# SHELL OIL CORPORATION

# QUARTERLY REPORT TO

# THE CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

20468520703				
1285 Bancroft Boulevard				
San Leandro				
Alameda				
rterly status report.				
rt.				
<u>N</u>				
N				
NA				
NA				
N				

Geologic and Environmental Services 5500

Fax: 415-547-5043 Phone: 415-547-5420

5500 Shellmound Street, Emeryville, CA 94608

## TRANSMITTAL LETTER

FROM.	raren C. SIXC	DATE: August 20,	1990
<u>TO</u> :	Mr. Lawrence Seto Alameda County Department of Environmental Health Hazardous Materials Division 80 Sway Way, Room 200 Oakland, California 94621	VIA: First Fax UPS (S Federa Courie	pages Surface) LL Express
	SHELL SERVICE STATIONS 1784 150TH ST., SAN LEANDRO 1285 BANCROFT AVE., SAN LEANDRO		81-422-01 81-423-01
<u>X</u>	We discussed on the telephone on You requested in your letter date We believe you may be interested Is required	d August 8, 1990	 
WE ARE SE	ENDING: X Enclosed Under Separate Cover	Via	
	eposit/refund checks for review of re Stations.	ports pertaining to	o the subject Shell
<del></del>	Your information PLEASE: X Your use Your review & comments Return to you	X Keep this Return wit X Acknowledg	thin 2 weeks
MESSAGE:	Please have your office send us rece	ipts for the checks	s. Thank you.
Enc.: (1	) Check No. 6916 Co. of Alameda, date Weiss Associates #81-423-01	d August 16, 1990/S	\$375.00
(2	) Check No. 6920 Co. of Alameda, date Weiss Associates #81-422-01	d August 16, 1990/	\$375.00

Geologic and Environmental Services

Fax: 415-547-5043

5500 Shellmound Street, Emeryville, CA 94608

Phone: 415-547-5420

July 31, 1990

Lawrence Seto
Alameda County Department of Environmental Health
Division of Hazardous Materials
80 Swan Way, Room 200
Oakland, California 94621

Re: Shell Service Station
WIC #204-6852-0703
1285 Bancroft Avenue
San Leandro, California
WA Job #81-423-01

Dear Mr. Seto:

This letter describes Weiss Associates' (WA) second quarter 1990 activities at the subject Shell service station (Figure 1). This status report satisfies the quarterly reporting requirements outlined in our workplan dated February 23, 1990, and prescribed by California Administrative Code Title 23 Waters, Chapter 3, Subchapter 16, Article 5, Section 2652.d. Included below are:

- A brief site background and statement of objectives,
- Descriptions of activities performed during the second quarter 1990 reporting period (March 1 through June 30, 1990), including tabulated chemical analytic results, and
- Proposed work for the third quarter 1990.

### BACKGROUND AND OBJECTIVES

In November 1986 Petroleum Engineering of Santa Rosa, California, removed a 550-gallon waste oil tank and replaced it with a 550-gallon fiberglass tank. Immediately following the tank removal, Blaine Tech Services (BT) of San Jose, California, collected soil samples from directly beneath the former tank location at 8.75 ft and 9 ft depths. The soil samples contained 83 parts per million (ppm) total hydrocarbon (non-polar) oil and grease (TOG) and 583 ppm TOG, respectively. After additional excavation, BT collected a soil sample from the excavation

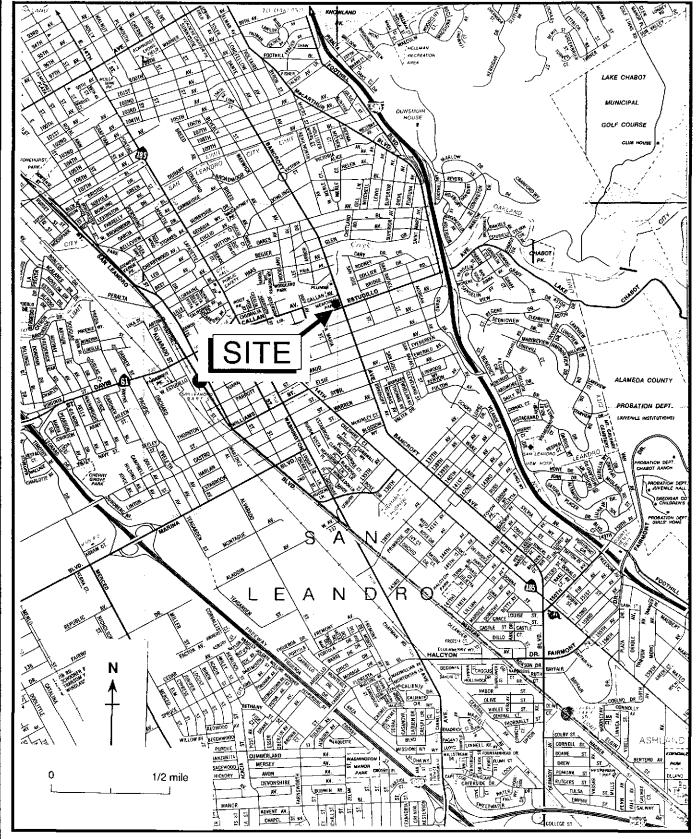


Figure 1. Site Location Map - Shell Service Station WIC #204685207, 1285 Bancroft Avenue, San Leandro, California



bottom at 9.5 ft depth. The sample contained 89.3 ppm TOG.<sup>1</sup> No ground water was encountered in the tank excavation.

To determine the site stratigraphy and ground water depth, and whether compounds from the former waste oil tank impacted ground water, Shell Oil retained WA, in December 1989, to drill one soil boring adjacent to the waste oil tank, install a ground water monitoring well in the boring, and monitor ground water at the site.

# SECOND QUARTER 1990 ACTIVITIES

During the second quarter 1990 Weiss Associates (WA):

- Drilled one soil boring and installed a ground water monitoring well in the boring,
- Collected soil samples from the boring for chemical analysis, and
- Developed and sampled the well, and analyzed the ground water sample for petroleum hydrocarbons and other organic compounds.

Each of these tasks is described below.

## Soil Boring and Monitoring Well Installation

On March 6 and 7, 1990, WA geologist Karen Sixt drilled one soil boring to a depth of 60 ft immediately adjacent to the waste oil tank, and installed ground water monitoring well MW-1 in the boring (Figure 2). Review of local and site topography and regional ground water gradient suggested that the ground water flow direction beneath the site is to the west-southwest. Because of site structures and overhead impediments, the boring could not be placed directly in the anticipated downgradient direction, although it was drilled directly adjacent to the tank location. Each soil sample collected from the boring was analyzed for:

• Total petroleum hydrocarbons as gasoline (TPH-G) by modified EPA Method 8015, gas chromatography with flame ionization detection (GC/FID),

<sup>&</sup>lt;sup>1</sup>Blaine Tech Services, 1986, Sampling Report 86315-M1, Shell Service Station, 1285 Bancroft Avenue, San Leandro, California, consultant's letter-report prepared for Shell Oil Company, November 21, 1986, 3 pp. and 2 attachments.

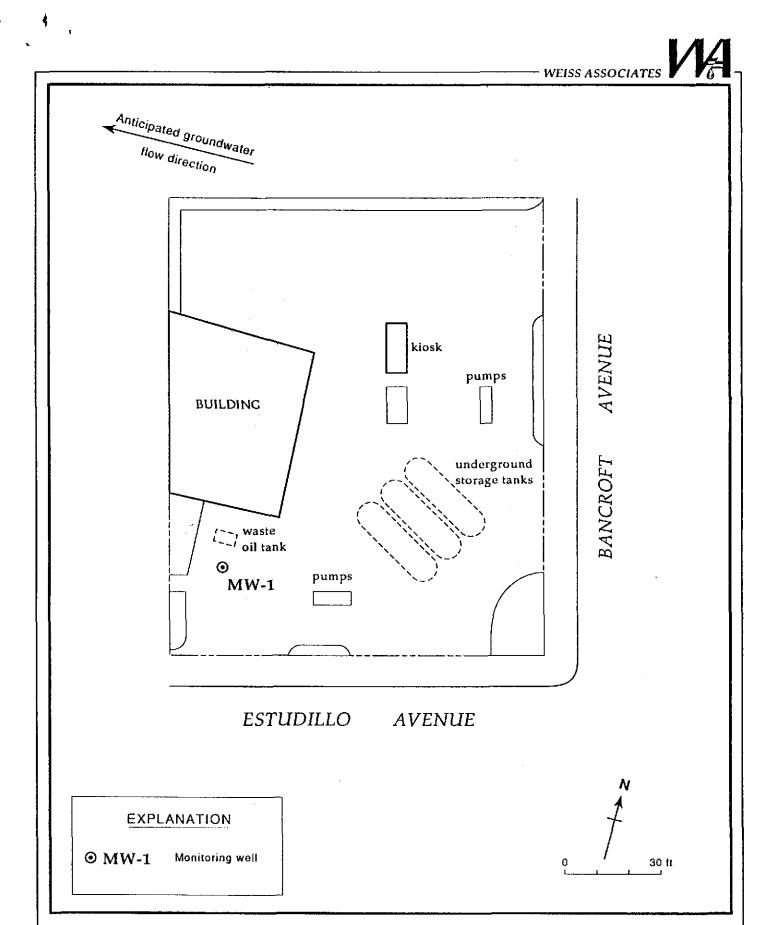


Figure 2. Monitoring Well Location - Shell Service Station WIC #204-685-207, 1285 Bancroft Avenue, San Leandro, California

5

Mr. Lawrence Seto July 31, 1990



- Benzene, ethylbenzene, toluene and xylenes (BETX) by EPA Method 8020, gas chromatography with photoionization detection (GC/PID),
- Total hydrocarbon (non-polar) oil and grease (TOG) by American Public Health Association (APHA) Standard Methods 503D&E,
- Halogenated volatile organic compounds (HVOCs) by EPA Method 8010, gas chromatography with Hall electrolytic conductivity detection (GC/HALL),

The soil sample from just above the static water level in the boring was also analyzed for:

 Total petroleum hydrocarbons as diesel (TPH-D) by modified EPA Method 8015, GC/FID.

Analytic results for soil are presented in Table 1, and copies of laboratory analytic reports and chain of custody documents for soil samples are presented as Attachment A. TPH-G, TOG and BET were not detected in any of the samples. Trace concentrations of TPH-D and xylenes were detected in the sample collected just above static water level. Trace concentrations of tetrachloroethylene (PCE) were detected in three out of six samples analyzed.

Drill cuttings were sampled and temporarily stockpiled onsite on plastic sheeting. The stockpile was covered with plastic sheeting to prevent infiltration of rainwater and possible aeration of volatile compounds. Based on the analytic results of the composite stockpile samples, the soil was subsequently transported to a Class III disposal facility by a licensed waste hauler under contract with Shell Oil.

Soil Boring (Well ID)	Sample Depth (ft)	Date Sampled	Analytic Lab	Analytic Method	Sat/ Unsat	TPH-G	TPH-D <sup>a</sup>	В	E parts	T permillion	X (mg/kg)	HVOCS	tog <sup>b</sup>
BH-A (MW-1)	9.2	3-6-90	NET	8015/8020/ 8010/503	Unsat	<1	•••	<0.0025	<0.0025	<0.0025	<0.0025	0.002 <sup>c</sup>	<100
<b>(</b>	19.7	3-6-90	NET	8015/8020/ 8010/503	Unsat	<1		<0.0025	<0.0025	<0.0025	<0.0025	<0.002-0.05	<100
	29.7	3-6-90	NET	8015/8020/ 8010/503	Unsat	<1		<0.0025	<0.0025	<0.0025	<0.0025	<0.002-0.05	<100
	39.7	3-6-90	NET	8015/8020/ 8010/503	Unsat	<1	1.6	<0.0025	<0.0025	<0.0025	0.0057	<0.002-0.05	<100
	51.2	3-6-90	NET	8015/8020/ 8010/503	Sat	<1		<0.0025	<0.0025	<0.0025	<0.0025	0.0045 <sup>c</sup>	<100
	61.2	3-7-90	NET	8015/8020/ 8010/503	Sat	<1		<0.0025	<0.0025	<0.0025	<0.0025	0.0043 <sup>c</sup>	<100

#### Abbreviations:

TPH-G = Total petroleum hydrocarbons as gasoline

TPH-D = Total petroleum hydrocarbons as diesel

TPH-MO = Total petroleum hydrocarbons as motor oil

B = Benzene

E = Ethylbenzene

T = Toluene

X = Xylenes

HVOCs = Halogenated volatile organic compounds

TOG = Total hydrocarbon oil and grease (non-polar)

Sat = Saturated soil sample

Unsat = Unsaturated soil sample

<n = Not detected at detection limit of n ppm</pre>

#### Notes:

- <sup>a</sup> = Analytic results for TPH-MO are reported with TPH-D results by the laboratory. TPH-MO results are included in the analytic reports in Attachment B.
- b = Analytic results for total oil and grease (polar and non-polar) are reported with the hydrocarbon (non-polar) TOG by the laboratory. These results are included in the analytic reports in Attachment C.

c = Tetrachloroethylene (PCE) detected at n ppm

### Analytical Laboratory:

NET = National Environmental Testing Pacific, Inc., Santa Rosa, California

### Analytic Methods:

503 = APHA Standard Methods 503D&E for TOG

8010 = EPA Method 8010 for HVOCs

8015 = Modified EPA Method 8015 for TPH-G and TPH-D

8020 = EPA Method 8020 for BETX

Mr. Lawrence Seto July 31, 1990



# Monitoring Well Development and Sampling

Monitoring well MW-1 was developed on March 8, 1990, by WA environmental technician Matt Derby. The well yielded about 3.3 gallons per minute during development using surge block agitation and airlift evacuation. The well was initially sampled on March 13, 1990. Prior to sampling, four well casing volumes, approximately 44 gallons, were purged from the well with a steam-cleaned PVC bailer. Ground water samples were collected with a steam-cleaned Teflon bailer, and were decanted into 40 ml glass, volatile organic analysis vials and sealed in plastic guard bottles containing activated carbon pellets. Samples collected for TOG and TPH-D analysis were decanted into 1 liter amber glass bottles. The sample for TOG analysis was preserved with sulfuric acid. A travel blank was submitted for TPH-G and BETX analysis to check for carry-over of VOCs during transport. An equipment blank was also collected and submitted for TPH-G and BETX analysis.

Well MW-1 was sampled again on June 12, 1990, as part of WA's quarterly monitoring program. Prior to sampling, four well casing volumes, approximately 43 gallons, were purged from the well with a dedicated PVC bailer. Ground water samples were drawn from a sampling port on the side of the bailer. The sampling protocol outlined above for the initial sampling was also followed for the second quarter sampling. An equipment blank was not collected because a dedicated bailer was installed in well MW-1 during the June sampling.

Ground water samples collected from well MW-1 on March 13, 1990, and June 12, 1990, were analyzed for:

- TPH-G & D by modified EPA Method 8015, GC/FID,
- BETX by EPA Method 602, GC/PID,
- HVOCs by EPA Method 601, GC/HALL, and
- TOG by APHA Standard Methods 503A&E,

Analytic results for ground water are presented in Table 2, and copies of the laboratory analytic reports and chain of custody documents for ground water are presented in Attachment

Table 2. Analytic Results for Ground Water - Shell Service Station WIC #204-6852-1404, 1784 150th Avenue, San Leandro, California

Well ID	Date Sampled	Analytic Method	TPH-G	TPH-D	В	E parts p	τ per_billion (μ	X g/L)	TOG	HV0Cs
MW-1	03/13/90 06/12/90	8015/602/503/601 8015/602/503/601	510 390	130 340	<0.5 <0.5	1.5 2.3	1.1 <0.5	8.7 5.5	<10,000 <10,000	*a *p
Trip Blank	03/13/90 06/12/90	8015/602 8015/602	<50 <50		<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5		
Bailer Blank	03/13/90	8015/602	<50		<0.5	<0.5	<0.5	<0.5		
OHS MCLs	-	-	NE	NE	1	680	100 <sup>C</sup>	1,750	NE	*q

#### Abbreviations:

TPH-G = Total Petroleum Hydrocarbons as Gasoline TPH-D = Total Petroleum Hydrocarbons as Diesel

B = Benzene

E = Ethylbenzene

T = Toluene

X = Xylenes

TOG = Total hydrocarbon (non-polar) oil and grease

HVOCs = Halogenated Volatile Organic Compounds

--- = Not analyzed

<n = Not detected at detection limit of n ppb</pre>

DHS MCLs = California Department of Health Services Maximum Contaminant

ppb = parts per billion

NE = Not established by DHS

#### Notes:

#### Analytical Laboratory:

National Environmental Testing, Inc. (NET), Santa Rosa, California

### Analytic Methods:

503 = American Public Health Association Standard Methods 503A&E for TOG

601 = EPA Method 601 for HVOCs

602 = EPA Method 602 for BETX

8015 = Modified EPA Method 8015 for TPH-G and TPH-D

a = Tetrachloroethylene (PCE) detected at 35 ppb; chloroform detected at

b = PCE detected at 1.9 ppb; chloroform detected at 63 ppb c = DHS Recommended Action Level, MCL not established d = DHS MCL for PCE: 5 ppb; DHS MCL for chloroform: 100 ppb

Mr. Lawrence Seto July 31, 1990



C. TPH-G was detected at 510 parts per billion (ppb) and 390 ppb on March 8 and June 12, respectively, in well MW-1. Low concentrations of ethylbenzene and xylenes were detected in in samples collected during both the March and June samplings. Toluene, detected in the March 13 sample was not detected in the June sample. PCE was detected above the California Department of Health Services (DHS) Maximum Contaminant Level (MCL) in drinking water in the March sample, and decreased to below the MCL in the June sample. Chloroform was also detected in water samples collected in March and June. No floating hydrocarbons have been observed to date in well MW-1.

9

# Ground Water Levels

The depth to ground water was measured in well MW-1 prior to each sampling. The depth to water on March 13, 1990, was 42.65 ft. The depth to water was 43.14 ft on June 12, 1990, a drop of 0.49 feet since the previous quarter.

## ANTICIPATED WORK FOR THIRD QUARTER 1990

During the third quarter 1990, on behalf of Shell Oil, WA plans to:

- Review all site data and make recommendations for additional work,
- Continue quarterly monitoring of well MW-1, and
- Submit quarterly status reports, including all site data collected during the quarter.

A comprehensive subsurface investigation report, including boring logs, will be submitted to Shell Oil after the extent of hydrocarbons in soil and ground water is defined.

Mr. Lawrence Seto July 31, 1990 WEISS ASSOCIATES

We trust that this submittal satisfies your requirements. Please call Karen Sixt or Joe Theisen if you have questions.

10



Sincerely, Weiss Associates

Karen C. Sixt

Senior Staff Geologist

Richard B. Weiss

Principal Hydrogeologist

KCS/RBW:jg

E:\ALL\SHELL\423L1JY0.WP

Attachments: A - Analytic Reports and Chain-of-Custody for Soil

B - Analytic Reports and Chain-of-Custody for Ground Water

cc: E. Paul Hayes, Shell Oil Company, P.O. Box 4848, Anaheim, California 92803

Diane Lundquist, Shell Oil Company, P.O. Box 4023, Concord, California 94524

Lester Feldman, California Regional Water Quality Control Board - San Francisco Bay Region, 1800 Harrison Street, Oakland, California 94612



# ATTACHMENT A

ANALYTIC REPORTS AND CHAIN-OF-CUSTODY FOR SOIL



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

Karen Sixt Weiss Associates 5500 Shell Mound Rd. Emeryville, CA 94524 Date: 03-19-90

NET Client Acct. No: 18.09 NET Pacific Log No: 1068 Received: 03-09-90 0700

Client Reference Information

SHELL 1285 Bancroft, San Leandro, Project: 81-423-03

Sample analysis in support of the project referenced above has been completed and results are presented on following pages. 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:

Jules Skamarack Laboratøry Manager

Enclosure(s)

Client Acct: 18.09 Client Name: Weiss Associates Date: 03-19-90 Page: 2

NET Log No: 1068

Ref: SHELL 1285 Bancroft, San Leandro, Project: 81-423-03

SAMPLE DESCRIPTION: BH-A 9.2 LAB Job No: (-48240) 03-06-90

LAB Job No: (-48240 ) Parameter	Reporting Limit	Results	Units
Oil & Grease (total) Oil & Grease (non-polar) METHOD 8010	50 100	ND ND	mg/Kg mg/Kg
DATE ANALYZED		03-12-90	
DILUTION FACTOR*	0.0	1	/// -
Bromodichloromethane	2.0	ND ND	ug/Kg
Bromoform Bromomethane	2.0	ND ND	ug/Kg
Carbon tetrachloride	2.0 2.0	ND ND	ug/Kg
Chlorobenzene	2.0	ND ND	ug/Kg ug/Kg
Chloroethane	2.0	ND ND	ug/Kg ug/Kg
2-Chloroethylvinyl ether	5.0	ND	ug/Kg ug/Kg
Chloroform	2.0	ND	ug/Kg ug/Kg
Chloromethane	2.0	ND ND	ug/Kg ug/Kg
Dibromochloromethane	2.0	ND	ug/Kg
1,2-Dichlorobenzene	2.0	ND	ug/Kg
1,3-Dichlorobenzene	2.0	ND	ug/Kg ug/Kg
1,4-Dichlorobenzene	2.0	ND	ug/Kg
Dichlorodifluoromethane	2.0	ND	ug/Kg
1,1-Dichloroethane	2.0	ND	ug/Kg
1,2-Dichloroethane	2.0	ND	ug/Kg
1,1-Dichloroethene	2.0	ND	ug/Kg
trans-1,2-Dichloroethene	2.0	ND	ug/Kg
1,2-Dichloropropane	2.0	ND	ug/Kg
cis-1,3-Dichloropropene	2.0	ND	ug/Kg
trans-1,3-Dichloropropene	2.0	ND	ug/Kg
Methylene Chloride	50	ND	ug/Kg
1,1,2,Tetrachloroethane	2.0	ND	ug/Kg
Tetrachloroethene PCE	2.0	2.0	ug/Kg
1,1,1-Trichloroethane	2.0	ND	ug/Kg
1,1,2-Trichloroethane	2.0	ND	ug/Kg
Trichloroethene	2.0	ND	ug/Kg
Trichlorofluoromethane	2.0	ND	ug/Kg
Vinyl chloride	2.0	ND	ug/Kg
PETROLEUM HYDROCARBONS			
VOLATILE (SOIL)			
DILUTION FACTOR *		1	
DATE ANALYZED		03-12-90	
METHOD GC FID/5030			
as Gasoline	1	ND	mg/Kg
METHOD 8020			
Benzene	2.5	ND	ug/Kg
Ethylbenzene	2.5	ИD	ug/Kg
Toluene	2.5	ND	ug/Kg
Xylenes, total	2.5	ND	ug/Kg

Client Acct: 18.09 Client Name: Weiss Associates

NET Log No: 1068

Ref: SHELL 1285 Bancroft, San Leandro, Project: 81-423-03

Date: 03-19-90 Page: 3

03-06-90 SAMPLE DESCRIPTION: BH-A 19.7

LAB Job No: (-48241)

Parameter	Reporting Limit	Results	Units
Oil & Grease (total) Oil & Grease (non-polar) METHOD 8010	50 100	ND ND	mg/Kg mg/Kg
DATE ANALYZED		03-12-90	
DILUTION FACTOR*		1	4
Bromodichloromethane	2.0	ND	ug/Kg
Bromoform	2.0	ND	ug/Kg
Bromomethane	2.0	ND	ug/Kg
Carbon tetrachloride	2.0	ND	ug/Kg
Chlorobenzene	2.0	ND ND	ug/Kg
Chloroethane	2.0	ND ND	ug/Kg
2-Chloroethylvinyl ether Chloroform	5.0 2.0	ND ND	ug/Kg ug/Kg
Chloromethane	2.0	ND ND	ug/Kg ug/Kg
Dibromochloromethane	2.0	ND ND	ug/Kg ug/Kg
1,2-Dichlorobenzene	2.0	ND	ug/Kg
1,3-Dichlorobenzene	2.0	ND	ug/Kg
1,4-Dichlorobenzene	2.0	ND	ug/Kg
Dichlorodifluoromethane	2.0	ND	ug/Kg
1,1-Dichloroethane	2.0	ND	ug/Kg
1,2-Dichloroethane	2.0	ND	ug/Kg
1,1-Dichloroethene	2.0	ND	ug/Kg
trans-1,2-Dichloroethene	2.0	ND	ug/Kg
1,2-Dichloropropane	2.0	ND	ug/Kg
cis-1,3-Dichloropropene	2.0	ND	ug/Kg
trans-1,3-Dichloropropene	2.0	ND	ug/Kg
Methylene Chloride	50	ND	ug/Kg
1,1,2,Tetrachloroethane	2.0	ND	ug/Kg
Tetrachloroethene	2.0	ND	ug/Kg
1,1,1-Trichloroethane	2.0	ND	ug/Kg
1,1,2-Trichloroethane	2.0	ИD	ug/Kg
Trichloroethene	2.0	ND	ug/Kg
Trichlorofluoromethane	2.0	ND	ug/Kg
Vinyl chloride	2.0	ND	ug/Kg
PETROLEUM HYDROCARBONS			
VOLATILE (SOIL)		 1	
DILUTION FACTOR * DATE ANALYZED		1	
METHOD GC FID/5030		03-12-90	
as Gasoline	1	ND	ma/Va
METHOD 8020	1	 NO	mg/Kg
Benzene	2.5	ND	ug/Kg
Ethylbenzene	2.5	ND	ug/Kg ug/Kg
Toluene	2.5	ND	ug/Kg ug/Kg
Xylenes, total	2.5	ND	ug/Kg ug/Kg
	~ • •	110	~ コー・・ コ

Client Acct: 18.09 Date: 03-19-90 Page: 4

Client Name: Weiss Associates

NET Log No: 1068

Ref: SHELL 1285 Bancroft, San Leandro, Project: 81-423-03

SAMPLE DESCRIPTION: BH-A 29.7 LAB Job No: (-48242) 03-06-90

LAB Job No: (-48242 ) Parameter	Reporting Limit	Results	Units
Oil & Grease (total) Oil & Grease (non-polar) METHOD 8010	50 100	ND ND	mg/Kg mg/Kg
DATE ANALYZED		03-12-90	
DILUTION FACTOR*		1	
Bromodichloromethane	2.0	ND	ug/Kg
Bromoform	2.0	ND	ug/Kg
Bromomethane	2.0	ND	ug/Kg
Carbon tetrachloride	2.0	ND	ug/Kg
Chlorobenzene	2.0	ND	ug/Kg
Chloroethane	2.0	ND	ug/Kg
2-Chloroethylvinyl ether	5.0	ND	ug/Kg
Chloroform	2.0	ND	ug/Kg
Chloromethane	2.0	ND	ug/Kg
Dibromochloromethane	2.0	ND	ug/Kg
1,2-Dichlorobenzene	2.0	ND	ug/Kg
1,3-Dichlorobenzene	2.0	ND	ug/Kg
1,4-Dichlorobenzene	2.0	ND	ug/Kg
Dichlorodifluoromethane	2.0	ND	ug/Kg
1,1-Dichloroethane	2.0	ND	ug/Kg
1,2-Dichloroethane	2.0	ND	ug/Kg
1,1-Dichloroethene	2.0	ND	ug/Kg
trans-1,2-Dichloroethene	2.0	ND	ug/Kg
1,2-Dichloropropane	2.0	ND	ug/Kg
cis-1,3-Dichloropropene	2.0	ND	ug/Kg
trans-1,3-Dichloropropene	2.0	ND	ug/Kg
Methylene Chloride	50	ND	ug/Kg
1,1,2,Tetrachloroethane	2.0	ND	ug/Kg
Tetrachloroethene	2.0	ND	ug/Kg
1,1,1-Trichloroethane	2.0	ND ND	ug/Kg
1,1,2-Trichloroethane	2.0	ND ND	ug/Kg
Trichloroethene Trichlorofluoromethane	2.0	ND ND	ug/Kg
Vinyl chloride	2.0 2.0	ND ND	ug/Kg ug/Kg
PETROLEUM HYDROCARBONS	2.0	INU	ug/ kg
VOLATILE (SOIL)			
DILUTION FACTOR *		1	
DATE ANALYZED		03-12-90	
METHOD GC FID/5030		02-12-30	
as Gasoline	1	nd	ma IVa
METHOD 8020	I	NO	mg/Kg
Benzene	2.5	ND	ualVa
Ethylbenzene	2.5	ND ND	ug/Kg
Toluene	2.5	ND ND	ug/Kg ug/Kg
Xylenes, total	2.5	ND	ug/Kg ug/Kg

Client Acct: 18.09 Client Name: Weiss Associates Date: 03-19-90 Page: 5

NET Log No: 1068

Ref: SHELL 1285 Bancroft, San Leandro, Project: 81-423-03

SAMPLE DESCRIPTION: BH-A 51.2 03-06-90

LAB Job No: (-48243)

Parameter	Reporting Limit	Results	Units
Oil & Grease (total) Oil & Grease (non-polar) METHOD 8010	50 100	ND ND	mg/Kg mg/Kg
DATE ANALYZED		03-12-90	
DILUTION FACTOR*		1	
Bromodichloromethane	2.0	ND	ug/Kg
Bromoform	2.0	ND	ug/Kg
Bromomethane	2.0	ND	ug/Kg
Carbon tetrachloride	2.0	ND	ug/Kg
Chlorobenzene	2.0	ND	ug/Kg
Chloroethane	2.0	ND	ug/Kg
2-Chloroethylvinyl ether	5.0	ND	ug/Kg
Chloroform	2.0	ND	ug/Kg
Chloromethane	2.0	ND	ug/Kg
Dibromochloromethane	2.0	ND	ug/Kg
1,2-Dichlorobenzene	2.0	ND	ug/Kg
1,3-Dichlorobenzene	2.0	ND	ug/Kg
1,4-Dichlorobenzene	2.0	ND	ug/Kg
Dichlorodifluoromethane	2.0	ND	ug/Kg
1,1-Dichloroethane	2.0	ND	ug/Kg
1,2-Dichloroethane	2.0	ND	ug/Kg
1,1-Dichloroethene	2.0	ND	ug/Kg
trans-1,2-Dichloroethene	2.0	ND	ug/Kg
1,2-Dichloropropane	2.0	ND	ug/Kg
cis-1,3-Dichloropropene	2.0	ND	ug/Kg
trans-1,3-Dichloropropene	2.0	ND	ug/Kg
Methylene Chloride	50	ND	ug/Kg
1,1,2,Tetrachloroethane	2.0	ND_	ug/Kg
Tetrachloroethene PCE	2.0	4.5	ug/Kg
1,1,1-Trichloroethane	2.0	ND	ug/Kg
1,1,2-Trichloroethane	2.0	ND	ug/Kg
Trichloroethene	2.0	ND	ug/Kg
Trichlorofluoromethane	2.0	ND	ug/Kg
Vinyl chloride	2.0	ND	ug/Kg
PETROLEUM HYDROCARBONS			
VOLATILE (SOIL)			
DILUTION FACTOR *		1	
DATE ANALYZED		03-12-90	
METHOD GC FID/5030	_		
as Gasoline	1	ND	mg/Kg
METHOD 8020			
Benzene	2.5	ND	ug/Kg
Ethylbenzene	2.5	ND	ug/Kg
Toluene	2.5	ND	ug/Kg
Xylenes, total	2.5	ND	ug/Kg

Client Acct: 18.09 Client Name: Weiss Associates

NET Log No: 1068

Ref: SHELL 1285 Bancroft, San Leandro, Project: 81-423-03

Date: 03-19-90

Page: 6

SAMPLE DESCRIPTION: BH-A 61.2 03-07-90

LAB Job No: (-48244)

Parameter	Reporting Limit	Results	Units
Oil & Grease (total) Oil & Grease (non-polar) METHOD 8010	50 100	ND ND	mg/Kg mg/Kg
DATE ANALYZED		03-12-90	
DILUTION FACTOR*		1_	
Bromodichloromethane	2.0	ND	ug/Kg
Bromoform	2.0	ND	ug/Kg
Bromomethane	2.0	ND	ug/Kg
Carbon tetrachloride	2.0	ND	ug/Kg
Chlorobenzene Chloroethane	2.0	ND ND	ug/Kg
2-Chloroethylvinyl ether	2.0 5.0	ND ND	ug/Kg
Chloroform	2.0	ND ND	ug/Kg ug/Kg
Chloromethane	2.0	ND ND	ug/Kg ug/Kg
Dibromochloromethane	2.0	ND	ug/Kg ug/Kg
1,2-Dichlorobenzene	2.0	ND	ug/Kg
1,3-Dichlorobenzene	2.0	ND	ug/Kg
1,4-Dichlorobenzene	2.0	ND	ug/Kg
Dichlorodifluoromethane	2.0	ND	ug/Kg
1,1-Dichloroethane	2.0	ND	ug/Kg
1,2-Dichloroethane	2.0	ND	ug/Kg
1,1-Dichloroethene	2.0	ND	ug/Kg
trans-1,2-Dichloroethene	2.0	ND	ug/Kg
1,2-Dichloropropane	2.0	мD	ug/Kg
cis-1,3-Dichloropropene	2.0	ND	ug/Kg
trans-1,3-Dichloropropene	2.0	ND	ug/Kg
Methylene Chloride	50	ND	ug/Kg
1,1,2,Tetrachloroethane	2.0	ND	ug/Kg
Tetrachloroethene PCE	2.0	4.3	ug/Kg
1,1,1-Trichloroethane	2.0	ND	ug/Kg
1,1,2-Trichloroethane	2.0	ND ND	ug/Kg
Trichloroethene Trichlorofluoromethane	2.0	ND ND	ug/Kg
Vinyl chloride	2.0 2.0	ND ND	ug/Kg
PETROLEUM HYDROCARBONS	2.0	NU 	ug/Kg
VOLATILE (SOIL)			
DILUTION FACTOR *		1	
DATE ANALYZED		03-12-90	
METHOD GC FID/5030			
as Gasoline	1	ND	mg/Kg
METHOD 8020	-	~-	11131 113
Benzene	2.5	ND	ug/Kg
Ethylbenzene	2.5	ND	ug/Kg
Toluene	2.5	ND	ug/Kg
Xylenes, total	2.5	ND	ug/Kg
-			~ ~

Client Acct: 18.09

Client Name: Weiss Associates

NET Log No: 1068

Ref: SHELL 1285 Bancroft, San Leandro Project: 81-423-03

Date: 03-19-90 Page: 7

SAMPLE DESCRIPTION: BH-A 39.7 03-06-90

LAB Job No: (-48245)

Parameter	Reporting Limit	Results	Units
Oil & Grease (total) Oil & Grease (non-polar) METHOD 8010	50 100	ND ND	mg/Kg mg/Kg
DATE ANALYZED		03-12-90	
DILUTION FACTOR*	2.0	1	ua IV.a
Bromodichloromethane Bromoform	2.0 2.0	ND ND	ug/Kg ug/Kg
Bromomethane	2.0	ND	ug/Kg ug/Kg
Carbon tetrachloride	2.0	ND	ug/Kg
Chlorobenzene	2.0	ND	ug/Kg
Chloroethane	2.0	ND	ug/Kg
2-Chloroethylvinyl ether	5.0	ND	ug/Kg
Chloroform	2.0	ND	ug/Kg
Chloromethane	2.0	ND	ug/Kg
Dibromochloromethane 1,2-Dichlorobenzene	2.0 2.0	ND ND	ug/Kg
1,3-Dichlorobenzene	2.0	ND ND	ug/Kg ug/Kg
1,4-Dichlorobenzene	2.0	ND	ug/Kg ug/Kg
Dichlorodifluoromethane	2.0	ND	ug/Kg
1,1-Dichloroethane	2.0	ND	ug/Kg
1,2-Dichloroethane	2.0	ND	ug/Kg
1,1-Dichloroethene	2.0	ND	ug/Kg
trans-1,2-Dichloroethene	2.0	ND	ug/Kg
1,2-Dichloropropane	2.0	ND ND	ug/Kg
cis-1,3-Dichloropropene trans-1,3-Dichloropropene	2.0 2.0	ND ND	ug/Kg ug/Kg
Methylene Chloride	50	ND ND	ug/Kg ug/Kg
1,1,2,Tetrachloroethane	2.0	ND	ug/Kg ug/Kg
Tetrachloroethene	2.0	ND	ug/Kg
1,1,1-Trichloroethane	2.0	ND	ug/Kg
1,1,2-Trichloroethane	2.0	ND	ug/Kg
Trichloroethene	2.0	ND	ug/Kg
Trichlorofluoromethane	2.0	ND	ug/Kg
Vinyl chloride	2.0	ND	ug/Kg
PETROLEUM HYDROCARBONS VOLATILE (SOIL)			
DILUTION FACTOR *		1	
DATE ANALYZED		03-12-90	
METHOD GC FID/5030			
as Gasoline	1	ИD	mg/Kg
METHOD 8020			
Benzene	2.5	ND	ug/Kg
Ethylbenzene	2.5	ND	ug/Kg
Toluene	2.5	ΝD	ug/Kg
Xylenes, total	2.5	5.7	ug/Kg

Client Acct: 18.09 Client Name: Weiss Associates NET Log No: 1068

Ref: SHELL 1285 Bancroft, San Leandro Project: 81-423-03

Date: 03-19-90

Page: 8

SAMPLE DESCRIPTION: BH-A 39.7 03-06-90 LAB Job No: (-48245)

Parameter	Reporting Limit	Results	Units
PETROLEUM HYDROCARBONS			
EXTRACTABLE (SOIL) DILUTION FACTOR *		1	
DATE EXTRACTED DATE ANALYZED		03-13-90 03-15-90	
METHOD GC FID/3550 as Diesel	1	1.6	mg/Kg
as Motor Oil	10	ND	mg/Kg

Client Acct: 18.09 Client Name: Weiss Associates NET Log No: 1068

Date: 03-19-90 Page: 9

Ref: SHELL-1285 Bancroft, San Leandro Project: 81-423-03

SAMPLE DESCRIPTION: CS-1-3 comp 03-07-90 LAB Job No: (-48246)

Parameter	Reporting Limit	Results	Units	_
Oil & Grease (total) Oil & Grease (non-polar) Lead (EPA 7421) Organic Lead PETROLEUM HYDROCARBONS VOLATILE (SOIL) DILUTION FACTOR * DATE ANALYZED METHOD GC FID/5030	50 100 0.2 0.05	59 ND 4.9 ND  1 03-12-90	mg/Kg mg/Kg mg/Kg mg/Kg	
as Gasoline METHOD 8020 Benzene Ethylbenzene Toluene Xylenes, total	1 2.5 2.5 2.5 2.5	ND  ND ND ND ND	mg/Kg ug/Kg ug/Kg ug/Kg ug/Kg	

# KEY TO ABBREVIATIONS and METHOD REFERENCES

: Less than; When appearing in results column indicates analyte not detected at the value following, which supercedes the

listed reporting limit.

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 : Nephelametric 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.

unhos/an : Micramhos per centimeter.

## Method References

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.

<sup>\*</sup> 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.

M	WEISS	ASSO	CIATES
5500 Shellm	ound SL, E	meryville	, CA 94608

Shell Service Station Address: 1285 Bancroff WIC #: 204-685

AFE #: 986681

Page / of 2 Please send analytic results

in report.

Lab Personnel: 1) Specify analytic method and detection limit

and a copy of the signed chain of custody form to:

Kanen SixT

Project ID: 81-423-03

\$ampleo	d by: KCS			Labo	ratory Name:	NETF	Cacific	2) Notify us if th on GC or other 3) ANY QUESTIONS/G	scans.	any anomalous peaks ATIONS: CALL US.	
thalyze No. of Contain	Sample ID ners	Container Type	Sample Date	Vol <sup>2</sup>	Fil <sup>3</sup> Ref <sup>4</sup>	Preservative (specify)	Analyze for	Analytic Method	Turn	5 COMMENTS	
<u>#</u> 1	BH-A 4.7	S/T	3/6/90		<b>-</b> Y	<del></del>			N	(Shell)	
AI	BH-A 9.2	7	$\overline{\mathcal{L}}$		=Z		TPH-G, BETX, TOG,	8015/8020/5031	19/		
# [	BH-4 14.7		<u> </u>								
A	BH-A 19.7						11	u / .			
H L	BH-A 24.7							· · ·		·	
A L	BH-A 29.7						u	ii .	7		
<u>+</u>	B++ - A 34-7	- / _						,	T		
A	BH-A 39.7	-					11 +TPH-D	11			
A	BH-A 44-7	- \							$\neg$		
#	Br-A 48.7							· ·			
	BH-A 51.2	- )	<b>—</b>				u	H T	$\mathcal{T}$		
++ 1	BH-A 58.2	$\Delta \Gamma$	3/7/90					:			
A	BH-A61.2	4			<b>-</b>		46	1.5	4		
1 Za	sed by (Signature)		18/90	3_W Release	ed by (Signa	1 3/8/4 ture) Date	5 (VIA	NCJ)			

1 Sample Type Codes: W = Water, S = Soil, Describe Other; Container Type Codes: V = VOA/Teflon Septa, P = Plastic, C or B - Clear/Brow Stass, Describe Other; Cap Codes: PT = Plastic, Teflon Lined 2 = Volume per container; 3 = Filtered (Y/N); 4 = Refrigerated (Y/N)

5 Turnaround [N = Normal, W = 1 Week, R = 24 Hour, HOLD (write out)] ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

\* SEAL INTACT UPON RECEIPT 3/8/40 1:10p

Shell Service Station Address: 1285 (Same of the	Please send analytic results and a copy of the signed cha
	1285 Bancroft

₹
1068

WEISS ASSOCIATES  5500 Shelimound SL, Emeryville, CA 94608  Phone: 415-547-5420 FAX: 415-547-5043	San Leandy, CA Shell Contact: Paul Hayes WIC #: 204-685-207	Karen "	ne signed chain of custody	form to: 1068
CHAIN-OF-CUSTODY RECORD AND ANALYTIC INSTRU	AFE #: <u>986681-5440</u> CTIONS	Lab Personnel:	1) Specify analytic methor in report.  2) Notify us if there are	
Sampled by: [CC-S	Laboratory Name: NET P	aufre	on GC or other scans. 3) ANY QUESTIONS/CLARIFIC	
welyzerio. of Sample ID Container Sample Hold Containers Type Date	Vol <sup>2</sup> Fil <sup>3</sup> Ref <sup>4</sup> Preservative (specify)	Analyze for	Analytic Turn Method	5 COMMENTS
$ \frac{1}{A} \begin{cases} \frac{CS-1}{CS-2} & \frac{3/7/90}{3/7/90} \\ \frac{1}{CS-3} & \frac{5/7}{5/7/90} \end{cases} $		PH-G, BETX,	<u>N</u>	Please composi
				) sample
Released by (Signature), Date	3 Manufle J 3 8 Released by (Signature), Date	1985 (VIA N Released by (Signatu	VC2 )	
Affiliation 13/8/70	3 NUSS ASSOC, Affiliation	5 Affiliation	-	
Received by (Signature), Date	Shipping Carrier, Method, Date	Received by Lab Pers	3/9/90 0700 onnel, Date	XSeal intact?

1 Sample Type Codes: W = Water, S = Soil, Describe Other; Container Type Codes: V = VOA/Teflon Septa, P = Plastic, C or B - Clear/Brown Glass, Describe Other; Cap Codes: PT = Plastic, Teflon Lined 2 = Volume per container; 3 = Filtered (Y/N); 4 = Refrigerated (Y/N)

6 NET Pacifi's
Affiliation, Telephone

5 Turnaround [N = Normal, W = 1 Week, R = 24 Hour, HOLD (write out)] ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

\* SEAL INTACT UPON RECEIPT 3/8/90 170 p.



# ATTACHMENT B

ANALYTIC REPORTS AND CHAIN-OF-CUSTODY FOR GROUND WATER



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

Karen Sixt Weiss Associates 5500 Shell Mound Rd. Emeryville, CA 94524 Date: 03-23-90

NET Client Acct. No: 18.09 NET Pacific Log No: 1146 Received: 03-15-90 0700

Client Reference Information

SHELL, 1285 Bancroft, San Leandro; Project: 81-423-03

Sample analysis in support of the project referenced above has been completed and results are presented on following pages. 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:

Laboratory Manager

Enclosure(s)

Client Acct: 18.09 Client Name: Weiss Associates NET Log No: 1146 Date: 03-23-90 Page: 2

Ref: SHELL, 1285 Bancroft, San Leandro; Project: 81-423-03

SAMPLE DESCRIPTION: 030-1 03-13-90

LAB Job No: (-48629 ) Parameter	Reporting Limit	Results	Units
Oil & Grease, (total) Oil & Grease (non-polar) METHOD 601	5 10	ND ND	mg/L mg/L
DATE ANALYZED		03-15-90	
DILUTION FACTOR*	0.4	1 ND	ug/L
Bromodichloromethane Bromoform	0.4	ND ND	ug/L ug/L
Bromomethane	0.4	ND ND	ug/L
Carbon tetrachloride	0.4	ND ND	ug/L
Chlorobenzene	0.4	ND	ug/L
Chloroethane	0.4	ND	ug/L
2-Chloroethylvinyl ether	1.0	ND	ug/L
Chloroform	0.4	6.3	ug/L
Chloromethane	0.4	ND	ug/L
Dibromochloromethane	0.4	ND	ug/L
1,2-Dichlorobenzene	0.4	ND	ug/L
1,3-Dichlorobenzene	0.4	ND	ug/L
1,4-Dichlorobenzene	0.4	ND	ug/L
Dichlorodifluoromethane	0.4	ND	ug/L
1,1-Dichloroethane	0.4	ND	ug/L
1,2-Dichloroethane	0.4	ND	ug/L
1,1-Dichloroethene	0.4	ND	ug/L
trans-1,2-Dichloroethene	0.4	ND	ug/L
1,2-Dichloropropane	0.4	ND	ug/L
cis-1,3-Dichloropropene	0.4	ND	ug/L
trans-1,3-Dichloropropene	0.4	ND	ug/L
Methylene Chloride	10	ND	ug/L
1,1,2,2-Tetrachloroethane		ND	ug/L
Tetrachloroethene	0.1	35	ug/L
1,1,1-Trichloroethane	0.4	ND ND	ug/L
1,1,2-Trichloroethane	0.4	ND	ug/L
Trichloroethene	0.4	ND ND	ug/L
Trichlorofluoromethane	0.4	ND ND	ug/L
Vinyl chloride	2.0	ND	ug/L

Client Acct: 18.09 Client Name: Weiss Associates NET Log No: 1146

Date: 03-23-90

Page: 3

Ref: SHELL, 1285 Bancroft, San Leandro; Project: 81-423-03

SAMPLE DESCRIPTION: 030-1

LAB Job No: (-48629)

03-13-90

~~~	1104	•	,000,	
				Reporting

Parameter	Limit	Results	Units	
PETROLEUM HYDROCARBONS				<del>-</del>
VOLATILE (WATER)				
DILUTION FACTOR *		1		
DATE ANALYZED		03-20-90		
METHOD GC FID/5030				
as Gasoline	0.05	0.51	mg/L	
METHOD 602			4.	
Benzene	0.5	ND	ug/L	
Ethylbenzene	0.5	1.5	ug/L	
Toluene	0.5	1.1	ug/L	
Xylenes, total	0.5	8.7	ug/L	
PETROLEUM HYDROCARBONS				
EXTRACTABLE (WATER) DILUTION FACTOR *		1		
DATE EXTRACTED		03-15-90		
DATE ANALYZED		03-15-90		
METHOD GC FID/3510		05 15 90		
as Diesel	0.05	1.3	mg/L	
as Motor Oil	0.05	ND	mg/L	
43 110 001 011	0.00	110		

Client Acct: 18.09 Client Name: Weiss Associates

NET Log No: 1146

Date: 03-23-90 Page: 4

Ref: SHELL, 1285 Bancroft, San Leandro; Project: 81-423-03

SAMPLE DESCRIPTION: 030-21 LAB Job No: (-48630)

03-13-90

Parameter	Reporting Limit	Results	Units
PETROLEUM HYDROCARBONS			
VOLATILE (WATER)			
DILUTION FACTOR *		1	
DATE ANALYZED		03-19-90	
METHOD GC FID/5030			
as Gasoline	0.05	ND	mg/L
METHOD 602			
Benzene	0.5	ND	ug/L
Ethylbenzene	0.5	ND	ug/L
Toluene	0.5	ND	ug/L
Xylenes, total	0.5	ND	ug/L

Client Acct: 18.09 Client Name: Weiss Associates

NET Log No: 1146

Date: 03-23-90 Page: 5

Ref: SHELL, 1285 Bancroft, San Leandro; Project: 81-423-03

SAMPLE DESCRIPTION: 030-22 LAB Job No: (-48631)

03-13-90

R۵	nο	rt	i	nσ

Parameter	Reporting Limit	Results	Units
PETROLEUM HYDROCARBONS			
VOLATILE (WATER)			
DILUTION FACTOR *		1	
DATE ANALYZED		03-19-90	
METHOD GC FID/5030			
as Gasoline	0.05	ND	mg/L
METHOD 602			-
Benzene	0.5	ND	ug/L
Ethylbenzene	0.5	ND	ug/L
Toluene	0.5	ND	ug/L
Xylenes, total	0.5	ND	ug/L

# KEY TO ABBREVIATIONS and METHOD REFERENCES

: Less than; When appearing in results column indicates analyte not detected at the value following, which supercedes the

listed reporting limit.

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/an : Micramhos per centimeter.

# Method References

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.

<sup>\*</sup> 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.

Francisco de la companya della companya della companya de la companya de la companya della compa			Page/_ of/_
WEISS ASSOCIATES	Shell Service Station Address: 1285 BAngroff	Please send analytic results and a copy of the signed chain of cust	
F FO =	San Legadico	1×1.1. 8. +	(1146)
5500 Shellmound SL, Emeryville, CA 94608 Phone: 415-547-5420 FAX: 415-547-5043	Shell Contact: <u>Paul Hayes</u> WIC #: <u>204 - 685 - 207</u>	Kanen SixT	
	AFE #: 986681 - 5440	Project ID: 81-423-03	
CHAIN-OF-CUSTODY RECORD AND ANALYTIC INSTRUC	TIONS	Lab Personnel: 1) Specify analytic m in report.	ethod and detection limit
sampled by: \im Martin	Laboratory Name: NET	2) Notify us if there	are any anomalous peaks
Sampled by:	Laboratory Name:	on GC or other sca 3) ANY QUESTIONS/CLAR	
No. of Sample ID Container Sample Containers Type Date	Vol <sup>2</sup> Fil <sup>3</sup> Ref <sup>4</sup> Preservative (specify)		Turn <sup>5</sup> COMMENTS
2 030-1 W/V 3/13/10	40nl N Y None	# TOH -G 8015/50 ppl	1
2 030-1 W/V Y	7	BETX 8020	A .
2 030-1 11/2		1/0Cs 601	
2 030 - 1 W/B	11 1 1/2504	TOG- 5030+E	
2 030 -1 3/13	IR NOWE	TPH-D 8015	
2 030-21 V/V V	40ml V NONE	TPH-G+BEH 8015/8020 _	
	4040 V V	TTH-G+13ETX 8015/8020	$\sqrt{}$
$\frac{2}{\sqrt{30-22}} \frac{\sqrt{v}}{\sqrt{v}} \frac{\sqrt{v}}{\sqrt{v}}$	70-100	1111 6 13EIX 0013/020 -	
		<del></del>	
			·····
		<del></del>	
		37	
nh: Mat 3/13/90	, 50 Rear 3/14/2		
Released by (Signature) Date	Released by (Signature), Date	Released by (Signature), Date	
- 1 ( A	3 Ciess Assoc		
Affiliation 2/2	3 Criss 9 550C Affiliation 3/14/90 4 Amic Lace 13:30	Affiliation	
A 2 /1/2 (5.5)	13:30		
Received by (Signature) Date	Skipping Carrier, Method, Date	Received by Lab Personnel, Date	Seal intact?
2 Weiss Assec	4 N.E.T.	6 NET Pacific	
Affiliation ,	ر برد Affiliation	Affiliation, Jelephone	
	Describe Other; Container Type Codesi	V = VOA/Tefled Septa; P = Plastic, C or B - Cl	ear/Brown Glass, Describe Other;
Cap Codes: PT = Plastic, Teflon Lined 5 Turnaround [N = Normal, W = 1 Week, R = 2	2 = Volume/per container; 3 = Filtered 24 Hour. HOLD (write out)]	(Y/N); 4 = Refrigerated (Y/N)	
ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:			

\* SEAL UPON RECEIPT 3/14/90 1:30p J.D.



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

Eric Anderson Weiss Associates 5500 Shell Mound Rd. Emeryville, CA 94524 Date: 06-22-90

NET Client Acct. No: 18.09 NET Pacific Log No: 2447 Received: 06-14-90 0800

REVISED 07-03-90

Client Reference Information

SHELL- 1285 Bancroft, San Leandro Proj. 81-423-01

Sample analysis in support of the project referenced above has been completed and results are presented on following pages. 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:

ปน์l∉s Skamārack Laboratory Managek

Enclosure(s)

Client Acct: 18.09

Client Name: Weiss Associates NET Log No: 2447

Ref: SHELL- 1285 Bancroft, San Leandro Proj. 81-423-01

Date: 06-22-90

Page: 2

SAMPLE DESCRIPTION: 060-1

LAB Job No: (-55435)

06-12-90

2.10 000 1101 ( 001	,	Reporting		
Parameter	Method	Limit	Results	Units
Oil & Grease(Total) Oil & Grease(Non-Polar) METHOD 601	SM503A SM503A/E	5 10	ND ND	mg/L mg/L
DATE ANALYZED DILUTION FACTOR* Bromodichloromethane Bromomethane Carbon tetrachloride Chlorobenzene Chloroethane 2-Chloroethylvinyl ether Chloroform Chloromethane Dibromochloromethane 1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene Dichlorodifluoromethane 1,1-Dichloroethane 1,2-Dichloroethane		0.4 0.4 0.4 0.4 0.4 1.0 0.4 0.4 0.4 0.4 0.4 0.4 0.4	06-18-90 1 ND	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L
1,2-Dichloroethane 1,1-Dichloroethene trans-1,2-Dichloroethene 1,2-Dichloropropane cis-1,3-Dichloropropene trans-1,3-Dichloropropene Methylene Chloride 1,1,2,2-Tetrachloroethane Tetrachloroethene 1,1,1-Trichloroethane 1,1,2-Trichloroethane Trichloroethene Trichloroethene Trichlorofluoromethane Vinyl chloride		0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4	ND ND ND ND ND ND ND ND ND ND ND ND ND N	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L

Client Acct: 18.09 Client Name: Weiss Associates

NET Log No: 2447

Ref: SHELL- 1285 Bancroft, San Leandro Proj. 81-423-01

Date: 06-22-90

Page: 3

SAMPLE DESCRIPTION: 060-1

06-12-90

LAB Job No: (-55435)

Parameter	Method	Reporting Limit	Results	Units
PETROLEUM HYDROCARBONS VOLATILE (WATER) DILUTION FACTOR * DATE ANALYZED METHOD GC FID/5030			 1 06-19-90	
as Gasoline METHOD 602 DILUTION FACTOR * DATE ANALYZED		0.05	0.39  1 06-19-90	mg/L
Benzene Ethylbenzene Toluene Xylenes, total PETROLEUM HYDROCARBONS EXTRACTABLE (WATER) DILUTION FACTOR * DATE EXTRACTED DATE ANALYZED METHOD GC FID/3510		0.5 0.5 0.5 0.5	ND 2.3 ND 5.5  1 06-15-90 06-16-90	ug/L ug/L ug/L ug/L
as Diesel as Motor Oil		0.05 0.5	0.34 ND	mg/L mg/L

Client Acct: 18.09 Client Name: Weiss Associates NET Log No: 2447

Ref: SHELL- 1285 Bancroft, San Leandro Proj. 81-423-01

Date: 06-22-90

Page: 4

SAMPLE DESCRIPTION: 060-21 06-12-90

LAB Job No: (-55436)

Parameter	Method	Reporting Limit	Results	Units
PETROLEUM HYDROCARBONS VOLATILE (WATER) DILUTION FACTOR *			 	
DATE ANALYZED METHOD GC FID/5030		0.05	06-20-90 	,,
as Gasoline METHOD 602 DILUTION FACTOR *		0.05	ND  1	mg/L
DATE ANALYZED Benzene		0.5	06-20-90	ua II
Ethylbenzene Toluene		0.5 0.5 0.5	ND ND ND	ug/L ug/L ug/L
Xylenes, total		0.5	ND	ug/L

# 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.

NΑ : Not analyzed.

ND : Not detected; the analyte concentration is less than applicable listed

reporting limit.

NTU : Nephelametric turbidity units.

: Relative percent difference, 100 [Value 1 - Value 2]/mean value. RPD

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. 16th Edition, APHA, 1985.

<del></del>										Page	e <u> </u>
WEISS ASSO	OCIATES		_12	85 I	Arcz	on Address:			nalytic results the signed chain of o		' -
5500 Shellmound St., Emeryville	<del></del>			on lear		Poul House	0 t.	Gei	Ancloses		(2447)
Phone: 415-547-5420 FAX: 41	15-547-5043			: _&04	t - 6	709	3	Project ID: _	81-423-	~	
CHAIN-OF-CUSTODY RECORD	D AND ANALYT	IC INSTRUC							: 1) Specify analytin report.		and detection limit
Sampled by:	Mart	h)	_ Le	boratory	Name:	NE	-7	<del></del>	2) Notify us if the on GC or other 3) ANY QUESTIONS/G	scans.	
No. of Sample ID Containers	Container Type	Sample Date	Vol <sup>2</sup>	Fil <sup>3</sup>	Ref <sup>4</sup>	Preservative (specify)	Ana	lyze for	Analytic Method	turn <sup>5</sup>	COMMENTS
3 <u>160-1</u>	W/cv.	6/12/90	gone	1/ 1	<u>٧</u> .	None	GAST	Betz	EPA 805/8000	N	
3 060-1	W/CV	6/12/90	Goul	1	<u> </u>	None		OCis	EPA 601	N	
2 060-1	w/BG.	6/12/90	Liter	<u>~</u> _	۷.	None	D/E		FPA 8015		- com detection limit
4 060-1	W/BG.	5/12/90	500,0	<u> </u>	<u>¥</u> .	H2504		<u> </u>	EPA SOJE	N	Form detection ini
2 0/00-21	<u>W/BV</u> .	6/1 <b>2/1</b> 0	tool.	<u> </u>	<u>د</u> .	Monne	(9/15)	BETX_	EPA 8015 500		
			— -		<u> </u>					· <del></del>	
		<del></del>		<del></del>	<del></del> -						·
		<del></del>	—								
		<del></del>			<u> </u>			7			
									-		
					_ :				· .		
							:				
			<u> </u>			<del></del>		<u> </u>			
and Made	/	La		1_==	7.	De .	1290	211.	) - 10 6	/13/90	
Released by (Signature	(5) (2)	<u>70</u>	3 <u>/</u> Rele	sed by	(Signa	ture), Date	<u>~_</u> 5 ~ ( <u>~_</u> Re∕	eased by (Signa	iture). Date	9.00	
· Idores Accor				22199		soc.		NET		•	
Affiliation				iation	<u> </u>			filiation	<del></del>		
, A Th	- 6-13	90		If,	ب	1 " Z//	, 5745 k	Sample	6/14/90	×	clace k-
Received by (Signature			Ship	oing Car	rier,	Method, Date	Re	eived by Lab Pe	ersonnel, Date		Seal intact?
2 Weiss A	ऽऽ∞८्		4_/	レビー			6	NET Par	cific oros		
Affiliation			Affi	liation		,	Af	filiation, Telep	oh/óne		
1 Sample Type Codes:	W = Water.	S = Soit.	Describ	e Other:	Cont	ainer Type Code	es: V = VO	A/Teflon Septa.	P = Plastic. C or B -	Clear/Br	rown Glass. Describe Other:

<sup>1</sup> Sample Type Codes: W = Water, S = Soil, Describe Other; Container Type Codes: V = VOA/Teflon Septa, P = Plas
 Cap Codes: PT = Plastic, Teflon Lined 2 = Volume per container; 3 = Filtered (Y/N); 4 = Refrigerated (Y/N)
5 Turnaround [N = Normal, W = 1 Week, R = 24 Hour, HOLD (write out)]