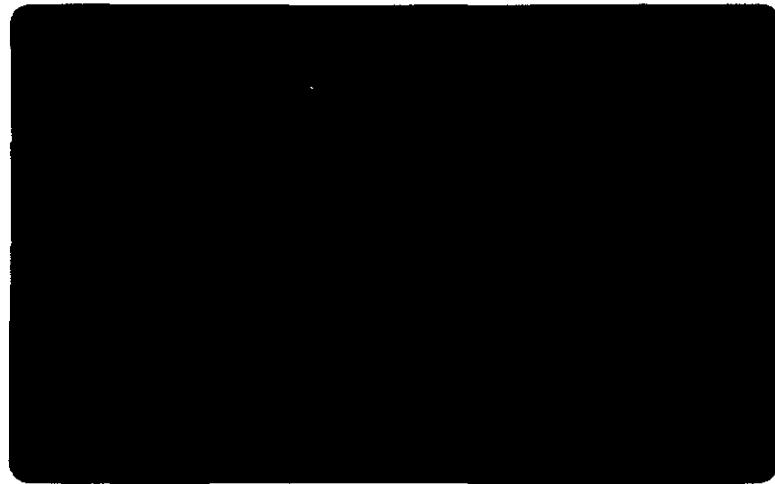


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ENGINEERS, HYDROGEOLOGISTS & APPLIED SCIENTISTS

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Quarterly Monitoring Report for
July 1 through September 30, 1995
East Baybridge Center
Emeryville and Oakland, California

October 31, 1995
LF 1649.95-02

Prepared for
Catellus Development Corporation
201 Mission Street
San Francisco, California 94105



October 31, 1995

LF 1649.95-02

Ms. Susan Hugo
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Second Floor
Alameda, California 94502

Subject: Quarterly Monitoring Report for July 1 through September 30, 1995, East Baybridge Center, Emeryville and Oakland, California

Dear Ms. Hugo:

The enclosed report presents the results of quarterly ground-water monitoring for July 1 through September 30, 1995, at the Yerba Buena/East Baybridge Center in Emeryville and Oakland, California.

Monitoring was conducted in accordance with Levine-Fricke's "Ground-Water Monitoring Plan for the East Baybridge Center, Emeryville and Oakland, California," dated December 19, 1994 and submitted to the Alameda County Health Care Services Agency.

If you have any questions or comments concerning this report, please call me.

Sincerely,



Ron Goloubow
Senior Project Geologist

Enclosure

cc: James Adams, Catellus Development
Sumadhu Arigala, Regional Water Quality Control Board

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- 2 Site Plan Showing Locations of Ground-Water Monitoring Wells and Underground Storage Tanks
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- A FIELD PROCEDURES, QUARTERLY GROUND-WATER SAMPLING
- B WATER-QUALITY SAMPLING SHEETS
- C LABORATORY CERTIFICATES

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.



Donald T. Bradshaw
Principal Hydrogeologist
California Registered Geologist (5300)

10/31/95

Date

1.0 INTRODUCTION

This report presents the results of ground-water monitoring conducted by Levine•Fricke, Inc. ("Levine•Fricke") during the quarterly period from July 1 through September 30, 1995, at the East Baybridge Center in Emeryville and Oakland, California ("the Site"; Figure 1). The Site covers approximately 51 acres and is partially developed and undergoing further development. To aid in organizing environmental investigation, remediation, and monitoring activities, the Site has been divided into Areas A, B, and C (Figure 2).

Levine•Fricke has completed monitoring activities and is submitting this report on behalf of the Catellus Development Corporation ("Catellus") in accordance with the December 19, 1994 ground-water monitoring plan (Levine•Fricke 1994a) that was submitted to the Alameda County Health Care Services Agency (ACHA). Quarterly monitoring activities included measuring water levels in accessible wells and collecting ground-water samples from selected wells. Ground-water monitoring is being conducted to monitor volatile organic compound (VOC) concentrations in ground water and assess the effectiveness of a ground-water extraction system installed at the Site during the summer of 1994. In addition, soils affected with total petroleum hydrocarbons (TPH) have been contained on site beneath building pads. Monitoring data are being collected to assess possible effects on ground-water quality beneath the Site from the contained soils.

2.0 BACKGROUND

From the early 1900s to approximately 1990, the Site was used by a variety of industrial and commercial businesses. These businesses included warehouse storage of predominantly dry goods and limited quantities of hazardous materials (oxides and acids [a complete record of materials stored at the Site is not available]); metal foundries; truck maintenance and repair; an auto storage and wrecking yard; a construction yard; and several passenger and freight rail lines.

In preparation for site development, Levine•Fricke initiated environmental investigations at the Site on behalf of Catellus in September 1989. Site investigation and remediation activities continued for approximately five years. Results of the Phase I and Phase II Investigations indicated that VOCs were present in shallow ground water beneath the Site. During site development activities, underground storage tanks (USTs) were excavated at several locations across the Site. Ground-water monitoring wells were installed in the vicinity of those former UST locations (Figure 2) to monitor ground-water quality in accordance with agency guidelines.

2.1 Areas A and B

As illustrated on Figure 2, Area A and a portion of Area B have been developed for commercial use, including a large retail store, several smaller retail stores, and two large parking areas. Areas north of the parking lots and west of Emery Street have not yet been developed.

A ground-water monitoring program was implemented at the Site in January 1992 to monitor VOC concentrations in ground water in Area A. To reduce the potential for off-site migration of shallow VOC-affected ground water, a ground-water extraction and treatment system was installed in Area A (Figure 2). This extraction system began operation in August 1994. Details regarding the operation of the extraction and treatment system are presented in a Levine-Fricke quarterly self-monitoring report, which is submitted to the East Bay Municipal Utilities District on a quarterly basis.

Approximately 25,000 cubic yards of petroleum hydrocarbon-affected soil were excavated from Area B and contained beneath building pads in Areas A and B in accordance with Levine-Fricke's Containment Plan (Levine-Fricke 1992a). Details regarding the removal of soil from this area of the Site were presented in Levine-Fricke's Soil Remediation Activities Report (Levine-Fricke 1992b). To assess ground-water quality in Areas A and B, five monitoring wells were installed and sampled on a quarterly basis for over a year. In response to a request from the Regional Water Quality Control Board (RWQCB), Levine-Fricke prepared a Soils Management Plan for the contained soils (Levine-Fricke 1994b). The plan outlined periodic ground-water monitoring to evaluate the possible effects on ground water from soils contained at the Site.

2.2 Area C

Area C (the area west of Hollis Street) is currently being developed for commercial use, including construction of two retail stores, one smaller retail store, and large parking areas.

VOCs have been detected in ground-water samples collected in Area C of the Site. Based on the distribution of VOCs detected, it appears that the VOCs have migrated from an off-site source. The RWQCB concurs with this conclusion as demonstrated by the RWQCB's letter to Catellus and others dated May 11, 1994.

Several USTs were identified at various locations within Area C during environmental investigations and site grading activities. Ground-water monitoring wells were installed following the excavation of some of these USTs. These ground-water monitoring wells (LF-31 and LF-32, installed at the former Bashland and Bay Area Warehouse properties, respectively) were monitored on a quarterly basis until

they were destroyed during site development activities in June 1994, along with all other wells located west of Hollis Street (except well LF-13).

Replacement wells for those wells (MW-31R and MW-34R) will be installed following completion of site development in Area C. In addition, well MW-12R will be installed downgradient from (west) USTs formerly located along Beach Street, to monitor ground-water quality in that area. Wells MW-10R and MW-34R will be installed in locations presented on Figure 2 to monitor possible on-site migration of VOCs from a known source located north of the property. These wells are to be installed and sampled during the fourth quarter of 1995.

3.0 GROUND-WATER ELEVATIONS AND FLOW DIRECTION

On August 30, 1995, depth to water was measured in all accessible on- and off-site wells to the nearest 0.01 foot using an electric water-level sounding probe. Table 1 summarizes the depth-to-water and ground-water elevation data collected. As shown, depth to ground water in shallow wells (less than 25 feet deep) ranged from 9.03 feet below ground surface (bgs) in well MW-2 to 19.65 feet bgs in well MW-9.

Figure 3 is a ground-water elevation contour map for water levels measured on August 30, 1995. As illustrated, the direction of shallow ground-water flow beneath the Site is toward the west-southwest, in the direction of the ground-water extraction wells (EX-3 and EX-4) and interceptor trench. The hydraulic gradient across the Site is 0.015 foot per foot (ft/ft), as measured between wells MW-2 and MW-9. The direction and gradient are consistent with the ground-water flow direction previously reported at the Site (Levine•Fricke 1993a, 1993b, 1993c, 1993d).

The influence of pumping from the shallow extraction wells and trench on the ground-water flow pattern is illustrated in Figure 3 by depressions in the ground-water surface and deflection of contour lines in the vicinity of the extraction wells and trench.

4.0 GROUND-WATER SAMPLING AND ANALYSIS

Ground-water samples were collected on August 30 and 31, 1995 for chemical analysis. A total of 11 samples were collected from 10 shallow ground-water monitoring wells (less than 25 feet deep; MW-1, MW-2, MW-3, MW-5, MW-6, MW-7, MW-8, MW-9, LF-22, and LF-23) and two shallow extraction wells (less than 25 feet deep; EX-3 and EX-4). A total of four samples were collected from three intermediate-depth wells (30 to 45 feet deep; MW-6D, MW-7D, and MW-9D) and one deeper well (50 to 65 feet deep; MW-7Z).

Based on ground-water elevations in area wells, the extraction system is effectively capturing VOC-affected ground water and inhibiting off-site migration of affected ground water.

7.0 ACTIVITIES PROPOSED FOR OCTOBER THROUGH DECEMBER 1995

Ground-water monitoring activities planned for October through December 1995 include water-level measurements and quarterly ground-water sampling. The five proposed monitoring wells shown on Figure 3 (Area C west of Hollis Street) are scheduled to be installed and developed this quarter and will be included in the ground-water sampling. The sampling schedule is summarized in Table 3. Additional field activities will consist of pavement monitoring of the areas overlying the petroleum-affected soil (Levine-Fricke 1994b). It is anticipated that a report summarizing those activities will be submitted to the Alameda County Health Care Services Agency by January 31, 1996.

REFERENCES

- Levine-Fricke, Inc. 1992a. Containment Plan for Total Petroleum Hydrocarbon-Affected Soils, Yerba Buena Project Site, Emeryville and Oakland, California. March 10.
- _____. 1992b. Soil Remediation Activities Report, Former Ransome Property, Yerba Buena Project Site, Emeryville, California. December 21.
- _____. 1993a. Quarterly Monitoring Report for July 1 through September 30, 1993, Area A and the South-Central Portion of Area B, Yerba Buena/East Baybridge Center Project Site, Emeryville and Oakland, California. October 29.
- _____. 1993b. Quarterly Monitoring Report for July 1 through September 30, 1993, Former Bashland Property, Emeryville, California. October 29.
- _____. 1993c. Quarterly Monitoring Report for July 1 through September 30, 1993, Former Bay Area Warehouse Property, Emeryville, California. October 29.
- _____. 1993d. Quarterly Monitoring Report for July 1 through September 30, 1993, Former Ransome Property Yerba Buena/East Baybridge Project Site, Emeryville, California. October 29.
- _____. 1994a. Ground-Water Monitoring Plan, East Baybridge Center, Emeryville and Oakland, California. December 19.
- _____. 1994b. Soils Management Plan for Petroleum Hydrocarbon-Affected Soils, Yerba Buena/East Baybridge Center, Emeryville and Oakland, California. November 30.

APPENDIX A
FIELD PROCEDURES

APPENDIX A FIELD PROCEDURES, QUARTERLY GROUND-WATER SAMPLING

Before sample collection, depth to static water was measured in each well and the volume of water in the well casing was calculated. Three to five well casing volumes of ground water were then purged from each well using a centrifugal pump or a bailer until indicator parameter readings (pH, specific conductance, and temperature) stabilized. Indicator parameters were measured using portable field instruments and measurements were recorded on water-quality sampling forms. Purging and sampling equipment were steam cleaned before use at each well. Purged ground water was pumped into the on-site treatment system.

After each well had been purged, ground-water samples were collected using a clean Teflon bailer. Samples were collected in containers appropriate for the laboratory analysis to be performed. Samples collected for VOC analyses were collected by pouring ground water directly from the bailer into laboratory-supplied, 40-milliliter volatile organic analysis (VOA) glass vials. Vials were gently filled to overflowing, capped, and then inverted to check for trapped air. If an air bubble was observed, the vial was discarded and a new vial filled. Samples were immediately capped and placed in an ice-chilled cooler for transportation to the analytical laboratory.

Ground-water samples were submitted to American Environmental Network, a state-certified laboratory, under strict chain-of-custody protocol. For quality assurance/quality control measures, a duplicate sample was collected from well LF-22 and analyzed for VOCs using EPA Method 8010. Laboratory certificates are presented in Appendix C.

APPENDIX B
WATER-QUALITY SAMPLING SHEETS

WATER-QUALITY SAMPLING INFORMATION

Project No.: 1649.35.02

Project Name: EAST BAY BRIDGE

Sample Location: MW-3

Samplers Name: JCK DRJ

Sampling Plan Prepared By: JCK

Sampling Method: _____

- Centrifugal Pump Disposable Bailer
 Submersible Pump Teflon Bailer
 Hand Bail _____

Analyses Requested

Analyses Requested

Number and Types of Bottles used

3 v2 A

Method of Shipment

Method of
AER

(Lab Name)

 Courier

Hand Delivery

Well Number: MW-3

Well Diameter:

Depth of Water: 11.75

2" (0.16 Gallon/Feet²)

Well Depth: 25.10

4" (0.65 Gallon/Foot)

Height of Water Column: 13 35

6" x 1.02 Gallon/Bottle

Height of Water Column: 2.14

□ 61-17-8-1-2

Inlet Depth:

Comments:

Comments:

WATER-QUALITY SAMPLING INFORMATION

Project No.: 649.95.02

Project Name: EAST BAY BRIDGE

Sample Location: MW-5

Samplers Name: JCK D. RJ

Sampling Plan Prepared By:

Sampling Method:-

- | | |
|---|--|
| <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"/> _____
<small>(Other)</small> |

Analyses Requested

EPA-8010

(Other)

Number and Types of Bottles used

3 VOA

Method of Shipment

A50

(Lab Name)

☒ Courier

Hand Deliver:

Well Number: M W-5

Well Diameter:

Depth of Water 15.79

2" (0.16 Gallon/Feet)

Well Depth: 20.80

4" (0.65 Gallon/Feet)

Height of Water Column: 5

5" (1.02 Gallon/Feet)

Volume in Well: .80

6" (1.47 Gallon/Feet)

Inlet Depth: _____

Comments:

Comments: _____
(Recommended Method For Placing Well)

WATER-QUALITY SAMPLING INFORMATION

Project No.: 1649.95.02

Project Name: EAST 2nd BRIDGE

Sample Location: MW-6D

Samplers Name: JC/K DGT

Sampling Plan Prepared By: JC

Sampling Method:-

- | | |
|--|---|
| <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) |

Analyses Requested

ÉPA 8010

Number and Types of Bottles used

3 VOA

Method of Shipment

AEG

(Lab Name)

Courier

Hand Delivery

Well Number: M W - 6 D

Depth of Water: 2.93

Well Depth: 39.80

Height of Water Column: 27.07

Volume in Well: 4.43

Well Diameter:

2" (0.16 Gallon/Feet)

4" (0.65 Gallon/Feet)

5" (1.02 Gallon/Feet)

6" (1.47 Gallon/Feet)

80% DTW 1814

Inlet Depth: _____

Comments:

(Recommended Method For Pumping Well)

WATER-QUALITY SAMPLING INFORMATION

Project No.: 1649.95.02

Project Name: EAST BAY BRIDGE

Sample Location: MW - 6

Samplers Name: JCK DRJ

Sampling Plan Prepared By: JCC

Sampling Method: _____

- | | |
|---|--|
| <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"/> _____
<small>(Other)</small> |

Analyses Requested

EP4 8010

Number and Types of Bottles used

3104

(Other)

Number and Type

3 v

Method of Shipment

AEU

(Lab Name)

Courier

Hand Delivery

Well Number: M-6

Depth of Water. 14.22

Well Depth: 21.40

Height of Water Column: 178

Volume in Well: 1.5

Well Diameter:

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

80% DTW.

Inlet Depth: _____

Comments: _____
(Recommended Method For Purging Well)

WATER-QUALITY SAMPLING INFORMATION

Project No.: 1649.95.02

Project Name: EAST BAY BRIDGE

Sample Location: MW - 72

Samplers Name: JCK

Sampling Plan Prepared By: JCK

Sampling Method:

 Centrifugal Pump Disposable Bailer2" Submersible Pump Teflon Bailer Hand Bail2" _____
(Other)

Analyses Requested

EPA 8010

Number and Types of Bottle used

3 VOA

Method of Shipment

AEN

(Lab Name)

 Courier Hand Deliver.

Well Number: MW - 72

Well Diameter:

Depth of Water: 11.58

 2" (0.16 Gallon/Feet)

Well Depth: 64.70

 4" (0.65 Gallon/Feet)

Height of Water Column: 53.12

 5" (1.02 Gallon/Feet)

Volume in Well: 8.50

 6" (1.47 Gallon/Feet)

64.70
11.58
53.12
.16
31832
5312
84992

53.12 67.70
.8 42.50
42496 25.20

80% DTW

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
1420								START
1421		9		20.3	6.82	678		SL. TURBID
1423		18		20.3	6.77	693		TURBID
1424	DEPT	20.						OFF
1426								ON
1427	DEPT	25		20.3				OFF
1429								
1430		27		20.2	6.69	524		OFF / TURBID
1445		23.20						SAMPLE

Inlet Depth:

Comments:

(Recommended Method For Purging Well)

WATER-QUALITY SAMPLING INFORMATION

Project No.: 1649.95.02

Project Name: EAST BAY BRIDGE

Sample Location: MW-7

Sample's Name: TCK

Sampling Plan Prepared By: JCK

Sampling Method:

- | | |
|---|---|
| <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"/> _____ |

Analyses Requested

EPA 8010

Number and Types of Bottles used

3 VOA

Method of Shipment

AGU

(Lab Name)

Courier

Hand Deliver:

Well Number: Mud-7

Depth of Water: 12.81

Well Depth: 23.30

Height of Water Column: 10.49

Volume in Well: 1.63

Well Diameter:

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

80% DTW

Inject Depth: _____

Comments:

Comments: (Recommended Method For Puzzles Well)

WATER-QUALITY SAMPLING INFORMATION

Project No.: 1649.95.02

Project Name: EAST RAY BRIDGE

Sample Location: MW-8

Sample Location: Samplers Name: JCE DRT

Sampling Plan Prepared By: TCK

Sampling Method:

- | | |
|---|--|
| <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"/> _____
<small>(Other)</small> |

Analyses Requested

EPA-3010

Number and Types of Bottle used

300P

Method of Shipment

A ÉN

(Lab Name)

Courier _____

ANSWER The answer is 1000. The first two digits of the product are 10.

Well Number: MW-8

Depth of Water 11:10

Water 71

Well Depth 20 ft.
Height of Water Column 9.10

Height of Water Column: 1.46

Well Diameter:

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

80% DTW 12.92

Inlet Depth: _____

Comments:

Comments: _____
(Recommended Method for Burning Well)

WATER-QUALITY SAMPLING INFORMATION

Project No.: 16-19.95.02

Project Name: EAST BAY BRIDGE

Sample Location: MW - 9 D

Samplers Name: JCK DRJ

Sampling Plan Prepared By: JCK

Sampling Method: _____

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

Analyses Requested

EP-A 8010

Number and Types of Bottle used

3 v. A

Method of Shipment

AEN

(Lab Name)

~~Courier~~

Hand Deliver:

Well Number: W-4-9

Well Diameter:

Depth of Water: 13.28

2" (0.16 Gallon/Feet)

Well Depth: 44.80

4" (0.65 Gallon/Feet)

Height of Water Column: 26.

5" (1.02 Gallon/Feet)

Volume in Well: 4.24

6" (1.47 Gallon/Feet)

Inlet Depth: _____

Comments:

(Recommended Method For Purging Well)

WATER-QUALITY SAMPLING INFORMATION

Project No.: 1649.95.02

Project Name: EAST BAY RIDGE

Sample Location: MW-9

Samplers Name: JCK DRJ

Sampling Plan Prepared By: JCK

Sampling Method:

- | | |
|---|---|
| <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

EPA 7010

Number and Types of Bottles used

3 VOA

Method of Shipment

31

(Lab Name)

~~Courier~~

Hand Delivery

Well Number: forw-9

Depth of Water: ~~328~~ 9.65

Well Depth: 25.82

Height of Water Column: 6.17

Volume in Well: _____, 99

Well Diameter.

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

80% DTW

Inlet Depth: _____

Comments:

(Recommended Method For Purging Well)

WATER-QUALITY SAMPLING INFORMATION

Project No.: 1649.95.02

Project Name: EAST RIVER BRIDGE

Sample Location: EX 4 SAMPLE PORT SYSTEM

Sample Name: JCK R.T

Sampling Plan Prepared By: JCK

Sampling Method:

- | | |
|---|---|
| <input type="checkbox"/> Centrifugal Pump | <input type="checkbox"/> Disposable Bailer |
| <input type="checkbox"/> Submersible Pump | <input type="checkbox"/> Teflon Bailer |
| <input type="checkbox"/> Hand Bail | <input type="checkbox"/> <u>GRA B SAMPLE @ Port</u>
<small>(Other)</small> |

Analyses Requested

EPA 8010

TPH- σ + o

Number and Types of Bottles used

Number and Type

Number and Types of Bottle used

3 VO 4

Method of Shipment

- Courier _____

Well Number: EX-4

Well Diameter

Depth of Water

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

Well Depth:

Height of Water Column:

Volume in Well:

80% DTW _____

Inlet Depth:

Comments:

Comments: _____
(Recommended Method For Purging Well)

WATER-QUALITY SAMPLING INFORMATION

Project No.: 1649.95.02

Project Name: EAST Bay Benders

Project Name: LE-23

Sample Location: TCG No 5

Samplers Name: JEE UKJ

Sampling Plan Prepared By: JCK

Sampling Method: _____

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

Analyses Requested

ELA 8010

Number and Types of Bottles used

3 VOA

— 1 —

Method of Shipment

AEU

(Lab Name)

Courier

Hand Delivery

Well Number: L.F. 23

Depth of Water: 13.38

Wall Dentsy: 18:50

Height of Water Column. 542

Height of Water Column: 233

Well Diameter:

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

80% DTW. 14.40

Inter Depth: _____

Comments:

Comments: _____
(Recommended Method For Buying Well)

WATER-QUALITY SAMPLING INFORMATION

Project No.: 1649.95.02

Project Name: EAST BAY BRIDGE

Sample Location: LF-22

Sample Location: JCL Date: 8-5

Samplers Name: John

Sampling Plan Prepared By: JCE

Sampling Method: _____

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

Analyses Requested

EPA 5010

Number and Types of Bottles used

3VOA

Method of Shipment

AFW

Courier

(Lab Name)

Hand Delivery

Well Number: LF-22

Well Diameter.

Depth of Water: 13.03

2" (0.16 Gallon/Feet)

Well Depth: 19.65

4" (0.65 Gallon/Feet)

Height of Water Column: 6.62

5% (1.02 Gallon/East)

Height of Water Column.
Value : Well 4.30

6" (1.43 Gallon/Foot)

Inlet Depth: _____

Comments: _____
(Recommended Method For Purging Well)

APPENDIX C
LABORATORY CERTIFICATES

American Environmental Network

Certificate of Analysis

DOHS Certification: 1172

AIHA Accreditation: 11134

PAGE 1

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

ATTN: RON GOLOUBOW
CLIENT PROJ. ID: 1649.95.02
CLIENT PROJ. NAME: EAST BAY BRIDG
C.O.C. NUMBER: 013737

REPORT DATE: 09/18/95

DATE(S) SAMPLED: 08/30/95-08/31/95

DATE RECEIVED: 08/31/95

AEN WORK ORDER: 9508439

PROJECT SUMMARY:

On August 31, 1995, this laboratory received 16 water sample(s).

Client requested sample(s) be analyzed for 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 SEP 20 1995

LEVINE-FRICKE

SAMPLE ID: MW-7
 AEN LAB NO: 9508439-01
 AEN WORK ORDER: 9508439
 CLIENT PROJ. ID: 1649.95.02

DATE SAMPLED: 08/30/95
 DATE RECEIVED: 08/31/95
 REPORT DATE: 09/18/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8010 - Water matrix	EPA 8010				
Bromodichloromethane	75-27-4	ND	3 ug/L	ug/L	09/09/95
Bromoform	75-25-2	ND	3 ug/L	ug/L	09/09/95
Bromomethane	74-83-9	ND	10 ug/L	ug/L	09/09/95
Carbon Tetrachloride	56-23-5	ND	3 ug/L	ug/L	09/09/95
Chlorobenzene	108-90-7	ND	3 ug/L	ug/L	09/09/95
Chloroethane	75-00-3	ND	10 ug/L	ug/L	09/09/95
2-Chloroethyl Vinyl Ether	110-75-8	ND	3 ug/L	ug/L	09/09/95
Chloroform	67-66-3	ND	3 ug/L	ug/L	09/09/95
Chloromethane	74-87-3	ND	10 ug/L	ug/L	09/09/95
Dibromochloromethane	124-48-1	ND	3 ug/L	ug/L	09/09/95
1,2-Dichlorobenzene	95-50-1	ND	3 ug/L	ug/L	09/09/95
1,3-Dichlorobenzene	541-73-1	ND	3 ug/L	ug/L	09/09/95
1,4-Dichlorobenzene	106-46-7	ND	3 ug/L	ug/L	09/09/95
Dichlorodifluoromethane	75-71-8	ND	10 ug/L	ug/L	09/09/95
1,1-Dichloroethane	75-34-3	3 *	3 ug/L	ug/L	09/09/95
1,2-Dichloroethane	107-06-2	ND	3 ug/L	ug/L	09/09/95
1,1-Dichloroethene	75-35-4	140 *	3 ug/L	ug/L	09/09/95
cis-1,2-Dichloroethene	156-59-2	ND	3 ug/L	ug/L	09/09/95
trans-1,2-Dichloroethene	156-60-5	ND	3 ug/L	ug/L	09/09/95
1,2-Dichloropropane	78-87-5	ND	3 ug/L	ug/L	09/09/95
cis-1,3-Dichloropropene	10061-01-5	ND	3 ug/L	ug/L	09/09/95
trans-1,3-Dichloropropene	10061-02-6	ND	3 ug/L	ug/L	09/09/95
Methylene Chloride	75-09-2	ND	10 ug/L	ug/L	09/09/95
1,1,2,2-Tetrachloroethane	79-34-5	ND	3 ug/L	ug/L	09/09/95
Tetrachloroethene	127-18-4	ND	3 ug/L	ug/L	09/09/95
1,1,1-Trichloroethane	71-55-6	12 *	3 ug/L	ug/L	09/09/95
1,1,2-Trichloroethane	79-00-5	ND	3 ug/L	ug/L	09/09/95
Trichloroethene	79-01-6	ND	3 ug/L	ug/L	09/09/95
Trichlorofluoromethane	75-69-4	ND	10 ug/L	ug/L	09/09/95
1,1,2-Trichlorotrifluoroethane	76-13-1	ND	3 ug/L	ug/L	09/09/95
Vinyl Chloride	75-01-4	ND	10 ug/L	ug/L	09/09/95

Reporting limits elevated due to high levels of target compounds. Sample run at dilution.

ND = Not detected at or above the reporting limit

* = Value at or above reporting limit

LEVINE-FRICKE

SAMPLE ID: MW-7D
 AEN LAB NO: 9508439-02
 AEN WORK ORDER: 9508439
 CLIENT PROJ. ID: 1649.95.02

DATE SAMPLED: 08/30/95
 DATE RECEIVED: 08/31/95
 REPORT DATE: 09/18/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8010 - Water matrix	EPA 8010				
Bromodichloromethane	75-27-4	ND	0.5 ug/L	ug/L	09/09/95
Bromoform	75-25-2	ND	0.5 ug/L	ug/L	09/09/95
Bromomethane	74-83-9	ND	2 ug/L	ug/L	09/09/95
Carbon Tetrachloride	56-23-5	ND	0.5 ug/L	ug/L	09/09/95
Chlorobenzene	108-90-7	ND	0.5 ug/L	ug/L	09/09/95
Chloroethane	75-00-3	ND	2 ug/L	ug/L	09/09/95
2-Chloroethyl Vinyl Ether	110-75-8	ND	0.5 ug/L	ug/L	09/09/95
Chloroform	67-66-3	ND	0.5 ug/L	ug/L	09/09/95
Chloromethane	74-87-3	ND	2 ug/L	ug/L	09/09/95
Dibromochloromethane	124-48-1	ND	0.5 ug/L	ug/L	09/09/95
1,2-Dichlorobenzene	95-50-1	ND	0.5 ug/L	ug/L	09/09/95
1,3-Dichlorobenzene	541-73-1	ND	0.5 ug/L	ug/L	09/09/95
1,4-Dichlorobenzene	106-46-7	ND	0.5 ug/L	ug/L	09/09/95
Dichlorodifluoromethane	75-71-8	ND	2 ug/L	ug/L	09/09/95
1,1-Dichloroethane	75-34-3	ND	0.5 ug/L	ug/L	09/09/95
1,2-Dichloroethane	107-06-2	ND	0.5 ug/L	ug/L	09/09/95
1,1-Dichloroethene	75-35-4	2 *	0.5 ug/L	ug/L	09/09/95
cis-1,2-Dichloroethene	156-59-2	ND	0.5 ug/L	ug/L	09/09/95
trans-1,2-Dichloroethene	156-60-5	ND	0.5 ug/L	ug/L	09/09/95
1,2-Dichloropropane	78-87-5	ND	0.5 ug/L	ug/L	09/09/95
cis-1,3-Dichloropropene	10061-01-5	ND	0.5 ug/L	ug/L	09/09/95
trans-1,3-Dichloropropene	10061-02-6	ND	0.5 ug/L	ug/L	09/09/95
Methylene Chloride	75-09-2	ND	2 ug/L	ug/L	09/09/95
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.5 ug/L	ug/L	09/09/95
Tetrachloroethene	127-18-4	ND	0.5 ug/L	ug/L	09/09/95
1,1,1-Trichloroethane	71-55-6	ND	0.5 ug/L	ug/L	09/09/95
1,1,2-Trichloroethane	79-00-5	ND	0.5 ug/L	ug/L	09/09/95
Trichloroethene	79-01-6	ND	0.5 ug/L	ug/L	09/09/95
Trichlorofluoromethane	75-69-4	ND	2 ug/L	ug/L	09/09/95
1,1,2-Trichlorotrifluoroethane	76-13-1	ND	0.5 ug/L	ug/L	09/09/95
Vinyl Chloride	75-01-4	ND	2 ug/L	ug/L	09/09/95

ND = Not detected at or above the reporting limit

* = Value at or above reporting limit

LEVINE-FRICKE

SAMPLE ID: MW-7Z
 AEN LAB NO: 9508439-03
 AEN WORK ORDER: 9508439
 CLIENT PROJ. ID: 1649.95.02

DATE SAMPLED: 08/30/95
 DATE RECEIVED: 08/31/95
 REPORT DATE: 09/18/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8010 - Water matrix	EPA 8010				
Bromodichloromethane	75-27-4	ND	0.5	ug/L	09/09/95
Bromoform	75-25-2	ND	0.5	ug/L	09/09/95
Bromomethane	74-83-9	ND	2	ug/L	09/09/95
Carbon Tetrachloride	56-23-5	ND	0.5	ug/L	09/09/95
Chlorobenzene	108-90-7	ND	0.5	ug/L	09/09/95
Chloroethane	75-00-3	ND	2	ug/L	09/09/95
2-Chloroethyl Vinyl Ether	110-75-8	ND	0.5	ug/L	09/09/95
Chloroform	67-66-3	ND	0.5	ug/L	09/09/95
Chloromethane	74-87-3	ND	2	ug/L	09/09/95
Dibromochloromethane	124-48-1	ND	0.5	ug/L	09/09/95
1,2-Dichlorobenzene	95-50-1	ND	0.5	ug/L	09/09/95
1,3-Dichlorobenzene	541-73-1	ND	0.5	ug/L	09/09/95
1,4-Dichlorobenzene	106-46-7	ND	0.5	ug/L	09/09/95
Dichlorodifluoromethane	75-71-8	ND	2	ug/L	09/09/95
1,1-Dichloroethane	75-34-3	ND	0.5	ug/L	09/09/95
1,2-Dichloroethane	107-06-2	ND	0.5	ug/L	09/09/95
1,1-Dichloroethene	75-35-4	ND	0.5	ug/L	09/09/95
cis-1,2-Dichloroethene	156-59-2	ND	0.5	ug/L	09/09/95
trans-1,2-Dichloroethene	156-60-5	ND	0.5	ug/L	09/09/95
1,2-Dichloropropane	78-87-5	ND	0.5	ug/L	09/09/95
cis-1,3-Dichloropropene	10061-01-5	ND	0.5	ug/L	09/09/95
trans-1,3-Dichloropropene	10061-02-6	ND	0.5	ug/L	09/09/95
Methylene Chloride	75-09-2	ND	2	ug/L	09/09/95
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.5	ug/L	09/09/95
Tetrachloroethene	127-18-4	ND	0.5	ug/L	09/09/95
1,1,1-Trichloroethane	71-55-6	ND	0.5	ug/L	09/09/95
1,1,2-Trichloroethane	79-00-5	ND	0.5	ug/L	09/09/95
Trichloroethene	79-01-6	ND	0.5	ug/L	09/09/95
Trichlorofluoromethane	75-69-4	ND	2	ug/L	09/09/95
1,1,2-Trichlorotrifluoroethane	76-13-1	ND	0.5	ug/L	09/09/95
Vinyl Chloride	75-01-4	ND	2	ug/L	09/09/95

ND = Not detected at or above the reporting limit

* = Value at or above reporting limit

LEVINE-FRICKE

SAMPLE ID: MW-6
 AEN LAB NO: 9508439-04
 AEN WORK ORDER: 9508439
 CLIENT PROJ. ID: 1649.95.02

DATE SAMPLED: 08/31/95
 DATE RECEIVED: 08/31/95
 REPORT DATE: 09/18/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8010 - Water matrix	EPA 8010				
Bromodichloromethane	75-27-4	ND	3 ug/L	ug/L	09/09/95
Bromoform	75-25-2	ND	3 ug/L	ug/L	09/09/95
Bromomethane	74-83-9	ND	10 ug/L	ug/L	09/09/95
Carbon Tetrachloride	56-23-5	ND	3 ug/L	ug/L	09/09/95
Chlorobenzene	108-90-7	ND	3 ug/L	ug/L	09/09/95
Chloroethane	75-00-3	ND	10 ug/L	ug/L	09/09/95
2-Chloroethyl Vinyl Ether	110-75-8	ND	3 ug/L	ug/L	09/09/95
Chloroform	67-66-3	ND	3 ug/L	ug/L	09/09/95
Chloromethane	74-87-3	ND	10 ug/L	ug/L	09/09/95
Dibromochloromethane	124-48-1	ND	3 ug/L	ug/L	09/09/95
1,2-Dichlorobenzene	95-50-1	ND	3 ug/L	ug/L	09/09/95
1,3-Dichlorobenzene	541-73-1	ND	3 ug/L	ug/L	09/09/95
1,4-Dichlorobenzene	106-46-7	ND	3 ug/L	ug/L	09/09/95
Dichlorodifluoromethane	75-71-8	ND	10 ug/L	ug/L	09/09/95
1,1-Dichloroethane	75-34-3	4 *	3 ug/L	ug/L	09/09/95
1,2-Dichloroethane	107-06-2	ND	3 ug/L	ug/L	09/09/95
1,1-Dichloroethene	75-35-4	270 *	3 ug/L	ug/L	09/09/95
cis-1,2-Dichloroethene	156-59-2	ND	3 ug/L	ug/L	09/09/95
trans-1,2-Dichloroethene	156-60-5	ND	3 ug/L	ug/L	09/09/95
1,2-Dichloropropane	78-87-5	ND	3 ug/L	ug/L	09/09/95
cis-1,3-Dichloropropene	10061-01-5	ND	3 ug/L	ug/L	09/09/95
trans-1,3-Dichloropropene	10061-02-6	ND	3 ug/L	ug/L	09/09/95
Methylene Chloride	75-09-2	ND	10 ug/L	ug/L	09/09/95
1,1,2,2-Tetrachloroethane	79-34-5	ND	3 ug/L	ug/L	09/09/95
Tetrachloroethene	127-18-4	ND	3 ug/L	ug/L	09/09/95
1,1,1-Trichloroethane	71-55-6	32 *	3 ug/L	ug/L	09/09/95
1,1,2-Trichloroethane	79-00-5	ND	3 ug/L	ug/L	09/09/95
Trichloroethene	79-01-6	ND	3 ug/L	ug/L	09/09/95
Trichlorofluoromethane	75-69-4	ND	10 ug/L	ug/L	09/09/95
1,1,2-Trichlorotrifluoroethane	76-13-1	ND	3 ug/L	ug/L	09/09/95
Vinyl Chloride	75-01-4	ND	10 ug/L	ug/L	09/09/95

Reporting limits elevated due to high levels of target compounds. Sample run at dilution.

ND = Not detected at or above the reporting limit

* = Value at or above reporting limit

LEVINE-FRICKE

SAMPLE ID: MW-6D
 AEN LAB NO: 9508439-05
 AEN WORK ORDER: 9508439
 CLIENT PROJ. ID: 1649.95.02

DATE SAMPLED: 08/31/95
 DATE RECEIVED: 08/31/95
 REPORT DATE: 09/18/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8010 - Water matrix	EPA 8010				
Bromodichloromethane	75-27-4	ND	0.5 ug/L	ug/L	09/09/95
Bromoform	75-25-2	ND	0.5 ug/L	ug/L	09/09/95
Bromomethane	74-83-9	ND	2 ug/L	ug/L	09/09/95
Carbon Tetrachloride	56-23-5	ND	0.5 ug/L	ug/L	09/09/95
Chlorobenzene	108-90-7	ND	0.5 ug/L	ug/L	09/09/95
Chloroethane	75-00-3	ND	2 ug/L	ug/L	09/09/95
2-Chloroethyl Vinyl Ether	110-75-8	ND	0.5 ug/L	ug/L	09/09/95
Chloroform	67-66-3	ND	0.5 ug/L	ug/L	09/09/95
Chloromethane	74-87-3	ND	2 ug/L	ug/L	09/09/95
Dibromochloromethane	124-48-1	ND	0.5 ug/L	ug/L	09/09/95
1,2-Dichlorobenzene	95-50-1	ND	0.5 ug/L	ug/L	09/09/95
1,3-Dichlorobenzene	541-73-1	ND	0.5 ug/L	ug/L	09/09/95
1,4-Dichlorobenzene	106-46-7	ND	0.5 ug/L	ug/L	09/09/95
Dichlorodifluoromethane	75-71-8	ND	2 ug/L	ug/L	09/09/95
1,1-Dichloroethane	75-34-3	ND	0.5 ug/L	ug/L	09/09/95
1,2-Dichloroethane	107-06-2	ND	0.5 ug/L	ug/L	09/09/95
1,1-Dichloroethene	75-35-4	ND	0.5 ug/L	ug/L	09/09/95
cis-1,2-Dichloroethene	156-59-2	ND	0.5 ug/L	ug/L	09/09/95
trans-1,2-Dichloroethene	156-60-5	ND	0.5 ug/L	ug/L	09/09/95
1,2-Dichloropropane	78-87-5	ND	0.5 ug/L	ug/L	09/09/95
cis-1,3-Dichloropropene	10061-01-5	ND	0.5 ug/L	ug/L	09/09/95
trans-1,3-Dichloropropene	10061-02-6	ND	0.5 ug/L	ug/L	09/09/95
Methylene Chloride	75-09-2	ND	2 ug/L	ug/L	09/09/95
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.5 ug/L	ug/L	09/09/95
Tetrachloroethene	127-18-4	ND	0.5 ug/L	ug/L	09/09/95
1,1,1-Trichloroethane	71-55-6	ND	0.5 ug/L	ug/L	09/09/95
1,1,2-Trichloroethane	79-00-5	ND	0.5 ug/L	ug/L	09/09/95
Trichloroethene	79-01-6	ND	0.5 ug/L	ug/L	09/09/95
Trichlorofluoromethane	75-69-4	ND	2 ug/L	ug/L	09/09/95
1,1,2-Trichlorotrifluoroethane	76-13-1	ND	0.5 ug/L	ug/L	09/09/95
Vinyl Chloride	75-01-4	ND	2 ug/L	ug/L	09/09/95

ND = Not detected at or above the reporting limit

* = Value at or above reporting limit

LEVINE-FRICKE

SAMPLE ID: MW-8
 AEN LAB NO: 9508439-06
 AEN WORK ORDER: 9508439
 CLIENT PROJ. ID: 1649.95.02

DATE SAMPLED: 08/31/95
 DATE RECEIVED: 08/31/95
 REPORT DATE: 09/18/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8010 - Water matrix	EPA 8010				
Bromodichloromethane	75-27-4	ND	0.5 ug/L	ug/L	09/09/95
Bromoform	75-25-2	ND	0.5 ug/L	ug/L	09/09/95
Bromomethane	74-83-9	ND	2 ug/L	ug/L	09/09/95
Carbon Tetrachloride	56-23-5	ND	0.5 ug/L	ug/L	09/09/95
Chlorobenzene	108-90-7	ND	0.5 ug/L	ug/L	09/09/95
Chloroethane	75-00-3	ND	2 ug/L	ug/L	09/09/95
2-Chloroethyl Vinyl Ether	110-75-8	ND	0.5 ug/L	ug/L	09/09/95
Chloroform	67-66-3	ND	0.5 ug/L	ug/L	09/09/95
Chloromethane	74-87-3	ND	2 ug/L	ug/L	09/09/95
Dibromochloromethane	124-48-1	ND	0.5 ug/L	ug/L	09/09/95
1,2-Dichlorobenzene	95-50-1	ND	0.5 ug/L	ug/L	09/09/95
1,3-Dichlorobenzene	541-73-1	ND	0.5 ug/L	ug/L	09/09/95
1,4-Dichlorobenzene	106-46-7	ND	0.5 ug/L	ug/L	09/09/95
Dichlorodifluoromethane	75-71-8	ND	2 ug/L	ug/L	09/09/95
1,1-Dichloroethane	75-34-3	ND	0.5 ug/L	ug/L	09/09/95
1,2-Dichloroethane	107-06-2	ND	0.5 ug/L	ug/L	09/09/95
1,1-Dichloroethene	75-35-4	ND	0.5 ug/L	ug/L	09/09/95
cis-1,2-Dichloroethene	156-59-2	ND	0.5 ug/L	ug/L	09/09/95
trans-1,2-Dichloroethene	156-60-5	ND	0.5 ug/L	ug/L	09/09/95
1,2-Dichloropropane	78-87-5	ND	0.5 ug/L	ug/L	09/09/95
cis-1,3-Dichloropropene	10061-01-5	ND	0.5 ug/L	ug/L	09/09/95
trans-1,3-Dichloropropene	10061-02-6	ND	0.5 ug/L	ug/L	09/09/95
Methylene Chloride	75-09-2	ND	2 ug/L	ug/L	09/09/95
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.5 ug/L	ug/L	09/09/95
Tetrachloroethene	127-18-4	ND	0.5 ug/L	ug/L	09/09/95
1,1,1-Trichloroethane	71-55-6	ND	0.5 ug/L	ug/L	09/09/95
1,1,2-Trichloroethane	79-00-5	ND	0.5 ug/L	ug/L	09/09/95
Trichloroethene	79-01-6	ND	0.5 ug/L	ug/L	09/09/95
Trichlorofluoromethane	75-69-4	ND	2 ug/L	ug/L	09/09/95
1,1,2-Trichlorotrifluoroethane	76-13-1	ND	0.5 ug/L	ug/L	09/09/95
Vinyl Chloride	75-01-4	ND	2 ug/L	ug/L	09/09/95

ND = Not detected at or above the reporting limit

* = Value at or above reporting limit

LEVINE-FRICKE

SAMPLE ID: MW-3
 AEN LAB NO: 9508439-07
 AEN WORK ORDER: 9508439
 CLIENT PROJ. ID: 1649.95.02

DATE SAMPLED: 08/31/95
 DATE RECEIVED: 08/31/95
 REPORT DATE: 09/18/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8010 - Water matrix	EPA 8010				
Bromodichloromethane	75-27-4	ND	0.5 ug/L	ug/L	09/09/95
Bromoform	75-25-2	ND	0.5 ug/L	ug/L	09/09/95
Bromomethane	74-83-9	ND	2 ug/L	ug/L	09/09/95
Carbon Tetrachloride	56-23-5	ND	0.5 ug/L	ug/L	09/09/95
Chlorobenzene	108-90-7	ND	0.5 ug/L	ug/L	09/09/95
Chloroethane	75-00-3	ND	2 ug/L	ug/L	09/09/95
2-Chloroethyl Vinyl Ether	110-75-8	ND	0.5 ug/L	ug/L	09/09/95
Chloroform	67-66-3	ND	0.5 ug/L	ug/L	09/09/95
Chloromethane	74-87-3	ND	2 ug/L	ug/L	09/09/95
Dibromochloromethane	124-48-1	ND	0.5 ug/L	ug/L	09/09/95
1,2-Dichlorobenzene	95-50-1	ND	0.5 ug/L	ug/L	09/09/95
1,3-Dichlorobenzene	541-73-1	ND	0.5 ug/L	ug/L	09/09/95
1,4-Dichlorobenzene	106-46-7	ND	0.5 ug/L	ug/L	09/09/95
Dichlorodifluoromethane	75-71-8	ND	2 ug/L	ug/L	09/09/95
1,1-Dichloroethane	75-34-3	ND	0.5 ug/L	ug/L	09/09/95
1,2-Dichloroethane	107-06-2	ND	0.5 ug/L	ug/L	09/09/95
1,1-Dichloroethene	75-35-4	ND	0.5 ug/L	ug/L	09/09/95
cis-1,2-Dichloroethene	156-59-2	ND	0.5 ug/L	ug/L	09/09/95
trans-1,2-Dichloroethene	156-60-5	ND	0.5 ug/L	ug/L	09/09/95
1,2-Dichloropropane	78-87-5	ND	0.5 ug/L	ug/L	09/09/95
cis-1,3-Dichloropropene	10061-01-5	ND	0.5 ug/L	ug/L	09/09/95
trans-1,3-Dichloropropene	10061-02-6	ND	0.5 ug/L	ug/L	09/09/95
Methylene Chloride	75-09-2	ND	2 ug/L	ug/L	09/09/95
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.5 ug/L	ug/L	09/09/95
Tetrachloroethene	127-18-4	ND	0.5 ug/L	ug/L	09/09/95
1,1,1-Trichloroethane	71-55-6	ND	0.5 ug/L	ug/L	09/09/95
1,1,2-Trichloroethane	79-00-5	ND	0.5 ug/L	ug/L	09/09/95
Trichloroethene	79-01-6	ND	0.5 ug/L	ug/L	09/09/95
Trichlorofluoromethane	75-69-4	ND	2 ug/L	ug/L	09/09/95
1,1,2-Trichlorotrifluoroethane	76-13-1	ND	0.5 ug/L	ug/L	09/09/95
Vinyl Chloride	75-01-4	ND	2 ug/L	ug/L	09/09/95

ND = Not detected at or above the reporting limit

* = Value at or above reporting limit

LEVINE-FRICKE

SAMPLE ID: MW-5
 AEN LAB NO: 9508439-08
 AEN WORK ORDER: 9508439
 CLIENT PROJ. ID: 1649.95.02

DATE SAMPLED: 08/31/95
 DATE RECEIVED: 08/31/95
 REPORT DATE: 09/18/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8010 - Water matrix	EPA 8010				
Bromodichloromethane	75-27-4	ND	0.5 ug/L	ug/L	09/09/95
Bromoform	75-25-2	ND	0.5 ug/L	ug/L	09/09/95
Bromomethane	74-83-9	ND	2 ug/L	ug/L	09/09/95
Carbon Tetrachloride	56-23-5	ND	0.5 ug/L	ug/L	09/09/95
Chlorobenzene	108-90-7	ND	0.5 ug/L	ug/L	09/09/95
Chloroethane	75-00-3	ND	2 ug/L	ug/L	09/09/95
2-Chloroethyl Vinyl Ether	110-75-8	ND	0.5 ug/L	ug/L	09/09/95
Chloroform	67-66-3	ND	0.5 ug/L	ug/L	09/09/95
Chloromethane	74-87-3	ND	2 ug/L	ug/L	09/09/95
Dibromochloromethane	124-48-1	ND	0.5 ug/L	ug/L	09/09/95
1,2-Dichlorobenzene	95-50-1	ND	0.5 ug/L	ug/L	09/09/95
1,3-Dichlorobenzene	541-73-1	ND	0.5 ug/L	ug/L	09/09/95
1,4-Dichlorobenzene	106-46-7	ND	0.5 ug/L	ug/L	09/09/95
Dichlorodifluoromethane	75-71-8	ND	2 ug/L	ug/L	09/09/95
1,1-Dichloroethane	75-34-3	4 *	0.5 ug/L	ug/L	09/09/95
1,2-Dichloroethane	107-06-2	ND	0.5 ug/L	ug/L	09/09/95
1,1-Dichloroethene	75-35-4	13 *	0.5 ug/L	ug/L	09/09/95
cis-1,2-Dichloroethene	156-59-2	ND	0.5 ug/L	ug/L	09/09/95
trans-1,2-Dichloroethene	156-60-5	ND	0.5 ug/L	ug/L	09/09/95
1,2-Dichloropropane	78-87-5	ND	0.5 ug/L	ug/L	09/09/95
cis-1,3-Dichloropropene	10061-01-5	ND	0.5 ug/L	ug/L	09/09/95
trans-1,3-Dichloropropene	10061-02-6	ND	0.5 ug/L	ug/L	09/09/95
Methylene Chloride	75-09-2	ND	2 ug/L	ug/L	09/09/95
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.5 ug/L	ug/L	09/09/95
Tetrachloroethene	127-18-4	2 *	0.5 ug/L	ug/L	09/09/95
1,1,1-Trichloroethane	71-55-6	2 *	0.5 ug/L	ug/L	09/09/95
1,1,2-Trichloroethane	79-00-5	ND	0.5 ug/L	ug/L	09/09/95
Trichloroethene	79-01-6	0.7 *	0.5 ug/L	ug/L	09/09/95
Trichlorofluoromethane	75-69-4	ND	2 ug/L	ug/L	09/09/95
1,1,2-Trichlorotrifluoroethane	76-13-1	ND	0.5 ug/L	ug/L	09/09/95
Vinyl Chloride	75-01-4	ND	2 ug/L	ug/L	09/09/95

ND = Not detected at or above the reporting limit

* = Value at or above reporting limit

LEVINE-FRICKE

SAMPLE ID: MW-9D
 AEN LAB NO: 9508439-09
 AEN WORK ORDER: 9508439
 CLIENT PROJ. ID: 1649.95.02

DATE SAMPLED: 08/31/95
 DATE RECEIVED: 08/31/95
 REPORT DATE: 09/18/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8010 - Water matrix	EPA 8010				
Bromodichloromethane	75-27-4	ND	0.5 ug/L	ug/L	09/09/95
Bromoform	75-25-2	ND	0.5 ug/L	ug/L	09/09/95
Bromomethane	74-83-9	ND	2 ug/L	ug/L	09/09/95
Carbon Tetrachloride	56-23-5	ND	0.5 ug/L	ug/L	09/09/95
Chlorobenzene	108-90-7	ND	0.5 ug/L	ug/L	09/09/95
Chloroethane	75-00-3	ND	2 ug/L	ug/L	09/09/95
2-Chloroethyl Vinyl Ether	110-75-8	ND	0.5 ug/L	ug/L	09/09/95
Chloroform	67-66-3	ND	0.5 ug/L	ug/L	09/09/95
Chloromethane	74-87-3	ND	2 ug/L	ug/L	09/09/95
Dibromochloromethane	124-48-1	ND	0.5 ug/L	ug/L	09/09/95
1,2-Dichlorobenzene	95-50-1	ND	0.5 ug/L	ug/L	09/09/95
1,3-Dichlorobenzene	541-73-1	ND	0.5 ug/L	ug/L	09/09/95
1,4-Dichlorobenzene	106-46-7	ND	0.5 ug/L	ug/L	09/09/95
Dichlorodifluoromethane	75-71-8	ND	2 ug/L	ug/L	09/09/95
1,1-Dichloroethane	75-34-3	ND	0.5 ug/L	ug/L	09/09/95
1,2-Dichloroethane	107-06-2	ND	0.5 ug/L	ug/L	09/09/95
1,1-Dichloroethene	75-35-4	ND	0.5 ug/L	ug/L	09/09/95
cis-1,2-Dichloroethene	156-59-2	ND	0.5 ug/L	ug/L	09/09/95
trans-1,2-Dichloroethene	156-60-5	ND	0.5 ug/L	ug/L	09/09/95
1,2-Dichloropropane	78-87-5	ND	0.5 ug/L	ug/L	09/09/95
cis-1,3-Dichloropropene	10061-01-5	ND	0.5 ug/L	ug/L	09/09/95
trans-1,3-Dichloropropene	10061-02-6	ND	0.5 ug/L	ug/L	09/09/95
Methylene Chloride	75-09-2	ND	2 ug/L	ug/L	09/09/95
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.5 ug/L	ug/L	09/09/95
Tetrachloroethene	127-18-4	ND	0.5 ug/L	ug/L	09/09/95
1,1,1-Trichloroethane	71-55-6	ND	0.5 ug/L	ug/L	09/09/95
1,1,2-Trichloroethane	79-00-5	ND	0.5 ug/L	ug/L	09/09/95
Trichloroethene	79-01-6	ND	0.5 ug/L	ug/L	09/09/95
Trichlorofluoromethane	75-69-4	ND	2 ug/L	ug/L	09/09/95
1,1,2-Trichlorotrifluoroethane	76-13-1	ND	0.5 ug/L	ug/L	09/09/95
Vinyl Chloride	75-01-4	ND	2 ug/L	ug/L	09/09/95

ND = Not detected at or above the reporting limit

* = Value at or above reporting limit

LEVINE-FRICKE

SAMPLE ID: MW-9
 AEN LAB NO: 9508439-10
 AEN WORK ORDER: 9508439
 CLIENT PROJ. ID: 1649.95.02

DATE SAMPLED: 08/31/95
 DATE RECEIVED: 08/31/95
 REPORT DATE: 09/18/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8010 - Water matrix	EPA 8010				
Bromodichloromethane	75-27-4	ND	3 ug/L	ug/L	09/12/95
Bromoform	75-25-2	ND	3 ug/L	ug/L	09/12/95
Bromomethane	74-83-9	ND	10 ug/L	ug/L	09/12/95
Carbon Tetrachloride	56-23-5	ND	3 ug/L	ug/L	09/12/95
Chlorobenzene	108-90-7	ND	3 ug/L	ug/L	09/12/95
Chloroethane	75-00-3	ND	10 ug/L	ug/L	09/12/95
2-Chloroethyl Vinyl Ether	110-75-8	ND	3 ug/L	ug/L	09/12/95
Chloroform	67-66-3	ND	3 ug/L	ug/L	09/12/95
Chloromethane	74-87-3	ND	10 ug/L	ug/L	09/12/95
Dibromochloromethane	124-48-1	ND	3 ug/L	ug/L	09/12/95
1,2-Dichlorobenzene	95-50-1	ND	3 ug/L	ug/L	09/12/95
1,3-Dichlorobenzene	541-73-1	ND	3 ug/L	ug/L	09/12/95
1,4-Dichlorobenzene	106-46-7	ND	3 ug/L	ug/L	09/12/95
Dichlorodifluoromethane	75-71-8	ND	10 ug/L	ug/L	09/12/95
1,1-Dichloroethane	75-34-3	4 *	3 ug/L	ug/L	09/12/95
1,2-Dichloroethane	107-06-2	ND	3 ug/L	ug/L	09/12/95
1,1-Dichloroethene	75-35-4	130 *	3 ug/L	ug/L	09/12/95
cis-1,2-Dichloroethene	156-59-2	ND	3 ug/L	ug/L	09/12/95
trans-1,2-Dichloroethene	156-60-5	ND	3 ug/L	ug/L	09/12/95
1,2-Dichloropropane	78-87-5	ND	3 ug/L	ug/L	09/12/95
cis-1,3-Dichloropropene	10061-01-5	ND	3 ug/L	ug/L	09/12/95
trans-1,3-Dichloropropene	10061-02-6	ND	3 ug/L	ug/L	09/12/95
Methylene Chloride	75-09-2	ND	10 ug/L	ug/L	09/12/95
1,1,2,2-Tetrachloroethane	79-34-5	ND	3 ug/L	ug/L	09/12/95
Tetrachloroethene	127-18-4	ND	3 ug/L	ug/L	09/12/95
1,1,1-Trichloroethane	71-55-6	13 *	3 ug/L	ug/L	09/12/95
1,1,2-Trichloroethane	79-00-5	ND	3 ug/L	ug/L	09/12/95
Trichloroethene	79-01-6	ND	3 ug/L	ug/L	09/12/95
Trichlorofluoromethane	75-69-4	ND	10 ug/L	ug/L	09/12/95
1,1,2-Trichlorotrifluoroethane	76-13-1	ND	3 ug/L	ug/L	09/12/95
Vinyl Chloride	75-01-4	ND	10 ug/L	ug/L	09/12/95

Reporting limits elevated due to high levels of target compounds. Sample run at dilution.

ND = Not detected at or above the reporting limit

* = Value at or above reporting limit

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LEVINE-FRICKE

SAMPLE ID: MW-2
AEN LAB NO: 9508439-11
AEN WORK ORDER: 9508439
CLIENT PROJ. ID: 1649.95.02

DATE SAMPLED: 08/31/95
DATE RECEIVED: 08/31/95
REPORT DATE: 09/18/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	11 *	0.5 ug/L		09/14/95
Toluene	108-88-3	ND	0.5 ug/L		09/14/95
Ethylbenzene	100-41-4	32 *	0.5 ug/L		09/14/95
Xylenes, Total	1330-20-7	72 *	2 ug/L		09/14/95
Purgeable HCs as Gasoline	5030/GCFID	0.9 *	0.05 mg/L		09/14/95
#Extraction for TPH	EPA 3510	-		Extrn Date	09/13/95
TPH as Diesel	GC-FID	0.2 *	0.05 mg/L		09/14/95

ND = Not detected at or above the reporting limit

* = Value at or above reporting limit

LEVINE-FRICKE

SAMPLE ID: MW-1
AEN LAB NO: 9508439-12
AEN WORK ORDER: 9508439
CLIENT PROJ. ID: 1649.95.02

DATE SAMPLED: 08/31/95
DATE RECEIVED: 08/31/95
REPORT DATE: 09/18/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	ND	0.5	ug/L	09/12/95
Toluene	108-88-3	ND	0.5	ug/L	09/12/95
Ethylbenzene	100-41-4	ND	0.5	ug/L	09/12/95
Xylenes, Total	1330-20-7	ND	2	ug/L	09/12/95
Purgeable HCs as Gasoline	5030/GCFID	ND	0.05	mg/L	09/12/95
#Extraction for TPH	EPA 3510	-		Extrn Date	09/13/95
TPH as Diesel	GC-FID	0.3 *	0.05	mg/L	09/14/95
TPH as Oil	GC-FID	ND	0.2	mg/L	09/14/95

ND = Not detected at or above the reporting limit

* = Value at or above reporting limit

LEVINE-FRICKE

SAMPLE ID: LF-23
 AEN LAB NO: 9508439-13
 AEN WORK ORDER: 9508439
 CLIENT PROJ. ID: 1649.95.02

DATE SAMPLED: 08/31/95
 DATE RECEIVED: 08/31/95
 REPORT DATE: 09/18/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8010 - Water matrix	EPA 8010				
Bromodichloromethane	75-27-4	ND	0.5 ug/L	09/09/95	
Bromoform	75-25-2	ND	0.5 ug/L	09/09/95	
Bromomethane	74-83-9	ND	2 ug/L	09/09/95	
Carbon Tetrachloride	56-23-5	ND	0.5 ug/L	09/09/95	
Chlorobenzene	108-90-7	ND	0.5 ug/L	09/09/95	
Chloroethane	75-00-3	ND	2 ug/L	09/09/95	
2-Chloroethyl Vinyl Ether	110-75-8	ND	0.5 ug/L	09/09/95	
Chloroform	67-66-3	4 *	0.5 ug/L	09/09/95	
Chloromethane	74-87-3	ND	2 ug/L	09/09/95	
Dibromochloromethane	124-48-1	ND	0.5 ug/L	09/09/95	
1,2-Dichlorobenzene	95-50-1	ND	0.5 ug/L	09/09/95	
1,3-Dichlorobenzene	541-73-1	ND	0.5 ug/L	09/09/95	
1,4-Dichlorobenzene	106-46-7	ND	0.5 ug/L	09/09/95	
Dichlorodifluoromethane	75-71-8	ND	2 ug/L	09/09/95	
1,1-Dichloroethane	75-34-3	0.7 *	0.5 ug/L	09/09/95	
1,2-Dichloroethane	107-06-2	ND	0.5 ug/L	09/09/95	
1,1-Dichloroethene	75-35-4	0.7 *	0.5 ug/L	09/09/95	
cis-1,2-Dichloroethene	156-59-2	1 *	0.5 ug/L	09/09/95	
trans-1,2-Dichloroethene	156-60-5	ND	0.5 ug/L	09/09/95	
1,2-Dichloropropane	78-87-5	ND	0.5 ug/L	09/09/95	
cis-1,3-Dichloropropene	10061-01-5	ND	0.5 ug/L	09/09/95	
trans-1,3-Dichloropropene	10061-02-6	ND	0.5 ug/L	09/09/95	
Methylene Chloride	75-09-2	ND	2 ug/L	09/09/95	
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.5 ug/L	09/09/95	
Tetrachloroethene	127-18-4	7 *	0.5 ug/L	09/09/95	
1,1,1-Trichloroethane	71-55-6	ND	0.5 ug/L	09/09/95	
1,1,2-Trichloroethane	79-00-5	ND	0.5 ug/L	09/09/95	
Trichloroethene	79-01-6	2 *	0.5 ug/L	09/09/95	
Trichlorofluoromethane	75-69-4	ND	2 ug/L	09/09/95	
1,1,2-Trichlorotrifluoroethane	76-13-1	ND	0.5 ug/L	09/09/95	
Vinyl Chloride	75-01-4	ND	2 ug/L	09/09/95	

ND = Not detected at or above the reporting limit

* = Value at or above reporting limit

LEVINE-FRICKE

SAMPLE ID: LF-22-FB
 AEN LAB NO: 9508439-14
 AEN WORK ORDER: 9508439
 CLIENT PROJ. ID: 1649.95.02

DATE SAMPLED: 08/31/95
 DATE RECEIVED: 08/31/95
 REPORT DATE: 09/18/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8010 - Water matrix	EPA 8010				
Bromodichloromethane	75-27-4	ND	0.5 ug/L	ug/L	09/09/95
Bromoform	75-25-2	ND	0.5 ug/L	ug/L	09/09/95
Bromomethane	74-83-9	ND	2 ug/L	ug/L	09/09/95
Carbon Tetrachloride	56-23-5	ND	0.5 ug/L	ug/L	09/09/95
Chlorobenzene	108-90-7	ND	0.5 ug/L	ug/L	09/09/95
Chloroethane	75-00-3	ND	2 ug/L	ug/L	09/09/95
2-Chloroethyl Vinyl Ether	110-75-8	ND	0.5 ug/L	ug/L	09/09/95
Chloroform	67-66-3	ND	0.5 ug/L	ug/L	09/09/95
Chloromethane	74-87-3	ND	2 ug/L	ug/L	09/09/95
Dibromochloromethane	124-48-1	ND	0.5 ug/L	ug/L	09/09/95
1,2-Dichlorobenzene	95-50-1	ND	0.5 ug/L	ug/L	09/09/95
1,3-Dichlorobenzene	541-73-1	ND	0.5 ug/L	ug/L	09/09/95
1,4-Dichlorobenzene	106-46-7	ND	0.5 ug/L	ug/L	09/09/95
Dichlorodifluoromethane	75-71-8	ND	2 ug/L	ug/L	09/09/95
1,1-Dichloroethane	75-34-3	ND	0.5 ug/L	ug/L	09/09/95
1,2-Dichloroethane	107-06-2	ND	0.5 ug/L	ug/L	09/09/95
1,1-Dichloroethene	75-35-4	ND	0.5 ug/L	ug/L	09/09/95
cis-1,2-Dichloroethene	156-59-2	ND	0.5 ug/L	ug/L	09/09/95
trans-1,2-Dichloroethene	156-60-5	ND	0.5 ug/L	ug/L	09/09/95
1,2-Dichloropropane	78-87-5	ND	0.5 ug/L	ug/L	09/09/95
cis-1,3-Dichloropropene	10061-01-5	ND	0.5 ug/L	ug/L	09/09/95
trans-1,3-Dichloropropene	10061-02-6	ND	0.5 ug/L	ug/L	09/09/95
Methylene Chloride	75-09-2	ND	2 ug/L	ug/L	09/09/95
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.5 ug/L	ug/L	09/09/95
Tetrachloroethene	127-18-4	ND	0.5 ug/L	ug/L	09/09/95
1,1,1-Trichloroethane	71-55-6	ND	0.5 ug/L	ug/L	09/09/95
1,1,2-Trichloroethane	79-00-5	ND	0.5 ug/L	ug/L	09/09/95
Trichloroethene	79-01-6	ND	0.5 ug/L	ug/L	09/09/95
Trichlorofluoromethane	75-69-4	ND	2 ug/L	ug/L	09/09/95
1,1,2-Trichlorotrifluoroethane	76-13-1	ND	0.5 ug/L	ug/L	09/09/95
Vinyl Chloride	75-01-4	ND	2 ug/L	ug/L	09/09/95

ND = Not detected at or above the reporting limit

* = Value at or above reporting limit

LEVINE-FRICKE

SAMPLE ID: LF-22
 AEN LAB NO: 9508439-15
 AEN WORK ORDER: 9508439
 CLIENT PROJ. ID: 1649.95.02

DATE SAMPLED: 08/31/95
 DATE RECEIVED: 08/31/95
 REPORT DATE: 09/18/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8010 - Water matrix	EPA 8010				
Bromodichloromethane	75-27-4	ND	0.5 ug/L	ug/L	09/12/95
Bromoform	75-25-2	ND	0.5 ug/L	ug/L	09/12/95
Bromomethane	74-83-9	ND	2 ug/L	ug/L	09/12/95
Carbon Tetrachloride	56-23-5	ND	0.5 ug/L	ug/L	09/12/95
Chlorobenzene	108-90-7	ND	0.5 ug/L	ug/L	09/12/95
Chloroethane	75-00-3	ND	2 ug/L	ug/L	09/12/95
2-Chloroethyl Vinyl Ether	110-75-8	ND	0.5 ug/L	ug/L	09/12/95
Chloroform	67-66-3	0.6 *	0.5 ug/L	ug/L	09/12/95
Chloromethane	74-87-3	ND	2 ug/L	ug/L	09/12/95
Dibromochloromethane	124-48-1	ND	0.5 ug/L	ug/L	09/12/95
1,2-Dichlorobenzene	95-50-1	ND	0.5 ug/L	ug/L	09/12/95
1,3-Dichlorobenzene	541-73-1	ND	0.5 ug/L	ug/L	09/12/95
1,4-Dichlorobenzene	106-46-7	ND	0.5 ug/L	ug/L	09/12/95
Dichlorodifluoromethane	75-71-8	ND	2 ug/L	ug/L	09/12/95
1,1-Dichloroethane	75-34-3	1 *	0.5 ug/L	ug/L	09/12/95
1,2-Dichloroethane	107-06-2	ND	0.5 ug/L	ug/L	09/12/95
1,1-Dichloroethene	75-35-4	1 *	0.5 ug/L	ug/L	09/12/95
cis-1,2-Dichloroethene	156-59-2	ND	0.5 ug/L	ug/L	09/12/95
trans-1,2-Dichloroethene	156-60-5	ND	0.5 ug/L	ug/L	09/12/95
1,2-Dichloropropane	78-87-5	ND	0.5 ug/L	ug/L	09/12/95
cis-1,3-Dichloropropene	10061-01-5	ND	0.5 ug/L	ug/L	09/12/95
trans-1,3-Dichloropropene	10061-02-6	ND	0.5 ug/L	ug/L	09/12/95
Methylene Chloride	75-09-2	ND	2 ug/L	ug/L	09/12/95
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.5 ug/L	ug/L	09/12/95
Tetrachloroethene	127-18-4	ND	0.5 ug/L	ug/L	09/12/95
1,1,1-Trichloroethane	71-55-6	ND	0.5 ug/L	ug/L	09/12/95
1,1,2-Trichloroethane	79-00-5	ND	0.5 ug/L	ug/L	09/12/95
Trichloroethene	79-01-6	ND	0.5 ug/L	ug/L	09/12/95
Trichlorofluoromethane	75-69-4	ND	2 ug/L	ug/L	09/12/95
1,1,2-Trichlorotrifluoroethane	76-13-1	ND	0.5 ug/L	ug/L	09/12/95
Vinyl Chloride	75-01-4	ND	2 ug/L	ug/L	09/12/95

ND = Not detected at or above the reporting limit

* = Value at or above reporting limit

LEVINE-FRICKE

SAMPLE ID: LF-122
 AEN LAB NO: 9508439-16
 AEN WORK ORDER: 9508439
 CLIENT PROJ. ID: 1649.95.02

DATE SAMPLED: 08/31/95
 DATE RECEIVED: 08/31/95
 REPORT DATE: 09/18/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8010 - Water matrix	EPA 8010				
Bromodichloromethane	75-27-4	ND	0.5 ug/L	ug/L	09/12/95
Bromoform	75-25-2	ND	0.5 ug/L	ug/L	09/12/95
Bromomethane	74-83-9	ND	2 ug/L	ug/L	09/12/95
Carbon Tetrachloride	56-23-5	ND	0.5 ug/L	ug/L	09/12/95
Chlorobenzene	108-90-7	ND	0.5 ug/L	ug/L	09/12/95
Chloroethane	75-00-3	ND	2 ug/L	ug/L	09/12/95
2-Chloroethyl Vinyl Ether	110-75-8	ND	0.5 ug/L	ug/L	09/12/95
Chloroform	67-66-3	0.6 *	0.5 ug/L	ug/L	09/12/95
Chloromethane	74-87-3	ND	2 ug/L	ug/L	09/12/95
Dibromochloromethane	124-48-1	ND	0.5 ug/L	ug/L	09/12/95
1,2-Dichlorobenzene	95-50-1	ND	0.5 ug/L	ug/L	09/12/95
1,3-Dichlorobenzene	541-73-1	ND	0.5 ug/L	ug/L	09/12/95
1,4-Dichlorobenzene	106-46-7	ND	0.5 ug/L	ug/L	09/12/95
Dichlorodifluoromethane	75-71-8	ND	2 ug/L	ug/L	09/12/95
1,1-Dichloroethane	75-34-3	1 *	0.5 ug/L	ug/L	09/12/95
1,2-Dichloroethane	107-06-2	ND	0.5 ug/L	ug/L	09/12/95
1,1-Dichloroethene	75-35-4	1 *	0.5 ug/L	ug/L	09/12/95
cis-1,2-Dichloroethene	156-59-2	ND	0.5 ug/L	ug/L	09/12/95
trans-1,2-Dichloroethene	156-60-5	ND	0.5 ug/L	ug/L	09/12/95
1,2-Dichloropropane	78-87-5	ND	0.5 ug/L	ug/L	09/12/95
cis-1,3-Dichloropropene	10061-01-5	ND	0.5 ug/L	ug/L	09/12/95
trans-1,3-Dichloropropene	10061-02-6	ND	0.5 ug/L	ug/L	09/12/95
Methylene Chloride	75-09-2	ND	2 ug/L	ug/L	09/12/95
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.5 ug/L	ug/L	09/12/95
Tetrachloroethene	127-18-4	ND	0.5 ug/L	ug/L	09/12/95
1,1,1-Trichloroethane	71-55-6	ND	0.5 ug/L	ug/L	09/12/95
1,1,2-Trichloroethane	79-00-5	ND	0.5 ug/L	ug/L	09/12/95
Trichloroethene	79-01-6	ND	0.5 ug/L	ug/L	09/12/95
Trichlorofluoromethane	75-69-4	ND	2 ug/L	ug/L	09/12/95
1,1,2-Trichlorotrifluoroethane	76-13-1	ND	0.5 ug/L	ug/L	09/12/95
Vinyl Chloride	75-01-4	ND	2 ug/L	ug/L	09/12/95

ND = Not detected at or above the reporting limit

* = Value at or above reporting limit

AEN (CALIFORNIA)
QUALITY CONTROL REPORT

AEN JOB NUMBER: 9508439

CLIENT PROJECT ID: 1649.95.02

Quality Control Summary

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

Definitions

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

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

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

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

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

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

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

D: Surrogates diluted out.

#: Indicates result outside of established laboratory QC limits.

QUALITY CONTROL DATA

METHOD: EPA 3510 GCFID

AEN JOB NO: 9508439
AEN LAB NO: 0913-BLANK
DATE EXTRACTED: 09/13/95
DATE ANALYZED: 09/14/95
INSTRUMENT: C
MATRIX: WATER

Method Blank

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

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QUALITY CONTROL DATA

METHOD: EPA 3510 GCFID

AEN JOB NO: 9508439
DATE EXTRACTED: 09/13/95
INSTRUMENT: C
MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery n-Pentacosane
09/14/95	MW-2	11	94
09/14/95	MW-1	12	91
QC Limits:			59-118

DATE EXTRACTED: 09/13/95
DATE ANALYZED: 09/14/95
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	2.07	88	1	65-103	12

QUALITY CONTROL DATA

METHOD: EPA 8010

AEN JOB NO: 9508439
 DATE ANALYZED: 09/09/95
 AEN LAB NO: 0909-BLANK
 INSTRUMENT: I
 MATRIX: WATER

Halogenated Volatile Organics

Analyte	CAS #	Result (ug/L)	Reporting Limit (ug/L)
Bromodichloromethane	75-27-4	ND	0.5
Bromoform	75-25-2	ND	0.5
Bromomethane	74-83-9	ND	2
Carbon Tetrachloride	56-23-5	ND	0.5
Chlorobenzene	108-90-7	ND	0.5
Chloroethane	75-00-3	ND	2
2-Chloroethyl Vinyl Ether	110-75-8	ND	0.5
Chloroform	67-66-3	ND	0.5
Chloromethane	74-87-3	ND	2
Dibromochloromethane	124-48-1	ND	0.5
1,2-Dichlorobenzene	95-50-1	ND	0.5
1,3-Dichlorobenzene	541-73-1	ND	0.5
1,4-Dichlorobenzene	106-46-7	ND	0.5
Dichlorodifluoromethane	75-71-8	ND	2
1,1-Dichloroethane	75-34-3	ND	0.5
1,2-Dichloroethane	107-06-2	ND	0.5
1,1-Dichloroethene	75-35-4	ND	0.5
cis-1,2-Dichloroethene	156-59-2	ND	0.5
trans-1,2-Dichloroethene	156-60-5	ND	0.5
1,2-Dichloropropane	78-87-5	ND	0.5
cis-1,3-Dichloropropene	10061-01-5	ND	0.5
trans-1,3-Dichloropropene	10061-02-6	ND	0.5
Methylene Chloride	75-09-2	ND	2
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.5
Tetrachloroethene	127-18-4	ND	0.5
1,1,1-Trichloroethane	71-55-6	ND	0.5
1,1,2-Trichloroethane	79-00-5	ND	0.5
Trichloroethene	79-01-6	ND	0.5
Trichlorofluoromethane	75-69-4	ND	2
1,1,2-Trichloro-			
1,2,2-trifluoroethane	76-13-1	ND	0.5
Vinyl Chloride	75-01-4	ND	2

QUALITY CONTROL DATA

METHOD: EPA 8010

AEN JOB NO: 9508439
 DATE ANALYZED: 09/12/95
 AEN LAB NO: 0912-BLANK
 INSTRUMENT: I
 MATRIX: WATER

Halogenated Volatile Organics

Analyte	CAS #	Result (ug/L)	Reporting Limit (ug/L)
Bromodichloromethane	75-27-4	ND	0.5
Bromoform	75-25-2	ND	0.5
Bromomethane	74-83-9	ND	2
Carbon Tetrachloride	56-23-5	ND	0.5
Chlorobenzene	108-90-7	ND	0.5
Chloroethane	75-00-3	ND	2
2-Chloroethyl Vinyl Ether	110-75-8	ND	0.5
Chloroform	67-66-3	ND	0.5
Chloromethane	74-87-3	ND	2
Dibromochloromethane	124-48-1	ND	0.5
1,2-Dichlorobenzene	95-50-1	ND	0.5
1,3-Dichlorobenzene	541-73-1	ND	0.5
1,4-Dichlorobenzene	106-46-7	ND	0.5
Dichlorodifluoromethane	75-71-8	ND	2
1,1-Dichloroethane	75-34-3	ND	0.5
1,2-Dichloroethane	107-06-2	ND	0.5
1,1-Dichloroethene	75-35-4	ND	0.5
cis-1,2-Dichloroethene	156-59-2	ND	0.5
trans-1,2-Dichloroethene	156-60-5	ND	0.5
1,2-Dichloropropane	78-87-5	ND	0.5
cis-1,3-Dichloropropene	10061-01-5	ND	0.5
trans-1,3-Dichloropropene	10061-02-6	ND	0.5
Methylene Chloride	75-09-2	ND	2
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.5
Tetrachloroethene	127-18-4	ND	0.5
1,1,1-Trichloroethane	71-55-6	ND	0.5
1,1,2-Trichloroethane	79-00-5	ND	0.5
Trichloroethene	79-01-6	ND	0.5
Trichlorofluoromethane	75-69-4	ND	2
1,1,2-Trichloro-			
1,2,2-trifluoroethane	76-13-1	ND	0.5
Vinyl Chloride	75-01-4	ND	2

QUALITY CONTROL DATA

Method: EPA 8010

AEN JOB NO: 9508439

INSTRUMENT: I

MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id	Bromo-chloro-methane	Percent Recovery
			1-Bromo-3-chloro-propane	
09/09/95	MW-7	01	88	96
09/09/95	MW-7D	02	85	92
09/09/95	MW-7Z	03	85	92
09/09/95	MW-6	04	82	86
09/09/95	MW-6D	05	83	88
09/09/95	MW-8	06	83	90
09/09/95	MW-3	07	84	93
09/09/95	MW-5	08	86	92
09/09/95	MW-9D	09	85	95
09/12/95	MW-9	10	103	103
09/09/95	LF-23	13	88	96
09/09/95	LF-22-FB	14	87	90
09/12/95	LF-22	15	108	115
09/12/95	LF-122	16	107	107
QC Limits:			70-130	70-130

DATE ANALYZED: 09/09/95

SAMPLE SPIKED: 9508422-01

INSTRUMENT: I

Matrix Spike Recovery Summary

Analyte	Spike Added (ug/L)	Average Percent Recovery	QC Limits		
			RPD	Percent Recovery	RPD
1,1-Dichloroethene	50	97	2	37-156	20
Trichloroethene	50	93	2	54-122	20
Chlorobenzene	50	84	2	54-141	20

QUALITY CONTROL DATA

METHOD: EPA 8020, 5030 GCFID

AEN JOB NO: 9508439
AEN LAB NO: 0912-BLANK
DATE ANALYZED: 09/12/95
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

AEN LAB NO: 0914-BLANK
DATE ANALYZED: 09/14/95
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: 9508439

INSTRUMENT: H

MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery Fluorobenzene
09/14/95	MW-2	11	99
09/12/95	MW-1	12	98
QC Limits:			92-109

DATE ANALYZED: 09/12/95
SAMPLE SPIKED: 9508436-01
INSTRUMENT: H

Matrix Spike Recovery Summary

Analyte	Spike Added (ug/L)	Average Percent Recovery	RPD	QC Limits Percent Recovery	RPD
Benzene	36.1	100	14	85-109	17
Toluene	99.3	103	16	87-111	16
Hydrocarbons as Gasoline	1000	98	11	66-117	19

*** END OF REPORT ***

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

(R-3, 5)
9508439

Project No.: <u>1649.95.02</u>				Field Logbook No.:			Date: <u>8/31/95</u>		Serial No.:					
Project Name: <u>EAST BAY BRIDGE</u>				Project Location: <u>EMERYVILLE CA</u>					<u>Nº 013737</u>					
Sampler (Signature): <u>J.C. K</u>				ANALYSES										
				<u>SAMPLES</u>					<u>Samplers:</u> <u>JCK DCJ</u>					
SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CONTAINERS	SAMPLE TYPE	EPA 601	EPA 624	SO ₁₀	TPH _D 550	TPH _O 550	TPH _S 550	HOLD	RUSH	REMARKS
MW-7	8/31/95	1535	01A-C					X						STD TAC
MW-7D		1510	02A-C					X						
MW-7Z		1445	03A-C					X						
MW-6	8/31/95	910	04A-C					X						RESULTS TO R. Gocoobow
MW-6D		955	05A-C					X						
MW-8		950	06A-C					X						
MW-3		1055	07A-C					X						10:05
MW-5		1100	08A-C					X						9-1-95 in John Kelleys,
MW-9D		1125	09A-C					X						MW-7 through MW-9 for
MW-9		1140	10A-C					X						SO ₁₀ analysis R. Hayes
MW-2		1310	11A-E					X						
MW-1		1345	12A-E					X	X	X				
LF-23		1435	13A-C					X						
LF-22-FB		1540	14A-C					X						
LF-22		1545	15A-C					X						
LF-122		1645	16A-C					X						
RELINQUISHED BY: (Signature)	<u>J.C. K</u>			DATE	TIME	RECEIVED BY: (Signature)	<u>Micheal Elizabeth</u>			DATE	TIME			
RELINQUISHED BY: (Signature)	<u>Micheal Elizabeth</u>			8/31/95	1645	RECEIVED BY: (Signature)	<u>Lori L. Pruitt</u>			8/31/95	1645			
RELINQUISHED BY: (Signature)				8/31/95	1840	RECEIVED BY: (Signature)				8/31/95	1740			
METHOD OF SHIPMENT:				DATE	TIME	RECEIVED BY: (Signature)				DATE	TIME			
Sample Collector:	LEVINE-FRICKE 1900 Powell Street, 12th Floor Emeryville, California 94608 (510) 652-4500					Analytical Laboratory: <u>AEN</u> <u>PLEASANT HILL</u>								

Shipping Copy (White)

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Field Copy (Pink)

FORM NO. 86/CO/C/ARF

American Environmental Network

Certificate of Analysis

DOLIS Certification 1172

AIHA Accreditation 11134

PAGE 1

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

ATTN: RON GOLOUBOW
CLIENT PROJ. ID: 1649.95.02
CLIENT PROJ. NAME: EAST BAY BRIDG
C.O.C. NUMBER: 013738

REPORT DATE: 09/21/95
DATE(S) SAMPLED: 08/31/95
DATE RECEIVED: 08/31/95
AEN WORK ORDER: 9508440

PROJECT SUMMARY:

On August 31, 1995, this laboratory received 3 water sample(s).

Client requested sample(s) be analyzed for 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
Larry Klein
Laboratory Director

LEVINE-FRICKE

SAMPLE ID: EX-3
 AEN LAB NO: 9508440-01
 AEN WORK ORDER: 9508440
 CLIENT PROJ. ID: 1649.95.02

DATE SAMPLED: 08/31/95
 DATE RECEIVED: 08/31/95
 REPORT DATE: 09/21/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	09/13/95
TPH as Diesel	GC-FID	0.1 *	0.05	mg/L	09/15/95
TPH as Oil	GC-FID	ND	0.2	mg/L	09/15/95
EPA 8010 - Water matrix	EPA 8010				
Bromodichloromethane	75-27-4	ND	3	ug/L	09/08/95
Bromoform	75-25-2	ND	3	ug/L	09/08/95
Bromomethane	74-83-9	ND	10	ug/L	09/08/95
Carbon Tetrachloride	56-23-5	ND	3	ug/L	09/08/95
Chlorobenzene	108-90-7	ND	3	ug/L	09/08/95
Chloroethane	75-00-3	ND	10	ug/L	09/08/95
2-Chloroethyl Vinyl Ether	110-75-8	ND	3	ug/L	09/08/95
Chloroform	67-66-3	ND	3	ug/L	09/08/95
Chloromethane	74-87-3	ND	10	ug/L	09/08/95
Dibromochloromethane	124-48-1	ND	3	ug/L	09/08/95
1,2-Dichlorobenzene	95-50-1	ND	3	ug/L	09/08/95
1,3-Dichlorobenzene	541-73-1	ND	3	ug/L	09/08/95
1,4-Dichlorobenzene	106-46-7	ND	3	ug/L	09/08/95
Dichlorodifluoromethane	75-71-8	ND	10	ug/L	09/08/95
1,1-Dichloroethane	75-34-3	5 *	3	ug/L	09/08/95
1,2-Dichloroethane	107-06-2	ND	3	ug/L	09/08/95
1,1-Dichloroethene	75-35-4	120 *	3	ug/L	09/08/95
cis-1,2-Dichloroethene	156-59-2	ND	3	ug/L	09/08/95
trans-1,2-Dichloroethene	156-60-5	ND	3	ug/L	09/08/95
1,2-Dichloropropane	78-87-5	ND	3	ug/L	09/08/95
cis-1,3-Dichloropropene	10061-01-5	ND	3	ug/L	09/08/95
trans-1,3-Dichloropropene	10061-02-6	ND	3	ug/L	09/08/95
Methylene Chloride	75-09-2	ND	10	ug/L	09/08/95
1,1,2,2-Tetrachloroethane	79-34-5	ND	3	ug/L	09/08/95
Tetrachloroethene	127-18-4	27 *	3	ug/L	09/08/95
1,1,1-Trichloroethane	71-55-6	12 *	3	ug/L	09/08/95
1,1,2-Trichloroethane	79-00-5	ND	3	ug/L	09/08/95
Trichloroethene	79-01-6	ND	3	ug/L	09/08/95
Trichlorofluoromethane	75-69-4	ND	10	ug/L	09/08/95
1,1,2-Trichlorotrifluoroethane	76-13-1	ND	3	ug/L	09/08/95
Vinyl Chloride	75-01-4	ND	10	ug/L	09/08/95

LEVINE-FRICKE

SAMPLE ID: EX-3
AEN LAB NO: 9508440-01
AEN WORK ORDER: 9508440
CLIENT PROJ. ID: 1649.95.02

DATE SAMPLED: 08/31/95
DATE RECEIVED: 08/31/95
REPORT DATE: 09/21/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
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Reporting limits elevated for EPA 8010 due to high levels of target compounds. Sample run at dilution.

ND = Not detected at or above the reporting limit

* = Value at or above reporting limit

LEVINE-FRICKE

SAMPLE ID: EX-4
 AEN LAB NO: 9508440-02
 AEN WORK ORDER: 9508440
 CLIENT PROJ. ID: 1649.95.02

DATE SAMPLED: 08/31/95
 DATE RECEIVED: 08/31/95
 REPORT DATE: 09/21/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	09/13/95
TPH as Diesel	GC-FID	0.2 *	0.05 mg/L		09/15/95
TPH as Oil	GC-FID	ND	0.2 mg/L		09/15/95
EPA 8010 - Water matrix	EPA 8010				
Bromodichloromethane	75-27-4	ND	3 ug/L		09/09/95
Bromoform	75-25-2	ND	3 ug/L		09/09/95
Bromomethane	74-83-9	ND	10 ug/L		09/09/95
Carbon Tetrachloride	56-23-5	ND	3 ug/L		09/09/95
Chlorobenzene	108-90-7	ND	3 ug/L		09/09/95
Chloroethane	75-00-3	ND	10 ug/L		09/09/95
2-Chloroethyl Vinyl Ether	110-75-8	ND	3 ug/L		09/09/95
Chloroform	67-66-3	ND	3 ug/L		09/09/95
Chloromethane	74-87-3	ND	10 ug/L		09/09/95
Dibromochloromethane	124-48-1	ND	3 ug/L		09/09/95
1,2-Dichlorobenzene	95-50-1	ND	3 ug/L		09/09/95
1,3-Dichlorobenzene	541-73-1	ND	3 ug/L		09/09/95
1,4-Dichlorobenzene	106-46-7	ND	3 ug/L		09/09/95
Dichlorodifluoromethane	75-71-8	ND	10 ug/L		09/09/95
1,1-Dichloroethane	75-34-3	5 *	3 ug/L		09/09/95
1,2-Dichloroethane	107-06-2	ND	3 ug/L		09/09/95
1,1-Dichloroethene	75-35-4	200 *	3 ug/L		09/09/95
cis-1,2-Dichloroethene	156-59-2	ND	3 ug/L		09/09/95
trans-1,2-Dichloroethene	156-60-5	ND	3 ug/L		09/09/95
1,2-Dichloropropane	78-87-5	ND	3 ug/L		09/09/95
cis-1,3-Dichloropropene	10061-01-5	ND	3 ug/L		09/09/95
trans-1,3-Dichloropropene	10061-02-6	ND	3 ug/L		09/09/95
Methylene Chloride	75-09-2	ND	10 ug/L		09/09/95
1,1,2,2-Tetrachloroethane	79-34-5	ND	3 ug/L		09/09/95
Tetrachloroethene	127-18-4	10 *	3 ug/L		09/09/95
1,1,1-Trichloroethane	71-55-6	16 *	3 ug/L		09/09/95
1,1,2-Trichloroethane	79-00-5	ND	3 ug/L		09/09/95
Trichloroethene	79-01-6	ND	3 ug/L		09/09/95
Trichlorofluoromethane	75-69-4	ND	10 ug/L		09/09/95
1,1,2-Trichlorotrifluoroethane	76-13-1	ND	3 ug/L		09/09/95
Vinyl Chloride	75-01-4	ND	10 ug/L		09/09/95

LEVINE-FRICKE

SAMPLE ID: EX-4
AEN LAB NO: 9508440-02
AEN WORK ORDER: 9508440
CLIENT PROJ. ID: 1649.95.02

DATE SAMPLED: 08/31/95
DATE RECEIVED: 08/31/95
REPORT DATE: 09/21/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
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Reporting limits elevated for EPA 8010 due to high levels of target compounds. Sample run at dilution.

ND = Not detected at or above the reporting limit

* = Value at or above reporting limit

LEVINE-FRICKE

SAMPLE ID: TRIP BLANK
 AEN LAB NO: 9508440-03
 AEN WORK ORDER: 9508440
 CLIENT PROJ. ID: 1649.95.02

DATE SAMPLED:
 DATE RECEIVED: 08/31/95
 REPORT DATE: 09/21/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8010 - Water matrix	EPA 8010				
Bromodichloromethane	75-27-4	ND	0.5	ug/L	09/08/95
Bromoform	75-25-2	ND	0.5	ug/L	09/08/95
Bromomethane	74-83-9	ND	2	ug/L	09/08/95
Carbon Tetrachloride	56-23-5	ND	0.5	ug/L	09/08/95
Chlorobenzene	108-90-7	ND	0.5	ug/L	09/08/95
Chloroethane	75-00-3	ND	2	ug/L	09/08/95
2-Chloroethyl Vinyl Ether	110-75-8	ND	0.5	ug/L	09/08/95
Chloroform	67-66-3	ND	0.5	ug/L	09/08/95
Chloromethane	74-87-3	ND	2	ug/L	09/08/95
Dibromochloromethane	124-48-1	ND	0.5	ug/L	09/08/95
1,2-Dichlorobenzene	95-50-1	ND	0.5	ug/L	09/08/95
1,3-Dichlorobenzene	541-73-1	ND	0.5	ug/L	09/08/95
1,4-Dichlorobenzene	106-46-7	ND	0.5	ug/L	09/08/95
Dichlorodifluoromethane	75-71-8	ND	2	ug/L	09/08/95
1,1-Dichloroethane	75-34-3	ND	0.5	ug/L	09/08/95
1,2-Dichloroethane	107-06-2	ND	0.5	ug/L	09/08/95
1,1-Dichloroethene	75-35-4	ND	0.5	ug/L	09/08/95
cis-1,2-Dichloroethene	156-59-2	ND	0.5	ug/L	09/08/95
trans-1,2-Dichloroethene	156-60-5	ND	0.5	ug/L	09/08/95
1,2-Dichloropropane	78-87-5	ND	0.5	ug/L	09/08/95
cis-1,3-Dichloropropene	10061-01-5	ND	0.5	ug/L	09/08/95
trans-1,3-Dichloropropene	10061-02-6	ND	0.5	ug/L	09/08/95
Methylene Chloride	75-09-2	ND	2	ug/L	09/08/95
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.5	ug/L	09/08/95
Tetrachloroethene	127-18-4	ND	0.5	ug/L	09/08/95
1,1,1-Trichloroethane	71-55-6	ND	0.5	ug/L	09/08/95
1,1,2-Trichloroethane	79-00-5	ND	0.5	ug/L	09/08/95
Trichloroethene	79-01-6	ND	0.5	ug/L	09/08/95
Trichlorofluoromethane	75-69-4	ND	2	ug/L	09/08/95
1,1,2-Trichlorotrifluoroethane	76-13-1	ND	0.5	ug/L	09/08/95
Vinyl Chloride	75-01-4	ND	2	ug/L	09/08/95

ND = Not detected at or above the reporting limit

* = Value at or above reporting limit

AEN (CALIFORNIA)
QUALITY CONTROL REPORT

AEN JOB NUMBER: 9508440

CLIENT PROJECT ID: 1649.95.02

Quality Control Summary

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

Definitions

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

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

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

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

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

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

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

D: Surrogates diluted out.

#: Indicates result outside of established laboratory QC limits.

QUALITY CONTROL DATA

METHOD: EPA 3510 GCFID

AEN JOB NO: 9508440
AEN LAB NO: 0913-BLANK
DATE EXTRACTED: 09/13/95
DATE ANALYZED: 09/15/95
INSTRUMENT: C
MATRIX: WATER

Method Blank

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

QUALITY CONTROL DATA

METHOD: EPA 3510 GCFID

AEN JOB NO: 9508440
DATE EXTRACTED: 09/13/95
INSTRUMENT: C
MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery
			n-Pentacosane
09/15/95	EX-3	01	108
09/15/95	EX-4	02	107
QC Limits:			59-118

DATE EXTRACTED: 09/13/95
DATE ANALYZED: 09/14/95
SAMPLE SPIKED: DI WATER
INSTRUMENT: C

Method Spike Recovery Summary

Analyte	Spike Added (mg/L)	Average Percent Recovery	RPD	Percent Recovery	RPD
Diesel	2.07	88	1	65-103	12

QUALITY CONTROL DATA

METHOD: EPA 8010

AEN JOB NO: 9508440
DATE ANALYZED: 09/08/95
AEN LAB NO: 0908-BLANK
INSTRUMENT: I
MATRIX: WATER

Halogenated Volatile Organics

Analyte	CAS #	Result (ug/L)	Reporting Limit (ug/L)
Bromodichloromethane	75-27-4	ND	0.5
Bromoform	75-25-2	ND	0.5
Bromomethane	74-83-9	ND	2
Carbon Tetrachloride	56-23-5	ND	0.5
Chlorobenzene	108-90-7	ND	0.5
Chloroethane	75-00-3	ND	2
2-Chloroethyl Vinyl Ether	110-75-8	ND	0.5
Chloroform	67-66-3	ND	0.5
Chloromethane	74-87-3	ND	2
Dibromochloromethane	124-48-1	ND	0.5
1,2-Dichlorobenzene	95-50-1	ND	0.5
1,3-Dichlorobenzene	541-73-1	ND	0.5
1,4-Dichlorobenzene	106-46-7	ND	0.5
Dichlorodifluoromethane	75-71-8	ND	2
1,1-Dichloroethane	75-34-3	ND	0.5
1,2-Dichloroethane	107-06-2	ND	0.5
1,1-Dichloroethene	75-35-4	ND	0.5
cis-1,2-Dichloroethene	156-59-2	ND	0.5
trans-1,2-Dichloroethene	156-60-5	ND	0.5
1,2-Dichloropropane	78-87-5	ND	0.5
cis-1,3-Dichloropropene	10061-01-5	ND	0.5
trans-1,3-Dichloropropene	10061-02-6	ND	0.5
Methylene Chloride	75-09-2	ND	2
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.5
Tetrachloroethene	127-18-4	ND	0.5
1,1,1-Trichloroethane	71-55-6	ND	0.5
1,1,2-Trichloroethane	79-00-5	ND	0.5
Trichloroethene	79-01-6	ND	0.5
Trichlorofluoromethane	75-69-4	ND	2
1,1,2-Trichloro-			
1,2,2-trifluoroethane	76-13-1	ND	0.5
Vinyl Chloride	75-01-4	ND	2

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QUALITY CONTROL DATA

Method: EPA 8010

AEN JOB NO: 9508440
INSTRUMENT: I
MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery	
			Bromochloro-methane	1-Bromo-3-chloropropane
09/08/95	EX-3	01	90	93
09/09/95	EX-4	02	85	89
09/08/95	TRIP BLANK	03	89	96
QC Limits:			70-130	70-130

DATE ANALYZED: 09/08/95
SAMPLE SPIKED: 9508422-05
INSTRUMENT: I

Matrix Spike Recovery Summary

Analyte	Spike Added (ug/L)	Average Percent Recovery	QC Limits		
			RPD	Percent Recovery	RPD
1,1-Dichloroethene	50	107	<1	37-156	20
Trichloroethene	50	102	<1	54-122	20
Chlorobenzene	50	95	<1	54-141	20

*** END OF REPORT ***

QUALITY CONTROL DATA

METHOD: EPA 8010

AEN JOB NO: 9508440
DATE ANALYZED: 09/09/95
AEN LAB NO: 0909-BLANK
INSTRUMENT: I
MATRIX: WATER

Halogenated Volatile Organics

Analyte	CAS #	Result (ug/L)	Reporting Limit (ug/L)
Bromodichloromethane	75-27-4	ND	0.5
Bromoform	75-25-2	ND	0.5
Bromomethane	74-83-9	ND	2
Carbon Tetrachloride	56-23-5	ND	0.5
Chlorobenzene	108-90-7	ND	0.5
Chloroethane	75-00-3	ND	2
2-Chloroethyl Vinyl Ether	110-75-8	ND	0.5
Chloroform	67-66-3	ND	0.5
Chloromethane	74-87-3	ND	2
Dibromochloromethane	124-48-1	ND	0.5
1,2-Dichlorobenzene	95-50-1	ND	0.5
1,3-Dichlorobenzene	541-73-1	ND	0.5
1,4-Dichlorobenzene	106-46-7	ND	0.5
Dichlorodifluoromethane	75-71-8	ND	2
1,1-Dichloroethane	75-34-3	ND	0.5
1,2-Dichloroethane	107-06-2	ND	0.5
1,1-Dichloroethene	75-35-4	ND	0.5
cis-1,2-Dichloroethene	156-59-2	ND	0.5
trans-1,2-Dichloroethene	156-60-5	ND	0.5
1,2-Dichloropropane	78-87-5	ND	0.5
cis-1,3-Dichloropropene	10061-01-5	ND	0.5
trans-1,3-Dichloropropene	10061-02-6	ND	0.5
Methylene Chloride	75-09-2	ND	2
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.5
Tetrachloroethene	127-18-4	ND	0.5
1,1,1-Trichloroethane	71-55-6	ND	0.5
1,1,2-Trichloroethane	79-00-5	ND	0.5
Trichloroethene	79-01-6	ND	0.5
Trichlorofluoromethane	75-69-4	ND	2
1,1,2-Trichloro-			
1,2,2-trifluoroethane	76-13-1	ND	0.5
Vinyl Chloride	75-01-4	ND	2

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

R-3, -2
R-1, S-A

Zoříč

9508440

RELINQUISHED BY: (Signature)	DATE 8/31/95	TIME 16:45	RECEIVED BY: (Signature)	Michael E. Mueller	DATE 8/31/95	TIME 16:45	
RELINQUISHED BY: (Signature)	Michael E. Mueller	DATE 8/31/95	TIME 17:40	RECEIVED BY: (Signature)	Jai D. Pruitt	DATE 8/31/95	TIME 17:40
RELINQUISHED BY: (Signature)		DATE	TIME	RECEIVED BY: (Signature)		DATE	TIME
METHOD OF SHIPMENT:		DATE	TIME	LAB COMMENTS:			
Sample Collector:	LEVINE-FRICKE 1900 Powell Street, 12th Floor Emeryville, California 94608 (510) 652-4500			Analytical Laboratory:	AEN Pleasant Hill, CA		

Table 1
Well Construction and Ground-Water Elevation Data
East Baybridge Center
Emeryville and Oakland, California

Well Number	Well Elevation (1)	Well Depth (2)	Screened Interval (2)	Date Measured	Depth to Water	Ground-Water Elevation (3)
Shallow Wells						
MW-1	27.47	30	15-30	12-Sep-94	14.88	12.59
				30-Nov-94	14.61	12.86
				16-Feb-95	14.73	12.74
				08-May-95	14.55	12.92
				30-Aug-95	14.62	12.85
MW-2	37.23	18	8-18	12-Sep-94	8.00	29.23
				30-Nov-94	6.84	30.39
				16-Feb-95	6.84	30.39
				08-May-95	7.08	30.15
				30-Aug-95	9.03	28.20
MW-3	32.05	25	14-25	12-Sep-94	9.88	22.17
				30-Nov-94	9.96	22.09
				16-Feb-95	9.24	22.81
				08-May-95	9.82	22.23
				30-Aug-95	11.75	20.30
MW-4	24.28	25	12-25	12-Sep-94	17.01	7.27
				30-Nov-94	16.15	8.13
				16-Feb-95	16.38	7.90
				08-May-95	16.27	8.01
				30-Aug-95	16.32	7.96
MW-5	22.19	21.5	11.5-21.5	12-Sep-94	17.15	5.04
				30-Nov-94	15.94	6.25
				16-Feb-95	16.45	5.74
				08-May-95	16.08	6.11
				30-Aug-95	15.79	6.40
MW-6	28.54	21.5	11.5-21.5	12-Sep-94	12.58	15.96
				30-Nov-94	12.75	15.79
				16-Feb-95	12.17	16.37
				08-May-95	12.75	15.79
				30-Aug-95	14.22	14.32
MW-7	26.29	23.5	13.5-23.5	12-Sep-94	11.60	14.69
				30-Nov-94	11.53	14.76
				16-Feb-95	10.82	15.47
				08-May-95	11.84	14.45
				30-Aug-95	12.81	13.48

Table 1
Well Construction and Ground-Water Elevation Data
East Baybridge Center
Emeryville and Oakland, California

Well Number	Well Elevation (1)	Well Depth (2)	Screened Interval (2)	Date Measured	Depth to Water	Ground-Water Elevation (3)
MW-8	24.40	20.5	10.5-20.5	12-Sep-94	9.96	14.44
				30-Nov-94	9.96	14.44
				16-Feb-95	9.68	14.72
				08-May-95	10.06	14.34
				30-Aug-95	11.10	13.30
MW-9	24.17	26	14-26	12-Sep-94	19.70	4.47
				30-Nov-94	17.65	6.52
				16-Feb-95	18.85	5.32
				08-May-95	19.47	4.70
				30-Aug-95	19.65	4.52
LF-22	17.99	20	10-20	12-Sep-94	11.96	6.03
				30-Nov-94	9.69	8.30
				16-Feb-95	10.45	7.54
				08-May-95	11.40	6.59
				30-Aug-95	13.03	4.96
LF-23	17.99	20	10-20	12-Sep-94	12.24	5.75
				30-Nov-94	10.05	7.94
				16-Feb-95	11.10	6.89
				08-May-95	11.88	6.11
				30-Aug-95	13.38	4.61

Extraction Wells						
EX-1 (LF-1)	23.51	NA	NA	12-Sep-94	24.83	-1.32
				30-Nov-94	19.16	4.35
				08-May-95	23.45	0.06
				30-Aug-95	23.45	0.06
EX-2 (LF-2)	20.03	NA	NA	12-Sep-94	20.11	-0.08
				30-Nov-94	15.68	4.35
				08-May-95	20.70	-0.67
				30-Aug-95	20.68	-0.65
EX-3	20.96	24	7.5-24	12-Sep-94	22.33	-1.37
				30-Nov-94	15.50	5.46
				16-Feb-95	17.80	3.16
				08-May-95	19.80	1.16
				30-Aug-95	19.86	1.10
EX-4	24.40	25	8-25	12-Sep-94	22.61	1.79
				30-Nov-94	20.70	3.70
				16-Feb-95	20.55	3.85
				08-May-95	20.85	3.55
				30-Aug-95	20.88	3.52

Table 1
Well Construction and Ground-Water Elevation Data
East Baybridge Center
Emeryville and Oakland, California

Well Number	Well Elevation (1)	Well Depth (2)	Screened Interval (2)	Date Measured	Depth to Water	Ground-Water Elevation (3)
Deeper Wells						
MW-6D	28.48	45	32-40	12-Sep-94 30-Nov-94 16-Feb-95 08-May-95 30-Aug-95	11.09 11.46 10.67 11.58 12.93	17.39 17.02 17.81 16.90 15.55
MW-7D	26.27	40	27-40	12-Sep-94 30-Nov-94 16-Feb-95 08-May-95 30-Aug-95	11.32 11.30 11.01 11.35 12.65	14.95 14.97 15.26 14.92 13.62
MW-9D	24.17	45	32-45	12-Sep-94 30-Nov-94 16-Feb-95 08-May-95 30-Aug-95	18.38 16.35 16.43 16.96 18.28	5.79 7.82 7.74 7.21 5.89
Deep Well						
MW-7Z	25.96	65	50-65	12-Sep-94 30-Nov-94 16-Feb-95 08-May-95 30-Aug-95	11.78 10.76 9.16 9.85 11.85	14.18 15.20 16.80 16.11 14.11

Data entered by CTH 18/SEP/95. Proofed by . *JCK*

Notes

- (1) Well elevation is in feet mean sea level as surveyed by Nolte and Associates in August 1994.
- (2) Well depth and screened interval are in feet below ground surface as measured at the time of well installation.
- (3) Water level elevation is in feet mean sea level.

NA denotes not applicable, well associated with extraction trench.
 NM denotes water level not measured.

Table 2

Quarterly Summary of Ground-Water Quality Data
East Baybridge Center
Emeryville and Oakland, California
(concentrations expressed in parts per million [mg/L])

Well ID	Notes	Date Sampled	Lab	TPH (g)	TPH (d)	TPH (o)	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TCE	1,1,1-TCA	PCE	1,1-DCE	1,1-DCA	1,2-DCA
Shallow Wells (20 to 25 feet below grade)																
MW-1		13-Sep-94	AEN	-0.01	0.30	<0.5	<0.0005	<0.0005	<0.0005	<0.0005	NA	NA	NA	NA	NA	NA
		30-Nov-94	AEN	NA	0.10	<0.2	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
		17-Feb-95	AEN	<0.0	0.08	<0.2	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA
		09-May-95	AEN	<0.0	0.20	<0.2	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA
		31-Aug-95	AEN	<0.0	0.30	<0.2	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA
MW-2		01-Dec-94	AEN	7.10	NA	NA	0.065	<0.01	0.13	0.47	NA	NA	NA	NA	NA	NA
		17-Feb-95	AEN	3.50	0.30	<0.2	0.045	0.005	0.11	0.35	NA	NA	NA	NA	NA	NA
		09-May-95	AEN	3.50	0.20	<0.2	0.025	0.009	0.085	0.25	NA	NA	NA	NA	NA	NA
		31-Aug-95	AEN	0.90	0.20	NA	0.011	<0.0005	0.032	0.072	NA	NA	NA	NA	NA	NA
MW-3		12-Sep-94	AEN	NA	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
		01-Dec-94	AEN	NA	0.07	<0.2	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
		16-Feb-95	AEN	NA	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
		08-May-95	AEN	NA	0.07	<0.2	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
		31-Aug-95	AEN	NA	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
MW-4		01-Dec-94	AEN	NA	0.09	<0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
		08-May-95	AEN	NA	0.10	<0.2	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	0.004	<0.0005
MW-5		13-Sep-94	AEN	NA	NA	NA	NA	NA	NA	NA	<0.0005	0.001	0.0007	0.003	0.002	<0.0005
		01-Dec-94	AEN	NA	0.05	<0.2	NA	NA	NA	NA	<0.0005	0.0007	0.0005	0.004	0.003	<0.0005
		16-Feb-95	AEN	NA	NA	NA	NA	NA	NA	NA	<0.0005	0.001	0.002	0.008	0.003	<0.0005
		08-May-95	AEN	NA	0.09	<0.2	NA	NA	NA	NA	0.0005	0.002	0.002	0.016	0.005	<0.0005
		31-Aug-95	AEN	NA	NA	NA	NA	NA	NA	NA	0.0007	0.002	0.002	0.013	0.004	<0.0005
MW-6	(2)	13-Sep-94	AEN	NA	NA	NA	NA	NA	NA	NA	0.0005	0.041	<0.0005	0.280	0.005	0.001
	(6)	01-Dec-94	AEN	NA	0.08	NA	NA	NA	NA	NA	0.0006	0.041	<0.0005	0.300	0.004	<0.0005
		16-Feb-95	AEN	NA	NA	NA	NA	NA	NA	NA	<0.003	0.039	<0.003	0.280	0.003	<0.003
		16-Feb-95	AEN	NA	NA	NA	NA	NA	NA	NA	<0.003	0.045	<0.003	0.290	0.004	<0.003
		09-May-95	AEN	NA	0.20	<0.2	NA	NA	NA	NA	<0.003	0.031	<0.003	0.260	0.003	<0.003
		31-Aug-95	AEN	NA	NA	NA	NA	NA	NA	NA	<0.003	0.032	<0.003	0.270	0.004	<0.003
MW-7		12-Sep-94	AEN	NA	NA	NA	NA	NA	NA	NA	<0.0005	0.017	<0.0005	0.160	0.003	0.0009
		30-Nov-94	AEN	NA	NA	NA	NA	NA	NA	NA	<0.0005	0.016	<0.0005	0.170	0.003	<0.0005
		16-Feb-95	AEN	NA	NA	NA	NA	NA	NA	NA	<0.003	0.011	<0.003	0.120	<0.003	<0.003
		09-May-95	AEN	NA	0.09	<0.2	NA	NA	NA	NA	<0.0005	0.015	<0.0005	0.180	0.004	<0.0005
		30-Aug-95	AEN	NA	NA	NA	NA	NA	NA	NA	<0.003	0.012	<0.003	0.140	0.003	<0.003

Table 2

Quarterly Summary of Ground-Water Quality Data
East Baybridge Center
Emeryville and Oakland, California
(concentrations expressed in parts per million [mg/L])

Well ID	Notes	Date Sampled	Lab	TPH (g)	TPH (d)	TPH (o)	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TCE	1,1,1-TCA	PCE	1,1-DCE	1,1-DCA	1,2-DCA
MW-8	(3)	13-Sep-94	AEN	NA	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	0.0005	<0.0005
		02-Dec-94	AEN	NA	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
		16-Feb-95	AEN	NA	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
		09-May-95	AEN	NA	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
		31-Aug-95	AEN	NA	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
MW-9	duplicate	12-Sep-94	AEN	NA	NA	NA	NA	NA	NA	NA	<0.0005	0.017	<0.0005	0.120	0.0005	0.006
		12-Sep-94	AEN	NA	NA	NA	NA	NA	NA	NA	<0.0005	0.015	<0.0005	0.120	0.0005	0.009
	duplicate	30-Nov-94	AEN	NA	NA	NA	NA	NA	NA	NA	<0.0005	0.016	<0.0005	0.150	0.0005	<0.0005
		30-Nov-94	AEN	NA	NA	NA	NA	NA	NA	NA	<0.0005	0.016	<0.0005	0.160	0.0005	<0.0005
		16-Feb-95	AEN	NA	NA	NA	NA	NA	NA	NA	<0.003	0.014	<0.003	0.120	<0.003	<0.003
		08-May-95	AEN	NA	NA	NA	NA	NA	NA	NA	<0.0005	0.013	<0.0005	0.110	0.005	<0.0005
		31-Aug-95	AEN	NA	NA	NA	NA	NA	NA	NA	<0.003	0.013	<0.003	0.130	0.004	<0.003
LF-13		09-May-95	AEN	NA	NA	NA	NA	NA	NA	NA	0.006	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
LF-22	(1)	12-Jul-91	ANA	NA	NA	NA	NA	NA	NA	NA	0.0007	0.012	0.0017	0.053	0.0063	0.0016
		07-Jan-92	ANA	NA	NA	NA	NA	NA	NA	NA	<0.0005	0.009	0.0037	0.041	0.0054	0.0011
		16-Apr-92	ANA	NA	NA	NA	NA	NA	NA	NA	<0.0005	0.0026	0.0018	0.015	0.0021	<0.0005
		23-Jul-92	ANA	NA	NA	NA	NA	NA	NA	NA	<0.0005	0.0034	0.0014	0.027	0.0052	<0.0005
		20-Oct-92	ANA	NA	NA	NA	NA	NA	NA	NA	0.0008	0.0013	0.0007	0.014	0.004	<0.0005
	(4)	25-May-93	ANA	NA	NA	NA	NA	NA	NA	NA	<0.0005	0.0008	0.0006	0.0061	0.0024	<0.0005
		13-Jul-93	ANA	NA	NA	NA	NA	NA	NA	NA	0.0007	0.001	0.0009	0.0077	0.0033	<0.0005
		13-Sep-94	AEN	NA	NA	NA	NA	NA	NA	NA	0.004	<0.0005	0.008	0.003	0.001	0.0007
		01-Dec-94	AEN	NA	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	0.0006	0.0009	<0.0005
	duplicate	17-Feb-95	AEN	NA	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	0.0006	0.0007	0.001	<0.0005
		09-May-95	AEN	NA	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	0.0007	0.0007	<0.0005
		09-May-95	AEN	NA	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	0.0005	0.0006	<0.0005
(11)		31-Aug-95	AEN	NA	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	0.001	0.001	<0.0005
	(11)	31-Aug-95	AEN	NA	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	0.001	0.001	<0.0005

Table 2
Quarterly Summary of Ground-Water Quality Data
East Baybridge Center
Emeryville and Oakland, California
(bconcentrations expressed in parts per million [mg/L])

Well ID	Notes	Date Sampled	Lab	TPH (g)	TPH (d)	TPH (o)	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TCE	1,1,1-TCA	PCE	1,1-DCE	1,1-DCA	1,2-DCA
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LF-23		12-Jul-91	ANA	NA	NA	NA	NA	NA	NA	0.0039	0.0009	0.027	0.0012	0.011	0.0009
		07-Jan-92	ANA	NA	NA	NA	NA	NA	NA	0.007	0.0023	0.056	0.0034	0.012	0.0013
		16-Apr-92	ANA	NA	NA	NA	NA	NA	NA	0.0036	0.0007	0.020	0.0044	0.0044	0.0011
		23-Jul-92	ANA	NA	NA	NA	NA	NA	NA	0.0038	0.0013	0.029	0.0061	0.0044	0.0014
		20-Oct-92	ANA	NA	NA	NA	NA	NA	NA	0.0033	0.0005	0.023	0.0047	0.002	0.0015
		25-May-93	ANA	NA	NA	NA	NA	NA	NA	0.0042	0.0007	0.016	0.0035	0.0017	0.0019
		13-Jul-93	ANA	NA	NA	NA	NA	NA	NA	0.0081	0.0015	0.018	0.0074	0.0033	0.0051
		13-Sep-94	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	0.0006	0.002	0.003	0.0007
(7)		01-Dec-94	AEN	NA	NA	NA	NA	NA	NA	0.004	<0.0005	0.008	0.0006	<0.0005	<0.0005
(8)		17-Feb-95	AEN	NA	NA	NA	NA	NA	NA	0.003	<0.0005	0.006	<0.0005	<0.0005	<0.0005
(9)		09-May-95	AEN	NA	NA	NA	NA	NA	NA	0.002	<0.0005	0.005	<0.0005	<0.0005	<0.0005
(10)		31-Aug-95	AEN	NA	NA	NA	NA	NA	NA	0.002	<0.0005	0.007	0.0007	0.0007	<0.0005

Shallow Extraction Wells (20 to 30 feet below grade)

EX-3	(5)	14-Sep-94	AEN	NA	NA	NA	NA	NA	NA	0.004	0.014	0.042	0.100	0.005	0.001
		02-Dec-94	AEN	NA	0.10	<0.2	NA	NA	NA	0.004	0.015	0.045	0.140	0.005	<0.0005
		17-Feb-95	AEN	NA	<0.05	<0.2	NA	NA	NA	0.003	0.014	0.037	0.096	0.005	<0.0005
		09-May-95	AEN	NA	0.10	<0.2	NA	NA	NA	0.003	0.012	0.031	0.120	0.005	<0.0005
		31-Aug-95	AEN	NA	0.10	<0.2	NA	NA	NA	<0.003	0.012	0.027	0.120	0.005	<0.003

EX-4		14-Sep-94	AEN	NA	NA	NA	NA	NA	NA	<0.0005	0.025	0.010	0.220	0.006	0.001
		02-Dec-94	AEN	NA	0.09	<0.2	NA	NA	NA	<0.0005	0.020	0.011	0.240	0.006	<0.0005
		17-Feb-95	AEN	NA	<0.05	<0.2	NA	NA	NA	<0.003	0.017	0.011	0.210	0.004	<0.003
		09-May-95	AEN	NA	0.10	<0.2	NA	NA	NA	<0.003	0.020	0.011	0.210	0.004	<0.003
		31-Aug-95	AEN	NA	0.20	<0.2	NA	NA	NA	<0.003	0.016	0.010	0.200	0.005	<0.003

Deeper Wells (40 to 45 feet below grade)

MW-6D		13-Sep-94	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	0.003	<0.0005	0.0005
		01-Dec-94	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
		16-Feb-95	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
		09-May-95	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
		31-Aug-95	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005

MW-7D		13-Sep-94	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	0.003	<0.0005	<0.0005
		30-Nov-94	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	0.003	<0.0005	<0.0005
		16-Feb-95	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	0.003	<0.0005	<0.0005
		09-May-95	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
		30-Aug-95	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	0.002	<0.0005	<0.0005

Table 2
Quarterly Summary of Ground-Water Quality Data
East Baybridge Center
Emeryville and Oakland, California
(bconcentrations expressed in parts per million [mg/L])

Well ID	Notes	Date Sampled	Lab	TPH (g)	TPH (d)	TPH (o)	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TCE	1,1,1-TCA	PCE	1,1-DCE	1,1-DCA	1,2-DCA
MW-9D		12-Sep-94	AEN	NA	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
		30-Nov-94	AEN	NA	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
		16-Feb-95	AEN	NA	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
		08-May-95	AEN	NA	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
		31-Aug-95	AEN	NA	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
Deep Well (65 feet below grade)																
MW-7Z		13-Sep-94	AEN	NA	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
		30-Nov-94	AEN	NA	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
		16-Feb-95	AEN	NA	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
		30-Aug-95	AEN	NA	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
Trip Blanks																
		17-Feb-95	AEN	NA	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
		10-May-95	AEN	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
		31-Aug-95	AEN	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
Field Blanks																
LF-22		17-Feb-95	AEN	NA	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
LF-22		09-May-95	AEN	NA	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
MW-7Z		09-May-95	AEN	NA	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
LF-22-FB		31-Aug-95	AEN	NA	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	

Data entered by CTH 06-Oct-95 Data proofed by JCL and QA/QC by 17.

Key to abbreviations:

TPH(g) = Total petroleum hydrocarbons as gasoline
TPH(d) = Total petroleum hydrocarbons as diesel
TPH(o) = Total petroleum hydrocarbons as oil
TCE = Trichloroethene
1,1,1-TCA = 1,1,1-Trichloroethane
PCE = Tetrachloroethene
1,1-DCE = 1,1-Dichloroethene
1,1-DCA = 1,1-Dichloroethane
1,2-DCA = 1,2-Dichloroethane

Notes:

- (1) 0.00081 ppm vinyl chloride detected
- (2) 0.002 ppm chloroform detected.
- (3) 0.0008 ppm chloroform detected.
- (4) 0.002 ppm chloroform detected.
- (5) 0.0008 ppm cis-1,2-DCE detected.
- (6) 0.002 ppm chloroform detected.
- (7) 0.0002 ppm chloroform, 0.002 ppm cis-1,2-DCE detected.
- (8) 0.002 ppm chloroform, 0.002 ppm cis-1,2-DCE detected.
- (9) 0.014 ppm chloroform, 0.001 ppm cis-1,2-DCE detected
- (10) chloroform = 0.004, cis 1,2 DCE = 0.001.
- (11) chloroform = 0.0006

AEN = American Environmental Network in Pleasant Hill, California

ANA = Inchteape Testing Anametrix, Inc., in San Jose, California

NA = parameter not analyzed

TABLE 3
GROUND-WATER SAMPLING SCHEDULE
East Baybridge Center
Emeryville and Oakland, California

Quarterly Period	Area	Well Depth	Well Identification	Analysis
OCTOBER through DECEMBER 1995	Area A	20' to 25'	MW-2 MW-3, MW-4, MW-5, MW-6, MW-7, MW-8, MW-9, LF-22, LF-23 EX-3 & EX-4	TPHg, TPHd, BTEX TPHd, TPHo, VOCs VOCs TPHd, TPHo, VOCs
		40' to 45'	MW-6D, MW-7D, MW-9D	VOCs
		60'	MW-7Z	VOCs
	Area B	30'	MW-1	TPHg, BTEX, TPHd, TPHo
	Area C	20' to 25'	MW-10R, LF-13, MW-34R MW-12R, MW-31R, MW-32R	VOCs VOCs, TPHd, TPHo

NOTES:

The sampling proposed is in accordance with Levine-Fricke's December 19, 1994
"Ground-Water Monitoring Plan, East Baybridge Center, Emeryville and Oakland, California"

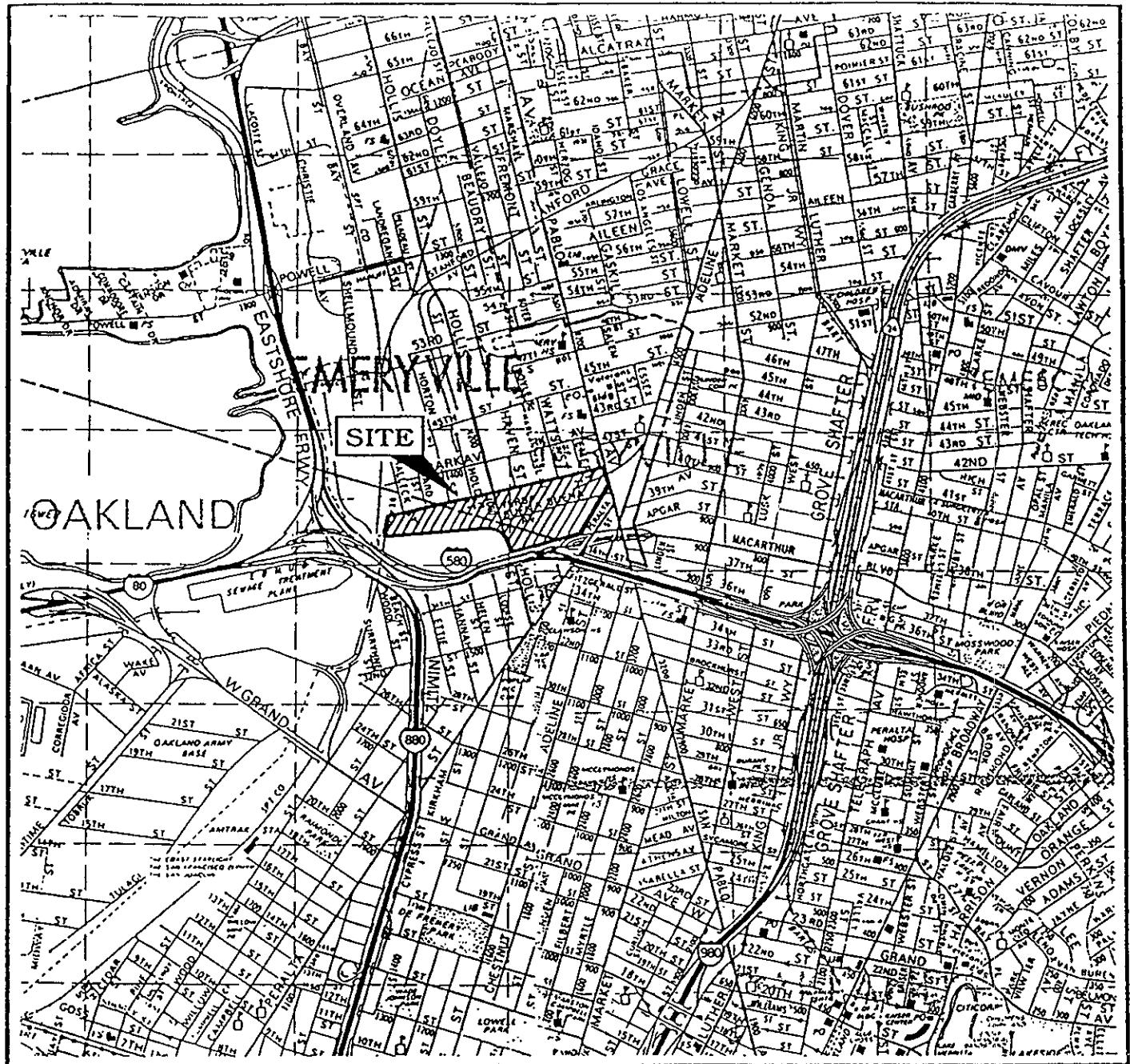
Analysis for TPHg will use EPA Method 5030.

Analysis for BTEX will use EPA Method 8020.

Analysis for TPHd and TPHo will use EPA Method 3510.

Analysis for VOCs will use EPA Method 8010.

One duplicate sample, a trip blank, and bailer rinsate blank will be analyzed for VOCs.



MAP SOURCE:
Alameda & Contra Costa Counties,
Thomas Bros. map, 1990 Edition

0 1/2 1 MILE



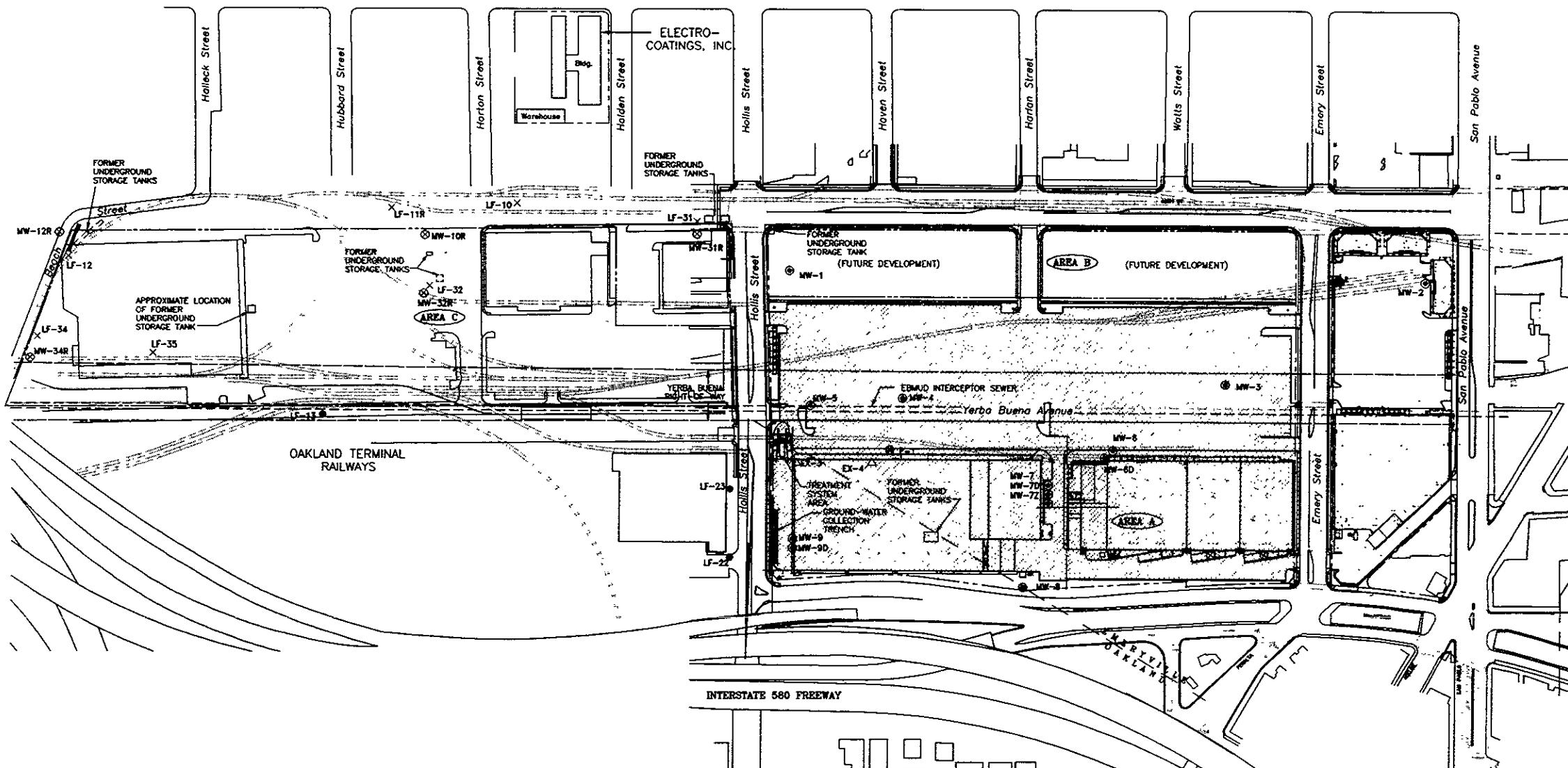
Figure 1: SITE LOCATION MAP
YERBA BUENA PROJECT SITE

Project No. 1649

JANAL-SFEDR1-NYC

LEVINE • FRICKE
CONSULTING ENGINEERS AND HYDROGEOLOGISTS

0 150 300 FEET



EXPLANATION

- MONITORING WELL LOCATION
- △ EXTRACTION WELL
- ◎ PROPOSED MONITORING WELL LOCATION
- ✗ ABANDONED GROUND WATER MONITORING WELL
- APPROXIMATE PROPERTY LINE

APPROXIMATE LOCATION OF PETROLEUM-AFFECTED SOIL CONTAINED ON SITE

REVISION	DESIGN	DRAWN	CHECKED	DATE
SCALE				
DESIGN :				
DRAWN				
CHECKED				



Engineers Hydrogeologists & Applied Scientists

Emeryville, California



YERBA BUENA/EAST BAYBRIDGE DEVELOPMENT

Figure 2
SITE PLAN SHOWING LOCATIONS OF
GROUND-WATER MONITORING WELLS
AND UNDERGROUND STORAGE TANKS

Project No
1649

Date
APR. 94

Sheet
of

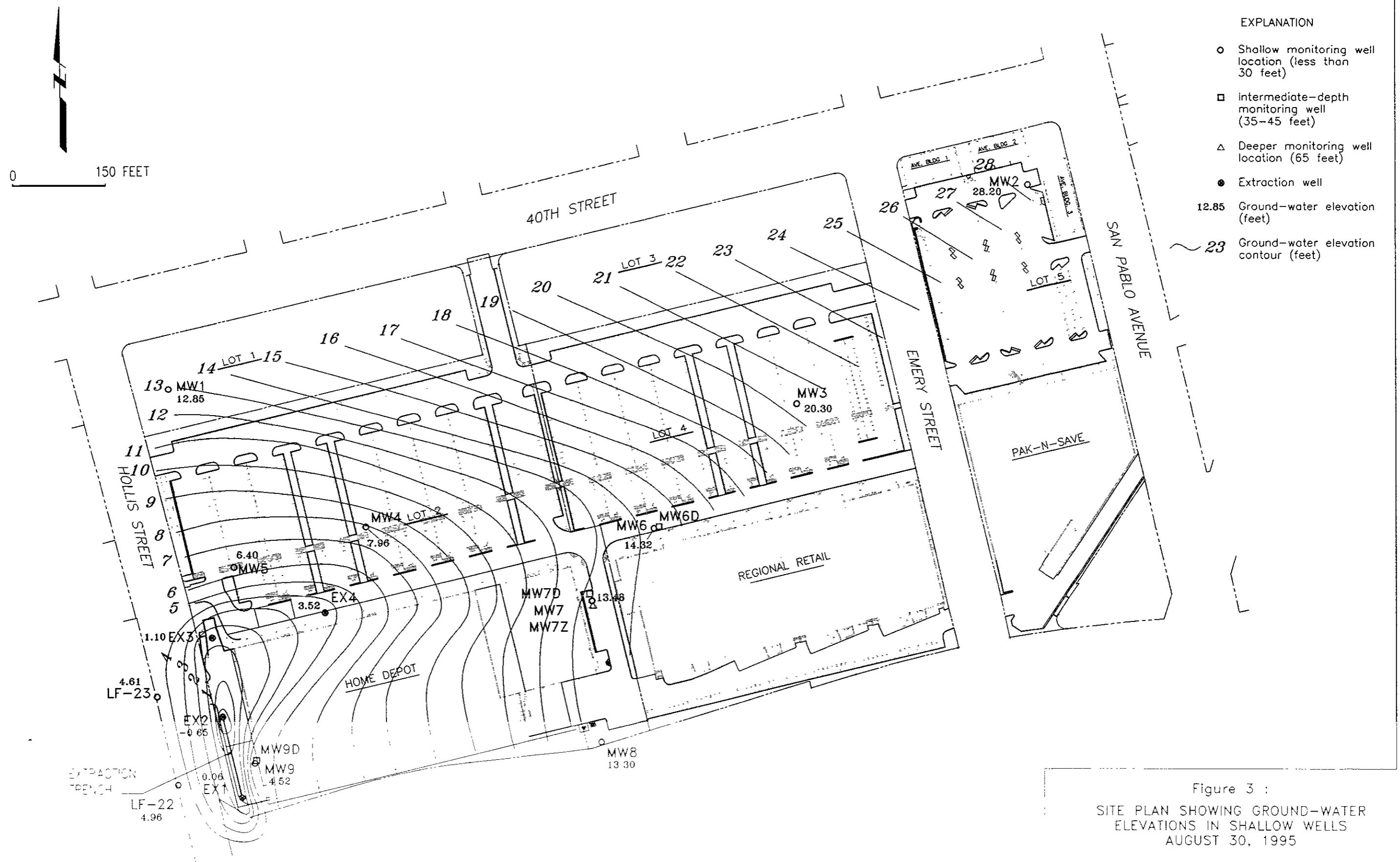


Figure 3 :

SITE PLAN SHOWING GROUND-WATER
ELEVATIONS IN SHALLOW WELLS
AUGUST 30, 1995