

March 25, 1994

ALCO  
HAZMAT

94 MAR 30 PM 2:20

**SEACOR**  
Science & Engineering  
Analysis Corporation

Mr. Thomas Peacock  
Hazardous Materials Division  
Alameda County Department of  
Environmental Health  
80 Swan Way, Room 200  
Oakland, California 94621

**QUARTERLY GROUNDWATER MONITORING REPORT, 4070 SAN PABLO AVENUE,  
EMERYVILLE, CALIFORNIA**

Dear Mr. Peacock:

On behalf of San Francisco French Bread Company (SFFBC), Science & Engineering Analysis Corporation (SEACOR) has prepared this quarterly groundwater monitoring report for 4070 San Pablo Avenue in Emeryville, California ("the site", see Figure 1). The site is improved with two warehouse-type buildings. The southern building is currently occupied by Anderson Carpeting and the northern building by Tire Center Inc. A site plan showing the existing site configuration, including the location of the former underground storage tanks (USTs) is attached as Figure 2.

**SITE BACKGROUND**

In September 1992, SEACOR installed monitoring well MW-1 slightly west, and down-gradient of the former UST locations. This well was completed to a depth of 25 feet below ground surface with the screened interval extending from 25 to 15 feet below ground surface. The groundwater sample collected from this well in September 1992 was reported to contain total petroleum hydrocarbons as gasoline (TPHg) and TPH as diesel (TPHd) at concentrations of 1.4 and 0.2 milligrams per liter (mg/l), respectively. The laboratory reported that the positive result for TPHd appears to have been due to the presence of a lighter fuel (e.g. gasoline) rather than diesel. Benzene, toluene, ethylbenzene, and xylenes (BTEX) were also detected in the water sample at concentrations of 0.47, 0.043, 0.045, and 0.10 mg/l, respectively. Based on the findings of this initial investigation, SFFBC initiated a quarterly groundwater monitoring program at the site beginning in December 1992. This report presents the findings of the March 1994 monitoring event which is the seventh sampling event since installation of well MW-1 in September 1992.

**DEPTH TO GROUNDWATER**

Prior to purging and sampling monitoring well MW-1, the depth to groundwater and well depth were measured by SEACOR on March 8, 1994 using an electronic water-level indicator. Groundwater was measured at a depth of 5.09 feet below the top of the PVC casing. This represents a 6.73 foot increase in water level since the December 1, 1993 monitoring event. Historic depth to groundwater measurements are included on Table 1.

SFFB194.RPT  
50090-002-02

GWF - based on ?

### MONITORING WELL PURGING AND SAMPLING

Monitoring well purging and sampling was performed by *SEACOR* on March 8, 1994. Well purging was accomplished by bailing with a clean PVC bailer. During purging the pH, temperature, and electrical conductivity of the discharge water was measured and the color and turbidity were visually inspected. Stabilization of these parameters was used as an indicator that fresh formation water was entering the well casing. Approximately three casing volumes of water were removed from the well. A copy of the Water Sample Data Sheet is included as an Attachment. Water removed from the well during purging activities was placed in a DOT-approved 55-gallon drum and stored onsite.

Following completion of well purging, a water sample was collected by lowering a disposable PVC bailer into the well casing. The water sample was transferred directly from the bailer into laboratory supplied sample containers and labeled. Sample containers were stored in a cooler containing ice for shipment to the analytical laboratory. The groundwater sample was submitted to NET Pacific Analytical Laboratory for analysis of TPHg and BTEX according to EPA Methods 8015 modified, and 8020, respectively.

### CHEMICAL TESTING RESULTS

The groundwater sample analyzed from monitoring well MW-1 was reported to contain TPHg at a concentration of 5.8 mg/l and BTEX at concentrations of 1,700 micrograms per liter (ug/l), 430 µg/l, 230 µg/l and 490 µg/l respectively. When compared to historical water quality data the current TPHg and BTEX concentrations are the highest recorded to date. The increase in concentrations are likely related to the significant rise in the groundwater level. Table 1 summarizes the chemical analytical results for this quarterly groundwater monitoring event as well as the previous sampling events. Laboratory analytical data sheets and chain-of-custody documentation are included as an Attachment.

### RECOMMENDATIONS

*SEACOR*, at the request of SFFBC, plans to continue quarterly groundwater monitoring and reporting to provide additional water quality data for the site.

Mr. Thomas Peacock  
March 25, 1994  
Page 3

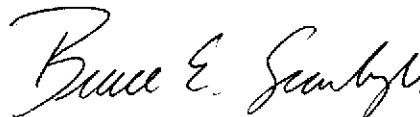
If you have any questions or comments regarding this report, please do not hesitate to call us at (415) 882-1548.

Sincerely yours,

Science & Engineering Analysis Corporation



Donald W. Moore  
Project Geologist



Bruce E. Scarbrough, R.G.  
Principal Geologist

DWM/mtc

cc: Mr. Peter Sher, San Francisco French Bread Company

Attachments:

Figure 1 - Site Location Map

Figure 2 - Site Plan

Table 1 - Groundwater Measurements and Chemical Analytical Results

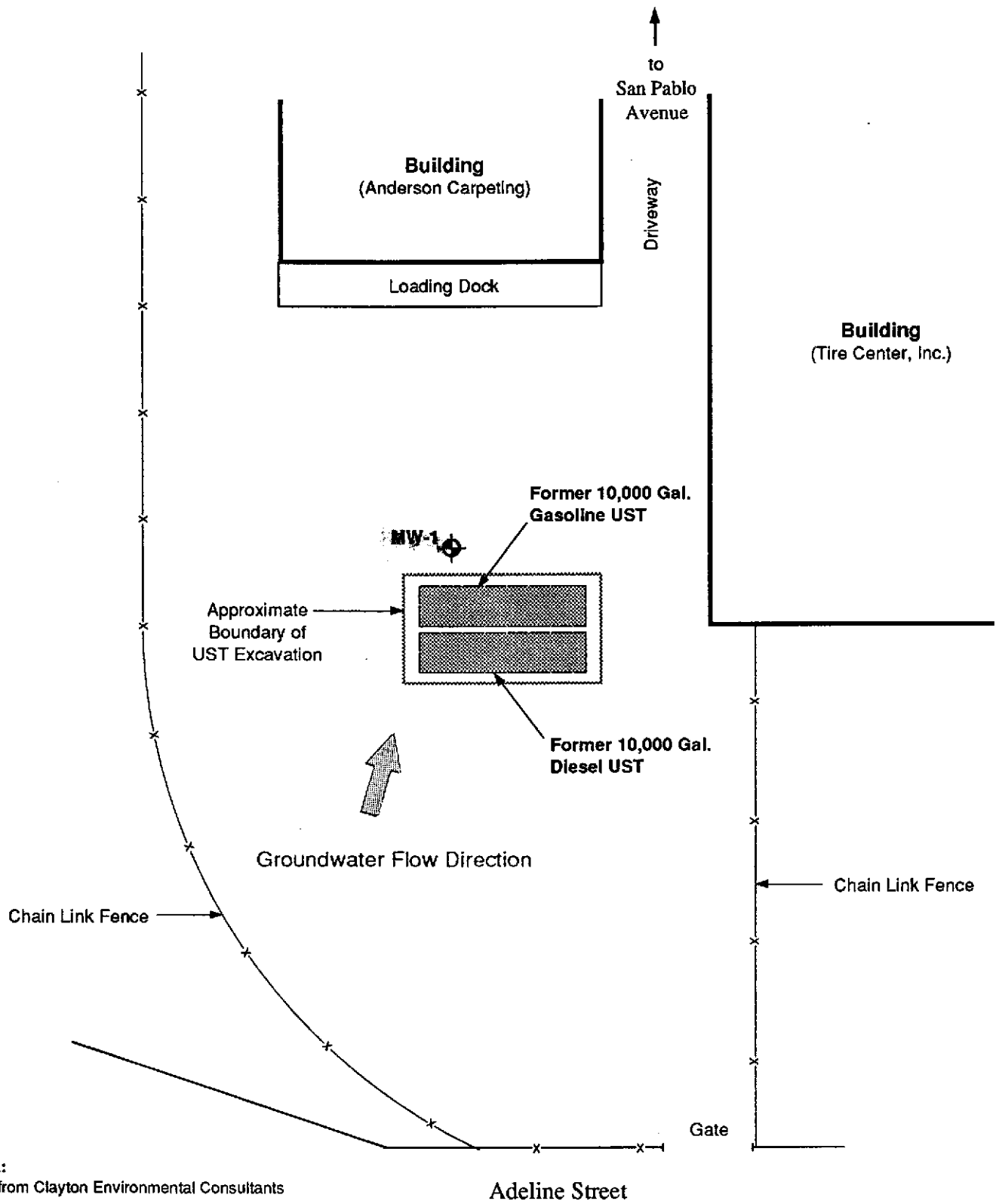
Groundwater Sample Data Sheet, Laboratory Analytical Reports and Chain-of-Custody Records

**TABLE 1**  
**GROUNDWATER MEASUREMENTS AND CHEMICAL**  
**ANALYTICAL RESULTS**  
 4070 San Pablo Avenue  
 Emeryville, California

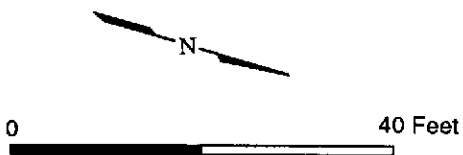
WELL	DATE	DEPTH TO GROUNDWATER <sup>(1)</sup>	TPHg <sup>(2)</sup> (mg/l) <sup>(3)</sup>	BENZENE (µg/l) <sup>(4)</sup>	TOLUENE (µg/l)	ETHYLBENZENE (µg/l)	XYLENES (µg/l)
MW-1	9/11/92	9.10	1.4	470	45	43	100
	12/3/92	9.55	ND < 0.05	ND < 0.5	ND < 0.5	1.6	ND < 0.5
	3/4/93	7.82	0.70	1.1	ND < 0.5	ND < 0.5	1.1
	6/4/93	5.15	2.9	340	58	50	140
	9/2/93	8.00	1.5	340	ND < 0.5	ND < 0.5	140
	12/1/93	11.82	0.81	170	23	22	39
	3/8/94	5.09	5.8	1,700	430	230	490

**NOTES:**


- (1) Feet below top of PVC casing.
- (2) Total petroleum hydrocarbons as gasoline.
- (3) Milligrams per liter.
- (4) Micrograms per liter.



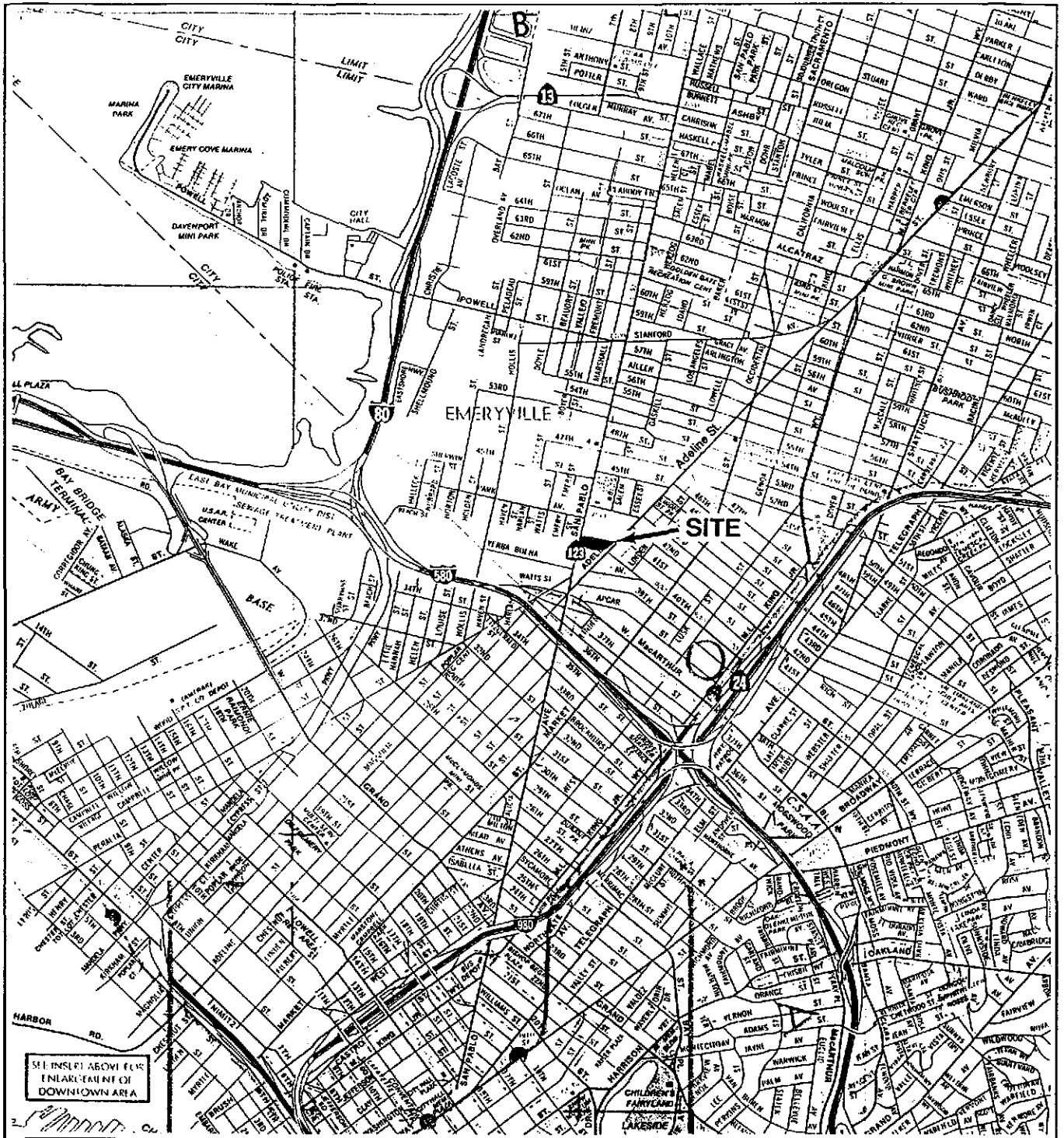
SOURCE:  
Modified from Clayton Environmental Consultants



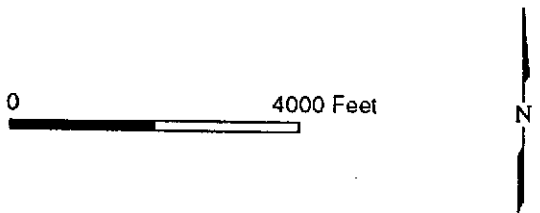
**LEGEND**

 Monitoring Well Location

**SITE PLAN**  
4070 San Pablo Avenue  
Emeryville, California  
Figure 2



SOURCE:  
 California State Automobile Association  
 Oakland, Berkeley, Alameda, 291



**SITE LOCATION MAP**  
 4070 San Pablo Avenue  
 Emeryville, California  
 Figure 1

## SEACOR WATER SAMPLE FIELD DATA SHEET

PROJECT NO: 50090-002-02  
 PURGED BY: GARY LABUDE  
 SAMPLED BY: GARY LABUDE

WELL ID: MW-1  
 SAMPLE ID: MW-1  
 CLIENT NAME: S.E. FROTH BEAD CO  
 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>3.40</u>
DEPTH TO WATER (feet): <u>5.09</u>	CALCULATED PURGE (gal) <u>10.20</u>
DEPTH OF WELL (feet): <u>25.10</u>	ACTUAL PURGE VOL (gal) <u>11.00</u>

DATE PURGED: 3-8-94 Start (2400 Hr) 09:15 End (2400 Hr.) 09:52  
 DATE SAMPLED: 3-8-94 Start (2400 Hr) 10:15 End (2400 Hr.) 10:55

FIELD QC SAMPLES COLLECTED AT THIS WELL (i.e. FB-1, X-DUP-1): NONE

### FIELD MEASUREMENTS

TIME (2400 Hr)	VOLUME (gal)	pH (sat)	E.C (umho/cm @ 25°C)	TEMPERATURE (°F)	COLOR (Visual)	TURBIDITY (NTU) VISUAL
<u>09:37</u>	<u>7.0</u>	<u>6.39</u>	<u>1237</u>	<u>63.4</u>	<u>TAN</u>	<u>VERY</u>
<u>09:41</u>	<u>8.5</u>	<u>6.40</u>	<u>1677</u>	<u>64.7</u>	<u>TAN</u>	<u>VERY</u>
<u>09:45</u>	<u>10.0</u>	<u>6.85</u>	<u>1576</u>	<u>66.3 (66.3)</u>	<u>TAN</u>	<u>VERY</u>
<u>09:50</u>	<u>10.5</u>	<u>7.04</u>	<u>1400</u>	<u>66.5</u>	<u>TAN</u>	<u>VERY</u>
<u>09:52</u>	<u>11.0</u>	<u>7.22</u>	<u>1377</u>	<u>66.5</u>	<u>TAN</u>	<u>VERY</u>

D.O. (ppm): NM COLOR, COBALT (0-100): TAN  
 ODOR: NONE

Clear  
Cloudy  
Yellow  
Brown

#### PURGING EQUIPMENT

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

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

#### SAMPLING EQUIPMENT

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

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

WELL INTEGRITY: WELL CAP NEEDS REPLACEMENT LOCK #: MASTER: 0909  
 REMARKS: WILL NEED ANOTHER DRUM FOR PURGE H<sub>2</sub>O ON NEXT SAMPLING EVENT  
DTW @ TIME OF SAMPLING = 9ft ± 80% RECOVERY

Hydro Calc

20.01 ft × .17 gal/ft = 3.40 gal × 3 VOLUMES = 10.20 gal     STD 4.0     7.0  
 PENDING 4.08     7.0

SIGNATURE: Gary Labude Page 1 of 1



NATIONAL  
ENVIRONMENTAL  
TESTING, INC.

RECEIVED  
MAR 24 1994

NET Pacific, Inc.  
435 Tesconi Circle  
Santa Rosa, CA 95401  
Tel: (707) 526-7200  
Fax: (707) 526-9623

Don Moore  
Seacor  
90 New Montgomery  
Suite 620  
San Francisco, CA 94105

Date: 03/22/1994  
NET Client Acct. No: 74000  
NET Pacific Job No: 94.00979  
Received: 03/10/1994

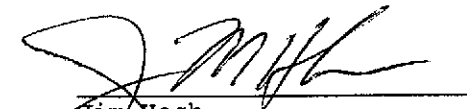
Client Reference Information

Project No. 50090-002-01

Sample analysis in support of the project referenced above has been completed and results are presented on 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 welcome to contact Client Services.

Approved by:

  
Linda DeMartino  
Project Coordinator

  
Jim Hoch  
Operations Manager

Enclosure(s)

REC'D S.F. \_\_\_\_\_  
APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_  
Job No.: \_\_\_\_\_  
Route To: \_\_\_\_\_ Date: \_\_\_\_\_





Client Acct: 74000  
Client Name: Seacor  
NET Job No: 94.00979

Date: 03/22/1994  
ELAP Certificate: 1386  
Page: 2

Ref: Project No. 50090-002-01

SAMPLE DESCRIPTION: MW-1

Date Taken: 03/08/1994

Time Taken: 10:55

NET Sample No: 189455

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed
TPH (Gas/BTEX, Liquid)							
METHOD 5030/M8015	--						03/17/1994
DILUTION FACTOR*	10						03/17/1994
as Gasoline	5.8		0.5	mg/L	5030		03/17/1994
METHOD 8020 (GC, Liquid)	--						03/17/1994
Benzene	1,700	FF	5	ug/L	8020		03/18/1994
Toluene	430		5	ug/L	8020		03/17/1994
Ethylbenzene	230		5	ug/L	8020		03/17/1994
Xylenes (Total)	490		5	ug/L	8020		03/17/1994
SURROGATE RESULTS	--						03/17/1994
Bromofluorobenzene (SURRE)	118			µg Rec.	5030		03/17/1994

FF : Compound quantitated at a 100X dilution factor.

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



Client Acct: 74000  
Client Name: Seacor  
NET Job No: 94.00979

Date: 03/22/1994  
ELAP Certificate: 1386  
Page: 3

Ref: Project No. 50090-002-01

## CONTINUING CALIBRATION VERIFICATION STANDARD REPORT

<u>Parameter</u>	<u>CCV Standard % Recovery</u>	<u>CCV Standard Amount Found</u>	<u>CCV Standard Amount Expected</u>	<u>Units</u>	<u>Date Analyzed</u>	<u>Analyst Initials</u>
TPH (Gas/BTXE, Liquid)						
as Gasoline	85.4	0.854	1.00	mg/L	03/18/1994	vin
Benzene	107.4	5.37	5.00	ug/L	03/18/1994	vin
Toluene	98.8	4.94	5.00	ug/L	03/18/1994	vin
Ethylbenzene	95.0	4.75	5.00	ug/L	03/18/1994	vin
Xylenes (Total)	95.3	14.30	15.0	ug/L	03/18/1994	vin
Bromofluorobenzene (SRR)	103.0	103	100	% Rec.	03/18/1994	vin

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



Client Acct: 74000  
Client Name: Seacor  
NET Job No: 94.00979

Date: 03/22/1994  
ELAP Certificate: 1386  
Page: 4

Ref: Project No. 50090-002-01

## METHOD BLANK REPORT

Parameter	Method	Reporting	Units	Date	Analyst
	Blank				
	Amount	Limit		Analyzed	Initials
	Found				
TPH (Gas/BTXE,Liquid)					
as Gasoline	ND	0.05	mg/L	03/18/1994	vin
Benzene	ND	0.5	ug/L	03/18/1994	vin
Toluene	ND	0.5	ug/L	03/18/1994	vin
Ethylbenzene	ND	0.5	ug/L	03/18/1994	vin
Xylenes (Total)	ND	0.5	ug/L	03/18/1994	vin
Bromofluorobenzene (SURR)	106		% Rec.	03/18/1994	vin

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



Client Acct: 74000  
Client Name: Seacor  
NET Job No: 94.00979

Date: 03/22/1994  
ELAP Certificate: 1386  
Page: 5

Ref: Project No. 50090-002-01

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE

Parameter	Matrix Spike			Spike Amount	Sample Conc.	Matrix Spike		Units	Date Analyzed	Analyst Initials
	Matrix Spike % Rec.	Spike Dup % Rec.	RPD			Matrix Spike Conc.	Spike Dup. Conc.			
TPH (Gas/BTEX, Liquid)										
as Gasoline	80.5	91.4	12.7	1.00	ND	0.805	0.914	mg/L	03/18/1994	vin
Benzene	92.4	103.4	11.1	40.7	ND	37.6	42.1	ug/L	03/18/1994	vin
Toluene	92.4	103.5	11.2	102.9	ND	95.1	106.5	ug/L	03/18/1994	vin

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. Actual reporting limits and results have been multiplied by the listed dilution factor. Do not multiply the reporting limits or reported values by the dilution factor.
- dw : Result expressed as dry weight.
- 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 the 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., Rev. 1, December 1987.

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

# SEACOR Chain-of-Custody Record

Address: SEACOR  
90 NEW MONTGOMERY # 620  
SAN FRANCISCO CA 94105-4503

8306

Project # 50090-002-01 Task #       
 Project Manager DON MOORE  
 Laboratory NET  
 Turn-around time: STD

## Analysis Request

Sampler's Name: GERRY LABINDE  
 Sampler's Signature: Gerry Labinde

Sample ID	Date	Time	Matrix	TPHg/BTEX 8015 (modified)/8020	TPHd 8015 (modified)	TPH 418.1	Aromatic Volatiles 602/8020	Volatile Organics 624/8240 (GC/MS)	Halogenated Volatiles 601/8010	Semi-volatile Organics 625/8270 (GC/MS)	Pesticides/PCB's 608/8080	Total Lead 7421	Priority Pollutant Metals (13)	TCLP Metals	Comments/ Instructions	Number of Containers
MW - 1	3/8/94	1055	W	X												1

Special Instructions/Comments:

Relinquished by: Gerry Labinde  
 Sign: Gerry Labinde  
 Print: GERRY LABINDE  
 Company: SEACOR  
 Time: 11:55 Date: 3-9-94

Received by: G.P. Lumber  
 Sign: G.P. Lumber  
 Print: G.P. LUMBER  
 Company: NET  
 Time: 11:55 Date: 3/9/94

**Sample Receipt**

Total no. of containers: \_\_\_\_\_  
 Chain of custody seals:  3.00  
 Rec'd good condition/cold:   
 Conforms to record:

Relinquished by: G.P. Lumber  
 Sign: G.P. Lumber  
 Print: G.P. LUMBER  
 Company: NET  
 Time: 18:00 Date: 3/9/94

Received by: LIA NCS  
 Sign: K. Temple  
 Print: K. Temple  
 Company: NET  
 Time: 0800 Date: 3/10/94

Client: \_\_\_\_\_  
 Client Contact: \_\_\_\_\_  
 Client Phone Number: \_\_\_\_\_