



April 27, 1992

Dan Kirk  
Shell Oil Company  
P.O. Box 5278  
Concord, California 94520-9998

Re: Subsurface Investigation  
Shell Service Station  
WIC #204-6852-0703  
1285 Bancroft Avenue  
San Leandro, California  
WA Job #81-423-02

Dear Mr. Kirk:

This letter presents the results of Weiss Associates' (WA) subsurface investigation at the Shell service station referenced above (Figure 1). The investigation objectives were to assess whether hydrocarbons are in soil and ground water downgradient of the existing underground fuel storage tanks and to determine the ground water flow direction and gradient beneath the site, as outlined in WA's September 23, 1991 workplan.<sup>1</sup>

#### SCOPE OF WORK

WA's scope of work for this investigation was to:

- Drill and sample one boring within 10 ft of the anticipated downgradient side of the underground fuel storage tanks and install a ground water monitoring well in the boring (Figure 2),
- Install a ground water monitoring well on the anticipated upgradient side of the site to assess water quality upgradient of the tanks, and
- Assess the ground water flow direction and gradient using data from the two newly installed wells and one existing ground water monitoring well.

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<sup>1</sup> WA, September 23, 1991, Consultant's letter-workplan regarding the proposed installation of two ground water monitoring wells at the Shell service station at 1285 Bancroft Avenue in San Leandro, California, 4 pages.

## INVESTIGATION RESULTS

### Site Setting

- Topography:*** The site is located about 0.75 miles west of the San Leandro Hills and about 500 ft south of San Leandro Creek (Figure 1). The site is flat and is about 65 ft above mean sea level.
- Surroundings:*** Mixed commercial and residential development.
- Nearby Hydrocarbon Sources:*** California Regional Water Quality Control Board - San Francisco Bay Region records indicate a fuel leak investigation cross- and downgradient of the site at the Garcia property, located at the southwestern corner of Bancroft and Callan Avenues (Figure 3).
- Wells in the Site Vicinity:*** 21 wells are within one-half mile of the site. One domestic supply well is located about 0.5 mile northeast (crossgradient) of the site. A domestic or irrigation supply well is located within 500 ft west (cross- and downgradient) and within 500 ft east (cross- and upgradient) of the site (Figure 4, Table 1).
- Regional Setting:*** Sediments in the site vicinity are Quaternary alluvial deposits derived from Mesozoic marine and Pliocene and Mesozoic intrusive rocks of the Diablo Range. The Hayward Fault Zone is less than one mile east of the site.

### Previous Investigations

***1986 Waste Oil Tank Removal:*** In November 1986, Petroleum Engineering of Santa Rosa, California removed a 550-gallon waste oil tank and installed a new 550-gallon fiberglass tank in the former tank pit. Immediately following the tank removal, Blaine Tech Services (BTS) of San Jose, California collected soil samples beneath the former tank location at 9 ft depth. The soil samples contained 83 parts per million (ppm) petroleum oil and grease and 583 ppm total oil and grease (TOG).<sup>2</sup> After additional excavation, BTS collected another soil sample

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<sup>2</sup> BTS, November 21, 1986, Sampling Report 86315-M1, Shell Service Station, 1285 Bancroft Avenue, San Leandro, California, Consultant's letter-report prepared for Shell Oil Company, 3 pages and 2 attachments.

at 9.5 ft depth which contained 89 ppm TOG. No ground water was encountered in the tank excavation.

**1990 Well Installation:** In March 1990, WA installed ground water monitoring well MW-1 adjacent to the waste oil tank.<sup>3</sup> The boring log for well MW-1 is included in Attachment B. Analytic results for soil from this boring are compiled in Table 2. WA has sampled well MW-1 quarterly since March 1990. Previous ground water analytic and elevation data are compiled in Tables 3 and 4, respectively.

### Drilling

<b>Drilling Dates:</b>	February 7 and 8, 1992
<b>Drilling Geologist:</b>	Tom Fojut
<b>Drilling Method:</b>	CME-55 hollow-stem auger drill rig. (See Attachment A for drilling and sampling procedures.)
<b>Number of Borings:</b>	2 (BH-B and BH-C, Figure 2)
<b>Boring Depths:</b>	60 ft, each boring
<b>Number of Wells:</b>	2 (MW-2 and MW-3, Figure 2)
<b>Sediments Encountered:</b>	Clayey and sandy silt to about 45 ft depth; silty sand to gravelly sand between about 45 and 60 ft depth. The boring logs and well construction details are presented in Attachment B.
<b>Waste Disposal:</b>	Soil cuttings were disposed at the Browning-Ferris, Inc. (BFI) landfill in Livermore, California as Class III waste; steam clean rinsate and purge water were recycled at the Shell Refinery in Martinez, California.

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<sup>3</sup> WA, July 31, 1990, Consultant's letter-report prepared for the Alameda County Department of Environmental Health (ACDEH) regarding second quarter 1990 activities at the Shell service station located at 1285 Bancroft Avenue in San Leandro, California, 10 pages and 2 attachments.

### Well Construction

<i>Well Materials:</i>	4-inch diameter Schedule 40 PVC well casing with 0.010-inch slotted screen; Monterey #1/20 sand
<i>Screened Interval:</i>	About 40 to 60 ft depth for each well
<i>Well Development Method:</i>	Surge block agitation and airlift evacuation
<i>Flow Rate:</i>	2 to 3 gallons per minute during well development
<i>Ground Water Depth:</i>	40 to 45 ft below grade (Table 4)
<i>Ground Water Flow Direction:</i>	North-northwestward with a gradient of about 0.038 ft/ft (Figure 2)

### HYDROCARBON DISTRIBUTION IN SOIL

Boring BH-B was drilled southeast of the existing underground fuel storage tank near the property line to install a ground water monitoring well upgradient of the tanks. BH-C was drilled immediately northwest of the tanks to assess whether hydrocarbons are in soil and to install a ground water monitoring well downgradient within ten ft of the tanks. **Soil samples from between 27 and 49 ft depth in boring BH-B contained hydrocarbons, at a maximum of 8,800 ppm total petroleum hydrocarbons as gasoline (TPH-G).** Samples from near the water table in boring BH-C contained up to 64 ppm TPH-G (Table 2, Attachment C). **No soil samples from shallower than 27 ft were analyzed since no volatile hydrocarbons were detected using a photoionization detector and since no hydrocarbon odor or staining was observed.** These analytic results indicate that the highest hydrocarbon concentrations are restricted to soil near the water table between 40 and 50 ft depth.

### HYDROCARBON DISTRIBUTION IN GROUND WATER

Monitoring wells MW-2 and MW-3 were installed in borings BH-B and BH-C, respectively. Well screening and construction details are presented in Attachment B. Although ground water

Mr. Dan Kirk  
April 27, 1992

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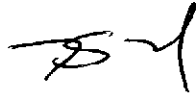
samples from well MW-2 contained 1.0 ppm TPH-G and 0.0043 ppm benzene, no TPH-G or BETX were detected in ground water from pre-existing well MW-1 or in well MW-3 (Table 3, Attachment D). Based on these ground water analytic results, petroleum hydrocarbons in ground water appear to be currently limited to well MW-2. Although less than 0.02 ppm chloroform and tetrachloroethene (PCE) were detected in ground water from all three wells, these compounds were not detected in unsaturated soil from any of the borings, except 0.0020 ppm PCE in soil from 9.2 ft depth in boring BH-A.

We appreciate this opportunity to provide hydrogeologic consulting services to Shell and trust this submittal meets your needs. Please call if you have any questions or comments.

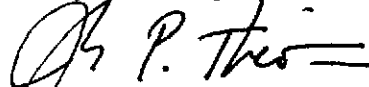
Sincerely,  
Weiss Associates



Thomas Fojut  
Staff Geologist



N. Scott MacLeod  
Project Geologist



Joseph P. Theisen, C.E.G.  
Senior Hydrogeologist



TF/NSM/JPT:fcv

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Attachments:    Figures  
                  Tables  
                  A - Sampling Procedures  
                  B - Boring Logs  
                  C - Analytic Results for Ground Water  
                  D - Analytic Results for Soil

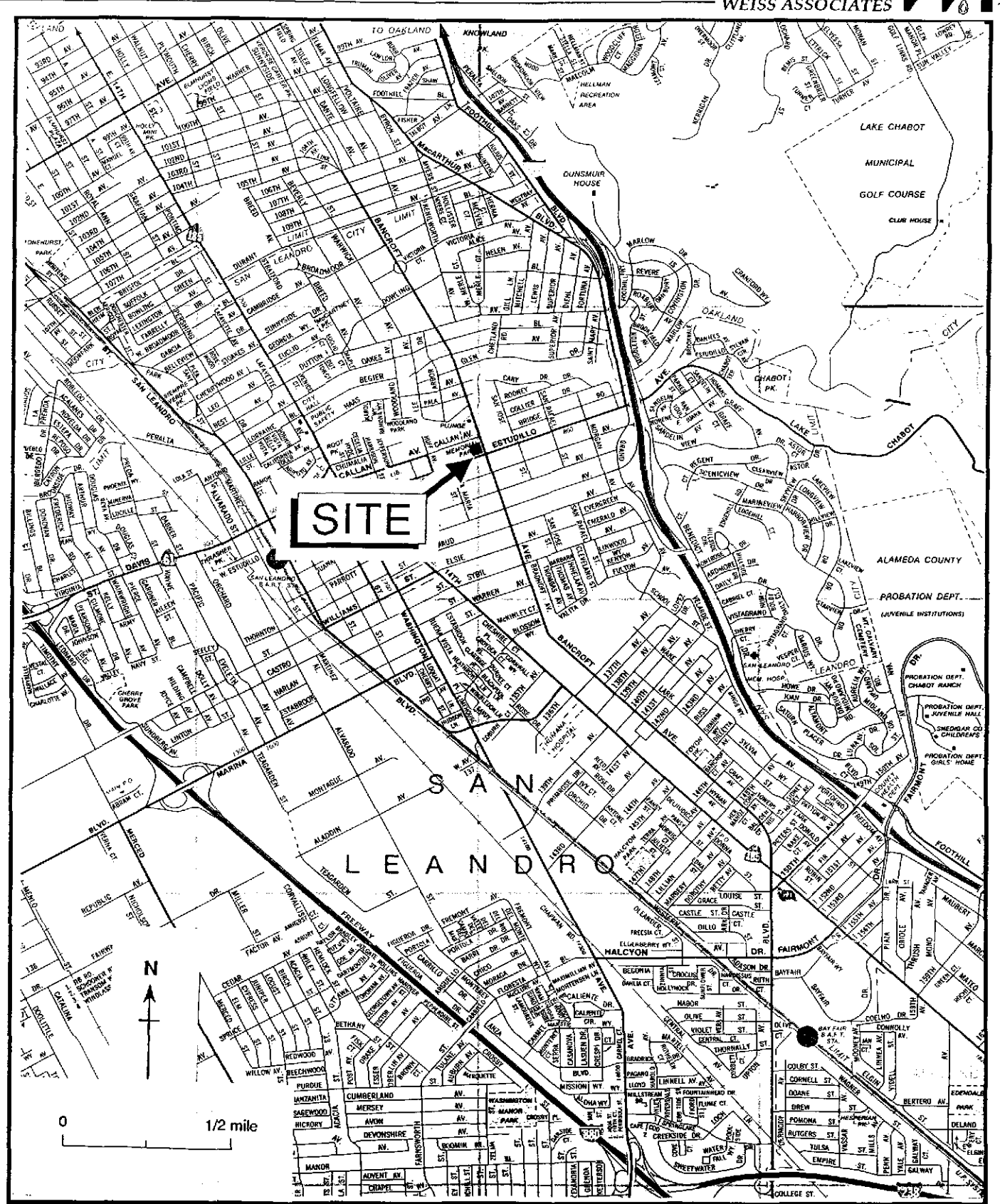
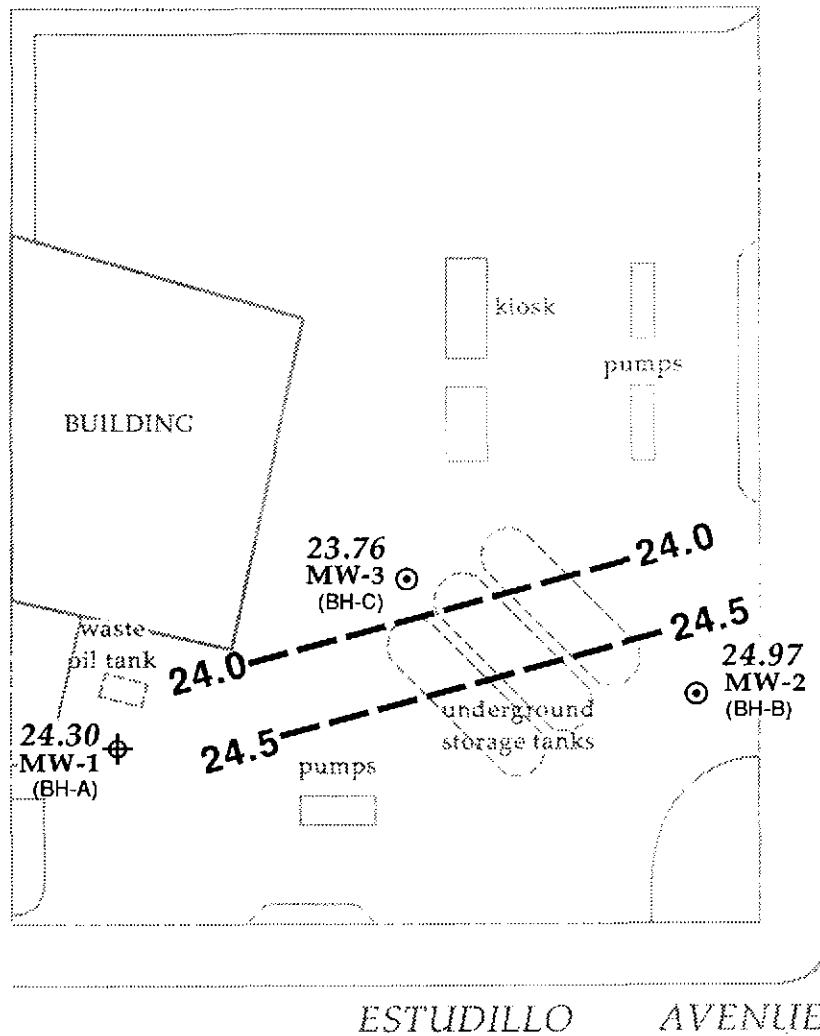


Figure 1. Site Location Map - Shell Service Station WIC #204-6852-0703, 1285 Bancroft Avenue, San Leandro, California

Approximate ground water flow direction



**EXPLANATION**

- ⊙ MW-2 (BH-B) Monitoring well installed for this investigation; boring ID in parenthesis
- ⊕ MW-1 (BH-A) Pre-existing monitoring well; boring ID in parenthesis
- 24.30 Ground water elevation, ft above mean sea level (msl)
- 24.5 Ground water elevation contour, ft above msl, approximately located, dashed where inferred

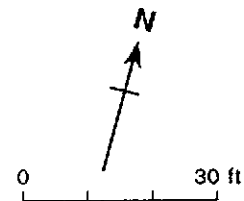
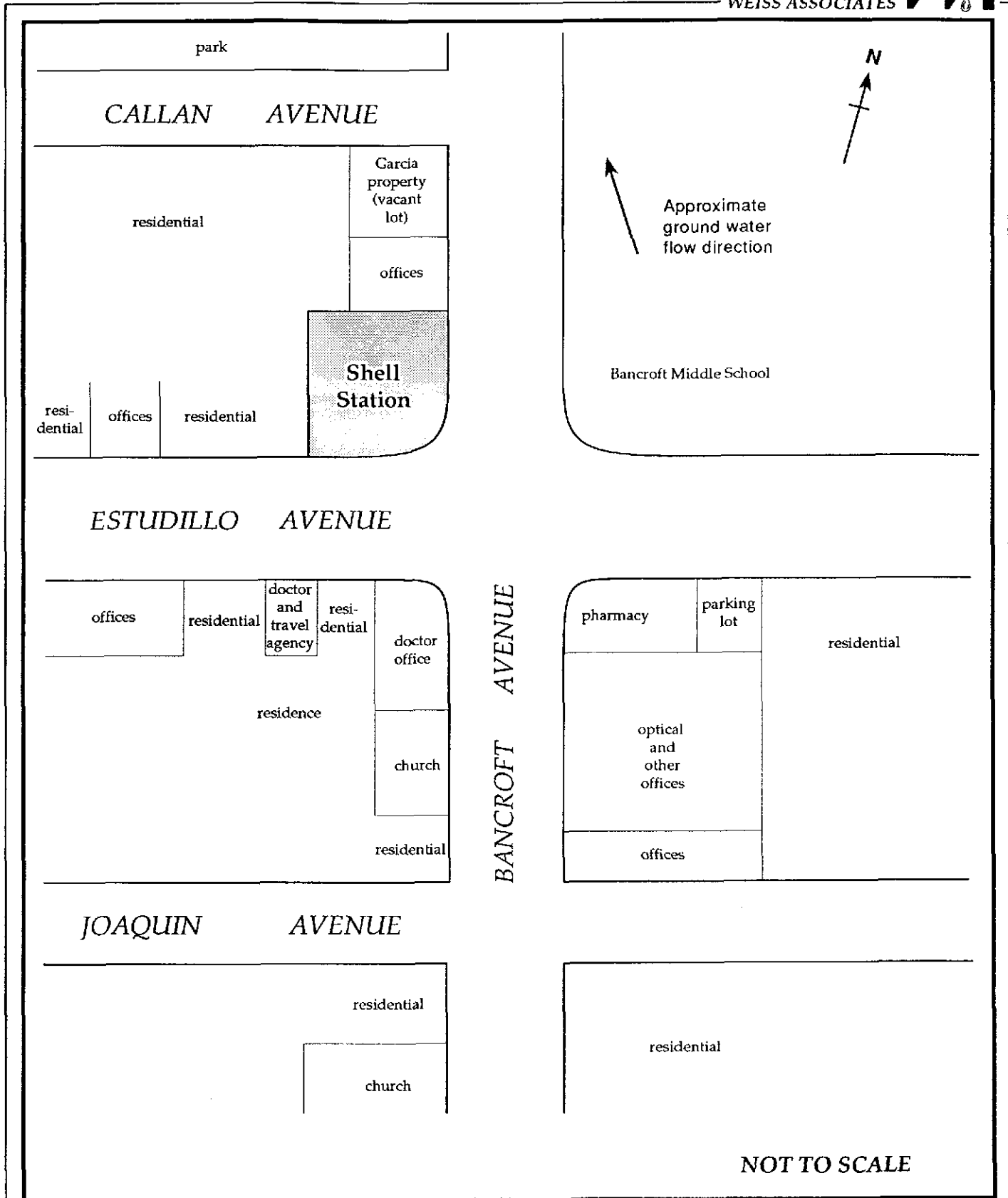


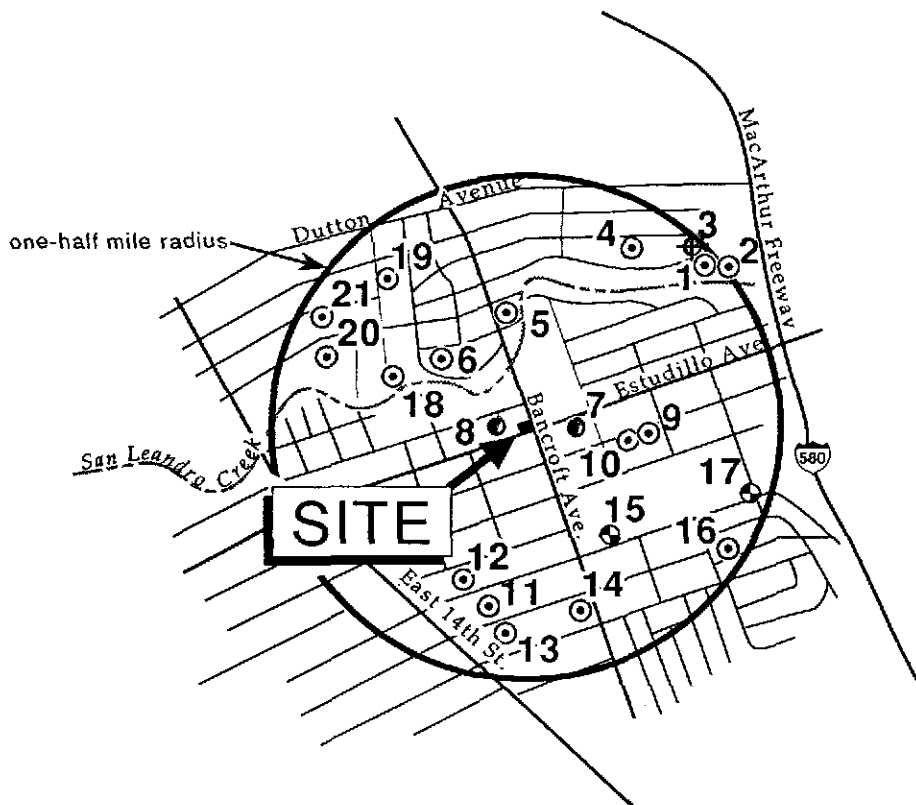
Figure 2. Monitoring Well Locations and Ground Water Elevations - February 24, 1992 - Shell Service Station WIC #204-6852-0703, 1285 Bancroft Avenue, San Leandro, California



NOT TO SCALE

Figure 3. Businesses and Properties in the Site Vicinity - Shell Service Station WIC #204-6852-0703, 1285 Bancroft Avenue, San Leandro, California





N



0 1/2 mile

**EXPLANATION**

- ⊙ 2 Appropriate location and number of irrigation well listed in Table 1
- ⊕ 3 Approximate location and number of domestic supply well listed in Table 1
- ⦿ 7 Approximate location and number of irrigation or domestic supply well listed in Table 1
- ⦿ 15 Approximate location and number of unknown well listed in Table 1

Figure 4. Wells Within One-Half Mile of Shell Service Station WIC #204-6852-0703, 1285 Bancroft Avenue, San Leandro, California

Table 1. Wells Located Within One-Half Mile of Shell Service Station WIC #204-6852-0703, 1285 Bancroft Avenue, San Leandro, California

ID	Owner	Location	Use	Year Drilled
1	Arthur H. Lund	1123 Glen Dr	Irrigation	1977
2	Ole Juul	881 St. Mary Ave	Irrigation	1991
3	Brad Jones	1374 Glen Dr	Domestic	1991
4	Bob Eversole	833 Begier Ave	Irrigation	1977
5	O.R. Johnson - J. Stanisich	1030 Bancroft Ave	Irrigation	1977
6	J.A. Thompson	523 Pala Ave	Irrigation	1977
7	Dr. A.W. Scalasy	659 Estudillo Ave	Irrigation or Domestic	1933
8	Chasl Hale	566 Estudillo Ave	Irrigation or Domestic	1937
9	Emil Sereda	769 Joaquin Ave	Irrigation	1977
10	James R. Meyer	745 Joaquin Ave	Irrigation	1977
11	Tony Yacek	353 Maud	Irrigation	1977
12	H.C. Silliman III	465 Dolores Ave	Irrigation	1977
13	Luke & Olive Deasy	309 Elsie St	Irrigation	1988
14	George Bradley Land, III	655 Elsie St	Irrigation	1977
15	Sal Julione	646 Maude Ave	unknown	1949
16	Edmond Saustina	862 Emeral Ave	Irrigation	1977
17	Funucchi	Maud Ave & Morgan	unknown	1947
18	P.M. Rice	337 Woodland Pk	Irrigation	1977
19	Tom W. Saedden	730 Woodland Ave	Irrigation	1977
20	Davis C. Henrichsen	961 Karol Wy	Irrigation	1977
21	Dennis F. Omick	261 Bergier Ave	Irrigation	1977

Table 2. Analytic Results for Soil - Shell Service Station WIC #204-6852-0703, 1285 Bancroft Avenue, San Leandro, California

Boring ID (Well ID)	Sample Depth (ft)	Date Sampled	Ground Water Depth (ft)	TPH-G	TPH-D	POG <sup>a</sup>	B	E	T	X	PCE	HVOCs	-----parts per million (mg/kg)-----		
BH-A (MW-1)	19.7	03/06/90	43.0	<1	---	<100	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025		b		
	29.7			<1	---	<100	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0020	b	
	39.7			<1	---	<100	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.0057	<0.0020	b	
				<1	---	<100	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025		b	
				<1	---	<100	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025		b	
BH-B (MW-2)	27.5	02/06/92	44.8	1,500	1,000 <sup>d</sup>	---	<0.25	0.82	<0.25	6.9	<0.002		b		
	31.5			12	---	<0.0025	0.0090	<0.0025	0.058	---	---				
	36.5			71	---	<0.025	0.056	<0.025	0.21	<0.002		b			
	41.5			---	---	<1.25	19	<1.25	46	---	---				
	46.5			8,800	4,500	---	<2.5	7	<2.5	170	<0.002		b		
	48.5			19	---	<0.025	<0.025	<0.025	0.092	---	---				
BH-C (MW-3)	31.5	02/07/92	44.9	<1	---	---	<0.0025	<0.0025	<0.0025	<0.0025	---	---			
	36.5			<1	<1	---	<0.0025	<0.0025	<0.0025	<0.0025	<0.002		b		
	41.5			64	---	<0.025	<0.025	<0.025	0.25	---	---				
	44.5			45	29 <sup>d</sup>	<0.025	<0.025	<0.025	0.25	<0.002		b			
	48.5			15	---	<0.0025	<0.0025	<0.0025	0.60	---	---				

**Abbreviations:**

TPH-G = Total petroleum hydrocarbons as gasoline by modified EPA Method 8015  
 TPH-D = Total petroleum hydrocarbons as diesel by modified EPA Method 8015  
 POG = Petroleum oil and grease by American Public Health Association (APHA) Standard Method 503E  
 B = Benzene by EPA Method 8020  
 E = Ethylbenzene by EPA Method 8020  
 T = Toluene by EPA Method 8020  
 X = Xylenes by EPA Method 8020  
 PCE = Tetrachloroethene by EPA Method 8010  
 HVOCs = Halogenated volatile organic compounds by EPA Method 8010  
 --- = Not analyzed  
 <n = Not detected above method detection limit of n ppm

**Analytical Laboratory:**

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

**Notes:**

a = No total oil and grease detected above APHA Standard Method 503E detection limit of 50 ppm in any soil sample from boring BH-A  
 b = No HVOCs detected  
 c = No total petroleum hydrocarbons as motor oil detected at modified EPA Method 8015 detection limit of 10 ppm  
 d = NET reported that the detected compound is a hydrocarbon lighter than diesel



TABLE 3. Analytic Results for Ground Water - Shell Service Station WIC #204-6852-0703, 1285 Bancroft Avenue, San Leandro, California

Well ID	Date Sampled	Depth to Water (ft)	TPH-G	TPH-D	B	E	T	X	POG	VOCs <sup>e</sup>	
										PCE	CHLOR
-----mg/l (ppm)----->											
MW-1	03/08/90	42.65	0.51	1.3 <sup>a</sup>	<0.0005	0.0015	0.0011	0.0087	<10	0.035	0.0063
	06/12/90	43.14	0.39	0.34 <sup>a</sup>	<0.0005	0.0023	<0.0005	0.0055	<10	0.0019	0.063
	09/13/90	44.71	0.10	0.16 <sup>a</sup>	<0.0005	<0.0005	<0.0005	<0.0005	<10	0.026	0.0090
	12/18/90	45.23	0.48	<0.05 <sup>a</sup>	<0.0005	<0.0005	<0.0005	0.0035	<10	<0.0004	0.0053
	03/07/91	43.32	0.08	0.06 <sup>a</sup>	<0.0005	<0.0005	<0.0005	<0.0005	---	0.023	0.0037
	06/07/91	42.18	0.31	<0.05 <sup>a,c</sup>	<0.0005	<0.0005	<0.0005	0.0021	---	0.021	0.0066
	09/17/91	44.85	0.05 <sup>b</sup>	0.16 <sup>c</sup>	<0.0005	<0.0005	<0.0005	<0.0005	---	0.023	0.0074
	12/09/91	45.59	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	---	0.016	0.0068
MW-2	02/24/92	41.94	1.0	0.26 <sup>c</sup>	0.0043	0.012	0.0011	0.023	---	0.013	0.011
MW-3	02/24/92	42.55	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	---	0.011	0.0034
Trip Blank	03/08/90		<0.05	---	<0.0005	<0.0005	<0.0005	<0.0005	---	---	---
	06/12/90		<0.05	---	<0.0005	<0.0005	<0.0005	<0.0005	---	---	---
	12/18/90		<0.05	---	<0.0005	<0.0005	<0.0005	<0.0005	---	---	---
	03/07/91		<0.05	---	<0.0005	<0.0005	<0.0005	<0.0005	---	---	---
	06/07/91		<0.05	---	<0.0005	<0.0005	<0.0005	<0.0005	---	---	---
	09/17/91		<0.05	---	<0.0005	<0.0005	<0.0005	<0.0005	---	---	---
	12/09/91		0.08	---	<0.0005	<0.0005	0.0006	<0.0005	---	---	---
DTSC MCLs			NE	NE	0.001	0.680	0.10 <sup>d</sup>	1.750	NE	0.005	NE

**Abbreviations:**

TPH-G = Total petroleum hydrocarbons as gasoline by modified EPA Method 8015  
 TPH-D = Total petroleum hydrocarbons as diesel by modified EPA Method 8015  
 POG = Petroleum oil and grease by American Public Health Association Standard Method 503E  
 B = Benzene by EPA Method 602  
 E = Ethylbenzene by EPA Method 602  
 T = Toluene by EPA Method 602  
 X = Xylenes by EPA Method 602  
 VOCs = Volatile organic compounds by EPA Method 601  
 PCE = Tetrachloroethene by EPA Method 601  
 CHLOR = Chloroform by EPA Method 601  
 --- = Not analyzed  
 <n = Not detected at detection limit of n ppm  
 DTSC MCLs = California Department of Toxic Substances Control maximum contaminant levels for drinking water  
 NE = Not established

**Analytical Laboratory:**

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

**Notes:**

a = No total petroleum hydrocarbons as motor oil detected at modified EPA Method 8015 detection limit of 0.5 ppm  
 b = Result due to a non-gasoline hydrocarbon compound  
 c = Result due to a hydrocarbon compound lighter than diesel  
 d = DTSC recommended action level for drinking water; MCL not established  
 e = No VOCs other than PCE and chloroform detected



TABLE 4. Ground Water Elevations - Shell Service Station WIC #204-6852-0703, 1285 Bancroft Avenue, San Leandro, California

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft)	Ground Water Elevation (ft above msl)
MW-1	03/13/90	66.29	42.65	23.64
	06/12/90		43.14	23.15
	09/13/90		44.71	21.58
	12/18/90		45.23	21.06
	03/07/91		43.32	22.97
	06/07/91		42.18	24.11
	09/17/91		44.85	21.44
	12/09/91		45.59	20.70
	02/13/92		43.99	22.30
	02/24/92		41.99	24.30
MW-2	02/13/92	66.91	43.97	22.94
	02/24/92		41.94	24.97
MW-3	02/13/92	66.31	44.59	21.72
	02/24/92		42.55	23.76

## STANDARD FIELD PROCEDURES

WA has developed standard procedures for drilling and sampling soil borings and installing, developing and sampling ground water monitoring wells. These procedures comply with Federal, State and local regulatory guidelines. Specific procedures are summarized below.

### SOIL BORING AND SAMPLING

#### Objectives/Supervision

Soil sampling objectives include characterizing subsurface lithology, assessing whether the soils exhibit obvious hydrocarbon or other compound vapor or staining, and collecting samples for analysis at a State-certified laboratory. All borings are logged using the Unified Soil Classification System by a trained geologist working under the supervision of a California Registered Geologist (RG) or a Certified Engineering Geologist (CEG).

#### Soil Boring and Sampling

Deep soil borings or borings for well installation are typically drilled using hollow-stem augers. Split-barrel samplers lined with steam-cleaned brass or stainless steel tubes are driven through the hollow auger stem into undisturbed sediments at the bottom of the borehole using a 140 pound hammer dropped 30 inches. Soil samples can also be collected without using hollow-stem augers by progressively driving split-barrel soil samplers to depths of up to 30 ft.

Soil samples are collected at least every five ft to characterize the subsurface sediments and for possible chemical analysis. Near the water table and at lithologic changes, the sampling interval may be less than five ft.

Drilling and sampling equipment is steam-cleaned prior to drilling and between borings to prevent cross-contamination. Sampling equipment is washed between samples with trisodium phosphate or an equivalent EPA-approved detergent.

#### Sample Analysis

After noting the lithology at each end of the sampling tubes, the tube chosen for analysis is immediately trimmed of excess soil and capped with teflon tape and plastic end

caps. The sample is labelled, stored at or below 4°C, and transported under chain-of-custody to a State-certified analytic laboratory.

### Screening

One of the remaining tubes is partially emptied leaving about one-third of the soil in the tube. The tube is capped with plastic end caps and set aside to allow hydrocarbons to volatilize from the soil. After ten to fifteen minutes, a portable photoionization detector (PID) measures volatile hydrocarbon vapor concentrations in the tube headspace, extracting the vapor through a slit in the cap. PID measurements are used along with the stratigraphy and ground water depth to select soil samples for analysis.

### Grouting

If the borings are not completed as wells, the borings are filled to the ground surface with cement grout poured or pumped through a tremie pipe. If wells are completed in the borings, the well installation, development and sampling procedures summarized below are followed.

## MONITORING WELL INSTALLATION, DEVELOPMENT AND SAMPLING

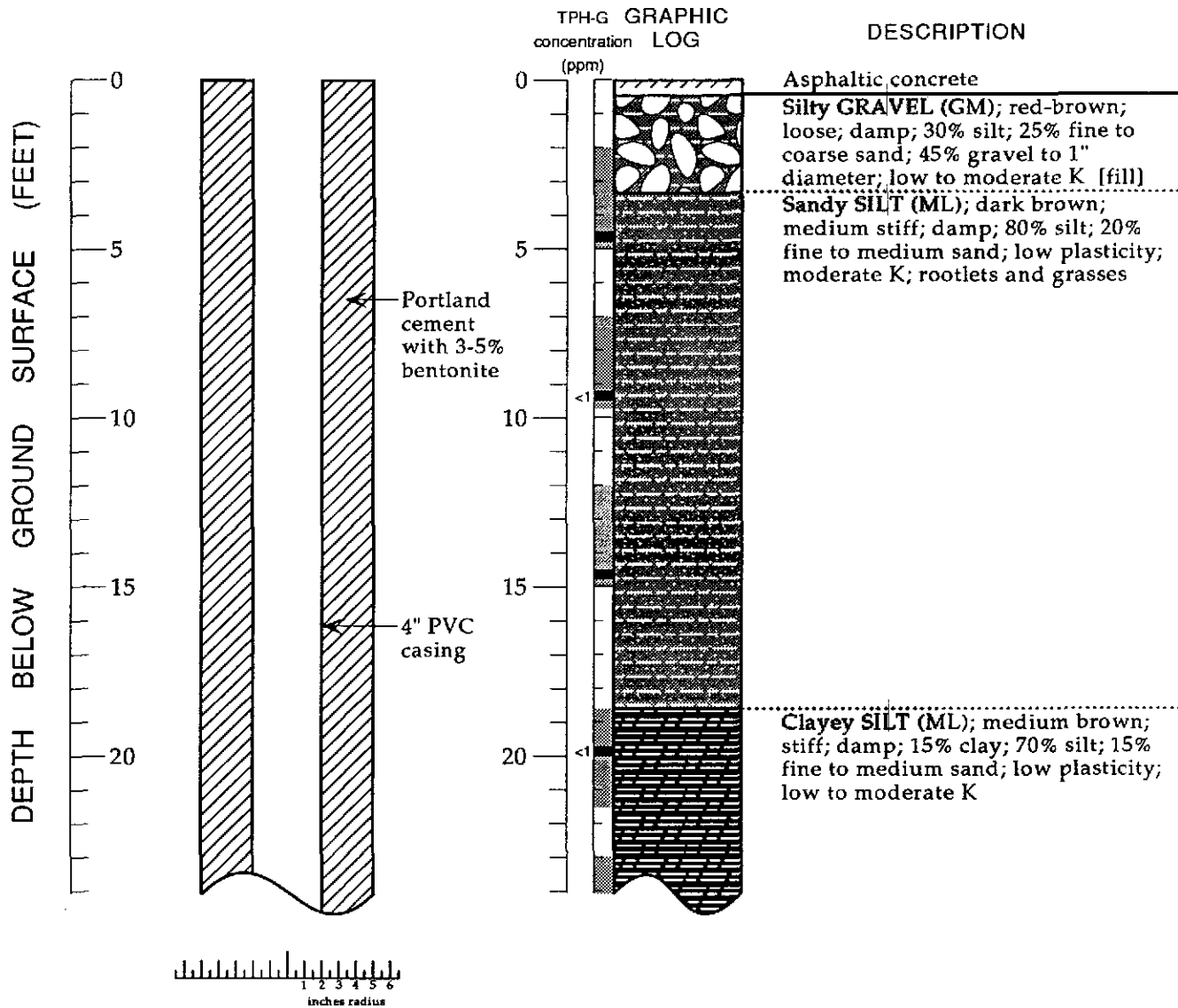
### Well Construction and Surveying

Wells are installed to monitor ground water quality and determine the ground water elevation, flow direction and gradient. Well depths and screen lengths are based on ground water depth, occurrence of hydrocarbons or other compounds in the borehole, stratigraphy and State and local regulatory guidelines. Well screens typically extend 15 ft below and 5 ft above the static water level at the time of drilling. However, the well screen will generally not extend into or through a clay layer that is at least three ft thick.

Well casing and screen are flush-threaded, Schedule 40 PVC. Screen slot size varies according to the sediments screened, but slots are generally 0.010 or 0.020 inches wide. A rinsed and graded sand occupies the annular space between the boring and the well screen to about one to two ft above the well screen. A two ft thick hydrated bentonite seal separates the sand from the overlying sanitary surface seal composed of cement with 3-5% bentonite.



# WELL MW-1 (BH-A)



## EXPLANATION

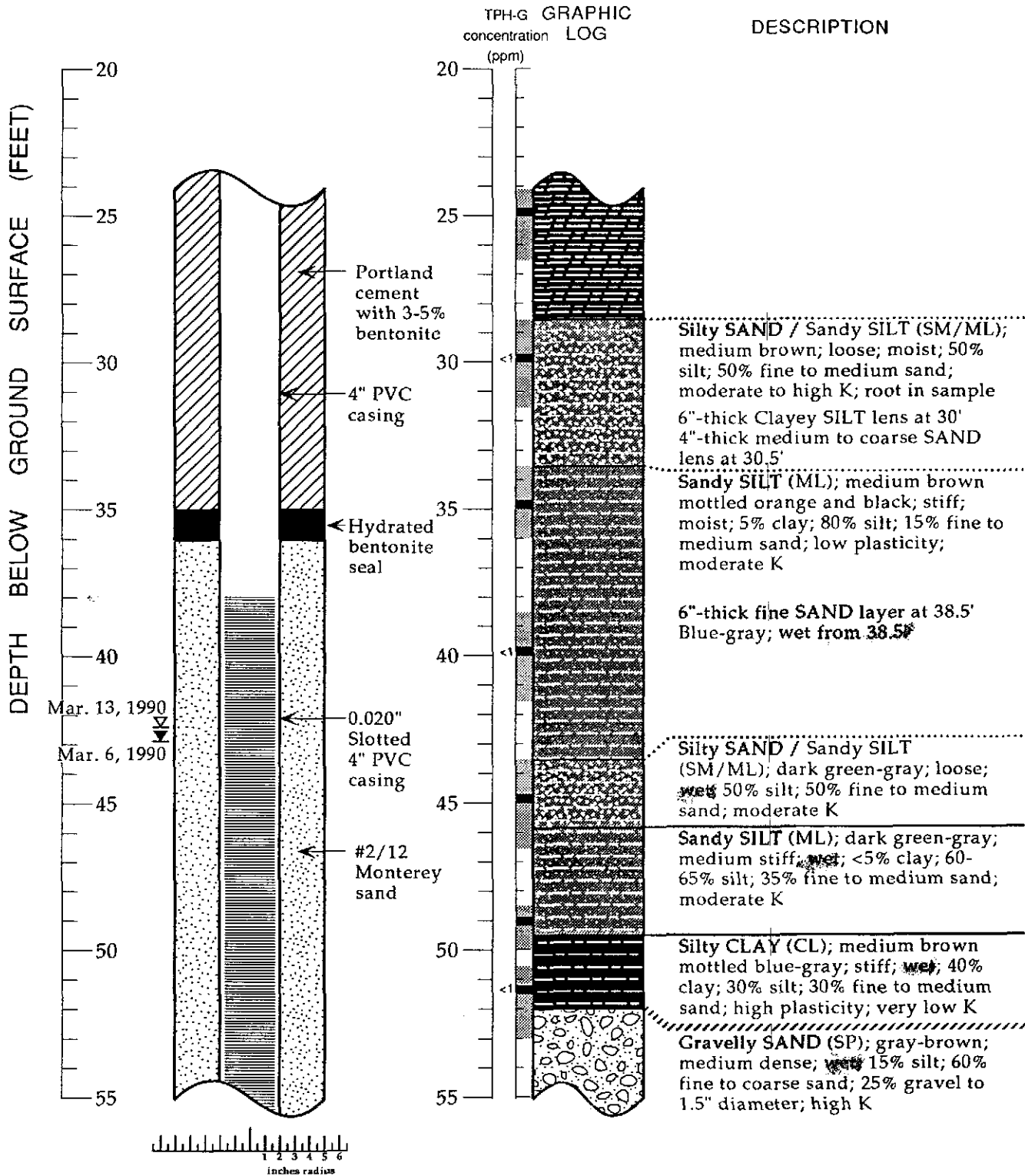
- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>▼ Water level during drilling (date)</li> <li>∇ Water level (date)</li> <li>----- Contact (dotted where approximate)</li> <li>-?-?-? Uncertain contact</li> <li>//// Gradational contact</li> <li>▨ Location of recovered drive sample</li> <li>■ Location of drive sample sealed for chemical analysis</li> <li>▩ Cutting sample</li> <li>K = Estimated hydraulic conductivity</li> </ul> | <p>Logged By: Karin Sixt<br/>                 Supervisor: Richard B. Weiss; CEG 1112<br/>                 Drilling Company: HEW Drilling, East Palo Alto, CA<br/>                 License Number: C57-384167<br/>                 Driller: Casto Pineda<br/>                 Drilling Method: Hollow-stem auger<br/>                 Date Drilled: March 6, 1990<br/>                 Well Head Completion: 4" locking well-plug, traffic-rated vault<br/>                 Type of Sampler: Split barrel (1.5", 2" ID)<br/>                 Ground Surface Elevation: 66.60 feet above mean sea level<br/>                 TPH-G: Total petroleum hydrocarbon as gasoline in soil by modified EPA Method 8015</p> |
|---|---|

Boring Log and Well Construction Details - Well MW-1 (BH-A) - Shell Service Station WIC #204-6852-0703, 1285 Bancroft Avenue, San Leandro, California



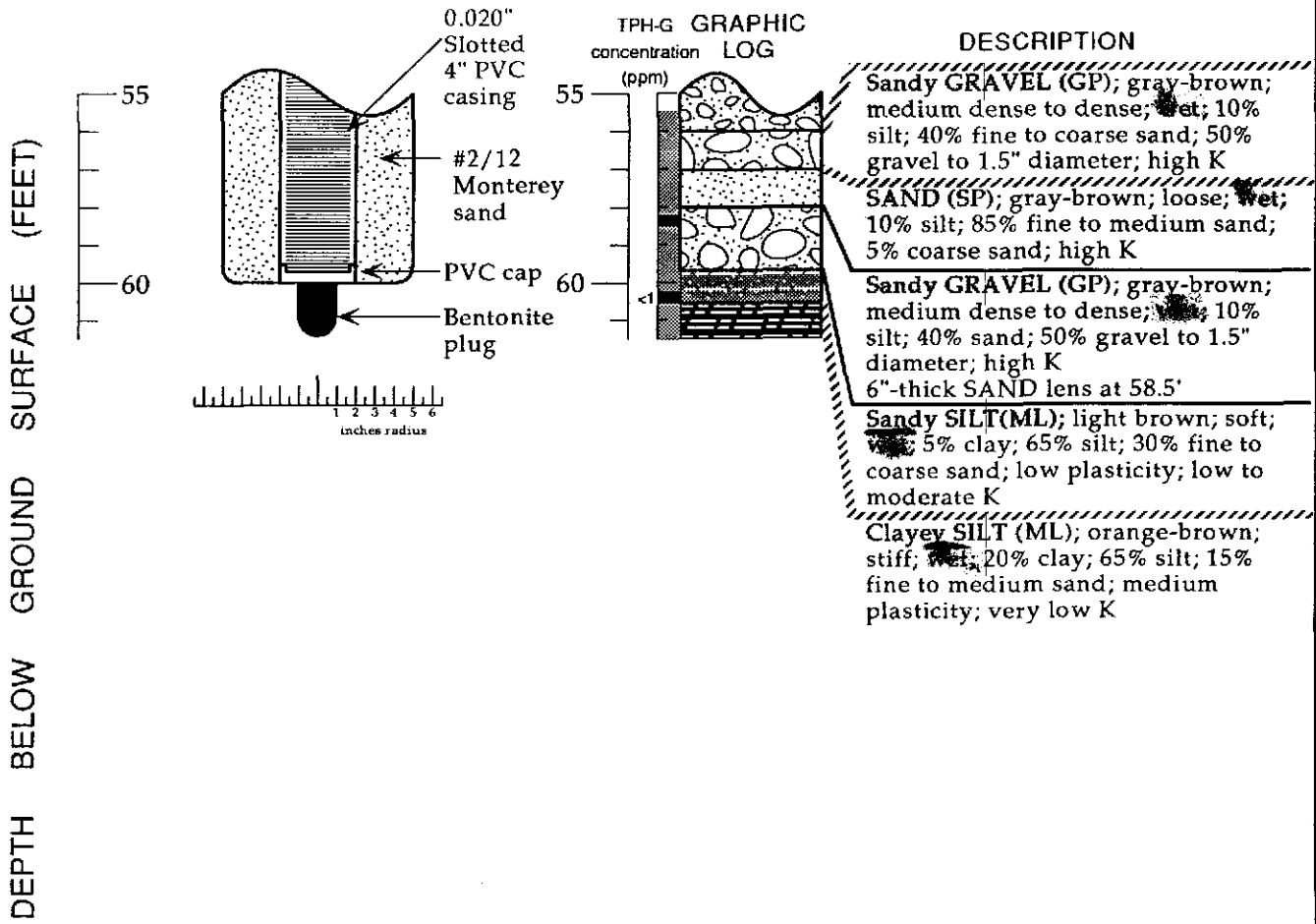


# WELL MW-1 (BH-A) (cont.)



Boring Log and Well Construction Details - Well MW-1 (BH-A) - Shell Service Station WIC #204-6852-0703, 1285 Bancroft Avenue, San Leandro, California

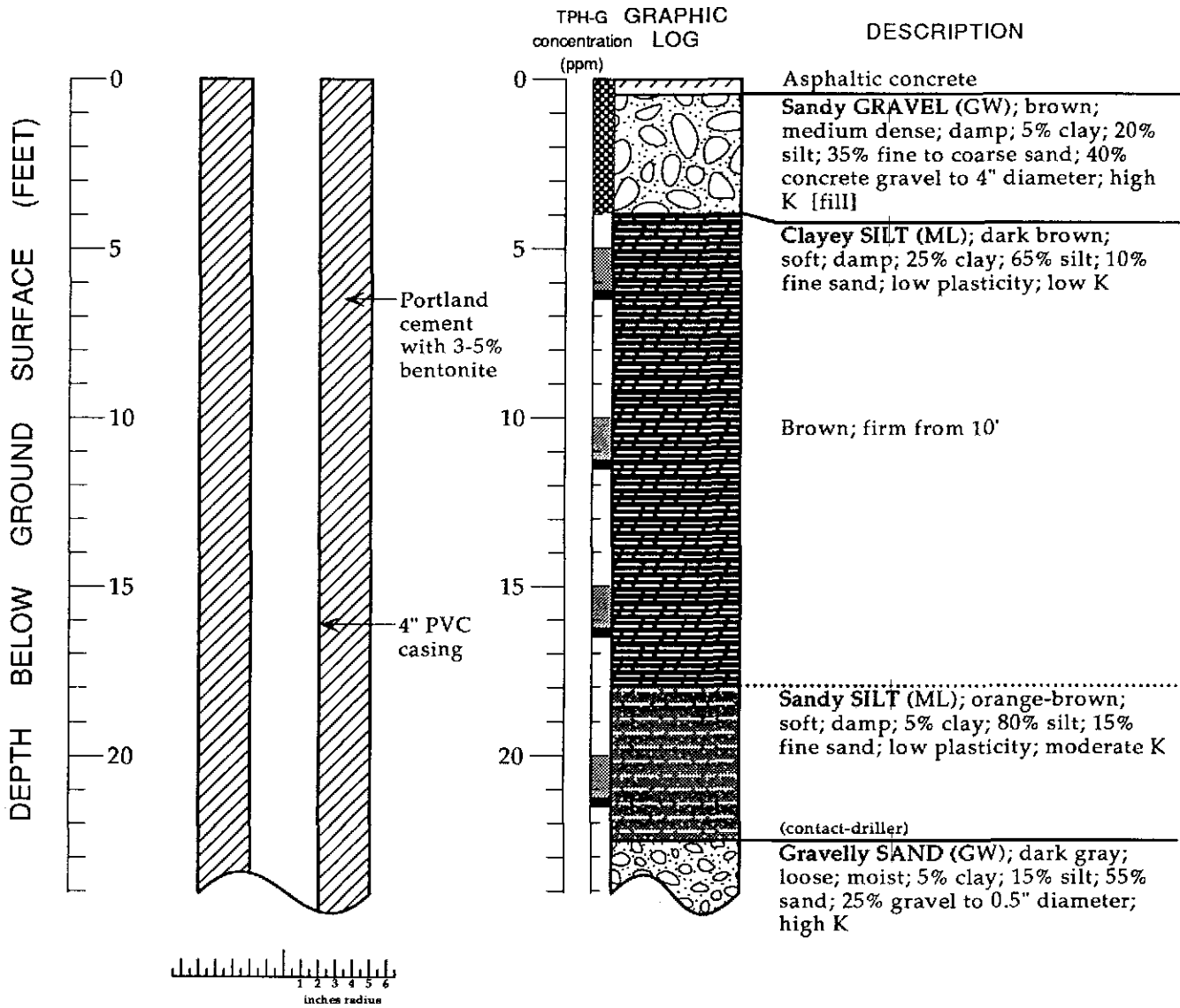
### WELL MW-1 (BH-A) (cont.)



Boring Log and Well Construction Details - Well MW-1 (BH-A) - Shell Service Station WIC #204-6852-0703, 1285 Bancroft Avenue, San Leandro, California



# WELL MW-2 (BH-B)



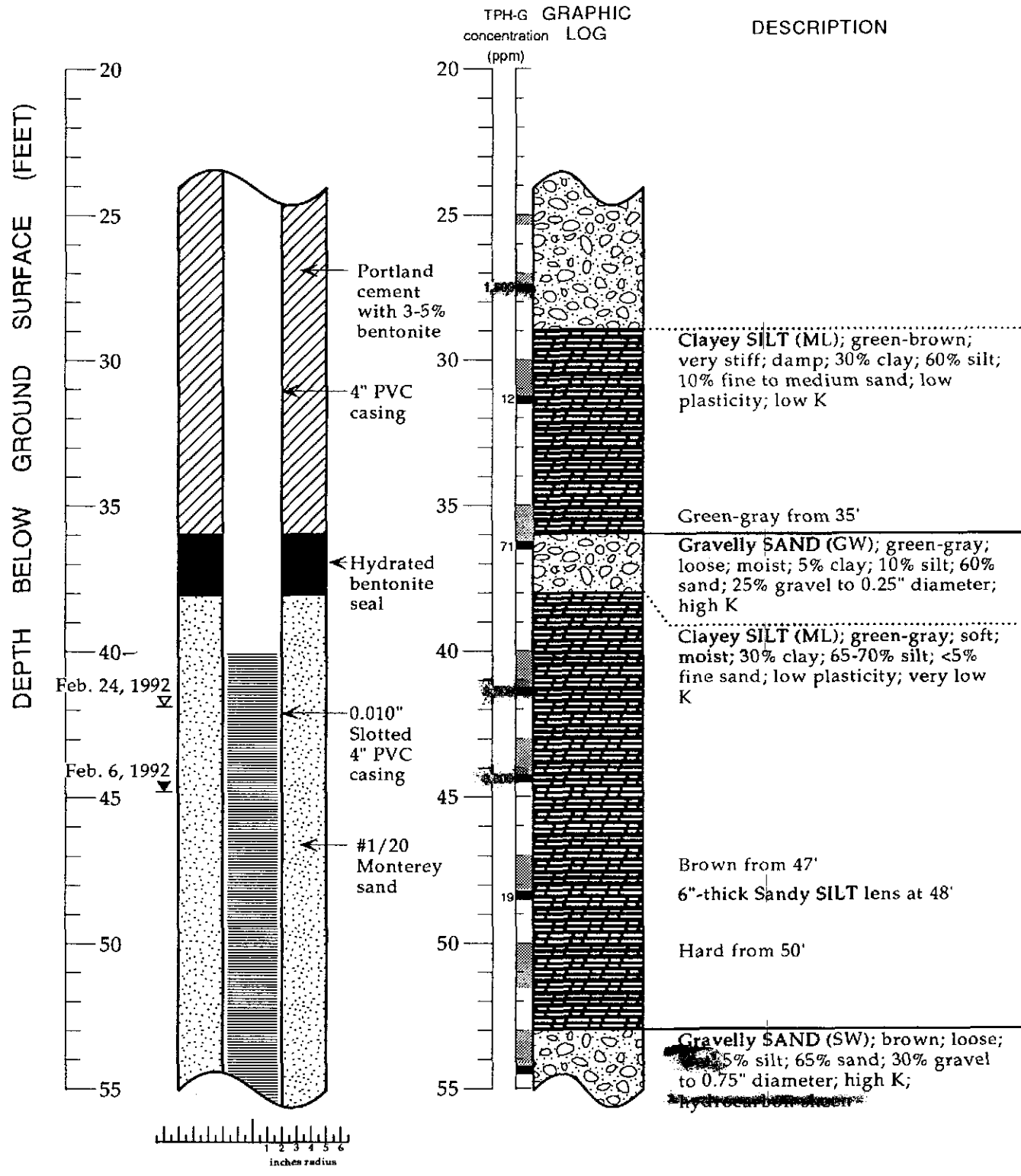
## EXPLANATION

- ▼ Water level during drilling (date)
- ▽ Water level (date)
- Contact (dotted where approximate)
- ?-?-? Uncertain contact
- //// Gradational contact
- ▨ Location of recovered drive sample
- Location of drive sample sealed for chemical analysis
- ▩ Cutting sample
- K = Estimated hydraulic conductivity

Logged By: Tom Fojut  
 Supervisor: Joseph P. Theisen; CEG 1645  
 Drilling Company: Soils Exploration Services, Benicia, CA  
 License Number: C57-582696  
 Driller: Courtney Mossman  
 Drilling Method: Hollow-stem auger  
 Date Drilled: February 6, 1992  
 Well Head Completion: 4" locking well-plug, traffic-rated vault  
 Type of Sampler: Split barrel (2" ID)  
 Ground Surface Elevation: 67.37 feet above mean sea level  
 TPH-G: Total petroleum hydrocarbon as gasoline in soil by modified EPA Method 8015

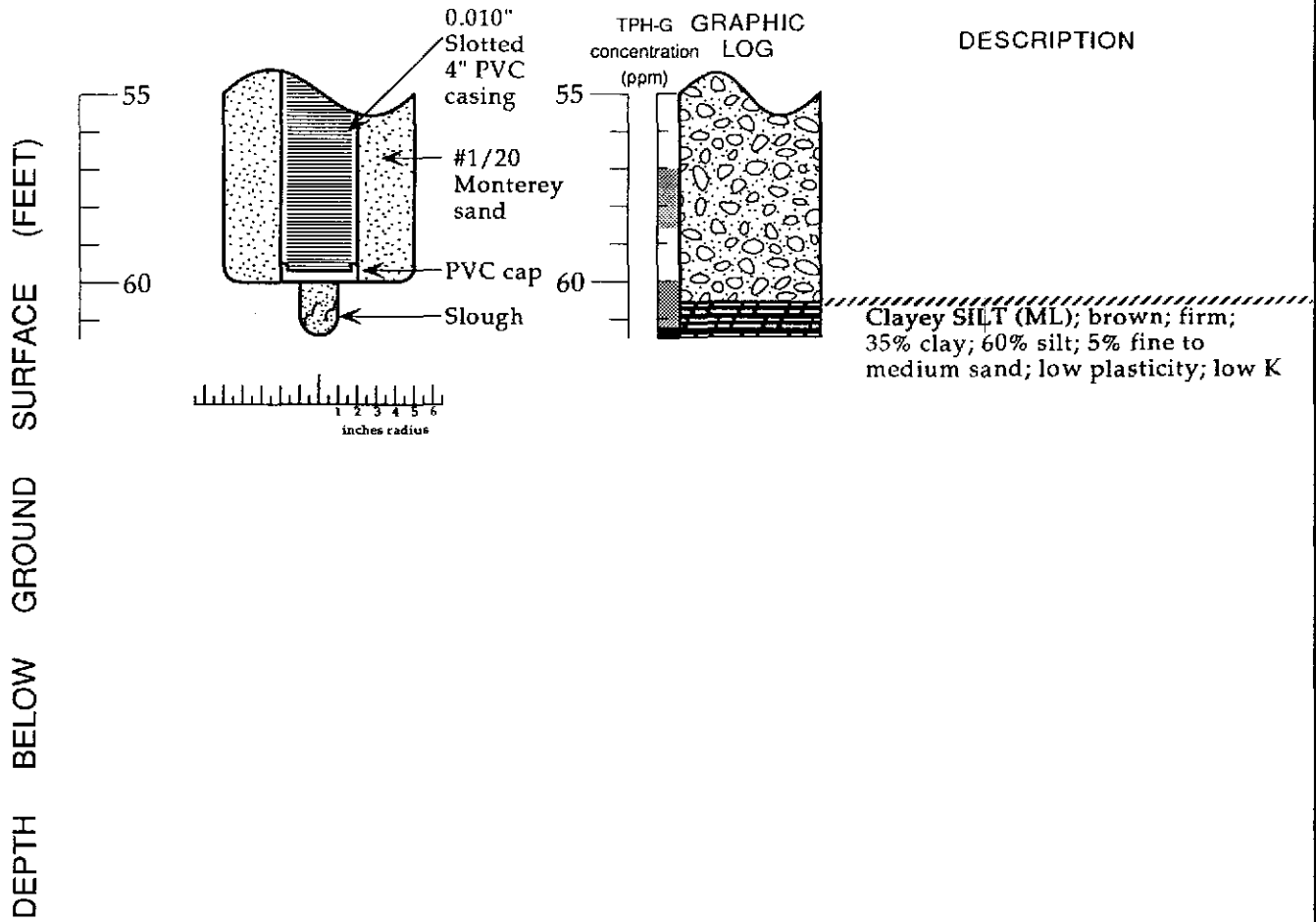
Boring Log and Well Construction Details - Well MW-2 (BH-B) - Shell Service Station WIC #204-6852-0703, 1285 Bancroft Avenue, San Leandro, California

## WELL MW-2 (BH-B) (cont.)



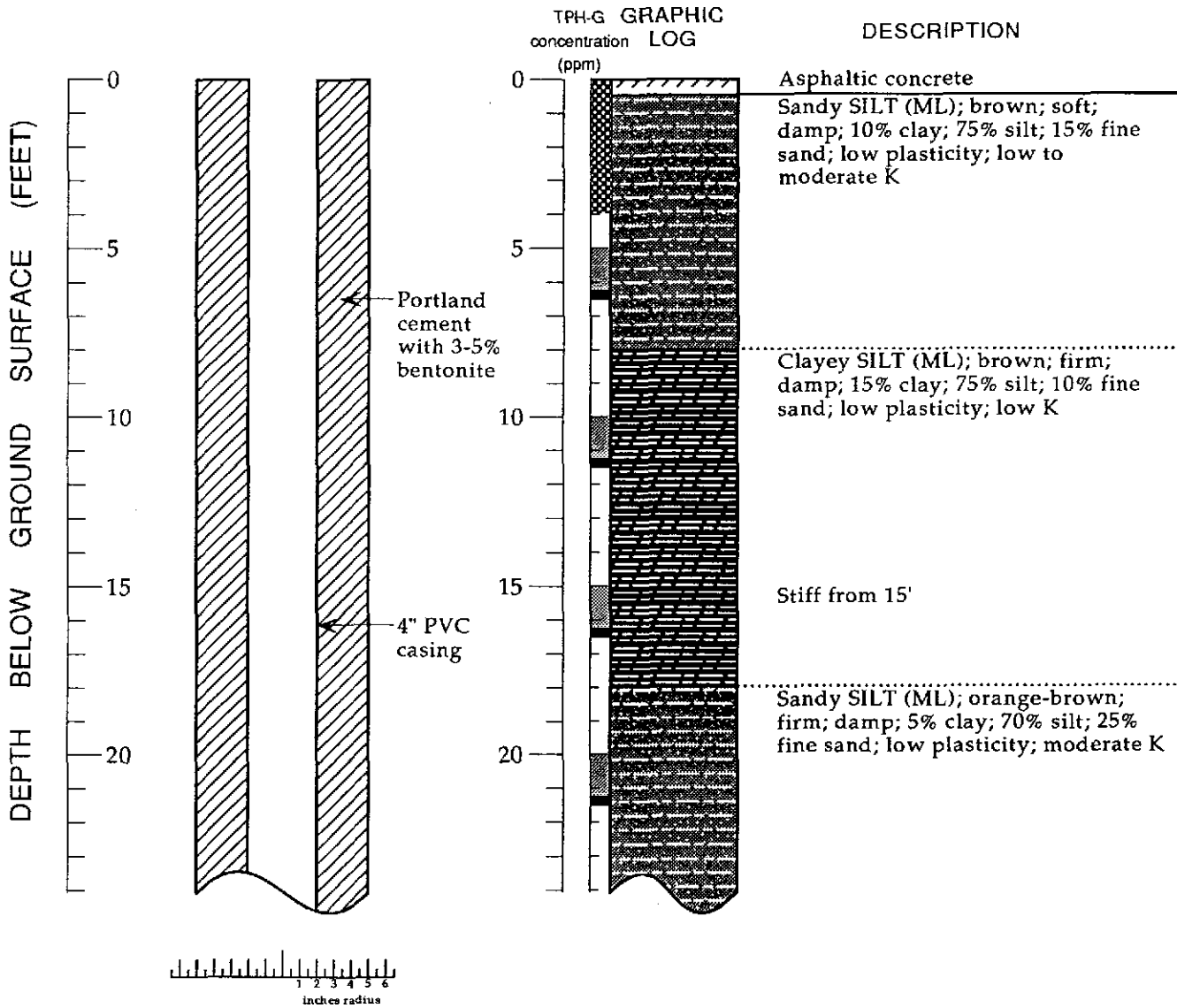
Boring Log and Well Construction Details - Well MW-2 (BH-B) - Shell Service Station WIC #204-6852-0703, 1285 Bancroft Avenue, San Leandro, California

### WELL MW-2 (BH-B) (cont.)



Boring Log and Well Construction Details - Well MW-2 (BH-B) - Shell Service Station WIC #204-6852-0703, 1285 Bancroft Avenue, San Leandro, California

# WELL MW-3 (BH-C)



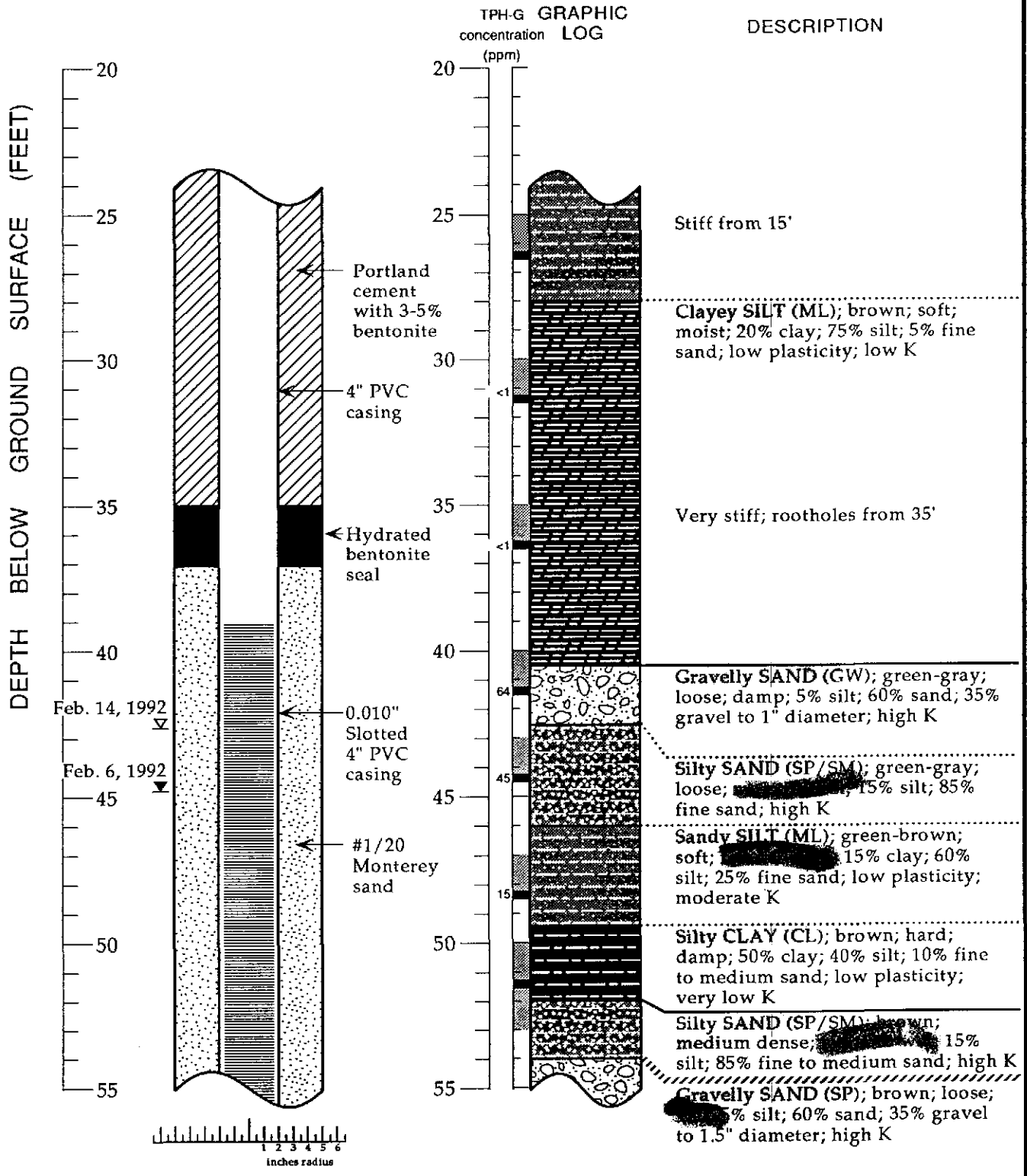
## EXPLANATION

- ▼ Water level during drilling (date)
- ∇ Water level (date)
- Contact (dotted where approximate)
- ?-?-? Uncertain contact
- //// Gradational contact
- ▨ Location of recovered drive sample
- Location of drive sample sealed for chemical analysis
- ▩ Cutting sample
- K = Estimated hydraulic conductivity

Logged By: Tom Fojut  
 Supervisor: Joseph P. Theisen; CEG 1645  
 Drilling Company: Soils Exploration Services, Benicia, CA  
 License Number: C57-582696  
 Driller: Courtney Mossman  
 Drilling Method: Hollow-stem auger  
 Date Drilled: February 7, 1992  
 Well Head Completion: 4" locking well-plug, traffic-rated vault  
 Type of Sampler: Split barrel (1.5", 2" ID)  
 Ground Surface Elevation: 66.31 feet above mean sea level  
 TPH-G: Total petroleum hydrocarbon as gasoline in soil by modified EPA Method 8015

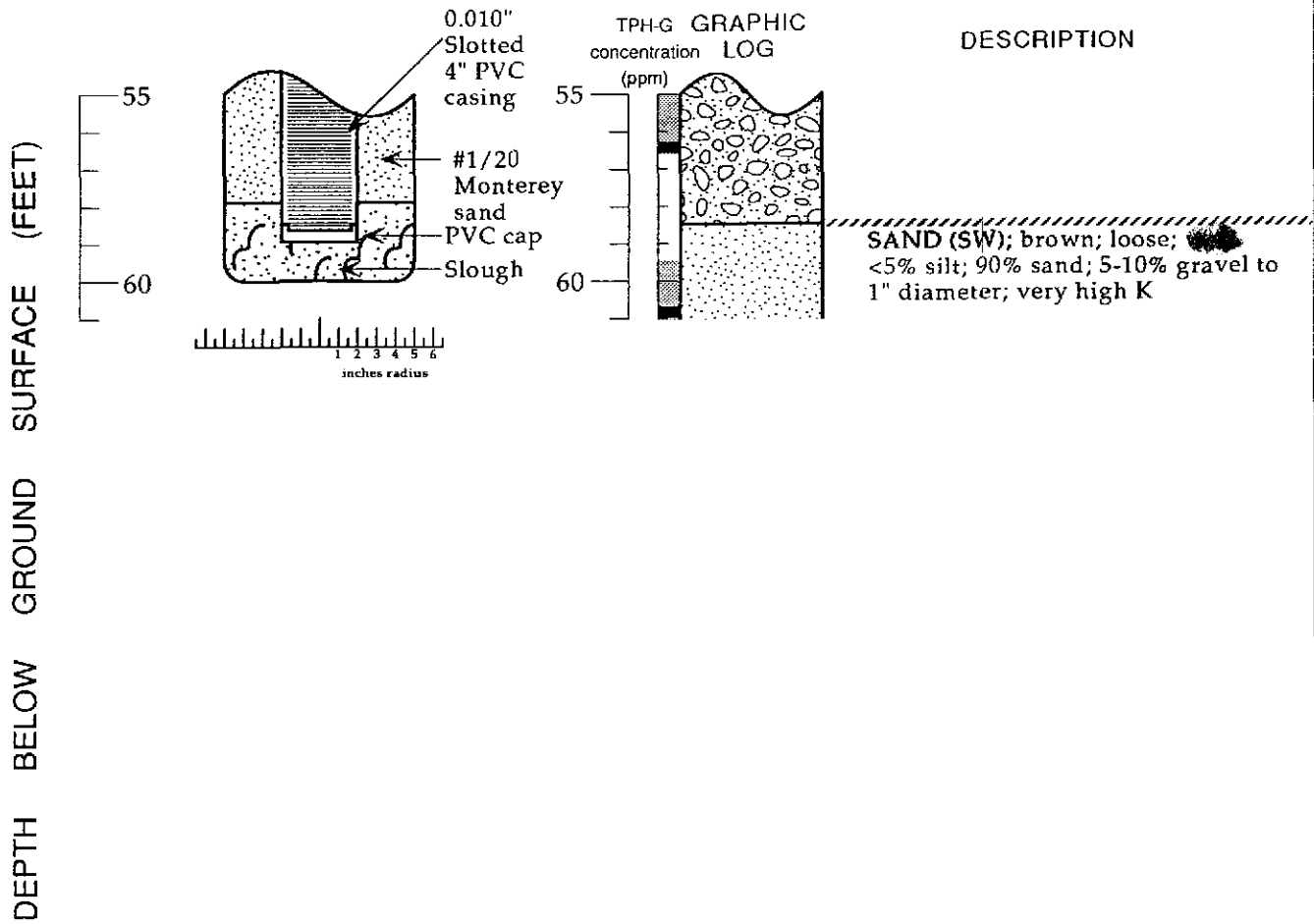
Boring Log and Well Construction Details - Well MW-3 (BH-C) - Shell Service Station WIC #204-6852-0703, 1285 Bancroft Avenue, San Leandro, California

### WELL MW-3 (BH-C) (cont.)



Boring Log and Well Construction Details - Well MW-3 (BH-C) - Shell Service Station WIC #204-6852-0703, 1285 Bancroft Avenue, San Leandro, California

### WELL MW-3 (BH-C) (cont.)



Boring Log and Well Construction Details - Well MW-3 (BH-C) - Shell Service Station WIC #204-6852-0703, 1285 Bancroft Avenue, San Leandro, California





NATIONAL  
ENVIRONMENTAL  
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Tom Fojut  
Weiss Associates  
5500 Shellmound St.  
Emeryville, CA 94608

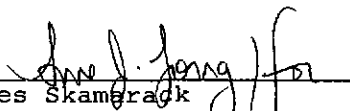
Date: 02/19/1992  
NET Client Acct. No: 1809  
NET Pacific Log No: 92.0688  
Received: 02/11/1992

Client Reference Information

Shell, 1285 Bancroft Ave., San Leandro

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 Skamrask  
Laboratory Manager

Enclosure(s)



Client Acct: 1809  
 Client Name: Weiss Associates  
 NET Log No: 92.0688

Date: 02/19/1992  
 Page: 2

NET Pacific, Inc

Ref: Shell, 1285 Bancroft Ave., San Leandro

SAMPLE DESCRIPTION: BH-B 31.5  
 Date Taken: 02/06/1992  
 Time Taken: 11:05  
 LAB Job No: (-113449 )

Parameter	Method	Reporting Limit	Results	Units
TPH (Gas/BTXE,Solid)			--	
METHOD 5030 (GC,FID)			02-11-92	
DATE ANALYZED			1	
DILUTION FACTOR*			12	mg/Kg
as Gasoline	5030	1		
SURROGATE RESULTS			--	
Bromofluorobenzene	5030		154 **	% Rec
METHOD 8020 (GC,Solid)			--	
DATE ANALYZED			02-11-92	
DILUTION FACTOR*			1	
Benzene	8020	0.0025	ND	mg/Kg
Ethylbenzene	8020	0.0025	0.0090	mg/Kg
Toluene	8020	0.0025	ND	mg/Kg
Xylenes (Total)	8020	0.0025	0.058	mg/Kg

\*\* Matrix interference.



Client Acct: 1809  
 Client Name: Weiss Associates  
 NET Log No: 92.0688

Date: 02/19/1992  
 Page: 3

NET Pacific, Inc

Ref: Shell, 1285 Bancroft Ave., San Leandro

SAMPLE DESCRIPTION: BH-B 41.5  
 Date Taken: 02/06/1992  
 Time Taken: 12:00  
 LAB Job No: (-113450 )

Parameter	Method	Reporting Limit	Results	Units
TPH (Gas/BTXE,Solid)				
METHOD 5030 (GC,FID)			--	
DATE ANALYZED			02-13-92	
DILUTION FACTOR*			500	
as Gasoline	5030	1	3,500	mg/Kg
SURROGATE RESULTS			--	
Bromofluorobenzene	5030		152 **	% Rec
METHOD 8020 (GC,Solid)			--	
DATE ANALYZED			02-13-92	
DILUTION FACTOR*			500	
Benzene	8020	0.0025	ND	mg/Kg
Ethylbenzene	8020	0.0025	19	mg/Kg
Toluene	8020	0.0025	ND	mg/Kg
Xylenes (Total)	8020	0.0025	46	mg/Kg

\*\* Matrix interference.



Client Acct: 1809  
 Client Name: Weiss Associates  
 NET Log No: 92.0688

Date: 02/19/1992  
 Page: 4

NET Pacific, Inc

Ref: Shell, 1285 Bancroft Ave., San Leandro

SAMPLE DESCRIPTION: BH-B 48.5  
 Date Taken: 02/06/1992  
 Time Taken: 12:45  
 LAB Job No: (-113451 )

Parameter	Method	Reporting Limit	Results	Units
TPH (Gas/BTXE, Solid)			--	
METHOD 5030 (GC, FID)			02-12-92	
DATE ANALYZED			10	
DILUTION FACTOR*			19	mg/Kg
as Gasoline	5030	1	--	
SURROGATE RESULTS			99	% Rec
Bromofluorobenzene	5030		--	
METHOD 8020 (GC, Solid)			02-12-92	
DATE ANALYZED			10	
DILUTION FACTOR*			ND	mg/Kg
Benzene	8020	0.0025	ND	mg/Kg
Ethylbenzene	8020	0.0025	ND	mg/Kg
Toluene	8020	0.0025	ND	mg/Kg
Xylenes (Total)	8020	0.0025	0.092	mg/Kg



Client Acct: 1809  
 Client Name: Weiss Associates  
 NET Log No: 92.0688

Date: 02/19/1992  
 Page: 5

NET Pacific, Inc

Ref: Shell, 1285 Bancroft Ave., San Leandro

SAMPLE DESCRIPTION: BH-C 31.5  
 Date Taken: 02/06/1992  
 Time Taken: 09:25  
 LAB Job No: (-113452 )

Parameter	Method	Reporting Limit	Results	Units
TPH (Gas/BTXE,Solid)			--	
METHOD 5030 (GC,FID)			--	
DATE ANALYZED			02-12-92	
DILUTION FACTOR*			1	
as Gasoline	5030	1	ND	mg/Kg
SURROGATE RESULTS			--	
Bromofluorobenzene	5030		80	% Rec
METHOD 8020 (GC,Solid)			--	
DATE ANALYZED			02-12-92	
DILUTION FACTOR*			1	
Benzene	8020	0.0025	ND	mg/Kg
Ethylbenzene	8020	0.0025	ND	mg/Kg
Toluene	8020	0.0025	ND	mg/Kg
Xylenes (Total)	8020	0.0025	ND	mg/Kg



Client Acct: 1809  
 Client Name: Weiss Associates  
 NET Log No: 92.0688

Date: 02/19/1992  
 Page: 6

NET Pacific, Inc

Ref: Shell, 1285 Bancroft Ave., San Leandro

SAMPLE DESCRIPTION: BH-C 41.5  
 Date Taken: 02/06/1992  
 Time Taken: 09:55  
 LAB Job No: (-113453 )

Parameter	Method	Reporting Limit	Results	Units
TPH (Gas/BTXE,Solid)				
METHOD 5030 (GC,FID)			--	
DATE ANALYZED			02-11-92	
DILUTION FACTOR*			10	
as Gasoline	5030	1	64	mg/Kg
SURROGATE RESULTS			--	
Bromofluorobenzene	5030		125	% Rec
METHOD 8020 (GC,Solid)			--	
DATE ANALYZED			02-11-92	
DILUTION FACTOR*			10	
Benzene	8020	0.0025	ND	mg/Kg
Ethylbenzene	8020	0.0025	ND	mg/Kg
Toluene	8020	0.0025	ND	mg/Kg
Xylenes (Total)	8020	0.0025	0.25	mg/Kg



Client Acct: 1809  
 Client Name: Weiss Associates  
 NET Log No: 92.0688

Date: 02/19/1992  
 Page: 7

NET Pacific, Inc

Ref: Shell, 1285 Bancroft Ave., San Leandro

SAMPLE DESCRIPTION: BH-C 48.5  
 Date Taken: 02/06/1992  
 Time Taken: 10:40  
 LAB Job No: (-113454 )

Parameter	Method	Reporting Limit	Results	Units
TPH (Gas/BTXE,Solid)			--	
METHOD 5030 (GC,FID)				
DATE ANALYZED			02-11-92	
DILUTION FACTOR*			1	
as Gasoline	5030	1	15	mg/Kg
SURROGATE RESULTS			--	
Bromofluorobenzene	5030		193 **	% Rec
METHOD 8020 (GC,Solid)			--	
DATE ANALYZED			02-11-92	
DILUTION FACTOR*			1	
Benzene	8020	0.0025	ND	mg/Kg
Ethylbenzene	8020	0.0025	ND	mg/Kg
Toluene	8020	0.0025	ND	mg/Kg
Xylenes (Total)	8020	0.0025	0.060	mg/Kg

\*\* Matrix interference.



Client Acct: 1809  
 Client Name: Weiss Associates  
 NET Log No: 92.0688

Date: 02/19/1992  
 Page: 8

NET Pacific, Inc

Ref: Shell, 1285 Bancroft Ave., San Leandro

SAMPLE DESCRIPTION: BH-B 27.5  
 Date Taken: 02/06/1992  
 Time Taken: 10:50  
 LAB Job No: (-113455 )

Parameter	Method	Reporting Limit	Results	Units
TPH (Gas/BTXE,Solid)			--	
METHOD 5030 (GC,FID)			--	
DATE ANALYZED			02-13-92	
DILUTION FACTOR*			100	
as Gasoline	5030	1	1,500	mg/Kg
SURROGATE RESULTS			--	
Bromofluorobenzene	5030		183 **	% Rec
METHOD 8020 (GC,Solid)			--	
DATE ANALYZED			02-13-92	
DILUTION FACTOR*			100	
Benzene	8020	0.0025	ND	mg/Kg
Ethylbenzene	8020	0.0025	0.82	mg/Kg
Toluene	8020	0.0025	ND	mg/Kg
Xylenes (Total)	8020	0.0025	6.9	mg/Kg
METHOD 3550 (GC,FID)				
DILUTION FACTOR*			50	
DATE EXTRACTED			02-12-92	
DATE ANALYZED			02-16-92	
as Diesel	3550	1	1,000 **	mg/Kg

\*\* Matrix interference.

\*\*\* NOTE: Petroleum hydrocarbon as diesel result is due to a petroleum hydrocarbon that is lighter than diesel.





Client Acct: 1809  
 Client Name: Weiss Associates  
 NET Log No: 92.0688

Date: 02/19/1992  
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NET Pacific, Inc

Ref: Shell, 1285 Bancroft Ave., San Leandro

SAMPLE DESCRIPTION: BH-B 27.5  
 Date Taken: 02/06/1992  
 Time Taken: 10:50  
 LAB Job No: (-113455 )

Parameter	Method	Reporting Limit	Results	Units
METHOD 8010 (GC,Solid)				
DATE ANALYZED			02-12-92	
DILUTION FACTOR*			1	
Bromodichloromethane	8010	0.002	ND	mg/Kg
Bromoform	8010	0.002	ND	mg/Kg
Bromomethane	8010	0.002	ND	mg/Kg
Carbon tetrachloride	8010	0.002	ND	mg/Kg
Chlorobenzene	8010	0.002	ND	mg/Kg
Chloroethane	8010	0.002	ND	mg/Kg
2-Chloroethylvinyl ether	8010	0.005	ND	mg/Kg
Chloroform	8010	0.002	ND	mg/Kg
Chloromethane	8010	0.002	ND	mg/Kg
Dibromochloromethane	8010	0.002	ND	mg/Kg
1,2-Dichlorobenzene	8010	0.002	ND	mg/Kg
1,3-Dichlorobenzene	8010	0.002	ND	mg/Kg
1,4-Dichlorobenzene	8010	0.002	ND	mg/Kg
Dichlorodifluoromethane	8010	0.002	ND	mg/Kg
1,1-Dichloroethane	8010	0.002	ND	mg/Kg
1,2-Dichloroethane	8010	0.002	ND	mg/Kg
1,1-Dichloroethene	8010	0.002	ND	mg/Kg
trans-1,2-Dichloroethene	8010	0.002	ND	mg/Kg
1,2-Dichloropropane	8010	0.002	ND	mg/Kg
cis-1,3-Dichloropropene	8010	0.002	ND	mg/Kg
trans-1,3-Dichloropropene	8010	0.002	ND	mg/Kg
Methylene chloride	8010	0.050	ND	mg/Kg
1,1,2,2-Tetrachloroethane	8010	0.002	ND	mg/Kg
Tetrachloroethene	8010	0.002	ND	mg/Kg
1,1,1-Trichloroethane	8010	0.002	ND	mg/Kg
1,1,2-Trichloroethane	8010	0.002	ND	mg/Kg
Trichloroethene	8010	0.002	ND	mg/Kg
Trichlorofluoromethane	8010	0.002	ND	mg/Kg
Vinyl chloride	8010	0.002	ND	mg/Kg
SURROGATE RESULTS				
1,4-Difluorobenzene			87.4	% Rec
1,4-Dichlorobutane			96.8	% Rec



Client Acct: 1809  
 Client Name: Weiss Associates  
 NET Log No: 92.0688

Date: 02/19/1992  
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NET Pacific, Inc

Ref: Shell, 1285 Bancroft Ave., San Leandro

SAMPLE DESCRIPTION: BH-B 36.5  
 Date Taken: 02/06/1992  
 Time Taken: 11:30  
 LAB Job No: (-113456 )

Parameter	Method	Reporting Limit	Results	Units
TPH (Gas/BTXE,Solid)				
METHOD 5030 (GC,FID)			--	
DATE ANALYZED			02-12-92	
DILUTION FACTOR*			10	
as Gasoline	5030	1	71	mg/Kg
SURROGATE RESULTS			--	
Bromofluorobenzene	5030		125	% Rec
METHOD 8020 (GC,Solid)			--	
DATE ANALYZED			02-12-92	
DILUTION FACTOR*			10	
Benzene	8020	0.0025	ND	mg/Kg
Ethylbenzene	8020	0.0025	0.056	mg/Kg
Toluene	8020	0.0025	ND	mg/Kg
Xylenes (Total)	8020	0.0025	0.21	mg/Kg
METHOD 3550 (GC,FID)				
DILUTION FACTOR*			1	
DATE EXTRACTED			02-12-92	
DATE ANALYZED			02-14-92	
as Diesel	3550	1	16 ***	mg/Kg

\*\*\* NOTE: Petroleum hydrocarbon as diesel result is due to a petroleum hydrocarbon that lighter than diesel.



Client Acct: 1809  
 Client Name: Weiss Associates  
 NET Log No: 92.0688

Date: 02/19/1992  
 Page: 11

NET Pacific, Inc

Ref: Shell, 1285 Bancroft Ave., San Leandro

SAMPLE DESCRIPTION: BH-B 36.5  
 Date Taken: 02/06/1992  
 Time Taken: 11:30  
 LAB Job No: (-113456 )

Parameter	Method	Reporting Limit	Results	Units
METHOD 8010 (GC,Solid)				
DATE ANALYZED			02-12-92	
DILUTION FACTOR*			1	
Bromodichloromethane	8010	0.002	ND	mg/Kg
Bromoform	8010	0.002	ND	mg/Kg
Bromomethane	8010	0.002	ND	mg/Kg
Carbon tetrachloride	8010	0.002	ND	mg/Kg
Chlorobenzene	8010	0.002	ND	mg/Kg
Chloroethane	8010	0.002	ND	mg/Kg
2-Chloroethylvinyl ether	8010	0.005	ND	mg/Kg
Chloroform	8010	0.002	ND	mg/Kg
Chloromethane	8010	0.002	ND	mg/Kg
Dibromochloromethane	8010	0.002	ND	mg/Kg
1,2-Dichlorobenzene	8010	0.002	ND	mg/Kg
1,3-Dichlorobenzene	8010	0.002	ND	mg/Kg
1,4-Dichlorobenzene	8010	0.002	ND	mg/Kg
Dichlorodifluoromethane	8010	0.002	ND	mg/Kg
1,1-Dichloroethane	8010	0.002	ND	mg/Kg
1,2-Dichloroethane	8010	0.002	ND	mg/Kg
1,1-Dichloroethene	8010	0.002	ND	mg/Kg
trans-1,2-Dichloroethene	8010	0.002	ND	mg/Kg
1,2-Dichloropropane	8010	0.002	ND	mg/Kg
cis-1,3-Dichloropropene	8010	0.002	ND	mg/Kg
trans-1,3-Dichloropropene	8010	0.002	ND	mg/Kg
Methylene chloride	8010	0.050	ND	mg/Kg
1,1,2,2-Tetrachloroethane	8010	0.002	ND	mg/Kg
Tetrachloroethene	8010	0.002	ND	mg/Kg
1,1,1-Trichloroethane	8010	0.002	ND	mg/Kg
1,1,2-Trichloroethane	8010	0.002	ND	mg/Kg
Trichloroethene	8010	0.002	ND	mg/Kg
Trichlorofluoromethane	8010	0.002	ND	mg/Kg
Vinyl chloride	8010	0.002	ND	mg/Kg
SURROGATE RESULTS				
1,4-Difluorobenzene			98.5	% Rec
1,4-Dichlorobutane			107	% Rec



Client Acct: 1809  
 Client Name: Weiss Associates  
 NET Log No: 92.0688

Date: 02/19/1992  
 Page: 12

NET Pacific, Inc

Ref: Shell, 1285 Bancroft Ave., San Leandro

SAMPLE DESCRIPTION: BH-B 44.5  
 Date Taken: 02/06/1992  
 Time Taken: 12:20  
 LAB Job No: (-113457 )

Parameter	Method	Reporting Limit	Results	Units
TPH (Gas/BTXE,Solid)			--	
METHOD 5030 (GC,FID)			--	
DATE ANALYZED			02-13-92	
DILUTION FACTOR*			1,000	
as Gasoline	5030	1	8,800	mg/Kg
SURROGATE RESULTS			--	
Bromofluorobenzene	5030		151 **	% Rec
METHOD 8020 (GC,Solid)			--	
DATE ANALYZED			02-13-92	
DILUTION FACTOR*			1,000	
Benzene	8020	0.0025	ND	mg/Kg
Ethylbenzene	8020	0.0025	72	mg/Kg
Toluene	8020	0.0025	ND	mg/Kg
Xylenes (Total)	8020	0.0025	170	mg/Kg
METHOD 3550 (GC,FID)				
DILUTION FACTOR*			100	
DATE EXTRACTED			02-12-92	
DATE ANALYZED			02-16-92	
as Diesel	3550	1	4,500 ***	mg/Kg

\*\* Matrix interference.

\*\*\* NOTE: Petroleum hydrocarbon as diesel result is due to a petroleum hydrocarbon that is lighter than diesel.



Client Acct: 1809  
 Client Name: Weiss Associates  
 NET Log No: 92.0688

Date: 02/19/1992  
 Page: 13

NET Pacific, Inc

Ref: Shell, 1285 Bancroft Ave., San Leandro

SAMPLE DESCRIPTION: BH-B 44.5  
 Date Taken: 02/06/1992  
 Time Taken: 12:20  
 LAB Job No: (-113457 )

Parameter	Method	Reporting Limit	Results	Units
METHOD 8010 (GC,Solid)				
DATE ANALYZED			02-12-92	
DILUTION FACTOR*			1	
Bromodichloromethane	8010	0.002	ND	mg/Kg
Bromoform	8010	0.002	ND	mg/Kg
Bromomethane	8010	0.002	ND	mg/Kg
Carbon tetrachloride	8010	0.002	ND	mg/Kg
Chlorobenzene	8010	0.002	ND	mg/Kg
Chloroethane	8010	0.002	ND	mg/Kg
2-Chloroethylvinyl ether	8010	0.005	ND	mg/Kg
Chloroform	8010	0.002	ND	mg/Kg
Chloromethane	8010	0.002	ND	mg/Kg
Dibromochloromethane	8010	0.002	ND	mg/Kg
1,2-Dichlorobenzene	8010	0.002	ND	mg/Kg
1,3-Dichlorobenzene	8010	0.002	ND	mg/Kg
1,4-Dichlorobenzene	8010	0.002	ND	mg/Kg
Dichlorodifluoromethane	8010	0.002	ND	mg/Kg
1,1-Dichloroethane	8010	0.002	ND	mg/Kg
1,2-Dichloroethane	8010	0.002	ND	mg/Kg
1,1-Dichloroethene	8010	0.002	ND	mg/Kg
trans-1,2-Dichloroethene	8010	0.002	ND	mg/Kg
1,2-Dichloropropane	8010	0.002	ND	mg/Kg
cis-1,3-Dichloropropene	8010	0.002	ND	mg/Kg
trans-1,3-Dichloropropene	8010	0.002	ND	mg/Kg
Methylene chloride	8010	0.050	ND	mg/Kg
1,1,2,2-Tetrachloroethane	8010	0.002	ND	mg/Kg
Tetrachloroethene	8010	0.002	ND	mg/Kg
1,1,1-Trichloroethane	8010	0.002	ND	mg/Kg
1,1,2-Trichloroethane	8010	0.002	ND	mg/Kg
Trichloroethene	8010	0.002	ND	mg/Kg
Trichlorofluoromethane	8010	0.002	ND	mg/Kg
Vinyl chloride	8010	0.002	ND	mg/Kg
SURROGATE RESULTS			--	
1,4-Difluorobenzene			NA	% Rec
1,4-Dichlorobutane			65.1	% Rec



Client Acct: 1809  
 Client Name: Weiss Associates  
 NET Log No: 92.0688

Date: 02/19/1992  
 Page: 14

NET Pacific, Inc

Ref: Shell, 1285 Bancroft Ave., San Leandro

SAMPLE DESCRIPTION: BH-C 36.5  
 Date Taken: 02/06/1992  
 Time Taken: 09:40  
 LAB Job No: (-113458 )

Parameter	Method	Reporting Limit	Results	Units
TPH (Gas/BTXE,Solid)			--	
METHOD 5030 (GC,FID)				
DATE ANALYZED			02-13-92	
DILUTION FACTOR*			1	
as Gasoline	5030	1	ND	mg/Kg
SURROGATE RESULTS			--	
Bromofluorobenzene	5030		73	% Rec
METHOD 8020 (GC,Solid)				
DATE ANALYZED			02-13-92	
DILUTION FACTOR*			1	
Benzene	8020	0.0025	ND	mg/Kg
Ethylbenzene	8020	0.0025	ND	mg/Kg
Toluene	8020	0.0025	ND	mg/Kg
Xylenes (Total)	8020	0.0025	ND	mg/Kg
METHOD 3550 (GC,FID)				
DILUTION FACTOR*			1	
DATE EXTRACTED			02-12-92	
DATE ANALYZED			02-14-92	
as Diesel	3550	1	ND	mg/Kg



Client Acct: 1809  
 Client Name: Weiss Associates  
 NET Log No: 92.0688

Date: 02/19/1992  
 Page: 15

NET Pacific, Inc

Ref: Shell, 1285 Bancroft Ave., San Leandro

SAMPLE DESCRIPTION: BH-C 36.5  
 Date Taken: 02/06/1992  
 Time Taken: 09:40  
 LAB Job No: (-113458 )

Parameter	Method	Reporting Limit	Results	Units
METHOD 8010 (GC,Solid)				
DATE ANALYZED			02-12-92	
DILUTION FACTOR*			1	
Bromodichloromethane	8010	0.002	ND	mg/Kg
Bromoform	8010	0.002	ND	mg/Kg
Bromomethane	8010	0.002	ND	mg/Kg
Carbon tetrachloride	8010	0.002	ND	mg/Kg
Chlorobenzene	8010	0.002	ND	mg/Kg
Chloroethane	8010	0.002	ND	mg/Kg
2-Chloroethylvinyl ether	8010	0.005	ND	mg/Kg
Chloroform	8010	0.002	ND	mg/Kg
Chloromethane	8010	0.002	ND	mg/Kg
Dibromochloromethane	8010	0.002	ND	mg/Kg
1,2-Dichlorobenzene	8010	0.002	ND	mg/Kg
1,3-Dichlorobenzene	8010	0.002	ND	mg/Kg
1,4-Dichlorobenzene	8010	0.002	ND	mg/Kg
Dichlorodifluoromethane	8010	0.002	ND	mg/Kg
1,1-Dichloroethane	8010	0.002	ND	mg/Kg
1,2-Dichloroethane	8010	0.002	ND	mg/Kg
1,1-Dichloroethene	8010	0.002	ND	mg/Kg
trans-1,2-Dichloroethene	8010	0.002	ND	mg/Kg
1,2-Dichloropropane	8010	0.002	ND	mg/Kg
cis-1,3-Dichloropropene	8010	0.002	ND	mg/Kg
trans-1,3-Dichloropropene	8010	0.002	ND	mg/Kg
Methylene chloride	8010	0.050	ND	mg/Kg
1,1,2,2-Tetrachloroethane	8010	0.002	ND	mg/Kg
Tetrachloroethene	8010	0.002	ND	mg/Kg
1,1,1-Trichloroethane	8010	0.002	ND	mg/Kg
1,1,2-Trichloroethane	8010	0.002	ND	mg/Kg
Trichloroethene	8010	0.002	ND	mg/Kg
Trichlorofluoromethane	8010	0.002	ND	mg/Kg
Vinyl chloride	8010	0.002	ND	mg/Kg
SURROGATE RESULTS				
1,4-Difluorobenzene			83.4	% Rec
1,4-Dichlorobutane			82.2	% Rec



Client Acct: 1809  
 Client Name: Weiss Associates  
 NET Log No: 92.0688

Date: 02/19/1992  
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NET Pacific, Inc

Ref: Shell, 1285 Bancroft Ave., San Leandro

SAMPLE DESCRIPTION: BH-C 44.5  
 Date Taken: 02/06/1992  
 Time Taken: 10:15  
 LAB Job No: (-113459 )

Parameter	Method	Reporting Limit	Results	Units
TPH (Gas/BTXE,Solid)				
METHOD 5030 (GC,FID)			--	
DATE ANALYZED			02-12-92	
DILUTION FACTOR*			10	
as Gasoline	5030	1	45	mg/Kg
SURROGATE RESULTS			--	
Bromofluorobenzene	5030		115	% Rec
METHOD 8020 (GC,Solid)			--	
DATE ANALYZED			02-12-92	
DILUTION FACTOR*			10	
Benzene	8020	0.0025	ND	mg/Kg
Ethylbenzene	8020	0.0025	ND	mg/Kg
Toluene	8020	0.0025	ND	mg/Kg
Xylenes (Total)	8020	0.0025	0.25	mg/Kg
METHOD 3550 (GC,FID)				
DILUTION FACTOR*			1	
DATE EXTRACTED			02-12-92	
DATE ANALYZED			02-14-92	
as Diesel	3550	1	29 ***	mg/Kg

\*\*\* NOTE: Petroleum hydrocarbon as diesel result is due to a petroleum hydrocarbon that is lighter than diesel.





Client Acct: 1809  
 Client Name: Weiss Associates  
 NET Log No: 92.0688

Date: 02/19/1992  
 Page: 17

NET Pacific, Inc

Ref: Shell, 1285 Bancroft Ave., San Leandro

SAMPLE DESCRIPTION: BH-C 44.5  
 Date Taken: 02/06/1992  
 Time Taken: 10:15  
 LAB Job No: (-113459 )

Parameter	Method	Reporting Limit	Results	Units
METHOD 8010 (GC,Solid)				
DATE ANALYZED			02-12-92	
DILUTION FACTOR*			1	
Bromodichloromethane	8010	0.002	ND	mg/Kg
Bromoform	8010	0.002	ND	mg/Kg
Bromomethane	8010	0.002	ND	mg/Kg
Carbon tetrachloride	8010	0.002	ND	mg/Kg
Chlorobenzene	8010	0.002	ND	mg/Kg
Chloroethane	8010	0.002	ND	mg/Kg
2-Chloroethylvinyl ether	8010	0.005	ND	mg/Kg
Chloroform	8010	0.002	ND	mg/Kg
Chloromethane	8010	0.002	ND	mg/Kg
Dibromochloromethane	8010	0.002	ND	mg/Kg
1,2-Dichlorobenzene	8010	0.002	ND	mg/Kg
1,3-Dichlorobenzene	8010	0.002	ND	mg/Kg
1,4-Dichlorobenzene	8010	0.002	ND	mg/Kg
Dichlorodifluoromethane	8010	0.002	ND	mg/Kg
1,1-Dichloroethane	8010	0.002	ND	mg/Kg
1,2-Dichloroethane	8010	0.002	ND	mg/Kg
1,1-Dichloroethene	8010	0.002	ND	mg/Kg
trans-1,2-Dichloroethene	8010	0.002	ND	mg/Kg
1,2-Dichloropropane	8010	0.002	ND	mg/Kg
cis-1,3-Dichloropropene	8010	0.002	ND	mg/Kg
trans-1,3-Dichloropropene	8010	0.002	ND	mg/Kg
Methylene chloride	8010	0.050	ND	mg/Kg
1,1,2,2-Tetrachloroethane	8010	0.002	ND	mg/Kg
Tetrachloroethene	8010	0.002	ND	mg/Kg
1,1,1-Trichloroethane	8010	0.002	ND	mg/Kg
1,1,2-Trichloroethane	8010	0.002	ND	mg/Kg
Trichloroethene	8010	0.002	ND	mg/Kg
Trichlorofluoromethane	8010	0.002	ND	mg/Kg
Vinyl chloride	8010	0.002	ND	mg/Kg
SURROGATE RESULTS			--	
1,4-Difluorobenzene			69.8	% Rec
1,4-Dichlorobutane			69.0	% Rec



NET Pacific, Inc

Client Acct: 1809  
 Client Name: Weiss Associates  
 NET Log No: 92.0688

Date: 02/19/1992  
 Page: 18

Ref: Shell, 1285 Bancroft Ave., San Leandro

QUALITY CONTROL DATA

Parameter	Reporting Limits	Units	Cal Verf Stand % Recovery	Blank Data	Spike % Recovery	Duplicate Spike % Recovery	RPD
Diesel	1	mg/Kg	107	ND	N/A	N/A	9.7
Gasoline	1	mg/Kg	98	ND	88	93	4.4
Benzene	0.0025	mg/Kg	92	ND	93	97	3.4
Toluene	0.0025	mg/Kg	93	ND	92	95	4.0
Gasoline	1	mg/Kg	104	ND	95	92	3.2
Benzene	0.0025	mg/Kg	94	ND	98	90	8.7
Toluene	0.0025	mg/Kg	94	ND	86	90	3.9
Gasoline	1	mg/Kg	100	ND	96	90	6.7
Benzene	0.0025	mg/Kg	94	ND	94	91	3.5
Toluene	0.0025	mg/Kg	95	ND	95	91	4.3

QUALITY CONTROL DATA

Parameter	Reporting Limits	Units	Cal Verf Stand % Recovery	Blank Data	Spike % Recovery	Duplicate Spike % Recovery	RPD
Chlorobenzene	0.002	mg/Kg	79	ND	98	98	<1
1,1-Dichloroethene	0.002	mg/Kg	118	ND	117	112	5.0
Trichloroethene	0.002	mg/Kg	96	ND	111	112	<1

COMMENT: Blank Results were ND on other analytes tested.



Site Address:  
**1285 BANCROFT AV SAN LEANDRO**

Analysis Required

LAB: NET

WIC#: **204-6852-0703**

Shell Engineer: **KURT MILLER**  
Phone No. **510-685-3853**  
Fax #: **510-685-3943**

Consultant Name & Address: **WEISS ASSOCIATES**  
**5500 SHELLMOUND ST EMERYVILLE 94608**

Consultant Contact: **TOM FOJUT**  
Job Number: **81-423-02**  
Phone No. **510-547-5420**  
Fax #: **510-547-5043**

Comments:

Sampled By: *Tom Fojut*  
Printed Name: **TOM FOJUT**

CHECK ONE (1) BOX ONLY	CT/DT	TURN AROUND TIME
Quarterly Monitoring <input type="checkbox"/>	5461	24 hours <input type="checkbox"/>
Site Investigation <input checked="" type="checkbox"/>	5441	48 hours <input type="checkbox"/>
Soil for disposal <input type="checkbox"/>	5442	15 days <input checked="" type="checkbox"/> (Normal)
Water for disposal <input type="checkbox"/>	5443	Other <input type="checkbox"/>
Air Sample - Sys O&M <input type="checkbox"/>	5452	NOTE: Notify Lab as soon as possible of 24/48 hrs. TAT.
Water Sample - Sys O&M <input type="checkbox"/>	5453	
Other <input type="checkbox"/>		

Sample ID	Date/TIME	Soil	Water	Air	No. of conds.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	HVOCS (8010/601)	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS	
																	2" DIA
BH-B 6.5	2-6-92/945	X			1									N	SOIL - GAS	HOLD	
11.5	/1000																
16.5	/1010																
21.5	/1025																
27.5	/1050					X	X	X		X					CUSTODY SEALED <i>[Signature]</i>		
31.5	/1105					X	X										
36.5	/1130					X	X	X		X							
41.5	/1200					X	X										

Relinquished By (signature): <i>Thomas Fojut</i>	Printed name: <b>THOMAS FOJUT</b>	Date: <u>2-10-92</u>	Received (signature): <i>Steve Bennett</i>	Printed name: <b>Steve Bennett</b>	Date:
Relinquished By (signature): <i>[Signature]</i>	Printed name: <b>Steve Bennett</b>	Date:	Received (signature):	Printed name:	Date:
Relinquished By (signature): <i>[Signature]</i>	Printed name:	Date:	Received (signature): <i>[Signature]</i>	Printed name: <b>Kelly Temp 6</b>	Date: <u>2/11/92</u>
		Time: <u>505PM</u>			Time: <u>(7:00)</u>

THE LABORATORY MUST PROVIDE A COPY OF THIS CHAIN-OF-CUSTODY WITH INVOICE AND RESULTS



Site Address: 1285 BANCROFT AV SAN LEANDRO

Analysis Required

LAB: NET

WIC#: 204-6852-0703

CHECK ONE (1) BOX ONLY CT/DT TURN AROUND TIME

Shell Engineer: KURT MILLER Phone No. 510-685-8853  
Fax #: 510-685-3943

Quarterly Monitoring  5461 24 hours   
Site Investigation  5441 48 hours   
Soil for disposal  5442 15 days  (Normal)  
Water for disposal  5443 Other   
Air Sample- Sys O&M  5452  
Water Sample - Sys O&M  5453  
Other  NOTE: Notify Lab as soon as possible of 24/48 hrs. TAT.

Consultant Name & Address: WEISS ASSOCIATES  
550 SHELLMOUND ST EMERYVILLE 94608

Consultant Contact: TOM FOJUT Phone No. 510-547-5420  
Job Number: 81-423-02 Fax #: 510-547-5043

Comments:

Sampled By: TOM FOJUT  
Printed Name: TOM FOJUT

Sample ID	Date	Soil	Water	Air	No. of conds.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	HYOCs (8010/601)	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
BH-B 44.5	2-6-92/1220	X			1	X	X	X			X	2" DIA	NONE	N	SOIL - GAS	
48.5	1245					X	X									
51.5	1305															HOLD
54.5	1320															
61.5	1425															

CUSTODY SEALED  
[Signature] 2/10/92

Relinquished By (signature): <u>[Signature]</u>	Printed name: <u>THOMAS FOJUT</u>	Date: <u>2-10-92</u>	Received (signature): <u>[Signature]</u>	Printed name: <u>Steve Bennett</u>	Date: _____
Relinquished By (signature): <u>[Signature]</u>	Printed name: <u>Steve Bennett</u>	Date: _____	Received (signature): _____	Printed name: _____	Date: _____
Relinquished By (signature): <u>[Signature]</u>	Printed name: _____	Date: _____	Received (signature): <u>[Signature]</u>	Printed name: <u>Kelly Temple</u>	Date: <u>2-11-92</u>

THE LABORATORY MUST PROVIDE A COPY OF THIS CHAIN-OF-CUSTODY WITH INVOICE AND RESULTS



Site Address: 1285 BANCROFT AV SAN LEANDRO

Analysis Required

LAB: NET

WIC#: 204-6852-0703

Shell Engineer: KURT MILLER  
Phone No. 510-685-3853  
Fax #: 510-685-3943

Consultant Name & Address: WEISS ASSOCIATES  
5500 SHELLMOUND ST EMERYVILLE 94608

Consultant Contact: TOM FOJUT  
Job Number: 81-423-02  
Phone No. 510-547-5420  
Fax #: 510-547-5043

Comments:

Sampled By: TOM FOJUT Tom Fojut  
Printed Name: ↓

Sample ID	Date/Time	Soil	Water	Air	No. of conds.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	HVOCs (8010/601)	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
												2" DIA	NONE	N	SOIL-GAS	HOLD
BH-C 6.5	2-7-92 920	X			1							2" DIA	NONE	N	SOIL-GAS	HOLD
11.5	930															
16.5	940															
21.5	950															
26.5	905															
31.5	925					X	X								CHAIN OF CUSTODY SEALED	2/7/92
36.5	940					X	X	X		X					SEB	7/2/92
41.5	955					X	X									submittal

Relinquished By (signature): Thomas Fojut	Printed name: THOMAS FOJUT	Date: 2-10-92 Time: 1705	Received (signature): Steve Bennett	Printed name: Steve Bennett	Date:
Relinquished By (signature): Steve Bennett	Printed name: Steve Bennett	Date:	Received (signature): Kelly Temple	Printed name: Kelly Temple	Date: 2/11/92 Time: 0800
Relinquished By (signature): (with NCS)	Printed name:	Date:	Received (signature):	Printed name:	Date:

THE LABORATORY MUST PROVIDE A COPY OF THIS CHAIN-OF-CUSTODY WITH INVOICE AND RESULTS



Site Address: **1285 BANCROFT AV SAN LEANDRO**

Analysis Required

LAB: NET

WIC#: 204-6852-0703

CHECK ONE (1) BOX ONLY CT/DT TURN AROUND TIME

Shell Engineer: **KURT MILLER**  
Phone No. 510-685-3953  
Fax #: 510-685-3943

Quarterly Monitoring  5461 24 hours   
Site Investigation  5441 48 hours   
Soil for disposal  5442 15 days  (Normal)  
Water for disposal  5443 Other   
Air Sample- Sys O&M  5452  
Water Sample - Sys O&M  5453  
Other   
NOTE: Notify Lab as soon as possible of 24/48 hrs. TAT.

Consultant Name & Address: **WEISS ASSOCIATES**

Consultant Contact: **TOM FOJUT**  
Job Number: 81-423-02  
Phone No. 510-547-5420  
510-547-5043

Comments:

Sampled By: *Tom Fojut*  
Printed Name: **TOM FOJUT**

Sample ID	Date/TIME	Soil	Water	Air	No. of conds.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	HVOCs (8010/601)	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
BH-C 44.5	2-7-92 1015	X			1	X	X	X		X	X	2" PIA	NONE	N	SOIL-GAS	
48.5	1040					X	X									
51.5	1050									NO ANALYSIS						HOLD
56.5	1040															
60.0	1155															

**CUSTODY SEALED**  
*(Signature)* 2/10/92

Relinquished By (signature): <i>Thomas Fojut</i>	Printed name: <b>THOMAS FOJUT</b>	Date: <u>2-10-92</u>	Received (signature): <i>Steve Bennett</i>	Printed name: <b>Steve Bennett</b>	Date: _____
Relinquished By (signature): <i>Steve Bennett</i>	Printed name: <b>Steve Bennett</b>	Date: _____	Received (signature): _____	Printed name: _____	Date: _____
Relinquished By (signature): <i>(VIA NCS)</i>	Printed name: _____	Date: _____	Received (signature): <i>Kelly Temple</i>	Printed name: <b>Kelly Temple</b>	Date: <u>2/11/92</u>

THE LABORATORY MUST PROVIDE A COPY OF THIS CHAIN-OF-CUSTODY WITH INVOICE AND RESULTS

**ATTACHMENT D**  
**ANALYTIC REPORT FOR GROUND WATER**



®

NATIONAL  
ENVIRONMENTAL  
TESTING, INC.

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

Tom Fojut  
Weiss Associates  
5500 Shellmound St.  
Emeryville, CA 94608

Date: 03/05/1992  
NET Client Acct. No: 1809  
NET Pacific Log No: 92.0989  
Received: 02/27/1992

Client Reference Information

Shell, 1285 Bancroft Ave., San Leandro

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  
Laboratory Manager

Enclosure(s)





Client Acct: 1809  
 Client Name: Weiss Associates  
 NET Log No: 92.0989

Date: 03/05/1992  
 Page: 2

NET Pacific, Inc

Ref: Shell, 1285 Bancroft Ave., San Leandro

SAMPLE DESCRIPTION: 022-02  
 Date Taken: 02/24/1992  
 Time Taken:  
 LAB Job No: (-114756 )

Parameter	Method	Reporting Limit	Results	Units
TPH (Gas/BTXE,Liquid)			--	
METHOD 5030 (GC,FID)				
DATE ANALYZED			02-27-92	
DILUTION FACTOR*			1	
as Gasoline	5030	0.05	1.0	mg/L
METHOD 8020 (GC,Liquid)			--	
DATE ANALYZED			02-27-92	
DILUTION FACTOR*			1	
Benzene	8020	0.0005	0.0043	mg/L
Ethylbenzene	8020	0.0005	0.012	mg/L
Toluene	8020	0.0005	0.0011	mg/L
Xylenes (Total)	8020	0.0005	0.023	mg/L
SURROGATE RESULTS			--	
Bromofluorobenzene	5030		111	% Rec.
METHOD 3510 (GC,FID)				
DILUTION FACTOR*			1	
DATE EXTRACTED			02-28-92	
DATE ANALYZED			03-01-92	
as Diesel	3510	0.05	0.26 **	mg/L

\*\* NOTE: Petroleum hydrocarbon as diesel result is due to a petroleum hydrocarbon that is lighter than diesel.



Client Acct: 1809  
 Client Name: Weiss Associates  
 NET Log No: 92.0989

Date: 03/05/1992  
 Page: 3

NET Pacific, Inc

Ref: Shell, 1285 Bancroft Ave., San Leandro

SAMPLE DESCRIPTION: 022-02  
 Date Taken: 02/24/1992  
 Time Taken:  
 LAB Job No: (-114756 )

Parameter	Method	Reporting Limit	Results	Units
METHOD 8010 (GC,Liquid)				
DATE ANALYZED			02-28-92	
DILUTION FACTOR*			1	
Bromodichloromethane	8010	0.0004	ND	mg/L
Bromoform	8010	0.0004	ND	mg/L
Bromomethane	8010	0.0004	ND	mg/L
Carbon tetrachloride	8010	0.0004	ND	mg/L
Chlorobenzene	8010	0.0004	ND	mg/L
Chloroethane	8010	0.0004	ND	mg/L
2-Chloroethylvinyl ether	8010	0.001	ND	mg/L
Chloroform	8010	0.0004	0.011	mg/L
Chloromethane	8010	0.0004	ND	mg/L
Dibromochloromethane	8010	0.0004	ND	mg/L
1,2-Dichlorobenzene	8010	0.0004	ND	mg/L
1,3-Dichlorobenzene	8010	0.0004	ND	mg/L
1,4-Dichlorobenzene	8010	0.0004	ND	mg/L
Dichlorodifluoromethane	8010	0.0004	ND	mg/L
1,1-Dichloroethane	8010	0.0004	ND	mg/L
1,2-Dichloroethane	8010	0.0004	ND	mg/L
1,1-Dichloroethene	8010	0.0004	ND	mg/L
trans-1,2-Dichloroethene	8010	0.0004	ND	mg/L
1,2-Dichloropropane	8010	0.0004	ND	mg/L
cis-1,3-Dichloropropene	8010	0.0004	ND	mg/L
trans-1,3-Dichloropropene	8010	0.0004	ND	mg/L
Methylene chloride	8010	0.010	ND	mg/L
1,1,2,2-Tetrachloroethane	8010	0.0004	ND	mg/L
Tetrachloroethene	8010	0.0004	0.013	mg/L
1,1,1-Trichloroethane	8010	0.0004	ND	mg/L
1,1,2-Trichloroethane	8010	0.001	ND	mg/L
Trichloroethene	8010	0.0004	ND	mg/L
Trichlorofluoromethane	8010	0.0004	ND	mg/L
Vinyl chloride	8010	0.0004	ND	mg/L
SURROGATE RESULTS				
1,4-Difluorobenzene			104	% Rec.
1,4-Dichlorobutane			97.7	% Rec.



Client Acct: 1809  
 Client Name: Weiss Associates  
 NET Log No: 92.0989

Date: 03/05/1992  
 Page: 4

NET Pacific, Inc

Ref: Shell, 1285 Bancroft Ave., San Leandro

SAMPLE DESCRIPTION: 022-03  
 Date Taken: 02/24/1992  
 Time Taken:  
 LAB Job No: (-114757 )

Parameter	Method	Reporting Limit	Results	Units
TPH (Gas/BTXE,Liquid)			--	
METHOD 5030 (GC,FID)			02-27-92	
DATE ANALYZED			1	
DILUTION FACTOR*			ND	mg/L
as Gasoline	5030	0.05		
METHOD 8020 (GC,Liquid)			--	
DATE ANALYZED			02-27-92	
DILUTION FACTOR*			1	
Benzene	8020	0.0005	ND	mg/L
Ethylbenzene	8020	0.0005	ND	mg/L
Toluene	8020	0.0005	ND	mg/L
Xylenes (Total)	8020	0.0005	ND	mg/L
SURROGATE RESULTS			--	
Bromofluorobenzene	5030		88	% Rec.
METHOD 3510 (GC,FID)			1	
DILUTION FACTOR*			02-28-92	
DATE EXTRACTED			03-01-92	
DATE ANALYZED			ND	mg/L
as Diesel	3510	0.05		



Client Acct: 1809  
 Client Name: Weiss Associates  
 NET Log No: 92.0989

Date: 03/05/1992  
 Page: 5

NET Pacific, Inc

Ref: Shell, 1285 Bancroft Ave., San Leandro

SAMPLE DESCRIPTION: 022-03  
 Date Taken: 02/24/1992  
 Time Taken:  
 LAB Job No: (-114757 )

Parameter	Method	Reporting Limit	Results	Units
METHOD 8010 (GC,Liquid)				
DATE ANALYZED			02-28-92	
DILUTION FACTOR*			1	
Bromodichloromethane	8010	0.0004	ND	mg/L
Bromoform	8010	0.0004	ND	mg/L
Bromomethane	8010	0.0004	ND	mg/L
Carbon tetrachloride	8010	0.0004	ND	mg/L
Chlorobenzene	8010	0.0004	ND	mg/L
Chloroethane	8010	0.0004	ND	mg/L
2-Chloroethylvinyl ether	8010	0.001	ND	mg/L
Chloroform	8010	0.0004	0.0034	mg/L
Chloromethane	8010	0.0004	ND	mg/L
Dibromochloromethane	8010	0.0004	ND	mg/L
1,2-Dichlorobenzene	8010	0.0004	ND	mg/L
1,3-Dichlorobenzene	8010	0.0004	ND	mg/L
1,4-Dichlorobenzene	8010	0.0004	ND	mg/L
Dichlorodifluoromethane	8010	0.0004	ND	mg/L
1,1-Dichloroethane	8010	0.0004	ND	mg/L
1,2-Dichloroethane	8010	0.0004	ND	mg/L
1,1-Dichloroethene	8010	0.0004	ND	mg/L
trans-1,2-Dichloroethene	8010	0.0004	ND	mg/L
1,2-Dichloropropane	8010	0.0004	ND	mg/L
cis-1,3-Dichloropropene	8010	0.0004	ND	mg/L
trans-1,3-Dichloropropene	8010	0.0004	ND	mg/L
Methylene chloride	8010	0.010	ND	mg/L
1,1,2,2-Tetrachloroethane	8010	0.0004	ND	mg/L
Tetrachloroethene	8010	0.0004	0.011	mg/L
1,1,1-Trichloroethane	8010	0.0004	ND	mg/L
1,1,2-Trichloroethane	8010	0.001	ND	mg/L
Trichloroethene	8010	0.0004	ND	mg/L
Trichlorofluoromethane	8010	0.0004	ND	mg/L
Vinyl chloride	8010	0.0004	ND	mg/L
SURROGATE RESULTS				
1,4-Difluorobenzene			111	% Rec.
1,4-Dichlorobutane			96.1	% Rec.



Client Acct: 1809  
 Client Name: Weiss Associates  
 NET Log No: 92.0989

Date: 03/05/1992  
 Page: 6

NET Pacific, Inc

Ref: Shell, 1285 Bancroft Ave., San Leandro

QUALITY CONTROL DATA

Parameter	Reporting Limits	Units	Cal Verif Stand % Recovery	Blank Data	Spike % Recovery	Duplicate Spike % Recovery	RPD
Diesel	0.05	mg/L	115	ND	81	87	6.2
Gasoline	0.05	mg/L	99	ND	94	91	3.2
Benzene	0.0005	mg/L	96	ND	96	91	6.2
Toluene	0.0005	mg/L	97	ND	97	94	3.4

COMMENT: Blank Results were ND on other analytes tested.

QUALITY CONTROL DATA

Parameter	Reporting Limits	Units	Cal Verif Stand % Recovery	Blank Data	Spike % Recovery	Duplicate Spike % Recovery	RPD
Chlorobenzene	0.0004	mg/L	76	ND	100	95	5.7
1,1-Dichloroethene	0.0004	mg/L	107	ND	134	142	5.4
Trichloroethene	0.0004	mg/L	83	ND	99	96	3.6

COMMENT: Blank Results were ND on other analytes tested.



NET Pacific, Inc

## KEY TO ABBREVIATIONS and METHOD REFERENCES

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

### Method References

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

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

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

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



Site Address: **1285 BANCROFT AV**  
**SAN LEANDRO**

Analysis Required

LAB: NET

WIC#: 204-6852-0703

Shell Engineer: **KURT MILLER**  
Phone No. 510-685-3853  
Fax #: 510-685-3943

Consultant Name & Address: **WEISS ASSOCIATES**  
**5500 SHELLMOUND ST EMERYVILLE 94608**

Consultant Contact: **TOM FOJUT**  
Phone No. 510-547-5420  
Fax #: 510-547-5043

Comments:  
**WA JOB #81-423-02**

Sampled By: **BRIAN BUSCH**  
Printed Name: **BRIAN BUSCH**

Sample ID	Date	Soil	Water	Air	No. of conts.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	AVOCs (EPA 8010)	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
022-02	2/24/92		X		3	X		X				40ml	HCl	No	GW/GAS	
022-02			X		3		X					1L	None			
022-02			X		3				X			40ml	None			
022-03			X		3	X		X				40ml	HCl			
022-03			X		3		X					1L	None			
022-03			X		3				X			40ml	None			
022-22			X		3							40ml	HCl			HOLD - pending analytical results

Relinquished By (signature): Brian Busch  
Printed name: **BRIAN BUSCH**  
Date: 2/24/92  
Time: 17:35

Received (signature): Robyn L. Brewer  
Printed name: **Robyn L. Brewer**  
Date: 2/24/92  
Time: \_\_\_\_\_

Relinquished By (signature): Robyn L. Brewer  
Printed name: **Robyn L. Brewer**  
Date: 2/24/92  
Time: 1:05

Received (signature): M. TAVAKI  
Printed name: **M. TAVAKI**  
Date: 2/26/92  
Time: 1:30

Relinquished By (signature): M. TAVAKI  
Printed name: **M. TAVAKI**  
Date: 2/24/92  
Time: 1:00

Received (signature): Kelly Temple  
Printed name: **Kelly Temple**  
Date: 2/27/92  
Time: 08:00

THE LABORATORY MUST PROVIDE A COPY OF THIS CHAIN-OF-CUSTODY WITH INVOICE AND RESULTS

→ STORED OVERNIGHT IN A LOCKED, SECURE PLACE