R01049

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

RAFAT A. SHAHID, DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
1131 Harbor Bay Parkway
Alameda, CA 94502-6577

February 28, 1996

REMEDIAL ACTION COMPLETION CERTIFICATION

Mr. Kenneth Kan
Chevron USA
P.O. Box 5004
San Ramon, CA 94583

Mr. Donald Chandler
Rockridge Homes, Inc.
17 Bonita Avenue
Piedmont, CA 94611

RE: Former Chevron Service Station No. 9-3575
5775 Broadway, Oakland, CA 94618 (STID# 3585)

Dear Mr. Kan and Mr. Chandler:

This letter confirms the completion of site investigation and remedial action for the seven underground storage tanks (4 - 1000 gallon gasoline, 1 - 7500 gallon gasoline, 1 - 6000 gallon gasoline, and one waste oil) removed in 1973 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 seven underground storage tanks 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 the present land use is proposed, the property owner must promptly notify this agency.

Please contact Susan L. Hugo at (510) 567-6780 if you have any questions regarding this matter.

Sincerely,

Jun Makishima

Jun Makishima, Interim Director

Enclosure

c: Gordon Coleman, Acting Chief, Environmental Protection - files
Kevin Graves, RWQCB
Mike Harper, SWRCB (with enclosure)
Allen Bray, c/o Roger Hildahl, 6140 Plumas Street,

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

RO#1049

Alameda County Environmental Health Dept.
Environmental Protection Division
1131 Harbor Bay Parkway, Room 250
Alameda CA 94502-6577
(510)567-6700 fax: (510)337-9335

February 14, 1996
STID # 3585

Mr. Kenneth Kan
Chevron USA
P.O. Box 5004
San Ramon, California 94583

Mr. Donald Chandler
Rockridge Homes, Inc.
17 Bonita Avenue
Piedmont, California 94611

RE: Case Closure - Former Chevron Service Station No. 9-3575
5775 Broadway, Oakland, CA 94618

Dear Mr. Kan and Mr. Chandler:

The Alameda County Department of Environmental Health, Environmental Protection Division has recently received concurrence from the Regional Water Quality Control Board regarding this office determination that no further action is required concerning the removal of seven underground storage tanks (4-1000 gallon gasoline, 1-7500 gallon gasoline, 1-6000 gallon gasoline, and 1 waste oil) at the above referenced site.

Please be advised that the three groundwater monitoring wells (MW-1, MW-2, and MW-3) at the site must be properly decommissioned before our agency will issue the **Remedial Action Completion Certification** (closure letter) for the subject site. A report must be submitted documenting the abandonment of the monitoring wells.

Additionally, you will need to notify this office 72 hours in advance of the well abandonment field activities.

If you have any questions concerning this letter, please contact me at (510) 567- 6780.

Sincerely,

Susan L. Hugo

Susan L. Hugo
Senior Hazardous Materials Specialist

c: Jun Makishima, Interim Director, Environmental Health
Gordon Coleman, Acting Chief, Environmental Protection / files
Kevin Graves, San Francisco Bay RWQCB
Allen Bray, c/o Roger Hildahl, 6140 Plumas St. Reno, NV 89501

01-1802

CASE CLOSURE SUMMARY
Leaking Underground Fuel Storage Tank Program

I. AGENCY INFORMATION Date: January 22, 1996

Agency name: **Alameda County-HazMat** Address: **1131 Harbor Bay Parkway**
City/State/Zip: **Alameda, CA 94502** Phone: **(510) 567-6700**
Responsible staff person: **Susan Hugo** Title: **Sr. Hazardous Materials Spec.**

II. CASE INFORMATION

Site facility name: **Former Chevron Service Station No. 9-3575**
Site facility address: **5775 Broadway, Oakland CA 94618**
RB LUSTIS Case No: **N/A** Local Case No./LOP Case No.: **3585**
URF filing date: **1/26/96** SWEEPS No: **N/A**

Responsible Parties:	Addresses:	Phone Numbers:
1. Chevron USA c/o Kenneth Kan	P.O. Box 5004 San Ramon, CA 94583	(510) 842-8752
2. Donald Chandler Rockridge Homes, Inc.	17 Bonita Avenue Piedmont, CA 94611	(510) 654-2585

Tank No:	Size in gal.:	Contents:	Closed in-place or removed?:	Date:
1	1000	gasoline	Removed	4/13/73
2	1000	gasoline	Removed	4/13/73
3	1000	gasoline	Removed	4/13/73
4	1000	gasoline	Removed	4/13/73
5	7500	gasoline	Removed	4/13/73
6	6000	gasoline	Removed	4/13/73
7	unknown	Waste oil	Removed	prior to 4/13/73

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: **Unknown**
Site characterization complete? **YES**
Date approved by oversight agency: **3/13/92**
Monitoring Wells installed? **YES** Number: **Three (3)**
Proper screened interval? **YES**
Highest GW depth below ground surface: **10.62 ft.** Lowest depth: **40.45 ft.**
Flow direction: **South-southeast to northeast(depending on groundwater recharge since the wells were installed in bedrock) .**
Most sensitive current use: **Unknown, currently a vacant lot but land use in the site vicinity is mixed commercial and residential**
Are drinking water wells affected? **NO** Aquifer name: **NA**
Is surface water affected? **NO** Nearest affected SW name: **NA**
Off-site beneficial use impacts (addresses/locations): **NA**
Report(s) on file? **YES** Where is report(s) filed? **Alameda County 1131 Harbor Bay Parkway Alameda, CA 94502-6577**

Leaking Underground Fuel Storage Tank Program

Treatment and Disposal of Affected Material:

Material	Amount (include units)	Action (Treatment of Disposal w/destination)	Date
Tank	4 - 1,000 gal	Unknown	-
	1 - 6,000 gal	Unknown	-
	1 - 7,500 gal	Unknown	-
	1 - waste oil unknown capacity	Unknown	-
Soil	aprox. 500 cu yds	Disposed at Liquid Waste Management McKittrick, CA 93251	3/13/90

III. RELEASE AND SITE CHARACTERIZATION INFORMATION (Continued)

Maximum Documented Contaminant Concentrations - - Before and After Cleanup

Contaminant	Soil (ppm)		Water (ppb)	
	*Before	After	**Before	After
TPH (Gas)	ND<10	-	1,300	ND<0.5
TPH (Diesel)	ND<10	-	ND<500	-
Benzene	ND<0.03	-	59	ND<0.5
Toluene	ND<0.03	-	10	1.1
Xylene	0.13	ND<.005	220	0.90
Ethylbenzene	ND<0.13	-	39	ND<0.5
Oil & Grease	985	150	25,000	ND<5000
Heavy metals	***	-	-	ND<0.05
HVOCs	****	-	-	ND
MTBE	-	-	-	ND

* Soil sample collected from boring S-2 in 1/19/90.
** Hydropunch water sample from HP1.
*** Lead and cadmium was not detected in the soil samples collected from borings B-1 to B-3 at aprox. 20.9 to 30.5 feet bgs however chromium at 130 ppm to 620 ppm, nickel at 60 to 730 ppm and zinc at <20 to 70 ppm were detected. Presence of these metals appear to be at background levels since bedrock was encountered beneath the site.
**** Halogenated volatile organics (specifically chloroform) at 6 ppm was detected in one soil sample collected from boring B-3 at 30.5 feet bgs.

Comments (Depth of Remediation, etc.):

The site located at 5775 Broadway in Oakland was a former Chevron Station. Six underground storage tanks (4-1,000 gallon gasoline, 1-6,000 gallon gasoline and 1-7500 gallon gasoline) were removed from the property in 1973. Permit for the USTs removal was issued by Oakland Fire Dept. A waste oil tank was also removed from the site sometime prior to 1973. The site was later demolished and is now an undeveloped lot.

Leaking Underground Fuel Storage Tank program

The following environmental investigations were performed to evaluate future development of the subject site:

- In 1989, Environmental Systems & Services (ESS) excavated four trenches on site at approximately 7 feet below ground surface (bgs) to locate the presence of tanks and pipings. ESS reported that petroleum hydrocarbon odor and staining were not noted in the soil samples collected from the trenches.

- In January 1990, Riedel Environmental Services (RES) conducted a site assessment utilizing hydropunch and cone penetrometer (CPT) methods. Soil samples collected from the three borings S-1, S-2 and S-3 (figure 2) found low levels of xylene up to 0.13 ppm (S-2). TOG was detected in one boring (S-2) at 985 ppm. TPH gasoline, TPH diesel, benzene, toluene and ethyl benzene were not detected in the soil samples. The grab groundwater sample collected from HP-1 found 25 ppm TOG, 1,300 ppb TPH gasoline, 59 ppb benzene, 10 ppb toluene, 39 ppb ethyl benzene, 220 ppb xylene. It appeared that the contamination was confined to the former waste oil UST and soil excavation was recommended by RES.

- In March, 1990, soil excavation was conducted in the area of the former waste oil UST. The pit was dug to bedrock (8 to 10 feet bgs). Confirmatory soil samples S-4 and S-5 (figure 2) collected at 8 to 9 feet bgs from the sides of the pit along the soil-rock contact showed no detectable levels TPH gasoline, BTEX or TOG.

- In November 1991, six exploratory soil borings B-1 to B-6 (figure 3) were drilled to bedrock at depths ranging from 6 feet to 17.5 feet. Borings B-1 and B-3 were drilled near the south side of the former station building, B-2 in the area of the former hoist, B-4 located east of the former building, and B-5 & B-6 located in the former UST excavation areas. Soil samples collected from the borings found no detectable concentration of TPH gasoline, TPH diesel, benzene, toluene, ethyl benzene and xylenes. TOG was detected at very low concentrations in three borings: B1 at 9-10 ft. depth had 17 ppm TOG, B-3 at 2-2.5 ft. depth had 14 ppm TOG and B-6 at 7.5 to 8 ft. depth had 150 ppm TOG. Additional excavation of contaminated soil to bedrock was performed in 11/91 and 12/91 in pits B-1, B-2, B-3 & B-6. Only 1 confirmation soil sample collected from pit B-2 at 5 ft. depth detected TOG at 15 ppm. For most cases, soil samples could not be collected since bedrock was encountered. Contaminated soil was removed to the extent possible.

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? **Unknown**
Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? **Unknown**
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 decommissioned: **No, will decommission pending case closure**
Number Decommissioned: **None** Number Retained: **Three (3)**
List enforcement actions taken: **NA**
List enforcement actions rescinded: **NA**

V. LOCAL AGENCY REPRESENTATIVE DATA

Name: **Susan L. Hugo** Title: **Sr. Hazardous Materials Specialist**

Signature: Susan L. Hugo Date: 1/22/96

Reviewed by

Name: **Eva Chu** Title: **Hazardous Materials Specialist**

Signature: Eva Chu Date: 1/26/96

Name: **Barney Chan** Title: **Hazardous Materials Specialist**

Signature: Barney Chan Date: 1/26/96

VI. RWQCB NOTIFICATION

Date Submitted to RB: 1/29/96 RB Response: Approved

RWQCB Staff Name: Kevin Graves Title: Water Resources Control Engineer

Date: 2/7/96

VII. ADDITIONAL COMMENTS, DATA, ETC.

In August, 1992, three groundwater monitoring wells (MW-1 to MW-3) were installed at the site. Monitoring well MW-1 was installed southwest of the former waste oil tank, MW-2 and MW-3 were installed near the property boundary along Broadway Street. All the three wells were placed selectively on those locations due to the proposed condominium development at the subject site.

During the installation of the three wells, fractured bedrock was encountered in boring B-1 at 25 feet to 43 feet depth (total depth of the

boring). Boring B-2 encountered weathered bedrock at 10.5 feet to 38 feet depth (bottom of the boring). Boring B-3 encountered mudstone which extended from the surface to the total depth of the boring (43 feet) with local lenses of sandy clay to clayey gravel. Groundwater was first encountered at 41 feet depth in boring B-1 and at 27 feet depth in boring B-2. No groundwater was encountered in boring B-3. However, on November 10, 1992, groundwater was present in MW-3 at 33 feet depth and may be due to seepage through bedrock fractures. An off-site well (S-3) at Shell Service Station located at 5755 Broadway Street and adjacent to the subject site was used to evaluate ground water gradient.

Monitoring wells MW-1 and MW-2 did not detected any TPH gasoline, BTEX, TOG and HVO during the first sampling event. However, monitoring well MW-3 detected low levels of TPH gasoline (53 ppb), benzene (1.7 ppb), toluene (0.6 ppb) and xylene (0.8 ppb). Subsequent sampling of the three wells found the following:

MW-1 - TPH gasoline (60 ppb) was detected during one sampling event (8/94). Benzene (up to 4.0 ppb), toluene (up to 7.9 ppb), ethyl benzene (up to 3.2 ppb), and xylene (up to 15 ppb) were detected in the well. During the last four sampling events (11/94 to 11/95), TPH gasoline, BTEX and TOG were not detected.

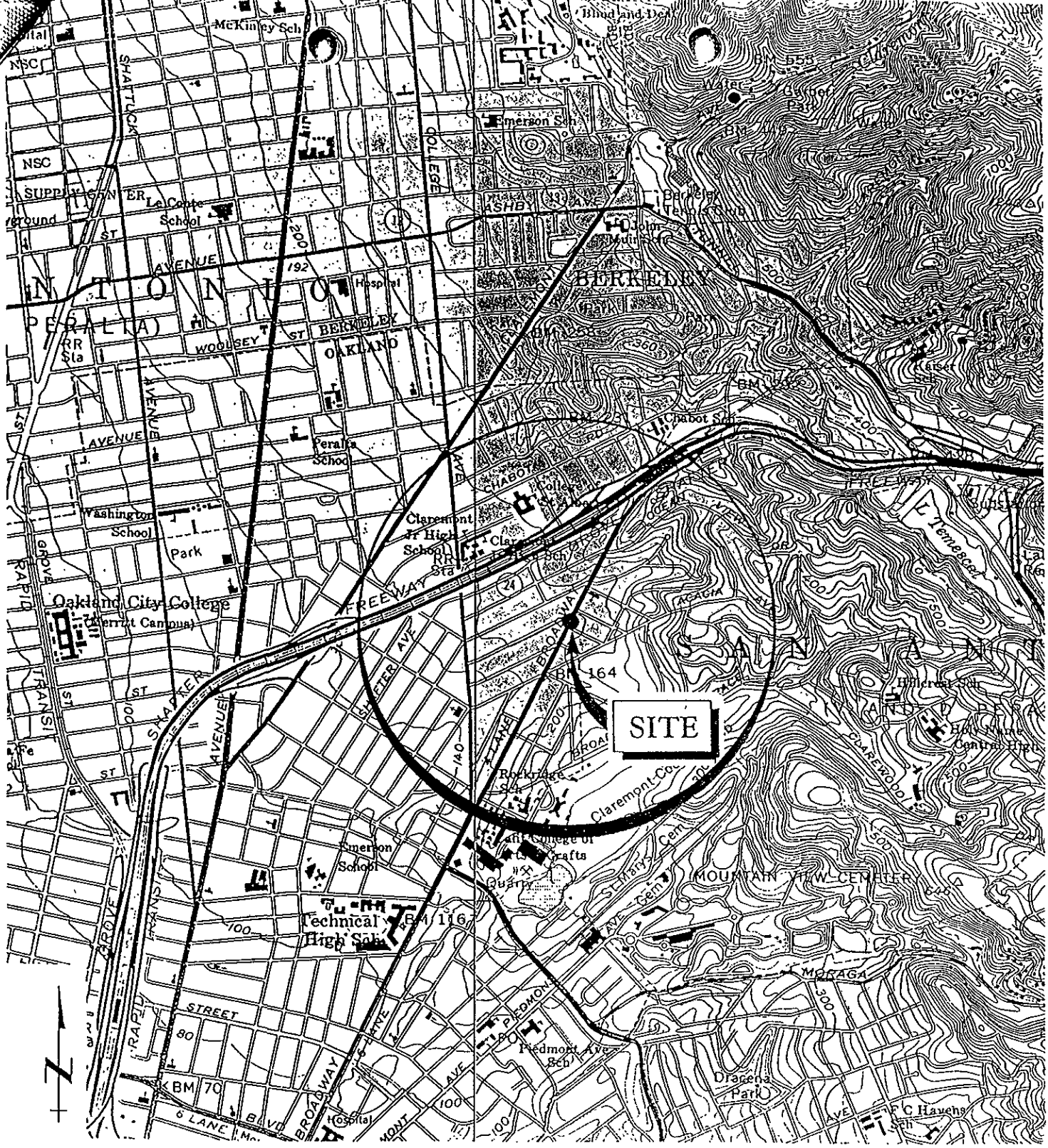
MW-2 - TPH gasoline (87 ppb) was detected during one sampling event (8/93). Benzene (up to 3 ppb), toluene (up to 5 ppb), ethyl benzene (up to 2.8 ppb), and xylene (up to 11 ppb) were detected in the well. The last four sampling events showed non detect level for TPH gasoline, benzene, ethyl benzene and TOG. Toluene and xylene had been non detect during the last two sampling events (8/94 to 11/94).

MW-3 - TPH gasoline (up to 85 ppb), benzene (up to 7 ppb), toluene (up to 13 ppb), ethyl benzene (up to 5 ppb), and xylene (up to 23 ppb) were detected in the well. The last four sampling events showed non detect level for TPH gasoline, BTEX and TOG.

MTBE was analyzed one time during the last sampling on 11/28/94 and was not detected in the three wells.

Very low levels of contaminants in soil and groundwater were detected at the site. The oil and grease affected soil was excavated and aggressive source removal has been conducted. In addition, all the target analytes (TPH gasoline, BTEX and TOG) were not detected in the three wells during the last two sampling events.

Based on all the data submitted to this agency, it appears that the subject site does not pose a threat to the public health and the environment. Therefore, no further work is required regarding the former seven underground storage tanks removed from the site.



8/92

EXPLANATION

Site Location Map

Former Chevron Service Station #9-3575
5775 Broadway
Oakland, California

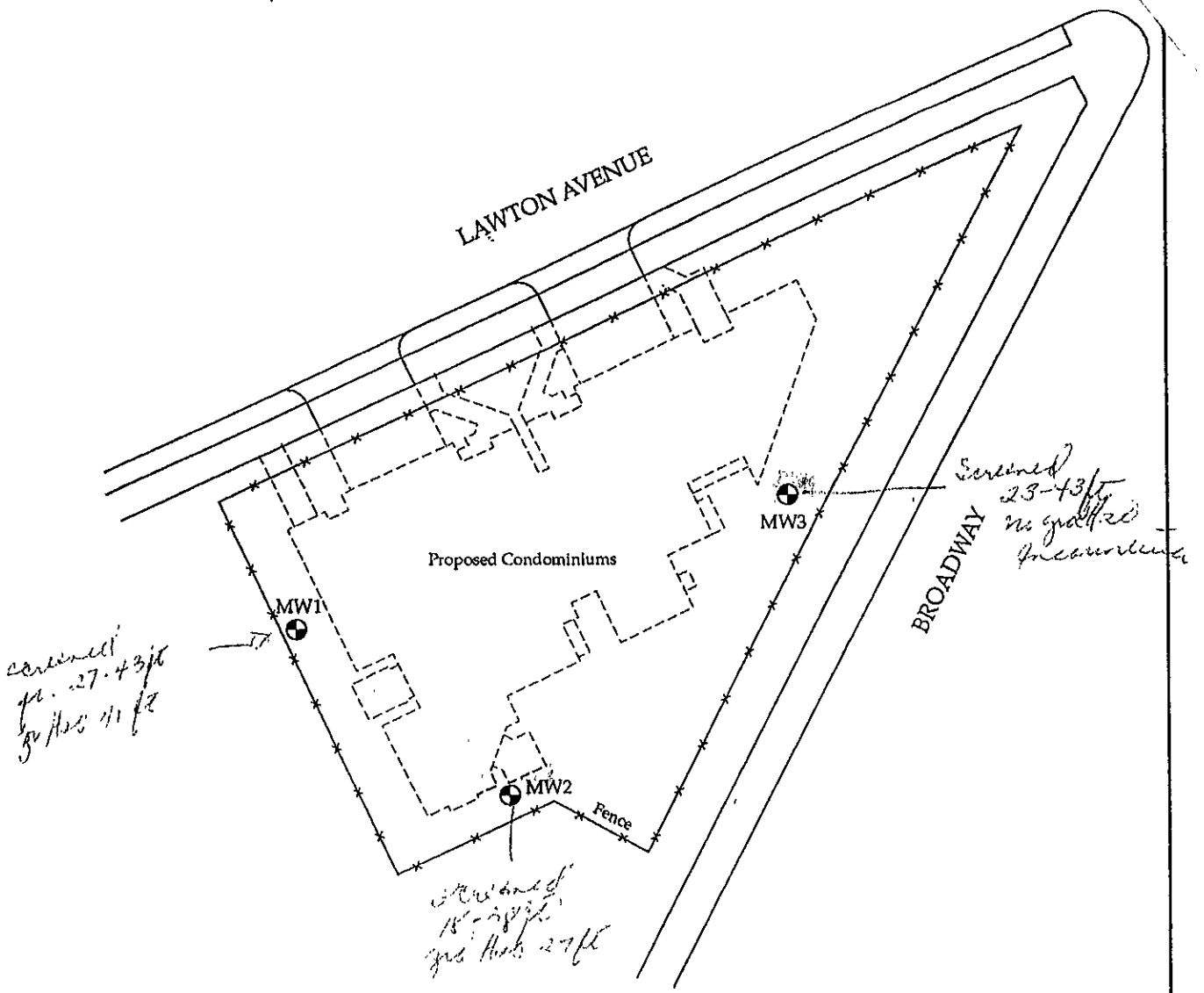
PLATE

1

Map reference: USGS Topographic Map, 7.5 minute series, Oakland East, Calif. and Oakland West, Calif. quadrangles, 1980

RESNA

17046.01



SHELL 3

0 30' 60' 90'

N

Map Source: site map by Riedel Environmental Services, Inc. and well locations survey by Moldenhauer Engineering Company

12 / 92

EXPLANATION

MW-3 Monitor Well location (RESNA, November 1992)

SHELL 3 Off-site monitoring well (Weiss Associates)

Site Map

Former Chevron Service Station #9-3575
5775 Broadway
Oakland, California

PLATE

2

Map Source: site map by Riedel Environmental Services, Inc. and well locations survey by Moldenhauer Engineering Company

RESNA

17046.01

RESNA
Working To Restore Nature

Table 1

SOIL ANALYTICAL RESULTS
Chevron Service Station No. 9-3575
5775 Broadway
Oakland, California

Analyte	B-1 20.9	B-2 22.8	B-3 30.5	A,B,C,D
TPHg	<1	<1	<1	<1
TPHd	<1	<1	[illegible]	9
Benzene	<0.005	<0.005	<0.005	<0.005
Toluene	<0.005	<0.005	<0.005	<0.005
Ethylbenzene	<0.005	<0.005	<0.005	<0.005
Xylenes	<0.005	<0.005	<0.005	<0.005
TOG	<50	<50	<50	<50
HVO	ND	ND	6*	NA
Cadmium	<1	<1	<1	NA
Chromium	130	160	620	NA
Zinc	<20	<20	70	NA
Lead	<5	<5	<5	NA
Nickel	60	190	730	NA

Notes:

All results in parts per million (ppm)

TPHg = Total Petroleum Hydrocarbons as Gasoline.
TPHd = Total Petroleum Hydrocarbons as Diesel.
TOG = Total Oil and Grease
HVO = Halogenated Volatile Organics.
* = Chloroform
ND = Not detected; see laboratory analytical reports for detection limits of individual compounds
NA = Not analyzed
< = Less than indicated detection limit established by the laboratory

17046.01

TABLE 1
SUMMARY OF ANALYTICAL RESULTS
FROM PREVIOUS INVESTIGATIONS

	Water (mg/l)	Soil (mg/kg)				
	HP-1	S-1	S-2	S-3	S-4	S-5
Oil and Grease	25	ND	985	ND	ND	ND
Diesel	ND	ND	ND	ND	NA	NA
Gasoline	1.3	ND	ND	ND	NA	NA
Benzene	0.059	ND	ND	ND	ND	ND
Toluene	0.010	ND	ND	ND	ND	ND
Ethylbenzene	0.039	ND	ND	ND	ND	ND
Xylene	0.22	0.064	0.13	0.05	ND	ND

mg/l= milligrams per liter or parts per million
mg/kg= milligrams per kilogram or parts per million
ND = not detected; for detection limits see reports
In Appendix A.

TABLE 2
ANALYTICAL RESULTS FOR SOIL SAMPLES

SAMPLE ID	DATE	TPH-G	TPH-D	BENZENE	TOLUENE	ETHYL BENZENE	XYLENES	O&G
B-1 4.5-5.0'	7 NOV 91	ND	ND	ND	ND	ND	ND	ND
B-1 9.0-10.0'	7 NOV 91	ND	ND	ND	ND	ND	ND	17
B-2 5.0-5.5'	7 NOV 91	ND	ND	ND	ND	ND	ND	140
B-2-10.0-10.5'	7 NOV 91	ND	ND	ND	ND	ND	ND	ND
B-2 14.0-14.5'	7 NOV 91	ND	ND	ND	ND	ND	ND	ND
B-3 2.0-2.5'	7 NOV 91	ND	ND	ND	ND	ND	ND	14
B-4 4.0-4.5'	7 NOV 91	ND	ND	ND	ND	ND	ND	ND
B-4 8.5-9.0'	7 NOV 91	ND	ND	ND	ND	ND	ND	ND
B-5 5.0-5.5'	7 NOV 91	ND	ND	ND	ND	ND	ND	ND
B-5 9.5-10.0'	7 NOV 91	ND	ND	ND	ND	ND	ND	ND
B-5 15.5-16'	7 NOV 91	ND	ND	ND	ND	ND	ND	ND
B-6 4.5-5.0'	7 NOV 91	ND	ND	ND	ND	ND	ND	ND
B-6 7.5-8.0'	7 NOV 91	ND	ND	ND	ND	ND	ND	150
DETECTION LIMIT		1.0	5	.005	.005	.005	.005	10

All results in mg/kg

TABLE 3

ANALYTICAL RESULTS OF CONFIRMATORY SOIL SAMPLES
COLLECTED FROM THE SIDES OF THE EXCAVATION

SAMPLE ID	DEPTH	DATE	TOTAL OIL AND GREASE mg/kg
B-1-A	12	15 NOV 91	ND
B-1-C	11.5	15 NOV 91	ND
B-1-D	10.5	15 NOV 91	ND
B1-BB	11	21 Nov 91	ND
B-2-B	5	15 NOV 91	ND
B-2-F	5	16 DEC 91	ND
B-2-G	5	16 DEC 91	ND
B-2-H	5	16 DEC 91	ND
B-2-J	5	19 DEC 91	15
B-2-K	4	19 DEC 91	ND
B-3-A	2.5	15 NOV 91	ND
B-3-D	3	15 NOV 91	ND
B3-BB	3	21 Nov 91	ND
B3-CC	3	21 Nov 91	ND
DETECTION LIMIT			10

ND Not Detected above the Detection Limit listed

TABLE 4
ANALYTICAL RESULTS OF CONFIRMATORY SOIL SAMPLES
COLLECTED FROM THE BOTTOM OF THE EXCAVATION

Sample ID	Depth ft	Date	Total O&G mg/kg
B-2	10	11/7/91	ND
B-2-J	13	12/19/91	15
B-2-M	7	2/6/92	ND
B-2-N	15	2/6/92	ND
Detection limit			10

ND= not detected above detection limit listed

Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet. Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	TOG	HVOCs	Metals	MTBE
MW-1													
11/10/92	189.13	173.60	15.53	--	<50	<0.5	<0.5	<0.5	<0.5	<5000	ND	--	--
12/18/92	189.13	175.46	13.67	--	--	--	--	--	--	--	--	--	--
01/20/93	189.13	178.20	10.93	--	--	--	--	--	--	--	--	--	--
02/16/93	189.13	176.50	12.63	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--
03/16/93	189.13	176.35	12.78	--	--	--	--	--	--	--	--	--	--
03/30/93	189.13	177.55	11.58	--	--	--	--	--	--	--	--	<0.05-<0.10	--
04/29/93	189.13	175.96	13.17	--	--	--	--	--	--	--	--	--	--
05/21/93	189.13	175.04	14.09	--	<50	0.7	2.0	<0.5	2.0	--	--	--	--
06/07/93	189.13	175.09	14.04	--	--	--	--	--	--	--	--	--	--
07/14/93	189.13	174.69	14.44	--	--	--	--	--	--	--	--	--	--
08/03/93	189.13	173.19	15.94	--	<50	1.0	2.0	<0.5	4.0	--	--	--	--
09/02/93	189.13	173.88	15.25	--	--	--	--	--	--	--	--	--	--
09/28/93	189.13	--	--	--	--	--	--	--	--	<5000	--	--	--
10/11/93	189.13	163.19	25.94	--	--	--	--	--	--	--	--	--	--
11/02/93	189.13	173.32	15.81	--	<50	4.0	7.0	3.0	11	<5000	--	--	--
12/06/93	189.13	165.13	24.00	--	--	--	--	--	--	--	--	--	--
01/10/94	189.13	171.90	17.23	--	--	--	--	--	--	--	--	--	--
02/01/94	189.13	174.22	14.91	--	<50	<0.5	<0.5	<0.5	1.0	<5000	--	--	--
03/02/94	189.13	176.97	12.16	--	--	--	--	--	--	--	--	--	--
04/06/94	189.13	175.25	13.88	--	--	--	--	--	--	--	--	--	--
05/04/94	189.13	175.79	13.34	--	<50	<0.5	<0.5	<0.5	<0.5	<5000	--	--	--
06/03/94	189.13	175.45	13.68	--	--	--	--	--	--	--	--	--	--
07/11/94	189.13	174.70	14.43	--	--	--	--	--	--	--	--	--	--
08/03/94	189.13	174.63	14.50	--	60	3.3	7.9	3.2	15	<5000	--	--	--
09/07/94	189.13	174.13	15.00	--	--	--	--	--	--	--	--	--	--
10/12/94	189.13	173.62	15.51	--	--	--	--	--	--	--	--	--	--
11/03/94	189.13	173.54	15.59	--	<50	<0.5	<0.5	<0.5	<0.5	<5000	--	--	--
03/23/95	189.13	178.51	10.62	--	--	--	--	--	--	--	--	--	--
04/13/95	189.13	177.31	11.82	--	--	--	--	--	--	--	--	--	--
05/02/95	189.13	177.04	12.09	--	<50	<0.5	<0.5	<0.5	<0.5	<5000	--	--	--
06/29/95	189.13	175.68	13.45	--	--	--	--	--	--	--	--	--	--
07/06/95	189.13	175.53	13.60	--	--	--	--	--	--	--	--	--	--
08/30/95	189.13	175.15	13.98	--	<50	<0.5	<0.5	<0.5	<0.5	<5000	--	--	--
09/25/95	189.13	175.11	14.02	--	--	--	--	--	--	--	--	--	--
10/11/95	189.13	174.81	14.32	--	--	--	--	--	--	--	--	--	--
11/28/95	189.13	174.62	14.51	--	<50	<0.5	<0.5	<0.5	<0.5	<5000	--	--	<2.5

Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet. Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	TOG	HVOCs	Metals	MTBE
MW-2													
11/10/92	189.82	172.96	16.86	--	<50	<0.5	<0.5	<0.5	<0.5	<5000	ND	--	--
12/18/92	189.82	175.91	13.91	--	--	--	--	--	--	--	--	--	--
01/20/93	189.82	177.37	10.93	--	--	--	--	--	--	--	--	--	--
02/16/93	189.82	175.25	14.57	--	<50	<0.5	0.7	<0.5	0.9	--	--	--	--
03/16/93	189.82	175.10	14.72	--	--	--	--	--	--	--	--	--	--
03/30/93	189.82	176.84	12.98	--	--	--	--	--	--	--	--	-- P87-<0.10	--
04/29/93	189.82	175.05	14.77	--	--	--	--	--	--	--	--	--	--
05/21/93	189.82	174.23	15.59	--	<50	0.6	2.0	<0.5	2.0	--	--	--	--
06/07/93	189.82	174.37	15.45	--	--	--	--	--	--	--	--	--	--
07/14/93	189.82	174.03	15.79	--	--	--	--	--	--	--	--	--	--
08/03/93	189.82	173.37	16.45	--	87	2.0	5.0	0.8	5.0	--	--	--	--
09/02/93	189.82	173.25	16.57	--	--	--	--	--	--	--	--	--	--
09/28/93	189.82	--	--	--	--	--	--	--	--	<5000	--	--	--
10/11/93	189.82	172.56	17.26	--	--	--	--	--	--	--	--	--	--
11/02/93	189.82	172.77	17.05	--	<50	3.0	5.0	2.0	9.0	<5000	--	--	--
12/06/93	189.82	173.48	16.34	--	--	--	--	--	--	--	--	--	--
01/10/94	189.82	174.21	15.61	--	--	--	--	--	--	--	--	--	--
02/01/94	189.82	174.76	15.06	--	<50	<0.5	<0.5	<0.5	1.0	<5000	--	--	--
03/02/94	189.82	175.95	13.87	--	--	--	--	--	--	--	--	--	--
04/06/94	189.82	174.40	15.42	--	--	--	--	--	--	--	--	--	--
05/04/94	189.82	175.08	14.74	--	<50	<0.5	<0.5	<0.5	<0.5	<5000	--	--	--
06/03/94	189.82	174.70	15.12	--	--	--	--	--	--	--	--	--	--
07/11/94	189.82	174.16	15.66	--	--	--	--	--	--	--	--	--	--
08/03/94	189.82	174.30	15.52	--	<50	2.1	5.5	2.2	11	<5000	--	--	--
09/07/94	189.82	173.72	16.10	--	--	--	--	--	--	--	--	--	--
10/12/94	189.82	173.09	16.73	--	--	--	--	--	--	--	--	--	--
11/03/94	189.82	172.93	16.89	--	<50	<0.5	<0.5	<0.5	<0.5	<5000	--	--	--
03/23/95	189.82	177.46	12.36	--	--	--	--	--	--	--	--	--	--
04/13/95	189.82	174.99	14.83	--	--	--	--	--	--	--	--	--	--
05/02/95	189.82	176.61	13.21	--	<50	<0.5	1.1	<0.5	0.90	<5000	--	--	--
06/29/95	189.82	175.33	14.49	--	--	--	--	--	--	--	--	--	--
07/06/95	189.82	175.10	14.72	--	--	--	--	--	--	--	--	--	--
08/30/95	189.82	174.72	15.10	--	<50	<0.5	<0.5	<0.5	<0.5	<5000	--	--	--
09/25/95	189.82	174.73	15.09	--	--	--	--	--	--	--	--	--	--
10/11/95	189.82	174.39	15.43	--	--	--	--	--	--	--	--	--	--
11/28/95	189.82	173.48	16.34	--	<50	<0.5	<0.5	<0.5	<0.5	<5000	--	--	<2.5

Cumulative Table of Well Data and Analytical Results

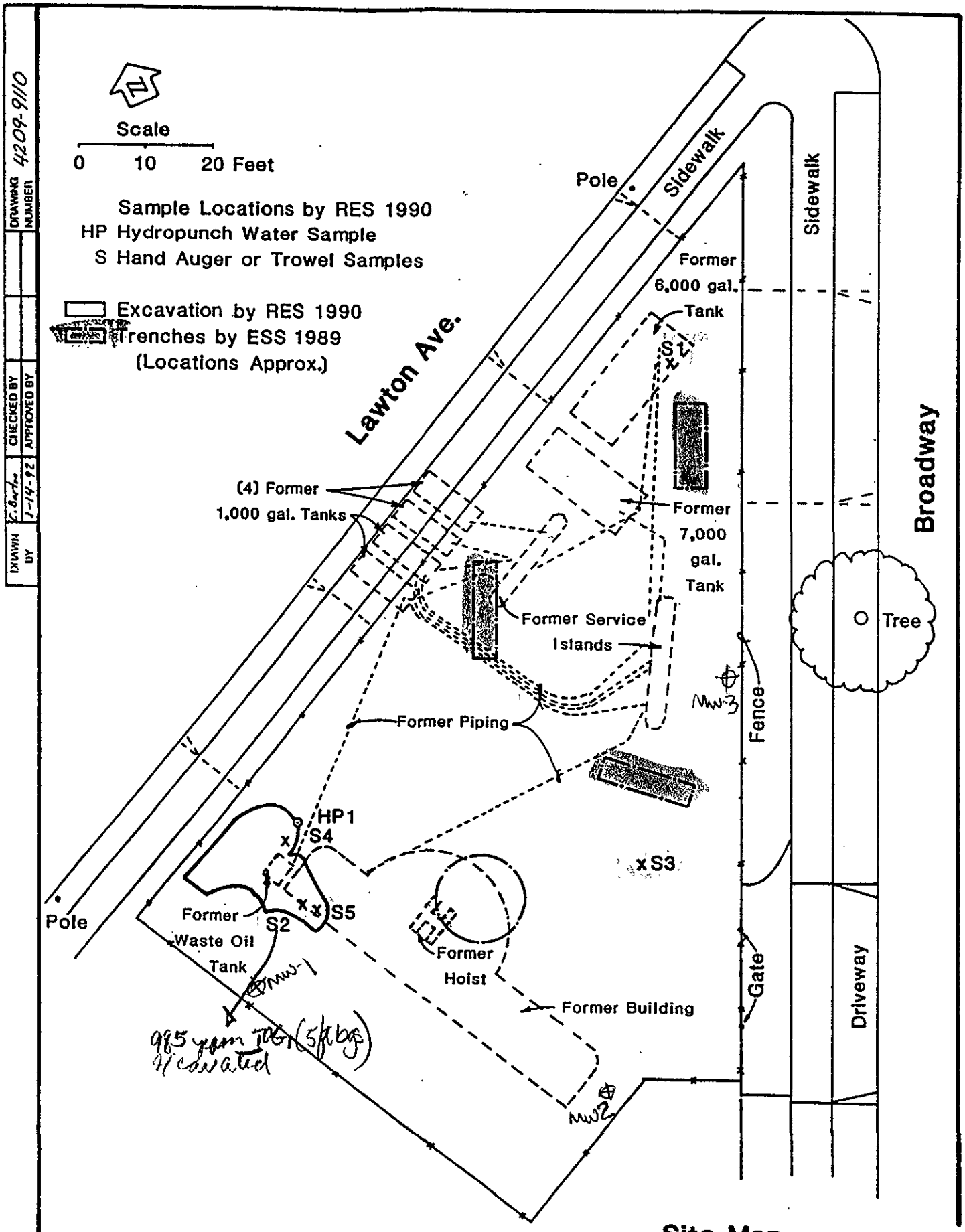
Vertical Measurements are in feet. Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	TOG	HVOCs	Metals	MTBE
MW-3													
11/10/92	189.05	155.68	33.37	--	53	1.7	0.6	<0.5	0.8	<5000	ND	--	--
11/25/92	189.05	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5000	--	--	--
12/18/92	189.05	148.60	40.45	--	--	--	--	--	--	--	--	--	--
01/20/93	189.05	155.32	33.73	--	--	--	--	--	--	--	--	--	--
02/16/93	189.05	160.71	28.34	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--
03/16/93	189.05	158.94	30.11	--	--	--	--	--	--	--	--	--	--
03/30/93	189.05	161.40	27.65	--	--	--	--	--	--	--	--	<0.05-<0.10	--
04/29/93	189.05	167.02	22.03	--	--	--	--	--	--	--	--	--	--
05/21/93	189.05	170.37	18.68	--	<50	0.7	<0.5	<0.5	0.5	--	--	--	--
06/07/93	189.05	163.45	25.60	--	--	--	--	--	--	--	--	--	--
07/14/93	189.05	159.60	29.45	--	--	--	--	--	--	--	--	--	--
08/03/93	189.05	160.12	28.93	--	65	1.0	2.0	0.6	6.0	--	--	--	--
09/02/93	189.05	153.75	35.30	--	--	--	--	--	--	--	--	--	--
09/28/93	189.05	--	--	--	--	--	--	--	--	<5000	--	--	--
10/11/93	189.05	150.15	38.90	--	--	--	--	--	--	--	--	--	--
11/02/93	189.05	153.25	35.80	--	85	7.0	13	5.0	23	<5000	--	--	--
12/06/93	189.05	153.32	35.73	--	--	--	--	--	--	--	--	--	--
01/10/94	189.05	158.45	30.60	--	--	--	--	--	--	--	--	--	--
02/01/94	189.05	161.35	27.70	--	<50	<0.5	0.5	<0.5	2.0	<5000	--	--	--
03/02/94	189.05	155.30	33.75	--	--	--	--	--	--	--	--	--	--
04/06/94	189.05	161.85	27.20	--	--	--	--	--	--	--	--	--	--
05/04/94	189.05	166.79	22.26	--	<50	<0.5	<0.5	<0.5	<0.5	<5000	--	--	--
06/03/94	189.05	166.83	22.22	--	--	--	--	--	--	--	--	--	--
07/11/94	189.05	171.79	17.26	--	--	--	--	--	--	--	--	--	--
08/03/94	189.05	173.55	15.50	--	<50	3.4	6.6	2.2	11	<5000	--	--	--
09/07/94	189.05	158.75	30.30	--	--	--	--	--	--	--	--	--	--
10/12/94	189.05	162.75	26.30	--	--	--	--	--	--	--	--	--	--
11/03/94	189.05	166.03	23.02	--	<50	<0.5	<0.5	<0.5	<0.5	<5000	--	--	--
03/23/95	189.05	156.55	32.50	--	--	--	--	--	--	--	--	--	--
04/13/95	189.05	159.48	29.57	--	--	--	--	--	--	--	--	--	--
05/02/95	189.05	162.25	26.80	--	<50	<0.5	<0.5	<0.5	<0.5	<5000	--	--	--
06/29/95	189.05	163.62	25.43	--	--	--	--	--	--	--	--	--	--
07/06/95	189.05	164.67	24.38	--	--	--	--	--	--	--	--	--	--
08/30/95	189.05	172.13	16.92	--	<50	<0.5	<0.5	<0.5	<0.5	<5000	--	--	--
09/25/95	189.05	168.47	20.58	--	--	--	--	--	--	--	--	--	--
10/11/95	189.05	170.65	18.40	--	--	--	--	--	--	--	--	--	--
11/28/95	189.05	173.82	15.23	--	<50	<0.5	<0.5	<0.5	<0.5	<5000	--	--	<2.5

Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet. Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	TOG	HVOCs	Metals	MTBE
S-3													
11/10/92	177.51	173.09	4.42	--	--	--	--	--	--	--	--	--	--
12/18/92	177.51	175.23	2.28	--	--	--	--	--	--	--	--	--	--
01/20/93	177.51	174.77	2.74	--	--	--	--	--	--	--	--	--	--
02/16/93	177.51	174.96	2.55	--	--	--	--	--	--	--	--	--	--
03/16/93	177.51	174.98	2.53	--	--	--	--	--	--	--	--	--	--
03/30/93	177.51	176.38	1.13	--	--	--	--	--	--	--	--	--	--
04/29/93	177.51	175.39	2.12	--	--	--	--	--	--	--	--	--	--
05/21/93	177.51	174.57	2.94	--	--	--	--	--	--	--	--	--	--
06/07/93	177.51	169.61	7.90	--	--	--	--	--	--	--	--	--	--
07/14/93	177.51	--	--	--	--	--	--	--	--	--	--	--	--
08/03/93	177.51	173.81	3.70	--	--	--	--	--	--	--	--	--	--
09/02/93	177.51	--	--	--	--	--	--	--	--	--	--	--	--
10/11/93	177.51	--	--	--	--	--	--	--	--	--	--	--	--
11/02/93	177.51	--	--	--	--	--	--	--	--	--	--	--	--
12/06/93	177.51	--	--	--	--	--	--	--	--	--	--	--	--
01/10/94	177.51	--	--	--	--	--	--	--	--	--	--	--	--
02/01/94	177.51	174.61	2.90	--	--	--	--	--	--	--	--	--	--
03/02/94	177.51	--	--	--	--	--	--	--	--	--	--	--	--
04/06/94	177.51	--	--	--	--	--	--	--	--	--	--	--	--
05/04/94	177.51	174.97	2.54	--	--	--	--	--	--	--	--	--	--
06/03/94	177.51	--	--	--	--	--	--	--	--	--	--	--	--
07/11/94	177.51	--	--	--	--	--	--	--	--	--	--	--	--
08/03/94	177.51	--	--	--	--	--	--	--	--	--	--	--	--
09/07/94	177.51	--	--	--	--	--	--	--	--	--	--	--	--
10/07/94	177.51	--	--	--	--	--	--	--	--	--	--	--	--
11/03/94	177.51	--	--	--	--	--	--	--	--	--	--	--	--

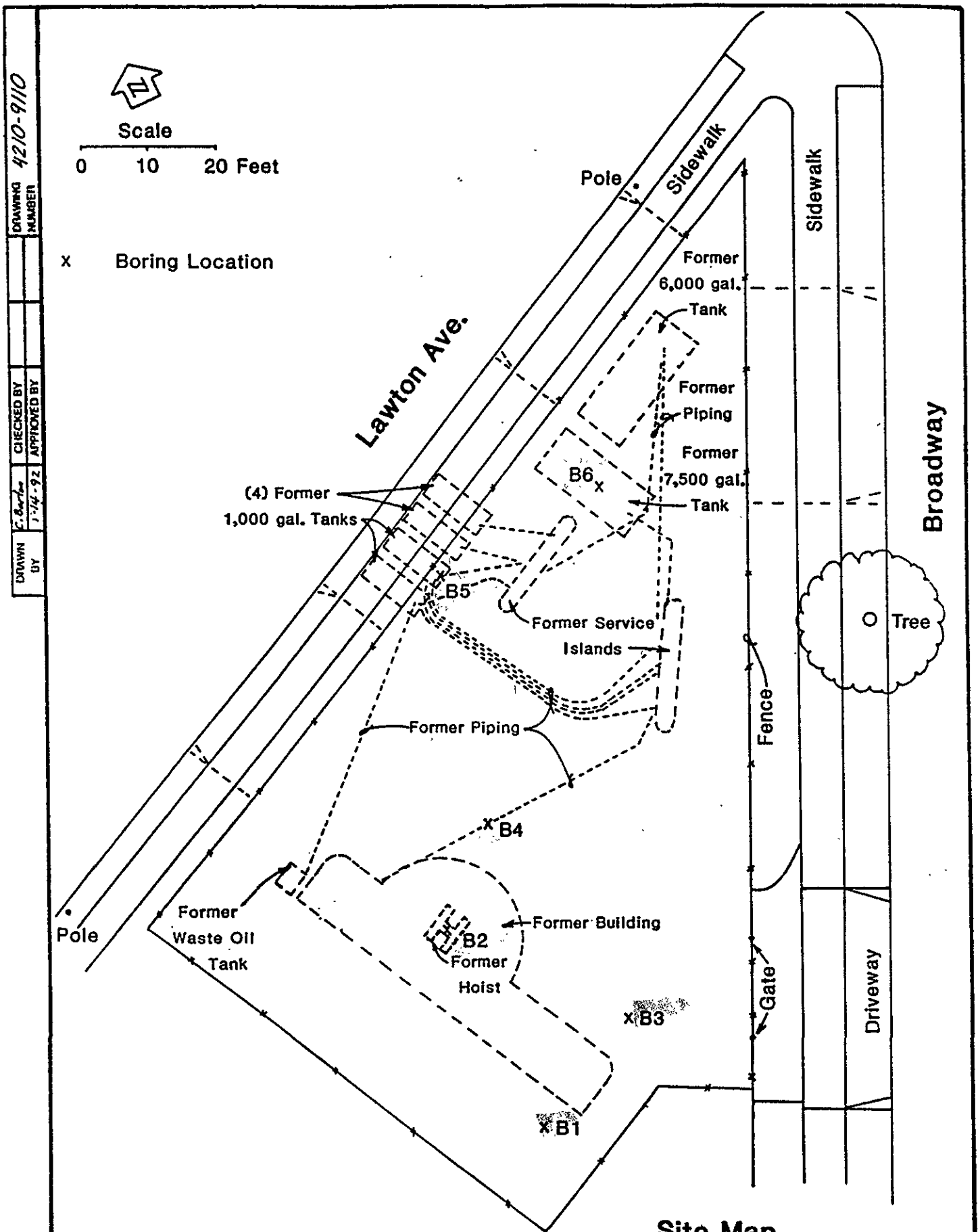


DRAWING NUMBER 4209-9110
DRAWN BY
CHECKED BY
APPROVED BY
C. Burton 7-14-92

RIEDEL ENVIRONMENTAL SERVICES, INC. Richmond, California

Site Map
with Previous Excavations and Sample Locations

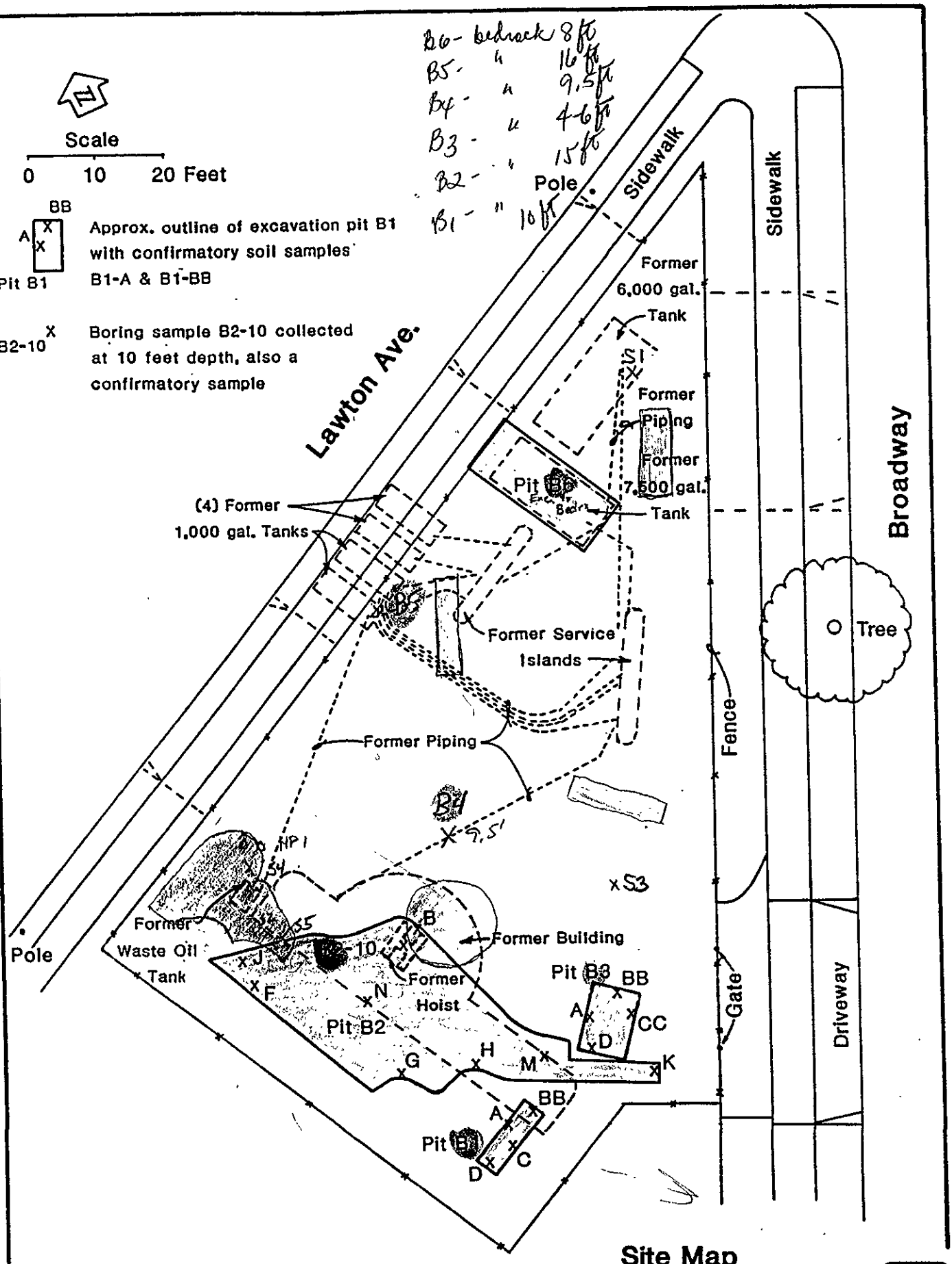
FIGURE 2



Site Map
with Soil Boring Locations and Former Service Station Structures

RIEDEL ENVIRONMENTAL SERVICES, INC. Richmond, California

FIGURE 3



Site Map
with Soil Excavation and Confirmatory Sample Locations

RIEDEL ENVIRONMENTAL SERVICES, INC. Richmond, California

FIGURE 4

Log of Exploratory Boring B-1

Project No. 4209-9110

Project Name California Pacific Investments

Date 11-7-91

Logged By Jim Rohrer

Pocket Penetrometer (TSF)	Blows/Foot	Groundwater Levels	Samples	Depth in Ft.	Lithographic Column	Description
2.0				1–2	CL	CLAY: black (2.5Y, 2/0); damp; stiff; 5–15% very fine sand.
	38			3–10	CL	SANDY CLAY: light olive brown (2.5Y, 5/4); dry to damp; stiff; 20–30% fine sand.
3.75	28					SANDY CLAY: olive (5Y, 4/3); damp; very stiff; coarse gravel of weathered sandy claystone in shoe.
	50					
	23					
	58			10–13		Weathered sandy claystone; very dense; brittle; bedrock.
	91					*Bottom of boring 13 feet.*
				14–23		

Log of Exploratory Boring B-2

Project No. 4209-9110

Project Name California Pacific Investments

Date 11-7-91

Logged By Jim Rohrer

Pocket Penetrometer (TSF)	Blows/Foot	Groundwater Levels	Samples	Depth in Ft.	Lithographic Column		Description
				1		SW	GRAVELLY SAND: reddish yellow (7.5YR, 7/6); dry; loose; asphalt pieces.
				2			CLAY: black (2.5Y, 2/0); dry to damp; stiff; 5-15% very fine sand.
	18			3		CL	
	33			4			
				5			
				6			@ 6': serpentinite (?) fragments with black Mn (?) stain.
	47			7			CLAYEY SAND: black (2.5Y, 2/0); dry; dense; 40-50% fines; 50-60% fine sand.
	55			8			
				9			
	41			10			
				11		SC	
	37			12			
				13			
	41			14			
				15			@ 15': serpentine (?) vein in clayey sandstone.
	53			16			
	59			17			
	74			18			*Bottom of boring 17.5 feet*
				19			
				20			
				21			
				22			
				23			

Log of Exploratory Boring B-3

Project No. 4209-9110

Project Name California Pacific Investments

Date 11-7-91

Logged By Jim Rohrer

Pocket Penetrometer (TSF)	Blows/Foot	Groundwater Levels	Samples	Depth in Ft.	Lithographic Column	Description
				1		1" of asphalt
	73			2	CL	SANDY CLAY: orange brown (5YR, 5/8); damp; stiff; 30-40% fine sand.
				3	SP	SAND: light brown; (7.5 YR, 6/3); dry; loose; 1-10% fines with trace clay; fine sand; from cuttings.
	85			4		Bedrock
	144		NR	5		
				6		*Bottom of boring 6 feet.*
				7		
				8		
				9		
				10		
				11		
				12		
				13		
				14		
				15		
				16		
				17		
				18		
				19		
				20		
				21		
				22		
				23		

Log of Exploratory Boring B-4

Project No. 4208-8110

Project Name California Pacific Investments

Date 11-7-81

Logged By Jim Rohrer

Pocket Penetrometer (TSF)	Blows/ Foot	Groundwater Levels	Samples	Depth in Ft.	Lithographic Column	Description
				1		1" of asphault
				2		CLAY: black (2.5Y, 2/0); damp; very stiff; 1-10% very fine sand.
1.5	22			3	CL	@ 2': 5-15% fine gravel.
	25			4		@ 4.5': serpentinite (?) fragment.
	29			5		CLAYEY SAND: black (2.5Y,2/0); dry; medium dense.
	30			6		
				7	SC	@ 7.5': weathered serpentinite (?) fragments.
	60			8		
	120			9		
				10		serpentinite (?) bedrock. *Bottom of boring 10 feet.*
				11		
				12		
				13		
				14		
				15		
				16		
				17		
				18		
				19		
				20		
				21		
				22		
				23		

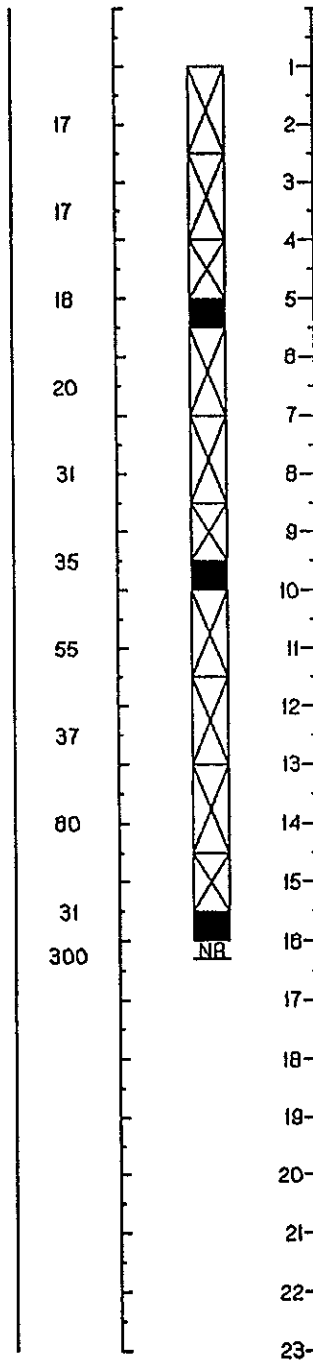
Log of Exploratory Boring B-5

Project No. 4209-9110

Project Name California Pacific Investments

Date 11-7-91

Logged By Jim Rohrer



PID	Lithographic Column	Description
	GP	SANDY GRAVEL: reddish yellow (7.5YR, 7/8); dry; loose; 40–50% fine to medium sand; 50–60% fine angular gravel.
	SP	SAND: olive (5Y, 4/4); dry; medium dense; 5–15% fines; orange brown sand lenses.
	SC	CLAYEY SAND: black (2.5Y, 2/0); dry; medium dense.
	CL/SC	SANDY CLAY/CLAYEY SAND: black (2.5Y, 2/0); dry; medium dense; fine to medium sand lenses to 1.5" diameter. weathered serpentintie (?) fragment in sample
	SC	CLAYEY SAND: black (2.5, 2/0); dry; stiff; 40–50% fines; 50–60% fine sand; minor angular coarse gravel of serpentinite (?).
		bedrock, auger refusal

Bottom of boring 16.2 feet.

Log of Exploratory Boring B-6

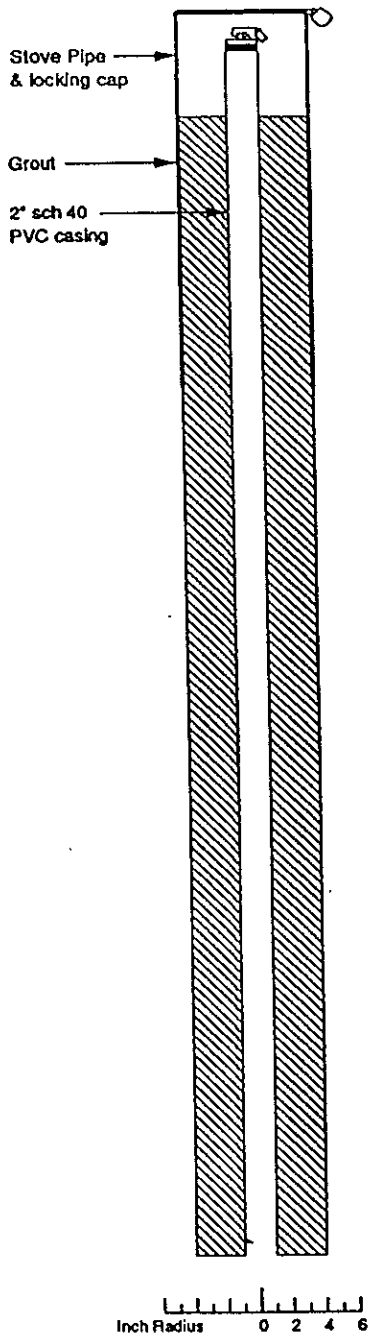
Project No. 4209-9110

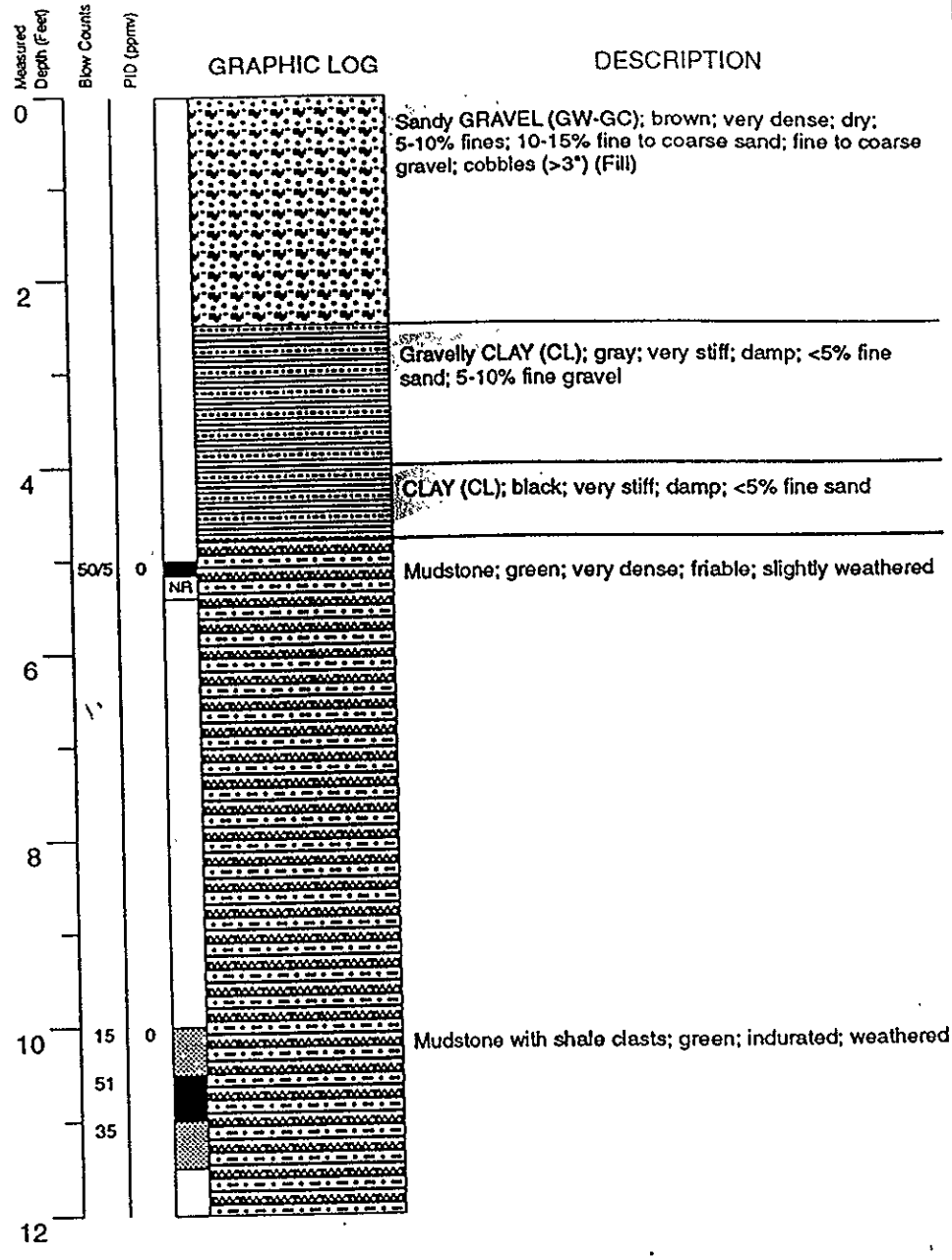
Project Name California Pacific Investments

Date 11-7-91

Logged By Jim Rohrer

Pocket Penetrometer (TSF)	Blows/Foot	Groundwater Levels	Samples	Depth in Ft.	Lithographic Column		Description
				1		GW	SANDY GRAVEL: reddish brown (7.5YR, 7/8); dry loose.
				1			SAND: brown (10YR, 3/2); dry; loose; fine sand; fill.
				2			asphalt chunks
	29			3			SAND: brown (10YR, 3/2); medium dense; traced clay; subangular coarse gravel; cement fragments; sandstone gravel in shoe.
	26			4		SP	
	13			5			color change to olive brown (2.5Y, 4/3); damp; loose; dark brittle clay lense.
	8			6			
	200			7			
				8			bedrock
				9			*Bottom of boring 8.25 feet.*
				10			
				11			
				12			
				13			
				14			
				15			
				16			
				17			
				18			
				19			
				20			
				21			
				22			
				23			





continues

Logged by:	Justin Power	Drilling Company:	Westex	Well Head Completion:	Stove pipe & locking cap
Project Mgr:	Barry Marcus	Drilling Method:	Air Rotary	Type of Sampler:	2" " split barrel
Dates Drilled:	8/20/92–8/21/92	Driller:	Randy	TD (Total Depth):	43.0 ft.

EXPLANATION

- Water level during drilling
- Water level in completed well
- Location of recovered drill sample
- Location of sample sealed for chemical analysis
- Sieve sample
- Grab sample

All symbols and definitions may not be applicable

- Contacts: Solid where certain
- ..... Dotted where approximate
- – – – Dashed where uncertain
- ////// Hachured where gradational
- est K Estimated permeability (hydraulic conductivity) 1K = primary 2K = secondary
- NR No recovery

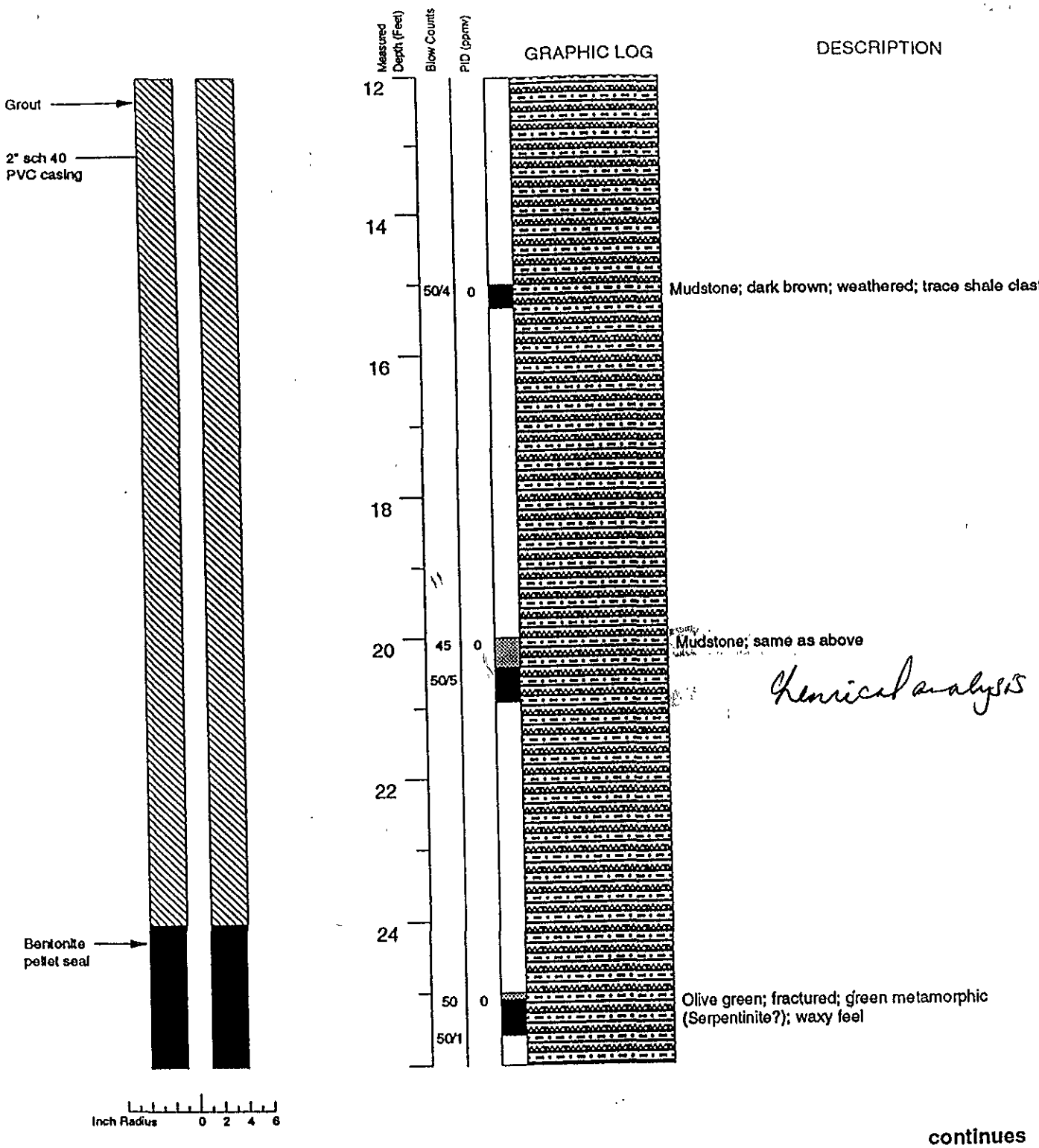
Boring Log
Monitor Well 1 (Boring B-1)

Former Chevron Service Station #9-3575
5775 Broadway
Oakland, California

MONITOR WELL 1

RESNA

17046.01



EXPLANATION

- Water level during drilling
- Water level in completed well
- Location of recovered drill sample
- Location of sample sealed for chemical analysis
- Sieve sample
- Grab sample

All symbols and definitions may not be applicable

- Contacts: Solid where certain
- Dotted where approximate
- Dashed where uncertain
- Hachured where gradational
- est K — Estimated permeability (hydraulic conductivity) 1K = primary 2K = secondary
- NR — No recovery

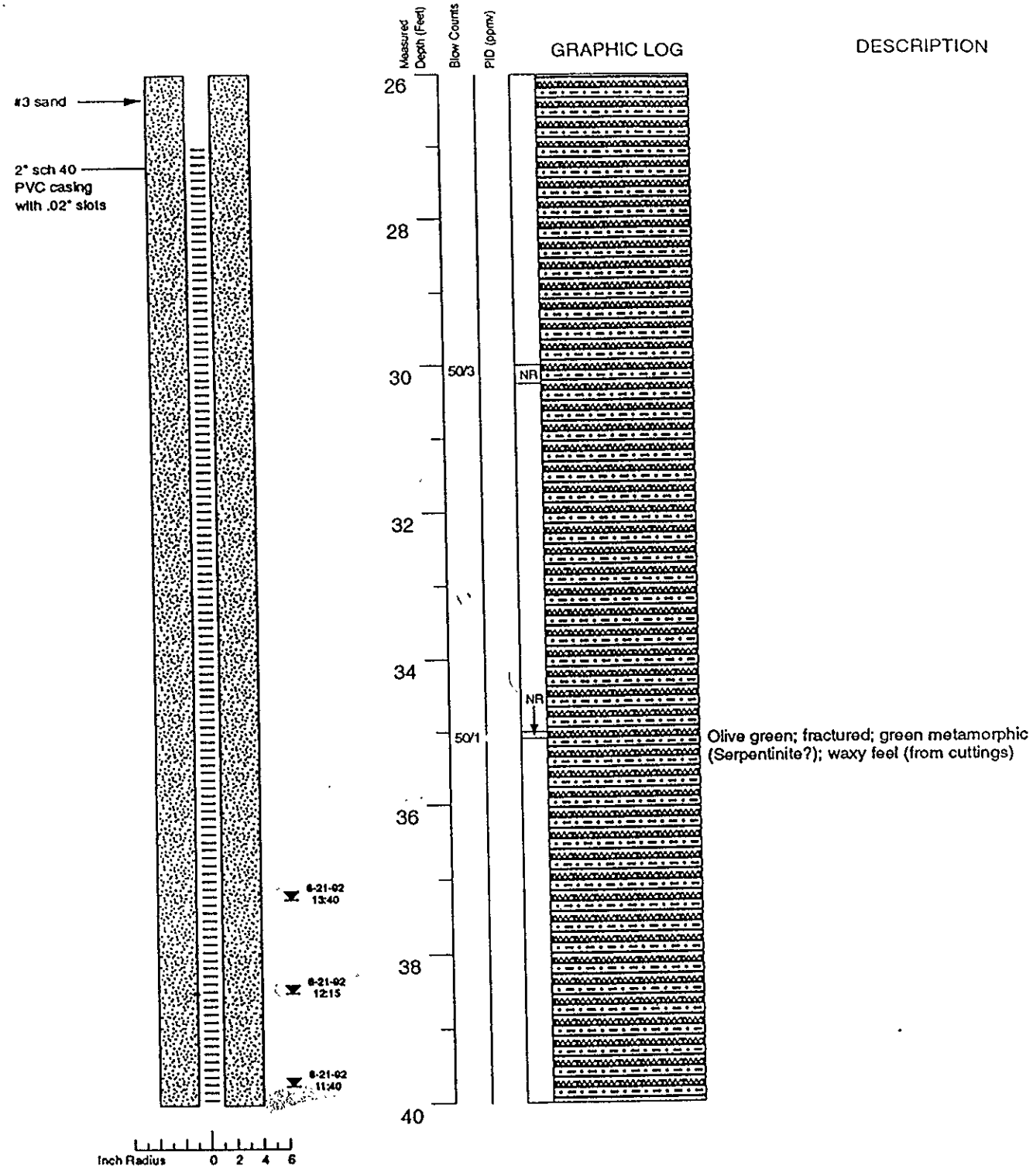
Boring Log
Monitor Well 1 (Boring B-1)

Former Chevron Service Station #9-3575
5775 Broadway
Oakland, California

MONITOR WELL
1

RESNA

17046.01



continues

EXPLANATION

- Water level during drilling
- Water level in completed well
- Location of recovered drill sample
- Location of sample sealed for chemical analysis
- Sieve sample
- Grab sample

All symbols and definitions may not be applicable

- Contacts: Solid where certain
- Dotted where approximate
- Dashed where uncertain
- Hachured where gradational
- est K — Estimated permeability (hydraulic conductivity) 1K = primary 2K = secondary
- NR — No recovery

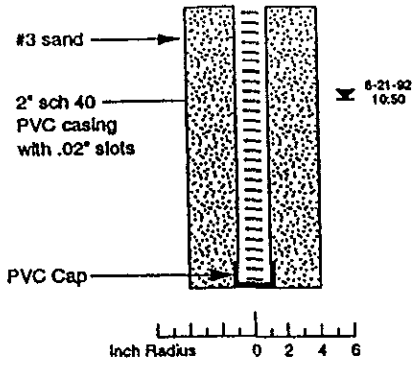
Boring Log
Monitor Well 1 (Boring B-1)

Former Chevron Service Station #9-3575
5775 Broadway
Oakland, California

MONITOR WELL
1

RESNA

17046.01



Measured Depth (Feet)	Blow Counts	PID (ppmv)	GRAPHIC LOG	DESCRIPTION
40				Olive green; fractured; green metamorphic (Serpentinite?); waxy feel (from cuttings)
42				
44				
46				
48				
50				
52				
54				TD @ 43.0 ft.

EXPLANATION

- Water level during drilling
- Water level in completed well
- Location of recovered drill sample
- Location of sample sealed for chemical analysis
- Sieve sample
- Grab sample

Contacts:
- Solid where certain
- Dotted where approximate
- Dashed where uncertain
- Hachured where gradational
- est K — Estimated permeability (hydraulic conductivity) 1K = primary 2K = secondary
- NR — No recovery

All symbols and definitions may not be applicable

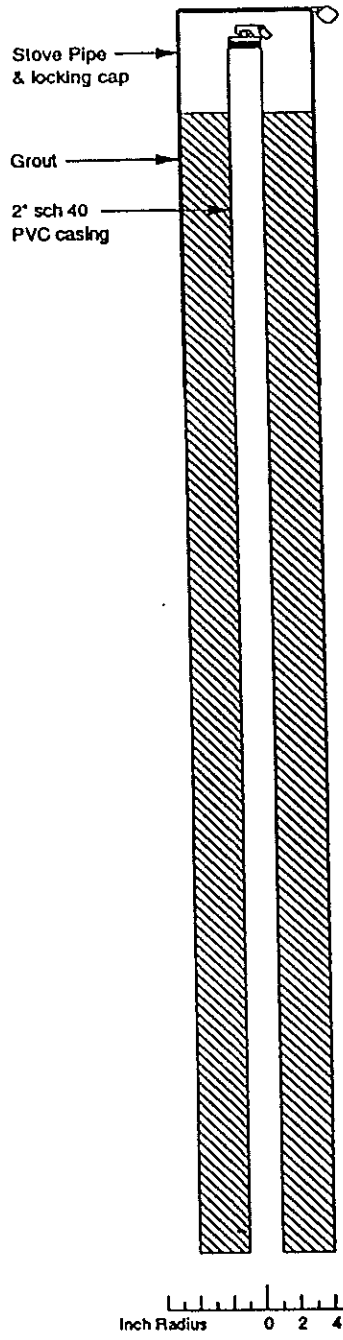
Boring Log
Monitor Well 1 (Boring B-1)

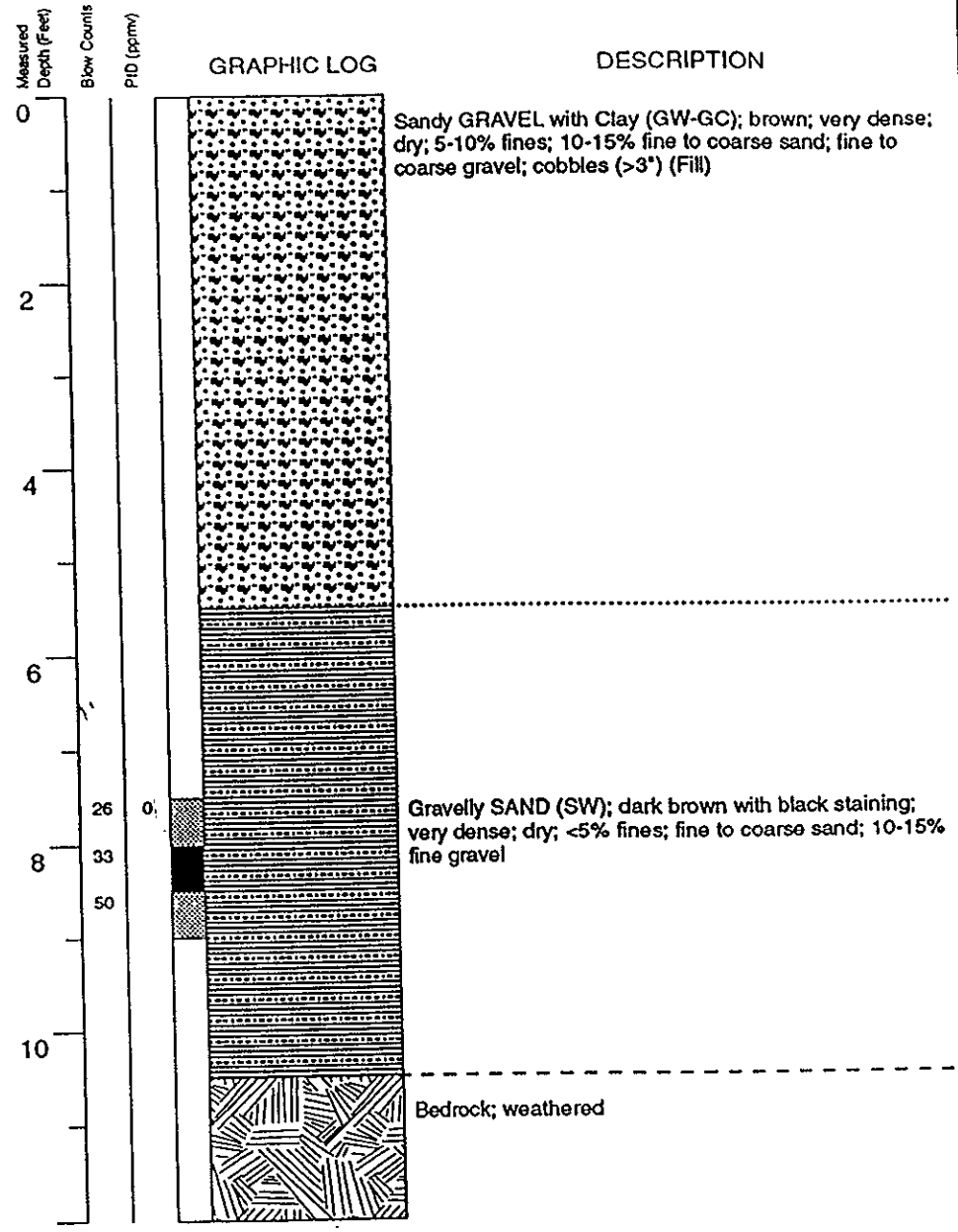
Former Chevron Service Station #9-3575
5775 Broadway
Oakland, California

MONITOR WELL
1

RESNA

17046.01





continues

Logged by:	Justin Power	Drilling Company:	Westex	Well Head Completion:	Stove pipe & locking cap
Project Mgr:	Barry Marcus	Drilling Method:	Air Rotary	Type of Sampler:	2" split barrel
Dates Drilled:	8/20/92-8/22/92	Driller:	Randy	TD (Total Depth):	38.0 ft.

EXPLANATION

- Water level during drilling
- Water level in completed well
- Location of recovered drill sample
- Location of sample sealed for chemical analysis
- Sieve sample
- Grab sample

Contacts:
- Solid where certain
- Dotted where approximate
- Dashed where uncertain
- Hachured where gradational

- est K — Estimated permeability (hydraulic conductivity) 1K = primary 2K = secondary
- NR — No recovery

All symbols and definitions may not be applicable

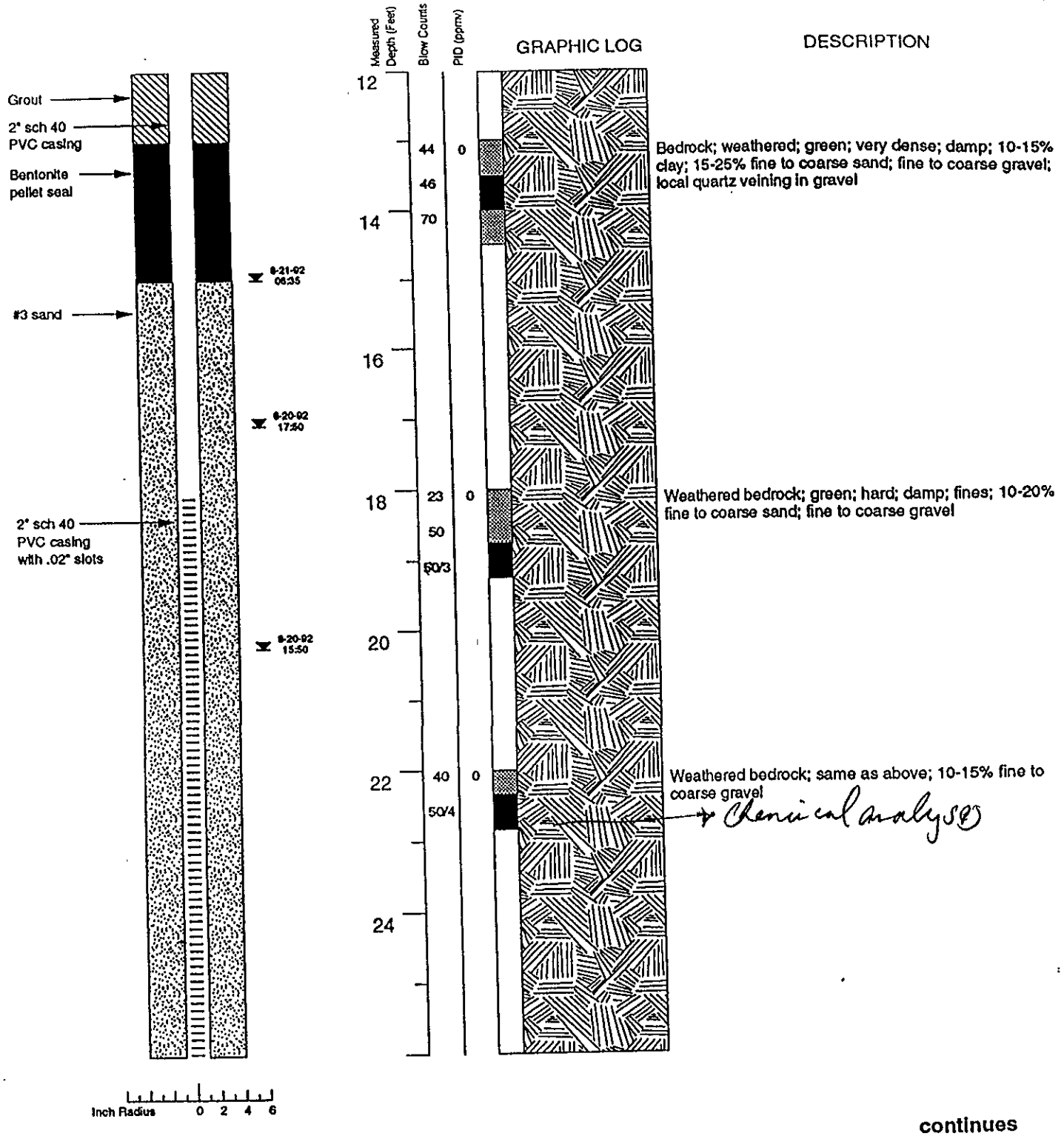
Boring Log
Monitor Well 2 (Boring B-2)

Former Chevron Service Station #9-3575
5775 Broadway
Oakland, California

MONITOR WELL
2

RESNA

17046.01



continues

EXPLANATION

- Water level during drilling
- Water level in completed well
- Location of recovered drill sample
- Location of sample sealed for chemical analysis
- Sieve sample
- Grab sample

Contacts:
- Solid where certain
- Dotted where approximate
- Dashed where uncertain
- Hachured where gradational

est K — Estimated permeability (hydraulic conductivity) 1K = primary 2K = secondary

NR — No recovery

All symbols and definitions may not be applicable

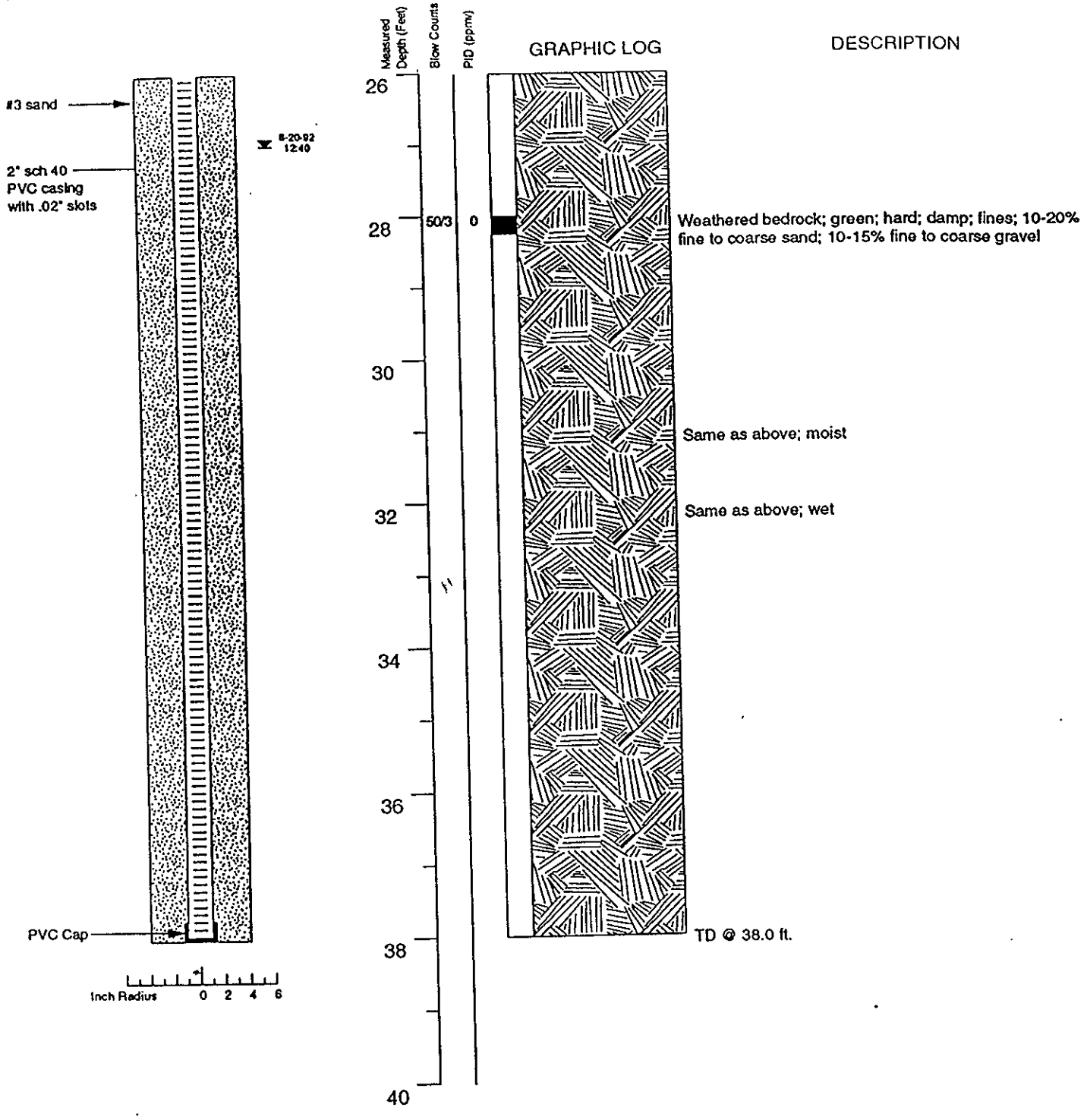
Boring Log
Monitor Well 2 (Boring B-2)

Former Chevron Service Station #9-3575
5775 Broadway
Oakland, California

MONITOR WELL
2

RESNA

17046.01



EXPLANATION

- Water level during drilling
- Water level in completed well
- Location of recovered drill sample
- Location of sample sealed for chemical analysis
- Sieve sample
- Grab sample

All symbols and definitions may not be applicable

Contacts:
- Solid where certain
- Dotted where approximate
- Dashed where uncertain
- Hachured where gradational

est K — Estimated permeability (hydraulic conductivity) 1K = primary 2K = secondary

NR — No recovery

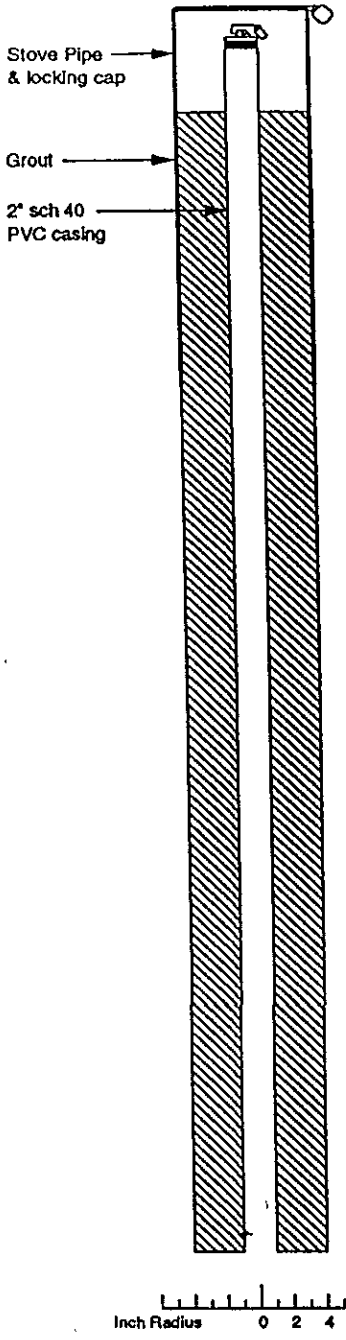
Boring Log
Monitor Well 2 (Boring B-2)

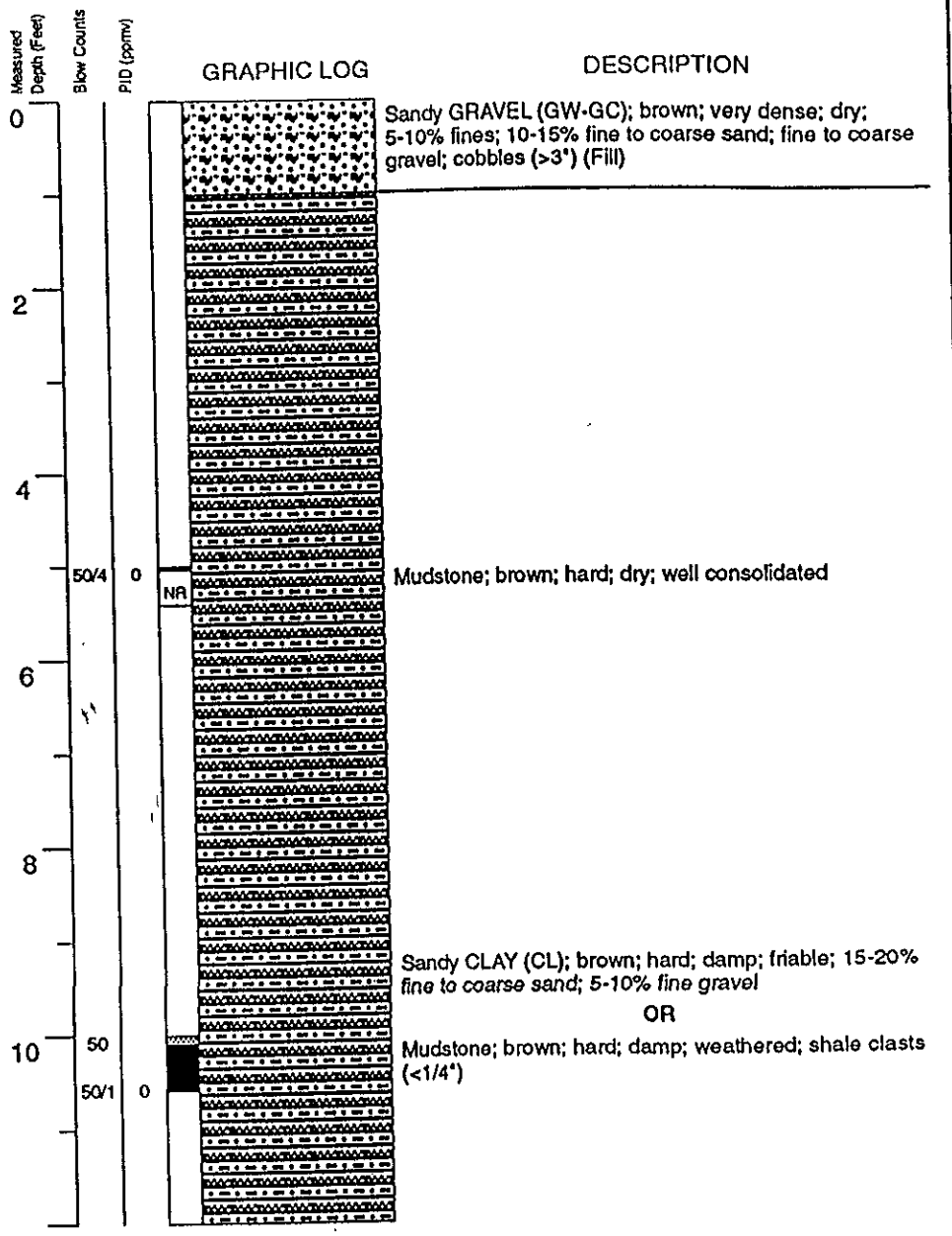
Former Chevron Service Station #9-3575
5775 Broadway
Oakland, California

MONITOR WELL
2

RESNA

17046.01





continues

Logged by:	Justin Power	Drilling Company:	Westex	Well Head Completion:	Stove pipe & locking cap
Project Mgr:	Barry Marcus	Drilling Method:	Air Rotary	Type of Sampler:	2" & 2.5" split barrel
Dates Drilled:	8/21/92	Driller:	Randy	TD (Total Depth):	43.0 ft.

EXPLANATION

- Water level during drilling
- Water level in completed well
- Location of recovered drill sample
- Location of sample sealed for chemical analysis
- Sieve sample
- Grab sample

Contacts:
- Solid where certain
- Dotted where approximate
- Dashed where uncertain
- Hachured where gradational

- est K — Estimated permeability (hydraulic conductivity) 1K = primary 2K = secondary
- NR — No recovery

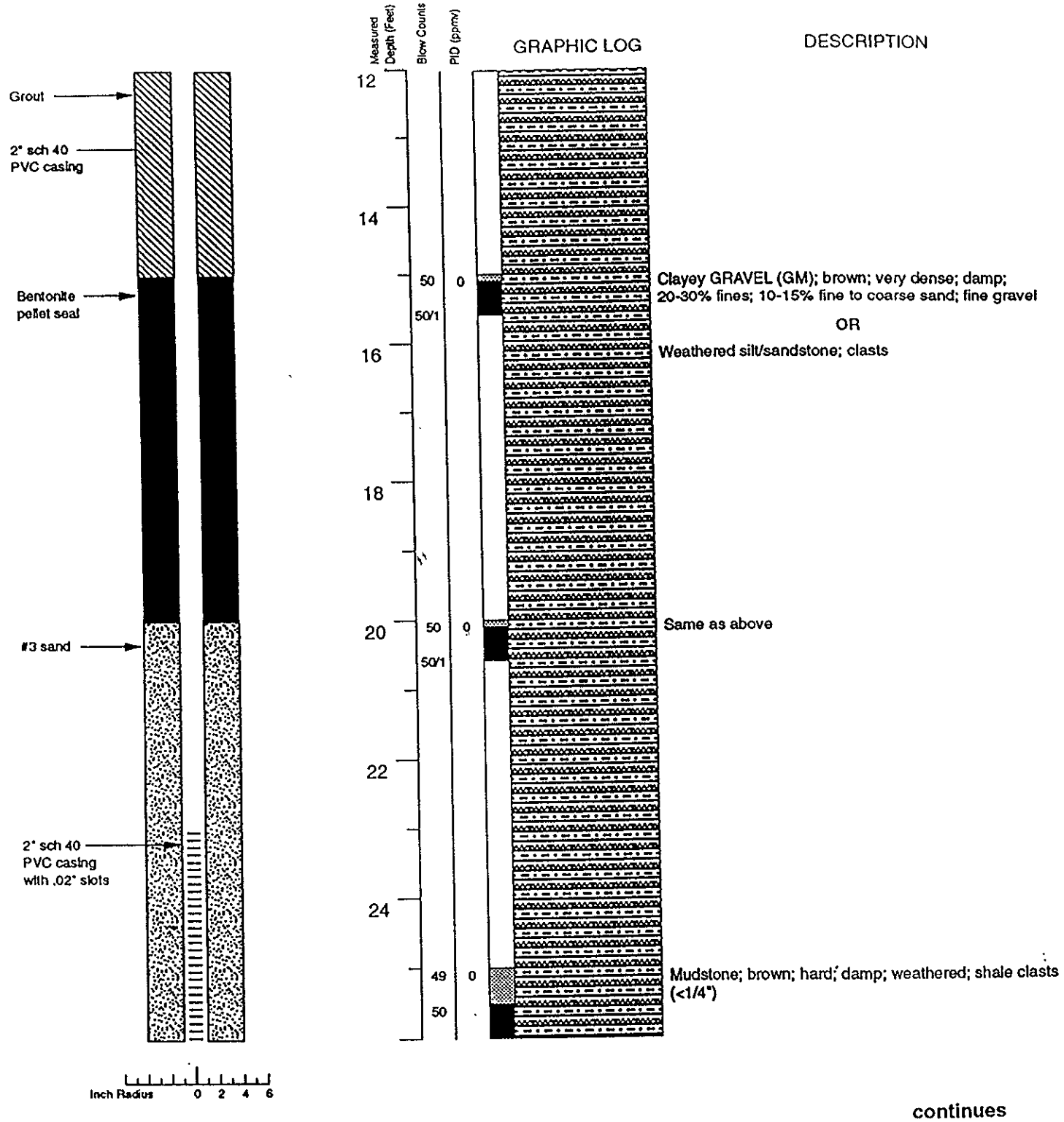
All symbols and definitions may not be applicable

Boring Log
Monitor Well 3 (Boring B-3)

Former Chevron Service Station #9-3575
5775 Broadway
Oakland, California

MONITOR WELL
3

RESNA
17046.01



EXPLANATION

- Water level during drilling
- Water level in completed well
- Location of recovered drill sample
- Location of sample sealed for chemical analysis
- Sieve sample
- Grab sample

Contacts:
- Solid where certain
- Dotted where approximate
- Dashed where uncertain
- Hachured where gradational

est K — Estimated permeability (hydraulic conductivity) 1K = primary 2K = secondary

NR — No recovery

All symbols and definitions may not be applicable

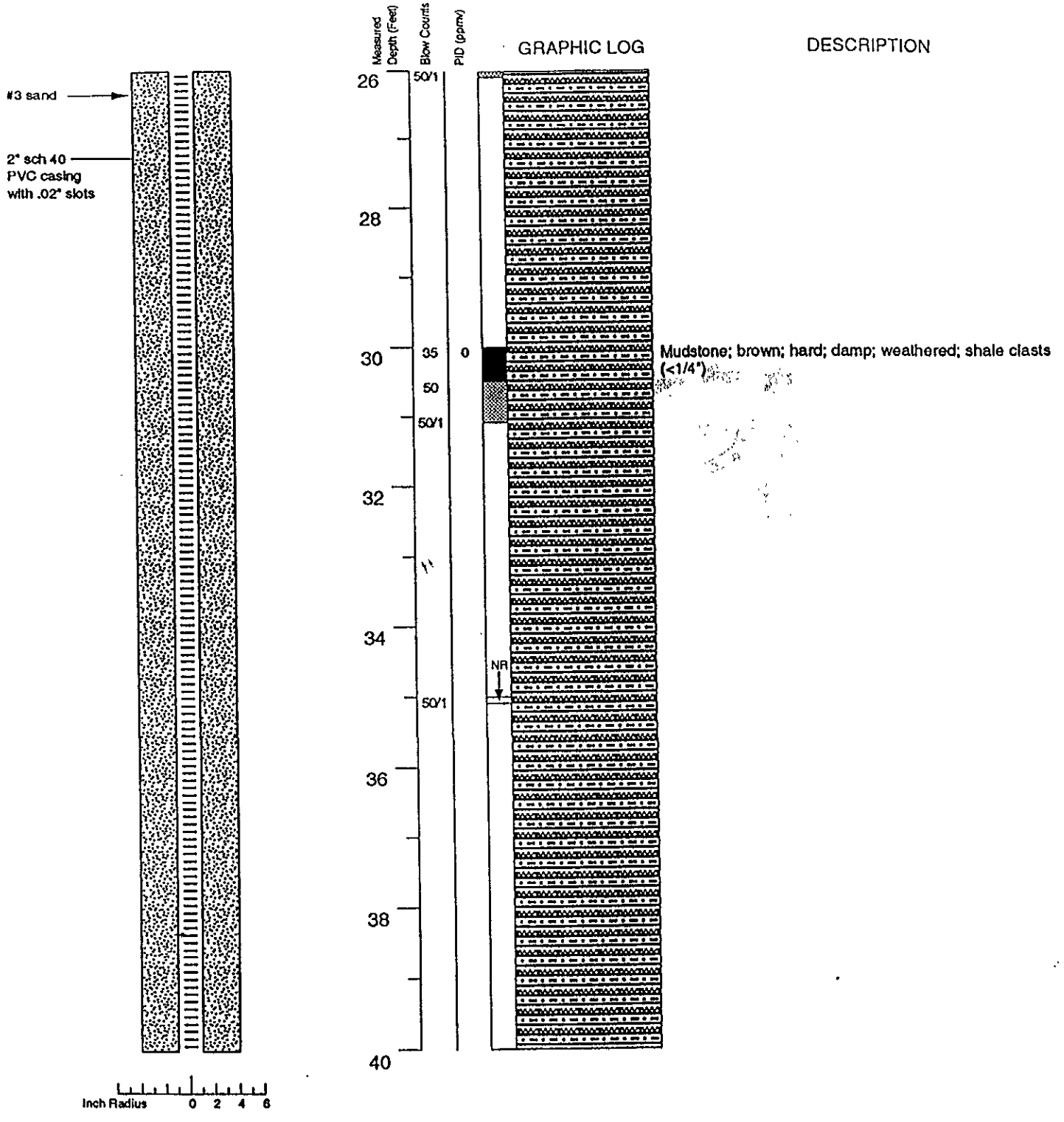
Boring Log
Monitor Well 3 (Boring B-3)

Former Chevron Service Station #9-3575
5775 Broadway
Oakland, California

MONITOR WELL
3

RUNA

17046.01



continues

EXPLANATION

- Water level during drilling
- Water level in completed well
- Location of recovered drill sample
- Location of sample sealed for chemical analysis
- Sieve sample
- Grab sample

All symbols and definitions may not be applicable

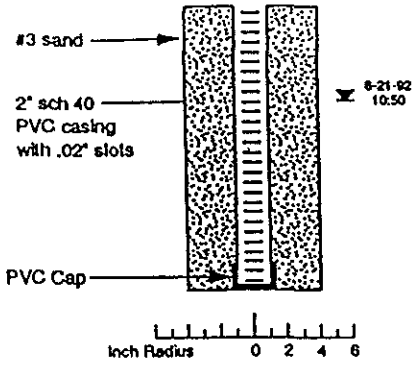
- Contacts: Solid where certain
- Dotted where approximate
- Dashed where uncertain
- Hachured where gradational
- est K — Estimated permeability (hydraulic conductivity) 1K = primary 2K = secondary
- NR — No recovery

Boring Log
Monitor Well 3 (Boring B-3)

Former Chevron Service Station #9-3575
5775 Broadway
Oakland, California

MONITOR WELL
3

17046.01



Measured Depth (Feet)	Blow Counts	GRAPHIC LOG	DESCRIPTION
40	50/1	NR	
42			TD @ 43.0 ft.
44			
46			
48			
50			
52			
54			

EXPLANATION

- Water level during drilling
- Water level in completed well
- Location of recovered drill sample
- Location of sample sealed for chemical analysis
- Sieve sample
- Grab sample

All symbols and definitions may not be applicable

- Contacts: Solid where certain
- Dotted where approximate
- Dashed where uncertain
- Hachured where gradational
- est K — Estimated permeability (hydraulic conductivity) 1K = primary 2K = secondary
- NR — No recovery

Boring Log
Monitor Well 3 (Boring B-3)

Former Chevron Service Station # 9-3575
5775 Broadway
Oakland, California

MONITOR WELL
3

RESNA

17046.01