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HARRIS  
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**LEVINE-FRICKE**  
ENGINEERS, HYDROGEOLOGISTS & APPLIED SCIENTISTS

February 6, 1995

LF 3015.94-10

Mr. Barney Chan, Hazardous Materials Specialist  
Alameda County Health Care Services Agency  
Department of Environmental Health  
Division of Hazardous Materials  
1131 Harbor Bay Parkway, Room 250  
Alameda, California 94502-6577

Subject: Quarterly Ground-Water Monitoring Technical Report  
for Fourth Quarter 1994, 625 Hegenberger Road,  
Oakland, California

Dear Mr. Chan:

This ground-water monitoring technical report is submitted by Levine-Fricke, Inc. ("Levine-Fricke") on behalf of Diversified Investment and Management Corp., for the former fuel service station location at 625 Hegenberger Road, Oakland, California.

Summary of Field Activities

Levine-Fricke measured the depth to ground water and collected water samples from six ground-water monitoring wells on January 10, 1995. The monitoring wells sampled included the five wells installed by Subsurface Consultants in 1989 and 1990, and well MW-24, installed by Levine-Fricke on January 5, 1995 during the supplemental site investigation. (The installation and development of this new well will be described in the supplemental site investigation report that is currently being prepared.) Well locations are shown in Figure 1. The sampling procedure for each monitoring well involved measuring the initial water level, purging stagnant water from the well to allow collection of more representative formation water, and collecting water samples.

Before sampling, depth to water and total well depths from the top of the well casings were measured, using an electric water-level meter. Wells were purged and ground-water samples were collected using a clean Teflon bailer fitted with a new nylon rope. Field parameters (temperature, pH, specific conductance, and turbidity) were measured during purging and sampling. After approximately 3 to 4 casing volumes had been removed and field parameters had stabilized, the wells were sampled. A bailer blank sample was collected for monitoring well MW-11 and a field duplicate sample was collected for MW-24.

3015\3015J95.QMR:FNC

1900 Powell Street, 12th Floor  
Emeryville, California 94608  
(510) 652-4500  
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Ground-water samples were then slowly poured into laboratory-supplied bottles for analysis, labeled, and placed in an ice-chilled cooler for transportation to the analytical laboratory under standard chain-of-custody protocol. The ground-water samples were analyzed for benzene, toluene, ethylbenzene, and total xylenes (BTEX) using EPA Method 8020, for total petroleum hydrocarbons as gasoline (TPHg) using EPA Method 5030 GCFID, and for TPH as diesel and oil (TPHd and TPHo) using EPA Method 3510. The samples were analyzed by American Environmental Network Laboratories of Pleasant Hill, California (AEN), a state-certified laboratory.

Ground water sampled from all six wells was analyzed for BTEX, TPHg, TPHd, and TPHo. The bailer blank sample collected for MW-11 was analyzed for BTEX and TPHg. The field duplicate sample collected from MW-24 was analyzed for BTEX, TPHg, TPHd, and TPHo.

### Field Results

Ground-water elevation data are summarized in Table 1 and shown in Figure 1. The ground-water elevation contours and the ground-water flow direction are shown in Figure 1. A summary of field parameters measured during purging and sampling is presented in Table 2. Well sampling sheets are presented in Appendix A.

No free-phase hydrocarbon was encountered during monitoring activities. Ground-water elevations were determined for monitoring wells MW-8, MW-10, MW-11, MW-12, and MW-16 on January 4, 1995, one day before supplemental site investigation activities and installation of MW-24. On January 10, 1995, when the monitoring wells were sampled, monitoring well MW-24 was developed. Since this well may have the potential of influencing ground-water levels in adjacent wells, the January 4, 1995 data were used to calculate the gradient and contours.

Ground-water levels for January 4, 1995 ranged from 0.92 to 1.50 feet below mean sea level (msl). These ground-water elevations were approximately 1 foot higher than the September 27, 1994 levels (1.99 to 2.40 feet below msl).

The general direction of the ground-water flow at the time of measurement was west to northwest. The ground-water hydraulic gradient was approximately 0.002 foot/foot (ft/ft) across the eastern portion of the Site. The gradient was slightly greater in the former underground storage tank (UST) and piping areas (0.004) and has the same orientation. The

general direction and gradient were the same as those for the last three quarterly monitoring events (December 1993; June and September 1994). Previous measurements indicate that the ground-water flow was to the west in May 1993 (HartCrowser, letter to Barney Chan of Alameda County Department of Environmental Health, dated June 16, 1993, reporting ground-water sampling results).

Ground-Water Quality

A summary of ground-water quality data, including available historical data, is presented in Table 3. Laboratory analysis certificates are presented in Appendix B.

In general, there has been no significant change in BTEX, TPHg, TPHd, and TPHo concentrations during the past four quarterly monitoring events. During the past year, TPHd and TPHo concentrations have remained low, at approximately 1 ppm or less, and have not increased significantly in any of the wells. BTEX and TPHg concentrations remain at low or non-detectable levels in monitoring wells MW-10, MW-12, and MW-16, and have not increased in MW-11. The new monitoring well, MW-24, installed approximately 25 feet from the former UST location, contained moderate concentrations of BTEX and TPHg, with benzene at 13 ppm and TPHg at 11 ppm.

Well MW-8, located downgradient from the former pump and product piping location, continued to exhibit generally greater BTEX and TPHg concentrations than the other wells, with benzene at 10 ppm and TPHg at 58 ppm. These concentrations represent a slight increase over the September 1994 concentrations for MW-8, but are comparable to the June 1994 concentrations. Since BTEX and TPHg concentrations in MW-8 appear to fluctuate, more data are needed to determine if the increase in concentrations represents a possible trend.


Recommendations

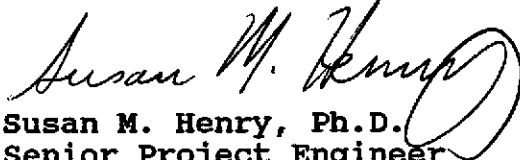
Levine-Fricke recommends continuing quarterly ground-water monitoring. Benzene and TPHg concentrations are low or not detected and have not increased during the past year. Therefore, on behalf of Diversified Investment Management Corp., Levine-Fricke recommends continuing monitoring for these compounds.

LEVINE·FRICKE

Please do not hesitate to call either of the undersigned if you have any questions.

Sincerely,

  
John Sturman, P.E., R.G.  
Senior Geotechnical Engineer

  
Susan M. Henry, Ph.D.  
Senior Project Engineer

Enclosures

cc: James Graeb, Diversified Investment and Management Corp.

TABLE 1  
GROUND-WATER ELEVATIONS  
DIVERSIFIED INVESTMENT  
625 HEGENERGER ROAD, OAKLAND, CALIFORNIA

Well ID	Date	Well Elevation* (ft msl)	Depth to Water (ft)	Ground-water Elevation (ft msl)
MW-8	22-Dec-93	4.88	6.72	-1.84
MW-10	22-Dec-93	4.21	6.00	-1.79
MW-11	22-Dec-93	5.04	6.84	-1.80
MW-12	22-Dec-93	4.58	6.07	-1.49
MW-16	22-Dec-93	NA	7.48	NA
MW-8	30-Jun-94	4.88	6.55	-1.67
MW-10	30-Jun-94	4.21	5.79	-1.58
MW-11	30-Jun-94	5.04	6.73	-1.69
MW-12	30-Jun-94	4.58	6.06	-1.48
MW-16	30-Jun-94	NA	7.28	NA
MW-8	27-Sep-94	4.88	7.20	-2.32
MW-10	27-Sep-94	4.21	6.39	-2.18
MW-11	27-Sep-94	5.04	7.41	-2.37
MW-12	27-Sep-94	4.58	6.57	-1.99
MW-16	27-Sep-94	5.53	7.93	-2.40
MW-8	04-Jan-95	4.88	6.21	-1.33
MW-10	04-Jan-95	4.21	5.42	-1.21
MW-11	04-Jan-95	5.04	6.45	-1.41
MW-12	04-Jan-95	4.58	5.50	-0.92
MW-16	04-Jan-95	5.53	7.03	-1.50
MW-8	10-Jan-95	4.88	5.09	-0.21
MW-10	10-Jan-95	4.21	4.67	-0.46
MW-11	10-Jan-95	5.04	5.72	-0.68
MW-12	10-Jan-95	4.58	4.46	0.12
MW-16	10-Jan-95	5.53	6.21	-0.68
MW-24	10-Jan-95	5.49	5.97	-0.48

NOTES:

ft        feet  
ft msl    feet above mean sea level  
NA        not available

\* Well elevation measured from top of casing.

Well elevation levels for MW-8, MW-10, MW-11, MW-12 obtained from Subsurface Consultants boring logs dated April 25, 1988 through July 16, 1990. Well elevation level for MW-16 determined by Levine Fricke on August 18, 1994. Well elevation level for MW-24 determined by Levine-Fricke on January 6, 1995. Top of well casings for MW-16 and MW-24 were surveyed relative to wells MW-11 and MW-12.

Data entered by KAC/26 Jan 95. Data proofed by SMH.

TABLE 2  
 WATER-QUALITY PARAMETERS MEASURED DURING SAMPLING  
 DIVERSIFIED INVESTMENT  
 625 HEGENBERGER ROAD, OAKLAND, CALIFORNIA

Well Number	Date Sampled	Well Volume** (gallons)	Volume Withdrawn (gallons)	Stabilized Temperature (deg. C)	Stabilized pH	Stabilized Specific Conductance (umhos/cm)	Qualitative Turbidity
MW-8	22-Dec-93	1.5	4.5	19.4	6.95	2,440	Turbid*
MW-10	22-Dec-93	1.6	7.0	20.8	7.08	5,430	Moderately turbid
MW-11	22-Dec-93	1.5	4.5	20.2	6.94	3,750	Turbid
MW-12	22-Dec-93	1.6	5.3	20.3	6.87	2,880	Moderately turbid
MW-16	22-Dec-93	1.1	4.5	20.5	6.88	6,550	Turbid
MW-8	30-Jun-94	1.5	8.0	21.0	6.82	2,210	Turbid*
MW-10	30-Jun-94	1.6	6.0	21.0	6.91	6,620	Turbid
MW-11	30-Jun-94	1.4	6.0	20.2	6.86	2,040	Turbid
MW-12	30-Jun-94	1.6	6.0	20.6	6.78	2,880	Moderately turbid
MW-16	30-Jun-94	1.1	4.5	21.8	6.80	6,200	Turbid
MW-8	27-Sep-94	1.4	4.5	21.6	7.11	4,300	Turbid*
MW-10	27-Sep-94	1.5	6.0	22.6	7.19	6,960	Turbid
MW-11	27-Sep-94	1.3	3.0	21.0	7.05	2,470	Turbid
MW-12	27-Sep-94	1.5	6.0	22.5	6.92	3,080	Turbid
MW-16	27-Sep-94	1.0	3.0	22.6	7.02	5,710	Turbid
MW-8	10-Jan-95	1.7	5.3	17.2	7.10	6,140	Turbid*
MW-10	10-Jan-95	1.8	6.0	19.5	7.07	6,440	Turbid
MW-11	10-Jan-95	1.6	5.3	18.6	6.56	2,030	Turbid
MW-12	10-Jan-95	1.8	6.0	19.3	6.77	3,070	Turbid
MW-16	10-Jan-95	1.2	6.0	19.3	7.10	4,560	Turbid
MW-24	10-Jan-95	4.9	41(1)	18.9	7.05	1,190	Turbid*

NOTES:

- \* A slight hydrocarbon sheen was observed.
- \*\* At time of monitoring.
- (1) Monitoring well MW-24 was developed on 10-Jan-95 prior to sampling.

Data entered by KAC/26 Jan 95. Data proofed by SMH.

TABLE 3  
 HISTORICAL WATER QUALITY  
 DIVERSIFIED INVESTMENT  
 625 HEGENERBERGER ROAD, OAKLAND, CALIFORNIA  
 (concentrations reported in milligrams per liter [mg/l])

Sample ID	Date Sampled	Consultant/ Lab		Benzene	Toluene	Ethyl- benzene	Xylenes	TPHg	TPHd	TPHo	Total Lead
MW-8	(1)	SUB	(2)	3.7	BDL	0.29	0.69	NA	NA	NA	BDL
	28-May-93	HC/SUP		6.4	0.028	0.16	0.036	19	1	NA	(3)
	22-Dec-93	LF/AEN	(4)	16	5.9993	(5) 0.65	2.7	56	0.3	<0.2	<0.04
	30-Jun-94	LF/AEN	(4)	11	4.8	2.2	8.2	41	<0.05	0.5	<0.04
	27-Sep-94	LF/AEN		8.5	0.26	1.6	5.2	28	0.62	<0.2	<0.04
	10-Jan-95	LF/AEN		10	11	2.4	12	58	0.07	<0.2	NA
MW-10	(1)	SUB		0.0017	BDL	BDL	BDL	NA	NA	NA	BDL
	28-May-93	HC/SUP		<0.0003	<0.0003	<0.0003	<0.0009	<0.05	0.054	NA	(3)
	22-Dec-93	LF/AEN	(5)	<0.0005	<0.0007	<0.0005	<0.002	<0.05	0.58	<0.2	<0.04
	30-Jun-94	LF/AEN		<0.0005	<0.0005	<0.0005	<0.002	<0.05	<0.05	0.6	<0.04
	27-Sep-94	LF/AEN		<0.0005	<0.0005	<0.0005	<0.002	<0.05	0.61	<0.2	<0.04
	10-Jan-95	LF/AEN		<0.0005	<0.0005	<0.0005	<0.002	<0.05	0.6	<0.2	NA
MW-11	(1)	SUB	(6)	0.053	BDL	BDL	BDL	NA	NA	NA	0.21
	28-May-93	HC/SUP		0.45	0.0017	0.0015	0.0021	1.2	<0.05	NA	(3)
	22-Dec-93	LF/AEN	(5)	4.5	0.0383	0.012	0.043	9.2	0.53	<0.2	<0.04
	30-Jun-94	LF/AEN		1.5	0.013	0.69	1.2	8.8	<0.05	1.1	<0.04
duplicate	30-Jun-94	LF/AEN		1.7	0.014	0.73	1.3	9.7	NA	NA	NA
	27-Sep-94	LF/AEN		6.5	0.026	0.87	0.59	15	0.91	<0.2	<0.04
	10-Jan-95	LF/AEN		0.89	0.22	0.84	2.4	14	1.1	0.2	NA
MW-12	(1)	SUB		BDL	BDL	BDL	BDL	NA	NA	NA	BDL
	28-May-93	HC/SUP		<0.0003	<0.0003	<0.0003	<0.0009	<0.05	<0.05	NA	(3)
	22-Dec-93	LF/AEN	(5)	<0.0005	<0.0007	<0.0005	<0.002	0.05	0.3	<0.2	<0.04
	30-Jun-94	LF/AEN		<0.0005	<0.0005	<0.0005	<0.002	<0.05	<0.05	0.4	<0.04
	27-Sep-94	LF/AEN		<0.0005	<0.0005	<0.0005	<0.002	<0.05	0.4	<0.2	<0.04
duplicate	27-Sep-94	LF/AEN		<0.0005	<0.0005	<0.0005	<0.002	<0.05	NA	NA	NA
	10-Jan-95	LF/AEN		<0.0005	<0.0005	<0.0005	<0.002	<0.05	0.3	<0.2	NA
MW-16	(1)	SUB	(7)	BDL	BDL	BDL	BDL	NA	NA	NA	BDL
	28-May-93	HC/SUP		0.0028	<0.0003	0.0007	<0.0009	<0.05	<0.05	NA	(3)
	22-Dec-93	LF/AEN	(5)	<0.0005	<0.0007	<0.0005	<0.002	2.2	0.52	<0.2	<0.04
	30-Jun-94	LF/AEN		0.008	<0.0005	<0.0005	<0.002	<0.05	<0.05	0.9	<0.04
	27-Sep-94	LF/AEN		0.017	<0.0005	<0.0005	<0.002	0.07	0.59	<0.2	<0.04
	10-Jan-95	LF/AEN		0.19	<0.0005	<0.0005	<0.002	0.3	0.7	<0.2	NA
MW-24	10-Jan-95	LF/AEN		12	1.9	1.1	1.3	51	0.9	0.2	NA
duplicate	10-Jan-95	LF/AEN		12	2	1.1	1.3	51	0.8	0.2	NA
BLANKS											
Trip Blank	28-May-93	HC/SUP		<0.0003	<0.0003	<0.0003	<0.0009	<0.05	NA	NA	BDL
MW-12-BB	22-Dec-93	LF/AEN		<0.0005	0.0007	<0.0005	<0.002	<0.05	NA	NA	(3)
MW-16-BB	22-Dec-93	LF/AEN		NA	NA	NA	NA	NA	NA	NA	<0.04
MW-12-BB	30-Jun-94	LF/AEN		<0.0005	<0.0005	<0.0005	<0.002	<0.05	NA	NA	<0.04
MW-12-BB	27-Sep-94	LF/AEN		<0.0005	<0.0005	<0.0005	<0.002	<0.05	NA	NA	NA
Trip Blank	27-Sep-94	LF/AEN		<0.0005	<0.0005	<0.0005	<0.002	<0.05	NA	NA	NA
MW-11-BB	10-Jan-95	LF/AEN		<0.0005	<0.0005	<0.0005	<0.002	<0.05	NA	NA	NA

TABLE 3  
 HISTORICAL WATER QUALITY  
 DIVERSIFIED INVESTMENT  
 625 HEGENBERGER ROAD, OAKLAND, CALIFORNIA  
 (concentrations reported in milligrams per liter [mg/l])

Sample ID	Date Sampled	Consultant/ Lab	Benzene	Toluene	Ethyl- benzene	Xylenes	TPHg	TPHd	TPHo	Total Lead
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NOTES:

BDL below detection limit; detection limit undocumented  
 NA not analyzed  
 TPHd total petroleum hydrocarbons as diesel  
 TPHg total petroleum hydrocarbons as gasoline  
 TPHo total petroleum hydrocarbons as oil

AEN American Environmental Network, Pleasant Hill, California  
 HC HartCrowser, San Francisco, California  
 LF Levine-Fricke, Emeryville, California  
 SUB Subsurface Consultants, Oakland, California  
 SUP Superior Analytical Laboratories, Martinez, California

- (1) Date of ground-water sampling unavailable. Ground-water monitoring results accompanied Subsurface Consultants well development and boring logs dated March 1990 through June 1990.
- (2) 18 mg/l total volatile hydrocarbons also detected.
- (3) All May 1993 samples also analyzed for total organic lead (DHS Method). The compound was not detected above the detection limit of 4 mg/l.
- (4) A slight hydrocarbon sheen was observed on the surface of the well water.
- (5) Toluene detections for 22-Dec-93 were qualified using 0.0007 mg/l as a baseline. The bailer blank (MW-12-BB) contained toluene at 0.0007 mg/l.
- (6) 0.24 mg/l total volatile hydrocarbons also detected.
- (7) 0.38 mg/l total volatile hydrocarbons also detected.

All samples collected by Subsurface Consultants were also analyzed for total lead and organic lead. Both compounds were below detection limits (detection limits unavailable), except as noted.

Data entered by KAC/24 Jan 95 Data proofed by SMH



- EXPLANATION**
- ⊕ Approximate location of soil borings. Soil borings designated "LF" installed by Levine-Fricke in 1995. Others installed by Subsurface Consultants in 1989-1990.
  - Approximate location of monitoring wells. MW-24 was installed by Levine-Fricke in 1995. Others installed by Subsurface Consultants in 1989-1990.
  - ⊗ Soil sample by Levine-Fricke, UST Removal, 1993; (sample depth @ former UST location, 6-8 bgs) (sample depth @ former product piping location, 4-6 bgs)
  - ← Approximate ground-water flow direction
  - 1.33 Ground-water elevation in feet measured on 1/4/95.
  - 1.3 Ground-water elevation contour in feet.

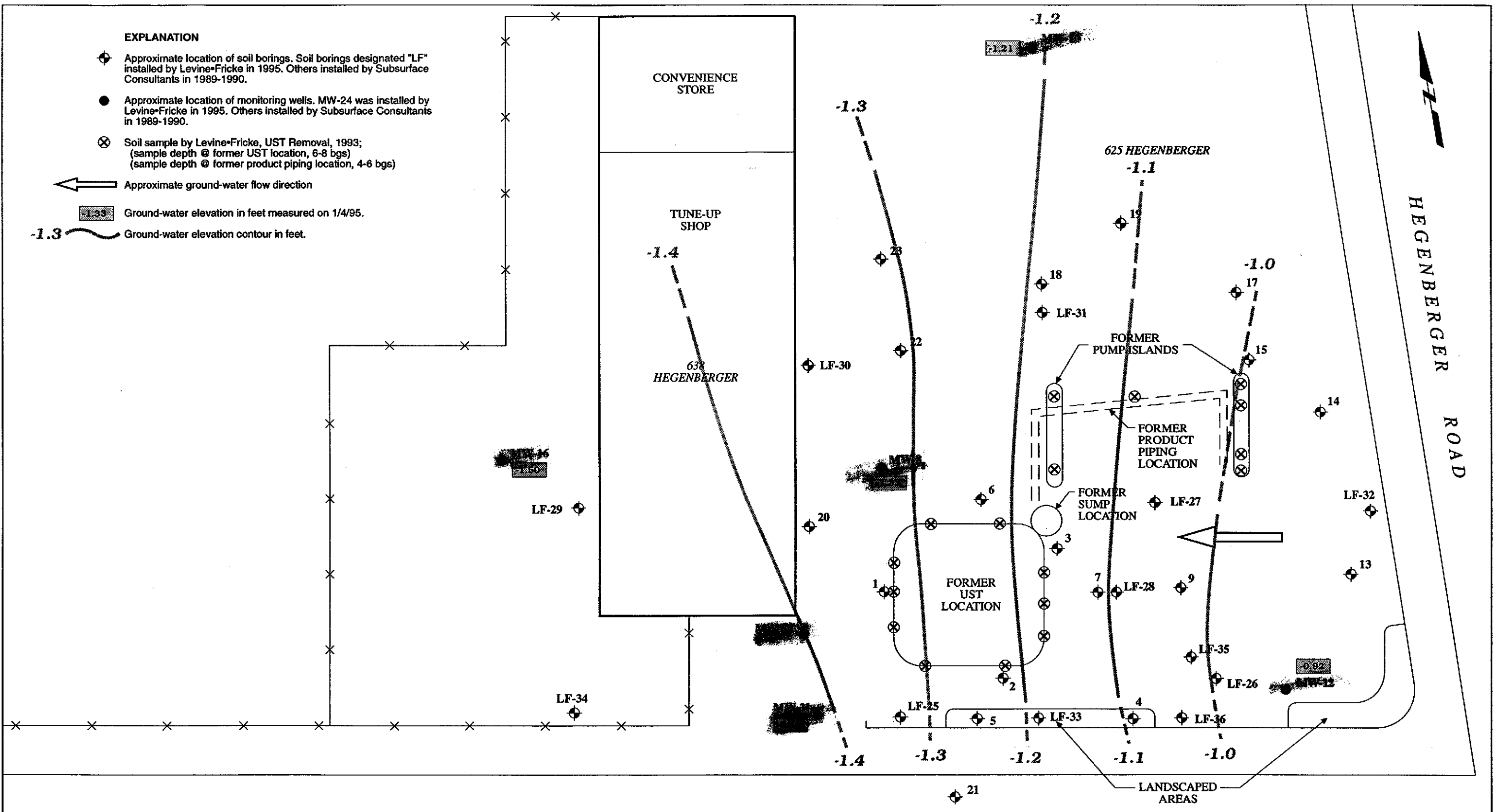


Figure 1 :  
GROUND-WATER ELEVATIONS AND GRADIENT  
JANUARY 4, 1995

**APPENDIX A**  
**Well Sampling Sheets**

# WATER-QUALITY SAMPLING INFORMATION

Project No.: 3015 Date: 1-10-95

Project Name: Diversified Investments Sample No.: MW-8

Sample Location: Oakland

Samplers Name: BCC

Sampling Plan Prepared By: SMH

Sampling Method: \_\_\_\_\_

FB: \_\_\_\_\_

DUP: \_\_\_\_\_

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

Analyses Requested: TPH, BTEX

Number and Types of Bottle used: 3 VOA's

TPH 2/1

1 L

10.71  
 .16  
 -----  
 64.26  
 107.1  
 -----  
 171.36

80% DTW \_\_\_\_\_

Method of Shipment

(Lab Name) \_\_\_\_\_

Courier \_\_\_\_\_

Hand Deliver: \_\_\_\_\_

Well Number: MW-8 Well Diameter: \_\_\_\_\_

Depth of Water: 5.09

Well Depth: 15.80

Height of Water Column: 10.71

Volume in Well: 1.71 gal

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
17:14	5.09	0						start bailing
17:17		1.75		16.8	6.91	6650		dark green, turbid, sulfur odor, H <sub>2</sub> S
17:20		3.50		17.1	6.98	6280		" " " "
17:24				17.2	7.10	6140		" " " no seen
<del>17:25</del>								
17:25	5.20							Sample MW-8

Inlet Depth: \_\_\_\_\_

Comments: \_\_\_\_\_

(Recommended Method For Purging Well)

WTR-QTY-SAMPLING-INFO-22-11-94-1

# WATER-QUALITY SAMPLING INFORMATION

Project No.: 3015  
 Project Name: Diversified Investments  
 Sample Location: Oakland  
 Samplers Name: BCC  
 Sampling Plan Prepared By: SMH  
 Sampling Method: \_\_\_\_\_

Date: 1-10-95  
 Sample No.: MW-10  
 FB: \_\_\_\_\_  
 DUP: \_\_\_\_\_

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

11.03  
 .16  
 -----  
 6618  
 1103  
 -----  
 17648

80% DTW \_\_\_\_\_

Analyses Requested: TPHg / BTEX  
TPH d/6

Number and Types of Bottle used: 3 VOCs  
1 L

Method of Shipment: \_\_\_\_\_  
 (Lab Name) \_\_\_\_\_  
 Courier \_\_\_\_\_  
 Hand Deliver: \_\_\_\_\_

Well Number: MW-10 Well Diameter: \_\_\_\_\_  
 Depth of Water: 4.67  2" (0.16 Gallon/Feet)  
 Well Depth: 15.70  4" (0.65 Gallon/Feet)  
 Height of Water Column: 11.03  5" (1.02 Gallon/Feet)  
 Volume in Well: 1.76 gal  6" (1.47 Gallon/Feet)

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temperature °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
1:00	4.67	0						start bailing sulfur
1:04		2.00		18.9	6.88	5700		raw, turbid,
1:07		4.00		19.8	7.07	6280		brown, turbid
1:09		6:00		19.5	7.07	6440		ll
13:10	4.72							sample MW-10

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

# WATER-QUALITY SAMPLING INFORMATION

Project No.: 3015  
 Project Name: Diversified Investments  
 Sample Location: Oakland  
 Samplers Name: BCC  
 Sampling Plan Prepared By: SMH  
 Sampling Method: \_\_\_\_\_

Date: 1-10-95  
 Sample No.: MW-11  
 FB: MW-11-FB  
 DUP: \_\_\_\_\_

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

(Other)

**Analyses Requested**

THg/BTEX  
THd/o

**Number and Types of Bottle used**

3 VOA's  
1 L

9.68	7.35
.16	9.68
<u>5808</u>	.2
968	<u>1936</u>
<u>15488</u>	5.72
	<u>7.656</u>

80% DTW 7.66'

**Method of Shipment**

AEN  
 (Lab Name)

- Courier \_\_\_\_\_  
 Hand Deliver: \_\_\_\_\_

Well Number: MW-11  
 Depth of Water: 5.72  
 Well Depth: 15.40  
 Height of Water Column: 9.68  
 Volume in Well: 1.55 gal

- 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
15:58	5.72	0						Start bailing
16:01		1.75		18.2	6.36	990		Brown, turbid, slight
16:04		3.5		18.6	6.55	2030		" " product sulfur odor
16:09		5.25		18.6	6.56	2030		" " "
16:10	7.35							sample MW-11
15:55								sample MW-11-FB

Inlet Depth: \_\_\_\_\_

**Comments:**

(Recommended Method For Purging Well)

# WATER-QUALITY SAMPLING INFORMATION

Project No.: 3015  
 Project Name: Diversified Investments  
 Sample Location: Oakland  
 Samplers Name: BCC  
 Sampling Plan Prepared By: SMH  
 Sampling Method: \_\_\_\_\_

Date: 1-10-95  
 Sample No.: MW-12  
 FB: MW-12-FB1  
 DUP: \_\_\_\_\_

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

Analyses Requested  
TPH<sub>g</sub>/BTEX  
TPH<sub>d/o</sub>

Number and Types of Bottle used  
(3 VOA's) 2

1 L

11.16  
 .16  
 -----  
 6896  
 1116  
 -----  
 7856

80% DTW \_\_\_\_\_

Method of Shipment  
 (Lab Name) \_\_\_\_\_  
 Courier \_\_\_\_\_  
 Hand Deliver: \_\_\_\_\_

Well Number: MW-12 Well Diameter: \_\_\_\_\_  
 Depth of Water: 4.1 4.46  2" (0.16 Gallon/Feet)  
 Well Depth: ~~15.62~~ 15.62  4" (0.65 Gallon/Feet)  
 Height of Water Column: 11.16  5" (1.02 Gallon/Feet)  
 Volume in Well: 1.79 gal.  6" (1.47 Gallon/Feet)

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Tempature °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
1:34	4.46	0		18.8	6.72	3010		Start bailer
1:38		2.0		18.8	6.72	3010		turbid sulfur dark green slight
1:42		4.0		18.9	6.79	3070		" " "
1:45		6.0		19.3	6.77	3070		" " "
13:47								sample MW-12
MW-12	4.81							

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

FORM NO. 22-B (REV. 9/87)

# WATER-QUALITY SAMPLING INFORMATION

Project No.: 3015  
 Project Name: Diversified Investments  
 Sample Location: Oakland  
 Samplers Name: BCC  
 Sampling Plan Prepared By: SMH  
 Sampling Method:

Date: 1-10-95  
 Sample No.: MW-16  
 FB: \_\_\_\_\_  
 DUP: \_\_\_\_\_

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

7.41  
 .16  
4446  
741  
 41856

80% DTW

Analyses Requested: TPHg/BTEX  
TPHd/o

Number and Types of Bottle used: 3 VOA's  
1 L

Method of Shipment

(Lab Name)  Courier \_\_\_\_\_  
 Hand Deliver: \_\_\_\_\_

Well Number: MW-16 Well Diameter: \_\_\_\_\_  
 Depth of Water: 6.21  2" (0.16 Gallon/Feet)  
 Vell Depth: 13.62  4" (0.65 Gallon/Feet)  
 Height of Water Column: 7.41  5" (1.02 Gallon/Feet)  
 Volume in Well: 1.19 gal  6" (1.47 Gallon/Feet)

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temperature °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
4:10	6.21	0						start bailing
4:15		1.5		18.8	6.26	4250		green, turbid
		Conductivity Meter broke, got new one						
5:35		3.0		19.4	7.08	4080		brown/green, turbid
5:38		4.5		19.3	7.08	4460		" "
5:41		6.0		19.3	7.10	4560		" "
5:45	6.27							sample MW-16

Inlet Depth: \_\_\_\_\_

Comments: \_\_\_\_\_  
 (Recommended Method For Purging Well)

# WATER-QUALITY SAMPLING INFORMATION

Project No.: 3015  
 Project Name: Diversified Investments  
 Sample Location: Oakland  
 Samplers Name: BCL  
 Sampling Plan Prepared By: SMH  
 Sampling Method: Develop Well

Date: 1-10-95  
 Sample No.: MW-24  
 FB: \_\_\_\_\_  
 DUP: MW-124

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

Analyses Requested \_\_\_\_\_

Number and Types of Bottle used \_\_\_\_\_

7.51	7.51
.65	.2
37.55	7.502
4506	5.97
48815	7.47

80% DTW 7.47'

Method of Shipment

AEN  
(Lab Name)

Courier \_\_\_\_\_

Hand Deliver:

Well Number: MW-24  
 Depth of Water: 5.97  
 Well Depth: 13.48  
 Height of Water Column: 7.51  
 Volume in Well: 4.88 gal

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

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temperature °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
	5.97							
12:30		0						start pump
12:31		<del>4</del> 5		17.4	6.86	2250	slight	brown, turbid, denatured
12:40	6.57	12		18.9	7.16	1510		start pump
<del>12:49</del>	↓			↓	↓	↓	"	brown, turbid, odor, denatured
1:25	6.16							start pump
1:26		18		18.9	7.18	1630	"	green/brown, turbid, petrol odor, sulfur d/w
1:57	5.97							start pump
1:58		24		18.9	7.21	1520	no	green/brown, turbid, petrol odor, d/w
1:58				16.6	7.13	1470		start pump
1:55	5.94	30		↓	↓	↓	"	green, brown, turbid, odor

Inlet Depth: \_\_\_\_\_

Comments:

(Recommended Method For Purging Well)

WTR-QTY-SMP-INFO-ZJUL-95



# WATER-QUALITY SAMPLING INFORMATION

Project No.: 3015 Date: 1-10-95  
 Project Name: Diversified Investments Sample No.: MW-24  
 Sample Location: Oakland  
 Samplers Name: BCC  
 Sampling Plan Prepared By: SMH  
 Sampling Method: \_\_\_\_\_

FB: \_\_\_\_\_  
 DUP: \_\_\_\_\_

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

(Other) \_\_\_\_\_  
 Number and Types of Bottle used  
(3 WOA's) x 2  
(1 L) x 2

Analyses Requested  
TPHg/BTEX  
TPHd/o

80% DTW \_\_\_\_\_

Method of Shipment  
 (Lab Name) \_\_\_\_\_  
 Courier \_\_\_\_\_  
 Hand Deliver: \_\_\_\_\_

Well Number: MW-24 Well Diameter: \_\_\_\_\_  
 Depth of Water: \_\_\_\_\_  
 Well Depth: \_\_\_\_\_  
 Height of Water Column: \_\_\_\_\_  
 Volume in Well: \_\_\_\_\_

- 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
<b>CONTINUED FROM Pg. 1 of 2</b>								
16:30	6.02	<del>36</del> 36		19.0	7.04	1250		start pump dark green, turbid, odor, deoxygenated
16:37	6.65	41		18.9	7.05	1190		start pump dark green, turbid, odor, deoxygenated
16:52	6.60							sample MW-24
17:52								sample MW-24

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

WTR-QTY-SAMPLING-INFO-22115-9/91

PROJECT: 3015

SUBJECT: Diversified Investment

	Depth to Water		Time
	From Casing	From Ground Surface	
MW-8	6.21	6.68	9:45
MW-10	5.42	5.95	9:55
MW-11	6.45	7.19	10:05
MW-12	5.50	6.20	10:20
MW-16	7.03	7.58	10:30

1-6-94 Grab Ground-water Samples

GG-30	JAW	7.78'	brown, cloudy, turbid
GG-33		7.58'	" , " , "

LF-27<sup>6</sup>  
 DT OIL DTW - 0.35  
 5.89 6.24 12:30  
 ~5.70 ~6.45 3:30  
 0.75

Probe not responding real well is an estimate based on heaping water level and visual oil ~~water~~ surface

PROJECT: 3015.94 0

SUBJECT: Surveying MW-24

	<u>(Base)*</u>	<u>MW-11</u>	<u>MW-24</u>	<u>MW-12</u>
<u>SMW</u>	<u>5.18</u>	<u>5.92</u>	<u>5.47</u>	<u>6.36</u>
<u>BCC</u>	<u>5.18</u>	<u>5.92</u>	<u>5.46</u>	<u>6.38</u>

~~\_\_\_\_\_~~

**APPENDIX B**

**Laboratory Analysis Certificates**

*afila*

# American Environmental Network

## Certificate of Analysis

DOHS Certification: 1172

AIHA Accreditation: 11134

PAGE 1

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

REPORT DATE: 01/31/95

DATE(S) SAMPLED: 01/04/95-01/10/95

ATTN: SUSAN SHIU  
CLIENT PROJ. ID: 3015.94.10

DATE RECEIVED: 01/11/95

AEN WORK ORDER: 9501097

C.O.C. NUMBER: 013335


### PROJECT SUMMARY:

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

Client requested eight samples be analyzed for organic parameters; one sample was placed on hold. Results of analysis are summarized on the following page(s).

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

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

  
Larry Klein  
Laboratory Director

RECEIVED JAN 31 1995

## LEVINE-FRICKE

SAMPLE ID: MW-10  
 AEN LAB NO: 9501097-01  
 AEN WORK ORDER: 9501097  
 CLIENT PROJ. ID: 3015.94.10

DATE SAMPLED: 01/10/95  
 DATE RECEIVED: 01/11/95  
 REPORT DATE: 01/31/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	ND	0.5	ug/L	01/17/95
Toluene	108-88-3	ND	0.5	ug/L	01/17/95
Ethylbenzene	100-41-4	ND	0.5	ug/L	01/17/95
Xylenes, Total	1330-20-7	ND	2	ug/L	01/17/95
Purgeable HCs as Gasoline	5030/GCFID	ND	0.05	mg/L	01/17/95
#Extraction for TPH	EPA 3510	-		Extrn Date	01/13/95
TPH as Diesel	GC-FID	0.6 *	0.05	mg/L	01/14/95
TPH as Oil	GC-FID	ND	0.2	mg/L	01/14/95

ND = Not detected at or above the reporting limit

\* = Value above reporting limit

## LEVINE-FRICKE

SAMPLE ID: MW-12  
 AEN LAB NO: 9501097-02  
 AEN WORK ORDER: 9501097  
 CLIENT PROJ. ID: 3015.94.10

DATE SAMPLED: 01/10/95  
 DATE RECEIVED: 01/11/95  
 REPORT DATE: 01/31/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	ND	0.5	ug/L	01/17/95
Toluene	108-88-3	ND	0.5	ug/L	01/17/95
Ethylbenzene	100-41-4	ND	0.5	ug/L	01/17/95
Xylenes, Total	1330-20-7	ND	2	ug/L	01/17/95
Purgeable HCs as Gasoline	5030/GCFID	ND	0.05	mg/L	01/17/95
#Extraction for TPH	EPA 3510	-		Extrn Date	01/13/95
TPH as Diesel	GC-FID	0.3 *	0.05	mg/L	01/14/95
TPH as Oil	GC-FID	ND	0.2	mg/L	01/14/95

Please see page 10 for comments regarding this sample.

ND = Not detected at or above the reporting limit

\* = Value above reporting limit

## LEVINE-FRICKE

SAMPLE ID: MW-16  
 AEN LAB NO: 9501097-03  
 AEN WORK ORDER: 9501097  
 CLIENT PROJ. ID: 3015.94.10

DATE SAMPLED: 01/10/95  
 DATE RECEIVED: 01/11/95  
 REPORT DATE: 01/31/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	190 *	0.5	ug/L	01/17/95
Toluene	108-88-3	ND	0.5	ug/L	01/17/95
Ethylbenzene	100-41-4	ND	0.5	ug/L	01/17/95
Xylenes, Total	1330-20-7	ND	2	ug/L	01/17/95
Purgeable HCs as Gasoline	5030/GCFID	0.3 *	0.05	mg/L	01/17/95
#Extraction for TPH	EPA 3510	-		Extrn Date	01/13/95
TPH as Diesel	GC-FID	0.7 *	0.05	mg/L	01/14/95
TPH as Oil	GC-FID	ND	0.2	mg/L	01/14/95

ND = Not detected at or above the reporting limit

\* = Value above reporting limit



## LEVINE-FRICKE

SAMPLE ID: MW-11-FB  
AEN LAB NO: 9501097-04  
AEN WORK ORDER: 9501097  
CLIENT PROJ. ID: 3015.94.10

DATE SAMPLED: 01/10/95  
DATE RECEIVED: 01/11/95  
REPORT DATE: 01/31/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	ND	0.5	ug/L	01/17/95
Toluene	108-88-3	ND	0.5	ug/L	01/17/95
Ethylbenzene	100-41-4	ND	0.5	ug/L	01/17/95
Xylenes, Total	1330-20-7	ND	2	ug/L	01/17/95
Purgeable HCs as Gasoline	5030/GCFID	ND	0.05	mg/L	01/17/95

ND = Not detected at or above the reporting limit

\* = Value above reporting limit

## LEVINE-FRICKE

SAMPLE ID: MW-11  
 AEN LAB NO: 9501097-05  
 AEN WORK ORDER: 9501097  
 CLIENT PROJ. ID: 3015.94.10

DATE SAMPLED: 01/10/95  
 DATE RECEIVED: 01/11/95  
 REPORT DATE: 01/31/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	890 *	10	ug/L	01/17/95
Toluene	108-88-3	220 *	10	ug/L	01/17/95
Ethylbenzene	100-41-4	840 *	10	ug/L	01/17/95
Xylenes, Total	1330-20-7	2,400 *	40	ug/L	01/17/95
Purgeable HCs as Gasoline	5030/GCFID	14 *	1	mg/L	01/17/95
#Extraction for TPH	EPA 3510	-		Extrn Date	01/13/95
TPH as Diesel	GC-FID	1.1 *	0.05	mg/L	01/14/95
TPH as Oil	GC-FID	0.2 *	0.2	mg/L	01/14/95

Reporting limits elevated for gas/BTEX due to high levels of target compounds; sample run at dilution. Please see page 10 for comments regarding this sample.

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

## LEVINE-FRICKE

SAMPLE ID: MW-24  
 AEN LAB NO: 9501097-06  
 AEN WORK ORDER: 9501097  
 CLIENT PROJ. ID: 3015.94.10

DATE SAMPLED: 01/10/95  
 DATE RECEIVED: 01/11/95  
 REPORT DATE: 01/31/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	12,000 *	30	ug/L	01/18/95
Toluene	108-88-3	1,900 *	30	ug/L	01/18/95
Ethylbenzene	100-41-4	1,100 *	30	ug/L	01/18/95
Xylenes, Total	1330-20-7	1,300 *	100	ug/L	01/18/95
Purgeable HCs as Gasoline	5030/GCFID	31 *	3	mg/L	01/18/95
#Extraction for TPH	EPA 3510	-		Extrn Date	01/13/95
TPH as Diesel	GC-FID	0.9 *	0.05	mg/L	01/14/95
TPH as Oil	GC-FID	0.2 *	0.2	mg/L	01/14/95

Reporting limits elevated for gas/BTEX due to high levels of target compounds; sample run at dilution. Please see page 10 for comments regarding this sample.

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

## LEVINE-FRICKE

SAMPLE ID: MW-124  
 AEN LAB NO: 9501097-07  
 AEN WORK ORDER: 9501097  
 CLIENT PROJ. ID: 3015.94.10

DATE SAMPLED: 01/10/95  
 DATE RECEIVED: 01/11/95  
 REPORT DATE: 01/31/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	12.000 *	30	ug/L	01/18/95
Toluene	108-88-3	2.000 *	30	ug/L	01/18/95
Ethylbenzene	100-41-4	1.100 *	30	ug/L	01/18/95
Xylenes, Total	1330-20-7	1.300 *	100	ug/L	01/18/95
Purgeable HCs as Gasoline	5030/GCFID	31 *	3	mg/L	01/18/95
#Extraction for TPH	EPA 3510	-		Extrn Date	01/13/95
TPH as Diesel	GC-FID	0.8 *	0.05	mg/L	01/14/95
TPH as Oil	GC-FID	0.2 *	0.2	mg/L	01/14/95

Reporting limits elevated for gas/BTEX due to high levels of target compounds; sample run at dilution. Please see page 10 for comments regarding this sample.

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

LEVINE-FRICKE

SAMPLE ID: MW-8  
 AEN LAB NO: 9501097-08  
 AEN WORK ORDER: 9501097  
 CLIENT PROJ. ID: 3015.94.10

DATE SAMPLED: 01/10/95  
 DATE RECEIVED: 01/11/95  
 REPORT DATE: 01/31/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	10,000 *	30	ug/L	01/18/95
Toluene	108-88-3	11,000 *	30	ug/L	01/18/95
Ethylbenzene	100-41-4	2,400 *	30	ug/L	01/18/95
Xylenes, Total	1330-20-7	12,000 *	100	ug/L	01/18/95
Purgeable HCs as Gasoline	5030/GCFID	58 *	3	mg/L	01/18/95
#Extraction for TPH	EPA 3510	-		Extrn Date	01/13/95
TPH as Diesel	GC-FID	0.07 *	0.05	mg/L	01/14/95
TPH as Oil	GC-FID	ND	0.2	mg/L	01/14/95

Reporting limits elevated for gas/BTEX due to high levels of target compounds; sample run at dilution. Please see page 10 for comments regarding this sample.

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

AEN (CALIFORNIA)  
QUALITY CONTROL REPORT

AEN JOB NUMBER: 9501097

CLIENT PROJECT ID: 3015.94.10

Quality Control Summary

Diesel surrogate recoveries for samples 9501097-02, -05, -06, -07, and -08 were outside of established QC limits. Analysis could not be repeated as duplicate samples were not provided.

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: 9501097  
AEN LAB NO: 0113-BLANK  
DATE EXTRACTED: 01/13/95  
DATE ANALYZED: 01/14/95

Method Blank

	Result (mg/L)	Reporting Limit (mg/L)
Diesel	ND	0.05

QUALITY CONTROL DATA

METHOD: EPA 3510 GCFID

AEN JOB NO: 9501097  
 DATE EXTRACTED: 01/13/95  
 INSTRUMENT: C  
 MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery	
			n-Pentacosane	
01/14/95	MW-10	01	118	
01/14/95	MW-12	02	128	#
01/14/95	MW-16	03	103	
01/14/95	MW-11	05	124	#
01/14/95	MW-24	06	126	#
01/14/95	MW-124	07	127	#
01/14/95	MW-8	08	121	#

QC Limits: 30-120

#: Outside of established limits

DATE EXTRACTED: 01/10/95  
 DATE ANALYZED: 01/10/95  
 SAMPLE SPIKED: DI WATER  
 INSTRUMENT: C

Method Spike Recovery Summary

Analyte	Spike Added (mg/L)	Average Percent Recovery	RPD	QC Limits	
				Percent Recovery	RPD
Diesel	2.09	79	4	65-103	12



## QUALITY CONTROL DATA

METHOD: EPA 8020, 5030 GCFID

AEN JOB NO: 9501097  
AEN LAB NO: 0117-BLANK  
DATE ANALYZED: 01/17/95  
MATRIX: WATER

## Method Blank

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

AEN LAB NO: 0118-BLANK  
DATE ANALYZED: 01/18/95

## Method Blank

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

QUALITY CONTROL DATA

METHOD: EPA 8020, 5030 GCFID

AEN JOB NO: 9501097  
 INSTRUMENT: F  
 MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery
			Fluorobenzene
01/17/95	MW-10	01	97
01/17/95	MW-12	02	95
01/17/95	MW-16	03	92
01/17/95	MW-11-FB	04	99
01/17/95	MW-11	05	98
01/18/95	MW-24	06	103
01/18/95	MW-124	07	103
01/18/95	MW-8	08	106
QC Limits:			92-109

DATE ANALYZED: 01/17/95  
 SAMPLE SPIKED: LCS  
 INSTRUMENT: F

Laboratory Control Sample

Analyte	Spike Added (ug/L)	Percent Recovery	QC Limits
			Percent Recovery
Benzene	17.9	101	63-117
Toluene	49.9	94	67-114
Hydrocarbons as Gasoline	500	96	63-120

\*\*\* END OF REPORT \*\*\*

R-1, S-6  
R-3, S-2

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

9501097

Project No.: 3015.94.10				Field Logbook No.:				Date: 1-10-94				Serial No.:							
Project Name: Diversified Investments				Project Location: Oakland								No: 013335							
Sampler (Signature): <i>Bryan Pull</i>												ANALYSES				Samplers: BCC			
SAMPLES												HOLD				RUSH			
SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CON-TAINERS	SAMPLE TYPE	EPA 801	EPA 624	TPH <sub>2</sub> /BTEX	TPH <sub>2</sub> /6				REMARKS						
MW-10	1-10	13:10	01A-D	4	Water			✓	✓				*1/12/95 Per Susan Shiv, pls.						
MW-12		13:47	02A-D	4				✓	✓				place the TB on HOLD and						
MW-16		15:45	03A-D	4				✓	✓				std TAT requested						
MW-11-FB		15:55	04A-C	3				✓					<i>Jkr</i>						
MW-11		16:10	05A-D	4				✓	✓										
MW-24		16:52	06A-D	4				✓	✓										
MW-124		17:52	07A-D	4				✓	✓										
MW-8		17:25	08A-D	4				✓	✓				No duplicate drums received.						
TB	1/4		09A					-				*							
													Fax results ASAP to Susan Shiv. Please include all Quality Control Reports in Fax.						

RELINQUISHED BY: (Signature) <i>Bryan Pull</i>	DATE 1/11/95	TIME 15:50	RECEIVED BY: (Signature) <i>Michael E. McMiller</i>	DATE 1/11/95	TIME 15:50
RELINQUISHED BY: (Signature) <i>Michael E. McMiller</i>	DATE 1/11/95	TIME 12:30	RECEIVED BY: (Signature)	DATE	TIME
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:  <i>AEN</i>
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