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5500 Shellmound Street, Emeryville, CA 94608

SUBSURFACE INVESTIGATION

at

**Shell Service Station
WIC# 204-5508-2709
3750 East 14th Street
Oakland, California**

prepared for

**Shell Oil Company
P.O. Box 4848
Anaheim, CA 92803**

prepared by

**Weiss Associates
5500 Shellmound Street
Emeryville, California**

July 18, 1990

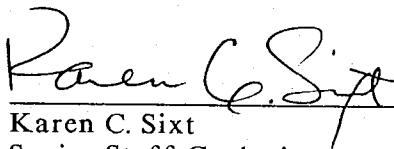
SUBSURFACE INVESTIGATION

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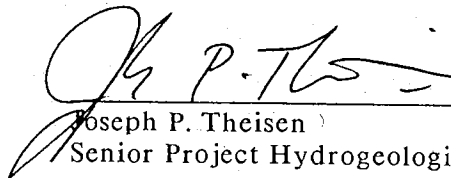
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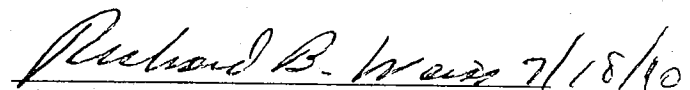
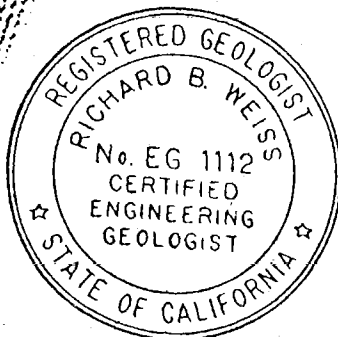


Karen C. Sixt
Senior Staff Geologist



Joseph P. Theisen
Senior Project Hydrogeologist

I certify that Weiss Associates' work on former Shell Service Station WIC #204-5508-2709, 3750 East 14th Street, Oakland, California, was conducted under my supervision. To the best of my knowledge, the data contained herein are true and correct and satisfy the specified scope of work for this project.



Richard B. Weiss
Certified Engineering Geologist
No. EG1112

Date

7/18/10

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SUMMARY

Weiss Associates (WA) drilled three soil borings and installed and developed ground water monitoring wells MW-1, MW-2 and MW-3 in the borings for a subsurface investigation at Shell Service Station WIC #204-5508-2709, located at 3750 East 14th Street, in Oakland, California. Total petroleum hydrocarbons as gasoline (TPH-G) were detected in soil samples from boring BH-C, to a maximum of 130 parts per million (ppm) in a saturated sample from 14.2 ft depth. Low concentrations of benzene, ethylbenzene, toluene and xylenes (BETX) were also detected in soil samples from boring BH-C. Total non-polar (hydrocarbon) oil and grease (TOG), halogenated volatile organic compounds (HVOCs) and total petroleum hydrocarbons as diesel (TPH-D) were not detected in samples from any of the borings.

WA collected ground water samples from the three wells. The ground water sample from well MW-3 contained 290 parts per billion (ppb) TPH-G, 330 ppb TPH-D and trace concentrations of ethylbenzene and xylenes. The sample from well MW-2 contained 0.74 ppb trichloroethylene (TCE). TOG was not detected in any of the wells.

Ground water beneath the site flows to the southwest.

Fifty-two wells are located within approximately one-half mile of the site, nearly all monitoring wells. No domestic water supply wells are within one-half mile.

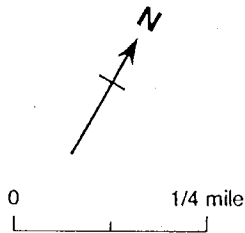
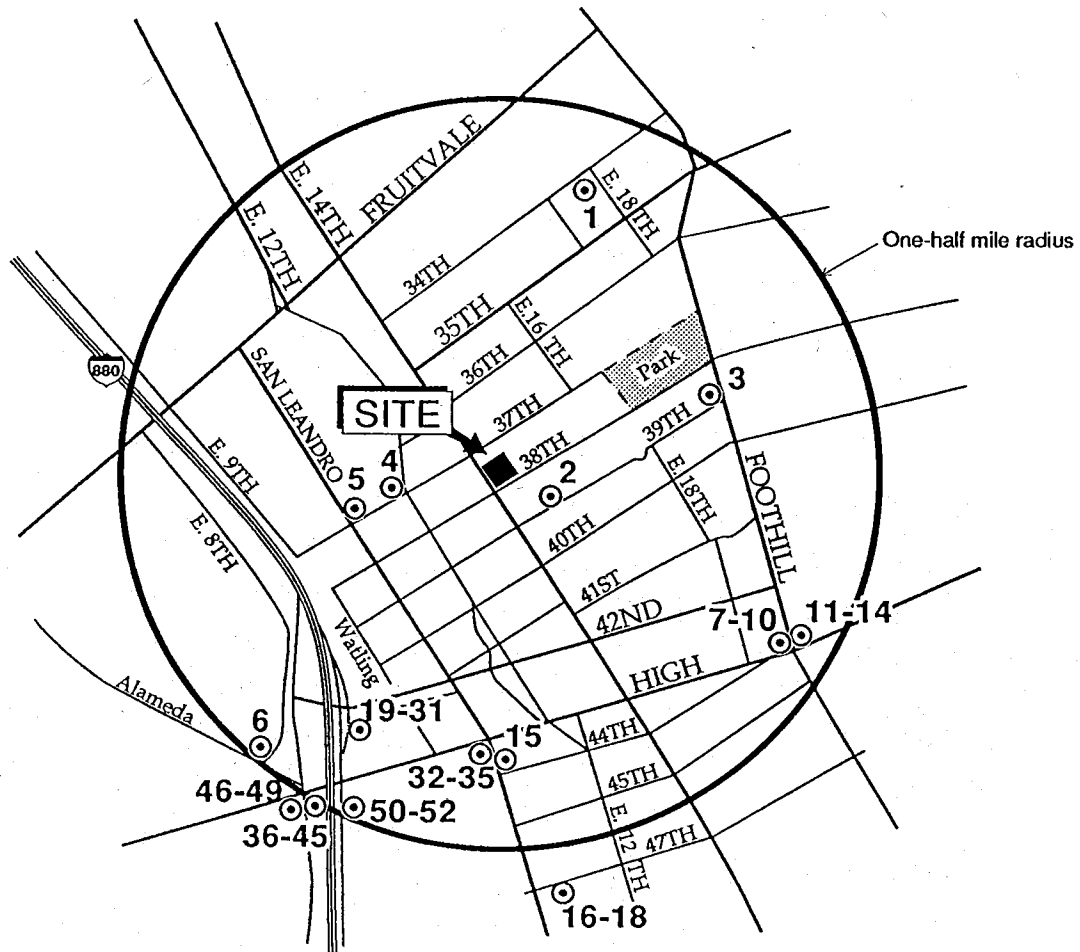
1. INTRODUCTION

This report presents the results of Weiss Associates' (WA) subsurface investigation at Shell Service Station WIC #204-5508-2709, located at 3750 East 14th Street in Oakland, California (Figure 1). The objectives of this investigation were to determine if hydrocarbons or other regulated chemicals from the former waste oil tank are in soil and ground water beneath the site, and to determine the ground water flow direction and gradient.

1.1 SCOPE OF WORK

The scope of work for this investigation was to:

- 1) Review the site history and prepare a site safety plan,
- 2) Identify wells within one-half mile of the site and prepare a map showing their locations relative to the site,
- 3) Obtain all permits and drill three on-site soil borings. Collect soil samples for subsurface hydrogeologic description and for possible chemical analysis,
- 4) Survey the soil samples in the field with a portable photoionization detector (PID) to determine whether the samples contain volatile hydrocarbons,
- 5) Complete the borings as 4-inch-diameter ground water monitoring wells,
- 6) Analyze selected soil samples for total petroleum hydrocarbons as gasoline (TPH-G), benzene, ethylbenzene, toluene and xylenes (BETX), total oil and grease (TOG) and halogenated volatile organic compounds (HVOCs),
- 7) Develop the wells, collect water samples and analyze the samples for hydrocarbons and HVOCs,



EXPLANATION	
⊙ 2	Location and number of well listed in Table 1

Figure 1. Site Location and Wells Located Within Approximately One-Half Mile of Shell Service Station WIC #204-5508-2709, 3750 E. 14th Street, Oakland, California

- 8) Arrange for disposal of drill cuttings and well purge water produced during drilling, well development and water sampling,
- 9) Survey top-of-casing elevations for each well and determine the ground water flow direction at the site,
- 10) Perform an area reconnaissance to locate possible off-site hydrocarbon sources and prepare a map of the surrounding properties and businesses, and
- 11) Report the subsurface investigation procedures and results.

These tasks are described below.

1.2 SITE SETTING AND LOCAL GEOLOGY

The site is located about 35 ft above mean sea level in a mixed commercial and residential area of east Oakland at the northwest intersection of East 14th Street and 38th Avenue.

The site is about one-half mile east of the Brooklyn Basin tidal canal, and is in the East Bay Plain ground water basin. The sediments beneath the site are primarily sandy silt and gravel, with discontinuous silty clay lenses. These sediments are typical of the Quaternary alluvium that underlies much of the East Bay area. The main regional water-bearing unit is a thick Pleistocene alluvial deposit that extends beneath the entire East Bay Plain Area, including Oakland (Alameda Flood Control and Water Conservation District (Zone 7), 1988).

1.3 BACKGROUND

In November 1986 Petroleum Engineering of Santa Rosa, California, removed a steel 550-gallon waste oil tank, and replaced it with a 550-gallon fiberglass tank. Following the tank removal, Blaine Tech Services of San Jose, California, collected a soil sample from directly beneath the former tank location at 7 ft depth (Blaine Tech Services, 1987). The sample contained 117.4 parts per million (ppm) total oil and grease (TOG). The condition of the tank at the time of removal is unknown.

In December 1989 Shell Oil retained WA to conduct a subsurface investigation to determine whether hydrocarbons are in soil and/or ground water beneath the site, to determine the ground water flow direction and gradient, and to perform ground water monitoring and other work necessary to achieve regulatory closure for the site.

1.4 AREA SURVEYS

WA conducted an area business and property survey, and located and identified water wells within one-half mile of the site as part of this investigation. These activities are described below.

1.4.1 Business and Property Survey

The area business and property survey consisted of an area reconnaissance of neighboring properties and businesses (Figure 2). An automotive machine shop is directly south of the site. No other potential sources of hydrocarbons and/or volatile organic compounds (VOCs) are in the immediate vicinity.

1.4.2 Well Survey

WA located and identified wells within one-half mile of the site by reviewing California Department of Water Resources (DWR) and Zone 7 records. Although the well survey identified fifty-two wells within one-half mile of the site, none of the wells are domestic water supply wells (Table 1, Figure 1).

Table 1. Wells Located Within 1/2 Mile of Shell Service Station #204-5508-2709, 3750 East 14th Street, Oakland, California

Well ID	Well Owner	Well Location	Year Drilled	Well Use
1	PG&E	18th St./34th St.	1976	CAT
2	Trust for Public Land	1601 39th Ave.	1977	IRR
3	PG&E	39th St./Foothill Blvd.	1975	CAT
4	PG&E	37th St./12th St.	1973	CAT
5	Vernon McIlraith	3614 San Leandro St.	1988	MW
6	American Can Co.	Alameda Ave./E. 8th St.	1986	MW
7-10	Chevron USA	4265 Foothill Blvd./High St.	1987	MW
11-14	BP Oil Co.	4280 Foothill Blvd./High St.	1989	MW
15	Craig Levitt	1033 44th St.	1988	MW
16-18	Peterson Properties	1066 47th Ave. Oak	1989	MW
19-31	The Clorox Co.	860 42nd Ave.	1982-1986	MW
32-35	Commercial Fueling Co.	4301 San Leandro St./High St.	1986	MW
36-45	Exxon	720 High St./Alameda Ave.	1987-1988	MW
46-49	Shell Oil	630 High St./Jensen St.	1989	MW
50-52	Robert Hekeboll	High St./Coliseum Way	1989	MW

CAT = Cathodic Protection Well

IRR = Irrigation Well

MW = Monitoring Well

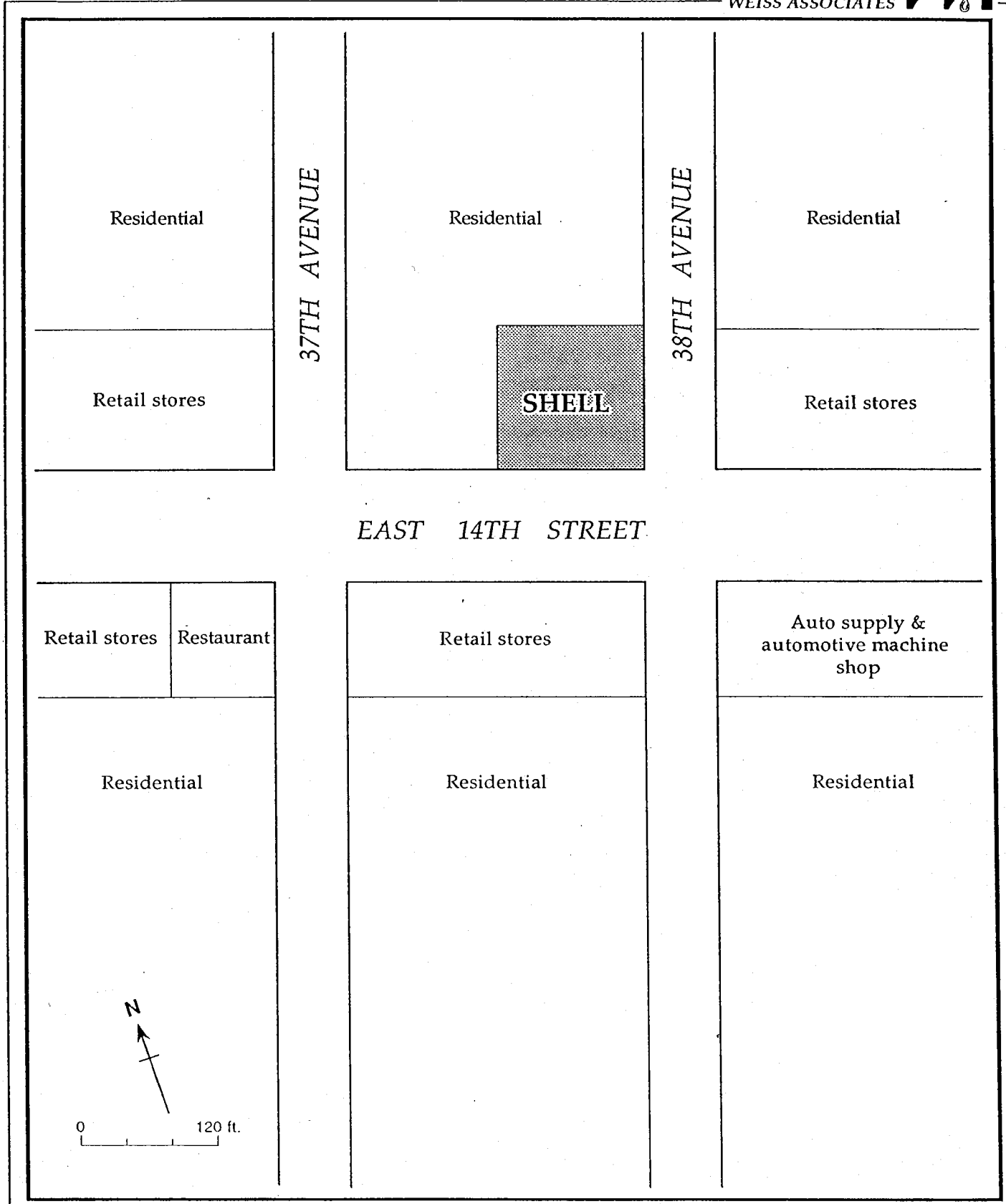


Figure 2. Properties and Businesses in the Vicinity of Shell Service Station WIC #204-5508-2709, 3750 East 14th Street, Oakland, California

2. SUBSURFACE INVESTIGATION

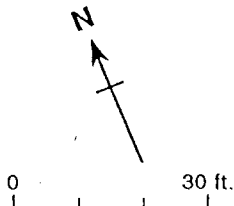
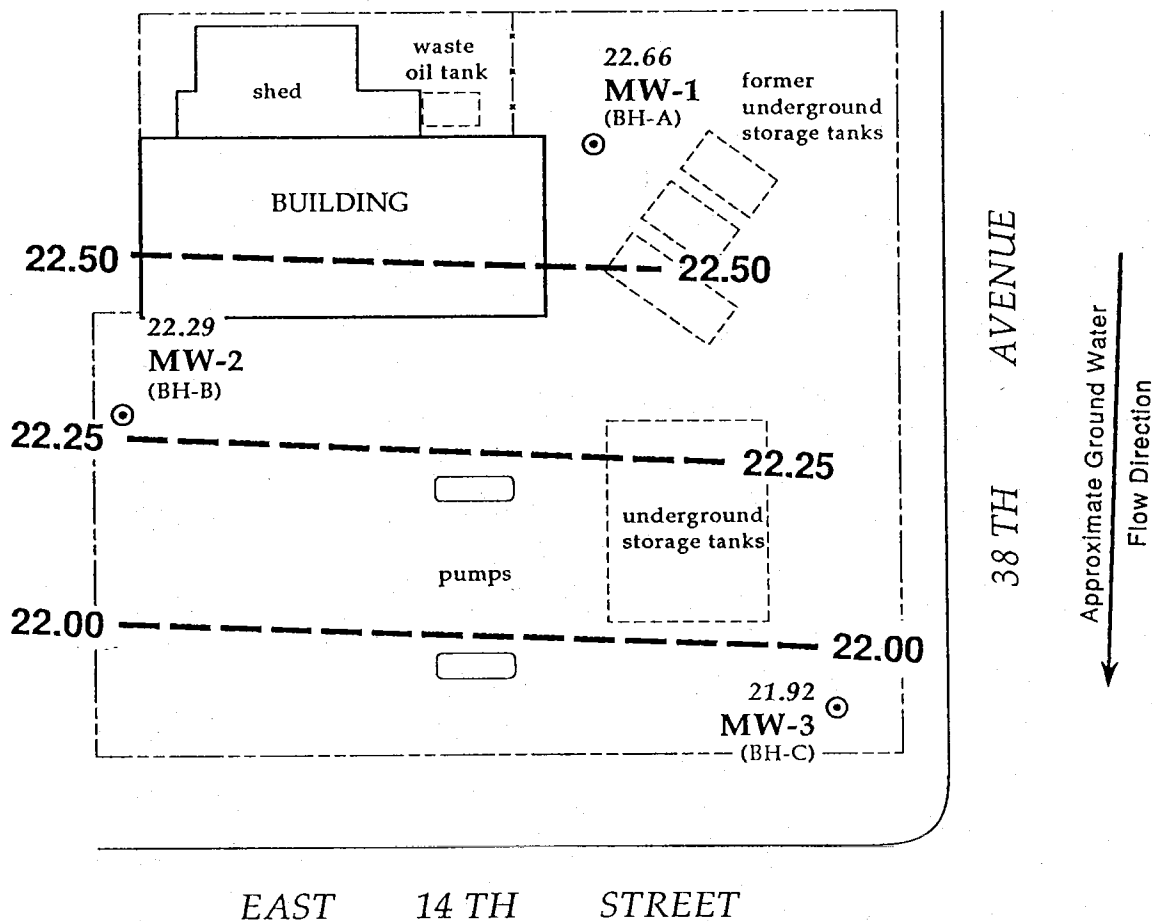
On April 4 and 5, 1990, Soils Exploration Services, Inc., of Vacaville, California, drilled three soil borings and installed three ground water monitoring wells at the site with a CME-55 hollow-stem auger drill rig (Figure 3). Robert Kitay, WA Staff Geologist, directed the drilling and well installation, under the supervision of Richard B. Weiss, Certified Engineering Geologist No. EG1112.

Monitoring well MW-1 was located as close as possible to the waste oil tank. Overhead and underground utilities and the location of site structures prevented placing the well directly downgradient of the waste oil tank. Wells MW-2 and MW-3 were located relative to well MW-1 to determine the ground water flow direction beneath the site.

2.1 SOIL BORINGS AND SAMPLING

Soil samples were collected in each boring at least every 5 ft to characterize the subsurface sediments and for possible chemical analysis. Samples were collected with a split-barrel sampler lined with steam-cleaned, 2-inch brass tubes. After removal from the sampler, the tubes were immediately trimmed, capped with Teflon tape and plastic end caps, hermetically sealed with duct tape, and labeled and refrigerated for delivery under chain-of-custody to National Environmental Testing, Inc. (NET) of Santa Rosa, California. Drilling equipment was steam cleaned prior to use, and sampling equipment was washed with a trisodium phosphate solution between samples to prevent cross-contamination. Boring logs are presented in Appendix A and chain-of-custody forms for the soil samples are included in Appendix B.

Sediments encountered during drilling consisted primarily of high permeability gravelly sand and sandy gravel, and sandy silt of moderate estimated permeability. Silty clay lenses of very low estimated permeability were encountered in borings BH-A and BH-C.



EXPLANATION	
⊙ MW-1 (BH-A)	Monitoring well; corresponding boring ID in parentheses
21.92	Ground water elevation, feet above mean sea level
- 22.00	Ground water elevation contour, feet above mean sea level, approximately located, dashed where inferred

Figure 3. Soil Boring and Monitoring Well Locations and Ground Water Elevation Contours - April 11, 1990 - Shell Service Station WIC #204-5508-2709, 3750 E. 14th Street, Oakland, California

Soil cuttings from the borings were stockpiled on plastic sheeting pending analytic results. The stockpile was also covered with plastic to prevent infiltration by rainwater or possible aeration of volatile compounds. After the results were reviewed, the soil was transported to West Contra Costa Sanitary Landfill by Crosby and Overton, Inc. (C&O) of Oakland, California, for disposal as Class III waste.

2.2 ANALYTIC RESULTS FOR SOIL

Soil samples were surveyed in the field with a PID to qualitatively determine the presence of volatile hydrocarbons. The PID measures vapor concentrations in parts per million by volume (ppmv) and is used for qualitative, not quantitative, assessment. This is because the correlation between the volume measurement of the PID and mass measurement of the analytical tests is not well defined, and because field measurement procedures are not as rigorous as laboratory measurement procedures. PID readings are shown on the boring logs presented as Appendix A.

Analytic results for soil are compiled in Table 2 and laboratory analytic reports are presented in Appendix B. Based on field observations and PID measurements, fifteen soil samples were analyzed by NET for:

- TPH-G by modified EPA Method 8015, gas chromatography with flame ionization detection (GC/FID), and
- BETX by EPA Method 8020, gas chromatography with photoionization detection (GC/PID).

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

- TPH-D by modified EPA Method 8015, GC/FID,
- TOG by American Public Health Association Standard Methods 503 D&E, and,

Table 2. Results of Soil Analyses - Shell Service Station, WIC #204-5508-2709, 3750 East 14th Street, Oakland, California

Soil Boring (Well ID)	Sample Depth (ft)	Date Sampled	Analytic Lab	Analytic Method	Sat/Unsat	TPH-G	TPH-D ^a	B	E	T	X	HVOC	TOG ^b
						-----> parts per million (mg/kg) <-----							
BH-A (MW-1)	5.2	4-4-90	NET	8015/8020	Unsat	<1	---	<0.0025	<0.0025	<0.0025	<0.0025	---	---
	9.8	4-4-90	NET	8015/8020	Unsat	<1	---	<0.0025	<0.0025	<0.0025	<0.0025	---	---
	12.8	4-4-90	NET	8015/8020/ 8010/503	Unsat	<1	<1	<0.0025	<0.0025	<0.0025	<0.0025	ND ^c	<50
	20.2	4-4-90	NET	8015/8020	Sat	<1	---	<0.0025	<0.0025	0.0032	0.0031	---	---
	29.2	4-4-90	NET	8015/8020/ 8010/503	Sat	<1	---	<0.0025	<0.0025	<0.0025	<0.0025	ND ^c	<50
BH-B (MW-2)	6.8	4-5-90	NET	8015/8020	Unsat	<1	---	<0.0025	<0.0025	<0.0025	<0.0025	---	---
	11.2	4-5-90	NET	8015/8020/ 8010/503	Unsat	<1	<1	<0.0025	<0.0025	<0.0025	<0.0025	ND ^c	<50
	19.2	4-5-90	NET	8015/8020	Sat	<1	---	<0.0025	<0.0025	<0.0025	<0.0025	---	---
	29.2	4-5-90	NET	8015/8020/ 8010/503	Sat	<1	---	<0.0025	<0.0025	<0.0025	<0.0025	ND ^c	<50
BH-C (MW-3)	6.8	4-5-90	NET	8015/8020	Unsat	<1	---	<0.0025	<0.0025	<0.0025	<0.0025	---	---
	11.2	4-5-90	NET	8015/8020/ 8010/503	Unsat	3.5	<1	<0.0025	0.0077	0.0043	0.016	ND ^c	<50
	14.2	4-5-90	NET	8015/8020	Sat	130	---	0.032	0.73	0.55	2.0	---	---
	19.2	4-5-90	NET	8015/8020	Sat	<1	---	<0.0025	<0.0025	<0.0025	<0.0025	---	---
	24.2	4-5-90	NET	8015/8020	Sat	<1	---	<0.0025	<0.0025	<0.0025	<0.0025	---	---
	29.2	4-5-90	NET	8015/8020/ 8010/503	Sat	<1	---	<0.0025	<0.0025	<0.0025	<0.0025	ND ^c	<50

Abbreviations:

TPH-G = Total petroleum hydrocarbons as gasoline
 TPH-D = Total petroleum hydrocarbons as diesel
 B = Benzene
 E = Ethylbenzene
 T = Toluene
 X = Xylenes
 HVOCs = Halogenated volatile organic compounds
 TOG = Total oil and grease (non-polar)
 Sat = Saturated soil sample
 Unsat = Unsaturated soil sample
 <n = Not detected at detection limit of 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 (GC/HALL) for HVOCs
 8015 = Modified EPA Method 8015 (GC/FID) for TPH-G and TPH-D
 8020 = EPA Method 8020 (GC/PID) for BETX

Notes:

- ^a = Analytic results for total petroleum hydrocarbons as motor oil (TPH-MO) are reported with TPH-D results by the laboratory. TPH-MO results are included in the analytic reports in Appendix 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 Appendix B.
- ^c = Not detected at detection limits of 0.002 to 0.05 parts per million (ppm)



- HVOCs by EPA Method 8010, gas chromatography with ~~HALL~~ electrolytic detection (GC/HALL).

TPH-D, TOG and HVOCs were not detected in any of the fifteen soil samples analyzed. Hydrocarbons were detected in soil from boring BH-C at a maximum of 130 ppm TPH-G in a saturated sample from 14.2 ft depth. One saturated soil sample from boring BH-A contained trace concentrations of toluene and xylene.

2.3 MONITORING WELL INSTALLATION, DEVELOPMENT AND SAMPLING

Ground water was first encountered between 11.5 and 14 ft depth in the borings. The water level rose only slightly in wells MW-1 and MW-3, and fell slightly in well MW-2, indicating that the water-bearing zone is unconfined. Monitoring wells MW-1, MW-2 and MW-3 were installed in borings BH-A, BH-B and BH-C, respectively. The well screens extend from 1 to 4 ft above the static ground water level and 14 to 17 ft below the static water level (about 26 to 28 ft total depth). The wells are constructed with 4-inch diameter, 0.020-inch slotted, flush threaded Schedule 40 PVC well screen and blank casing. Lonestar #3 Monterey sand was placed in the annular space to 0.5 to 1 ft above the well screens. A 2 ft thick bentonite layer separates the sand from the overlying 5 to 7 ft thick surface seal of Portland Type I and II cement mixed with 3-5% bentonite powder. Well heads are secured with locking plugs and finished at-grade with traffic-rated vaults.

On April 11, 1990, WA environmental technician Jim Martin developed the wells using surge block agitation and airlift evacuation. After development, airlift evacuation yielded about 2.8 gallons per minute (gpm) from well MW-1, about 8.57 gpm from well MW-2 and about 9.75 gpm from well MW-3.

On April 11, 1990, WA collected ground water samples from the three wells. The samples collected with dedicated 3-inch PVC bailers, and decanted into the sample containers through a sampling port on the side of the bailer. Between 38 and 44 gallons, approximately four well casing volumes, were evacuated from each well prior to sampling. The samples were decanted into 40 ml glass volatile organic analysis (VOA) vials. Samples for TPH-D and TOG analysis were decanted into 1 liter glass bottles. All samples were labeled and refrigerated for transport under chain-of-custody to NET.

Ground water from development and sampling, and rinseate generated during steam-cleaning of the drilling augers, was contained in California Department of Transportation (DOT)-approved 55-gallon drums and transported by C&O to the Shell Oil Refinery in Martinez, California, for reclamation.

2.4 ANALYTIC RESULTS FOR GROUND WATER

Analytic results for ground water are summarized in Table 3 and the laboratory analytic reports and chain-of-custody forms are presented in Appendix C. All ground water samples were analyzed for:

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

TPH-G, TPH-D, and BETX were not detected in wells MW-1 and MW-2. TOG was not detected in any of the wells. TPH-G was detected in ground water from well MW-3 at 290 ppb. Well MW-3 also contained 330 ppb TPH-D, and low concentrations of ethylbenzene and xylenes. Trichloroethylene (TCE) was detected in well MW-2 below the California Department of Health Services (DHS) Maximum Contaminant Level (MCL).

Table 3. Analytic Results for Ground Water - Shell Service Station, WIC #204-5508-2709, 3750 East 14th Street, Oakland, California

Sample	Date Sampled	Analytic Method	Analytic Lab	TPH-G	TPH-D ^a	B	E	T	X	HVOC	TOG ^b
				----- parts per million (µg/l) -----							
MW-1	4-11-90	503E/601/602/8015	NET	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.4-10	<10,000
MW-2	4-11-90	503E/601/602/8015	NET	<50	<50	<0.5	<0.5	<0.5	<0.5	0.74 ^c	<10,000
MW-3	4-11-90	503E/601/602/8015	NET	290	330	<0.5	0.6	<0.5	0.9	<0.4-10	<10,000
Trip Blank	4-11-90	8015/602	NET	<50	---	<0.5	<0.5	<0.5	<0.5	---	---
DHS MCLs	---	---	---	NE	NE	1	680	100 ^d	1,750	5 ^e	NE

Abbreviations:

TPH-G = Total petroleum hydrocarbons as gasoline
 TPH-D = Total petroleum hydrocarbons as diesel
 B = Benzene
 E = Ethylbenzene
 T = Toluene
 X = Xylenes
 HVOCs = Halogenated volatile organic compounds
 TOG = Total oil and grease (non-polar)
 <n = Not detected at detection limit of n ppb
 DHS MCL = Department of Health Services maximum contaminant level for drinking water
 NE = Not established

Notes:

- ^a = Analytic results for total petroleum hydrocarbons as motor oil (TPH-MO) are reported with TPH-D results by the laboratory. TPH-MO results are included in the analytic report in Appendix C.
- ^b = Analytic results for total oil and grease (polar and non-polar) are reported with the hydrocarbon (non-polar) TOG results by the laboratory. These results are included in the analytic reports in Appendix C.
- ^c = Trichloroethylene (TCE) detected at 0.74 ppb
- ^d = DHS recommended action level for drinking water
- ^e = MCL for TCE

Analytical Laboratory:

NET = National Environmental Testing Pacific, Inc., 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



2.5 GROUND WATER ELEVATIONS

Top-of-casing elevations were surveyed on April 9, 1990, by John E. Koch of Berkeley, California (California Land Surveyor, License No. LS4811). The benchmark used for the survey was based on a City of Oakland datum, and is a cut square in a concrete curb at the northwest of East 14th Street and 37th Avenue.

WA measured the depth to ground water in all wells on April 11, 1990. Ground water elevation data are presented in Table 4 and ground water elevation contours are shown in Figure 3. The ground water flow direction on this date was to the southwest with a gradient of 0.009 ft/ft.

Table 4. Ground Water Elevation Data - Shell Service Station WIC #204-5508-2709, 3750 East 14th Street, Oakland, California

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft)	Ground Water Elevation (ft above msl)
MW-1	4-11-90	34.67	12.01	22.66
MW-2	4-11-90	34.75	12.46	22.29
MW-3	4-11-90	33.12	11.20	21.92



3. CONCLUSIONS

A saturated soil sample at 14.2 ft depth from boring BH-C contained 130 ppm TPH-G, and low concentrations of BETX. A sample from 11.2 ft depth in the same boring contained 3.5 ppm TPH-G, and traces of ETX. The depth interval represented by these samples generally coincides with the water table. TPH-G, TPH-D, TOG, HVOCs and BETX were not detected in any of the other soil samples, with the exception of 0.0032 ppm toluene and 0.0031 ppm xylene at 20.2 ft depth in boring BH-A.

Ground water samples from well MW-3, approximately downgradient of the underground gasoline tanks, contained 290 ppb TPH-G, 330 ppb TPH-D and trace concentrations of ethylbenzene and xylenes. TPH-G, TPH-D and BETX were not detected in the other wells. Ground water from well MW-2 contained 0.74 ppb TCA. HVOCs were not detected in the other wells. TOG was not detected in ground water from any of the wells.

The ground water flow direction beneath the site is to the southwest. Upgradient potential sources for hydrocarbons or HVOCs are not apparent.

Fifty-two wells are located within one-half mile of the site. None of the wells are domestic water supply wells.

REFERENCES

Alameda County Flood Control and Water Conservation District (Zone 7), 1988,
Geohydrology and Groundwater - Quality Overview, East Bay Plain Area, Alameda
County, California, 205(J) Report, 83 pp. and 6 appendices.

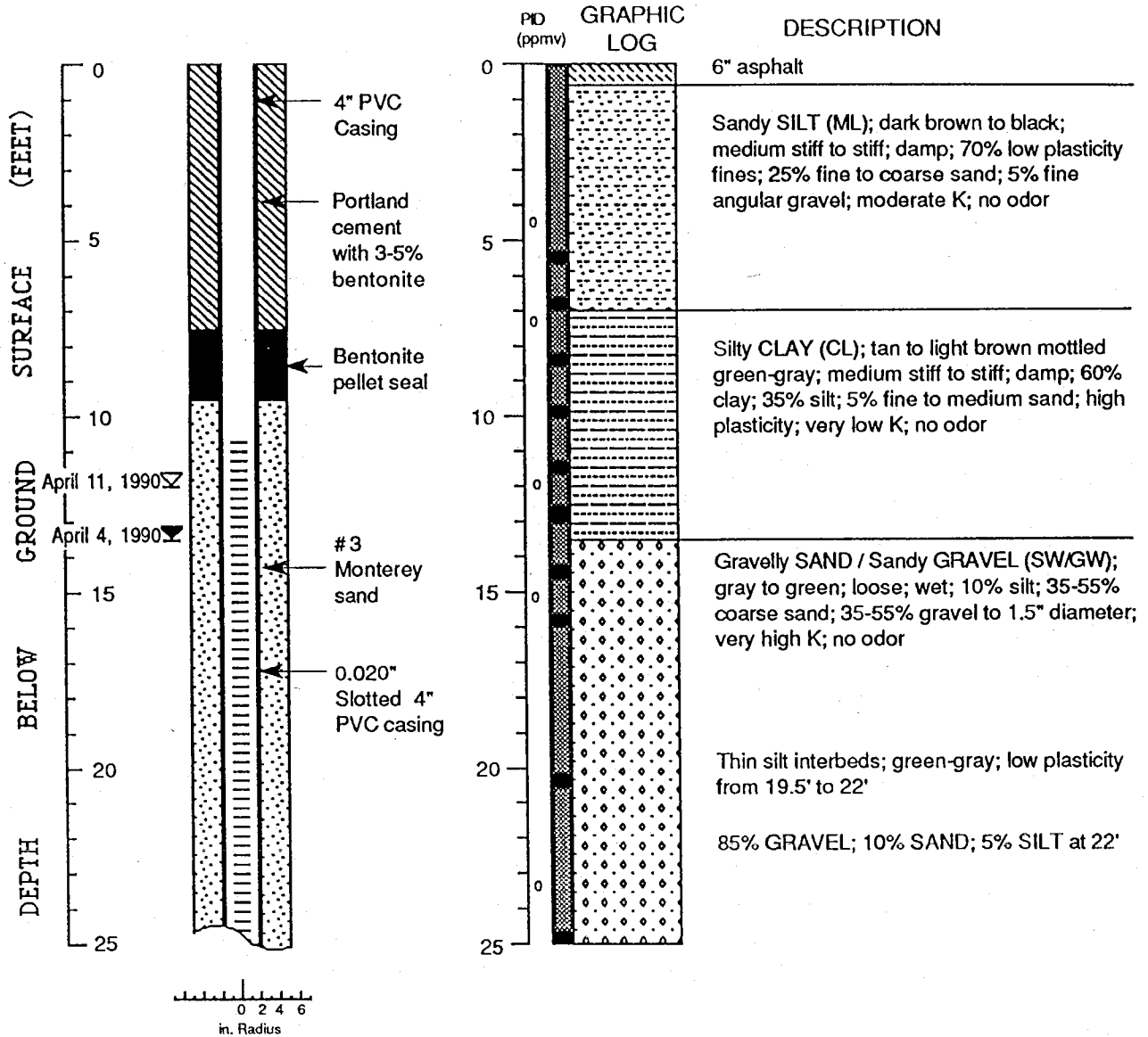
Blaine Tech Services, Inc., 1986, Sampling Report 86306-T-1, Shell Service Station, 3750 East
14th Street, Oakland, California, consultant's letter-report prepared for Shell Oil
Company, November 2, 1986, 3 pp. and 2 attachments.

APPENDIX A

APPENDIX A

Boring Logs

WELL MW-1 (BH-A)



EXPLANATION

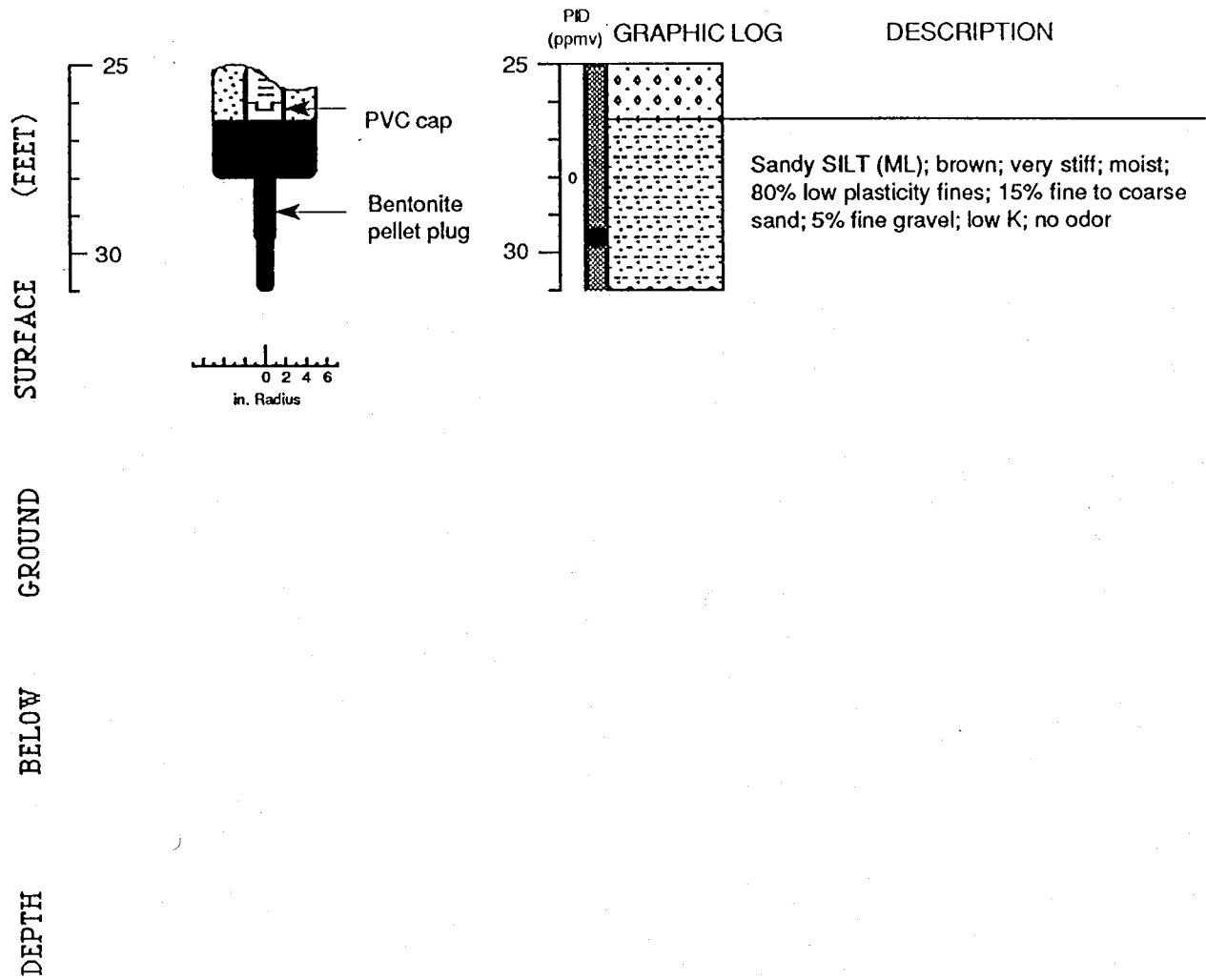
- ▼ Water level during drilling (date)
- ▽ Water level (date)
- Contact (dotted where approx.)
- - - - - Uncertain contact
- ▨ Location of recovered drive sample
- Location of drive sample sealed for chemical analysis
- ⊗ Cutting sample
- K = Estimated hydraulic conductivity

Logged by: Robert Kitay
 Supervisor: Richard Weiss; EG 1112
 Drilling Company: Soil Exploration Services, Vacaville, CA
 Driller: Russ Ellis
 Drilling Method: Hollow stem auger
 Date Drilled: April 4, 1990
 Well Head Completion: 4" Locking plug, traffic-rated
 Type of sampler: Split-barrel (1.5", 2.0", 2.5")
 Ground Surface Elevation: 35.30 ft above msl

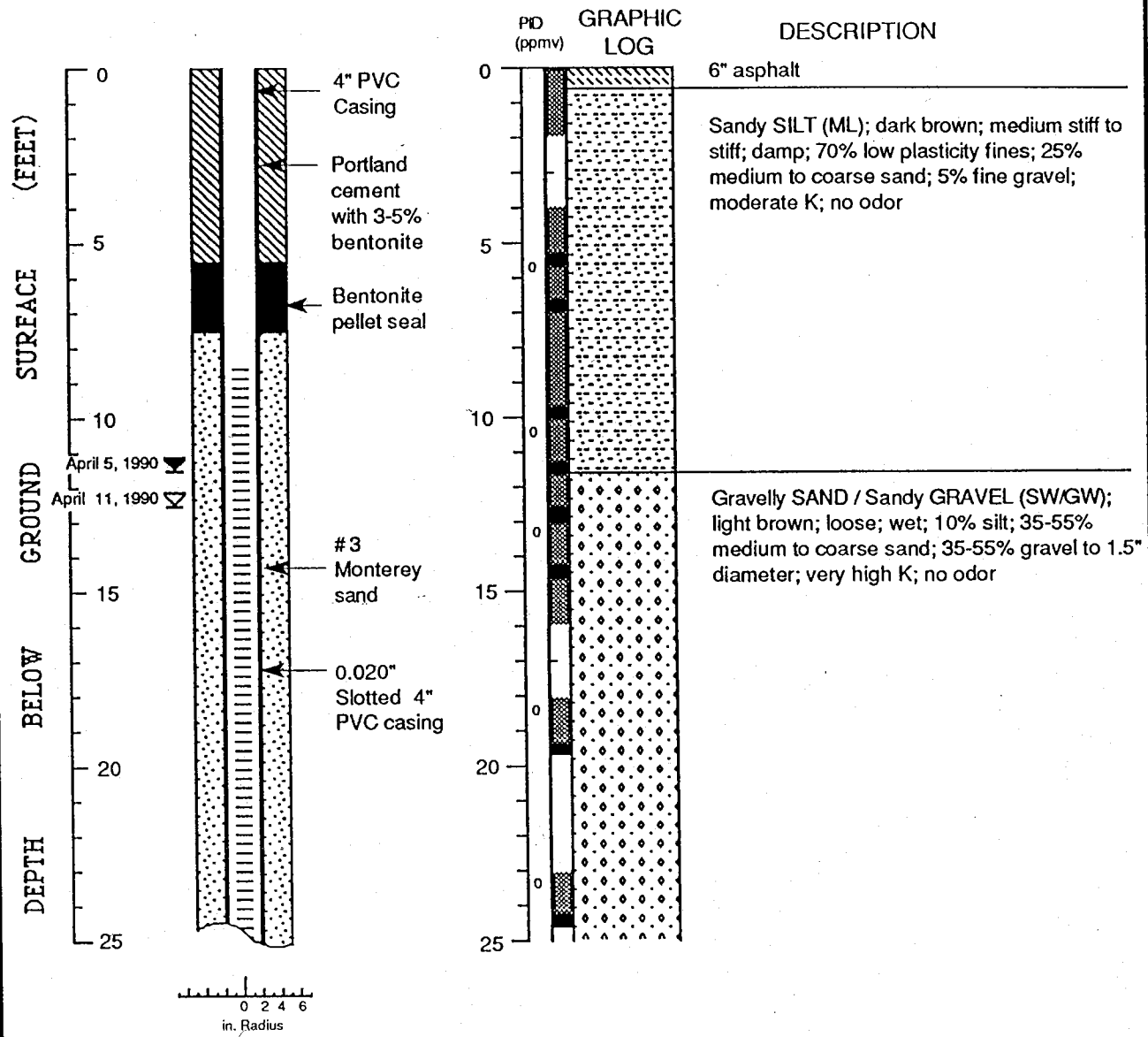
Well Construction and Boring Log - Well MW-1 (BH-A)

Shell Service Station
 3750 East 14th Street
 Oakland, California

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



WELL MW-2 (BH-B)



EXPLANATION

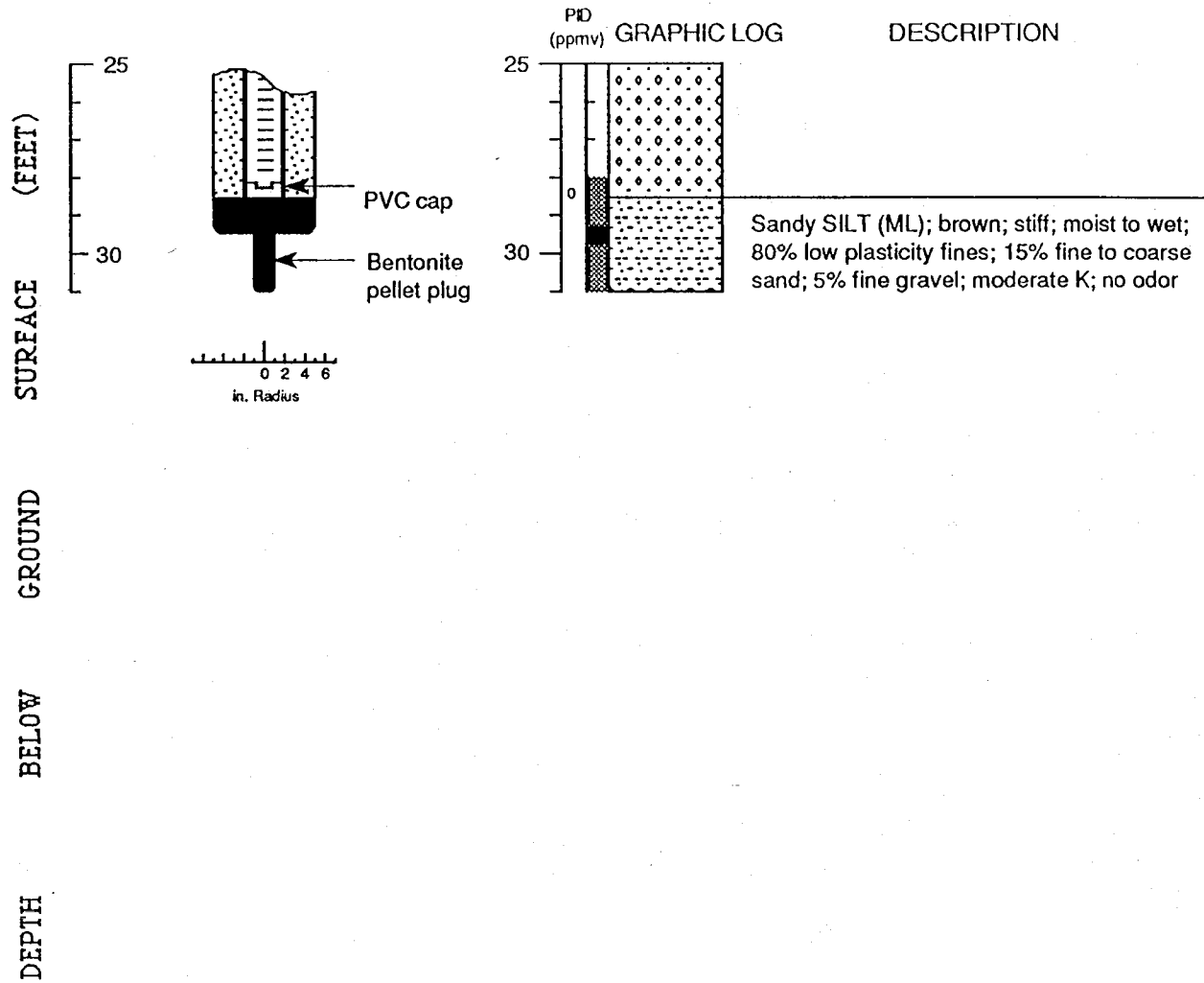
- ▼ Water level during drilling (date)
- ▽ Water level (date)
- Contact (dotted where approx.)
- Uncertain contact
- ▨ Location of recovered drive sample
- Location of drive sample sealed for chemical analysis
- ⊗ Cutting sample
- K = Estimated hydraulic conductivity

Logged by: Robert Kitay
 Supervisor: Richard Weiss; EG 1112
 Drilling Company: Soil Exploration Services, Vacaville, CA
 Driller: Russ Ellis
 Drilling Method: Hollow stem auger
 Date Drilled: April 5, 1990
 Well Head Completion: 4" Locking plug, traffic-rated vault
 Type of sampler: Split-barrel (1.5", 2.0", 2.5")
 Ground Surface Elevation: 35.07 ft above msl

Well Construction and Boring Log - Well MW-2 (BH-B)

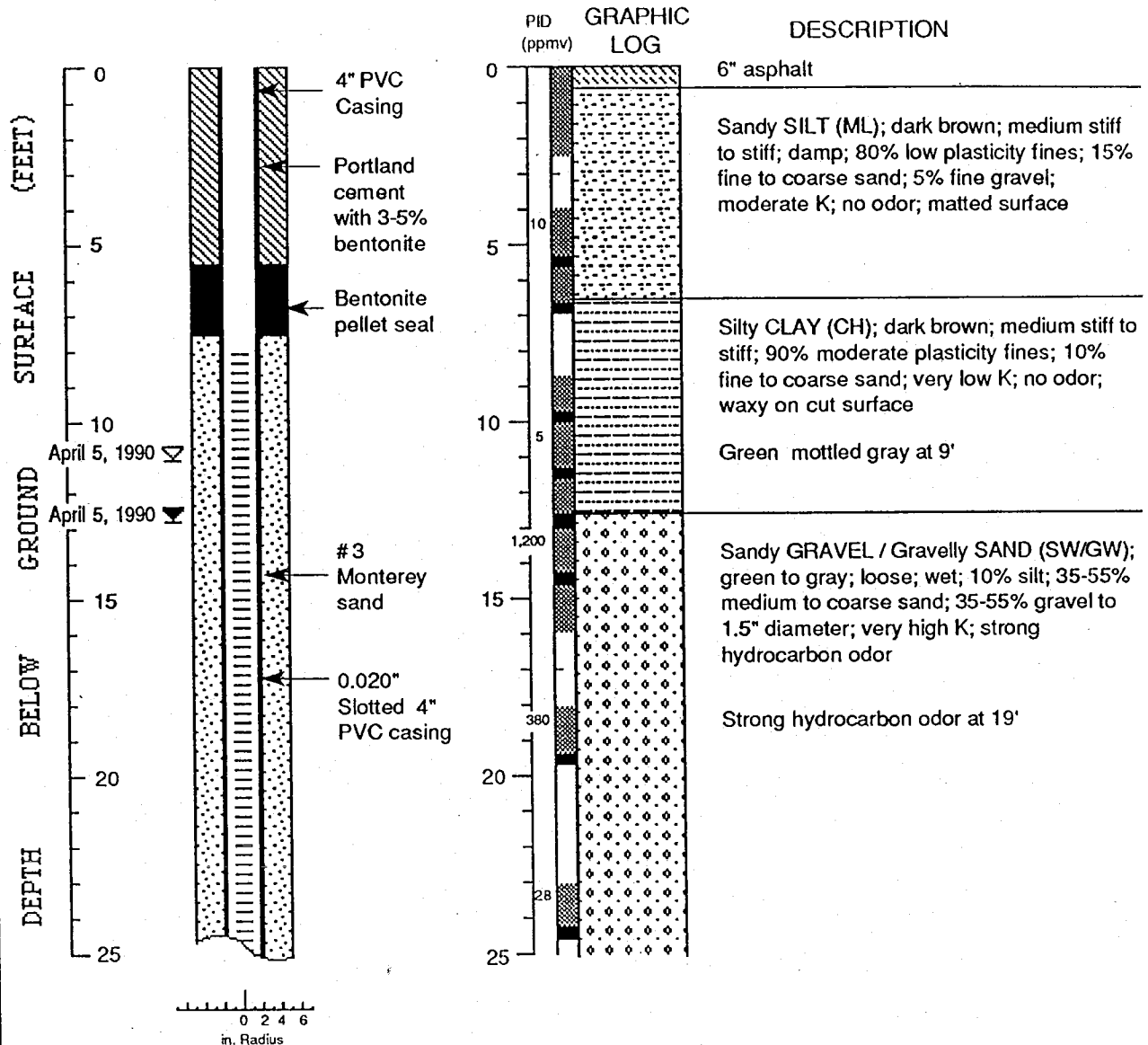
Shell Service Station
 3750 East 14th Street
 Oakland, California

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





WELL MW-3 (BH-C)



EXPLANATION

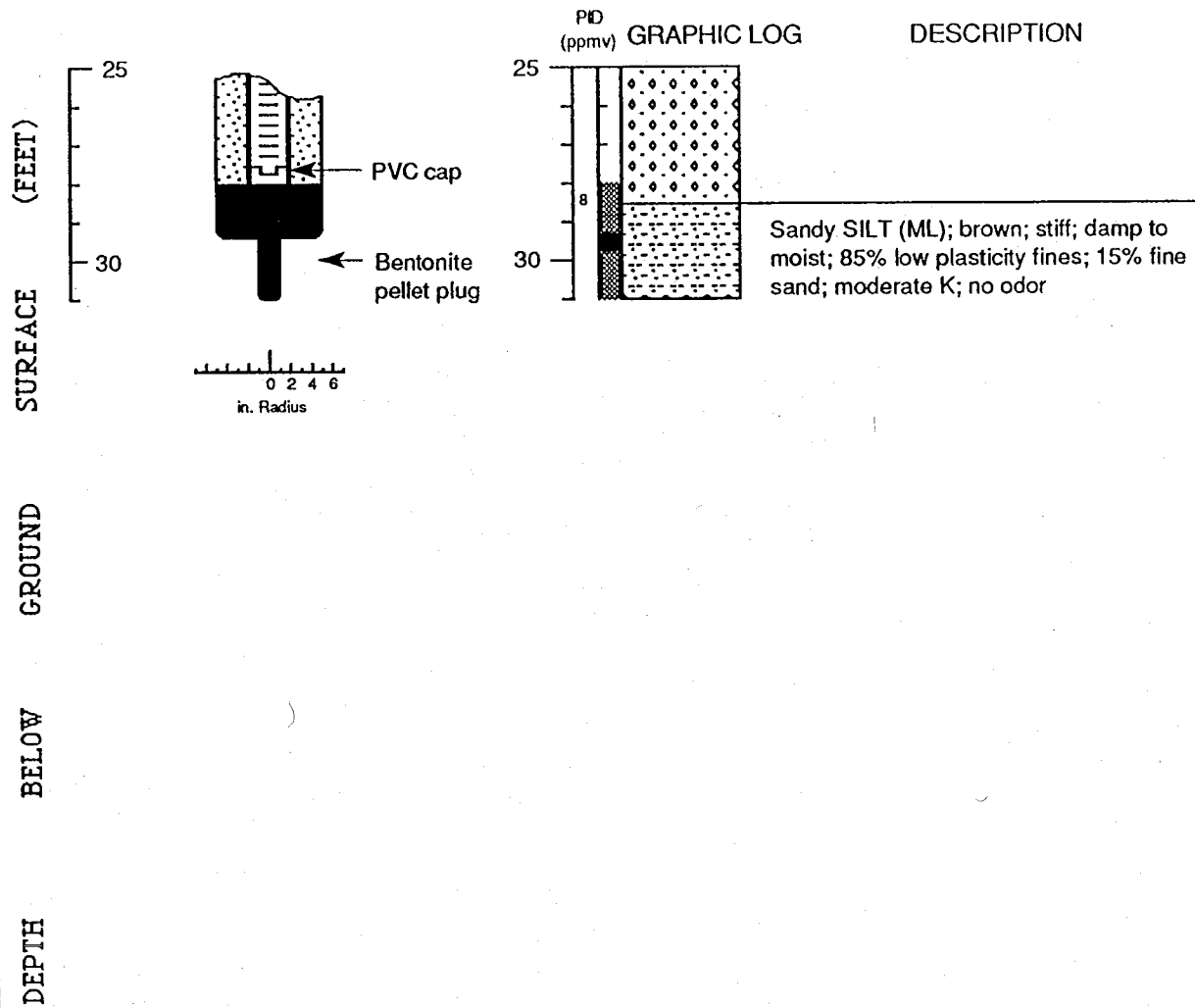
- Water level during drilling (date)
- Water level (date)
- Contact (dotted where approx.)
- Uncertain contact
- Location of recovered drive sample
- Location of drive sample sealed for chemical analysis
- Cutting sample
- K = Estimated hydraulic conductivity

Logged by: Robert Kitay
 Supervisor: Richard Weiss; EG 1112
 Drilling Company: Soil Exploration Services, Vacaville, CA
 Driller: CA
 Drilling Method: Russ Ellis
 Date Drilled: Hollow stem auger
 Well Head Completion: April 5, 1990
 Type of sampler: 4" Locking plug, traffic-rated vault
 Ground Surface Elevation: Split-barrel (1.5", 2.0", 2.5")

Well Construction and Boring Log - Well MW-3 (BH-C)

Shell Service Station
 3750 East 14th Street
 Oakland, California

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





APPENDIX B

APPENDIX B

Analytic Reports and Chain-of-Custody Forms for Soil



NATIONAL
ENVIRONMENTAL
TESTING, INC.

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

Robert Kitay
Weiss Associates
5500 Shell Mound Rd.
Emeryville, CA 94524

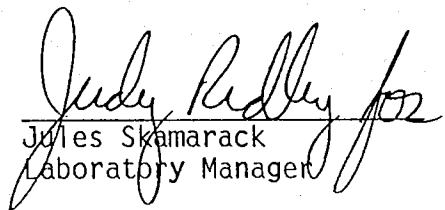
Date: 04-18-90
NET Client Acct No: 18.09
NET Pacific Log No: 1481
Received: 04-06-90 2300

Client Reference Information

SHELL- 3750 East 14th St. Oakland, Project ID: 81-425-02

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: 18.09
 Client Name: Weiss Associates
 NET Log No: 1481

Date: 04-18-90
 Page: 2

Ref: SHELL-3750 East 14th St., Oakland, Project ID:81-425-02

Descriptor, Lab No. and Results

Parameter	Reporting Limit	BH-A 12.8'	BH-B 11.2'	BH-C 11.2'	Units
		04-04-90	04-05-90	04-05-90	
		50298	50299	50300	
Oil & Grease(Total)	50	ND	ND	ND	mg/Kg
Oil & Grease(Non-Polar) METHOD 8010	100	ND	ND	ND	mg/Kg
DATE ANALYZED		04-10-90	04-10-90	04-10-90	
DILUTION FACTOR*		1	1	1	
Bromodichloromethane	2.0	ND	ND	ND	ug/Kg
Bromoform	2.0	ND	ND	ND	ug/Kg
Bromomethane	2.0	ND	ND	ND	ug/Kg
Carbon tetrachloride	2.0	ND	ND	ND	ug/Kg
Chlorobenzene	2.0	ND	ND	ND	ug/Kg
Chloroethane	2.0	ND	ND	ND	ug/Kg
2-Chloroethylvinyl ether	5.0	ND	ND	ND	ug/Kg
Chloroform	2.0	ND	ND	ND	ug/Kg
Chloromethane	2.0	ND	ND	ND	ug/Kg
Dibromochloromethane	2.0	ND	ND	ND	ug/Kg
1,2-Dichlorobenzene	2.0	ND	ND	ND	ug/Kg
1,3-Dichlorobenzene	2.0	ND	ND	ND	ug/Kg
1,4-Dichlorobenzene	2.0	ND	ND	ND	ug/Kg
Dichlorodifluoromethane	2.0	ND	ND	ND	ug/Kg
1,1-Dichloroethane	2.0	ND	ND	ND	ug/Kg
1,2-Dichloroethane	2.0	ND	ND	ND	ug/Kg
1,1-Dichloroethene	2.0	ND	ND	ND	ug/Kg
trans-1,2-Dichloroethene	2.0	ND	ND	ND	ug/Kg
1,2-Dichloropropane	2.0	ND	ND	ND	ug/Kg
cis-1,3-Dichloropropene	2.0	ND	ND	ND	ug/Kg
trans-1,3-Dichloropropene	2.0	ND	ND	ND	ug/Kg
Methylene Chloride	50	ND	ND	ND	ug/Kg
1,1,2-Tetrachloroethane	2.0	ND	ND	ND	ug/Kg
Tetrachloroethene	2.0	ND	ND	ND	ug/Kg
1,1,1-Trichloroethane	2.0	ND	ND	ND	ug/Kg
1,1,2-Trichloroethane	2.0	ND	ND	ND	ug/Kg
Trichloroethene	2.0	ND	ND	ND	ug/Kg
Trichlorofluoromethane	2.0	ND	ND	ND	ug/Kg
Vinyl chloride	2.0	ND	ND	ND	ug/Kg

Client Acct: 18.09
 Client Name: Weiss Associates
 NET Log No: 1481

Date: 04-18-90
 Page: 3

Ref: SHELL-3750 East 14th St., Oakland, Project ID:81-425-02

Descriptor, Lab No. and Results

Parameter	Reporting Limit	BH-A 12.8'	BH-B 11.2'	BH-C 11.2'	Units
		04-04-90	04-05-90	04-05-90	
		50298	50299	50300	
PETROLEUM HYDROCARBONS		--	--	--	
VOLATILE (SOIL)		--	--	--	
DILUTION FACTOR *		1	1	1	
DATE ANALYZED		04-11-90	04-11-90	04-11-90	
METHOD GC FID/5030		--	--	--	
as Gasoline	1	ND	ND	3.5	mg/Kg
METHOD 8020		--	--	--	
DILUTION FACTOR *		1	1	1	
DATE ANALYZED		04-11-90	04-11-90	04-11-90	
Benzene	2.5	ND	ND	ND	ug/Kg
Ethylbenzene	2.5	ND	ND	7.7	ug/Kg
Toluene	2.5	ND	ND	4.3	ug/Kg
Xylenes, total	2.5	ND	ND	16	ug/Kg
PETROLEUM HYDROCARBONS		--	--	--	
EXTRACTABLE (SOIL)		--	--	--	
DILUTION FACTOR *		1	1	1	
DATE EXTRACTED		04-12-90	04-12-90	04-12-90	
DATE ANALYZED		04-12-90	04-12-90	04-12-90	
METHOD GC FID/3550		--	--	--	
as Diesel	1	ND	ND	ND	mg/Kg
as Motor Oil	10	ND	ND	ND	mg/Kg

Ref: SHELL-3750 East 14th St., Oakland, Project ID:81-425-02

Descriptor, Lab No. and Results

Parameter	Reporting Limit	BH-A 29.2'	BH-B 29.2'	BH-C 29.2'	Units
		04-04-90	04-05-90	04-05-90	
		50301	50302	50303	
Oil & Grease(Total)	50	ND	ND	ND	mg/Kg
Oil & Grease(Non-Polar) METHOD 8010	100	ND	ND	ND	mg/Kg
DATE ANALYZED		04-10-90	04-10-90	04-10-90	
DILUTION FACTOR*		1	1	1	
Bromodichloromethane	2.0	ND	ND	ND	ug/Kg
Bromoform	2.0	ND	ND	ND	ug/Kg
Bromomethane	2.0	ND	ND	ND	ug/Kg
Carbon tetrachloride	2.0	ND	ND	ND	ug/Kg
Chlorobenzene	2.0	ND	ND	ND	ug/Kg
Chloroethane	2.0	ND	ND	ND	ug/Kg
2-Chloroethylvinyl ether	5.0	ND	ND	ND	ug/Kg
Chloroform	2.0	ND	ND	ND	ug/Kg
Chloromethane	2.0	ND	ND	ND	ug/Kg
Dibromochloromethane	2.0	ND	ND	ND	ug/Kg
1,2-Dichlorobenzene	2.0	ND	ND	ND	ug/Kg
1,3-Dichlorobenzene	2.0	ND	ND	ND	ug/Kg
1,4-Dichlorobenzene	2.0	ND	ND	ND	ug/Kg
Dichlorodifluoromethane	2.0	ND	ND	ND	ug/Kg
1,1-Dichloroethane	2.0	ND	ND	ND	ug/Kg
1,2-Dichloroethane	2.0	ND	ND	ND	ug/Kg
1,1-Dichloroethene	2.0	ND	ND	ND	ug/Kg
trans-1,2-Dichloroethene	2.0	ND	ND	ND	ug/Kg
1,2-Dichloropropane	2.0	ND	ND	ND	ug/Kg
cis-1,3-Dichloropropene	2.0	ND	ND	ND	ug/Kg
trans-1,3-Dichloropropene	2.0	ND	ND	ND	ug/Kg
Methylene Chloride	50	ND	ND	ND	ug/Kg
1,1,2-Tetrachloroethane	2.0	ND	ND	ND	ug/Kg
Tetrachloroethene	2.0	ND	ND	ND	ug/Kg
1,1,1-Trichloroethane	2.0	ND	ND	ND	ug/Kg
1,1,2-Trichloroethane	2.0	ND	ND	ND	ug/Kg
Trichloroethene	2.0	ND	ND	ND	ug/Kg
Trichlorofluoromethane	2.0	ND	ND	ND	ug/Kg
Vinyl chloride	2.0	ND	ND	ND	ug/Kg

Client Acct: 18.09
 Client Name: Weiss Associates
 NET Log No: 1481

Date: 04-18-90
 Page: 5

Ref: SHELL-3750 East 14th St, Oakland, Project ID: 81-425-02

Descriptor, Lab No. and Results

Parameter	Reporting Limit	BH-A 29.2'	BH-B 29.2'	BH-C 29.2'	Units
		04-04-90	04-05-90	04-05-90	
		50301	50302	50303	
PETROLEUM HYDROCARBONS		--	--	--	
VOLATILE (SOIL)		--	--	--	
DILUTION FACTOR *		1	1	1	
DATE ANALYZED		04-11-90	04-11-90	04-13-90	
METHOD GC FID/5030		--	--	--	
as Gasoline	1	ND	ND	ND	mg/Kg
METHOD 8020		--	--	--	
DILUTION FACTOR *		1	1	1	
DATE ANALYZED		04-11-90	04-11-90	04-13-90	
Benzene	2.5	ND	ND	ND	ug/Kg
Ethylbenzene	2.5	ND	ND	ND	ug/Kg
Toluene	2.5	ND	ND	ND	ug/Kg
Xylenes, total	2.5	ND	ND	ND	ug/Kg

Client Acct: 18.09
 Client Name: Weiss Associates
 NET Log No: 1481

Date: 04-18-90
 Page: 6

Ref: SHELL-3750 East 14th St, Oakland, Project ID: 81-425-02

Descriptor, Lab No. and Results

Parameter	Reporting Limit	Comp BH-A	Comp BH-B	Comp BH-C	Units
		04-04-90	04-05-90	04-05-90	
		50304	50305	50306	
Lead (EPA 7421)	0.2	4.6	4.2	3.8	mg/Kg
Organic Lead	1	ND	ND	ND	mg/Kg
PETROLEUM HYDROCARBONS		--	--	--	
VOLATILE (SOIL)		--	--	--	
DILUTION FACTOR *		1	1	1	
DATE ANALYZED		04-13-90	04-13-90	04-13-90	
METHOD GC FID/5030		--	--	--	
as Gasoline	1	ND	ND	ND	mg/Kg
METHOD 8020		--	--	--	
DILUTION FACTOR *		1	1	1	
DATE ANALYZED		04-13-90	04-13-90	04-13-90	
Benzene	2.5	ND	ND	ND	ug/Kg
Ethylbenzene	2.5	ND	ND	ND	ug/Kg
Toluene	2.5	ND	ND	ND	ug/Kg
Xylenes, total	2.5	ND	ND	ND	ug/Kg

Client Acct: 18.09
Client Name: Weiss Associates
NET Log No: 1481

Date: 04-18-90
Page: 7

Ref: SHELL- 3750 East 14th St.,Oakland, Project ID: 81-425-02

Descriptor, Lab No. and Results

Parameter	Reporting Limit	BH-A 9.8'	BH-A '20.2'	BH-B 19.2'	Units
		04-04-90	04-04-90	04-05-90	
PETROLEUM HYDROCARBONS		--	--	--	
VOLATILE (SOIL)		--	--	--	
DILUTION FACTOR *		1	1	1	
DATE ANALYZED		04-12-90	04-12-90	04-12-90	
METHOD GC FID/5030		--	--	--	
as Gasoline	1	ND	ND	ND	mg/Kg
METHOD 8020		--	--	--	
DILUTION FACTOR *		1	1	1	
DATE ANALYZED		04-12-90	04-12-90	04-12-90	
Benzene	2.5	ND	ND	ND	ug/Kg
Ethylbenzene	2.5	ND	ND	ND	ug/Kg
Toluene	2.5	ND	3.2	ND	ug/Kg
Xylenes, total	2.5	ND	3.1	ND	ug/Kg

Client Acct: 18.09
Client Name: Weiss Associates
NET Log No: 1481

Date: 04-18-90
Page: 8

Ref: SHELL- 3750 East 14th St. Oakland, Project ID: 81-425-02

Descriptor, Lab No. and Results

Parameter	Reporting Limit	50379	Units
BH-C 19.2' 04-05-90			
PETROLEUM HYDROCARBONS		--	
VOLATILE (SOIL)		--	
DILUTION FACTOR *		1	
DATE ANALYZED		04-12-90	
METHOD GC FID/5030		--	
as Gasoline	1	ND	mg/Kg
METHOD 8020		--	
DILUTION FACTOR *		1	
DATE ANALYZED		04-12-90	
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: 1481

Date: 04-23-90
Page: 9

Ref: SHELL- 3750 East 14th St, Oakland, Project ID: 81-425-02

SAMPLE DESCRIPTION: BH-A 5.2 04-04-90
LAB Job No: (-50307)

Parameter	Reporting Limit	Results	Units
PETROLEUM HYDROCARBONS		--	
VOLATILE (SOIL)		--	
DILUTION FACTOR *		1	
DATE ANALYZED		04-13-90	
METHOD GC FID/5030		--	
as Gasoline	1	ND	mg/Kg
METHOD 8020		--	
DILUTION FACTOR *		1	
DATE ANALYZED		04-13-90	
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: 1481

Date: 04-23-90
Page: 10

Ref: SHELL- 3750 East 14th St, Oakland, Project ID: 81-425-02

SAMPLE DESCRIPTION: BH-A 6.8' 04-04-90
LAB Job No: (-50308)

Parameter	Reporting Limit	Results	Units
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Client Acct: 18.09
Client Name: Weiss Associates
NET Log No: 1481

Date: 04-23-90
Page: 11

Ref: SHELL- 3750 East 14th St, Oakland, Project ID: 81-425-02

SAMPLE DESCRIPTION: BH-A 8.2' 04-04-90
LAB Job No: (-50309)

Parameter	Reporting Limit	Results	Units
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Client Acct: 18.09
Client Name: Weiss Associates
NET Log No: 1481

Date: 04-23-90
Page: 12

Ref: SHELL- 3750 East 14th St, Oakland, Project ID: 81-425-02

SAMPLE DESCRIPTION: BH-A 11.2' 04-04-90
LAB Job No: (-50310)

Parameter	Reporting Limit	Results	Units
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Client Acct: 18.09
Client Name: Weiss Associates
NET Log No: 1481

Date: 04-23-90
Page: 13

Ref: SHELL- 3750 East 14th St, Oakland, Project ID: 81-425-02

SAMPLE DESCRIPTION: BH-A 14.2' 04-04-90
LAB Job No: (-50311)

Parameter	Reporting Limit	Results	Units
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Client Acct: 18.09
Client Name: Weiss Associates
NET Log No: 1481

Date: 04-23-90
Page: 14

Ref: SHELL- 3750 East 14th St, Oakland, Project ID: 81-425-02

SAMPLE DESCRIPTION: BH-B 6.8' 04-05-90
LAB Job No: (-50315)

Parameter	Reporting Limit	Results	Units
PETROLEUM HYDROCARBONS		--	
VOLATILE (SOIL)		--	
DILUTION FACTOR *		1	
DATE ANALYZED		04-13-90	
METHOD GC FID/5030		--	
as Gasoline	1	ND	mg/Kg
METHOD 8020		--	
DILUTION FACTOR *		1	
DATE ANALYZED		04-13-90	
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: 1481

Date: 04-23-90
Page: 15

Ref: SHELL- 3750 East 14th St, Oakland, Project ID: 81-425-02

SAMPLE DESCRIPTION: BH-C 6.8' 04-05-90
LAB Job No: (-50320)

Parameter	Reporting Limit	Results	Units
PETROLEUM HYDROCARBONS		--	
VOLATILE (SOIL)		--	
DILUTION FACTOR *		1	
DATE ANALYZED		04-13-90	
METHOD GC FID/5030		--	
as Gasoline	1	ND	mg/Kg
METHOD 8020		--	
DILUTION FACTOR *		1	
DATE ANALYZED		04-13-90	
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: 1481

Date: 04-23-90
Page: 16

Ref: SHELL- 3750 East 14th St, Oakland, Project ID: 81-425-02

SAMPLE DESCRIPTION: BH-C 14.2' 04-05-90
LAB Job No: (-50323)

Parameter	Reporting Limit	Results	Units
PETROLEUM HYDROCARBONS		--	
VOLATILE (SOIL)		--	
DILUTION FACTOR *		10	
DATE ANALYZED		04-16-90	
METHOD GC FID/5030		--	
as Gasoline	1	130	mg/Kg
METHOD 8020		--	
DILUTION FACTOR *		10	
DATE ANALYZED		04-16-90	
Benzene	2.5	32	ug/Kg
Ethylbenzene	2.5	730	ug/Kg
Toluene	2.5	550	ug/Kg
Xylenes, total	2.5	2,000	ug/Kg

Client Acct: 18.09
Client Name: Weiss Associates
NET Log No: 1481

Date: 04-23-90
Page: 17

Ref: SHELL- 3750 East 14th St, Oakland, Project ID: 81-425-02

SAMPLE DESCRIPTION: BH-C 24.2' 04-05-90
LAB Job No: (-50324)

Parameter	Reporting Limit	Results	Units
PETROLEUM HYDROCARBONS		--	
VOLATILE (SOIL)		--	
DILUTION FACTOR *		1	
DATE ANALYZED		04-13-90	
METHOD GC FID/5030		--	
as Gasoline	1	ND	mg/Kg
METHOD 8020		--	
DILUTION FACTOR *		1	
DATE ANALYZED		04-13-90	
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

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, $100 \text{ [Value 1 - Value 2] / mean value}$.
- 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 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.

- * 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.

Shell Service Station Address:
3750 East 14th Street
Oakland, CA

Shell Contact: E. Paul Hayes
 WIC #: 204-550-827
 AFE #: 986678

Please send analytic results
 and a copy of the signed chain of custody form to:

Robert Kitay
 Project ID: 81-425-02

CHAIN-OF-CUSTODY RECORD AND ANALYTIC INSTRUCTIONS

Sampled by: Robert Kitay Laboratory Name: NET

- Lab Personnel: 1) Specify analytic method and detection limit in report.
 2) Notify us if there are any anomalous peaks on GC or other scans.
 3) ANY QUESTIONS/CLARIFICATIONS: CALL US.

No. of Containers	Sample ID	Container Type	Sample Date	Vol ²	Fil ³	Ref ⁴	Preservative (specify)	Analyze for	Analytic Method	Turn ⁵	COMMENTS
1	BH-A 5.2	S	4-4-90	2x4	N	Y	None	gas, BTXE		Hold	
1	BH-A 6.8	S	4-4-90	2x4	N	Y	None			Hold	
1	BH-A 8.2	S	4-4-90	2x4	N	Y	None			Hold	
1	BH-A 9.8	S	4-4-90	2x4	N	Y	None	gas, BTXE		Hold	
1	BH-A 11.2	S	4-4-90	2x4	N	Y	None			Hold	
1	BH-A 12.8	S	4-4-90	2x4	N	Y	None	TPH-G+D/BETX/HVOCs/TCG	8015/8020/601/503	N	
1	BH-A 14.2	S	4-4-90	2x4	N	Y	None			Hold	
1	BH-A 15.8	S	4-4-90	2x4	N	Y	None			Hold	
1	BH-A 20.2	S	4-4-90	2x4	N	Y	None	gas, BTXE		Hold	
1	BH-A 24.8	S	4-4-90	2x4	N	Y	None			Hold	
1	BH-A 29.2	S	4-4-90	2x4	N	Y	None	TPH-G/BETX/HVOCs/TCG	8015/8020/601/503	N	
1	BH-B 5.2	S	4-5-90	2.5x6	N	Y	None			Hold	
1	BH-B 6.8	S	4-5-90	2x4	N	Y	None	gas, BTXE		Hold	
1	BH-B 9.8	S	4-5-90	2.5x6	N	Y	None			Hold	

1 Robert E. Kitay 4-6-90 Released by (Signature), Date
 1 Weiss Assoc. Affiliation
 2 A. J. Pk 4-6-90 Received by (Signature), Date
 2 Weiss Assoc. Affiliation
 3 A. J. Pk 4-6-90 Released by (Signature), Date
 3 Weiss Assoc. Affiliation
 4 Sammi Green Shipping Carrier, Method, Date
 4 N.E.T. Affiliation
 5 Sammi Green 4/6/90 Released by (Signature), Date
 5 N.E.T. Affiliation
 6 Example 4-6-90 2300 Received by Lab Personnel, Date Seal intact?
 6 NET Pacific Affiliation, Telephone

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

* CUSTODY SEAL APPLIED UPON RECEIPT 4/6/90
 F:\ALL\ADMIN\FORMS\COCHELL.WP2
 custody seal intact w/ 4/6 2:00p J.E.

Shell Service Station Address:
3750 East 14th Street
California

Shell Contact: E. Paul Hayes
WIC #: 209-550-827
AFE #: 986678

Please send analytic results
and a copy of the signed chain of custody form to:

Robert Kitay
Project ID: 81-425-02

CHAIN-OF-CUSTODY RECORD AND ANALYTIC INSTRUCTIONS

Sampled by: Robert Kitay Laboratory Name: NET

- Lab Personnel:
- 1) Specify analytic method and detection limit in report.
 - 2) Notify us if there are any anomalous peaks on GC or other scans.
 - 3) ANY QUESTIONS/CLARIFICATIONS: CALL US.

No. of Containers	Sample ID	Container Type	Sample Date	Vol ²	Fil ³	Ref ⁴	Preservative (specify)	Analyze for	Analytic Method	Turn ⁵	COMMENTS
1	BH-B 11.2	S	4-5-90	2x4	N	Y	None	TPH-G+D/BETX/HVOCs/TOC	8015/8020/601/503	N	
1	BH-B 12.8	S	4-5-90	2.5x6	N	Y	None			Hold	
1	BH-B 14.2	S	4-5-90	2x4	N	Y	None			Hold	
1	BH-B 19.2	S	4-5-90	2x4	N	Y	None	gas, BTXE		Hold	
1	BH-B 24.2	S	4-5-90	2x4	N	Y	None			Hold	
1	BH-B 29.2	S	4-5-90	2x4	N	Y	None	TPH-G/BETX/HVOCs/TOC	8015/8020/601/503	N	
1	BH-C 5.2	S	4-5-90	2.5x6	N	Y	None			Hold	
1	BH-C 6.8	S	4-5-90	2x4	N	Y	None	gas, BTXE		Hold	
1	BH-C 9.8	S	4-5-90	2.5x6	N	Y	None			Hold	
1	BH-C 11.2	S	4-5-90	2x4	N	Y	None	TPH-G+D/BETX/HVOCs/TOC	8015/8020/601/503	N	
1	BH-C 12.8	S	4-5-90	2.5x6	N	Y	None			Hold	
1	BH-C 14.2	S	4-5-90	2x4	N	Y	None	gas, BTXE		Hold	
1	BH-C 19.2	S	4-5-90	2x4	N	Y	None	gas, BTXE		Hold	
1	BH-C 24.2	S	4-5-90	2x4	N	Y	None	gas, BTXE		Hold	

1 Robert E. Kitay 4-6-90
Released by (Signature), Date

1 Weiss Assoc.
Affiliation

2 A. J. P. 4-6-90
Received by (Signature), Date

2 Weiss Assoc.
Affiliation

3 A. J. P. 4-6-90
Released by (Signature), Date

3 Assoc-weiss
Affiliation

4 Jamie Green
Shipping Carrier, Method, Date

4 N.E.T.
Affiliation

5 Jamie Green 4/6/90
Released by (Signature), Date

5 N.E.T.
Affiliation

6 Sample 4/6/90 2300
Received by Lab Personnel, Date

6 NET Pacific
Affiliation, Telephone

gas, BTXE added
per RIC to LS 4/5/90
kg

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

* CUSTODY SEAL APPLIED UPON RECEIPT 4/6/90 JM
2:00p
custody seal intact w/ 4/6

Shell Service Station Address:
3750 East 14th Street
Oakland, Calif.

Shell Contact: E. Paul Hayes
WIC #: 209-550-8271
AFE #: 986678

Please send analytic results
and a copy of the signed chain of custody form to:

Robert Kitay

Project ID: 81-425-02

CHAIN-OF-CUSTODY RECORD AND ANALYTIC INSTRUCTIONS

- 1) Specify analytic method and detection limit in report.
- 2) Notify us if there are any anomalous peaks on GC or other scans.
- 3) ANY QUESTIONS/CLARIFICATIONS: CALL US.

Sampled by: Robert Kitay Laboratory Name: NET

No. of Containers	Sample ID	Container Type	Sample Date	Vol ²	Fil ³	Ref ⁴	Preservative (specify)	Analyze for	Analytic Method	Turn ⁵	COMMENTS
1	BH-C 29.2	S	4-5-90	2x4	N	Y	None	TPH-C/BETA/HVOL/TOC	8015/8020/601/503	N	
-	Comp BH-A		please comp.	BH-A	9-8	BH-A	20.2	BH-A 29.2	and analyze for TPH-C, BETA, and total organic lead		
-	Comp BH-B		please comp.	BH-B	9-8	BH-B	19.2	BH-B 29.2	"	"	"
-	Comp BH-C		please comp.	BH-C	9-8	BH-C	19.2	BH-C 29.2	"	"	"
											total Pb added to comps per BK to LS 4/9/90 <u>LS</u>

1 E. Kitay 4-6-90
Released by (Signature), Date

1 Weiss Assoc.
Affiliation

2 A-F. Pk 4-6-90
Received by (Signature), Date

2 Weiss Assoc.
Affiliation

3 A-F. Pk 4-6-90 P. 4:00
Released by (Signature), Date

3 Weiss Assoc.
Affiliation

4 Lanai Green
Shipping Carrier, Method, Date

4 N.E.T.
Affiliation

5 Lanai Green 4/6/90
Released by (Signature), Date

5 N.E.T.
Affiliation

6 Sample 4-6-90 2300 X
Received by Lab Personnel, Date Seal intact?

6 NET Pacific
Affiliation, Telephone

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

* CUSTODY SEAL APPLIED UPON RECEIPT 4/6/90

F:\ALL\ADMIN\FORMS\COCSHELL.WP2
custody seal intact by 4/6

2:00p JO.

APPENDIX C

APPENDIX C

Analytic Reports and Chain-of-Custody Forms for Water



NATIONAL
ENVIRONMENTAL
TESTING, INC.

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

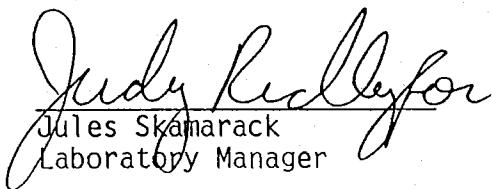
Date: 04-23-90
NET Client Acct. No: 18.09
NET Pacific Log No: 1564
Received: 04-13-90 0800

Client Reference Information

SHELL, 3750 E. 14th Street, Oakland; Project: 81-425-02

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:

A handwritten signature in cursive script, appearing to read "Judy Reddyfor", is written over a horizontal line. Below the line, the name "Jules Skamarack" and title "Laboratory Manager" are printed.
Jules Skamarack
Laboratory Manager

Enclosure(s)

Client Acct: 18.09
Client Name: Weiss Associates
NET Log No: 1564

Date: 04-23-90
Page: 2

Ref: SHELL, 3750 E. 14th Street, Oakland; Project: 81-425-02

SAMPLE DESCRIPTION: 040-1 04-11-90
LAB Job No: (-50749)

Parameter	Reporting Limit	Results	Units
Oil & Grease(Total)	5	ND	mg/L
Oil & Grease(Non-Polar) METHOD 601	10	ND	mg/L
DATE ANALYZED		04-18-90	
DILUTION FACTOR*		1	
Bromodichloromethane	0.4	ND	ug/L
Bromoform	0.4	ND	ug/L
Bromomethane	0.4	ND	ug/L
Carbon tetrachloride	0.4	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	ND	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	0.4	ND	ug/L
Tetrachloroethene	0.4	ND	ug/L
1,1,1-Trichloroethane	0.4	ND	ug/L
1,1,2-Trichloroethane	0.4	ND	ug/L
Trichloroethene	0.4	ND	ug/L
Trichlorofluoromethane	0.4	ND	ug/L
Vinyl chloride	2.0	ND	ug/L
PETROLEUM HYDROCARBONS		---	
VOLATILE (WATER)		---	
DILUTION FACTOR *		1	
DATE ANALYZED		04-17-90	
METHOD GC FID/5030		---	
as Gasoline	0.05	ND	mg/L

Client Acct: 18.09
Client Name: Weiss Associates
NET Log No: 1564

Date: 04-23-90
Page: 3

Ref: SHELL, 3750 E. 14th Street, Oakland; Project: 81-425-02

SAMPLE DESCRIPTION: 040-1 04-11-90

LAB Job No: (-50749)

Parameter	Reporting Limit	Results	Units
METHOD 602		--	
DILUTION FACTOR *		1	
DATE ANALYZED		04-17-90	
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
PETROLEUM HYDROCARBONS EXTRACTABLE (WATER)		--	
DILUTION FACTOR *		1	
DATE EXTRACTED		04-18-90	
DATE ANALYZED		04-19-90	
METHOD GC FID/3510		--	
as Diesel	0.05	ND	mg/L
as Motor Oil	0.05	ND	mg/L

Client Acct: 18.09
Client Name: Weiss Associates
NET Log No: 1564

Date: 04-23-90
Page: 4

Ref: SHELL, 3750 E. 14th Street, Oakland; Project: 81-425-02

SAMPLE DESCRIPTION: 040-2 04-11-90
LAB Job No: (-50750)

Parameter	Reporting Limit	Results	Units
Oil & Grease(Total)	5	ND	mg/L
Oil & Grease(Non-Polar) METHOD 601	10	ND	mg/L
DATE ANALYZED		04-18-90	
DILUTION FACTOR*		1	
Bromodichloromethane	0.4	ND	ug/L
Bromoform	0.4	ND	ug/L
Bromomethane	0.4	ND	ug/L
Carbon tetrachloride	0.4	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	ND	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	0.4	ND	ug/L
Tetrachloroethene	0.4	ND	ug/L
1,1,1-Trichloroethane	0.4	ND	ug/L
1,1,2-Trichloroethane	0.4	ND	ug/L
Trichloroethene	0.4	0.74	ug/L
Trichlorofluoromethane	0.4	ND	ug/L
Vinyl chloride	2.0	ND	ug/L
PETROLEUM HYDROCARBONS VOLATILE (WATER)		--	
DILUTION FACTOR *		1	
DATE ANALYZED		04-17-90	
METHOD GC FID/5030		--	
as Gasoline	0.05	ND	mg/L

Client Acct: 18.09
Client Name: Weiss Associates
NET Log No: 1564

Date: 04-23-90
Page: 5

Ref: SHELL, 3750 E. 14th Street, Oakland; Project: 81-425-02

SAMPLE DESCRIPTION: 040-2 04-11-90
LAB Job No: (-50750)

Parameter	Reporting Limit	Results	Units
METHOD 602		--	
DILUTION FACTOR *		1	
DATE ANALYZED		04-17-90	
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
PETROLEUM HYDROCARBONS EXTRACTABLE (WATER)		--	
DILUTION FACTOR *		1	
DATE EXTRACTED		04-18-90	
DATE ANALYZED		04-19-90	
METHOD GC FID/3510		--	
as Diesel	0.05	ND	mg/L
as Motor Oil	0.05	ND	mg/L

Client Acct: 18.09
Client Name: Weiss Associates
NET Log No: 1564

Date: 04-23-90
Page: 6

Ref: SHELL, 3750 E. 14th Street, Oakland; Project: 81-425-02

SAMPLE DESCRIPTION: 040-3 04-11-90
LAB Job No: (-50751)

Parameter	Reporting Limit	Results	Units
Oil & Grease(Total)	5	ND	mg/L
Oil & Grease(Non-Polar)	10	ND	mg/L
METHOD 601			
DATE ANALYZED		04-18-90	
DILUTION FACTOR*		1	
Bromodichloromethane	0.4	ND	ug/L
Bromoform	0.4	ND	ug/L
Bromomethane	0.4	ND	ug/L
Carbon tetrachloride	0.4	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	ND	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	0.4	ND	ug/L
Tetrachloroethene	0.4	ND	ug/L
1,1,1-Trichloroethane	0.4	ND	ug/L
1,1,2-Trichloroethane	0.4	ND	ug/L
Trichloroethene	0.4	ND	ug/L
Trichlorofluoromethane	0.4	ND	ug/L
Vinyl chloride	2.0	ND	ug/L
PETROLEUM HYDROCARBONS		---	
VOLATILE (WATER)		---	
DILUTION FACTOR *		1	
DATE ANALYZED		04-17-90	
METHOD GC FID/5030		---	
as Gasoline	0.05	0.29	mg/L

Client Acct: 18.09
Client Name: Weiss Associates
NET Log No: 1564

Date: 04-23-90
Page: 7

Ref: SHELL, 3750 E. 14th Street, Oakland; Project: 81-425-02

SAMPLE DESCRIPTION: 040-3 04-11-90
LAB Job No: (-50751)

Parameter	Reporting Limit	Results	Units
METHOD 602		--	
DILUTION FACTOR *		1	
DATE ANALYZED		04-17-90	
Benzene	0.5	ND	ug/L
Ethylbenzene	0.5	0.6	ug/L
Toluene	0.5	ND	ug/L
Xylenes, total	0.5	0.9	ug/L
PETROLEUM HYDROCARBONS EXTRACTABLE (WATER)		--	
DILUTION FACTOR *		1	
DATE EXTRACTED		04-18-90	
DATE ANALYZED		04-19-90	
METHOD GC FID/3510		--	
as Diesel	0.05	0.33	mg/L
as Motor Oil	0.05	ND	mg/L

Client Acct: 18.09
Client Name: Weiss Associates
NET Log No: 1564

Date: 04-23-90
Page: 8

Ref: SHELL, 3750 E. 14th Street, Oakland; Project: 81-425-02

SAMPLE DESCRIPTION: 040-21 04-11-90
LAB Job No: (-50752)

Parameter	Reporting Limit	Results	Units
PETROLEUM HYDROCARBONS		---	
VOLATILE (WATER)		---	
DILUTION FACTOR *		1	
DATE ANALYZED		04-17-90	
METHOD GC FID/5030		---	
as Gasoline	0.05	ND	mg/L
METHOD 602		---	
DILUTION FACTOR *		1	
DATE ANALYZED		04-17-90	
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, $100 \text{ [Value 1 - Value 2] / mean value}$.
- 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.
- unhos/cm : Micromhos 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.

- * 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.

WA WEISS ASSOCIATES

5500 Shellmound St., Emeryville, CA 94608
Phone: 415-547-5420 FAX: 415-547-5043

Shell Service Station Address:
3750 E. 14th St
OAKLAND

Shell Contact: E PAUL HAYES
WIC #: 204550827
AFE #: 986678

Please send analytic results
and a copy of the signed chain of custody form to:

Karen Sixt

Project ID: 81-925-02

1564

CHAIN-OF-CUSTODY RECORD AND ANALYTIC INSTRUCTIONS

Sampled by: Jim Martin Laboratory Name: NET

- Lab Personnel: 1) Specify analytic method and detection limit in report.
2) Notify us if there are any anomalous peaks on GC or other scans.
3) ANY QUESTIONS/CLARIFICATIONS: CALL US.

No. of Containers	Sample ID	Container Type	Sample Date	Vol ²	Fil ³	Ref ⁴	Preservative ⁵ (specify)	Analyze for	Analytic Method	Turn ⁵	COMMENTS
2	040-1	w/cu	4/11/90	90ml	N	Yes	None	TPH-G	8015	N	
2	040-1	↓		↓				BETX	8020		
2	040-1	↓		↓				HVOCs	601		
2	040-1	w/BG		1l			H ₂ SO ₄	TOG	503 A+E		Detection limit 5 ppm
2	040-1	w/BG		1l			None	TPH-D	8015		
2	040-2	w/cu		10ml				TPH-G	8015		
2	040-2	↓		↓				BETX	8020		
2	040-2	↓		↓				HVOCs	601		
2	040-2	w/BG		1l			H ₂ SO ₄	TOG	503 A+E		Detection limit 5 ppm
2	040-2	w/BG		1l			None	TPH-D	8015		
2	040-3	w/cu		10ml				TPH-G	8015		
2	040-3	↓		↓				BETX	8020		
2	040-3	↓		↓				HVOCs	601		
2	040-3	w/BG		1l			H ₂ SO ₄	TOG	503 A+E		Detection limit 5 ppm
2	040-3	w/BG		1l			None	TPH-D	8015		
2	040-2	w/cu		10ml				TPH-D	8015		
1	040-2	w/cu	4/11/90	10ml				GAZ/BETX	8015/20		

Released by (Signature), Date Jim Martin 4/11/90

Released by (Signature), Date A. J. De 4/11/90

Released by (Signature), Date Karen Sixt 4/11/90

1 Weiss Assoc
Affiliation

3 Weiss ASS
Affiliation

5 N.E.T.
Affiliation

2 A. J. De 4/11/90
Received by (Signature), Date

4 Fanni Sheen
Shipping Carrier, Method, Date

6 Kemp 4/13/90 0800
Received by Lab Personnel, Date

x Kemp
Seal intact?

2 Weiss ASS
Affiliation

4 N.E.T.
Affiliation

6 NET Pacific
Affiliation, Telephone

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)
5 Turnaround [N = Normal, W = 1 Week, R = 24 Hour, HOLD (write out)]

ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:
* Stored in locked bldg w/ custody tape in place Jim

* SEALED UPON RECEIPT f. d.