January 17, 1997 3018.95-021

Mr. Dale Klettke
Alameda County Health Care Services Agency
Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, California 94501

Subject: Quarterly Groundwater Monitoring Report for the Period from July 1 to September 30, 1996, 5050 Coliseum Way and 750-50th Avenue, Oakland, California

Dear Mr. Klettke:

This quarterly report is submitted by Levine·Fricke·Recon Inc. (LFR; formerly Levine·Fricke, Inc. and Recon Environmental) on behalf of Volvo GM Heavy Truck Corporation for the subject site. During this quarterly period, depth-to-water measurements were collected in 21 monitoring wells and groundwater samples were collected from 20 wells.

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

Sincerely,

Kathleen A. Isaacson, R.G.
Principal Hydrogeologist

Enclosure

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

Quarterly Groundwater Monitoring Report for the Period from July 1 to September 30, 1996 5050 Coliseum Way and 750-50th Avenue Oakland, California

STID 584

January 17, 1996 7

3018.95-021

Prepared for
Volvo GM Heavy Truck Corporation
7900 National Service Road
P.O. Box 26115
Greensboro, North Carolina 27402-6115

Levine·Fricke·Recon
ENGINEERS, HYDROGEOLOGISTS & APPLIED SCIENTISTS

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CERTIFICATION

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

1/17/97

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

Date

1.0 INTRODUCTION

This report presents results of quarterly groundwater monitoring activities conducted during the period from July 1 through September 30, 1996, 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 groundwater elevation and groundwater quality data collected at the Site.

2.0 WATER-LEVEL MEASUREMENTS AND GROUNDWATER 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 21 wells at the Site on September 23, 1996. A historical summary of depth-to-water measurements and groundwater elevations for the Site is presented in Table 1. Groundwater elevation contours for September 23, 1996, are presented in Figure 2.

Groundwater elevations calculated from depth-to-water measurements collected in September 1996 were generally lower than those measured last quarter.

Groundwater elevation data for September 23, 1996, indicate that the groundwater flow direction was generally toward the west, which is consistent with historical groundwater flow data. Groundwater elevation data indicate an average horizontal hydraulic gradient of approximately 0.008 foot per foot (ft/ft; as calculated between wells LF-5 and LF-7) across the Site. The gradient in the western portion of the Site, as measured between wells LF-15 and LF-5, is approximately 0.012 ft/ft.

Approximately 0.10 foot of free product was measured in well LF-13 using a product-thickness bailer. This measurement is consistent with previous measurements for the Site (Table 1). Since September 1995, droplets of oily material have been reported for well LF-16, located within the building. However, no measurable thickness has been observed.

3.0 GROUNDWATER QUALITY

Groundwater samples were collected from 20 monitoring wells (LF-1 through LF-12, LF-14 through LF-17, LF-F1, and MW-1 through MW-3) from September 23 through 25, 1996, as shown in Figure 3. Well LF-13, located on the southeastern property

boundary, contained free product and therefore was not sampled. Well MW-4 was not accessible because of site facility operations and was not sampled.

Groundwater samples were submitted to the laboratory for metals analysis using EPA Method 200 series. Samples collected from wells LF-3 and LF-8 were also submitted for analysis of total petroleum hydrocarbons as gasoline (TPHg) by EPA Method 5030, and for TPH as diesel (TPHd) and as oil (TPHo) by EPA Method 3510. The sample collected from well LF-8 also was submitted for analysis of semivolatile organic compounds (SVOCs) by EPA Method 8270.

Analytical results for groundwater samples collected during this recent round of sampling were generally consistent with results reported historically for the Site. Groundwater quality results are discussed in Section 3.2. Analytical results for metals analysis are presented in Table 2 and Figure 3. Analytical results for TPHg, TPHd, and TPHo are presented on Tables 3 and 4. Analytical results for SVOCs are presented in Table 5. Laboratory certificates and a chain-of-custody form are included in Appendix A.

3.1 Sampling Procedures

Before groundwater samples were collected, approximately 3 to 5 well casing volumes of water were removed from each well using a centrifugal pump or a Teflon bailer. Specific conductance, pH, and temperature of the purged water were measured during this purging process to aid in evaluating overall groundwater quality. These parameters were recorded in the field on water-quality sampling forms. Copies of these forms are included in Appendix B. Groundwater samples were collected after these parameters stabilized to within 15 percent of the previous measurement.

Groundwater samples were collected using a Teflon bailer. Groundwater samples for metals analysis were filtered in the field, placed in an ice-chilled cooler immediately after collection, and transported to American Environmental Network, Inc. (AEN), of Pleasant Hill, California, a state-certified laboratory, for analysis. The samples were preserved by the laboratory on arrival.

For quality assurance/quality control measures, a duplicate sample was collected for well LF-11 (LF-111) and submitted to AEN for metals analysis.

The pH values for groundwater samples collected from each monitoring well were measured and recorded in the field during sampling activities.

3.2 Groundwater Quality Results

3.2.1 Metals

Analytical results for Title 22 metals in groundwater samples collected during this recent round of sampling were generally consistent with results reported historically for those wells. These results, shown on Figure 3, are as follows.

Silver, barium, molybdenum, selenium, thallium, and vanadium were generally reported below detection limits, or at concentrations below 1.0 parts per million (ppm).

Zinc was detected in all 20 wells at concentrations ranging from 0.023 ppm in LF-7 to 40,000 ppm in LF-11. Zinc was detected in downgradient well LF-12 at a concentration of 2,700 ppm. The highest concentration of lead (0.19 ppm) was detected in the sample from LF-15.

The highest concentration of cadmium (130 ppm) was detected in the sample collected from LF-11, and the highest concentration of copper (17 ppm) was detected in the sample collected from LF-16. The highest concentrations of cobalt (11 ppm) and nickel (30 ppm) were detected in the sample collected from LF-15. Of the downgradient wells that were sampled, LF-12 contained the highest concentrations of the metals cadmium (3.0 ppm), cobalt (2.2 ppm), nickel (6.1), and copper (1.3 ppm).

Arsenic was detected in samples collected from 11 wells, with the highest concentration, 4.6 ppm, reported for LF-3. Arsenic was detected in downgradient well MW-2 at a concentration of 1.40 ppm.

3.2.2 Petroleum Hydrocarbons

Analytical results for petroleum hydrocarbons in the samples collected from LF-3, LF-8, and LF-14 were similar to previous sampling events (Tables 3 and 4). TPHg was reported in samples collected from LF-8 and LF-14 at concentrations of 0.21 ppm and 0.9 ppm, respectively. TPHg was not detected above the detection limits in the sample collected from LF-3. TPHd was detected in the samples collected from LF-3, LF-8, and LF-14, at concentrations of 0.37 ppm, 2.5 ppm, and 0.17 ppm, respectively. TPHo was not detected in the samples analyzed for TPHo. Well LF-16 will be sampled for TPHg, benzene, toluene, ethylbenzene, and total xylenes (BTEX), TPHd, and TPHo during the next sampling event.

3.2.3 Former Waste-Oil Tank

The absence of TPHg and BTEX compounds, and the relatively low concentration of TPHd detected last quarter in LF-1, located approximately 50 feet downgradient from the former waste-oil underground storage tank (UST), indicate that shallow groundwater quality has not been significantly affected by a possible release of

petroleum hydrocarbons from the former UST. Well LF-1 as well as downgradient well LF-5 will be sampled one additional time to confirm these results. If future analytical results are consistent with those for LF-1, then closure for the waste-oil UST will be requested.

3.2.4 Volatile Organic Compounds

No samples were analyzed for volatile organic compounds (VOCs) this quarter.

3.2.5 Semivolatile Organic Compounds

The sample collected from well LF-8 was analyzed for SVOCs by EPA Method 8270. Analytical results are summarized in Table 5. Compounds detected in the sample include acenaphthene (0.40 ppm), anthracene (0.027 ppm), dibenzofuran (0.19 ppm), fluoranthene (0.026 ppm), and fluorene (0.150 ppm). The results are consistent with previous results reported for this well.

3.2.6 Measurements of pH

Measurements of groundwater pH are shown in Figure 3. Recent monitoring results indicate that pH values for shallow groundwater beneath the Site were generally consistent with historical values and indicate that pH is variable across the Site. The lowest pH (3.44) was measured in the sample from well LF-11. A pH value above 6.0 was measured for samples collected from 10 of the 20 wells.

3.2.7 Quality Assurance/Quality Control

Analytical results for the duplicate sample collected from well LF-11 (LF-111) generally showed similar metals concentrations when compared to the primary sample collected from that well, as shown on Figure 3. The exception was the result of the test for molybdenum in which the relative percent difference between the field duplicate and the primary sample was out of the acceptable range.

Table 1
Historical Summary of Groundwater 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)	Depth to Product (feet)	Product Thickness (ft)	Groundwater 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
		19-Dec-94	3.51			4.05
		13-Mar-95	2.33			5.23
		07-Jun-95	2.49			5.07
		05-Sep-95	2.78			4.78
		18-Dec-95	3.21			4.35
		28-Feb-96	2.51			5.05
		02-May-96	2.35			5.21
		23-Sep-96	2.80			4.76
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
		19-Dec-94	5.91			3.93
		13-Mar-95	4.30			5.54
		07-Jun-95	4.36			5.48
		05-Sep-95	5.12			4.72
		18-Dec-95	5.56			4.28
		28-Feb-96	4.51			5.33
		02-May-96	4.41			5.43

Table 1
Historical Summary of Groundwater 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)	Depth to Product (feet)	Product Thickness (ft)	Groundwater Elevation (feet msl)
		23-Sep-96	5.24			4.60
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
		19-Dec-94	6.06			4.92
		13-Mar-95	4.85			6.13
		07-Jun-95	4.58			6.40
		05-Sep-95	5.38			5.60
		18-Dec-95	5.75			5.23
		28-Feb-96	4.80			6.18
		02-May-96	4.64			6.34
		23-Sep-96	5.53			5.45
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
		19-Dec-94	6.75			3.61
		13-Mar-95	5.67			4.69
		07-Jun-95	4.48			5.88
		05-Sep-95	5.38			4.98
		18-Dec-95	5.96			4.40

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5050 Coliseum Way and 750-50th Avenue
Oakland, California

Well Number	Top of PVC Casing Elevation (feet msl)	Date Measured	Depth to Water (feet)	Depth to Product (feet)	Product Thickness (ft)	Groundwater Elevation (feet msl)
		28-Feb-96	4.31			6.05
		02-May-96	4.40			5.96
		23-Sep-96	5.60			4.76
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
		19-Dec-94	6.48			1.55
		13-Mar-95	5.25			2.78
		07-Jun-95	5.98			2.05
		05-Sep-95	6.42			1.61
		18-Dec-95	5.87			2.16
		28-Feb-96	4.58			3.45
		02-May-96	5.72			2.31
		23-Sep-96	6.33			1.70
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
		19-Dec-94	6.12			5.47
		13-Mar-95	4.98			6.61
		07-Jun-95	5.03			6.56

Table 1
Historical Summary of Groundwater 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)	Depth to Product (feet)	Product Thickness (ft)	Groundwater Elevation (feet msl)
		05-Sep-95	6.23			5.36
		18-Dec-95	5.71			5.88
		28-Feb-96	4.75			6.84
		02-May-96	5.08			6.51
		23-Sep-96	6.45			5.14
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
		19-Dec-94	5.59			5.06
		13-Mar-95	4.16			6.49
		07-Jun-95	4.07			6.58
		05-Sep-95	4.81			5.84
		18-Dec-95	4.99			5.66
		28-Feb-96	4.22			6.43
		02-May-96	4.09			6.56
		23-Sep-96	4.97			5.68
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
		19-Dec-94	6.31			4.60
		13-Mar-95	4.48			6.43
		07-Jun-95	4.46			6.45
		05-Sep-95	5.08			5.83
		18-Dec-95	5.63			5.28
		28-Feb-96	4.57			6.34
		02-May-96	4.41			6.50
		23-Sep-96	5.20			5.71
LF-9	11.70	02-Nov-93	6.76			4.94
		08-Dec-93	6.91			4.79

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Oakland, California

Well Number	Top of PVC Casing Elevation (feet msl)	Date Measured	Depth to Water (feet)	Depth to Product (feet)	Product Thickness (ft)	Groundwater Elevation (feet msl)
		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
		19-Dec-94	6.34			5.36
		13-Mar-95	5.12			6.58
		07-Jun-95	5.31			6.39
		05-Sep-95	5.90			5.80
		18-Dec-95	6.80			4.90
		28-Feb-96	5.23			6.47
		02-May-96	5.16			6.54
		23-Sep-96	5.95			5.75
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
		19-Dec-94	7.21			2.22
		13-Mar-95	5.68			3.75
		07-Jun-95	5.92			3.51
		05-Sep-95	6.61			2.82
		18-Dec-95	6.92			2.51
		28-Feb-96	5.62			3.81
		02-May-96	6.00			3.43
		23-Sep-96	6.81			2.62
LF-11	9.07	02-Nov-93	11.68			-2.61
		08-Dec-93	5.35			3.72
		28-Jan-94	5.27			3.80
		15-Feb-94	5.04			4.03
		24-May-94	4.20			4.87
		21-Sep-94	4.70			4.37
		19-Dec-94	4.72			4.35
		13-Mar-95	3.27			5.80
		07-Jun-95	3.75			5.32
		05-Sep-95	3.70			5.37
		18-Dec-95	4.20			4.87
		28-Feb-96	2.88			6.19
		02-May-96	2.84			6.23
		23-Sep-96	3.78			5.29
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
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Well Number	Top of PVC Casing Elevation (feet msl)	Date Measured	Depth to Water (feet)	Depth to Product (feet)	Product Thickness (ft)		Groundwater Elevation (feet msl)	
		19-Dec-94	7.32				1.38	
		13-Mar-95	6.00				2.70	
		07-Jun-95	7.40				1.30	
		05-Sep-95	7.45				1.25	
		18-Dec-95	6.71				1.99	
		28-Feb-96	6.28				2.42	
		02-May-96	7.09				1.61	
		23-Sep-96	7.35				1.35	
LF-13	9.75	08-Dec-93	5.94				3.81	(1)
		28-Jan-94	4.94				4.81	(1)
		15-Feb-94	4.84	4.83	0.01		4.92	(1)
		24-May-94	4.81	4.75	0.06		4.99	(1)
		21-Sep-94	6.32	5.17	1.15	(2	4.41	(1)
		19-Dec-94	4.67	4.57	0.10		5.17	(1)
		13-Mar-95	3.22	3.12	0.10		6.62	(1)
		07-Jun-95	3.32	3.22	0.10		6.52	(1)
		05-Sep-95	3.90	3.80	0.10		5.94	(1)
		18-Dec-95	4.13	4.03	0.10		5.71	(1)
		28-Feb-96	3.48	3.38	0.10		6.36	(1)
		02-May-96	3.44	3.34	0.10		6.40	(1)
		23-Sep-96	4.05	3.95	0.10		5.79	(1)
LF-14	11.72	08-Dec-93	7.96				3.76	
		28-Jan-94	8.02				3.70	
		15-Feb-94	7.85				3.87	
		24-May-94	7.68				4.04	
		21-Sep-94	7.69				4.03	
		19-Dec-94	7.71				4.01	
		13-Mar-95	6.68				5.04	
		07-Jun-95	6.03				5.69	
		05-Sep-95	6.51				5.21	
		18-Dec-95	7.39				4.33	
		28-Feb-96	5.95				5.77	
		02-May-96	NM				NM	
		23-Sep-96	6.78				4.94	
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	
		19-Dec-94	NM				NM	
		13-Mar-95	6.32				5.30	
		07-Jun-95	6.44				5.18	
		05-Sep-95	6.08				5.54	
		18-Dec-95	11.01				0.61	(3)
		28-Feb-96	5.92				5.70	

Table 1
Historical Summary of Groundwater 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)	Depth to Product (feet)	Product Thickness (ft)	Groundwater Elevation (feet msl)	
		02-May-96	8.70			2.92	(3)
		23-Sep-96	6.20			5.42	
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	
		19-Dec-94	8.60			2.96	
		13-Mar-95	6.22			5.34	
		07-Jun-95	6.88			4.68	
		05-Sep-95	7.37			4.19	
		18-Dec-95	9.21			2.35	(3)
		28-Feb-96	6.26			5.30	
		02-May-96	6.24			5.32	
		23-Sep-96	7.18			4.38	
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	
		19-Dec-94	5.45			4.26	
		13-Mar-95	4.68			5.03	
		07-Jun-95	6.52			3.19	
		05-Sep-95	7.02			2.69	
		18-Dec-95	5.11			4.60	
		28-Feb-96	4.63			5.08	
		02-May-96	5.90			3.81	
		23-Sep-96	7.04			2.67	
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	
		19-Dec-94	3.45			5.37	
		13-Mar-95	2.22			6.60	
		07-Jun-95	2.28			6.54	
		05-Sep-95	2.92			5.90	
		18-Dec-95	3.18			5.64	
		28-Feb-96	2.31			6.51	
		02-May-96	2.27			6.55	
		23-Sep-96	3.10			5.72	
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	

Table 1
Historical Summary of Groundwater 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)	Depth to Product (feet)	Product Thickness (ft)	Groundwater Elevation (feet msl)
		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
		21-Sep-94	6.35			3.86
		19-Dec-94	3.70			6.51
		13-Mar-95	2.71			7.50
		07-Jun-95	4.02			6.19
		05-Sep-95	5.67			4.54
		18-Dec-95	4.47			5.74
		28-Feb-96	2.53			7.68
		02-May-96	3.72			6.49
		23-Sep-96	6.00			4.21
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
		12-Dec-94	4.75			4.11
		13-Mar-95	3.28			5.58
		07-Jun-95	3.12			5.74
		05-Sep-95	3.90			4.96
		18-Dec-95	4.55			4.31
		28-Feb-96	3.12			5.74
		02-May-96	3.03			5.83
		23-Sep-96	4.07			4.79

Table 1
Historical Summary of Groundwater 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)	Depth to Product (feet)	Product Thickness (ft)	Groundwater Elevation (feet msl)
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
		19-Dec-94	5.46			3.55
		13-Mar-95	4.37			4.64
		07-Jun-95	5.61			3.40
		05-Sep-95	6.38			2.63
		18-Dec-95	4.91			4.10
		28-Feb-96	4.37			4.64
		02-May-96	5.23			3.78
		23-Sep-96	6.34			2.67
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
		19-Dec-94	4.42			6.33
		13-Mar-95	3.48			7.27
		07-Jun-95	4.93			5.82
		05-Sep-95	6.34			4.41
		18-Dec-95	4.61			6.14
		28-Feb-96	3.36			7.39
		02-May-96	4.53			6.22

Data entered by DEB. Data proofed by JCK

Table 1
Historical Summary of Groundwater 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)	Depth to Product (feet)	Product Thickness (ft)	Groundwater Elevation (feet msl)

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) Groundwater elevation for well LF-13 is corrected for the presence of free product as indicated in note (2). Product thickness measurement is approximate due to the viscous nature of the product. Groundwater elevation corrected for the presence of free product using the following equation: G = W + [(PT*D) - DW] where G is the groundwater 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.

(2) In general, product thickness measurements for well LF-13 are approximate due to the viscous nature of the product. Specifically, the measurement reported for September 21, 1994, was measured using an electronic oil/water interface probe only, which likely resulted in an incorrect measurement.

(3) Groundwater elevations appear to be anomalous.

[redacted]

Table 2

Metals Detected in Groundwater 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	Molyb-denum	Nickel	Lead	Antimony	Selenium	Thallium	Vanadium	Zinc
LF-1	4-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	5-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	5-Mar-93	<0.5	0.26	<0.05	<0.2	44	3.9	<1	0.5	<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-1	20-Dec-94	<0.05	0.65	<0.5	<0.02	4.2	0.45	<0.1	<0.1	<0.0002	<0.1	1.7	0.6	<0.2	<0.04	<1	<0.05	3700
LF-1	15-Mar-95	<0.05	0.39	<0.1	<0.02	8.5	0.81	<0.1	0.2	<0.0002	<0.1	3.4	0.41	<0.2	<0.004	<0.5	<0.05	4700
LF-1	8-Jun-95	<0.5	0.33	<1	<0.2	11	0.9	<1	<1	<0.0002	<1	4	1.5	<2	<0.02	<5	<0.5	6500
LF-101 dup	8-Jun-95	<0.5	0.41	<1	<0.2	23	1.8	<1	<1	<0.0002	<1	7	0.76	<2	<0.02	<5	<0.5	10000
LF-1	7-Sep-95	<0.05	0.30	<0.1	0.03	23	2.0	<0.1	0.5	<0.0002	<0.1	7.3	0.67	<0.2	<0.1	0.6	<0.05	10000
LF-1	19-Dec-95	<0.5	0.34	<1	<0.3	12	1.1	<1	<1	<0.0002	<1	4	0.26	<2	0.036	<5	<0.5	6200
LF-1	29-Feb-96	<0.05	0.65	<0.1	<0.02	5.6	0.6	<0.1	<0.1	<0.0002	<0.1	2.4	0.97	<0.2	<0.02	<0.5	<0.05	4600
LF-1	2-May-96	<0.5	0.40	<1	<0.2	9.9	1.0	<1	<1	<0.0002	<1	3	0.95	<2	<0.004	<5	<0.5	6700
LF-1	24-Sep-96	<0.05	0.91	<0.1	0.03	14	1.4	<0.1	0.4	<0.0002	0.3	4.8	<0.05	<0.2	<0.02	<0.5	<0.05	6300
LF-2	4-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	4-Mar-93	<0.005	0.003	<0.05	<0.002	<0.005	0.1	<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-2	20-Dec-94	0.001	<0.002	0.02	<0.0005	<0.001	0.04	<0.002	0.006	<0.0002	<0.002	0.03	<0.002	<0.005	<0.004	<0.02	<0.001	0.39
LF-2	15-Mar-95	<0.001	<0.002	0.017	<0.0005	<0.001	0.033	<0.002	0.004	<0.0002	<0.002	0.031	<0.002	<0.004	<0.004	<0.01	0.002	0.49
LF-102 dup	16-Mar-95	<0.001	<0.002	0.017	<0.0005	<0.001	0.036	<0.002	0.005	<0.0002	<0.002	0.024	<0.002	<0.004	<0.004	<0.01	0.001	0.37
LF-2	7-Jun-95	<0.001	<0.002	0.017	<0.0005	<0.001	0.037	<0.002	0.006	<0.0002	<0.002	0.04	<0.002	<0.004	<0.004	<0.01	0.002	0.62
LF-2	7-Sep-95	<0.001	<0.002	0.019	<0.0005	0.001	0.040	<0.002	0.004	<0.0002	<0.002	0.032	<0.002	<0.004	<0.004	<0.01	<0.001	0.50
LF-122 dup	7-Sep-95	<0.001	<0.002	0.020	<0.0005	<0.001	0.042	<0.002	0.005	<0.0002	<0.002	0.027	<0.002	<0.004	<0.004	<0.01	<0.001	0.50
LF-2	19-Dec-95	<0.001	<0.002	0.020	<0.0005	<0.001	0.043	<0.002	0.002	<0.0002	<0.002	0.045	<0.002	<0.004	<0.004	<0.01	0.001	0.74
LF-2	1-Mar-96	<0.001	0.002	0.018	<0.0005	<0.001	0.039	<0.002	0.004	<0.0002	<0.002	0.036	<0.005	<0.004	<0.004	0.01	0.001	0.65
LF-2	2-May-96	0.001	<0.002	0.018	<0.0005	<0.001	0.034	<0.002	0.003	<0.0002	<0.002	0.026	<0.002	<0.004	<0.004	0.02	<0.001	0.53
LF-102 dup	2-May-96	0.001	<0.002	0.019	<0.0005	<0.001	0.035	<0.002	0.005	<0.0002	0.002	0.02	<0.002	<0.004	<0.004	<0.01	<0.001	0.37
LF-2	24-Sep-96	<0.001	<0.002	0.018	<0.0005	<0.001	0.035	<0.002	0.003	<0.0002	<0.002	0.026	<0.005	<0.004	<0.004	<0.01	<0.001	0.45
LF-3	4-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	4-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	0.001	<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

Table 2
Metals Detected in Groundwater 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-3	20-Dec-94	<0.001	3.6	0.09	0.0013	<0.001	0.012	0.005	0.026	<0.0002	0.11	0.011	<0.002	<0.005	<0.04	<0.02	0.012	6.2
LF-103 dup	20-Dec-94	<0.001	4.5	0.04	0.0017	<0.001	0.014	0.003	0.003	<0.0002	0.13	0.011	<0.002	<0.005	<0.04	0.02	0.01	8.5
LF-3	15-Mar-95	<0.001	2.8	0.15	0.001	<0.001	0.008	0.004	0.003	<0.0002	0.086	0.007	<0.002	<0.004	<0.04	<0.01	0.011	4.3
LF-3	7-Jun-95	<0.001	5.6	0.057	0.0018	<0.001	0.014	0.003	0.003	<0.0002	0.13	0.012	<0.002	<0.004	<0.04	<0.01	0.013	9.9
LF-3	7-Sep-95	<0.001	3.0	0.13	0.0017	<0.001	0.011	0.004	<0.002	<0.0002	0.12	0.008	<0.002	<0.004	<0.2	0.02	0.013	5.4
LF-3	18-Dec-95	<0.001	4.2	0.06	0.002	0.015	0.013	0.004	<0.002	<0.0002	0.13	0.012	<0.005	<0.004	0.019	<0.01	0.01	8.4
LF-103 dup	18-Dec-95	<0.001	4.2	0.12	0.001	0.011	0.009	0.005	<0.002	<0.0002	0.098	0.01	<0.005	<0.004	<0.02	<0.01	0.011	5.1
LF-3	1-Mar-96	<0.001	2.7	0.096	0.001	<0.001	0.008	0.002	<0.002	<0.0002	0.08	0.007	<0.005	<0.004	<0.1	0.01	0.01	3.7
LF-3	2-May-96	<0.001	3.3	0.11	<0.0005	0.002	0.009	<0.002	<0.002	<0.0002	0.082	0.007	<0.005	<0.004	<0.004	0.02	0.001	5.2
LF-3	24-Sep-96	<0.001	4.6	0.068	0.001	0.051	0.009	<0.002	0.005	<0.0002	0.096	0.008	<0.005	<0.004	<0.1	0.02	<0.001	4.8
LF-4	4-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	4-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-4	15-Mar-95	<0.001	0.008	0.34	<0.0005	0.001	0.005	<0.002	<0.002	<0.0002	<0.002	0.037	<0.002	<0.004	<0.004	<0.01	0.002	0.064
LF-4	7-Sep-95	<0.001	0.012	0.15	<0.0005	0.001	0.004	<0.002	<0.002	<0.0002	<0.002	0.048	<0.002	<0.004	<0.004	<0.01	0.002	0.24
LF-4	1-Mar-96	<0.001	0.013	0.13	<0.0005	<0.001	0.004	<0.002	<0.002	<0.0002	<0.002	0.048	<0.005	<0.004	<0.004	<0.01	0.002	0.031
LF-4-dup	1-Mar-96	<0.001	0.007	0.36	<0.0005	<0.001	0.005	<0.002	<0.002	<0.0002	<0.002	0.026	<0.005	<0.004	<0.004	<0.01	0.002	0.047
LF-4	24-Sep-96	<0.001	0.013	0.12	<0.0005	<0.001	0.003	<0.002	<0.002	<0.0002	<0.002	0.031	<0.002	<0.004	<0.004	<0.01	0.001	0.053
LF-5	4-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	4-Mar-93	0.021	<0.005	<0.05	<0.002	0.21	1.1	<0.01	<0.01	<0.0003	<0.01	5	<0.04	<0.02	<0.01	<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
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	<0.01	<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	<0.01	<0.005	<0.02	0.03	<0.001	25
LF-5	19-Dec-94	0.007	<0.01	0.01	<0.0005	0.25	1.2	0.003	0.004	<0.0002	<0.002	3.8	<0.008	<0.005	0.02	0.08	<0.001	58
LF-5	14-Mar-95	0.004	<0.02	0.013	<0.0005	0.11	0.61	0.004	0.003	<0.0002	<0.002	2.6	<0.01	<0.004	<0.04	0.06	0.003	25
LF-5	7-Jun-95	0.006	<0.01	0.015	<0.0005	0.31	1.5	0.006	0.005	<0.0002	<0.002	5	<0.02	<0.004	<0.02	0.05	0.001	76
LF-5	7-Sep-95	0.004	<0.005	0.014	<0.0005	0.31	1.5	0.006	0.005	<0.0002	<0.002	4.8	<0.01	<0.004	<0.004	0.04	<0.001	38
LF-5	18-Dec-95	0.003	<0.005	0.017	<0.0005	0.2	0.99	0.004	0.002	<0.0002	<0.002	3.1	<0.005	<0.004	<0.01	0.12	0.003	47
LF-5	29-Feb-96	<0.001	<0.01	0.11	<0.0005	0.01	0.034	<0.002	0.002	<0.0002	<0.002	0.17	<0.01	<0.004	<0.02	<0.01	0.002	2.6
LF-5	2-May-96	0.019	<0.005	0.012	<0.0005	0.72	4	<0.002	0.007	<0.0002	<0.002	12	<0.005	<0.004	<0.01	0.07	<0.001	150
LF-5	24-Sep-96	0.014	<0.01	0.014	<0.0005	0.32	1.3	<0.002	0.009	<0.0002	<0.002	3.8	<0.01	<0.004	<0.02	0.03	<0.001	64
LF-6	5-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	0.02	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	4-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-6	16-Mar-95	0.003	<0.002	0.01	0.0023	0.091	0.74	0.002	0.01	<0.0002	<0.002	2.6	<0.005	<0.004	<0.004	0.06	0.001	10
LF-6	6-Sep-95	0.002	<0.002	0.011	0.0022	0.094	0.79	0.004	0.009	<0.0002	<0.002	2.8	<0.005	<0.004	<0.004	0.07	<0.001	10
LF-6	29-Feb-96	0.003	<0.002	0.009	0.0024	0.098	0.81	<0.002	0.009	<0.0002	<0.002	2.8	<0.005	<0.004	<0.004	0.05	<0.001	11
LF-6	25-Sep-96	0.007	<0.002	0.013	0.0022	0.093	0.83	<0.002	0.009	<0.0002	<0.002	2.9	<0.002	<0.004	<0.004	0.04	<0.001	11

Table 2

Metals Detected in Groundwater 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	Molyb-denum	Nickel	Lead	Antimony	Selenium	Thallium	Vanadium	Zinc
LF-7	5-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	4-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	<0.01	<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	0.1	<0.0005	<0.001	<0.001	<0.002	<0.002	<0.0002	0.006	0.01	<0.005	0.005	<0.004	<0.02	0.006	0.012
LF-7	15-Mar-95	<0.001	0.004	0.24	<0.0005	<0.001	<0.001	<0.002	<0.002	<0.0002	0.005	0.011	<0.005	<0.004	<0.004	<0.01	0.006	0.053
LF-7	6-Sep-95	<0.001	0.017	0.18	<0.0005	<0.001	<0.001	<0.002	<0.002	<0.0002	0.006	0.012	<0.005	<0.004	<0.004	<0.01	0.007	0.001
LF-7	28-Feb-96	<0.001	0.035	0.3	<0.0005	<0.001	0.001	<0.002	0.003	<0.0002	0.007	0.013	<0.005	<0.004	<0.004	<0.01	0.006	0.006
LF-7	25-Sep-96	<0.001	0.035	0.24	<0.0005	<0.001	<0.001	<0.002	<0.002	<0.0002	0.007	0.014	<0.002	<0.004	<0.004	<0.01	0.007	0.023
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-8	20-Dec-94	<0.001	2	0.39	<0.0005	<0.001	<0.001	<0.002	<0.002	<0.0002	<0.002	0.004	<0.002	<0.005	<0.04	<0.02	0.004	0.015
LF-8	15-Mar-95	<0.001	2	0.072	<0.0005	<0.001	<0.001	<0.002	<0.002	<0.0002	0.002	0.003	<0.002	<0.004	<0.04	<0.01	0.002	0.017
LF-8	9-Jun-95	<0.001	3.2	0.093	<0.0005	<0.001	<0.001	<0.002	<0.002	<0.0002	<0.002	0.003	<0.002	<0.004	<0.04	<0.01	0.003	0.052
LF-8	7-Sep-95	<0.001	2.4	0.092	<0.0005	<0.001	0.001	<0.002	<0.002	<0.0002	<0.002	<0.002	<0.002	<0.004	<0.2	<0.01	0.003	0.02
LF-8	18-Dec-95	<0.001	3.4	0.17	<0.0005	0.007	<0.001	<0.002	<0.002	<0.0002	<0.002	<0.002	<0.005	<0.004	<0.02	<0.01	0.002	0.013
LF-8	29-Feb-96	<0.001	1.7	0.1	<0.0005	<0.001	<0.001	<0.002	<0.002	<0.0002	<0.002	0.005	<0.005	<0.004	<0.004	<0.01	0.002	0.066
LF-8	2-May-96	<0.001	2.1	0.066	<0.0005	0.001	0.001	<0.002	<0.002	<0.0002	<0.002	0.003	<0.002	<0.004	<0.004	<0.01	<0.001	0.02
LF-8	25-Sep-96	<0.001	3.2	0.058	<0.0005	0.025	<0.001	<0.002	<0.002	<0.0002	<0.002	0.002	<0.002	<0.004	<0.004	<0.01	<0.001	0.036
LF-9	1-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	1-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-9	13-Mar-95	<0.001	0.15	0.021	<0.0005	0.01	0.028	<0.002	0.004	<0.0002	0.003	0.085	<0.005	<0.004	<0.004	<0.01	0.003	26
LF-9	8-Sep-95	<0.001	0.19	0.014	<0.0005	0.020	0.026	<0.002	<0.002	<0.0002	0.005	0.087	<0.005	<0.004	<0.02	<0.01	0.003	25
LF-9	29-Feb-96	<0.001	0.16	0.014	<0.0005	0.054	0.025	<0.002	<0.002	<0.0002	0.003	0.099	<0.005	0.006	<0.01	0.02	0.002	34
LF-9	25-Sep-96	<0.001	0.22	0.015	<0.0005	0.048	0.031	<0.002	<0.002	<0.0002	0.005	0.096	<0.002	<0.004	<0.01	0.02	<0.001	33
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	<0.01	<0.005	<0.01	<0.02	0.006	0.075
LF-10	15-Mar-95	<0.001	<0.02	0.018	<0.0005	0.001	0.018	<0.002	0.006	<0.0002	<0.002	0.13	<0.01	0.004	<0.04	0.02	0.004	0.13
LF-10	7-Sep-95	<0.001	<0.005	0.016	<0.0005	0.002	0.007	<0.002	0.007	<0.0002	<0.002	0.083	<0.01	<0.004	<0.01	<0.01	0.005	0.29
LF-10	29-Feb-96	<0.001	0.006	0.014	<0.0005	0.001	0.007	<0.002	0.007	<0.0002	<0.002	0.092	0.011	<0.004	<0.01	<0.01	0.004	0.2
LF-10	24-Sep-96	<0.001	<0.005	0.013	<0.0005	<0.001	0.007	<0.002	0.010	<0.0002	<0.002	0.083	<0.002	<0.004	<0.01	0.01	0.004	0.061
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-11	15-Mar-95	<0.5	<0.01	<1	<0.2	91	4.9	<1	3	<0.0002	<1	22	0.08	<2	<0.02	<5	<0.5	37000
LF-11	8-Jun-95	<5	<0.02	<1	<3	99	<5	<10	<10	<0.0002	<10	21	0.09	<20	<0.04	<50	<5	37000
LF-11	7-Sep-95	<0.5	<0.01	<1	<0.2	120	6.5	<1	5	<0.0002	<1	26	0.04	<2	<0.02	<5	<0.5	37000
LF-11	18-Dec-95	<5	0.31	<1	<3	110	6	<10	<10	<0.0002	<10	25	0.021	<20	<0.08	<50	<5	37000
LF-11	29-Feb-96	<0.5	<0.01	<1	<0.2	120	6.2	<1	5	<0.0002	<1	25	0.13	<2	<0.02	<5	<0.5	42000
LF-11	2-May-96	<0.5	<0.02	<1	<0.2	96	6	<1	4	<0.0002	1	21	0.07	<2	<0.004	<5	<0.5	34000
LF-11	25-Sep-96	<1	<0.01	<2	<0.4	130	7	<2	5	<0.0002	<2	24	<0.1	<4	<0.02	<10	<1	40000
LF-11 Dup	25-Sep-96	<1	<0.01	<2	<0.4	130	6	<2	5	<0.0002	2	24	<0.1	<4	<0.02	<10	<1	40000

Table 2
Metals Detected in Groundwater 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	Molyb-denum	Nickel	Lead	Antimony	Selenium	Thallium	Vanadium	Zinc
LF-12	1-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-12	19-Dec-94	<0.05	<0.005	<0.5	0.02	3.5	2.3	<0.1	1.1	<0.0002	<0.1	6.9	0.01	<0.2	0.03	<1	<0.05	3200
LF-12	15-Mar-95	<0.05	<0.002	<0.1	0.02	3	2	<0.1	1	<0.0002	<0.1	6.7	<0.005	<0.2	0.019	<0.5	<0.05	2600
LF-12	7-Jun-95	<0.05	<0.005	<0.1	0.03	3.3	2.1	<0.1	1.2	<0.0002	<0.1	6.6	<0.005	<0.2	0.04	<0.5	<0.05	2900
LF-12	6-Sep-95	<0.05	<0.005	<0.1	0.02	3.2	2.2	<0.1	1.3	<0.0002	<0.1	6.4	0.01	<0.2	<0.01	<0.5	<0.05	2900
LF-12	18-Dec-95	<0.05	<0.002	<0.1	<0.03	3.8	2.1	<0.1	1.1	<0.0002	<0.1	6.6	<0.005	<0.2	0.055	<0.5	<0.05	3000
LF-12	29-Feb-96	<0.05	<0.002	<0.1	0.02	3	2	<0.1	1.1	0.0002	<0.1	6.1	0.007	<0.2	0.048	<0.5	<0.05	2700
LF-12	2-May-96	<0.05	<0.002	<0.1	<0.02	3	2	<0.1	1.2	<0.0002	<0.1	5.7	0.008	<0.2	0.039	<0.5	<0.05	2800
LF-12	24-Sep-96	<0.05	<0.002	<0.1	0.03	3	2.2	<0.1	1.3	0.0006	0.1	6.1	<0.005	<0.2	0.041	<0.5	<0.05	2700
LF-13	6-Dec-93	<0.005	3.3	0.24	<0.002	<0.005	0.007	<0.01	<0.01	<0.0003	0.04	0.05	<0.04	<0.02	<0.2	<0.1	0.061	0.03
LF-14	8-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
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-14	19-Dec-94	<0.005	0.004	<0.05	0.004	0.12	0.96	<0.01	2.9	<0.0002	<0.01	2.3	0.03	<0.02	<0.004	<0.1	0.042	370
LF-14	15-Mar-95	<0.005	<0.002	0.01	0.004	0.12	0.86	<0.01	3.4	<0.0002	<0.01	2.3	0.017	<0.02	<0.004	<0.05	<0.005	340
LF-14	8-Jun-95	<0.005	0.005	0.01	0.002	0.14	0.95	<0.01	1.7	<0.0002	<0.01	2.4	0.037	<0.02	<0.004	0.07	0.008	290
LF-14	8-Sep-95	<0.005	<0.002	0.01	0.002	0.086	0.78	<0.01	2.8	<0.0002	<0.01	1.9	0.017	<0.02	<0.004	0.10	0.015	310
LF-14	18-Dec-95	<0.005	0.018	0.01	<0.003	0.13	1.1	<0.01	1.4	<0.0002	<0.01	2.6	0.003	<0.02	<0.004	<0.05	0.011	290
LF-14	1-Mar-96	<0.005	0.008	0.01	0.004	0.12	0.9	<0.01	3.5	<0.0002	<0.01	2.3	0.025	<0.02	<0.004	0.09	0.007	340
LF-14	24-Sep-96	<0.005	<0.002	0.01	0.004	0.13	0.92	<0.01	3.8	<0.0002	<0.01	2.3	0.008	<0.02	<0.004	0.12	<0.005	340
LF-15	6-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	0.02	<0.01	<0.05	0.027	2	11	<0.01	<0.01	<0.0002	<0.01	29	0.21	<0.02	<0.02	1.1	<0.005	820
LF-15	13-Mar-95	<0.005	<0.002	0.01	0.019	1.5	8.8	<0.01	<0.01	<0.0002	<0.01	24	0.33	<0.02	<0.02	0.66	<0.005	550
LF-15	8-Sep-95	<0.05	<0.01	<0.1	<0.02	2.1	14	<0.1	<0.1	<0.0002	<0.1	37	0.07	<0.2	<0.02	0.9	<0.05	570
LF-15	29-Feb-96	0.014	0.003	0.01	0.031	1.8	12	<0.01	0.03	<0.0002	<0.01	32	0.078	<0.02	<0.02	1.4	<0.005	590
LF-15	24-Sep-96	0.056	<0.01	0.01	0.024	1.8	11	<0.01	<0.01	<0.0002	<0.01	30	0.19	<0.02	<0.02	2.0	<0.005	550
LF-16	7-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	<0.1	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-16	19-Dec-94	<0.05	<0.005	<0.5	0.03	10	6	<0.1	22	<0.0002	<0.1	17	<0.2	<0.2	<0.01	<1	0.08	3300
LF-16	15-Mar-95	<0.05	<0.02	<0.1	0.03	8.2	4.9	<0.1	21	<0.0002	<0.1	16	<0.05	<0.2	<0.04	<0.5	<0.05	3300
LF-16	8-Jun-95	<0.05	0.015	<0.1	0.03	8.2	5.1	<0.1	19	<0.0002	<0.1	15	<0.05	<0.2	<0.01	<0.5	0.06	2900
LF-16	8-Sep-95	<0.05	0.006	0.3	0.02	8.4	5.6	<0.1	18	<0.0002	<0.1	15	<0.02	<0.2	<0.01	0.7	<0.05	2800
LF-16	19-Dec-95	<0.05	<0.005	<0.1	0.02	7.5	4.6	<0.1	18	<0.0002	<0.1	13	<0.005	<0.2	<0.01	<0.5	0.07	2700
LF-16	29-Feb-96	<0.05	0.01	<0.1	0.03	7.8	5.1	<0.1	16	<0.0002	<0.1	14	<0.005	<0.2	0.004	<0.5	0.05	2700
LF-16	2-May-96	<0.05	<0.005	<0.1	<0.02	6.8	4.9	<0.1	16	<0.0002	<0.1	13	<0.005	<0.2	<0.01	<0.5	<0.05	2300
LF-16	24-Sep-96	<0.05	<0.005	<0.1	0.02	7.1	4.6	<0.1	17	<0.0002	<0.1	12	<0.005	<0.2	<0.01	0.7	<0.05	2400
LF-17	8-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-17	14-Mar-95	<0.001	<0.002	0.065	<0.0005	<0.001	0.006	<0.002	<0.002	<0.002	<0.002	0.022	<0.002	<0.004	<0.004	0.01	0.003	0.056
LF-17	6-Sep-95	<0.001	<0.002	0.057	<0.0005	<0.001	0.004	<0.002	<0.002	<0.0002	0.002	0.017	<0.002	<0.004	<0.004	0.01	0.004	<0.01
LF-17	28-Feb-96	<0.001	0.002	0.087	<0.0005	0.005	0.007	0.01	<0.002	<0.0002	<0.002	0.023	<0.002	<0.004	<0.004	<0.01	0.003	0.092
LF-17	25-Sep-96	<0.001	0.003	0.066	<0.0005	0.002	0.004	<0.002	<0.002	<0.0002	0.002	0.018	<0.002	<0.004	<0.004	<0.01	0.004	0.041

Table 2

Metals Detected in Groundwater 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	Molyb-denum	Nickel	Lead	Antimony	Selenium	Thallium	Vanadium	Zinc
LF-F1	8-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
LF-F1	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
LF-F1	15-Mar-95	0.001	0.092	0.021	<0.0005	0.02	0.1	<0.002	<0.002	<0.0002	0.009	0.05	<0.002	<0.02	<0.004	<0.05	0.001	14
LF-F1	7-Sep-95	<0.001	0.09	0.020	<0.0005	0.038	0.11	<0.002	<0.002	<0.0002	0.011	0.076	<0.002	<0.004	<0.02	<0.01	<0.001	17
LF-F1	29-Feb-96	<0.001	0.023	0.026	<0.0005	0.26	0.054	<0.002	<0.002	<0.0002	0.01	0.061	<0.005	<0.004	<0.004	<0.01	<0.001	37
LF-F1	25-Sep-96	0.001	0.22	0.021	<0.0005	0.078	0.099	<0.002	<0.002	<0.0002	0.013	0.078	<0.002	<0.004	<0.004	0.02	<0.001	30
MW-1	5-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	5-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	1-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	0.01	5
MW-1	14-Mar-95	<0.001	0.033	0.092	<0.0005	<0.001	0.02	<0.002	0.004	<0.0002	0.013	0.019	<0.002	0.079	<0.004	<0.01	0.009	1.8
MW-1	5-Sep-95	<0.001	0.12	0.12	<0.0005	0.002	0.018	0.002	<0.002	<0.0002	0.018	0.014	<0.005	0.029	<0.01	<0.01	0.019	1.4
MW-1	29-Feb-96	<0.001	0.041	0.07	<0.0005	<0.001	0.018	<0.002	0.003	<0.0002	0.009	0.019	<0.002	0.077	<0.004	<0.01	0.009	1.7
MW-1	25-Sep-96	<0.001	0.098	0.084	<0.0005	0.005	0.015	<0.002	<0.002	<0.0002	0.013	0.016	<0.002	0.032	<0.004	<0.01	0.008	2.6
MW-2	5-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)	5-Mar-93	<0.005	0.011	<0.05	<0.002	0.28	0.24	<0.01	0.14	<0.0003	<0.1	1	<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	1-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	0.65	<0.1	0.1	<0.0002	<0.1	2	<0.01	<0.2	<0.2	<1	<0.05	2300
MW-2	14-Mar-95	<0.05	1.4	<0.1	<0.02	4.1	0.52	<0.1	<0.1	<0.0002	<0.1	1.8	<0.02	<0.2	<0.04	<0.5	<0.05	2200
MW-2	5-Sep-95	<0.05	1.3	<0.1	<0.02	5.2	0.55	<0.1	0.2	<0.0002	<0.1	1.9	0.02	<0.2	<0.2	<0.5	<0.05	2300
MW-2	29-Feb-96	<0.05	1.7	<0.1	<0.02	3	0.3	<0.1	<0.1	<0.0002	<0.1	1	<0.02	<0.2	<0.1	<0.5	<0.05	1700
MW-2 (1)	24-Sep-96	<0.05	1.40	<0.1	<0.02	4.7	0.5	<0.1	0.2	<0.0002	0.2	1.6	<0.01	<0.2	<0.004	<0.5	<0.05	1900
MW-3	5-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)	5-Mar-93	<0.05	1.6	<0.05	<0.02	5.8	1	<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	1-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-3	19-Dec-94	<0.005	<0.002	<0.05	<0.002	0.094	0.089	<0.01	0.06	<0.0002	<0.01	0.36	<0.002	<0.02	<0.004	<0.1	<0.005	100
MW-3	14-Mar-95	<0.005	<0.002	0.02	<0.002	0.13	0.14	<0.01	0.1	<0.0002	<0.01	0.59	<0.002	<0.02	<0.004	<0.05	<0.005	220
MW-3	7-Jun-95	<0.005	<0.002	0.02	0.002	0.33	0.47	<0.01	0.32	<0.0002	<0.01	1.5	<0.005	<0.02	<0.004	<0.05	<0.005	500
MW-3	5-Sep-95	<0.005	<0.002	0.03	0.004	0.84	1.3	<0.01	0.90	<0.0002	0.01	3.8	<0.002	<0.02	0.004	<0.05	<0.005	1100
MW-3	18-Dec-95	<0.05	<0.002	0.01	<0.03	1.7	1.2	<0.1	0.70	<0.0002	<0.1	3.9	<0.002	<0.2	<0.004	<0.5	<0.05	1200
MW-3	1-Mar-96	<0.005	0.002	0.01	<0.002	0.11	0.21	<0.01	0.09	<0.0002	<0.01	0.6	<0.002	<0.02	<0.004	<0.05	<0.005	170
MW-3	2-May-95	<0.05	<0.002	<0.1	<0.02	0.48	0.82	<0.1	0.40	<0.0002	<0.1	2.3	<0.002	<0.2	<0.004	<0.5	<0.05	630
MW-3	24-Sep-96	0.011	<0.002	0.02	0.005	0.88	1.4	<0.01	0.89	<0.0002	0.04	3.9	<0.002	<0.02	<0.004	<0.05	<0.005	1100
MW-4	5-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	4-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	0.01	0.03

Table 2
Metals Detected in Groundwater 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	Molyb-denum	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	1-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
MW-4	14-Mar-95	< 0.001	< 0.002	0.02	< 0.0005	< 0.001	< 0.001	< 0.002	< 0.002	< 0.0002	< 0.002	0.02	< 0.002	< 0.004	< 0.004	< 0.01	0.004	0.05
MW-4	6-Sep-95	< 0.001	< 0.002	0.019	< 0.0005	< 0.001	< 0.001	< 0.002	< 0.002	< 0.0002	< 0.002	0.016	< 0.002	< 0.004	< 0.004	0.01	0.004	0.02
MW-4	29-Feb-96	< 0.001	0.003	0.017	< 0.0005	0.001	< 0.001	< 0.002	< 0.002	< 0.0002	< 0.002	0.021	< 0.002	< 0.004	< 0.004	< 0.01	0.003	0.24
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	1-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	8-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
LF-15-BB	8-Sep-95	< 0.001	< 0.002	< 0.002	< 0.0005	< 0.001	< 0.001	< 0.002	< 0.002	< 0.0002	< 0.002	< 0.002	< 0.002	0.005	< 0.004	< 0.01	< 0.001	0.02
LF-11FB	2-May-96	< 0.001	< 0.002	< 0.002	< 0.0005	< 0.001	< 0.001	< 0.002	< 0.002	< 0.0002	< 0.002	< 0.002	< 0.002	< 0.004	< 0.004	< 0.01	< 0.001	< 0.01

Data entered by DEB. Data proofed by JCK. QA/QC by SXS.

NOTES
(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 Groundwater Samples
5050 Coliseum Way and 750-50th Avenue
Oakland, California

(concentrations reported in parts per million (ppm))

Sample ID	Sample Date	TPHg	Benzene	Ethylbenzene	Toluene	Xylenes
LF-1	04-Nov-91	<0.05	<0.005	<0.005	<0.005	<0.01
LF-1	02-May-96	<0.05	<0.0005	<0.0005	<0.0005	<0.002
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
LF-3	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-3	20-Dec-94	<0.05	<0.0005	<0.0005	<0.0005	<0.002
LF-103 (dup)	20-Dec-94	<0.05	<0.0005	<0.0005	<0.0005	<0.002
LF-3	15-Mar-95	<0.05	<0.0005	<0.0005	<0.0005	<0.002
LF-3	07-Sep-95	<0.05	<0.0005	<0.0005	<0.0005	<0.002
LF-3	01-Mar-96	<0.05	<0.0005	<0.0005	<0.0005	<0.002
LF-3	02-May-96	<0.05	<0.0005	<0.0005	<0.0005	<0.002
LF-3	24-Sep-96	<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-8	20-Dec-94	0.4	0.003	0.0065	0.0009	0.004
LF-8	15-Mar-95	0.3	0.002	0.003	0.0006	0.003
LF-8	09-Jun-95	0.3	0.001	0.003	0.0006	0.003
LF-8	07-Sep-95	0.4	0.001	0.003	0.0006	0.003
LF-8	18-Dec-95	0.3	0.001	0.003	0.0006	0.003
LF-8	29-Feb-96	0.3	0.0026	0.0031	0.0019	0.0032
LF-8	02-May-96	0.18	0.0008	0.0034	<0.0005	<0.002
LF-8	25-Sep-96	0.21	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
LF-14	19-Dec-94	1	0.001	<0.0005	0.002	0.012
LF-14	15-Mar-95	1.2	0.001	<0.0005	0.0006	0.015
LF-14	08-Sep-95	1.4	0.0009	<0.0005	0.0007	0.002
LF-14	01-Mar-96	0.8	0.0007	<0.0005	<0.0005	0.0084
LF-14	24-Sep-96	0.9	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
Trip Blank	16-Mar-95	<0.05	<0.0005	<0.0005	<0.0005	<0.002

Data entered by DEB Data proofed by JCK QA/QC by SKJ

NOTES

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 Groundwater 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	4-Nov-91	0.09	NA	<0.5	<0.5
LF-1	2-May-96	0.3	<0.2	NA	NA
LF-2	4-Nov-91	0.3	NA	NA	NA
LF-3	4-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	<0.2	NA	NA
LF-3	20-Dec-94	0.89	0.2	NA	NA
LF-103 (dup)	20-Dec-94	0.88	0.2	NA	NA
LF-3	15-Mar-95	0.8	<0.2	NA	NA
LF-3	7-Sep-95	0.62	0.4	NA	NA
LF-3	1-Mar-96	0.65	0.2	NA	NA
LF-3	2-May-96	0.61	<0.2	NA	NA
LF-3	24-Sep-96	0.37	<0.2	NA	NA
LF-4	4-Nov-91	0.1	NA	NA	NA
LF-8	28-Oct-93	9.8	NA	2	1
LF-8	24-May-94	4.5	0.6	NA	NA
LF-8	23-Sep-94	6.7	<0.2	NA	NA
LF-8	20-Dec-94	5.6	0.4	NA	NA
LF-8	15-Mar-95	4.1	0.2	NA	NA
LF-8	9-Jun-95	3.8	<0.2	NA	NA
LF-8	7-Sep-95	4.7	0.3	NA	NA
LF-8	18-Dec-95	3.9	0.4	NA	NA
LF-8	29-Feb-96	3.9	0.3	NA	NA
LF-8	2-May-96	2.3	<0.2	NA	NA
LF-8	25-Sep-96	2.5	<0.2	NA	NA
LF-9	1-Nov-93	0.2	NA	<0.5	<0.5
LF-109 (dup)	1-Nov-93	0.2	NA	<0.5	<0.5
LF-11	28-Oct-93	<0.05	NA	<0.5	<0.5
LF-13 (*)	6-Dec-93	0.5	0.4	1	<0.5
LF-113 (dup)	6-Dec-93	0.6	0.4	NA	NA
LF-14	21-Sep-94	<0.3	<0.2	NA	NA
LF-14	19-Dec-94	0.65	<0.2	NA	NA
LF-14	15-Mar-95	0.3	<0.2	NA	NA
LF-14	8-Sep-95	<0.05	<0.2	NA	NA
LF-14	1-Mar-96	0.14	<0.2	NA	NA
LF-14	24-Sep-96	0.17	<0.2	NA	NA
MW-2	4-Nov-91	<0.05	NA	NA	NA
LF-3-BB	25-May-94	<0.05	<0.2	NA	NA

Data entered by DEB. Data proofed by JCK. QA/QC by SXJ

NOTES

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 petroleum 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

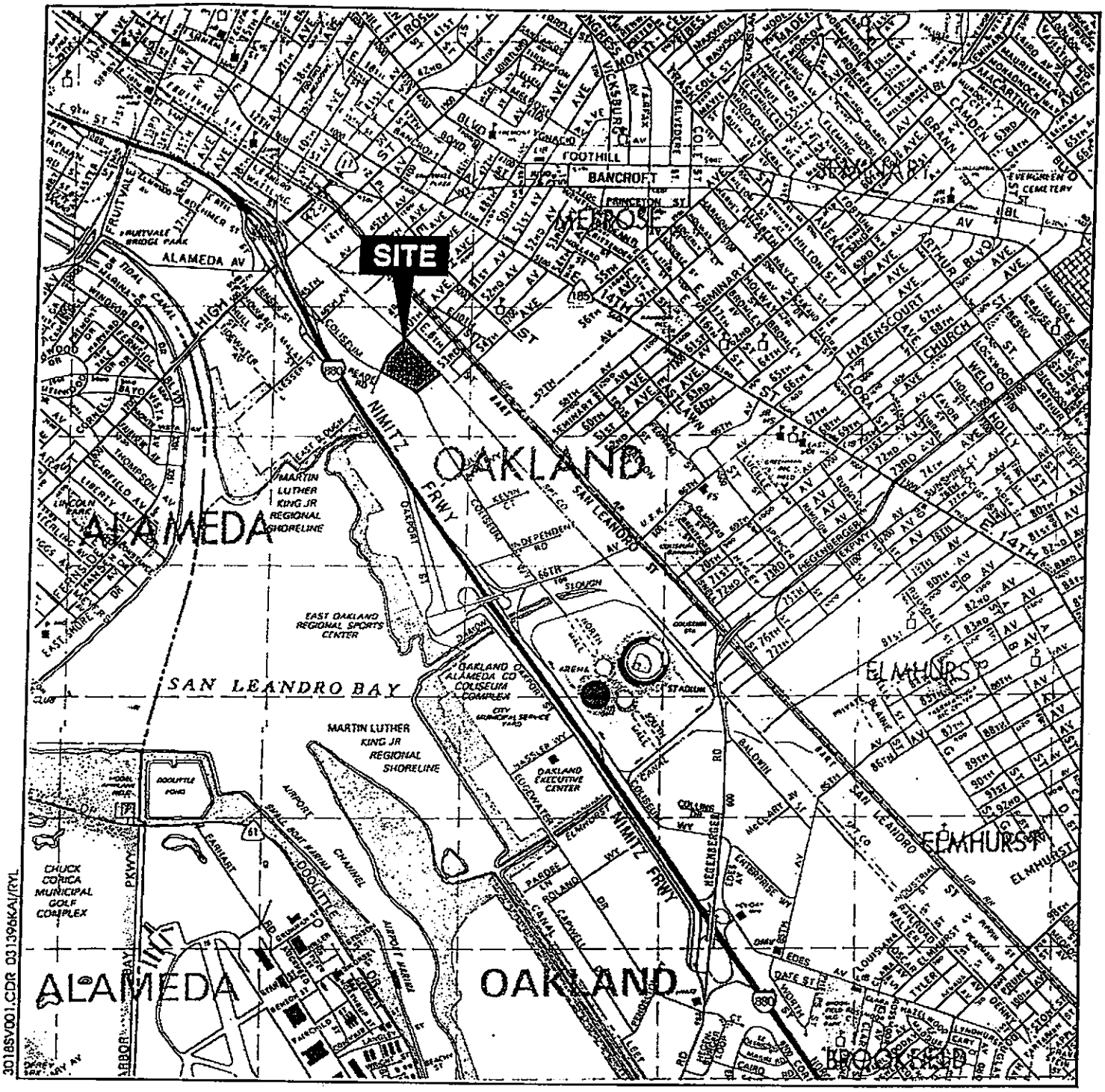
TABLE 5
SEMIVOLATILE ORGANIC COMPOUNDS IN GROUNDWATER SAMPLES
5050 COLISEUM WAY AND 750-50TH AVENUE
OAKLAND, CALIFORNIA
(concentrations reported in parts per million [ppm])

Sample ID	Notes	Sample Date	Acenaphthene	Acenaphthylene	Anthracene	Dibenzofuran	Fluoranthene	Fluorene	2-Methyl-naphthalene	Naphthalene	Phenathrene	Pyrene
LF-2		4-Nov-91	NA	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	NA	<0.010	<0.010
LF-5		4-Nov-91	NA	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	NA	<0.010	<0.010
LF-8		28-Oct-93	0.3	0.015	0.055	0.2	0.068	0.21	<0.010	<0.010	0.13	0.032
		16-Feb-94	0.43	0.016	0.051	0.25	0.073	0.24	0.02	0.25	0.089	0.04
		23-Sep-94	0.39	0.011	0.029	0.2	0.016	0.17	<0.010	0.033	0.026	0.022
		15-May-95	0.36	0.013	0.031	0.16	0.029	0.17	0.033	0.032	0.015	0.017
	(1)	7-Sep-95	0.69	0.015	0.041	0.2	0.032	0.17	<0.010	0.013	<0.010	0.019
		29-Feb-96	0.19	<0.010	0.012	0.12	<0.010	0.083	<0.010	<0.010	<0.010	<0.010
		25-Sep-96	0.4	<0.010	0.027	0.190	0.026	0.150	<0.010	<0.010	<0.010	0.013
LF-9		1-Nov-93	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
LF-11		28-Oct-93	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
LF-13		6-Dec-93	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
LF-14		8-Dec-93	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010

Data entered by DEB. Data QA/QC by SKJ.

Notes:

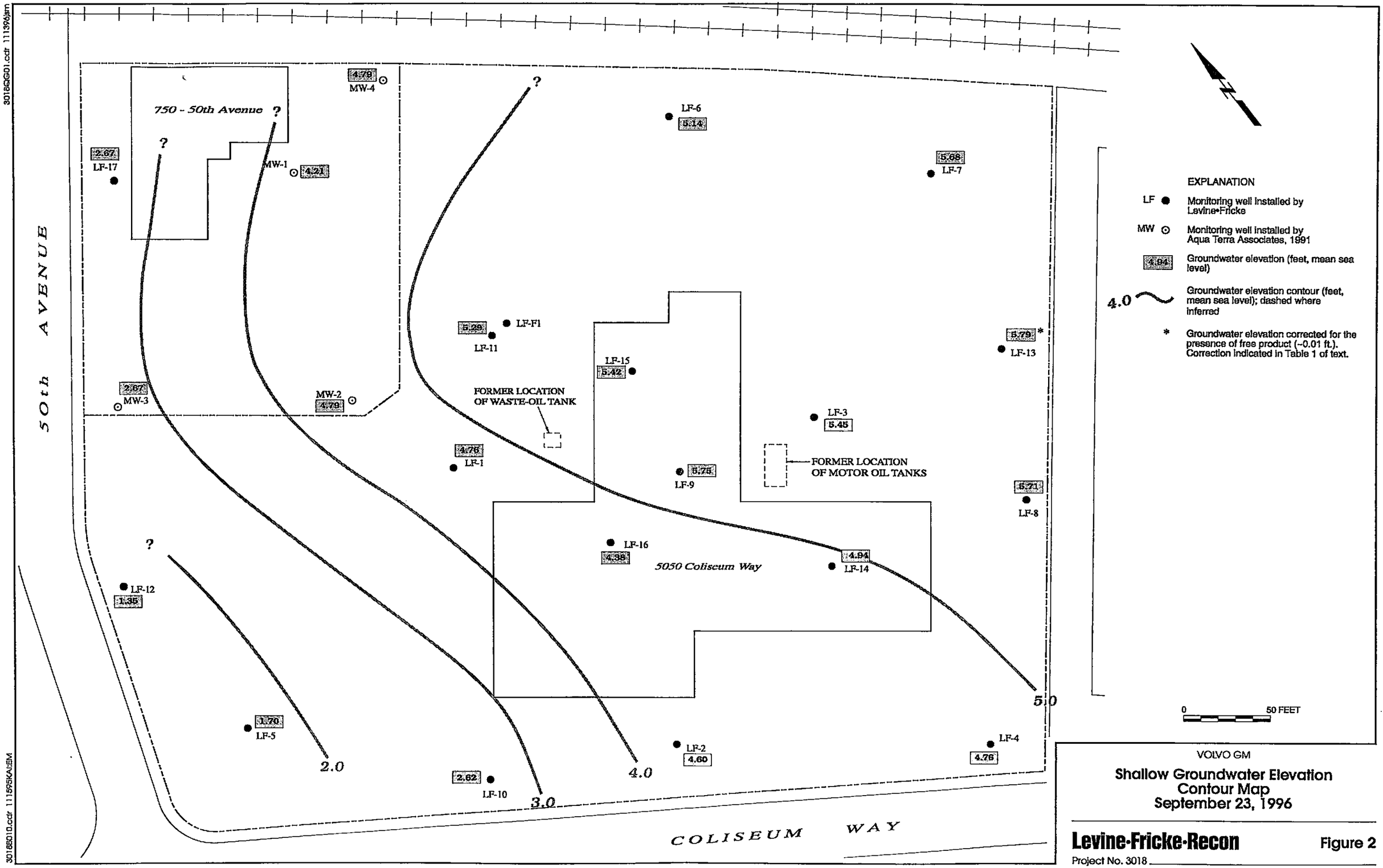
EPA 8270 analyses performed by American Environmental Network, Pleasant Hill, California
(1): A concentration of 0.021 ppm bis (2-ethylhexyl) phthalate was also detected.



3018SV001.CDR 031396KAJ/RYL

Figure 1 : SITE LOCATION, 5050 COLISEUM WAY AND 750-50TH AVENUE, OAKLAND, CA

3018GG01.cdr 111396jsm



3018SD10.cdr 111595KA/EM

VOLVO GM

Shallow Groundwater Elevation Contour Map September 23, 1996

Levine-Fricke-Recon Figure 2

Project No. 3018

50th AVENUE

750 - 50th Avenue

MW-4 NS

LF-17 pH = 7.07
As 0.003
Ba 0.066
Cd 0.002
Co 0.004
Mo 0.002
Ni 0.018
V 0.004
Zn 0.041

MW-1 pH = 6.91
As 0.098
Ba 0.084
Cd 0.005
Co 0.015
Mo 0.013
Ni 0.016
Sb 0.032
V 0.008
Zn 2.6

LF-6 pH = 4.53
Ag 0.007
Ba 0.013
Be 0.0022
Cd 0.093
Co 0.83
Cu 0.009
Ni 2.9
Th 0.04
Zn 11

LF-7 pH = 6.98
As 0.035
Ba 0.24
Mo 0.007
Ni 0.014
V 0.007
Zn 0.023

pH = 4.30
As 0.003
Ba 0.02
Be 0.005
Cd 0.88
Co 1.4
Cu 0.89
Mo 0.04
Ni 3.9
Zn 1100

MW-3

pH = 4.29
As 1.40
Cd 4.7
Co 0.5
Cu 0.2
Mo 0.2
Ni 1.6
Zn 1900

MW-2

pH = 3.44
Cd 130/130
Co 7/6
Cu 5/5
Mo <2/2
Ni 24/24
Zn 40,000/40,000

LF-11

pH = 6.36
Ag 0.001
As 0.22
Ba 0.021
Cd 0.078
Co 0.099
Mo 0.013
Ni 0.078
Th 0.02
Zn 30

LF-F1

pH = 4.44
Ag 0.056
Ba 0.01
Be 0.024
Cd 1.8
Co 11
Ni 30
Pb 0.19
Th 2.0
Zn 550

LF-15

pH = 6.50
As 4.6
Ba 0.068
Be 0.001
Cd 0.051
Co 0.009
Cu 0.005
Mo 0.096
Ni 0.008
Th 0.02
Zn 4.8

LF-3

LF-13 NS

FORMER LOCATION OF WASTE-OIL TANK

pH = 6.33
As 0.22
Ba 0.015
Cd 0.048
Co 0.031
Mo 0.005
Ni 0.096
Th 0.02
Zn 33

LF-9

FORMER LOCATION OF MOTOR OIL TANKS

LF-1 pH = 3.60
As 0.91
Be 0.03
Cd 14
Co 1.4
Cu 0.4
Mo 0.3
Ni 4.8
Zn 6300

pH = 3.68
Be 0.03
Cd 3
Co 2.2
Cu 1.3
Hg 0.006
Mo 0.1
Ni 6.1
Se 0.041
Zn 2700

LF-12

LF-16 pH = 4.07
Be 0.02
Cd 7.1
Co 4.6
Cu 17
Ni 12
Th 0.7
Zn 2400

5050 Coliseum Way

LF-14 pH = 4.97
Ba 0.01
Be 0.004
Cd 0.13
Co 0.92
Cu 3.8
Ni 2.3
Pb 0.008
Th 0.12
Zn 340

LF-8 pH = 6.92
As 3.2
Ba 0.058
Cd 0.025
Ni 0.002
Zn 0.036

pH = 5.96
Ag 0.014
Ba 0.014
Cd 0.32
Co 1.3
Cu 0.009
Ni 3.8
Th 0.03
Zn 64

LF-5

pH = 6.72
As 0.013
Ba 0.12
Co 0.003
Ni 0.031
V 0.001
Zn 0.053

LF-4

pH = 6.38
Ba 0.013
Co 0.007
Cu 0.010
Ni 0.089
Th 0.01
V 0.004
Zn 0.061

LF-10

pH = 6.18
Ba 0.018
Co 0.035
Cu 0.003
Ni 0.026
Zn 0.45

LF-2

COLISEUM WAY

EXPLANATION

LF ● Monitoring well installed by Levine•Fricke

MW ⊙ Monitoring well installed by Aqua Terra Associates, 1991

pH = 3.44 — Standard units

Cd 130/130 — Duplicate analysis

Concentration in parts per million (ppm)

Metal

NS Not sampled

KEY TO ABBREVIATIONS

Ag Silver
As Arsenic
Ba Barium
Be Beryllium
Cd Cadmium
Co Cobalt
Cu Copper
Mo Molybdenum
Ni Nickel
Pb Lead
Se Selenium
Th Thallium
V Vanadium
Zn Zinc

0 60 FEET

VOLVO GM

Concentrations of Metals Detected in Shallow Groundwater (ppm) September 23-25, 1996

Levine-Fricke-Recon Figure 3

Project No. 3018

APPENDIX A

Laboratory Certificates and Chain-of-Custody Form

American Environmental Network

Certificate of Analysis

DOHS Certification: 1172 AIHA Accreditation: 11134

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

REPORT DATE: 10/09/96

DATE(S) SAMPLED: 09/24/96

DATE RECEIVED: 09/24/96

AEN WORK ORDER: 9609301

ATTN: JOHN KEELER
CLIENT PROJ. ID: 3018.95.21
CLIENT PROJ. NAME: VOLVO/GM
C.O.C. NUMBER: 17600

PROJECT SUMMARY:

On September 24, 1996, this laboratory received 3 water sample(s).

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

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

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

Larry Klein
Laboratory Director

LEVINE-FRICKE

SAMPLE ID: MW-2
AEN LAB NO: 9609301-01
AEN WORK ORDER: 9609301
CLIENT PROJ. ID: 3018.95.21

DATE SAMPLED: 09/24/96
DATE RECEIVED: 09/24/96
REPORT DATE: 10/09/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-		Prep Date	10/03/96
#Digestion/ICP	EPA 200.0	-		Prep Date	10/03/96
CCR 17 Metals (Low Level)					
Ag Silver	EPA 200.7	ND	0.05	mg/L	10/04/96
As Arsenic	EPA 206.2	1.4 *	0.02	mg/L	10/04/96
Ba Barium	EPA 200.7	ND	0.1	mg/L	10/04/96
Be Beryllium	EPA 200.7	ND	0.02	mg/L	10/04/96
Cd Cadmium	EPA 200.7	4.7 *	0.05	mg/L	10/04/96
Co Cobalt	EPA 200.7	0.51 *	0.05	mg/L	10/04/96
Cr Chromium	EPA 200.7	ND	0.1	mg/L	10/04/96
Cu Copper	EPA 200.7	0.2 *	0.1	mg/L	10/04/96
Hg Mercury	EPA 245.1	ND	0.0002	mg/L	10/03/96
Mo Molybdenum	EPA 200.7	0.2 *	0.1	mg/L	10/04/96
Ni Nickel	EPA 200.7	1.6 *	0.1	mg/L	10/04/96
Pb Lead	EPA 239.2	ND	0.01	mg/L	10/04/96
Sb Antimony	EPA 200.7	ND	0.2	mg/L	10/04/96
Se Selenium	EPA 270.2	ND	0.004	mg/L	10/04/96
Tl Thallium	EPA 200.7	ND	0.5	mg/L	10/04/96
V Vanadium	EPA 200.7	ND	0.05	mg/L	10/04/96
Zn Zinc	EPA 200.7	1,900 *	0.1	mg/L	10/04/96

Reporting limits elevated for metals due to matrix interference.

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

LEVINE-FRICKE

SAMPLE ID: MW-3
AEN LAB NO: 9609301-02
AEN WORK ORDER: 9609301
CLIENT PROJ. ID: 3018.95.21

DATE SAMPLED: 09/24/96
DATE RECEIVED: 09/24/96
REPORT DATE: 10/09/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-		Prep Date	10/03/96
#Digestion/ICP	EPA 200.0	-		Prep Date	10/03/96
CCR 17 Metals (Low Level)					
Ag Silver	EPA 200.7	0.011 *	0.005	mg/L	10/04/96
As Arsenic	EPA 206.2	ND	0.002	mg/L	10/04/96
Ba Barium	EPA 200.7	0.02 *	0.01	mg/L	10/04/96
Be Beryllium	EPA 200.7	0.005 *	0.002	mg/L	10/04/96
Cd Cadmium	EPA 200.7	0.88 *	0.005	mg/L	10/04/96
Co Cobalt	EPA 200.7	1.4 *	0.005	mg/L	10/04/96
Cr Chromium	EPA 200.7	ND	0.01	mg/L	10/04/96
Cu Copper	EPA 200.7	0.89 *	0.01	mg/L	10/04/96
Hg Mercury	EPA 245.1	ND	0.0002	mg/L	10/03/96
Mo Molybdenum	EPA 200.7	0.04 *	0.01	mg/L	10/04/96
Ni Nickel	EPA 200.7	3.9 *	0.01	mg/L	10/04/96
Pb Lead	EPA 239.2	ND	0.002	mg/L	10/04/96
Sb Antimony	EPA 200.7	ND	0.02	mg/L	10/04/96
Se Selenium	EPA 270.2	ND	0.004	mg/L	10/04/96
Tl Thallium	EPA 200.7	ND	0.05	mg/L	10/04/96
V Vanadium	EPA 200.7	ND	0.005	mg/L	10/04/96
Zn Zinc	EPA 200.7	1,100 *	0.01	mg/L	10/04/96

Reporting limits elevated for metals due to matrix interference.

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

LEVINE-FRICKE

SAMPLE ID: LF-14
AEN LAB NO: 9609301-03
AEN WORK ORDER: 9609301
CLIENT PROJ. ID: 3018.95.21

DATE SAMPLED: 09/24/96
DATE RECEIVED: 09/24/96
REPORT DATE: 10/09/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
TPH as Gas in water	5030/GC-FID	0.86 *	0.05	mg/L	10/01/96
#Digestion/G. Furnace	EPA 200.0	-		Prep Date	10/03/96
#Digestion/ICP	EPA 200.0	-		Prep Date	10/03/96
#Extraction for TPH	EPA 3510	-		Extrn Date	09/30/96
TPH as Diesel	GC-FID	0.17 *	0.05	mg/L	10/03/96
TPH as Oil	GC-FID	ND	0.2	mg/L	10/03/96
CCR 17 Metals (Low Level)					
Ag Silver	EPA 200.7	ND	0.005	mg/L	10/04/96
As Arsenic	EPA 206.2	ND	0.002	mg/L	10/04/96
Ba Barium	EPA 200.7	0.01 *	0.01	mg/L	10/04/96
Be Beryllium	EPA 200.7	0.004 *	0.002	mg/L	10/04/96
Cd Cadmium	EPA 200.7	0.13 *	0.005	mg/L	10/04/96
Co Cobalt	EPA 200.7	0.92 *	0.005	mg/L	10/04/96
Cr Chromium	EPA 200.7	ND	0.01	mg/L	10/04/96
Cu Copper	EPA 200.7	3.8 *	0.01	mg/L	10/04/96
Hg Mercury	EPA 245.1	ND	0.0002	mg/L	10/03/96
Mo Molybdenum	EPA 200.7	ND	0.01	mg/L	10/04/96
Ni Nickel	EPA 200.7	2.3 *	0.01	mg/L	10/04/96
Pb Lead	EPA 239.2	0.008 *	0.002	mg/L	10/04/96
Sb Antimony	EPA 200.7	ND	0.02	mg/L	10/04/96
Se Selenium	EPA 270.2	ND	0.004	mg/L	10/04/96
Tl Thallium	EPA 200.7	0.12 *	0.05	mg/L	10/04/96
V Vanadium	EPA 200.7	ND	0.005	mg/L	10/04/96
Zn Zinc	EPA 200.7	340 *	0.01	mg/L	10/04/96

Reporting limits elevated for metals due to matrix interference.

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

AEN (CALIFORNIA)
QUALITY CONTROL REPORT

AEN JOB NUMBER: 9609301

CLIENT PROJECT ID: 3018.95.21

Quality Control Summary

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

Definitions

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

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

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

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

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

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

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

D: Surrogates diluted out.

#: Indicates result outside of established laboratory QC limits.

QUALITY CONTROL DATA

METHOD: EPA 3510 GCFID

AEN JOB NO: 9609301
AEN LAB NO: 0930-BLANK
DATE EXTRACTED: 09/30/96
DATE ANALYZED: 10/03/96
INSTRUMENT: C
MATRIX: WATER

Method Blank

Analyte	Result (mg/L)	Reporting Limit (mg/L)
Diesel	ND	0.05
Oil	ND	0.2

QUALITY CONTROL DATA

METHOD: EPA 3510 GCFID

AEN JOB NO: 9609301
DATE EXTRACTED: 09/30/96
INSTRUMENT: C
MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery n-Pentacosane
10/03/96	LF-14	03	95
QC Limits:			65-125

DATE EXTRACTED: 09/29/96
DATE ANALYZED: 10/01/96
SAMPLE SPIKED: 9608373-14
INSTRUMENT: C

Matrix Spike Recovery Summary

Analyte	Spike Added (mg/L)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Diesel	4.00	96	1	60-110	15

QUALITY CONTROL DATA

METHOD: EPA 8020, 5030 GCFID

AEN JOB NO: 9609301
AEN LAB NO: 1001-BLANK
DATE ANALYZED: 10/01/96
INSTRUMENT: F
MATRIX: WATER

Method Blank

	Result (mg/L)	Reporting Limit (mg/L)
HCs as Gasoline	ND	0.05

QUALITY CONTROL DATA

METHOD: EPA 8020, 5030 GCFID

AEN JOB NO: 9609301
INSTRUMENT: F
MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery Fluorobenzene
10/01/96	LF-14	03	118
QC Limits:			70-130

DATE ANALYZED: 09/30/96
SAMPLE SPIKED: 9609392-04
INSTRUMENT: F

Matrix Spike Recovery Summary

Analyte	Spike Added (ug/L)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Hydrocarbons as Gasoline	500	107	6	66-117	19

QUALITY CONTROL DATA

AEN JOB NO: 9609301
SAMPLE SPIKED: DI WATER
DATE(S) ANALYZED: 10/03-04/96
MATRIX: WATER

Method Blank and Spike Recovery Summary

Analyte	Inst./ Method	Blank Result (mg/L)	Spike Added (mg/L)	MS Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Ag, Silver	ICP/200.7	ND	0.025	101	1	72-127	10
As, Arsenic	4000/206.2	ND	0.04	121	9	69-136	13
Ba, Barium	ICP/200.7	ND	1.0	101	2	91-120	10
Cd, Cadmium	ICP/200.7	ND	0.05	115	8	84-120	10
Cr, Chromium	ICP/200.7	ND	0.1	99	5	85-128	10
Cu, Copper	ICP/200.7	ND	0.125	98	1	86-123	10
Hg, Mercury	Hg/245.1	ND	2.0 ug/L	100	2	89-121	10
Ni, Nickel	ICP/200.7	ND	0.25	102	2	92-121	10
Pb, Lead	4000/239.2	ND	0.02	85	3	75-125	14
Se, Selenium	4000/270.2	ND	0.08	87	4	75-115	13
Zn, Zinc	ICP/200.7	ND	0.25	120	1	90-121	10

END OF REPORT

EDA R353

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

9609301

Project No.: 3018.95.21	Field Logbook No.:	Date: 9/24/96	Serial No.: Nº 17600
Project Name: VOLVO/GM	Project Location: OAKLAND, CA.		
Sampler (Signature): JC			Samplers: JCK

SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CONTAINERS	SAMPLE TYPE	TPHg	TPHd	TPHO	TITLE 22 METALS			HOLD	RUSH	REMARKS
MW-2	9/24/96	1550	01A	1	H2O				X					STD TAT
MW-3	↓	1450	02A	1	↓				X					
LF-14	↓	1650	03A-F	6	↓	X	X	X	X					BASIN PLAN DETECTION LIMITS FOR METALS
														RESULTS TO JOHN KEELER
														METAL SAMPLES ARE FIELD FILTERED NEED TO BE PRESERVED AT LAB

RELINQUISHED BY: (Signature)	DATE 9/24/96	TIME 11:07	RECEIVED BY: (Signature)	DATE 9-24-96	TIME 11:07
RELINQUISHED BY: (Signature)	DATE 9/24/96	TIME 13:03	RECEIVED BY: (Signature)	DATE 9-24-96	TIME 1303
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
PLEASANT HILL, CA.

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

American Environmental Network

Certificate of Analysis

DOHS Certification: 1172 AIHA Accreditation: 11134

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

ATTN: JOHN KEELER
CLIENT PROJ. ID: 3018.95.21
CLIENT PROJ. NAME: VOLVO GM
C.O.C. NUMBER: 17602

REPORT DATE: 10/10/96
DATE(S) SAMPLED: 09/24/96
DATE RECEIVED: 09/25/96
AEN WORK ORDER: 9609319

PROJECT SUMMARY:

On September 25, 1996, this laboratory received 9 water sample(s).

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

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

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

Larry Klein
Laboratory Director

LEVINE-FRICKE

SAMPLE ID: LF-15
AEN LAB NO: 9609319-01
AEN WORK ORDER: 9609319
CLIENT PROJ. ID: 3018.95.21

DATE SAMPLED: 09/24/96
DATE RECEIVED: 09/25/96
REPORT DATE: 10/10/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-		Prep Date	09/26/96
#Digestion/ICP	EPA 200.0	-		Prep Date	09/26/96
CCR 17 Metals (Low Level)					
Ag Silver	EPA 200.7	0.056 *	0.005	mg/L	10/04/96
As Arsenic	EPA 206.2	ND	0.01	mg/L	10/02/96
Ba Barium	EPA 200.7	0.01 *	0.01	mg/L	10/04/96
Be Beryllium	EPA 200.7	0.024 *	0.002	mg/L	10/04/96
Cd Cadmium	EPA 200.7	1.8 *	0.005	mg/L	10/04/96
Co Cobalt	EPA 200.7	11 *	0.005	mg/L	10/04/96
Cr Chromium	EPA 200.7	ND	0.01	mg/L	10/04/96
Cu Copper	EPA 200.7	ND	0.01	mg/L	10/04/96
Hg Mercury	EPA 245.1	ND	0.0002	mg/L	10/01/96
Mo Molybdenum	EPA 200.7	ND	0.01	mg/L	10/04/96
Ni Nickel	EPA 200.7	30 *	0.01	mg/L	10/04/96
Pb Lead	EPA 239.2	0.19 *	0.002	mg/L	10/02/96
Sb Antimony	EPA 200.7	ND	0.02	mg/L	10/04/96
Se Selenium	EPA 270.2	ND	0.02	mg/L	10/02/96
Tl Thallium	EPA 200.7	2.0 *	0.05	mg/L	10/04/96
V Vanadium	EPA 200.7	ND	0.005	mg/L	10/04/96
Zn Zinc	EPA 200.7	550 *	0.01	mg/L	10/04/96

Reporting limits elevated for metals due to matrix interference.

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

LEVINE-FRICKE

SAMPLE ID: LF-1
AEN LAB NO: 9609319-02
AEN WORK ORDER: 9609319
CLIENT PROJ. ID: 3018.95.21

DATE SAMPLED: 09/24/96
DATE RECEIVED: 09/25/96
REPORT DATE: 10/10/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-		Prep Date	09/26/96
#Digestion/ICP	EPA 200.0	-		Prep Date	09/26/96
CCR 17 Metals (Low Level)					
Ag Silver	EPA 200.7	ND	0.05	mg/L	10/04/96
As Arsenic	EPA 206.2	0.91 *	0.01	mg/L	09/27/96
Ba Barium	EPA 200.7	ND	0.1	mg/L	10/04/96
Be Beryllium	EPA 200.7	0.03 *	0.02	mg/L	10/04/96
Cd Cadmium	EPA 200.7	14 *	0.05	mg/L	10/04/96
Co Cobalt	EPA 200.7	1.4 *	0.05	mg/L	10/04/96
Cr Chromium	EPA 200.7	ND	0.1	mg/L	10/04/96
Cu Copper	EPA 200.7	0.4 *	0.1	mg/L	10/04/96
Hg Mercury	EPA 245.1	ND	0.0002	mg/L	10/01/96
Mo Molybdenum	EPA 200.7	0.3 *	0.1	mg/L	10/04/96
Ni Nickel	EPA 200.7	4.8 *	0.1	mg/L	10/04/96
Pb Lead	EPA 239.2	ND	0.05	mg/L	10/02/96
Sb Antimony	EPA 200.7	ND	0.2	mg/L	10/04/96
Se Selenium	EPA 270.2	ND	0.02	mg/L	10/02/96
Tl Thallium	EPA 200.7	ND	0.5	mg/L	10/04/96
V Vanadium	EPA 200.7	ND	0.05	mg/L	10/04/96
Zn Zinc	EPA 200.7	6,300 *	0.1	mg/L	10/04/96

Reporting limits elevated for metals due to matrix interference.

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

LEVINE-FRICKE

SAMPLE ID: LF-16
AEN LAB NO: 9609319-03
AEN WORK ORDER: 9609319
CLIENT PROJ. ID: 3018.95.21

DATE SAMPLED: 09/24/96
DATE RECEIVED: 09/25/96
REPORT DATE: 10/10/96

ANALYTE		METHOD/ CAS#	RESULT		REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace		EPA 200.0	-			Prep Date	09/26/96
#Digestion/ICP		EPA 200.0	-			Prep Date	09/26/96
CCR 17 Metals (Low Level)							
Ag	Silver	EPA 200.7	ND		0.05	mg/L	10/04/96
As	Arsenic	EPA 206.2	ND		0.005	mg/L	10/02/96
Ba	Barium	EPA 200.7	ND		0.1	mg/L	10/04/96
Be	Beryllium	EPA 200.7	0.02	*	0.02	mg/L	10/04/96
Cd	Cadmium	EPA 200.7	7.1	*	0.05	mg/L	10/04/96
Co	Cobalt	EPA 200.7	4.6	*	0.05	mg/L	10/04/96
Cr	Chromium	EPA 200.7	ND		0.1	mg/L	10/04/96
Cu	Copper	EPA 200.7	17	*	0.1	mg/L	10/04/96
Hg	Mercury	EPA 245.1	ND		0.0002	mg/L	10/01/96
Mo	Molybdenum	EPA 200.7	ND		0.1	mg/L	10/04/96
Ni	Nickel	EPA 200.7	12	*	0.1	mg/L	10/04/96
Pb	Lead	EPA 239.2	ND		0.005	mg/L	10/02/96
Sb	Antimony	EPA 200.7	ND		0.2	mg/L	10/04/96
Se	Selenium	EPA 270.2	ND		0.01	mg/L	10/02/96
Tl	Thallium	EPA 200.7	0.7	*	0.5	mg/L	10/04/96
V	Vanadium	EPA 200.7	ND		0.05	mg/L	10/04/96
Zn	Zinc	EPA 200.7	2.400	*	0.1	mg/L	10/04/96

Reporting limits elevated for metals due to matrix interference.

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

LEVINE-FRICKE

SAMPLE ID: LF-12
AEN LAB NO: 9609319-04
AEN WORK ORDER: 9609319
CLIENT PROJ. ID: 3018.95.21

DATE SAMPLED: 09/24/96
DATE RECEIVED: 09/25/96
REPORT DATE: 10/10/96

ANALYTE	METHOD/ CAS#	RESULT		REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-			Prep Date	09/26/96
#Digestion/ICP	EPA 200.0	-			Prep Date	09/26/96
CCR 17 Metals (Low Level)						
Ag Silver	EPA 200.7	ND		0.05	mg/L	10/04/96
As Arsenic	EPA 206.2	ND		0.002	mg/L	09/27/96
Ba Barium	EPA 200.7	ND		0.1	mg/L	10/04/96
Be Beryllium	EPA 200.7	0.03	*	0.02	mg/L	10/04/96
Cd Cadmium	EPA 200.7	3.0	*	0.05	mg/L	10/04/96
Co Cobalt	EPA 200.7	2.2	*	0.05	mg/L	10/04/96
Cr Chromium	EPA 200.7	ND		0.1	mg/L	10/04/96
Cu Copper	EPA 200.7	1.3	*	0.1	mg/L	10/04/96
Hg Mercury	EPA 245.1	0.0006	*	0.0002	mg/L	10/01/96
Mo Molybdenum	EPA 200.7	0.1	*	0.1	mg/L	10/04/96
Ni Nickel	EPA 200.7	6.1	*	0.1	mg/L	10/04/96
Pb Lead	EPA 239.2	ND		0.005	mg/L	10/02/96
Sb Antimony	EPA 200.7	ND		0.2	mg/L	10/04/96
Se Selenium	EPA 270.2	0.041	*	0.004	mg/L	10/02/96
Tl Thallium	EPA 200.7	ND		0.5	mg/L	10/04/96
V Vanadium	EPA 200.7	ND		0.05	mg/L	10/04/96
Zn Zinc	EPA 200.7	2,700	*	0.1	mg/L	10/04/96

Reporting limits elevated for metals due to matrix interference.

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

LEVINE-FRICKE

SAMPLE ID: LF-5
AEN LAB NO: 9609319-05
AEN WORK ORDER: 9609319
CLIENT PROJ. ID: 3018.95.21

DATE SAMPLED: 09/24/96
DATE RECEIVED: 09/25/96
REPORT DATE: 10/10/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-		Prep Date	09/26/96
#Digestion/ICP	EPA 200.0	-		Prep Date	09/26/96
CCR 17 Metals (Low Level)					
Ag Silver	EPA 200.7	0.014 *	0.001	mg/L	10/04/96
As Arsenic	EPA 206.2	ND	0.01	mg/L	10/02/96
Ba Barium	EPA 200.7	0.014 *	0.002	mg/L	10/04/96
Be Beryllium	EPA 200.7	ND	0.0005	mg/L	10/04/96
Cd Cadmium	EPA 200.7	0.32 *	0.001	mg/L	10/04/96
Co Cobalt	EPA 200.7	1.3 *	0.001	mg/L	10/04/96
Cr Chromium	EPA 200.7	ND	0.002	mg/L	10/04/96
Cu Copper	EPA 200.7	0.009 *	0.002	mg/L	10/04/96
Hg Mercury	EPA 245.1	ND	0.0002	mg/L	10/01/96
Mo Molybdenum	EPA 200.7	ND	0.002	mg/L	10/04/96
Ni Nickel	EPA 200.7	3.8 *	0.002	mg/L	10/04/96
Pb Lead	EPA 239.2	ND	0.01	mg/L	10/02/96
Sb Antimony	EPA 200.7	ND	0.004	mg/L	10/04/96
Se Selenium	EPA 270.2	ND	0.02	mg/L	10/02/96
Tl Thallium	EPA 200.7	0.03 *	0.01	mg/L	10/04/96
V Vanadium	EPA 200.7	ND	0.001	mg/L	10/04/96
Zn Zinc	EPA 200.7	64 *	0.005	mg/L	10/04/96

Reporting limits elevated for arsenic, lead and selenium due to matrix interference.

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

LEVINE-FRICKE

SAMPLE ID: LF-3
AEN LAB NO: 9609319-06
AEN WORK ORDER: 9609319
CLIENT PROJ. ID: 3018.95.21

DATE SAMPLED: 09/24/96
DATE RECEIVED: 09/25/96
REPORT DATE: 10/10/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
TPH as Gas in water	5030/GC-FID	ND	0.05	mg/L	10/01/96
#Digestion/G. Furnace	EPA 200.0	-		Prep Date	09/26/96
#Digestion/ICP	EPA 200.0	-		Prep Date	09/26/96
#Extraction for TPH	EPA 3510	-		Extrn Date	09/30/96
TPH as Diesel	GC-FID	0.37 *	0.05	mg/L	10/03/96
TPH as Oil	GC-FID	ND	0.2	mg/L	10/03/96
CCR 17 Metals (Low Level)					
Ag Silver	EPA 200.7	ND	0.001	mg/L	10/04/96
As Arsenic	EPA 206.2	4.6 *	0.05	mg/L	09/27/96
Ba Barium	EPA 200.7	0.068 *	0.002	mg/L	10/04/96
Be Beryllium	EPA 200.7	0.0010 *	0.0005	mg/L	10/04/96
Cd Cadmium	EPA 200.7	0.051 *	0.001	mg/L	10/04/96
Co Cobalt	EPA 200.7	0.009 *	0.001	mg/L	10/04/96
Cr Chromium	EPA 200.7	ND	0.002	mg/L	10/04/96
Cu Copper	EPA 200.7	0.005 *	0.002	mg/L	10/04/96
Hg Mercury	EPA 245.1	ND	0.0002	mg/L	10/01/96
Mo Molybdenum	EPA 200.7	0.096 *	0.002	mg/L	10/04/96
Ni Nickel	EPA 200.7	0.008 *	0.002	mg/L	10/04/96
Pb Lead	EPA 239.2	ND	0.005	mg/L	10/02/96
Sb Antimony	EPA 200.7	ND	0.004	mg/L	10/04/96
Se Selenium	EPA 270.2	ND	0.1	mg/L	10/02/96
Tl Thallium	EPA 200.7	0.02 *	0.01	mg/L	10/04/96
V Vanadium	EPA 200.7	ND	0.001	mg/L	10/04/96
Zn Zinc	EPA 200.7	4.8 *	0.005	mg/L	10/04/96

Reporting limits elevated for arsenic, lead and selenium due to matrix interference.

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

LEVINE-FRICKE

SAMPLE ID: LF-2
AEN LAB NO: 9609319-07
AEN WORK ORDER: 9609319
CLIENT PROJ. ID: 3018.95.21

DATE SAMPLED: 09/24/96
DATE RECEIVED: 09/25/96
REPORT DATE: 10/10/96

ANALYTE	METHOD/ CAS#	RESULT		REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-			Prep Date	09/26/96
#Digestion/ICP	EPA 200.0	-			Prep Date	09/26/96
CCR 17 Metals (Low Level)						
Ag Silver	EPA 200.7	ND		0.001	mg/L	10/04/96
As Arsenic	EPA 206.2	ND		0.002	mg/L	09/27/96
Ba Barium	EPA 200.7	0.018	*	0.002	mg/L	10/04/96
Be Beryllium	EPA 200.7	ND		0.0005	mg/L	10/04/96
Cd Cadmium	EPA 200.7	ND		0.001	mg/L	10/04/96
Co Cobalt	EPA 200.7	0.035	*	0.001	mg/L	10/04/96
Cr Chromium	EPA 200.7	ND		0.002	mg/L	10/04/96
Cu Copper	EPA 200.7	0.003	*	0.002	mg/L	10/04/96
Hg Mercury	EPA 245.1	ND		0.0002	mg/L	10/01/96
Mo Molybdenum	EPA 200.7	ND		0.002	mg/L	10/04/96
Ni Nickel	EPA 200.7	0.026	*	0.002	mg/L	10/04/96
Pb Lead	EPA 239.2	ND		0.005	mg/L	10/02/96
Sb Antimony	EPA 200.7	ND		0.004	mg/L	10/04/96
Se Selenium	EPA 270.2	ND		0.004	mg/L	09/27/96
Tl Thallium	EPA 200.7	ND		0.01	mg/L	10/04/96
V Vanadium	EPA 200.7	ND		0.001	mg/L	10/04/96
Zn Zinc	EPA 200.7	0.45	*	0.005	mg/L	10/04/96

Reporting limit elevated for lead due to matrix interference.

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

LEVINE-FRICKE

SAMPLE ID: LF-4
AEN LAB NO: 9609319-08
AEN WORK ORDER: 9609319
CLIENT PROJ. ID: 3018.95.21

DATE SAMPLED: 09/24/96
DATE RECEIVED: 09/25/96
REPORT DATE: 10/10/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-		Prep Date	09/26/96
#Digestion/ICP	EPA 200.0	-		Prep Date	09/26/96
CCR 17 Metals (Low Level)					
Ag Silver	EPA 200.7	ND	0.001	mg/L	10/04/96
As Arsenic	EPA 206.2	0.013 *	0.002	mg/L	09/27/96
Ba Barium	EPA 200.7	0.12 *	0.002	mg/L	10/04/96
Be Beryllium	EPA 200.7	ND	0.0005	mg/L	10/04/96
Cd Cadmium	EPA 200.7	ND	0.001	mg/L	10/04/96
Co Cobalt	EPA 200.7	0.003 *	0.001	mg/L	10/04/96
Cr Chromium	EPA 200.7	ND	0.002	mg/L	10/04/96
Cu Copper	EPA 200.7	ND	0.002	mg/L	10/04/96
Hg Mercury	EPA 245.1	ND	0.0002	mg/L	10/01/96
Mo Molybdenum	EPA 200.7	ND	0.002	mg/L	10/04/96
Ni Nickel	EPA 200.7	0.031 *	0.002	mg/L	10/04/96
Pb Lead	EPA 239.2	ND	0.002	mg/L	10/02/96
Sb Antimony	EPA 200.7	ND	0.004	mg/L	10/04/96
Se Selenium	EPA 270.2	ND	0.004	mg/L	09/27/96
Tl Thallium	EPA 200.7	ND	0.01	mg/L	10/04/96
V Vanadium	EPA 200.7	0.001 *	0.001	mg/L	10/04/96
Zn Zinc	EPA 200.7	0.053 *	0.005	mg/L	10/04/96

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

LEVINE-FRICKE

SAMPLE ID: LF-10
AEN LAB NO: 9609319-09
AEN WORK ORDER: 9609319
CLIENT PROJ. ID: 3018.95.21

DATE SAMPLED: 09/24/96
DATE RECEIVED: 09/25/96
REPORT DATE: 10/10/96

ANALYTE	METHOD/ CAS#	RESULT		REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-			Prep Date	09/26/96
#Digestion/ICP	EPA 200.0	-			Prep Date	09/26/96
CCR 17 Metals (Low Level)						
Ag Silver	EPA 200.7	ND		0.001	mg/L	10/04/96
As Arsenic	EPA 206.2	ND		0.005	mg/L	10/02/96
Ba Barium	EPA 200.7	0.013	*	0.002	mg/L	10/04/96
Be Beryllium	EPA 200.7	ND		0.0005	mg/L	10/04/96
Cd Cadmium	EPA 200.7	ND		0.001	mg/L	10/04/96
Co Cobalt	EPA 200.7	0.007	*	0.001	mg/L	10/04/96
Cr Chromium	EPA 200.7	ND		0.002	mg/L	10/04/96
Cu Copper	EPA 200.7	0.010	*	0.002	mg/L	10/04/96
Hg Mercury	EPA 245.1	ND		0.0002	mg/L	10/01/96
Mo Molybdenum	EPA 200.7	ND		0.002	mg/L	10/04/96
Ni Nickel	EPA 200.7	0.083	*	0.002	mg/L	10/04/96
Pb Lead	EPA 239.2	ND		0.002	mg/L	10/02/96
Sb Antimony	EPA 200.7	ND		0.004	mg/L	10/04/96
Se Selenium	EPA 270.2	ND		0.01	mg/L	10/02/96
Tl Thallium	EPA 200.7	0.01	*	0.01	mg/L	10/04/96
V Vanadium	EPA 200.7	0.004	*	0.001	mg/L	10/04/96
Zn Zinc	EPA 200.7	0.061	*	0.005	mg/L	10/04/96

Reporting limits elevated for arsenic and selenium due to matrix interference.

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

AEN (CALIFORNIA)
QUALITY CONTROL REPORT

AEN JOB NUMBER: 9609319

CLIENT PROJECT ID: 3018.95.21

Quality Control Summary

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

Definitions

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

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

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

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

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

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

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

D: Surrogates diluted out.

#: Indicates result outside of established laboratory QC limits.

QUALITY CONTROL DATA

METHOD: EPA 3510 GCFID

AEN JOB NO: 9609319
AEN LAB NO: 0930-BLANK
DATE EXTRACTED: 09/30/96
DATE ANALYZED: 10/03/96
INSTRUMENT: C
MATRIX: WATER

Method Blank

Analyte	Result (mg/L)	Reporting Limit (mg/L)
Diesel	ND	0.05
Oil	ND	0.2

QUALITY CONTROL DATA

METHOD: EPA 3510 GCFID

AEN JOB NO: 9609319
DATE EXTRACTED: 09/30/96
INSTRUMENT: C
MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery n-Pentacosane
10/03/96	LF-3	06	92
QC Limits:			65-125

DATE EXTRACTED: 09/29/96
DATE ANALYZED: 10/01/96
SAMPLE SPIKED: 9608373-14
INSTRUMENT: C

Matrix Spike Recovery Summary

Analyte	Spike Added (mg/L)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Diesel	4.00	96	1	60-110	15

QUALITY CONTROL DATA

METHOD: EPA 8020, 5030 GCFID

AEN JOB NO: 9609319
AEN LAB NO: 1001-BLANK
DATE ANALYZED: 10/01/96
INSTRUMENT: F
MATRIX: WATER

Method Blank

	Result (mg/L)	Reporting Limit (mg/L)
HCs as Gasoline	ND	0.05

QUALITY CONTROL DATA

METHOD: EPA 8020, 5030 GCFID

AEN JOB NO: 9609319
INSTRUMENT: F
MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery Fluorobenzene
10/01/96	LF-3	06	119
QC Limits:			70-130

DATE ANALYZED: 09/30/96
SAMPLE SPIKED: 9609392-04
INSTRUMENT: F

Matrix Spike Recovery Summary

Analyte	Spike Added (ug/L)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Hydrocarbons as Gasoline	500	107	6	66-117	19

QUALITY CONTROL DATA

AEN JOB NO: 9609319
SAMPLE SPIKED: DI WATER
DATE(S) ANALYZED: 09/27-10/02/96
MATRIX: WATER

Method Blank and Spike Recovery Summary

Analyte	Inst./ Method	Blank Result (mg/L)	Spike Added (mg/L)	MS Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Ag, Silver	ICP/200.7	ND	0.005	82	5	75-125	16
As, Arsenic	4000/206.2	ND	0.04	114	1	69-136	13
Ba, Barium	ICP/200.7	ND	0.2	98	2	75-125	16
Cd, Cadmium	ICP/200.7	ND	0.01	104	7	75-125	16
Cr, Chromium	ICP/200.7	ND	0.02	91	6	75-125	16
Cu, Copper	ICP/200.7	ND	0.025	100	2	75-125	16
Hg, Mercury	Hg/245.1	ND	2.0 ug/L	107	1	89-121	10
Ni, Nickel	ICP/200.7	ND	0.05	96	3	75-125	16
Pb, Lead	4000/239.2	ND	0.2	76	<1	75-125	14
Se, Selenium	4000/270.2	ND	0.08	108	2	75-115	13
Zn, Zinc	ICP/200.7	ND	0.05	101	2	75-125	16

END OF REPORT

R353
C154
9609319

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

Project No.: 3018 95 21	Field Logbook No.:	Date: 9/24/96	Serial No.: № 17602
Project Name: VOLVO GM	Project Location: OAKLAND, CA.		
Sampler (Signature): JC Lee			Samplers: JCK

SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CONTAINERS	SAMPLE TYPE	TITLE 22 METALS	TPHs	TPHd	TPHo			HOLD	RUSH	REMARKS
LF-15	9/24/96	11:30	01A	1	H2O	X								STD TAT
LF-1		1155	02A			X								
LF-16		1215	03A			X								RESULTS TO JOHN KEELER
LF-12		1435	04A			X								
LF-5		1420	05A			X								TITLE 22 DISSOLVED METALS
LF-3		1640	06A-F	6		X	X	X	X					FIELD FILTERED
LF-2		1715	07A	1		X								LAB TO PRESERVE
LF-4		1735	08A			X								
LF-10		1810	09A			X								BASIN PLAN DETECTION LIMITS.

RELINQUISHED BY: (Signature) JC Lee	DATE 9-25-96	TIME 11:20	RECEIVED BY: (Signature) M Stanley	DATE 9-25-96	TIME 1310
RELINQUISHED BY: (Signature) M Stanley	DATE 9-25-96	TIME 1310	RECEIVED BY: (Signature) Dana Gillespie	DATE 9-25-96	TIME 1330
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
PLEASANT HILL, CA.

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

FORM NO. 86/[illegible]/ARF

American Environmental Network

Certificate of Analysis

DOHS Certification: 1172 AIHA Accreditation: 11134

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

ATTN: JOHN KEELER
CLIENT PROJ. ID: 3018.95.21
CLIENT PROJ. NAME: VOLVO GM
C.O.C. NUMBER: 17643, 17634

REPORT DATE: 10/10/96

DATE(S) SAMPLED: 09/25/96

DATE(S) RECEIVED: 09/25-26/96

AEN WORK ORDER: 9609329

PROJECT SUMMARY:

On September 25 & 26, 1996, this laboratory received 9 water sample(s).

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

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

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

Larry Klein
Laboratory Director

LEVINE-FRICKE

SAMPLE ID: LF-7
AEN LAB NO: 9609329-01
AEN WORK ORDER: 9609329
CLIENT PROJ. ID: 3018.95.21

DATE SAMPLED: 09/25/96
DATE RECEIVED: 09/25/96
REPORT DATE: 10/10/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-		Prep Date	09/27/96
#Digestion/ICP	EPA 200.0	-		Prep Date	09/27/96
CCR 17 Metals (Low Level)					
Ag Silver	EPA 200.7	ND	0.001	mg/L	09/30/96
As Arsenic	EPA 206.2	0.035 *	0.002	mg/L	09/30/96
Ba Barium	EPA 200.7	0.24 *	0.002	mg/L	09/30/96
Be Beryllium	EPA 200.7	ND	0.0005	mg/L	09/30/96
Cd Cadmium	EPA 200.7	ND	0.001	mg/L	09/30/96
Co Cobalt	EPA 200.7	ND	0.001	mg/L	09/30/96
Cr Chromium	EPA 200.7	ND	0.002	mg/L	09/30/96
Cu Copper	EPA 200.7	ND	0.002	mg/L	09/30/96
Hg Mercury	EPA 245.1	ND	0.0002	mg/L	10/06/96
Mo Molybdenum	EPA 200.7	0.007 *	0.002	mg/L	09/30/96
Ni Nickel	EPA 200.7	0.014 *	0.002	mg/L	09/30/96
Pb Lead	EPA 239.2	ND	0.002	mg/L	10/01/96
Sb Antimony	EPA 200.7	ND	0.004	mg/L	09/30/96
Se Selenium	EPA 270.2	ND	0.004	mg/L	09/30/96
Tl Thallium	EPA 200.7	ND	0.01	mg/L	09/30/96
V Vanadium	EPA 200.7	0.007 *	0.001	mg/L	09/30/96
Zn Zinc	EPA 200.7	0.023 *	0.005	mg/L	09/30/96

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

LEVINE-FRICKE

SAMPLE ID: LF-6
AEN LAB NO: 9609329-02
AEN WORK ORDER: 9609329
CLIENT PROJ. ID: 3018.95.21

DATE SAMPLED: 09/25/96
DATE RECEIVED: 09/25/96
REPORT DATE: 10/10/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-		Prep Date	09/27/96
#Digestion/ICP	EPA 200.0	-		Prep Date	09/27/96
CCR 17 Metals (Low Level)					
Ag Silver	EPA 200.7	0.007 *	0.001	mg/L	09/30/96
As Arsenic	EPA 206.2	ND	0.002	mg/L	09/30/96
Ba Barium	EPA 200.7	0.013 *	0.002	mg/L	09/30/96
Be Beryllium	EPA 200.7	0.0022 *	0.0005	mg/L	09/30/96
Cd Cadmium	EPA 200.7	0.093 *	0.001	mg/L	09/30/96
Co Cobalt	EPA 200.7	0.83 *	0.001	mg/L	09/30/96
Cr Chromium	EPA 200.7	ND	0.002	mg/L	09/30/96
Cu Copper	EPA 200.7	0.009 *	0.002	mg/L	09/30/96
Hg Mercury	EPA 245.1	ND	0.0002	mg/L	10/06/96
Mo Molybdenum	EPA 200.7	ND	0.002	mg/L	09/30/96
Ni Nickel	EPA 200.7	2.9 *	0.002	mg/L	09/30/96
Pb Lead	EPA 239.2	ND	0.002	mg/L	10/01/96
Sb Antimony	EPA 200.7	ND	0.004	mg/L	09/30/96
Se Selenium	EPA 270.2	ND	0.004	mg/L	09/30/96
Tl Thallium	EPA 200.7	0.04 *	0.01	mg/L	09/30/96
V Vanadium	EPA 200.7	ND	0.001	mg/L	09/30/96
Zn Zinc	EPA 200.7	11 *	0.005	mg/L	09/30/96

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

LEVINE-FRICKE

SAMPLE ID: LF-17
AEN LAB NO: 9609329-03
AEN WORK ORDER: 9609329
CLIENT PROJ. ID: 3018.95.21

DATE SAMPLED: 09/25/96
DATE RECEIVED: 09/25/96
REPORT DATE: 10/10/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-		Prep Date	09/27/96
#Digestion/ICP	EPA 200.0	-		Prep Date	09/27/96
CCR 17 Metals (Low Level)					
Ag Silver	EPA 200.7	ND	0.001	mg/L	09/30/96
As Arsenic	EPA 206.2	0.003 *	0.002	mg/L	09/30/96
Ba Barium	EPA 200.7	0.066 *	0.002	mg/L	09/30/96
Be Beryllium	EPA 200.7	ND	0.0005	mg/L	09/30/96
Cd Cadmium	EPA 200.7	0.002 *	0.001	mg/L	09/30/96
Co Cobalt	EPA 200.7	0.004 *	0.001	mg/L	09/30/96
Cr Chromium	EPA 200.7	ND	0.002	mg/L	09/30/96
Cu Copper	EPA 200.7	ND	0.002	mg/L	09/30/96
Hg Mercury	EPA 245.1	ND	0.0002	mg/L	10/06/96
Mo Molybdenum	EPA 200.7	0.002 *	0.002	mg/L	09/30/96
Ni Nickel	EPA 200.7	0.018 *	0.002	mg/L	09/30/96
Pb Lead	EPA 239.2	ND	0.002	mg/L	10/01/96
Sb Antimony	EPA 200.7	ND	0.004	mg/L	09/30/96
Se Selenium	EPA 270.2	ND	0.004	mg/L	09/30/96
Tl Thallium	EPA 200.7	ND	0.01	mg/L	09/30/96
V Vanadium	EPA 200.7	0.004 *	0.001	mg/L	09/30/96
Zn Zinc	EPA 200.7	0.041 *	0.005	mg/L	09/30/96

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

LEVINE-FRICKE

SAMPLE ID: LF-9
AEN LAB NO: 9609329-04
AEN WORK ORDER: 9609329
CLIENT PROJ. ID: 3018.95.21

DATE SAMPLED: 09/25/96
DATE RECEIVED: 09/25/96
REPORT DATE: 10/10/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-		Prep Date	09/27/96
#Digestion/ICP	EPA 200.0	-		Prep Date	09/27/96
CCR 17 Metals (Low Level)					
Ag Silver	EPA 200.7	ND	0.001	mg/L	09/30/96
As Arsenic	EPA 206.2	0.22 *	0.002	mg/L	10/02/96
Ba Barium	EPA 200.7	0.015 *	0.002	mg/L	09/30/96
Be Beryllium	EPA 200.7	ND	0.0005	mg/L	09/30/96
Cd Cadmium	EPA 200.7	0.048 *	0.001	mg/L	09/30/96
Co Cobalt	EPA 200.7	0.031 *	0.001	mg/L	09/30/96
Cr Chromium	EPA 200.7	ND	0.002	mg/L	09/30/96
Cu Copper	EPA 200.7	ND	0.002	mg/L	09/30/96
Hg Mercury	EPA 245.1	ND	0.0002	mg/L	10/06/96
Mo Molybdenum	EPA 200.7	0.005 *	0.002	mg/L	09/30/96
Ni Nickel	EPA 200.7	0.096 *	0.002	mg/L	09/30/96
Pb Lead	EPA 239.2	ND	0.002	mg/L	10/01/96
Sb Antimony	EPA 200.7	ND	0.004	mg/L	09/30/96
Se Selenium	EPA 270.2	ND	0.01	mg/L	10/02/96
Tl Thallium	EPA 200.7	0.02 *	0.01	mg/L	09/30/96
V Vanadium	EPA 200.7	ND	0.001	mg/L	09/30/96
Zn Zinc	EPA 200.7	33 *	0.005	mg/L	09/30/96

Reporting limit elevated for selenium due to matrix interference.

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

LEVINE-FRICKE

SAMPLE ID: LF-F1
AEN LAB NO: 9609329-05
AEN WORK ORDER: 9609329
CLIENT PROJ. ID: 3018.95.21

DATE SAMPLED: 09/25/96
DATE RECEIVED: 09/25/96
REPORT DATE: 10/10/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-		Prep Date	09/27/96
#Digestion/ICP	EPA 200.0	-		Prep Date	09/27/96
CCR 17 Metals (Low Level)					
Ag Silver	EPA 200.7	0.001 *	0.001	mg/L	09/30/96
As Arsenic	EPA 206.2	0.22 *	0.002	mg/L	10/02/96
Ba Barium	EPA 200.7	0.021 *	0.002	mg/L	09/30/96
Be Beryllium	EPA 200.7	ND	0.0005	mg/L	09/30/96
Cd Cadmium	EPA 200.7	0.078 *	0.001	mg/L	09/30/96
Co Cobalt	EPA 200.7	0.099 *	0.001	mg/L	09/30/96
Cr Chromium	EPA 200.7	ND	0.002	mg/L	09/30/96
Cu Copper	EPA 200.7	ND	0.002	mg/L	09/30/96
Hg Mercury	EPA 245.1	ND	0.0002	mg/L	10/06/96
Mo Molybdenum	EPA 200.7	0.013 *	0.002	mg/L	09/30/96
Ni Nickel	EPA 200.7	0.078 *	0.002	mg/L	09/30/96
Pb Lead	EPA 239.2	ND	0.002	mg/L	10/01/96
Sb Antimony	EPA 200.7	ND	0.004	mg/L	09/30/96
Se Selenium	EPA 270.2	ND	0.004	mg/L	09/30/96
Tl Thallium	EPA 200.7	0.02 *	0.01	mg/L	09/30/96
V Vanadium	EPA 200.7	ND	0.001	mg/L	09/30/96
Zn Zinc	EPA 200.7	30 *	0.005	mg/L	09/30/96

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

LEVINE-FRICKE

SAMPLE ID: MW-1
AEN LAB NO: 9609329-06
AEN WORK ORDER: 9609329
CLIENT PROJ. ID: 3018.95.21

DATE SAMPLED: 09/25/96
DATE RECEIVED: 09/25/96
REPORT DATE: 10/10/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-		Prep Date	09/27/96
#Digestion/ICP	EPA 200.0	-		Prep Date	09/27/96
CCR 17 Metals (Low Level)					
Ag Silver	EPA 200.7	ND	0.001	mg/L	09/30/96
As Arsenic	EPA 206.2	0.098 *	0.002	mg/L	10/02/96
Ba Barium	EPA 200.7	0.084 *	0.002	mg/L	09/30/96
Be Beryllium	EPA 200.7	ND	0.0005	mg/L	09/30/96
Cd Cadmium	EPA 200.7	0.005 *	0.001	mg/L	09/30/96
Co Cobalt	EPA 200.7	0.015 *	0.001	mg/L	09/30/96
Cr Chromium	EPA 200.7	ND	0.002	mg/L	09/30/96
Cu Copper	EPA 200.7	ND	0.002	mg/L	09/30/96
Hg Mercury	EPA 245.1	ND	0.0002	mg/L	10/06/96
Mo Molybdenum	EPA 200.7	0.013 *	0.002	mg/L	09/30/96
Ni Nickel	EPA 200.7	0.016 *	0.002	mg/L	09/30/96
Pb Lead	EPA 239.2	ND	0.002	mg/L	10/01/96
Sb Antimony	EPA 200.7	0.032 *	0.004	mg/L	09/30/96
Se Selenium	EPA 270.2	ND	0.004	mg/L	09/30/96
Tl Thallium	EPA 200.7	ND	0.01	mg/L	09/30/96
V Vanadium	EPA 200.7	0.008 *	0.001	mg/L	09/30/96
Zn Zinc	EPA 200.7	2.6 *	0.005	mg/L	09/30/96

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

LEVINE-FRICKE

SAMPLE ID: LF-11
AEN LAB NO: 9609329-07
AEN WORK ORDER: 9609329
CLIENT PROJ. ID: 3018.95.21

DATE SAMPLED: 09/25/96
DATE RECEIVED: 09/26/96
REPORT DATE: 10/10/96

ANALYTE	METHOD/ CAS#	RESULT		REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-			Prep Date	09/27/96
#Digestion/ICP	EPA 200.0	-			Prep Date	09/27/96
CCR 17 Metals (Low Level)						
Ag Silver	EPA 200.7	ND		1	mg/L	10/08/96
As Arsenic	EPA 206.2	ND		0.01	mg/L	10/02/96
Ba Barium	EPA 200.7	ND		2	mg/L	10/08/96
Be Beryllium	EPA 200.7	ND		0.4	mg/L	10/08/96
Cd Cadmium	EPA 200.7	130	*	1	mg/L	10/08/96
Co Cobalt	EPA 200.7	7	*	1	mg/L	10/08/96
Cr Chromium	EPA 200.7	ND		2	mg/L	10/08/96
Cu Copper	EPA 200.7	5	*	2	mg/L	10/08/96
Hg Mercury	EPA 245.1	ND		0.0002	mg/L	10/06/96
Mo Molybdenum	EPA 200.7	ND		2	mg/L	10/08/96
Ni Nickel	EPA 200.7	24	*	2	mg/L	10/08/96
Pb Lead	EPA 239.2	ND		0.1	mg/L	10/01/96
Sb Antimony	EPA 200.7	ND		4	mg/L	10/08/96
Se Selenium	EPA 270.2	ND		0.02	mg/L	10/02/96
Tl Thallium	EPA 200.7	ND		10	mg/L	10/08/96
V Vanadium	EPA 200.7	ND		1	mg/L	10/08/96
Zn Zinc	EPA 200.7	40,000	*	2	mg/L	10/08/96

Reporting limits elevated for metals due to matrix interference.

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

LEVINE-FRICKE

SAMPLE ID: LF-111
AEN LAB NO: 9609329-08
AEN WORK ORDER: 9609329
CLIENT PROJ. ID: 3018.95.21

DATE SAMPLED: 09/25/96
DATE RECEIVED: 09/26/96
REPORT DATE: 10/10/96

ANALYTE	METHOD/ CAS#	RESULT		REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-			Prep Date	09/27/96
#Digestion/ICP	EPA 200.0	-			Prep Date	09/27/96
CCR 17 Metals (Low Level)						
Ag Silver	EPA 200.7	ND		1	mg/L	10/08/96
As Arsenic	EPA 206.2	ND		0.01	mg/L	10/02/96
Ba Barium	EPA 200.7	ND		2	mg/L	10/08/96
Be Beryllium	EPA 200.7	ND		0.4	mg/L	10/08/96
Cd Cadmium	EPA 200.7	130	*	1	mg/L	10/08/96
Co Cobalt	EPA 200.7	6	*	1	mg/L	10/08/96
Cr Chromium	EPA 200.7	ND		2	mg/L	10/08/96
Cu Copper	EPA 200.7	5	*	2	mg/L	10/08/96
Hg Mercury	EPA 245.1	ND		0.0002	mg/L	10/06/96
Mo Molybdenum	EPA 200.7	2	*	2	mg/L	10/08/96
Ni Nickel	EPA 200.7	24	*	2	mg/L	10/08/96
Pb Lead	EPA 239.2	ND		0.1	mg/L	10/01/96
Sb Antimony	EPA 200.7	ND		4	mg/L	10/08/96
Se Selenium	EPA 270.2	ND		0.02	mg/L	10/02/96
Tl Thallium	EPA 200.7	ND		10	mg/L	10/08/96
V Vanadium	EPA 200.7	ND		1	mg/L	10/08/96
Zn Zinc	EPA 200.7	40,000	*	2	mg/L	10/08/96

Reporting limits elevated for metals due to matrix interference.

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

LEVINE-FRICKE

SAMPLE ID: LF-8
AEN LAB NO: 9609329-09
AEN WORK ORDER: 9609329
CLIENT PROJ. ID: 3018.95.21

DATE SAMPLED: 09/25/96
DATE RECEIVED: 09/26/96
REPORT DATE: 10/10/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
TPH as Gas in water	5030/GC-FID	0.21 *	0.05	mg/L	10/01/96
#Digestion/G. Furnace	EPA 200.0	-		Prep Date	09/27/96
#Digestion/ICP	EPA 200.0	-		Prep Date	09/27/96
#Extraction for TPH	EPA 3510	-		Extrn Date	10/01/96
TPH as Diesel	GC-FID	2.5 *	0.05	mg/L	10/04/96
TPH as Oil	GC-FID	ND	0.2	mg/L	10/04/96
CCR 17 Metals (Low Level)					
Ag Silver	EPA 200.7	ND	0.001	mg/L	09/30/96
As Arsenic	EPA 206.2	3.2 *	0.002	mg/L	10/02/96
Ba Barium	EPA 200.7	0.058 *	0.002	mg/L	09/30/96
Be Beryllium	EPA 200.7	ND	0.0005	mg/L	09/30/96
Cd Cadmium	EPA 200.7	0.025 *	0.001	mg/L	09/30/96
Co Cobalt	EPA 200.7	ND	0.001	mg/L	09/30/96
Cr Chromium	EPA 200.7	ND	0.002	mg/L	09/30/96
Cu Copper	EPA 200.7	ND	0.002	mg/L	09/30/96
Hg Mercury	EPA 245.1	ND	0.0002	mg/L	10/06/96
Mo Molybdenum	EPA 200.7	ND	0.002	mg/L	09/30/96
Ni Nickel	EPA 200.7	0.002 *	0.002	mg/L	09/30/96
Pb Lead	EPA 239.2	ND	0.002	mg/L	10/01/96
Sb Antimony	EPA 200.7	ND	0.004	mg/L	09/30/96
Se Selenium	EPA 270.2	ND	0.004	mg/L	09/30/96
Tl Thallium	EPA 200.7	ND	0.01	mg/L	09/30/96
V Vanadium	EPA 200.7	ND	0.001	mg/L	09/30/96
Zn Zinc	EPA 200.7	0.036 *	0.005	mg/L	09/30/96
#Extraction for BNAs	EPA 3520	-		Extrn Date	09/27/96
Semi-Volatile Organics	EPA 8270				
Acenaphthene	83-32-9	400 *	10	ug/L	10/03/96
Acenaphthylene	208-96-8	ND	10	ug/L	10/01/96
Anthracene	120-12-7	27 *	10	ug/L	10/01/96
Benzidine	92-87-5	ND	50	ug/L	10/01/96
Benzoic Acid	65-85-0	ND	50	ug/L	10/01/96
Benzo(a)anthracene	56-55-3	ND	10	ug/L	10/01/96
Benzo(b)fluoranthene	205-99-2	ND	10	ug/L	10/01/96
Benzo(k)fluoranthene	207-08-9	ND	10	ug/L	10/01/96

LEVINE-FRICKE

SAMPLE ID: LF-8
AEN LAB NO: 9609329-09
AEN WORK ORDER: 9609329
CLIENT PROJ. ID: 3018.95.21

DATE SAMPLED: 09/25/96
DATE RECEIVED: 09/26/96
REPORT DATE: 10/10/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Benzo(g,h,i)perylene	191-24-2	ND	10	ug/L	10/01/96
Benzo(a)pyrene	50-32-8	ND	10	ug/L	10/01/96
Benzyl Alcohol	100-51-6	ND	20	ug/L	10/01/96
Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/L	10/01/96
Bis(2-chloroethyl) Ether	111-44-4	ND	10	ug/L	10/01/96
Bis(2-chloroisopropyl) Ether	108-60-1	ND	10	ug/L	10/01/96
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	10	ug/L	10/01/96
4-Bromophenyl Phenyl Ether	101-55-3	ND	10	ug/L	10/01/96
Butylbenzyl Phthalate	85-68-7	ND	10	ug/L	10/01/96
4-Chloroaniline	106-47-8	ND	20	ug/L	10/01/96
2-Chloronaphthalene	91-58-7	ND	10	ug/L	10/01/96
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	10	ug/L	10/01/96
Chrysene	218-01-9	ND	10	ug/L	10/01/96
Dibenzo(a,h)anthracene	53-70-3	ND	10	ug/L	10/01/96
Dibenzofuran	132-64-9	190 *	10	ug/L	10/01/96
Di-n-butyl Phthalate	84-74-2	ND	10	ug/L	10/01/96
1,2-Dichlorobenzene	95-50-1	ND	10	ug/L	10/01/96
1,3-Dichlorobenzene	541-73-1	ND	10	ug/L	10/01/96
1,4-Dichlorobenzene	106-46-7	ND	10	ug/L	10/01/96
3,3'-Dichlorobenzidine	91-94-1	ND	20	ug/L	10/01/96
Diethyl Phthalate	84-66-2	ND	10	ug/L	10/01/96
Dimethyl Phthalate	131-11-3	ND	10	ug/L	10/01/96
2,4-Dinitrotoluene	121-14-2	ND	10	ug/L	10/01/96
2,6-Dinitrotoluene	606-20-2	ND	10	ug/L	10/01/96
Di-n-octyl Phthalate	117-84-0	ND	10	ug/L	10/01/96
Fluoranthene	206-44-0	26 *	10	ug/L	10/01/96
Fluorene	86-73-7	150 *	10	ug/L	10/01/96
Hexachlorobenzene	118-74-1	ND	10	ug/L	10/01/96
Hexachlorobutadiene	87-68-3	ND	10	ug/L	10/01/96
Hexachlorocyclopentadiene	77-47-4	ND	10	ug/L	10/01/96
Hexachloroethane	67-72-1	ND	10	ug/L	10/01/96
Indeno(1,2,3-cd)pyrene	193-39-5	ND	10	ug/L	10/01/96
Isophorone	78-59-1	ND	10	ug/L	10/01/96
2-Methylnaphthalene	91-57-6	ND	10	ug/L	10/01/96
Naphthalene	91-20-3	ND	10	ug/L	10/01/96
2-Nitroaniline	88-74-4	ND	50	ug/L	10/01/96
3-Nitroaniline	99-09-2	ND	50	ug/L	10/01/96
4-Nitroaniline	100-01-6	ND	50	ug/L	10/01/96
Nitrobenzene	98-95-3	ND	10	ug/L	10/01/96
N-Nitrosodiphenylamine	86-30-6	ND	10	ug/L	10/01/96
N-Nitrosodi-n-propylamine	621-64-7	ND	10	ug/L	10/01/96
Phenanthrene	85-01-8	ND	10	ug/L	10/01/96
Pyrene	129-00-0	13 *	10	ug/L	10/01/96

LEVINE-FRICKE

SAMPLE ID: LF-8
AEN LAB NO: 9609329-09
AEN WORK ORDER: 9609329
CLIENT PROJ. ID: 3018.95.21

DATE SAMPLED: 09/25/96
DATE RECEIVED: 09/26/96
REPORT DATE: 10/10/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
1,2,4-Trichlorobenzene	120-82-1	ND	10	ug/L	10/01/96
4-Chloro-3-methylphenol	59-50-7	ND	10	ug/L	10/01/96
2-Chlorophenol	95-57-8	ND	10	ug/L	10/01/96
2,4-Dichlorophenol	120-83-2	ND	10	ug/L	10/01/96
2,4-Dimethylphenol	105-67-9	ND	10	ug/L	10/01/96
4,6-Dinitro-2-methylphenol	534-52-1	ND	50	ug/L	10/01/96
2,4-Dinitrophenol	51-28-5	ND	50	ug/L	10/01/96
2-Methylphenol	95-48-7	ND	10	ug/L	10/01/96
4-Methylphenol	106-44-5	ND	10	ug/L	10/01/96
2-Nitrophenol	88-75-5	ND	10	ug/L	10/01/96
4-Nitrophenol	100-02-7	ND	50	ug/L	10/01/96
Pentachlorophenol	87-86-5	ND	50	ug/L	10/01/96
Phenol	108-95-2	ND	10	ug/L	10/01/96
2,4,5-Trichlorophenol	95-95-4	ND	10	ug/L	10/01/96
2,4,6-Trichlorophenol	88-06-2	ND	10	ug/L	10/01/96

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

AEN (CALIFORNIA)
QUALITY CONTROL REPORT

AEN JOB NUMBER: 9609329

CLIENT PROJECT ID: 3018.95.21

Quality Control Summary

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

Definitions

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

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

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

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

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

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

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

D: Surrogates diluted out.

#: Indicates result outside of established laboratory QC limits.

QUALITY CONTROL DATA

METHOD: EPA 3510 GCFID

AEN JOB NO: 9609329
AEN LAB NO: 1001-BLANK
DATE EXTRACTED: 10/01/96
DATE ANALYZED: 10/04/96
INSTRUMENT: C
MATRIX: WATER

Method Blank

Analyte	Result (mg/L)	Reporting Limit (mg/L)
Diesel	ND	0.05
Oil	ND	0.2

QUALITY CONTROL DATA

METHOD: EPA 3510 GCFID

AEN JOB NO: 9609329
DATE EXTRACTED: 10/01/96
INSTRUMENT: C
MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery n-Pentacosane
10/04/96	LF-8	09	99
QC Limits:			65-125

DATE EXTRACTED: 10/01/96
DATE ANALYZED: 10/04/96
SAMPLE SPIKED: 9608373-03
INSTRUMENT: C

Matrix Spike Recovery Summary

Analyte	Spike Added (mg/L)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Diesel	4.00	91	<1	60-110	15

QUALITY CONTROL DATA

METHOD: EPA 8020, 5030 GCFID

AEN JOB NO: 9609329
AEN LAB NO: 1001-BLANK
DATE ANALYZED: 10/01/96
INSTRUMENT: F
MATRIX: WATER

Method Blank

	Result (mg/L)	Reporting Limit (mg/L)
HCs as Gasoline	ND	0.05

QUALITY CONTROL DATA

METHOD: EPA 8020, 5030 GCFID

AEN JOB NO: 9609329
INSTRUMENT: F
MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery Fluorobenzene
10/01/96	LF-8	09	120
QC Limits:			70-130

DATE ANALYZED: 09/30/96
SAMPLE SPIKED: 9609392-04
INSTRUMENT: F

Matrix Spike Recovery Summary

Analyte	Spike Added (ug/L)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Hydrocarbons as Gasoline	500	107	6	66-117	19

QUALITY CONTROL DATA

METHOD: EPA 8270

AEN JOB NO: 9609329
AEN LAB NO: 0927-BLANK
DATE EXTRACTED: 09/27/96
DATE ANALYZED: 10/01/96
INSTRUMENT: 11
MATRIX: WATER

Method Blank

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

METHOD: EPA 8270

AEN JOB NO: 9609329
AEN LAB NO: 0927-BLANK
DATE EXTRACTED: 09/27/96
DATE ANALYZED: 10/01/96
INSTRUMENT: 11
MATRIX: WATER

Method Blank (Cont.)

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

METHOD: EPA 8270

AEN JOB NO: 9609329
DATES EXTRACTED: 09/27/96
INSTRUMENT: 11
MATRIX: WATER

Surrogate Standard Recovery Summary

			Percent Recovery					
Date Analyzed	Client Id.	Lab Id.	2-Fluoro-phenol	Phenol-d_5	Nitro-benzene-d_5	2-Fluoro-biphenyl	2,4,6-Tri-bromophenol	Terphenyl-d_{14}
10/01/96	LF-8	09	91	86	80	97	89	87
QC Limits:			41-104	46-114	50-112	41-111	59-125	37-111

DATE EXTRACTED: 09/27/96
DATE ANALYZED: 10/01/96
SAMPLE SPIKED: LCS
INSTRUMENT: 11

Laboratory Control Sample Recovery

Analyte	Spike Added (ug/L)	Percent Recovery	QC Limits Percent Recovery
Phenol	196	68	44-126
2-Chlorophenol	199	88	50-145
1,4-Dichlorobenzene	198	84	51-132
N-Nitrosodi-n-propylamine	183	74	52-151
1,2,4-Trichlorobenzene	220	86	51-128
4-Chloro-3-methylphenol	197	83	52-149
Acenaphthene	186	90	58-139
4-Nitrophenol	197	55	30-152
2,4-Dinitrotoluene	254	82	60-128
Pentachlorophenol	185	68	30-160
Pyrene	238	80	40-130

QUALITY CONTROL DATA

AEN JOB NO: 9609329
SAMPLE SPIKED: DI WATER
DATE(S) ANALYZED: 09/30-10/06/96
MATRIX: WATER

Method Blank and Spike Recovery Summary

Analyte	Inst./ Method	Blank Result (mg/L)	Spike Added (mg/L)	MS Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Ag, Silver	ICP/200.7	ND	0.005	82	5	75-125	16
As, Arsenic	4000/206.2	ND	0.04	101	4	69-136	13
Ba, Barium	ICP/200.7	ND	0.2	98	2	75-125	16
Cd, Cadmium	ICP/200.7	ND	0.01	104	7	75-125	16
Cr, Chromium	ICP/200.7	ND	0.02	91	6	75-125	16
Cu, Copper	ICP/200.7	ND	0.025	100	2	75-125	16
Hg, Mercury	Hg/245.1	ND	2.0 ug/L	103	1	89-121	10
Ni, Nickel	ICP/200.7	ND	0.05	96	3	75-125	16
Pb, Lead	4000/239.2	ND	0.2	86	<1	75-125	14
Se, Selenium	4000/270.2	ND	0.08	97	2	75-115	13
Zn, Zinc	ICP/200.7	ND	0.05	101	2	75-125	16

END OF REPORT

RISB R352 9609329 1 of 2

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

Project No.: 30189521	Field Logbook No.:	Date: 9/25/96	Serial No.: Nº 17643
Project Name: Volvo GM	Project Location: OAKLAND, CA.		
Sampler (Signature): JC Keeler			Samplers: JCK DRJ

SAMPLES						ANALYSES								
SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CONTAINERS	SAMPLE TYPE	TITLE 22 METALS	TPH-G	TPH-D	TPH-O	EPA 8270		HOLD	RUSH	REMARKS
LF-7	9/25/96	8:50	01A	1	H_2O	X								STD TAT
LF-6		10:15	02A	1		X								
LF-17		11:50	03A	1		X								RESULTS TO JOHN KEELER
LF-9		1220	04A	1		X								
LF-F1		1310	05A	1		X								
MW-1		1305	06A	1		X								TITLE 22 METALS DISSOLVED
LF-11			see pg. 2	1		X					To be added 9/26/96			BASIN PLAN DETECTION LIMITS
LF-111				1		X								
LF-8				8		X	X	X	X	X				FIELD FILTERED LAB TO PRESERVE

RELINQUISHED BY: (Signature)	DATE 9/25/96	TIME 1515	RECEIVED BY: (Signature)	DATE 9/25/96	TIME 1825
RELINQUISHED BY: (Signature)	DATE 9/25/96	TIME 1655	RECEIVED BY: (Signature)	DATE 9/25/96	TIME 16:55
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
PLEASANT HILL, CA.

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

9609329 2 of 2

9609337 98

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

Project No.: 3018.95.21	Field Logbook No.:	Date: 9/25/96
Project Name: VOLVO/GM	Project Location: OAKLAND, CA	Serial No.: Nº 17634
Sampler (Signature): JC		Samplers: JCK DRJ

SAMPLES						ANALYSES								
SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CONTAINERS	SAMPLE TYPE	TITLE 22 METALS	TPH G	TPH D	TPH O	8270		HOLD	RUSH	REMARKS
LF-11	9/25/96	1530	~~01A~~ 07A	1	H_2O	X								STD TAT
LF-111	↓	1630	~~02A~~ 08A	1	↓	X								
LF-8	↓	1525	~~03A-H~~ 09A-H	8	↓	X	X	X	X	X				RESULTS TO JOHN KEELER
														TITLE 22 METALS DISSOLVED
														BASIN PLAN DETECTION
														FIELD FILTERED
														LAB TO PRESERVE

RELINQUISHED BY: (Signature)	DATE 9/26/96	TIME 11:32	RECEIVED BY: (Signature)	DATE 9-26-96	TIME 11:32
RELINQUISHED BY: (Signature)	DATE 9-26-96	TIME 13:05	RECEIVED BY: (Signature)	DATE 9-26-96	TIME 1305
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
PLEASANT HILL, CA.

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

APPENDIX B

Water-Quality Sampling Forms

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3018.95.21

Date: 9/24/96

Project Name: VOLVO GM

Sample No.: LF-1

Sample Location: LF-1

☐ FB: ____

Samplers Name: JCK

☐ DUP: ____

Sampling Plan Prepared By: JCK

Sampling Method: ____

☐ Centrifugal Pump ☐ Disposable Bailer

☐ Submersible Pump ☒ Teflon Bailer

☒ Hand Bail ☐ ____ (Other)

☐ Extraction Well Port

20.00
2.78
17.22
.16
1032
172
2755 2

Analyses Requested

TITLE 22 METALS

Number and Types of Bottle used

1 PINT PLASTIC

17.22
.8
13776

20.00
13.78
6.22

Method of Shipment

AEN (Lab Name)

☒ Courier ____

☐ Hand Deliver:

Well Number: LF-1

Depth to Water: 2.78

Well Depth: 20.00

Height of Water Column: 17.22

Volume in Well: 2.76

Well Diameter:

☒ 2" (0.16 Gallon/Feet)

☐ 4" (0.65 Gallon/Feet

☐ 5" (1.02 Gallon/Feet)

☐ 6" (1.47 Gallon/Feet)

80% DTW 6.22

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temperature °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
9:43								START
9:47		3		22.5	4.79	8920		CLEAR; BROWN
9:50		6		22.9	4.82	8990		MOD TURBID
9:53		9		22.4	4.51	9960		TURBID
9:57		12		22.1	3.69	29800		TURBID
10:00	DRIED	14.5		21.9	3.20	21600		TURBID
11:55	5.80							SAMPLE

WTR.QLTY.SMPLNG.INFO.28NOV94RTL

Set Depth: ____

Comments: FIELD FILTERED

(Recommended Method For Purging Well)

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3018.95.21 Date: 9/24/96

Project Name: VOLVO GM Sample No.: LF-2

Sample Location: LF-2 ☐ FB: ____

Samplers Name: JCK ☐ DUP: ____

Sampling Plan Prepared By: JCK

Sampling Method:

- ☐ Centrifugal Pump
- ☐ Submersible Pump
- ☒ Hand Bail
- ☐ Extraction Well Port
- ☐ Disposable Bailer
- ☒ Teflon Bailer
- ☐ ____ (Other)

Analyses Requested: TITLE 22 METALS

Number and Types of Bottle used:

14.75
5.24
11.51
.16
6906
1151
18416

Method of Shipment: AEN (Lab Name)

☒ Courier ____

☐ Hand Deliver:

Well Number: LF-2

Depth to Water: 5.24

Depth: 14.75

Height of Water Column: 11.51

Volume in Well: 1.84

Well Diameter:

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

80% DTW ____

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temperature °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
15:00								START
15:03		2		23.8	6.21	4390		MOD TURBID
1506		4		23.5	6.21	4130		TURBID
1510		6		23.0	6.18	4020		TURBID
17:15	5.98							SAMPLE

Depth: ____

Comments: FIELD FILTERED

(Recommended Method For Purging Well)

WTR.QLTY.SMPLNG.INFO.28NOV94RYL

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3018.95.21 Date: 9/24/96

Project Name: VOLVO GM Sample No.: LF-3

Sample Location: LF-3 ☐ FB: ____

Samplers Name: JCK ☐ DUP: ____

Sampling Plan Prepared By: JCK

Sampling Method: ____

- ☐ Centrifugal Pump
- ☐ Submersible Pump
- ☒ Hand Bail
- ☐ Extraction Well Port
- ☐ Disposable Bailer
- ☒ Teflon Bailer
- ☐ ____ (Other)

Analyses Requested	Number and Types of Bottle used
TPH-5	3 VOA
TITLE 22 METALS	1 PLASTIC
TPH-d+o	2 L. GLASS

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

Well Number: LF-3 Well Diameter:

Depth to Water: 5.53 ☒ 2" (0.16 Gallon/Feet)

Total Depth: 14.93 ☐ 4" (0.65 Gallon/Feet)

Height of Water Column: 9.40 ☐ 5" (1.02 Gallon/Feet)

Volume in Well: 1.50 ☐ 6" (1.47 Gallon/Feet)

14.93
5.53
9.40
.16
5640
940
15040

9.40 14.93
.8 7.52
7520 7.41

80% DTW 7.41

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temperature °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
1622								START
1624		1.5		24.5	6.55	3950		SL. TURBID
1628		3.0		24.5	6.52	4030		SL. TURBID SL. SHEEN
1632		4.5		24.5	6.50	4190		SL. TURBID
1640	6.02							SAMPLE

Total Depth: ____

Comments: FIELD FILTERED
(Recommended Method For Purging Well)

WTR.QLTY.SMPLNG.INFO.28NOV94RYL

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3018.95.21 Date: 9/24/96

Project Name: VOLVO GM Sample No.: LF-4

Sample Location: LF-4 ☐ FB: ____

Samplers Name: JCL ☐ DUP: ____

Sampling Plan Prepared By: JCL

Sampling Method: ____

- ☐ Centrifugal Pump
- ☐ Submersible Pump
- ☒ Hand Bail
- ☐ Extraction Well Port
- ☐ Disposable Bailer
- ☒ Teflon Bailer
- ☐ ____ (Other)

Analyses Requested

TITLE 22 METALS

Number and Types of Bottle used

18.25
5.60
12.65
.16
7590
1265
2.0240

12.65 × 8 = 10120

18.25
10.12
8.13

80% DTW 8.13

Method of Shipment

AEN (Lab Name)

☒ Courier ____

☐ Hand Deliver:

Well Number: LF-4

Depth to Water: 5.60

Depth: 18.25

Height of Water Column: 12.65

Volume in Well: 2.02

Well Diameter:

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

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temperature °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
~~1500~~			~~NW~~					START
1503		2		23.8	6.21	4390		MOD TURBID
~~1506~~		4		~~23.5~~	6.21	4130		TURBID
~~1510~~	DEWATER	6		23.0	6.18	4020		~~TURBID~~
1521								START
1523		2		21.8	6.60	2610		CLEAR
1526		4		21.6	6.64	2620		CLEAR
1530		6		20.7	6.72	3040		CLEAR
1735	12.45							SAMPLE

t Depth: ____

Comments: FIELD FILTERED
(Recommended Method For Purging Well)

WTR.QLTY.SMPLNG.INFO.28NOV94RYL

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3018.95.21 Date: 9/24/96

Project Name: VOLVO GM Sample No.: LF-5

Sample Location: LF-5 ☐ FB: ____

Samplers Name: JCK ☐ DUP: ____

Sampling Plan Prepared By: JCK

Sampling Method: ____

☐ Centrifugal Pump ☐ Disposable Bailer

☐ Submersible Pump ☒ Teflon Bailer

☒ Hand Bail ☐ ____ (Other)

☐ Extraction Well Port

Analyses Requested | **Number and Types of Bottle used**

TITLE 22 METALS

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

Well Number: LF-5 Well Diameter: ____

Depth to Water: 6.33 ☒ 2" (0.16 Gallon/Feet)

Depth: 21.10 ☐ 4" (0.65 Gallon/Feet

Height of Water Column: 14.77 ☐ 5" (1.02 Gallon/Feet)

Volume in Well: 2.36 ☐ 6" (1.47 Gallon/Feet)

80% DTW 9.28

21.10
6.33
14.77
.16
8862
1477
2.3632

14.77 21.10
.8 11.82
11816 928

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temperature °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
355								START
359		2.5		23.8	5.90	20000		TURBID
402		5.0		23.8	6.05	18570		TURBID
407	11.50	7.5		23.2	5.96	20800		TURBID
420	9.00							SAMPLE

t Depth: ____

Comments: FIELD FILTERED

(Recommended Method For Purging Well)

WTR.QLTY.SMPLNG.INFO.28NOV94.RYL

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3018.95.21 Date: 7/25/96

Project Name: Volvo GM Sample No.: LF-6

Sample Location: Oakland ☐ FB: ____

Samplers Name: DRS SCK ☐ DUP: ____

Sampling Plan Prepared By: JCK

Sampling Method: ____

☐ Centrifugal Pump ☐ Disposable Bailer

☐ Submersible Pump ☒ Teflon Bailer

☒ Hand Bail ☐ ____ (Other)

☐ Extraction Well Port

Analyses Requested: Title 22 metals

Number and Types of Bottle used: 500ml Plastic

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

13.58 : 2 = 6.42

2.71 6 2.71

9.13

80% DTW 9.13

Well Number: LF-6

Depth to Water: 6.42

Depth: 20.00

Height of Water Column: 13.58

Volume in Well: 2.17 = 2.5

Well Diameter:

☐ 2" (0.16 Gallon/Feet)

☐ 4" (0.65 Gallon/Feet

☐ 5" (1.02 Gallon/Feet)

☐ 6" (1.47 Gallon/Feet)

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temperature °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
9:40								start bailing
9:44		2.5		22.0	4.77	5.07		turbid
9:48		5		21.7	4.71	5.10		turbid
9:52		7.5		21.5	4.56	5.43		turbid
9:56		10		21.4	4.53	5.37		turbid
10:10	9.15							
10:15								Sample

t Depth: ____

Comments: FIELD FILTERED

(Recommended Method For Purging Well)

WTR.QLTY.SMPLNG.INFO.28NOV94RYL

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3018.95.21 Date: 9/25/96

Project Name: VOLVO GM Sample No.: LF-7

Sample Location: Oakland ☐ FB: ____

Samplers Name: ORJ JCK ☐ DUP: ____

Sampling Plan Prepared By: JCK

Sampling Method: ____

- ☒ Centrifugal Pump
- ☐ Submersible Pump
- ☐ Hand Bail
- ☐ Extraction Well Port
- ☐ Disposable Bailer
- ☒ Teflon Bailer
- ☐ ____ (Other)

Analyses Requested: TPHC 22 metals

Number and Types of Bottle used: 1 500 ML plastic

Method of Shipment: AEN (Lab Name)

☒ Courier ____

☐ Hand Deliver:

Well Number: LF-1

Depth to Water: 4.98

Depth: 21.50

Height of Water Column: 16.52

Volume in Well: 2.64 = 3 gal

Well Diameter:

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

80% DTW ____

1.014
21.50
4.98
16.52
.16
99.12
1652
26432

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temperature °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
8:30								Start Pump
8:33		3		21.3	6.52	1618		Slight turbid
8:36		6		21.7	6.97	1492	Mod	~~Slight~~ turbid
8:39		9		21.7	6.98	1478		turbid
8:46	7.95							
8:50								sample

Set Depth: ____

Comments: FIELD FILTERED

(Recommended Method For Purging Well)

WTR.QLTY.SMPLNG.INFO.28NOV94RYL

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3018.95.21
Date: 9/25/96
Project Name: VOLVO GM
Sample No.: LF-8
Sample Location: Oakland
☐ FB:
Samplers Name: ORT JCK
☒ DUP:
Sampling Plan Prepared By: JCK
Sampling Method:

- ☒ Centrifugal Pump
- ☐ Submersible Pump
- ☐ Hand Bail
- ☐ Extraction Well Port
- ☐ Disposable Bailer
- ☒ Teflon Bailer
- ☐ _____ (Other)

Analyses Requested: ~~TPHg~~ ~~BTEX~~ title 22 metals; EPA 8270; TPHd 8015
Number and Types of Bottle used: 3 voa HCl; 1 plastic 500mL; 2L glass amber; 2L glass amber

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

Well Number: LF-8
Depth to Water: 5.20
Depth: 14.65
Height of Water Column: 9.45
Volume in Well: 6.5 gal

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

14.65
- 5.20
9.45
2
.65
6.125
80% DTW 11.09

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temperature °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
500								Start pump
502		6.5		22.0	6.29	5.1		Clear Pump
507		13		22.8	6.92	3.0		Clear, slowly
511		19.5		23.2	6.92	2.4		Clear / Dewatered
1523								
1525								Sample

Depth:

Comments: FIELD FILTERED
(Recommended Method For Purging Well)

WTR.QLTY.SAMPLNG.INFO.28NOV94RYL

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3018.95.21 Date: 9/25/96

Project Name: VOLVO GM Sample No.: LF-9

Sample Location: Oakland ☐ FB:

Samplers Name: ORTJCK ☐ DUP:

Sampling Plan Prepared By: JCK

Sampling Method:

- ☐ Centrifugal Pump
- ☐ Submersible Pump
- ☐ Hand Bail
- ☐ Extraction Well Port
- ☐ Disposable Bailer
- ☐ Teflon Bailer
- ☐ _____ (Other)

Analyses Requested: Title 22 metals

Number and Types of Bottle used: 1 plastic 500 mL

Method of Shipment: AEN (Lab Name)

☒ Courier

☐ Hand Deliver:

Well Number: LP-9

Depth to Water: 5.97

Depth: 13.88

Height of Water Column: 7.91

Volume in Well: 45gal

Well Diameter:

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

80% DTW 7.55

0.2 13.88 5.97 → 7.91 | .16 → 4746 791 12656

7.91 × .8 = 6328

13.88 − 6.33 = 7.55

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temperature °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
~~11:35~~ 11:34								Start bailing
11:35		1.5		20.7	6.47	2430		TURBID
11:38		3.0		20.6	6.39	2400		TURBID
11:40		4.5		20.5	6.33	2400		TURBID
12:20	6.89							SAMPLE

t Depth:

Comments: FIELD FILTERED.
(Recommended Method For Purging Well)

WTR.QLTY.SMPLNG.INFO.28NOV94/RTL

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3018.95.21 Date: 9/24/96

Project Name: VOLVO GM Sample No.: LF-10

Sample Location: LF-10 ☐ FB: ____

Samplers Name: JCK ☐ DUP: ____

Sampling Plan Prepared By: JCK

Sampling Method:

- ☒ Centrifugal Pump
- ☐ Submersible Pump
- ☐ Hand Bail
- ☐ Extraction Well Port
- ☒ Disposable Bailer
- ☐ Teflon Bailer
- ☐ ____ (Other)

Analyses Requested: TITLE 22 METALS

Number and Types of Bottle used:

Method of Shipment: AEN (Lab Name)

☒ Courier ____

☐ Hand Deliver:

Well Number: LF-10

Depth to Water: 6.81

ll Depth: 14.74

Height of Water Column: 7.93

Volume in Well: 5.16

Well Diameter:

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

14.74
6.81
7.93
.65
3965
4758
5.1545

14.74
7.93 6.34
.8 8.40
6344

8.40

80% DTW ____

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temperature °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
1553								START
1554	WATER	5.5		24.1	6.24	8130		CLEAR
1608	DEWATER	10.5		24.5	6.38	12030		ON CLEAR OFF
1810	12.45							SAMPLE

t Depth: ____

Comments: FIELD FILTERED
(Recommended Method For Purging Well)

WTRQLTY.SMPLNG.INFO.28NOV94RYL

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3018.95.21 Date: 9/25/96

Project Name: VOLVO GM Sample No.: LF-11

Sample Location: Oakland ☐ FB: ____

Samplers Name: DRT ☒ DUP: LF-111 DUP

Sampling Plan Prepared By: JCK

Sampling Method: ____

- ☒ Centrifugal Pump
- ☐ Submersible Pump
- ☐ Hand Bail
- ☐ Extraction Well Port
- ☐ Disposable Bailer
- ☒ Teflon Bailer
- ☐ ____ (Other)

Analyses Requested: Title 22 metals

Number and Types of Bottle used: 1 plastic 500ml

Method of Shipment: AEN (Lab Name)

☒ Courier ____

☐ Hand Deliver:

Well Number: LF-11

Depth to Water: 3.80

Total Depth: 20.01

Height of Water Column: 16.21

Volume in Well: 10.54

Well Diameter:

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

20.01
3.80
16.21
.65
8105
9726
10.5365

16.21
.2 3.80
3.2
3242
700

80% DTW 7.00

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temperature °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
12:43								START
1245		11		25.5	3.70	28500		CLEAR
1245	DEWATER	16				•		OFF
1253								ON
1254	DEWATE	22		23.9	3.44	41300		CLEAR / OFF
1528								
1530	16.25							Sample
1630								Sample Dup

WTR.QLTY.SMPLNG.INFO.28NOV94RYL

Jet Depth: ____

Comments: FIELD FILTERED

(Recommended Method For Purging Well)

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3018.95.21 Date: 9/24/96

Project Name: VOLVO GM Sample No.: LF-12

ample Location: LF-12 ☐ FB: ____

Samplers Name: JCK ☐ DUP: ____

Sampling Plan Prepared By: JCK

Sampling Method: ____

- ☒ Centrifugal Pump
- ☐ Submersible Pump
- ☐ Hand Bail
- ☐ Extraction Well Port
- ☐ Disposable Bailer
- ☒ Teflon Bailer
- ☐ ____ (Other)

Analyses Requested	Number and Types of Bottle used
TITLE 22 METALS	1 PINT PLASTIC

Method of Shipment

AEN (Lab Name) ☒ Courier ____ ☐ Hand Deliver:

Well Number: LF-12

Depth to Water: ~~7.78~~ 7.30

l Depth: 14.70

Height of Water Column: 7.92

Volume in Well: ~~5.45~~ 4.81

Well Diameter:

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

14.70 − 4.78 = 7.92 ; 7.92 × .65 = 5.148 ; 3700 + 4440 = 8100

14.70 − 7.30 = 7.40 ; 7.40 × .65 = 4810

7.40 × .8 = 5920 ; 14.70 − 5.92 = 8.78

80% DTW 8.78

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temperature °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
13:25								START
13:26		5		24.5	3.66	10110		CLEAR; OFF
13:31		10		24.4	3.68	10950		ON; SL TURBID; OFF
13:36		15		24.8	3.68	11080		ON; CLEAR ; OFF
14:35	8.72							SAMPLE

l Depth: ____

ments: FIELD FILTERED

mended Method For Purging Well)

WTR.QLTY.SMPLNG.INFO.28NOV94RYL

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3018.95.21 Date: 9/23/96

Project Name: VOLVO GM Sample No.: LF-14

Sample Location: LF-14 ☐ FB: ____

Samplers Name: JCK ☐ DUP: ____

Sampling Plan Prepared By: JCK

Sampling Method:

- ☐ Centrifugal Pump
- ☐ Submersible Pump
- ☒ Hand Bail
- ☐ Extraction Well Port
- ☐ Disposable Bailer
- ☒ Teflon Bailer
- ☐ ____ (Other)

Analyses Requested

TPH-G
TITLE 22 METALS
TPH-D+O

Number and Types of Bottle used

3 VOA
1 PLASTIC
2 L. AMBER

Method of Shipment

AEN (Lab Name)

☒ Courier ____

☐ Hand Deliver:

Well Number: LF-14

Depth to Water: 6.78

Depth: 25.00

Height of Water Column: 18.22

Volume in Well: 2.92

Well Diameter:

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

25.00
6.78
18.22
.16
10932
1822
2.9152

18.22 × .8 = 14576

2500 / 14.58 = 10.42

80% DTW 10.42

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temperature °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
4:16								START
14:18		3		20.6	4.53	5120		TURBID
14:21		6		19.9	4.92	7760		TURBID
1427		9		20.0	4.97	7920		TURBID

t Depth: ____

Comments: FIELD FILTERED
(Recommended Method For Purging Well)

WTR.QLTY.SMPLNG.INFO.28NOV94RYL

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3018.95.21 Date: 9/24/96

Project Name: VOLVO GM Sample No.: LF-15

Sample Location: LF-15 ☐ FB: ____

Samplers Name: JCK ☐ DUP: ____

Sampling Plan Prepared By: JCK

Sampling Method: ____

- ☐ Centrifugal Pump
- ☐ Submersible Pump
- ☒ Hand Bail
- ☐ Extraction Well Port
- ☐ Disposable Bailer
- ☒ Teflon Bailer
- ☐ ____ (Other)

Analyses Requested: TITLE 22 METALS

Number and Types of Bottle used: ____

Method of Shipment: AEN (Lab Name)

☒ Courier ____

☐ Hand Deliver:

20.03
6.20
13.83
.16
8898
1383
2.2728

13.83 × .8 = 11064

20.03 − 11.06 = 8.97

80% DTW 8.97

Well Number: LF-15

Depth to Water: 6.20

Well Depth: 20.03

Height of Water Column: 13.83

Volume in Well: 2.27

Well Diameter:

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

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temperature °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
10:21								START
10:26		3		19.8	4.55	17500		TURBID
10:29		6		19.7	4.51	20400		TURBID
10:34		7.5		19.4	4.44	22800		TURBID
11:30	8.89							SAMPLE

Set Depth: ____

Comments: FIELD FILTERED

(Recommended Method For Purging Well)

WTR.QLTY.SMPLNG.INFO.28NOV94RYL

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3018.95.21 Date: 9/24/96

Project Name: VOLVO GM Sample No.: LF-16

ample Location: LF-16 ☐ FB: ____

Samplers Name: JCK ☐ DUP: ____

Sampling Plan Prepared By: JCK

Sampling Method:

- ☐ Centrifugal Pump
- ☐ Submersible Pump
- ☒ Hand Bail
- ☐ Extraction Well Port
- ☐ Disposable Bailer
- ☒ Teflon Bailer
- ☐ ____ (Other)

Analyses Requested: TITLE 22 METALS

Number and Types of Bottle used:

Method of Shipment: AEN (Lab Name)

☒ Courier ____

☐ Hand Deliver:

Well Number: LF-16

Depth to Water: 7.18

l Depth: 24.50

Height of Water Column: 17.32

Volume in Well: 2.77

Well Diameter:

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

24.50
7.18
17.32
.16
10392
1732
2.771 2

17.32 × .8 = 13856

24.50 − 13.86 = 10.64

80% DTW 10.64

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temperature °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
0:57								START
1:00				20.3	4.10	14620		TURBID; BLOTCHES OF SHEEN
1:04				19.9	4.06	15120		TURBID; BLOTCHES OF SHEEN
1:08				19.9	4.07	15320		TURBID; "
2:15	10.51							SAMPLE

t Depth: ____

Comments: FIELD FILTERED

(Recommended Method For Purging Well)

WTR.QLTY.SMPLNG.INFO.28NOV94.RYL

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3018.95.21
Date: 9/25/96
Project Name: Volvo GM
Sample No.: LF-17
Sample Location: Oakland
☐ FB:
Samplers Name: DFT JCK
☐ DUP:
Sampling Plan Prepared By: JCK
Sampling Method:

- ☒ Centrifugal Pump
- ☐ Submersible Pump
- ☐ Hand Bail
- ☐ Extraction Well Port
- ☐ Disposable Bailer
- ☒ Teflon Bailer
- ☐ _____ (Other)

Analyses Requested: Title 22 metals
Number and Types of Bottle used: 1 500mL Plastic

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

Well Number: LF-17
Depth to Water: 7.04
Well Depth: 20.20
Height of Water Column: 13.16
Volume in Well: 9gal

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

80% DTW 11.08

1
28.26
7.04
13.16 20.20
.65 .2
580 4040
7896
8540 7.04
4.04
11 08
11.08

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temperature °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
1030								Start Pump
1032		9		20.0	6.49	1.53		Clear
1039		~~5~~ 18 DRO		19.8	6.97	1.25		~~DeH20~~ DRO 1-5 light turbid
1041		22						DeH20
1049								start pump
1050		27		20.3	7.07	1.93		Clear/DeH2O
11:50	7.50							Sample

Set Depth:

Comments: FIELD FILTERED
(Recommended Method For Purging Well)

WTR.QLTY.SMPLNG.INFO.28NOV94RYL

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3018.95.21 Date: 9/25/96

Project Name: Volvo GM Sample No.: LF-F1

Sample Location: Oakland ☐ FB: ____

Samplers Name: ORS JCK ☐ DUP: ____

Sampling Plan Prepared By: JCK

Sampling Method: ____

- ☐ Centrifugal Pump
- ☐ Submersible Pump
- ☒ ~~Hand Bail~~
- ☐ Extraction Well Port
- ☐ Disposable Bailer
- ☒ Teflon Bailer
- ☐ ____ (Other)

Analyses Requested: Title 22 metals ~~metals~~ Number and Types of Bottle used: 6 1 plastic 500mL

Method of Shipment: AEN (Lab Name)

- ☒ Courier ____
- ☐ Hand Deliver:

Well Number: LF-F1

Depth to Water: 3.80 ORS

Total Depth: 7.16

Height of Water Column: ~~3.30~~ 4.06 ORS

Volume in Well: ~~ORS 2.5gal~~ 3gal

Well Diameter:

- ☒ ~~2~~" (0.16 Gallon/Feet)
- ☒ 4" (0.65 Gallon/Feet
- ☐ 5" (1.02 Gallon/Feet)
- ☐ 6" (1.47 Gallon/Feet)

80% DTW 3.91

7.16 − 3.80 = 3.30 ORS

3.30 × .65 = 2.145

.16 × 50 = 8

1980

2450

7.16 − 3.10 = 4.06

4.06 × .65 = 2.639

2030

2436

26890

4.06 × .8 = 3.248

7.16 − 3.25 = 3.91

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temperature °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
1100								Start bailing
1104		3		25.4	6.45	3.71		Mod turbid
1108		6		25.5	6.36	3.82		Slight turbid / DeH2O
1247	4.88							
1310	4.41							SAMPLE

Set Depth: ____

Comments: FIELD FILTERED

(Recommended Method For Purging Well)

WTR.QLTY.SMPLNG.INFO.28NOV94.RYL

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3018.95.21 Date: 9/25/96

Project Name: VOLVO GM Sample No.: MW-1

ample Location: MW-1 ☐ FB:

Samplers Name: JCK DRJ ☐ DUP:

Sampling Plan Prepared By: JCK

Sampling Method:

- ☐ Centrifugal Pump
- ☐ Submersible Pump
- ☒ Hand Bail
- ☐ Extraction Well Port
- ☐ Disposable Bailer
- ☒ Teflon Bailer
- ☐ _____ (Other)

Analyses Requested: TITLE 22 METAL

Number and Types of Bottle used: 1 500 ml PLASTIC

Method of Shipment: AEN (Lab Name)

☒ Courier

☐ Hand Deliver:

28.50
6.01
22.49
.16
13494
2249
34984

22.49 × .8 = 17992

28.50 − 17.99 = 1051

80% DTW 10.51

Well Number: MW-1

Depth to Water: 6.01

l Depth: 28.50

Height of Water Column:

Volume in Well: 3.50

Well Diameter:

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

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temperature °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
1206								START
1209		3.50		23.3	6.87	1225		TURBID
213		7.00		22.2	6.89	1195		TURBID
216	20.10	10.50		21.0	6.91	1195		TURBID
305	8.99							SAMPLE

t Depth:

Comments: FIELD FILTERED

(Recommended Method For Purging Well)

WTR.QLTY.SMPLNG.INFO.28NOV94RYL

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3018.95.21 Date: 9/23/96

Project Name: VOLVO GM Sample No.: MW-2

Sample Location: MW-2 ☐ FB: ____

Samplers Name: JCK ☐ DUP: ____

Sampling Plan Prepared By: JCK

Sampling Method: ____

☐ Centrifugal Pump ☐ Disposable Bailer

☐ Submersible Pump ☒ Teflon Bailer

☒ Hand Bail ☐ ____ (Other)

☐ Extraction Well Port

Analyses Requested	Number and Types of Bottle used
TITLE 22 METALS	1 PLAST Pint

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

Well Number: MW-2 Well Diameter: ____

Depth to Water: 4.07 ☐ 2" (0.16 Gallon/Feet)

Well Depth: 27.00 ☐ 4" (0.65 Gallon/Feet

Height of Water Column: 22.93 ☐ 5" (1.02 Gallon/Feet)

Volume in Well: ~~23~~ 3.67 ☐ 6" (1.47 Gallon/Feet)

80% DTW 8.66

27.00
4.07
22.93
.16
13758
2293
36688

22.93
.8
18344

27.00
18.34
866

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temperature °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
5:12								START
5:17		4		24.3	4.75	4860		TURBID
5:20		8		23.6	4.60	4980		TURBID
5:25		12		22.9	4.40	5190		TURBID
5:33		16		22.5	4.29	5410		TURBID
5:35	11.30							
550	8.40							SAMPLE

Set Depth: ____

Comments: FIELD FILTERED

(Recommended Method For Purging Well)

WTR.QLTY.SMPLNG.INFO.28NOV94RYL

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3018.95.21 Date: 9/23/96

Project Name: VOLVO GM Sample No.: MW-3

Sample Location: MW-3 ☐ FB: ____

Samplers Name: JCK ☐ DUP: ____

Sampling Plan Prepared By: JCK

Sampling Method: ____

- ☐ Centrifugal Pump
- ☐ Submersible Pump
- ☒ Hand Bail
- ☐ Extraction Well Port
- ☐ Disposable Bailer
- ☒ Teflon Bailer
- ☐ ____ (Other)

Analyses Requested: TITLE 22 METALS

Number and Types of Bottle used: 1 PLASTIC PINT

Method of Shipment: AEN (Lab Name)

☒ Courier ____

☐ Hand Deliver:

Well Number: MW-3

Depth to Water: 6.32

Depth: 27.00

Height of Water Column: 20.68

Volume in Well: 3.31

Well Diameter:

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

27.00
6.32
20.68
.16
12408
2068
33088

20.68
.8
16544

27.00
16.54
10.46

80% DTW 10.46

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temperature °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
14:15								START
14:20		3.5		23.0	4.14	5900		TURBID
1424		7.0		22.7	4.20	5840		TURBID
1430	14.80	10.5		21.7	4.30	5940		TURBID
1450	10.02							SAMPLE

Set Depth: ____

Comments: FIELD FILTERED

(Recommended Method For Purging Well)

WTR.QLTY.SMPLNG.INFO.28NOV94RYL