ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

Alameda County CC4580
Environmental Health Services
1131 Harbor Bay Pkwy., #250
Alameda CA 94502-6577
(510)567-6700 FAX(510)337-9335

June 18, 1996

STID 3672

REMEDIAL ACTION COMPLETION CERTIFICATION

Shell Oil Company
1390 Willow Pass Rd., Ste 900
Concord, CA 94520
ATTN: R. Jeff Granberry

Re: Shell Oil Company, 9750 Golf Links Road, Oakland, CA 94605

Dear Mr. Granberry,

This letter confirms the completion of site investigation and remedial action for the 550-gallon waste oil underground storage tank formerly located at the above described location. Enclosed is the Case Closure Summary for the referenced site for your records.

Based upon the available information, including the current land use, and with the provision that the information provided to this agency was accurate and representative of site conditions, no further action related to the underground storage tank release is required.

This notice is issued pursuant to a regulation contained in Title 23, California Code of Regulations, Division 3, Chapter 16, Section 2721(e). If a change in land use, structural configuration, or site activities are proposed such that more conservative exposure scenarios should be evaluated, the owner must promptly notify this agency.

Please telephone Juliet Shin at (510) 567-6700 if you have any questions regarding this matter.

Sincerely,

Mee Ling Tung
Director of Environmental Health Services

enclosure

c: Acting Chief, Hazardous Materials Division - files
Juliet Shin, ACDEH
Kevin Graves, RWQCB
Lori Casias, SWRCB

01-2102

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

MAY 28 1996 KG

ENVIRONMENTAL PROTECTION

96 JUN 18 PM 2:29

CASE CLOSURE SUMMARY
Leaking Underground Fuel Storage Tank Program

I. AGENCY INFORMATION Date: 5/7/96

Agency name: Alameda County-HazMat Address: 1131 Harbor Bay Pkwy.
City/State/Zip: Alameda, CA 94502 Phone: (510) 567-6700
Responsible staff person: Juliet Shin Title: Senior HMS

II. CASE INFORMATION

Site facility name: Shell Oil Company
Site facility address: 9750 Golf Links Road, Oakland, CA 94605
RB LUSTIS Case No: N/A Local Case No./LOP Case No.: 3672
URF filing date: 3/23/95 SWEEPS No: N/A

Responsible Parties:	Addresses:	Phone Numbers:
Shell Oil Company	1390 Willow Pass Rd. Ste 900	(510) 675-6168
ATTN: R. Jeff Granberry	Concord, CA 94520	

Tank No:	Size in gal.:	Contents:	Closed in-place or removed?:	Date:
1	500 gallons	waste oil	removed	3/7/95

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: May partially be due to 1/2-inch hole noted in underground storage tank (UST).

Site characterization complete? YES

Date approved by oversight agency: 5/7/96

Monitoring Wells installed? None Number: Not Applicable (NA)

Proper screened interval? NA

Highest GW depth below ground surface: No groundwater encountered to a depth of 47-feet below ground surface.

Flow direction: Presumed to be towards the west, based on local topography

Most sensitive current use: Gasoline Service Station

Are drinking water wells affected? **NO** Aquifer name: **Unknown**

Is surface water affected? **NO** Nearest affected SW name: **None**

Off-site beneficial use impacts (addresses/locations): **None**

Report(s) on file? **YES** Where is report(s) filed? **Alameda County**
1131 Harbor Bay Pkwy.
Alameda, CA 94502

Treatment and Disposal of Affected Material:

Material	Amount (include units)	Action (Treatment or Disposal w/destination)	Date
Tank	One 500-gallon	Erickson 255 Parr Blvd. Richmond, CA	3/7/95
Soil	~60 cubic yards	Forward Landfill Stockton, CA	5/19/95
Tank Rinsate	~275 gallons	Romic Environmental 2081 Bay Road East Palo Alto, CA 94303	3/7/95

III. RELEASE AND SITE CHARACTERIZATION INFORMATION (Continued)
Maximum Documented Contaminant Concentrations - - Before and After Cleanup

Contaminant	Soil (ppm) Before[1]	Soil (ppm) After	Water (ppm) Before	Water (ppm) After
TPH (Gas)	190	ND	No water samples collected	
TPH (Diesel)	3900	ND		
Oil & Grease[2]	12,000	62		
Benzene	ND	ND		
Toluene	0.43	0.19		
Xylene	2.2	ND		
Ethylbenzene	1.0	ND		
Heavy metals (Cd, Cr, Pb, Ni, Zn)	*			
PCBs	0.60	ND		
Other Semivolatiles	ND	ND		
Halogenated volatiles	ND	ND		

[1]- Initial soil sample, WO1, collected from bottom of tank pit.
[2]- Using Total Oil & Grease analysis 5520E.
*- All metals, except for Cr, below threshold values. An STLC and TCLP leachability test was conducted for Cr, and the results were below both the Federal and State threshold values.

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? **Undetermined**

Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? **Undetermined**

Does corrective action protect public health for current land use? **YES**

Site management requirements: **NA**

Should corrective action be reviewed if land use changes? **NO**

Monitoring wells Decommisioned: **NA**

Number Decommisioned: **NA** Number Retained: **NA**

List enforcement actions taken: **None**

List enforcement actions rescinded:

V. LOCAL AGENCY REPRESENTATIVE DATA

Name: **Juliet Shin** Title: **Senior HMS**
Signature: Juliet Shin Date: 5/21/96

Reviewed by
Name: **Eva Chu** Title: **Hazardous Materials Specialist**
Signature: Eva Chu Date: 5/22/96

Name: **Tom Peacock** Title: **Supervising HMS**
Signature: Tom Peacock Date: 5-21-96

VI. RWQCB NOTIFICATION

Date Submitted to RB: RB Response: Approved
RWQCB Staff Name: **Kevin Graves** Title: **San. Engineering Asso.** Date: 6/14/96

VII. ADDITIONAL COMMENTS, DATA, ETC.

On March 7, 1995, one 550-gallon, single-walled, steel waste oil UST was removed from the site. The tank was rusted and pitted in areas and had several holes up to 1/2-inch in diameter. No groundwater was observed in the tank pit.

One soil sample was collected from the bottom of the tank excavation (Sample WO1) from ~7-feet below ground surface (bgs). This sample was analyzed for Oil and Grease, Total Petroleum Hydrocarbons (TPH) as diesel

(TPHd), TPH as gasoline (TPHg), benzene, toluene, ethylbenzene, and xylenes (BTEX), heavy metals, semivolatiles (including PNAs, PCBs, and creosote), and halogenated volatiles. Analytical results identified 12,000 parts per million (ppm) Oil and Grease, 3,900ppm TPHd, 190ppm TPHg, 0.43ppm toluene, 1ppm ethylbenzene, 2.2ppm xylenes, 49ppm chromium, 18ppm lead, 39ppm nickel, 55ppm zinc, and 0.60ppm Total PCBs (Arochlor 1242 and 1254). No other contaminants were identified in this sample (refer to Attachments 1 and 2).

The tank pit was overexcavated down to 11-feet bgs and out laterally an additional 6 inches along the sidewalls. Five confirmatory soil samples were collected (WO2 from the pit bottom and samples NSW, ESW, SSW, and WSW, from the north, east, south, and west sidewalls, respectively). These samples were analyzed for the same contaminants as Sample WO1. Analysis of these samples only identified 62ppm Oil and Grease and up to 0.19ppm toluene. Levels of Chromium, at 51ppm, requiring a leachability test were identified in sample NSW. All other metal concentrations were below threshold values. No other contaminants were identified (refer to Attachments 3 & 4).

A total of 60 cubic yards of soil was excavated from the tank pit. According to Weiss Associate's Tank Removal Report, dated July 6, 1995, this soil was hauled to Forward Landfill in Stockton California.

On December 15, 1995, one boring, B-1, was drilled within 5 feet of the former tank pit in the presumed downgradient groundwater flow direction (westerly, based on local topography). The boring was drilled down to 47 feet bgs and the sediments encountered were primarily sandy clay and clayey sand. No groundwater was encountered in this boring. Seven soil samples were collected from this boring at 5.5-, 15.5-, 20.5-, 30.5-, 35.5-, 40.5-, and 45.5-feet bgs. These soil samples were analyzed for TPHg, TPHd, Oil & Grease, and BTEX. Only 2.8ppm TPHd was identified at 30.5-feet bgs (refer to Attachment 5).

Additionally, due to the levels of chromium identified in the former tank pit, both the Federal and State leachability tests (STLC and TCLP) were conducted on all seven of the soil samples. No threshold values were exceeded (refer to Attachment 6).

Based on the above information, it appears that the extent of soil contamination resulting from the former waste oil tank was very limited. The bulk of soil contamination was excavated, leaving only low to NonDetect levels of Oil & Grease and metals, and no detectable BTEX or SemiVolatile Hydrocarbons. These levels do not appear to pose a threat to groundwater, future uses at the site, or to human health.

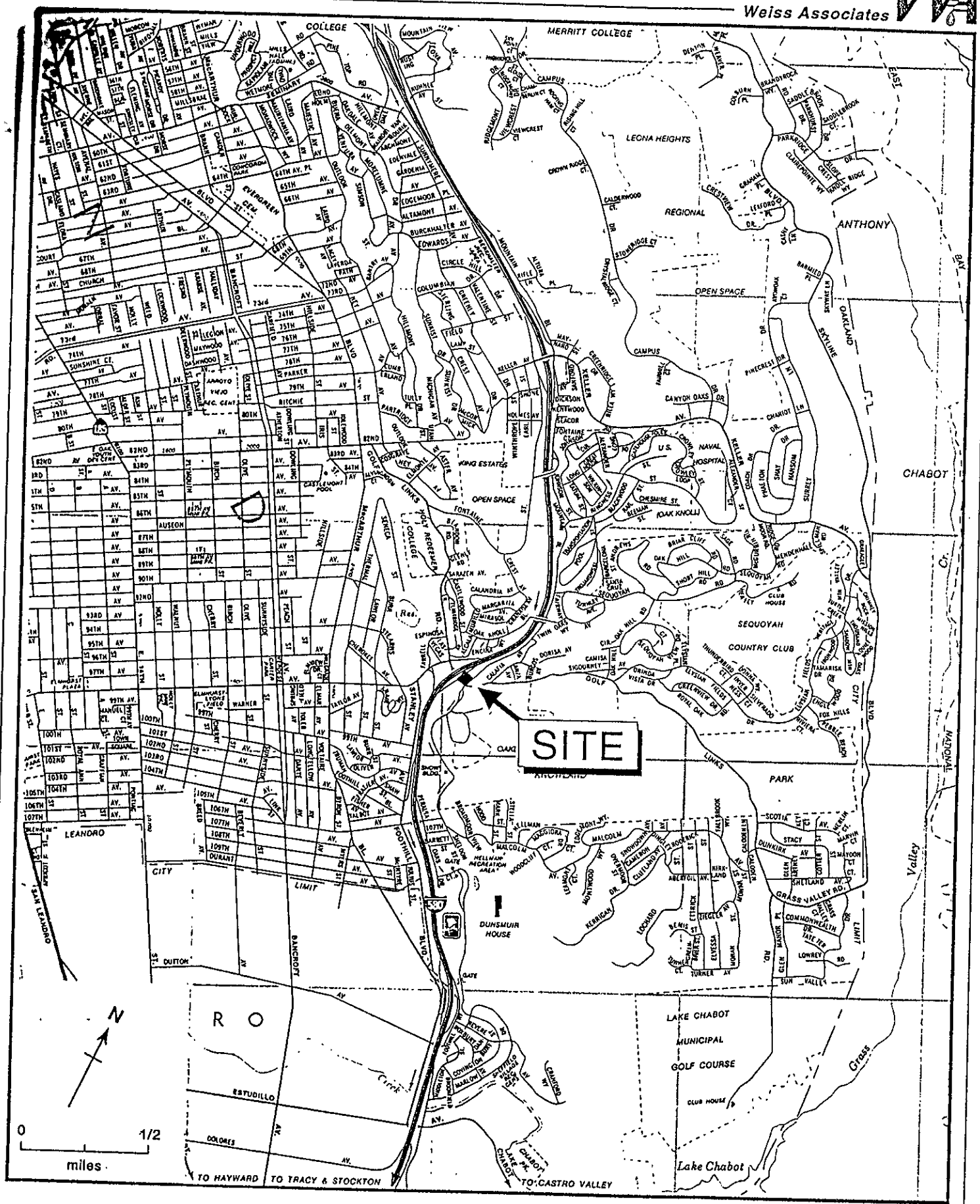

Figure 1. Site Location Map - Shell Service Station, WIC# 204-5508-2808, 9570 Golf Links Road, Oakland, California

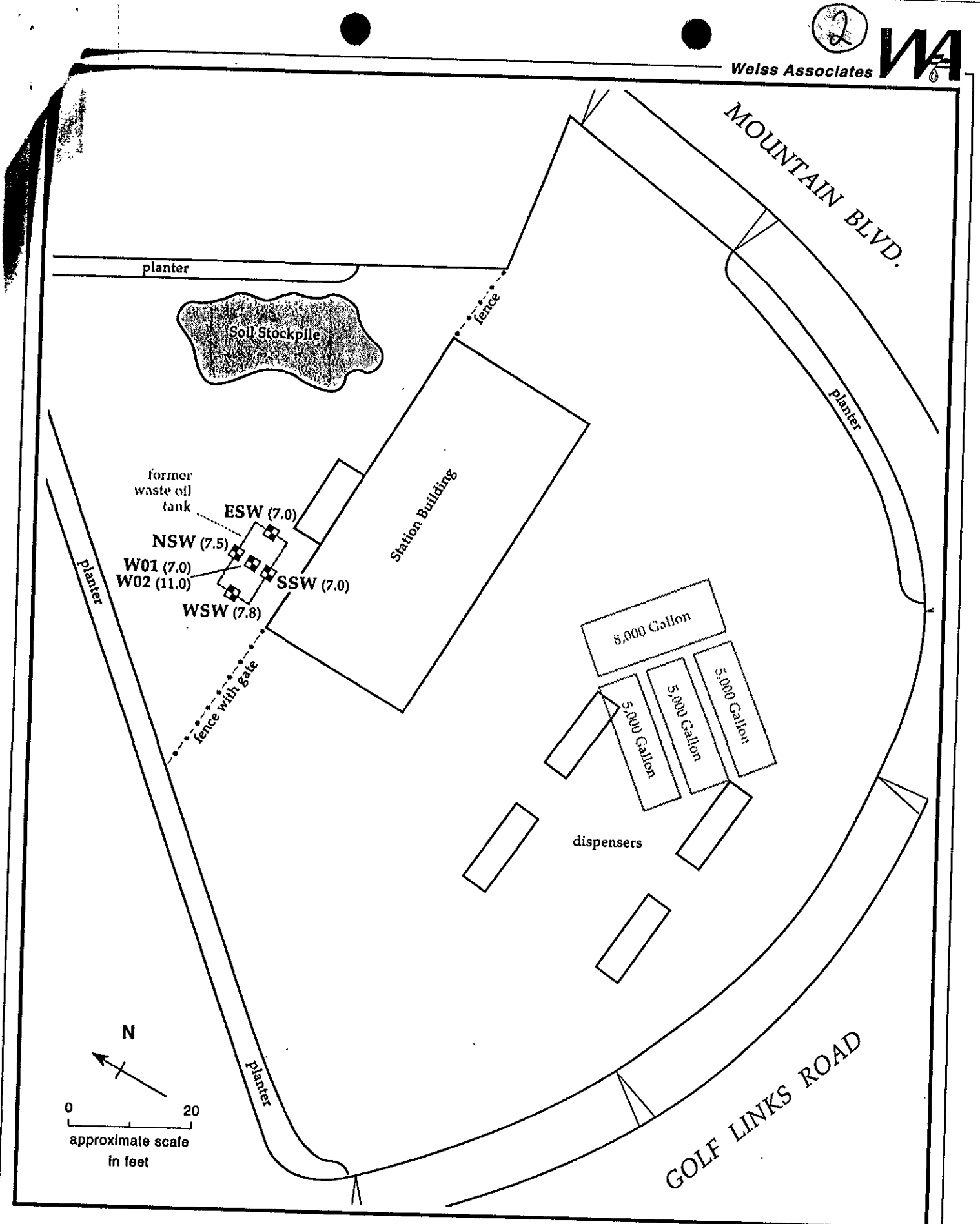

Figure 2. Soil Sample Locations - Shell Service Station, WIC#204-5508-2808, 9570 Golf Links Road, Oakland, California

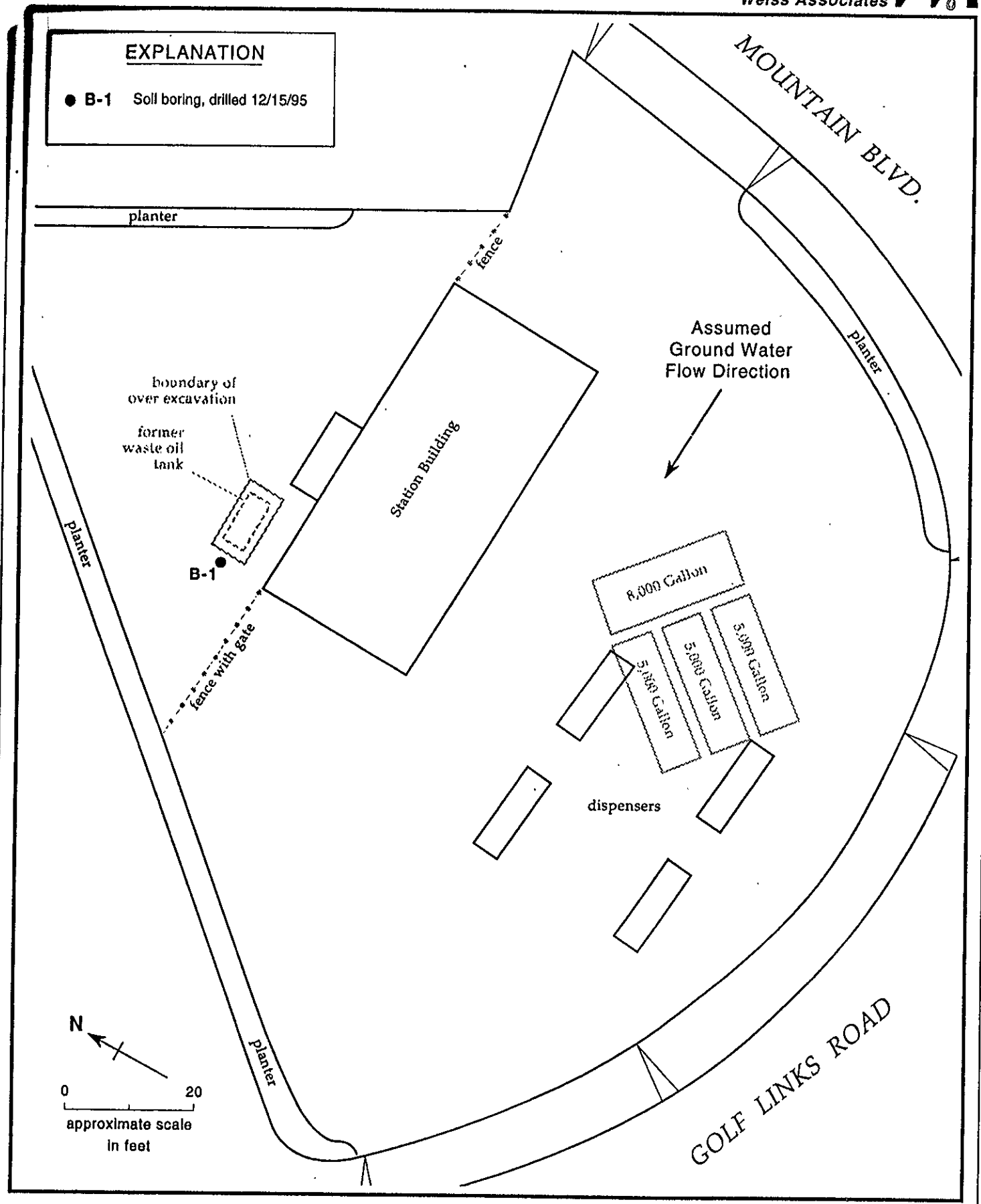

Figure 2. Soil Boring Location - Shell Service Station, WIC#204-5508-2808, 9570 Golf Links Road, Oakland, California

Table 1. Analytic Results for Soil - Shell Service Station , WIC #204-5508-2808, 9570 Golf Links Road, Oakland, California

Sample ID	Sample Depth (ft)	POG	TPH-D	TPH-G	B	T	E	X	Cd	Cr	Pb	Ni	Zn	VOCs	SVOCs	PNAs	PCBs	CREOSOTE
		← parts per million (mg/kg) →																
WO1	7.0	12,000	3900	190	<0.25	0.43	1.0	2.2	<0.5	49	18	39	55	a	ND	ND	0.60	<1,700
WO2	11.0	62	<1.0	<1.0	<0.005	0.072	<0.005	<0.005	<0.5	12	11	7.8	210	ND	ND	ND	ND	<1,700
NSW	7.5	<50	<1.0	<1.0	<0.005	0.10	<0.005	<0.005	<0.5	51	7.0	37	59	a	ND	ND	ND	<1,700
SSW	7.0	<50	<1.0	<1.0	<0.005	0.19	<0.005	<0.005	<0.5	44	6.7	39	79	ND	ND	ND	ND	<1,700
ESW	7.0	<50	<1.0	<1.0	<0.005	0.18	<0.005	<0.005	<0.5	46	<5.0	48	69	a	ND	ND	ND	<1,700
WSW	7.8	<50	<1.0	<1.0	<0.005	0.083	<0.005	<0.005	<0.5	56	6.5	40	62	ND	ND	ND	ND	<1,700

Abbreviations:

POG = Total oil and grease by APHA Standard Method 5520E&F
TPH-D = Total petroleum hydrocarbons as diesel by modified EPA Method 8015
TPH-G = Total petroleum hydrocarbons as gasoline by modified EPA Method 8015
B = Benzene By EPA Method 8020
T = Toluene by EPA Method 8020
E = Ethylbenzene by EPA Method 8020
X = Xylenes by EPA Method 8020
VOCs = Volatile organic compounds by EPA Method 8240
SVOCs = Semivolatile organic compounds by EPA Method 8270
PNAs = Polynuclear organic compounds by EPA Method 8100
PCBs = Polychlorinated biphenyls by EPA Method 8080
CREOSOTE = Creosote by EPA Method 8270
Cd, Cr, Pb, Ni, Zn = Total cadmium, chromium, lead, nickel and zinc by EPA Method 6010
<n = Not detected at laboratory method detection limit of n mg/kg
ND = All compounds were below laboratory detection limits.

Notes:

Samples collected on 03/08/95 by Weiss Associates and analyzed by Sequoia Analytical, Redwood City, California
a = No VOCs detected except for BTEX

Table 2. Petroleum Hydrocarbons in Soil - Shell Service Station WIC# 204-5508-2808, 9570 Golf Links Road, Oakland, California

Sample ID	Sample Depth (ft)	Date Sampled	TPH-G	TPH-D	POG	B	T	E	X
			← parts per million(mg/kg) →						
B1-5.5	5.5	12/15/95	<1.0	<1.0	<50	<0.005	<0.005	<0.005	<0.005
B1-15.5	15.5	12/15/95	<1.0	<1.0	<50	<0.005	<0.005	<0.005	<0.005
B1-20.5	20.5	12/15/95	<1.0	<1.0	<50	<0.005	<0.005	<0.005	<0.005
B1-30.5	30.5	12/15/95	<1.0	2.8	<50	<0.005	<0.005	<0.005	<0.005
B1-35.5	35.5	12/15/95	<1.0	<1.0	<50	<0.005	<0.005	<0.005	<0.005
B1-40.5	40.5	12/15/95	<1.0	<1.0	56	<0.005	<0.005	<0.005	<0.005
B1-45.5	45.5	12/15/95	<1.0	<1.0	<50	<0.005	<0.005	<0.005	<0.005

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 APHA Standard Method 5520E&F
B = Benzene by EPA Method 8020
T = Toluene by EPA Method 8020
E = Ethylbenzene by EPA Method 8020
X = Xylenes by EPA Method 8020
NE = Not established
<n = Not detected at laboratory method detection limit of n ppm

Analytical Laboratory:

Sequoia Analytical, Inc., in Redwood City, California

Table 3. Chromium STLC and TCLP Concentrations in Soil - Shell Service Station WIC# 204-5508-2808, 9570 Golf Links Road, Oakland, California

Sample ID	Sample Depth (ft)	Date Sampled	Chromium STLC	Chromium TCLP
			← parts per million (mg/L) →	
B1-5.5	5.5	12/15/95	<0.010	<0.010
B1-15.5	15.5	12/15/95	0.032	<0.010
B1-20.5	20.5	12/15/95	<0.010	<0.010
B1-30.5	30.5	12/15/95	1.4	0.046
B1-35.5	35.5	12/15/95	<0.010	<0.010
B1-40.5	40.5	12/15/95	1.0	0.038
B1-45.5	45.5	12/15/95	0.31	0.020
Title 22 Threshold Concentration			560	5

Abbreviations:

STLC Chromium = Soluble threshold limit concentration for chromium
TCLP Chromium = Toxicity characteristic leaching procedure for chromium
<n = Not detected at laboratory method detection limit of n ppm
Title 22 Threshold Concentration = Minimum concentration that substance would classify as a RCRA hazardous (STLC) or California hazardous (TCLP) waste.

Analytical Laboratory:

Sequoia Analytical, Inc., in Redwood City, California