

**Quarterly Monitoring Report for  
January 1 through March 31, 1997  
East Baybridge Center  
Emeryville and Oakland, California**

**April 30, 1997  
1649.97-002**

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

 **Levine-Fricke-Recon**  
ENGINEERS, HYDROGEOLOGISTS & APPLIED SCIENTISTS

April 30, 1997

1649.97-002

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

Subject: Quarterly Monitoring Report for January 1 through March 31, 1997, East Baybridge Center, Emeryville and Oakland, California

Dear Ms. Hugo:

This report presents the results of quarterly groundwater monitoring by Levine-Fricke-Recon Inc. (LFR) on behalf of Catellus Development Corporation for January 1 through March 31, 1997, at the Yerba Buena/East Baybridge Center in Emeryville and Oakland, California.

Monitoring was conducted in accordance with LFR's "Groundwater Monitoring Plan for the East Baybridge Center, Emeryville and Oakland, California," submitted to the Alameda County Health Care Services Agency on December 19, 1994.

The results of this quarterly monitoring provide a basis for case closure for the former Bashland and former Bay Area Warehouse sites. LFR will be submit a request for case closure this quarter.

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

## CONTENTS

CERTIFICATION.....	iii
1.0 INTRODUCTION .....	1
2.0 BACKGROUND.....	1
2.1 Areas A and B .....	2
2.2 Area C.....	2
3.0 GROUNDWATER ELEVATIONS AND FLOW DIRECTION .....	3
3.1 Areas A and B .....	3
3.2 Area C.....	3
4.0 GROUNDWATER SAMPLING AND ANALYSIS.....	3
5.0 GROUNDWATER QUALITY.....	4
5.1 Volatile Organic Compounds.....	4
5.2 Total Petroleum Hydrocarbons.....	5
5.2.1 Former Bashland Company Property.....	5
5.2.2 Former Bay Area Warehouse Property .....	6
6.0 SUMMARY .....	6
7.0 ACTIVITIES PROPOSED FROM JANUARY TO MARCH 1997.....	6
8.0 REFERENCES.....	6
TABLES	
1 Well Construction and Groundwater Elevation Data	
2 Quarterly Summary of Groundwater Quality Data	
3 Chemical Analysis Results for Monitoring Well LF-31	
4 Chemical Analysis Results for Monitoring Well LF-32	
5 Groundwater Sampling Schedule	

## **FIGURES**

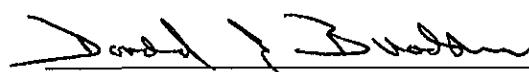
- 1 Site Location Map
- 2 Site Plan Showing Locations of Groundwater Monitoring Wells and Underground Storage Tanks
- 3 Site Plan Showing Groundwater Elevations in Shallow Wells, February 18, 1997

## **APPENDICES**

- A Field Procedures
- B Summary of Sampling QA/QC tables

## 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·Recon Inc. California Registered Geologist.



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

4/29/97

Date

## 1.0 INTRODUCTION

This report presents the results of groundwater monitoring by Levine·Fricke·Recon Inc. (LFR) during the quarterly period from January 1 through March 31, 1997, at the East Baybridge Center in Emeryville and Oakland, California ("the Site"; Figure 1). LFR is performing groundwater monitoring and submitting this report on behalf of the Catellus Development Corporation ("Catellus") in accordance with a December 19, 1994 groundwater monitoring plan submitted to the Alameda County Health Care Services Agency (ACHA; LFR 1994a).

The Site covers approximately 51 acres, is partially developed, and is undergoing further development. To aid in organizing environmental investigation, remediation, and monitoring, the Site has been divided into Areas A, B, and C (Figure 2).

Quarterly monitoring at the Site includes measuring water levels in accessible wells and collecting groundwater samples from selected wells, to monitor volatile organic compound (VOC) concentrations in groundwater and assess the effectiveness of a groundwater 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, and monitoring data are being collected to assess possible effects on groundwater 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, LFR began environmental investigations at the Site on behalf of Catellus in September 1989. Site investigation and remediation continued for about five years. Results of Phase I and Phase II investigations indicated that VOCs were present in shallow groundwater beneath the Site. During site development, underground storage tanks (USTs) were excavated at several locations across the Site. Groundwater monitoring wells were installed in the vicinity of the former UST locations (Figure 2) to monitor groundwater 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 are in the process of being developed into apartments.

A groundwater monitoring program was implemented at the Site in January 1992 to monitor VOC concentrations in groundwater in Area A. To reduce the potential for off-site migration of shallow VOC-affected groundwater, a groundwater 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 an LFR quarterly self-monitoring report submitted semiannually to the East Bay Municipal Utilities District.

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 an LFR containment plan (LFR 1992a). The removal of soil from this area of the Site was described in LFR's soil remediation activities report for the Site (LFR 1992b). To assess groundwater 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), LFR prepared a soils management plan for the contained soils (LFR 1994b). The plan outlined periodic groundwater monitoring to evaluate the possible effects on groundwater from soils contained at the Site.

## 2.2 Area C

Area C (the area west of Hollis Street) has been developed for commercial use, including the construction of two retail stores and large parking areas. One smaller retail store has yet to be constructed in this portion of the development.

VOCs have been detected in groundwater samples collected in Area C of the Site. The distribution of VOCs detected, indicates it is likely that the VOCs have migrated from an off-site source. The RWQCB concurs with this conclusion, according to 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. Groundwater monitoring wells were installed following the excavation of some of these USTs. These groundwater 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 in June 1994, along with the other wells located west of Hollis Street (except well LF-13).

Replacement wells for those wells (MW-31R and MW-32R) were installed in December 1995. In addition, well MW-12R was installed downgradient from (west of) USTs formerly located along Beach Street, to monitor groundwater quality in that area. Wells MW-10R and MW-34R were installed, in locations presented on Figure 2, to monitor possible on-site migration of VOCs from a known source located north of the property.

### **3.0 GROUNDWATER ELEVATIONS AND FLOW DIRECTION**

On February 18, 1997, 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 groundwater elevation data collected. Depth to groundwater in shallow wells (less than 25 feet deep) ranged from 4.59 feet below ground surface (bgs) in well LF-13 to 18.49 feet bgs in well MW-9.

#### **3.1 Areas A and B**

Figure 3 is a groundwater elevation contour map illustrating water levels measured on February 18, 1997. As illustrated, the direction of shallow groundwater flow beneath Areas A and B of the Site is toward the west-southwest, in the direction of the groundwater extraction wells (EX-3 and EX-4) and the groundwater collection trench. The hydraulic gradient across this portion of the Site is 0.016 foot per foot (ft/ft), as measured between wells MW-2 and MW-9. The direction and gradient are consistent with the groundwater flow direction previously reported at the Site (LFR 1996).

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

#### **3.2 Area C**

As illustrated in Figure 3, the direction of shallow groundwater flow beneath Area C of the Site is toward the west. The hydraulic gradient across this portion of the Site is 0.008 foot per foot (ft/ft), as measured between wells MW-31R and MW-12R. The direction and gradient are consistent with the groundwater flow direction previously reported at the Site (LFR 1996).

### **4.0 GROUNDWATER SAMPLING AND ANALYSIS**

LFR personnel collected groundwater samples on February 18 and 19, 1997 for chemical analysis. A total of 15 samples were collected from 11 shallow groundwater monitoring wells (less than 25 feet bgs; MW-2, MW-3, MW-5, MW-6, MW-7, MW-8,

MW-9, MW-31R, MW-32R, LF-22, and LF-23), two shallow extraction wells (less than 25 feet bgs; EX-3 and EX-4), and the collection trench. A total of four samples were collected from three intermediate-depth wells (30 to 45 feet bgs; MW-6D, MW-7D, and MW-9D) and one deeper well (50 to 65 feet bgs; MW-7Z).

Before groundwater samples were collected, three to four well volumes of water were purged from each well in accordance with field procedures for quarterly groundwater sampling described in Appendix A. During purging, indicator parameters such as pH, temperature, and specific conductance were recorded on water-quality sampling sheets. After collection, samples were submitted to American Environmental Network, a California state certified laboratory, located in Pleasant Hill, California, under strict chain-of-custody protocols.

Samples were analyzed as follows:

- Samples from wells MW-3, MW-5, MW-6, MW-6D, MW-7, MW-7D, MW-7Z, MW-8, MW-9, MW-9D, LF-13, LF-22, LF-23, EX-3, EX-4, and the groundwater collection trench (two samples) were analyzed for VOCs using EPA Method 8010.
- Samples from wells MW-31R, MW-32R, EX-3, EX-4, and the collection trench were analyzed for TPH as diesel (TPHd; carbon chain length C<sub>12</sub> to C<sub>22</sub>), and TPH as oil (TPHo; carbon chain length C<sub>22</sub> to C<sub>36</sub>) in accordance with the Soils Management Plan (LFR 1994b).
- The sample from well MW-2 was analyzed for TPHd. This sample was also analyzed for TPH as gasoline (TPHg) and benzene, toluene, ethylbenzene, and total xylenes (BTEX) to monitor whether TPHg-affected groundwater is migrating onto the Site. Results of chemical analyses are discussed in Section 5.0.

For QA/QC purposes, a duplicate sample was collected from well MW-3 and analyzed for VOCs. Results of the duplicate sample were similar to results of the primary sample. A summary of the analytical and sampling QA/QC for samples collected during this quarterly monitoring period is included as Appendix B.

## 5.0 GROUNDWATER QUALITY

Table 2 summarizes the analytical results for groundwater samples collected.

### 5.1 Volatile Organic Compounds

In general, the concentration of VOCs detected in samples collected during this monitoring period are within the same order of magnitude as samples previously collected at the Site (Table 2). No VOCs were detected at concentrations above method detection limits in groundwater samples collected from shallow wells LF-22, MW-3, and MW-8, or from deeper wells MW-6D, MW-9D, and MW-7Z.

1,1-Dichloroethene (1,1-DCE) was detected in samples collected from seven shallow wells at concentrations ranging from 0.0079 parts per million (ppm) (wells MW-5) to 0.260 ppm (well MW-6) and at concentrations of 0.070 ppm, 0.097 ppm, and 0.059 ppm in samples from shallow extraction wells EX-3 and EX-4, and the collection trench, respectively. 1,1-DCE was detected in samples collected from one of the deeper wells, MW-7D, at a concentration of 0.0081 ppm.

Trichloroethene (TCE) was detected in the sample collected from shallow monitoring well LF-23 at a concentration of 0.0007 ppm and at concentrations of 0.006 ppm, 0.005 ppm, and 0.0034 ppm in shallow extraction wells EX-3, EX-4, and the collection trench, respectively.

Tetrachloroethene (PCE) was detected in samples collected from shallow monitoring well MW-5 at a concentration of 0.0009 ppm and the off-site well LF-23 at 0.0017 ppm. Concentrations of PCE were detected in the samples collected from shallow extraction well EX-4 (0.005 ppm) and the collection trench (0.0021). PCE was not detected in the samples collected from remaining shallow or deeper wells sampled during the current monitoring event.

1,1,1-Trichloroethane (1,1,1-TCA) was detected in samples collected from shallow monitoring wells MW-6, MW-7, and MW-9 at concentrations of 0.029 ppm, 0.007 ppm, and 0.008 ppm, respectively. 1,1,1-TCA was also detected in samples collected from shallow extraction well EX-4 (0.005 ppm) and the collection trench (0.0034 ppm). 1,1,1-TCA was detected in samples collected from one of the deeper wells, MW7D, at a concentration of 0.0009 ppm.

## 5.2 Total Petroleum Hydrocarbons

TPHd was detected in samples collected from four wells analyzed this monitoring period at concentrations ranging from 0.11 ppm (EX-4) to 0.49 ppm (MW-31R). TPHg was detected at 1.2 ppm in the sample collected from well MW-2. The sample collected from well MW-2 contained benzene (0.015 ppm), toluene (0.0009), ethylbenzene (0.057 ppm), and total xylenes (0.14 ppm).

### 5.2.1 Former Bashland Company Property

Well LF-31 was replaced by well LF-31R in November 1995. The replacement well was installed within 20 feet of the original well's location. Samples are collected from this well to monitor groundwater quality in the vicinity of a UST formerly located at the former Bashland property. Concentrations of TPHd detected in the sample from this well during this quarter are consistent with the historical results for samples collected from this well (see Table 3) and indicate that closure of this well is warranted. A request for closure of this well will be forwarded to the ACHA under a separate cover.

**Table 1**  
**Well Construction and Groundwater 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	Groundwater Elevation (3)
Shallow Wells						
MW-1	27.47	30	15-30	12-Sep-94 30-Nov-94 16-Feb-95 08-May-95 30-Aug-95 19-Dec-95 26-Feb-96 29-Apr-96 03-Sep-96 13-Dec-96	14.88 14.61 14.73 14.55 14.62 13.38 14.27 14.69 14.70 (4)	12.59 12.86 12.74 12.92 12.85 14.09 13.20 12.78 12.77
MW-2	37.23	18	8-18	12-Sep-94 30-Nov-94 16-Feb-95 08-May-95 30-Aug-95 19-Dec-95 26-Feb-96 29-Apr-96 03-Sep-96 13-Dec-96 18-Feb-97	8.00 6.84 6.84 7.08 9.03 6.95 6.62 7.92 8.10 6.59 7.60	29.23 30.39 30.39 30.15 28.20 30.28 30.61 29.31 29.13 30.64 29.63
MW-3	32.05	25	14-25	12-Sep-94 30-Nov-94 16-Feb-95 08-May-95 30-Aug-95 19-Dec-95 26-Feb-96 29-Apr-96 03-Sep-96 13-Dec-96 18-Feb-97	9.88 9.96 9.24 9.82 11.75 9.65 8.80 10.66 10.51 9.85 9.93	22.17 22.09 22.81 22.23 20.30 22.40 23.25 21.39 21.54 22.20 22.12
MW-4	24.28	25	12-25	12-Sep-94 30-Nov-94 16-Feb-95 08-May-95 30-Aug-95 19-Dec-95 26-Feb-96 29-Apr-96 03-Sep-96	17.01 16.15 16.38 16.27 16.32 14.52 13.29 15.08 14.70	7.27 8.13 7.90 8.01 7.96 9.76 10.99 9.20 9.58

**Table 1**  
**Well Construction and Groundwater 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	Groundwater Elevation (3)
				13-Dec-96	13.52	10.76
MW-5	22.19	21.5	11.5-21.5	18-Feb-97	13.92	10.36
				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
				19-Dec-95	13.81	8.38
				26-Feb-96	12.69	9.50
				29-Apr-96	14.49	7.70
				03-Sep-96	14.11	8.08
				13-Dec-96	12.67	9.52
				18-Feb-97	12.83	9.36
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
				19-Dec-95	13.17	15.37
				26-Feb-96	11.37	17.17
				29-Apr-96	12.95	15.59
				03-Sep-96	12.67	15.87
				13-Dec-96	11.83	16.71
				18-Feb-97	11.92	16.62
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
				19-Dec-95	11.77	14.52
				26-Feb-96	10.04	16.25
				29-Apr-96	11.55	14.74
				03-Sep-96	11.32	14.97
				13-Dec-96	10.96	15.33
				18-Feb-97	10.68	15.61
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
				19-Dec-95	10.22	14.18
				26-Feb-96	8.78	15.62
				29-Apr-96	10.05	14.35

**Table 1**  
**Well Construction and Groundwater 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	Groundwater Elevation (3)
				03-Sep-96	9.67	14.73
				13-Dec-96	9.20	15.20
				18-Feb-97	9.30	15.10
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
				19-Dec-95	18.43	5.74
				26-Feb-96	16.46	7.71
				29-Apr-96	18.91	5.26
				03-Sep-96	19.12	5.05
				13-Dec-96	16.22	7.95
				18-Feb-97	18.49	5.68
MW-10	13.21			19-Dec-95	6.31	6.90
				26-Feb-96	6.09	7.12
				29-Apr-96	6.73	6.48
				03-Sep-96	6.50	6.71
				13-Dec-96	5.86	7.35
				18-Feb-97	6.72	6.49
MW-12	10.42			19-Dec-95	10.69	-0.27
				26-Feb-96	9.66	0.76
				29-Apr-96	10.98	-0.56
				03-Sep-96	11.05	-0.63
				13-Dec-96	10.04	0.38
				18-Feb-97	10.42	0.00
MW-31	19.14			19-Dec-95	6.92	12.22
				26-Feb-96	6.99	12.15
				29-Apr-96	7.54	11.60
				03-Sep-96	7.55	11.59
				13-Dec-96	6.72	12.42
				18-Feb-97	7.45	11.69
MW-32	15.52			19-Dec-95	8.92	6.60
				26-Feb-96	8.48	7.04
				29-Apr-96	9.46	6.06
				03-Sep-96	9.20	6.32
				13-Dec-96	8.35	7.17
				18-Feb-97	9.15	6.37
MW-34	11.97			19-Dec-95	11.20	0.77
				26-Feb-96	12.12	-0.15
				29-Apr-96	12.47	-0.50

**Table 1**  
**Well Construction and Groundwater 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	Groundwater Elevation (3)
				03-Sep-96	12.21	-0.24
				13-Dec-96	11.36	0.61
				18-Feb-97	11.74	0.23
LF-13	9.19			19-Dec-95	2.86	6.33
				26-Feb-96	2.55	6.64
				29-Apr-96	6.13	3.06
				03-Sep-96	6.58	2.61
				13-Dec-96	1.67	7.52
				18-Feb-97	4.59	4.60
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
				19-Dec-95	9.42	8.57
				26-Feb-96	8.84	9.15
				29-Apr-96	10.29	7.70
				03-Sep-96	11.20	6.79
				13-Dec-96	8.18	9.81
				18-Feb-97	9.56	8.43
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
				19-Dec-95	10.01	7.98
				26-Feb-96	8.97	9.02
				29-Apr-96	10.84	7.15
				03-Sep-96	11.35	6.64
				13-Dec-96	8.47	9.52
				18-Feb-97	9.28	8.71

**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
				19-Dec-95	23.50	0.01
				26-Feb-96	18.38	5.13
				29-Apr-96	NM	NM
				03-Sep-96	22.15	1.36
				13-Dec-96	13.38	10.13
				09-Jan-97	10.65	12.86

**Table 1**  
**Well Construction and Groundwater 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	Groundwater Elevation (3)
				18-Feb-97	20.55	2.96
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
				19-Dec-95	20.40	-0.37
				26-Feb-96	14.91	5.12
				29-Apr-96	20.47	-0.44
				03-Sep-96	18.80	1.23
				13-Dec-96	NM	NM
				09-Jan-97	10.69	9.34
				18-Feb-97	NM	NM
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
				19-Dec-95	17.00	3.96
				26-Feb-96	15.10	5.86
				29-Apr-96	16.21	4.75
				03-Sep-96	16.65	4.31
				13-Dec-96	12.95	8.01
				18-Feb-97	12.40	8.56
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
				19-Dec-95	19.41	4.99
				26-Feb-96	20.40	4.00
				29-Apr-96	19.75	4.65
				03-Sep-96	20.65	3.75
				13-Dec-96	18.59	5.81
				18-Feb-97	21.00	3.40

**Deeper Wells**

MW-6D	28.48	45	32-40	12-Sep-94	11.09	17.39
				30-Nov-94	11.46	17.02
				16-Feb-95	10.67	17.81
				08-May-95	11.58	16.90
				30-Aug-95	12.93	15.55
				19-Dec-95	13.14	15.34
				26-Feb-96	10.14	18.34

**Table 1**  
**Well Construction and Groundwater 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	Groundwater Elevation (3)
				29-Apr-96	11.57	16.91
				03-Sep-96	11.48	17.00
				13-Dec-96	12.29	16.19
				18-Feb-97	10.75	17.73
<b>MW-7D</b>	<b>26.27</b>	<b>40</b>	<b>27-40</b>	12-Sep-94	11.32	14.95
				30-Nov-94	11.30	14.97
				16-Feb-95	11.01	15.26
				08-May-95	11.35	14.92
				30-Aug-95	12.65	13.62
				19-Dec-95	11.61	14.66
				26-Feb-96	9.84	16.43
				29-Apr-96	11.38	14.89
				03-Sep-96	11.18	15.09
				13-Dec-96	10.72	15.55
				18-Feb-97	10.45	15.82
<b>MW-9D</b>	<b>24.17</b>	<b>45</b>	<b>32-45</b>	12-Sep-94	18.38	5.79
				30-Nov-94	16.35	7.82
				16-Feb-95	16.43	7.74
				08-May-95	16.96	7.21
				30-Aug-95	18.28	5.89
				19-Dec-95	16.50	7.67
				26-Feb-96	14.68	9.49
				29-Apr-96	16.85	7.32
				03-Sep-96	17.61	6.56
				13-Dec-96	15.23	8.94
				18-Feb-97	15.97	8.20
<b>Deep Well</b>						
<b>MW-7Z</b>	<b>25.96</b>	<b>65</b>	<b>50-65</b>	12-Sep-94	11.78	14.18
				30-Nov-94	10.76	15.20
				16-Feb-95	9.16	16.80
				08-May-95	9.85	16.11
				30-Aug-95	11.85	14.11
				19-Dec-95	10.89	15.07
				26-Feb-96	8.62	17.34
				29-Apr-96	9.91	16.05
				03-Sep-96	11.01	14.95
				13-Dec-96	10.31	15.65
				18-Feb-97	9.25	16.71

Data entered by \_\_\_\_\_. Proofed by \_\_\_\_\_

#### 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.

**Table 1**  
**Well Construction and Groundwater 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	Groundwater Elevation (3)
-------------	--------------------	----------------	-----------------------	---------------	----------------	---------------------------

(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.

(4) Monitoring Well MW-1 was abandoned in December 1996.

NA Not applicable, well associated with extraction trench.

NM Water level not measured.

**Table 2**  
**Quarterly Summary of Groundwater Quality Data**  
**East Baybridge Center**  
**Emeryville and Oakland, California**  
*(concentrations expressed in parts per million [ppm])*

Well ID	Notes	Date Sampled	Lab	TPHg	TPHd	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TCE	1,1,1-TCA	PCE	1,1-DCE	1,1-DCA	1,2-DCA	cis/trans-1,2-DCE
Shallow Wells (20 to 25 feet below grade)																
<b>MW-1</b>																
		13-Sep-94	AEN	<0.005	0.30	<0.0005	<0.0005	<0.0005	<0.0005	NA	NA	NA	NA	NA	NA	NA
		30-Nov-94	AEN	NA	0.10	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
		17-Feb-95	AEN	<0.05	0.08	<0.0005	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA
		09-May-95	AEN	<0.05	0.20	<0.0005	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA
		31-Aug-95	AEN	<0.05	0.30	<0.0005	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA
		27-Dec-95	AEN	<0.05	0.10	<0.0005	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA
		27-Feb-96	AEN	<0.05	0.18	<0.0005	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA
		01-May-96	AEN	<0.05	0.10	<0.0005	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA
		04-Sep-96	AEN	<0.05	0.25	<0.0005	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA
<b>MW-2</b>																
		01-Dec-94	AEN	7.10	NA	0.065	<0.01	0.13	0.47	NA	NA	NA	NA	NA	NA	NA
		17-Feb-95	AEN	3.50	0.30	0.045	0.005	0.11	0.35	NA	NA	NA	NA	NA	NA	NA
		09-May-95	AEN	3.50	0.20	0.025	0.009	0.085	0.25	NA	NA	NA	NA	NA	NA	NA
		31-Aug-95	AEN	0.90	0.20	0.011	<0.0005	0.032	0.072	NA	NA	NA	NA	NA	NA	NA
		20-Dec-95	AEN	2.60	<0.05	0.016	0.002	0.079	0.24	NA	NA	NA	NA	NA	NA	NA
		27-Feb-96	AEN	4.10	0.20	0.076	0.0095	0.21	0.62	NA	NA	NA	NA	NA	NA	NA
		01-May-96	AEN	2.40	0.23	0.039	0.0047	0.098	0.26	NA	NA	NA	NA	NA	NA	NA
		04-Sep-96	AEN	0.54	0.22	0.0024	<0.0005	0.018	0.045	NA	NA	NA	NA	NA	NA	NA
		17-Dec-96	A2AC	0.776	<0.010	0.004	0.009	0.011	0.019	NA	NA	NA	NA	NA	NA	NA
		18-Feb-97	AEN	1.2	0.24	0.015	0.0009	0.057	0.140	NA	NA	NA	NA	NA	NA	NA
<b>MW-3</b>																
		12-Sep-94	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
		01-Dec-94	AEN	NA	0.07	NA	NA	NA	NA	<0.0005	<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	<0.0005
		08-May-95	AEN	NA	0.07	NA	NA	NA	NA	<0.0005	<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	<0.0005
		20-Dec-95	AEN	NA	<0.05	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
		27-Feb-96	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
		30-Apr-96	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
		04-Sep-96	AEN	NA	0.11	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
		17-Dec-96	A2AC	NA	<0.010	NA	NA	NA	NA	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
		18-Feb-97	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
dup		18-Feb-97	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
<b>MW-4</b>																
		01-Dec-94	AEN	NA	0.09	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
		08-May-95	AEN	NA	0.10	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	0.004	<0.0005	<0.0005
		20-Dec-95	AEN	NA	0.09	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	0.001	<0.0005	<0.0005
		30-Apr-96	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	0.0022	<0.0005	<0.0005
		04-Sep-96	AEN	NA	0.14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table 2**  
**Quarterly Summary of Groundwater Quality Data**  
**East Baybridge Center**  
**Emeryville and Oakland, California**  
*(concentrations expressed in parts per million [ppm])*

Well ID	Notes	Date Sampled	Lab	TPHg	TPHd	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TCE	1,1,1-TCA	PCE	1,1-DCE	1,1-DCA	1,2-DCA	cis/trans-1,2-DCE
		(27)	17-Dec-96	A2AC	NA	<0.010	NA	NA	NA	<0.001	<0.001	<0.001	0.002	0.001	<0.001	0.001
MW-5		13-Sep-94	AEN	NA	NA	NA	NA	NA	NA	<0.0005	0.001	0.0007	0.003	0.002	<0.0005	<0.0005
		01-Dec-94	AEN	NA	0.05	NA	NA	NA	NA	<0.0005	0.0007	0.0005	0.004	0.003	<0.0005	<0.0005
		16-Feb-95	AEN	NA	NA	NA	NA	NA	NA	<0.0005	0.001	0.002	0.008	0.003	<0.0005	<0.0005
		08-May-95	AEN	NA	0.09	NA	NA	NA	NA	0.0005	0.002	0.002	0.016	0.005	<0.0005	<0.0005
		31-Aug-95	AEN	NA	NA	NA	NA	NA	NA	0.0007	0.002	0.002	0.013	0.004	<0.0005	<0.0005
		20-Dec-95	AEN	NA	0.1	NA	NA	NA	NA	<0.0005	0.001	0.0008	0.009	0.002	<0.0005	<0.0005
		27-Feb-96	AEN	NA	NA	NA	NA	NA	NA	<0.0005	0.0008	0.0024	0.010	0.0029	<0.0005	<0.0005
		30-Apr-96	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	0.001	0.0051	0.0021	<0.0005	<0.0005
		04-Sep-96	AEN	NA	0.24	NA	NA	NA	NA	<0.0005	<0.0005	0.0010	0.0051	0.0022	<0.0005	<0.0005
		17-Dec-96	A2AC	NA	NA	NA	NA	NA	NA	<0.001	<0.001	0.002	0.005	0.002	<0.001	<0.001
		18-Feb-97	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	0.0009	0.0079	0.002	<0.0005	<0.0005
MW-6	(2)	13-Sep-94	AEN	NA	NA	NA	NA	NA	NA	0.0005	0.041	<0.0005	0.280	0.005	0.001	0.001
	(6)	01-Dec-94	AEN	NA	0.08	NA	NA	NA	NA	0.0006	0.041	<0.0005	0.300	0.004	<0.0005	<0.0005
		16-Feb-95	AEN	NA	NA	NA	NA	NA	NA	<0.003	0.039	<0.003	0.280	0.003	<0.003	<0.003
		16-Feb-95	AEN	NA	NA	NA	NA	NA	NA	<0.003	0.045	<0.003	0.290	0.004	<0.003	<0.003
		09-May-95	AEN	NA	0.20	NA	NA	NA	NA	<0.003	0.031	<0.003	0.260	0.003	<0.003	<0.003
		31-Aug-95	AEN	NA	NA	NA	NA	NA	NA	<0.003	0.032	<0.003	0.270	0.004	<0.003	<0.003
		28-Dec-95	AEN	NA	0.1	NA	NA	NA	NA	<0.003	0.040	<0.003	0.280	0.004	<0.003	<0.003
		27-Feb-96	AEN	NA	NA	NA	NA	NA	NA	<0.005	0.031	<0.005	0.270	<0.005	<0.005	<0.005
		01-May-96	AEN	NA	NA	NA	NA	NA	NA	<0.003	0.026	<0.003	<0.200	0.003	<0.003	<0.003
		04-Sep-96	AEN	NA	0.17	NA	NA	NA	NA	<0.003	0.033	<0.003	0.330	0.005	<0.003	<0.003
MW-7		17-Dec-96	A2AC	NA	<0.010	NA	NA	NA	NA	0.010	0.060	<0.001	0.310	<0.001	<0.001	<0.001
		18-Feb-97	AEN	NA	NA	NA	NA	NA	NA	<0.003	0.029	<0.003	0.260	0.003	<0.003	<0.003
		12-Sep-94	AEN	NA	NA	NA	NA	NA	NA	<0.0005	0.017	<0.0005	0.160	0.003	0.0009	<0.0005
		30-Nov-94	AEN	NA	NA	NA	NA	NA	NA	<0.0005	0.016	<0.0005	0.170	0.003	<0.0005	<0.0005
		16-Feb-95	AEN	NA	NA	NA	NA	NA	NA	<0.003	0.011	<0.003	0.120	<0.003	<0.003	<0.003
		09-May-95	AEN	NA	0.09	NA	NA	NA	NA	<0.0005	0.015	<0.0005	0.180	0.004	<0.0005	<0.0005
		30-Aug-95	AEN	NA	NA	NA	NA	NA	NA	<0.003	0.012	<0.003	0.140	0.003	<0.003	<0.003
		20-Dec-95	AEN	NA	<0.05	NA	NA	NA	NA	<0.003	0.011	<0.003	0.170	<0.003	<0.003	<0.003
		27-Feb-96	AEN	NA	NA	NA	NA	NA	NA	<0.003	0.018	<0.003	0.210	0.0035	<0.003	<0.003
		27-Feb-96	AEN	NA	NA	NA	NA	NA	NA	<0.003	0.017	<0.003	0.210	0.003	<0.003	<0.003
duplicate		30-Apr-96	AEN	NA	NA	NA	NA	NA	NA	<0.003	0.016	<0.003	0.220	0.003	<0.003	<0.003
		03-Sep-96	AEN	NA	0.11	NA	NA	NA	NA	<0.003	0.021	<0.003	0.290	0.004	<0.003	<0.003
		17-Dec-96	A2AC	NA	<0.010	NA	NA	NA	NA	<0.001	0.050	<0.001	0.280	<0.001	<0.001	<0.001
		19-Feb-97	AEN	NA	NA	NA	NA	NA	NA	<0.003	0.007	<0.003	0.150	<0.003	<0.003	<0.003

**Table 2**  
**Quarterly Summary of Groundwater Quality Data**  
**East Baybridge Center**  
**Emeryville and Oakland, California**  
*(concentrations expressed in parts per million [ppm])*

Well ID	Notes	Date Sampled	Lab	TPHg	TPHd	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TCE	1,1,1-TCA	PCE	1,1-DCE	1,1-DCA	1,2-DCA	cis/trans-1,2-DCE
MW-8	(3)	13-Sep-94	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	0.0005	<0.0005	<0.0005
		02-Dec-94	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<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	<0.0005
		09-May-95	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<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	<0.0005
		20-Dec-95	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
		27-Feb-96	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
		29-Apr-96	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
		04-Sep-96	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
		17-Dec-96	A2AC	NA	NA	NA	NA	NA	NA	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW-9	duplicate	12-Sep-94	AEN	NA	NA	NA	NA	NA	NA	<0.0005	0.017	<0.0005	0.120	0.0005	0.006	<0.0005
		12-Sep-94	AEN	NA	NA	NA	NA	NA	NA	<0.0005	0.015	<0.0005	0.120	0.0005	0.009	<0.0005
		30-Nov-94	AEN	NA	NA	NA	NA	NA	NA	<0.0005	0.016	<0.0005	0.150	0.0005	<0.0005	<0.0005
		30-Nov-94	AEN	NA	NA	NA	NA	NA	NA	<0.0005	0.016	<0.0005	0.160	0.0005	<0.0005	<0.0005
		16-Feb-95	AEN	NA	NA	NA	NA	NA	NA	<0.003	0.014	<0.003	0.120	<0.003	<0.003	<0.003
		08-May-95	AEN	NA	NA	NA	NA	NA	NA	<0.0005	0.013	<0.0005	0.110	0.005	<0.0005	<0.0005
		31-Aug-95	AEN	NA	NA	NA	NA	NA	NA	<0.003	0.013	<0.003	0.130	0.004	<0.003	<0.003
		20-Dec-95	AEN	NA	NA	NA	NA	NA	NA	<0.003	0.009	<0.003	0.092	<0.003	<0.003	<0.003
		27-Feb-96	AEN	NA	NA	NA	NA	NA	NA	<0.0005	0.0099	<0.0005	0.087	0.0035	<0.0005	<0.0005
		03-Sep-96	AEN	NA	NA	NA	NA	NA	NA	<0.0005	0.0083	<0.0005	0.099	0.0030	<0.0005	<0.0005
MW-9	duplicate	03-Sep-96	AEN	NA	NA	NA	NA	NA	NA	<0.0005	0.0078	<0.0005	0.097	0.0026	<0.0005	<0.0005
		17-Dec-96	A2AC	NA	NA	NA	NA	NA	NA	<0.001	0.005	<0.001	0.059	0.002	<0.001	<0.001
		17-Dec-96	A2AC	NA	NA	NA	NA	NA	NA	<0.001	0.006	<0.001	0.064	0.002	<0.001	<0.001
		19-Feb-97	AEN	NA	NA	NA	NA	NA	NA	<0.0005	0.008	<0.0005	0.087	0.0023	<0.0005	<0.0005
MW-10R	(19)	20-Dec-95	AEN	NA	NA	NA	NA	NA	NA	0.910	<0.005	0.007	<0.005	<0.005	<0.005	0.222
		29-Apr-96	AEN	NA	NA	NA	NA	NA	NA	0.650	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
		17-Dec-96	A2AC	NA	NA	NA	NA	NA	NA	0.610	<0.001	<0.001	<0.001	<0.001	<0.001	0.160
MW-12R	(20)	27-Dec-95	AEN	NA	0.2	NA	NA	NA	NA	0.003	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.002
		27-Feb-96	AEN	<0.05	0.36	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
		30-Apr-96	AEN	<0.05	0.23	<0.0005	<0.0005	<0.0005	<0.002	0.0025	<0.0005	<0.0005	<0.0005	0.0024	<0.0005	<0.0005
		17-Dec-96	A2AC	NA	<0.010	NA	NA	NA	NA	0.001	<0.001	<0.001	<0.001	0.005	<0.001	0.004
MW-31R	(21)	27-Dec-95	AEN	NA	0.3	NA	NA	NA	NA	0.018	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.009
		27-Feb-96	AEN	<0.05	0.37	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
		30-Apr-96	AEN	NA	0.19	NA	NA	NA	NA	0.015	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
		05-Sep-96	AEN	NA	0.54	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table 2**  
**Quarterly Summary of Groundwater Quality Data**  
**East Baybridge Center**  
**Emeryville and Oakland, California**  
*(concentrations expressed in parts per million [ppm])*

Well ID	Notes	Date Sampled	Lab	TPHg	TPHd	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TCE	1,1,1-TCA	PCE	1,1-DCE	1,1-DCA	1,2-DCA	cis/trans-1,2-DCE
		17-Dec-96	A2AC	NA	<0.010	NA	NA	NA	NA	0.008	<0.001	<0.001	<0.001	<0.001	<0.001	0.004
		19-Feb-97	AEN	NA	0.49	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-32R	(15)	22-Dec-95	AEN	NA	0.2	NA	NA	NA	NA	0.058	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.055
		27-Feb-96	AEN	<0.05	0.26	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
	(22)	01-May-96	AEN	NA	0.17	NA	NA	NA	NA	0.074	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
		05-Sep-96	AEN	NA	0.34	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	(31)	17-Dec-96	A2AC	NA	<0.010	NA	NA	NA	NA	0.110	<0.001	<0.001	<0.001	<0.001	<0.001	0.100
		19-Feb-97	AEN	NA	0.35	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-34R		27-Dec-95	AEN	NA	0.3	NA	NA	NA	NA	0.009	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	(23)	29-Apr-96	AEN	NA	NA	NA	NA	NA	NA	0.035	0.0011	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
		17-Dec-96	AEN	NA	NA	NA	NA	NA	NA	0.018	<0.001	<0.001	0.002	<0.001	<0.001	0.005
LF-13		09-May-95	AEN	NA	NA	NA	NA	NA	NA	0.006	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
		28-Dec-95	AEN	NA	NA	NA	NA	NA	NA	0.006	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
		30-Apr-96	AEN	NA	NA	NA	NA	NA	NA	0.0031	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
duplicate		30-Apr-96	AEN	NA	NA	NA	NA	NA	NA	0.0031	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	(38)	17-Dec-96	A2AC	NA	NA	NA	NA	NA	NA	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LF-22		12-Jul-91	ANA	NA	NA	NA	NA	NA	NA	0.0007	0.012	0.0017	0.053	0.0063	0.0016	<0.0005
		07-Jan-92	ANA	NA	NA	NA	NA	NA	NA	<0.0005	0.009	0.0037	0.041	0.0054	0.0011	<0.0005
		16-Apr-92	ANA	NA	NA	NA	NA	NA	NA	<0.0005	0.0026	0.0018	0.015	0.0021	<0.0005	<0.0005
	(1)	23-Jul-92	ANA	NA	NA	NA	NA	NA	NA	<0.0005	0.0034	0.0014	0.027	0.0052	<0.0005	<0.0005
		20-Oct-92	ANA	NA	NA	NA	NA	NA	NA	0.0008	0.0013	0.0007	0.014	0.004	<0.0005	<0.0005
		25-May-93	ANA	NA	NA	NA	NA	NA	NA	<0.0005	0.0008	0.0006	0.0061	0.0024	<0.0005	<0.0005
		13-Jul-93	ANA	NA	NA	NA	NA	NA	NA	0.0007	0.001	0.0009	0.0077	0.0033	<0.0005	<0.0005
	(4)	13-Sep-94	AEN	NA	NA	NA	NA	NA	NA	0.004	<0.0005	0.008	0.003	0.001	0.0007	<0.0005
		01-Dec-94	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	0.0006	0.0009	<0.0005	<0.0005
		17-Feb-95	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	0.0006	0.0007	0.001	<0.0005	<0.0005
		09-May-95	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	0.0007	0.0007	<0.0005	<0.0005
duplicate		09-May-95	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	0.0005	0.0006	<0.0005	<0.0005
duplicate	(11)	31-Aug-95	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	0.001	0.001	<0.0005	<0.0005
duplicate	(11)	31-Aug-95	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	0.001	0.001	<0.0005	<0.0005
		20-Dec-95	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	(17)	27-Feb-96	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
	(24)	29-Apr-96	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
		04-Sep-96	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
		17-Dec-96	A2AC	NA	NA	NA	NA	NA	NA	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
		18-Feb-97	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005

**Table 2**  
**Quarterly Summary of Groundwater Quality Data**  
**East Baybridge Center**  
**Emeryville and Oakland, California**  
*(concentrations expressed in parts per million [ppm])*

Well ID	Notes	Date Sampled	Lab	TPHg	TPHd	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TCE	1,1,1-TCA	PCE	1,1-DCE	1,1-DCA	1,2-DCA	cis/trans-1,2-DCE
LF-23		12-Jul-91	ANA	NA	NA	NA	NA	NA	0.0039	0.0009	0.027	0.0012	0.011	0.0009	<0.0005	
		07-Jan-92	ANA	NA	NA	NA	NA	NA	0.007	0.0023	0.056	0.0034	0.012	0.0013	<0.0005	
		16-Apr-92	ANA	NA	NA	NA	NA	NA	0.0036	0.0007	0.020	0.0044	0.0044	0.0011	<0.0005	
		23-Jul-92	ANA	NA	NA	NA	NA	NA	0.0038	0.0013	0.029	0.0061	0.0044	0.0014	<0.0005	
		20-Oct-92	ANA	NA	NA	NA	NA	NA	0.0033	0.0005	0.023	0.0047	0.002	0.0015	<0.0005	
		25-May-93	ANA	NA	NA	NA	NA	NA	0.0042	0.0007	0.016	0.0035	0.0017	0.0019	<0.0005	
		13-Jul-93	ANA	NA	NA	NA	NA	NA	0.0081	0.0015	0.018	0.0074	0.0033	0.0051	<0.0005	
		13-Sep-94	AEN	NA	NA	NA	NA	NA	<0.0005	<0.0005	0.0006	0.002	0.003	0.0007	<0.0005	
(7)		01-Dec-94	AEN	NA	NA	NA	NA	NA	0.004	<0.0005	0.008	0.0006	<0.0005	<0.0005	0.002	
(8)		17-Feb-95	AEN	NA	NA	NA	NA	NA	0.003	<0.0005	0.006	<0.0005	<0.0005	<0.0005	0.002	
(9)		09-May-95	AEN	NA	NA	NA	NA	NA	0.002	<0.0005	0.005	<0.0005	<0.0005	<0.0005	0.001	
(10)		31-Aug-95	AEN	NA	NA	NA	NA	NA	0.002	<0.0005	0.007	0.0007	0.0007	<0.0005	0.001	
(14)		20-Dec-95	AEN	NA	NA	NA	NA	NA	0.001	<0.0005	0.006	<0.0005	<0.0005	<0.0005	<0.0005	
(18)		27-Feb-96	AEN	NA	NA	NA	NA	NA	0.0008	<0.0005	0.0038	<0.0005	<0.0005	<0.0005	<0.0005	
(25)		29-Apr-96	AEN	NA	NA	NA	NA	NA	0.0006	<0.0005	0.0028	<0.0005	<0.0005	<0.0005	<0.0005	
(26)		04-Sep-96	AEN	NA	NA	NA	NA	NA	0.0014	<0.0005	0.0032	<0.0005	<0.0005	<0.0005	<0.0005	
(35)		17-Dec-96	A2AC	NA	NA	NA	NA	NA	0.001	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	
(39)		18-Feb-97	AEN	NA	NA	NA	NA	NA	0.0007	<0.0005	0.0017	<0.0005	<0.0005	<0.0005	<0.0005	

Shallow Extraction Wells (20 to 30 feet below grade)																
EX-3		14-Sep-94	AEN	NA	NA	NA	NA	NA	0.004	0.014	0.042	0.100	0.005	0.001	0.008	
		02-Dec-94	AEN	NA	0.10	NA	NA	NA	0.004	0.015	0.045	0.140	0.005	<0.0005	<0.0005	
		17-Feb-95	AEN	NA	<0.05	NA	NA	NA	0.003	0.014	0.037	0.096	0.005	<0.0005	<0.0005	
		09-May-95	AEN	NA	0.10	NA	NA	NA	0.003	0.012	0.031	0.120	0.005	<0.0005	<0.0005	
		31-Aug-95	AEN	NA	0.10	NA	NA	NA	<0.003	0.012	0.027	0.120	0.005	<0.003	<0.003	
		28-Dec-95	AEN	NA	0.10	NA	NA	NA	<0.003	0.009	0.036	0.160	0.004	<0.003	<0.003	
		27-Feb-96	AEN	NA	0.12	NA	NA	NA	<0.003	0.0077	0.030	0.120	0.0032	<0.003	<0.003	
		30-Apr-96	AEN	NA	0.08	NA	NA	NA	<0.003	0.008	0.026	0.120	0.003	<0.003	<0.003	
		05-Sep-96	AEN	NA	0.14	NA	NA	NA	<0.003	0.008	0.029	0.140	0.004	<0.003	<0.003	
		17-Dec-96	A2AC	NA	<0.010	NA	NA	NA	0.006	0.010	0.020	0.098	0.003	<0.001	0.004	
		19-Feb-97	AEN	NA	<0.05	NA	NA	NA	<0.003	0.006	<0.003	0.070	<0.003	<0.003	<0.003	
EX-4		14-Sep-94	AEN	NA	NA	NA	NA	NA	<0.0005	0.025	0.010	0.220	0.006	0.001	<0.0005	
		02-Dec-94	AEN	NA	0.09	NA	NA	NA	<0.0005	0.020	0.011	0.240	0.006	<0.0005	<0.0005	
		17-Feb-95	AEN	NA	<0.05	NA	NA	NA	<0.003	0.017	0.011	0.210	0.004	<0.003	<0.003	
		09-May-95	AEN	NA	0.10	NA	NA	NA	<0.003	0.020	0.011	0.210	0.004	<0.003	<0.003	
		31-Aug-95	AEN	NA	0.20	NA	NA	NA	<0.003	0.016	0.010	0.200	0.005	<0.003	<0.003	
		28-Dec-95	AEN	NA	0.10	NA	NA	NA	<0.003	0.014	0.014	0.210	0.004	<0.003	<0.003	

**Table 2**  
**Quarterly Summary of Groundwater Quality Data**  
**East Baybridge Center**  
**Emeryville and Oakland, California**  
*(concentrations expressed in parts per million [ppm])*

Well ID	Notes	Date Sampled	Lab	TPHg	TPHd	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TCE	1,1,1-TCA	PCE	1,1-DCE	1,1-DCA	1,2-DCA	cis/trans-1,2-DCE
EXTR		27-Feb-96	AEN	NA	0.13	NA	NA	NA	NA	<0.0005	0.0086	0.012	0.150	<0.0005	<0.0005	<0.0005
		30-Apr-96	AEN	NA	0.06	NA	NA	NA	NA	<0.003	0.010	0.010	0.150	<0.003	<0.003	<0.003
		05-Sep-96	AEN	NA	0.14	NA	NA	NA	NA	<0.003	0.008	0.009	0.140	0.003	<0.003	<0.003
		17-Dec-96	A2AC	NA	0.334	NA	NA	NA	NA	0.001	0.009	0.010	0.090	0.003	<0.001	0.004
		19-Feb-97	AEN	NA	0.11	NA	NA	NA	NA	<0.003	0.005	0.005	0.097	<0.003	<0.003	<0.003
		27-Feb-96	AEN	NA	0.15	NA	NA	NA	NA	<0.0005	0.0069	0.0013	0.066	0.0028	<0.0005	<0.0005
		30-Apr-96	AEN	NA	0.11	NA	NA	NA	NA	<0.0005	0.0055	0.0012	0.063	0.0024	<0.0005	<0.0005
		05-Sep-96	AEN	NA	0.12	NA	NA	NA	NA	<0.0005	0.0082	0.0031	0.099	0.0031	<0.0005	<0.0005
		17-Dec-96	A2AC	NA	1.520	NA	NA	NA	NA	0.001	0.008	0.009	0.074	0.002	<0.001	0.004
		19-Feb-97	AEN	NA	0.13	NA	NA	NA	NA	<0.0005	0.0034	0.0021	0.059	0.0016	<0.0005	<0.0005
<b>Deeper Wells (40 to 45 feet below grade)</b>																
MW-6D		13-Sep-94	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	0.003	<0.0005	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	<0.0005
		16-Feb-95	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<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	<0.0005
		31-Aug-95	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
		28-Dec-95	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
		27-Feb-96	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
		01-May-96	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
		03-Sep-96	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
		17-Dec-96	A2AC	NA	NA	NA	NA	NA	NA	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW-7D		18-Feb-97	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
		13-Sep-94	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	0.003	<0.0005	<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	<0.0005
		16-Feb-95	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	0.003	<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	<0.0005
		30-Aug-95	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	0.002	<0.0005	<0.0005	<0.0005
duplicate		20-Dec-95	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
		20-Dec-95	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
		27-Feb-96	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
		30-Apr-96	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
		03-Sep-96	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	0.0010	<0.0005	<0.0005	<0.0005
		17-Dec-96	A2AC	NA	NA	NA	NA	NA	NA	<0.001	<0.001	<0.001	0.008	<0.001	<0.001	<0.001
MW-9D		19-Feb-97	AEN	NA	NA	NA	NA	NA	NA	<0.0025	0.0009	<0.0005	0.0081	<0.0005	<0.0005	<0.0005
		12-Sep-94	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005

**Table 2**  
**Quarterly Summary of Groundwater Quality Data**  
**East Baybridge Center**  
**Emeryville and Oakland, California**  
*(concentrations expressed in parts per million [ppm])*

Well ID	Notes	Date Sampled	Lab	TPHg	TPHd	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TCE	1,1,1-TCA	PCE	1,1-DCE	1,1-DCA	1,2-DCA	cis/trans-1,2-DCE
		30-Nov-94	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<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	<0.0005
		08-May-95	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<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	<0.0005
		20-Dec-95	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
		26-Feb-96	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
		01-May-96	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
		03-Sep-96	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
		17-Dec-96	A2AC	NA	NA	NA	NA	NA	NA	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001
		19-Feb-97	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
<b>Deep Well (65 feet below grade)</b>																
MW-7Z		13-Sep-94	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
		30-Nov-94	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<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	<0.0005
		30-Aug-95	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
		28-Dec-95	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
		27-Feb-96	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
		30-Apr-96	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
		03-Sep-96	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
(36)		17-Dec-96	A2AC	NA	NA	NA	NA	NA	NA	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.004
		19-Feb-97	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
<b>Trip Blanks</b>																
		17-Feb-95	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
		10-May-95	AEN	NA	NA	<0.0005	<0.0005	<0.0005	<0.002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
		31-Aug-95	AEN	NA	NA	<0.0005	<0.0005	<0.0005	<0.002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
		28-Dec-95	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
		27-Feb-96	AEN	<0.05	NA	<0.0005	<0.0005	<0.0005	<0.002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
		03-Sep-96	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
		19-Feb-97	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
<b>Field Blanks</b>																
LF-22		17-Feb-95	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
LF-22		09-May-95	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
MW-7Z		09-May-95	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
LF-22-FB		31-Aug-95	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
MW-7D-FB		20-Dec-95	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
MW-7-FB		26-Feb-96	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005

**Table 2**  
**Quarterly Summary of Groundwater Quality Data**  
**East Baybridge Center**  
**Emeryville and Oakland, California**  
*(concentrations expressed in parts per million [ppm])*

Well ID	Notes	Date Sampled	Lab	TPHg	TPHd	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TCE	1,1,1-TCA	PCE	1,1-DCE	1,1-DCA	1,2-DCA	cis/trans-1,2-DCE
MW-9-FB		03-Sep-96	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
LF-22-FB	(37)	17-Dec-96	A2AC	NA	NA	NA	NA	NA	NA	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW-8-FB		19-Feb-97	AEN	NA	NA	NA	NA	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005

Data entered by \_\_\_\_\_. Data proofed by \_\_\_\_\_ and QA/QC by \_\_\_\_\_.

#### NOTES:

##### Key to abbreviations:

TPHg = Total petroleum hydrocarbons as gasoline

TPHd = Total petroleum hydrocarbons as diesel

TPHo = 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

AEN = American Environmental Network in Pleasant Hill, California

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

A2AC - Aqua Air (A2) Analytical Corporation

NA = parameter not analyzed

#### Notes:

(1) 0.00081 ppm vinyl chloride .

(2) 0.002 ppm chloroform .

(3) 0.0008 ppm chloroform

(4) 0.002 ppm chloroform .

(6) 0.002 ppm chloroform .

(7) 0.0002 ppm chloroform .

(8) 0.002 ppm chloroform .

(9) 0.014 ppm chloroform .

(10) Chloroform = 0.004 .

(11) Chloroform = 0.0006.

(14) Chloroform = 0.006.

(15) Bromodichloroethane = 0.010 ppm, vinyl chloride = 0.017 .

(17) Chloroform = 0.0012.

(18) Chloroform = 0.010, Bromodichloromethane = 0.0011.

(19) 1,2-DCE = 0.194.

**Table 2**  
**Quarterly Summary of Groundwater Quality Data**  
**East Baybridge Center**  
**Emeryville and Oakland, California**  
*(concentrations expressed in parts per million [ppm])*

Well ID	Notes	Date Sampled	Lab	TPHg	TPHd	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TCE	1,1,1-TCA	PCE	1,1-DCE	1,1-DCA	1,2-DCA	cis/trans-1,2-DCE
---------	-------	--------------	-----	------	------	---------	---------	---------------	---------------	-----	-----------	-----	---------	---------	---------	-------------------

- (20) 1,2-DCE = 0.0024.
- (21) 1,2-DCE = 0.011
- (22) Vinyl chloride = 0.025, 1,2-DCE = 0.087, Bromodichloromethane = 0.004
- (23) 1,1,2-Trichlorotrifluoroethane = 0.0021
- (24) Chloroform = 0.0015
- (25) Bromodichloromethane = 0.001, Chloroform = 0.013.
- (26) Chloroform = 0.002
- (27) Methylene Chloride = 0.001
- (28) Chloroform = 0.030
- (31) Methylene Chloride = 0.010
- (35) Chloroform = 0.002
- (36) Chloroform = 0.001
- (37) Chloroform = 0.001
- (38) Methylene Chloride = 0.001
- (39) Chloroform = 0.007

**Table 3**  
**Chemical Analysis Results for Monitoring Well LF-31**  
**Former Bashland Company Property**  
*(results in parts per million [ppm])*

Date Sampled	Dups	Lab	Notes	TRPH	THPd	TPHo	THPg	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TCE	1,2-DCE
12-Feb-93		ANA	(1)	<5	<0.05	NA	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	NA	NA
26-May-93		ANA		<5	0.200	NA	NA	NA	NA	NA	NA	0.020	0.0039
26-May-93	dup			<5	0.310	NA	NA	NA	NA	NA	NA	0.020	0.0034
14-Jul-93		ANA	(2)	<5	0.150	NA	NA	NA	NA	NA	NA	0.0073	0.0024
14-Jul-93	dup	AEN		<1	0.400	NA	NA	NA	NA	NA	NA	0.010	0.002
09-Dec-93		ANA		<5	0.200	0.100	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	NA	NA
11-Mar-94		ANA	(3)	NA	0.110	0.210	NA	NA	NA	NA	NA	0.0054	0.003
11-Mar-94	dup	ANA	(4)	NA	NA	NA	NA	NA	NA	NA	NA	0.006	0.0034
21-Jun-94		AEN		NA	0.400	0.200	<0.05	<0.0005	<0.0005	<0.0005	<0.002	0.005	0.002
27-Dec-95		AEN		NA	0.300	<0.200	NA	NA	NA	NA	NA	0.018	0.009
27-Feb-96		AEN		NA	0.370	<0.2	<0.05	<0.0005	<0.0005	<0.0005	<0.002	NA	NA
30-Apr-96		AEN		NA	0.190	<0.2	NA	NA	NA	NA	NA	0.015	0.017
05-Sep-96		AEN		NA	0.540	<0.2	NA	NA	NA	NA	NA	NA	NA
17-Dec-96		A2AC		NA	<0.01	<0.2	NA	NA	NA	NA	NA	0.008	NA
19-Feb-97		AEN		NA	0.490	<0.2	NA	NA	NA	NA	NA	NA	NA

Data entered by \_\_\_\_\_. Data proofed by \_\_\_\_\_.

**NOTES:**

TRPH - Total recoverable petroleum hydrocarbons as oil and grease, analyzed using Standard Methods 5520BF.

TPHd - Total petroleum hydrocarbons as diesel, analyzed using EPA Method 3510.

THPo - Total petroleum hydrocarbons as oil, analyzed using EPA Method 3510.

TPHg - Total petroleum hydrocarbons as gasoline, analyzed using EPA Method 3550.

TCE - Trichloroethene, analyzed using EPA Method 8010.

1,2-DCE - 1,2-dichloroethene, analyzed using EPA Method 8010

Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8020

ANA - Anametrix, Inc., of San Jose, California

AEN - American Environmental Network of Pleasant Hill, California.

NA - Not analyzed.

(1) Groundwater samples also analyzed for cadmium, chromium, nickel, lead, and zinc, and semivolatile organic compounds using EPA Method 8270. None of these compounds were detected above laboratory detection limits.

(2) Tetrachloroethene detected at a concentration of 0.0063 ppm

(3) Chloroform detected at 0.0012 ppm

(4) Chloroform detected at 0.0014 ppm

**Table 4**  
**Chemical Analysis Results for Monitoring Well LF-32**  
**Former Bay Area Warehouse Property**  
*(concentrations expressed in parts per million (ppm))*

Date	Dups	Lab	Notes	TPHg	Benzene	Toluene	Ethyl benzene	Total Xylenes	TPHd	TPHo	TCE	1,2-DCE
26-May-93		ANA		0.050	<0.0005	<0.0005	<0.0005	<0.0005	0.44	NA	NA	NA
14-Jul-93		AEN		<0.050	<0.0005	<0.0005	<0.0005	<0.002	<0.050	NA	NA	NA
14-Jul-93		ANA		<0.050	<0.0005	<0.0005	<0.0005	<0.005	0.23	NA	NA	NA
09-Dec-93		ANA	(1)	<0.050	<0.0005	<0.0005	<0.0005	<0.005	0.66	0.360	NA	NA
11-Mar-94		ANA	*	0.110	*	<0.0005	<0.0005	<0.0005	0.89	0.850	0.0025	0.0008
11-Mar-94	Dup	ANA	*	0.110	*	<0.0005	<0.0005	<0.0005	NA	NA	0.0026	0.00088
27-Apr-94		ANA		<0.05	NA	NA	NA	NA	NA	NA	NA	NA
23-May-94		AEN	(2)	NA	NA	NA	NA	NA	NA	NA	0.005	0.005
21-Jun-94		AEN		<0.05	<0.0005	<0.0005	<0.0005	<0.002	1.4	0.400	NA	NA
22-Dec-95		AEN	(3)	NA	NA	NA	NA	NA	0.2	<0.2	0.058	0.055
27-Feb-96		AEN		<0.05	<0.0005	<0.0005	<0.0005	<0.002	0.26	<0.2	NA	NA
01-May-96		AEN	(4)	NA	NA	NA	NA	NA	0.17	<0.2	0.074	0.087
05-Sep-96		AEN		NA	NA	NA	NA	NA	0.34	<0.2	NA	NA
17-Dec-96		A2AC		NA	NA	NA	NA	NA	<0.010	<0.2	0.110	0.100
19-Feb-97		AEN		NA	NA	NA	NA	NA	0.35	<0.2	NA	NA

Data entered by \_\_\_\_\_ Data proofed by \_\_\_\_\_

TPHg = Total petroleum hydrocarbons as gasoline, analyzed using EPA Method 5030 GCFID

TPHd = Total petroleum hydrocarbons as diesel, analyzed using EPA Method 3510 GCFID

TPHo = Total petroleum hydrocarbons as motor oil, analyzed using EPA Method 3510

TCE = Trichloroethene, analyzed using EPA Method 8010

1,2-DCE = 1,2-Dichloroethene, analyzed using EPA Method 8010

NA = not analyzed

ANA = Anametrix, Inc., of San Jose, California

AEN = American Environmental Network of Pleasant Hill, California

**NOTES:**

(1) Total petroleum hydrocarbons as oil and grease were not reported above the laboratory detection limit of 5 ppm.

(2) Vinyl chloride was present at 0.002 ppm and bromodichloromethane detected at 0.0006 ppm

(3) Vinyl chloride was present at 0.017 ppm and bromodichloromethane detected at 0.010 ppm

(4) Vinyl chloride was present at 0.025 ppm and bromodichloromethane detected at 0.0041 ppm.

\* According to the laboratory QA/QC summary, the concentration reported as gasoline

is primarily due to the presence of a heavier petroleum product of hydrocarbon range C9-C14, possibly diesel fuel. However, it appears that the TPHg detected is a result of cross-contamination by the laboratory

(see Section 3.3 in Levine-Fricke 1994)

**TABLE 5**  
**GROUND-WATER SAMPLING SCHEDULE**  
**East Baybridge Center**  
**Emeryville and Oakland, California**

Quarterly Period	Area	Well Depth	Well Identification	Analysis
JANUARY through MARCH 1997	Area A	20' to 25'	MW-2 MW-3, MW-5, MW-6, MW-7, MW-8,MW-9, LF-22, LF-23  EX-3 & EX-4	TPHg, TPHd, BTEX VOCs, TPHd, TPHo VOCs  TPHd, TPHo, VOCs
		40' to 45'	MW-6D, MW-7D, MW-9D	VOCs
		60'	MW-7Z	VOCs
	Area C	20' TO 25'	MW-31R, MW-32R	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"

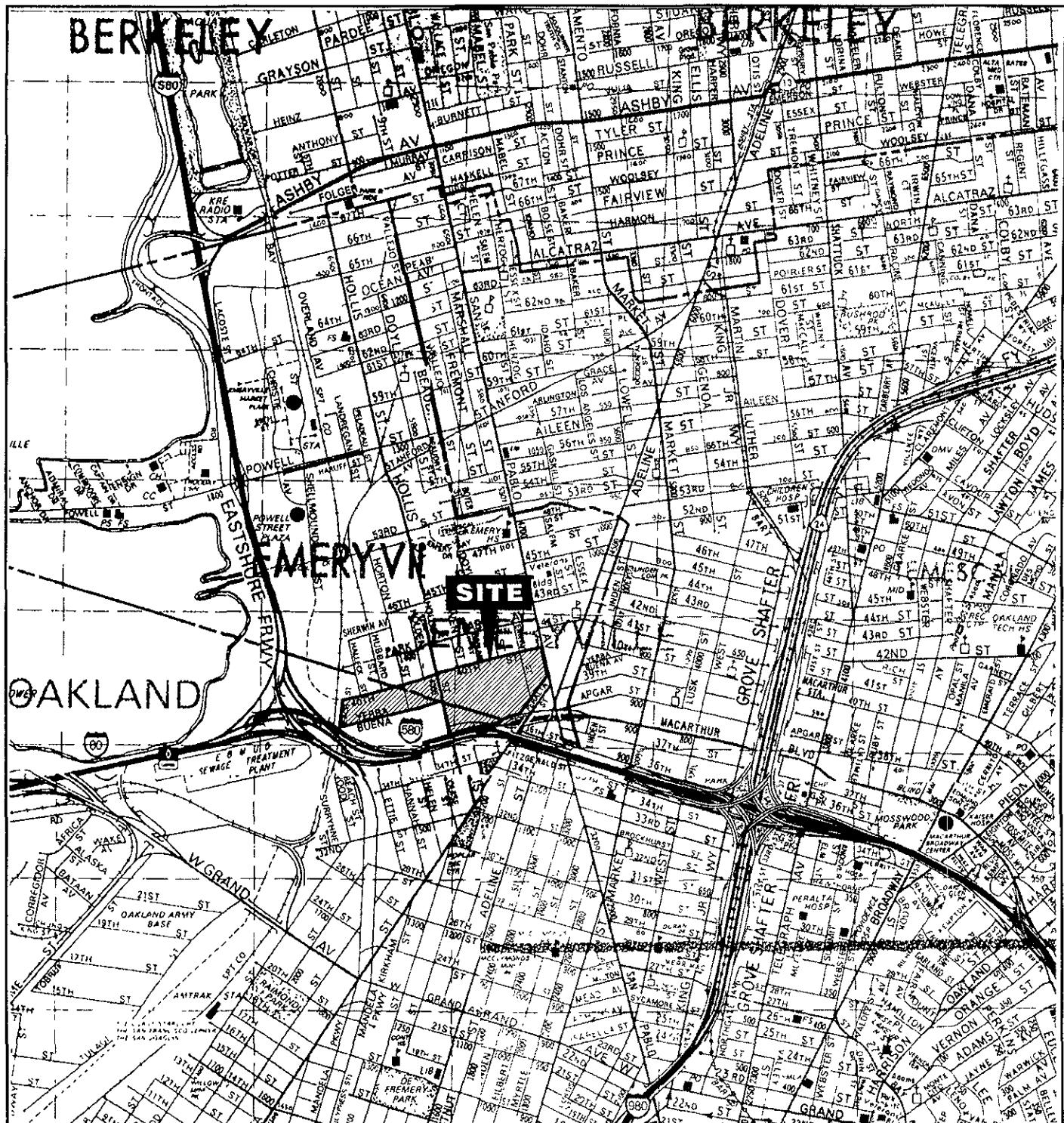
Analysis for TPHg will use EPA Method 5030.

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



EAST BAYBRIDGE CENTER

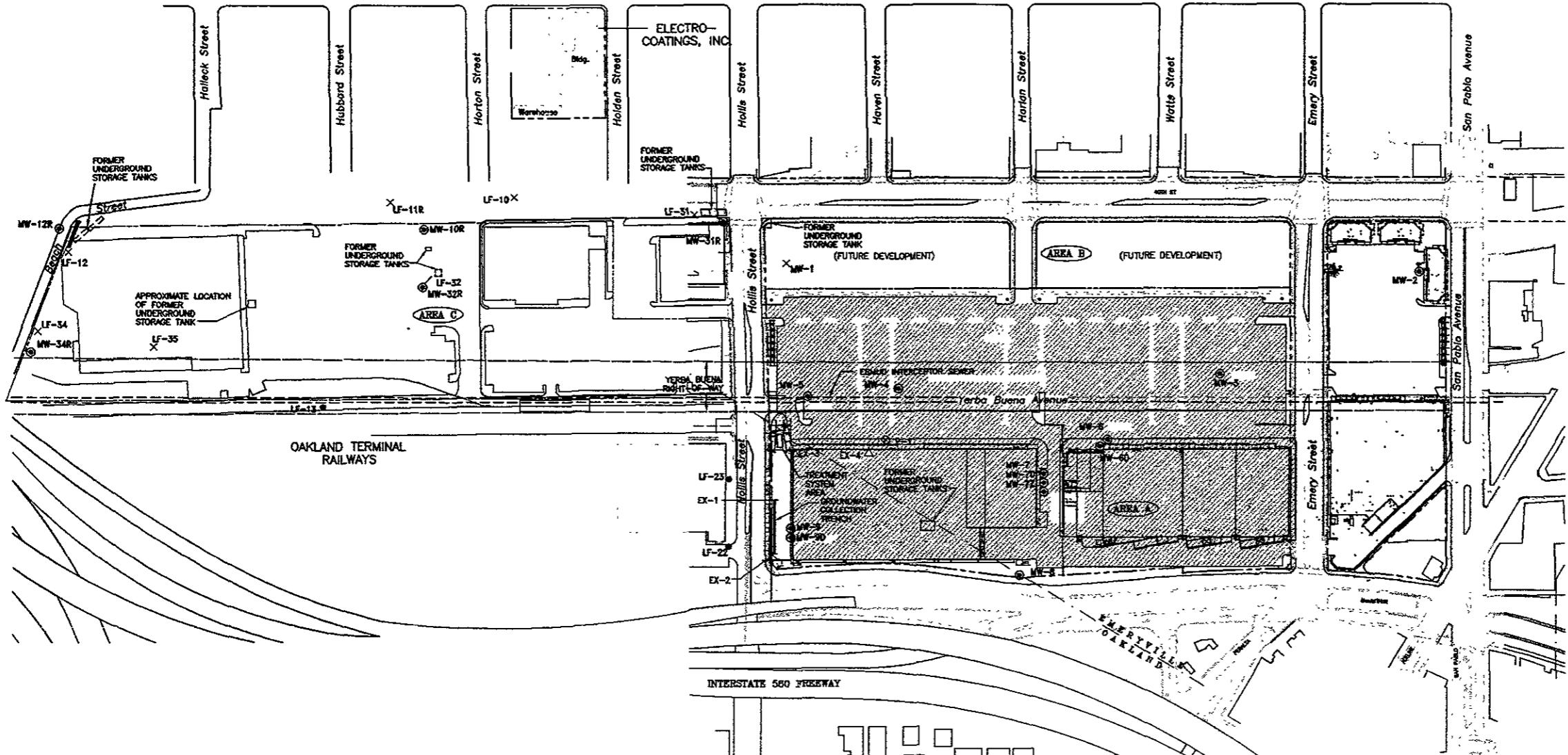
**Site Location Map**

**Levine-Fricke-Recon**

Project No. 1649

**Figure 1**

0 150 300 FEET



△	REVISION	DESIGN	DRAWN	CHECKED	DATE
SCALE : _____					
DESIGN :					
DRAWN :					
CHECKED :					

**Levine-Fricke-Recon**  
ENVIRONMENTAL HYDROGEOLOGISTS & APPLIED SCIENTISTS

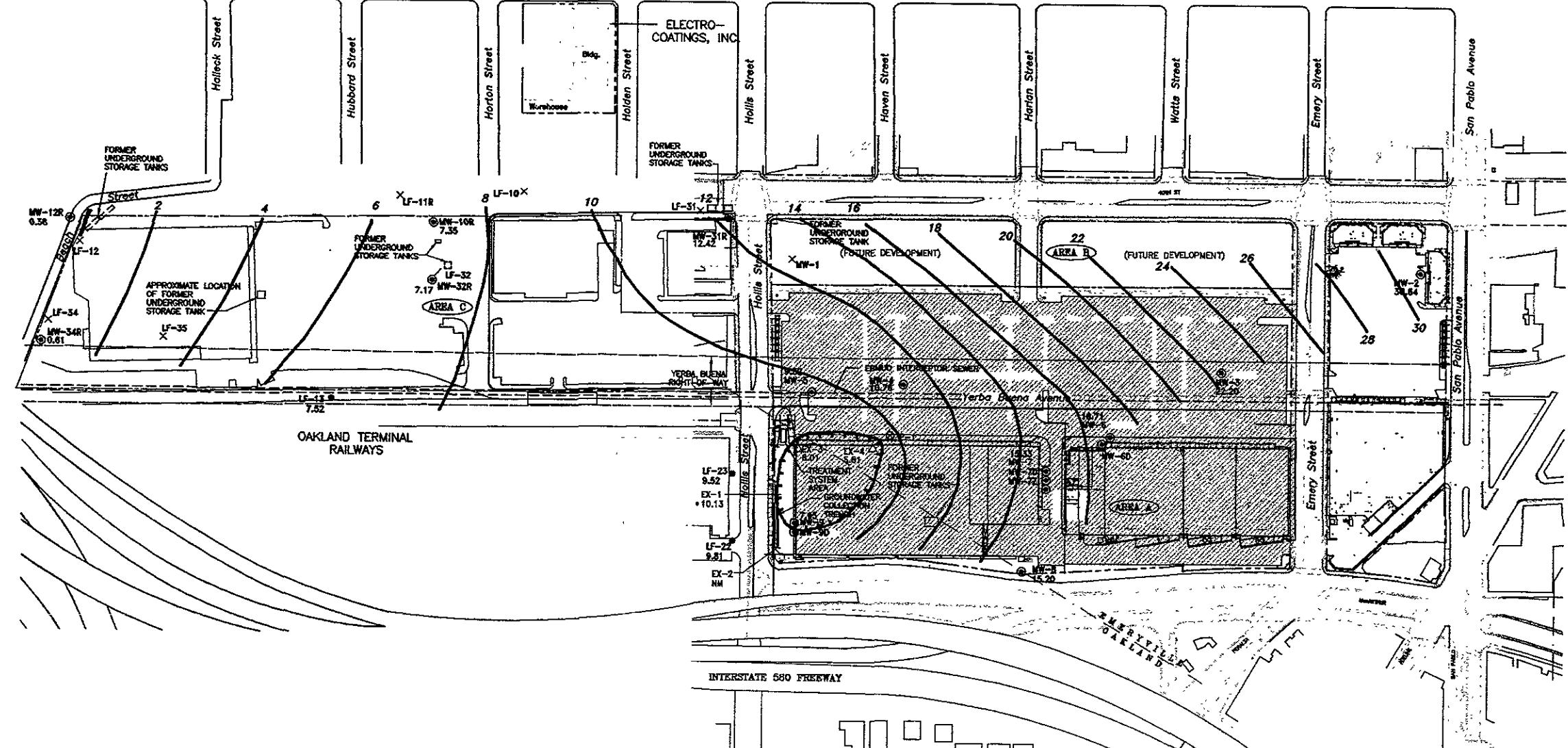
Emeryville, California



YERBA BUENA/EAST BAYBRIDGE DEVELOPMENT  
Figure 2  
SITE PLAN SHOWING LOCATIONS OF  
CONTAINED SOILS  
AND UNDERGROUND STORAGE TANKS

Project No.  
1649  
Date  
JAN. 97  
Sheet  
of

0 150 300 FEET



## **APPENDIX A**

### **Field Procedures**

## FIELD PROCEDURES

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 groundwater 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 groundwater was pumped into the on-site treatment system.

After each well had been purged, groundwater 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 groundwater 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.

Groundwater samples were submitted to American Environmental Network, a California state-certified laboratory, under strict chain-of-custody protocols. For quality assurance/quality control, a duplicate sample was collected from well MW-3 and analyzed for VOCs using EPA Method 8010.

## **APPENDIX B**

### **Summary of Analytical and Sampling QA/QC**

Summary of Analytical QA/QC		
<b>Site Name:</b> East Baybridge	<b>Site Address:</b> East Baybridge Center Emeryville and Oakland CA	<b>Monitoring Period Covered:</b> January 1 through March 31, 1997
<b>Analysis performed by:</b> Lab name: American Environmental Network Lab address: 3400 Vincent Road, Pleasant Hill, CA 94523 Lab contact: Dean Peters Lab phone number: 510-930-9090		
<b>Analytical method used:</b> (check applicable methods)		
<input type="checkbox"/> Total Dissolved Solids by EPA Method _____ <input type="checkbox"/> Bioassay 96-hr % survival by Standard Method _____ <input type="checkbox"/> Turbidity (NTU) by EPA Method _____ <input type="checkbox"/> Dissolved Oxygen (mg/l and % saturation) by Standard Method _____ <input type="checkbox"/> Hardness (mg/l CaCO <sub>3</sub> ) by EPA Method _____ <input type="checkbox"/> Arsenic by EPA Method _____ <input type="checkbox"/> Cadmium by EPA Method _____ <input type="checkbox"/> Chromium (total) by EPA Method _____ <input type="checkbox"/> Chromium (hexavalent) _____ <input type="checkbox"/> Copper by EPA Method _____ <input type="checkbox"/> Lead by EPA Method _____ <input type="checkbox"/> Mercury by EPA Method _____ <input type="checkbox"/> Nickel by EPA Method _____ <input type="checkbox"/> Selenium by EPA Method _____ <input type="checkbox"/> Silver by EPA Method _____ <input type="checkbox"/> Zinc by EPA Method _____ <input checked="" type="checkbox"/> Halogenated Volatile Organics by EPA Method 601 or 8010 <input type="checkbox"/> Aromatic and Unsaturated Volatile Organics by EPA 602 or 8020 <input type="checkbox"/> Volatile Organics by EPA Method 624 or 8240 <input type="checkbox"/> Semivolatile Organics by EPA Method 625 or 8270 <input type="checkbox"/> EDB and DBCP by EPA Method 504 <input checked="" type="checkbox"/> TPH gasoline by EPA Method 8015 modified <input checked="" type="checkbox"/> TPH oil by EPA Method 8015 modified <input checked="" type="checkbox"/> TPH diesel by EPA Method 8015 modified		
Is the lab state-certified for the above analytical method(s)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Were analyses performed according to standard methods? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Were sample holding times met? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Were all reported analytical results values above MDLs? <input type="checkbox"/> Yes <input type="checkbox"/> No		
Were QA/QC samples (i.e. blanks, field replicates, spikes, and surrogates) analyzed in accordance and consistent with the analytical method? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Did QA/QC results meet all acceptance criteria? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Are QA/QC results and acceptance criteria on file? <input type="checkbox"/> Yes <input type="checkbox"/> No		

Data entered by \_\_\_\_\_. Data proofed by \_\_\_\_\_. QA/QC by \_\_\_\_\_.

\* The explanation should describe any modifications to standard methods and whether approved by Board staff, and describe corrective actions taken in response to any QA/QC results that fall outside acceptance criteria.

## Summary of Sampling QA/QC

Summary of Sampling QA/QC		
Site Name: East Baybridge	Site Address: East Baybridge Center Emeryville and Oakland CA	Monitoring Period Covered: January 1 through March 31, 1997
Sampling performed by: Levine-Fricke-Recon		
Firm name: Levine - Fricke - Recon		
Firm address: 1900 Powell Street, Emeryville, CA		
Firm contact: Ron Goloubow		
Firm phone number: 510-652-4500		
Were chain-of-custody forms completed for all samples? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Were field parameters stabilize prior to taking sample? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
For VOCs samples, was there zero head space in sample containers? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Were samples preserved according to analytical method? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Were the required field QA/QC samples taken? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
For any questions above answered with "No", please provide an explanation:		

Data entered by \_\_\_\_\_ Data proofed by \_\_\_\_\_ QA/QC by \_\_\_\_\_.

**Common Reporting Limits For Groundwater Analyses**  
**Groundwater Treatment System**

<b>EPA 8010</b>		
<b>Water Matrix</b>	<b>CAS #</b>	<b>Reporting Limits</b>
Bromodichloromethane	75-27-4	3 mg/l
Bromoform	75-25-2	3 mg/l
Bromomethane	74-83-9	10 mg/l
Carbon Tetrachloride	56-23-5	3 mg/l
Chlorobenzene	108-90-7	3 mg/l
Chloroethane	75-00-3	10 mg/l
2-Chloroethyl Vinyl Ether	110-75-8	3 mg/l
Chloroform	67-66-3	3 mg/l
Chloromethane	74-87-3	10 mg/l
Dibromochloromethane	124-48-1	3 mg/l
1,2-Dichlorobenzene	95-50-1	3 mg/l
1,3-Dichlorobenzene	541-73-1	3 mg/l
1,4-Dichlorobenzene	106-46-7	3 mg/l
Dichlorodifluoromethane	75-71-8	10 mg/l
1,1-Dichloroethane	75-34-3	3 mg/l
1,2-Dichloroethane	107-06-2	3 mg/l
1,1-Dichloroethene	75-35-4	3 mg/l
cis-1,2-Dichloroethene	156-60-5	3 mg/l
trans-1,2-Dichloroethene	156-60-5	3 mg/l
1,2-Dichloropropane	78-87-5	3 mg/l
cis-1,3-Dichloropropene	10061-01-5	3 mg/l
trans-1,3-Dichloropropene	10061-02-6	3 mg/l
Methylene Chloride	75-09-2	10 mg/l
1,1,2,2-Tetrachloroethane	79-34-5	3 mg/l
Tetrachloroethene	127-18-4	3 mg/l
1,1,1-Trichloroethane	71-55-6	3 mg/l
1,1,2-Trichloroethane	79-00-5	3 mg/l
Trichloroethene	79-01-6	3 mg/l
Trichlorofluoromethane	75-69-4	10 mg/l
1,1,2-Trichlorotrifluoroethane	76-13-1	3 mg/l
Vinyl Chloride	75-01-4	10 mg/l