SECOR
International Incorporated

September 8, 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

RESULTS OF PRELIMINARY GROUNDWATER INVESTIGATION AND QUARTERLY MONITORING, 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 report presenting the findings of a preliminary groundwater investigation and subsequent quarterly monitoring activities performed at the former City of Emeryville Fire Station located at 4331 San Pablo Avenue in Emeryville, California (the "Site").

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 aspahlt 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 Servics (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.

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.

90 New Montgomery Street, Suite 620, San Francisco, CA 94105-4503 (415) 882-1548 (415) 882-4406 FAX

PRELIMINARY FIELD ACTIVITIES

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, and depth-to-groundwater ranging from approximately six to eleven feet below grade.

On February 14, 1995, a Work Plan describing the proposed well installation was submitted to the ACDHS. On February 15, 1995, a well construction permit application was filed with the Alameda County Flood Control and Water Conservation District Zone 7. Both the Work Plan and the well construction permit were approved by the respective agencies prior to *SECOR* proceeding with preliminary field activities. The monitoring well location was cleared using a professional utility location company and Underground Services Alert (USA) was notified prior to the start of any intrusive field activities.

WELL INSTALLATION PROCEDURES

Drilling and Soil Sampling

On February 21, 1995, one soil boring was advanced to a depth of 23 feet below ground surface (bgs) using hollow-stem auger drilling techniques at the location shown on Figure 2. Groundwater was first encountered at 14 feet bgs. During advancement of the boring, soil samples were collected at five-foot intervals using a modified California split-spoon sampler. Soils encountered were logged by a *SECOR* geologist according to the Unified Soil Classification System (USCS). Soil samples were screened in the field for the presence of volatile organic compounds (VOCs) using a Photoionization Detector (PID). Two soil samples were selected for chemical analysis based on PID readings, lithologic conditions and depth of first encountered groundwater. A boring log describing soils encountered, soil sample intervals and PID readings is presented in Appendix A. Samples for chemical analyses were secured in brass tubes with the ends covered with teflon tape and plastic end caps and placed in a cooler containing ice for transportation to the analytical laboratory.

The two soil samples selected for chemical analysis were analyzed by NET Laboratories of Santa Rosa, California for total petroleum hydrocarbons as gasoline (TPHg), and as diesel (TPHd), and benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA Methods 5030/8015 modified and 8020, respectively.

Monitoring Well Installation, Development and Sampling

A groundwater monitoring well was installed in the soil boring following completion of drilling and sampling activities. The groundwater monitoring well was constructed with two-inch diameter, flush threaded, Schedule 40 PVC well casing and screen. Monitoring well materials were installed through the hollow stem of the augers. The bottom of the borehole was backfilled with bentonite chips to a depth of 21 feet bgs. The well was constructed of 15 feet of 0.020-inch machine-slotted well screen from 21 feet to 6 feet bgs and finished with blank casing to ground surface. A sand filter was placed adjacent to the well screen to a height of one foot above the screened interval. One foot of bentonite pellets was placed above the filter sand and hydrated. The remaining annular space was filled with a grout mixture (5%

bentonite) to the ground surface. The well was completed at grade in a traffic rated well box with a locking water-tight well cap. Well construction details are graphically presented in Attachment 1.

Following monitoring well installation, the well was developed by alternatively surging the screened interval of the well with a vented surge block and bailing the well with a PVC bailer. *SECOR* removed approximately 12.5 casing volumes of groundwater from the well during development. During well development, the evacuated water was monitored for pH, temperature, electrical conductivity, and visually inspected for turbidity and color. Parameter results were recorded on a Groundwater Sample Field Data Sheet (see Attachment 2). Following well development, 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.

QUARTERLY GROUNDWATER MONITORING PROCEDURES

On May 24, 1995, the groundwater monitoring well was sounded and sampled in accordance with the requirement for quarterly monitoring. 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 2). 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.

INVESTIGATION FINDINGS

Hydrogeologic Conditions

Soils encountered during drilling were a black gravelly sand and silty clay fill material to a depth of 5.5 feet below ground surface (bgs), native black silty clay was encountered from 5.5 to 11 feet bgs, and a pale yellow plastic clay was encountered from a depth of 11 to 14 feet bgs. A greenish-gray clayey fine sand was encountered from 14 to 22 feet bgs. A brown silty fine sand with clay was encountered from 22 feet bgs to the total boring depth. Field screening with the PID detected the presence of organic vapors in the vadose zone (0 to 14 feet bgs) at a maximum concentration of 19 ppm. Visual and olfactory observations also indicated the presence of petroleum-hydrocarbons in the vadose zone. Soil descriptions are presented in the boring log (Attachment 1).

Groundwater was first encountered during drilling in the greenish-gray clayey fine sand present between 14 and 22 feet bgs. Following completion of the well, the static groundwater level was measured at 4.79 feet bgs on February 24, 1995. The notable rise in the groundwater level indicates that groundwater present in the fine sand unit is confined or partially confined by the overlying clay. On May 24, 1995,

groundwater was measured at a depth of 8.50 feet below ground surface (bgs), a decrease of 3.71 feet when compared with the February 1995 data.

Soil Chemistry

Analytical results for the two soil samples collected during well installation are summarized on Table 1. Certified Analytical Reports are provided as Attachment 3. Both soil samples were reported to contain detectable concentrations of gasoline-range and diesel-range petroleum hydrocarbons. Soil samples from 5.5 and 11 feet bgs were reported to contain concentrations of TPHg at 5.4 and 35 milligrams per kilograms (mg/kg), TPHd at 1.9 and 120 mg/kg, benzene at 420 and 170 micrograms per kilogram (ug/kg), toluene at 7.9 and 16 ug/kg, ethylbenzene at 110 and 170 ug/kg and xylenes at 130 and 59 ug/kg, respectively. The TPHd analysis for the 5.5 foot sample interval indicated an atypical diesel chromatogram pattern suggesting hydrocarbons lighter than diesel were present (i.e. gasoline).

Groundwater Chemistry

Analytical results for groundwater are summarized on Table 1. Certified Analytical Reports for both the February and May 1995 sampling events are provided as Attachment 3. Analytical results for groundwater samples collected in February and May 1995 were generally consistent and revealed the presence of gasoline-range and diesel-range petroleum hydrocarbons and BTEX at relatively low concentrations. The gas chromatogram patterns for TPHd analyses consistently show a pattern atypical of diesel fuel with hydrocarbons both lighter and heavier than diesel.

TPHg and TPHd were reported at a maximum concentration of 1.6 milligram per liter (mg/l) and 1.2 mg/l, respectively. BTEX compounds were reported at maximum concentrations of 320 micrograms per liter (ug/l), 7.2 ug/l, 29 ug/l, and 84 ug/l, respectively.

CONCLUSIONS

The results of preliminary groundwater investigation indicate that soil and shallow groundwater in the vicinity of the former UST contain relatively low concentrations of fuel hydrocarbons (predominantly gasoline constituents). The findings also indicate that leakage from the former UST is a probable source for petroleum hydrocarbons detected in soil and groundwater samples at well MW-1.

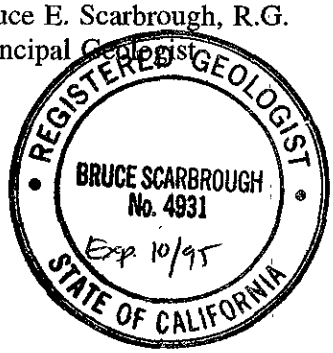
Please do not hesitate to contact us at (415) 882-1548 with any questions or comments.

Sincerely,

SECOR International Incorporated

Daniel E. Madsen
Project Geologist

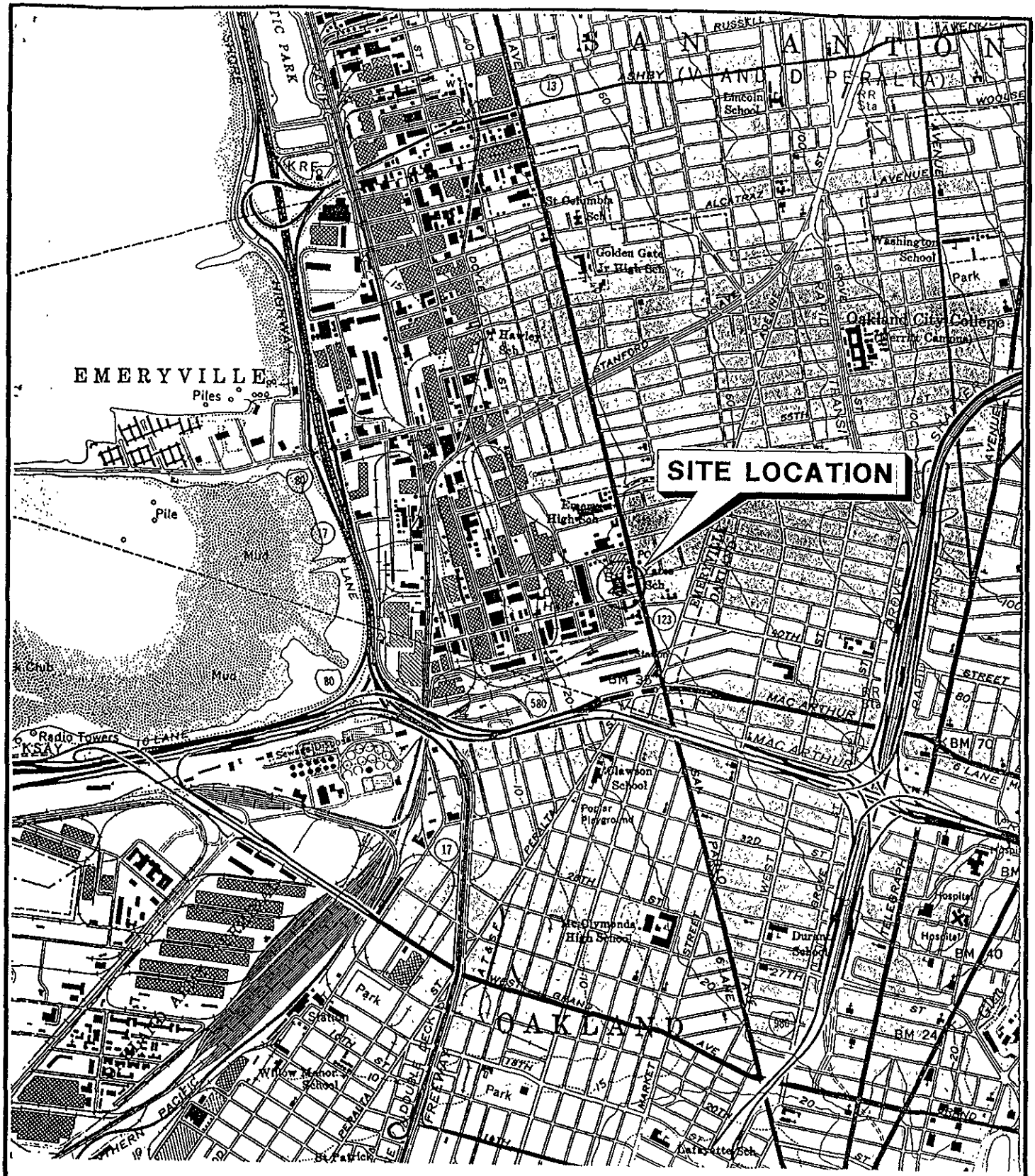
Bruce E. Scarbrough, R.G.
Principal Geologist



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

Attachments:

Figure 1	Site Location Map
Figure 2	Site Plan
Table 1	Soil and Groundwater Analytical Results
Attachment 1	Boring Log
Attachment 2	Water Sample Field Data Sheets
Attachment 3	Soil and Groundwater Certified Analytical Reports and Chain-of-Custody Records



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

NORTH

0 2000 4000

SCALE FEET

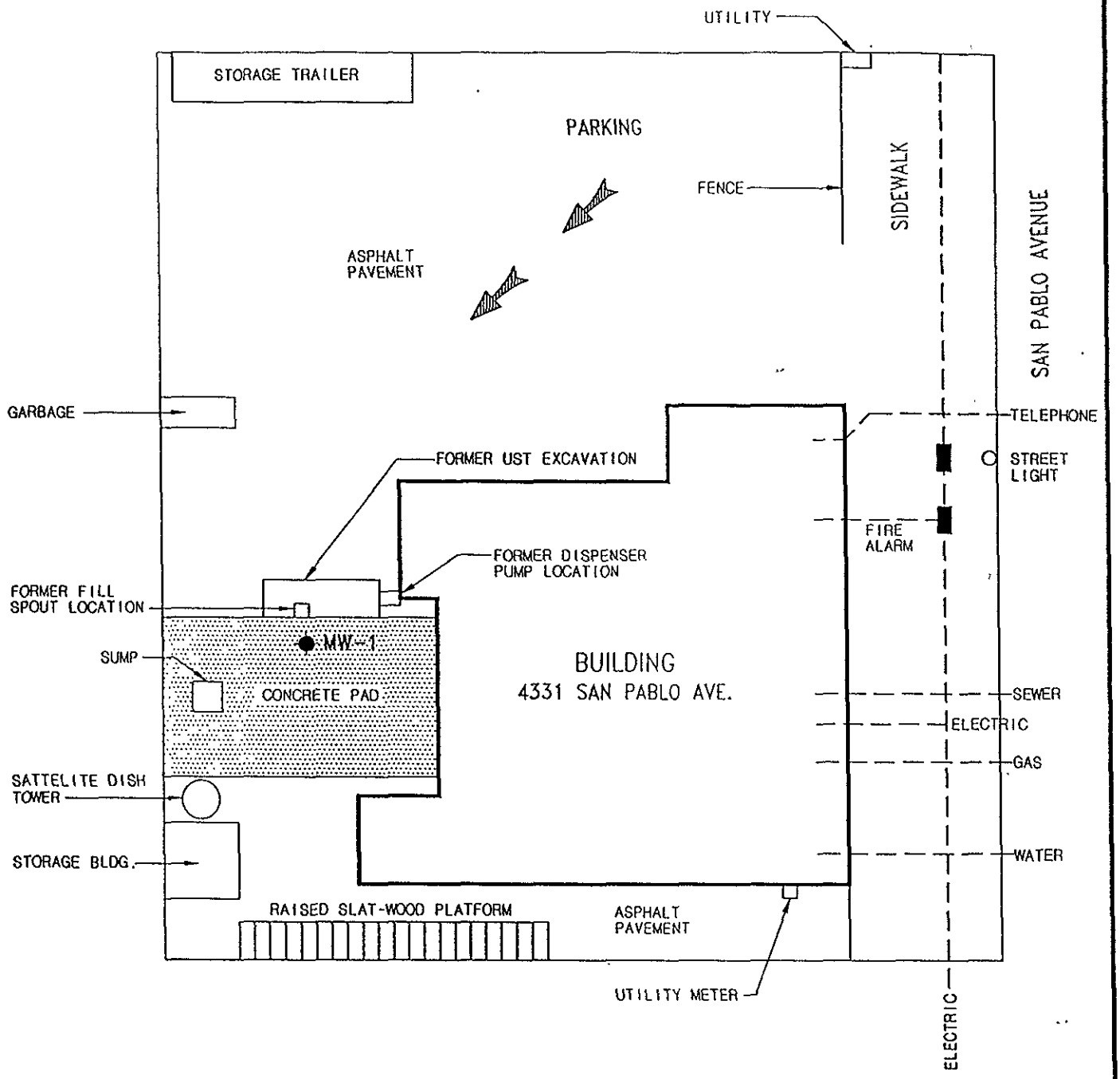
SECOR
INTERNATIONAL INCORPORATED

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

199408.050818 \JOBS\EMERY1.LOC



LEGEND:

MW-1 GROUNDWATER MONITORING WELL

GROUNDWATER FLOW DIRECTION

NORTH

0 20 40

SCALE FEET

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

199407.281616 \JOBS\EMERY\SITE

TABLE 1
SOIL AND GROUNDWATER ANALYTICAL RESULTS
FORMER CITY OF EMERYVILLE FIRE STATION
4331 San Pablo Avenue
Emeryville, California

Soil Samples

SAMPLE I.D.	SAMPLE DATE	TPHg[1] (mg/kg)[3]	TPHd[2] (mg/kg)	Benzene (µg/kg)[4]	Toluene (µg/kg)	Ethylbenzene (µg/kg)	Xylenes (µg/kg)
MW-1 (5½-6)	2/21/95	5.4	1.9[7]	420	7.9	110	130
MW-1 (11-11½)	2/21/95	35	120	170	16	170	59

Groundwater Sample

SAMPLE I.D.	SAMPLE DATE	TPHg (mg/ℓ)[5]	TPHd (mg/ℓ)	Benzene (µg/ℓ)[6]	Toluene (µg/ℓ)	Ethylbenzene (µg/ℓ)	Xylenes (µg/ℓ)
MW-1	2/24/95	1.6	1.2[7]	170	7.2	26	84
MW-1	5/24/95	1.4	1.2[7]	320	3.5	29	28

Notes:

(1) = Total petroleum hydrocarbons as gasoline
(2) = Total petroleum hydrocarbons as diesel
(3) = Milligrams per kilograms
(4) = Micrograms per kilograms
(5) = Milligrams per liter
(6) = Micrograms per liter
(7) = Atypical chromatogram pattern; see Certified Analytical Report

ATTACHMENT 1

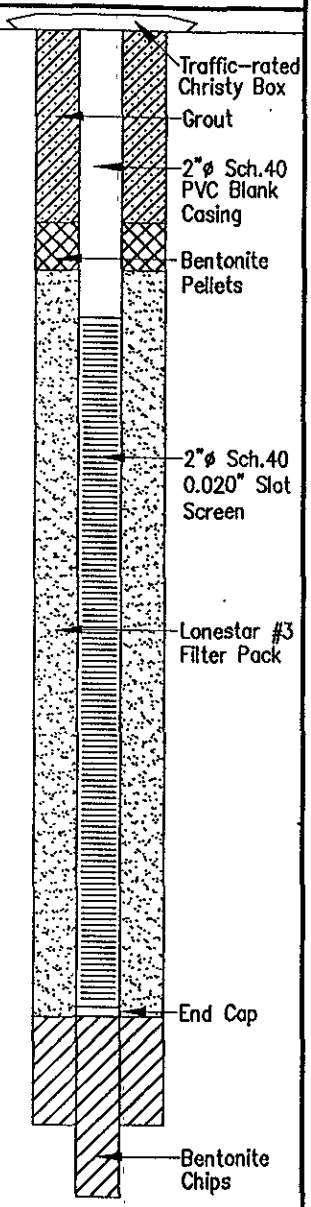
Boring Log

Project: CITY OF EMERYVILLE			Log of Boring/Monitoring Well: **MW-1**
Boring Location: 4331 SAN PABLO AVENUE		Project No.: 50600-007-01	
Subcontractor and Equipment: BAYLAND CME 75 HT		Logged By: CM	
Sampling Method: CAL. MOD. SPLIT SPOON	Monitoring Device: PID		Comments:
Start Date/Time: 2/21/95//1000	Finish Date/Time: 2/21/95//1330		
First Water (bgs): 14.0 FEET	Stabilized Water Level (bgs): 4.75 FEET		

Surface Elevation: NA Top Casing Elevation: NA

Sample Number	Blows/foot	PID (ppm)	Depth (Feet)	Recovery	USCS Symbol	Water Level	LITHOLOGIC DESCRIPTION (color, grain size, consistency, moisture, other)
			0				8" CONCRETE
			1				BLACK (2.5Y N2/0) GRAVELLY SAND (SW) (FILL) continuing pieces of brick, and slag, some patches of clay (25,60,5,10)
			2				
			3				
			4				
			5			▼	SILTY BLACK CLAY (CL) unidentified moderate odor
MW-1 (5.5)	18	35	6				BLACK (10YR 0/1) SILTY CLAY (CL) with very fine sand, trace gravel, subangular blocky structure (5,15,20,60)
			7				
			8				
			9				
			10				
MW-1 (11)	19	30	11				PALE YELLOW (5Y 7/3) CLAY (CH) W/ GREENISH GRAY (5G 6/1) staining along fractures, high plasticity clay (bay mud) angular blocky structure with product staining along fractures, strong gasoline odor (0,0,0,100)
			12				
			13				
			14			▽	
			15				GREENISH GRAY (5G 5/1) CLAYEY FINE SAND (SC) with trace coarse sand, saturated, moderate product odor, iron oxide staining in zones (0,70,10,20)
	17	1	16				
			17				
			18				
			19				
			20				grades with some patches of different clays
	11	8	21				
			22				BROWN (7.5YR 5/4) SILTY FINE SAND WITH CLAY (SM) some patches of different soil types, moderate product odor, some gravels as angular pieces of sandstone (10,55,20,15)
	29	4	23				
			24				Bottom of boring at 24.5 feet
			25				
			26				
			27				
			28				
			29				
			30				

Boring Abandonment/ Well Construction Details



199502.061138 E:\LOGS\EMERY\MW1

REGISTERED GEOLOGIST
BRUCE SCARBROUGH
No. 4937
STATE OF CALIFORNIA

SECOR

Reviewed By: _____ Date: 9/11/95

Revised By: _____ Date: _____

ATTACHMENT 2

Water Sample
Field Data Sheets

APPENDIX B-1: GROUNDWATER MONITORING PROCEDURES

The depth to groundwater and total depth are measured for the monitoring well using an electronic water-level indicator and recorded on the Field Report and Groundwater Sample Field Data Sheets that follows this section in Appendix B. If the monitoring well indicates measurable free product or a sheen of free product, the well is not sampled. The water-level indicator or interface probe is rinsed with deionized water before the sounding of the well.

Prior to sampling, the well is purged of approximately three wellbore volumes of water using a PVC bailer. During purging the evacuated groundwater is measured for pH, electrical conductivity, and temperature, and is visually inspected for color. Parameter results are recorded on Groundwater Sample Field Data Sheets. Upon removal of the appropriate purge volume and stabilization of the measured parameters, samples are collected from the well using a disposable PVC bailer. The groundwater sample is decanted into appropriately labeled laboratory-supplied glassware, placed in an ice-filled cooler, accompanied by a completed chain-of-custody record, and transported to a state-certified laboratory.

SECOR

WATER SAMPLE FIELD DATA SHEET

PROJECT NO: 50100-003-02
PURGED BY: GRC
SAMPLED BY: GRC

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

TYPE: Groundwater X Surface Water ____ Treatment Effluent ____ Other ____

CASING DIAMETER (inches): 2 X 3 ____ 4 ____ 4.5 ____ 6 ____ Other ____

CASING ELEVATION: (feet/MSL):		VOLUME IN CASING (gal.)	2.23
DEPTH TO WATER (feet):	4.79	CALCULATED PURGE (gal.) x.17	22.30 X10
DEPTH OF WELL (feet):	17.96	ACTUAL PURGE VOL. (gal.)	28.00

DATE PURGED: 2/24/95 Start (2400 Hr) 7:10 End (2400 Hr.) 8:45
DATE SAMPLED: 2/24/95 Start (2400 Hr) 9:40 End (2400 Hr.) ____

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

FIELD MEASUREMENTS

TIME (2400 Hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm@25°C)	TEMPERATURE (°F)	COLOR (visual)	TURBIDITY (~~NTU~~) visual
7:30	6.5	7.13	1096	61.7	BRN	7200
7:43	11.0	6.97	1042	61.7	BRN	7200
8:00	15.5	6.93	1041	60.9	BRN	7200
8:10	20.0	7.01	1055	61.3	BRN	7200
8:20	24.0	7.16	1002	61.1	BRN	7200
8:39	28.0	7.09	970	61.1	BRN	7200

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

ODOR: ~~None~~ Slight GAS

Clear
Cloudy
Yellow
(Brown)

PURGING EQUIPMENT

____	2" Bladder Pump	____	Bailer(Teflon®)
____	Centrifugal Pump	X	Bailer (PVC)
____	Submersible Pump	____	Bailer (Stainless Steel)
____	Well Wizard™	____	Dedicated

Other: ____

SAMPLING EQUIPMENT

____	2" Bladder Pump	____	Bailer(Teflon®)
____	DDL Sampler	X	Bailer (PVC/disposable)
____	Submersible Pump	____	Bailer (Stainless Steel)
____	Well Wizard™	____	Dedicated

Other: ____

WELL INTEGRITY: Good LOCK #: Dolphin

REMARKS:
Developed with Surge block - Purged PVC Bailer
Slight hydrocarbons sheen
Well went Dry But Fast recovery (Good well)

SIGNATURE: GRC

SEACOR
WATER SAMPLE FIELD DATA SHEET

PROJECT NO: 5010C-003-02
PURGED BY: CM
SAMPLED BY: CM

WELL ID: MW-1
SAMPLE ID: MW-1
CLIENT NAME: City of Emeryville
LOCATION: 4331 San Pablo Ave. Emeryville

TYPE: Groundwater X Surface Water ____ Treatment Effluent ____ Other ____

CASING DIAMETER (inches): 2 X 3 ____ 4 ____ 4.5 ____ 6 ____ Other ____

CASING ELEVATION: (feet/MSL):	—	VOLUME IN CASING (gal.)	1.61
DEPTH TO WATER (feet):	8.50	CALCULATED PURGE (gal.)	4.82
DEPTH OF WELL (feet):	17.96	ACTUAL PURGE VOL. (gal.)	____

DATE PURGED: 5-24 Start (2400 Hr) 9:35 End (2400 Hr.) 9:55
DATE SAMPLED: 5-24 Start (2400 Hr) 10:00 End (2400 Hr.) 10:00

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. (umhos/cm@25°C)	TEMPERATURE (°F)	COLOR (visual)	TURBIDITY (NTU)
9:40	1.5	6.65	1057	64.7	Brn	High
9:45	3.0	6.48	1005	62.9	Brn	High
9:50	4.5	6.40	1005	63.4	Brn	High
9:55	5.5	6.28	1013	64.3	Brn	High

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

Clear
Cloudy
Yellow
Brown

ODOR: Faint gas odor

PURGING EQUIPMENT

____	2" Bladder Pump	____	Bailer(Teflon®)
____	Centrifugal Pump	✓	Bailer (PVC)
____	Submersible Pump	____	Bailer (Stainless Steel)
____	Well Wizard™	____	Dedicated

Other: ____

SAMPLING EQUIPMENT

____	2" Bladder Pump	____	Bailer(Teflon®)
____	DDL Sampler	✓	Bailer (PVC/disposable)
____	Submersible Pump	____	Bailer (Stainless Steel)
____	Well Wizard™	____	Dedicated

Other: ____

WELL INTEGRITY: Good LOCK #: 401/Lin
REMARKS: ____

SIGNATURE: ____ Page ____ of ____

ATTACHMENT 3

Soil and Groundwater Certified Analytical Reports and Chain-of-Custody Records

NATIONAL ENVIRONMENTAL® TESTING, INC.

Santa Rosa Division
435 Tesconi Circle
Santa Rosa, CA 95401
Tel: (707) 526-7200
Fax: (707) 526-9623

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

Date: 03/06/1995
NET Client Acct. No: 74000
NET Pacific Job No: 95.00865
Received: 02/23/1995

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 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:

Thomas F. Cullen, Jr.
Division Manager

Linda DeMartino
Project Coordinator

Enclosure(s)

Client Name: Seacor
Client Acct: 74000
NET Job No: 95.00865

Date: 03/06/1995
ELAP Cert: 1386
Page: 2

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

SAMPLE DESCRIPTION: MW-1, 5 1/2 - 6'
Date Taken: 02/21/1995
Time Taken:
NET Sample No: 236666

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
TPH (Gas/BTXE,Solid)								
METHOD 5030/M8015	--						02/26/1995	1645
DILUTION FACTOR*	1						02/26/1995	1645
as Gasoline	5.4		1	mg/kg	5030		02/26/1995	1645
METHOD 8020 (GC,Solid)	--						02/26/1995	1645
Benzene	420	FC	2.5	ug/kg	8020		02/26/1995	1645
Toluene	7.9		2.5	ug/kg	8020		02/26/1995	1645
Ethylbenzene	110	FC	2.5	ug/kg	8020		02/26/1995	1645
Xylenes (Total)	130	FC	2.5	ug/kg	8020		02/26/1995	1645
SURROGATE RESULTS	--						02/26/1995	1645
Bromofluorobenzene (SURR)	105			% Rec.	5030		02/26/1995	1645
METHOD M8015 (EXT., Solid)						02/27/1995		
DILUTION FACTOR*	1						02/28/1995	938
as Diesel	1.9	DL	1	mg/kg	3550		02/28/1995	938

DL : The positive result appears to be a lighter hydrocarbon than Diesel.
FC : Compound quantitated at a 10X dilution factor.

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

SAMPLE DESCRIPTION: MW-1, 11-11 1/2'
Date Taken: 02/21/1995
Time Taken:
NET Sample No: 236667

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
TPH (Gas/BTXE,Solid)								
METHOD 5030/M8015	--						02/26/1995	1645
DILUTION FACTOR*	1						02/26/1995	1645
as Gasoline	35	FC	1	mg/kg	5030		02/26/1995	1645
METHOD 8020 (GC,Solid)	--						02/26/1995	1645
Benzene	170	FC	2.5	ug/kg	8020		02/26/1995	1645
Toluene	16		2.5	ug/kg	8020		02/26/1995	1645
Ethylbenzene	170		2.5	ug/kg	8020		02/26/1995	1645
Xylenes (Total)	59		2.5	ug/kg	8020		02/26/1995	1645
SURROGATE RESULTS	--						02/26/1995	1645
Bromofluorobenzene (SURR)	94			% Rec.	5030		02/26/1995	1645
METHOD M8015 (EXT., Solid)						02/27/1995		
DILUTION FACTOR*	2						03/01/1995	939
as Diesel	120		2	mg/kg	3550		03/01/1995	939

FC : Compound quantitated at a 10X dilution factor.

Client Name: Seacor
Client Acct: 74000
NET Job No: 95.00865

Date: 03/06/1995
ELAP Cert: 1386
Page: 4

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

CONTINUING CALIBRATION VERIFICATION STANDARD REPORT

Parameter	CCV Standard % Recovery	CCV Standard Amount Found	CCV Standard Amount Expected	Units	Date Analyzed	Analyst Initials	Run Batch Number
TPH (Gas/BTXE,Solid)							
as Gasoline	105.8	5.29	5.00	mg/kg	02/26/1995	dfw	1645
Benzene	108.4	27.1	25.0	ug/kg	02/26/1995	dfw	1645
Toluene	101.6	25.4	25.0	ug/kg	02/26/1995	dfw	1645
Ethylbenzene	91.6	22.9	25.0	ug/kg	02/26/1995	dfw	1645
Xylenes (Total)	91.2	68.4	75.0	ug/kg	02/26/1995	dfw	1645
Bromofluorobenzene (SURR)	99.0	99	100	% Rec.	02/26/1995	dfw	1645
METHOD M8015 (EXT., Solid)							
as Diesel	97.9	979	1000	mg/kg	02/28/1995	tdn	938
METHOD M8015 (EXT., Solid)							
as Diesel	102.1	1021	1000	mg/kg	03/01/1995	tdn	939

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

METHOD BLANK REPORT

Parameter	Method Blank Amount Found	Reporting Limit	Units	Date Analyzed	Analyst Initials	Run Batch Number
TPH (Gas/BTXE,Solid)						
as Gasoline	ND	1	mg/kg	02/26/1995	dfw	1645
Benzene	ND	2.5	ug/kg	02/26/1995	dfw	1645
Toluene	ND	2.5	ug/kg	02/26/1995	dfw	1645
Ethylbenzene	ND	2.5	ug/kg	02/26/1995	dfw	1645
Xylenes (Total)	ND	2.5	ug/kg	02/26/1995	dfw	1645
Bromofluorobenzene (SURR)	94		% Rec.	02/26/1995	dfw	1645
METHOD M8015 (EXT., Solid)						
as Diesel	ND	1	mg/kg	02/28/1995	tdn	938

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

MATRIX SPIKE / MATRIX SPIKE DUPLICATE

Parameter	Matrix Spike % Rec.	Matrix Spike Dup % Rec.	RPD	Spike Amount	Sample Conc.	Matrix Spike Conc.	Matrix Spike Dup. Conc.	Units	Date Analyzed	Run Batch	Sample Spiked
TPH (Gas/BTXE,Solid)											236670
as Gasoline	75.4	60.6	21.8	5.00	ND	3.77	3.03	mg/kg	02/26/1995	1645	236670
Benzene	80.6	63.8	23.3	98.0	14	93.0	76.5	ug/kg	02/26/1995	1645	236670
Toluene	86.0	68.5	22.7	428	ND	368	293	ug/kg	02/26/1995	1645	236670
METHOD M8015 (EXT., Solid)											
as Diesel	**										

** Diesel MS/MSD are out of control, due to non-homogenous sample matrix. LCS is within control.

Client Name: Seacor
Client Acct: 74000
NET Job No: 95.00865

Date: 03/06/1995
ELAP Cert: 1386
Page: 7

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

LABORATORY CONTROL SAMPLE REPORT

Parameter	LCS % Recovery	Duplicate LCS % Recovery	RPD	LCS Amount Found	Duplicate LCS Amount Found	LCS Amount Expected	Units	Date Analyzed	Analyst Initials	Run Batch
METHOD M8015 (EXT., Solid) as Diesel	91.6			15.3		16.7	mg/kg	02/28/1995	tdn	938

NET®

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 [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.

5667

Chain-of-Custody Number:

SEACOR Chain-of-Custody Record

Field Office: San Francisco
Address: 90 New Montgomery St, Suite 620
San Francisco, CA

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

Job Name: City of Emeryville
Location: 4331 San Pablo Ave.
Emeryville, CA

Project # 50100-003-02 Task # 00
Project Manager Dan Madsen
Laboratory NET
Turnaround Time

Sampler's Name Charles McLaughlin
Sampler's Signature

Analysis Request

Sample ID	Date	Time	Matrix	HCID	TPHg/BTEX/WTPH-G 8015 (modified)/8020	TPHd/WTPH-D 8015 (modified)	TPH 418.1/WTPH 418.1	Aromatic Volatiles 602/8020	Volatile Organics 624/8240 (GC/MS)	Halogenated Volatiles 601/8010	Semi-volatile Organics 625/8270 (GC/MS)	Pesticides/PCBs 608/8080	Total Lead 7421	Priority Pollutant Metals (13)	TCLP Metals			Comments/ Instructions	Number of Containers
MW-1, 5½-6'	2-21-95		Soil		X	X												OK to run per Dan Madsen 2/23/95 PO	
MW-1, 11-11½'	"		"		X	X												* Hold Reading	
																		* Call From Dan Madsen	
SP-1A Composite	2-21-95		Soil		X	X												3 composite - hold	
SP-1B	"		"		X	X													
																		2/22/95 GPL Seal intact	T-L

Special Instructions/Comments:

Temp. rec'd. -0.2°C

Relinquished by: SECOR
Sign
Print Charles McLaughlin
Company SECOR
Time 11:45 Date 2/22

Received by: NET
Sign
Print G P Lumbra
Company NET
Time 11:45 Date 2/22/95

Relinquished by: NET
Sign
Print G P Lumbra
Company NET
Time 17:30 Date 2/22/95

Received by:
Sign
Print T. LeBaudour
Company N.E.T.
Time 07:00 Date 2/23/95

Sample Receipt
Total no. of containers:
Chain of custody seals: intact
Rec'd. good condition/cold:
Conforms to record:

Client:
Client Contact:
Client Phone:

SEACOR CUSTREC Rev. 12/93

Date: 2/21/95 Page 1 of 1

NATIONAL ENVIRONMENTAL TESTING, INC.

Santa Rosa Division
435 Tesconi Circle
Santa Rosa, CA 95401
Tel: (707) 526-7200
Fax: (707) 526-9623

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

Date: 03/13/1995
NET Client Acct. No: 74000
NET Pacific Job No: 95.00895
Received: 02/25/1995

Client Reference Information

50100-003-02/City of Emeryville

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:

Thomas F. Cullen, Jr.
Division Manager

Linda DeMartino
Project Coordinator

Enclosure(s)

Client Name: Seacor
Client Acct: 74000
NET Job No: 95.00895

Date: 03/13/1995
ELAP Cert: 1386
Page: 2

Ref: 50100-003-02/City of Emeryville

SAMPLE DESCRIPTION: MW-1
Date Taken: 02/24/1995
Time Taken: 09:40
NET Sample No: 236848

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
TPH (Gas/BTXE,Liquid)								
METHOD 5030/M8015	--						03/05/1995	2642
DILUTION FACTOR*	10						03/05/1995	2642
as Gasoline	1.6		0.5	mg/L	5030		03/05/1995	2642
METHOD 8020 (GC,Liquid)	--						03/05/1995	2642
Benzene	170		5	ug/L	8020		03/05/1995	2642
Toluene	7.2		5	ug/L	8020		03/05/1995	2642
Ethylbenzene	26		5	ug/L	8020		03/05/1995	2642
Xylenes (Total)	84		5	ug/L	8020		03/05/1995	2642
SURROGATE RESULTS	--						03/05/1995	2642
Bromofluorobenzene (SURR)	97			% Rec.	5030		03/05/1995	2642
METHOD M8015 (EXT., Liquid)						02/27/1995		
DILUTION FACTOR*	1						02/28/1995	939
as Diesel	1.2	DH,DL	0.05	mg/L	3510		02/28/1995	939

DH : The positive result appears to be a heavier hydrocarbon than Diesel.
DL : The positive result appears to be a lighter hydrocarbon than Diesel.

Client Name: Seacor
Client Acct: 74000
NET Job No: 95.00895

Date: 03/13/1995
ELAP Cert: 1386
Page: 3

Ref: 50100-003-02/City of Emeryville

CONTINUING CALIBRATION VERIFICATION STANDARD REPORT

Parameter	CCV Standard % Recovery	CCV Standard Amount Found	CCV Standard Amount Expected	Units	Date Analyzed	Analyst Initials	Run Batch Number
METHOD M8015 (EXT., Liquid)							
as Diesel	102.0	1020	1000	mg/L	02/28/1995	tdn	939
TPH (Gas/BTXE,Liquid)							
as Gasoline	101.0	1.00	1.01	mg/L	03/05/1995	tdn	2642
Benzene	96.0	5.00	4.80	ug/L	03/05/1995	tdn	2642
Toluene	94.8	5.00	4.74	ug/L	03/05/1995	tdn	2642
Ethylbenzene	86.4	5.00	4.32	ug/L	03/05/1995	tdn	2642
Xylenes (Total)	100.7	15.0	15.1	ug/L	03/05/1995	tdn	2642
Bromofluorobenzene (SURR)	103.0	100	103	% Rec.	03/05/1995	tdn	2642

Ref: 50100-003-02/City of Emeryville

METHOD BLANK REPORT

Parameter	Method Blank Amount Found	Reporting Limit	Units	Date Analyzed	Analyst Initials	Run Batch Number
TPH (Gas/BTXE,Liquid)						
as Gasoline	ND	0.05	mg/L	03/05/1995	dfw	2642
Benzene	ND	0.5	ug/L	03/05/1995	dfw	2642
Toluene	ND	0.5	ug/L	03/05/1995	dfw	2642
Ethylbenzene	ND	0.5	ug/L	03/05/1995	dfw	2642
Xylenes (Total)	ND	0.5	ug/L	03/05/1995	dfw	2642
Bromofluorobenzene (SURR)	94		% Rec.	03/05/1995	dfw	2642
METHOD M8015 (EXT., Liquid)						
as Diesel	ND	0.05	mg/L	02/28/1995	tdn	939

Ref: 50100-003-02/City of Emeryville

MATRIX SPIKE / MATRIX SPIKE DUPLICATE

Parameter	Matrix Spike % Rec.	Matrix Spike Dup % Rec.	RPD	Spike Amount	Sample Conc.	Matrix Spike Conc.	Matrix Spike Dup. Conc.	Units	Date Analyzed	Run Batch	Sample Spiked
METHOD M8015 (EXT., Liquid)											236770
as Diesel	104.3	95.3	8.9	2.11	ND	2.20	2.01	mg/L	02/28/1995	939	236770
TPH (Gas/BTXE,Liquid)											236844
as Gasoline	110.0	103.0	6.6	1.00	ND	1.10	1.03	mg/L	03/05/1995	2642	236844
as Benzene	102.0	96.6	5.3	20.3	ND	20.7	19.6	ug/L	03/05/1995	2642	236844
as Toluene	102.8	98.2	4.5	81.8	1.4	85.5	81.7	ug/L	03/05/1995	2642	236844
Bromofluorobenzene (SURR)	113.0	105.0	7.3	100	98	113	105	% Rec.	03/05/1995	2642	236844

Client Name: Seacor
Client Acct: 74000
NET Job No: 95.00895

Date: 03/13/1995
ELAP Cert: 1386
Page: 6

Ref: 50100-003-02/City of Emeryville

LABORATORY CONTROL SAMPLE REPORT

Parameter	LCS % Recovery	Duplicate LCS % Recovery	RPD	LCS Amount Found	Duplicate LCS Amount Found	LCS Amount Expected	Units	Date Analyzed	Analyst Initials	Run Batch
METHOD M8015 (EXT., Liquid) as Diesel	90.2			0.902		1.00	mg/L	02/28/1995	tdn	939
METHOD M8015 (EXT., Liquid) as Diesel	86.1			0.861		1.00	mg/L	02/28/1995	tdn	939

NET®

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 [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: 50100

SECOR Chain-of Custody Record

Field Office: San Francisco

Address: 90 New Montgomery St. Suite 620
San Francisco CA

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

Job Name: City of Emeryville

Location: 4331 San Pablo Ave
Emeryville, CA

Project # 50100-003-02 Task # 00

Project Manager Dan Madson

Laboratory NET

Turnaround Time Standard

Sampler's Name Gary Clift

Sampler's Signature Gary Clift

Analysis Request

Sample ID	Date	Time	Matrix	HCID	TPHg/BTEX/WTPH-G 8015 (modified)/8020	TPHd/WTPH-D 8015 (modified)	TPH 418.1/WTPH 418.1	Aromatic Volatiles 602/8020	Volatile Organics 624/8240 (GC/MS)	Halogenated Volatiles 601/8010	Semi-volatile Organics 625/8270 (GC/MS)	Pesticides/PCBs 608/8080	Total Lead 7421	Priority Pollutant Metals (13)	TCLP Metals			Comments/ Instructions	Number of Containers
MW-1	2/24	9:40	H2O		X	X												TPHg/TPHd/BTEX	5

2/24/95 1440 Bell Quinact 2/25/95

Special Instructions/Comments:

Relinquished by: SECOR
Sign Gary Clift
Print GARY CLIFT
Company SECOR
Time 12:00 Date 2/24/95

Relinquished by:
Sign Betty Harvey
Print BETTY HARVEY
Company NET
Time 1440 Date 2/24/95

Sample Receipt
Total no. of containers: 5
Chain of custody seals:
Rec'd. in good condition/cold:
Conforms to record:

~~Relinquished~~ RECEIVED by:
Sign Betty Harvey
Print BETTY HARVEY
Company NET
Time 1405 Date 2/24/95

Relinquished by:
Sign Hal Prosser
Print HAL PROSSER
Company NET
Time 1000 Date 2/25/95

Client: SECOR

Client Contact: Dan Madson

Client Phone: (415) 882-1548

TEMP. 10.1°C.

Date: 2/24/95 Page 1 of 1

SECOR CUSTREC Rev. 9/94

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
Seacor
90 New Montgomery
Suite 620
San Francisco, CA 94105

Date: 06/07/1995
NET Client Acct. No: 74000
NET Job No: 95.02121
Received: 05/25/1995

Client Reference Information

Proj. No. 50100-003-02

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:

Ken Larson
Division Manager

Jennifer L. Roseberry
Project Manager

Enclosure(s)

Client Name: Seacor
Client Acct: 74000
NET Job No: 95.02121

Date: 06/07/1995
ELAP Cert: 1386
Page: 2

Ref: Proj. No. 50100-003-02

SAMPLE DESCRIPTION: MW-1
Date Taken: 05/24/1995
Time Taken: 10:00
NET Sample No: 242932

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No
TPH (Gas/BTXE,Liquid)								
METHOD 5030/M8015	--						06/03/1995	2898
DILUTION FACTOR*	1						06/03/1995	2898
as Gasoline	1.4		0.05	mg/L	5030		06/03/1995	2898
METHOD 8020 (GC,Liquid)	--						06/03/1995	2898
Benzene	320	FC	5.0	ug/L	8020		06/06/1995	2904
Toluene	3.5		0.5	ug/L	8020		06/03/1995	2898
Ethylbenzene	29		0.5	ug/L	8020		06/03/1995	2898
Xylenes (Total)	28		0.5	ug/L	8020		06/03/1995	2898
SURROGATE RESULTS	--						06/03/1995	2898
Bromofluorobenzene (SURR)	121	MI		% Rec.	5030		06/03/1995	2898
METHOD M8015 (EXT., Liquid)						05/31/1995		
DILUTION FACTOR*	1						05/31/1995	1005
as Diesel	1.2	D-	0.05	mg/L	3510		05/31/1995	1005

D- : The positive result has an atypical pattern for Diesel analysis.
FC : Compound quantitated at a 10X dilution factor.
MI : Matrix interference suspected.

Ref: Proj. No. 50100-003-02

CONTINUING CALIBRATION VERIFICATION STANDARD REPORT

Parameter	CCV Standard % Recovery	CCV Standard Amount Found	CCV Standard Amount Expected	Units	Date Analyzed	Analyst Initials	Run Batch Number
TPH (Gas/BTXE,Liquid)							
as Gasoline	98.0	0.49	0.50	mg/L	06/03/1995		2898
Benzene	91.8	4.59	5.00	ug/L	06/03/1995		2898
Toluene	94.8	4.74	5.00	ug/L	06/03/1995		2898
Ethylbenzene	92.4	4.62	5.00	ug/L	06/03/1995		2898
Xylenes (Total)	92.7	13.9	15.0	ug/L	06/03/1995		2898
Bromofluorobenzene (SURR)	89.0	89	100	% Rec.	06/03/1995		2898
TPH (Gas/BTXE,Liquid)							
as Gasoline	106.0	0.53	0.50	mg/L	06/06/1995	aal	2904
Benzene	92.0	4.60	5.00	ug/L	06/06/1995	aal	2904
Toluene	95.2	4.76	5.00	ug/L	06/06/1995	aal	2904
Ethylbenzene	93.2	4.66	5.00	ug/L	06/06/1995	aal	2904
Xylenes (Total)	93.3	14.0	15.0	ug/L	06/06/1995	aal	2904
Bromofluorobenzene (SURR)	88.0	88	100	% Rec.	06/06/1995	aal	2904
METHOD M8015 (EXT., Liquid)							
as Diesel	109.0	1090	1000	mg/L	05/31/1995	tts	1005

Client Name: Seacor
Client Acct: 74000
NET Job No: 95.02121

Date: 06/07/1995
ELAP Cert: 1386
Page: 4

Ref: Proj. No. 50100-003-02

METHOD BLANK REPORT

Parameter	Method Blank Amount Found	Reporting Limit	Units	Date Analyzed	Analyst Initials	Run Batch Number
TPH (Gas/BTXE,Liquid)						
as Gasoline	ND	0.05	mg/L	06/03/1995		2898
Benzene	ND	0.5	ug/L	06/03/1995		2898
Toluene	ND	0.5	ug/L	06/03/1995		2898
Ethylbenzene	ND	0.5	ug/L	06/03/1995		2898
Xylenes (Total)	ND	0.5	ug/L	06/03/1995		2898
Bromofluorobenzene (SURR)	89		% Rec.	06/03/1995		2898
TPH (Gas/BTXE,Liquid)						
as Gasoline	ND	0.05	mg/L	06/05/1995	aal	2904
Benzene	ND	0.5	ug/L	06/05/1995	aal	2904
Toluene	ND	0.5	ug/L	06/05/1995	aal	2904
Ethylbenzene	ND	0.5	ug/L	06/05/1995	aal	2904
Xylenes (Total)	ND	0.5	ug/L	06/05/1995	aal	2904
Bromofluorobenzene (SURR)	88		% Rec.	06/05/1995	aal	2904
METHOD M8015 (EXT., Liquid)						
as Diesel	ND	0.05	mg/L	05/31/1995	tts	1005

Client Name: Seacor
Client Acct: 74000
NET Job No: 95.02121

Date: 06/07/1995
ELAP Cert: 1386
Page: 5

Ref: Proj. No. 50100-003-02

MATRIX SPIKE / MATRIX SPIKE DUPLICATE

Parameter	Matrix Spike % Rec.	Matrix Spike Dup % Rec.	RPD	Spike Amount	Sample Conc.	Matrix Spike Conc.	Matrix Spike Dup. Conc.	Units	Date Analyzed	Run Batch	Sample Spiked
TPH (Gas/BTXE,Liquid)											242921
as Gasoline	94.0	88.0	6.6	0.50	ND	0.47	0.44	mg/L	06/03/1995	2898	242921
Benzene	104.2	94.9	9.2	6.92	ND	7.21	6.57	ug/L	06/03/1995	2898	242921
Toluene	97.2	88.5	9.4	28.8	ND	28.0	28.8	ug/L	06/03/1995	2898	242921
TPH (Gas/BTXE,Liquid)											243047
as Gasoline	84.0	96.0	13.3	0.50	ND	0.42	0.48	mg/L	06/06/1995	2904	243047
Benzene	84.7	93.3	9.7	7.93	ND	6.72	7.40	ug/L	06/06/1995	2904	243047
Toluene	86.9	95.6	9.5	29.8	ND	25.9	28.5	ug/L	06/06/1995	2904	243047
METHOD M8015 (EXT., Liquid)											242986
as Diesel	78.5	79.0	0.6	2.00	ND	1.57	1.58	mg/L	05/31/1995	1005	242986

Client Name: Seacor
Client Acct: 74000
NET Job No: 95.02121

Date: 06/07/1995
ELAP Cert: 1386

Ref: Proj. No. 50100-003-02

LABORATORY CONTROL SAMPLE REPORT

Parameter	LCS % Recovery	Duplicate LCS % Recovery	RPD	LCS Amount Found	Duplicate LCS Amount Found	LCS Amount Expected	Units	Date Analyzed	Analyst Initials	Run Batch
METHOD M8015 (EXT., Liquid)										
as Diesel	58.3			0.583		1.00	mg/L	05/31/1995	tts	1005

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 [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: A 7402

SEACOR Chain-of-Custody Record

Address: 90 New Montgomery St, Suite 620
San Francisco, CA

Project # 50100-003-02 Task # 00
Project Manager Dan Matsen
Laboratory NET
Turn-around time: Standard

Sampler's Name: Charles Melancon
Sampler's Signature:

Analysis Request

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	5-24-95	10:00	water	X	X														5

5/24/95

Special Instructions/Comments:

Relinquished by:
Sign
Print Charles Melancon
Company SECOR
Time 12:00 Date 5-24-95

Received by:
Sign
Print
Company NET
Time 12:40 Date 5/24/95

Relinquished by:
Sign
Print
Company NET
Time 18:00 Date 5/24/95

Received by:
Sign
Print PAM GREENE
Company NET
Time 08:00 Date 5-25-95

Sample Receipt

Total no. of containers	5
Chain of custody seals:	√
Rec'd good condition/cold:	√
Conforms to record:	√

Client:
Client Contact:
Client Phone Number:

Date 5/24/95 Page 1 of 1