

October 6, 1995

Ms. Susan Hugo  
Senior Hazardous Materials Specialist  
Alameda County Department of Health Services  
Division of Hazardous Materials  
1131 Harbor Bay Parkway, 2nd Floor  
Alameda, California 94502

**QUARTERLY GROUNDWATER MONITORING AND SITE STATUS REPORT, THIRD QUARTER 1995, CITY OF EMERYVILLE FORMER FIRE STATION PROJECT, 4331 SAN PABLO AVENUE, EMERYVILLE, CALIFORNIA**

Dear Ms. Hugo:

On behalf of the City of Emeryville, SECOR International Incorporated (*SECOR*) is pleased to submit this Quarterly Groundwater Monitoring and Site Status Report for the former City of Emeryville Fire Station located at 4331 San Pablo Avenue in Emeryville, California (the "Site"). This report presents monitoring well sounding, groundwater elevation, and groundwater quality data collected from one Site well by *SECOR* on September 11, 1995. This report also summarizes all Site-related activities conducted during the third quarter of 1995 and projected activities for the fourth quarter 1995.

**SITE DESCRIPTION AND BACKGROUND**

The Site is located in a mixed residential and light commercial area in the northwest portion of the City of Emeryville, in the northwest portion of Alameda County, California. The Site is bounded to the east by San Pablo Avenue (Figure 1). The Site is improved with two single story buildings and adjacent asphalt paved parking areas (Figure 2).

On July 26, 1994, *SECOR* supervised and documented the removal of one 1,000-gallon UST, associated equipment, and underground piping. Following removal of the UST, *SECOR* collected one soil sample from beneath the UST and one from beneath the fuel dispenser at the direction of an inspector from the Alameda County Department of Health Services (ACDHS). Analytical results indicated the presence of gasoline-range and diesel-range petroleum hydrocarbons in soil samples analyzed. The results of the UST removal and soil sampling were presented in *SECOR's Summary Report for Tank Removal and Soil Excavation, City of Emeryville Fire Station*, dated August 17, 1994.

On August 16, 1994, overexcavation of soil beneath the former fuel dispenser was performed. In addition, soil samples were collected from each of the four sidewalls of the UST excavation at that time. Confirmatory soil sampling beneath the former fuel dispenser revealed that the overexcavation was successful in removing petroleum hydrocarbon-affected soil beneath the fuel dispenser. UST sidewall sample results revealed the presence of gasoline-range hydrocarbons at concentrations up to 190 milligrams per kilogram (mg/kg) and diesel-range hydrocarbons at concentrations up to 260 mg/kg. The results of the overexcavation and UST sidewall sampling were presented in *SECOR's report Soil Sampling Results, 4331 San Pablo Avenue, Emeryville, California*, dated August 25, 1994.

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PROTECTION  
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Based on the results of the UST sidewall soil samples, the ACDHS requested the City of Emeryville to install a monitoring well downgradient and within ten feet of the former UST. On February 7, 1995, SECOR requested information from Ms. Hugo to confirm the groundwater flow direction at the Site. Ms. Hugo provided groundwater information from the New Century Beverage Company site located directly adjacent to the Site. Based on the telephone conversation between SECOR and ACDHS, the confirmed groundwater flow direction was determined to be to the south-southwest.

On February 21, 1995, SECOR drilled one soil boring to a depth of 23 feet below ground surface (bgs) at the location shown on Figure 2. A groundwater monitoring well was installed in the soil boring following completion of drilling and sampling activities. Two soil samples were selected for chemical analysis during drilling procedures. Following monitoring well installation, the well was developed and a groundwater sample was collected and analyzed. On May 24, 1995, the groundwater monitoring well was sounded and sampled in accordance with the requirement for quarterly monitoring. The results of the well installation and sampling, and second quarter 1995 quarterly monitoring and sampling event are presented in SECOR's report *Results of Preliminary Groundwater Investigation and Quarterly Monitoring, City of Emeryville Former Fire Station Project, 4331 San Pablo Avenue, Emeryville, California*, dated September 8, 1995.

#### **QUARTERLY GROUNDWATER MONITORING PROCEDURES**

On September 11, 1995, groundwater monitoring well MW-1 was sounded and sampled by SECOR. The depth to groundwater and total well depth were measured using an electronic water-level indicator and recorded on a Groundwater Sample Field Data Sheet. Prior to sampling, the well was purged of approximately three wellbore volumes of water using a PVC bailer. During purging the evacuated groundwater was measured for pH, electrical conductivity, and temperature, and water visually inspected for color. Parameter results were recorded on a Groundwater Sample Field Data Sheet (see Attachment 1). Upon removal of the appropriate purge volume and stabilization of the measured parameters, a groundwater sample was collected from the well using a disposable PVC bailer. The sample was decanted into laboratory-supplied glassware and placed in a cooler containing ice for transport to NET Laboratories. The groundwater sample was analyzed for TPHg, TPHd, and BTEX compounds by EPA Methods 5030/8015 modified and 8020, respectively. Additionally, as a quality control measure, a trip blank was analyzed for TPHg and BTEX.

#### **SUMMARY OF RESULTS**

Results of quarterly groundwater monitoring activities for the third quarter of 1995, and historic monitoring well sounding and groundwater chemical data are summarized on Table 1.

#### **Monitoring Well Sounding**

During this monitoring event, groundwater was measured at a depth of 11.00 feet below the top of the PVC casing. Depth to groundwater has decreased by 2.50 feet during this monitoring event when compared with the second quarter 1995 event.

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### Groundwater Chemical Results

The groundwater sample exhibited pH values ranging from 7.91 to 8.57 pH units; temperatures ranging from 67.9 to 68.5 degrees Fahrenheit; specific conductivities ranging from 896 to 914 micromhos per centimeter ( $\mu\text{mhos/cm}$ ); and was tan in color. No measurable thickness of free phase petroleum product (free product) was present in the monitoring well, however, a slight sheen was reported on the Water Sample Field Data Sheet. Laboratory analytical reports and chain-of-custody records are included in Attachment 2.

During this sampling event, the groundwater sample collected from well MW-1 was reported to contain TPHg and TPHd at concentrations of 0.7 and 1.8 milligrams per liter ( $\text{mg/l}$ ), respectively, and benzene, toluene, ethylbenzene, and xylenes at concentrations of 43 micrograms per liter ( $\mu\text{g/l}$ ), 2.4  $\mu\text{g/l}$ , 4.9  $\mu\text{g/l}$ , and 5.9  $\mu\text{g/l}$ , respectively. The diesel concentration detected by the laboratory reported an atypical chromatogram pattern when compared to the laboratory standard. In general, the reported TPHg, TPHd and BTEX concentrations decreased when compared to the second quarter 1995 chemical data.

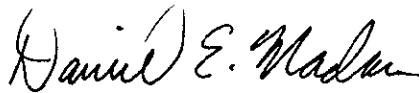
### PLANNED ACTIVITIES FOR FOURTH (OCTOBER THROUGH DECEMBER) QUARTER 1995

- Continued quarterly groundwater monitoring and reporting.

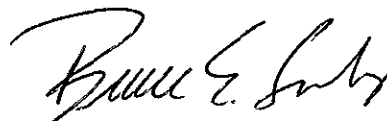
Please do not hesitate to contact us at (415) 882-1548 with any question or comments regarding this document.

Sincerely,

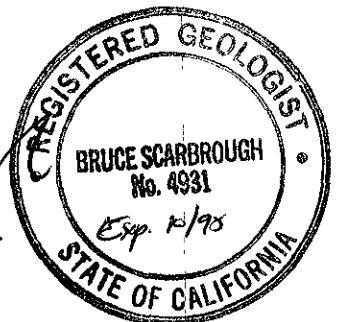
**SECOR International Incorporated**



Daniel E. Madsen  
Project Manager



Bruce E. Scarbrough, R.G.  
Principal Geologist



cc: Mr. Juan Arreguin, City of Emeryville  
Ms. Teresa Chow, City of Emeryville

### Attachments:

Table 1 - Groundwater Monitoring Data - Third Quarter 1995 and Historic Monitoring Well Sounding and Groundwater Chemical Data

Figure 1 - Site Location Map

Figure 2 - Site Plan

Appendix A - Field Report and Groundwater Sample Field Data Sheets

Appendix B - Laboratory Analytical Reports and Chain-of-Custody Records

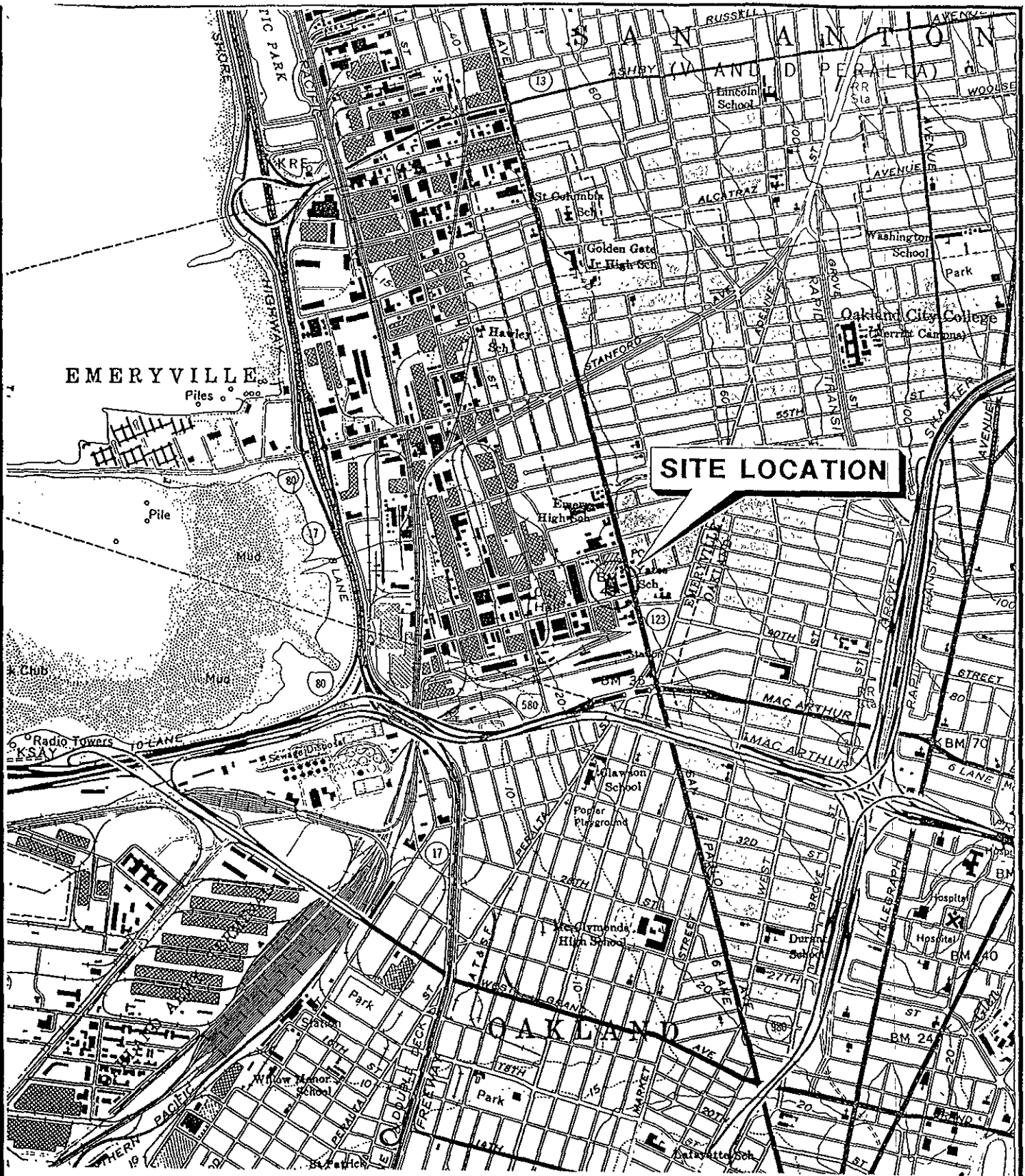
**TABLE 1**  
**GROUNDWATER MONITORING DATA - THIRD QUARTER 1995**  
**AND HISTORIC MONITORING WELL SOUNDING AND GROUNDWATER CHEMICAL DATA**  
**FORMER CITY OF EMERYVILLE FIRE STATION**

4331 San Pablo Avenue  
 Emeryville, California

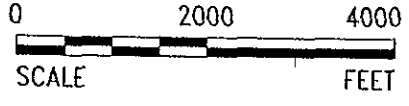
| SAMPLE I.D. | SAMPLE DATE | Depth to Water <sup>(1)</sup> | TPHg <sup>(2)</sup> (mg/l) <sup>(4)</sup> | TPHd <sup>(3)</sup> (mg/l) | Benzene (µg/l) <sup>(5)</sup> | Toluene (µg/l) | Ethylbenzene (µg/l) | Xylenes (µg/l) |
|-------------|-------------|-------------------------------|---|----------------------------|-------------------------------|----------------|---------------------|----------------|
| MW-1        | 2/24/95     | 4.79                          | 1.6                                       | 1.2 <sup>(6)</sup>         | 170                           | 7.2            | 26                  | 84             |
| MW-1        | 5/24/95     | 8.50                          | 1.4                                       | 1.2 <sup>(6)</sup>         | 320                           | 3.5            | 29                  | 28             |
| MW-1        | 9/11/95     | 11.00                         | 0.7                                       | 1.8 <sup>(6)</sup>         | 43                            | 2.4            | 4.9                 | 5.9            |

Notes:

- (1) = Depth below top of casing measured in feet.
- (2) = Total petroleum hydrocarbons as gasoline.
- (3) = Total petroleum hydrocarbons as diesel.
- (4) = Milligrams per liter.
- (5) = Micrograms per liter.
- (6) = Atypical chromatogram pattern; see Certified Analytical Report.



SOURCE: BASE MAP FROM U.S.G.S. OAKLAND, WEST CA QUADRANGLE. 7.5 MINUTE SERIES TOPOGRAPHIC, PHOTOREVISED 1980.

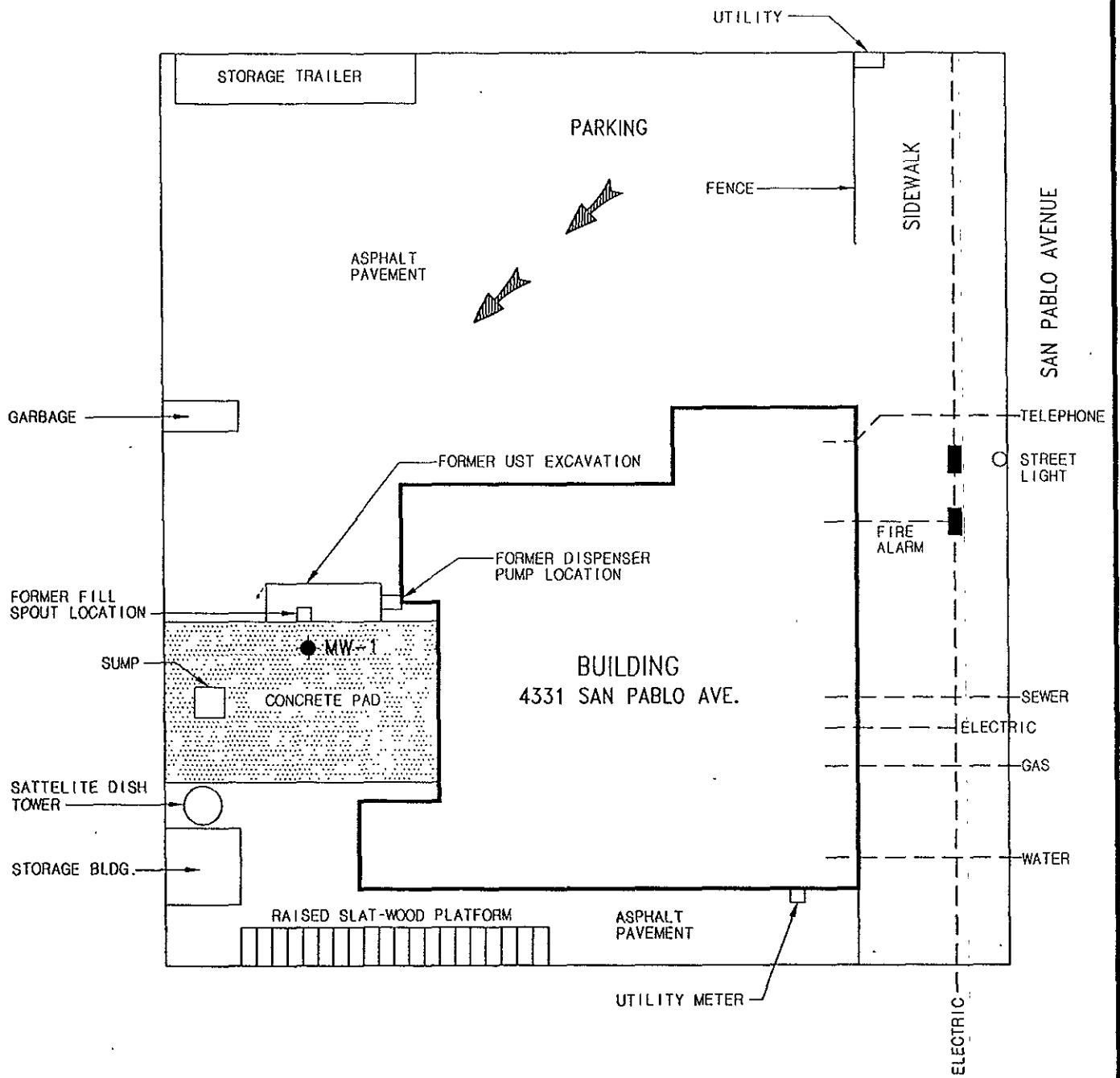


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**SECOR**  
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INCORPORATED

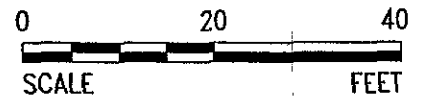
|         |              |
|---------|--------------|
| DRAWN   | CCR          |
| APPR    | DEM          |
| DATE    | 04AUG94      |
| JOB NO. | 50100-003-02 |

FIGURE 1  
CITY OF EMERYVILLE  
4331 SAN PABLO AVENUE  
EMERYVILLE, CALIFORNIA  
**SITE LOCATION MAP**



**LEGEND:**

- ◆ MW-1 GROUNDWATER MONITORING WELL
- ↘ GROUNDWATER FLOW DIRECTION



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**SECOR  
INTERNATIONAL  
INCORPORATED**

|         |              |
|---------|--------------|
| DRAWN   | CCR          |
| APPR    | DEM          |
| DATE    | 03MAR95      |
| JOB NO. | 50100-003-02 |

FIGURE 2  
CITY OF EMERYVILLE  
4331 SAN PABLO AVENUE  
EMERYVILLE, CALIFORNIA

**SITE PLAN**

**DRAFT**

**ATTACHMENT 1**

**Field Report, Groundwater Sample Field Data Sheets and Groundwater Monitoring Procedures**





# SEACOR WATER SAMPLE FIELD DATA SHEET

PROJECT NO: 50/00-003-02  
 PURGED BY: LB  
 SAMPLED BY: LZ

WELL ID: MW-1  
 SAMPLE ID: MW-1  
 CLIENT NAME: City of Emeryville  
 LOCATION: Emeryville, CA

TYPE: Groundwater  Surface Water \_\_\_\_\_ Treatment Effluent \_\_\_\_\_ Other \_\_\_\_\_  
 CASING DIAMETER (inches): 2  3 \_\_\_\_\_ 4 \_\_\_\_\_ 4.5 \_\_\_\_\_ 6 \_\_\_\_\_ Other \_\_\_\_\_

|                                     |                                    |
|-------------------------------------|------------------------------------|
| CASING ELEVATION: (feet/MSL): _____ | VOLUME IN CASING (gal) <u>1.7</u>  |
| DEPTH TO WATER (feet): <u>11</u>    | CALCULATED PURGE (gal) <u>5.1</u>  |
| DEPTH OF WELL (feet): <u>21</u>     | ACTUAL PURGE VOL. (gal) <u>5.5</u> |

DATE PURGED: 9/11/95 Start (2400 Hr) 1025 End (2400 Hr) 1045  
 DATE SAMPLED: 9/11/95 Start (2400 Hr) \_\_\_\_\_ End (2400 Hr) 1055

FIELD QC SAMPLES COLLECTED AT THIS WELL (i.e. FB-1, X-DUP-1): \_\_\_\_\_

### FIELD MEASUREMENTS

| TIME (2400 Hr) | VOLUME (gal) | pH (units)  | E.C. (umho/cm@25°C) | TEMPERATURE (°F) | COLOR (visual) | TURBIDITY (NTU) |
|----------------|--------------|-------------|---------------------|------------------|----------------|-----------------|
| <u>1033</u>    | <u>2</u>     | <u>8.51</u> | <u>914</u>          | <u>68.5</u>      | <u>Trace</u>   | <u>High</u>     |
| <u>1037</u>    | <u>3</u>     | <u>8.52</u> | <u>902</u>          | <u>68.0</u>      | <u>✓</u>       | <u>✓</u>        |
| <u>1045</u>    | <u>5.5</u>   | <u>7.91</u> | <u>896</u>          | <u>67.0</u>      | <u>✓</u>       | <u>✓</u>        |
| _____          | _____        | _____       | _____               | _____            | _____          | _____           |
| _____          | _____        | _____       | _____               | _____            | _____          | _____           |

D.O. (ppm): \_\_\_\_\_ COLOR, COBALT (0-100): \_\_\_\_\_

ODOR: Smell like gas very little sweet

#### PURGING EQUIPMENT

- \_\_\_\_\_ 2" Bladder Pump \_\_\_\_\_ Baller (Teflon®)
- \_\_\_\_\_ Centrifugal Pump \_\_\_\_\_ Baller (PVC)
- \_\_\_\_\_ Submersible Pump \_\_\_\_\_ Baller (Stainless Steel)
- \_\_\_\_\_ Well Wizard™ \_\_\_\_\_ Dedicated

Other: Disposable bailer

#### SAMPLING EQUIPMENT

- \_\_\_\_\_ 2" Bladder Pump \_\_\_\_\_ Baller (Teflon®)
- \_\_\_\_\_ DDL Sampler  Baller (PVC/Disposable)
- \_\_\_\_\_ Submersible Pump \_\_\_\_\_ Baller (Stainless Steel)
- \_\_\_\_\_ Well Wizard™ \_\_\_\_\_ Dedicated

Other: \_\_\_\_\_

WELL INTEGRITY: Good LOCK #: Dolphin

REMARKS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**DRAFT**

**ATTACHMENT 2**

**Laboratory Certified Analytical Reports and Chain-of-Custody Records**



NATIONAL  
ENVIRONMENTAL  
TESTING, INC.

Santa Rosa Division  
3636 North Laughlin Road  
Suite 110  
Santa Rosa, CA 95403-8226  
Tel: (707) 526-7200  
Fax: (707) 541-2333

Dan Madsen  
Secor  
90 New Montgomery  
Suite 620  
San Francisco, CA 94105

Date: 09/29/1995  
NET Client Acct. No: 74000  
NET Job No: 95.03603  
Received: 09/12/1995

Client Reference Information

City of Emeryville/Proj. No. 50100-003-02/Task No. 00

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Should you have questions regarding procedures or results, please feel free to call me at (707) 541-2305.

Submitted by:



Jennifer L. Roseberry  
Project Manager

Enclosure(s)





Client Name: Secor  
 Client Acct: 74000  
 NET Job No: 95.03603

Date: 09/29/1995  
 ELAP Cert: 1386  
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Ref: City of Emeryville/Proj. No. 50100-003-02/Task No. 00

SAMPLE DESCRIPTION: MW-1  
 Date Taken: 09/11/1995  
 Time Taken: 10:55  
 NET Sample No: 250759

| Parameter                   | Results | Flags | Reporting |        | Method | Date       | Date       | Run       |
|-----------------------------|---------|-------|-----------|--------|--------|------------|------------|-----------|
|                             |         |       | Limit     | Units  |        | Extracted  | Analyzed   | Batch No. |
| TPH (Gas/BTXE,Liquid)       |         |       |           |        |        |            |            |           |
| METHOD 5030/M8015           | --      |       |           |        |        |            | 09/25/1995 | 3199      |
| DILUTION FACTOR*            | 1       |       |           |        |        |            | 09/25/1995 | 3199      |
| as Gasoline                 | 0.7     |       | 0.05      | mg/L   | 5030   |            | 09/25/1995 | 3199      |
| METHOD 8020 (GC,Liquid)     | --      |       |           |        |        |            | 09/25/1995 | 3199      |
| Benzene                     | 43      | *     | 0.5       | ug/L   | 8020   |            | 09/25/1995 | 3199      |
| Toluene                     | 2.4     |       | 0.5       | ug/L   | 8020   |            | 09/25/1995 | 3199      |
| Ethylbenzene                | 4.9     |       | 0.5       | ug/L   | 8020   |            | 09/25/1995 | 3199      |
| Xylenes (Total)             | 5.9     |       | 0.5       | ug/L   | 8020   |            | 09/25/1995 | 3199      |
| SURROGATE RESULTS           | --      |       |           |        |        |            | 09/25/1995 | 3199      |
| Bromofluorobenzene (SURR)   | 105     |       |           | % Rec. | 5030   |            | 09/25/1995 | 3199      |
| METHOD M8015 (EXT., Liquid) |         |       |           |        |        | 09/13/1995 |            |           |
| DILUTION FACTOR*            | 1       |       |           |        |        |            | 09/15/1995 | 1071      |
| as Diesel                   | 1.8     | D-    | 0.05      | mg/L   | 3510   |            | 09/15/1995 | 1071      |

D- : The positive result has an atypical pattern for Diesel analysis.

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.



Client Name: Secor  
Client Acct: 74000  
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Date: 09/29/1995  
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Ref: City of Emeryville/Proj. No. 50100-003-02/Task No. 00

SAMPLE DESCRIPTION: TB  
Date Taken:  
Time Taken:  
NET Sample No: 250760

| Parameter                 | Results | Flags | Reporting |        | Method | Date      | Date       | Run   |
|---------------------------|---------|-------|-----------|--------|--------|-----------|------------|-------|
|                           |         |       | Limit     | Units  |        | Extracted | Analyzed   | Batch |
| TPH (Gas/BTXE,Liquid)     |         |       |           |        |        |           |            |       |
| METHOD 5030/M8015         | --      |       |           |        |        |           | 09/25/1995 | 3199  |
| DILUTION FACTOR*          | 1       |       |           |        |        |           | 09/25/1995 | 3199  |
| as Gasoline               | ND      |       | 0.05      | ug/L   | 5030   |           | 09/25/1995 | 3199  |
| METHOD 8020 (GC,Liquid)   | --      |       |           |        |        |           | 09/25/1995 | 3199  |
| Benzene                   | ND      |       | 0.5       | ug/L   | 8020   |           | 09/25/1995 | 3199  |
| Toluene                   | ND      |       | 0.5       | ug/L   | 8020   |           | 09/25/1995 | 3199  |
| Ethylbenzene              | ND      |       | 0.5       | ug/L   | 8020   |           | 09/25/1995 | 3199  |
| Xylenes (Total)           | ND      |       | 0.5       | ug/L   | 8020   |           | 09/25/1995 | 3199  |
| SURROGATE RESULTS         | --      |       |           |        |        |           | 09/25/1995 | 3199  |
| Bromofluorobenzene (SURR) | 87      |       |           | % Rec. | 5030   |           | 09/25/1995 | 3199  |

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## CONTINUING CALIBRATION VERIFICATION STANDARD REPORT

| Parameter                   | CCV                 | CCV                   | CCV                      | Units  | Date Analyzed | Analyst Initials | Run Batch Number |
|-----------------------------|---------------------|-----------------------|--------------------------|--------|---------------|------------------|------------------|
|                             | Standard % Recovery | Standard Amount Found | Standard Amount Expected |        |               |                  |                  |
| TPH (Gas/BTXE, Liquid)      |                     |                       |                          |        |               |                  |                  |
| as Gasoline                 | 104.0               | 0.52                  | 0.50                     | mg/L   | 09/25/1995    | jem              | 3199             |
| Benzene                     | 105.4               | 5.27                  | 5.00                     | ug/L   | 09/25/1995    | jem              | 3199             |
| Toluene                     | 103.6               | 5.18                  | 5.00                     | ug/L   | 09/25/1995    | jem              | 3199             |
| Ethylbenzene                | 102.4               | 5.12                  | 5.00                     | ug/L   | 09/25/1995    | jem              | 3199             |
| Xylenes (Total)             | 100.7               | 15.1                  | 15.0                     | ug/L   | 09/25/1995    | jem              | 3199             |
| Bromofluorobenzene (SURR)   | 94.0                | 94                    | 100                      | % Rec. | 09/25/1995    | jem              | 3199             |
| METHOD M8015 (EXT., Liquid) |                     |                       |                          |        |               |                  |                  |
| as Diesel                   | 104.2               | 1042                  | 1000                     | mg/L   | 09/15/1995    | tts              | 1071             |

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## METHOD BLANK REPORT

| Parameter                   | Method             |                 |        | Date Analyzed | Analyst Initials | Run Batch Number |
|-----------------------------|--------------------|-----------------|--------|---------------|------------------|------------------|
|                             | Blank Amount Found | Reporting Limit | Units  |               |                  |                  |
| TPH (Gas/BTXE, Liquid)      |                    |                 |        |               |                  |                  |
| as Gasoline                 | ND                 | 0.05            | mg/L   | 09/25/1995    | jem              | 3199             |
| Benzene                     | ND                 | 0.5             | ug/L   | 09/25/1995    | jem              | 3199             |
| Toluene                     | ND                 | 0.5             | ug/L   | 09/25/1995    | jem              | 3199             |
| Ethylbenzene                | ND                 | 0.5             | ug/L   | 09/25/1995    | jem              | 3199             |
| Xylenes (Total)             | ND                 | 0.5             | ug/L   | 09/25/1995    | jem              | 3199             |
| Bromofluorobenzene (SURR)   | 90                 |                 | % Rec. | 09/25/1995    | jem              | 3199             |
| METHOD M8015 (EXT., Liquid) |                    |                 |        |               |                  |                  |
| as Diesel                   | ND                 | 0.05            | mg/L   | 09/15/1995    | tts              | 1071             |

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.



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### MATRIX SPIKE / MATRIX SPIKE DUPLICATE

| Parameter                   | Matrix Spike        |                  |     | Spike Amount | Sample Conc. | Matrix Spike       |            |       | Date Analyzed | Run Batch | Sample Spiked |
|-----------------------------|---------------------|------------------|-----|--------------|--------------|--------------------|------------|-------|---------------|-----------|---------------|
|                             | Matrix Spike % Rec. | Spike Dup % Rec. | RPD |              |              | Matrix Spike Conc. | Dup. Conc. | Units |               |           |               |
| TPH (Gas/BTXE,Liquid)       |                     |                  |     |              |              |                    |            |       |               |           | 251125        |
| as Gasoline                 | 106.0               | 100.0            | 5.8 | 0.50         | ND           | 0.53               | 0.50       | mg/L  | 09/25/1995    | 3199      | 251125        |
| Benzene                     | 102.5               | 100.6            | 1.9 | 7.21         | ND           | 7.39               | 7.25       | ug/L  | 09/25/1995    | 3199      | 251125        |
| Toluene                     | 101.2               | 98.1             | 3.0 | 25.9         | ND           | 26.2               | 25.4       | ug/L  | 09/25/1995    | 3199      | 251125        |
| METHOD M8015 (EXT., Liquid) |                     |                  |     |              |              |                    |            |       |               |           | 250685        |
| as Diesel                   | 69.3                | 76.0             | 9.2 | 4.00         | 0.25         | 3.02               | 3.29       | mg/L  | 09/15/1995    | 1071      | 250685        |

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.





Client Name: Secor  
 Client Acct: 74000  
 NET Job No: 95.03603

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## LABORATORY CONTROL SAMPLE REPORT

| Parameter                                | LCS<br>% Recovery | Duplicate         |                        | RPD | LCS<br>Amount<br>Found | Duplicate                 |  | Units | Date<br>Analyzed | Analyst<br>Initials | Run<br>Batch |
|--|-------------------|-------------------|------------------------|-----|------------------------|---------------------------|--|-------|------------------|---------------------|--------------|
|  |                   | LCS<br>% Recovery | LCS<br>Amount<br>Found |     |                        | LCS<br>Amount<br>Expected |  |       |                  |                     |              |
| METHOD M8015 (EXT., Liquid)<br>as Diesel | 63.0              |                   |                        |     | 1.26                   | 2.00                      |  | mg/L  | 09/15/1995       | tts                 | 1071         |

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.



## KEY TO ABBREVIATIONS and METHOD REFERENCES

- < : Less than; When appearing in results column indicates analyte not detected at the value following. This datum supercedes the listed Reporting Limit.
- \* : Reporting Limits are a function of the dilution factor for any given sample. To obtain the actual reporting limits for this sample, multiply the stated Reporting Limits by the dilution factor (but do not multiply reported values).
- ICVS : Initial Calibration Verification Standard (External Standard).
- mean : Average; sum of measurements divided by number of measurements.
- mg/Kg (ppm) : Concentration in units of milligrams of analyte per kilogram of sample, wet-weight basis (parts per million).
- mg/L : Concentration in units of milligrams of analyte per liter of sample.
- mL/L/hr : Milliliters per liter per hour.
- MPN/100 mL : Most probable number of bacteria per one hundred milliliters of sample.
- N/A : Not applicable.
- NA : Not analyzed.
- ND : Not detected; the analyte concentration is less than applicable listed reporting limit.
- NTU : Nephelometric turbidity units.
- RPD : Relative percent difference,  $100 \text{ [Value 1 - Value 2] / mean value}$ .
- SNA : Standard not available.
- ug/Kg (ppb) : Concentration in units of micrograms of analyte per kilogram of sample, wet-weight basis (parts per billion).
- ug/L : Concentration in units of micrograms of analyte per liter of sample.
- umhos/cm : Micromhos per centimeter.

### Method References

Methods 100 through 493: see "Methods for Chemical Analysis of Water & Wastes", U.S. EPA, 600/4-79-020, rev. 1983.

Methods 601 through 625: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants" U.S. EPA, 40 CFR, Part 136, rev. 1988.

Methods 1000 through 9999: see "Test Methods for Evaluating Solid Waste", U.S. EPA SW-846, 3rd edition, 1986.

SM: see "Standard Methods for the Examination of Water & Wastewater, 17th Edition, APHA, 1989.

Chain-of-Custody Number:

# SEACOR Chain-of-Custody Record

Field Office: San Francisco  
 Address: 90 New Montgomery St. #620  
San Francisco, CA 94105

Additional documents are attached, and are a part of this Record.

Job Name: City of Emeryville  
 Location: Emeryville, CA

Project # 50/00-003-02 Task # 00  
 Project Manager Dan Madsen  
 Laboratory NET  
 Turnaround Time Standard

### Analysis Request

Sampler's Name Liping Zhang  
 Sampler's Signature [Signature]

| Sample ID | Date | Time  | Matrix | HCID | TPH/g/BTEX/WTPH-G<br>8015 (modified)/8020 | TPH/WTPH-D<br>8015 (modified) | TPH 418.1/WTPH 418.1 | Aromatic Volatiles<br>602/8020 | Volatile Organics<br>624/8240 (GC/MS) | Halogenated Volatiles<br>601/8010 | Semi-volatile Organics<br>625/8270 (GC/MS) | Pesticides/PCBs<br>608/8080 | Total Lead<br>7421 | Priority Pollutant<br>Metals (13) | TCLP Metals | Comments/<br>Instructions | Number of Containers |
|-----------|------|-------|--------|------|---|-------------------------------|----------------------|--------------------------------|---------------------------------------|-----------------------------------|--|-----------------------------|--------------------|-----------------------------------|-------------|---------------------------|----------------------|
| MW-1      | 9/11 | 10:55 | Water  |      | X   | X                             |                      |                                |                                       |                                   |  |                             |                    |                                   |             |                           | 4                    |
| TB        |      |       |        |      | X   |                               |                      |                                |                                       |                                   |  |                             |                    |                                   |             |                           | 1                    |

**CHUSTODY SEALED**  
 Date 9/11/95 Time 18:32 Initials RS  
**SEAL INTACT?**  
 Yes  No  Initials [Signature]

Special Instructions/Comments:

Relinquished by:  
 Sign [Signature]  
 Print Liping Zhang  
 Company SEACOR  
 Time 1430 Date 9/11/95

Relinquished by:  
 Sign [Signature]  
 Print Phyllis Smart  
 Company NET  
 Time 1832 Date 9/11/95

Received by:  
 Sign [Signature]  
 Print Phyllis Smart  
 Company NET  
 Time 2:51 Date 9/11/95

Received by:  
 Sign [Signature]  
 Print PAM GREENE  
 Company NET  
 Time 08:25 Date 09-12-95

Sample Receipt

|                             |          |
|-----------------------------|----------|
| Total no. of containers:    | <u>5</u> |
| Chain of custody seals:     |          |
| Rec'd. good condition/cold: |          |
| Conforms to record:         |          |

Client: SEACOR  
 Client Contact: Dan Madsen  
 Client Phone: (415) 882-1198

VIA NCS

[Signature]