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**Semiannual Monitoring Report for
July 1 through December 31, 2000
East Baybridge Center
Emeryville and Oakland, California**

**January 31, 2001
1649.20-002**

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

 **LFR**
LEVINE • FRICKE

January 31, 2001

1649.20-002

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

Ms. Betty Graham
Regional Water Quality Control Board
1515 Clay Street, 14th Floor
Oakland, California 94612

Subject: Quarterly Monitoring Report, July 1 through December 31, 2000, East Baybridge Center, Emeryville and Oakland, California

Dear Ms. Hugo and Ms. Graham:

This report presents the results of semiannual groundwater monitoring by LFR Levine·Fricke (LFR) on behalf of Catellus Development Corporation for July 1 through December 31, 2000, at the Yerba Buena/East Baybridge Center in Emeryville and Oakland, California ("the Site"). Monitoring was conducted in accordance with LFR's revised "Groundwater Monitoring Plan for the East Baybridge Center, Emeryville and Oakland, California," submitted April 15, 1998.

Groundwater Extraction and Treatment System Shutdown

As agreed during a meeting on November 17, 2000, with representatives of the Regional Water Quality Control Board (RWQCB), Catellus, and LFR, the groundwater extraction and treatment system (GWETS) at the Site was shut down on November 20, 2000. The GWETS was shut down to assess the effect of the GWETS on groundwater quality at the Site. To assess this effect, Catellus will collect samples from selected groundwater monitoring wells for a period of one year. This report documents the decision to shut down the GWETS, and provides a monitoring schedule and rationale for the wells to be sampled on a quarterly basis. In addition a framework is provided that will be used to assess the analytical data that is collected from the wells after the GWETS is shut down.

Monitoring Schedule and Rationale

As discussed, selected wells will be monitored on a quarterly basis (every three months) for one year following the shutdown of the GWETS. The first monitoring event will take place between January 1 and March 31, 2001. Table 4 presents the schedule and analyses for the wells to be sampled. After one year of monitoring is completed, the data will be evaluated to assess the future monitoring schedule. The wells selected for quarterly monitoring were based on their locations and the historical analytical results of samples collected from the wells. The rationale for the selection of the wells to be monitored on a quarterly basis is as follows:

- Wells MW-22 and MW-23 were selected because they are located within approximately 100 feet of the downgradient side of the groundwater extraction trench, relative to the other groundwater monitoring wells.
- Well MW-9 was selected for quarterly groundwater monitoring because it is located within approximately 50 feet of the upgradient side of the groundwater extraction trench.
- Wells MW-4 and MW-5 were selected for quarterly groundwater monitoring because they are located within approximately 75 feet to the north side of (crossgradient from) the affected groundwater.
- Wells MW-6 and MW-7 were selected because samples collected from these wells have contained the highest concentrations of VOCs relative to the other groundwater samples collected at the Site.

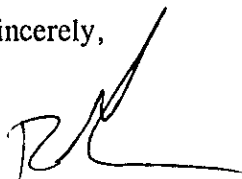
Data Assessment

Analytical results from each well will be evaluated to assess the effect of the shutdown of the GWETS on groundwater quality at the Site. Historically, 1,1-dichloroethene (1,1-DCE) has been detected at the highest concentrations in groundwater samples collected at the Site. The other VOCs that have been detected in groundwater samples at the Site include 1,1-dichloroethane (1,1-DCA), 1,1,1-trichloroethane (1,1,1-TCA), and tetrachloroethene (PCE). These VOCs have been detected at concentrations that are one to two orders of magnitude lower than 1,1-DCE. Therefore, it is appropriate to use 1,1-DCE as the target compound for this site.

As we discussed, shutting down the GWETS will allow VOC-affected groundwater to migrate off site to the west. If 1,1-DCE is detected in samples collected from wells MW-4, MW-5, MW-9, MW-22, or MW-23 at a concentration greater than 165 micrograms per liter ($\mu\text{g/l}$) for two consecutive monitoring events, Catellus will notify the RWQCB and together we will evaluate whether the GWETS should be restarted. The concentration of 165 $\mu\text{g/l}$ for 1,1-DCE was selected because it is one half of the highest concentration of 1,1-DCE that has been detected in groundwater samples collected at the Site. The highest concentration of 1,1-DCE detected at the Site was 330 $\mu\text{g/l}$, in a sample collected from well MW-6 in September 1996. The proposed target concentration of 165 $\mu\text{g/l}$ is well below the risk-based screening level of 1,000 $\mu\text{g/l}$ for 1,1-DCE, which was provided by the RWQCB for groundwater that is not to be used as a drinking water source.

If you have any questions or comments concerning this report or the project in general, please call me at (510) 652-4500.

Sincerely,

A handwritten signature in black ink, appearing to be 'Ron Goloubow', written over a horizontal line.

Ron Goloubow
Senior Project Geologist

Enclosure

cc: Ms. Sandra Stevens, Catellus Development

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CERTIFICATION

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



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

1/30/01
Date

1.0 INTRODUCTION

This report presents the results of groundwater monitoring by LFR Levine-Fricke (LFR) during the semiannual period from July 1 through December 31, 2000, at East Baybridge Center in Emeryville and Oakland, California ("the Site"; Figure 1). LFR is performing groundwater monitoring and submitting this report on behalf of Catellus Development Corporation ("Catellus") in accordance with an April 15, 1998 groundwater monitoring plan submitted to the Alameda County Health Care Services Agency (ACHCSA; LFR 1998).

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).

Semiannual 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 and treatment system (GWETS) installed at the Site in 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.

This report includes the following tables:

- 1: Well Construction and Groundwater Elevation Data
- 2A: Summary of Sampling QA/QC
- 2B: Summary of Analytical QA/QC
- 3: Semiannual Summary of Groundwater Quality Data
- 4: Groundwater Monitoring Schedule

As agreed during a meeting on November 17, 2000, with representatives of the Regional Water Quality Control Board (RWQCB), Catellus, and LFR, the groundwater extraction and treatment system (GWETS) at the Site was shut down on November 20, 2000. The GWETS was shut down to assess the effect of the GWETS on groundwater quality at the Site. To assess this effect, Catellus will collect samples from selected groundwater monitoring wells for a period of one year. This report documents the decision to shut down the GWETS, and provides a monitoring schedule and rationale for the wells to be sampled on a quarterly basis. In addition a framework is provided that will be used to assess the analytical data that is collected from the wells after the GWETS is shut down.

Revised Monitoring Schedule

As discussed, selected wells will be monitored on a quarterly basis (every three months) for one year following the shutdown of the GWETS. The first monitoring event will take place between January 1 and March 31, 2001. Table 4 presents the schedule and analyses for the wells to be sampled. After one year of monitoring is completed, the data will be evaluated to assess the future monitoring schedule. The wells selected for quarterly monitoring were based on their locations and the historical analytical results of samples collected from the wells.

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 to monitor groundwater quality, in accordance with agency guidelines (Figure 2).

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 been 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 GWETS was installed in Area A and began operation in August 1994 (Figure 2). Details regarding the operation of the GWETS are presented in the semiannual self-monitoring report submitted to the East Bay Municipal Utilities District.

Approximately 25,000 cubic yards of TPH-affected soil was excavated from Area B and contained beneath building pads in Areas A and B in accordance with the containment plan for the Site (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). Five monitoring wells were installed and sampled on a quarterly basis for over a year to assess groundwater quality in Areas A and B. In response to a request from the RWQCB, LFR prepared a soils management plan for the contained soils (LFR 1994). 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 its 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 properly abandoned before 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 to monitor possible on-site migration of VOCs from a known source (Electro-Coatings, Inc.) located north of the property (Figure 2).

3.0 GROUNDWATER ELEVATIONS AND FLOW DIRECTION

On October 24, 2000, 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 7.20 feet below ground surface (bgs) in well MW-10R to 15.17 feet bgs in well MW-4.

3.1 Areas A and B

Figure 2 is a groundwater elevation contour map illustrating water levels measured on October 24, 2000. 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-4. The direction and gradient are consistent with the groundwater flow direction previously reported at the Site (LFR 2000).

The influence of pumping from the shallow extraction wells and collection trench on the groundwater flow pattern is illustrated in Figure 2 by depressions in the groundwater surface and deflections of contour lines in the vicinity of the extraction wells and collection trench.

3.2 Area C

As illustrated in Figure 2, 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 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 2000).

4.0 GROUNDWATER SAMPLING AND ANALYSIS

On September 11 and 12; and October 24, 2000, LFR personnel collected groundwater samples for chemical analysis. A total of 16 samples were collected from 12 shallow groundwater monitoring wells (less than 25 feet bgs; MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, MW-8, MW-10R, MW-12R, MW-34R, LF-22, and LF-23), two shallow extraction wells (less than 25 feet bgs; EX-3 and EX-4), and the groundwater collection trench. Samples were collected from two intermediate-depth wells (30 to 45 feet bgs; MW-6D, and MW-7D), and one deeper well (50 to 65 feet bgs; MW-7Z).

Scheduled samples could not be collected from MW-9 and MW-9D because of the operations of Home Depot where this well pair is located. Home Depot has not responded to the numerous requests by LFR and Catellus to modify its operations in this area of the Site.

Before groundwater samples were collected, 3 to 4 well volumes of water were purged from each well in accordance with field procedures for 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 under strict chain-of-custody protocol to Curtis and Tompkins, Inc., a California state-certified laboratory, located in Berkeley, California.*

Samples were analyzed as follows:

- Samples from wells MW-3, MW-4, MW-5, MW-6, MW-6D, MW-7, MW-7D, MW-7Z, MW-8, MW-10R, MW-12R, MW-34R, LF-22, LF-23, EX-3, and EX-4 and the groundwater collection trench were analyzed for VOCs using EPA Method 8010.
- Samples from wells MW-3, MW-4, MW-5, MW-6, MW-7, MW-12R, EX-3, EX-4, and the collection trench were analyzed for TPH as diesel (TPHd; carbon chain length C₁₂ to C₂₂), and TPH as oil (TPHo; carbon chain length C₂₂ to C₃₆) in accordance with the soil management plan for the Site (LFR 1994).
- The sample from well MW-2 was analyzed for TPHd, 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 quality assurance/quality control (QA/QC) purposes, a duplicate sample was collected from well MW-7 and analyzed for VOCs. Results of the duplicate sample collected at MW-7 were similar to the results from the primary sample. Tables 2A and 2B summarize the analytical and sampling QA/QC, respectively, for samples collected during this semiannual monitoring period.

5.0 GROUNDWATER QUALITY

Table 3 summarizes the analytical results for groundwater samples collected.

5.1 Volatile Organic Compounds

In general, the concentrations 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 3). VOCs were not detected at concentrations above method detection limits in groundwater samples collected from shallow wells LF-22 and MW-8, or from deeper wells MW-6D and MW-7Z.

1,1-Dichloroethene (1,1-DCE) was detected in samples collected from six shallow monitoring wells at concentrations ranging from 0.0021 milligrams per liter (mg/l) in well MW-10R to 0.180 mg/l in well MW-6. 1,1-DCE was detected in the samples from shallow extraction wells EX-3 and EX-4 and the collection trench at concentrations of 0.130 mg/l, 0.065 mg/l, and 0.066 mg/l, respectively. 1,1-DCE was detected in samples collected from deeper well MW-7D at a concentration of 0.015mg/l.

Trichloroethene (TCE) was detected in the samples collected from shallow monitoring wells MW-10R and MW-34R at concentrations of 0.410 mg/l and 0.036 mg/l, respectively. TCE was detected at a concentration of 0.0008 mg/l in the sample collected from off-site well LF-23.

TCE was not detected in the samples collected from remaining shallow or deeper wells sampled during the current monitoring event.

Tetrachloroethene (PCE) was detected in samples collected from shallow monitoring wells MW-5 and MW-10R at concentrations of 0.0013 mg/l and 0.0037 mg/l, respectively. PCE was detected at a concentration of 0.0014 mg/l in the sample collected from off-site well LF-23. PCE was detected in the samples collected from shallow extraction wells EX-3 and EX-4 and the collection trench at concentrations of 0.021 mg/l, 0.009 mg/l, and 0.0013 mg/l, respectively.

PCE was not detected in the samples collected from remaining shallow or deeper wells sampled during the current monitoring event.

1,1-Dichloroethane (1,1-DCA) was detected in nine shallow monitoring wells at concentrations ranging from 0.0005 mg/l in the sample collected from MW-4 to 0.0043/ 0.0044 mg/l (primary/duplicate) in the samples collected from MW-7. 1,1-DCA was detected in the samples from shallow extraction wells EX-3 and EX-4 and the collection trench at concentrations of 0.035 mg/l, 0.002 mg/l, and 0.016 mg/l, respectively. 1,1-DCA was detected in samples collected from deeper well MW-7D at a concentration of 0.0008 mg/l.

1,1,1-Trichloroethane (1,1,1-TCA) was detected in samples collected from shallow monitoring wells MW-6, MW-7, and MW-34R at concentrations of 0.011 mg/l, 0.0040/0.0043 mg/l (primary/duplicate sample), and 0.007 mg/l, respectively. 1,1,1-TCA was also detected in samples collected from shallow extraction wells EX-3 and EX-4 and the collection trench at concentrations of 0.0047 mg/l, 0.028 mg/l, and 0.0027 mg/l, respectively.

1,1,1-TCA was not detected in the samples collected from remaining shallow or deeper wells sampled during the current monitoring event.

5.2 Total Petroleum Hydrocarbons

TPHd was detected in samples collected from shallow monitoring wells MW-2 and MW-12R at concentrations of 0.099 mg/l and 0.43 mg/l, respectively. TPHd was not detected in the samples collected from the two shallow extraction wells or the extraction trench.

TPHg was detected at 0.50 mg/l in the sample collected from well MW-2. The sample collected from well MW-2 also contained ethylbenzene (0.040 mg/l) and total xylenes (0.025 mg/l).

6.0 SUMMARY

Groundwater gradient and flow direction measured in October 2000 are generally consistent with the groundwater flow direction previously reported for the Site (LFR 2000).

Analytical results for groundwater samples collected in September and October 2000 are similar to results previously reported for the Site (Table 3). Results indicate that the plume of VOC-affected groundwater likely extends to the north between wells MW-3 and MW-6 and to the south between wells MW-7 and MW-8. The plume extends approximately 800 feet southwest (downgradient) from well MW-6 toward the extraction wells and collection trench, and is approximately 300 feet wide. Analytical results for samples collected from wells LF-22 and LF-23 indicate that the GWETS has been successful in reducing the migration of VOC-affected groundwater present at Area A of the Site.

Analysis of samples from well MW-2 continue to indicate that TPHg-affected groundwater is migrating onto the property from the east.

Samples collected during March 1998 from deeper-zone well MW-7Z detected the presence of VOCs at low concentrations (0.0092 mg/l PCE). PCE had not been previously detected in samples collected from this well. PCE has not been detected above method detection limits (0.0005 mg/l) in the samples collected from the well since March 1998.

7.0 SCHEDULED ACTIVITIES

As discussed, selected wells will be monitored on a quarterly basis (every three months) for one year following the shutdown of the GWETS. The first monitoring event will take place between January 1 and March 31, 2001. Table 4 presents the schedule and analyses for the wells to be sampled. After one year of monitoring is completed, the data will be evaluated to assess the future monitoring schedule. The wells selected for quarterly monitoring were based on their locations and the historical analytical results of samples collected from the wells. The rationale for the selection of the wells to be monitored on a quarterly basis is as follows:

- Wells MW-22 and MW-23 were selected because they are located within approximately 100 feet of the downgradient side of the groundwater extraction trench, relative to the other groundwater monitoring wells.
- Well MW-9 was selected for quarterly groundwater monitoring because it is located within approximately 50 feet of the upgradient side of the groundwater extraction trench.
- Wells MW-4 and MW-5 were selected for quarterly groundwater monitoring because they are located within approximately 75 feet to the north side of (crossgradient from) the affected groundwater.

- Wells MW-6 and MW-7 were selected because samples collected from these wells have contained the highest concentrations of VOCs relative to the other groundwater samples collected at the Site.

LFR anticipates submitting a report summarizing those activities by April 2001.

REFERENCES

- LFR. 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. March 21.
- . 1994. Soils Management Plan for Petroleum Hydrocarbon-Affected Soils, Yerba Buena/East Baybridge Center, Emeryville and Oakland, California. November 30.
- . 1998. Groundwater Monitoring Plan, East Baybridge Center, Emeryville and Oakland, California. April 15.
- . 2000. Semiannual Monitoring Report for July 1 through December 31, 1999, East Baybridge Center, Emeryville and Oakland, California. January 25.

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	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
				19-Dec-95	13.38	14.09
				26-Feb-96	14.27	13.20
				29-Apr-96	14.69	12.78
				03-Sep-96	14.70	12.77
				13-Dec-96	(4)	
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
				19-Dec-95	6.95	30.28
				26-Feb-96	6.62	30.61
				29-Apr-96	7.92	29.31
				03-Sep-96	8.10	29.13
				13-Dec-96	6.59	30.64
				18-Feb-97	7.60	29.63
				26-May-97	8.16	29.07
				21-Aug-97	7.06	30.17
				02-Jan-98	7.87	29.36
				09-Mar-98	6.94	30.29
				14-Sep-98	7.79	29.44
25-Mar-99	6.93	30.30				
21-Sep-99	7.71	29.52				
10-May-00	7.35	29.88				
24-Oct-00	8.44	28.79				
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
				19-Dec-95	9.65	22.40
				26-Feb-96	8.80	23.25
				29-Apr-96	10.66	21.39
				03-Sep-96	10.51	21.54
				13-Dec-96	9.85	22.20
18-Feb-97	9.93	22.12				

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)
				26-May-97	10.66	21.39
				21-Aug-97	9.80	22.25
				02-Jan-98	10.75	21.30
				09-Mar-98	9.03	23.02
				14-Sep-98	9.82	22.23
				25-Mar-99	9.19	22.86
				21-Sep-99	10.04	22.01
				10-May-00	10.70	21.35
				24-Oct-00	11.23	20.82
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
				19-Dec-95	14.52	9.76
				26-Feb-96	13.29	10.99
				29-Apr-96	15.08	9.20
				03-Sep-96	14.70	9.58
				13-Dec-96	13.52	10.76
				18-Feb-97	13.92	10.36
				26-May-97	14.51	9.77
				21-Aug-97	14.40	9.88
				02-Jan-98	14.07	10.21
				09-Mar-98	13.39	10.89
				14-Sep-98	14.30	9.98
				25-Mar-99	12.99	11.29
				21-Sep-99	14.45	9.83
				09-May-00	14.25	10.03
				24-Oct-00	15.17	9.11
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
				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
				26-May-97	13.90	8.29

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)
				21-Aug-97	13.71	8.48
				02-Jan-98	13.54	8.65
				09-Mar-98	12.88	9.31
				14-Sep-98	13.88	8.31
				25-Mar-99	12.34	9.85
				21-Sep-99	14.00	8.19
				09-May-00	13.75	8.44
				24-Oct-00	14.61	7.58
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
				26-May-97	12.40	16.14
				21-Aug-97	12.31	16.23
				02-Jan-98	12.18	16.36
				09-Mar-98	11.37	17.17
				14-Sep-98	12.24	16.30
				25-Mar-99	10.69	17.85
				21-Sep-99	12.70	15.84
				10-May-00	12.68	15.86
				24-Oct-00	13.78	14.76
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
				26-May-97	11.08	15.21
				21-Aug-97	10.92	15.37
				02-Jan-98	10.78	15.51
				09-Mar-98	10.06	16.23

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)
				14-Sep-98	10.95	15.34
				25-Mar-99	10.13	16.16
				21-Sep-99	11.32	14.97
				09-May-00	11.35	14.94
				24-Oct-00	12.32	13.97
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
				03-Sep-96	9.67	14.73
				13-Dec-96	9.20	15.20
				18-Feb-97	9.30	15.10
				26-May-97	9.50	14.90
				21-Aug-97	9.06	15.34
				02-Jan-98	9.38	15.02
				09-Mar-98	8.51	15.89
				14-Sep-98	9.38	15.02
				25-Mar-99	8.95	15.45
				21-Sep-99	9.55	14.85
				09-May-00	9.70	14.70
				24-Oct-00	10.62	13.78
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
				26-May-97	18.60	5.57
				21-Aug-97	17.32	6.85
				02-Jan-98	15.33	8.84
				09-Mar-98	17.41	6.76
				14-Sep-98	18.45	5.72
				25-Mar-99	17.85	6.32
				21-Sep-99	17.82	6.35

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)
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
				26-May-97	6.61	6.60
				21-Aug-97	6.82	6.39
				02-Jan-98	6.60	6.61
				09-Mar-98	5.95	7.26
				14-Sep-98	6.45	6.76
				25-Mar-99	5.71	7.50
				21-Sep-99	7.20	6.01
				09-May-00	6.80	6.41
				24-Oct-00	7.39	5.82
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
				26-May-97	10.83	-0.41
				21-Aug-97	10.53	-0.11
				02-Jan-98	10.05	0.37
				09-Mar-98	10.10	0.32
				14-Sep-98	10.71	-0.29
				25-Mar-99	9.95	0.47
				21-Sep-99	10.94	-0.52
				10-May-00	10.50	-0.08
				24-Oct-00	11.13	-0.71
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
				26-May-97	7.45	11.69
				21-Aug-97	7.06	12.08
				02-Jan-98	7.30	11.84
				09-Mar-98	7.04	12.10
				14-Sep-98	7.38	11.76

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)
				25-Mar-99	7.05	12.09
				21-Sep-99	7.43	11.71
				24-Oct-00	7.65	11.49
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
				26-May-97	9.10	6.42
				21-Aug-97	9.32	6.20
				02-Jan-98	8.98	6.54
				09-Mar-98	8.29	7.23
				14-Sep-98	8.95	6.57
				25-Mar-99	8.04	7.48
				21-Sep-99	9.67	5.85
				24-Oct-00	9.91	5.61
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
				03-Sep-96	12.21	-0.24
				13-Dec-96	11.36	0.61
				18-Feb-97	11.74	0.23
				26-May-97	11.74	0.23
				21-Aug-97	11.51	0.46
				02-Jan-98	12.18	-0.21
				09-Mar-98	11.46	0.51
				14-Sep-98	11.22	0.75
				25-Mar-99	10.93	1.04
				21-Sep-99	11.72	0.25
				10-May-00	11.75	0.22
				24-Oct-00	12.13	-0.16
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
				21-Aug-97	NM	NM
				02-Jan-98	NM	NM
				09-Mar-98	NM	NM
				14-Sep-98	NM	NM

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)
				25-Mar-99	NM	NM
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
				26-May-97	10.90	7.09
				21-Aug-97	10.75	7.24
				02-Jan-98	9.33	8.66
				09-Mar-98	9.23	8.76
				14-Sep-98	10.55	7.44
				25-Mar-99	9.26	8.73
				21-Sep-99	10.03	7.96
				09-May-00	10.20	7.79
				24-Oct-00	11.88	6.11
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
				26-May-97	10.71	7.28
				21-Aug-97	10.75	7.24
				02-Jan-98	9.57	8.42
				09-Mar-98	9.21	8.78
				14-Sep-98	10.97	7.02
				25-Mar-99	9.21	8.78
				21-Sep-99	10.35	7.64
				09-May-00	10.65	7.34
				24-Oct-00	12.40	5.59

Extraction Wells

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)
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
				18-Feb-97	20.55	2.96
				26-May-97	19.40	4.11
				21-Aug-97	20.70	2.81
				02-Jan-98	9.70	13.81
				09-Mar-98	20.60	2.91
				14-Sep-98	NM	NM
				25-Mar-99	19.15	4.36
24-Oct-00	22.40	1.11				
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
				26-May-97	23.50	-3.47
				21-Aug-97	23.46	-3.43
				02-Jan-98	NM	NM
				09-Mar-98	NM	NM
				14-Sep-98	22.05	-2.02
				25-Mar-99	22.35	-2.32
24-Oct-00	18.92	1.11				
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

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	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
				26-May-97	13.11	7.85
				21-Aug-97	13.15	7.81
				02-Jan-98	10.86	10.10
				09-Mar-98	12.03	8.93
				14-Sep-98	15.36	5.60
				25-Mar-99	11.80	9.16
				21-Sep-99	16.80	4.16
				24-Oct-00	14.51	6.45
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
				26-May-97	21.00	3.40
				21-Aug-97	18.67	5.73
				02-Jan-98	13.09	11.31
				09-Mar-98	20.90	3.50
				14-Sep-98	20.28	4.12
				25-Mar-99	18.85	5.55
				21-Sep-99	20.15	4.25
				24-Oct-00	20.42	3.98
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
				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

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)
				26-May-97	16.50	11.98
				21-Aug-97	10.86	17.62
				02-Jan-98	11.21	17.27
				09-Mar-98	9.97	18.51
				14-Sep-98	11.85	16.63
				25-Mar-99	11.55	16.93
				21-Sep-99	11.56	16.92
				10-May-00	14.50	13.98
				24-Oct-00	13.72	14.76
MW-7D	26.27	40	27-40	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
				26-May-97	10.90	15.37
				21-Aug-97	10.75	15.52
				02-Jan-98	10.60	15.67
				09-Mar-98	9.87	16.40
				14-Sep-98	10.77	15.50
				25-Mar-99	9.98	16.29
				21-Sep-99	11.15	15.12
				09-May-00	11.15	15.12
				24-Oct-00	12.13	14.14
MW-9D	24.17	45	32-45	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
				26-May-97	17.14	7.03
				21-Aug-97	17.22	6.95
				02-Jan-98	16.10	8.07

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)
				09-Mar-98	15.11	9.06
				14-Sep-98	17.29	6.88
				25-Mar-99	14.86	9.31
				21-Sep-99	17.50	6.67
Deep Well						
MW-7Z	25.96	65	50-65	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
				26-May-97	13.00	12.96
				21-Aug-97	11.10	14.86
				02-Jan-98	NM	NM
				09-Mar-98	7.93	18.03
				14-Sep-98	10.72	15.24
				25-Mar-99	9.04	16.92
				21-Sep-99	10.50	15.46
				10-May-00	11.20	14.76
				24-Oct-00	11.76	14.20

Data updated by JCK 01/23/01 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.
- (4) Monitoring Well MW-1 was abandoned in December 1996.
- NA Not applicable, well associated with extraction trench.
- NM Water level not measured.

Table 2A: Summary of Sampling QA/QC
East Baybridge Center, Emeryville and Oakland, California

Site Name	Site Address	Monitoring Period Covered
East Baybridge Center	East Baybridge Center Emeryville and Oakland, CA	July 1 through December 31, 2000
Sampling Performed By: M. Dance Firm Name: LFR Levine - Fricke Firm Address: 1900 Powell Street, Emeryville, California Firm Contact: Ron Goloubow Firm Telephone 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 stabilized prior to taking samples?		<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 JK. QA/QC by SXS.

**Table 2B: Summary of Analytical QA/QC
East Baybridge Center, Emeryville and Oakland, California**

Site Name:	Site Address:	Monitoring Period Covered:
East Baybridge Center	East Baybridge Center Emeryville and Oakland, CA	July 1 through December 31, 2000
Analysis Performed By: Lab Name: Curtis and Tompkins, Ltd. Lab Address: 2323 Fifth Street, Berkeley, CA Lab Contact: Tracy Babjar Lab Telephone Number: 510-486-0900		
Analytical Method Used: (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 ₃) 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 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 checked="" 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 type="checkbox"/> TPH gasoline 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 type="checkbox"/>	Yes <input type="checkbox"/> No
Were analyses performed according to standard methods?	<input type="checkbox"/>	Yes <input type="checkbox"/> No
Were sample holding times met?	<input 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 type="checkbox"/>	Yes <input type="checkbox"/> No
Did QA/QC results meet all acceptance criteria?	<input type="checkbox"/>	Yes <input type="checkbox"/> No
Are QA/QC results and acceptance criteria on file?	<input type="checkbox"/>	Yes <input type="checkbox"/> No
For any questions above answered with "No", please provide an explanation: *		

Data entered by t . 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.

Table 3
Semiannual 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	Ethylbenzene	Total Xylenes	TCE	1,1,1-TCA	PCE	1,1-DCE	1,1-DCA	1,2-DCA	cis/trans-1,2-DCE	Total VOCs
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Data entered by JIC Data proofed by KVP and QA/QC by JXS

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

ENY = Entech Analytical Labs, Inc in Sunnyvale, California

Tompkins, Berkeley, CA

AEN = American Environmental Network in Pleasant Hill, California

ANA = Incheape Testing Anamatrix, Inc. in San Jose, California

AZAC - Aqua Air (A2) Analytical Corporation

NA = parameter not analyzed

ND = parameter not detected

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
- (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

Table 3
Semiannual 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	Total VOCs
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- (38) Methylene Chloride-0.001
- (39) Chloroform-0 0007.
- (40) Bromodichloromethane-0 0014, Chloroform-0 043
- (41) Chloroform-0.0009.
- (42) TPH as Oil .0003
- (43) Chloroform-0 0009
- (44) Methyl t-Butyl Ether 0 063
- (45) Chloroform 0 0006
- (46) Bromodichloromethane 0.0010, Chloroform 0 015
- (47) Vinyl chloride 0.006
- (48) Vinyl chloride 0 006
- (49) 1,1,2-Trichlorotrifluoroethane
- (50) A duplicate sample was collected at MW-7D The results for this sample were rejected based on Entech's conclusion that the sample reported false positive results because of cross contamination by the laboratory.
- (51) Vinyl chloride .0072
- (52) Chloroform 0 025
- (53) Chloroform 0.0011
- (54) Freon 113 0.0013
- (55) Vinyl Chloride 0 015 and Trichlorofluoromethane 0.0027
- (56) Chloroform 0.001
- (57) Chloroform 0.0012
- (58) Vinyl Chloride 0.010
- (59) Chloroform 0.0023
- (60) Vinyl chloride .0082
- (61) Vinyl chloride 0029
- (62) Chloroform 0.0006
- (63) Vinyl chloride 0017
- (64) Vinyl chloride .008
- (65) Vinyl chloride .010
- (66) Vinyl chloride 0092
- (67) Vinyl chloride 0063
- (68) Vinyl chloride .0066
- (69) Vinyl chloride 0019 and Chloroform 0.0006
- (70) Vinyl chloride 013
- (71) Vinyl chloride .0007

Table 4
Groundwater Monitoring Schedule
East Baybridge Center
Emeryville and Oakland, California

Quarterly Period	Well Identification	Analysis
Jan- Mar	MW-4, MW-5, MW-6, MW-7, MW-9, LF-22, LF-23	VOCs, TPHd, TPHo
Apr-June	MW-2, MW-3	VOCs, TPHg & BTEX
	MW-4, MW-5, MW-6, MW-7, MW-8, MW-9, MW-10R, MW-12R, LF-22, LF-23, MW-34	VOCs
Jul- Sept	MW-4, MW-5, MW-6, MW-7, MW-9, LF-22, LF-23	VOCs, TPHd, TPHo
Oct-Dec	MW-2, MW-3	VOCs, TPHg & BTEX
	MW-4, MW-5, MW-6, MW-7, MW-8, MW-9, MW-10R, MW-12R, LF-22, LF-23, MW-34	VOCs

NOTES:

The samples will be collected in accordance with the methods provided in LFR's December 19, 1994 "Groundwater Monitoring Plan, East Baybridge Center, Emeryville and Oakland, California."

Analysis for TPHg, TPHd, and TPHo will use EPA Method 8015, modified.

Analysis for BTEX will use EPA Method 8020.

Analysis for VOCs will use EPA Method 8010.

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

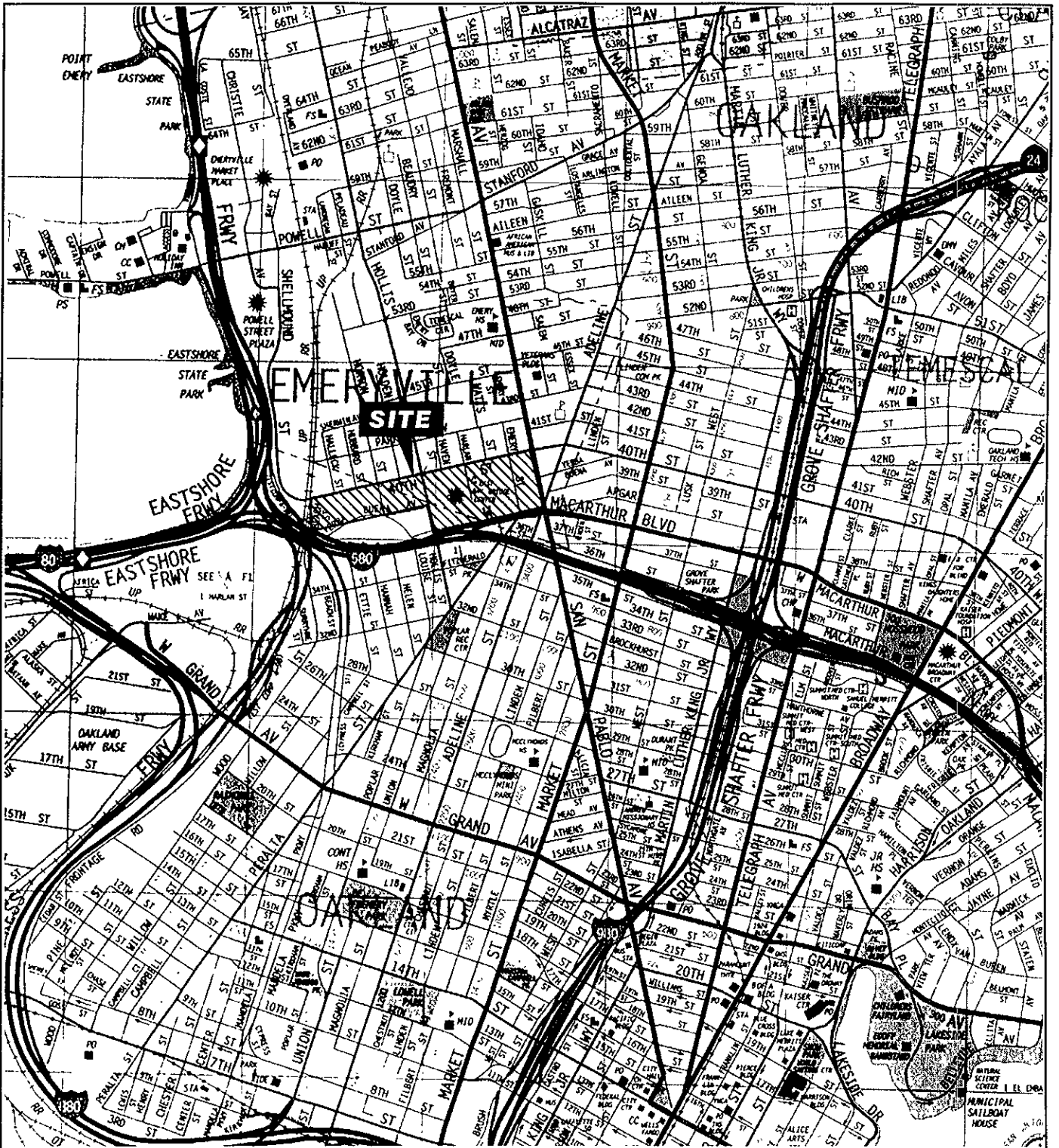
BTEX = benzene, toluene, ethylbenzene, and xylenes

TPHd = total petroleum hydrocarbons as diesel

TPHg = total petroleum hydrocarbons as gasoline

TPHo = total petroleum hydrocarbons as oil

VOCs = volatile organic compounds



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 Alameda/Contra Costa County
 1998 Edition



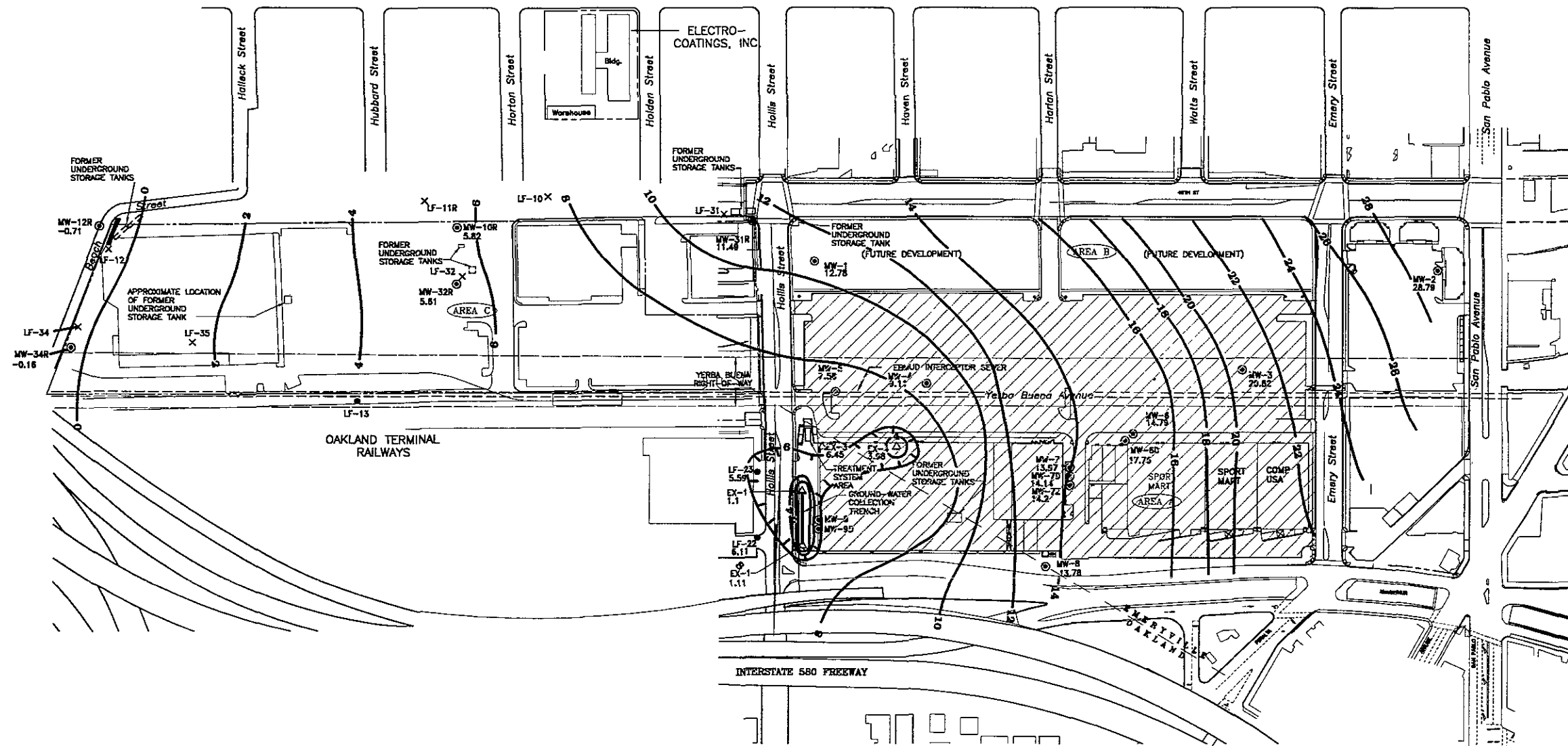
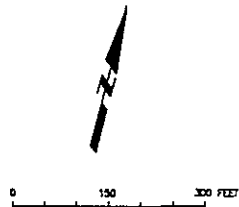
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Site Location Map

EAST BAY BRIDGE CENTER



Figure 1



- EXPLANATION**
- ⊙ MONITORING WELL LOCATION
 - △ EXTRACTION WELL
 - × ABANDONED GROUND WATER MONITORING WELL
 - APPROXIMATE PROPERTY LINE
 - 29.31 GROUND-WATER ELEVATION
 - 12 GROUND-WATER ELEVATION CONTOUR (FEET, MSL)
 - ▨ RETAIL DEVELOPMENT WITH PETROLEUM AFFECTED SOIL ON SITE

REVISION	DESIGN	DRAWN	CHECKED	DATE

SCALE : _____
 DESIGN : _____
 DRAWN : _____
 CHECKED : _____

LEVINE • FRICKE
 ENGINEERS, HYDROGEOLOGISTS & APPLIED SCIENTISTS
 Emeryville, California

CATELLUS DEVELOPMENT CORPORATION

CATELLUS DEVELOPMENT CORPORATION

YERBA BUENA/EAST BAYBRIDGE DEVELOPMENT
 Figure 2
 SITE PLAN SHOWING
 GROUND-WATER ELEVATIONS IN SHALLOW WELLS
 OCTOBER 24, 2000

Project No. 1649
 Date JUNE 96
 Sheet of

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 volatile organic compounds (VOCs) analyses were collected by pouring groundwater directly from the bailer into laboratory-supplied, 40-milliliter volatile organic analysis 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 Curtis and Tompkins, Ltd., a state-certified laboratory in Berkeley, California, under strict chain-of-custody protocols. For quality assurance/quality control, a duplicate sample was collected from well MW-7 and analyzed for VOCs.