LEVINE • FRICKE
ENGINEERS, HYDROGEOLOGISTS & APPLIED SCIENTISTS

November 21, 1995 LF-3018.95-20

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

Subject: Quarterly Ground-Water Monitoring Report for the Period from April 1 through June 30, 1995, 5050 Coliseum Way and 750-50th Avenue, Oakland, California

Dear Ms. Logan:

This quarterly report is submitted by Levine·Fricke on behalf of Volvo GM Heavy Truck Corporation for the subject site. During this quarterly round, depth-to-water measurements were collected in all 22 monitoring wells and ground-water samples were collected from 10 wells.

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

Sincerely,

Kathleen A. Isaacson, R.G.
Senior Associate Hydrogeologist

Enclosure

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

1900 POWELL STREET, 12TH FLOOR, EMERYVILLE, CALIFORNIA 94608-1811 *phone* (510) 652-4500 *fax* (510) 652-2246
San Francisco Bay Area · Sacramento · Irvine · San Diego · Phoenix · Salt Lake City · Denver · Chicago · Tallahassee · Newark · Honolulu

Quarterly Ground-Water Monitoring Report for the Period from April 1 through June 30, 1995
5050 Coliseum Way and 750-50th Avenue
Oakland, California
November 21, 1995
3018.95-20

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

LEVINE • FRICKE
ENGINEERS, HYDROGEOLOGISTS & APPLIED SCIENTISTS

CONTENTS

LIST OF TABLES

LIST OF FIGURES

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.

11/21/95

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

Date

1.0 INTRODUCTION

This report presents results of quarterly ground-water monitoring activities conducted during the period April 1 through June 30, 1995, for the properties located at 5050 Coliseum Way and 750-50th Avenue, Oakland, California ("the Site"; Figure 1). This report was prepared by Levine·Fricke, Inc. ("Levine·Fricke") on behalf of Volvo GM Heavy Truck Corporation ("Volvo GM") in accordance with the Levine·Fricke work plan dated January 6, 1993 and submitted to the Alameda County Health Care Services Agency (ACHCSA). This report includes graphic illustrations of potentiometric head (water-level) data and presents historical summaries of ground-water elevation and ground-water quality data collected at the Site.

2.0 WATER-LEVEL MEASUREMENTS AND GROUND-WATER FLOW DIRECTION

The top of each well casing at the Site has been surveyed relative to mean sea level by a state-licensed land surveyor. Water-level measurements were collected from all wells at the Site on June 7, 1995. A historical summary of depth-to-water measurements and ground-water elevations for the Site is presented in Table 1.

Ground-water elevations calculated from depth-to-water measurements collected in June 1995 were higher than historical ground-water elevations for the property, but generally lower than elevations measured in March 1995. Ground-water elevations decreased relative to March 1995 across the Site ranging from 0.02 foot in well LF-8 to 1.84 foot in well LF-17.

Ground-water elevation contours for June 7, 1995 are presented in Figure 2. Ground-water elevation data indicate that the ground-water flow direction was generally toward the west, consistent with historical ground-water data. Ground-water flow data indicate a lateral hydraulic gradient which ranged from approximately 0.005 foot per foot (ft/ft; as calculated between wells LF-7 and LF-1) to 0.016 ft/ft (as calculated between wells LF-1 and LF-5).

Approximately 0.10 foot of free product was measured in well LF-13 using a product thickness bailer. The oil-water interface probe indicated approximately 1 foot of product, but the nature of the product is such that it distorts the probe's sensitivity.

3.0 GROUND-WATER QUALITY

Ground-water samples were collected from 10 monitoring wells (LF-1, LF-2, LF-3, LF-5, LF-8, LF-11, LF-12, LF-14, LF-16, and MW-3) June 7 through 9, 1995. Well LF-13 contained free product, approximately 0.10 foot thick, and the well was not sampled.

Ground-water samples collected from all wells were submitted to the laboratory for metals analysis using EPA Method 6010/7000 series. The sample collected from well LF-8 was also submitted for analysis of total petroleum hydrocarbons (TPH) as gasoline (TPHg) by EPA Method 3550, and as diesel (TPHd) and oil (TPHo) by EPA Method 3510.

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

3.1 Sampling Procedures

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

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

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

For quality assurance/quality control measures, a duplicate sample and a field blank were collected for well LF-1. The duplicate sample was submitted for Title 22 metals analysis and the field blank was submitted to the laboratory on a hold basis, pending analytical results.

3.2 Ground-Water Quality Results

3.2.1 Metals

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

Chromium was detected in well LF-3 and LF-5 at a concentration of 0.003 parts per million (ppm) and 0.006 ppm, respectively. Silver, barium, beryllium, molybdenum, antimony, selenium, thallium, and vanadium were generally reported at concentrations below 0.1 ppm when detected in samples.

Zinc was detected in all wells sampled at concentrations ranging from 0.052 ppm in well LF-8 to 37,000 ppm in well LF-11. The highest concentration of lead (1.50 ppm) was detected in the sample from well LF-1. Lead was not reported above laboratory detection limits for wells MW-3, LF-12, or LF-5, located crossgradient or downgradient from LF-1.

The highest concentration of cadmium (99 ppm) and nickel (21 ppm) were detected in the sample collected from LF-11 and the highest concentration of copper (19 ppm) and cobalt (5.1 ppm) were detected in the sample collected from well LF-16. Of the downgradient wells that were sampled, well LF-12 contained the highest concentrations of those metals (cadmium, 3.3 ppm; cobalt, 2.1 ppm; copper, 1.2 ppm; nickel, 6.6 ppm).

Arsenic was detected in samples collected from 5 of the 10 wells, with the highest concentration of 5.6 ppm reported for well LF-3. Arsenic was not detected above laboratory detection limits in approximate downgradient wells LF-2, LF-5, LF-10, and LF-12, or crossgradient well MW-3.

3.2.2 Petroleum Hydrocarbons

The sample collected from monitoring well LF-8 was analyzed for TPHg, TPHd, and TPHo (Tables 3 and 4). Analytical results for petroleum hydrocarbons in samples collected from well LF-8 were similar to previous sample events. TPHg was reported at a concentration of 0.3 ppm. TPHd was detected at a concentration of 3.8 ppm. TPHo was not detected in LF-8 above reporting limits.

3.2.3 Volatile and Semivolatile Organic Compounds

No samples were analyzed for VOCs or SVOCs this quarter.

3.2.4 Measurements of pH

Measurements of ground-water pH were generally consistent with values previously reported for the Site. Recent monitoring indicates that pH values for shallow ground water beneath the Site are variable. The lowest pH (3.83) was measured in the sample from well LF-12. A pH value above 6.5 was measured for samples from only 2 of the 10 wells sampled.

3.2.5 Quality Assurance/Quality Control

Analytical results for the duplicate sample collected from well LF-1 (LF-101) showed variable metals concentrations when compared to the primary sample collected from

that well (LF-1). The results were generally slightly higher in the duplicate sample. The field duplicate relative percent difference (RPD) for the metals analyzed ranged from 0 to 83%; the acceptable range is 50% or less. If the field duplicate RPD exceeds the acceptable range, it is generally Levine·Fricke policy to accept results from the primary sample.

In an attempt to limit sampling variability, care will be taken during future sampling events to use a new metals filter for the duplicate sample.

Table 1
Historical Summary of Ground-Water Elevation Data
5050 Coliseum Way and 750 50th Avenue
Oakland, California

Well Number	Top of PVC Casing Elevation (feet msl)	Date Measured	Depth to Water (feet msl)	Depth to Product (feet msl)	Product Thickness (ft)	Ground-Water Elevation (feet msl)
LF-1	7.56	07-Nov-91	6.79			0.77
		26-Oct-92	4.69			2.87
		04-Mar-93	3.94			3.62
		14-Apr-93	3.41			4.15
		24-May-93	3.07			4.49
		14-Jun-93	3.41			4.15
		30-Jul-93	3.46			4.10
		31-Aug-93	3.67			3.89
		27-Sep-93	3.76			3.80
		25-Oct-93	3.74			3.82
		02-Nov-93	4.26			3.30
		08-Dec-93	4.42			3.14
		28-Jan-94	4.06			3.50
		15-Feb-94	3.94			3.62
		24-May-94	3.81			3.75
		21-Sep-94	3.75			3.81
		19-Dec-94	3.51			4.05
		13-Mar-95	2.33			5.23
		07-Jun-95	2.49			5.07
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
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

Table 1
Historical Summary of Ground-Water Elevation Data
5050 Coliseum Way and 750 50th Avenue
Oakland, California

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

Table 1
Historical Summary of Ground-Water Elevation Data
5050 Coliseum Way and 750 50th Avenue
Oakland, California

Well Number	Top of PVC Casing Elevation (feet msl)	Date Measured	Depth to Water (feet msl)	Depth to Product (feet msl)	Product Thickness (ft)	Ground-Water Elevation (feet msl)
		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
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
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
LF-8	10.91	02-Nov-93	6.18			4.73

Table 1
Historical Summary of Ground-Water Elevation Data
5050 Coliseum Way and 750 50th Avenue
Oakland, California

Well Number	Top of PVC Casing Elevation (feet msl)	Date Measured	Depth to Water (feet msl)	Depth to Product (feet msl)	Product Thickness (ft)	Ground-Water Elevation (feet msl)
		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
LF-9	11.70	02-Nov-93	6.76			4.94
		08-Dec-93	6.91			4.79
		28-Jan-94	6.88			4.82
		15-Feb-94	6.80			4.90
		24-May-94	6.80			4.90
		21-Sep-94	6.98			4.72
		19-Dec-94	6.34			5.36
		13-Mar-95	5.12			6.58
		07-Jun-95	5.31			6.39
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
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
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
		19-Dec-94	7.32			1.38
		13-Mar-95	6.00			2.70
		07-Jun-95	7.40			1.30

Table 1
Historical Summary of Ground-Water Elevation Data
5050 Coliseum Way and 750 50th Avenue
Oakland, California

Well Number	Top of PVC Casing Elevation (feet msl)	Date Measured	Depth to Water (feet msl)	Depth to Product (feet msl)	Product Thickness (ft)	Ground-Water Elevation (feet msl)
LF-13 [1]	9.75	08-Dec-93	5.94			3.81
		28-Jan-94	4.94			4.81
		15-Feb-94	4.84	4.83	0.01	4.92
		24-May-94	4.81	4.75	0.06	4.99
		21-Sep-94	6.32	5.17	1.15	4.41
		19-Dec-94	4.67	4.57	0.10	5.17
		13-Mar-95	3.22	3.12	0.10	6.62
		07-Jun-95	3.32	3.22	0.10	6.52
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
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
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
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
LF-F1	8.82	08-Dec-93	4.08			4.74

Table 1
Historical Summary of Ground-Water Elevation Data
5050 Coliseum Way and 750 50th Avenue
Oakland, California

Well Number	Top of PVC Casing Elevation (feet msl)	Date Measured	Depth to Water (feet msl)	Depth to Product (feet msl)	Product Thickness (ft)	Ground-Water Elevation (feet msl)
		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
MW-1	10.21	07-Nov-91	6.29			4.24
		26-Oct-92	6.38			2.63
		04-Mar-93	3.57			6.64
		14-Apr-93	3.57			6.64
		24-May-93	4.59			5.62
		14-Jun-93	4.86			5.35
		30-Jul-93	5.72			4.49
		31-Aug-93	6.38			3.83
		27-Sep-93	6.85			3.36
		25-Oct-93	7.03			3.18
		02-Nov-93	7.30			2.91
		08-Dec-93	6.51			3.70
		28-Jan-94	5.00			5.21
		15-Feb-94	4.46			5.75
		24-May-94	4.65			5.56
		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
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

Table 1
Historical Summary of Ground-Water Elevation Data
5050 Coliseum Way and 750 50th Avenue
Oakland, California

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

Data entered by RCM 28-Jul-95. Data proofed by TCK

NOTES

All elevations are measured relative to the mean-sea-level (msl) datum.

The top of casing elevations were measured from the north side of each PVC casing.

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

Table 2

Metals Detected in Ground-Water Samples

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

(concentrations expressed 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	04-Nov-91	0.054	0.004	0.046	0.11	130	5.7	<0.01	1.9	<0.0003	0.11	20	0.5	<0.2	<0.004	<1	<0.005	40000
LF-1	27-Oct-92	<0.5	0.007	<0.5	<0.2	57	4.1	<1	1	<0.0003	<1	19	<4	<2	0.027	<10	<0.5	16000
LF-1	05-Mar-93	<0.5	0.22	<0.05	<0.2	43	3.6	<1	0.47	<0.0003	<1	11	<4	<2	<0.01	<10	<0.5	14000
Duplicate	05-Mar-93	<0.5	0.26	<0.05	<0.2	44	3.9	<1	0.5	<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	08-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	08-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-2	04-Nov-91	<0.002	0.028	0.026	<0.001	0.009	0.18	<0.01	0.008	<0.0003	<0.01	0.52	<0.005	<0.02	<0.004	<0.1	<0.005	4.2
LF-2	27-Oct-92	0.006	0.007	<0.05	<0.002	0.006	0.12	<0.01	0.02	<0.0003	<0.01	0.22	<0.04	<0.02	0.005	<0.1	<0.005	3.3
LF-2	04-Mar-93	<0.005	0.003	<0.05	<0.002	<0.005	0.1	<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	07-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-3	04-Nov-91	<0.002	3.1	0.077	0.001	<0.005	0.016	<0.01	<0.004	<0.0003	0.16	0.012	<0.005	<0.02	<0.004	<0.1	0.006	3.1
LF-3	27-Oct-92	<0.005	3.6	0.11	0.004	0.013	0.029	<0.01	<0.01	<0.0003	0.22	0.02	<0.04	<0.02	0.018	<0.1	<0.005	12
LF-3	04-Mar-93	<0.005	4.9	0.07	0.003	0.012	0.023	<0.01	<0.01	<0.0003	0.18	0.04	<0.04	<0.02	<0.02	<0.1	<0.005	15
LF-3	25-May-93	<0.005	3.4	0.11	<0.002	0.04	0.01	<0.01	<0.01	<0.0003	0.13	0.01	<0.04	<0.02	<0.004	<0.1	<0.005	5.8
LF-3	31-Aug-93	<0.005	4.9	<0.05	0.003	0.023	0.019	<0.01	<0.01	<0.0003	0.15	0.01	<0.04	<0.02	<0.004	<0.1	<0.005	8.6
LF-3	25-Oct-93	<0.005	7.3	0.08	<0.002	0.005	0.013	<0.01	<0.01	<0.0003	0.13	0.02	<0.04	<0.02	<0.02	<0.1	<0.005	6.2
LF-3	16-Feb-94	<0.005	3.4	0.1	<0.002	<0.005	0.012	<0.01	<0.01	<0.0002	0.11	0.01	<0.04	<0.02	<0.01	<0.1	<0.005	5
LF-3	25-May-94	<0.001	2.4	0.08	0.0009	<0.001	0.009	0.002	<0.002	<0.0002	0.091	0.006	<0.003	<0.005	<0.02	<0.02	<0.001	4.1
LF-103 dup	25-May-94	0.001	2.8	0.08	0.0013	<0.001	0.011	<0.002	<0.002	<0.0002	0.11	0.008	<0.003	<0.005	<0.02	<0.02	<0.001	5.2
LF-3	23-Sep-94	<0.001	2.2	0.05	0.0014	<0.001	0.011	0.002	<0.002	<0.0002	0.11	0.008	<0.005	<0.005	<0.2	<0.02	0.004	5.5
LF-103 dup	23-Sep-94	<0.001	2.3	0.06	0.001	<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
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	07-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-4	04-Nov-91	<0.002	0.026	0.082	<0.001	<0.005	<0.005	<0.01	<0.004	<0.0003	<0.01	0.013	<0.005	0.03	<0.004	<0.1	0.01	0.034
LF-4	27-Oct-92	<0.005	0.034	<0.05	<0.002	<0.005	<0.005	<0.01	<0.01	<0.0003	<0.01	0.03	<0.04	<0.02	<0.004	<0.1	<0.005	0.012
LF-4	04-Mar-93	<0.005	0.017	0.11	<0.002	<0.005	<0.005	<0.01	<0.01	<0.0003	<0.01	0.05	<0.04	0.02	<0.004	<0.1	0.008	0.04
LF-4	24-May-93	<0.005	0.013	0.22	<0.002	<0.005	<0.005	<0.01	<0.01	<0.0003	<0.01	0.03	<0.04	<0.02	<0.004	<0.1	<0.005	0.035
LF-4	31-Aug-93	<0.005	0.052	0.08	<0.002	<0.005	0.006	<0.01	<0.01	<0.0003	<0.01	0.04	<0.04	<0.02	<0.004	<0.1	0.009	0.038
LF-4	25-Oct-93	<0.005	0.014	0.12	<0.002	<0.005	<0.005	<0.01	<0.01	<0.0003	<0.01	0.04	<0.04	<0.02	<0.004	<0.1	0.015	0.068
LF-4	16-Feb-94	<0.005	0.008	0.29	<0.002	<0.005	0.006	<0.01	<0.01	<0.0002	<0.01	0.04	<0.04	<0.02	<0.004	<0.1	<0.005	0.05
LF-4	22-Sep-94	<0.001	0.005	0.19	<0.0005	0.001	0.003	<0.002	0.003	<0.0002	<0.002	0.037	<0.005	0.007	<0.004	<0.02	0.007	0.067

Table 2

Metals Detected in Ground-Water Samples

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

(concentrations expressed 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-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-5	04-Nov-91	0.004	<0.002	0.018	<0.001	0.049	0.03	<0.01	<0.005	0.0004	<0.01	0.23	<0.005	<0.02	<0.004	<0.1	<0.005	11
LF-5	27-Oct-92	0.022	0.005	<0.05	<0.002	0.24	1.4	<0.01	<0.01	<0.0003	<0.01	5.4	<0.04	<0.02	0.017	<0.1	<0.005	35
LF-5	04-Mar-93	0.021	<0.005	<0.05	<0.002	0.21	1.1	<0.01	<0.01	<0.0003	<0.01	5	<0.04	<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	07-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-6	05-Nov-91	0.011	0.008	0.019	<0.001	0.079	0.58	<0.01	<0.005	0.0009	<0.01	2.1	0.009	<0.02	<0.004	<0.1	<0.005	8.1
LF-6	27-Oct-92	0.02	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	04-Mar-93	0.013	0.007	<0.05	0.003	0.13	1.2	<0.01	<0.01	<0.0003	<0.01	4.2	<0.04	<0.02	<0.004	<0.1	<0.005	17
LF-6	24-May-93	0.008	<0.002	<0.05	<0.002	0.13	0.97	<0.01	0.01	<0.0003	<0.01	3.4	<0.04	<0.02	<0.004	0.1	<0.005	13
LF-6	31-Aug-93	0.009	0.014	<0.05	0.003	0.13	1	<0.01	0.01	<0.0003	<0.01	3.7	<0.04	<0.02	<0.004	0.1	<0.005	14
LF-6	26-Oct-93	0.005	<0.002	<0.05	0.003	0.15	1	<0.01	0.02	<0.0003	<0.01	3.7	<0.04	<0.02	<0.004	0.1	<0.005	17
LF-6	16-Feb-94	0.007	0.016	<0.05	0.003	0.11	0.97	<0.01	<0.01	<0.0002	<0.01	3.4	<0.04	<0.02	<0.004	0.1	<0.005	13
LF-6	21-Sep-94	0.004	<0.002	0.01	0.0023	0.099	0.84	<0.002	0.011	<0.0002	<0.002	2.8	<0.005	<0.005	<0.004	0.02	<0.001	11
LF-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-7	05-Nov-91	<0.002	0.004	0.13	<0.001	<0.005	<0.005	<0.01	0.006	0.0011	<0.01	0.01	<0.005	<0.02	<0.004	<0.1	0.006	<0.005
LF-7	27-Oct-92	<0.005	0.03	0.11	<0.002	<0.005	<0.005	<0.01	<0.01	<0.0003	0.01	0.01	<0.04	<0.02	<0.004	<0.1	0.008	0.021
LF-7	04-Mar-93	<0.005	0.025	0.08	<0.002	<0.005	<0.005	<0.01	<0.01	<0.0003	0.01	0.01	<0.04	<0.02	<0.01	<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-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	09-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-9	01-Nov-93	<0.005	0.009	<0.05	<0.002	0.041	0.56	<0.01	0.02	<0.0003	<0.01	0.86	<0.04	<0.02	<0.02	<0.1	<0.005	14
LF-109 dup	01-Nov-93	<0.005	0.015	<0.05	<0.002	0.034	0.46	<0.01	<0.01	<0.0003	<0.01	0.71	<0.04	<0.02	<0.02	<0.1	<0.005	14
LF-9	17-Feb-94	<0.005	0.064	<0.05	<0.002	0.12	0.016	<0.01	<0.01	<0.0002	<0.01	0.1	<0.04	<0.02	<0.004	<0.1	<0.005	31
LF-9	21-Sep-94	<0.001	0.18	0.02	<0.0005	0.008	0.023	<0.002	<0.002	<0.0002	0.004	0.072	<0.005	0.006	<0.01	<0.02	0.002	20
LF-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-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-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

Table 2

Metals Detected in Ground-Water Samples

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

(concentrations expressed 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-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	08-Jun-95	<5	<0.02	<1	<3	99	<5	<10	<10	<0.0002	<10	21	0.09	<20	<0.04	<50	<5	37000
LF-12	01-Nov-93	<0.05	0.022	<0.5	<0.02	3.7	2.7	<0.1	0.9	<0.0003	<0.1	8.1	<0.4	<0.2	0.014	<1	<0.05	3400
LF-12	17-Feb-94	<0.05	0.004	<0.5	<0.02	2.9	1.9	<0.1	0.7	<0.0002	<0.1	5.9	<0.4	<0.2	0.014	<1	<0.05	2700
LF-12	24-May-94	<0.05	0.008	<0.05	<0.02	3.6	2.4	<0.1	1	<0.0002	<0.1	7.1	0.049	<0.3	0.017	<1	<0.05	3100
LF-12	22-Sep-94	<0.05	<0.005	<0.05	0.02	3.4	2.2	<0.1	1.1	<0.0002	<0.1	6.7	0.02	<0.2	0.02	<1	<0.05	3100
LF-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	07-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-13	06-Dec-93	<0.005	3.3	0.24	<0.002	<0.005	0.007	<0.01	<0.01	<0.0003	0.04	0.03	<0.04	<0.02	<0.2	<0.1	0.061	0.03
LF-14	08-Dec-93	<0.005	0.005	<0.05	<0.002	0.12	0.67	<0.01	0.68	0.0016	<0.01	1.6	<0.04	<0.02	<0.02	<0.1	<0.005	230
LF-14	17-Feb-94	<0.005	<0.002	<0.05	0.002	0.16	0.96	<0.01	2.1	<0.0002	<0.01	2.4	<0.04	<0.02	<0.004	<0.1	<0.005	300
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	08-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-15	06-Dec-93	0.032	<0.05	0.28	0.017	1.7	8.1	<0.01	0.14	<0.0003	<0.01	23	1.1	<0.02	<0.1	0.9	<0.005	640
LF-15	18-Feb-94	<0.05	0.006	<0.5	<0.02	1.7	7.4	<0.1	<0.1	<0.0002	<0.1	20	0.6	<0.2	<0.04	<1	<0.05	660
LF-15	21-Sep-94	0.02	<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	620
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-16	07-Dec-93	<0.05	<0.05	<0.5	<0.02	10	5.9	<0.1	0.4	<0.003	<0.1	16	<0.4	<0.2	<0.1	<1	<0.05	3400
LF-16	17-Feb-94	<0.05	<0.002	<0.5	0.04	15	8.3	<0.1	21	<0.0002	<0.1	24	<0.4	<0.2	<0.04	<1	<0.05	5200
LF-16	25-May-94	<0.05	<0.002	<0.5	0.02	12	7	<0.1	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	08-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-17	08-Dec-93	<0.005	0.004	0.11	<0.002	<0.005	0.011	<0.01	<0.01	<0.0003	<0.01	0.04	<0.04	<0.02	<0.004	<0.1	0.008	0.1
LF-17	15-Feb-94	<0.005	<0.002	0.05	<0.002	<0.005	0.009	<0.01	<0.01	<0.0002	<0.01	0.03	<0.04	<0.02	<0.004	<0.1	0.007	0.05
LF-17	22-Sep-94	<0.001	<0.002	0.06	<0.0005	<0.001	0.005	<0.002	<0.002	<0.0002	0.003	0.015	<0.005	0.005	<0.004	<0.02	0.006	0.035
LF-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-F1	08-Dec-93	<0.005	0.012	0.07	<0.002	0.049	0.055	<0.01	<0.01	<0.0003	<0.01	0.07	<0.04	<0.02	<0.04	<0.1	0.008	13
LF-F1	18-Feb-94	<0.005	0.004	<0.05	<0.002	0.065	0.062	<0.01	<0.01	<0.0002	0.02	0.07	<0.04	<0.02	<0.004	<0.1	<0.005	20
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
MW-1	05-Nov-91	<0.002	0.073	0.085	<0.001	<0.005	0.008	<0.01	<0.005	<0.0003	0.02	0.032	<0.005	<0.02	<0.004	<0.1	<0.005	2.7
MW-1	27-Oct-92	<0.005	0.084	0.09	<0.002	0.031	0.052	<0.01	<0.01	<0.0003	<0.01	0.3	<0.04	<0.02	<0.004	<0.1	0.007	42
MW-1	05-Mar-93	<0.005	0.024	0.05	<0.002	0.008	0.015	<0.01	<0.01	<0.0003	<0.01	0.11	<0.04	<0.02	<0.004	<0.1	0.006	16
MW-1	25-May-93	<0.005	0.064	0.06	<0.002	<0.005	0.008	<0.01	<0.01	<0.0003	0.02	0.02	<0.04	0.03	<0.004	<0.1	0.007	1.6
MW-1	01-Sep-93	<0.005	0.097	0.07	<0.002	<0.005	0.009	<0.01	<0.01	<0.0003	0.02	0.02	<0.04	<0.02	<0.004	<0.1	0.005	2.3
MW-1	26-Oct-93	<0.005	0.03	0.08	<0.002	0.009	0.012	<0.01	<0.01	<0.0003	<0.01	0.1	<0.04	<0.02	<0.004	<0.1	<0.005	13
MW-1	18-Feb-94	<0.005	0.052	0.1	<0.002	<0.005	0.011	<0.01	<0.01	<0.0002	0.01	0.02	<0.04	<0.02	<0.004	<0.1	0.007	2.8
MW-1	22-Sep-94	<0.001	0.029	0.08	<0.0005	0.005	0.009	<0.002	<0.002	<0.0002	0.007	0.051	<0.005	0.017	<0.01	<0.02	0.01	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

Table 2

Metals Detected in Ground-Water Samples

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

(concentrations expressed 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-2	05-Nov-92	0.008	2.1	0.013	0.002	7	0.42	<0.01	0.093	0.0055	0.01	1.2	<0.2	<0.2	<0.004	<0.1	<0.005	4200
MW-2	27-Oct-92	<0.05	1.5	<0.5	<0.02	10	1.5	<0.1	0.2	<0.0003	<0.1	4.9	<0.4	<0.2	0.014	<1	<0.05	6000
MW-2 (1)	05-Mar-93	<0.005	0.011	<0.05	<0.002	0.28	0.24	<0.01	0.14	<0.0003	<0.1	1	<0.04	<0.02	<0.01	<0.1	<0.005	290
MW-2	25-May-93	<0.05	1.8	<0.05	<0.02	5.2	0.85	<0.1	<0.1	<0.0003	<0.1	2.4	<0.4	<0.2	<0.004	<1	<0.05	3000
MW-2	01-Sep-93	<0.05	2.1	<0.05	<0.02	5.2	0.77	<0.1	<0.1	<0.0003	<0.1	2.3	<0.4	<0.2	<0.004	<1	<0.05	2700
MW-2	26-Oct-93	<0.05	4	<0.5	<0.02	5.1	0.73	0.3	0.3	<0.0003	<0.1	2.2	<0.4	<0.2	<0.04	<1	<0.05	2600
MW-2	18-Feb-94	<0.05	1.5	<0.5	<0.02	4.6	0.62	<0.1	<0.1	<0.0002	<0.1	2	<0.4	<0.2	<0.004	<1	<0.05	2600
MW-2	22-Sep-94	<0.05	2.1	<0.05	<0.02	5	0.65	<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-3	05-Nov-92	0.005	<0.002	0.017	0.001	0.57	0.42	<0.01	0.28	0.0028	<0.01	1.2	0.005	<0.02	<0.004	<0.1	<0.005	600
MW-3	27-Oct-92	0.009	0.004	<0.05	0.003	0.73	0.74	<0.01	0.3	<0.0003	<0.01	2.6	<0.04	<0.02	0.011	<0.1	<0.005	730
MW-3 (1)	05-Mar-93	<0.05	1.6	<0.05	<0.02	5.8	1	<0.1	0.07	<0.0003	<0.1	3.1	<0.4	<0.2	<0.02	<1	<0.05	3000
MW-3	25-May-93	<0.005	<0.002	<0.05	<0.002	0.28	0.24	<0.01	0.07	<0.0003	<0.01	0.83	<0.04	<0.02	<0.004	<0.1	<0.005	260
MW-3	01-Sep-93	<0.005	0.011	<0.05	<0.002	0.32	0.3	<0.01	0.2	<0.0003	<0.01	1.1	<0.04	<0.02	<0.004	<0.1	<0.005	360
MW-3	26-Oct-93	<0.005	<0.002	<0.05	0.002	0.44	0.49	<0.01	0.32	<0.0003	<0.01	1.7	<0.04	<0.02	<0.004	<0.1	<0.005	560
MW-3	18-Feb-94	<0.005	<0.002	<0.05	<0.002	0.22	0.25	<0.01	0.19	<0.0002	<0.01	0.77	<0.04	<0.02	<0.004	<0.1	<0.005	230
MW-3	24-May-94	<0.005	<0.002	<0.05	<0.002	0.1	0.14	<0.01	0.12	<0.0002	<0.01	0.42	<0.003	<0.03	<0.004	<0.1	<0.005	120
MW-3	22-Sep-94	<0.005	<0.002	<0.05	<0.002	0.21	0.25	<0.01	0.2	<0.0002	<0.01	0.75	<0.005	<0.02	<0.004	<0.1	<0.005	230
MW-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	07-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-4	05-Nov-92	<0.002	0.007	0.017	<0.001	<0.005	<0.005	<0.01	<0.005	0.0027	<0.01	0.012	<0.005	<0.02	<0.004	<0.1	<0.005	<0.005
MW-4	27-Oct-92	<0.005	<0.002	<0.05	<0.002	0.006	<0.005	<0.01	0.02	<0.0003	<0.01	0.02	<0.04	<0.02	0.004	<0.1	0.011	0.047
MW-4	04-Mar-93	<0.005	<0.002	<0.05	<0.002	<0.005	<0.005	<0.01	<0.01	<0.0003	<0.01	0.02	<0.04	<0.02	<0.004	<0.1	0.01	0.03
MW-4	25-May-93	<0.005	<0.002	<0.05	<0.002	<0.005	<0.005	<0.01	<0.01	<0.0003	<0.01	<0.01	<0.04	<0.02	<0.004	<0.1	0.006	0.008
MW-4	01-Sep-93	<0.005	0.009	<0.05	<0.002	<0.005	<0.005	<0.01	<0.01	<0.0003	<0.01	<0.01	<0.04	<0.02	<0.004	<0.1	<0.005	0.016
MW-4	26-Oct-93	<0.005	0.003	<0.05	<0.002	<0.005	<0.005	<0.01	<0.01	<0.0003	<0.01	<0.01	<0.04	<0.02	<0.004	<0.1	<0.005	0.15
MW-4	18-Feb-94	<0.005	<0.002	<0.05	<0.002	<0.005	<0.005	<0.01	<0.01	<0.0002	<0.01	0.02	<0.04	<0.02	<0.004	<0.1	<0.005	0.17
MW-4	22-Sep-94	<0.001	<0.002	0.02	<0.0005	<0.001	<0.001	<0.002	<0.002	<0.0002	<0.002	0.025	<0.005	<0.005	<0.004	<0.02	0.004	0.039
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
LF-1-FB	26-Oct-93	<0.005	<0.002	<0.05	<0.002	<0.005	<0.005	<0.01	<0.01	<0.0003	<0.01	<0.01	<0.04	<0.02	<0.004	<0.1	<0.005	0.035
LF-9-FB	01-Nov-93	<0.005	<0.002	<0.05	<0.002	<0.005	<0.005	<0.01	<0.01	<0.0003	<0.01	<0.01	<0.04	<0.02	<0.004	<0.1	<0.005	0.038
LF-17-FB	08-Dec-93	<0.005	<0.002	<0.05	<0.002	<0.005	<0.005	<0.01	<0.01	<0.0003	<0.01	<0.01	<0.04	<0.02	<0.004	<0.1	<0.005	0.1
LF-11-FB	18-Feb-94	<0.005	<0.002	<0.05	<0.002	<0.005	<0.005	<0.01	<0.01	<0.0002	<0.01	<0.01	<0.04	<0.02	<0.004	<0.1	<0.005	0.05
LF-3-BB	25-May-94	<0.001	<0.002	<0.01	<0.0005	<0.001	<0.001	<0.002	<0.002	<0.0002	<0.002	<0.002	<0.003	<0.005	<0.004	<0.02	<0.001	0.015

Data entered by RCM 28-Jul-95. 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 Ground-Water Samples
5050 Coliseum Way and 750 50th Avenue
Oakland, California

(concentrations reported in parts per million [ppm])

Sample ID	Sample Date	TPHg	Benzene	Ethylbenzene	Toluene	Xylenes
LF-1	04-Nov-91	<0.05	<0.005	<0.005	<0.005	<0.01
LF-2	04-Nov-91	<0.05	<0.005	<0.005	<0.005	<0.01
LF-3	04-Nov-91	<0.05	<0.005	<0.005	<0.005	<0.01
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-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-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	0.001	<0.0005	0.002	0.012
LF-14	15-Mar-95	1.2	0.001	<0.0005	0.0006	0.015
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 RCM 28-Jul-95. Data proofed by [illegible] QA/QC by SYS

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

(concentrations reported in parts per million [ppm])

Sample ID	Sample Date	TPHd	TPHo	TOG	Hydrocarbons
LF-1	04-Nov-91	0.09	NA	<0.5	<0.5
LF-2	04-Nov-91	0.3	NA	NA	NA
LF-3	04-Nov-91	0.2	NA	NA	NA
LF-3	25-May-94	0.3	0.4	NA	NA
LF-103 (dup)	25-May-94	0.3	0.4	NA	NA
LF-3	23-Sep-94	1.2	<0.2	NA	NA
LF-103 (dup)	23-Sep-94	1.0	<0.2	NA	NA
LF-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-4	04-Nov-91	0.1	NA	NA	NA
LF-8	28-Oct-93	9.8	NA	2.0	1.0
	24-May-94	4.5	0.6	NA	NA
	23-Sep-94	6.7	<0.2	NA	NA
	20-Dec-94	5.6	0.4	NA	NA
	15-Mar-95	4.1	0.2	NA	NA
	09-Jun-95	3.8	<0.2	NA	NA
LF-9	01-Nov-93	0.2	NA	<0.5	<0.5
LF-109 (dup)	01-Nov-93	0.2	NA	<0.5	<0.5
LF-11	28-Oct-93	<0.05	NA	<0.5	<0.5
LF-13 (*)	06-Dec-93	0.5	0.4	1.0	<0.5
LF-113 (dup)	06-Dec-93	0.6	0.4	NA	NA
LF-14	21-Sep-94	<0.3	<0.2	NA	NA
	19-Dec-94	0.65	<0.2	NA	NA
	15-Mar-95	0.3	<0.2	NA	NA
MW-2	04-Nov-91	<0.05	NA	NA	NA
LF-3-BB	25-May-94	<0.05	<0.2	NA	NA

Data entered by RCM 28-Jul-95. Data proofed by TCK. QA/QC by _____.

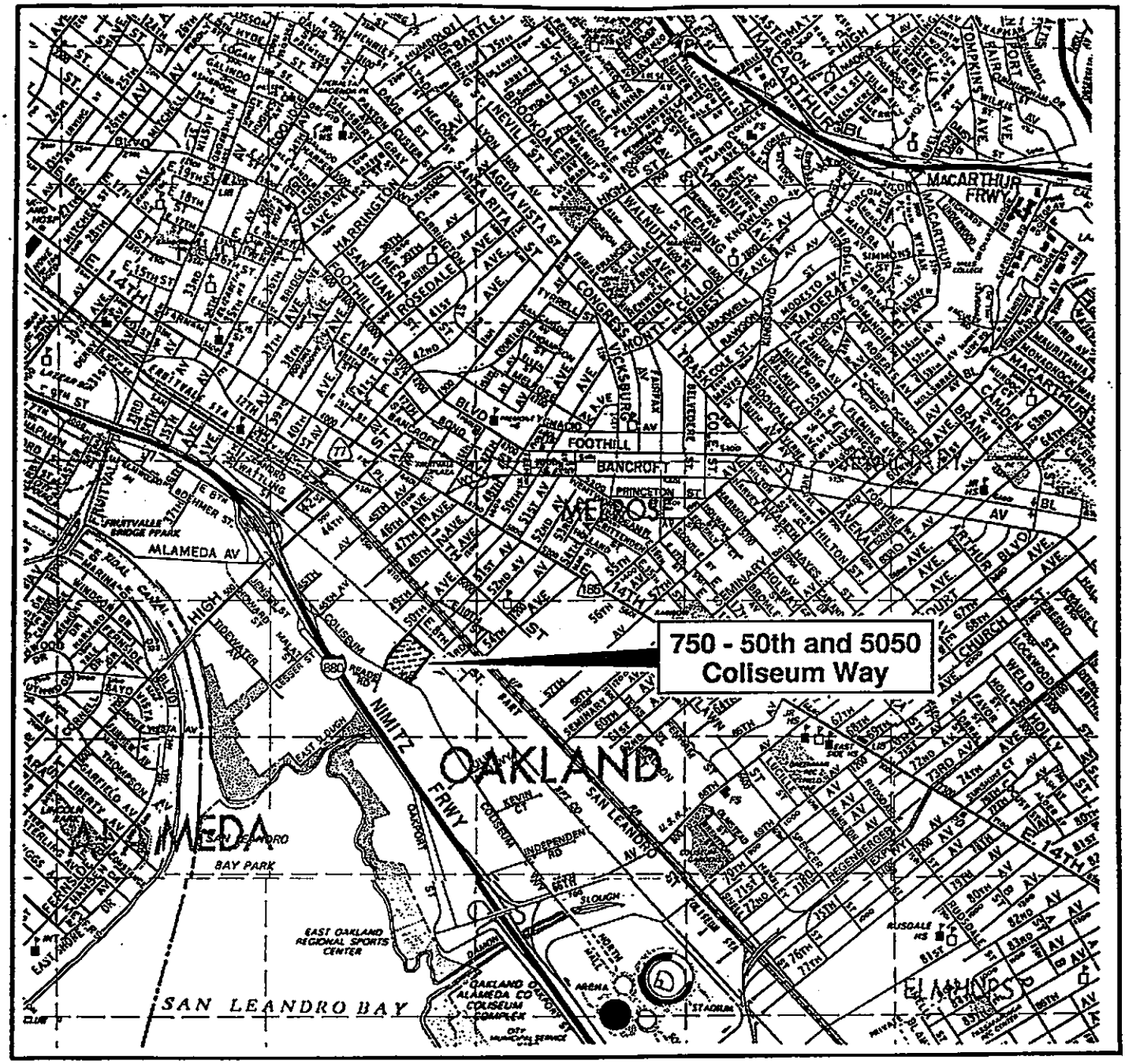
NOTES

Analyses performed by American Environmental Network, Pleasant Hill, CA

BB - Field Blank

NA - not analyzed

TPHd - Total petroleum hydrocarbons as diesel (EPA Method 3510)



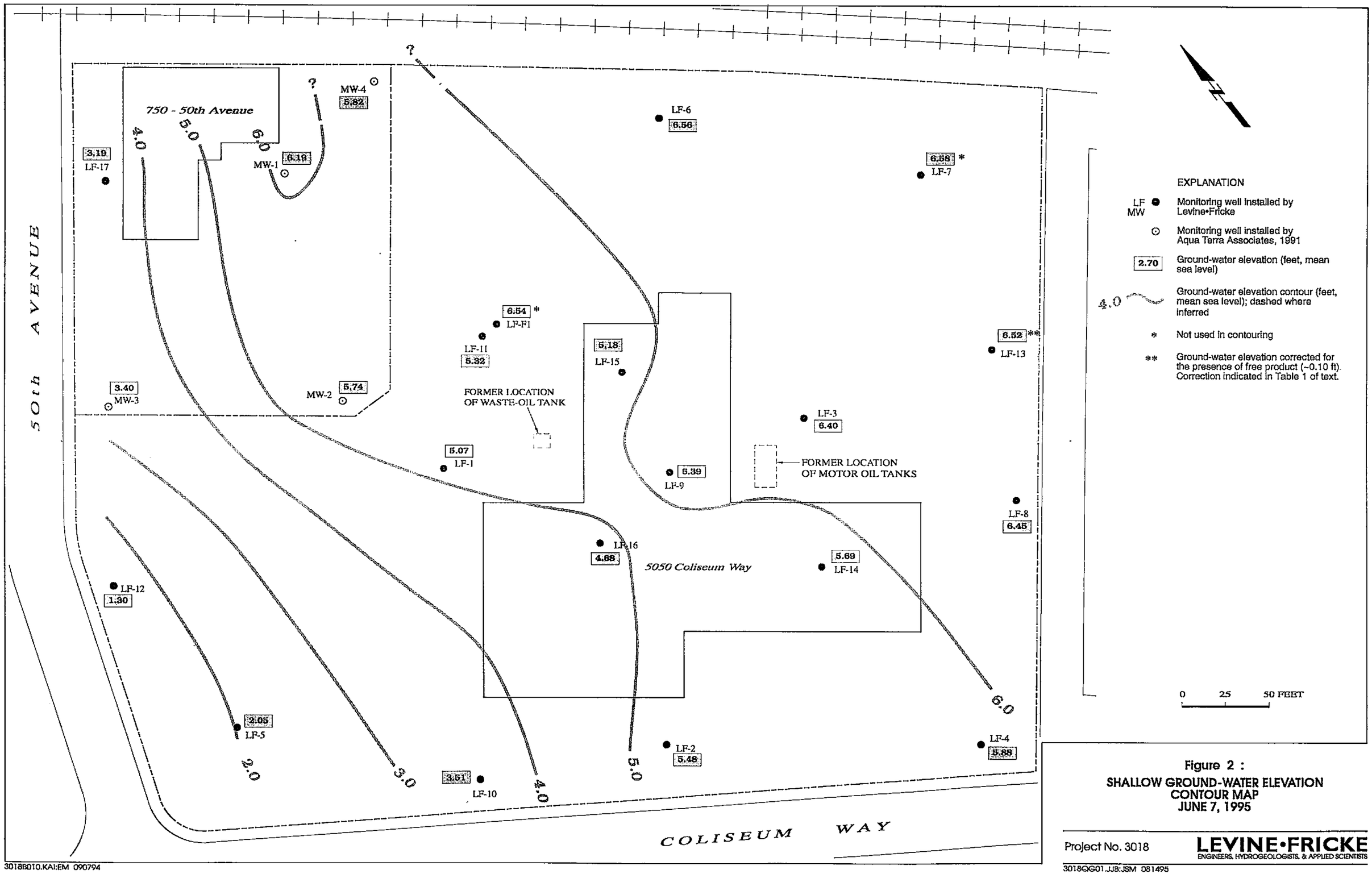
SOURCE: Thomas Bros. map
Alameda and Contra Costa
1990

Figure 1 : SITE LOCATION MAP

Project No. 3018

LEVINE•FRICKE
ENGINEERS, HYDROGEOLOGISTS & APPLIED SCIENTISTS

15OCT93#RYL



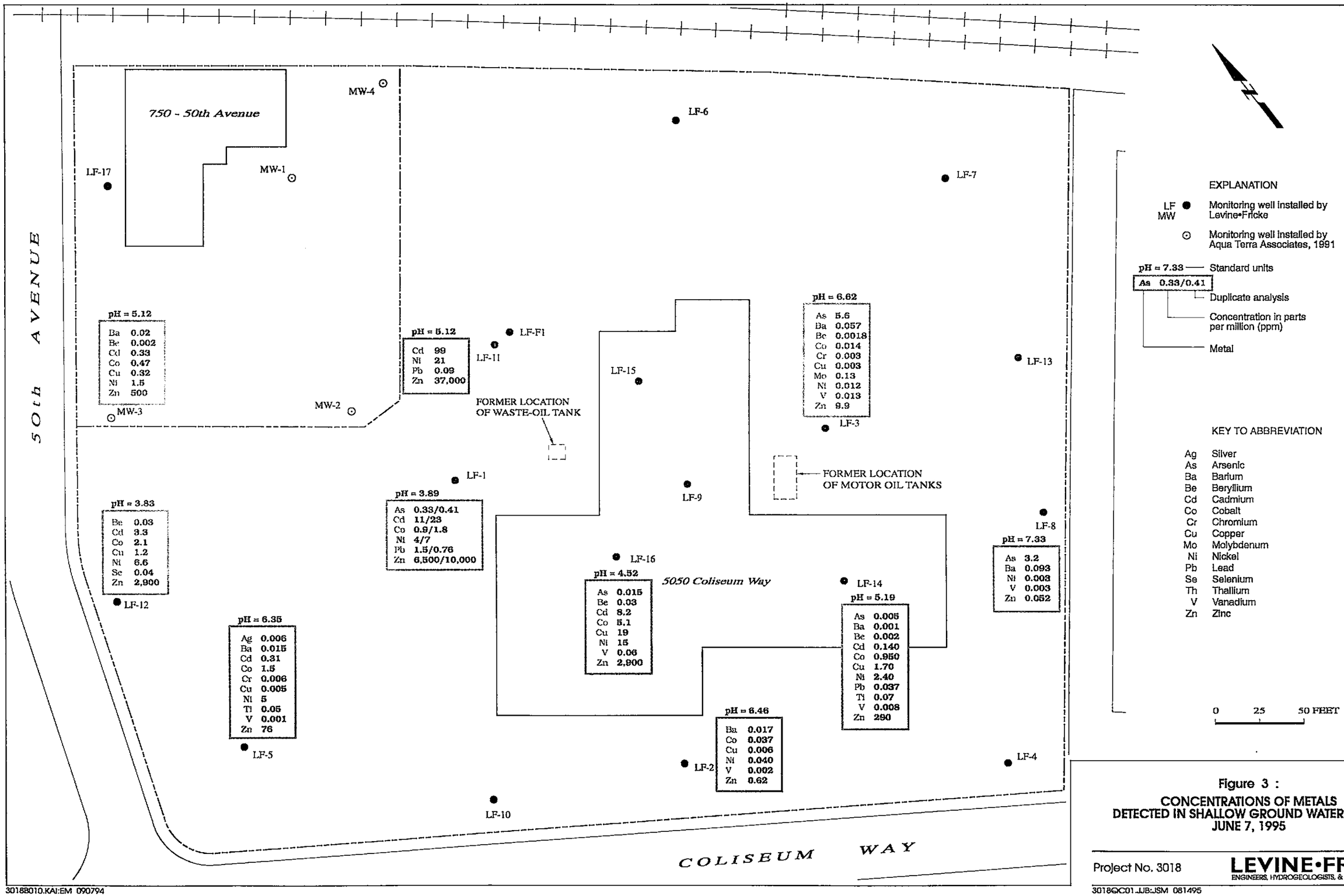
3018SD10.KAI:EM 090794

Figure 2 :
SHALLOW GROUND-WATER ELEVATION CONTOUR MAP JUNE 7, 1995

Project No. 3018

LEVINE•FRICKE
ENGINEERS, HYDROGEOLOGISTS, & APPLIED SCIENTISTS

3018GG01.JJB:JSM 081495



30188010.KAI:EM 090794

Figure 3 :
CONCENTRATIONS OF METALS DETECTED IN SHALLOW GROUND WATER (ppm) JUNE 7, 1995

Project No. 3018

LEVINE•FRICKE
ENGINEERS, HYDROGEOLOGISTS, & APPLIED SCIENTISTS

3018QC01.JJB:JSM 081495

APPENDIX A
LABORATORY CERTIFICATES

American Environmental Network

Certificate of Analysis

DOHS Certification: 1172 AIHA Accreditation: 11134

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

ATTN: JENNIFER BEATTY
CLIENT PROJ. ID: 3018.95.20
CLIENT PROJ. NAME: VOLVO/GM
C.O.C. NUMBER: 013582

REPORT DATE: 06/26/95
DATE(S) SAMPLED: 06/07/95-06/09/95
DATE RECEIVED: 06/09/95
AEN WORK ORDER: 9506135

PROJECT SUMMARY:

On June 9, 1995, this laboratory received 11 water sample(s).

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

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

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

Larry Klein
Laboratory Director

RECEIVED
JUN 27

LEVINE-FRICKE

SAMPLE ID: MW-3
AEN LAB NO: 9506135-01
AEN WORK ORDER: 9506135
CLIENT PROJ. ID: 3018.95.20

DATE SAMPLED: 06/07/95
DATE RECEIVED: 06/09/95
REPORT DATE: 06/26/95

ANALYTE		METHOD/ CAS#	RESULT		REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace		EPA 200.0	-			Prep Date	06/18/95
#Digestion/ICP		EPA 200.0	-			Prep Date	06/18/95
CCR 17 Metals (Low Level)							
Ag	Silver	EPA 200.7	ND		0.005	mg/L	06/22/95
As	Arsenic	EPA 206.2	ND		0.002	mg/L	06/19/95
Ba	Barium	EPA 200.7	0.02	*	0.01	mg/L	06/22/95
Be	Beryllium	EPA 200.7	0.002	*	0.002	mg/L	06/22/95
Cd	Cadmium	EPA 200.7	0.33	*	0.005	mg/L	06/22/95
Co	Cobalt	EPA 200.7	0.47	*	0.005	mg/L	06/22/95
Cr	Chromium	EPA 200.7	ND		0.01	mg/L	06/22/95
Cu	Copper	EPA 200.7	0.32	*	0.01	mg/L	06/22/95
Hg	Mercury	EPA 245.1	ND		0.0002	mg/L	06/20/95
Mo	Molybdenum	EPA 200.7	ND		0.01	mg/L	06/22/95
Ni	Nickel	EPA 200.7	1.5	*	0.01	mg/L	06/22/95
Pb	Lead	EPA 239.2	ND		0.005	mg/L	06/21/95
Sb	Antimony	EPA 200.7	ND		0.02	mg/L	06/22/95
Se	Selenium	EPA 270.2	ND		0.004	mg/L	06/19/95
Tl	Thallium	EPA 200.7	ND		0.05	mg/L	06/22/95
V	Vanadium	EPA 200.7	ND		0.005	mg/L	06/22/95
Zn	Zinc	EPA 200.7	500	*	0.01	mg/L	06/22/95

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: 9506135-02
AEN WORK ORDER: 9506135
CLIENT PROJ. ID: 3018.95.20

DATE SAMPLED: 06/07/95
DATE RECEIVED: 06/09/95
REPORT DATE: 06/26/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-		Prep Date	06/20/95
#Digestion/ICP	EPA 200.0	-		Prep Date	06/20/95
CCR 17 Metals (Low Level)					
Ag Silver	EPA 200.7	0.006 *	0.001	mg/L	06/22/95
As Arsenic	EPA 206.2	ND	0.01	mg/L	06/19/95
Ba Barium	EPA 200.7	0.015 *	0.002	mg/L	06/22/95
Be Beryllium	EPA 200.7	ND	0.0005	mg/L	06/22/95
Cd Cadmium	EPA 200.7	0.31 *	0.001	mg/L	06/22/95
Co Cobalt	EPA 200.7	1.5 *	0.001	mg/L	06/22/95
Cr Chromium	EPA 200.7	0.006 *	0.002	mg/L	06/22/95
Cu Copper	EPA 200.7	0.005 *	0.002	mg/L	06/22/95
Hg Mercury	EPA 245.1	ND	0.0002	mg/L	06/20/95
Mo Molybdenum	EPA 200.7	ND	0.002	mg/L	06/22/95
Ni Nickel	EPA 200.7	5.0 *	0.002	mg/L	06/22/95
Pb Lead	EPA 239.2	ND	0.02	mg/L	06/21/95
Sb Antimony	EPA 200.7	ND	0.004	mg/L	06/22/95
Se Selenium	EPA 270.2	ND	0.02	mg/L	06/19/95
Tl Thallium	EPA 200.7	0.05 *	0.01	mg/L	06/23/95
V Vanadium	EPA 200.7	0.001 *	0.001	mg/L	06/22/95
Zn Zinc	EPA 200.7	76 *	0.005	mg/L	06/22/95

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-12
AEN LAB NO: 9506135-03
AEN WORK ORDER: 9506135
CLIENT PROJ. ID: 3018.95.20

DATE SAMPLED: 06/07/95
DATE RECEIVED: 06/09/95
REPORT DATE: 06/26/95

ANALYTE	METHOD/ CAS#	RESULT		REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-			Prep Date	06/18/95
#Digestion/ICP	EPA 200.0	-			Prep Date	06/18/95
CCR 17 Metals (Low Level)						
Ag Silver	EPA 200.7	ND		0.05	mg/L	06/22/95
As Arsenic	EPA 206.2	ND		0.005	mg/L	06/19/95
Ba Barium	EPA 200.7	ND		0.1	mg/L	06/22/95
Be Beryllium	EPA 200.7	0.03	*	0.02	mg/L	06/22/95
Cd Cadmium	EPA 200.7	3.3	*	0.05	mg/L	06/23/95
Co Cobalt	EPA 200.7	2.1	*	0.05	mg/L	06/22/95
Cr Chromium	EPA 200.7	ND		0.1	mg/L	06/22/95
Cu Copper	EPA 200.7	1.2	*	0.1	mg/L	06/22/95
Hg Mercury	EPA 245.1	ND		0.0002	mg/L	06/20/95
Mo Molybdenum	EPA 200.7	ND		0.1	mg/L	06/22/95
Ni Nickel	EPA 200.7	6.6	*	0.1	mg/L	06/22/95
Pb Lead	EPA 239.2	ND		0.005	mg/L	06/21/95
Sb Antimony	EPA 200.7	ND		0.2	mg/L	06/22/95
Se Selenium	EPA 270.2	0.04	*	0.01	mg/L	06/19/95
Tl Thallium	EPA 200.7	ND		0.5	mg/L	06/22/95
V Vanadium	EPA 200.7	ND		0.05	mg/L	06/22/95
Zn Zinc	EPA 200.7	2,900	*	0.1	mg/L	06/22/95

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-2
AEN LAB NO: 9506135-04
AEN WORK ORDER: 9506135
CLIENT PROJ. ID: 3018.95.20

DATE SAMPLED: 06/07/95
DATE RECEIVED: 06/09/95
REPORT DATE: 06/26/95

ANALYTE		METHOD/ CAS#	RESULT		REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace		EPA 200.0	-			Prep Date	06/20/95
#Digestion/ICP		EPA 200.0	-			Prep Date	06/20/95
CCR 17 Metals (Low Level)							
Ag	Silver	EPA 200.7	ND		0.001	mg/L	06/22/95
As	Arsenic	EPA 206.2	ND		0.002	mg/L	06/19/95
Ba	Barium	EPA 200.7	0.017	*	0.002	mg/L	06/22/95
Be	Beryllium	EPA 200.7	ND		0.0005	mg/L	06/22/95
Cd	Cadmium	EPA 200.7	ND		0.001	mg/L	06/22/95
Co	Cobalt	EPA 200.7	0.037	*	0.001	mg/L	06/22/95
Cr	Chromium	EPA 200.7	ND		0.002	mg/L	06/22/95
Cu	Copper	EPA 200.7	0.006	*	0.002	mg/L	06/22/95
Hg	Mercury	EPA 245.1	ND		0.0002	mg/L	06/20/95
Mo	Molybdenum	EPA 200.7	ND		0.002	mg/L	06/22/95
Ni	Nickel	EPA 200.7	0.040	*	0.002	mg/L	06/22/95
Pb	Lead	EPA 239.2	ND		0.002	mg/L	06/20/95
Sb	Antimony	EPA 200.7	ND		0.004	mg/L	06/22/95
Se	Selenium	EPA 270.2	ND		0.004	mg/L	06/19/95
Tl	Thallium	EPA 200.7	ND		0.01	mg/L	06/22/95
V	Vanadium	EPA 200.7	0.002	*	0.001	mg/L	06/22/95
Zn	Zinc	EPA 200.7	0.62	*	0.005	mg/L	06/22/95

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

LEVINE-FRICKE

SAMPLE ID: LF-3
AEN LAB NO: 9506135-05
AEN WORK ORDER: 9506135
CLIENT PROJ. ID: 3018.95.20

DATE SAMPLED: 06/07/95
DATE RECEIVED: 06/09/95
REPORT DATE: 06/26/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-		Prep Date	06/20/95
#Digestion/ICP	EPA 200.0	-		Prep Date	06/20/95
CCR 17 Metals (Low Level)					
Ag Silver	EPA 200.7	ND	0.001	mg/L	06/22/95
As Arsenic	EPA 206.2	5.6 *	0.002	mg/L	06/19/95
Ba Barium	EPA 200.7	0.057 *	0.002	mg/L	06/22/95
Be Beryllium	EPA 200.7	0.0018 *	0.0005	mg/L	06/22/95
Cd Cadmium	EPA 200.7	ND	0.001	mg/L	06/22/95
Co Cobalt	EPA 200.7	0.014 *	0.001	mg/L	06/22/95
Cr Chromium	EPA 200.7	0.003 *	0.002	mg/L	06/22/95
Cu Copper	EPA 200.7	0.003 *	0.002	mg/L	06/22/95
Hg Mercury	EPA 245.1	ND	0.0002	mg/L	06/20/95
Mo Molybdenum	EPA 200.7	0.13 *	0.002	mg/L	06/23/95
Ni Nickel	EPA 200.7	0.012 *	0.002	mg/L	06/22/95
Pb Lead	EPA 239.2	ND	0.002	mg/L	06/20/95
Sb Antimony	EPA 200.7	ND	0.004	mg/L	06/22/95
Se Selenium	EPA 270.2	ND	0.04	mg/L	06/19/95
Tl Thallium	EPA 200.7	ND	0.01	mg/L	06/23/95
V Vanadium	EPA 200.7	0.013 *	0.001	mg/L	06/22/95
Zn Zinc	EPA 200.7	9.9 *	0.005	mg/L	06/22/95

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-14
AEN LAB NO: 9506135-06
AEN WORK ORDER: 9506135
CLIENT PROJ. ID: 3018.95.20

DATE SAMPLED: 06/08/95
DATE RECEIVED: 06/09/95
REPORT DATE: 06/26/95

ANALYTE	METHOD/ CAS#	RESULT		REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-			Prep Date	06/18/95
#Digestion/ICP	EPA 200.0	-			Prep Date	06/18/95
CCR 17 Metals (Low Level)						
Ag Silver	EPA 200.7	ND		0.005	mg/L	06/22/95
As Arsenic	EPA 206.2	0.005	*	0.002	mg/L	06/19/95
Ba Barium	EPA 200.7	0.01	*	0.01	mg/L	06/22/95
Be Beryllium	EPA 200.7	0.002	*	0.002	mg/L	06/22/95
Cd Cadmium	EPA 200.7	0.14	*	0.005	mg/L	06/23/95
Co Cobalt	EPA 200.7	0.95	*	0.005	mg/L	06/22/95
Cr Chromium	EPA 200.7	ND		0.01	mg/L	06/22/95
Cu Copper	EPA 200.7	1.7	*	0.01	mg/L	06/22/95
Hg Mercury	EPA 245.1	ND		0.0002	mg/L	06/20/95
Mo Molybdenum	EPA 200.7	ND		0.01	mg/L	06/22/95
Ni Nickel	EPA 200.7	2.4	*	0.01	mg/L	06/22/95
Pb Lead	EPA 239.2	0.037	*	0.005	mg/L	06/20/95
Sb Antimony	EPA 200.7	ND		0.02	mg/L	06/22/95
Se Selenium	EPA 270.2	ND		0.004	mg/L	06/19/95
Tl Thallium	EPA 200.7	0.07	*	0.05	mg/L	06/22/95
V Vanadium	EPA 200.7	0.008	*	0.005	mg/L	06/22/95
Zn Zinc	EPA 200.7	290	*	0.01	mg/L	06/22/95

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: 9506135-07
AEN WORK ORDER: 9506135
CLIENT PROJ. ID: 3018.95.20

DATE SAMPLED: 06/08/95
DATE RECEIVED: 06/09/95
REPORT DATE: 06/26/95

ANALYTE	METHOD/ CAS#	RESULT		REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-			Prep Date	06/18/95
#Digestion/ICP	EPA 200.0	-			Prep Date	06/18/95
CCR 17 Metals (Low Level)						
Ag Silver	EPA 200.7	ND		0.05	mg/L	06/22/95
As Arsenic	EPA 206.2	0.015	*	0.005	mg/L	06/19/95
Ba Barium	EPA 200.7	ND		0.1	mg/L	06/22/95
Be Beryllium	EPA 200.7	0.03	*	0.02	mg/L	06/22/95
Cd Cadmium	EPA 200.7	8.2	*	0.05	mg/L	06/22/95
Co Cobalt	EPA 200.7	5.1	*	0.05	mg/L	06/22/95
Cr Chromium	EPA 200.7	ND		0.1	mg/L	06/22/95
Cu Copper	EPA 200.7	19	*	0.1	mg/L	06/22/95
Hg Mercury	EPA 245.1	ND		0.0002	mg/L	06/20/95
Mo Molybdenum	EPA 200.7	ND		0.1	mg/L	06/22/95
Ni Nickel	EPA 200.7	15	*	0.1	mg/L	06/22/95
Pb Lead	EPA 239.2	ND		0.05	mg/L	06/20/95
Sb Antimony	EPA 200.7	ND		0.2	mg/L	06/22/95
Se Selenium	EPA 270.2	ND		0.01	mg/L	06/19/95
Tl Thallium	EPA 200.7	ND		0.5	mg/L	06/22/95
V Vanadium	EPA 200.7	0.06	*	0.05	mg/L	06/22/95
Zn Zinc	EPA 200.7	2,900	*	0.1	mg/L	06/22/95

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-11
AEN LAB NO: 9506135-08
AEN WORK ORDER: 9506135
CLIENT PROJ. ID: 3018.95.20

DATE SAMPLED: 06/08/95
DATE RECEIVED: 06/09/95
REPORT DATE: 06/26/95

ANALYTE	METHOD/ CAS#	RESULT		REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-			Prep Date	06/18/95
#Digestion/ICP	EPA 200.0	-			Prep Date	06/18/95
CCR 17 Metals (Low Level)						
Ag Silver	EPA 200.7	ND		5	mg/L	06/22/95
As Arsenic	EPA 206.2	ND		0.02	mg/L	06/19/95
Ba Barium	EPA 200.7	ND		1	mg/L	06/22/95
Be Beryllium	EPA 200.7	ND		3	mg/L	06/22/95
Cd Cadmium	EPA 200.7	99	*	5	mg/L	06/22/95
Co Cobalt	EPA 200.7	ND		5	mg/L	06/22/95
Cr Chromium	EPA 200.7	ND		10	mg/L	06/22/95
Cu Copper	EPA 200.7	ND		10	mg/L	06/22/95
Hg Mercury	EPA 245.1	ND		0.0002	mg/L	06/20/95
Mo Molybdenum	EPA 200.7	ND		10	mg/L	06/22/95
Ni Nickel	EPA 200.7	21	*	10	mg/L	06/22/95
Pb Lead	EPA 239.2	0.09	*	0.05	mg/L	06/20/95
Sb Antimony	EPA 200.7	ND		20	mg/L	06/22/95
Se Selenium	EPA 270.2	ND		0.04	mg/L	06/19/95
Tl Thallium	EPA 200.7	ND		50	mg/L	06/22/95
V Vanadium	EPA 200.7	ND		5	mg/L	06/22/95
Zn Zinc	EPA 200.7	37,000	*	30	mg/L	06/22/95

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: 9506135-09
AEN WORK ORDER: 9506135
CLIENT PROJ. ID: 3018.95.20

DATE SAMPLED: 06/08/95
DATE RECEIVED: 06/09/95
REPORT DATE: 06/26/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-		Prep Date	06/18/95
#Digestion/ICP	EPA 200.0	-		Prep Date	06/18/95
CCR 17 Metals (Low Level)					
Ag Silver	EPA 200.7	ND	0.5	mg/L	06/22/95
As Arsenic	EPA 206.2	0.33 *	0.002	mg/L	06/19/95
Ba Barium	EPA 200.7	ND	1	mg/L	06/22/95
Be Beryllium	EPA 200.7	ND	0.2	mg/L	06/22/95
Cd Cadmium	EPA 200.7	11 *	0.5	mg/L	06/23/95
Co Cobalt	EPA 200.7	0.9 *	0.5	mg/L	06/22/95
Cr Chromium	EPA 200.7	ND	1	mg/L	06/22/95
Cu Copper	EPA 200.7	ND	1	mg/L	06/22/95
Hg Mercury	EPA 245.1	ND	0.0002	mg/L	06/20/95
Mo Molybdenum	EPA 200.7	ND	1	mg/L	06/22/95
Ni Nickel	EPA 200.7	4 *	1	mg/L	06/22/95
Pb Lead	EPA 239.2	1.5 *	0.002	mg/L	06/20/95
Sb Antimony	EPA 200.7	ND	2	mg/L	06/22/95
Se Selenium	EPA 270.2	ND	0.02	mg/L	06/19/95
Tl Thallium	EPA 200.7	ND	5	mg/L	06/22/95
V Vanadium	EPA 200.7	ND	0.5	mg/L	06/22/95
Zn Zinc	EPA 200.7	6,500 *	1	mg/L	06/22/95

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-101
AEN LAB NO: 9506135-10
AEN WORK ORDER: 9506135
CLIENT PROJ. ID: 3018.95.20

DATE SAMPLED: 06/08/95
DATE RECEIVED: 06/09/95
REPORT DATE: 06/26/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-		Prep Date	06/18/95
#Digestion/ICP	EPA 200.0	-		Prep Date	06/18/95
CCR 17 Metals (Low Level)					
Ag Silver	EPA 200.7	ND	0.5	mg/L	06/22/95
As Arsenic	EPA 206.2	0.41 *	0.002	mg/L	06/19/95
Ba Barium	EPA 200.7	ND	1	mg/L	06/22/95
Be Beryllium	EPA 200.7	ND	0.2	mg/L	06/22/95
Cd Cadmium	EPA 200.7	23 *	0.5	mg/L	06/23/95
Co Cobalt	EPA 200.7	1.8 *	0.5	mg/L	06/22/95
Cr Chromium	EPA 200.7	ND	1	mg/L	06/22/95
Cu Copper	EPA 200.7	ND	1	mg/L	06/22/95
Hg Mercury	EPA 245.1	ND	0.0002	mg/L	06/20/95
Mo Molybdenum	EPA 200.7	ND	1	mg/L	06/22/95
Ni Nickel	EPA 200.7	7 *	1	mg/L	06/22/95
Pb Lead	EPA 239.2	0.76 *	0.002	mg/L	06/20/95
Sb Antimony	EPA 200.7	ND	2	mg/L	06/22/95
Se Selenium	EPA 270.2	ND	0.02	mg/L	06/20/95
Tl Thallium	EPA 200.7	ND	5	mg/L	06/22/95
V Vanadium	EPA 200.7	ND	0.5	mg/L	06/22/95
Zn Zinc	EPA 200.7	10.000 *	1	mg/L	06/22/95

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: 9506135-11
AEN WORK ORDER: 9506135
CLIENT PROJ. ID: 3018.95.20

DATE SAMPLED: 06/09/95
DATE RECEIVED: 06/09/95
REPORT DATE: 06/26/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	1 *	0.5	ug/L	06/13/95
Toluene	108-88-3	0.6 *	0.5	ug/L	06/13/95
Ethylbenzene	100-41-4	3 *	0.5	ug/L	06/13/95
Xylenes, Total	1330-20-7	3 *	2	ug/L	06/13/95
Purgeable HCs as Gasoline	5030/GCFID	0.3 *	0.05	mg/L	06/13/95
#Digestion/G. Furnace	EPA 200.0	-		Prep Date	06/20/95
#Digestion/ICP	EPA 200.0	-		Prep Date	06/20/95
#Extraction for TPH	EPA 3510	-		Extrn Date	06/19/95
TPH as Diesel	GC-FID	3.8 *	0.05	mg/L	06/20/95
TPH as Oil	GC-FID	ND	0.2	mg/L	06/20/95
CCR 17 Metals (Low Level)					
Ag Silver	EPA 200.7	ND	0.001	mg/L	06/22/95
As Arsenic	EPA 206.2	3.2 *	0.002	mg/L	06/19/95
Ba Barium	EPA 200.7	0.093 *	0.002	mg/L	06/22/95
Be Beryllium	EPA 200.7	ND	0.0005	mg/L	06/22/95
Cd Cadmium	EPA 200.7	ND	0.001	mg/L	06/22/95
Co Cobalt	EPA 200.7	ND	0.001	mg/L	06/22/95
Cr Chromium	EPA 200.7	ND	0.002	mg/L	06/22/95
Cu Copper	EPA 200.7	ND	0.002	mg/L	06/22/95
Hg Mercury	EPA 245.1	ND	0.0002	mg/L	06/20/95
Mo Molybdenum	EPA 200.7	ND	0.002	mg/L	06/22/95
Ni Nickel	EPA 200.7	0.003 *	0.002	mg/L	06/22/95
Pb Lead	EPA 239.2	ND	0.002	mg/L	06/20/95
Sb Antimony	EPA 200.7	ND	0.004	mg/L	06/22/95
Se Selenium	EPA 270.2	ND	0.04	mg/L	06/19/95
Tl Thallium	EPA 200.7	ND	0.01	mg/L	06/22/95
V Vanadium	EPA 200.7	0.003 *	0.001	mg/L	06/22/95
Zn Zinc	EPA 200.7	0.052 *	0.005	mg/L	06/22/95

Reporting limit elevated for 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: 9506135

CLIENT PROJECT ID: 3018.95.20

Quality Control Summary

Cadmium matrix spike recovery for sample LF-8 was outside of QC limits. This appears to be a matrix effect as method spike recovery was within established limits.

All other 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: 9506135
AEN LAB NO: 0619-BLANK
DATE EXTRACTED: 06/19/95
DATE ANALYZED: 06/20/95
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: 9506135
DATE EXTRACTED: 06/19/95
INSTRUMENT: C
MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery n-Pentacosane
06/20/95	LF-8	11	102
QC Limits:			59-118

DATE EXTRACTED: 06/16/95
DATE ANALYZED: 06/20/95
SAMPLE SPIKED: DI WATER
INSTRUMENT: C

Method Spike Recovery Summary

Analyte	Spike Added (mg/L)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Diesel	1.82	94	<1	65-103	12

QUALITY CONTROL DATA

METHOD: EPA 8020, 5030 GCFID

AEN JOB NO: 9506135
AEN LAB NO: 0613-BLANK
DATE ANALYZED: 06/13/95
INSTRUMENT: H
MATRIX: WATER

Method Blank

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

QUALITY CONTROL DATA

METHOD: EPA 8020, 5030 GCFID

AEN JOB NO: 9506135
INSTRUMENT: H
MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery Fluorobenzene
06/13/95	LF-8	11	98
QC Limits:			92-109

DATE ANALYZED: 06/12/95
SAMPLE SPIKED: 9506077-03
INSTRUMENT: H

Matrix Spike Recovery Summary

Analyte	Spike Added (ug/L)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Benzene	36.3	103	3	85-109	17
Toluene	103.0	105	3	87-111	16
Hydrocarbons as Gasoline	1000	96	6	66-117	19

QUALITY CONTROL DATA

AEN JOB NO: 9506135
SAMPLE SPIKED: 9506135-11 (ICP); 9506135-01 (GFAA,Hg)
DATE(S) ANALYZED: 06/19-22/95
MATRIX: WATER

Matrix Spike Recovery Summary

Analyte	Inst./ Method	Sample Result (mg/L)	Spike Added (mg/L)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Ag, Silver	ICP/6010	ND	0.005	91	2	73-120	8
As, Arsenic	4000/7060	ND	0.04	87	1	59-149	13
Ba, Barium	ICP/6010	0.0930	0.2	97	<1	77-122	5
Be, Beryllim	ICP/6010	ND	0.005	93	2	64-104	7
Cd, Cadmium	ICP/6010	ND	0.01	63 #	19 #	69-119	13
Co, Cobalt	ICP/6010	ND	0.05	89	2	74-121	6
Cr, Chromium	ICP/6010	ND	0.02	98	1	71-124	10
Cu, Copper	ICP/6010	ND	0.025	101	<1	75-122	7
Hg, Mercury	Hg/7470	ND	2.0 ug/L	107	1	80-120	15
Mo, Molybdenum	ICP/6010	ND	0.04	93	1	76-119	7
Ni, Nickel	ICP/6010	0.0025	0.05	90	1	71-120	5
Pb, Lead	4000/7421	ND	0.05	90	7	75-125	20
Sb, Antimony	ICP/6010	ND	0.1	87	2	79-116	8
Se, Selenium	4000/7740	ND	0.08	44	7	0-147	20
Tl, Thallium	ICP/6010	ND	0.1	90	4	67-116	7
V, Vanadium	ICP/6010	0.0026	0.05	91	1	77-114	6
Zn, Zinc	ICP/6010	0.0524	0.05	67	1	59-137	5

#: Outside laboratory quality control limits

QUALITY CONTROL DATA

AEN JOB NO: 9506135
SAMPLE SPIKED: DI WATER
DATE(S) ANALYZED: 06/19-21/95
MATRIX: WATER

Method Blank and Spike Recovery Summary

Analyte	Inst./ Method	Blank Result (mg/L)	Spike Added (mg/L)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Ag, Silver	ICP/200.7	ND	0.005	93	2	80-120	15
As, Arsenic	4000/7060	ND	0.04	105	4	84-118	12
Ba, Barium	ICP/200.7	ND	0.2	104	4	80-120	15
Be, Beryllium	ICP/200.7	ND	0.005	99	6	80-120	15
Cd, Cadmium	ICP/200.7	ND	0.01	101	4	80-120	15
Co, Cobalt	ICP/200.7	ND	0.05	103	4	80-120	15
Cr, Chromium	ICP/200.7	ND	0.02	105	6	80-120	15
Cu, Copper	ICP/200.7	ND	0.025	106	4	80-120	15
Hg, Mercury	Hg/7470	ND	2.0 ug/L	105	1	91-117	7
Mo, Molybdenum	ICP/200.7	ND	0.04	101	4	80-120	15
Ni, Nickel	ICP/200.7	ND	0.05	104	3	80-120	15
Pb, Lead	4000/239.2	ND	0.02	97	2	76-124	14
Sb, Antimony	ICP/200.7	ND	0.1	91	1	80-120	15
Se, Selenium	4000/7740	ND	0.08	94	2	80-114	14
Tl, Thallium	ICP/200.7	ND	0.1	99	4	80-120	15
V, Vanadium	ICP/200.7	ND	0.05	101	4	80-120	15
Zn, Zinc	ICP/200.7	ND	0.05	99	5	80-120	15

*** END OF REPORT ***

C-1,S-D R-3,S-1 R-1,S-C

9506135

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

Project No.: 3018.95.20	Field Logbook No.:	Date: 6/9/95	Serial No.: № 013582
Project Name: Volvo/GM	Project Location: Oakland, CA.		
Sampler (Signature): J.C. [signature]			Samplers: JCK

SAMPLES / ANALYSES

SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CONTAINERS	SAMPLE TYPE	EPA 601	EPA 624	METALS	TPH-d	TPH-O	TPH-g/BTEX	HOLD	RUSH	REMARKS
MW-3	6/7/95	1305	01A	1	H2O			X						STD TAT
LF-5	6	1355	02A					X						
LF-12		15:50	03A					X						Results to
LF-2		16:00	04A					X						Jennifer Beatty
LF-3	↓	1510	05A					X						
LF-14	6/8/95	1120	06A					X						Basin Plan Detection
LF-16		1350	07A					X						
LF-11		1525	08A					X						Title 22 Metals
LF-1		1540	09A					X						
LF-101	↓	1640	10A	↓				X						Field Filtered
LF-8	6/9/95	1020	11A-F	6				X	X	X	X			

RELINQUISHED BY: (Signature) J.C. [signature]	DATE 6/9/95	TIME 12:50	RECEIVED BY: (Signature) [signature]	DATE 6-9-95	TIME 12:50
RELINQUISHED BY: (Signature) [signature]	DATE 6-9-95	TIME 13:20	RECEIVED BY: (Signature) [signature] L. Pruitt	DATE 6-9-95	TIME 1320
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

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.: 0 3019.95.20
Date: 6/7/95
Project Name: VOLVO/GM
Sample No.: MW-3
Sample Location: MW-3
☐ FB:
Samplers Name: JCK DRJ
☐ DUP:
Sampling Plan Prepared By:
Sampling Method:

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

Analyses Requested: TITLE 22 + ETALS
Number and Types of Bottle used: 1 / 500 ml Poly

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

27.00
5.61
21.39
.16
12834
2139
3.4224

21.39 × .8 = 17.112
27.00 − 17.11 = 9.89
80% DTW 9.89

Well Number: MW-3
Depth of Water: 5.61
Well Depth: 27.00
Height of Water Column: 21.39
Volume in Well: 3.42

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	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
12:47								START
12:50		3.5		20.0	5.29	4590		TURBID
12:53		7.0		19.5	5.05	4420		TURBID
12:57		10.5		18.7	5.01	4610		TURBID
13:05	9.50							SAMPLE
18/95								
15:01								
15:04		3.5		19.6	4.59	4850		TURBID
15:07		7.0		19.5	4.62	4650		TURBID
15:12		10.5		18.6	4.89	4700		
15:17		14		18.5	5.05	4710		
15:30								SAMPLE

Inlet Depth:

Comments:
(Recommended Method For Purging Well)

WTR.QLTY.SMPLNG.INFO.22JUL94RYL

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3018.95.20
Project Name: Volvo/GM
Sample Location: LF-1
Samplers Name: JCK
Sampling Plan Prepared By: JCK
Sampling Method:

Date: 6/8/95
Sample No.: LF-1
☐ FB:
☒ DUP: LF-101

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

Analyses Requested: TITLE 22 METALS

Number and Types of Bottle used: 2 X 1 QT PLASTIC

20.00
2.49
17.51
.16
10506
1751
2.8016

17.51
.8
14008

20.00
14.01
5.99

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

Well Number: LF-1
Depth of Water: 2.49
Well Depth: 20.00
Height of Water Column: 17.51
Volume in Well: 2.80

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	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
1433								START
1436		3		20.6	3.81	13170		CLEAR
1440		6		20.4	3.96	13610		SL. TURBID
1444		9		20.3	4.19	15240		CLEAR
1450	DEVIATED	12		20.1	3.89	16040		CLEAR
1540	5.96							SAMPLE

WTR.QLTY.SMPLNG.INFO.22JUL94RYL

Inlet Depth: _____

Comments: _____
(Recommended Method For Purging Well)

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3018.95.20
Date: 6/7/95
Project Name: VOLVO / GM
Sample No.: LF-2
Sample Location: LF-2
☐ FB:
Samplers Name: JCK DRJ
☐ DUP:
Sampling Plan Prepared By: JCK
Sampling Method:

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

Analyses Requested: TITLE 22 - ETALS
Number and Types of Bottle used: 1 QT PLASTIC

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

Well Number: LF-2
Depth of Water: 4.36
Well Depth: 14.75
Height of Water Column: 10.39
Volume in Well: 1.66

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

14.75
4.36
10.39
.16
6234
1039
1.6624

10.39 × 8 = 0312

14.75
8.31
6.44

80% DTW 6.44

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
14:37								START
14:39		2		20.9	6.28	3970		TURBID
14:42		4		20.4	6.42	3520		TURBID
14:45	DEWATER	6		20.3	6.46	3470		TURBID

WTR.QLTY.SMPLNG.INFO.22JUL94RYL

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

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3018.95.20
Date: 6/7/95
Project Name: VOLVO/GM
Sample No.: LF-3
Sample Location: LF-3
☐ FB: ____
Samplers Name: JCK DRJ
☐ DUP: ____
Sampling Plan Prepared By: JCK
Sampling Method: ____

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

Analyses Requested: 8 TITLE 22 METALS
Number and Types of Bottle used: 1 QT PLASTIC

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

Well Number: LF-3
Depth of Water: 4.58
Well Depth: 14.93
Height of Water Column: 10.35
Volume in Well: 1.66

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

14.93
4.58
10.35
.16
6210
1035
1.6560

80% DTW ____

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
14:56								START
14:59		2		20.7	6.68	3610		SL. TURBID
15:01		4		20.3	6.64	3710		TURBID
15:03		6		20.2	6.62	3740		TURBID
15:10								SAMPLE

Inlet Depth: ____

Comments: ____
(Recommended Method For Purging Well)

WTR-QLTY.SMPLNG.INFO.22/ULW4/YL

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3018.95.20 Date: 6/7/95

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

Sample Location: LF-5 ☐ FB: ____

Samplers Name: JCK JMC ☐ DUP: ____

Sampling Plan Prepared By: JCK

Sampling Method: ____

☐ Centrifugal Pump ☐ Disposable Bailer

☐ Submersible Pump ☒ Teflon Bailer

☒ Hand Bail ☐ ____ (Other)

Analyses Requested: TITLE 22 METALS

Number and Types of Bottle used: 1 500 PLASTIC

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

Well Number: LF-5

Depth of Water: 5.98

Well Depth: 21.10

Height of Water Column: 15.12

Volume in Well: 2.42

Well Diameter: ____

☐ 2" (0.16 Gallon/Feet)

☐ 4" (0.65 Gallon/Feet

☐ 5" (1.02 Gallon/Feet)

☐ 6" (1.47 Gallon/Feet)

21.10
5.98
15.12
.16
9072
1512
2.4192

15.12 × .8 = 12096

21.10 − 12.10 = 9.00

80% DTW 5.00

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
13:37								START
13:41		2.5		20.0	6.40	11420		TURBID
13:44		5.0		19.8	6.41	14360		TURBID
13:47		7.5		19.7	6.35	16880		TURBID
13:55	6.30							SAMPLE

Inlet Depth: ____

Comments: ____

(Recommended Method For Purging Well)

WTR.QLTY.SAMPLNG.INFO.22JUL94RYL

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3018.95.20
Date: 6/8/95
Project Name: Volvo / GM
Sample No.: LF-8
Sample Location: LF-8
☐ FB:
Samplers Name: JCK
☐ DUP:
Sampling Plan Prepared By: JCK
Sampling Method:

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

14.65
4.46
10.19
.65
5095
6114
6.6235

Analyses Requested
TPH-d+o, TPH-g BTEX
TITLE 22 METALS

Number and Types of Bottle used
2 L. GLASS 3 VOA
1 QT PLASTIC

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

Well Number: LF-8
Depth of Water: 4.46
Well Depth: 14.65
Height of Water Column: 10.19
Volume in Well: 6.62

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	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
10:00								START
10:01		7		19.5	7.40	2630		CLEAR
10:02	DEWATER	12				~~2400~~		OFF
10:04						~~2400~~		
10:04		14		20.6	7.20	2600		SL. TURBID
10:05	DEWATER	21		20.4	7.34	2300		CLEAR
10:09						~~2280~~		ON
10:10		28		20.3	7.33	2280		CLEAR
10:20	4.51							SAMPLE

Inlet Depth:

Comments:
(Recommended Method For Purging Well)

WTR.QLTY.SMPLNG.INFO.22JUL94.RTL

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3018.95.20 Date: 6/6/95

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

Sample Location: LF-12 ☐ FB: ____

Samplers Name: JCL DRJ ☐ DUP: ____

Sampling Plan Prepared By: JCK

Sampling Method: ____

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

Analyses Requested: [x] TITLE 22 METALS

Number and Types of Bottle used: 1 QT PLASTIC

Method of Shipment: AEN (Lab Name)

- [x] Courier ____
- [ ] Hand Deliver:

Well Number: LF-12

Depth of Water: 7.40

Well Depth: 14.70

Height of Water Column: 7.30

Volume in Well: 4.75

Well Diameter:

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

14.70
7.40
7.30
.65
3650
4380
47450

7.30 × .8 = 5840

14.70 − 5.84 = 8.96

80% DTW 8.96

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
14:13								START
14:14		5		21.1	3.80	10180		TURBID
14:14	DEWATER	6						OFF
14.20	11.50							ON
14.21		10		21.8	3.83	10450		TURBID OFF
15:50	8.21							SAMPLE

Inlet Depth: ____

Comments: ____

(Recommended Method For Purging Well)

WTR.QLTY.SMPLNG.INFO.22JUL94RYL

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3018.95.20
Project Name: VOLVO/GM
Sample Location: LF-11
Samplers Name: JCK
Sampling Plan Prepared By: JCK
Sampling Method:

Date: 6/8/95
Sample No.: LF-11
☐ FB:
☐ DUP:

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

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

20.01
3.75
16.26
.65
8130
9756
10 5690

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

Well Number: LF-11
Depth of Water: 3.75
Well Depth: 20.01
Height of Water Column: 16.26
Volume in Well: 10.57

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	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
7:19								START
9:22		11		21.5	4.40	27500		LOW TURBID
9:23	DEWATER	16						OFF
9:31								ON
9:33	DEWATER	21		21.8	4.02	35600		CLEAR/OFF
13:45	16.42							
15:25	16.15							SAMPLE

Inlet Depth:

Comments:
(Recommended Method For Purging Well)

WTR.QLTY.SMPLNG.INFO.22JUL94RYL

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3018.95.20
Date: 6/8/95
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
☐ Disposable Bailer
☒ Teflon Bailer
☐ FIELD FILTERED (Other)

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

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

Well Number: LF-14
Depth of Water: 6.03
Well Depth: 25.00
Height of Water Column: 18.97
Volume in Well: 3.05

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

25.00
6.03
18.97
.16
11382
1897
3.0452

18.97 × .8 = 15176
25.00 − 15.18 = 982

80% DTW 9.82

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
037								START
1039		3.5		18.7	4.74	6250		TURBID
:44		6.5		18.6	4.99	6190		TURBID
10:50	DEWATER	9.5		18.5	5.19	6480		TURBID
:20	9.76							CLEAR/SAMPLE

Inlet Depth:

Comments:
(Recommended Method For Purging Well)

WTR.QLTY.SMPLNG.INFO.22JUL94RYL

LEVINE•FRICKE

Page ____ of ____

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3018.95.20
Date: 6/8/95
Project Name: VOLVO / GM
Sample No.: LF-16
Sample Location: LF-16
☐ FB:
Samplers Name: JCK
☐ DUP:
Sampling Plan Prepared By: JCK
Sampling Method:

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

Analyses Requested: TITLE 22 METALS

Number and Types of Bottle used: 1 QT PLASTIC

24.50
6.88
17.62
.16
10572
1762
2.8192

17.62
.8
14096

24.50
14.10
10.40

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

Well Number: LF-16
Depth of Water: 6.88
Well Depth: 24.50
Height of Water Column: 17.62
Volume in Well: 2.82

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

80% DTW 10.40

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
13:22								START
13:25		3		18.5	4.57	1380		TURBID
13:31		6		18.4	4.52	1400		TURBID
13:36		9		18.4	4.52	1505		TURBID
13:50								SAMPLE

Inlet Depth:

Comments:
(Recommended Method For Purging Well)

WTR QLTY SMPLNG.INFO 94RYL