005	<0.005	<0.01
LF-7	04-Nov-91	NA	<0.005	<0.005	<0.005	<0.01
LF-8	28-Oct-93	<1.0	NA	NA	NA	NA
LF-8	24-May-94	0.7	NA	NA	NA	NA
LF-8	23-Sep-94	0.4	NA	NA	NA	NA
LF-9	01-Nov-93	<0.1	NA	NA	NA	NA
LF-109 (dup)	01-Nov-93	<0.1	NA	NA	NA	NA
LF-9	23-Sep-94	NA	<0.005	<0.005	<0.005	<0.01
LF-11	28-Oct-93	<0.1	NA	NA	NA	NA
LF-13	06-Dec-93	0.05	<0.0005	<0.0005	<0.0005	<0.002
LF-113 (dup)	06-Dec-93	0.06	<0.0005	<0.0005	<0.0005	<0.002
LF-14	21-Sep-94	1.4	NA	NA	NA	NA
MW-2	05-Nov-91	NA	<0.0003	<0.0003	<0.0003	<0.001
LF-9-FB	01-Nov-93	<0.1	NA	NA	NA	NA
LF-4-BB	04-Nov-91	<0.05	<0.005	<0.005	<0.005	<0.01
LF-3-BB	25-May-94	<0.05	NA	NA	NA	NA
Trip Blank	26-Sep-94	<0.05	NA	NA	NA	NA

Data entered by DLM/20 Oct 94 Data proofed by JJB QA/QC by KH

Samples analyzed by American Environmental Network, Pleasant Hill, California.
FB/BB - Field Blank
NA - not analyzed
TPHg - Total petroleum hydrocarbons as gasoline (EPA Method 5030)
Benzene, ethylbenzene, toluene, and xylenes (BTEX) analyzed using modified EPA Method 8015 or by EPA Method 8240.

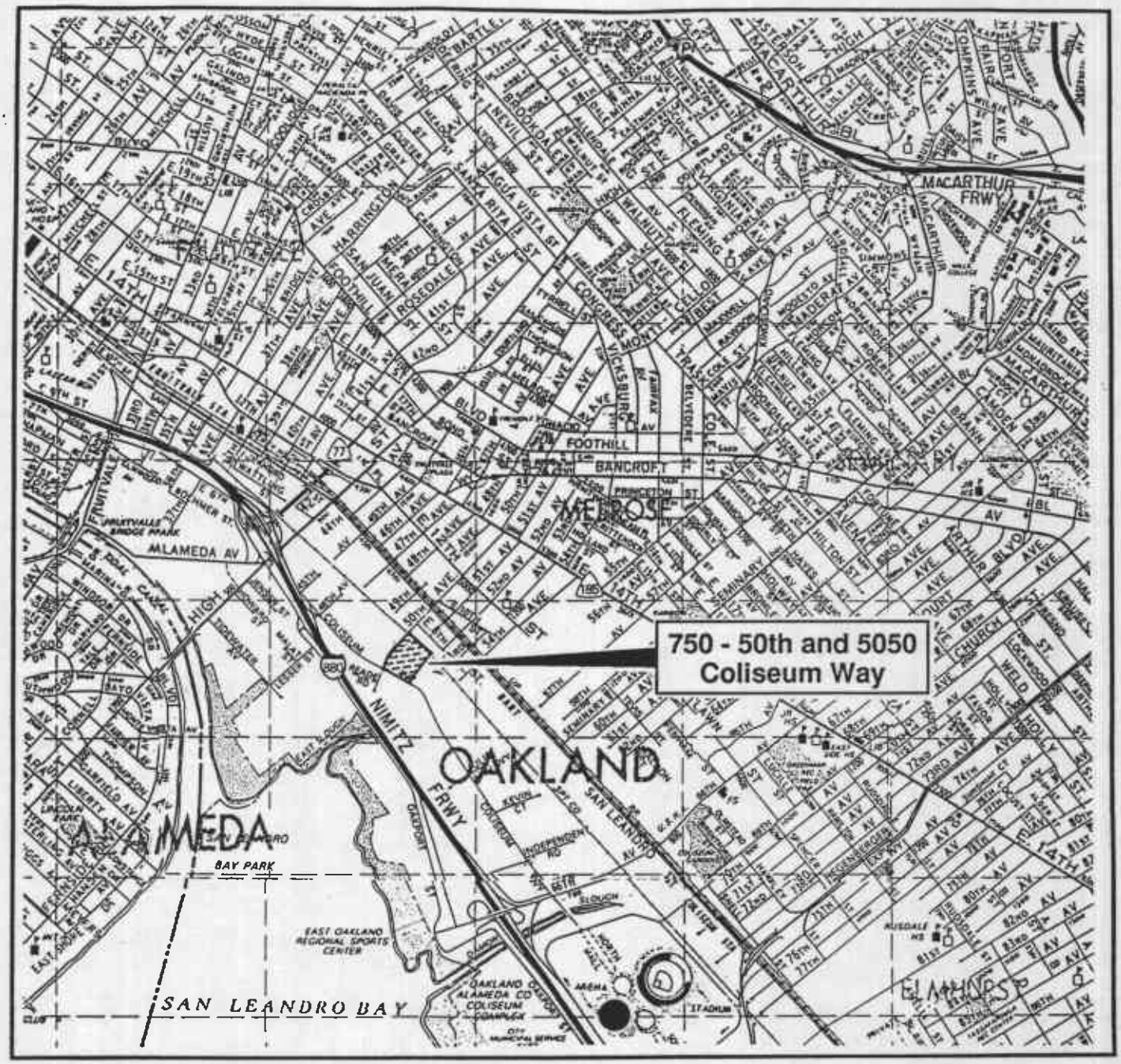
TABLE 4
PETROLEUM HYDROCARBONS DETECTED IN GROUND-WATER SAMPLES
5050 COLISEUM WAY AND 750-50TH AVENUE
OAKLAND, CALIFORNIA
(concentrations reported in parts per million [ppm])

Sample ID	Sample Date	TPHd	TPHo	TOG	Hydrocarbons
LF-1	04-Nov-91	0.09	NA	<0.5	<0.5
LF-2	04-Nov-91	0.3	NA	NA	NA
LF-3	04-Nov-91	0.2	NA	NA	NA
LF-3	25-May-94	0.3	0.4	NA	NA
LF-103 (dup)	25-May-94	0.3	0.4	NA	NA
LF-3	23-Sep-94	1.2	<0.2	NA	NA
LF-103 (dup)	23-Sep-94	1.0	<0.2	NA	NA
LF-4	04-Nov-91	0.1	NA	NA	NA
LF-8	28-Oct-93	9.8	NA	2	1
	24-May-94	4.5	0.6	NA	NA
	23-Sep-94	6.7	<0.2	NA	NA
LF-9	01-Nov-93	0.2	NA	<0.5	<0.5
LF-109 (dup)	01-Nov-93	0.2	NA	<0.5	<0.5
LF-11	28-Oct-93	<0.05	NA	<0.5	<0.5
LF-13 (*)	06-Dec-93	0.5	0.4	1	<0.5
LF-113 (dup)	06-Dec-93	0.6	0.4	NA	NA
LF-14	21-Sep-94	<0.3	<0.2	NA	NA
MW-2	04-Nov-91	<0.05	NA	NA	NA
LF-3-BB	25-May-94	<0.05	<0.2	NA	NA

Data entered by DLM/20 Oct 94 Data proofed by JJB QA/QC by KH

Analyses performed by American Environmental Network, Pleasant Hill, CA

BB - Field Blank
NA - not analyzed
TPHd - Total petroleum hydrocarbons as diesel (EPA Method 3510)
TPHo - Total petroluem hydrocarbons as oil (EPA Method 3510)
TOG - Total oil and grease (Standard Method 5520bf)
Hydrocarbons - Total hydrocarbons (Standard Method 5520f)
(*) - Free product measured in February 1994.



SOURCE: Thomas Bros. map
Alameda and Contra Costa
1990

Figure 1 : SITE LOCATION MAP

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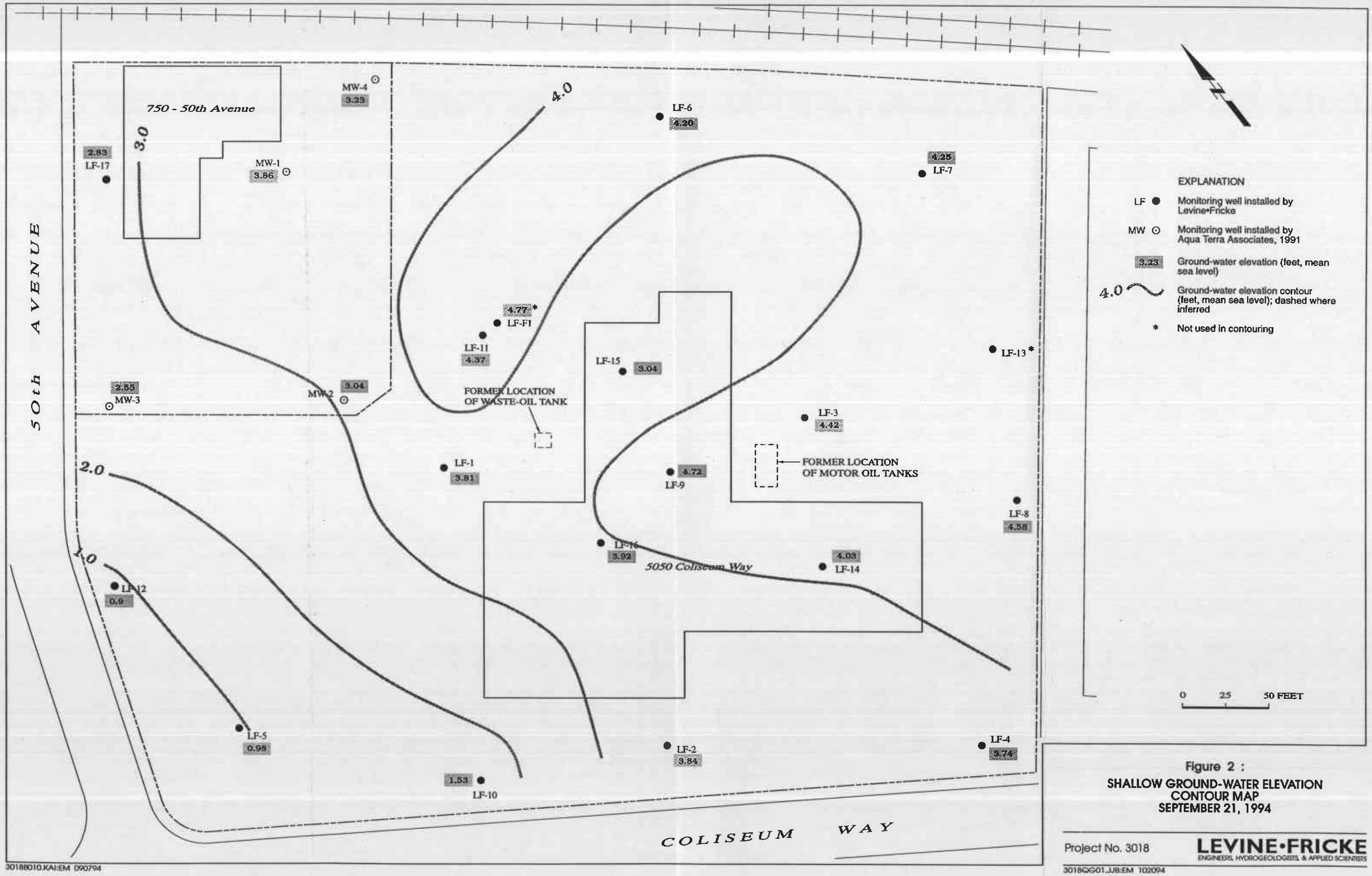
15OCT93 RYL



30188010.KAI:EM 090794

Figure 2 :
SHALLOW GROUND-WATER ELEVATION CONTOUR MAP SEPTEMBER 21, 1994

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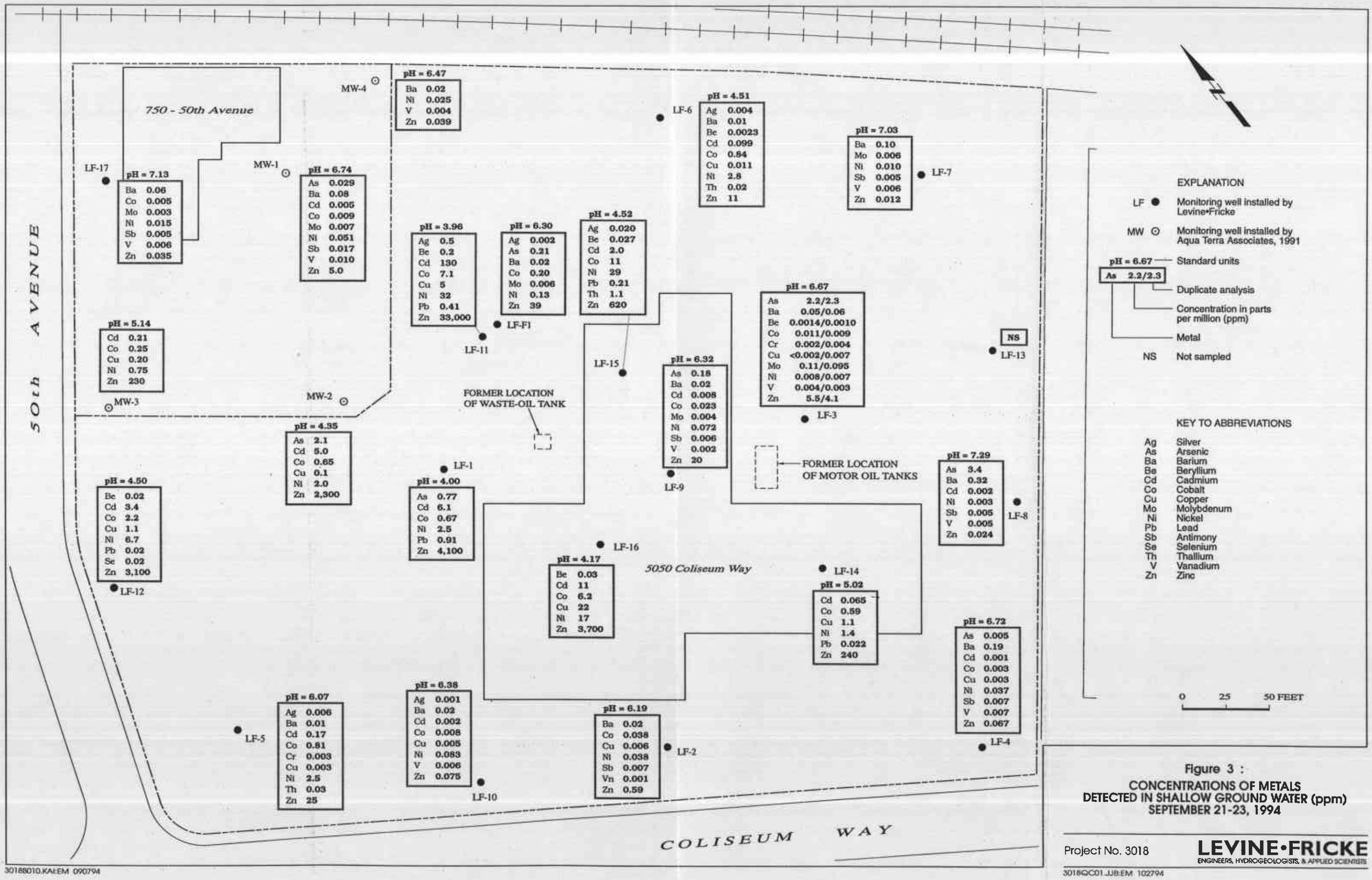
3018QG01.JJB:EM 102094



30188010.KAI:EM 090794

Figure 3 :
CONCENTRATIONS OF METALS DETECTED IN SHALLOW GROUND WATER (ppm) SEPTEMBER 21-23, 1994

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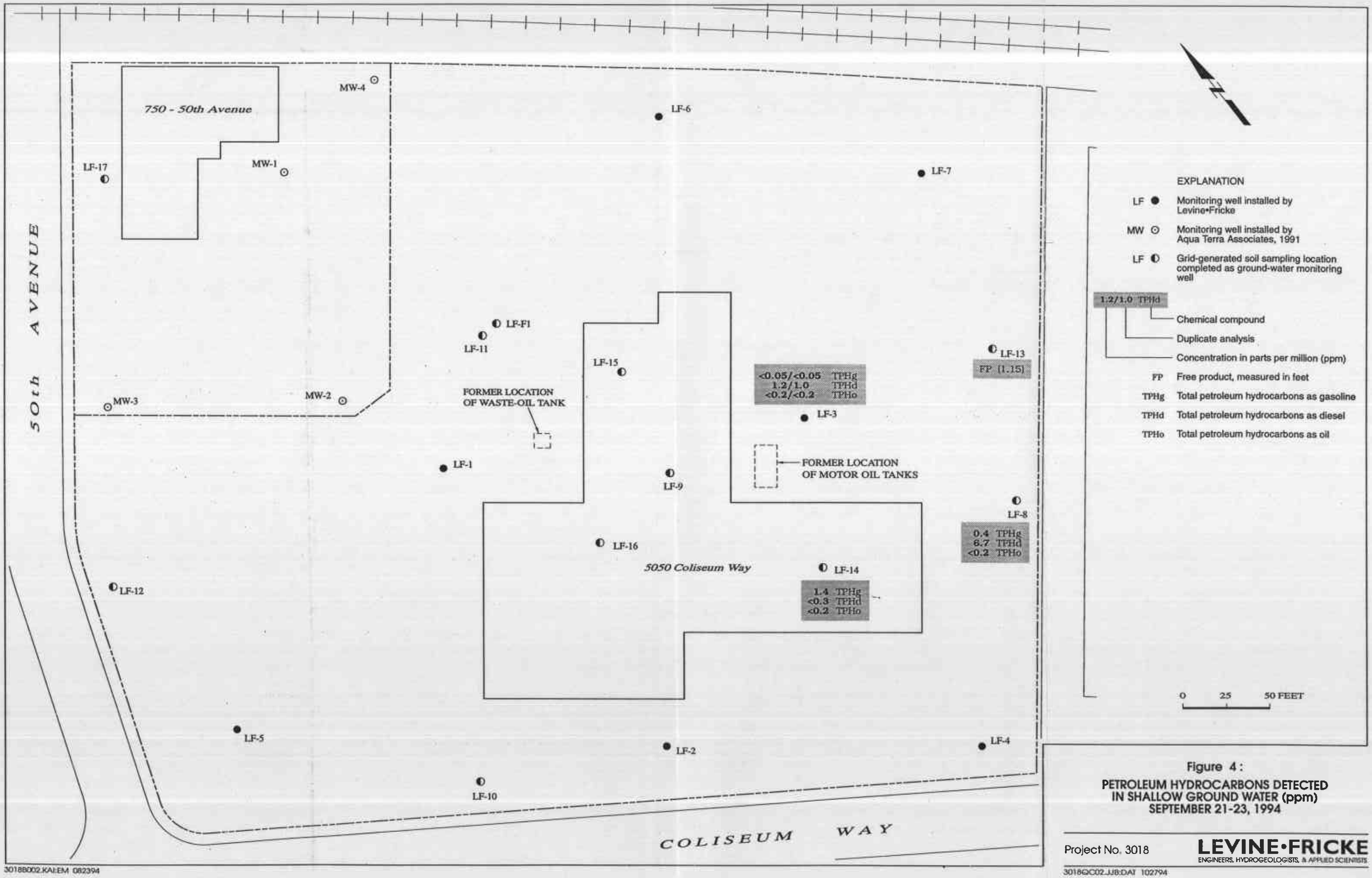
3018QC01.JJB:EM 102794



30188002.KAI:EM 082394

Figure 4 :
PETROLEUM HYDROCARBONS DETECTED IN SHALLOW GROUND WATER (ppm) SEPTEMBER 21-23, 1994

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3018QC02.JJB:DAT 102794

APPENDIX A

LABORATORY CERTIFICATES

American Environmental Network

Certificate of Analysis

DOHS Certification: 1172 AIHA Accreditation: 11134

FILE 3018.11

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

ATTN: JENNIFER BEATTY
CLIENT PROJ. ID: 3018.11
CLIENT PROJ. NAME: VOLVO GM
C.O.C. NUMBER: 12373.12377

REPORT DATE: 10/12/94
DATE(S) SAMPLED: 09/21/94-09/22/94
DATE RECEIVED: 09/23/94
AEN WORK ORDER: 9409342

PROJECT SUMMARY:

On September 23, 1994, this laboratory received 17 water sample(s).

Client requested sample(s) be analyzed for inorganic and organic parameters. Results of analysis are summarized on the following page(s).

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

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

Larry Klein
Laboratory Director

RECEIVED
OCT 17
LEVINE-FRICKE

LEVINE-FRICKE

SAMPLE ID: LF-5
AEN LAB NO: 9409342-01A
AEN WORK ORDER: 9409342
CLIENT PROJ. ID: 3018.11

DATE SAMPLED: 09/21/94
DATE RECEIVED: 09/23/94
REPORT DATE: 10/12/94

ANALYTE	METHOD/ CAS#	RESULT		REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-			Prep Date	10/03/94
#Digestion/ICP	EPA 200.0	-			Prep Date	10/03/94
CCR 17 Metals (Low Level)						
Ag Silver	EPA 200.7	0.006	*	0.001	mg/L	10/04/94
As Arsenic	EPA 206.2	ND		0.01	mg/L	10/04/94
Ba Barium	EPA 200.7	0.01	*	0.01	mg/L	10/04/94
Be Beryllium	EPA 200.7	ND		0.0005	mg/L	10/04/94
Cd Cadmium	EPA 200.7	0.17	*	0.001	mg/L	10/04/94
Co Cobalt	EPA 200.7	0.81	*	0.001	mg/L	10/04/94
Cr Chromium	EPA 200.7	0.003	*	0.002	mg/L	10/04/94
Cu Copper	EPA 200.7	0.003	*	0.002	mg/L	10/04/94
Hg Mercury	EPA 245.1	ND		0.0002	mg/L	09/29/94
Mo Molybdenum	EPA 200.7	ND		0.002	mg/L	10/04/94
Ni Nickel	EPA 200.7	2.5	*	0.002	mg/L	10/04/94
Pb Lead	EPA 239.2	ND		0.010	mg/L	10/06/94
Sb Antimony	EPA 200.7	ND		0.005	mg/L	10/04/94
Se Selenium	EPA 270.2	ND		0.02	mg/L	10/04/94
Tl Thallium	EPA 200.7	0.03	*	0.02	mg/L	10/04/94
V Vanadium	EPA 200.7	ND		0.001	mg/L	10/04/94
Zn Zinc	EPA 200.7	25	*	0.005	mg/L	10/04/94

Reporting limits elevated for Arsenic, Selenium and Lead due to matrix interference.

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

LEVINE-FRICKE

SAMPLE ID: LF-6
AEN LAB NO: 9409342-02A
AEN WORK ORDER: 9409342
CLIENT PROJ. ID: 3018.11

DATE SAMPLED: 09/21/94
DATE RECEIVED: 09/23/94
REPORT DATE: 10/12/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-		Prep Date	10/03/94
#Digestion/ICP	EPA 200.0	-		Prep Date	10/03/94
CCR 17 Metals (Low Level)					
Ag Silver	EPA 200.7	0.004 *	0.001	mg/L	10/04/94
As Arsenic	EPA 206.2	ND	0.002	mg/L	10/04/94
Ba Barium	EPA 200.7	0.01 *	0.01	mg/L	10/04/94
Be Beryllium	EPA 200.7	0.0023 *	0.0005	mg/L	10/04/94
Cd Cadmium	EPA 200.7	0.099 *	0.001	mg/L	10/04/94
Co Cobalt	EPA 200.7	0.84 *	0.001	mg/L	10/04/94
Cr Chromium	EPA 200.7	ND	0.002	mg/L	10/04/94
Cu Copper	EPA 200.7	0.011 *	0.002	mg/L	10/04/94
Hg Mercury	EPA 245.1	ND	0.0002	mg/L	09/29/94
Mo Molybdenum	EPA 200.7	ND	0.002	mg/L	10/04/94
Ni Nickel	EPA 200.7	2.8 *	0.002	mg/L	10/04/94
Pb Lead	EPA 239.2	ND	0.005	mg/L	10/05/94
Sb Antimony	EPA 200.7	ND	0.005	mg/L	10/04/94
Se Selenium	EPA 270.2	ND	0.004	mg/L	10/04/94
Tl Thallium	EPA 200.7	0.02 *	0.02	mg/L	10/04/94
V Vanadium	EPA 200.7	ND	0.001	mg/L	10/04/94
Zn Zinc	EPA 200.7	11 *	0.005	mg/L	10/04/94

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

LEVINE-FRICKE

SAMPLE ID: LF-7
AEN LAB NO: 9409342-03A
AEN WORK ORDER: 9409342
CLIENT PROJ. ID: 3018.11

DATE SAMPLED: 09/21/94
DATE RECEIVED: 09/23/94
REPORT DATE: 10/12/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-		Prep Date	10/03/94
#Digestion/ICP	EPA 200.0	-		Prep Date	10/03/94
CCR 17 Metals (Low Level)					
Ag Silver	EPA 200.7	ND	0.001	mg/L	10/04/94
As Arsenic	EPA 206.2	ND	0.002	mg/L	10/04/94
Ba Barium	EPA 200.7	0.10 *	0.01	mg/L	10/04/94
Be Beryllium	EPA 200.7	ND	0.0005	mg/L	10/04/94
Cd Cadmium	EPA 200.7	ND	0.001	mg/L	10/04/94
Co Cobalt	EPA 200.7	ND	0.001	mg/L	10/04/94
Cr Chromium	EPA 200.7	ND	0.002	mg/L	10/04/94
Cu Copper	EPA 200.7	ND	0.002	mg/L	10/04/94
Hg Mercury	EPA 245.1	ND	0.0002	mg/L	09/29/94
Mo Molybdenum	EPA 200.7	0.006 *	0.002	mg/L	10/04/94
Ni Nickel	EPA 200.7	0.010 *	0.002	mg/L	10/04/94
Pb Lead	EPA 239.2	ND	0.005	mg/L	10/05/94
Sb Antimony	EPA 200.7	0.005 *	0.005	mg/L	10/04/94
Se Selenium	EPA 270.2	ND	0.004	mg/L	10/04/94
Tl Thallium	EPA 200.7	ND	0.02	mg/L	10/04/94
V Vanadium	EPA 200.7	0.006 *	0.001	mg/L	10/04/94
Zn Zinc	EPA 200.7	0.012 *	0.005	mg/L	10/04/94

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

LEVINE-FRICKE

SAMPLE ID: LF-9
AEN LAB NO: 9409342-04A
AEN WORK ORDER: 9409342
CLIENT PROJ. ID: 3018.11

DATE SAMPLED: 09/21/94
DATE RECEIVED: 09/23/94
REPORT DATE: 10/12/94

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

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

LEVINE-FRICKE

SAMPLE ID: LF-9
AEN LAB NO: 9409342-04D
AEN WORK ORDER: 9409342
CLIENT PROJ. ID: 3018.11

DATE SAMPLED: 09/21/94
DATE RECEIVED: 09/23/94
REPORT DATE: 10/12/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-		Prep Date	10/03/94
#Digestion/ICP	EPA 200.0	-		Prep Date	10/03/94
CCR 17 Metals (Low Level)					
Ag Silver	EPA 200.7	ND	0.001	mg/L	10/04/94
As Arsenic	EPA 206.2	0.18 *	0.002	mg/L	10/04/94
Ba Barium	EPA 200.7	0.02 *	0.01	mg/L	10/04/94
Be Beryllium	EPA 200.7	ND	0.0005	mg/L	10/04/94
Cd Cadmium	EPA 200.7	0.008 *	0.001	mg/L	10/04/94
Co Cobalt	EPA 200.7	0.023 *	0.001	mg/L	10/04/94
Cr Chromium	EPA 200.7	ND	0.002	mg/L	10/04/94
Cu Copper	EPA 200.7	ND	0.002	mg/L	10/04/94
Hg Mercury	EPA 245.1	ND	0.0002	mg/L	09/29/94
Mo Molybdenum	EPA 200.7	0.004 *	0.002	mg/L	10/04/94
Ni Nickel	EPA 200.7	0.072 *	0.002	mg/L	10/04/94
Pb Lead	EPA 239.2	ND	0.005	mg/L	10/05/94
Sb Antimony	EPA 200.7	0.006 *	0.005	mg/L	10/04/94
Se Selenium	EPA 270.2	ND	0.01	mg/L	10/04/94
Tl Thallium	EPA 200.7	ND	0.02	mg/L	10/04/94
V Vanadium	EPA 200.7	0.002 *	0.001	mg/L	10/04/94
Zn Zinc	EPA 200.7	20 *	0.005	mg/L	10/04/94

Reporting limits elevated for Selenium due to matrix interference.

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

LEVINE-FRICKE

SAMPLE ID: LF-14
AEN LAB NO: 9409342-05A
AEN WORK ORDER: 9409342
CLIENT PROJ. ID: 3018.11

DATE SAMPLED: 09/21/94
DATE RECEIVED: 09/23/94
REPORT DATE: 10/12/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	09/28/94
TPH as Diesel	GC-FID	ND	0.3	mg/L	09/29/94
TPH as Oil	GC-FID	ND	0.2	mg/L	09/29/94

Reporting limits elevated for diesel due to hydrocarbon interference in the gasoline range.

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

LEVINE-FRICKE

SAMPLE ID: LF-14
AEN LAB NO: 9409342-05C
AEN WORK ORDER: 9409342
CLIENT PROJ. ID: 3018.11

DATE SAMPLED: 09/21/94
DATE RECEIVED: 09/23/94
REPORT DATE: 10/12/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
TPH as Gas	5030/GC-FID	1.4 *	0.05	mg/L	09/29/94

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

LEVINE-FRICKE

SAMPLE ID: LF-14
AEN LAB NO: 9409342-05F
AEN WORK ORDER: 9409342
CLIENT PROJ. ID: 3018.11

DATE SAMPLED: 09/21/94
DATE RECEIVED: 09/23/94
REPORT DATE: 10/12/94

ANALYTE		METHOD/ CAS#	RESULT		REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace		EPA 200.0	-			Prep Date	10/03/94
#Digestion/ICP		EPA 200.0	-			Prep Date	10/03/94
CCR 17 Metals (Low Level)							
Ag	Silver	EPA 200.7	ND		0.005	mg/L	10/04/94
As	Arsenic	EPA 206.2	ND		0.002	mg/L	10/04/94
Ba	Barium	EPA 200.7	ND		0.05	mg/L	10/04/94
Be	Beryllium	EPA 200.7	ND		0.002	mg/L	10/04/94
Cd	Cadmium	EPA 200.7	0.065	*	0.005	mg/L	10/04/94
Co	Cobalt	EPA 200.7	0.59	*	0.005	mg/L	10/04/94
Cr	Chromium	EPA 200.7	ND		0.01	mg/L	10/04/94
Cu	Copper	EPA 200.7	1.1	*	0.01	mg/L	10/04/94
Hg	Mercury	EPA 245.1	ND		0.0002	mg/L	09/29/94
Mo	Molybdenum	EPA 200.7	ND		0.01	mg/L	10/04/94
Ni	Nickel	EPA 200.7	1.4	*	0.01	mg/L	10/04/94
Pb	Lead	EPA 239.2	0.022	*	0.005	mg/L	10/06/94
Sb	Antimony	EPA 200.7	ND		0.02	mg/L	10/04/94
Se	Selenium	EPA 270.2	ND		0.004	mg/L	10/04/94
Tl	Thallium	EPA 200.7	ND		0.1	mg/L	10/04/94
V	Vanadium	EPA 200.7	ND		0.005	mg/L	10/04/94
Zn	Zinc	EPA 200.7	240	*	0.1	mg/L	10/05/94

Reporting limits elevated for metals due to matrix interference.

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

LEVINE-FRICKE

SAMPLE ID: LF-16
AEN LAB NO: 9409342-06A
AEN WORK ORDER: 9409342
CLIENT PROJ. ID: 3018.11

DATE SAMPLED: 09/21/94
DATE RECEIVED: 09/23/94
REPORT DATE: 10/12/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-		Prep Date	10/03/94
#Digestion/ICP	EPA 200.0	-		Prep Date	10/03/94
CCR 17 Metals (Low Level)					
Ag Silver	EPA 200.7	ND	0.05	mg/L	10/05/94
As Arsenic	EPA 206.2	ND	0.005	mg/L	10/04/94
Ba Barium	EPA 200.7	ND	0.05	mg/L	10/04/94
Be Beryllium	EPA 200.7	0.03 *	0.02	mg/L	10/05/94
Cd Cadmium	EPA 200.7	11 *	0.05	mg/L	10/05/94
Co Cobalt	EPA 200.7	6.2 *	0.05	mg/L	10/05/94
Cr Chromium	EPA 200.7	ND	0.1	mg/L	10/05/94
Cu Copper	EPA 200.7	22 *	0.1	mg/L	10/05/94
Hg Mercury	EPA 245.1	ND	0.0002	mg/L	09/29/94
Mo Molybdenum	EPA 200.7	ND	0.1	mg/L	10/05/94
Ni Nickel	EPA 200.7	17 *	0.1	mg/L	10/05/94
Pb Lead	EPA 239.2	ND	0.05	mg/L	10/06/94
Sb Antimony	EPA 200.7	ND	0.2	mg/L	10/05/94
Se Selenium	EPA 270.2	ND	0.01	mg/L	10/04/94
Tl Thallium	EPA 200.7	ND	1	mg/L	10/05/94
V Vanadium	EPA 200.7	ND	0.05	mg/L	10/05/94
Zn Zinc	EPA 200.7	3,700 *	0.5	mg/L	10/05/94

Reporting limits elevated for metals due to matrix interference.

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

LEVINE-FRICKE

SAMPLE ID: LF-15
AEN LAB NO: 9409342-07A
AEN WORK ORDER: 9409342
CLIENT PROJ. ID: 3018.11

DATE SAMPLED: 09/21/94
DATE RECEIVED: 09/23/94
REPORT DATE: 10/12/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-		Prep Date	10/03/94
#Digestion/ICP	EPA 200.0	-		Prep Date	10/03/94
CCR 17 Metals (Low Level)					
Ag Silver	EPA 200.7	0.020 *	0.005	mg/L	10/04/94
As Arsenic	EPA 206.2	ND	0.01	mg/L	10/04/94
Ba Barium	EPA 200.7	ND	0.05	mg/L	10/04/94
Be Beryllium	EPA 200.7	0.027 *	0.002	mg/L	10/04/94
Cd Cadmium	EPA 200.7	2.0 *	0.005	mg/L	10/04/94
Co Cobalt	EPA 200.7	11 *	0.005	mg/L	10/04/94
Cr Chromium	EPA 200.7	ND	0.01	mg/L	10/04/94
Cu Copper	EPA 200.7	ND	0.01	mg/L	10/04/94
Hg Mercury	EPA 245.1	ND	0.0002	mg/L	09/29/94
Mo Molybdenum	EPA 200.7	ND	0.01	mg/L	10/04/94
Ni Nickel	EPA 200.7	29 *	0.01	mg/L	10/04/94
Pb Lead	EPA 239.2	0.21 *	0.05	mg/L	10/06/94
Sb Antimony	EPA 200.7	ND	0.02	mg/L	10/04/94
Se Selenium	EPA 270.2	ND	0.02	mg/L	10/04/94
Tl Thallium	EPA 200.7	1.1 *	0.1	mg/L	10/04/94
V Vanadium	EPA 200.7	ND	0.005	mg/L	10/04/94
Zn Zinc	EPA 200.7	620 *	0.5	mg/L	10/05/94

Reporting limits elevated for metals due to matrix interference.

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

LEVINE-FRICKE

SAMPLE ID: LF-1
AEN LAB NO: 9409342-08A
AEN WORK ORDER: 9409342
CLIENT PROJ. ID: 3018.11

DATE SAMPLED: 09/22/94
DATE RECEIVED: 09/23/94
REPORT DATE: 10/12/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-		Prep Date	10/03/94
#Digestion/ICP	EPA 200.0	-		Prep Date	10/03/94
CCR 17 Metals (Low Level)					
Ag Silver	EPA 200.7	ND	0.05	mg/L	10/05/94
As Arsenic	EPA 206.2	0.77 *	0.01	mg/L	10/04/94
Ba Barium	EPA 200.7	ND	0.05	mg/L	10/05/94
Be Beryllium	EPA 200.7	ND	0.02	mg/L	10/05/94
Cd Cadmium	EPA 200.7	6.1 *	0.05	mg/L	10/05/94
Co Cobalt	EPA 200.7	0.67 *	0.05	mg/L	10/05/94
Cr Chromium	EPA 200.7	ND	0.1	mg/L	10/05/94
Cu Copper	EPA 200.7	ND	0.1	mg/L	10/05/94
Hg Mercury	EPA 245.1	ND	0.0002	mg/L	09/29/94
Mo Molybdenum	EPA 200.7	ND	0.1	mg/L	10/05/94
Ni Nickel	EPA 200.7	2.5 *	0.1	mg/L	10/05/94
Pb Lead	EPA 239.2	0.91 *	0.05	mg/L	10/06/94
Sb Antimony	EPA 200.7	ND	0.2	mg/L	10/05/94
Se Selenium	EPA 270.2	ND	0.02	mg/L	10/04/94
Tl Thallium	EPA 200.7	ND	1	mg/L	10/05/94
V Vanadium	EPA 200.7	ND	0.05	mg/L	10/05/94
Zn Zinc	EPA 200.7	4,100 *	0.5	mg/L	10/05/94

Reporting limits elevated for metals due to matrix interference.

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

LEVINE-FRICKE

SAMPLE ID: LF-12
AEN LAB NO: 9409342-09A
AEN WORK ORDER: 9409342
CLIENT PROJ. ID: 3018.11

DATE SAMPLED: 09/22/94
DATE RECEIVED: 09/23/94
REPORT DATE: 10/12/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-		Prep Date	10/03/94
#Digestion/ICP	EPA 200.0	-		Prep Date	10/03/94
CCR 17 Metals (Low Level)					
Ag Silver	EPA 200.7	ND	0.05	mg/L	10/05/94
As Arsenic	EPA 206.2	ND	0.005	mg/L	10/04/94
Ba Barium	EPA 200.7	ND	0.05	mg/L	10/05/94
Be Beryllium	EPA 200.7	0.02 *	0.02	mg/L	10/05/94
Cd Cadmium	EPA 200.7	3.4 *	0.05	mg/L	10/05/94
Co Cobalt	EPA 200.7	2.2 *	0.05	mg/L	10/05/94
Cr Chromium	EPA 200.7	ND	0.1	mg/L	10/05/94
Cu Copper	EPA 200.7	1.1 *	0.1	mg/L	10/05/94
Hg Mercury	EPA 245.1	ND	0.0002	mg/L	09/29/94
Mo Molybdenum	EPA 200.7	ND	0.1	mg/L	10/05/94
Ni Nickel	EPA 200.7	6.7 *	0.1	mg/L	10/05/94
Pb Lead	EPA 239.2	0.02 *	0.010	mg/L	10/06/94
Sb Antimony	EPA 200.7	ND	0.2	mg/L	10/05/94
Se Selenium	EPA 270.2	0.02 *	0.01	mg/L	10/04/94
Tl Thallium	EPA 200.7	ND	1	mg/L	10/05/94
V Vanadium	EPA 200.7	ND	0.05	mg/L	10/05/94
Zn Zinc	EPA 200.7	3.100 *	0.5	mg/L	10/05/94

Reporting limits elevated for metals due to matrix interference.

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

LEVINE-FRICKE

SAMPLE ID: LF-2
AEN LAB NO: 9409342-10A
AEN WORK ORDER: 9409342
CLIENT PROJ. ID: 3018.11

DATE SAMPLED: 09/22/94
DATE RECEIVED: 09/23/94
REPORT DATE: 10/12/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-		Prep Date	10/03/94
#Digestion/ICP	EPA 200.0	-		Prep Date	10/03/94
CCR 17 Metals (Low Level)					
Ag Silver	EPA 200.7	ND	0.001	mg/L	10/04/94
As Arsenic	EPA 206.2	ND	0.002	mg/L	10/04/94
Ba Barium	EPA 200.7	0.02 *	0.01	mg/L	10/04/94
Be Beryllium	EPA 200.7	ND	0.0005	mg/L	10/04/94
Cd Cadmium	EPA 200.7	ND	0.001	mg/L	10/04/94
Co Cobalt	EPA 200.7	0.038 *	0.001	mg/L	10/04/94
Cr Chromium	EPA 200.7	ND	0.002	mg/L	10/04/94
Cu Copper	EPA 200.7	0.006 *	0.002	mg/L	10/04/94
Hg Mercury	EPA 245.1	ND	0.0002	mg/L	09/29/94
Mo Molybdenum	EPA 200.7	ND	0.002	mg/L	10/04/94
Ni Nickel	EPA 200.7	0.038 *	0.002	mg/L	10/04/94
Pb Lead	EPA 239.2	ND	0.005	mg/L	10/05/94
Sb Antimony	EPA 200.7	0.007 *	0.005	mg/L	10/04/94
Se Selenium	EPA 270.2	ND	0.004	mg/L	10/04/94
Tl Thallium	EPA 200.7	ND	0.02	mg/L	10/04/94
V Vanadium	EPA 200.7	0.001 *	0.001	mg/L	10/04/94
Zn Zinc	EPA 200.7	0.59 *	0.005	mg/L	10/04/94

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

LEVINE-FRICKE

SAMPLE ID: LF-17
AEN LAB NO: 9409342-11A
AEN WORK ORDER: 9409342
CLIENT PROJ. ID: 3018.11

DATE SAMPLED: 09/22/94
DATE RECEIVED: 09/23/94
REPORT DATE: 10/12/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-		Prep Date	10/03/94
#Digestion/ICP	EPA 200.0	-		Prep Date	10/03/94
CCR 17 Metals (Low Level)					
Ag Silver	EPA 200.7	ND	0.001	mg/L	10/04/94
As Arsenic	EPA 206.2	ND	0.002	mg/L	10/04/94
Ba Barium	EPA 200.7	0.06 *	0.01	mg/L	10/04/94
Be Beryllium	EPA 200.7	ND	0.0005	mg/L	10/04/94
Cd Cadmium	EPA 200.7	ND	0.001	mg/L	10/04/94
Co Cobalt	EPA 200.7	0.005 *	0.001	mg/L	10/04/94
Cr Chromium	EPA 200.7	ND	0.002	mg/L	10/04/94
Cu Copper	EPA 200.7	ND	0.002	mg/L	10/04/94
Hg Mercury	EPA 245.1	ND	0.0002	mg/L	09/29/94
Mo Molybdenum	EPA 200.7	0.003 *	0.002	mg/L	10/04/94
Ni Nickel	EPA 200.7	0.015 *	0.002	mg/L	10/04/94
Pb Lead	EPA 239.2	ND	0.005	mg/L	10/05/94
Sb Antimony	EPA 200.7	0.005 *	0.005	mg/L	10/04/94
Se Selenium	EPA 270.2	ND	0.004	mg/L	10/04/94
Tl Thallium	EPA 200.7	ND	0.02	mg/L	10/04/94
V Vanadium	EPA 200.7	0.006 *	0.001	mg/L	10/04/94
Zn Zinc	EPA 200.7	0.035 *	0.005	mg/L	10/04/94

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

LEVINE-FRICKE

SAMPLE ID: LF-10
AEN LAB NO: 9409342-12A
AEN WORK ORDER: 9409342
CLIENT PROJ. ID: 3018.11

DATE SAMPLED: 09/22/94
DATE RECEIVED: 09/23/94
REPORT DATE: 10/12/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-		Prep Date	10/03/94
#Digestion/ICP	EPA 200.0	-		Prep Date	10/03/94
CCR 17 Metals (Low Level)					
Ag Silver	EPA 200.7	0.001 *	0.001	mg/L	10/04/94
As Arsenic	EPA 206.2	ND	0.005	mg/L	10/04/94
Ba Barium	EPA 200.7	0.02 *	0.01	mg/L	10/04/94
Be Beryllium	EPA 200.7	ND	0.0005	mg/L	10/04/94
Cd Cadmium	EPA 200.7	0.002 *	0.001	mg/L	10/04/94
Co Cobalt	EPA 200.7	0.008 *	0.001	mg/L	10/04/94
Cr Chromium	EPA 200.7	ND	0.002	mg/L	10/04/94
Cu Copper	EPA 200.7	0.005 *	0.002	mg/L	10/04/94
Hg Mercury	EPA 245.1	ND	0.0002	mg/L	09/29/94
Mo Molybdenum	EPA 200.7	ND	0.002	mg/L	10/04/94
Ni Nickel	EPA 200.7	0.083 *	0.002	mg/L	10/04/94
Pb Lead	EPA 239.2	ND	0.010	mg/L	10/06/94
Sb Antimony	EPA 200.7	ND	0.005	mg/L	10/04/94
Se Selenium	EPA 270.2	ND	0.01	mg/L	10/04/94
Tl Thallium	EPA 200.7	ND	0.02	mg/L	10/04/94
V Vanadium	EPA 200.7	0.006 *	0.001	mg/L	10/04/94
Zn Zinc	EPA 200.7	0.075 *	0.005	mg/L	10/04/94

Reporting limits elevated for Arsenic, Selenium and Lead due to matrix interference.

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

LEVINE-FRICKE

SAMPLE ID: MW-2
AEN LAB NO: 9409342-13A
AEN WORK ORDER: 9409342
CLIENT PROJ. ID: 3018.11

DATE SAMPLED: 09/22/94
DATE RECEIVED: 09/23/94
REPORT DATE: 10/12/94

ANALYTE		METHOD/ CAS#	RESULT		REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace		EPA 200.0	-			Prep Date	10/03/94
#Digestion/ICP		EPA 200.0	-			Prep Date	10/03/94
CCR 17 Metals (Low Level)							
Ag	Silver	EPA 200.7	ND		0.05	mg/L	10/05/94
As	Arsenic	EPA 206.2	2.1	*	0.1	mg/L	10/05/94
Ba	Barium	EPA 200.7	ND		0.05	mg/L	10/04/94
Be	Beryllium	EPA 200.7	ND		0.02	mg/L	10/05/94
Cd	Cadmium	EPA 200.7	5.0	*	0.05	mg/L	10/05/94
Co	Cobalt	EPA 200.7	0.65	*	0.05	mg/L	10/05/94
Cr	Chromium	EPA 200.7	ND		0.1	mg/L	10/05/94
Cu	Copper	EPA 200.7	0.1	*	0.1	mg/L	10/05/94
Hg	Mercury	EPA 245.1	ND		0.0002	mg/L	09/29/94
Mo	Molybdenum	EPA 200.7	ND		0.1	mg/L	10/05/94
Ni	Nickel	EPA 200.7	2.0	*	0.1	mg/L	10/05/94
Pb	Lead	EPA 239.2	ND		0.010	mg/L	10/06/94
Sb	Antimony	EPA 200.7	ND		0.2	mg/L	10/05/94
Se	Selenium	EPA 270.2	ND		0.2	mg/L	10/04/94
Tl	Thallium	EPA 200.7	ND		1	mg/L	10/05/94
V	Vanadium	EPA 200.7	ND		0.05	mg/L	10/05/94
Zn	Zinc	EPA 200.7	2,300	*	0.5	mg/L	10/05/94

Reporting limits elevated for metals due to matrix interference.

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

LEVINE-FRICKE

SAMPLE ID: MW-3
AEN LAB NO: 9409342-14A
AEN WORK ORDER: 9409342
CLIENT PROJ. ID: 3018.11

DATE SAMPLED: 09/22/94
DATE RECEIVED: 09/23/94
REPORT DATE: 10/12/94

ANALYTE	METHOD/ CAS#	RESULT		REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-			Prep Date	10/03/94
#Digestion/ICP	EPA 200.0	-			Prep Date	10/03/94
CCR 17 Metals (Low Level)						
Ag Silver	EPA 200.7	ND		0.005	mg/L	10/04/94
As Arsenic	EPA 206.2	ND		0.002	mg/L	10/04/94
Ba Barium	EPA 200.7	ND		0.05	mg/L	10/04/94
Be Beryllium	EPA 200.7	ND		0.002	mg/L	10/04/94
Cd Cadmium	EPA 200.7	0.21	*	0.005	mg/L	10/04/94
Co Cobalt	EPA 200.7	0.25	*	0.005	mg/L	10/04/94
Cr Chromium	EPA 200.7	ND		0.01	mg/L	10/04/94
Cu Copper	EPA 200.7	0.20	*	0.01	mg/L	10/04/94
Hg Mercury	EPA 245.1	ND		0.0002	mg/L	09/29/94
Mo Molybdenum	EPA 200.7	ND		0.01	mg/L	10/04/94
Ni Nickel	EPA 200.7	0.75	*	0.01	mg/L	10/04/94
Pb Lead	EPA 239.2	ND		0.005	mg/L	10/05/94
Sb Antimony	EPA 200.7	ND		0.02	mg/L	10/04/94
Se Selenium	EPA 270.2	ND		0.004	mg/L	10/04/94
Tl Thallium	EPA 200.7	ND		0.1	mg/L	10/04/94
V Vanadium	EPA 200.7	ND		0.005	mg/L	10/04/94
Zn Zinc	EPA 200.7	230	*	0.05	mg/L	10/05/94

Reporting limits elevated for metals due to matrix interference.

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

LEVINE-FRICKE

SAMPLE ID: MW-1
AEN LAB NO: 9409342-15A
AEN WORK ORDER: 9409342
CLIENT PROJ. ID: 3018.11

DATE SAMPLED: 09/22/94
DATE RECEIVED: 09/23/94
REPORT DATE: 10/12/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-		Prep Date	10/03/94
#Digestion/ICP	EPA 200.0	-		Prep Date	10/03/94
CCR 17 Metals (Low Level)					
Ag Silver	EPA 200.7	ND	0.001	mg/L	10/04/94
As Arsenic	EPA 206.2	0.029 *	0.002	mg/L	10/04/94
Ba Barium	EPA 200.7	0.08 *	0.01	mg/L	10/04/94
Be Beryllium	EPA 200.7	ND	0.0005	mg/L	10/04/94
Cd Cadmium	EPA 200.7	0.005 *	0.001	mg/L	10/04/94
Co Cobalt	EPA 200.7	0.009 *	0.001	mg/L	10/04/94
Cr Chromium	EPA 200.7	ND	0.002	mg/L	10/04/94
Cu Copper	EPA 200.7	ND	0.002	mg/L	10/04/94
Hg Mercury	EPA 245.1	ND	0.0002	mg/L	09/29/94
Mo Molybdenum	EPA 200.7	0.007 *	0.002	mg/L	10/04/94
Ni Nickel	EPA 200.7	0.051 *	0.002	mg/L	10/04/94
Pb Lead	EPA 239.2	ND	0.005	mg/L	10/05/94
Sb Antimony	EPA 200.7	0.017 *	0.005	mg/L	10/04/94
Se Selenium	EPA 270.2	ND	0.01	mg/L	10/04/94
Tl Thallium	EPA 200.7	ND	0.02	mg/L	10/04/94
V Vanadium	EPA 200.7	0.010 *	0.001	mg/L	10/04/94
Zn Zinc	EPA 200.7	5.0 *	0.005	mg/L	10/04/94

Reporting limit elevated for Selenium due to matrix interference.

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

LEVINE-FRICKE

SAMPLE ID: MW-4
AEN LAB NO: 9409342-16A
AEN WORK ORDER: 9409342
CLIENT PROJ. ID: 3018.11

DATE SAMPLED: 09/22/94
DATE RECEIVED: 09/23/94
REPORT DATE: 10/12/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-		Prep Date	10/03/94
#Digestion/ICP	EPA 200.0	-		Prep Date	10/03/94
CCR 17 Metals (Low Level)					
Ag Silver	EPA 200.7	ND	0.001	mg/L	10/04/94
As Arsenic	EPA 206.2	ND	0.002	mg/L	10/04/94
Ba Barium	EPA 200.7	0.02 *	0.01	mg/L	10/04/94
Be Beryllium	EPA 200.7	ND	0.0005	mg/L	10/04/94
Cd Cadmium	EPA 200.7	ND	0.001	mg/L	10/04/94
Co Cobalt	EPA 200.7	ND	0.001	mg/L	10/04/94
Cr Chromium	EPA 200.7	ND	0.002	mg/L	10/04/94
Cu Copper	EPA 200.7	ND	0.002	mg/L	10/04/94
Hg Mercury	EPA 245.1	ND	0.0002	mg/L	09/29/94
Mo Molybdenum	EPA 200.7	ND	0.002	mg/L	10/04/94
Ni Nickel	EPA 200.7	0.025 *	0.002	mg/L	10/04/94
Pb Lead	EPA 239.2	ND	0.005	mg/L	10/05/94
Sb Antimony	EPA 200.7	ND	0.005	mg/L	10/04/94
Se Selenium	EPA 270.2	ND	0.004	mg/L	10/04/94
Tl Thallium	EPA 200.7	ND	0.02	mg/L	10/04/94
V Vanadium	EPA 200.7	0.004 *	0.001	mg/L	10/04/94
Zn Zinc	EPA 200.7	0.039 *	0.005	mg/L	10/04/94

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

LEVINE-FRICKE

SAMPLE ID: LF-4
AEN LAB NO: 9409342-17A
AEN WORK ORDER: 9409342
CLIENT PROJ. ID: 3018.11

DATE SAMPLED: 09/22/94
DATE RECEIVED: 09/23/94
REPORT DATE: 10/12/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-		Prep Date	10/03/94
#Digestion/ICP	EPA 200.0	-		Prep Date	10/03/94
CCR 17 Metals (Low Level)					
Ag Silver	EPA 200.7	ND	0.001	mg/L	10/04/94
As Arsenic	EPA 206.2	0.005 *	0.002	mg/L	10/04/94
Ba Barium	EPA 200.7	0.19 *	0.01	mg/L	10/04/94
Be Beryllium	EPA 200.7	ND	0.0005	mg/L	10/04/94
Cd Cadmium	EPA 200.7	0.001 *	0.001	mg/L	10/04/94
Co Cobalt	EPA 200.7	0.003 *	0.001	mg/L	10/04/94
Cr Chromium	EPA 200.7	ND	0.002	mg/L	10/04/94
Cu Copper	EPA 200.7	0.003 *	0.002	mg/L	10/04/94
Hg Mercury	EPA 245.1	ND	0.0002	mg/L	09/29/94
Mo Molybdenum	EPA 200.7	ND	0.002	mg/L	10/04/94
Ni Nickel	EPA 200.7	0.037 *	0.002	mg/L	10/04/94
Pb Lead	EPA 239.2	ND	0.005	mg/L	10/05/94
Sb Antimony	EPA 200.7	0.007 *	0.005	mg/L	10/04/94
Se Selenium	EPA 270.2	ND	0.004	mg/L	10/04/94
Tl Thallium	EPA 200.7	ND	0.02	mg/L	10/04/94
V Vanadium	EPA 200.7	0.007 *	0.001	mg/L	10/04/94
Zn Zinc	EPA 200.7	0.067 *	0.005	mg/L	10/04/94

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

AEN (CALIFORNIA)
QUALITY CONTROL REPORT

AEN JOB NUMBER: 9409342

CLIENT PROJECT ID: 3018.11

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

AEN JOB NO: 9409342
DATE EXTRACTED: 09/28/94
INSTRUMENT: D
MATRIX: WATER

Surrogate Standard Recovery Summary
Method: EPA 3510 GCFID

Date Analyzed	Client Id.	Lab Id.	Percent Recovery n-Pentacosane
09/29/94	LF-14	05	85

Current QC Limits

Surrogate	Percent Recovery
n-Pentacosane	30-120

QUALITY CONTROL DATA

AEN JOB NO: 9409342
DATE EXTRACTED: 09/26/94
DATE ANALYZED: 09/28/94
INSTRUMENT: C
MATRIX: WATER

Method Spike Recovery Summary
Method: EPA 3510 GCFID

Analyte	Spike Added (mg/L)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Diesel	2.01	80	4	65-103	12

Method Blank
Method: EPA 3510 GCFID

Lab Id.	Extractable Hydrocarbons as Diesel (mg/L)
092894-BLANK	ND
Reporting Limit	0.05

QUALITY CONTROL DATA

AEN JOB NO: 9409342
INSTRUMENT: F
MATRIX: WATER

Surrogate Standard Recovery Summary
Method: EPA 5030 GCFID

Date Analyzed	Client Id.	Lab Id.	Percent Recovery Fluorobenzene
09/29/94	LF-14	05	95

Current QC Limits

Surrogate	Percent Recovery
Fluorobenzene	86-110

QUALITY CONTROL DATA

AEN JOB NO: 9409342
DATE ANALYZED: 09/29/94
SAMPLE SPIKED: 9409321-04
INSTRUMENT: F
MATRIX: WATER

Matrix Spike Recovery Summary
Method: EPA 5030 GCFID

Analyte	Spike Added (ug/L)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Hydrocarbons as Gasoline	500	98	4	75-132	16

Method Blank
Method: EPA 5030 GCFID

Lab Id.	Hydrocarbons as Gasoline (mg/L)
092994-BLANK	ND
Reporting Limit	0.05

QUALITY CONTROL DATA

AEN JOB NO: 9409342
AEN LAB NO: 1002-BLANK
DATE ANALYZED: 10/02/94
INSTRUMENT: 12
MATRIX: WATER

Volatile Organic Compounds
Method: EPA 8240

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

QUALITY CONTROL DATA

AEN JOB NO: 9409342
INSTRUMENT: 12
MATRIX: WATER

Surrogate Standard Recovery Summary
Method: EPA 8240

Date Analyzed	Client Id.	Lab Id.	Percent Recovery 1,2-Dichloroethane-d_4	Toluene-d_8	p-Bromofluorobenzene
10/02/94	LF-9	04	94	102	105

Current QC Limits

Surrogate	Percent Recovery
1,2-Dichloroethane-d_4	90-133
Toluene-d_8	88-111
p-Bromofluorobenzene	90-117

QUALITY CONTROL DATA

AEN JOB NO: 9409342
DATE ANALYZED: 09/30/94
SAMPLE SPIKED: 9409356-04
INSTRUMENT: 12
MATRIX: WATER

Matrix Spike Recovery Summary
Method: EPA 8240

Analyte	Spike Added (ug/L)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
1,1-Dichloroethene	50	118	6	80-133	15
Trichloroethene	50	93	<1	81-118	13
Benzene	50	103	3	94-127	12
Toluene	50	100	5	88-114	15
Chlorobenzene	50	91	8	90-116	12

QUALITY CONTROL DATA

AEN JOB NO: 9409342
SAMPLE(S) SPIKED: 9409342-02, -10, -11
DATE(S) ANALYZED: 09/30-10/05/94
MATRIX: WATER

Matrix Spike Recovery Summary

Analyte	Inst./ Method	Sample Result (mg/L)	Spike Added (mg/L)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Ag, Silver	ICP/200.7	ND	0.032	96	1	78-111	9
As, Arsenic	4000/206.2	ND	0.10	114	1	75-125	20
Ba, Barium	ICP/200.7	0.06	0.32	98	1	83-108	5
Be, Beryllium	ICP/200.7	ND	0.008	93	<1	64-104	7
Cd, Cadmium	ICP/200.7	ND	0.05	94	3	64-128	15
Co, Cobalt	ICP/200.7	0.005	0.08	95	<1	74-121	6
Cr, Chromium	ICP/200.7	ND	0.032	90	3	75-114	7
Cu, Copper	ICP/200.7	ND	0.04	99	<1	81-114	5
Hg, Mercury	Hg/245.1	ND	2.0 ug/L	101	1	80-120	15
Mo, Molybdenum	ICP/200.7	0.003	0.04	93	1	76-119	7
Ni, Nickel	ICP/200.7	0.015	0.08	89	<1	77-113	5
Pb, Lead	ICP/239.2	ND	0.05	93	7	75-125	25
Sb, Antimony	ICP/200.7	0.005	0.10	103	2	76-116	8
Se, Selenium	4000/270.2	ND	0.20	52	3	0-147	20
Tl, Thallium	ICP/200.7	ND	0.10	98	5	67-116	7
V, Vanadium	ICP/200.7	ND	0.08	98	<1	77-114	6
Zn, Zinc	ICP/200.7	0.035	0.08	91	<1	68-116	7

QUALITY CONTROL DATA

AEN JOB NO: 9409342
SAMPLE SPIKED: DI WATER
DATE(S) ANALYZED: 09/30-10/05/94
MATRIX: WATER

Method Blank and Spike Recovery Summary

Analyte	Inst./ Method	Blank Result (mg/L)	Spike Added (mg/L)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Ag, Silver	ICP/200.7	ND	0.032	102	1	64-122	8
As, Arsenic	4000/206.2	ND	0.04	107	3	84-118	12
Ba, Barium	ICP/200.7	ND	0.32	103	<1	85-116	5
Be, Beryllium	ICP/200.7	ND	0.008	98	2	76-107	6
Cd, Cadmium	ICP/200.7	ND	0.05	104	<1	78-119	10
Co, Cobalt	ICP/200.7	ND	0.08	107	1	89-116	6
Cr, Chromium	ICP/200.7	ND	0.032	99	<1	87-117	8
Cu, Copper	ICP/200.7	ND	0.04	101	<1	85-113	6
Hg, Mercury	Hg/245.1	ND	2.0 ug/L	103	3	80-120	15
Mo, Molybdenum	ICP/200.7	ND	0.04	102	<1	86-120	6
Ni, Nickel	ICP/200.7	ND	0.08	101	1	88-116	6
Pb, Lead	ICP/239.2	ND	0.02	104	6	80-120	15
Sb, Antimony	ICP/200.7	ND	0.10	108	1	82-123	8
Se, Selenium	4000/270.2	ND	0.08	95	6	80-114	14
Tl, Thallium	ICP/200.7	ND	0.10	106	1	77-119	9
V, Vanadium	ICP/200.7	ND	0.08	106	<1	89-114	5
Zn, Zinc	ICP/200.7	ND	0.08	101	<1	87-117	7

*** END OF REPORT ***

[redacted] R-3,S-2 TO F-2 R-7,S-H 9409342

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

Project No.: 3018.11	Field Logbook No.:	Date: 9/23/94	Serial No.:
Project Name: VOLVO GM	Project Location: OAKLAND, CA.		Nº 12373
Sampler (Signature): JKF			Samplers: JCK

SAMPLES						ANALYSES									
SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CONTAINERS	SAMPLE TYPE	EPA 601	8240 EPA-624	TPH-D	TPH-O	TPH-G	DISSOLVED METALS	HOLD	RUSH	REMARKS
LF-5	9/21/94	17:10	01A	1	H2O						X			STD TAT
LF-6		16 40	02A	1							X			RESULTS TO
LF-7		1615	03A	1							X			JENNIFER BEATY
LF-9		15:30	04ABCD	1			X				X			
LF-14		14:25	05A-F	6				X	X	X	X			TITLE 22 METALS
LF-16		14:30	06A	1							X			BASIN PLAN DETECTION
LF-15	↓	1415	07A	1							X			
LF-1	9/22/94	1640	08A	1							X			FIELD FILTERED +
LF-12		1615	09A	1							X			PRESERVED
LF-2		1045	10A	1							X			
LF-17		1255	11A	1							X			
LF-10		1550	12A	1							X			
MW-2		15:30	13A	1							X			
MW-3		15:25	14A	1							X			
MW-1		1520	15A	1							X			
MW-4		1515	16A	1	↓						X			

RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME
	9/23/94	17:45		9-23-94	17:45
RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME
	9/23/94	18:45	Robin Bynes	9-23-94	18:45
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 C (White) Lab Copy (Green) File Copy (Yellow) d Copy (Pink) FORM N 6/COC/ARF

C-1,5-2 2 OF 2

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

9409342

Project No.: 3018.11	Field Logbook No.:	Date: 9/23/94	Serial No.:
Project Name: Volvo GM	Project Location: Oakland Ca.		Nº 12377
Sampler (Signature):			Samplers: VCK

SAMPLES						ANALYSES								
SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CONTAINERS	SAMPLE TYPE	EPA 601	EPA 624	Pb (Lead)				HOLD	RUSH	REMARKS
LF-4	9/22/94	16:00	17A	1	H2O			X						SEE 1 OF 2

RELINQUISHED BY: (Signature)	DATE 9/23/94	TIME 17:45	RECEIVED BY: (Signature)	DATE 9-23-94	TIME 17:45
RELINQUISHED BY: (Signature)	DATE 9/23/94	TIME 18:45	RECEIVED BY: (Signature) Robin Bynes	DATE 9-23-94	TIME 18:45
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 C (White) Lab Copy (Green) File Copy (Yellow) d Copy (Pink) FORM N 6/COC/ARF

American Environmental Network

Certificate of Analysis

DOHS Certification: 1172 AIHA Accreditation: 11134

FILE 3018.11

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

ATTN: JENIFER BEATTY
CLIENT PROJ. ID: 3018.11
CLIENT PROJ. NAME: VOLVO GM
C.O.C. NUMBER: 12378

REPORT DATE: 10/12/94
DATE(S) SAMPLED: 09/23/94
DATE RECEIVED: 09/26/94
AEN WORK ORDER: 9409346

PROJECT SUMMARY:

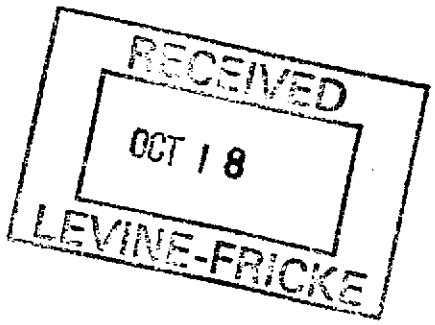
On September 26, 1994, this laboratory received 7 water sample(s).

Client requested six samples be analyzed for inorganic and organic parameters; one sample was placed on hold. Results of analysis are summarized on the following pages.

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

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

Larry Klein
Laboratory Director



LEVINE-FRICKE

SAMPLE ID: LF-3
AEN LAB NO: 9409346-02
AEN WORK ORDER: 9409346
CLIENT PROJ. ID: 3018.11

DATE SAMPLED: 09/23/94
DATE RECEIVED: 09/26/94
REPORT DATE: 10/12/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
TPH as Gas	5030/GC-FID	ND	0.05	mg/L	09/30/94
#Digestion/G. Furnace	EPA 200.0	-		Prep Date	09/30/94
#Digestion/ICP	EPA 200.0	-		Prep Date	10/03/94
#Extraction for TPH	EPA 3510	-		Extrn Date	10/03/94
TPH as Diesel	GC-FID	1.2 *	0.05	mg/L	10/04/94
TPH as Oil	GC-FID	ND	0.2	mg/L	10/04/94
CCR 17 Metals (Low Level)					
Ag Silver	EPA 200.7	ND	0.001	mg/L	10/04/94
As Arsenic	EPA 206.2	2.2 *	0.1	mg/L	10/04/94
Ba Barium	EPA 200.7	0.05 *	0.01	mg/L	10/04/94
Be Beryllium	EPA 200.7	0.0014 *	0.0005	mg/L	10/04/94
Cd Cadmium	EPA 200.7	ND	0.001	mg/L	10/04/94
Co Cobalt	EPA 200.7	0.011 *	0.001	mg/L	10/04/94
Cr Chromium	EPA 200.7	0.002 *	0.002	mg/L	10/04/94
Cu Copper	EPA 200.7	ND	0.002	mg/L	10/04/94
Hg Mercury	EPA 245.1	ND	0.0002	mg/L	10/03/94
Mo Molybdenum	EPA 200.7	0.11 *	0.002	mg/L	10/04/94
Ni Nickel	EPA 200.7	0.008 *	0.002	mg/L	10/04/94
Pb Lead	EPA 239.2	ND	0.005	mg/L	10/05/94
Sb Antimony	EPA 200.7	ND	0.005	mg/L	10/04/94
Se Selenium	EPA 270.2	ND	0.2	mg/L	10/04/94
Tl Thallium	EPA 200.7	ND	0.02	mg/L	10/04/94
V Vanadium	EPA 200.7	0.004 *	0.001	mg/L	10/04/94
Zn Zinc	EPA 200.7	5.5 *	0.005	mg/L	10/04/94

Reporting limit elevated for Selenium due to matrix interference.

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

LEVINE-FRICKE

SAMPLE ID: LF-103
AEN LAB NO: 9409346-03
AEN WORK ORDER: 9409346
CLIENT PROJ. ID: 3018.11

DATE SAMPLED: 09/23/94
DATE RECEIVED: 09/26/94
REPORT DATE: 10/12/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
TPH as Gas	5030/GC-FID	ND	0.05	mg/L	09/30/94
#Digestion/G. Furnace	EPA 200.0	-		Prep Date	09/30/94
#Digestion/ICP	EPA 200.0	-		Prep Date	10/03/94
#Extraction for TPH	EPA 3510	-		Extrn Date	10/03/94
TPH as Diesel	GC-FID	1.0 *	0.05	mg/L	10/04/94
TPH as Oil	GC-FID	ND	0.2	mg/L	10/04/94
CCR 17 Metals (Low Level)					
Ag Silver	EPA 200.7	ND	0.001	mg/L	10/04/94
As Arsenic	EPA 206.2	2.3 *	0.1	mg/L	10/04/94
Ba Barium	EPA 200.7	0.06 *	0.01	mg/L	10/04/94
Be Beryllium	EPA 200.7	0.0010 *	0.0005	mg/L	10/04/94
Cd Cadmium	EPA 200.7	ND	0.001	mg/L	10/04/94
Co Cobalt	EPA 200.7	0.009 *	0.001	mg/L	10/04/94
Cr Chromium	EPA 200.7	0.004 *	0.002	mg/L	10/04/94
Cu Copper	EPA 200.7	0.007 *	0.002	mg/L	10/04/94
Hg Mercury	EPA 245.1	ND	0.0002	mg/L	10/03/94
Mo Molybdenum	EPA 200.7	0.095 *	0.002	mg/L	10/04/94
Ni Nickel	EPA 200.7	0.007 *	0.002	mg/L	10/04/94
Pb Lead	EPA 239.2	ND	0.005	mg/L	10/05/94
Sb Antimony	EPA 200.7	ND	0.005	mg/L	10/04/94
Se Selenium	EPA 270.2	ND	0.2	mg/L	10/04/94
Tl Thallium	EPA 200.7	ND	0.02	mg/L	10/04/94
V Vanadium	EPA 200.7	0.003 *	0.001	mg/L	10/04/94
Zn Zinc	EPA 200.7	4.1 *	0.005	mg/L	10/04/94

Reporting limit elevated for Selenium due to matrix interference.

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

LEVINE-FRICKE

SAMPLE ID: LF-8
AEN LAB NO: 9409346-04
AEN WORK ORDER: 9409346
CLIENT PROJ. ID: 3018.11

DATE SAMPLED: 09/23/94
DATE RECEIVED: 09/26/94
REPORT DATE: 10/12/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
TPH as Gas	5030/GC-FID	0.4 *	0.05	mg/L	10/04/94
#Digestion/G. Furnace	EPA 200.0	-		Prep Date	09/30/94
#Digestion/ICP	EPA 200.0	-		Prep Date	10/03/94
#Extraction for TPH	EPA 3510	-		Extrn Date	10/03/94
TPH as Diesel	GC-FID	6.7 *	0.05	mg/L	10/04/94
TPH as Oil	GC-FID	ND	0.2	mg/L	10/04/94
CCR 17 Metals (Low Level)					
Ag Silver	EPA 200.7	ND	0.001	mg/L	10/04/94
As Arsenic	EPA 206.2	3.4 *	0.002	mg/L	10/04/94
Ba Barium	EPA 200.7	0.32 *	0.01	mg/L	10/04/94
Be Beryllium	EPA 200.7	ND	0.0005	mg/L	10/04/94
Cd Cadmium	EPA 200.7	0.002 *	0.001	mg/L	10/04/94
Co Cobalt	EPA 200.7	ND	0.001	mg/L	10/04/94
Cr Chromium	EPA 200.7	ND	0.002	mg/L	10/04/94
Cu Copper	EPA 200.7	ND	0.002	mg/L	10/04/94
Hg Mercury	EPA 245.1	ND	0.0002	mg/L	10/03/94
Mo Molybdenum	EPA 200.7	ND	0.002	mg/L	10/04/94
Ni Nickel	EPA 200.7	0.003 *	0.002	mg/L	10/04/94
Pb Lead	EPA 239.2	ND	0.005	mg/L	10/05/94
Sb Antimony	EPA 200.7	0.005 *	0.005	mg/L	10/04/94
Se Selenium	EPA 270.2	ND	0.004	mg/L	10/04/94
Tl Thallium	EPA 200.7	ND	0.02	mg/L	10/04/94
V Vanadium	EPA 200.7	0.005 *	0.001	mg/L	10/04/94
Zn Zinc	EPA 200.7	0.024 *	0.005	mg/L	10/04/94
#Extraction for BNAs	EPA 3520	-		Extrn Date	09/27/94
Semi-Volatile Organics	EPA 8270				
Acenaphthene	83-32-9	390 *	10	ug/L	10/03/94
Acenaphthylene	208-96-8	11 *	10	ug/L	10/01/94
Anthracene	120-12-7	29 *	10	ug/L	10/01/94
Benzidine	92-87-5	ND	50	ug/L	10/01/94
Benzoic Acid	65-85-0	ND	50	ug/L	10/01/94
Benzo(a)anthracene	56-55-3	ND	10	ug/L	10/01/94
Benzo(b)fluoranthene	205-99-2	ND	10	ug/L	10/01/94
Benzo(k)fluoranthene	207-08-9	ND	10	ug/L	10/01/94

LEVINE-FRICKE

SAMPLE ID: LF-8
AEN LAB NO: 9409346-04
AEN WORK ORDER: 9409346
CLIENT PROJ. ID: 3018.11

DATE SAMPLED: 09/23/94
DATE RECEIVED: 09/26/94
REPORT DATE: 10/12/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Benzo(g,h,i)perylene	191-24-2	ND	10	ug/L	10/01/94
Benzo(a)pyrene	50-32-8	ND	10	ug/L	10/01/94
Benzyl Alcohol	100-51-6	ND	20	ug/L	10/01/94
Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/L	10/01/94
Bis(2-chloroethyl) Ether	111-44-4	ND	10	ug/L	10/01/94
Bis(2-chloroisopropyl) Ether	108-60-1	ND	10	ug/L	10/01/94
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	10	ug/L	10/01/94
4-Bromophenyl Phenyl Ether	101-55-3	ND	10	ug/L	10/01/94
Butylbenzyl Phthalate	85-68-7	ND	10	ug/L	10/01/94
4-Chloroaniline	106-47-8	ND	20	ug/L	10/01/94
2-Chloronaphthalene	91-58-7	ND	10	ug/L	10/01/94
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	10	ug/L	10/01/94
Chrysene	218-01-9	ND	10	ug/L	10/01/94
Dibenzo(a,h)anthracene	53-70-3	ND	10	ug/L	10/01/94
Dibenzofuran	132-64-9	200 *	10	ug/L	10/03/94
Di-n-butyl Phthalate	84-74-2	ND	10	ug/L	10/01/94
1,2-Dichlorobenzene	95-50-1	ND	10	ug/L	10/01/94
1,3-Dichlorobenzene	541-73-1	ND	10	ug/L	10/01/94
1,4-Dichlorobenzene	106-46-7	ND	10	ug/L	10/01/94
3,3'-Dichlorobenzidine	91-94-1	ND	20	ug/L	10/01/94
Diethyl Phthalate	84-66-2	ND	10	ug/L	10/01/94
Dimethyl Phthalate	131-11-3	ND	10	ug/L	10/01/94
2,4-Dinitrotoluene	121-14-2	ND	10	ug/L	10/01/94
2,6-Dinitrotoluene	606-20-2	ND	10	ug/L	10/01/94
Di-n-octyl Phthalate	117-84-0	ND	10	ug/L	10/01/94
1,2-Diphenylhydrazine	122-66-7	ND	10	ug/L	10/01/94
Fluoranthene	206-44-0	16 *	10	ug/L	10/01/94
Fluorene	86-73-7	170 *	10	ug/L	10/01/94
Hexachlorobenzene	118-74-1	ND	10	ug/L	10/01/94
Hexachlorobutadiene	87-68-3	ND	10	ug/L	10/01/94
Hexachlorocyclopentadiene	77-47-4	ND	10	ug/L	10/01/94
Hexachloroethane	67-72-1	ND	10	ug/L	10/01/94
Indeno(1,2,3-cd)pyrene	193-39-5	ND	10	ug/L	10/01/94
Isophorone	78-59-1	ND	10	ug/L	10/01/94
2-Methylnaphthalene	91-57-6	ND	10	ug/L	10/01/94
Naphthalene	91-20-3	33 *	10	ug/L	10/01/94
2-Nitroaniline	88-74-4	ND	50	ug/L	10/01/94
3-Nitroaniline	99-09-2	ND	50	ug/L	10/01/94
4-Nitroaniline	100-01-6	ND	50	ug/L	10/01/94
Nitrobenzene	98-95-3	ND	10	ug/L	10/01/94
N-Nitrosodimethylamine	62-75-9	ND	10	ug/L	10/01/94
N-Nitrosodiphenylamine	86-30-6	ND	10	ug/L	10/01/94
N-Nitrosodi-n-propylamine	621-64-7	ND	10	ug/L	10/01/94

LEVINE-FRICKE

SAMPLE ID: LF-8
AEN LAB NO: 9409346-04
AEN WORK ORDER: 9409346
CLIENT PROJ. ID: 3018.11

DATE SAMPLED: 09/23/94
DATE RECEIVED: 09/26/94
REPORT DATE: 10/12/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Phenanthrene	85-01-8	26 *	10	ug/L	10/01/94
Pyrene	129-00-0	22 *	10	ug/L	10/01/94
1,2,4-Trichlorobenzene	120-82-1	ND	10	ug/L	10/01/94
4-Chloro-3-methylphenol	59-50-7	ND	10	ug/L	10/01/94
2-Chlorophenol	95-57-8	ND	10	ug/L	10/01/94
2,4-Dichlorophenol	120-83-2	ND	10	ug/L	10/01/94
2,4-Dimethylphenol	105-67-9	ND	10	ug/L	10/01/94
4,6-Dinitro-2-methylphenol	534-52-1	ND	50	ug/L	10/01/94
2,4-Dinitrophenol	51-28-5	ND	50	ug/L	10/01/94
2-Methylphenol	95-48-7	ND	10	ug/L	10/01/94
4-Methylphenol	106-44-5	ND	10	ug/L	10/01/94
2-Nitrophenol	88-75-5	ND	10	ug/L	10/01/94
4-Nitrophenol	100-02-7	ND	50	ug/L	10/01/94
Pentachlorophenol	87-86-5	ND	50	ug/L	10/01/94
Phenol	108-95-2	ND	10	ug/L	10/01/94
2,4,5-Trichlorophenol	95-95-4	ND	10	ug/L	10/01/94
2,4,6-Trichlorophenol	88-06-2	ND	10	ug/L	10/01/94

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

LEVINE-FRICKE

SAMPLE ID: LF-11
AEN LAB NO: 9409346-05
AEN WORK ORDER: 9409346
CLIENT PROJ. ID: 3018.11

DATE SAMPLED: 09/23/94
DATE RECEIVED: 09/26/94
REPORT DATE: 10/12/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-		Prep Date	09/30/94
#Digestion/ICP	EPA 200.0	-		Prep Date	10/03/94
CCR 17 Metals (Low Level)					
Ag Silver	EPA 200.7	0.5 *	0.5	mg/L	10/05/94
As Arsenic	EPA 206.2	ND	0.02	mg/L	10/05/94
Ba Barium	EPA 200.7	ND	0.01	mg/L	10/05/94
Be Beryllium	EPA 200.7	0.2 *	0.2	mg/L	10/05/94
Cd Cadmium	EPA 200.7	130 *	0.5	mg/L	10/05/94
Co Cobalt	EPA 200.7	7.1 *	0.5	mg/L	10/05/94
Cr Chromium	EPA 200.7	ND	1	mg/L	10/05/94
Cu Copper	EPA 200.7	5 *	1	mg/L	10/05/94
Hg Mercury	EPA 245.1	ND	0.0002	mg/L	10/03/94
Mo Molybdenum	EPA 200.7	ND	1	mg/L	10/05/94
Ni Nickel	EPA 200.7	32 *	1	mg/L	10/05/94
Pb Lead	EPA 239.2	0.41 *	0.05	mg/L	10/06/94
Sb Antimony	EPA 200.7	ND	2	mg/L	10/05/94
Se Selenium	EPA 270.2	ND	0.04	mg/L	10/05/94
Tl Thallium	EPA 200.7	ND	10	mg/L	10/05/94
V Vanadium	EPA 200.7	ND	0.5	mg/L	10/05/94
Zn Zinc	EPA 200.7	33,000 *	3	mg/L	10/05/94

Reporting limits elevated for metals due to matrix interference.

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

LEVINE-FRICKE

SAMPLE ID: LF-F1
AEN LAB NO: 9409346-06
AEN WORK ORDER: 9409346
CLIENT PROJ. ID: 3018.11

DATE SAMPLED: 09/23/94
DATE RECEIVED: 09/26/94
REPORT DATE: 10/12/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-		Prep Date	09/30/94
#Digestion/ICP	EPA 200.0	-		Prep Date	10/03/94
CCR 17 Metals (Low Level)					
Ag Silver	EPA 200.7	0.002 *	0.001	mg/L	10/04/94
As Arsenic	EPA 206.2	0.21 *	0.002	mg/L	10/04/94
Ba Barium	EPA 200.7	0.02 *	0.01	mg/L	10/04/94
Be Beryllium	EPA 200.7	ND	0.0005	mg/L	10/04/94
Cd Cadmium	EPA 200.7	ND	0.005	mg/L	10/05/94
Co Cobalt	EPA 200.7	0.20 *	0.001	mg/L	10/04/94
Cr Chromium	EPA 200.7	ND	0.002	mg/L	10/04/94
Cu Copper	EPA 200.7	ND	0.002	mg/L	10/04/94
Hg Mercury	EPA 245.1	ND	0.0002	mg/L	10/03/94
Mo Molybdenum	EPA 200.7	0.006 *	0.002	mg/L	10/04/94
Ni Nickel	EPA 200.7	0.13 *	0.01	mg/L	10/05/94
Pb Lead	EPA 239.2	ND	0.005	mg/L	10/05/94
Sb Antimony	EPA 200.7	ND	0.02	mg/L	10/05/94
Se Selenium	EPA 270.2	ND	0.004	mg/L	10/04/94
Tl Thallium	EPA 200.7	ND	0.1	mg/L	10/05/94
V Vanadium	EPA 200.7	ND	0.005	mg/L	10/05/94
Zn Zinc	EPA 200.7	39 *	0.01	mg/L	10/05/94

Reporting limits elevated for metals due to matrix interference.

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

LEVINE-FRICKE

SAMPLE ID: TRIP BLANK
AEN LAB NO: 9409346-07
AEN WORK ORDER: 9409346
CLIENT PROJ. ID: 3018.11

DATE SAMPLED:
DATE RECEIVED: 09/26/94
REPORT DATE: 10/12/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
TPH as Gas	5030/GC-FID	ND	0.05	mg/L	10/05/94

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

AEN (CALIFORNIA)
QUALITY CONTROL REPORT

AEN JOB NUMBER: 9409346

CLIENT PROJECT ID: 3018.11

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

AEN JOB NO: 9409346
DATE EXTRACTED: 10/03/94
INSTRUMENT: C
MATRIX: WATER

Surrogate Standard Recovery Summary
Method: EPA 3510 GCFID

Date Analyzed	Client Id.	Lab Id.	Percent Recovery n-Pentacosane
10/04/94	LF-3	02	88
10/04/94	LF-103	03	94
10/04/94	LF-8	04	97

Current QC Limits

Surrogate	Percent Recovery
n-Pentacosane	30-120

QUALITY CONTROL DATA

AEN JOB NO: 9409346
DATE EXTRACTED: 10/03/94
DATE ANALYZED: 10/03/94
INSTRUMENT: C
MATRIX: WATER

Method Spike Recovery Summary
Method: EPA 3510 GCFID

Analyte	Spike Added (mg/L)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Diesel	2.00	79	<1	65-103	12

Method Blank
Method: EPA 3510 GCFID

Lab Id.	Extractable Hydrocarbons as Diesel (mg/L)
100394-BLANK	ND
Reporting Limit	0.05

QUALITY CONTROL DATA

AEN JOB NO: 9409346
INSTRUMENT: F
MATRIX: WATER

Surrogate Standard Recovery Summary
Method: EPA 5030 GCFID

Date Analyzed	Client Id.	Lab Id.	Percent Recovery Fluorobenzene
09/30/94	LF-3	02	97
09/30/94	LF-103	03	96
10/04/94	LF-8	04	98
10/05/94	Trip Blank	07	99

Current QC Limits

Surrogate	Percent Recovery
Fluorobenzene	86-110

QUALITY CONTROL DATA

AEN JOB NO: 9409346
DATE ANALYZED: 10/04/94
SAMPLE SPIKED: 9409353-01
INSTRUMENT: F
MATRIX: WATER

Matrix Spike Recovery Summary
Method: EPA 5030 GCFID

Analyte	Spike Added (ug/L)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Hydrocarbons as Gasoline	500	95	1	75-132	16

Method Blank
Method: EPA 5030 GCFID

Lab Id.	Hydrocarbons as Gasoline (mg/L)
093094-BLANK	ND
100494-BLANK	ND
100594-BLANK	ND
Reporting Limit	0.05

QUALITY CONTROL DATA

AEN JOB NO: 9409346
AEN LAB NO: 0927-BLANK
DATE EXTRACTED: 09/27/94
DATE ANALYZED: 09/27/94
INSTRUMENT: 11
MATRIX: WATER

Semi-Volatile Organic Compounds
GC/MS Extractables
Method: EPA 8270

Analyte	CAS #	Result (ug/L)	Reporting Limit (ug/L)
Acenaphthene	83-32-9	ND	10
Acenaphthylene	208-96-8	ND	10
Anthracene	120-12-7	ND	10
Benzidine	92-87-5	ND	50
Benzoic Acid	65-85-0	ND	50
Benzo(a)anthracene	56-55-3	ND	10
Benzo(b)fluoranthene	205-99-2	ND	10
Benzo(k)fluoranthene	207-08-9	ND	10
Benzo(g,h,i)perylene	191-24-2	ND	10
Benzo(a)pyrene	50-32-8	ND	10
Benzyl Alcohol	100-51-6	ND	20
Bis(2-chloroethoxy)methane	111-91-1	ND	10
Bis(2-chloroethyl)ether	111-44-4	ND	10
Bis(2-chloroisopropyl)ether	108-60-1	ND	10
Bis(2-ethylhexyl)phthalate	117-81-7	ND	10
4-Bromophenyl phenyl ether	101-55-3	ND	10
Butylbenzyl phthalate	85-68-7	ND	10
4-Chloroaniline	106-47-8	ND	20
2-Chloronaphthalene	91-58-7	ND	10
4-Chlorophenyl phenylether	7005-72-3	ND	10
Chrysene	218-01-9	ND	10
Dibenzo(a,h)anthracene	53-70-3	ND	10
Dibenzofuran	132-64-9	ND	10
Di-n-butylphthalate	84-74-2	ND	10
1,2-Dichlorobenzene	95-50-1	ND	10
1,3-Dichlorobenzene	541-73-1	ND	10
1,4-Dichlorobenzene	106-46-7	ND	10
3,3'-Dichlorobenzidine	91-94-1	ND	20
Diethylphthalate	84-66-2	ND	10
Dimethylphthalate	131-11-3	ND	10
2,4-Dinitrotoluene	121-14-2	ND	10
2,6-Dinitrotoluene	606-20-2	ND	10
Di-n-octylphthalate	117-84-0	ND	10
1,2-Diphenylhydrazine	122-66-7	ND	10

QUALITY CONTROL DATA

AEN JOB NO: 9409346
AEN LAB NO: 0927-BLANK
DATE EXTRACTED: 09/27/94
DATE ANALYZED: 09/27/94
INSTRUMENT: 11
MATRIX: WATER

GC/MS Extractables (Cont.)
Method: EPA 8270

Analyte	CAS #	Result (ug/L)	Reporting Limit (ug/L)
Fluoranthene	206-44-0	ND	10
Fluorene	86-73-7	ND	10
Hexachlorobenzene	118-74-1	ND	10
Hexachlorobutadiene	87-68-3	ND	10
Hexachlorocyclopentadiene	77-47-4	ND	10
Hexachloroethane	67-72-1	ND	10
Indeno(1,2,3-cd)pyrene	193-39-5	ND	10
Isophorone	78-59-1	ND	10
2-Methylnaphthalene	91-57-6	ND	10
Naphthalene	91-20-3	ND	10
2-Nitroaniline	88-74-4	ND	50
3-Nitroaniline	99-09-2	ND	50
4-Nitroaniline	100-01-6	ND	50
Nitrobenzene	98-95-3	ND	10
N-nitrosodimethylamine	62-75-9	ND	10
N-nitrosodiphenylamine	86-30-6	ND	10
N-nitroso-di-n-propylamine	621-64-7	ND	10
Phenanthrene	85-01-8	ND	10
Pyrene	129-00-0	ND	10
1,2,4-Trichlorobenzene	120-82-1	ND	10
4-Chloro-3-methylphenol	59-50-7	ND	10
2-Chlorophenol	95-57-8	ND	10
2,4-Dichlorophenol	120-83-2	ND	10
2,4-Dimethylphenol	105-67-9	ND	10
4,6-Dinitro-2-methylphenol	534-52-1	ND	50
2,4-Dinitrophenol	51-28-5	ND	50
2-Methylphenol	95-48-7	ND	10
4-Methylphenol	106-44-5	ND	10
2-Nitrophenol	88-75-5	ND	10
4-Nitrophenol	100-02-7	ND	50
Pentachlorophenol	87-86-5	ND	50
Phenol	108-95-2	ND	10
2,4,5-Trichlorophenol	95-95-4	ND	10
2,4,6-Trichlorophenol	88-06-2	ND	10

QUALITY CONTROL DATA

AEN JOB NO: 9409346
DATE EXTRACTED: 09/27/94
INSTRUMENT: 11
MATRIX: WATER

Surrogate Standard Recovery Summary
Method: EPA 8270

			Percent Recovery					
Date Analyzed	Client Id.	Lab Id.	Nitro-benzene-d_5	2-Fluoro-biphenyl	Terphenyl-d_{14}	Phenol-d_5	2-Fluoro-phenol	2,4,6-Tribromo-phenol
10/01/94	LF-8	04	75	74	78	81	69	108

Current QC Limits

Surrogate	Percent Recovery
Nitrobenzene-d_5	16-128
2-Fluorobiphenyl	22-130
Terphenyl-d_{14}	36-144
Phenol-d_5	20-111
2-Fluorophenol	12-121
2,4,6-Tribromophenol	40-162

QUALITY CONTROL DATA

AEN JOB NO: 9409346
DATE EXTRACTED: 09/25/94
DATE ANALYZED: 09/28/94
SAMPLE SPIKED: DI WATER
INSTRUMENT: 11
MATRIX: WATER

Method Spike Recovery Summary
Method: EPA 8270

Analyte	Spike Added (ug/L)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Phenol	200	82	1	59-122	39
2-Chlorophenol	200	76	3	72-120	42
1,4-Dichlorobenzene	204	74	4	34-105	38
N-Nitroso-di-n-propylamine	199	86	2	46-118	30
1,2,4-Trichlorobenzene	200	65	21	34- 88	28
4-Chloro-3-methylphenol	196	78	15	61-113	27
Acenaphthene	200	76	14	55-117	18
4-Nitrophenol	198	71	4	39- 96	34
2,4-Dinitrotoluene	200	72	6	58-104	29
Pentachlorophenol	203	91	8	37-117	44
Pyrene	199	71	15	44-117	26

QUALITY CONTROL DATA

AEN JOB NO: 9409346
SAMPLE SPIKED: DI WATER
DATE(S) ANALYZED: 09/30-10/05/94
MATRIX: WATER

Method Blank and Spike Recovery Summary

Analyte	Inst./ Method	Blank Result (mg/L)	Spike Added (mg/L)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Ag, Silver	ICP/200.7	ND	0.032	102	1	64-122	8
As, Arsenic	4000/206.2	ND	0.04	115	2	84-118	12
Ba, Barium	ICP/200.7	ND	0.32	103	<1	85-116	5
Be, Beryllium	ICP/200.7	ND	0.008	98	2	76-107	6
Cd, Cadmium	ICP/200.7	ND	0.05	104	<1	78-119	10
Co, Cobalt	ICP/200.7	ND	0.08	107	1	89-116	6
Cr, Chromium	ICP/200.7	ND	0.032	99	<1	87-117	8
Cu, Copper	ICP/200.7	ND	0.04	101	<1	85-113	6
Hg, Mercury	Hg/245.1	ND	2.0 ug/L	105	3	80-120	15
Mo, Molybdenum	ICP/200.7	ND	0.04	102	<1	86-120	6
Ni, Nickel	ICP/200.7	ND	0.08	101	1	88-116	6
Pb, Lead	ICP/239.2	ND	0.02	108	4	80-120	15
Sb, Antimony	ICP/200.7	ND	0.10	108	1	82-123	8
Se, Selenium	4000/270.2	ND	0.08	97	3	80-114	14
Tl, Thallium	ICP/200.7	ND	0.10	106	1	77-119	9
V, Vanadium	ICP/200.7	ND	0.08	106	<1	89-114	5
Zn, Zinc	ICP/200.7	ND	0.08	101	<1	87-117	7

*** END OF REPORT ***

R-1, 2-E
R-3, S-2

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

9409346

Project No.: 3018.11	Field Logbook No.:	Date: 9/23/94	Serial No.:
Project Name: VOLVO GM	Project Location: OAKLAND, CA		Nº 12378
Sampler (Signature):			Samplers: JCK

SAMPLES						ANALYSES								
SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CONTAINERS	SAMPLE TYPE	EPA 601	EPA 8240	TPH-G	TPH-D	TPH-O	DISSOLVED METALS	HOLD	RUSH	REMARKS
LF-3-33	9/23/94	8:55	01A-E	6 5 DI H2O				X	X	X	X	X		STD. TAT
LF 3-		9:25	02A-F	6				X	X	X	X			
LF-103		10:26	03A-F	6				X	X	X	X			RESULTS TO
LF-8		10:45	04A-H	8			X	X	X	X	X			JENNIFER BEATTY
LF 11		11:15	05A	1							X			
LF-F1		11:20	06A	1							X			TITLE 22 METALS
TRIP BLNK	9/21/	08:00	07AB	2				X						FIELD FILTERED & PRESERVED
														BASIN PLAN DETECTION LIMITS

RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME
	9/26/94	10:40		9/26/94	10:40
RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME
	9/26/94	12:20			
RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME
				9/26/94	1220
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 PLEASANTON, CA

Shipping Copy (White) Lab Copy (Green) File Copy (Yellow) Field Copy (Pink) FORM NO. 86/COC/ARF

APPENDIX B

WATER-QUALITY SAMPLING FORMS

LEVINE•FRICKE

WATER-QUALITY SAMPLING INFORMATION

Project Name: Volvo GM — Project No.: 3018.11

Date: 9/22/94 — Sample No.: LF-1

Samplers Name: JCK

Sampling Location: LF-1

Sampling Method: HAND BAIL / TEFLON BAILER

Analyses Requested: DISSOLVED METALS

Number and Types of Sample Bottles used: / 32oz PLASTIC

Method of Shipment: COURIER

GROUND WATER

Well No.: LF-1

Well Diameter (in.): 2

Depth to Water, Static (ft): 3.75

Water in Well Box: _____

Well Depth (ft): 20.00

Height of Water Column in Well: 16.25

Water Volume in Well: 2.60

SURFACE WATER

Stream Width: _____

Stream Depth: _____

Stream Velocity: _____

Rained recently ? _____

Other: _____

2-inch casing = 0.16 gal/ft

4-inch casing = 0.65 gal/ft

5-inch casing = 1.02 gal/ft

6-inch casing = 1.47 gal/ft

20.00
3.75
16.25
.16
9750
1625
2.6010

LOCATION MAP

TIME	DEPTH TO WATER (feet)	VOLUME WITHDRAWN (gallons)	TEMP (deg. C)	pH (S.U.)	COND (mhos/cm)	OTHER		REMARKS
11:55								START
11:58		3	23.5	4.95	8370			CLEAR
12:01		6	22.2	4.50	11320			MOD TURBID
12:05		9	22.0	4.13	23700			MOD TURBID
12:11		11	21.5	3.80	38200			MOD TURBID
12:17	DUTE	13	21.5	4.00	16900			MOD TURBID
16:40	5.90							SAMPLE

Suggested Method for Purging Well _____

LEVINE•FRICKE

WATER-QUALITY SAMPLING INFORMATION

Project Name: VOLVO GM — Project No.: 3018.11

Date: 9/22/94 — Sample No.: LF-2

Samplers Name: JCL

Sampling Location: LF-2

Sampling Method: HAND RAIL / TEFLON BAILER

Analyses Requested: DISSOLVED METALS

Number and Types of Sample Bottles used: 1 32oz PLASTIC

Method of Shipment: COURIER

14.75
6.00
8.75
.16
4450
875
1.3200

LOCATION MAP

GROUND WATER

Well No.: LF-2

Well Diameter (in.): 2

Depth to Water, Static (ft): 6.00

Water in Well Box: ____

Well Depth (ft): 14.75

Height of Water Column in Well: 8.75

Water Volume in Well: 1.32

SURFACE WATER

Stream Width: ____

Stream Depth: ____

Stream Velocity: ____

Rained recently ? ____

Other: ____

2-inch casing = 0.16 gal/ft

4-inch casing = 0.65 gal/ft

5-inch casing = 1.02 gal/ft

6-inch casing = 1.47 gal/ft

TIME	DEPTH TO WATER (feet)	VOLUME WITHDRAWN (gallons)	TEMP (deg. C)	pH (S.U.)	COND (mhos/cm)	OTHER		REMARKS
9:29								START
9:32		1.5	23.2	6.37	4150			~~TURBID~~ CLEAR
9:35		3.0	23.0	6.35	3950			CLEAR
9:39	DWTR	4.5	22.6	6.19	3770			MOD TURBID
10:45	7.60							SAMPLE
~~DO~~								

Suggested Method for Purging Well: ____

LEVINE • FRICKE

WATER-QUALITY SAMPLING INFORMATION

Project Name: VOLVO GM — Project No.: 3018.11

Date: 9/23/94 — Sample No.: LF-3, LF-103, LF-3-BB

Samplers Name: JCK

Sampling Location: LF-3

Sampling Method: HAND BAIL / TEFLON BAILER

Analyses Requested: DISSOLVED METALS, TPH-G, TPH-D + O

Number and Types of Sample Bottles used: 3 32oz METALS, 3x3 VOA, 3x 2 L. GLASS

Method of Shipment: COURIER

GROUND WATER		SURFACE WATER	
Well No.	LF-3	Stream Width	
Well Diameter (in.)	2	Stream Depth	
Depth to Water, Static (ft)	6.56	Stream Velocity	
Water in Well Box	NO	Rained recently ?	
Well Depth (ft)	14.93	Other	
Height of Water Column in Well	8.37		
Water Volume in Well	1.34		

2-inch casing = 0.16 gal/ft
4-inch casing = 0.65 gal/ft
5-inch casing = 1.02 gal/ft
6-inch casing = 1.47 gal/ft

14.93
6.56
8.37
.16
5022
837
1.3392

LOCATION MAP

TIME	DEPTH TO WATER (feet)	VOLUME WITHDRAWN (gallons)	TEMP (deg. C)	pH (S.U.)	COND (mhos/cm)	OTHER		REMARKS
8:55								START BAILER PURGE
9:10								START
9:12		1.5	22.9	6.76	3120			TURBID; SL. ODOR
9:15		3.0	22.9	6.70	3170			" "
9:18		4.5	23.1	6.67	3150			TURBID
9:25	7.05							SAMPLE
10:25								DUPLICATE
	SHEEN DEVELOPED LATE IN BUCKET AND							
	~~SAMP~~ AND SAMPLE CUPS							

Suggested Method for Purging Well _____

LEVINE•FRICKE

WATER-QUALITY SAMPLING INFORMATION

Project Name: Volvo GM — Project No. 3018.11

Date: 9/22/94 — Sample No. LF-4

Samplers Name: JCK

Sampling Location: LF-4

Sampling Method: HAND BAIL / TEFLON BAILER

Analyses Requested: DISSOLVED METALS

Number and Types of Sample Bottles used: 1 320z PLASTIC

Method of Shipment: COURIER

GROUND WATER

Well No. LF-4

Well Diameter (in.) 2

Depth to Water, Static (ft) 6.62

Water in Well Box NO

Well Depth (ft) 18.25

Height of Water Column in Well 11.63

Water Volume in Well 1.86

SURFACE WATER

Stream Width

Stream Depth

Stream Velocity

Rained recently ?

Other

2-inch casing = 0.16 gal/ft

4-inch casing = 0.65 gal/ft

5-inch casing = 1.02 gal/ft

6-inch casing = 1.47 gal/ft

18.25
6.62
11.63
.16
6978
1163
1.8608

11.63 18.25
.8 9.30
9.304 8.95
<10% DTW

LOCATION MAP

TIME	DEPTH TO WATER (feet)	VOLUME WITHDRAWN (gallons)	TEMP (deg. C)	pH (S.U.)	COND (mhos/cm)	OTHER		REMARKS
9:43								START
9:51		2	22.1	6.58	2420			CLEAR
9:55		4	21.4	6.65	2750			CLEAR
9:58	19.5'	6	21.0	6.72	3080			CLEAR
10:53	14.40							
12:46	13.70							
16:00	12.90							SAMPLE

Suggested Method for Purging Well

LEVINE•FRICKE

WATER-QUALITY SAMPLING INFORMATION

Project Name: VOLVO GM — Project No.: 3018.11

Date: 9/21/94 — Sample No.: LF-5

Samplers Name: JCK

Sampling Location: LF-5

Sampling Method: HAND BAIL/TEFLON BAILER

Analyses Requested: DISSOLVED METALS

Number and Types of Sample Bottles used: 1 32oz PLASTIC

Method of Shipment: COURIER

GROUND WATER

Well No.: LF-5

Well Diameter (in.): 2

Depth to Water, Static (ft): 7.05

Water in Well Box: /

Well Depth (ft): 21.10

Height of Water Column in Well: 14.05

Water Volume in Well: 2.25

SURFACE WATER

Stream Width: _____

Stream Depth: _____

Stream Velocity: _____

Rained recently ? _____

Other: _____

2-inch casing = 0.16 gal/ft

4-inch casing = 0.65 gal/ft

5-inch casing = 1.02 gal/ft

6-inch casing = 1.47 gal/ft

21.10
7.05
14.05
.16
8430
1405
2.248 0

14.05 × .8 = 11.240

21.10 − 11.24 = 9.86

80% DTW

LOCATION MAP

TIME	DEPTH TO WATER (feet)	VOLUME WITHDRAWN (gallons)	TEMP (deg. C)	pH (S.U.)	COND (mhos/cm)	OTHER		REMARKS
16:52								START
16:55		2.25	22.6	6.10	15970			TURBID
16:57		4.50	22.5	6.14	15920			TURBID
17:00		6.75	22.1	6.07	16760			TURBID
17:10								SAMPLE

Suggested Method for Purging Well _____

LEVINE • FRICKE

WATER-QUALITY SAMPLING INFORMATION

Project Name: Volvo GM — Project No.: 3018.11

Date: 9/21/94 — Sample No.: LF-6

Samplers Name: JCK

Sampling Location: LF-6

Sampling Method: HAND BAIL / TEFLON BAILER

Analyses Requested: DISSOLVED METALS

Number and Types of Sample Bottles used: 1 1202 PLASTIC

Method of Shipment: COURIER

GROUND WATER

Well No.: LF-6

Well Diameter (in.): 2

Depth to Water, Static (ft): 7.39

Water in Well Box: YES

Well Depth (ft): 20.00

Height of Water Column in Well: 12.61

Water Volume in Well: 2.02

SURFACE WATER

Stream Width:

Stream Depth:

Stream Velocity:

Rained recently?:

Other:

2-inch casing = 0.16 gal/ft

4-inch casing = 0.65 gal/ft

5-inch casing = 1.02 gal/ft

6-inch casing = 1.47 gal/ft

20.00
7.39
12.61
.16
7566
1261
2.0176

12.61 20.00
.8 10.09
10088 9.91
80% DTW

LOCATION MAP

TIME	DEPTH TO WATER (feet)	VOLUME WITHDRAWN (gallons)	TEMP (deg. C)	pH (S.U.)	COND (mhos/cm)	OTHER		REMARKS
16:25								START
16:27		2.25	22.4	4.64	4560			TURBID
16:30		4.50	22.0	4.56	4980			TURBID
16:33		6.75	21.7	4.51	5170			TURBID
16:40	9.82							SAMPLE

Suggested Method for Purging Well

LEVINE•FRICKE

WATER-QUALITY SAMPLING INFORMATION

Project Name: Volvo GM — Project No.: 3018.11

Date: 9/21/94 — Sample No.: LF-7

Samplers Name: JCK

Sampling Location: LF-7

Sampling Method: HAND BAIL / TEFLON BAILER

Analyses Requested: DISSOLVED METALS

Number and Types of Sample Bottles used: 1 32oz PLASTIC

Method of Shipment: COURIER

GROUND WATER

Well No.: LF-7

Well Diameter (in.): 2

Depth to Water, Static (ft): 6.40

Water in Well Box: —

Well Depth (ft): 21.50

Height of Water Column in Well: 15.10

Water Volume in Well: 2.42

SURFACE WATER

Stream Width: _____

Stream Depth: _____

Stream Velocity: _____

Rained recently ? _____

Other: _____

2-inch casing = 0.16 gal/ft

4-inch casing = 0.65 gal/ft

5-inch casing = 1.02 gal/ft

6-inch casing = 1.47 gal/ft

21.50
6.40
15.10
.16
9060
1510
24160

15.10
.8
2080

21.50
1208
9.42
80% DTW

LOCATION MAP

TIME	DEPTH TO WATER (feet)	VOLUME WITHDRAWN (gallons)	TEMP (deg. C)	pH (S.U.)	COND (mhos/cm)	OTHER		REMARKS
1554								START
1558		3	22.0	7.05	1375			MOD TURBID
16:03		5	21.6	6.97	1329			MOD TURBID
16:08		7.5	21.4	7.03	1318			TURBID
16:15	9.28							SAMPLE

Suggested Method for Purging Well _____

LEVINE•FRICKE

WATER-QUALITY SAMPLING INFORMATION

Project Name Volvo GM — Project No. 3018.11

Date 9/23/94 — Sample No. LF-8

Samplers Name JCK

Sampling Location LF-8

Sampling Method CENT PUMP / TEFLON BAILER

Analyses Requested DISSOLVED METALS, 8270, TPH-G, D.O

Number and Types of Sample Bottles used 1 x 32oz PLASTIC, @ 4/L GL., 3 VOA

Method of Shipment COURIER

GROUND WATER

Well No. LF-8

Well Diameter (in.) 4

Depth to Water, Static (ft) 6.33

Water in Well Box NO

Well Depth (ft) 14.65

Height of Water Column in Well 8.32

Water Volume in Well 5.31

SURFACE WATER

Stream Width

Stream Depth

Stream Velocity

Rained recently ?

Other

2-inch casing = 0.16 gal/ft

4-inch casing = 0.65 gal/ft

5-inch casing = 1.02 gal/ft

6-inch casing = 1.47 gal/ft

14.65
6.33
8.32
.65
41 60
4992
5.3080

LOCATION MAP

TIME	DEPTH TO WATER (feet)	VOLUME WITHDRAWN (gallons)	TEMP (deg. C)	pH (S.U.)	COND (mhos/cm)	OTHER		REMARKS
10:13								START
10:15		6	21.2	6.82	3730			MOD TURBID
10:16	DWTR	9						OFF
10:19	6.90							ON
10:19		12	22.2	7.39	2960			TURBID
10:20	DWTR	16	22.3	7.29	2950			OFF / TURBID
10:45	7.29							SAMPLE
		LATE DEVELOPING SHEEN						

Suggested Method for Purging Well

LEVINE•FRICKE

WATER-QUALITY SAMPLING INFORMATION

Project Name Volvo GM — Project No. 3018.11

Date 9/21/94 — Sample No. LF-9

Samplers Name JCK

Sampling Location LF-9

Sampling Method HAND BAIL / TEFLON BAILER

Analyses Requested EPA 8240, DISSOLVED METALS

Number and Types of Sample Bottles used 3 VOA 1 32oz PLASTIC

Method of Shipment Courier

GROUND WATER

Well No. LF-9

Well Diameter (in.) 2

Depth to Water, Static (ft) 6.98

Water in Well Box NO

Well Depth (ft) 13.88

Height of Water Column in Well 6.90

Water Volume in Well 1.10

SURFACE WATER

Stream Width

Stream Depth

Stream Velocity

Rained recently ?

Other

2-inch casing = 0.16 gal/ft

4-inch casing = 0.65 gal/ft

5-inch casing = 1.02 gal/ft

6-inch casing = 1.47 gal/ft

13.88
6.98
6.90
.16
4140
690
1.1040

LOCATION MAP

TIME	DEPTH TO WATER (feet)	VOLUME WITHDRAWN (gallons)	TEMP (deg. C)	pH (S.U.)	COND (mhos/cm)	OTHER		REMARKS
15:15								START
15:17		1.25	19.2	6.23	2410			TURBID
15:19		2.50	19.1	6.30	2710			TURBID
15:21		3.75	19.0	6.32	2370			TURBID
15:30								SAMPLE

Suggested Method for Purging Well

LEVINE • FRICKE

WATER-QUALITY SAMPLING INFORMATION

Project Name: Volvo GM — Project No.: 3018.11

Date: 9/22/94 — Sample No.: LF-10

Samplers Name: JCK

Sampling Location: LF-10

Sampling Method: C Pump / Teflon Bailer

Analyses Requested: Dissolved Metals

Number and Types of Sample Bottles used: 1 32oz Plastic

Method of Shipment: Courier

GROUND WATER

Well No.: LF-10

Well Diameter (in.): 4

Depth to Water, Static (ft): 7.90

Water in Well Box: _____

Well Depth (ft): 14.74

Height of Water Column in Well: 6.84

Water Volume in Well: 4.45

SURFACE WATER

Stream Width: _____

Stream Depth: _____

Stream Velocity: _____

Rained recently? _____

Other: _____

2-inch casing = 0.16 gal/ft

4-inch casing = 0.65 gal/ft

5-inch casing = 1.02 gal/ft

6-inch casing = 1.47 gal/ft

14.74
7.90
6.84
.65
3 4 20
4 1 0 4
4.4460

6.84 | 14.74
.8 | 5.47
5.472 | 9.27
80% DTW

LOCATION MAP

TIME	DEPTH TO WATER (feet)	VOLUME WITHDRAWN (gallons)	TEMP (deg. C)	pH (S.U.)	COND (mhos/cm)	OTHER		REMARKS
9:06								START
9:07	DEWATER	5	22.9	6.23	11930			*CLEAR
9:15	12.50							ON
9:17	DEWTR	9	23.0	6.38	15120			CLEAR/OFF
10:05	13.55							
11:00	13.19							
12:42	12.62							
15:50	11.97							SAMPLE

Suggested Method for Purging Well: _____

LEVINE•FRICKE

WATER-QUALITY SAMPLING INFORMATION

Project Name Volvo GM — Project No. 3018.11

Date 9/23/94 — Sample No. LF-11

Samplers Name JCK

Sampling Location LF-11

Sampling Method ~~HAND BAIL~~ CENT PUMP / TEFLON BAILER

Analyses Requested DISSOLVED METALS

Number and Types of Sample Bottles used 4 32oz PLASTIC

Method of Shipment COURIER

GROUND WATER

Well No. LF-11

Well Diameter (in.) ~~2~~ 4

Depth to Water, Static (ft) 4.70

Water in Well Box NO

Well Depth (ft) 20.01

Height of Water Column in Well 15.31

Water Volume in Well 9.94

SURFACE WATER

Stream Width

Stream Depth

Stream Velocity

Rained recently ?

Other

2-inch casing = 0.16 gal/ft

4-inch casing = 0.65 gal/ft

5-inch casing = 1.02 gal/ft

6-inch casing = 1.47 gal/ft

20.01
4.70
15.31
.65
7655
9186
9.9415

LOCATION MAP

TIME	DEPTH TO WATER (feet)	VOLUME WITHDRAWN (gallons)	TEMP (deg. C)	pH (S.U.)	COND (mhos/cm)	OTHER		REMARKS
8:12								START
8:16		10	23.5	4.20	32000			SL. TURBID
8:19		18.5	23.0	3.96	41700			CLEAR
[redacted]								
11:15	16.40							SAMPLE

Suggested Method for Purging Well

LEVINE•FRICKE

WATER-QUALITY SAMPLING INFORMATION

Project Name: Volvo GM — Project No.: 3018.11

Date: 9/22/94 — Sample No.: LF-12

Samplers Name: JCK

Sampling Location: LF-12

Sampling Method: CENT PUMP / TEFLON BAILER

Analyses Requested: DISSOLVED METALS

Number and Types of Sample Bottles used: / 32oz PLASTIC

Method of Shipment: COURIER

14.70
7.80
6.90
.65
3450
4140
4.4850

LOCATION MAP

GROUND WATER

Well No.: LF-12

Well Diameter (in.): 4

Depth to Water, Static (ft): 7.80

Water in Well Box: # NO

Well Depth (ft): 14.70

Height of Water Column in Well: 6.90

Water Volume in Well: 4.49

SURFACE WATER

Stream Width: _____

Stream Depth: _____

Stream Velocity: _____

Rained recently? _____

Other: _____

2-inch casing = 0.16 gal/ft

4-inch casing = 0.65 gal/ft

5-inch casing = 1.02 gal/ft

6-inch casing = 1.47 gal/ft

TIME	DEPTH TO WATER (feet)	VOLUME WITHDRAWN (gallons)	TEMP (deg. C)	pH (S.U.)	COND (mhos/cm)	OTHER		REMARKS
11:05								START
11:06		4.5	22.7	4.73	10710			MOD TURBID
11:07	DWTR	8						OFF
11:17								ON
11:17		9	24.6	4.58	11260			@MOD TURBID
11:18	DWTR	11						OFF
11:19	7.82							
								SAMPLE

Suggested Method for Purging Well: _____

LEVINE•FRICKE

WATER-QUALITY SAMPLING INFORMATION

Project Name Volvo GM — Project No. 3018.11

Date 9/21/94 — Sample No. LF-14

Samplers Name JCK

Sampling Location LF-14

Sampling Method HAND BAIL / TEFLON BAILER

Analyses Requested DISSOLVED METALS

Number and Types of Sample Bottles used 1 / 32oz PLASTIC

Method of Shipment COURIER

GROUND WATER

Well No. LF-14

Well Diameter (in.) 2

Depth to Water, Static (ft) 7.69

Water in Well Box NO

Well Depth (ft) 25.00

Height of Water Column in Well 17.31

Water Volume in Well 2.77

SURFACE WATER

Stream Width

Stream Depth

Stream Velocity

Rained recently ?

Other

2-inch casing = 0.16 gal/ft

4-inch casing = 0.65 gal/ft

5-inch casing = 1.02 gal/ft

6-inch casing = 1.47 gal/ft

25.00
7.69
17.31
.16
10386
1731
2.7696

7.69 17.31 25.00
.8 13.85
13848 / 11.1 5
80% DTW

LOCATION MAP

TIME	DEPTH TO WATER (feet)	VOLUME WITHDRAWN (gallons)	TEMP (deg. C)	pH (S.U.)	COND (mhos/cm)	OTHER		REMARKS
13:47								START
13:52		3	19.1	4.59	4290			TURBID
13:56		6	19.0	4.96	5220			TURBID
14:04	~22'	9	18.9	5.02	4610			TURBID/LT.ODOR
14:20	10.50							
14:25								SAMPLE

Suggested Method for Purging Well

LEVINE•FRICKE

WATER-QUALITY SAMPLING INFORMATION

Project Name Vocuo GM — Project No. 3018.11

Date 9/21/94 — Sample No. LF-15

Samplers Name JCK

Sampling Location LF-15

Sampling Method HAND BAIL / TEFLON BAILER

Analyses Requested METALS - DISSOLVED

Number and Types of Sample Bottles used 6 3 500 PLASTIC

Method of Shipment COURIER

GROUND WATER

Well No. LF-15

Well Diameter (in.) 2

Depth to Water, Static (ft) 8.58

Water in Well Box NO

Well Depth (ft) 20.03

Height of Water Column in Well

Water Volume in Well 1.83

SURFACE WATER

Stream Width

Stream Depth

Stream Velocity

Rained recently ?

Other

2-inch casing = 0.16 gal/ft

4-inch casing = 0.65 gal/ft

5-inch casing = 1.02 gal/ft

6-inch casing = 1.47 gal/ft

20.03
8.58
11.45
.16
6870
1145
1.8320

11.45
.8
9160

20.03
9.16
10.87
@ 80%DW

LOCATION MAP

TIME	DEPTH TO WATER (feet)	VOLUME WITHDRAWN (gallons)	TEMP (deg. C)	pH (S.U.)	COND (mhos/cm)	OTHER		REMARKS
12:34								START
12:39		2	18.7	5.36	14180			TURBID
12:45		4	18.6	5.22	14990			TURBID
12:50		6	18.5	4.96	17470			↓
12:55		8	18.5	4.65	18890			↓
12:59	DEWATER	9	18.5	4.52	17880			TURBID
13:10	10.80							
13:15								SAMPLE

Suggested Method for Purging Well

LEVINE•FRICKE

WATER-QUALITY SAMPLING INFORMATION

Project Name: Volvo GM — Project No.: 3018.11

Date: 9/21/94 — Sample No.: LF-16

Samplers Name: JCK

Sampling Location: LF-16

Sampling Method: HAND BAIL / TEFLON BAILER

Analyses Requested: DISSOLVED METALS

Number and Types of Sample Bottles used: 1 32oz PLASTIC

Method of Shipment: COURIER

GROUND WATER

Well No.: LF-16

Well Diameter (in.): 2

Depth to Water, Static (ft): 7.64

Water in Well Box: NO

Well Depth (ft): 24.50

Height of Water Column in Well: 16.86

Water Volume in Well: 2.70

SURFACE WATER

Stream Width: ____

Stream Depth: ____

Stream Velocity: ____

Rained recently ?: ____

Other: ____

2-inch casing = 0.16 gal/ft

4-inch casing = 0.65 gal/ft

5-inch casing = 1.02 gal/ft

6-inch casing = 1.47 gal/ft

24.50
7.64
16.86
.16
10116
1686
2.6976

16.86
.8
15088

24.50
-15.09
9.41
80% DTW

LOCATION MAP

TIME	DEPTH TO WATER (feet)	VOLUME WITHDRAWN (gallons)	TEMP (deg. C)	pH (S.U.)	COND (mhos/cm)	OTHER		REMARKS
13:11								START
13:14		3	18.9	4.22	14440			TURBID
13:19		6	19.2	4.17	15060			TURBID
13:27	23.20	9	19.2	4.17	15220			TURBID
14:19	10.89							
14:30								

Suggested Method for Purging Well: ____

LEVINE•FRICKE

WATER-QUALITY SAMPLING INFORMATION

Project Name: VOLVO GM — Project No.: 3018.11

Date: 9/22/94 — Sample No.: LF-17

Samplers Name: JCK

Sampling Location: LF-17

Sampling Method: CENT PUMP / TEFLON BAILER

Analyses Requested: DISSOLVED METALS

Number and Types of Sample Bottles used: 1 32oz PLASTIC

Method of Shipment: COURIER

GROUND WATER

Well No.: LF-17

Well Diameter (in.): 4

Depth to Water, Static (ft): 6.88

Water in Well Box: _____

Well Depth (ft): 20.20

Height of Water Column in Well: 13.32

Water Volume in Well: 8.66

SURFACE WATER

Stream Width: _____

Stream Depth: _____

Stream Velocity: _____

Rained recently ? _____

Other: _____

2-inch casing = 0.16 gal/ft

4-inch casing = 0.65 gal/ft

5-inch casing = 1.02 gal/ft

6-inch casing = 1.47 gal/ft

20.20
6.88
13.32
.65
6660
7992
8.6580

LOCATION MAP

TIME	DEPTH TO WATER (feet)	VOLUME WITHDRAWN (gallons)	TEMP (deg. C)	pH (S.U.)	COND (mhos/cm)	OTHER		REMARKS
10:15								START
10:17		9	20.2	7.02	1634			CLEAR
10:19	DWTR	18	19.6	6.99	1520			CLEAR/OFF
10:28	14.45	2						ON
10:31	DWTR	26	19.5	7.13	1206			OFF/SC TURB
12:40	7.60							
12:55								SAMPLE

Suggested Method for Purging Well _____

LEVINE•FRICKE

WATER-QUALITY SAMPLING INFORMATION

Project Name: VOLVO GM — Project No.: 3018.11

Date: 9/22/94 — Sample No.: MW-1

Samplers Name: JCK

Sampling Location: MW-1

Sampling Method: HAND BAIL / TEFLON BAILER

Analyses Requested: DISSOLVED METALS

Number and Types of Sample Bottles used: 1 32oz PLASTIC

Method of Shipment: COURIER

28.50
6.35
22.15
.16
13290
2215
3.5440

LOCATION MAP

GROUND WATER

Well No.: MW-1

Well Diameter (in.): 2

Depth to Water, Static (ft): ~~28.50~~ 6.35

Water in Well Box:

Well Depth (ft): 28.50

Height of Water Column in Well: 22.15

Water Volume in Well: 3.54

SURFACE WATER

Stream Width:

Stream Depth:

Stream Velocity:

Rained recently ?:

Other:

2-inch casing = 0.16 gal/ft

4-inch casing = 0.65 gal/ft

5-inch casing = 1.02 gal/ft

6-inch casing = 1.47 gal/ft

TIME	DEPTH TO WATER (feet)	VOLUME WITHDRAWN (gallons)	TEMP (deg. C)	pH (S.U.)	COND (mhos/cm)	OTHER		REMARKS
13:45								START
13:50		4	22.5	6.46	1281			TURBID
13:56		8	21.1	6.64	1218			TURBID
14:03		12	20.3	6.74	1151			TURBID
15:20	6.98							SAMPLE

Suggested Method for Purging Well

LEVINE•FRICKE

WATER-QUALITY SAMPLING INFORMATION

Project Name: VOLVO GM — Project No.: 3018.11

Date: 9/22/94 — Sample No.: MW-2

Samplers Name: JCK

Sampling Location: MW-2

Sampling Method: HAND BAIL / TEFLON BAILER

Analyses Requested: DISSOLVED METALS

Number and Types of Sample Bottles used: 1 32oz PLASTIC

Method of Shipment: COURIER

27.00
5.82
21.18
.16
12708
2118
3.3888

LOCATION MAP

GROUND WATER

Well No.: MW-2

Well Diameter (in.): 2

Depth to Water, Static (ft): 5.82

Water in Well Box: NO

Well Depth (ft): 27.00

Height of Water Column in Well: 21.18

Water Volume in Well: 3.39

SURFACE WATER

Stream Width: _____

Stream Depth: _____

Stream Velocity: _____

Rained recently? _____

Other: _____

2-inch casing = 0.16 gal/ft

4-inch casing = 0.65 gal/ft

5-inch casing = 1.02 gal/ft

6-inch casing = 1.47 gal/ft

TIME	DEPTH TO WATER (feet)	VOLUME WITHDRAWN (gallons)	TEMP (deg. C)	pH (S.U.)	COND (mhos/cm)	OTHER		REMARKS
14:46								START
14:50		3.5	24.4	4.70	6580			TURBID
14:54		7.0	23.9	4.63	6550			↓
14:59			23.0	4.46	6710			↓
15:06			22.5	4.35	6850			↓
15:30	7.20							SAMPLE

Suggested Method for Purging Well: _____

LEVINE•FRICKE

WATER-QUALITY SAMPLING INFORMATION

Project Name: VOLVO GM — Project No.: 3018.11

Date: 9/22/94 — Sample No.: MW-3

Samplers Name: JCK

Sampling Location: MW-3

Sampling Method: HAND BAIL / TEFLON BAILER

Analyses Requested: DISSOLVED METALS

Number and Types of Sample Bottles used: 1 32oz PLASTIC

Method of Shipment: COURIER

27.00
6.46
20.94
.16
12564
2094
3.3504

LOCATION MAP

GROUND WATER

Well No.: MW-3

Well Diameter (in.): 2

Depth to Water, Static (ft): 6.46

Water in Well Box: NO

Well Depth (ft): 27.00

Height of Water Column in Well: 20.94

Water Volume in Well: 3.35

SURFACE WATER

Stream Width:

Stream Depth:

Stream Velocity:

Rained recently ?:

Other:

2-inch casing = 0.16 gal/ft

4-inch casing = 0.65 gal/ft

5-inch casing = 1.02 gal/ft

6-inch casing = 1.47 gal/ft

TIME	DEPTH TO WATER (feet)	VOLUME WITHDRAWN (gallons)	TEMP (deg. C)	pH (S.U.)	COND (mhos/cm)	OTHER		REMARKS
14:18								START
14:22		3.5	23.2	4.76	3760			TURBID
14:26		7.0	22.0	5.10	5150			TURBID
14:31	15.70	10.5	20.9	5.14	5080			TURBID
15:25	7.30							SAMPLE

Suggested Method for Purging Well

LEVINE•FRICKE

WATER-QUALITY SAMPLING INFORMATION

Project Name: VOLVO GM — Project No.: 3018.11

Date: 9/22/94 — Sample No.: MW-4

Samplers Name: JCK

Sampling Location: MW-4

Sampling Method: HAND BAIL / TEFLON BAILER

Analyses Requested: DISSOLVED METALS

Number and Types of Sample Bottles used: 1 32oz PLASTIC

Method of Shipment: COURIER

GROUND WATER		SURFACE WATER	
Well No.	MW-4	Stream Width	
Well Diameter (in.)	2	Stream Depth	
Depth to Water, Static (ft)	7.52	Stream Velocity	
Water in Well Box	NO	Rained recently ?	
Well Depth (ft)	23.94	Other	
Height of Water Column in Well	16.42		
Water Volume in Well	2.63		

2-inch casing = 0.16 gal/ft

4-inch casing = 0.65 gal/ft

5-inch casing = 1.02 gal/ft

6-inch casing = 1.47 gal/ft

23.94
7.52
16.42
.16
9852
1642
2.6272

LOCATION MAP

TIME	DEPTH TO WATER (feet)	VOLUME WITHDRAWN (gallons)	TEMP (deg. C)	pH (S.U.)	COND (mhos/cm)	OTHER		REMARKS
13:08								START
13:11		3	23.6	6.18	2050			TURBID
13:30		6	22.2	6.37	1860			TURBID
13:33	16.40	9	21.4	6.47	2300			TURBID
15:15	9.99							SAMPLE

MOVE TEMP

Suggested Method for Purging Well

LEVINE•FRICKE

WATER-QUALITY SAMPLING INFORMATION

Project Name: Volvo GM — Project No. 3018.11

Date: 9/23/94 — Sample No. LF-F1

Samplers Name: JCK

Sampling Location: LF-F1

Sampling Method: HAND BAIL / TEFLON BAILER

Analyses Requested: DISSOLVED METALS

Number and Types of Sample Bottles used: 3 40z PLASTIC

Method of Shipment: COURIER

GROUND WATER

Well No. LF-F1

Well Diameter (in.) 4

Depth to Water, Static (ft) 4.05

Water in Well Box NO

Well Depth (ft) 7.16

Height of Water Column in Well 3.11

Water Volume in Well 2.02

SURFACE WATER

Stream Width

Stream Depth

Stream Velocity

Rained recently ?

Other

2-inch casing = 0.16 gal/ft

4-inch casing = 0.65 gal/ft

5-inch casing = 1.02 gal/ft

6-inch casing = 1.47 gal/ft

7.16
4.05
3.11
.65
1555
1866
2.0215

LOCATION MAP

TIME	DEPTH TO WATER (feet)	VOLUME WITHDRAWN (gallons)	TEMP (deg. C)	pH (S.U.)	COND (mhos/cm)	OTHER		REMARKS
~~8:27~~ 8:32								START
8:30		2.25	25.2	6.24	.4550			CLEAR
8:33		4.50	25.1	6.30	4910			CLEAR
11:20	5.20							SAMPLE

Suggested Method for Purging Well