WESTERN GEOLOGIC RESOURCES, INC.

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SUBSURFACE INVESTIGATION

Former Chevron Service Station #90020
17th and Harrison
Oakland, CA

Prepared For

Chevron USA
2410 Camino Ramon
San Ramon, CA

June 1989

Chevron U.S.A. Inc.
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July 20, 1989

Alameda County Environmental Health
Attn: Rafat Shahid
80 Swan Way, Room 200
Oakland, CA 94621

Re: Former Chevron Facility #9-0020
17th and Harrison
Oakland, California

Dear Mr. Shahid:

Enclosed are the results of the latest subsurface investigation dated June 1989 conducted by our consultant, Western Geological Resources, at the above reference site. As indicated in the report, there appears to be an offsite source of chlorinated hydrocarbons migrating on site and a petroleum hydrocarbon contaminant plume near the downgradient corner. We have instructed our consultant to research and attempt to determine the source of the chlorinated plume and install additional wells downgradient of the site to further define the extent of petroleum hydrocarbon contamination.

If you have any questions or comments, please contact John Randall at (415) 842-9625.

I declare under penalty of perjury that the information contained in the attached report is true and correct, and that any recommended actions are appropriate under the circumstances, to the best of my knowledge.

Sincerely,

C.G. TRIMBACH

By John Randall
John Randall, Engineer

JMR/jsp:V4-041
Enclosure

cc: Regional Water Quality Control Board
1111 Jackson Street, Room 6040
Oakland, California 94607

7-25-89

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Western Geologic Resources, Inc.
2169 E. Francisco Blvd.
San Rafael, CA

June 1989

JUL 12 '89 H.C.H.

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A. Standard Operating Procedures

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D. Chain-of-Custody Forms

1 INTRODUCTION

This report presents the results of the subsurface investigation conducted by Western Geologic Resources, Inc. (WGR), at the former Chevron service station #90020, located at 17th and Harrison, Oakland, California (Figure 1). This investigation was designed to further investigate the horizontal and vertical extent of petroleum hydrocarbons and halocarbons in the subsurface.

1.1 SCOPE OF WORK FOR SUBSURFACE INVESTIGATION

1. Drill 4 soil borings along the upgradient property line and sample at 5-ft intervals;

2. Install 5 additional groundwater monitoring wells across the site and sample at 5-ft intervals;

3. Analyze selected soil samples for total purgeable petroleum hydrocarbons (TPPH), aromatic hydrocarbons, and halocarbons by EPA Method 8260, oil and grease by EPA Method 503E and metals cadmium (Cd), chromium (Cr), lead (Pb) and zinc (Zn) by EPA Methods 7131/7191/7421/7950;

4. Survey the top-of-casing elevations for the new monitoring wells and determine groundwater elevations in the new and pre-existing wells, take liquid level measurements and produce a potentiometric map for shallow groundwater;

5. Review all field and laboratory data and prepare a report of the investigation.

2 BACKGROUND

2.1 SITE SETTING

Former Chevron service station #90020 is located in a residential and commercial district at the west corner of the intersection of 17th Street and Harrison Street in Oakland, California (Figure 2). The site is presently used as a commercial parking lot.

2.2 SITE HISTORY

Information concerning the operation of the site and it's destruction was not available to WGR as of this report writing.

In January of 1988, EA Engineering, Science and Technology of Lafayette, California, performed a soil vapor survey on the site. Total volatile hydrocarbons were detected in concentrations from 1 to 140 parts-per-million-volume (ppmv) in 22 samples from 11 locations.

WGR installed 3 groundwater monitoring wells onsite in October 1988. Aromatic hydrocarbons were not detected in any soil samples analyzed from any borings. Total fuel hydrocarbons (TFH) were detected at 12 ppm in one soil sample collected at a depth of 19 ft from boring B-2. Total fuel hydrocarbons were not detected in groundwater samples from monitoring wells MW-1, MW-2 and MW-3, however halocarbons were detected in all 3 wells at concentrations up to 84 parts-per-billion (ppb) tetrachlorethene (PCE).

Monitoring wells MW-1, MW-2 and MW-3 were resampled in February 1989. Halocarbons, up to 53 ppb PCE, were detected in all 3 monitoring wells.

3 SUBSURFACE INVESTIGATION

3.1 SOIL BORINGS AND GEOLOGY

Soil borings B-4 through B-11 were drilled at locations across the site (Figure 3) as determined by access and project personnel, with hollow-stem augers by Exploration Geoservices of San Jose, California from April 11 through April 14, 1989 and on April 19, 1989. Boreholes were logged by WGR geologists Mike Edmonson, Dave Reichard, and Richard Baldwin. Soil samples were collected at 2.5 ft intervals according to WGR's standard operating procedure for soil sampling included as Appendix A. Thirty eight selected samples were sent under chain-of-custody to Central Coast Analytical Services (CCAS) of San Luis Obispo, California for analysis for TPPH and purgeable priority pollutants by EPA Method 8260 and one selected sample for analysis for oil and grease by EPA Method 503E and metals by EPA Methods 7131/7191/7421/7950.

Boring logs are included in Appendix B. The borings B-4 through B-12 penetrated similar lithologic materials, also similar to those encountered in the previously drilled 3 borings. Borings B-4 through B-7, drilled to investigate the vadose zone along the upgradient property line, were terminated after reaching first water at approximately twenty three to twenty four feet below ground level. These borings were abandoned and grouted to the surface with neat cement after reaching total depth. Borings B-8 through B-12, drilled at various locations across the site (Figure 3), were terminated 31 ft to 36 ft below ground level in confining layers. Groundwater was first encountered in boreholes between 21 ft and 23 ft below ground level and appeared to be unconfined. Alternating beds of low and low-to moderate-estimated permeability silty sands and clayey sands were encountered from 1 ft to about 12 to 15 ft below ground level. Moderate-to high-estimated permeability sands were encountered from about 12 ft to about 27 ft below ground level. These sands were underlain by various low-estimated permeability clayey sands and silty clays from about 27 ft to 36 ft below ground level.

Hydrocarbon odors were noted in soil samples from borings B-4, B-8, B-9, B-10, B-11 and B-12, most notably in the vadose zone from 10 ft to 21 ft below ground level and just above first water, at about 21 ft below ground level.

3.2 MONITORING WELL INSTALLATION AND DEVELOPMENT

The WGR standard operating procedure for monitoring well installation and development is included in Appendix A, Borings B-8, B-9, B-10, B-11 and B-12 were completed as 4-inch diameter monitoring wells MW-4, MW-5, MW-6, MW-7 and MW-8, respectively. Well construction details are shown on the boring logs in Appendix B. Well screens varied in length from 7.5 ft to 14.5 ft, with about 2 ft of screen set above static water level to allow for water table fluctuations.

Monitoring wells MW-4 through MW-8 were developed on 23 April 1989 by WGR technicians Beverley Baldwin and Dan Bockus until relatively clear, sand-free water was produced. Development techniques for this site included air-lift, air-surge and water-injection techniques and are described in the WGR standard operating procedure in Appendix A. Development flow rates ranged from 0.5 gallons per minute (gpm) to 2.0 gpm. A total of about 300 gallons of groundwater were purged and stored temporarily onsite pending analytic results.

3.3 WATER SAMPLING

Water samples from monitoring wells MW-1 through MW-8 were collected on 24 April 1989 according to WGR's standard operating procedure included in Appendix A. Three well-casing volumes of groundwater were purged from wells MW-1 through MW-8 by dedicated bladder pumps prior to sampling. The water samples and a laboratory supplied trip blank were sent to Central Coast Analytical Services (CCAS) of San Luis Obispo, California, under chain-of-custody, for analysis by EPA Method 8260, formerly referred to as EPA Method 524.2.

4 WELL SURVEY

Monitoring wells MW-4 through MW-8 were surveyed for top-of-casing (TOC) elevations on 4 May 1989 by John E. Koch, land surveyor, California State license #LS4811. Monitoring wells MW-1 through MW-3 were previously surveyed during the initial site investigation. Groundwater elevations for shallow groundwater were determined from depth-to-water measurements collected on 24 May 1989 (Table 1).

5 HYDROGEOLOGY AND GROUNDWATER FLOW

The site is underlain by relatively homogeneous, stratified, low-to-high-estimated permeability unconsolidated sediments, which appear to correlate between borings. The vadose zone is characterized as having overall low-to-moderate-estimated permeability and is composed of alternating silty sands and clayey sands. The first water-bearing zone appears to be unconfined, as of the time of well completion and is composed of sand, with some interbedded silty sands. It is characterized as having overall moderate-to-high-estimated permeability. The lower confining layer of the first water-bearing zone consists of low-estimated permeability silty clays and silty sands.

A potentiometric map for shallow groundwater in the first water bearing zone is shown in Figure 4. The groundwater elevation in well MW-7 was not used for the potentiometric map because it was considered to be anomalously high. Groundwater flow direction is determined to be to the east with a gradient of 0.004 ft/ft.

6 ANALYTIC RESULTS

6.1 SOIL SAMPLES

Analytic results for soil samples are presented in Table 2. Laboratory reports and QA/QC documentation are included in Appendix C. Chain-of-custody forms are included in Appendix D.

TPPH reported as diesel #2, were detected in 2 soil samples from boring B-8, and 2 soil samples from B-11. TPPH were detected in soil samples collected at 4.5 ft and 9.6 ft from boring B-8, both at 600 parts-per-million (ppm). 1,1,1-trichloroethane (TCA) was detected at 0.1 ppm in the soil sample from boring B-8 at 9.6 ft. A duplicate analysis of the sample collected at 9.6 ft from boring B-8 yielded a concentration of 450 ppm TPPH and 0.09 ppm TCA. TPPH were detected at 680 ppm in a sample from boring B-11 at 19.25 ft. This sample also contained 0.950 ppm total xylenes, 0.140 ppm ethylbenzene, and 0.070 ppm chlorobenzene. TPPH were detected at 45,000 ppm in a sample from boring B-11 collected at 23.5 ft. This sample also contained 4.0 ppm toluene, 12.0 ppm total xylenes, 3.5 ppm ethylbenzene, and 0.2 ppm TCA. A duplicate analysis of this sample from 23.5 ft from boring B-11 indicated TPPH concentrations at 50,000 ppm; toluene, total xylenes, and ethylbenzene were detected at 4.1 ppm, 20.0 ppm, and 5.0 ppm, respectively.

Toluene was detected at a concentration of 0.003 ppm for soil samples collected at 9.5 ft and 21.0 ft from boring B-12.

Oil and grease were detected at 80 ppm in a soil sample collected at 21.0 ft from boring B-9. This sample also contained total chromium (Cr) at 27 ppm and zinc (Zn) at 17 ppm. Cadmium (Cd) was below the detection limit of 10 ppm, and total lead (Pb) was below the detection limit of 1 ppm.

6.2 WATER SAMPLES

Analytic results are presented in Table 3. Chain-of-custody forms, analytic reports, and laboratory QA/QC runs are included in Appendices C, D and E respectively.

TPPH, characterized as gasoline, were detected in the ground water sample from monitoring well MW-7 at 8400 ppb. Groundwater samples from all other wells were below the detection limit of 50 ppb for TPPH. The groundwater sample from well MW-7 also contained benzene, toluene, ethylbenzene, and total xylenes (BTEX) at 100 ppb, 260 ppb, 1300 ppb and 160 ppb, respectively.

Oil and grease were detected at 3 ppm for groundwater samples from monitoring wells MW-7 and MW-8. Groundwater samples from all other wells were below the detection limit of 3 ppm for oil and grease.

Carbon tetrachloride was detected in groundwater samples from all monitoring wells in concentrations ranging from 2.0 ppb to 35.0 ppb. Chloroform was also detected in all samples from all monitoring wells ranging from 7.0 ppb to 11.0 ppb. Tetrachloroethene (PCE) and 1,2-Dichloroethene (1,2-DCE) were detected in groundwater samples from wells MW-2, MW-3, MW-5, and MW-8 in concentrations ranging from 2.0 ppb to 110.0 ppb. Trichloroethene (TCE) was detected in samples from wells MW-2 and MW-3 at concentrations of 3.0 ppb.

Cd was detected at 0.008 ppm in the groundwater samples from well MW-8. Cr was detected in samples from all wells at low levels ranging from 0.005 ppm to 0.031 ppm. Pb was detected in samples from wells MW-1, MW-7, and MW-9 at 0.018 ppm, 0.18 ppm, and 0.007 ppm, respectively. Zn was detected in samples from all wells at concentrations ranging from 0.087 ppm to 7.5 ppm.

Distribution maps of PCE and halocarbons including chloroform, carbon tetrachloride, t-1,2-DCE, TCE and PCE are shown in Figures 5 and 6, respectively.

7 WELL CANVASS

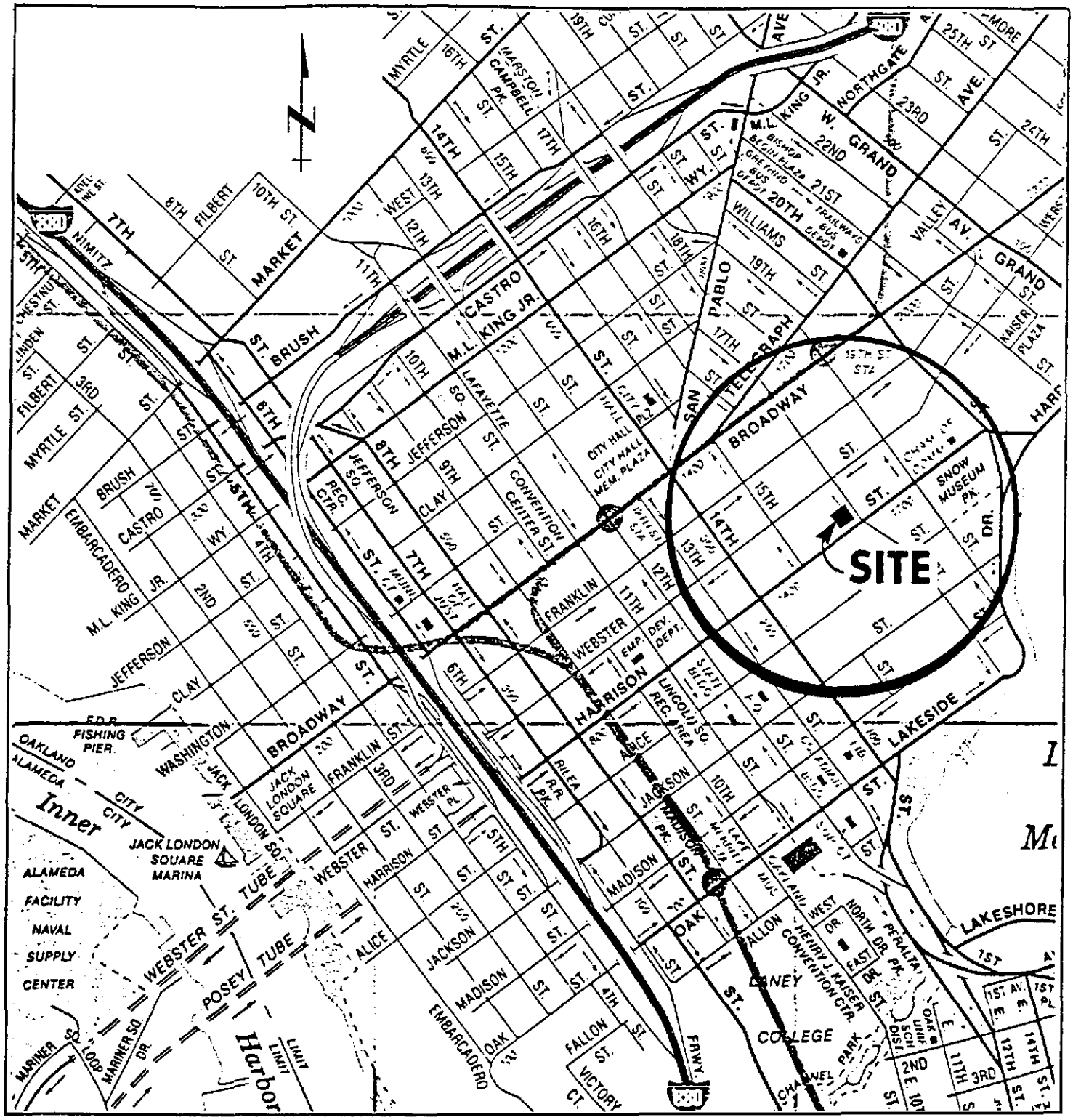
A well canvass for a one-quarter mile radius area around the site was performed by the Alameda County Water Conservation and Flood Control District for all registered wells, during the previous investigation in December 1988 (WGR). No wells were found.

8 SUMMARY

TPPH reported as diesel #2 were detected in soil samples collected at 4.5 ft and 9.6 ft from boring B-8, both at 600 ppm. TCA was detected at 0.1 ppm in the soil sample from 9.6 ft. TPPH were detected in soil samples collected at 19.25 ft and 23.5 ft from boring B-11 at 680 ppm and 50,000 ppm, respectively. The soil sample from 19.25 ft also contained total xylenes, ethylbenzene and chlorobenzene at 0.95 ppm, 0.14 ppm, and 0.17 ppm, respectively. The soil sample from 23.5 ft also contained toluene, ethylbenzene, and total xylenes at 4.1 ppm, 20.0 ppm, 50.0 ppm, respectively. Toluene was detected at a concentration of 0.003 ppm for soil samples collected at 9.5 ft and 21.0 ft from boring B-12. Oil and grease were detected in a soil sample from B-9. This sample also contained low concentrations of Cr and Zn.

TPPH, characterized as gasoline, were detected in the groundwater sample from well MW-7 at 8,400 ppb. This sample also contained BTEX at 100 ppb, 260 ppb, 1300 ppb, and 160 ppb, respectively. Various halocarbons were noted in all of the monitoring wells, at concentrations of 2 ppb to 110 ppb including carbon tetrachloride, chloroform, 1,2-dichloroethene, trichloroethene, and tetrachloroethene. Oil and grease were detected in water samples from wells MW-7 and MW-8, both at 3 ppm. The metals Cr and Zn were detected in low concentrations in samples from all of the wells. Cd and Pb were detected in low concentrations in some of the wells.

No registered wells were found inside a one-quarter mile radius around the site. Groundwater flow direction is to the east, at a gradient of 0.004 ft/ft.



LEGEND

SCALE

0 1000 2000 FEET

0 0.1 0.2 0.3 0.4 MILES

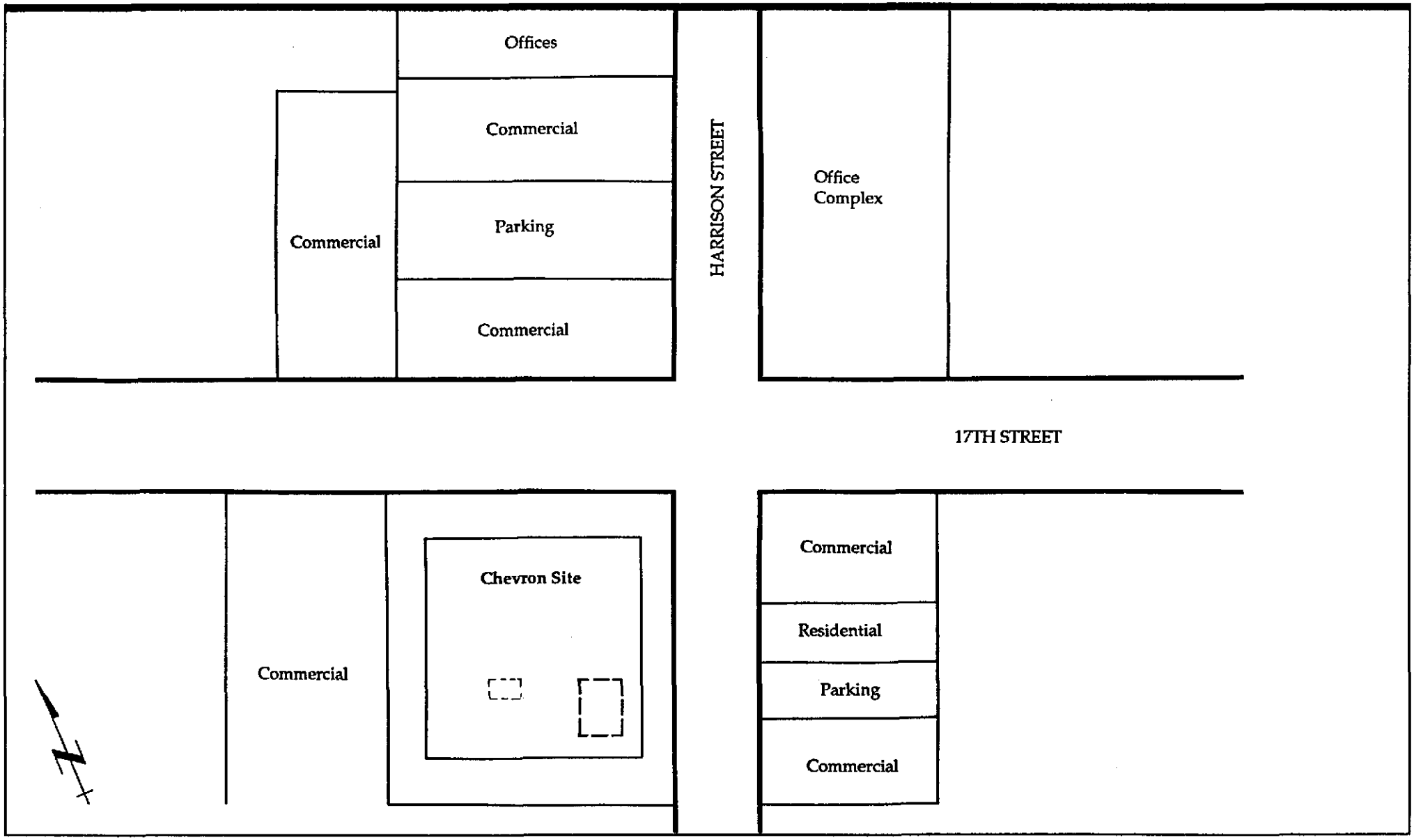
Site Location
Former Chevron SS #90020, Oakland, California

May 1989

FIGURE
1

WESTERN GEOLOGIC RESOURCES, INC.

1-012.02



Source: EA Engineering
SVCA 1988

NOT TO SCALE

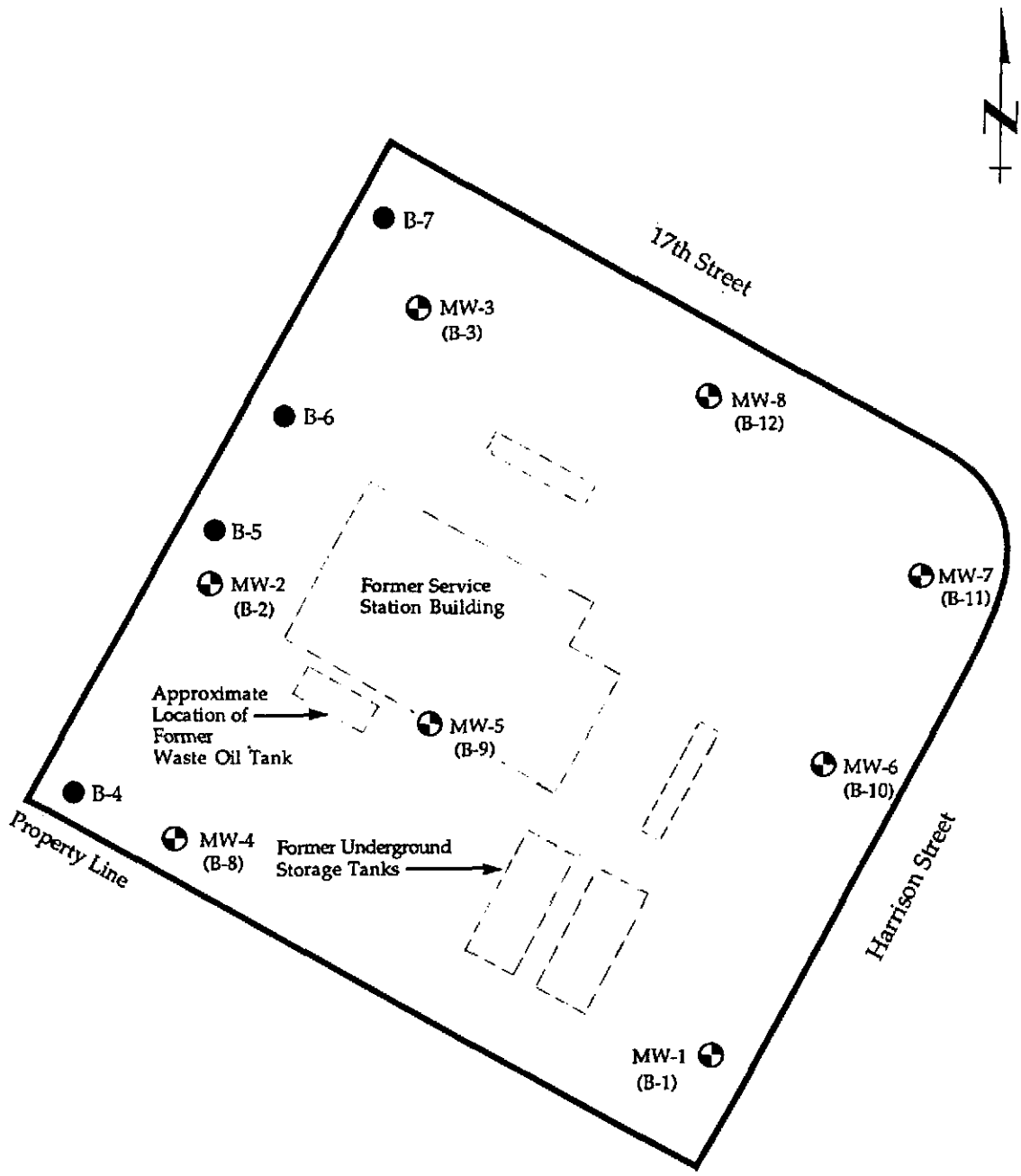
Vicinity Map
Chevron SS# 90020, Oakland, California

May 1989

FIGURE
2

WESTERN GEOLOGIC RESOURCES, INC.

1-012.02



LEGEND

MW-1 (B-1) Monitoring Well Locations

B-5 Boring Locations

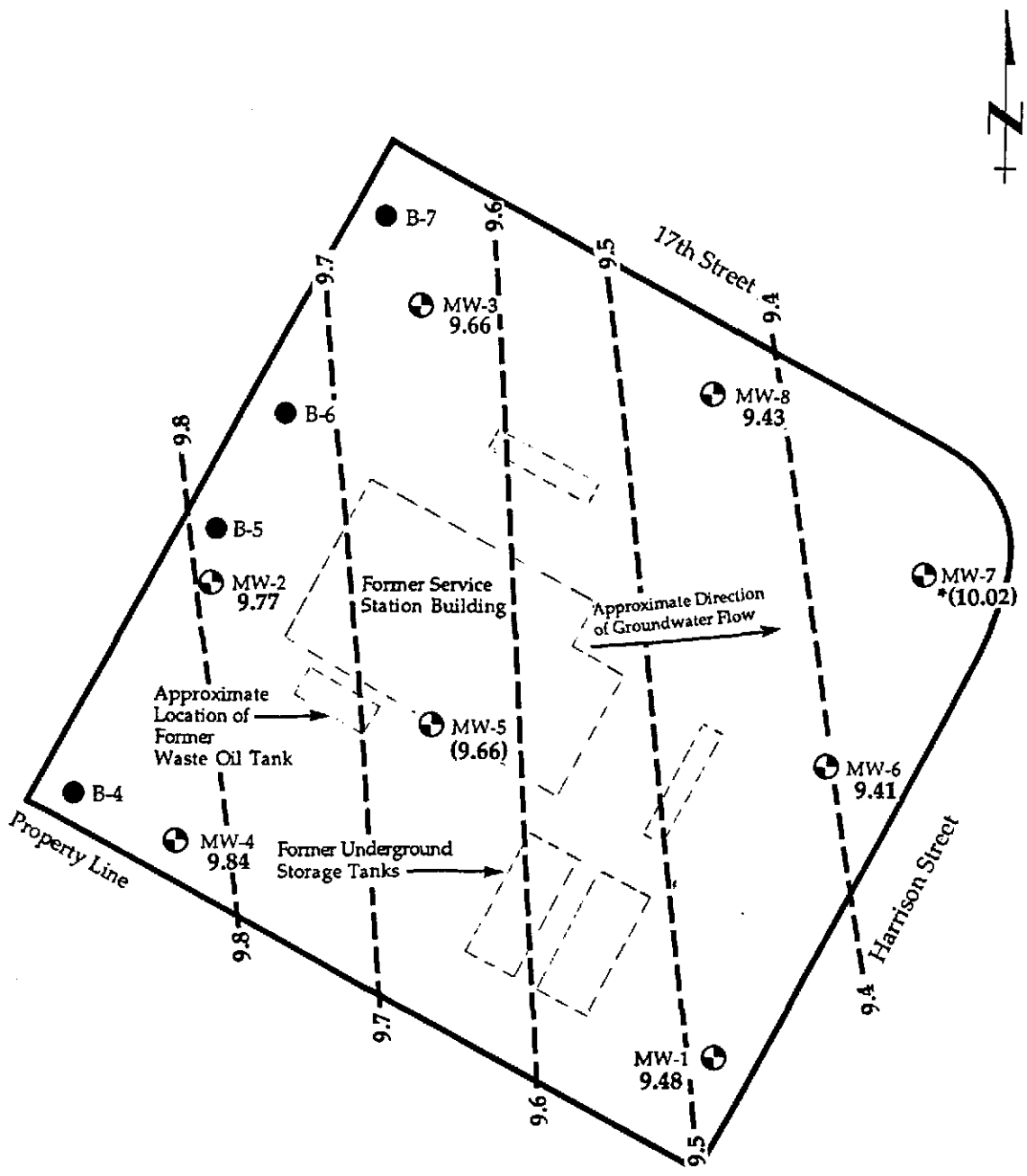
Site Map with Monitoring Well and Boring Locations
Chevron SS #90020, Oakland, California

June 1989

FIGURE
3

WESTERN GEOLOGIC RESOURCES, INC.

1-012.02



SCALE: 1"=25'

LEGEND

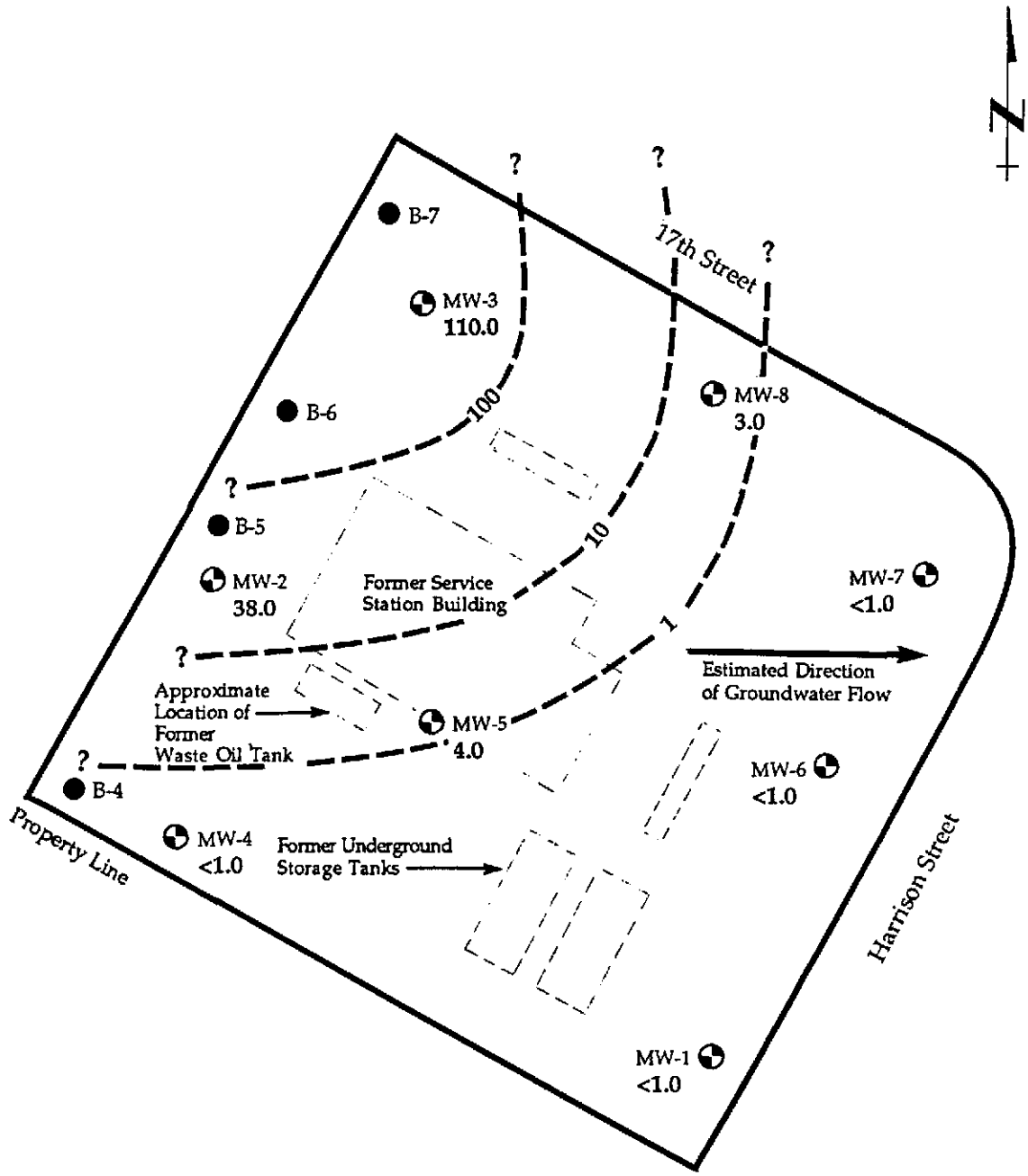
MW-1 9.48	Monitoring Well Location Static Water Level Elevation (MSL) 23 April 1989
B-4	Boring Location
9.4	Groundwater Elevation Contour, Feet Above Mean Sea Level, Dashed Where Inferred
*	Anomalous Elevation Not Used

Potentiometric Surface of the Shallow Water-Bearing Zone
23 April 1989, Chevron SS #90020, Oakland, California

FIGURE
4

WESTERN GEOLOGIC RESOURCES, INC.

1-012.02



LEGEND

MW-1 <1.0	Monitoring Well Location and Tetrachloroethene concentration in ppb (parts per billion)
100	Isoconcentration Contour for Tetrachloroethene in ppb
B-1	Boring Location

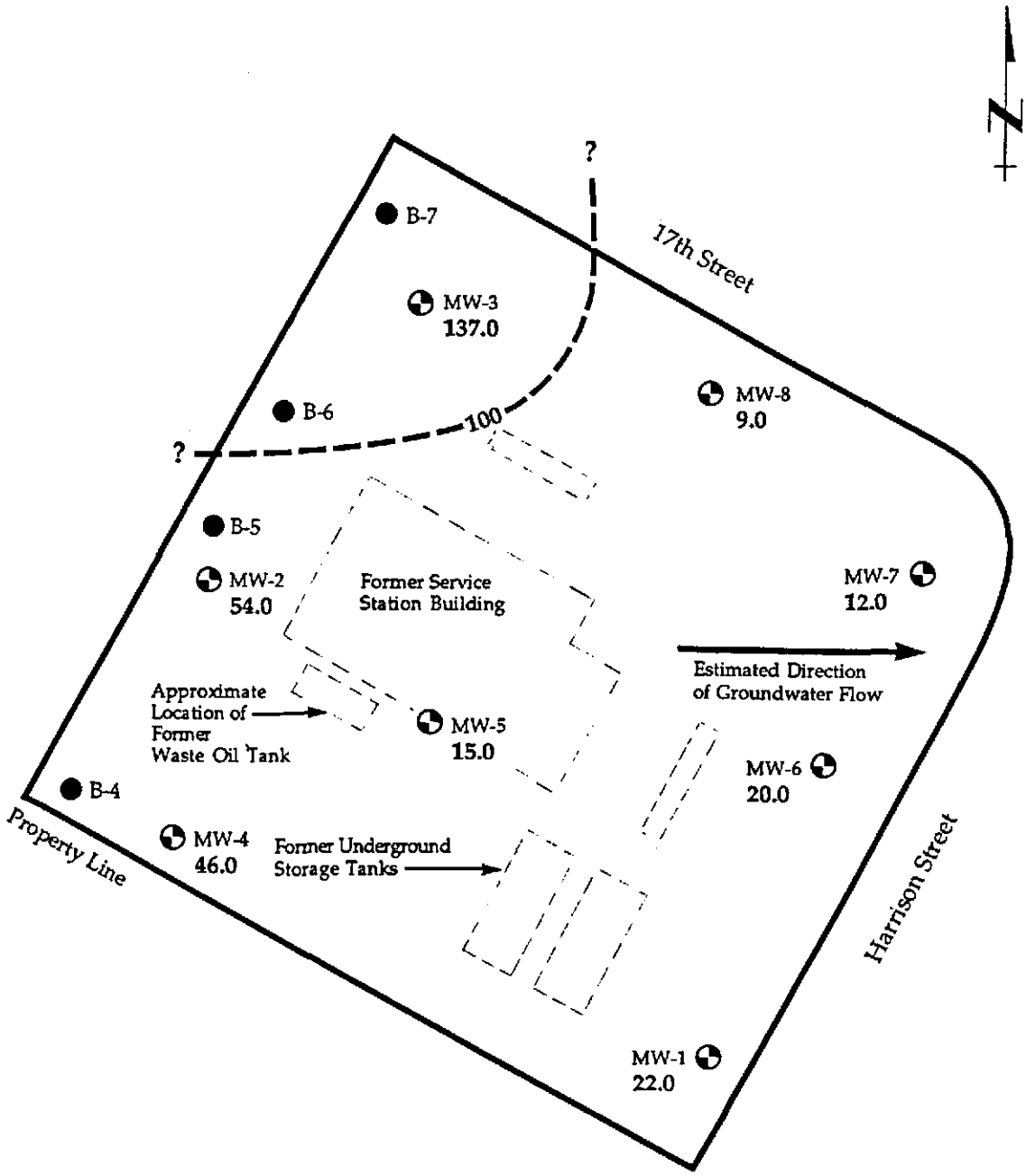
Distribution of Tetrachloroethene (PCE)
24 April 1989, Chevron SS #90020, Oakland, California

June 1989

FIGURE
5

WESTERN GEOLOGIC RESOURCES, INC.

1-012.02



LEGEND

- MW-1 / 22.0 — Monitoring Well Location and Total Halocarbons in ppb (parts per billion)
- 100 — Isoconcentration Contour for Total Halocarbons in ppb
- B-1 — Boring Location

Distribution of Total Halocarbons including *Chloroform, Carbon Tetrachloride, 1,2-Dichloroethene, Trichloroethene and Tetrachloroethene*, 24 April 1989
Chevron SS #90020, Oakland, California
June 1989

FIGURE
6

WESTERN GEOLOGIC RESOURCES, INC.

1-012.02

TABLE 1. Groundwater and Top-of-Casing Elevations
Chevron Service Station #90020, Oakland, California
WGR Job # 1-012.02

Monitor Well	Date	TOC	DTW	Elev.-W
MW-1	23 Apr 89	29.82	20.34	9.48
MW-2	23 Apr 89	30.59	20.82	9.77
MW-3	23 Apr 89	30.09	20.43	9.66
MW-4	23 Apr 89	31.17	21.33	9.84
MW-5	23 Apr 89	30.28	20.62	9.66
MW-6	23 Apr 89	29.46	20.05	9.41
MW-7	23 Apr 89	29.01	18.99	10.02
MW-8	23 Apr 89	29.57	20.14	9.43

Notes:
TOC = Top Of Casing Elevation, feet above mean sea level
DTW = Depth To Water
Elev.-W = Elevation Of Water, feet above mean sea level

Table 2. ANALYTIC RESULTS FOR SOIL SAMPLES
Former Chevron SS #90020
Oakland, California
WGR Project # 1-012.01

SAMPLE ID	DEPTH (ft)	TPPH	BENZENE	TOLUENE	XYLENES	E-BENZENE	CT	PCE	TCE	TCA
		<--------			PPM					-------->
B-4	6.0	<5.0	<0.005	<0.005	<0.010	<0.005	<0.005	<0.005	<0.005	<0.005
B-4	16.0	<2.0	<0.002	<0.002	<0.004	<0.002	<0.002	<0.002	<0.002	<0.002
B-4	23.2	<2.0	<0.002	<0.002	<0.004	<0.002	<0.002	<0.002	<0.002	<0.002
B-5	9.5	<2.0	<0.002	<0.002	<0.004	<0.002	<0.002	<0.002	<0.002	<0.002
B-5	14.5	<2.0	<0.002	<0.002	<0.004	<0.002	<0.002	<0.002	<0.002	<0.002
B-5	22.0	<2.0	<0.002	<0.002	<0.004	<0.002	<0.002	<0.002	<0.002	<0.002
B-6	9.5	<2.0	<0.002	<0.002	<0.004	<0.002	<0.002	<0.002	<0.002	<0.002
B-6	14.5	<1.0	<0.002	<0.002	<0.004	<0.002	<0.002	<0.002	<0.002	<0.002
B-6	22.0	<1.0	<0.002	<0.002	<0.004	<0.002	<0.002	<0.002	<0.002	<0.002
B-7	4.2	<1.0	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001
B-7	9.2	<1.0	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001
B-7	14.0	<0.5	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001
B-7	21.6	<0.5	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001
B-8	4.5	600	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001
B-8	9.6	600	<0.01	<0.01	<0.020	<0.01	<0.01	<0.01	<0.01	0.1
B-8	9.6	450	<0.02	<0.02	<0.040	<0.02	<0.02	<0.02	<0.02	0.090
B-8	14.5	<1.0	<0.02	<0.02	<0.004	<0.02	<0.02	<0.02	<0.02	<0.002
B-8	22.5	<1.0	<0.02	<0.02	<0.004	<0.02	<0.02	<0.02	<0.02	<0.002
B-8	29.5	<1.0	<0.02	<0.02	<0.004	<0.02	<0.02	<0.02	<0.02	<0.002
B-8	34.5	<1.0	<0.02	<0.02	<0.004	<0.02	<0.02	<0.02	<0.02	<0.002
B-9	9.0	<0.5	<0.005	<0.005	<0.010	<0.005	<0.005	<0.005	<0.005	<0.005
B-9	14.0	<0.5	<0.005	<0.005	<0.010	<0.005	<0.005	<0.005	<0.005	<0.005
B-9	21.0	<0.1	<0.002	<0.002	<0.004	<0.002	<0.002	<0.002	<0.002	<0.002
B-9	29.5	<0.5	<0.005	<0.005	<0.010	<0.005	<0.005	<0.005	<0.005	<0.005
B-9	33.5	<5.0	<0.005	<0.005	<0.010	<0.005	<0.005	<0.005	<0.005	<0.005

Table 2 (continued)

SAMPLE ID	DEPTH (ft)	TPPH	BENZENE	TOLUENE	XYLENES	E-BENZENE	CT	PCE	TCE	TCA
		<--------			PPM					-------->
B-10	9.5	<1.0	<0.002	<0.002	<0.004	<0.002	<0.002	<0.002	<0.002	<0.002
B-10	14.5	<1.0	<0.002	<0.002	<0.004	<0.002	<0.002	<0.002	<0.002	<0.002
B-10	21.5	<1.0	<0.002	<0.002	<0.004	<0.002	<0.002	<0.002	<0.002	<0.002
B-10	27.0	<1.0	<0.002	<0.002	<0.004	<0.002	<0.002	<0.002	<0.002	<0.002
B-11	9.5	<0.1	<0.002	<0.002	<0.004	<0.002	<0.002	<0.002	<0.002	<0.002
B-11	14.25	<2.0	<0.0002	<0.0002	<0.0004	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
B-11	19.25	680	<0.01	<0.01	0.950	0.140	<0.010	<0.010	<0.010	<0.010 *
B-11	23.50	45,000	<0.1	4.0	12	3.500	<0.1	<0.1	<0.1	0.2
B-11	23.50	50,000	<0.2	4.1	20	5.0	<0.2	<0.2	<0.2	<0.2
B-11	29.50	<1.0	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001
B-12	9.50	<1.0	<0.002	0.003	<0.004	<0.002	<0.002	<0.002	<0.002	<0.002
B-12	14.50	<2.0	<0.005	<0.005	<0.010	<0.005	<0.005	<0.005	<0.005	<0.005
B-12	21.00	<1.0	<0.002	0.003	<0.004	<0.002	<0.002	<0.002	<0.002	<0.002
B-12	24.25	<1.0	<0.002	<0.002	<0.004	<0.002	<0.002	<0.002	<0.002	<0.002
B-12	27.50	<1.0	<0.002	<0.002	<0.004	<0.002	<0.002	<0.002	<0.002	<0.002

SAMPLE ID	DEPTH (ft)	O & G	Cd	Cr	Pb	Zn
		<----------		PPM		---------->
B-9	21.0	80	<10	27	<1	17

NOTES

E-Benzene = Ethylbenzene

TPPH = Total purgeable petroleum hydrocarbons analyzed by Central Coast

PPB = Parts per billion

PPM = Parts per million

CT = Carbon Tetrachloride

PCE = Tetrachloroethene

TCE = Trichloroethene

TCA = 1,1,1-Trichloroethane

O&G = Oil and gas

Cd = Cadmium

Cr = Chromuim

Pb = Lead

Zn = Zinc

* = Chlorobenzene at 0.07 ppm

TABLE 3. Analytic Results for Groundwater
Former Chevron Service Station 90020
Oakland, California

Monitor Well	Date	FC	THF/TPPH	O & G		Benzene	Toluene	Xylenes	E-Benzene	Carb Tet	Chlor	PCE	TCE	t-1,2-DCE	c-1,2-DCE
			<--------						ppb						-------->
MW-1	3 Nov 88	---	<1000.0	---		<1.0	<1.0	<1.0	<1.0	18.0	7.0	<1.0	<1.0	<1.0	---
MW-1	10 Feb 89	---	<100.0	---		<0.2	<0.2	<0.4	<0.2	17.0	6.0	<0.2	<0.2	<0.2	<0.2
MW-1	24 Apr 89	---	<50.0	---		<0.5	<1.0	<1.0	<1.0	16.0	6.0	<1.0	<1.0	<1.0	---
MW-2	3 Nov 88	---	<1000.0	---		<1.0	<1.0	<1.0	<1.0	3.0	2.0	34.0	3.0	10	?
MW-2	10 Feb 89	---	<100.0	---		<0.2	<0.2	<0.4	<0.2	1.4	1.0	17.0	<0.2	<0.2	6.3
MW-2	24 Apr 89	---	<50.0	---		<0.5	<1.0	<1.0	<1.0	2.0	2.0	38.0	3.0	9.0*	---
MW-3	3 Nov 88	---	<1000.0	---		<1.0	<1.0	<1.0	<1.0	8.0	6.0	84.0	3.0	5.0	---
MW-3	10 Feb 89	---	<100.0	---		<0.2	<0.2	<0.4	<0.2	5.8	4.0	53.0	1.9	<0.2	9.0
MW-3	24 Apr 89	---	<50.0	---		<0.5	<1.0	<1.0	<1.0	7.0	6.0	110.0	3.0	11.0*	---
MW-4	24 Apr 89	---	<50.0	---		<0.5	<1.0	<1.0	<1.0	35.0	11.0	<1.0	<1.0	<1.0	---
MW-5	24 Apr 89	---	<50.0	---		<0.5	<1.0	<1.0	<1.0	4.0	5.0	4.0	<1.0	2.0*	---
MW-6	24 Apr 89	---	<50.0	---		<0.5	<1.0	<1.0	<1.0	13.0	7.0	<1.0	<1.0	<1.0	---
MW-7	24 Apr 89	---	8400.0	3	**	100.0	260.0	1300.0	160.0	3.0	9.0	<1.0	<1.0	<1.0	---
MW-8	24 Apr 89	---	<50.0	3		<0.5	<1.0	<1.0	<1.0	2.0	3.0	3.0	<1.0	4.0*	---
TB	10 Feb 89	---	<50.0	---		<0.1	<0.1	<0.2	<0.1	<0.1	<0.5	<0.1	<0.1	<0.1	<0.1

012T3JN9

Table 3, Continued

Monitor Well	Date	CADIUM	CHROMUIM	LEAD	ZINC
		<----------ppm---------->			
MW-1	24 Apr 89	<0.001	0.030	0.018	7.5
MW-2	24 Apr 89	<0.001	0.031	<0.005	1.1
MW-3	24 Apr 89	<0.001	0.020	<0.005	0.087
MW-4	24 Apr 89	<0.001	0.029	<0.005	1.2
MW-5	24 Apr 89	<0.001	0.022	<0.005	0.40
MW-6	24 Apr 89	<0.001	0.006	<0.005	1.2
MW-7	24 Apr 89	0.008	0.006	0.18	140
MW-8	24 Apr 89	<0.001	0.005	0.007	0.38

Notes:
** - Acetone 50 ppb, 2-Butanone 160 ppb
FC - Fuel characterization
TFH/TPPH - Total fuel hydrocarbons/Total purgeable petroleum hydrocarbons
TB - Travel blank
E-Benzene - Ethyl benzene
Carbon Tet - Carbon Tetrachloride

* = cis and trans isomers
Chlor - Chloroform
PCE - Tetrachloroethene
TCE - Trichloroethene
1,2 DCE - 1,2-Dichloroethene
t = trans
c = cis

012T3JN9

ATTACHMENT A

STANDARD OPERATING PROCEDURES

STANDARD OPERATING PROCEDURES
RE: SOIL SAMPLING
SOP-2

Soil samples for chemical analysis are collected in thin-walled brass tubes, 4-inches long by 2-inches outside diameter. Four of these tubes and a spacer tube are set in a 2-inch inside diameter 18-inch split-barrel sampler.

The split-barrel sampler is driven its entire length either hydraulically or using a 140-pound drop hammer. The sampler is extracted from the borehole and the brass tubes, containing the soil samples, are removed. Upon removal from the sampler, the selected brass tubes are immediately trimmed and capped with aluminum foil and plastic caps. They are then hermetically sealed with duct tape, labeled and refrigerated for delivery, under chain-of-custody, to the analytic laboratory. These procedures minimize the potential for cross-contamination and volatilization of volatile organic compounds (VOC) prior to chemical analysis.

One soil sample collected at each sampling interval is analyzed in the field using either a photoionization detector (PID), a flame ionizing detector (FID), or an explosimeter. The purpose of this field analysis is to qualitatively determine the presence or absence of hydrocarbons and to establish which soil samples will be analyzed at the laboratory. The soil sample is sealed in a zip-lock plastic bag and placed in the sun to enhance volatilization of the hydrocarbons from the sample. The data is recorded on the drill logs at the depth corresponding to the sampling point.

Other soil samples are collected to document the stratigraphy and estimate relative permeability of the subsurface materials. All drilling and sampling equipment are steam-cleaned prior to use at each site and between boreholes to minimize the potential for cross-contamination.

STANDARD OPERATING PROCEDURES
RE: HOLLOW-STEM AUGER MONITORING WELL INSTALLATION AND DEVELOPMENT
SOP-3

The boreholes for monitoring wells are drilled using a truck-mounted hollow-stem auger drill rig. The outside diameter (OD) of the borehole will be a minimum of two inches larger than the casing OD when installing 4-inch well screen. The hollow-stem auger provides minimal interruption of drilling while permitting soil sampling at desired intervals. Soil samples are collected by hammering a conventional split-barrel sampler containing pre-cleaned 2-inch brass sample tubes. A geologist from Western Geologic Resources continuously logs each borehole during drilling and constantly checks drill cuttings for odors. The sampler is rinsed between samples and steam-cleaned with all other drilling equipment between borings to prevent cross-contamination.

Monitoring wells are cased with threaded, factory-perforated and blank Schedule 40 PVC. The perforated interval consists of slotted casing, generally 0.020-inch wide by 1.5-inch long slot size, with 42 slots per foot. A PVC cap is fastened to the bottom of the casing with stainless steel screws; no solvents or cements are used. Centering devices may be fastened to the casing to assure even distribution of filter material and grout within the borehole annulus. The well casing is thoroughly washed and steam-cleaned prior to installation.

After setting the casing inside the hollow stem, sand or gravel filter material is poured into the annular space to fill from the bottom of the boring to 1 foot above the perforated interval. A 1- to 2-foot thick bentonite plug is placed above this filter material to prevent grout from infiltrating down into the filter material. Neat cement, containing about 5% bentonite, is then tremied into the annular space from the top of the bentonite plug to the surface. A lockable PVC cap is placed on each wellhead. Traffic-rated Christy boxes are installed around the wellhead for wells in parking lots and driveways while steel stove pipes are usually set over wellheads in landscaped areas.

After installation, the wells are thoroughly developed to remove residual drilling materials from the wellbore, and to improve well performance by removing any fine material in the filter pack that can pass from the formation into the well. Well development techniques used include pumping, bailing, surging, swabbing, jetting, flushing, and airlifting. All development water is collected in 55-gallon drums for temporary storage, and is then disposed of properly depending on analytic results. To assure that cross-contamination does not occur between wells during drilling and development, all development equipment is steam-cleaned.

STANDARD OPERATING PROCEDURES
RE: GROUNDWATER PURGING AND SAMPLING
SOP-4

Prior to water sampling, each well is purged by evacuating a minimum of three well-casing volumes of groundwater or until the discharge water temperature, conductivity, and pH stabilize. The groundwater sample should be taken when the water level in the well recovers to 80% of its static level.

The sampling equipment used consists of either a teflon bailer or a stainless steel bladder pump with a teflon bladder. If the sampling system is dedicated to the well, then the bailer is made of teflon, but the bladder pump is PVC with a polypropylene bladder. Forty milliliter (ml) glass volatile-organic-analysis (VOA) vials, with teflon septa, are used as sample containers.

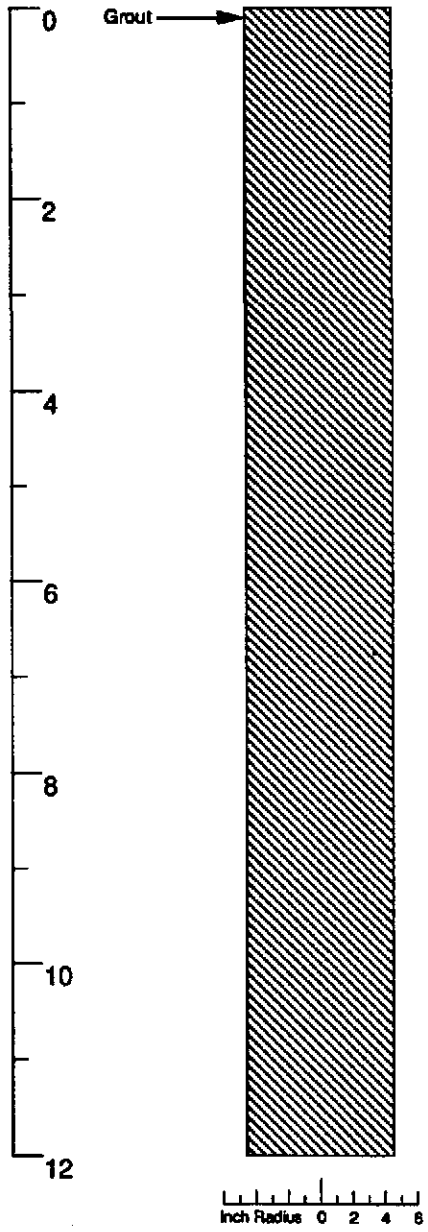
The groundwater sample is decanted into each VOA vial in such a manner that there is a meniscus at the top of the vial. The cap is quickly placed over the top of the vial and securely tightened. The VOA vial is then inverted and tapped to see if air bubbles are present. If none are present, the sample is labeled and refrigerated for delivery under chain-of-custody to the laboratory. Label information should include a sample identification number, job identification number, date, time, type of analysis requested, and the sampler's name.

For quality control purposes, a duplicate water sample is collected for each well. This sample is held at the laboratory unless needed. A trip blank is prepared at the laboratory and placed in the transport cooler. It remains with the cooler and is analyzed by the laboratory along with the groundwater samples. A field blank is prepared in the field when sampling equipment is not dedicated. The field blank is prepared after a pump or bailer has been steam-cleaned, prior to use in a second well, and is analyzed along with the other samples. The field blank demonstrates the quality of in-field cleaning procedures to prevent cross-contamination.

To minimize the potential for cross-contamination between wells, all the well-development and water-sampling equipment that is not dedicated to a well is steam-cleaned between each well. As a second precautionary measure, wells will be sampled in order of least to highest concentrations as established by previous analyses.

ATTACHMENT B

BORING LOGS



PID (ppmv)	GRAPHIC LOG	DESCRIPTION
0		Asphalt
		Silty GRAVEL (GM) light brown; medium dense; dry; 20-30% fines; gravel to 2"; moderate est K
		Sandy SILT (ML) dark brown; medium stiff; dry; 10-20% fine to coarse sand; low est K; no odor; abundant red brick fragments
2		Sandy SILT (ML) brown; medium stiff; damp; 25-35% fine sand; low est K; slight hydrocarbon odor
0		Silty SAND (SM) brown; medium dense; moist; 30-40% fines; fine sand; low to moderate est K; moderate hydrocarbon odor
4		Same as above
1.0		
6		Sandy SILT (ML) gray-green with gray brown mottling; stiff; damp; 30-35% fine sand; low est K; moderate hydrocarbon odor
		Same as above
8		
2.0		
10		Silty SAND (SM) brown with gray mottling; dense; damp; 15-25% fines; fine sand; low to moderate est K; slight hydrocarbon odor
0		Color change to brown with black mottling from 11.3' to 11.5'
12		

Continues

Logged by:	Mike Edmonson	Drilling Company:	Exploration Geoservices	Well Head Completion:	None
Supervisor:	Tom Howard	Drilling Method:	9" Hollow stem auger	Type of Samplers:	2" & 1.4" split barrel
Date Drilled:	4/11/89	Driller:	Dave Yeager	TD (Total Depth):	24.0 ft.

EXPLANATION

- Water level during drilling
- Water level in completed well
- Location of recovered drill sample
- Location of sample sealed for chemical analysis
- NR: No recovery
- Grab sample
- Contacts
- Dotted where approximate
- Dashed where uncertain
- Hachured where gradational
- est K: Estimated permeability (hydraulic conductivity)

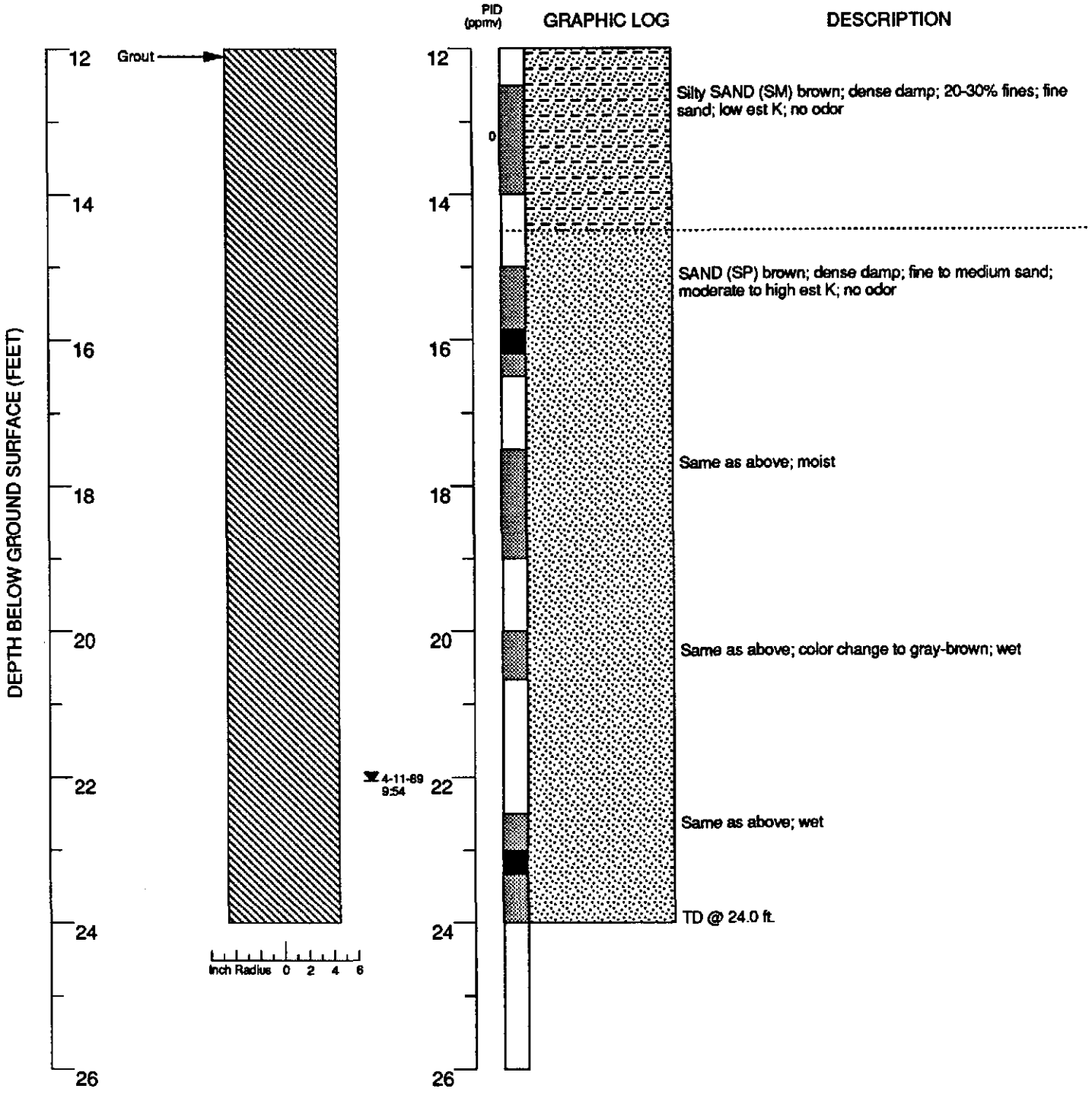
Boring Log B-4
WGR Project No.: 1-012.02

Chevron Facility #90020
Oakland, CA

BORING

4

WESTERN GEOLOGIC RESOURCES, INC.



EXPLANATION

- Water level during drilling
- Water level in completed well
- Location of recovered drill sample
- Location of sample sealed for chemical analysis
- NR No recovery
- Grab sample
- Contacts
- Dotted where approximate
- Dashed where uncertain
- Hachured where gradational
- est K Estimated permeability (hydraulic conductivity)

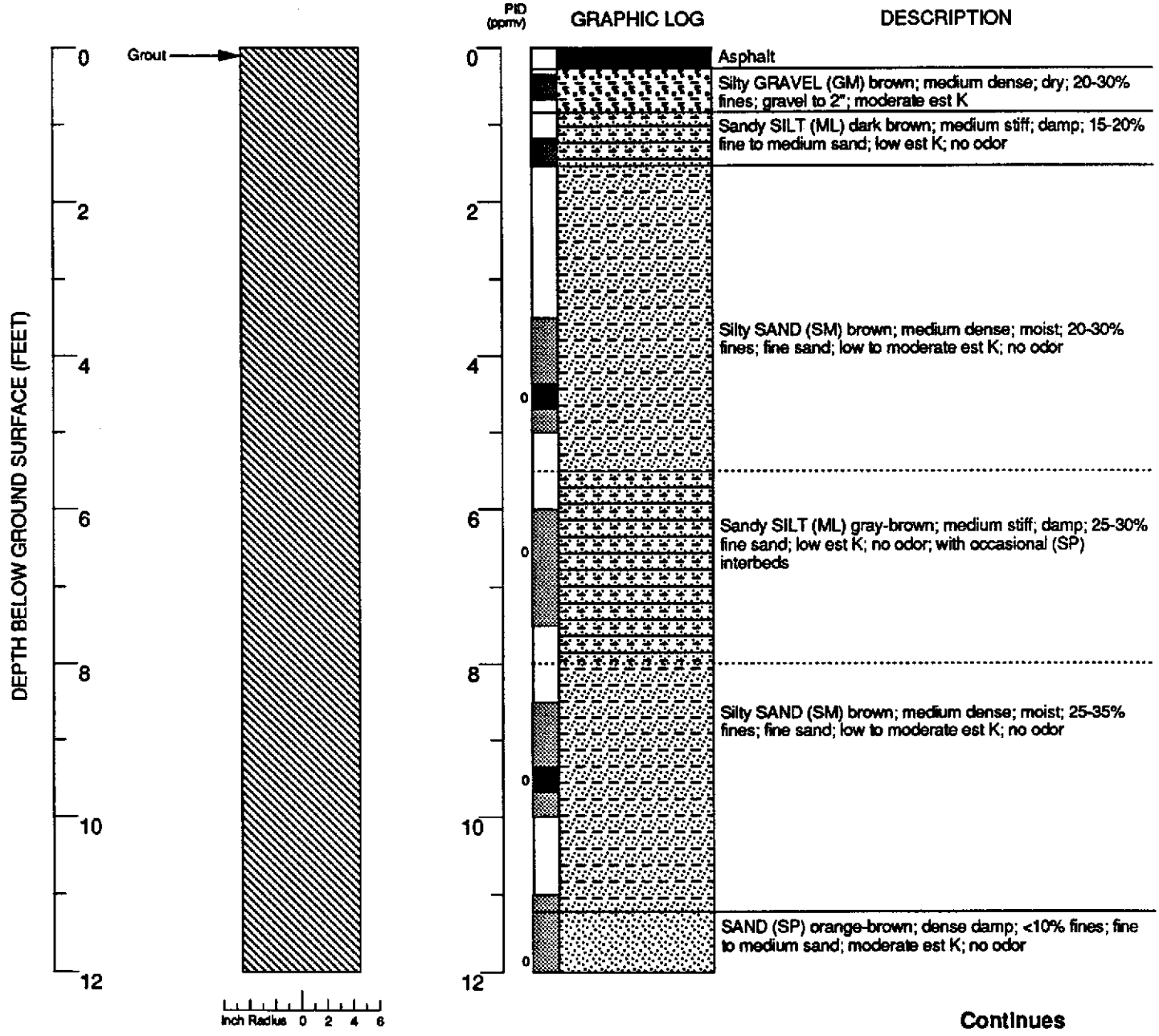
Boring Log B-4 (cont.)
WGR Project No.: 1-012.02

Chevron Facility #90020
Oakland, CA

BORING

4

WESTERN GEOLOGIC RESOURCES, INC.



Continues

Logged by:	Mike Edmonson	Drilling Company:	Exploration Geoservices	Well Head Completion:	None
Supervisor:	Tom Howard	Drilling Method:	9" Hollow stem auger	Type of Samplers:	2" & 1.4" split barrel
Dates Drilled:	4/11/89	Driller:	Dave Yeager	TD (Total Depth):	22.5 ft.

EXPLANATION

- Water level during drilling
- Water level in completed well
- Location of recovered drill sample
- Location of sample sealed for chemical analysis
- NR — No recovery
- Grab sample
- Contacts
- Dotted where approximate
- Dashed where uncertain
- Hachured where gradational
- est K — Estimated permeability (hydraulic conductivity)

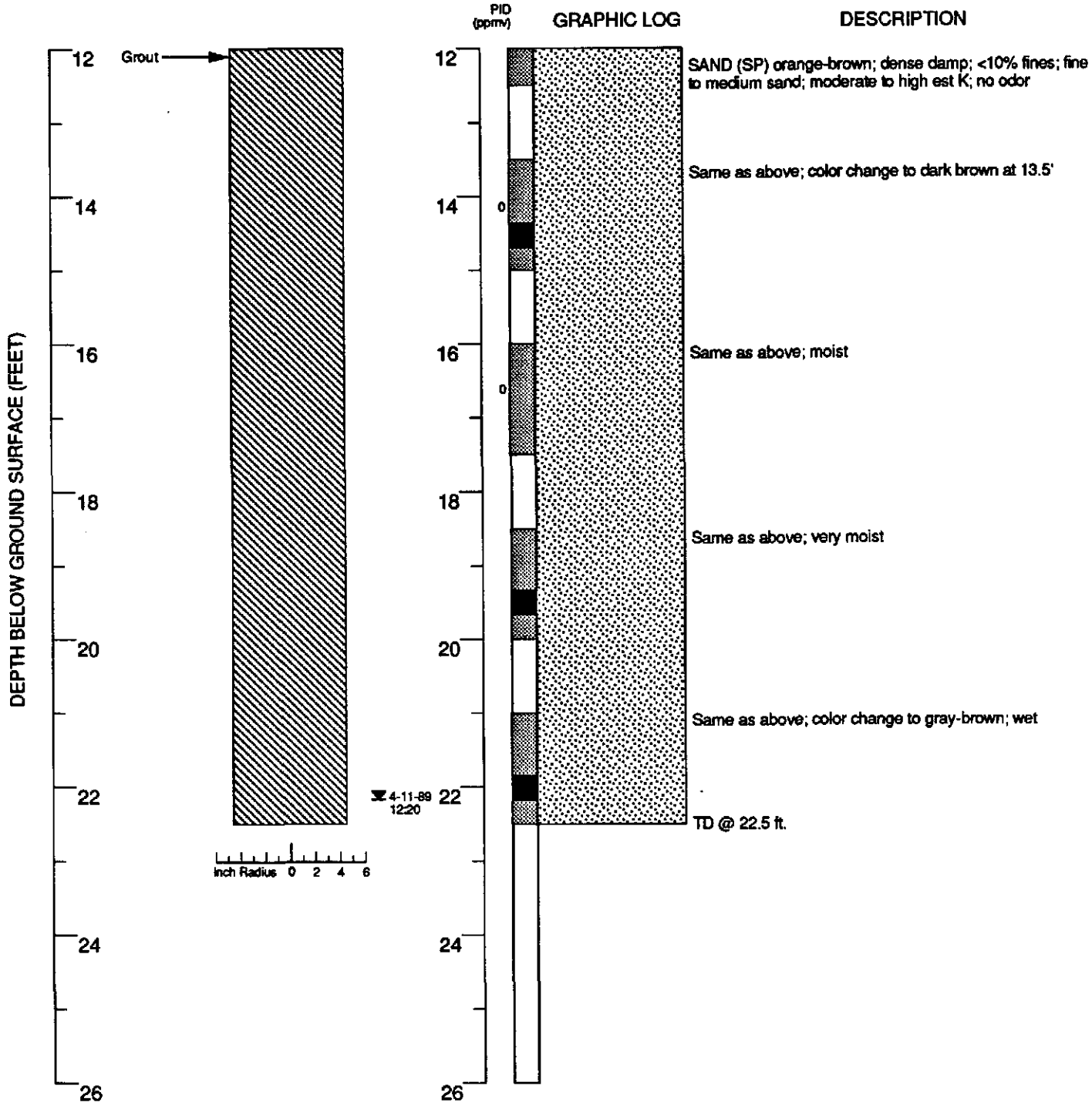
Boring Log B-5
WGR Project No.: 1-012.02

Chevron Facility #90020
Oakland, CA

BORING

5

WESTERN GEOLOGIC RESOURCES, INC.



EXPLANATION

- Water level during drilling
- Water level in completed well
- Location of recovered drill sample
- Location of sample sealed for chemical analysis
- NR No recovery
- Grab sample
- Contacts
- Dotted where approximate
- Dashed where uncertain
- Hachured where gradational
- est K Estimated permeability (hydraulic conductivity)

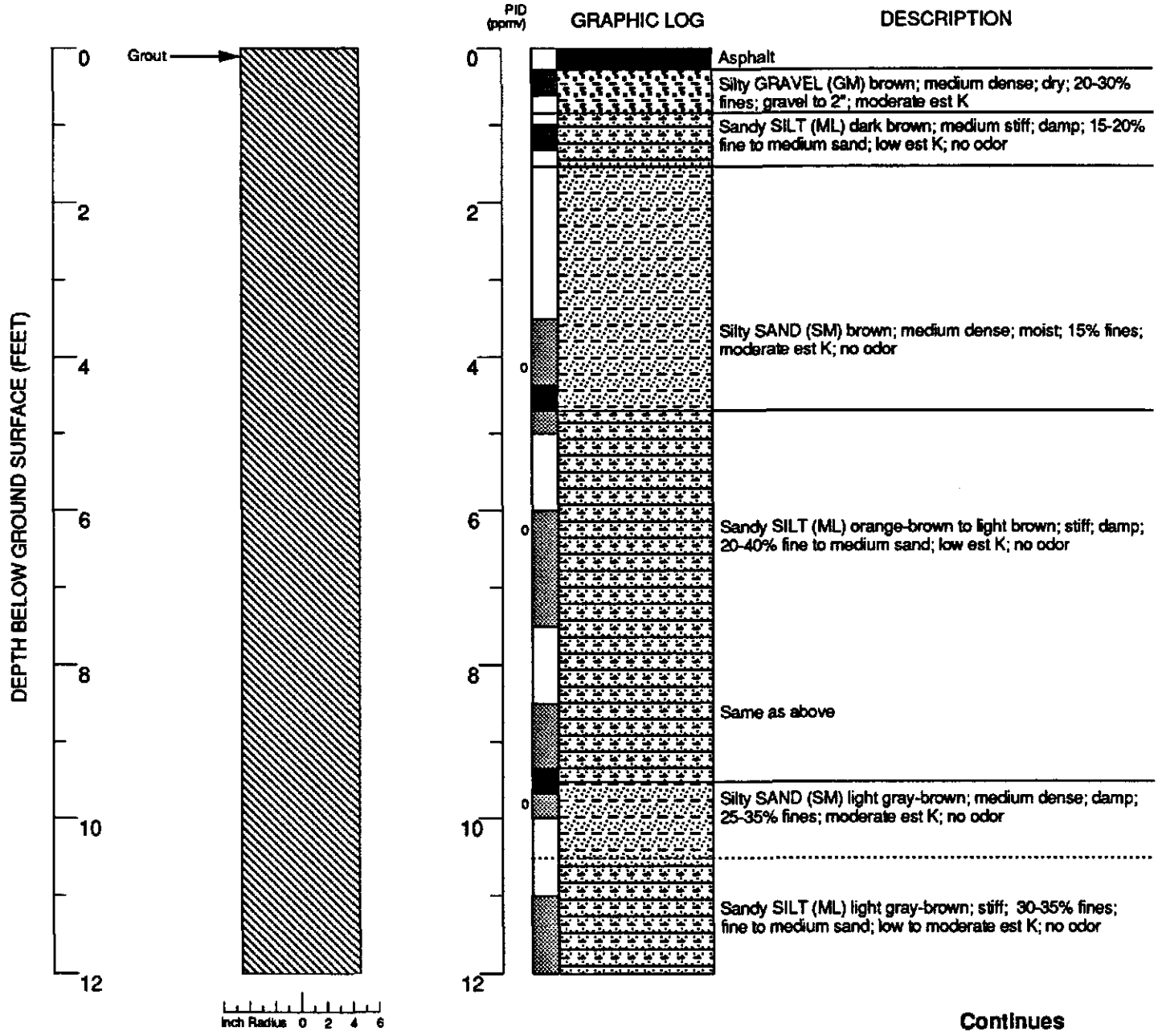
Boring Log B-5 (cont.)
WGR Project No.: 1-012.02

Chevron Facility #90020
Oakland, CA

BORING

5

WESTERN GEOLOGIC RESOURCES, INC.



Continues

Logged by:	Dave Reichard	Drilling Company:	Exploration Geoservices	Well Head Completion:	None
Supervisor:	Tom Howard	Drilling Method:	9" Hollow stem auger	Type of Samplers:	2" & 1.4" split barrel
Dates Drilled:	4/11/89	Driller:	Dave Yeager	TD (Total Depth):	22.7 ft.

EXPLANATION

- Water level during drilling
- Water level in completed well
- Location of recovered drill sample
- Location of sample sealed for chemical analysis
- NR — No recovery
- Grab sample
- Contacts
- Dotted where approximate
- Dashed where uncertain
- Hachured where gradational
- est K — Estimated permeability (hydraulic conductivity)

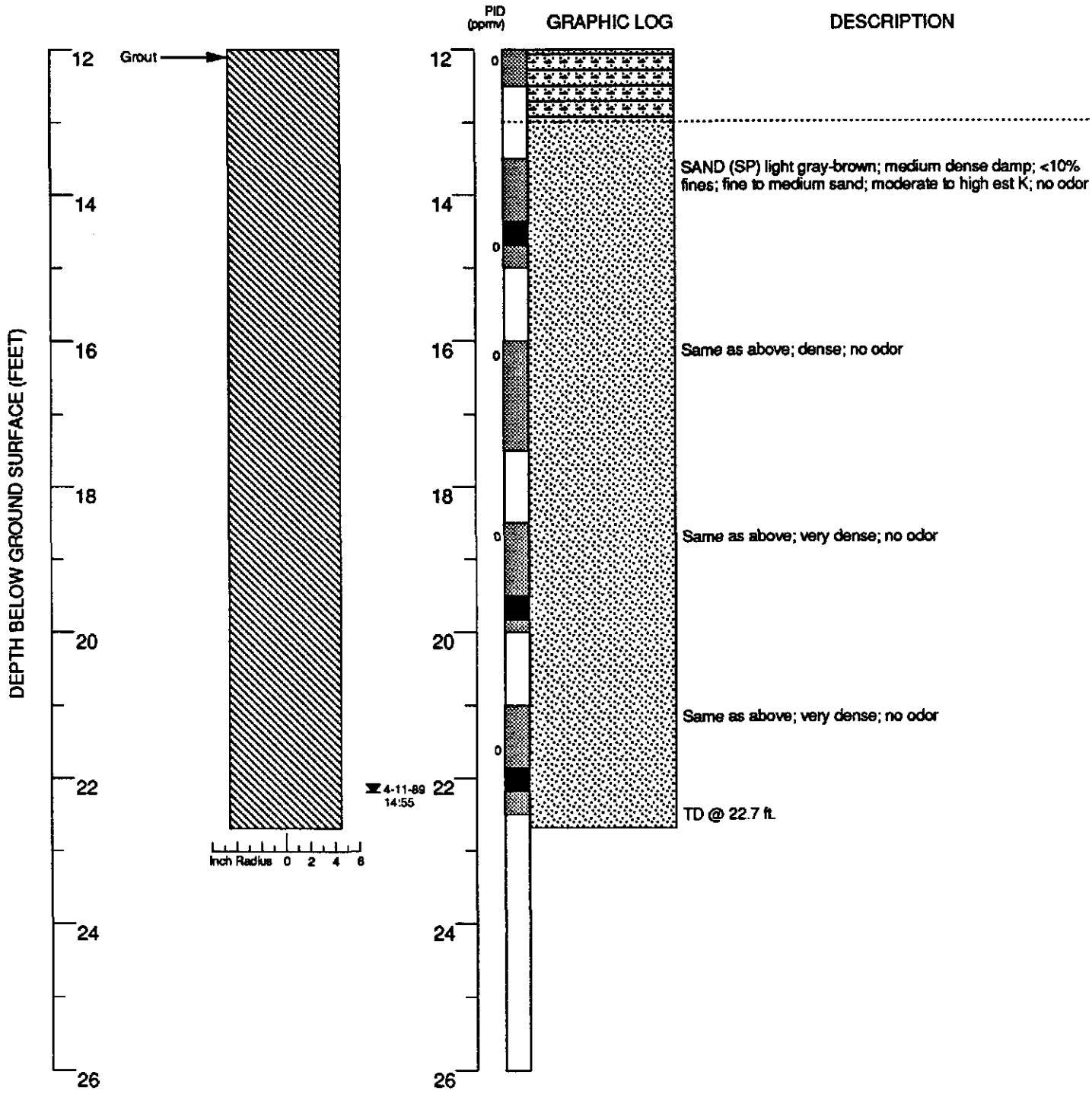
Boring Log B-6
WGR Project No.: 1-012.02

Chevron Facility #90020
Oakland, CA

BORING

6

WESTERN GEOLOGIC RESOURCES, INC.



EXPLANATION

- Water level during drilling
- Water level in completed well
- Location of recovered drill sample
- Location of sample sealed for chemical analysis
- NR No recovery
- Grab sample
- Contacts
- Dotted where approximate
- Dashed where uncertain
- Hachured where gradational
- est K Estimated permeability (hydraulic conductivity)

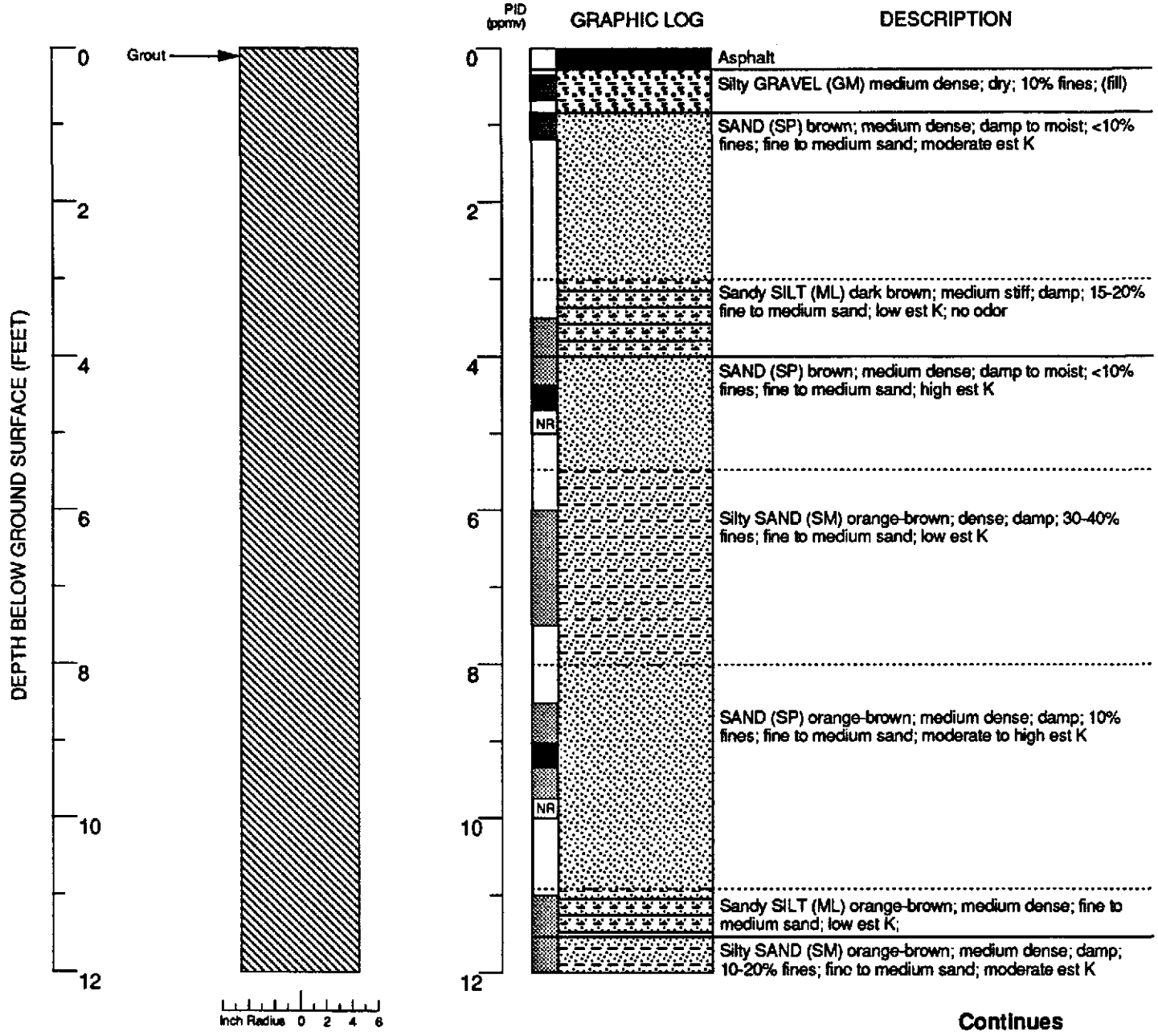
Boring Log B-6 (cont.)
WGR Project No.: 1-012.02

Chevron Facility #90020
Oakland, CA

BORING

6

WESTERN GEOLOGIC RESOURCES, INC.



Continues

Logged by:	Dave Reichard	Drilling Company:	Exploration Geoservices	Well Head Completion:	None
Supervisor:	Tom Howard	Drilling Method:	9" Hollow stem auger	Type of Sampler:	2" split barrel
Dates Drilled:	4/12/89	Driller:	Dave Yeager	TD (Total Depth):	22.7 ft.

EXPLANATION

- Water level during drilling
- Water level in completed well
- Location of recovered drill sample
- Location of sample sealed for chemical analysis
- NR — No recovery
- Grab sample
- Contacts
- Dotted where approximate
- Dashed where uncertain
- Hachured where gradational
- est K — Estimated permeability (hydraulic conductivity)

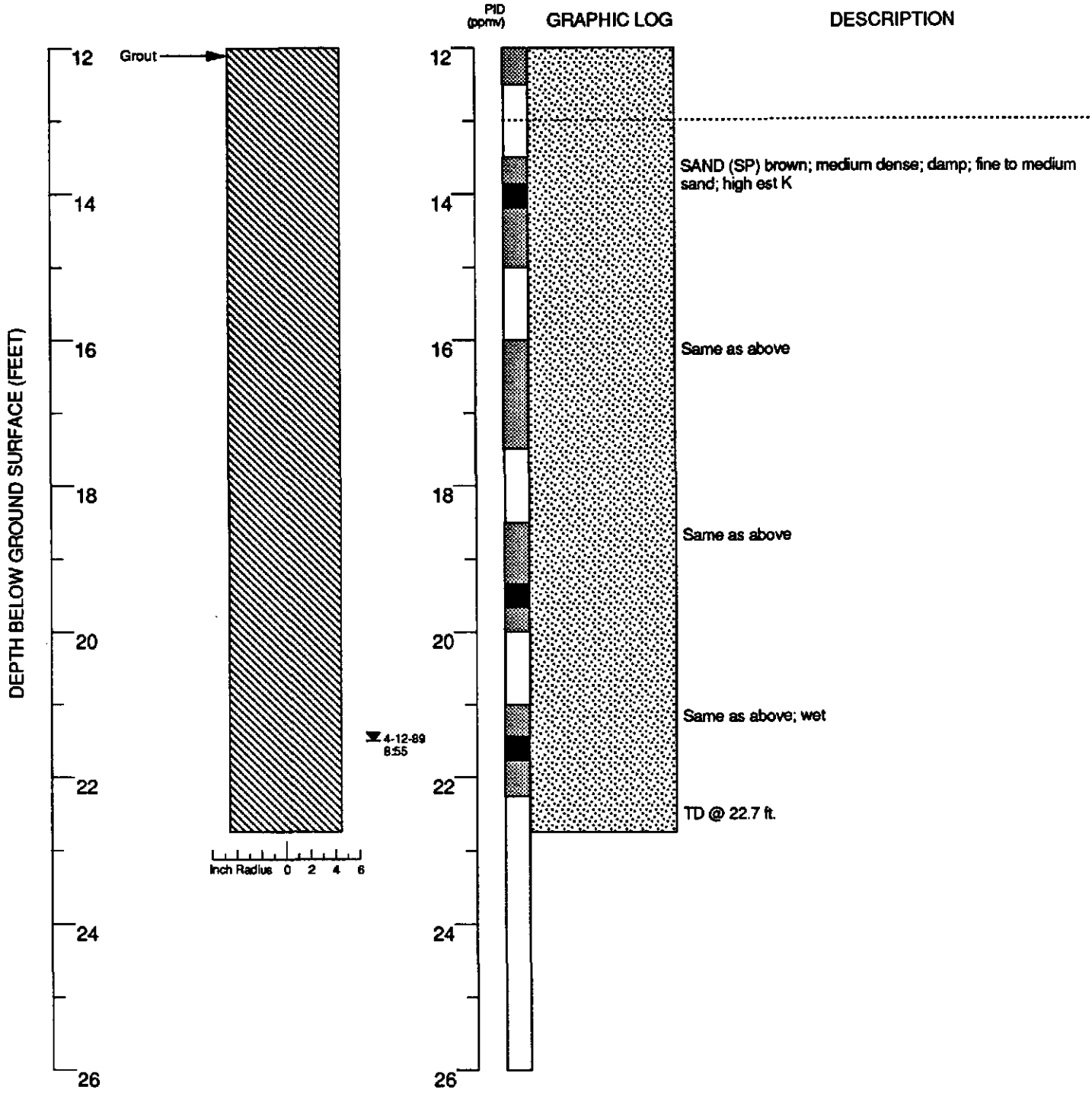
Boring Log B-7
WGR Project No.: 1-012.02

Chevron Facility #90020
Oakland, CA

BORING

7

WESTERN GEOLOGIC RESOURCES, INC.



EXPLANATION

- Water level during drilling
- Water level in completed well
- Location of recovered drill sample
- Location of sample sealed for chemical analysis
- NR No recovery
- Grab sample
- Contacts
- Dotted where approximate
- Dashed where uncertain
- Hachured where gradational
- est K Estimated permeability (hydraulic conductivity)

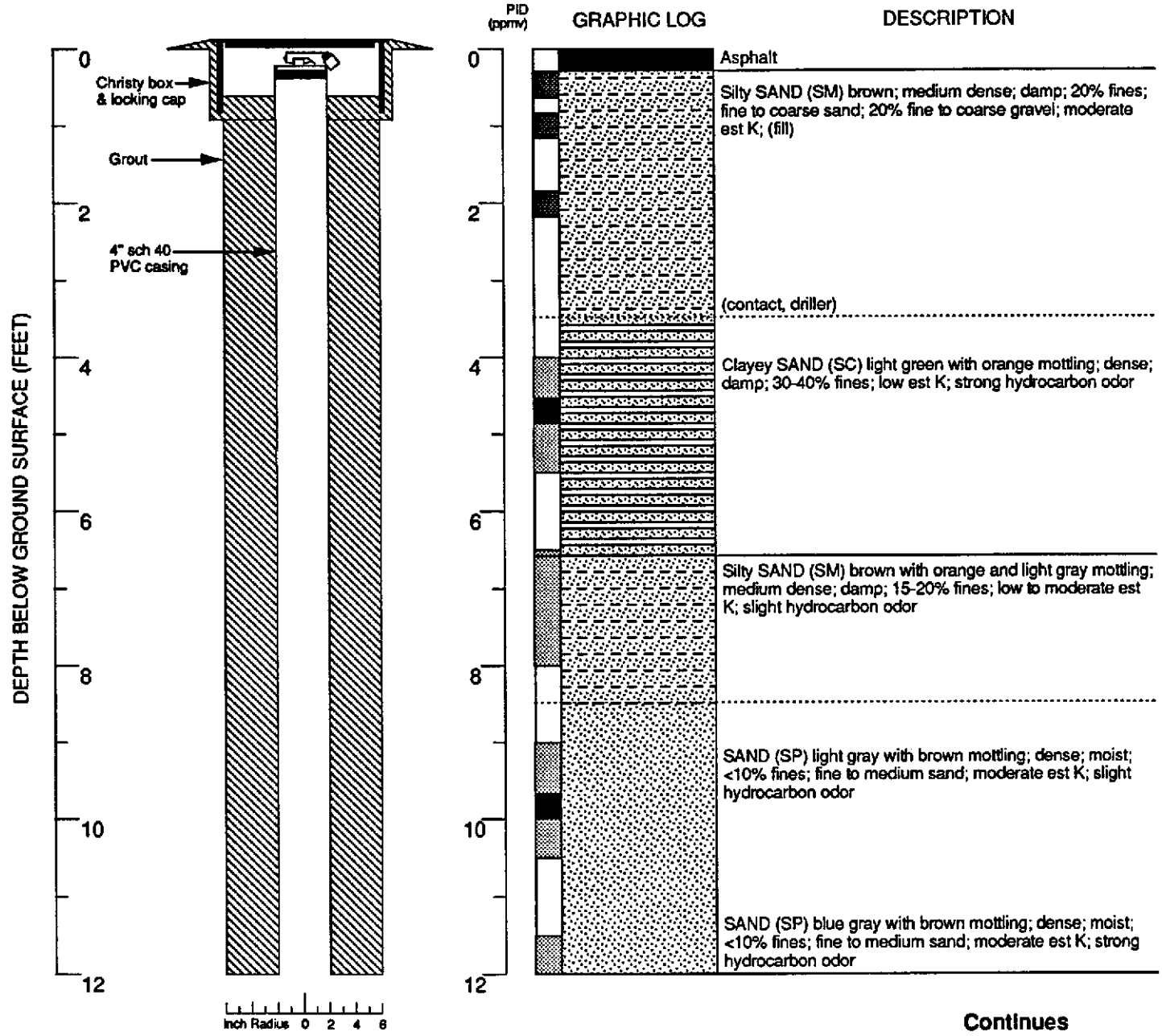
Boring Log B-7 (cont.)
WGR Project No.: 1-012.02

Chevron Facility #90020
Oakland, CA

WESTERN GEOLOGIC RESOURCES, INC.

BORING

7



Logged by:	Dave Reichard	Drilling Company:	Exploration Geoservices	Well Head Completion:	Christy box & locking cap
Supervisor:	Tom Howard	Drilling Method:	12" Hollow stem auger	Type of Samplers:	2" & 1.4" split barrel
Dates Drilled:	4/12/89	Driller:	Dave Yeager	TD (Total Depth):	36.5 ft.

EXPLANATION

- Water level during drilling
- Water level in completed well
- Location of recovered drill sample
- Location of sample sealed for chemical analysis
- NR No recovery
- Grab sample
- Contacts
- Dotted where approximate
- Dashed where uncertain
- Hachured where gradational
- est K Estimated permeability (hydraulic conductivity)

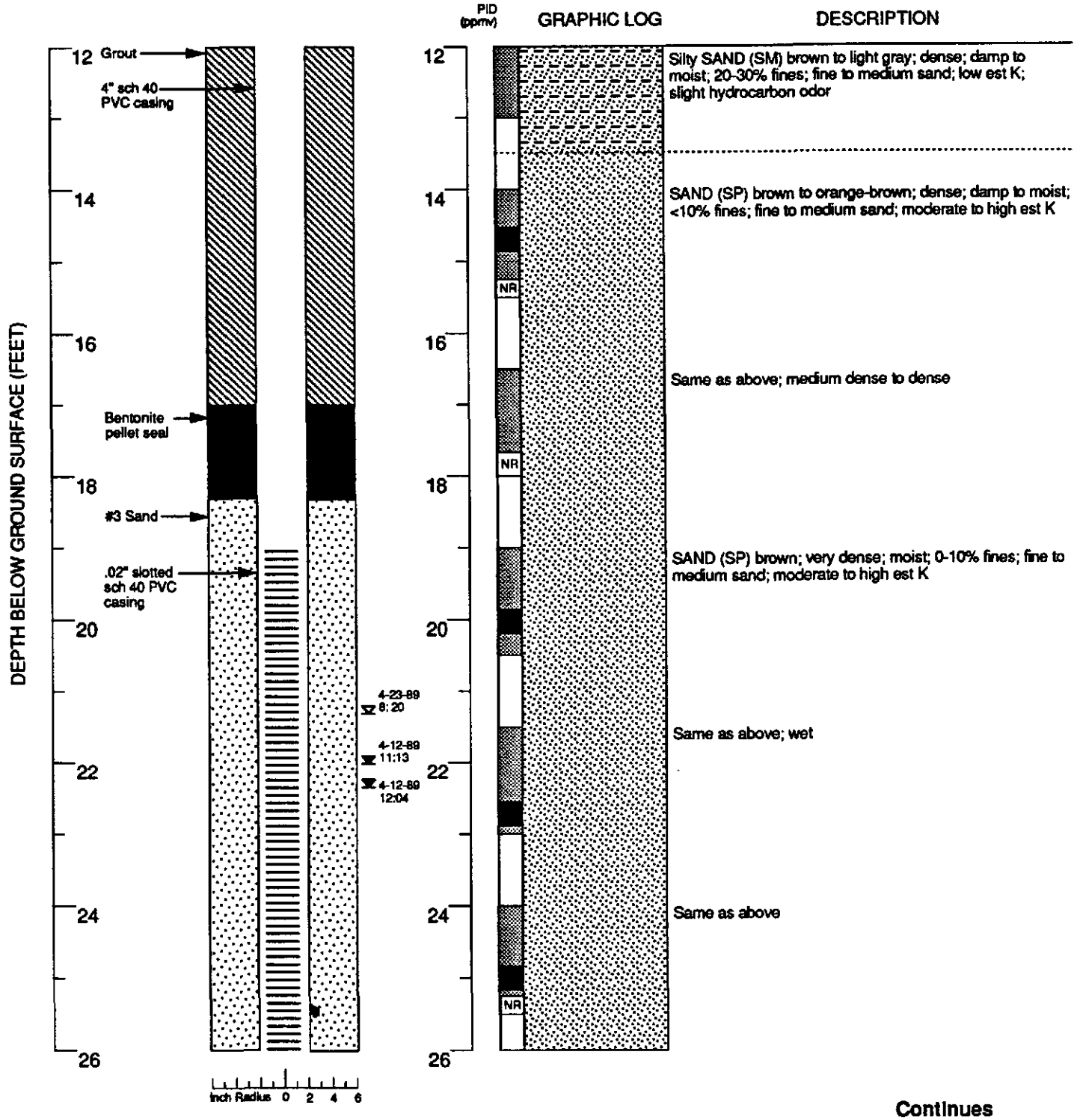
Boring Log and Well Completion Details
MW-4 (Boring B-8)
WGR Project No.: 1-012.02

Chevron Facility #90020
Oakland, CA

WESTERN GEOLOGIC RESOURCES, INC.

MONITOR WELL

4



EXPLANATION

- Water level during drilling
- Water level in completed well
- Location of recovered drill sample
- Location of sample sealed for chemical analysis
- NR No recovery
- Grab sample
- Contacts
- Dotted where approximate
- Dashed where uncertain
- Hachured where gradational
- est K Estimated permeability (hydraulic conductivity)

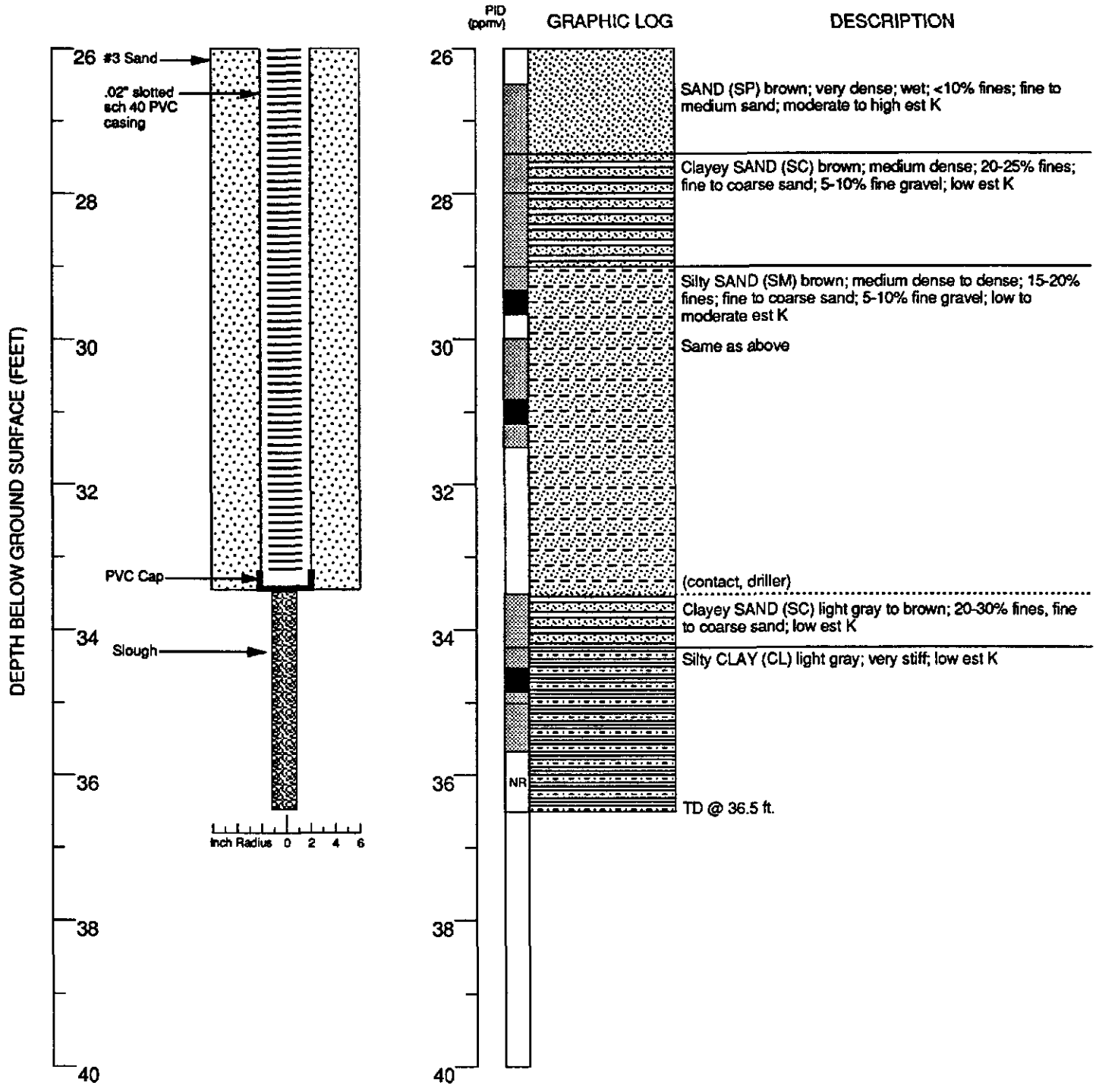
Boring Log and Well Completion Details
MW-4 (Boring B-8) (cont.)
WGR Project No.: 1-012.02

Chevron Facility #90020
Oakland, CA

WESTERN GEOLOGIC RESOURCES, INC.

MONITOR WELL

4



EXPLANATION

- Water level during drilling
- Water level in completed well
- Location of recovered drill sample
- Location of sample sealed for chemical analysis
- NR — No recovery
- Grab sample
- Contacts
- Dotted where approximate
- Dashed where uncertain
- Hachured where gradational
- est K — Estimated permeability (hydraulic conductivity)

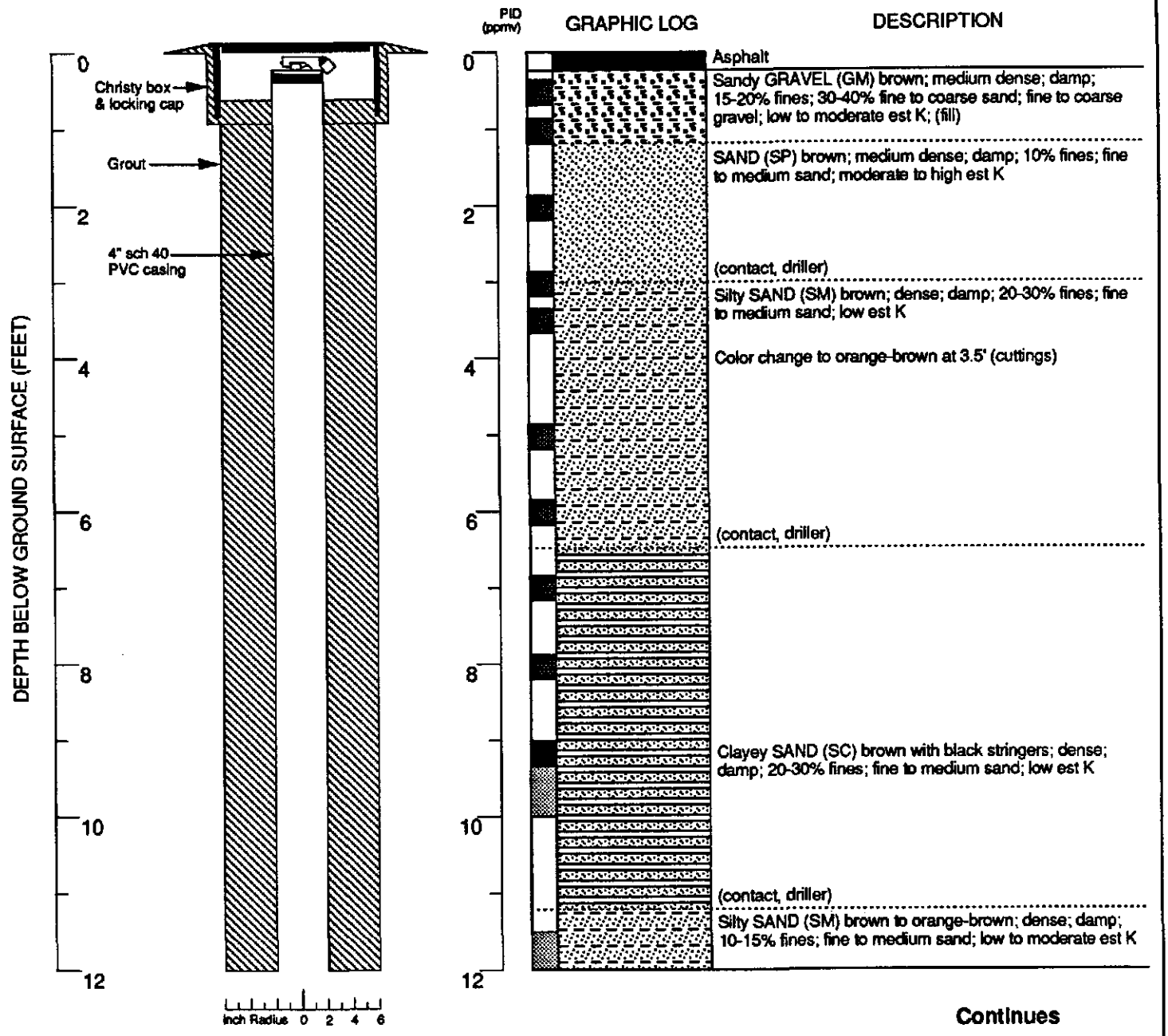
Boring Log and Well Completion Details
MW-4 (Boring B-8) (cont.)
WGR Project No.: 1-012.02

Chevron Facility #90020
Oakland, CA

WESTERN GEOLOGIC RESOURCES, INC.

MONITOR WELL

4



Continues

Logged by:	Richard Baldwin	Drilling Company:	Exploration Geoservices	Well Head Completion:	Christy box & locking cap
Supervisor:	Tom Howard	Drilling Method:	12" Hollow stem auger	Type of Samplers:	2" & 1.4" split barrel
Dates Drilled:	4/14/89	Driller:	Dave Yeager/Troy Foster	TD (Total Depth):	34.0 ft.

EXPLANATION

- Water level during drilling
- Water level in completed well
- Location of recovered drill sample
- Location of sample sealed for chemical analysis
- NR — No recovery
- Grab sample
- Contacts
- Dotted where approximate
- Dashed where uncertain
- Hachured where gradational
- est K — Estimated permeability (hydraulic conductivity)

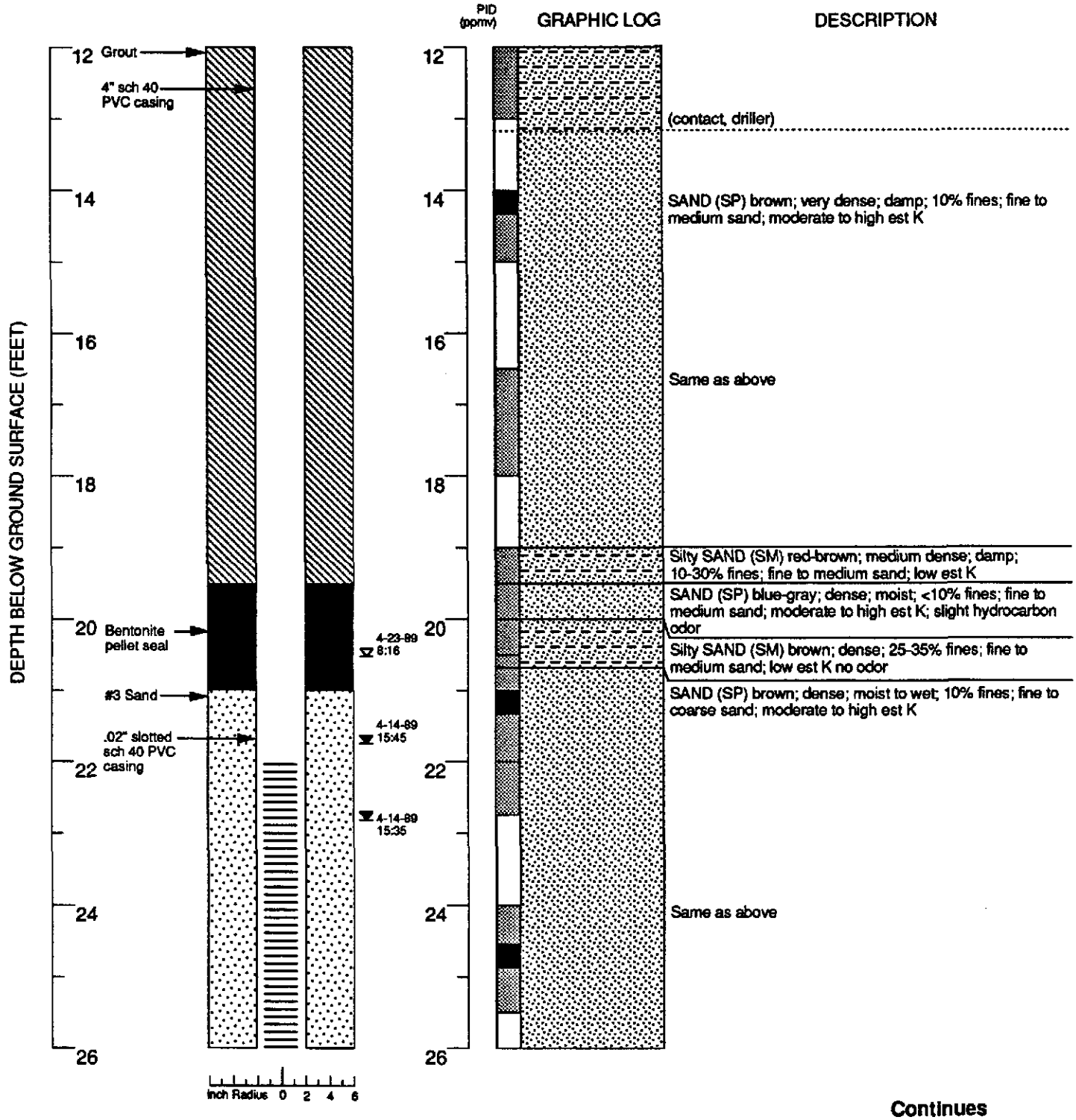
Boring Log and Well Completion Details
MW-5 (Boring B-9)
WGR Project No.: 1-012.02

Chevron Facility #90020
Oakland, CA

MONITOR WELL

5

WESTERN GEOLOGIC RESOURCES, INC.



Continues

EXPLANATION

- Water level during drilling
- Water level in completed well
- Location of recovered drill sample
- Location of sample sealed for chemical analysis
- NR: No recovery
- Grab sample
- Contacts
- Dotted where approximate
- Dashed where uncertain
- Hachured where gradational
- est K: Estimated permeability (hydraulic conductivity)

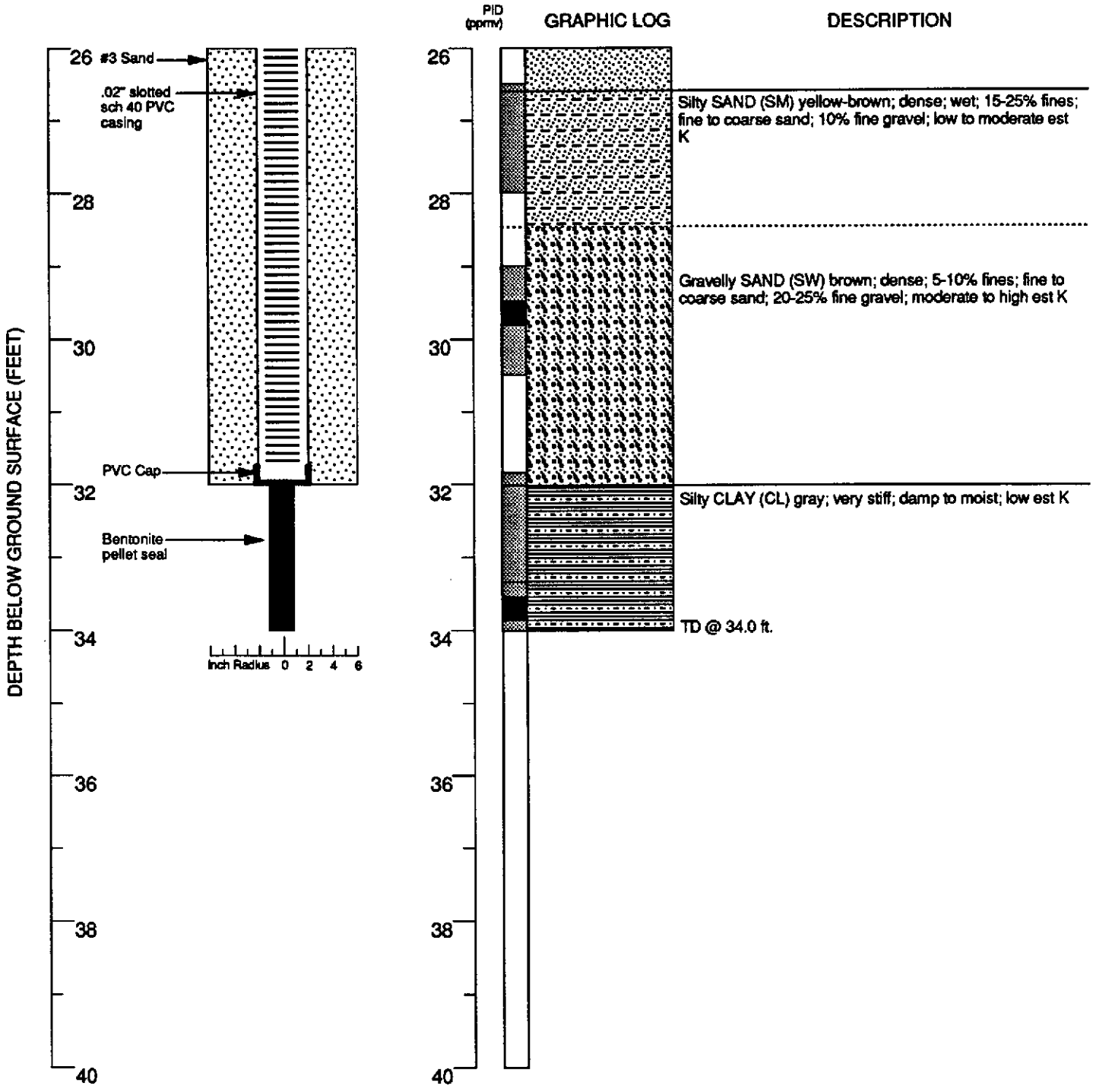
Boring Log and Well Completion Details
MW-5 (Boring B-9) (cont.)
WGR Project No.: 1-012.02

Chevron Facility #90020
Oakland, CA

MONITOR WELL

5

WESTERN GEOLOGIC RESOURCES, INC.



EXPLANATION

- Water level during drilling
- Water level in completed well
- Location of recovered drill sample
- Location of sample sealed for chemical analysis
- NR — No recovery
- Grab sample
- Contacts
- Dotted where approximate
- Dashed where uncertain
- Hachured where gradational
- est K — Estimated permeability (hydraulic conductivity)

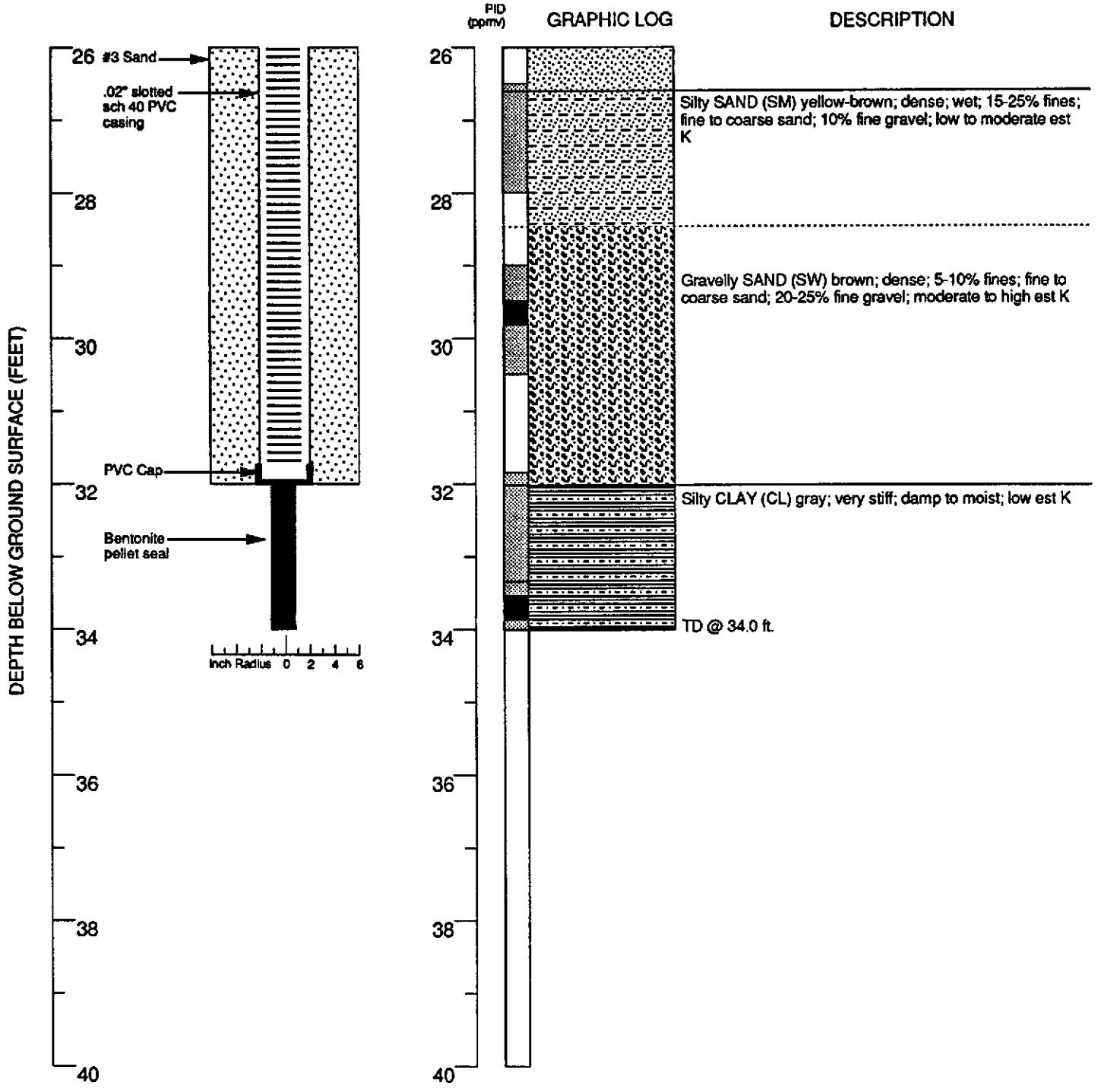
Boring Log and Well Completion Details
MW-5 (Boring B-9) (cont.)
WGR Project No.: 1-012.02

Chevron Facility #90020
Oakland, CA

WESTERN GEOLOGIC RESOURCES, INC.

MONITOR WELL

5



EXPLANATION

- Water level during drilling
- Water level in completed well
- Location of recovered drill sample
- Location of sample sealed for chemical analysis
- NR — No recovery
- Grab sample
- Contacts
- Dotted where approximate
- Dashed where uncertain
- Hachured where gradational
- est K — Estimated permeability (hydraulic conductivity)

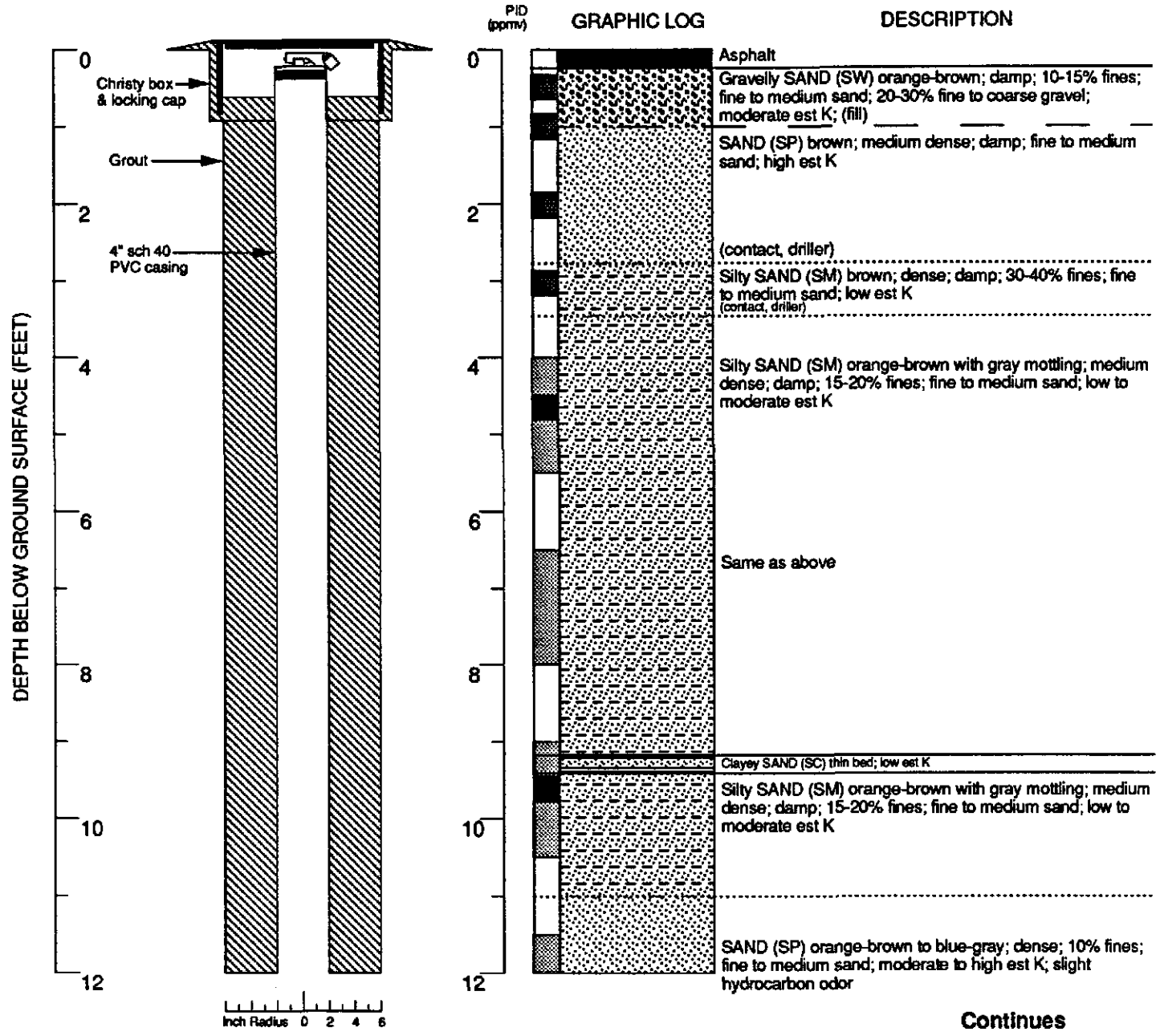
Boring Log and Well Completion Details
MW-5 (Boring B-9) (cont.)
WGR Project No.: 1-012.02

Chevron Facility #90020
Oakland, CA

WESTERN GEOLOGIC RESOURCES, INC.

MONITOR WELL

5



Continues

Logged by:	Richard Baldwin	Drilling Company:	Exploration Geoservices	Well Head Completion:	Christy box & locking cap
Supervisor:	Tom Howard	Drilling Method:	12" Hollow stem auger	Type of Samplers:	2" & 1.4" split barrel
Dates Drilled:	4/13/89	Driller:	Dave Yeager/Troy Foster	TD (Total Depth):	29.5 ft.

EXPLANATION

- Water level during drilling
- Water level in completed well
- Location of recovered drill sample
- Location of sample sealed for chemical analysis
- NR — No recovery
- Grab sample
- Contacts
- Dotted where approximate
- Dashed where uncertain
- Hachured where gradational
- est K — Estimated permeability (hydraulic conductivity)

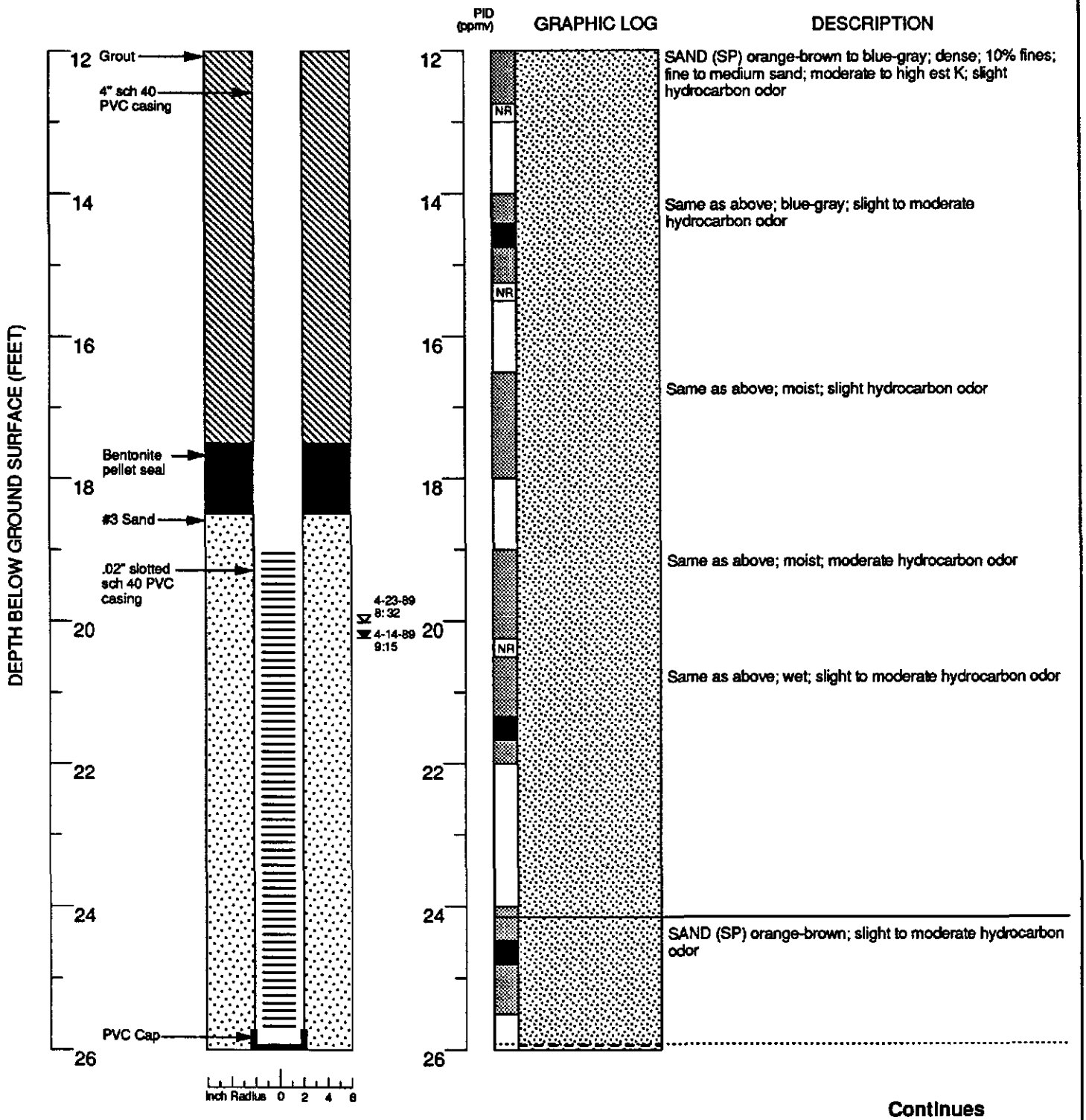
Boring Log and Well Completion Details
MW-6 (Boring B-10)
WGR Project No.: 1-012.02

Chevron Facility #90020
Oakland, CA

MONITOR WELL

6

WESTERN GEOLOGIC RESOURCES, INC.



EXPLANATION

- Water level during drilling
- Water level in completed well
- Location of recovered drill sample
- Location of sample sealed for chemical analysis
- NR — No recovery
- Grab sample
- Contacts
- Dotted where approximate
- Dashed where uncertain
- Hachured where gradational
- est K — Estimated permeability (hydraulic conductivity)

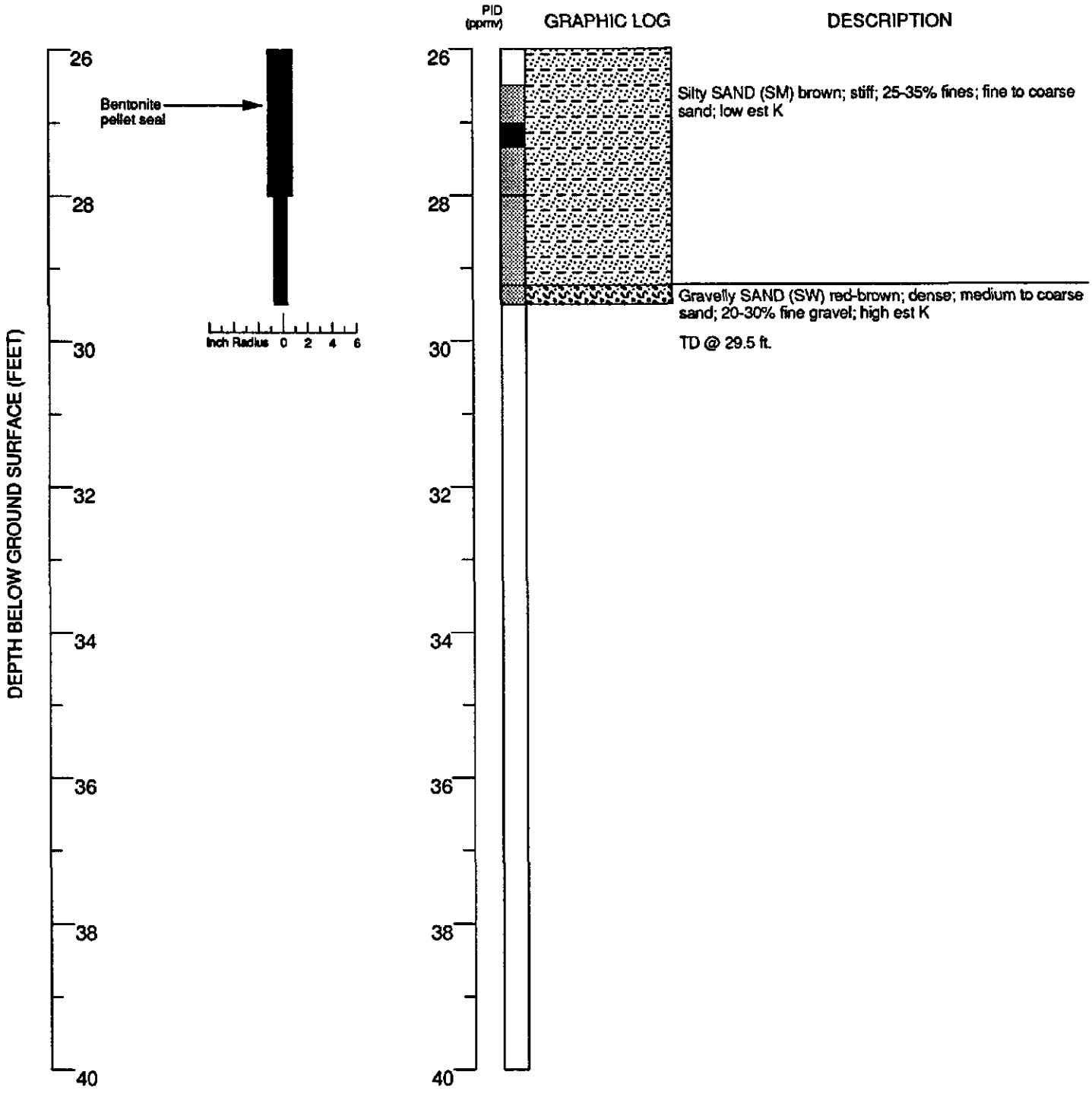
Boring Log and Well Completion Details
MW-6 (Boring B-10) (cont.)
WGR Project No.: 1-012.02

Chevron Facility #90020
Oakland, CA

WESTERN GEOLOGIC RESOURCES, INC.

MONITOR WELL

6



EXPLANATION

- Water level during drilling
- Water level in completed well
- Location of recovered drill sample
- Location of sample sealed for chemical analysis
- NR — No recovery
- Grab sample
- Contacts
- Dotted where approximate
- Dashed where uncertain
- Hachured where gradational
- est K — Estimated permeability (hydraulic conductivity)

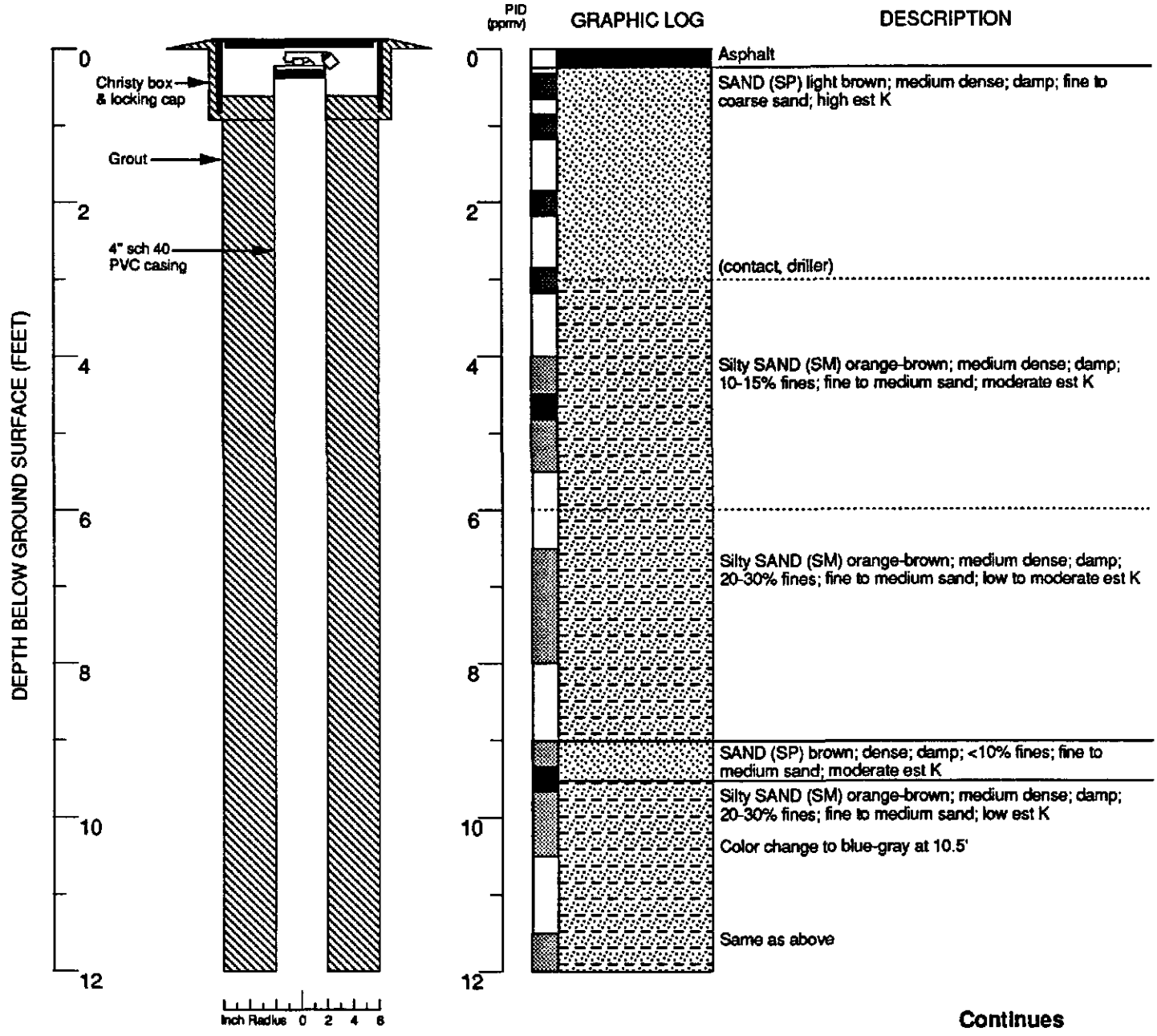
Boring Log and Well Completion Details
MW-6 (Boring B-10) (cont.)
WGR Project No.: 1-012.02

Chevron Facility #90020
Oakland, CA

WESTERN GEOLOGIC RESOURCES, INC.

MONITOR WELL

6



Logged by:	Richard Baldwin	Drilling Company:	Exploration Geoservices	Well Head Completion:	Christy box & locking cap
Supervisor:	Tom Howard	Drilling Method:	12" Hollow stem auger	Type of Samplers:	2" & 1.4" split barrel
Dates Drilled:	4/13/89	Driller:	Dave Yeager/Troy Foster	TD (Total Depth):	31.0 ft.

EXPLANATION

- Water level during drilling
- Water level in completed well
- Location of recovered drill sample
- Location of sample sealed for chemical analysis
- NR No recovery
- Grab sample
- Contacts
- Dotted where approximate
- Dashed where uncertain
- Hachured where gradational
- est K Estimated permeability (hydraulic conductivity)

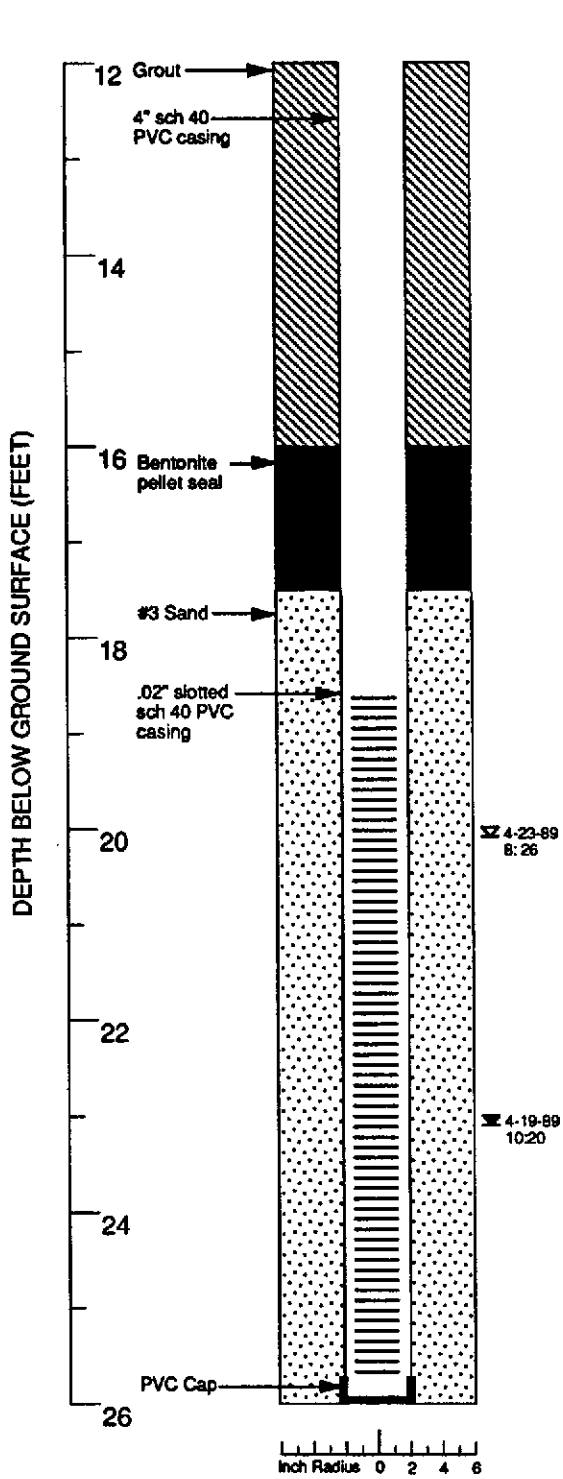
Boring Log and Well Completion Details
MW-7 (Boring B-11)
WGR Project No.: 1-012.02

Chevron Facility #90020
Oakland, CA

MONITOR WELL

7

WESTERN GEOLOGIC RESOURCES, INC.



PID (ppmv)	GRAPHIC LOG	DESCRIPTION
		SAND (SP) blue-gray; medium dense; damp; <10% fines; fine to medium sand; high est K; moderate hydrocarbon odor
NR		
		Same as above; color change to brown to blue-gray; no odor
NR		
		Same as above; color change to dark brown
		Same as above; color change to blue-gray
		Silty SAND (SM) blue-gray; 15-20% fines; fine to medium sand; moderate est K
		SAND (SP) light blue-gray; medium dense; <10% fines; fine to medium sand; moderate to high est K
		Same as above; color change to brown
		Same as above

Continues

EXPLANATION

- Water level during drilling
- Water level in completed well
- Location of recovered drill sample
- Location of sample sealed for chemical analysis
- NR No recovery
- Grab sample
- Contacts
- Dotted where approximate
- Dashed where uncertain
- Hachured where gradational
- est K Estimated permeability (hydraulic conductivity)

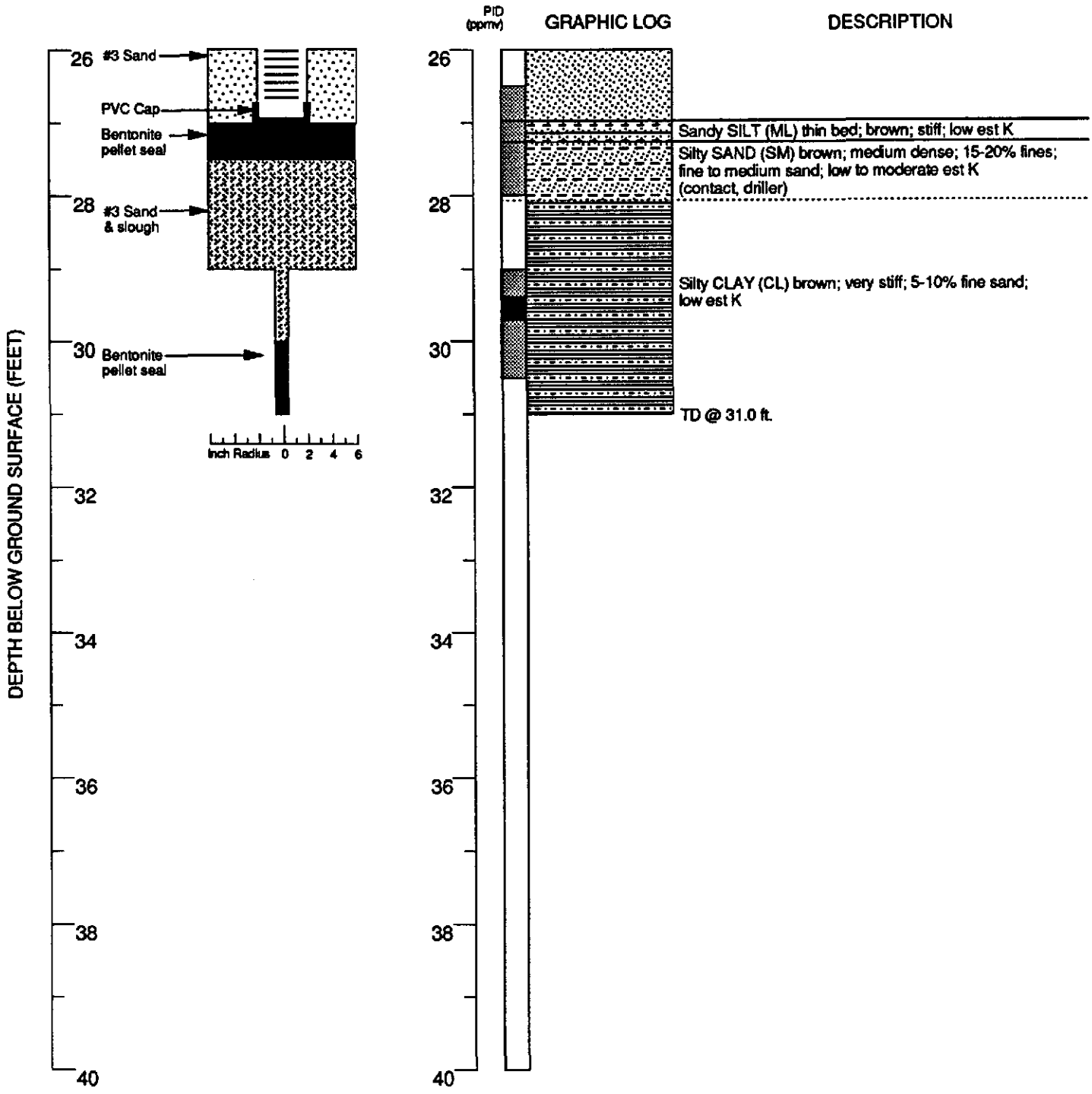
Boring Log and Well Completion Details
MW-8 (Boring B-12) (cont.)
WGR Project No.: 1-012.02

Chevron Facility #90020
Oakland, CA

WESTERN GEOLOGIC RESOURCES, INC.

MONITOR WELL

8



EXPLANATION

- Water level during drilling
- Water level in completed well
- Location of recovered drill sample
- Location of sample sealed for chemical analysis
- NR No recovery
- Grab sample
- Contacts
- Dotted where approximate
- Dashed where uncertain
- Hachured where gradational
- est K Estimated permeability (hydraulic conductivity)

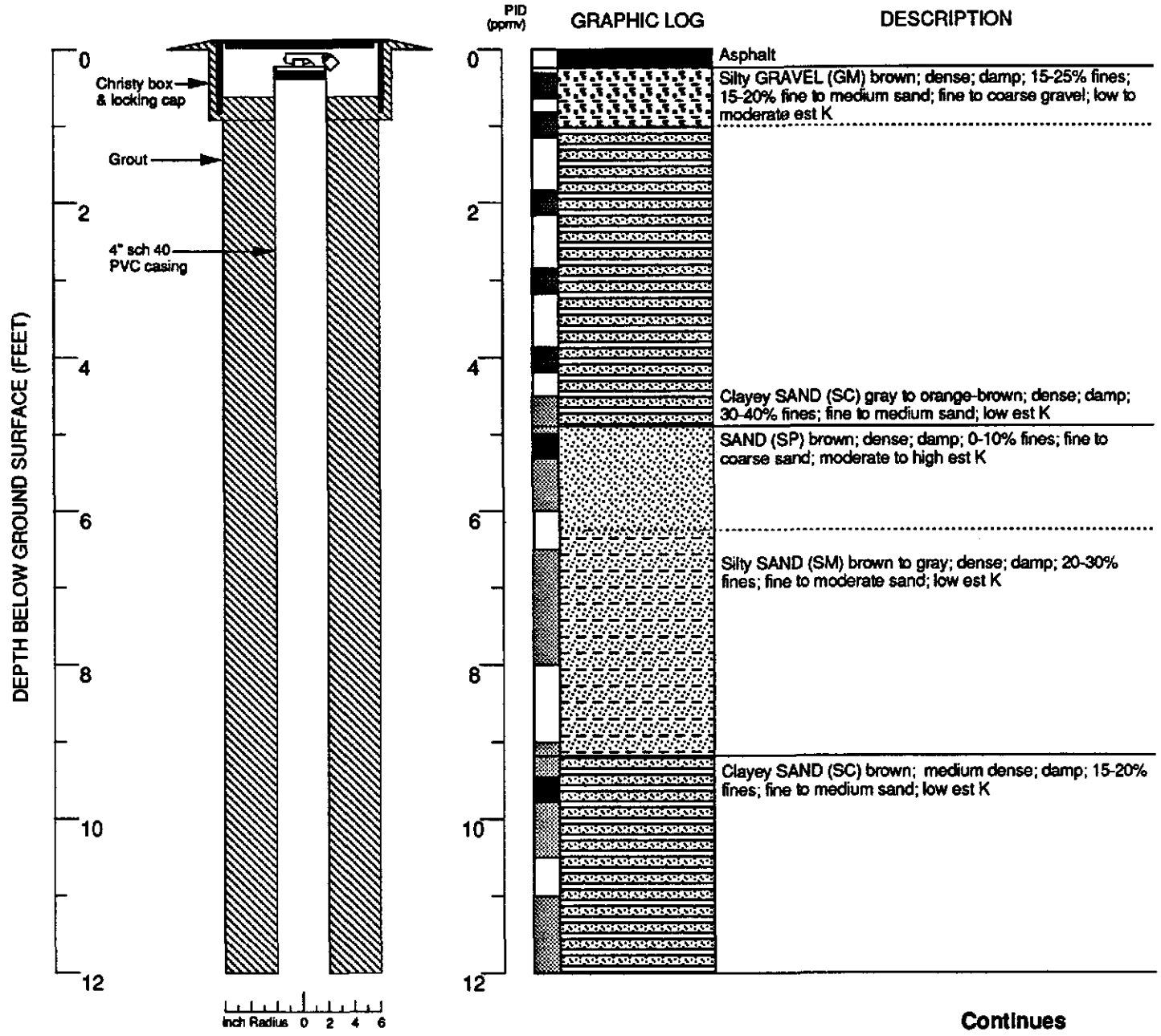
Boring Log and Well Completion Details
MW-7 (Boring B-11) (cont.)
WGR Project No.: 1-012.02

Chevron Facility #90020
Oakland, CA

WESTERN GEOLOGIC RESOURCES, INC.

MONITOR WELL

7



Continues

Logged by:	Richard Baldwin	Drilling Company:	Exploration Geoservices	Well Head Completion:	Christy box & locking cap
Supervisor:	Tom Howard	Drilling Method:	12" Hollow stem auger	Type of Samplers:	2" & 1.4" split barrel
Dates Drilled:	4/19/89	Driller:	Dave Yeager/Troy Foster	TD (Total Depth):	28.0 ft.

EXPLANATION

- Water level during drilling
- Water level in completed well
- Location of recovered drill sample
- Location of sample sealed for chemical analysis
- NR No recovery
- Grab sample
- Contacts
- Dotted where approximate
- Dashed where uncertain
- Hachured where gradational
- est K Estimated permeability (hydraulic conductivity)

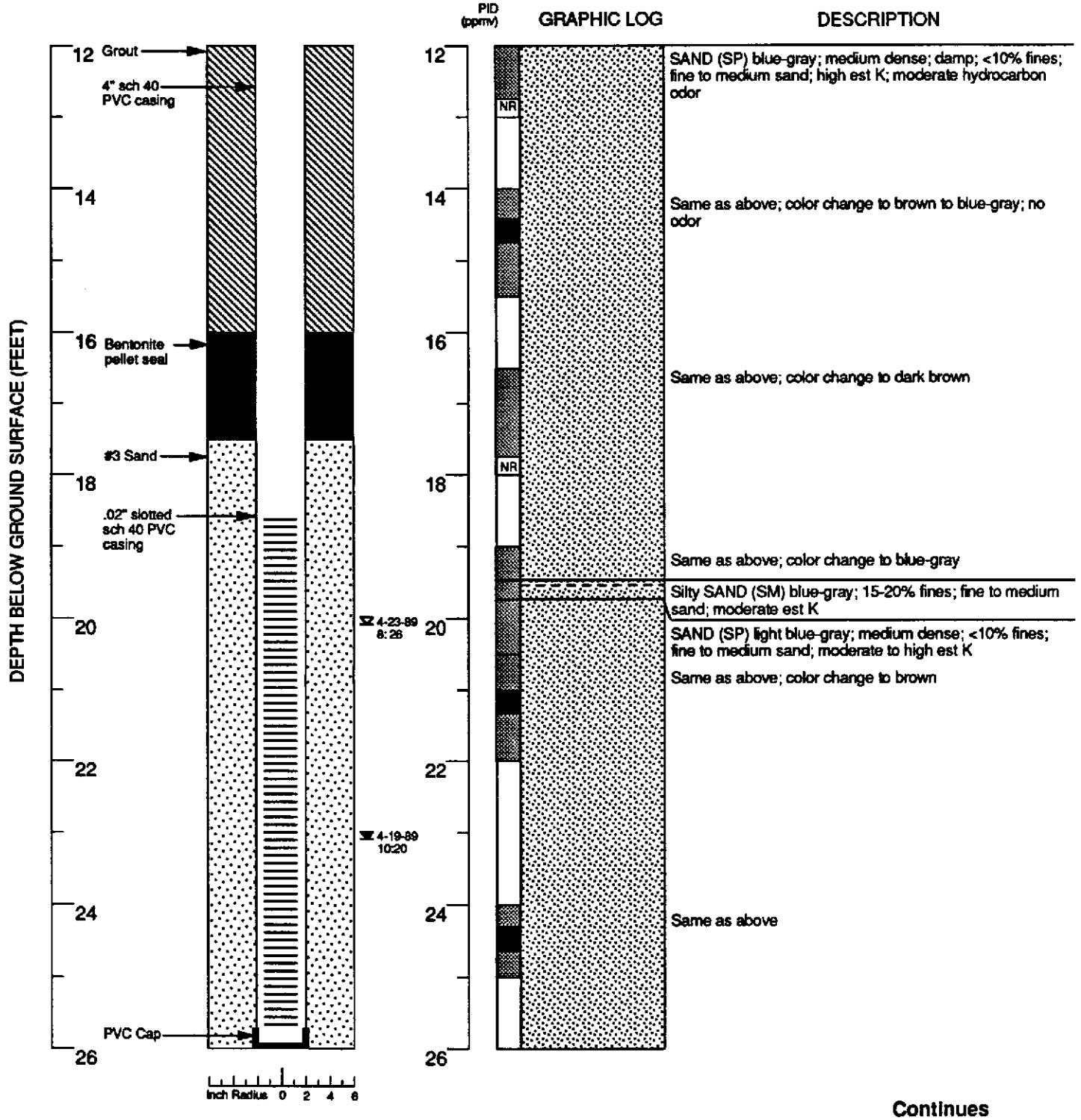
Boring Log and Well Completion Details
MW-8 (Boring B-12)
WGR Project No.: 1-012.02

Chevron Facility #90020
Oakland, CA

WESTERN GEOLOGIC RESOURCES, INC.

MONITOR WELL

8



Continues

EXPLANATION

- Water level during drilling
- Water level in completed well
- Location of recovered drill sample
- Location of sample sealed for chemical analysis
- NR No recovery
- Grab sample
- Contacts
- Dotted where approximate
- Dashed where uncertain
- Hachured where gradational
- est K Estimated permeability (hydraulic conductivity)

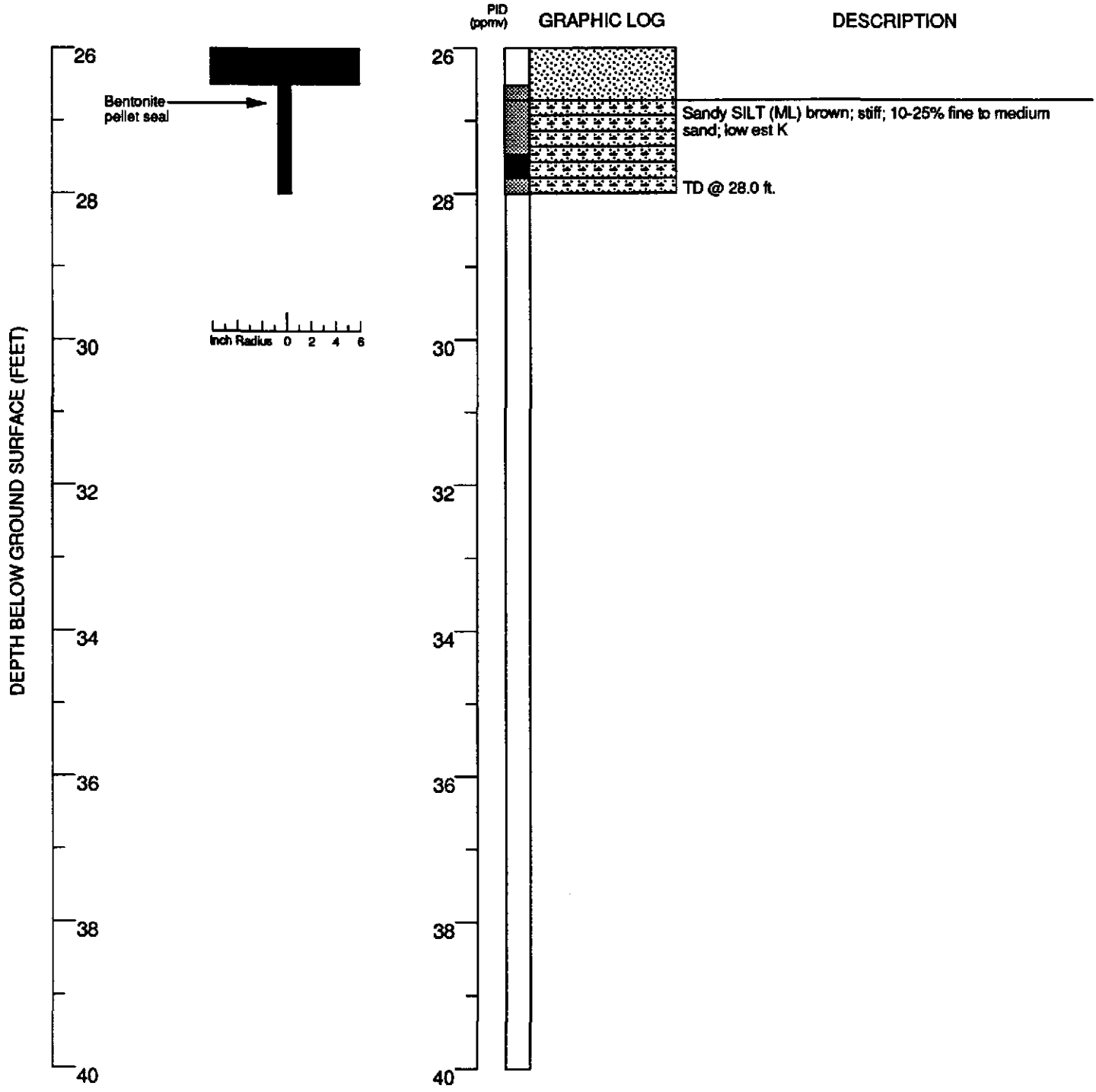
Boring Log and Well Completion Details
MW-8 (Boring B-12) (cont.)
WGR Project No.: 1-012.02

Chevron Facility #90020
Oakland, CA

WESTERN GEOLOGIC RESOURCES, INC.

MONITOR WELL

8



EXPLANATION

- Water level during drilling
- Water level in completed well
- Location of recovered drill sample
- Location of sample sealed for chemical analysis
- NR No recovery
- Grab sample
- Contacts
- Dotted where approximate
- Dashed where uncertain
- Hachured where gradational
- est K Estimated permeability (hydraulic conductivity)

Boring Log and Well Completion Details
MW-8 (Boring B-12) (cont.)
WGR Project No.: 1-012.02

Chevron Facility #90020
Oakland, CA

WESTERN GEOLOGIC RESOURCES, INC.

MONITOR WELL

8

ATTACHMENT C

ANALYTIC REPORTS

Central Coast Analytical Services

Central Coast
Analytical Services
141 Suburban Road, Suite C-4
San Luis Obispo, California 93401
(805) 543-2553

Lab Number: As Listed
Collected: 04/24/89 @ 1535
Received: 04/26/89 @ 1052
Tested: As Listed
Collected by: D.B./B.B.

ATTN: Tom Howard/Ed Buskirk
Western Geologic Resources
2169 E. Francisco Blvd.
Suite B
San Rafael, CA 94901

REPORT

Sample Description:
Oakland, 17th/Harrison, Proj. #012.03,
Filtered Water Samples As Listed

Digested by EPA 3005 on 05/05/89 by JJ.

LAB NUMBER	SAMPLE DESCRIPTION	DISSOLVED LEVEL FOUND (mg/L)			
		CADMIUM	CHROMIUM	LEAD	ZINC
EPA METHOD----------		7131	7191	7421	7950
DETECTION LIMIT(PQL)**-----		0.001	0.005	0.005	0.005
DATE/ANALYST----------		05/09/89 MM	05/09/89 MM	05/09/89 MM	05/11/89 KRW
F-5196	1201	<0.001	0.030	0.018	7.5
F-5197	1202	<0.001	0.031	<0.005	1.1
F-5198	1203	<0.001	0.020	<0.005	0.087
F-5199	1204	<0.001	0.029	<0.005	1.2
F-5200	1205	<0.001	0.022	<0.005	0.40
F-5201	1206	<0.001	0.006	<0.005	1.2
F-5202	1207	0.008	0.006	0.18	140.
F-5203	1208	<0.001	<0.005	0.007	0.38
QD-5203	DUPLICATE	<0.001	<0.005	0.007	0.26
QS-5203	SPIKED AT	0.01	0.10	0.10	1.0
	% SPIKE RECOVERY	116.	109.	85.	80.

**Practical Quantitation Limit

06-02-89
F05196DE.WR1/#54
MH/ah/ke

Respectfully submitted,
Mary Havlicek
Mary Havlicek, Ph.D., President

IR, WATER & HAZARDOUS WASTE LABORATORY (No.131) CERTIFIED by CALIFORNIA DEPT of HEALTH SERVICES

Central Coast Analytical Services

Central Coast
Analytical Services
141 Suburban Road, Suite C-4
San Luis Obispo, California 93401
(805) 543-2553

Lab Number: As Listed
Collected: 04/24/89
Received: 04/26/89 @ 1052
Tested: As Listed
Collected by: DB/BB

ATTN: Tom Howard/Ed Buskirk
Western Geologic Resources
2169 E. Francisco Blvd.
Suite B
San Rafael, CA 94901

Sample Description:

Proj.#1-012.03, Oakland, 17th/Harrison
Water Samples As Listed

REPORT

LAB NUMBER	SAMPLE DESCRIPTION	LEVEL FOUND
		OIL & GREASE -mg/l
EPA METHOD----------		503E
DETECTION LIMIT(PQL)**-----		3.
DATE/ANALYST----------		05/04/89 LAP
F-5196	1201 @ 1535	<3.
F-5197	1202 @ 1014	<3.
F-5198	1203 @ 1054	<3.
F-5199	1204 @ 1423	<3.
F-5200	1205 @ 1700	<3.
F-5201	1206 @ 1437	<3.
F-5202	1207 @ 1715	3.
F-5203	1208 @ 1338	3.

05-12-89
F051960G.WR1/#47
MH/kc

Respectfully submitted,
CENTRAL COAST ANALYTICAL SERVICES
Mary Havlicek, Ph.D., President

AIR, WATER and HAZARDOUS WASTE LABORATORY CERTIFIED by CALIFORNIA DEPT of HEALTH SERVICES

Central Coast Analytical Services

Central Coast
Analytical Services, Inc.
141 Suburban Road, Suite C
San Luis Obispo, CA 93401
(805) 543-2553

Lab Number : F-5196
Collected : 04/24/89
Received : 04/26/89
Tested : 05/05/89
Collected by: DB/BB

EPA METHOD 524.2/8260

Western Geologic Resources
2169 E. Francisco Blvd.
Suite B
San Rafael, CA 94901

Sample Description:
Project # 1-012.03, Oakland 17th/Harrison
1201 water

Compound Analyzed	Detection Limit *PQL (ug/l)	Concentration (ug/l)	Compound Analyzed	Detection Limit *PQL (ug/l)	Concentration (ug/l)
Acetone	20.	ND	1,2-Dichloroethene	1.	ND
Benzene	0.5	ND	1,2-Dichloropropane	1.	ND
Bromodichloromethane	1.	ND	c-1,3-Dichloropropene	1.	ND
Bromoform	1.	ND	t-1,3-Dichloropropene	1.	ND
Bromomethane	1.	ND	Ethylbenzene	1.	ND
2-Butanone	10.	ND	2-Hexanone	5.	ND
Carbon Disulfide	1.	ND	Methyl Isobutyl Ketone	5.	ND
Carbon Tetrachloride	1.	16.	Methylene Chloride	5.	ND
Chlorobenzene	1.	ND	Styrene	1.	ND
Chloroethane	1.	ND	1,1,2,2-Tetrachloroethane	3.	ND
2-Chloroethylvinylether	2.	ND	Tetrachloroethene	1.	ND
Chloroform	2.	6.	Toluene	1.	ND
Chloromethane	1.	ND	1,1,1-Trichloroethane	1.	ND
Dibromochloromethane	1.	ND	1,1,2-Trichloroethane	1.	ND
1,2-Dichlorobenzene	1.	ND	Trichloroethene	1.	ND
1,3-Dichlorobenzene	1.	ND	Trichlorofluoromethane	1.	ND
1,4-Dichlorobenzene	1.	ND	Trichlorotrifluoroethane	1.	ND
1,1-Dichloroethane	1.	ND	Vinyl Acetate	5.	ND
1,2-Dichloroethane	1.	ND	Vinyl Chloride	1.	ND
1,1-Dichloroethene	1.	ND	Xylenes	1.	ND

Total Purgeable Petroleum Hydrocarbons (Gasoline) 50. ND

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 92/82/118

Constituents reported as ND would have been reported if present at or above the detection limit.

finn/05/09/89
f5196v.wr1
MH/brp/mc

Respectfully submitted,
CENTRAL COAST ANALYTICAL SERVICES

Mary D. Havlicek, Ph.D., President

AIR, WATER and HAZARDOUS WASTE LABCRATORY CERTIFIED by CALIFORNIA DEPT of HEALTH SERVICES

Central Coast Analytical Services

Central Coast
Analytical Services, Inc.
141 Suburban Road, Suite C
San Luis Obispo, CA 93401
(805) 543-2553

Lab Number : F-5197
Collected : 04/24/89
Received : 04/26/89
Tested : 05/05/89
Collected by: DB/BB

EPA METHOD 524.2/8260

Western Geologic Resources
2169 E. Francisco Blvd.
Suite B
San Rafael, CA 94901

Sample Description:
Project # 1-012.03, Oakland 17th/Harrison
1202 water

Compound Analyzed	Detection Limit *PQL (ug/l)	Concentration (ug/l)	Compound Analyzed	Detection Limit *PQL (ug/l)	Concentration (ug/l)
Acetone	20.	ND	1,2-Dichloroethene	1.	9.
Benzene	0.5	ND	1,2-Dichloropropane	1.	ND
Bromodichloromethane	1.	ND	c-1,3-Dichloropropene	1.	ND
Bromoform	1.	ND	t-1,3-Dichloropropene	1.	ND
Bromomethane	1.	ND	Ethylbenzene	1.	ND
2-Butanone	10.	ND	2-Hexanone	5.	ND
Carbon Disulfide	1.	ND	Methyl Isobutyl Ketone	5.	ND
Carbon Tetrachloride	1.	2.	Methylene Chloride	5.	ND
Chlorobenzene	1.	ND	Styrene	1.	ND
Chloroethane	1.	ND	1,1,2,2-Tetrachloroethane	3.	ND
2-Chloroethylvinylether	2.	ND	Tetrachloroethene	1.	38.
Chloroform	2.	2.	Toluene	1.	ND
Chloromethane	1.	ND	1,1,1-Trichloroethane	1.	ND
Dibromochloromethane	1.	ND	1,1,2-Trichloroethane	1.	ND
1,2-Dichlorobenzene	1.	ND	Trichloroethene	1.	3.
1,3-Dichlorobenzene	1.	ND	Trichlorofluoromethane	1.	ND
1,4-Dichlorobenzene	1.	ND	Trichlorotrifluoroethane	1.	ND
1,1-Dichloroethane	1.	ND	Vinyl Acetate	5.	ND
1,2-Dichloroethane	1.	ND	Vinyl Chloride	1.	ND
1,1-Dichloroethene	1.	ND	Xylenes	1.	ND

Total Purgeable Petroleum Hydrocarbons (Gasoline) 50. ND

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 92/84/122

Constituents reported as ND would have been reported if present at or above the detection limit.

finn/05/09/89
f5197v.wr1
MH/brp/mc

Respectfully submitted,
CENTRAL COAST ANALYTICAL SERVICES

Mary D. Havlicek

Mary D. Havlicek, Ph.D., President

AIR, WATER and HAZARDOUS WASTE LABORATORY CERTIFIED by CALIFORNIA DEPT of HEALTH SERVICES

Central Coast Analytical Services

Central Coast
Analytical Services, Inc.
141 Suburban Road, Suite C
San Luis Obispo, CA 93401
(805) 543-2553

Lab Number : F-5198
Collected : 04/24/89
Received : 04/26/89
Tested : 05/05/89
Collected by: DB/BB

EPA METHOD 524.2/8260

Western Geologic Resources
2169 E. Francisco Blvd.
Suite B
San Rafael, CA 94901

Sample Description:
Project # 1-012.03, Oakland 17th/Harrison
1203 water

Compound Analyzed	Detection Limit *PQL (ug/l)	Concentration (ug/l)	Compound Analyzed	Detection Limit *PQL (ug/l)	Concentration (ug/l)
Acetone	20.	ND	1,2-Dichloroethene	1.	11.
Benzene	0.5	ND	1,2-Dichloropropane	1.	ND
Bromodichloromethane	1.	ND	c-1,3-Dichloropropene	1.	ND
Bromoform	1.	ND	t-1,3-Dichloropropene	1.	ND
Bromomethane	1.	ND	Ethylbenzene	1.	ND
2-Butanone	10.	ND	2-Hexanone	5.	ND
Carbon Disulfide	1.	ND	Methyl Isobutyl Ketone	5.	ND
Carbon Tetrachloride	1.	7.	Methylene Chloride	5.	ND
Chlorobenzene	1.	ND	Styrene	1.	ND
Chloroethane	1.	ND	1,1,2,2-Tetrachloroethane	3.	ND
2-Chloroethylvinylether	2.	ND	Tetrachloroethene	1.	110.
Chloroform	2.	6.	Toluene	1.	ND
Chloromethane	1.	ND	1,1,1-Trichloroethane	1.	ND
Dibromochloromethane	1.	ND	1,1,2-Trichloroethane	1.	ND
1,2-Dichlorobenzene	1.	ND	Trichloroethene	1.	3.
1,3-Dichlorobenzene	1.	ND	Trichlorofluoromethane	1.	ND
1,4-Dichlorobenzene	1.	ND	Trichlorotrifluoroethane	1.	ND
1,1-Dichloroethane	1.	ND	Vinyl Acetate	5.	ND
1,2-Dichloroethane	1.	ND	Vinyl Chloride	1.	ND
1,1-Dichloroethene	1.	ND	Xylenes	1.	ND

Total Purgeable Petroleum Hydrocarbons (Gasoline) 50. ND

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 96/82/117

Constituents reported as ND would have been reported if present at or above the detection limit.

finn/05/09/89
f5198v.wr1
MH/brp/mc

Respectfully submitted,
CENTRAL COAST ANALYTICAL SERVICES

Mary D. Havlicek

Mary D. Havlicek, Ph.D., President

AIR, WATER and HAZARDOUS WASTE LABORATORY CERTIFIED by CALIFORNIA DEPT of HEALTH SERVICES

Central Coast Analytical Services

Central Coast
Analytical Services, Inc.
141 Suburban Road, Suite C
San Luis Obispo, CA 93401
(805) 543-2553

Lab Number : F-5199
Collected : 04/24/89
Received : 04/26/89
Tested : 05/05/89
Collected by: DB/BB

EPA METHOD 524.2/8260

Western Geologic Resources
2169 E. Francisco Blvd.
Suite B
San Rafael, CA 94901

Sample Description:
Project # 1-012.03, Oakland 17th/Harrison
1204 water

Compound Analyzed	Detection Limit *PQL (ug/l)	Concentration (ug/l)	Compound Analyzed	Detection Limit *PQL (ug/l)	Concentration (ug/l)
Acetone	20.	ND	1,2-Dichloroethene	1.	ND
Benzene	0.5	ND	1,2-Dichloropropane	1.	ND
Bromodichloromethane	1.	ND	c-1,3-Dichloropropene	1.	ND
Bromoform	1.	ND	t-1,3-Dichloropropene	1.	ND
Bromomethane	1.	ND	Ethylbenzene	1.	ND
2-Butanone	10.	ND	2-Hexanone	5.	ND
Carbon Disulfide	1.	ND	Methyl Isobutyl Ketone	5.	ND
Carbon Tetrachloride	1.	35.	Methylene Chloride	5.	ND
Chlorobenzene	1.	ND	Styrene	1.	ND
Chloroethane	1.	ND	1,1,2,2-Tetrachloroethane	3.	ND
2-Chloroethylvinylether	2.	ND	Tetrachloroethene	1.	ND
Chloroform	2.	11.	Toluene	1.	ND
Chloromethane	1.	ND	1,1,1-Trichloroethane	1.	ND
Dibromochloromethane	1.	ND	1,1,2-Trichloroethane	1.	ND
1,2-Dichlorobenzene	1.	ND	Trichloroethene	1.	ND
1,3-Dichlorobenzene	1.	ND	Trichlorofluoromethane	1.	ND
1,4-Dichlorobenzene	1.	ND	Trichlorotrifluoroethane	1.	ND
1,1-Dichloroethane	1.	ND	Vinyl Acetate	5.	ND
1,2-Dichloroethane	1.	ND	Vinyl Chloride	1.	ND
1,1-Dichloroethene	1.	ND	Xylenes	1.	ND

Total Purgeable Petroleum Hydrocarbons (Gasoline) 50. ND

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 92/81/115

Constituents reported as ND would have been reported if present at or above the detection limit.

finn/05/09/89
f5199v.wr1
MH/brp/mc

Respectfully submitted,
CENTRAL COAST ANALYTICAL SERVICES

Mary D. Havlicek, Ph.D., President

AIR, WATER and HAZARDOUS WASTE LABORATORY CERTIFIED by CALIFORNIA DEPT of HEALTH SERVICES

Central Coast Analytical Services

Central Coast
Analytical Services, Inc.
141 Suburban Road, Suite C
San Luis Obispo, CA 93401
(805) 543-2553

Lab Number : F-5200
Collected : 04/24/89
Received : 04/26/89
Tested : 05/05/89
Collected by: DB/BB

EPA METHOD 524.2/8260

Western Geologic Resources
2169 E. Francisco Blvd.
Suite B
San Rafael, CA 94901

Sample Description:
Project # 1-012.03, Oakland 17th/Harrison
1205 water

Compound Analyzed	Detection Limit *PQL (ug/l)	Concentration (ug/l)	Compound Analyzed	Detection Limit *PQL (ug/l)	Concentration (ug/l)
Acetone	20.	ND	1,2-Dichloroethene	1.	2.
Benzene	0.5	ND	1,2-Dichloropropane	1.	ND
Bromodichloromethane	1.	ND	c-1,3-Dichloropropene	1.	ND
Bromoform	1.	ND	t-1,3-Dichloropropene	1.	ND
Bromomethane	1.	ND	Ethylbenzene	1.	ND
2-Butanone	10.	ND	2-Hexanone	5.	ND
Carbon Disulfide	1.	ND	Methyl Isobutyl Ketone	5.	ND
Carbon Tetrachloride	1.	4.	Methylene Chloride	5.	ND
Chlorobenzene	1.	ND	Styrene	1.	ND
Chloroethane	1.	ND	1,1,2,2-Tetrachloroethane	3.	ND
2-Chloroethylvinylether	2.	ND	Tetrachloroethene	1.	4.
Chloroform	2.	5.	Toluene	1.	ND
Chloromethane	1.	ND	1,1,1-Trichloroethane	1.	ND
Dibromochloromethane	1.	ND	1,1,2-Trichloroethane	1.	ND
1,2-Dichlorobenzene	1.	ND	Trichloroethene	1.	ND
1,3-Dichlorobenzene	1.	ND	Trichlorofluoromethane	1.	ND
1,4-Dichlorobenzene	1.	ND	Trichlorotrifluoroethane	1.	ND
1,1-Dichloroethane	1.	ND	Vinyl Acetate	5.	ND
1,2-Dichloroethane	1.	ND	Vinyl Chloride	1.	ND
1,1-Dichloroethene	1.	ND	Xylenes	1.	ND

Total Purgeable Petroleum Hydrocarbons (Gasoline) 50. ND

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 96/84/118

Constituents reported as ND would have been reported if present at or above the detection limit.

finn/05/09/89
f5200v.wr1
MH/brp/mc

Respectfully submitted,
CENTRAL COAST ANALYTICAL SERVICES

Mary D. Havlicek, Ph.D., President

AIR, WATER and HAZARDOUS WASTE LABORATORY CERTIFIED by CALIFORNIA DEPT of HEALTH SERVICES

Central Coast Analytical Services

Central Coast
Analytical Services, Inc.
141 Suburban Road, Suite C
San Luis Obispo, CA 93401
(805) 543-2553

Lab Number : F-5201
Collected : 04/24/89
Received : 04/26/89
Tested : 05/05/89
Collected by: DB/BB

EPA METHOD 524.2/8260

Western Geologic Resources
2169 E. Francisco Blvd.
Suite B
San Rafael, CA 94901

Sample Description:
Project # 1-012.03, Oakland 17th/Harrison
1206 water

Compound Analyzed	Detection Limit *PQL (ug/l)	Concentration (ug/l)	Compound Analyzed	Detection Limit *PQL (ug/l)	Concentration (ug/l)
Acetone	20.	ND	1,2-Dichloroethene	1.	ND
Benzene	0.5	ND	1,2-Dichloropropane	1.	ND
Bromodichloromethane	1.	ND	c-1,3-Dichloropropene	1.	ND
Bromoform	1.	ND	t-1,3-Dichloropropene	1.	ND
Bromomethane	1.	ND	Ethylbenzene	1.	ND
2-Butanone	10.	ND	2-Hexanone	5.	ND
Carbon Disulfide	1.	ND	Methyl Isobutyl Ketone	5.	ND
Carbon Tetrachloride	1.	13.	Methylene Chloride	5.	ND
Chlorobenzene	1.	ND	Styrene	1.	ND
Chloroethane	1.	ND	1,1,2,2-Tetrachloroethane	3.	ND
2-Chloroethylvinylether	2.	ND	Tetrachloroethene	1.	ND
Chloroform	2.	7.	Toluene	1.	ND
Chloromethane	1.	ND	1,1,1-Trichloroethane	1.	ND
Dibromochloromethane	1.	ND	1,1,2-Trichloroethane	1.	ND
1,2-Dichlorobenzene	1.	ND	Trichloroethene	1.	ND
1,3-Dichlorobenzene	1.	ND	Trichlorofluoromethane	1.	ND
1,4-Dichlorobenzene	1.	ND	Trichlorotrifluoroethane	1.	ND
1,1-Dichloroethane	1.	ND	Vinyl Acetate	5.	ND
1,2-Dichloroethane	1.	ND	Vinyl Chloride	1.	ND
1,1-Dichloroethene	1.	ND	Xylenes	1.	ND

Total Purgeable Petroleum Hydrocarbons (Gasoline) 50. ND

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 95/89/122

Constituents reported as ND would have been reported if present at or above the detection limit.

finn/05/09/89
f5201v.wr1
MH/brp/mc

Respectfully submitted,
CENTRAL COAST ANALYTICAL SERVICES

Mary D. Havlicek

Mary D. Havlicek, Ph.D., President

AIR, WATER and HAZARDOUS WASTE LABORATORY CERTIFIED by CALIFORNIA DEPT of HEALTH SERVICES

Central Coast Analytical Services

Central Coast
Analytical Services, Inc.
141 Suburban Road, Suite C
San Luis Obispo, CA 93401
(805) 543-2553

Lab Number : F-5202
Collected : 04/24/89
Received : 04/26/89
Tested : 05/05/89
Collected by: DB/BB

EPA METHOD 524.2/8260

Western Geologic Resources
2169 E. Francisco Blvd.
Suite B
San Rafael, CA 94901

Sample Description:
Project # 1-012.03, Oakland 17th/Harrison
1207 water

Compound Analyzed	Detection Limit *PQL (ug/l)	Concentration (ug/l)	Compound Analyzed	Detection Limit *PQL (ug/l)	Concentration (ug/l)
Acetone	20.	50.	1,2-Dichloroethene	1.	ND
Benzene	0.5	100.	1,2-Dichloropropane	1.	ND
Bromodichloromethane	1.	ND	c-1,3-Dichloropropene	1.	ND
Bromoform	1.	ND	t-1,3-Dichloropropene	1.	ND
Bromomethane	1.	ND	Ethylbenzene	1.	160.
2-Butanone	10.	160.	2-Hexanone	5.	ND
Carbon Disulfide	1.	ND	Methyl Isobutyl Ketone	5.	ND
Carbon Tetrachloride	1.	3.	Methylene Chloride	5.	ND
Chlorobenzene	1.	ND	Styrene	1.	ND
Chloroethane	1.	ND	1,1,2,2-Tetrachloroethane	3.	ND
2-Chloroethylvinylether	2.	ND	Tetrachloroethene	1.	ND
Chloroform	2.	9.	Toluene	1.	260.
Chloromethane	1.	ND	1,1,1-Trichloroethane	1.	ND
Dibromochloromethane	1.	ND	1,1,2-Trichloroethane	1.	ND
1,2-Dichlorobenzene	1.	ND	Trichloroethene	1.	ND
1,3-Dichlorobenzene	1.	ND	Trichlorofluoromethane	1.	ND
1,4-Dichlorobenzene	1.	ND	Trichlorotrifluoroethane	1.	ND
1,1-Dichloroethane	1.	ND	Vinyl Acetate	5.	ND
1,2-Dichloroethane	1.	ND	Vinyl Chloride	1.	ND
1,1-Dichloroethene	1.	ND	Xylenes	1.	1300.

Total Purgeable Petroleum Hydrocarbons (Gasoline) 50. 8400.

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 121/94/118

Constituents reported as ND would have been reported if present at or above the detection limit.

Respectfully submitted,
CENTRAL COAST ANALYTICAL SERVICES

Mary D. Havlicek

Mary D. Havlicek, Ph.D., President

finn/05/09/89
f5202v.wr1
MH/brp/mc

AIR, WATER and HAZARDOUS WASTE LABORATORY CERTIFIED by CALIFORNIA DEPT of HEALTH SERVICES

Central Coast Analytical Services

Central Coast
Analytical Services, Inc.
141 Suburban Road, Suite C
San Luis Obispo, CA 93401
(805) 543-2553

Lab Number : F-5203
Collected : 04/24/89
Received : 04/26/89
Tested : 05/05/89
Collected by: DB/BB

EPA METHOD 524.2/8260

Western Geologic Resources
2169 E. Francisco Blvd.
Suite B
San Rafael, CA 94901

Sample Description:
Project # 1-012.03, Oakland 17th/Harrison
1208 water

Compound Analyzed	Detection Limit *PQL (ug/l)	Concentration (ug/l)	Compound Analyzed	Detection Limit *PQL (ug/l)	Concentration (ug/l)
Acetone	20.	ND	1,2-Dichloroethene	1.	4.
Benzene	0.5	ND	1,2-Dichloropropane	1.	ND
Bromodichloromethane	1.	ND	c-1,3-Dichloropropene	1.	ND
Bromoform	1.	ND	t-1,3-Dichloropropene	1.	ND
Bromomethane	1.	ND	Ethylbenzene	1.	ND
2-Butanone	10.	ND	2-Hexanone	5.	ND
Carbon Disulfide	1.	ND	Methyl Isobutyl Ketone	5.	ND
Carbon Tetrachloride	1.	2.	Methylene Chloride	5.	ND
Chlorobenzene	1.	ND	Styrene	1.	ND
Chloroethane	1.	ND	1,1,2,2-Tetrachloroethane	3.	ND
2-Chloroethylvinylether	2.	ND	Tetrachloroethene	1.	6.
Chloroform	2.	3.	Toluene	1.	ND
Chloromethane	1.	ND	1,1,1-Trichloroethane	1.	ND
Dibromochloromethane	1.	ND	1,1,2-Trichloroethane	1.	ND
1,2-Dichlorobenzene	1.	ND	Trichloroethene	1.	ND
1,3-Dichlorobenzene	1.	ND	Trichlorofluoromethane	1.	ND
1,4-Dichlorobenzene	1.	ND	Trichlorotrifluoroethane	1.	ND
1,1-Dichloroethane	1.	ND	Vinyl Acetate	5.	ND
1,2-Dichloroethane	1.	ND	Vinyl Chloride	1.	ND
1,1-Dichloroethene	1.	ND	Xylenes	1.	ND

Total Purgeable Petroleum Hydrocarbons (Gasoline) 50. ND

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 92/82/104

Constituents reported as ND would have been reported if present at or above the detection limit.

finn/05/09/89
f5203v.wr1
MH/brp/mc

Respectfully submitted,
CENTRAL COAST ANALYTICAL SERVICES

Mary D. Havlicek, Ph.D., President

AIR, WATER and HAZARDOUS WASTE LABORATORY CERTIFIED by CALIFORNIA DEPT of HEALTH SERVICES

Central Coast Analytical Services

Central Coast
Analytical Services, Inc.
141 Suburban Road, Suite C
San Luis Obispo, CA 93401
(805) 543-2553

Lab Number : F-5203dup
Collected : 04/24/89
Received : 04/26/89
Tested : 05/05/89
Collected by: DB/BB

EPA METHOD 524.2/8260

Western Geologic Resources
2169 E. Francisco Blvd.
Suite B
San Rafael, CA 94901

Sample Description:
Project # 1-012.03, Oakland 17th/Harrison
1208 water (duplicate)

Compound Analyzed	Detection Limit *PQL (ug/l)	Concentration (ug/l)	Compound Analyzed	Detection Limit *PQL (ug/l)	Concentration (ug/l)
Acetone	20.	ND	1,2-Dichloroethene	1.	3.
Benzene	0.5	ND	1,2-Dichloropropane	1.	ND
Bromodichloromethane	1.	ND	c-1,3-Dichloropropene	1.	ND
Bromoform	1.	ND	t-1,3-Dichloropropene	1.	ND
Bromomethane	1.	ND	Ethylbenzene	1.	ND
2-Butanone	10.	ND	2-Hexanone	5.	ND
Carbon Disulfide	1.	ND	Methyl Isobutyl Ketone	5.	ND
Carbon Tetrachloride	1.	2.	Methylene Chloride	5.	ND
Chlorobenzene	1.	ND	Styrene	1.	ND
Chloroethane	1.	ND	1,1,2,2-Tetrachloroethane	3.	ND
2-Chloroethylvinylether	2.	ND	Tetrachloroethene	1.	6.
Chloroform	2.	2.	Toluene	1.	ND
Chloromethane	1.	ND	1,1,1-Trichloroethane	1.	ND
Dibromochloromethane	1.	ND	1,1,2-Trichloroethane	1.	ND
1,2-Dichlorobenzene	1.	ND	Trichloroethene	1.	ND
1,3-Dichlorobenzene	1.	ND	Trichlorofluoromethane	1.	ND
1,4-Dichlorobenzene	1.	ND	Trichlorotrifluoroethane	1.	ND
1,1-Dichloroethane	1.	ND	Vinyl Acetate	5.	ND
1,2-Dichloroethane	1.	ND	Vinyl Chloride	1.	ND
1,1-Dichloroethene	1.	ND	Xylenes	1.	ND

Total Purgeable Petroleum Hydrocarbons (Gasoline) 50. ND

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 94/81/112

Constituents reported as ND would have been reported if present at or above the detection limit.

Respectfully submitted,
CENTRAL COAST ANALYTICAL SERVICES

Mary D. Havlicek, Ph.D., President

finn/05/09/89
f5203vd.wr1
MH/brp/mc

AIR, WATER and HAZARDOUS WASTE LABORATORY CERTIFIED by CALIFORNIA DEPT of HEALTH SERVICES

Central Coast Analytical Services

Central Coast
Analytical Services, Inc.
141 Suburban Road, Suite C
San Luis Obispo, CA 93401
(805) 543-2553

Lab Number : F-5204
Collected : 03/07/89
Received : 04/26/89
Tested : 05/05/89
Collected by: B. Pabst of CCAS

EPA METHOD 524.2/8260

Western Geologic Resources
2169 E. Francisco Blvd.
Suite B
San Rafael, CA 94901

Sample Description:
Project # 1-012.03, Oakland 17th/Harrison
12TB, TB030789BP04

Compound Analyzed	Detection Limit *PQL (ug/l)	Concentration (ug/l)	Compound Analyzed	Detection Limit *PQL (ug/l)	Concentration (ug/l)
Acetone	20.	ND	1,2-Dichloroethene	1.	ND
Benzene	0.5	ND	1,2-Dichloropropane	1.	ND
Bromodichloromethane	1.	ND	c-1,3-Dichloropropene	1.	ND
Bromoform	1.	ND	t-1,3-Dichloropropene	1.	ND
Bromomethane	1.	ND	Ethylbenzene	1.	ND
2-Butanone	10.	ND	2-Hexanone	5.	ND
Carbon Disulfide	1.	ND	Methyl Isobutyl Ketone	5.	ND
Carbon Tetrachloride	1.	ND	Methylene Chloride	5.	ND
Chlorobenzene	1.	ND	Styrene	1.	ND
Chloroethane	1.	ND	1,1,2,2-Tetrachloroethane	3.	ND
2-Chloroethylvinylether	2.	ND	Tetrachloroethene	1.	ND
Chloroform	2.	ND	Toluene	1.	ND
Chloromethane	1.	ND	1,1,1-Trichloroethane	1.	ND
Dibromochloromethane	1.	ND	1,1,2-Trichloroethane	1.	ND
1,2-Dichlorobenzene	1.	ND	Trichloroethene	1.	ND
1,3-Dichlorobenzene	1.	ND	Trichlorofluoromethane	1.	ND
1,4-Dichlorobenzene	1.	ND	Trichlorotrifluoroethane	1.	ND
1,1-Dichloroethane	1.	ND	Vinyl Acetate	5.	ND
1,2-Dichloroethane	1.	ND	Vinyl Chloride	1.	ND
1,1-Dichloroethene	1.	ND	Xylenes	1.	ND

Total Purgeable Petroleum Hydrocarbons (Gasoline) 50. ND

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 92/79/112

Constituents reported as ND would have been reported if present at or above the detection limit.

finn/05/09/89
f5204v.wr1
MH/brp/mc

Respectfully submitted,
CENTRAL COAST ANALYTICAL SERVICES

Mary D. Havlicek, Ph.D., President

AIR, WATER and HAZARDOUS WASTE LABORATORY (No.131) CERTIFIED by CALIFORNIA DEPT of PUBLIC HEALTH

Central Coast Analytical Services

Central Coast Analytical Services, Inc.
141 Suburban Road, Suite C-4
San Luis Obispo, California 93401
(805) 543-2553

Lab Number : F-04786
Collected : 04/11/89
Received : 04/18/89
Tested : 04/21/89
Collected by: M. Edmonson

ATTN: Tom Howard
Western Geologic Resources
2169 E. Francisco Blvd.
Suite B
San Rafael, CA 94901

EXTRACTED BY EPA METHOD 5030 (purge-and-trap)
EPA METHOD 8260
Sample Description:
Project #1-012.02, B-4-6.0',
Chevron, Oakland, Soil

Compound Analyzed	Detection Limit (ug/kg) (Practical Quantitation Limit)	Concentration (ug/kg)
Benzene	5.	not found
Bromodichloromethane	5.	not found
Bromoform	10.	not found
Carbon Tetrachloride	5.	not found
Chlorobenzene	5.	not found
2-Chloroethyl Vinyl Ether	50.	not found
Chloroform	20.	not found
Dibromochloromethane	5.	not found
1,2-Dichlorobenzene	5.	not found
1,3-Dichlorobenzene	5.	not found
1,4-Dichlorobenzene	5.	not found
1,1-Dichloroethane	5.	not found
1,2-Dichloroethane (EDC)	5.	not found
1,1-Dichloroethene	5.	not found
c-1,2-Dichloroethene	5.	not found
t-1,2-Dichloroethene	5.	not found
1,2-Dichloropropane	5.	not found
c-1,3-Dichloropropene	5.	not found
t-1,3-Dichloropropene	5.	not found
Ethylbenzene	5.	not found
Ethyl Chloride	5.	not found
Ethylene Dibromide	5.	not found
Methyl Bromide	5.	not found
Methyl Chloride	5.	not found
Methylene Chloride	50.	not found
1,1,2,2-Tetrachloroethane	20.	not found
Tetrachloroethylene (PCE)	5.	not found
Toluene	5.	not found
1,1,1-Trichloroethane (TCA)	5.	not found
1,1,2-Trichloroethane	5.	not found
Trichloroethene (TCE)	5.	not found
Trichlorotrifluoroethane (f113)	20.	not found
Trichlorofluoromethane(F-11)	20.	not found
Vinyl Chloride	5.	not found
Xylenes	10.	not found
Total Purgeable Petroleum Hydrocarbons (Gasoline)	5000.	not found

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 120/82.

04/28/89/MSD#7
F04786v.wr1/40
MH/jl/gb/tl

Respectfully submitted,

Mary Havlicek, Ph.D., President

AIR, WATER and HAZARDOUS WASTE LABORATORY (No.131) CERTIFIED by CALIFORNIA DEPT of PUBLIC HEALTH

Central Coast Analytical Services, Inc.
141 Suburban Road, Suite C-4
San Luis Obispo, California 93401
(805) 543-2553

Central Coast Analytical Services

Lab Number : F-04788
Collected : 04/11/89
Received : 04/18/89
Tested : 04/21/89
Collected by: M. Edmonson

ATTN: Tom Howard
Western Geologic Resources
2169 E. Francisco Blvd.
Suite B
San Rafael, CA 94901

EXTRACTED BY EPA METHOD 5030 (purge-and-trap)
EPA METHOD 8260
Sample Description:
Project #1-012.02, B-4-16.0',
Chevron, Oakland, Soil

Compound Analyzed	Detection Limit (ug/kg) (Practical Quantitation Limit)	Concentration (ug/kg)
Benzene	2.	not found
Bromodichloromethane	2.	not found
Bromoform	4.	not found
Carbon Tetrachloride	2.	not found
Chlorobenzene	2.	not found
2-Chloroethyl Vinyl Ether	20.	not found
Chloroform	10.	not found
Dibromochloromethane	2.	not found
1,2-Dichlorobenzene	2.	not found
1,3-Dichlorobenzene	2.	not found
1,4-Dichlorobenzene	2.	not found
1,1-Dichloroethane	2.	not found
1,2-Dichloroethane (EDC)	2.	not found
1,1-Dichloroethene	2.	not found
c-1,2-Dichloroethene	2.	not found
t-1,2-Dichloroethene	2.	not found
1,2-Dichloropropane	2.	not found
c-1,3-Dichloropropene	2.	not found
t-1,3-Dichloropropene	2.	not found
Ethylbenzene	2.	not found
Ethyl Chloride	2.	not found
Ethylene Dibromide	2.	not found
Methyl Bromide	2.	not found
Methyl Chloride	2.	not found
Methylene Chloride	20.	not found
1,1,2,2-Tetrachloroethane	10.	not found
Tetrachloroethylene (PCE)	2.	not found
Toluene	2.	not found
1,1,1-Trichloroethane (TCA)	2.	not found
1,1,2-Trichloroethane	2.	not found
Trichloroethene (TCE)	2.	not found
Trichlorotrifluoroethane (f113)	10.	not found
Trichlorofluoromethane(F-11)	10.	not found
Vinyl Chloride	2.	not found
Xylenes	4.	not found
Total Purgeable Petroleum Hydrocarbons (Gasoline)	2000.	not found

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 120/95.

04/28/89/MSD#7
F04788v.wr1/40
MH/jl/gb/tl

Respectfully submitted,
Mary Havlicek
Mary Havlicek, Ph.D., President

AIR, WATER and HAZARDOUS WASTE LABORATORY (No.131) CERTIFIED by CALIFORNIA DEPT of PUBLIC HEALTH

Central Coast
Analytical Services, Inc.
141 Suburban Road, Suite C-4
San Luis Obispo, California 93401
(805) 543-2553

Central Coast Analytical Services

Lab Number : F-04789
Collected : 04/11/89
Received : 04/18/89
Tested : 04/21/89
Collected by: M. Edmonson

ATTN: Tom Howard
Western Geologic Resources
2169 E. Francisco Blvd.
Suite B
San Rafael, CA 94901

EXTRACTED BY EPA METHOD 5030 (purge-and-trap)
EPA METHOD 8260
Sample Description:
Project #1-012.02, B-4-23.2',
Chevron, Oakland, Soil

Compound Analyzed	Detection Limit (ug/kg) (Practical Quantitation Limit)	Concentration (ug/kg)
Benzene	2.	not found
Bromodichloromethane	2.	not found
Bromoform	4.	not found
Carbon Tetrachloride	2.	not found
Chlorobenzene	2.	not found
2-Chloroethyl Vinyl Ether	20.	not found
Chloroform	10.	not found
Dibromochloromethane	2.	not found
1,2-Dichlorobenzene	2.	not found
1,3-Dichlorobenzene	2.	not found
1,4-Dichlorobenzene	2.	not found
1,1-Dichloroethane	2.	not found
1,2-Dichloroethane (EDC)	2.	not found
1,1-Dichloroethene	2.	not found
c-1,2-Dichloroethene	2.	not found
t-1,2-Dichloroethene	2.	not found
1,2-Dichloropropane	2.	not found
c-1,3-Dichloropropene	2.	not found
t-1,3-Dichloropropene	2.	not found
Ethylbenzene	2.	not found
Ethyl Chloride	2.	not found
Ethylene Dibromide	2.	not found
Methyl Bromide	2.	not found
Methyl Chloride	2.	not found
Methylene Chloride	20.	not found
1,1,2,2-Tetrachloroethane	10.	not found
Tetrachloroethylene (PCE)	2.	not found
Toluene	2.	not found
1,1,1-Trichloroethane (TCA)	2.	not found
1,1,2-Trichloroethane	2.	not found
Trichloroethene (TCE)	2.	not found
Trichlorotrifluoroethane (f113)	10.	not found
Trichlorofluoromethane(F-11)	10.	not found
Vinyl Chloride	2.	not found
Xylenes	4.	not found
Total Purgeable Petroleum Hydrocarbons (Gasoline)	2000.	not found

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 120.

04/28/89/MSD#7
F04789v.wr1/40
MH/jl/gb/tl

Respectfully submitted,
Mary Havlicek
Mary Havlicek, Ph.D., President

AIR, WATER and HAZARDOUS WASTE LABORATORY (No.131) CERTIFIED by CALIFORNIA DEPT of PUBLIC HEALTH

Central Coast Analytical Services, Inc.
141 Suburban Road, Suite C-4
San Luis Obispo, California 93401
(805) 543-2553

Central Coast Analytical Services

Lab Number : F-04791
Collected : 04/11/89
Received : 04/18/89
Tested : 04/21/89
Collected by: M. Edmonson

ATTN: Tom Howard
Western Geologic Resources
2169 E. Francisco Blvd.
Suite B
San Rafael, CA 94901

EXTRACTED BY EPA METHOD 5030 (purge-and-trap)
EPA METHOD 8260
Sample Description:
Project #1-012.02, B-5-9.5',
Chevron, Oakland, Soil

Compound Analyzed	Detection Limit (ug/kg) (Practical Quantitation Limit)	Concentration (ug/kg)
Benzene	2.	not found
Bromodichloromethane	2.	not found
Bromoform	4.	not found
Carbon Tetrachloride	2.	not found
Chlorobenzene	2.	not found
2-Chloroethyl Vinyl Ether	20.	not found
Chloroform	10.	not found
Dibromochloromethane	2.	not found
1,2-Dichlorobenzene	2.	not found
1,3-Dichlorobenzene	2.	not found
1,4-Dichlorobenzene	2.	not found
1,1-Dichloroethane	2.	not found
1,2-Dichloroethane (EDC)	2.	not found
1,1-Dichloroethene	2.	not found
c-1,2-Dichloroethene	2.	not found
t-1,2-Dichloroethene	2.	not found
1,2-Dichloropropane	2.	not found
c-1,3-Dichloropropene	2.	not found
t-1,3-Dichloropropene	2.	not found
Ethylbenzene	2.	not found
Ethyl Chloride	2.	not found
Ethylene Dibromide	2.	not found
Methyl Bromide	2.	not found
Methyl Chloride	2.	not found
Methylene Chloride	20.	not found
1,1,2,2-Tetrachloroethane	10.	not found
Tetrachloroethylene (PCE)	2.	not found
Toluene	2.	not found
1,1,1-Trichloroethane (TCA)	2.	not found
1,1,2-Trichloroethane	2.	not found
Trichloroethene (TCE)	2.	not found
Trichlorotrifluoroethane (f113)	10.	not found
Trichlorofluoromethane(F-11)	10.	not found
Vinyl Chloride	2.	not found
Xylenes	4.	not found
Total Purgeable Petroleum Hydrocarbons (Gasoline)	2000.	not found

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 110/84.

04/28/89/MSD#7
F04791v.wr1/40
MH/jl/gb/tl

Respectfully submitted,

Mary Havlicek, Ph.D., President

AIR, WATER and HAZARDOUS WASTE LABORATORY (No.131) CERTIFIED by CALIFORNIA DEPT of PUBLIC HEALTH

Central Coast Analytical Services, Inc.
141 Suburban Road, Suite C-4
San Luis Obispo, California 93401
(805) 543-2553

Lab Number : F-04792
Collected : 04/11/89
Received : 04/18/89
Tested : 04/21/89
Collected by: M. Edmonson

ATTN: Tom Howard
Western Geologic Resources
2169 E. Francisco Blvd.
Suite B
San Rafael, CA 94901

EXTRACTED BY EPA METHOD 5030 (purge-and-trap)
EPA METHOD 8260
Sample Description:
Project #1-012.02, B-5-14.5',
Chevron, Oakland, Soil

Compound Analyzed	Detection Limit (ug/kg) (Practical Quantitation Limit)	Concentration (ug/kg)
Benzene	2.	not found
Bromodichloromethane	2.	not found
Bromoform	4.	not found
Carbon Tetrachloride	2.	not found
Chlorobenzene	2.	not found
2-Chloroethyl Vinyl Ether	20.	not found
Chloroform	10.	not found
Dibromochloromethane	2.	not found
1,2-Dichlorobenzene	2.	not found
1,3-Dichlorobenzene	2.	not found
1,4-Dichlorobenzene	2.	not found
1,1-Dichloroethane	2.	not found
1,2-Dichloroethane (EDC)	2.	not found
1,1-Dichloroethene	2.	not found
c-1,2-Dichloroethene	2.	not found
t-1,2-Dichloroethene	2.	not found
1,2-Dichloropropane	2.	not found
c-1,3-Dichloropropene	2.	not found
t-1,3-Dichloropropene	2.	not found
Ethylbenzene	2.	not found
Ethyl Chloride	2.	not found
Ethylene Dibromide	2.	not found
Methyl Bromide	2.	not found
Methyl Chloride	2.	not found
Methylene Chloride	20.	not found
1,1,2,2-Tetrachloroethane	10.	not found
Tetrachloroethylene (PCE)	2.	not found
Toluene	2.	not found
1,1,1-Trichloroethane (TCA)	2.	not found
1,1,2-Trichloroethane	2.	not found
Trichloroethene (TCE)	2.	not found
Trichlorotrifluoroethane (f113)	10.	not found
Trichlorofluoromethane(F-11)	10.	not found
Vinyl Chloride	2.	not found
Xylenes	4.	not found
Total Purgeable Petroleum Hydrocarbons (Gasoline)	2000.	not found

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 110/83.

04/28/89/MSD#7
F04792v.wr1/40
MH/jl/gb/tl

Respectfully submitted,

Mary Havlicek, Ph.D., President

AIR, WATER and HAZARDOUS WASTE LABORATORY (No.131) CERTIFIED by CALIFORNIA DEPT of PUBLIC HEALTH

Central Coast Analytical Services

Central Coast Analytical Services, Inc.
141 Suburban Road, Suite C-4
San Luis Obispo, California 93401
(805) 543-2553

Lab Number : F-04794
Collected : 04/11/89
Received : 04/18/89
Tested : 04/21/89
Collected by: M. Edmonson

ATTN: Tom Howard
Western Geologic Resources
2169 E. Francisco Blvd.
Suite B
San Rafael, CA 94901

EXTRACTED BY EPA METHOD 5030 (purge-and-trap)
EPA METHOD 8260
Sample Description:
Project #1-012.02, B-5-22.0',
Chevron, Oakland, Soil

Compound Analyzed	Detection Limit (ug/kg) (Practical Quantitation Limit)	Concentration (ug/kg)
Benzene	2.	not found
Bromodichloromethane	2.	not found
Bromoform	4.	not found
Carbon Tetrachloride	2.	not found
Chlorobenzene	2.	not found
2-Chloroethyl Vinyl Ether	20.	not found
Chloroform	10.	not found
Dibromochloromethane	2.	not found
1,2-Dichlorobenzene	2.	not found
1,3-Dichlorobenzene	2.	not found
1,4-Dichlorobenzene	2.	not found
1,1-Dichloroethane	2.	not found
1,2-Dichloroethane (EDC)	2.	not found
1,1-Dichloroethene	2.	not found
c-1,2-Dichloroethene	2.	not found
t-1,2-Dichloroethene	2.	not found
1,2-Dichloropropane	2.	not found
c-1,3-Dichloropropene	2.	not found
t-1,3-Dichloropropene	2.	not found
Ethylbenzene	2.	not found
Ethyl Chloride	2.	not found
Ethylene Dibromide	2.	not found
Methyl Bromide	2.	not found
Methyl Chloride	2.	not found
Methylene Chloride	20.	not found
1,1,2,2-Tetrachloroethane	10.	not found
Tetrachloroethylene (PCE)	2.	not found
Toluene	2.	not found
1,1,1-Trichloroethane (TCA)	2.	not found
1,1,2-Trichloroethane	2.	not found
Trichloroethene (TCE)	2.	not found
Trichlorotrifluoroethone (f113)	10.	not found
Trichlorofluoromethane(F-11)	10.	not found
Vinyl Chloride	2.	not found
Xylenes	4.	not found
Total Purgeable Petroleum Hydrocarbons (Gasoline)	2000.	not found

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 120/88.

04/28/89/MSD#7
F04794v.wr1/40
MH/jl/gb/tl

Respectfully submitted,
Mary Havlicek
Mary Havlicek, Ph.D., President

AIR, WATER and HAZARDOUS WASTE LABORATORY (No.131) CERTIFIED by CALIFORNIA DEPT of PUBLIC HEALTH

Central Coast Analytical Services, Inc.
141 Suburban Road, Suite C-4
San Luis Obispo, California 93401
(805) 543-2553

Lab Number : F-04796
Collected : 04/11/89
Received : 04/18/89
Tested : 04/21/89
Collected by: M. Edmonson

ATTN: Tom Howard
Western Geologic Resources
2169 E. Francisco Blvd.
Suite B
San Rafael, CA 94901

EXTRACTED BY EPA METHOD 5030 (purge-and-trap)
EPA METHOD 8260
Sample Description:
Project #1-012.02, B-6-9.5',
Chevron, Oakland, Soil

Compound Analyzed	Detection Limit (ug/kg) (Practical Quantitation Limit)	Concentration (ug/kg)
Benzene	2.	not found
Bromodichloromethane	2.	not found
Bromoform	4.	not found
Carbon Tetrachloride	2.	not found
Chlorobenzene	2.	not found
2-Chloroethyl Vinyl Ether	20.	not found
Chloroform	10.	not found
Dibromochloromethane	2.	not found
1,2-Dichlorobenzene	2.	not found
1,3-Dichlorobenzene	2.	not found
1,4-Dichlorobenzene	2.	not found
1,1-Dichloroethane	2.	not found
1,2-Dichloroethane (EDC)	2.	not found
1,1-Dichloroethene	2.	not found
c-1,2-Dichloroethene	2.	not found
t-1,2-Dichloroethene	2.	not found
1,2-Dichloropropane	2.	not found
c-1,3-Dichloropropene	2.	not found
t-1,3-Dichloropropene	2.	not found
Ethylbenzene	2.	not found
Ethyl Chloride	2.	not found
Ethylene Dibromide	2.	not found
Methyl Bromide	2.	not found
Methyl Chloride	2.	not found
Methylene Chloride	20.	not found
1,1,2,2-Tetrachloroethane	10.	not found
Tetrachloroethylene (PCE)	2.	not found
Toluene	2.	not found
1,1,1-Trichloroethane (TCA)	2.	not found
1,1,2-Trichloroethane	2.	not found
Trichloroethene (TCE)	2.	not found
Trichlorotrifluoroethane (f113)	10.	not found
Trichlorofluoromethane(F-11)	10.	not found
Vinyl Chloride	2.	not found
Xylenes	4.	not found
Total Purgeable Petroleum Hydrocarbons (Gasoline)	2000.	not found

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 110/82.

04/28/89/MSD#7
F04796v.wr1/40
MH/jl/gb/tl

Respectfully submitted,
Mary Havlicek, Ph.D., President

AIR, WATER and HAZARDOUS WASTE LABORATORY (No.131) CERTIFIED by CALIFORNIA DEPT of PUBLIC HEALTH

Central Coast Analytical Services, Inc.
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(805) 543-2553

Central Coast Analytical Services

Lab Number : F-04797
Collected : 04/11/89
Received : 04/18/89
Tested : 04/22/89
Collected by: M. Edmonson

ATTN: Tom Howard
Western Geologic Resources
2169 E. Francisco Blvd.
Suite B
San Rafael, CA 94901

EXTRACTED BY EPA METHOD 5030 (purge-and-trap)
EPA METHOD 8260
Sample Description:
Project #1-012.02, Chevron, Oakland,
B-6-14.5, Soil

Compound Analyzed	Detection Limit (ug/kg) (Practical Quantitation Limit)	Concentration (ug/kg)
Benzene	2.	not found
Bromodichloromethane	2.	not found
Bromoform	4.	not found
Carbon Tetrachloride	2.	not found
Chlorobenzene	2.	not found
2-Chloroethyl Vinyl Ether	20.	not found
Chloroform	10.	not found
Dibromochloromethane	2.	not found
1,2-Dichlorobenzene	2.	not found
1,3-Dichlorobenzene	2.	not found
1,4-Dichlorobenzene	2.	not found
1,1-Dichloroethane	2.	not found
1,2-Dichloroethane (EDC)	2.	not found
1,1-Dichloroethene	2.	not found
c-1,2-Dichloroethene	2.	not found
t-1,2-Dichloroethene	2.	not found
1,2-Dichloropropane	2.	not found
c-1,3-Dichloropropene	2.	not found
t-1,3-Dichloropropene	2.	not found
Ethylbenzene	2.	not found
Ethyl Chloride	2.	not found
Ethylene Dibromide	2.	not found
Methyl Bromide	2.	not found
Methyl Chloride	2.	not found
Methylene Chloride	20.	not found
1,1,2,2-Tetrachloroethane	10.	not found
Tetrachloroethylene (PCE)	2.	not found
Toluene	2.	not found
1,1,1-Trichloroethane (TCA)	2.	not found
1,1,2-Trichloroethane	2.	not found
Trichloroethene (TCE)	2.	not found
Trichlorotrifluoroethane (f113)	10.	not found
Trichlorofluoromethane(F-11)	10.	not found
Vinyl Chloride	2.	not found
Xylenes	4.	not found
Total Purgeable Petroleum Hydrocarbons (Gasoline)	1000.	not found

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 104/105/111.

05/02/89/MSD#7
F04797v.wr1/42
MH/jg/jc/tl

Respectfully submitted,
Mary Havlicek, Ph.D., President

AIR, WATER and HAZARDOUS WASTE LABORATORY (No.131) CERTIFIED by CALIFORNIA DEPT of PUBLIC HEALTH

Central Coast Analytical Services, Inc.
141 Suburban Road, Suite C-4
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(805) 543-2553

Lab Number : F-04799
Collected : 04/11/89
Received : 04/18/89
Tested : 04/22/89
Collected by: M. Edmonson

ATTN: Tom Howard
Western Geologic Resources
2169 E. Francisco Blvd.
Suite B
San Rafael, CA 94901

EXTRACTED BY EPA METHOD 5030 (purge-and-trap)
EPA METHOD 8260
Sample Description:
Project #1-012.02, Chevron, Oakland,
B-6-22.0, Soil

Compound Analyzed	Detection Limit (ug/kg) (Practical Quantitation Limit)	Concentration (ug/kg)
Benzene	2.	not found
Bromodichloromethane	2.	not found
Bromoform	4.	not found
Carbon Tetrachloride	2.	not found
Chlorobenzene	2.	not found
2-Chloroethyl Vinyl Ether	20.	not found
Chloroform	10.	not found
Dibromochloromethane	2.	not found
1,2-Dichlorobenzene	2.	not found
1,3-Dichlorobenzene	2.	not found
1,4-Dichlorobenzene	2.	not found
1,1-Dichloroethane	2.	not found
1,2-Dichloroethane (EDC)	2.	not found
1,1-Dichloroethene	2.	not found
c-1,2-Dichloroethene	2.	not found
t-1,2-Dichloroethene	2.	not found
1,2-Dichloropropane	2.	not found
c-1,3-Dichloropropene	2.	not found
t-1,3-Dichloropropene	2.	not found
Ethylbenzene	2.	not found
Ethyl Chloride	2.	not found
Ethylene Dibromide	2.	not found
Methyl Bromide	2.	not found
Methyl Chloride	2.	not found
Methylene Chloride	20.	not found
1,1,2,2-Tetrachloroethane	10.	not found
Tetrachloroethylene (PCE)	2.	not found
Toluene	2.	not found
1,1,1-Trichloroethane (TCA)	2.	not found
1,1,2-Trichloroethane	2.	not found
Trichloroethene (TCE)	2.	not found
Trichlorotrifluoroethane (f113)	10.	not found
Trichlorofluoromethane(F-11)	10.	not found
Vinyl Chloride	2.	not found
Xylenes	4.	not found
Total Purgeable Petroleum Hydrocarbons (Gasoline)	1000.	not found

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 107/117/107.

05/02/89/MSD#7
F04799v.wr1/42
MH/jg/jc/tl

Respectfully submitted,

Mary Havlicek, Ph.D., President

AIR, WATER and HAZARDOUS WASTE LABORATORY (No.131) CERTIFIED by CALIFORNIA DEPT of PUBLIC HEALTH

Central Coast
Analytical Services, Inc.
141 Suburban Road, Suite C-4
San Luis Obispo, California 93401
(805) 543-2553

Central Coast Analytical Services

Lab Number : F-04800
Collected : 04/11/89
Received : 04/18/89
Tested : 04/22/89
Collected by: M. Edmonson

ATTN: Tom Howard
Western Geologic Resources
2169 E. Francisco Blvd.
Suite B
San Rafael, CA 94901

EXTRACTED BY EPA METHOD 5030 (purge-and-trap)
EPA METHOD 8260
Sample Description:
Project #1-012.02, Chevron, Oakland,
B-7-4.2, Soil

Compound Analyzed	Detection Limit (ug/kg) (Practical Quantitation Limit)	Concentration (ug/kg)
Benzene	1.	not found
Bromodichloromethane	1.	not found
Bromoform	2.	not found
Carbon Tetrachloride	1.	not found
Chlorobenzene	1.	not found
2-Chloroethyl Vinyl Ether	10.	not found
Chloroform	5.	not found
Dibromochloromethane	1.	not found
1,2-Dichlorobenzene	1.	not found
1,3-Dichlorobenzene	1.	not found
1,4-Dichlorobenzene	1.	not found
1,1-Dichloroethane	1.	not found
1,2-Dichloroethane (EDC)	1.	not found
1,1-Dichloroethene	1.	not found
c-1,2-Dichloroethene	1.	not found
t-1,2-Dichloroethene	1.	not found
1,2-Dichloropropane	1.	not found
c-1,3-Dichloropropene	1.	not found
t-1,3-Dichloropropene	1.	not found
Ethylbenzene	1.	not found
Ethyl Chloride	1.	not found
Ethylene Dibromide	1.	not found
Methyl Bromide	1.	not found
Methyl Chloride	1.	not found
Methylene Chloride	10.	not found
1,1,2,2-Tetrachloroethane	5.	not found
Tetrachloroethylene (PCE)	1.	not found
Toluene	1.	not found
1,1,1-Trichloroethane (TCA)	1.	not found
1,1,2-Trichloroethane	1.	not found
Trichloroethene (TCE)	1.	not found
Trichlorotrifluoroethane (f113)	5.	not found
Trichlorofluoromethane(F-11)	5.	not found
Vinyl Chloride	1.	not found
Xylenes	2.	not found
Total Purgeable Petroleum Hydrocarbons (Gasoline)	1000.	not found

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 114/107/107.

05/02/89/MSD#7
F04800v.wr1/42
MH/jg/jc/tl

Respectfully submitted,

Mary Havlicek, Ph.D., President

AIR, WATER and HAZARDOUS WASTE LABORATORY (No.131) CERTIFIED by CALIFORNIA DEPT of PUBLIC HEALTH

Central Coast Analytical Services, Inc.
141 Suburban Road, Suite C-4
San Luis Obispo, California 93401
(805) 543-2553

Central Coast Analytical Services

Lab Number : F-04801
Collected : 04/11/89
Received : 04/18/89
Tested : 04/22/89
Collected by: M. Edmonson

ATTN: Tom Howard
Western Geologic Resources
2169 E. Francisco Blvd.
Suite B
San Rafael, CA 94901

EXTRACTED BY EPA METHOD 5030 (purge-and-trap)
EPA METHOD 8260
Sample Description:
Project #1-012.02, Chevron, Oakland,
B-7-9.2, Soil

Compound Analyzed	Detection Limit (ug/kg) (Practical Quantitation Limit)	Concentration (ug/kg)
Benzene	1.	not found
Bromodichloromethane	1.	not found
Bromoform	2.	not found
Carbon Tetrachloride	1.	not found
Chlorobenzene	1.	not found
2-Chloroethyl Vinyl Ether	10.	not found
Chloroform	5.	not found
Dibromochloromethane	1.	not found
1,2-Dichlorobenzene	1.	not found
1,3-Dichlorobenzene	1.	not found
1,4-Dichlorobenzene	1.	not found
1,1-Dichloroethane	1.	not found
1,2-Dichloroethane (EDC)	1.	not found
1,1-Dichloroethene	1.	not found
c-1,2-Dichloroethene	1.	not found
t-1,2-Dichloroethene	1.	not found
1,2-Dichloropropane	1.	not found
c-1,3-Dichloropropene	1.	not found
t-1,3-Dichloropropene	1.	not found
Ethylbenzene	1.	not found
Ethyl Chloride	1.	not found
Ethylene Dibromide	1.	not found
Methyl Bromide	1.	not found
Methyl Chloride	1.	not found
Methylene Chloride	10.	not found
1,1,2,2-Tetrachloroethane	5.	not found
Tetrachloroethylene (PCE)	1.	not found
Toluene	1.	not found
1,1,1-Trichloroethane (TCA)	1.	not found
1,1,2-Trichloroethane	1.	not found
Trichloroethene (TCE)	1.	not found
Trichlorotrifluoroethane (f113)	5.	not found
Trichlorofluoromethane(F-11)	5.	not found
Vinyl Chloride	1.	not found
Xylenes	2.	not found
Total Purgeable Petroleum Hydrocarbons (Gasoline)	1000.	not found

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 105/104/97.

05/02/89/MSD#7
F04801v.wr1/42
MH/jg/jc/tl

Respectfully submitted,

Mary Havlicek, Ph.D., President

AIR, WATER and HAZARDOUS WASTE LABORATORY (No.131) CERTIFIED by CALIFORNIA DEPT of PUBLIC HEALTH

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141 Suburban Road, Suite C-4
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(805) 543-2553

Lab Number : F-04802
Collected : 04/11/89
Received : 04/18/89
Tested : 04/22/89
Collected by: M. Edmonson

ATTN: Tom Howard
Western Geologic Resources
2169 E. Francisco Blvd.
Suite B
San Rafael, CA 94901

EXTRACTED BY EPA METHOD 5030 (purge-and-trap)
EPA METHOD 8260
Sample Description:
Project #1-012.02, Chevron, Oakland,
B-7-14.0, Soil

Compound Analyzed	Detection Limit (ug/kg) (Practical Quantitation Limit)	Concentration (ug/kg)
Benzene	1.	not found
Bromodichloromethane	1.	not found
Bromoform	2.	not found
Carbon Tetrachloride	1.	not found
Chlorobenzene	1.	not found
2-Chloroethyl Vinyl Ether	10.	not found
Chloroform	5.	not found
Dibromochloromethane	1.	not found
1,2-Dichlorobenzene	1.	not found
1,3-Dichlorobenzene	1.	not found
1,4-Dichlorobenzene	1.	not found
1,1-Dichloroethane	1.	not found
1,2-Dichloroethane (EDC)	1.	not found
1,1-Dichloroethene	1.	not found
c-1,2-Dichloroethene	1.	not found
t-1,2-Dichloroethene	1.	not found
1,2-Dichloropropane	1.	not found
c-1,3-Dichloropropene	1.	not found
t-1,3-Dichloropropene	1.	not found
Ethylbenzene	1.	not found
Ethyl Chloride	1.	not found
Ethylene Dibromide	1.	not found
Methyl Bromide	1.	not found
Methyl Chloride	1.	not found
Methylene Chloride	10.	not found
1,1,2,2-Tetrachloroethane	5.	not found
Tetrachloroethylene (PCE)	1.	not found
Toluene	1.	not found
1,1,1-Trichloroethane (TCA)	1.	not found
1,1,2-Trichloroethane	1.	not found
Trichloroethene (TCE)	1.	not found
Trichlorotrifluoroethane (f113)	5.	not found
Trichlorofluoromethane(F-11)	5.	not found
Vinyl Chloride	1.	not found
Xylenes	2.	not found
Total Purgeable Petroleum Hydrocarbons (Gasoline)	500.	not found

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 115/117/93.

05/02/89/MSD#7
F04802v.wr1/42
MH/jg/jc/tl

Respectfully submitted,
Mary Havlicek
Mary Havlicek, Ph.D., President

AIR, WATER and HAZARDOUS WASTE LABORATORY (No.131) CERTIFIED by CALIFORNIA DEPT of PUBLIC HEALTH

Central Coast
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Central Coast Analytical Services

Lab Number : F-04804
Collected : 04/11/89
Received : 04/18/89
Tested : 04/22/89
Collected by: M. Edmonson

ATTN: Tom Howard
Western Geologic Resources
2169 E. Francisco Blvd.
Suite B
San Rafael, CA 94901

EXTRACTED BY EPA METHOD 5030 (purge-and-trap)
EPA METHOD 8260
Sample Description:
Project #1-012.02, Chevron, Oakland,
B-7-21.6, Soil

Compound Analyzed	Detection Limit (ug/kg) (Practical Quantitation Limit)	Concentration (ug/kg)
Benzene	1.	not found
Bromodichloromethane	1.	not found
Bromoform	2.	not found
Carbon Tetrachloride	1.	not found
Chlorobenzene	1.	not found
2-Chloroethyl Vinyl Ether	10.	not found
Chloroform	5.	not found
Dibromochloromethane	1.	not found
1,2-Dichlorobenzene	1.	not found
1,3-Dichlorobenzene	1.	not found
1,4-Dichlorobenzene	1.	not found
1,1-Dichloroethane	1.	not found
1,2-Dichloroethane (EDC)	1.	not found
1,1-Dichloroethene	1.	not found
c-1,2-Dichloroethene	1.	not found
t-1,2-Dichloroethene	1.	not found
1,2-Dichloropropane	1.	not found
c-1,3-Dichloropropene	1.	not found
t-1,3-Dichloropropene	1.	not found
Ethylbenzene	1.	not found
Ethyl Chloride	1.	not found
Ethylene Dibromide	1.	not found
Methyl Bromide	1.	not found
Methyl Chloride	1.	not found
Methylene Chloride	10.	not found
1,1,2,2-Tetrachloroethane	5.	not found
Tetrachloroethylene (PCE)	1.	not found
Toluene	1.	not found
1,1,1-Trichloroethane (TCA)	1.	not found
1,1,2-Trichloroethane	1.	not found
Trichloroethene (TCE)	1.	not found
Trichlorotrifluoroethane (f113)	5.	not found
Trichlorofluoromethane(F-11)	5.	not found
Vinyl Chloride	1.	not found
Xylenes	2.	not found
Total Purgeable Petroleum Hydrocarbons (Gasoline)	500.	not found

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 108/96/78.

05/02/89/MSD#7
F04804v.wr1/42
MH/jg/jc/tl

Respectfully submitted,
Mary Havlicek, Ph.D., President

AIR, WATER and HAZARDOUS WASTE LABORATORY (No.131) CERTIFIED by CALIFORNIA DEPT of PUBLIC HEALTH

Central Coast Analytical Services, Inc.
141 Suburban Road, Suite C-4
San Luis Obispo, California 93401
(805) 543-2553

Central Coast Analytical Services

Lab Number : F-04805
Collected : 04/12/89
Received : 04/18/89
Tested : 04/22/89
Collected by: M. Edmonson

ATTN: Tom Howard
Western Geologic Resources
2169 E. Francisco Blvd.
Suite B
San Rafael, CA 94901

EXTRACTED BY EPA METHOD 5030 (purge-and-trap)
EPA METHOD 8260
Sample Description:
Project #1-012.02, Chevron, Oakland,
B-8-4.5, Soil

Compound Analyzed	Detection Limit (ug/kg) (Practical Quantitation Limit)	Concentration (ug/kg)
Benzene	1.	not found
Bromodichloromethane	1.	not found
Bromoform	2.	not found
Carbon Tetrachloride	1.	not found
Chlorobenzene	1.	not found
2-Chloroethyl Vinyl Ether	10.	not found
Chloroform	5.	not found
Dibromochloromethane	1.	not found
1,2-Dichlorobenzene	1.	not found
1,3-Dichlorobenzene	1.	not found
1,4-Dichlorobenzene	1.	not found
1,1-Dichloroethane	1.	not found
1,2-Dichloroethane (EDC)	1.	not found
1,1-Dichloroethene	1.	not found
c-1,2-Dichloroethene	1.	not found
t-1,2-Dichloroethene	1.	not found
1,2-Dichloropropane	1.	not found
c-1,3-Dichloropropene	1.	not found
t-1,3-Dichloropropene	1.	not found
Ethylbenzene	1.	not found
Ethyl Chloride	1.	not found
Ethylene Dibromide	1.	not found
Methyl Bromide	1.	not found
Methyl Chloride	1.	not found
Methylene Chloride	10.	not found
1,1,2,2-Tetrachloroethane	5.	not found
Tetrachloroethylene (PCE)	1.	not found
Toluene	1.	not found
1,1,1-Trichloroethane (TCA)	1.	not found
1,1,2-Trichloroethane	1.	not found
Trichloroethene (TCE)	1.	not found
Trichlorotrifluoroethane (f113)	5.	not found
Trichlorofluoromethane(F-11)	5.	not found
Vinyl Chloride	1.	not found
Xylenes	2.	not found
Total Purgeable Petroleum Hydrocarbons (Diesel #2)	1000.	600000.

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 110/98/120.

05/02/89/MSD#7
F04805v.wr1/42
MH/jg/jc/tl

Respectfully submitted,
Mary Havlicek, Ph.D., President

AIR, WATER and HAZARDOUS WASTE LABORATORY (No.131) CERTIFIED by CALIFORNIA DEPT of PUBLIC HEALTH

Central Coast Analytical Services

Central Coast Analytical Services, Inc.
141 Suburban Road, Suite C-4
San Luis Obispo, California 93401
(805) 543-2553

Lab Number : F-04806
Collected : 04/12/89
Received : 04/18/89
Tested : 04/22/89
Collected by: R. Baldwin

ATTN: Tom Howard
Western Geologic Resources
2169 E. Francisco Blvd.
Suite B
San Rafael, CA 94901

EXTRACTED BY EPA METHOD 5030 (purge-and-trap)
EPA METHOD 8260
Sample Description:
Project #1-012.02, B-8-9.6',
Chevron, Oakland, Soil

Compound Analyzed	Detection Limit (ug/kg) (Practical Quantitation Limit)	Concentration (ug/kg)
Benzene	10.	not found
Bromodichloromethane	10.	not found
Bromoform	20.	not found
Carbon Tetrachloride	10.	not found
Chlorobenzene	10.	not found
2-Chloroethyl Vinyl Ether	100.	not found
Chloroform	50.	not found
Dibromochloromethane	10.	not found
1,2-Dichlorobenzene	10.	not found
1,3-Dichlorobenzene	10.	not found
1,4-Dichlorobenzene	10.	not found
1,1-Dichloroethane	10.	not found
1,2-Dichloroethane (EDC)	10.	not found
1,1-Dichloroethene	10.	not found
c-1,2-Dichloroethene	10.	not found
t-1,2-Dichloroethene	10.	not found
1,2-Dichloropropane	10.	not found
c-1,3-Dichloropropene	10.	not found
t-1,3-Dichloropropene	10.	not found
Ethylbenzene	10.	not found
Ethyl Chloride	10.	not found
Ethylene Dibromide	10.	not found
Methyl Bromide	10.	not found
Methyl Chloride	10.	not found
Methylene Chloride	2000.	not found
1,1,2,2-Tetrachloroethane	50.	not found
Tetrachloroethylene (PCE)	10.	not found
Toluene	10.	not found
1,1,1-Trichloroethane (TCA)	10.	100.
1,1,2-Trichloroethane	10.	not found
Trichloroethene (TCE)	10.	not found
Trichlorotrifluoroethane (f113)	50.	not found
Trichlorofluoromethane(F-11)	50.	not found
Vinyl Chloride	10.	not found
Xylenes	20.	not found
Total Purgeable Petroleum Hydrocarbons (Diesel #2)	20000.	600000.

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 100/91/73.

04/28/89/MSD#7
F04806v.wr1/40
MH/jl/re/tl

Respectfully submitted,

Mary Havlicek, Ph.D., President

Central Coast Analytical Services

Central Coast Analytical Services, Inc.
141 Suburban Road, Suite C-4
San Luis Obispo, California 93401
(805) 543-2553

Lab Number : F-040806dup
Collected : 04/12/89
Received : 04/18/89
Tested : 04/22/89
Collected by: R. Baldwin

ATTN: Tom Howard
Western Geologic Resources
2169 E. Francisco Blvd.
Suite B
San Rafael, CA 94901

EXTRACTED BY EPA METHOD 5030 (purge-and-trap)
EPA METHOD 8260
Sample Description:
Project #1-012.02, B-8-9.6',
Chevron, Oakland, Soil
Duplicate Analysis

Compound Analyzed	Detection Limit (ug/kg) (Practical Quantitation Limit)	Concentration (ug/kg)
Benzene	20.	not found
Bromodichloromethane	20.	not found
Bromoform	40.	not found
Carbon Tetrachloride	20.	not found
Chlorobenzene	20.	not found
2-Chloroethyl Vinyl Ether	200.	not found
Chloroform	100.	not found
Dibromochloromethane	20.	not found
1,2-Dichlorobenzene	20.	not found
1,3-Dichlorobenzene	20.	not found
1,4-Dichlorobenzene	20.	not found
1,1-Dichloroethane	20.	not found
1,2-Dichloroethane (EDC)	20.	not found
1,1-Dichloroethene	20.	not found
c-1,2-Dichloroethene	20.	not found
t-1,2-Dichloroethene	20.	not found
1,2-Dichloropropane	20.	not found
c-1,3-Dichloropropene	20.	not found
t-1,3-Dichloropropene	20.	not found
Ethylbenzene	20.	not found
Ethyl Chloride	20.	not found
Ethylene Dibromide	20.	not found
Methyl Bromide	20.	not found
Methyl Chloride	20.	not found
Methylene Chloride	200.	not found
1,1,2,2-Tetrachloroethane	100.	not found
Tetrachloroethylene (PCE)	20.	not found
Toluene	20.	not found
1,1,1-Trichloroethane (TCA)	20.	90.
1,1,2-Trichloroethane	20.	not found
Trichloroethene (TCE)	20.	not found
Trichlorotrifluoroethane (f113)	100.	not found
Trichlorofluoromethane(F-11)	100.	not found
Vinyl Chloride	20.	not found
Xylenes	40.	not found
Total Purgeable Petroleum Hydrocarbons (Diesel #2)	20000.	450000.

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 88/115/120.

04/28/89/MSD#7
F040806vd.wr1/40
MH/jm/re/tl

Respectfully submitted,

Mary Havlicek, Ph.D., President

AIR, WATER and HAZARDOUS WASTE LABORATORY (No.131) CERTIFIED by CALIFORNIA DEPT of PUBLIC HEALTH

Central Coast Analytical Services

Central Coast Analytical Services, Inc.
141 Suburban Road, Suite C-4
San Luis Obispo, California 93401
(805) 543-2553

Lab Number : F-04807
Collected : 04/12/89
Received : 04/18/89
Tested : 04/22/89
Collected by: R. Baldwin

ATTN: Tom Howard
Western Geologic Resources
2169 E. Francisco Blvd.
Suite B
San Rafael, CA 94901

EXTRACTED BY EPA METHOD 5030 (purge-and-trap)
EPA METHOD 8260
Sample Description:
Project #1-012.02, B-8-14.5',
Chevron, Oakland, Soil

Compound Analyzed	Detection Limit (ug/kg) (Practical Quantitation Limit)	Concentration (ug/kg)
Benzene	2.	not found
Bromodichloromethane	2.	not found
Bromoform	4.	not found
Carbon Tetrachloride	2.	not found
Chlorobenzene	2.	not found
2-Chloroethyl Vinyl Ether	20.	not found
Chloroform	10.	not found
Dibromochloromethane	2.	not found
1,2-Dichlorobenzene	2.	not found
1,3-Dichlorobenzene	2.	not found
1,4-Dichlorobenzene	2.	not found
1,1-Dichloroethane	2.	not found
1,2-Dichloroethane (EDC)	2.	not found
1,1-Dichloroethene	2.	not found
c-1,2-Dichloroethene	2.	not found
t-1,2-Dichloroethene	2.	not found
1,2-Dichloropropane	2.	not found
c-1,3-Dichloropropene	2.	not found
t-1,3-Dichloropropene	2.	not found
Ethylbenzene	2.	not found
Ethyl Chloride	2.	not found
Ethylene Dibromide	2.	not found
Methyl Bromide	2.	not found
Methyl Chloride	2.	not found
Methylene Chloride	20.	not found
1,1,2,2-Tetrachloroethane	10.	not found
Tetrachloroethylene (PCE)	2.	not found
Toluene	2.	not found
1,1,1-Trichloroethane (TCA)	2.	not found
1,1,2-Trichloroethane	2.	not found
Trichloroethene (TCE)	2.	not found
Trichlorotrifluoroethane (f113)	10.	not found
Trichlorofluoromethane(F-11)	10.	not found
Vinyl Chloride	2.	not found
Xylenes	4.	not found
Total Purgeable Petroleum Hydrocarbons (Diesel #2)	1000.	not found

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 102/86/91.

04/28/89/MSD#7
F04807v.wr1/40
MH/jl/re/tl

Respectfully submitted,
Mary Havlicek
Mary Havlicek, Ph.D., President

AIR, WATER and HAZARDOUS WASTE LABORATORY (No.131) CERTIFIED by CALIFORNIA DEPT of PUBLIC HEALTH

Central Coast Analytical Services, Inc.
141 Suburban Road, Suite C-4
San Luis Obispo, California 93401
(805) 543-2553

Central Coast Analytical Services

Lab Number : F-04809
Collected : 04/12/89
Received : 04/18/89
Tested : 04/22/89
Collected by: R. Baldwin

ATTN: Tom Howard
Western Geologic Resources
2169 E. Francisco Blvd.
Suite B
San Rafael, CA 94901

EXTRACTED BY EPA METHOD 5030 (purge-and-trap)
EPA METHOD 8260
Sample Description:
Project #1-012.02, B-8-22.5',
Chevron, Oakland, Soil

Compound Analyzed	Detection Limit (ug/kg) (Practical Quantitation Limit)	Concentration (ug/kg)
Benzene	2.	not found
Bromodichloromethane	2.	not found
Bromoform	4.	not found
Carbon Tetrachloride	2.	not found
Chlorobenzene	2.	not found
2-Chloroethyl Vinyl Ether	20.	not found
Chloroform	10.	not found
Dibromochloromethane	2.	not found
1,2-Dichlorobenzene	2.	not found
1,3-Dichlorobenzene	2.	not found
1,4-Dichlorobenzene	2.	not found
1,1-Dichloroethane	2.	not found
1,2-Dichloroethane (EDC)	2.	not found
1,1-Dichloroethene	2.	not found
c-1,2-Dichloroethene	2.	not found
t-1,2-Dichloroethene	2.	not found
1,2-Dichloropropane	2.	not found
c-1,3-Dichloropropene	2.	not found
t-1,3-Dichloropropene	2.	not found
Ethylbenzene	2.	not found
Ethyl Chloride	2.	not found
Ethylene Dibromide	2.	not found
Methyl Bromide	2.	not found
Methyl Chloride	2.	not found
Methylene Chloride	20.	not found
1,1,2,2-Tetrachloroethane	10.	not found
Tetrachloroethylene (PCE)	2.	not found
Toluene	2.	not found
1,1,1-Trichloroethane (TCA)	2.	not found
1,1,2-Trichloroethane	2.	not found
Trichloroethene (TCE)	2.	not found
Trichlorotrifluoroethane (f113)	10.	not found
Trichlorofluoromethane(F-11)	10.	not found
Vinyl Chloride	2.	not found
Xylenes	4.	not found
Total Purgeable Petroleum Hydrocarbons (Diesel #2)	1000.	not found

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 103/81.

04/28/89/MSD#7
F04809v.wr1/40
MH/jl/re/tl

Respectfully submitted,
Mary Havlicek
Mary Havlicek, Ph.D., President

AIR, WATER and HAZARDOUS WASTE LABORATORY (No.131) CERTIFIED by CALIFORNIA DEPT of PUBLIC HEALTH

Central Coast Analytical Services

Central Coast Analytical Services, Inc.
141 Suburban Road, Suite C-4
San Luis Obispo, California 93401
(805) 543-2553

Lab Number : F-04811
Collected : 04/12/89
Received : 04/18/89
Tested : 04/22/89
Collected by: R. Baldwin

ATTN: Tom Howard
Western Geologic Resources
2169 E. Francisco Blvd.
Suite B
San Rafael, CA 94901

EXTRACTED BY EPA METHOD 5030 (purge-and-trap)
EPA METHOD 8260
Sample Description:
Project #1-012.02, B-8-29.5',
Chevron, Oakland, Soil

Compound Analyzed	Detection Limit (ug/kg) (Practical Quantitation Limit)	Concentration (ug/kg)
Benzene	2.	not found
Bromodichloromethane	2.	not found
Bromoform	4.	not found
Carbon Tetrachloride	2.	not found
Chlorobenzene	2.	not found
2-Chloroethyl Vinyl Ether	20.	not found
Chloroform	10.	not found
Dibromochloromethane	2.	not found
1,2-Dichlorobenzene	2.	not found
1,3-Dichlorobenzene	2.	not found
1,4-Dichlorobenzene	2.	not found
1,1-Dichloroethane	2.	not found
1,2-Dichloroethane (EDC)	2.	not found
1,1-Dichloroethene	2.	not found
c-1,2-Dichloroethene	2.	not found
t-1,2-Dichloroethene	2.	not found
1,2-Dichloropropane	2.	not found
c-1,3-Dichloropropene	2.	not found
t-1,3-Dichloropropene	2.	not found
Ethylbenzene	2.	not found
Ethyl Chloride	2.	not found
Ethylene Dibromide	2.	not found
Methyl Bromide	2.	not found
Methyl Chloride	2.	not found
Methylene Chloride	20.	not found
1,1,2,2-Tetrachloroethane	10.	not found
Tetrachloroethylene (PCE)	2.	not found
Toluene	2.	not found
1,1,1-Trichloroethane (TCA)	2.	not found
1,1,2-Trichloroethane	2.	not found
Trichloroethene (TCE)	2.	not found
Trichlorotrifluoroethane (f113)	10.	not found
Trichlorofluoromethane(F-11)	10.	not found
Vinyl Chloride	2.	not found
Xylenes	4.	not found
Total Purgeable Petroleum Hydrocarbons (Diesel #2)	1000.	not found

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 104/78.

04/28/89/MSD#7
F04811v.wr1/40
MH/jl/re/tl

Respectfully submitted,

Mary Havlicek, Ph.D., President

AIR, WATER and HAZARDOUS WASTE LABORATORY (No.131) CERTIFIED by CALIFORNIA DEPT of PUBLIC HEALTH

Central Coast
Analytical Services, Inc.
141 Suburban Road, Suite C-4
San Luis Obispo, California 93401
(805) 543-2553

Central Coast Analytical Services

Lab Number : F-04813
Collected : 04/12/89
Received : 04/18/89
Tested : 04/22/89
Collected by: R. Baldwin

ATTN: Tom Howard
Western Geologic Resources
2169 E. Francisco Blvd.
Suite B
San Rafael, CA 94901

EXTRACTED BY EPA METHOD 5030 (purge-and-trap)
EPA METHOD 8260
Sample Description:
Project #1-012.02, B-8-34.5',
Chevron, Oakland, Soil

Compound Analyzed	Detection Limit (ug/kg) (Practical Quantitation Limit)	Concentration (ug/kg)
Benzene	2.	not found
Bromodichloromethane	2.	not found
Bromoform	4.	not found
Carbon Tetrachloride	2.	not found
Chlorobenzene	2.	not found
2-Chloroethyl Vinyl Ether	20.	not found
Chloroform	10.	not found
Dibromochloromethane	2.	not found
1,2-Dichlorobenzene	2.	not found
1,3-Dichlorobenzene	2.	not found
1,4-Dichlorobenzene	2.	not found
1,1-Dichloroethane	2.	not found
1,2-Dichloroethane (EDC)	2.	not found
1,1-Dichloroethene	2.	not found
c-1,2-Dichloroethene	2.	not found
t-1,2-Dichloroethene	2.	not found
1,2-Dichloropropane	2.	not found
c-1,3-Dichloropropene	2.	not found
t-1,3-Dichloropropene	2.	not found
Ethylbenzene	2.	not found
Ethyl Chloride	2.	not found
Ethylene Dibromide	2.	not found
Methyl Bromide	2.	not found
Methyl Chloride	2.	not found
Methylene Chloride	20.	not found
1,1,2,2-Tetrachloroethane	10.	not found
Tetrachloroethylene (PCE)	2.	not found
Toluene	2.	not found
1,1,1-Trichloroethane (TCA)	2.	not found
1,1,2-Trichloroethane	2.	not found
Trichloroethene (TCE)	2.	not found
Trichlorotrifluoroethane (f113)	10.	not found
Trichlorofluoromethane(F-11)	10.	not found
Vinyl Chloride	2.	not found
Xylenes	4.	not found
Total Purgeable Petroleum Hydrocarbons (Diesel #2)	1000.	not found

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 107/76.

04/28/89/MSD#7
F04813v.wr1/40
MH/jl/re/tl

Respectfully submitted,

Mary Havlicek, Ph.D., President

AIR, WATER and HAZARDOUS WASTE LABORATORY (No.131) CERTIFIED by CALIFORNIA DEPT of PUBLIC HEALTH

Central Coast Analytical Services, Inc.
141 Suburban Road, Suite C-4
San Luis Obispo, California 934Ø1
(8Ø5) 543-2553

Central Coast Analytical Services

Lab Number : F-Ø4814
Collected : Ø4/14/89
Received : Ø4/18/89
Tested : Ø4/26/89
Collected by: R. Baldwin

ATTN: Tom Howard
Western Geologic Resources
2169 E. Francisco Blvd.
Suite B
San Rafael, CA 949Ø1

EXTRACTED BY EPA METHOD 5Ø3Ø (purge-and-trap)
EPA METHOD 826Ø
Sample Description:
Project #1-Ø12.Ø2, B-9-9.Ø,
Chevron Oakland, Soil

Compound Analyzed	Detection Limit (ug/kg) (Practical Quantitation Limit)	Concentration (ug/kg)
Benzene	5.	not found
Bromodichloromethane	5.	not found
Bromoform	1Ø.	not found
Carbon Tetrachloride	5.	not found
Chlorobenzene	5.	not found
2-Chloroethyl Vinyl Ether	5Ø.	not found
Chloroform	2Ø.	not found
Dibromochloromethane	5.	not found
1,2-Dichlorobenzene	5.	not found
1,3-Dichlorobenzene	5.	not found
1,4-Dichlorobenzene	5.	not found
1,1-Dichloroethane	5.	not found
1,2-Dichloroethane (EDC)	5.	not found
1,1-Dichloroethene	5.	not found
c-1,2-Dichloroethene	5.	not found
t-1,2-Dichloroethene	5.	not found
1,2-Dichloropropane	5.	not found
c-1,3-Dichloropropene	5.	not found
t-1,3-Dichloropropene	5.	not found
Ethylbenzene	5.	not found
Ethyl Chloride	5.	not found
Ethylene Dibromide	5.	not found
Methyl Bromide	5.	not found
Methyl Chloride	5.	not found
Methylene Chloride	5Ø.	not found
1,1,2,2-Tetrachloroethane	2Ø.	not found
Tetrachloroethylene (PCE)	5.	not found
Toluene	5.	not found
1,1,1-Trichloroethane (TCA)	5.	not found
1,1,2-Trichloroethane	5.	not found
Trichloroethene (TCE)	5.	not found
Trichlorotrifluoroethane (f113)	2Ø.	not found
Trichlorofluoromethane(F-11)	2Ø.	not found
Vinyl Chloride	5.	not found
Xylenes	1Ø.	not found
Total Purgeable Petroleum Hydrocarbons (Gasoline)	5ØØ.	not found

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 11Ø/15Ø/8Ø.

Ø5/Ø5/89/MSD#7
FØ4814v.wr1/43
MH/jm/gb/tl

Respectfully submitted,
Mary Havlicek, Ph.D., President

AIR, WATER and HAZARDOUS WASTE LABORATORY (No.131) CERTIFIED by CALIFORNIA DEPT of PUBLIC HEALTH

Central Coast Analytical Services, Inc.
141 Suburban Road, Suite C-4
San Luis Obispo, California 93401
(805) 543-2553

Lab Number : F-04815
Collected : 04/14/89
Received : 04/18/89
Tested : 04/26/89
Collected by: R. Baldwin

ATTN: Tom Howard
Western Geologic Resources
2169 E. Francisco Blvd.
Suite B
San Rafael, CA 94901

EXTRACTED BY EPA METHOD 5030 (purge-and-trap)
EPA METHOD 8260
Sample Description:
Project #1-012.02, B-9-14.0,
Chevron Oakland, Soil

Compound Analyzed	Detection Limit (ug/kg) (Practical Quantitation Limit)	Concentration (ug/kg)
Benzene	5.	not found
Bromodichloromethane	5.	not found
Bromoform	10.	not found
Carbon Tetrachloride	5.	not found
Chlorobenzene	5.	not found
2-Chloroethyl Vinyl Ether	50.	not found
Chloroform	20.	not found
Dibromochloromethane	5.	not found
1,2-Dichlorobenzene	5.	not found
1,3-Dichlorobenzene	5.	not found
1,4-Dichlorobenzene	5.	not found
1,1-Dichloroethane	5.	not found
1,2-Dichloroethane (EDC)	5.	not found
1,1-Dichloroethene	5.	not found
c-1,2-Dichloroethene	5.	not found
t-1,2-Dichloroethene	5.	not found
1,2-Dichloropropane	5.	not found
c-1,3-Dichloropropene	5.	not found
t-1,3-Dichloropropene	5.	not found
Ethylbenzene	5.	not found
Ethyl Chloride	5.	not found
Ethylene Dibromide	5.	not found
Methyl Bromide	5.	not found
Methyl Chloride	5.	not found
Methylene Chloride	50.	not found
1,1,2,2-Tetrachloroethane	20.	not found
Tetrachloroethylene (PCE)	5.	not found
Toluene	5.	not found
1,1,1-Trichloroethane (TCA)	5.	not found
1,1,2-Trichloroethane	5.	not found
Trichloroethene (TCE)	5.	not found
Trichlorotrifluoroethane (f113)	20.	not found
Trichlorofluoromethane(F-11)	20.	not found
Vinyl Chloride	5.	not found
Xylenes	10.	not found
Total Purgeable Petroleum Hydrocarbons (Gasoline)	500.	not found

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 120/82/140.

05/05/89/MSD#7
F04815v.wr1/43
MH/jm/gb/tl

Respectfully submitted,
Mary Havlicek, Ph.D., President

AIR, WATER and HAZARDOUS WASTE LABORATORY (No.131) CERTIFIED by CALIFORNIA DEPT of PUBLIC HEALTH

Central Coast Analytical Services

Central Coast Analytical Services, Inc.
141 Suburban Road, Suite C-4
San Luis Obispo, California 93401
(805) 543-2553

Lab Number : F-04816
Collected : 04/14/89
Received : 04/18/89
Tested : 04/26/89
Collected by: R. Baldwin

ATTN: Tom Howard
Western Geologic Resources
2169 E. Francisco Blvd.
Suite B
San Rafael, CA 94901

EXTRACTED BY EPA METHOD 5030 (purge-and-trap)
EPA METHOD 8260
Sample Description:
Project #1-012.02, B-9-21.0,
Chevron Oakland, Soil

Compound Analyzed	Detection Limit (ug/kg) (Practical Quantitation Limit)	Concentration (ug/kg)
Benzene	2.	not found
Bromodichloromethane	2.	not found
Bromoform	4.	not found
Carbon Tetrachloride	2.	not found
Chlorobenzene	2.	not found
2-Chloroethyl Vinyl Ether	20.	not found
Chloroform	10.	not found
Dibromochloromethane	2.	not found
1,2-Dichlorobenzene	2.	not found
1,3-Dichlorobenzene	2.	not found
1,4-Dichlorobenzene	2.	not found
1,1-Dichloroethane	2.	not found
1,2-Dichloroethane (EDC)	2.	not found
1,1-Dichloroethene	2.	not found
c-1,2-Dichloroethene	2.	not found
t-1,2-Dichloroethene	2.	not found
1,2-Dichloropropane	2.	not found
c-1,3-Dichloropropene	2.	not found
t-1,3-Dichloropropene	2.	not found
Ethylbenzene	2.	not found
Ethyl Chloride	2.	not found
Ethylene Dibromide	2.	not found
Methyl Bromide	2.	not found
Methyl Chloride	2.	not found
Methylene Chloride	20.	not found
1,1,2,2-Tetrachloroethane	10.	not found
Tetrachloroethylene (PCE)	2.	not found
Toluene	2.	not found
1,1,1-Trichloroethane (TCA)	2.	not found
1,1,2-Trichloroethane	2.	not found
Trichloroethene (TCE)	2.	not found
Trichlorotrifluoroethane (f113)	10.	not found
Trichlorofluoromethane(F-11)	10.	not found
Vinyl Chloride	2.	not found
Xylenes	4.	not found
Total Purgeable Petroleum Hydrocarbons (Gasoline)	100.	not found

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 140/100/130.

05/05/89/MSD#7
F04816v.wr1/43
MH/jm/gb/tl

Respectfully submitted,

Mary Havlicek, Ph.D., President

AIR, WATER & HAZARDOUS WASTE LABORATORY (No.131) CERTIFIED by CALIFORNIA DEPT of HEALTH SERVICES

Central Coast Analytical Services

Central Coast
Analytical Services
141 Suburban Road, Suite C-4
San Luis Obispo, California 93401
(805) 543-2553

Lab Number: F-4816
Collected: 04/14/89
Received: 04/18/89
Tested: As Listed
Collected by: Richard Baldwin

Attn: Tom Howard
Western Geologic Resources
2169 E. Francisco Blvd.
Suite B
San Rafael, Ca. 94901

Sample Description:

1-012.02, Chevron Oakland, B-9- 21.0', Soil

REPORT

*Digested by EPA 3050 on 05/01/89 by JJ

CONSTITUENT	EPA METHOD	DATE	ANALYST	DETECTION LIMIT (mg/kg) (PQL)**	TOTAL LEVEL mg/kg	TTLC*** mg/kg
*CADMIUM	6010	05/03/89	MM	10.	<10.	100.
*CHROMIUM, TOTAL	6010	05/03/89	MM	3.	27.	2500.
*LEAD	7420	05/10/89	KRW	1.	<1.	1000.
*ZINC	6010	05/03/89	MM	3.	17.	5000.

**Practical Quantitation Limit
***TOTAL THRESHOLD LIMIT CONCENTRATION as listed in 22 Cal Adm Code Art 11 Sec. 66699 as persistent & bioaccumulative toxic substance.

Respectfully submitted,
CENTRAL COAST ANALYTICAL SERVICES

05/11/89
F4816IC.WR1/45
MH/ah

Mary Havlicek, Ph.D., President

AIR, WATER & HAZARDOUS WASTE LABORATORY (No.131) CERTIFIED by CALIFORNIA DEPT of HEALTH SERVICES

Central Coast Analytical Services

Central Coast
Analytical Services
141 Suburban Road, Suite C-4
San Luis Obispo, California 93401
(805) 543-2553

Lab Number: F-4816
Collected: 04/14/89
Received: 04/18/89
Tested: As Listed
Collected by: Richard Baldwin

Attn: Tom Howard
Western Geologic Resources
2169 E. Francisco Blvd.
Suite B
San Rafael, Ca. 94901

Sample Description:

1-012.02, Chevron Oakland, B-9- 21.0', Soil

REPORT

CONSTITUENT	EPA METHOD/DATE/ANALYST	DETECTION LIMIT (PQL)** mg/kg	LEVEL FOUND mg/kg
OIL & GREASE	503E 05/09/89 LAP	50.	80.

**Practical Quantitation Limit

05/10/89
F4816WG.WR1/45
MH/ah

Respectfully submitted,
CENTRAL COAST ANALYTICAL SERVICES
Mary Havlicek, Ph.D., President

AIR, WATER and HAZARDOUS WASTE LABORATORY (No.131) CERTIFIED by CALIFORNIA DEPT of PUBLIC HEALTH

Central Coast Analytical Services

Central Coast Analytical Services, Inc.
141 Suburban Road, Suite C-4
San Luis Obispo, California 93401
(805) 543-2553

Lab Number : F-04818
Collected : 04/14/89
Received : 04/18/89
Tested : 04/26/89
Collected by: R. Baldwin

ATTN: Tom Howard
Western Geologic Resources
2169 E. Francisco Blvd.
Suite B
San Rafael, CA 94901

EXTRACTED BY EPA METHOD 5030 (purge-and-trap)
EPA METHOD 8260
Sample Description:
Project #1-012.02, B-9-29.5,
Chevron Oakland, Soil

Compound Analyzed	Detection Limit (ug/kg) (Practical Quantitation Limit)	Concentration (ug/kg)
Benzene	5.	not found
Bromodichloromethane	5.	not found
Bromoform	10.	not found
Carbon Tetrachloride	5.	not found
Chlorobenzene	5.	not found
2-Chloroethyl Vinyl Ether	50.	not found
Chloroform	20.	not found
Dibromochloromethane	5.	not found
1,2-Dichlorobenzene	5.	not found
1,3-Dichlorobenzene	5.	not found
1,4-Dichlorobenzene	5.	not found
1,1-Dichloroethane	5.	not found
1,2-Dichloroethane (EDC)	5.	not found
1,1-Dichloroethene	5.	not found
c-1,2-Dichloroethene	5.	not found
t-1,2-Dichloroethene	5.	not found
1,2-Dichloropropane	5.	not found
c-1,3-Dichloropropene	5.	not found
t-1,3-Dichloropropene	5.	not found
Ethylbenzene	5.	not found
Ethyl Chloride	5.	not found
Ethylene Dibromide	5.	not found
Methyl Bromide	5.	not found
Methyl Chloride	5.	not found
Methylene Chloride	50.	not found
1,1,2,2-Tetrachloroethane	20.	not found
Tetrachloroethylene (PCE)	5.	not found
Toluene	5.	not found
1,1,1-Trichloroethane (TCA)	5.	not found
1,1,2-Trichloroethane	5.	not found
Trichloroethene (TCE)	5.	not found
Trichlorotrifluoroethane (f113)	20.	not found
Trichlorofluoromethane(F-11)	20.	not found
Vinyl Chloride	5.	not found
Xylenes	10.	not found
Total Purgeable Petroleum Hydrocarbons (Gasoline)	500.	not found

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 140/100/140.

05/05/89/MSD#7
F04818v.wr1/43
MH/jm/gb/tl

Respectfully submitted,

Mary Havlicek, Ph.D., President

AIR, WATER and HAZARDOUS WASTE LABORATORY (No.131) CERTIFIED by CALIFORNIA DEPT of PUBLIC HEALTH

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San Luis Obispo, California 93401
(805) 543-2553

Central Coast Analytical Services

Lab Number : F-04819
Collected : 04/14/89
Received : 04/18/89
Tested : 04/26/89
Collected by: R. Baldwin

ATTN: Tom Howard
Western Geologic Resources
2169 E. Francisco Blvd.
Suite B
San Rafael, CA 94901

EXTRACTED BY EPA METHOD 5030 (purge-and-trap)
EPA METHOD 8260
Sample Description:
Project #1-012.02, B-9-33.5,
Chevron Oakland, Soil

Compound Analyzed	Detection Limit (ug/kg) (Practical Quantitation Limit)	Concentration (ug/kg)
Benzene	5.	not found
Bromodichloromethane	5.	not found
Bromoform	10.	not found
Carbon Tetrachloride	5.	not found
Chlorobenzene	5.	not found
2-Chloroethyl Vinyl Ether	50.	not found
Chloroform	20.	not found
Dibromochloromethane	5.	not found
1,2-Dichlorobenzene	5.	not found
1,3-Dichlorobenzene	5.	not found
1,4-Dichlorobenzene	5.	not found
1,1-Dichloroethane	5.	not found
1,2-Dichloroethane (EDC)	5.	not found
1,1-Dichloroethene	5.	not found
c-1,2-Dichloroethene	5.	not found
t-1,2-Dichloroethene	5.	not found
1,2-Dichloropropane	5.	not found
c-1,3-Dichloropropene	5.	not found
t-1,3-Dichloropropene	5.	not found
Ethylbenzene	5.	not found
Ethyl Chloride	5.	not found
Ethylene Dibromide	5.	not found
Methyl Bromide	5.	not found
Methyl Chloride	5.	not found
Methylene Chloride	50.	not found
1,1,2,2-Tetrachloroethane	20.	not found
Tetrachloroethylene (PCE)	5.	not found
Toluene	5.	not found
1,1,1-Trichloroethane (TCA)	5.	not found
1,1,2-Trichloroethane	5.	not found
Trichloroethene (TCE)	5.	not found
Trichlorotrifluoroethane (f113)	20.	not found
Trichlorofluoromethane(F-11)	20.	not found
Vinyl Chloride	5.	not found
Xylenes	10.	not found
Total Purgeable Petroleum Hydrocarbons (Gasoline)	5000.	not found

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 140/110/150.

05/05/89/MSD#7
F04819v.wr1/43
MH/jm/gb/tl

Respectfully submitted,

Mary Havlicek, Ph.D., President

AIR, WATER and HAZARDOUS WASTE LABORATORY (No.131) CERTIFIED by CALIFORNIA DEPT of PUBLIC HEALTH

Central Coast Analytical Services, Inc.
141 Suburban Road, Suite C-4
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(805) 543-2553

Central Coast Analytical Services

Lab Number : F-04821
Collected : 04/13/89
Received : 04/18/89
Tested : 04/22/89
Collected by: R. Baldwin

ATTN: Tom Howard
Western Geologic Resources
2169 E. Francisco Blvd.
Suite B
San Rafael, CA 94901

EXTRACTED BY EPA METHOD 5030 (purge-and-trap)
EPA METHOD 8260
Sample Description:
Project #1-012.02, B-10-9.5',
Chevron, Oakland, Soil

Compound Analyzed	Detection Limit (ug/kg) (Practical Quantitation Limit)	Concentration (ug/kg)
Benzene	2.	not found
Bromodichloromethane	2.	not found
Bromoform	4.	not found
Carbon Tetrachloride	2.	not found
Chlorobenzene	2.	not found
2-Chloroethyl Vinyl Ether	20.	not found
Chloroform	10.	not found
Dibromochloromethane	2.	not found
1,2-Dichlorobenzene	2.	not found
1,3-Dichlorobenzene	2.	not found
1,4-Dichlorobenzene	2.	not found
1,1-Dichloroethane	2.	not found
1,2-Dichloroethane (EDC)	2.	not found
1,1-Dichloroethene	2.	not found
c-1,2-Dichloroethene	2.	not found
t-1,2-Dichloroethene	2.	not found
1,2-Dichloropropane	2.	not found
c-1,3-Dichloropropene	2.	not found
t-1,3-Dichloropropene	2.	not found
Ethylbenzene	2.	not found
Ethyl Chloride	2.	not found
Ethylene Dibromide	2.	not found
Methyl Bromide	2.	not found
Methyl Chloride	2.	not found
Methylene Chloride	20.	not found
1,1,2,2-Tetrachloroethane	10.	not found
Tetrachloroethylene (PCE)	2.	not found
Toluene	2.	not found
1,1,1-Trichloroethane (TCA)	2.	not found
1,1,2-Trichloroethane	2.	not found
Trichloroethene (TCE)	2.	not found
Trichlorotrifluoroethane (f113)	10.	not found
Trichlorofluoromethane(F-11)	10.	not found
Vinyl Chloride	2.	not found
Xylenes	4.	not found
Total Purgeable Petroleum Hydrocarbons (Diesel #2)	1000.	not found

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 118/77.

04/28/89/MSD#7
F04821v.wr1/40
MH/jl/re/tl

Respectfully submitted,

Mary Havlicek, Ph.D., President

AIR, WATER and HAZARDOUS WASTE LABORATORY (No.131) CERTIFIED by CALIFORNIA DEPT of PUBLIC HEALTH

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San Luis Obispo, California 93401
(805) 543-2553

Lab Number : F-04822
Collected : 04/13/89
Received : 04/18/89
Tested : 04/22/89
Collected by: R. Baldwin

ATTN: Tom Howard
Western Geologic Resources
2169 E. Francisco Blvd.
Suite B
San Rafael, CA 94901

EXTRACTED BY EPA METHOD 5030 (purge-and-trap)
EPA METHOD 8260
Sample Description:
Project #1-012.02, B-10-14.5',
Chevron, Oakland, Soil

Compound Analyzed	Detection Limit (ug/kg) (Practical Quantitation Limit)	Concentration (ug/kg)
Benzene	2.	not found
Bromodichloromethane	2.	not found
Bromoform	4.	not found
Carbon Tetrachloride	2.	not found
Chlorobenzene	2.	not found
2-Chloroethyl Vinyl Ether	20.	not found
Chloroform	10.	not found
Dibromochloromethane	2.	not found
1,2-Dichlorobenzene	2.	not found
1,3-Dichlorobenzene	2.	not found
1,4-Dichlorobenzene	2.	not found
1,1-Dichloroethane	2.	not found
1,2-Dichloroethane (EDC)	2.	not found
1,1-Dichloroethene	2.	not found
c-1,2-Dichloroethene	2.	not found
t-1,2-Dichloroethene	2.	not found
1,2-Dichloropropane	2.	not found
c-1,3-Dichloropropene	2.	not found
t-1,3-Dichloropropene	2.	not found
Ethylbenzene	2.	not found
Ethyl Chloride	2.	not found
Ethylene Dibromide	2.	not found
Methyl Bromide	2.	not found
Methyl Chloride	2.	not found
Methylene Chloride	20.	not found
1,1,2,2-Tetrachloroethane	10.	not found
Tetrachloroethylene (PCE)	2.	not found
Toluene	2.	not found
1,1,1-Trichloroethane (TCA)	2.	not found
1,1,2-Trichloroethane	2.	not found
Trichloroethene (TCE)	2.	not found
Trichlorotrifluoroethane (f113)	10.	not found
Trichlorofluoromethane(F-11)	10.	not found
Vinyl Chloride	2.	not found
Xylenes	4.	not found
Total Purgeable Petroleum Hydrocarbons (Diesel #2)	1000.	not found

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 109/76/82.

04/28/89/MSD#7
F04822v.wr1/41
MH/jm/re/tl

Respectfully submitted,

Mary Havlicek, Ph.D., President

AIR, WATER and HAZARDOUS WASTE LABORATORY (No.131) CERTIFIED by CALIFORNIA DEPT of PUBLIC HEALTH

Central Coast Analytical Services
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San Luis Obispo, California 93401
(805) 543-2553

Lab Number : F-04823
Collected : 04/13/89
Received : 04/18/89
Tested : 04/22/89
Collected by: R. Baldwin

ATTN: Tom Howard
Western Geologic Resources
2169 E. Francisco Blvd.
Suite B
San Rafael, CA 94901

EXTRACTED BY EPA METHOD 5030 (purge-and-trap)
EPA METHOD 8260
Sample Description:
Project #1-012.02, B-10-21.5',
Chevron, Oakland, Soil

Compound Analyzed	Detection Limit (ug/kg) (Practical Quantitation Limit)	Concentration (ug/kg)
Benzene	2.	not found
Bromodichloromethane	2.	not found
Bromoform	4.	not found
Carbon Tetrachloride	2.	not found
Chlorobenzene	2.	not found
2-Chloroethyl Vinyl Ether	20.	not found
Chloroform	10.	not found
Dibromochloromethane	2.	not found
1,2-Dichlorobenzene	2.	not found
1,3-Dichlorobenzene	2.	not found
1,4-Dichlorobenzene	2.	not found
1,1-Dichloroethane	2.	not found
1,2-Dichloroethane (EDC)	2.	not found
1,1-Dichloroethene	2.	not found
c-1,2-Dichloroethene	2.	not found
t-1,2-Dichloroethene	2.	not found
1,2-Dichloropropane	2.	not found
c-1,3-Dichloropropene	2.	not found
t-1,3-Dichloropropene	2.	not found
Ethylbenzene	2.	not found
Ethyl Chloride	2.	not found
Ethylene Dibromide	2.	not found
Methyl Bromide	2.	not found
Methyl Chloride	2.	not found
Methylene Chloride	20.	not found
1,1,2,2-Tetrachloroethane	10.	not found
Tetrachloroethylene (PCE)	2.	not found
Toluene	2.	not found
1,1,1-Trichloroethane (TCA)	2.	not found
1,1,2-Trichloroethane	2.	not found
Trichloroethene (TCE)	2.	not found
Trichlorotrifluoroethane (f113)	10.	not found
Trichlorofluoromethane(F-11)	10.	not found
Vinyl Chloride	2.	not found
Xylenes	4.	not found
Total Purgeable Petroleum Hydrocarbons (Diesel #2)	1000.	not found

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 110/70/84.

04/28/89/MSD#7
F04823v.wr1/41
MH/jm/re/tl

Respectfully submitted,
Mary Havlicek, Ph.D., President

AIR, WATER and HAZARDOUS WASTE LABORATORY (No.131) CERTIFIED by CALIFORNIA DEPT of PUBLIC HEALTH

Central Coast
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San Luis Obispo, California 93401
(805) 543-2553

Central Coast Analytical Services

Lab Number : F-04825
Collected : 04/13/89
Received : 04/18/89
Tested : 04/22/89
Collected by: R. Baldwin

ATTN: Tom Howard
Western Geologic Resources
2169 E. Francisco Blvd.
Suite B
San Rafael, CA 94901

EXTRACTED BY EPA METHOD 5030 (purge-and-trap)
EPA METHOD 8260
Sample Description:
Project #1-012.02, B-10-27.0',
Chevron, Oakland, Soil

Compound Analyzed	Detection Limit (ug/kg) (Practical Quantitation Limit)	Concentration (ug/kg)
Benzene	2.	not found
Bromodichloromethane	2.	not found
Bromoform	4.	not found
Carbon Tetrachloride	2.	not found
Chlorobenzene	2.	not found
2-Chloroethyl Vinyl Ether	20.	not found
Chloroform	10.	not found
Dibromochloromethane	2.	not found
1,2-Dichlorobenzene	2.	not found
1,3-Dichlorobenzene	2.	not found
1,4-Dichlorobenzene	2.	not found
1,1-Dichloroethane	2.	not found
1,2-Dichloroethane (EDC)	2.	not found
1,1-Dichloroethene	2.	not found
c-1,2-Dichloroethene	2.	not found
t-1,2-Dichloroethene	2.	not found
1,2-Dichloropropane	2.	not found
c-1,3-Dichloropropene	2.	not found
t-1,3-Dichloropropene	2.	not found
Ethylbenzene	2.	not found
Ethyl Chloride	2.	not found
Ethylene Dibromide	2.	not found
Methyl Bromide	2.	not found
Methyl Chloride	2.	not found
Methylene Chloride	20.	not found
1,1,2,2-Tetrachloroethane	10.	not found
Tetrachloroethylene (PCE)	2.	not found
Toluene	2.	not found
1,1,1-Trichloroethane (TCA)	2.	not found
1,1,2-Trichloroethane	2.	not found
Trichloroethene (TCE)	2.	not found
Trichlorotrifluoroethane (f113)	10.	not found
Trichlorofluoromethane(F-11)	10.	not found
Vinyl Chloride	2.	not found
Xylenes	4.	not found
Total Purgeable Petroleum Hydrocarbons (Diesel #2)	1000.	not found

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 117/85/87.

04/28/89/MSD#7
F04825v.wr1/41
MH/jm/re/tl

Respectfully submitted,
Mary Havlicek, Ph.D., President

AIR, WATER and HAZARDOUS WASTE LABORATORY (No.131) CERTIFIED by CALIFORNIA DEPT of PUBLIC HEALTH

Central Coast Analytical Services, Inc.
141 Suburban Road, Suite C-4
San Luis Obispo, California 93401
(805) 543-2553

Central Coast Analytical Services

Lab Number : F-04827
Collected : 04/13/89
Received : 04/18/89
Tested : 04/26/89
Collected by: R. Baldwin

ATTN: Tom Howard
Western Geologic Resources
2169 E. Francisco Blvd.
Suite B
San Rafael, CA 94901

EXTRACTED BY EPA METHOD 5030 (purge-and-trap)
EPA METHOD 8260
Sample Description:
Project #1-012.02, B-11-9.5,
Chevron Oakland, Soil

Compound Analyzed	Detection Limit (ug/kg) (Practical Quantitation Limit)	Concentration (ug/kg)
Benzene	2.	not found
Bromodichloromethane	2.	not found
Bromoform	4.	not found
Carbon Tetrachloride	2.	not found
Chlorobenzene	2.	not found
2-Chloroethyl Vinyl Ether	20.	not found
Chloroform	10.	not found
Dibromochloromethane	2.	not found
1,2-Dichlorobenzene	2.	not found
1,3-Dichlorobenzene	2.	not found
1,4-Dichlorobenzene	2.	not found
1,1-Dichloroethane	2.	not found
1,2-Dichloroethane (EDC)	2.	not found
1,1-Dichloroethene	2.	not found
c-1,2-Dichloroethene	2.	not found
t-1,2-Dichloroethene	2.	not found
1,2-Dichloropropane	2.	not found
c-1,3-Dichloropropene	2.	not found
t-1,3-Dichloropropene	2.	not found
Ethylbenzene	2.	not found
Ethyl Chloride	2.	not found
Ethylene Dibromide	2.	not found
Methyl Bromide	2.	not found
Methyl Chloride	2.	not found
Methylene Chloride	20.	not found
1,1,2,2-Tetrachloroethane	10.	not found
Tetrachloroethylene (PCE)	2.	not found
Toluene	2.	not found
1,1,1-Trichloroethane (TCA)	2.	not found
1,1,2-Trichloroethane	2.	not found
Trichloroethene (TCE)	2.	not found
Trichlorotrifluoroethane (f113)	10.	not found
Trichlorofluoromethane(F-11)	10.	not found
Vinyl Chloride	2.	not found
Xylenes	4.	not found
Total Purgeable Petroleum Hydrocarbons (Gasoline)	100.	not found

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 120/85.

05/05/89/MSD#7
F04827v.wr1/43
MH/jl/gb/tl

Respectfully submitted,
Mary Havlicek
Mary Havlicek, Ph.D., President

AIR, WATER and HAZARDOUS WASTE LABORATORY (No.131) CERTIFIED by CALIFORNIA DEPT of PUBLIC HEALTH

Central Coast Analytical Services, Inc.
141 Suburban Road, Suite C-4
San Luis Obispo, California 93401
(805) 543-2553

Central Coast Analytical Services

Lab Number : F-04828
Collected : 04/13/89
Received : 04/18/89
Tested : 04/25/89
Collected by: R. Baldwin

ATTN: Tom Howard
Western Geologic Resources
2169 E. Francisco Blvd.
Suite B
San Rafael, CA 94901

EXTRACTED BY EPA METHOD 5030 (purge-and-trap)
EPA METHOD 8260
Sample Description:
Project #1-012.02, B-11-14.25,
Chevron Oakland, Soil

Compound Analyzed	Detection Limit (ug/kg) (Practical Quantitation Limit)	Concentration (ug/kg)
Benzene	0.2	not found
Bromodichloromethane	0.2	not found
Bromoform	0.4	not found
Carbon Tetrachloride	0.2	not found
Chlorobenzene	0.2	not found
2-Chloroethyl Vinyl Ether	2.	not found
Chloroform	1.	not found
Dibromochloromethane	0.2	not found
1,2-Dichlorobenzene	0.2	not found
1,3-Dichlorobenzene	0.2	not found
1,4-Dichlorobenzene	0.2	not found
1,1-Dichloroethane	0.2	not found
1,2-Dichloroethane (EDC)	0.2	not found
1,1-Dichloroethene	0.2	not found
c-1,2-Dichloroethene	0.2	not found
t-1,2-Dichloroethene	0.2	not found
1,2-Dichloropropane	0.2	not found
c-1,3-Dichloropropene	0.2	not found
t-1,3-Dichloropropene	0.2	not found
Ethylbenzene	0.2	not found
Ethyl Chloride	0.2	not found
Ethylene Dibromide	0.2	not found
Methyl Bromide	0.2	not found
Methyl Chloride	0.2	not found
Methylene Chloride	2.	not found
1,1,2,2-Tetrachloroethane	1.	not found
Tetrachloroethylene (PCE)	0.2	not found
Toluene	0.2	not found
1,1,1-Trichloroethane (TCA)	0.2	not found
1,1,2-Trichloroethane	0.2	not found
Trichloroethene (TCE)	0.2	not found
Trichlorotrifluoroethane (f113)	1.	not found
Trichlorofluoromethane(F-11)	1.	not found
Vinyl Chloride	0.2	not found
Xylenes	0.4	not found
Total Purgeable Petroleum Hydrocarbons (Gasoline)	2000.	not found

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 107/98/85.

05/01/89/MSD#7
F04828v.wr1/41
MH/jg/re/tl

Respectfully submitted,
Mary Havlicek, Ph.D., President

AIR, WATER and HAZARDOUS WASTE LABORATORY (No.131) CERTIFIED by CALIFORNIA DEPT of PUBLIC HEALTH

Central Coast Analytical Services, Inc.
141 Suburban Road, Suite C-4
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Central Coast Analytical Services

Lab Number : F-04829
Collected : 04/13/89
Received : 04/18/89
Tested : 04/26/89
Collected by: R. Baldwin

ATTN: Tom Howard
Western Geologic Resources
2169 E. Francisco Blvd.
Suite B
San Rafael, CA 94901

EXTRACTED BY EPA METHOD 5030 (purge-and-trap)
EPA METHOD 8260
Sample Description:
Project #1-012.02, B-11-19.25,
Chevron Oakland, Soil

Compound Analyzed	Detection Limit (ug/kg) (Practical Quantitation Limit)	Concentration (ug/kg)
Benzene	10.	not found
Bromodichloromethane	10.	not found
Bromoform	20.	not found
Carbon Tetrachloride	10.	not found
Chlorobenzene	10.	70.
2-Chloroethyl Vinyl Ether	100.	not found
Chloroform	50.	not found
Dibromochloromethane	10.	not found
1,2-Dichlorobenzene	10.	not found
1,3-Dichlorobenzene	10.	not found
1,4-Dichlorobenzene	10.	not found
1,1-Dichloroethane	10.	not found
1,2-Dichloroethane (EDC)	10.	not found
1,1-Dichloroethene	10.	not found
c-1,2-Dichloroethene	10.	not found
t-1,2-Dichloroethene	10.	not found
1,2-Dichloropropane	10.	not found
c-1,3-Dichloropropene	10.	not found
t-1,3-Dichloropropene	10.	not found
Ethylbenzene	10.	140.
Ethyl Chloride	10.	not found
Ethylene Dibromide	10.	not found
Methyl Bromide	10.	not found
Methyl Chloride	10.	not found
Methylene Chloride	100.	not found
1,1,2,2-Tetrachloroethane	50.	not found
Tetrachloroethylene (PCE)	10.	not found
Toluene	10.	not found
1,1,1-Trichloroethane (TCA)	10.	not found
1,1,2-Trichloroethane	10.	not found
Trichloroethene (TCE)	10.	not found
Trichlorotrifluoroethane (f113)	50.	not found
Trichlorofluoromethane(F-11)	50.	not found
Vinyl Chloride	10.	not found
Xylenes	20.	950.
Total Purgeable Petroleum Hydrocarbons (Diesel #2)	1000.	680000.

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 120/89/130.

05/05/89/MSD#7
F04829v.wr1/43
MH/jl/gb/tl

Respectfully submitted,
Mary Havlicek
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AIR, WATER and HAZARDOUS WASTE LABORATORY (No.131) CERTIFIED by CALIFORNIA DEPT of PUBLIC HEALTH

Central Coast Analytical Services
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(805) 543-2553

Lab Number : F-04830
Collected : 04/14/89
Received : 04/18/89
Tested : 04/26/89
Collected by: R. Baldwin

ATTN: Tom Howard
Western Geologic Resources
2169 E. Francisco Blvd.
Suite B
San Rafael, CA 94901

EXTRACTED BY EPA METHOD 5030 (purge-and-trap)
EPA METHOD 8260
Sample Description:
Project #1-012.02, B-11-23.5,
Chevron Oakland, Soil

Compound Analyzed	Detection Limit (ug/kg) (Practical Quantitation Limit)	Concentration (ug/kg)
Benzene	100.	not found
Bromodichloromethane	100.	not found
Bromoform	200.	not found
Carbon Tetrachloride	100.	not found
Chlorobenzene	100.	not found
2-Chloroethyl Vinyl Ether	1000.	not found
Chloroform	500.	not found
Dibromochloromethane	100.	not found
1,2-Dichlorobenzene	100.	not found
1,3-Dichlorobenzene	100.	not found
1,4-Dichlorobenzene	100.	not found
1,1-Dichloroethane	100.	not found
1,2-Dichloroethane (EDC)	100.	not found
1,1-Dichloroethene	100.	not found
c-1,2-Dichloroethene	100.	not found
t-1,2-Dichloroethene	100.	not found
1,2-Dichloropropane	100.	not found
c-1,3-Dichloropropene	100.	not found
t-1,3-Dichloropropene	100.	not found
Ethylbenzene	100.	3500.
Ethyl Chloride	100.	not found
Ethylene Dibromide	100.	not found
Methyl Bromide	100.	not found
Methyl Chloride	100.	not found
Methylene Chloride	1000.	not found
1,1,2,2-Tetrachloroethane	500.	not found
Tetrachloroethylene (PCE)	100.	not found
Toluene	100.	4000.
1,1,1-Trichloroethane (TCA)	100.	200.
1,1,2-Trichloroethane	100.	not found
Trichloroethene (TCE)	100.	not found
Trichlorotrifluoroethane (f113)	500.	not found
Trichlorofluoromethane(F-11)	500.	not found
Vinyl Chloride	100.	not found
Xylenes	200.	12000.
Total Purgeable Petroleum Hydrocarbons (Diesel #2)	5000.	45000000.

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 140/97/140.

05/05/89/MSD#7
F04830v.wr1/43
MH/ec/gb/tl

Respectfully submitted,
Mary Havlicek
Mary Havlicek, Ph.D., President

AIR, WATER and HAZARDOUS WASTE LABORATORY (No.131) CERTIFIED by CALIFORNIA DEPT of PUBLIC HEALTH

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(805) 543-2553

Central Coast Analytical Services

Lab Number : F-04830dup
Collected : 04/14/89
Received : 04/18/89
Tested : 04/26/89
Collected by: R. Baldwin

ATTN: Tom Howard
Western Geologic Resources
2169 E. Francisco Blvd.
Suite B
San Rafael, CA 94901

EXTRACTED BY EPA METHOD 5030 (purge-and-trap)
EPA METHOD 8260
Sample Description:
Project #1-012.02, B-11-23.5,
Chevron Oakland, Soil, Duplicate Analysis

Compound Analyzed	Detection Limit (ug/kg) (Practical Quantitation Limit)	Concentration (ug/kg)
Benzene	200.	not found
Bromodichloromethane	200.	not found
Bromoform	400.	not found
Carbon Tetrachloride	200.	not found
Chlorobenzene	200.	not found
2-Chloroethyl Vinyl Ether	200.	not found
Chloroform	1000.	not found
Dibromochloromethane	200.	not found
1,2-Dichlorobenzene	200.	not found
1,3-Dichlorobenzene	200.	not found
1,4-Dichlorobenzene	200.	not found
1,1-Dichloroethane	200.	not found
1,2-Dichloroethane (EDC)	200.	not found
1,1-Dichloroethene	200.	not found
c-1,2-Dichloroethene	200.	not found
t-1,2-Dichloroethene	200.	not found
1,2-Dichloropropane	200.	not found
c-1,3-Dichloropropene	200.	not found
t-1,3-Dichloropropene	200.	not found
Ethylbenzene	200.	5000.
Ethyl Chloride	200.	not found
Ethylene Dibromide	200.	not found
Methyl Bromide	200.	not found
Methyl Chloride	200.	not found
Methylene Chloride	2000.	not found
1,1,2,2-Tetrachloroethane	1000.	not found
Tetrachloroethylene (PCE)	200.	not found
Toluene	200.	4100.
1,1,1-Trichloroethane (TCA)	200.	not found
1,1,2-Trichloroethane	200.	not found
Trichloroethene (TCE)	200.	not found
Trichlorotrifluoroethane (f113)	1000.	not found
Trichlorofluoromethane(F-11)	1000.	not found
Vinyl Chloride	200.	not found
Xylenes	400.	20000.
Total Purgeable Petroleum Hydrocarbons (Diesel #2)	10000.	50000000.

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 130/120/140.

05/05/89/MSD#7
F04830vd.wr1/43
MH/ec/gb/tl

Respectfully submitted,
Mary Havlicek
Mary Havlicek, Ph.D., President

AIR, WATER and HAZARDOUS WASTE LABORATORY (No.131) CERTIFIED by CALIFORNIA DEPT of PUBLIC HEALTH

Central Coast Analytical Services, Inc.
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(805) 543-2553

Central Coast Analytical Services

Lab Number : F-04831
Collected : 04/14/89
Received : 04/18/89
Tested : 04/27/89
Collected by: R. Baldwin

ATTN: Tom Howard
Western Geologic Resources
2169 E. Francisco Blvd.
Suite B
San Rafael, CA 94901

EXTRACTED BY EPA METHOD 5030 (purge-and-trap)
EPA METHOD 8260
Sample Description:
Project #1-012.02, Chevron, Oakland,
B-11-29.5, Soil

Compound Analyzed	Detection Limit (ug/kg) (Practical Quantitation Limit)	Concentration (ug/kg)
Benzene	1.	not found
Bromodichloromethane	1.	not found
Bromoform	2.	not found
Carbon Tetrachloride	1.	not found
Chlorobenzene	1.	not found
2-Chloroethyl Vinyl Ether	10.	not found
Chloroform	5.	not found
Dibromochloromethane	1.	not found
1,2-Dichlorobenzene	1.	not found
1,3-Dichlorobenzene	1.	not found
1,4-Dichlorobenzene	1.	not found
1,1-Dichloroethane	1.	not found
1,2-Dichloroethane (EDC)	1.	not found
1,1-Dichloroethene	1.	not found
c-1,2-Dichloroethene	1.	not found
t-1,2-Dichloroethene	1.	not found
1,2-Dichloropropane	1.	not found
c-1,3-Dichloropropene	1.	not found
t-1,3-Dichloropropene	1.	not found
Ethylbenzene	1.	not found
Ethyl Chloride	1.	not found
Ethylene Dibromide	1.	not found
Methyl Bromide	1.	not found
Methyl Chloride	1.	not found
Methylene Chloride	10.	not found
1,1,2,2-Tetrachloroethane	5.	not found
Tetrachloroethylene (PCE)	1.	not found
Toluene	1.	not found
1,1,1-Trichloroethane (TCA)	1.	not found
1,1,2-Trichloroethane	1.	not found
Trichloroethene (TCE)	1.	not found
Trichlorotrifluoroethane (f113)	5.	not found
Trichlorofluoromethane(F-11)	5.	not found
Vinyl Chloride	1.	not found
Xylenes	2.	not found
Total Purgeable Petroleum Hydrocarbons (Gasoline)	1000.	not found

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 130/110/84.

05/02/89/MSD#7
B04831v.wr1/41
MH/gb/gb/tl

Respectfully submitted,

Mary Havlicek, Ph.D., President

AIR, WATER and HAZARDOUS WASTE LABORATORY (No.131) CERTIFIED by CALIFORNIA DEPT of PUBLIC HEALTH

Central Coast Analytical Services, Inc.
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Central Coast Analytical Services

Lab Number : F-04900
Collected : 04/19/89
Received : 04/20/89
Tested : 05/03/89
Collected by: R. Baldwin

ATTN: Tom Howard
Western Geologic Resources
2169 E. Francisco Blvd.
Suite B
San Rafael, CA 94901

EXTRACTED BY EPA METHOD 5030 (purge-and-trap)
EPA METHOD 8260
Sample Description:
Project #1-012.02, Chevron Oakland,
B-12-9.5, Soil

Compound Analyzed	Detection Limit (ug/kg) (Practical Quantitation Limit)	Concentration (ug/kg)
Benzene	2.	not found
Bromodichloromethane	2.	not found
Bromoform	4.	not found
Carbon Tetrachloride	2.	not found
Chlorobenzene	2.	not found
2-Chloroethyl Vinyl Ether	20.	not found
Chloroform	10.	not found
Dibromochloromethane	2.	not found
1,2-Dichlorobenzene	2.	not found
1,3-Dichlorobenzene	2.	not found
1,4-Dichlorobenzene	2.	not found
1,1-Dichloroethane	2.	not found
1,2-Dichloroethane (EDC)	2.	not found
1,1-Dichloroethene	2.	not found
c-1,2-Dichloroethene	2.	not found
t-1,2-Dichloroethene	2.	not found
1,2-Dichloropropane	2.	not found
c-1,3-Dichloropropene	2.	not found
t-1,3-Dichloropropene	2.	not found
Ethylbenzene	2.	not found
Ethyl Chloride	2.	not found
Ethylene Dibromide	2.	not found
Methyl Bromide	2.	not found
Methyl Chloride	2.	not found
Methylene Chloride	20.	not found
1,1,2,2-Tetrachloroethane	10.	not found
Tetrachloroethylene (PCE)	2.	not found
Toluene	2.	3.
1,1,1-Trichloroethane (TCA)	2.	not found
1,1,2-Trichloroethane	2.	not found
Trichloroethene (TCE)	2.	not found
Trichlorotrifluoroethane (f113)	10.	not found
Trichlorofluoromethane(F-11)	10.	not found
Vinyl Chloride	2.	not found
Xylenes	4.	not found
Total Purgeable Petroleum Hydrocarbons (Diesel #2)	1000.	not found

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 103/84.

05/08/89/MSD#7
F04900v.wr1/44
MH/jl/jc/tl

Respectfully submitted,
Mary Havlicek, Ph.D., President

AIR, WATER and HAZARDOUS WASTE LABORATORY (No.131) CERTIFIED by CALIFORNIA DEPT of PUBLIC HEALTH

Central Coast Analytical Services, Inc.
141 Suburban Road, Suite C-4
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(805) 543-2553

Central Coast Analytical Services

Lab Number : F-04901
Collected : 04/19/89
Received : 04/20/89
Tested : 04/25/89
Collected by: R. Baldwin

ATTN: Tom Howard
Western Geologic Resources
2169 E. Francisco Blvd.
Suite B
San Rafael, CA 94901

EXTRACTED BY EPA METHOD 5030 (purge-and-trap)
EPA METHOD 8260
Sample Description:
Project #1-812.02, B-12-14.5,
Chevron Oakland, Soil

Compound Analyzed	Detection Limit (ug/kg) (Practical Quantitation Limit)	Concentration (ug/kg)
Benzene	5.	not found
Bromodichloromethane	5.	not found
Bromoform	10.	not found
Carbon Tetrachloride	5.	not found
Chlorobenzene	5.	not found
2-Chloroethyl Vinyl Ether	50.	not found
Chloroform	20.	not found
Dibromochloromethane	5.	not found
1,2-Dichlorobenzene	5.	not found
1,3-Dichlorobenzene	5.	not found
1,4-Dichlorobenzene	5.	not found
1,1-Dichloroethane	5.	not found
1,2-Dichloroethane (EDC)	5.	not found
1,1-Dichloroethene	5.	not found
c-1,2-Dichloroethene	5.	not found
t-1,2-Dichloroethene	5.	not found
1,2-Dichloropropane	5.	not found
c-1,3-Dichloropropene	5.	not found
t-1,3-Dichloropropene	5.	not found
Ethylbenzene	5.	not found
Ethyl Chloride	5.	not found
Ethylene Dibromide	5.	not found
Methyl Bromide	5.	not found
Methyl Chloride	5.	not found
Methylene Chloride	50.	not found
1,1,2,2-Tetrachloroethane	20.	not found
Tetrachloroethylene (PCE)	5.	not found
Toluene	5.	not found
1,1,1-Trichloroethane (TCA)	5.	not found
1,1,2-Trichloroethane	5.	not found
Trichloroethene (TCE)	5.	not found
Trichlorotrifluoroethane (f113)	20.	not found
Trichlorofluoromethane(F-11)	20.	not found
Vinyl Chloride	5.	not found
Xylenes	10.	not found
Total Purgeable Petroleum Hydrocarbons (Gasoline)	2000.	not found

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 90/106/89.

05/01/89/MSD#7
F0490lv.wr1/41
MH/bl/re/tl

Respectfully submitted,
Mary Havlicek
Mary Havlicek, Ph.D., President

Central Coast Analytical Services

Central Coast
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141 Suburban Road, Suite C-4
San Luis Obispo, California 93401
(805) 543-2553

Lab Number : F-04902
Collected : 04/19/89
Received : 04/20/89
Tested : 05/03/89
Collected by: R. Baldwin

ATTN: Tom Howard
Western Geologic Resources
2169 E. Francisco Blvd.
Suite B
San Rafael, CA 94901

EXTRACTED BY EPA METHOD 5030 (purge-and-trap)
EPA METHOD 8260
Sample Description:
Project #1-012.02, Chevron Oakland,
B-12-21.0, Soil

Compound Analyzed	Detection Limit (ug/kg) (Practical Quantitation Limit)	Concentration (ug/kg)
Benzene	2.	not found
Bromodichloromethane	2.	not found
Bromoform	4.	not found
Carbon Tetrachloride	2.	not found
Chlorobenzene	2.	not found
2-Chloroethyl Vinyl Ether	20.	not found
Chloroform	10.	not found
Dibromochloromethane	2.	not found
1,2-Dichlorobenzene	2.	not found
1,3-Dichlorobenzene	2.	not found
1,4-Dichlorobenzene	2.	not found
1,1-Dichloroethane	2.	not found
1,2-Dichloroethane (EDC)	2.	not found
1,1-Dichloroethene	2.	not found
c-1,2-Dichloroethene	2.	not found
t-1,2-Dichloroethene	2.	not found
1,2-Dichloropropane	2.	not found
c-1,3-Dichloropropene	2.	not found
t-1,3-Dichloropropene	2.	not found
Ethylbenzene	2.	not found
Ethyl Chloride	2.	not found
Ethylene Dibromide	2.	not found
Methyl Bromide	2.	not found
Methyl Chloride	2.	not found
Methylene Chloride	20.	not found
1,1,2,2-Tetrachloroethane	10.	not found
Tetrachloroethylene (PCE)	2.	not found
Toluene	2.	3.
1,1,1-Trichloroethane (TCA)	2.	not found
1,1,2-Trichloroethane	2.	not found
Trichloroethene (TCE)	2.	not found
Trichlorotrifluoroethane (f113)	10.	not found
Trichlorofluoromethane(F-11)	10.	not found
Vinyl Chloride	2.	not found
Xylenes	4.	not found
Total Purgeable Petroleum Hydrocarbons (Diesel #2)	1000.	not found

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 102/80.

05/08/89/MSD#7
F04902v.wr1/44
MH/jl/jc/tl

Respectfully submitted,

Mary Havlicek, Ph.D., President

AIR, WATER and HAZARDOUS WASTE LABORATORY (No.131) CERTIFIED by CALIFORNIA DEPT of PUBLIC HEALTH

Central Coast Analytical Services

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(805) 543-2553

Lab Number : F-04903
Collected : 04/19/89
Received : 04/20/89
Tested : 05/03/89
Collected by: R. Baldwin

ATTN: Tom Howard
Western Geologic Resources
2169 E. Francisco Blvd.
Suite B
San Rafael, CA 94901

EXTRACTED BY EPA METHOD 5030 (purge-and-trap)
EPA METHOD 8260
Sample Description:
Project #1-012.02, Chevron Oakland,
B-12-24.25, Soil

Compound Analyzed	Detection Limit (ug/kg) (Practical Quantitation Limit)	Concentration (ug/kg)
Benzene	2.	not found
Bromodichloromethane	2.	not found
Bromoform	4.	not found
Carbon Tetrachloride	2.	not found
Chlorobenzene	2.	not found
2-Chloroethyl Vinyl Ether	20.	not found
Chloroform	10.	not found
Dibromochloromethane	2.	not found
1,2-Dichlorobenzene	2.	not found
1,3-Dichlorobenzene	2.	not found
1,4-Dichlorobenzene	2.	not found
1,1-Dichloroethane	2.	not found
1,2-Dichloroethane (EDC)	2.	not found
1,1-Dichloroethene	2.	not found
c-1,2-Dichloroethene	2.	not found
t-1,2-Dichloroethene	2.	not found
1,2-Dichloropropane	2.	not found
c-1,3-Dichloropropene	2.	not found
t-1,3-Dichloropropene	2.	not found
Ethylbenzene	2.	not found
Ethyl Chloride	2.	not found
Ethylene Dibromide	2.	not found
Methyl Bromide	2.	not found
Methyl Chloride	2.	not found
Methylene Chloride	20.	not found
1,1,2,2-Tetrachloroethane	10.	not found
Tetrachloroethylene (PCE)	2.	not found
Toluene	2.	not found
1,1,1-Trichloroethane (TCA)	2.	not found
1,1,2-Trichloroethane	2.	not found
Trichloroethene (TCE)	2.	not found
Trichlorotrifluoroethane (f113)	10.	not found
Trichlorofluoromethane(F-11)	10.	not found
Vinyl Chloride	2.	not found
Xylenes	4.	not found
Total Purgeable Petroleum Hydrocarbons (Diesel #2)	1000.	not found

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 103/86.

05/08/89/MSD#7
F04903v.wr1/44
MH/jl/jc/tl

Respectfully submitted,
Mary Havlicek
Mary Havlicek, Ph.D., President

AIR, WATER and HAZARDOUS WASTE LABORATORY (No.131) CERTIFIED by CALIFORNIA DEPT of PUBLIC HEALTH

Central Coast Analytical Services, Inc.
141 Suburban Road, Suite C-4
San Luis Obispo, California 93401
(805) 543-2553

Lab Number : F-04904
Collected : 04/19/89
Received : 04/20/89
Tested : 05/03/89
Collected by: R. Baldwin

ATTN: Tom Howard
Western Geologic Resources
2169 E. Francisco Blvd.
Suite B
San Rafael, CA 94901

EXTRACTED BY EPA METHOD 5030 (purge-and-trap)
EPA METHOD 8260
Sample Description:
Project #1-012.02, Chevron Oakland,
B-12-27.5, Soil

Compound Analyzed	Detection Limit (ug/kg) (Practical Quantitation Limit)	Concentration (ug/kg)
Benzene	2.	not found
Bromodichloromethane	2.	not found
Bromoform	4.	not found
Carbon Tetrachloride	2.	not found
Chlorobenzene	2.	not found
2-Chloroethyl Vinyl Ether	20.	not found
Chloroform	10.	not found
Dibromochloromethane	2.	not found
1,2-Dichlorobenzene	2.	not found
1,3-Dichlorobenzene	2.	not found
1,4-Dichlorobenzene	2.	not found
1,1-Dichloroethane	2.	not found
1,2-Dichloroethane (EDC)	2.	not found
1,1-Dichloroethene	2.	not found
c-1,2-Dichloroethene	2.	not found
t-1,2-Dichloroethene	2.	not found
1,2-Dichloropropane	2.	not found
c-1,3-Dichloropropene	2.	not found
t-1,3-Dichloropropene	2.	not found
Ethylbenzene	2.	not found
Ethyl Chloride	2.	not found
Ethylene Dibromide	2.	not found
Methyl Bromide	2.	not found
Methyl Chloride	2.	not found
Methylene Chloride	20.	not found
1,1,2,2-Tetrachloroethane	10.	not found
Tetrachloroethylene (PCE)	2.	not found
Toluene	2.	not found
1,1,1-Trichloroethane (TCA)	2.	not found
1,1,2-Trichloroethane	2.	not found
Trichloroethene (TCE)	2.	not found
Trichlorotrifluoroethane (f113)	10.	not found
Trichlorofluoromethane(F-11)	10.	not found
Vinyl Chloride	2.	not found
Xylenes	4.	not found
Total Purgeable Petroleum Hydrocarbons (Diesel #2)	1000.	not found

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 111/77.

05/08/89/MSD#7
F04904v.wr1/44
MH/jl/jc/tl

Respectfully submitted,
Mary Havlicek, Ph.D., President

AIR, WATER and HAZARDOUS WASTE LABORATORY (No.131) CERTIFIED by CALIFORNIA DEPT of PUBLIC HEALTH

Central Coast Analytical Services
Central Coast Analytical Services, Inc.
141 Suburban Road, Suite C-4
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(805) 543-2553

Lab Number : B-04219
Collected :
Received :
Tested : 04/21/89
Collected by:

CCAS

EXTRACTED BY EPA METHOD 5030 (purge-and-trap)
EPA METHOD 8260
Sample Description:
INSTRUMENT BLANK

Compound Analyzed	Detection Limit (ug/L) (Practical Quantitation Limit)	Concentration (ug/L)
Benzene	0.1	not found
Bromodichloromethane	0.2	not found
Bromoform	0.2	not found
Carbon Tetrachloride	0.1	not found
Chlorobenzene	0.1	not found
2-Chloroethyl Vinyl Ether	1.	not found
Chloroform	0.5	not found
Dibromochloromethane	0.1	not found
1,2-Dichlorobenzene	0.1	not found
1,3-Dichlorobenzene	0.1	not found
1,4-Dichlorobenzene	0.1	not found
1,1-Dichloroethane	0.1	not found
1,2-Dichloroethane (EDC)	0.1	not found
1,1-Dichloroethene	0.1	not found
c-1,2-Dichloroethene	0.1	not found
t-1,2-Dichloroethene	0.1	not found
1,2-Dichloropropane	0.1	not found
c-1,3-Dichloropropene	0.1	not found
t-1,3-Dichloropropene	0.1	not found
Ethylbenzene	0.1	not found
Ethyl Chloride	0.1	not found
Ethylene Dibromide	0.1	not found
Methyl Bromide	0.1	not found
Methyl Chloride	0.1	not found
Methylene Chloride	1.	not found
1,1,2,2-Tetrachloroethane	0.5	not found
Tetrachloroethylene (PCE)	0.1	not found
Toluene	0.2	not found
1,1,1-Trichloroethane (TCA)	0.1	not found
1,1,2-Trichloroethane	0.1	not found
Trichloroethene (TCE)	0.1	not found
Trichlorotrifluoroethane (f113)	0.5	not found
Trichlorofluoromethane(F-11)	0.5	not found
Vinyl Chloride	0.1	not found
Xylenes	0.2	not found

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 100/110/85.

04/28/89/MSD#7
B04219v.wr1/40
MH/ec/gb/tl

Respectfully submitted,

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AIR, WATER and HAZARDOUS WASTE LABORATORY (No.131) CERTIFIED by CALIFORNIA DEPT of PUBLIC HEALTH

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San Luis Obispo, California 93401
(805) 543-2553

Central Coast Analytical Services

Lab Number : QS-04219
Collected :
Received :
Tested : 04/21/89
Collected by:

CCAS

EXTRACTED BY EPA METHOD 5030 (purge-and-trap)
EPA METHOD 524.2/8260
Sample Description:
BOILED WATER SPIKE
Spiked with 2 ug/L VOA Stock

Compound Analyzed	Detection Limit (ug/L)(PQL)*	Concentration w/spike (ug/L)	Percent Recovery
Benzene	0.1	1.8	88.
Bromodichloromethane	0.1	2.2	111.
Bromoform	0.2	1.8	90.
Carbon Tetrachloride	0.1	1.7	86.
Chlorobenzene	0.1	2.1	104.
2-Chloroethyl Vinyl Ether	1.	not spiked	----
Chloroform	0.5	1.9	96.
Dibromochloromethane	0.1	2.4	120.
1,2-Dichlorobenzene	0.1	2.1	105.
1,3-Dichlorobenzene	0.1	2.0	102.
1,4-Dichlorobenzene	0.1	2.1	107.
1,1-Dichloroethane	0.1	1.7	84.
1,2-Dichloroethane (EDC)	0.1	1.9	97.
1,1-Dichloroethene	0.1	1.5	73.
c-1,2-Dichloroethene	0.1	1.8	90.
t-1,2-Dichloroethene	0.1	1.7	83.
1,2-Dichloropropane	0.1	1.9	96.
c-1,3-Dichloropropene	0.1	2.1	104.
t-1,3-Dichloropropene	0.1	2.0	101.
Ethylbenzene	0.1	2.0	101.
Ethyl Chloride	0.1	1.3	68.
Ethylene Dibromide	0.1	2.0	101.
Methyl Bromide	0.1	1.3	67.
Methyl Chloride	0.1	not spiked	----
Methylene Chloride	1.	2.1	106.
1,1,2,2-Tetrachloroethane	0.5	2.2	108.
Tetrachloroethylene (PCE)	0.1	2.1	107.
Toluene	0.1	2.3	114.
1,1,1-Trichloroethane (TCA)	0.1	1.8	91.
1,1,2-Trichloroethane	0.1	2.1	104.
Trichloroethene (TCE)	0.1	1.9	94.
Trichlorotrifluoroethane	0.5	1.6	80.
Trichlorofluoromethane	0.5	1.5	73.
Vinyl Chloride	0.1	1.1	51.
Xylenes	0.2	6.1	102.

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 95/100/96.

04/28/89/MSD#7
QS04219v.wr1/40
MH/ec/tl/tl

Respectfully submitted,

Mary Havlicek, Ph.D., President

AIR, WATER and HAZARDOUS WASTE LABORATORY (No.131) CERTIFIED by CALIFORNIA DEPT of PUBLIC HEALTH

Central Coast Analytical Services

Central Coast
Analytical Services, Inc.
141 Suburban Road, Suite C-4
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(805) 543-2553

Lab Number : B-04229
Collected :
Received :
Tested : 04/22/89
Collected by:

EXTRACTED BY EPA METHOD 5030 (purge-and-trap)
EPA METHOD 8260
Sample Description:
INSTRUMENT BLANK

Compound Analyzed	Detection Limit (ug/L) (Practical Quantitation Limit)	Concentration (ug/L)
Benzene	0.1	not found
Bromodichloromethane	0.1	not found
Bromoform	0.2	not found
Carbon Tetrachloride	0.1	not found
Chlorobenzene	0.1	not found
2-Chloroethyl Vinyl Ether	1.	not found
Chloroform	0.5	not found
Dibromochloromethane	0.1	not found
1,2-Dichlorobenzene	0.1	not found
1,3-Dichlorobenzene	0.1	not found
1,4-Dichlorobenzene	0.1	not found
1,1-Dichloroethane	0.1	not found
1,2-Dichloroethane (EDC)	0.1	not found
1,1-Dichloroethene	0.1	not found
c-1,2-Dichloroethene	0.1	not found
t-1,2-Dichloroethene	0.1	not found
1,2-Dichloropropane	0.1	not found
c-1,3-Dichloropropene	0.1	not found
t-1,3-Dichloropropene	0.1	not found
Ethylbenzene	0.1	not found
Ethyl Chloride	0.1	not found
Ethylene Dibromide	0.1	not found
Methyl Bromide	0.1	not found
Methyl Chloride	0.1	not found
Methylene Chloride	1.	not found
1,1,2,2-Tetrachloroethane	0.5	not found
Tetrachloroethylene (PCE)	0.1	not found
Toluene	0.1	not found
1,1,1-Trichloroethane (TCA)	0.1	not found
1,1,2-Trichloroethane	0.1	not found
Trichloroethene (TCE)	0.1	not found
Trichlorotrifluoroethane (f113)	0.5	not found
Trichlorofluoromethane(F-11)	0.5	not found
Vinyl Chloride	0.1	not found
Xylenes	0.2	not found

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 106/96/108.

05/02/89/MSD#7
B04229v.wr1/41
MH/jm/jc/tl

Respectfully submitted,
Mary Havlicek, Ph.D., President

AIR, WATER and HAZARDOUS WASTE LABORATORY (No.131) CERTIFIED by CALIFORNIA DEPT of PUBLIC HEALTH

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San Luis Obispo, California 93401
(805) 543-2553

Lab Number : QS-04239
Collected :
Received :
Tested : 04/23/89
Collected by:

EXTRACTED BY EPA METHOD 5030 (purge-and-trap)
EPA METHOD 524.2/8260

CCAS

Sample Description:
BOILED WATER SPIKE
Spiked with 2 ug/L VOA Stock

Compound Analyzed	Detection Limit (ug/L)(PQL)*	Concentration w/spike (ug/L)	Percent Recovery
Benzene	0.1	2.2	111.
Bromodichloromethane	0.1	2.0	102.
Bromoform	0.2	2.0	102.
Carbon Tetrachloride	0.1	2.2	112.
Chlorobenzene	0.1	1.8	91.
2-Chloroethyl Vinyl Ether	1.	not spiked	----
Chloroform	0.5	2.0	102.
Dibromochloromethane	0.1	1.7	85.
1,2-Dichlorobenzene	0.1	2.1	107.
1,3-Dichlorobenzene	0.1	2.3	113.
1,4-Dichlorobenzene	0.1	2.4	118.
1,1-Dichloroethane	0.1	2.0	102.
1,2-Dichloroethane (EDC)	0.1	1.9	97.
1,1-Dichloroethene	0.1	2.1	103.
c-1,2-Dichloroethene	0.1	2.0	100.
t-1,2-Dichloroethene	0.1	2.2	110.
1,2-Dichloropropane	0.1	2.0	102.
c-1,3-Dichloropropene	0.1	not spiked	----
t-1,3-Dichloropropene	0.1	1.5	76.
Ethylbenzene	0.1	2.6	128.
Ethyl Chloride	0.1	1.9	97.
Ethylene Dibromide	0.1	1.9	95.
Methyl Bromide	0.1	2.2	109.
Methyl Chloride	0.1	2.6	130.
Methylene Chloride	1.	2.2	110.
1,1,2,2-Tetrachloroethane	0.5	2.2	109.
Tetrachloroethylene (PCE)	0.1	2.2	112.
Toluene	0.1	2.7	133.
1,1,1-Trichloroethane (TCA)	0.1	2.1	104.
1,1,2-Trichloroethane	0.1	1.8	91.
Trichloroethene (TCE)	0.1	2.1	105.
Trichlorotrifluoroethane	0.5	2.1	105.
Trichlorofluoromethane	0.5	2.1	106.
Vinyl Chloride	0.1	2.1	106.
Xylenes	0.2	7.4	123.

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 95/110/123.

04/28/89/MSD#7
QS0429v.wr1/41
MH/jl/tl/tl

Respectfully submitted,
Mary Havlicek, Ph.D., President

AIR, WATER and HAZARDOUS WASTE LABORATORY (No.131) CERTIFIED by CALIFORNIA DEPT of PUBLIC HEALTH

Central Coast Analytical Services

Central Coast Analytical Services, Inc.
141 Suburban Road, Suite C-4
San Luis Obispo, California 93401
(805) 543-2553

Lab Number : B-04269
Collected :
Received :
Tested : 04/26/89
Collected by:

EXTRACTED BY EPA METHOD 5030 (purge-and-trap)
EPA METHOD 8260
Sample Description:
INSTRUMENT BLANK

Compound Analyzed	Detection Limit (ug/L) (Practical Quantitation Limit)	Concentration (ug/L)
Benzene	0.1	not found
Bromodichloromethane	0.1	not found
Bromoform	0.2	not found
Carbon Tetrachloride	0.1	not found
Chlorobenzene	0.1	not found
2-Chloroethyl Vinyl Ether	1.	not found
Chloroform	0.5	not found
Dibromochloromethane	0.1	not found
1,2-Dichlorobenzene	0.1	not found
1,3-Dichlorobenzene	0.1	not found
1,4-Dichlorobenzene	0.1	not found
1,1-Dichloroethane	0.1	not found
1,2-Dichloroethane (EDC)	0.1	not found
1,1-Dichloroethene	0.1	not found
c-1,2-Dichloroethene	0.1	not found
t-1,2-Dichloroethene	0.1	not found
1,2-Dichloropropane	0.1	not found
c-1,3-Dichloropropene	0.1	not found
t-1,3-Dichloropropene	0.1	not found
Ethylbenzene	0.1	not found
Ethyl Chloride	0.1	not found
Ethylene Dibromide	0.1	not found
Methyl Bromide	0.1	not found
Methyl Chloride	0.1	not found
Methylene Chloride	1.	not found
1,1,2,2-Tetrachloroethane	0.5	not found
Tetrachloroethylene (PCE)	0.1	not found
Toluene	0.1	not found
1,1,1-Trichloroethane (TCA)	0.1	not found
1,1,2-Trichloroethane	0.1	not found
Trichloroethene (TCE)	0.1	not found
Trichlorotrifluoroethane (f113)	0.5	not found
Trichlorofluoromethane(F-11)	0.5	not found
Vinyl Chloride	0.1	not found
Xylenes	0.2	not found

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 130/142/186.

05/05/89/MSD#7
B04269v.wr1/43
MH/jm/gb/tl

Respectfully submitted,
Mary Havlicek
Mary Havlicek, Ph.D., President

AIR, WATER and HAZARDOUS WASTE LABORATORY (No.131) CERTIFIED by CALIFORNIA DEPT of PUBLIC HEALTH

Central Coast Analytical Services
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San Luis Obispo, California 93401
(805) 543-2553

Lab Number : QS-04269
Collected :
Received :
Tested : 04/26/89
Collected by:

CCAS

EXTRACTED BY EPA METHOD 5030 (purge-and-trap)
EPA METHOD 524.2/8260
Sample Description:
BOILED WATER SPIKE
Spiked with 2 ug/L VOA Stock

Compound Analyzed	Detection Limit (ug/L)(PQL)*	Concentration w/spike (ug/L)	Percent Recovery
Benzene	0.1	2.5	124.
Bromodichloromethane	0.1	2.7	133.
Bromoform	0.2	1.7	83.
Carbon Tetrachloride	0.1	2.7	134.
Chlorobenzene	0.1	1.3	66.
2-Chloroethyl Vinyl Ether	1.	not spiked	----
Chloroform	0.5	2.5	126.
Dibromochloromethane	0.1	2.1	103.
1,2-Dichlorobenzene	0.1	1.6	80.
1,3-Dichlorobenzene	0.1	1.2	60.
1,4-Dichlorobenzene	0.1	1.7	86.
1,1-Dichloroethane	0.1	2.5	126.
1,2-Dichloroethane (EDC)	0.1	2.4	118.
1,1-Dichloroethene	0.1	1.7	86.
c-1,2-Dichloroethene	0.1	2.6	130.
t-1,2-Dichloroethene	0.1	2.4	121.
1,2-Dichloropropane	0.1	2.1	107.
c-1,3-Dichloropropene	0.1	not spiked	----
t-1,3-Dichloropropene	0.1	not spiked	----
Ethylbenzene	0.1	1.2	62.
Ethyl Chloride	0.1	2.8	141.
Ethylene Dibromide	0.1	not spiked	----
Methyl Bromide	0.1	not spiked	----
Methyl Chloride	0.1	not spiked	----
Methylene Chloride	1.	3.0	141.
1,1,2,2-Tetrachloroethane	0.5	not spiked	----
Tetrachloroethylene (PCE)	0.1	1.9	97.
Toluene	0.1	1.1	53.
1,1,1-Trichloroethane (TCA)	0.1	not spiked	----
1,1,2-Trichloroethane	0.1	1.4	71.
Trichloroethene (TCE)	0.1	2.5	125.
Trichlorotrifluoroethane	0.5	2.6	131.
Trichlorofluoromethane	0.5	2.4	119.
Vinyl Chloride	0.1	2.3	117.
Xylenes	0.2	3.7	62.

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 100/78.

05/03/89/MSD#7
QS04269v.wr1/43
MH/gb/tl/tl

Respectfully submitted,
Mary Havlicek
Mary Havlicek, Ph.D., President

Central Coast Analytical Services

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(805) 543-2553

Lab Number : B-04279
Collected :
Received :
Tested : 04/27/89
Collected by:

EXTRACTED BY EPA METHOD 5030 (purge-and-trap)
EPA METHOD 8260
Sample Description:
INSTRUMENT BLANK

Compound Analyzed	Detection Limit (ug/L) (Practical Quantitation Limit)	Concentration (ug/L)
Benzene	0.1	not found
Bromodichloromethane	0.1	not found
Bromoform	0.2	not found
Carbon Tetrachloride	0.1	not found
Chlorobenzene	0.1	not found
2-Chloroethyl Vinyl Ether	1.	not found
Chloroform	0.5	not found
Dibromochloromethane	0.1	not found
1,2-Dichlorobenzene	0.1	not found
1,3-Dichlorobenzene	0.1	not found
1,4-Dichlorobenzene	0.1	not found
1,1-Dichloroethane	0.1	not found
1,2-Dichloroethane (EDC)	0.1	not found
1,1-Dichloroethene	0.1	not found
c-1,2-Dichloroethene	0.1	not found
t-1,2-Dichloroethene	0.1	not found
1,2-Dichloropropane	0.1	not found
c-1,3-Dichloropropene	0.1	not found
t-1,3-Dichloropropene	0.1	not found
Ethylbenzene	0.1	not found
Ethyl Chloride	0.1	not found
Ethylene Dibromide	0.1	not found
Methyl Bromide	0.1	not found
Methyl Chloride	0.1	not found
Methylene Chloride	1.	not found
1,1,2,2-Tetrachloroethane	0.5	not found
Tetrachloroethylene (PCE)	0.1	not found
Toluene	0.1	not found
1,1,1-Trichloroethane (TCA)	0.1	not found
1,1,2-Trichloroethane	0.1	not found
Trichloroethene (TCE)	0.1	not found
Trichlorotrifluoroethane (f113)	0.5	not found
Trichlorofluoromethane(F-11)	0.5	not found
Vinyl Chloride	0.1	not found
Xylenes	0.2	not found

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 110/72.

05/02/89/MSD#7
B04279v.wr1/41
MH/jg/gb/tl

Respectfully submitted,

Mary Havlicek, Ph.D., President

AIR, WATER and HAZARDOUS WASTE LABORATORY (No.131) CERTIFIED by CALIFORNIA DEPT of PUBLIC HEALTH

Central Coast Analytical Services

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(805) 543-2553

Lab Number : F-04900spike
Collected : 04/19/89
Received : 04/20/89
Tested : 05/03/89
Collected by: R. Baldwin

ATTN: Tom Howard
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2169 E. Francisco Blvd.
Suite B
San Rafael, CA 94901

EXTRACTED BY EPA METHOD 5030 (purge-and-trap)
EPA METHOD 524.2/8260
Sample Description:
Project #1-012.02, B-12-9.5, Chevron Oakland, Soil
Spiked with 41 ug/kg VOA Stock

Compound Analyzed	Detection Limit (ug/kg)(PQL)*	Concentration w/spike (ug/kg)	Percent Recovery
Benzene	0.1	46.	110.
Bromodichloromethane	0.1	36.	88.
Bromoform	0.2	34.	82.
Carbon Tetrachloride	0.1	51.	125.
Chlorobenzene	0.1	36.	89.
2-Chloroethyl Vinyl Ether	1.	not spiked	----
Chloroform	0.5	40.	99.
Dibromochloromethane	0.1	31.	77.
1,2-Dichlorobenzene	0.1	31.	75.
1,3-Dichlorobenzene	0.1	34.	82.
1,4-Dichlorobenzene	0.1	29.	71.
1,1-Dichloroethane	0.1	40.	98.
1,2-Dichloroethane (EDC)	0.1	32.	77.
1,1-Dichloroethene	0.1	49.	119.
c-1,2-Dichloroethene	0.1	39.	96.
t-1,2-Dichloroethene	0.1	42.	103.
1,2-Dichloropropane	0.1	36.	89.
c-1,3-Dichloropropene	0.1	22.	53.
t-1,3-Dichloropropene	0.1	29.	70.
Ethylbenzene	0.1	48.	118.
Ethyl Chloride	0.1	45.	110.
Ethylene Dibromide	0.1	32.	78.
Methyl Bromide	0.1	31.	77.
Methyl Chloride	0.1	not spiked	----
Methylene Chloride	1.	50.	121.
1,1,2,2-Tetrachloroethane	0.5	32.	78.
Tetrachloroethylene (PCE)	0.1	46.	111.
Toluene	0.1	50.	122.
1,1,1-Trichloroethane (TCA)	0.1	51.	125.
1,1,2-Trichloroethane	0.1	34.	84.
Trichloroethene (TCE)	0.1	39.	96.
Trichlorotrifluoroethane	0.5	not spiked	----
Trichlorofluoromethane	0.5	53.	130.
Vinyl Chloride	0.1	not spiked	----
Xylenes	0.2	140.	116.

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 91/113/100.

05/08/89/MSD#7
F04900vs.wr1/44
MH/ec/tl/tl

Respectfully submitted,

Mary Havlicek, Ph.D., President

Central Coast Analytical Services

Central Coast Analytical Services, Inc.
141 Suburban Road, Suite C-4
San Luis Obispo, California 93401
(805) 543-2553

Lab Number : B-05039
Collected :
Received :
Tested : 05/03/89
Collected by:

CCAS

EXTRACTED BY EPA METHOD 5030 (purge-and-trap)
EPA METHOD 8260
Sample Description:
INSTRUMENT BLANK

Compound Analyzed	Detection Limit (ug/L) (Practical Quantitation Limit)	Concentration (ug/L)
Benzene	0.1	not found
Bromodichloromethane	0.1	not found
Bromoform	0.2	not found
Carbon Tetrachloride	0.1	not found
Chlorobenzene	0.1	not found
2-Chloroethyl Vinyl Ether	1.	not found
Chloroform	0.5	not found
Dibromochloromethane	0.1	not found
1,2-Dichlorobenzene	0.1	not found
1,3-Dichlorobenzene	0.1	not found
1,4-Dichlorobenzene	0.1	not found
1,1-Dichloroethane	0.1	not found
1,2-Dichloroethane (EDC)	0.1	not found
1,1-Dichloroethene	0.1	not found
c-1,2-Dichloroethene	0.1	not found
t-1,2-Dichloroethene	0.1	not found
1,2-Dichloropropane	0.1	not found
c-1,3-Dichloropropene	0.1	not found
t-1,3-Dichloropropene	0.1	not found
Ethylbenzene	0.1	not found
Ethyl Chloride	0.1	not found
Ethylene Dibromide	0.1	not found
Methyl Bromide	0.1	not found
Methyl Chloride	0.1	not found
Methylene Chloride	1.	not found
1,1,2,2-Tetrachloroethane	0.5	not found
Tetrachloroethylene (PCE)	0.1	not found
Toluene	0.1	not found
1,1,1-Trichloroethane (TCA)	0.1	not found
1,1,2-Trichloroethane	0.1	not found
Trichloroethene (TCE)	0.1	not found
Trichlorotrifluoroethane (f113)	0.5	not found
Trichlorofluoromethane(F-11)	0.5	not found
Vinyl Chloride	0.1	not found
Xylenes	0.2	not found

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 108/84/83.

05/08/89/MSD#7
B05039v.wr1/43
MH/jl/jc/tl

Respectfully submitted,

Mary Havlicek, Ph.D., President

Central Coast Analytical Services

Central Coast Analytical Services, Inc.
141 Suburban Road, Suite C-4
San Luis Obispo, California 93401
(805) 543-2553

Lab Number : B-05039-2
Collected :
Received :
Tested : 05/03/89
Collected by:

EXTRACTED BY EPA METHOD 5030 (purge-and-trap)
EPA METHOD 8260
Sample Description:
INSTRUMENT BLANK

Compound Analyzed	Detection Limit (ug/L) (Practical Quantitation Limit)	Concentration (ug/L)
Benzene	0.1	not found
Bromodichloromethane	0.1	not found
Bromoform	0.2	not found
Carbon Tetrachloride	0.1	not found
Chlorobenzene	0.1	not found
2-Chloroethyl Vinyl Ether	1.	not found
Chloroform	0.5	not found
Dibromochloromethane	0.1	not found
1,2-Dichlorobenzene	0.1	not found
1,3-Dichlorobenzene	0.1	not found
1,4-Dichlorobenzene	0.1	not found
1,1-Dichloroethane	0.1	not found
1,2-Dichloroethane (EDC)	0.1	not found
1,1-Dichloroethene	0.1	not found
c-1,2-Dichloroethene	0.1	not found
t-1,2-Dichloroethene	0.1	not found
1,2-Dichloropropane	0.1	not found
c-1,3-Dichloropropene	0.1	not found
t-1,3-Dichloropropene	0.1	not found
Ethylbenzene	0.1	not found
Ethyl Chloride	0.1	not found
Ethylene Dibromide	0.1	not found
Methyl Bromide	0.1	not found
Methyl Chloride	0.1	not found
Methylene Chloride	1.	not found
1,1,2,2-Tetrachloroethane	0.5	not found
Tetrachloroethylene (PCE)	0.1	not found
Toluene	0.1	not found
1,1,1-Trichloroethane (TCA)	0.1	not found
1,1,2-Trichloroethane	0.1	not found
Trichloroethene (TCE)	0.1	not found
Trichlorotrifluoroethane (f113)	0.5	not found
Trichlorofluoromethane(F-11)	0.5	not found
Vinyl Chloride	0.1	not found
Xylenes	0.2	not found

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 99/96/95.

05/08/89/MSD#7
B05039v2.wr1/43
MH/gb/jc/tl

Respectfully submitted,

Mary Havlicek, Ph.D., President

Central Coast Analytical Services

Central Coast Analytical Services, Inc.
141 Suburban Road, Suite C-4
San Luis Obispo, California 93401
(805) 543-2553

Lab Number : QS-05039
Collected :
Received :
Tested : 05/03/89
Collected by:

CCAS

EXTRACTED BY EPA METHOD 5030 (purge-and-trap)
EPA METHOD 524.2/8260
Sample Description:
BOILED WATER SPIKE
Spiked with 2 ug/L VOA Stock

Compound Analyzed	Detection Limit (ug/L)(PQL)*	Concentration w/spike (ug/L)	Percent Recovery
Benzene	0.1	2.2	108.
Bromodichloromethane	0.1	2.3	115.
Bromoform	0.2	2.4	118.
Carbon Tetrachloride	0.1	1.8	92.
Chlorobenzene	0.1	2.1	107.
2-Chloroethyl Vinyl Ether	1.	not spiked	----
Chloroform	0.5	2.1	105.
Dibromochloromethane	0.1	2.1	105.
1,2-Dichlorobenzene	0.1	2.4	121.
1,3-Dichlorobenzene	0.1	2.5	126.
1,4-Dichlorobenzene	0.1	2.5	123.
1,1-Dichloroethane	0.1	2.0	99.
1,2-Dichloroethane (EDC)	0.1	2.1	105.
1,1-Dichloroethene	0.1	2.0	99.
c-1,2-Dichloroethene	0.1	2.0	102.
t-1,2-Dichloroethene	0.1	1.9	97.
1,2-Dichloropropane	0.1	2.1	103.
c-1,3-Dichloropropene	0.1	2.2	111.
t-1,3-Dichloropropene	0.1	2.1	104.
Ethylbenzene	0.1	2.2	109.
Ethyl Chloride	0.1	1.7	86.
Ethylene Dibromide	0.1	2.3	114.
Methyl Bromide	0.1	1.5	73.
Methyl Chloride	0.1	1.3	64.
Methylene Chloride	1.	2.3	116.
1,1,2,2-Tetrachloroethane	0.5	2.7	133.
Tetrachloroethylene (PCE)	0.1	2.2	108.
Toluene	0.1	2.4	121.
1,1,1-Trichloroethane (TCA)	0.1	1.9	97.
1,1,2-Trichloroethane	0.1	2.2	112.
Trichloroethene (TCE)	0.1	2.0	101.
Trichlorotrifluoroethane	0.5	not spiked	----
Trichlorofluoromethane	0.5	1.1	57.
Vinyl Chloride	0.1	1.3	67.
Xylenes	0.2	6.7	112.

Percent Recoveries of Sample-Specific Quality Assurance Spikes are: 90/96/109.

05/03/89/MSD#7
QS05039v.wr1/44
MH/ec/tl/tl

Respectfully submitted,

Mary Havlicek, Ph.D., President

ATTACHMENT D

CHAIN-OF-CUSTODY FORMS

Central Coast Analytical Services

Air, Water, & Hazardous Waste Sampling, Analysis, & Consultation
State Certified Hazardous Waste, Chemistry, & Bacteriology Laboratories

141 Suburban Road, Suite C-4
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(805) 543-2553

5463-D Calle Real
Goleta, CA 93117
Fax (805) 978-4066
(805) 964-7638

SAMPLE CHAIN OF CUSTODY

ITTED BY:

ANY: WESTERN GEOLOGIC RESOURCES | CONTACT NAME: TOM HOWARD

ESS: 9 E Francisco Blvd. Suit B, San Rafael Ca 94901 | PHONE: 415.457-7595

JECT #: 212.02 | PROJECT NAME: CHEV: OAKLAND 17th & Harrison

LER (Print & Sign Name): MIKE EDMONSON

.S #	SAMPLE IDENTIFICATION (ID #, location, matrix)	DATE/TIME COLLECTED	# of ITEMS	PRESERVE	ANALYSIS REQUESTED: 8260 + TPH
186	B-4 - 6.0'	4-11-89	1		A*
187	B-4 - 11.0		1		HOLD
188	B-4 - 16.0		1		A
189	B-4 - 23.2	4-11-89	1		A
190	B-5 - 4.5		1		HOLD
191	B-5 - 9.5		1		A
192	B-5 - 14.5		1		A
193	B-5 - 19.5		1		HOLD
194	B-5 - 22.0	4-11-89	1		A

ARKS:

* MAY HAVE HIGH CONCENTRATIONS of VOC's

Samples recd sealed, intact & cold-sk

MPLE RELINQUISHED BY:	DATE/TIME	RECEIVED BY:
Richard J Baldwin	4-17-89 14:30	GREY HOUND
greyhound	4-18-89 1100	Shellie Hoyt

Central Coast Analytical Services

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(805) 543-2553

6483-D Calle Real
Goleta, CA 93117
Fax (805) 978-4555
(805) 964-7838

SAMPLE CHAIN OF CUSTODY

SUBMITTED BY:

COMPANY: WESTERN GEOCOGIC RESOURCES | CONTACT NAME: TOM HOWARD

ADDRESS: 2169 E Francisco Blvd, Suit B, San Rafael Ca 94901 | PHONE: 415.457-7595

PROJECT #: 1-012.02 | PROJECT NAME: CHEV: OAKLAND, 17th + Harrison

SAMPLER (Print & Sign Name): MIKE EDMONSON

CCAS LAB #	SAMPLE IDENTIFICATION (ID #, location, matrix)	DATE/TIME COLLECTED	# of ITEMS	PRESERVE	ANALYSIS REQUESTED: 8260 + TPH
4795	B-6-4.5	4-11-89	1		HOLD
4796	B-6-9.5		1		A
4797	B-6-14.5		1		A
4798	B-6-19.7		1		HOLD
4799	B-6-22.0		1		A
4800	B-7-4.2		1		A
4801	B-7-9.2		1		A
4802	B-7-14.0		1		A
4803	B-7-19.5		1		HOLD
4804	B-7-21.6	4-11-89	1		A

REMARKS:

Samples rec'd sealed, intact & cold-sh

SAMPLE RELINQUISHED BY:	DATE/TIME	RECEIVED BY:
Richard Baldwin	4-17-89 14:30	GREYHOUND
greyhound	4-18-89 1100	Vhellie Hayt

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SAMPLE CHAIN OF CUSTODY

SUBMITTED BY:

COMPANY: WESTERN GEOCOGIC RESOURCES | CONTACT NAME: TOM HOWARD

ADDRESS: 2169 E Francisco Blvd. Suit B, San Rafael Ca 94901 | PHONE: 415.457-7595

PROJECT #: 1-012.02 | PROJECT NAME: CHEV: OAKLAND, 17th+Harrison

SAMPLER (Print & Sign Name): Richard Baldwin Richard Baldwin

CCAS LAB # F-	SAMPLE IDENTIFICATION (ID #, location, matrix)	DATE/TIME COLLECTED	# of ITEMS	PRESERVE	ANALYSIS REQUESTED: 8260 + TPHd
4805	B-8 -4.5	4-12-89	1		A*
4806	B-8 -9.6		1		A*
4807	B-8 -14.5		1		A
4808	B-8 -19.7		1		HOLD
4809	B-8 -22.5		1		A
4810	B-8 -24.7		1		HOLD
4811	B-8 -29.5		1		A
4812	B-8 -31.0		1		HOLD
4813	B-8 -34.5	4-12-89	1		A

REMARKS:

* MAY CONTAIN HIGH CONCENTRATIONS of VOCs

Samples rec'd sealed, intact & cold-sk

SAMPLE RELINQUISHED BY:	DATE/TIME	RECEIVED BY:
Richard J Baldwin	4-17-89 14:30	GREYHOUND
Greyhound	4-18-89 1100	Shellie Hoyt

Central Coast Analytical Services

Air, Water, & Hazardous Waste Sampling, Analysis, & Consultation
State Certified Hazardous Waste, Chemistry, & Bacteriology Laboratories

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San Luis Obispo, Ca 93401
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Goleta, CA 93117
Fax (805) 978-4388
(805) 964-7838

SAMPLE CHAIN OF CUSTODY

SUBMITTED BY:

COMPANY: WESTERN GEOCOGIC RESOURCES | CONTACT NAME: TOM HOWARD

ADDRESS: 2169 E Francisco Blvd, Suit B, San Rafael Ca 94901 | PHONE: 415-457-7595

PROJECT #: 1-012.02 | PROJECT NAME: CHEV: OAKLAND, 17th & Harrison

SAMPLER (Print & Sign Name): Richard Baldwin Richard Baldwin

CCAS LAB # F-	SAMPLE IDENTIFICATION (ID #, location, matrix)	DATE/TIME COLLECTED	# of ITEMS	PRESERVE	ANALYSIS REQUESTED: 8260 + TPH	ICAP METALS (Cr, Pb, Zn)	5036
4814	B-9-9.0	4-14-89	1		A		
4815	B-9-14.0		1		A		
4816	B-9-21.0		1		A	A	A
4817	B-9-24.5		1		Hold		
4818	B-9-29.5		1		A		
4819	B-9-33.5	4-14-89	1		A		
4820	B-10-4.5	4-13-89	1		Hold		
4821	B-10-9.5		1		A		
4822	B-10-14.5		1		A*		
4823	B-10-21.5	4-13-89	1		A*		

REMARKS:

* MAY CONTAIN HIGH CONCENTRATIONS of VOC'S

Samples recd sealed, intact & cold

SAMPLE RELINQUISHED BY:	DATE/TIME	RECEIVED BY:
Richard J Baldwin	4-17-89 14:30	GREYHOUND
greyhound	4-18-89 1100	Shellie Hayes

Central Coast Analytical Services

Air, Water, & Hazardous Waste Sampling, Analysis, & Consultation
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Goleta, CA 93117
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(805) 964-7833

SAMPLE CHAIN OF CUSTODY

SUBMITTED BY:

COMPANY: WESTERN GEOCOGIC RESOURCES | CONTACT NAME: TOM HOWARD

ADDRESS: 2169 E Francisco Blvd, Suite B, San Rafael Ca 94901 | PHONE: 415.457-7595

PROJECT #: 1-012.02 | PROJECT NAME: CHEV: OAKLAND, 17th + Harrison

SAMPLER (Print & Sign Name): Richard Baldwin Richard Baldwin

CCAS LAB # F-	SAMPLE IDENTIFICATION (ID #, location, matrix)	DATE/TIME COLLECTED	# of ITEMS	PRESERVE	ANALYSIS REQUESTED: 8260, TPH
4824	B-10-24.5	4-13-89	1		HOLD
4825	B-10-27.0		1		A
4826	B-11-4.5		1		HOLD
4827	B-11-9.5		1		A
4828	B-11-14.25		1		A*
4829	B-11-19.25	4-13-89	1		A*
4830	B-11-23.5	4-14-89	1		A*
4831	B-11-29.5	4-14-89	1		A
		4-14-89	1	H2SO4	

REMARKS:

* MAY CONTAIN HIGH CONCENTRATIONS OF VOCS

samples recd sealed, intact & cold - sh

SAMPLE RELINQUISHED BY:	DATE/TIME	RECEIVED BY:
Richard Baldwin	4-17-89 14:30	GREYHOUND
greyhound	4-18-89 1100	Shellie Hoyt

Central Coast Analytical Services

Air, Water, & Hazardous Waste Sampling, Analysis, & Consultation
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SAMPLE CHAIN OF CUSTODY

SUBMITTED BY:

COMPANY: WESTERN GEOLOGIC RESOURCES

CONTACT NAME: TOM HOWARD

ADDRESS: 2169 E Francisco Blvd. Suite B, San Rafael 94901

PHONE: 415-457-7595

PROJECT #: 1-9202

PROJECT NAME: CHEVRON OAKLAND 17th + Harrison

SAMPLER (Print & Sign Name)

CCAS LAB #	SAMPLE IDENTIFICATION (ID #, location, matrix)	DATE/TIME COLLECTED	# of ITEMS	PRESERVE	ANALYSIS REQUESTED: 8260 + TPH
1899	B-12-5.0	4-19-89	1		HOLD
1900	B-12-9-5		1		A
1901	B-12-14.5		1		A* ← RUSH requested 4-25 by client due 4-27
1902	B-12-21.0		1		A
1903	B-12-24.25		1		A
1904	B-12-27.5		1		A

REMARKS:

* MAY CONTAIN HIGH CONCENTRATIONS OF VOC's

Samples rec'd sealed, intact & cold -sh

SAMPLE RELINQUISHED BY:	DATE/TIME	RECEIVED BY:
Richard J Bradley	4-19-89 18:45	GREYHOUND
greyhound	4-20-89 1100	Phillie Hoyt

Central Coast Analytical Services

Air, Water, & Hazardous Waste Sampling, Analysis, & Consultation
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Fax (805) 978-4385
(805) 964-7838

SAMPLE CHAIN OF CUSTODY

SUBMITTED BY:

COMPANY: WESTERN GEOLOGIC RESOURCES

CONTACT NAME: Tom Howard / Ed Busicik

ADDRESS: 2169 E FRANCISCO SAN RAFAEL, 94901

PHONE: 415 457 7595

PROJECT #: 1-012.03

PROJECT NAME: OAKLAND - 17th / HARRISON

SAMPLER (Print & Sign Name): DAN BECKUS / BEV BRONIN

ANALYSIS REQUESTED: EPA 8260 Full Scan VT PPM

CCAS LAB #	SAMPLE IDENTIFICATION (ID #, location, matrix)	DATE/TIME COLLECTED	# of ITEMS	PRESERVE
F-5196	1201 A,B	4.24.89 1535	2	$NaHSO_4$
5197	1202 A,B	4.25.89 1014		
5198	1203 A,B	4.25.89 1054		
5199	1204 A,B	4.24.89 1423		
5200	1205 A,B	1700		
5201	1206 A,B	1437		
5202	1207 A,B	1715		
5203	1208 A,B	1338		↓
5204	TB A,B	—	↓	NaN_3

REMARKS:

samples recd sealed, intact & cold

SAMPLE RELINQUISHED BY:	DATE/TIME	RECEIVED BY:
[signature]	4.25.89 1200	greyhound
greyhound	4-26 1052	Nellie Hoyt

COC1.WR1/8806

Central Coast Analytical Services

State Certified Hazardous Waste, Chemistry, & Bacteriology Laboratories

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Goleta, CA 93117
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SAMPLE CHAIN OF CUSTODY

SUBMITTED BY:

COMPANY: Western Geologic Resources | CONTACT NAME: Tom Howard / Ed Buskirk

ADDRESS: 2169 E Francisco San Rafael 94901 | PHONE: 415 457 7595

PROJECT #: 1-012.03 | PROJECT NAME: Oakland 17th/Harrison

SAMPLER (Print & Sign Name): Dan Bockus Bev Baldwin [signature]

ANALYSIS REQUESTED: Soluble Metals by AA Zn, Pb, Cd, Cr

CCAS LAB # F-	SAMPLE IDENTIFICATION (ID #, location, matrix)	DATE/TIME COLLECTED	# of ITEMS	PRESERVE	Soluble Metals by AA Zn, Pb, Cd, Cr								
5196	1201 C	4.24.89 / 1535	1	NONE	↓								
5197	1202 C	4.25.89 / 1014	↓	↓	↓								
5198	1203 C	4.25.89 / 1054	↓	↓	↓								
5199	1204 C	4.24.89 / 1423	↓	↓	↓								
5200	1205 C	↓ / 1700	↓	↓	↓								
5201	1206 C	↓ / 1437	↓	↓	↓								
5202	1207 C	↓ / 1715	↓	↓	↓								
5203	1208 C	↓ / 1338	↓	↓	↓								

REMARKS:

Please filter + preserve upon arrival

Samples rec'd sealed, intact & cold - sh

SAMPLE RELINQUISHED BY:	DATE/TIME	RECEIVED BY:
Bev Baldwin	4.25.89 / 1200	greyhound
greyhound	4-26 / 1052	Shellie Hoyt

Central Coast Analytical Services

State Certified Hazardous Waste, Chemistry, & Bacteriology Laboratories

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SAMPLE CHAIN OF CUSTODY

Pg 3 of 3

SUBMITTED BY:

COMPANY: Western Geologic Resources | CONTACT NAME: Tom Howard / Bev Baldwin

ADDRESS: 2169 S Francisco San Rafael CA 94901 | PHONE: 457 7595

PROJECT #: 1-012.03 | PROJECT NAME: Oakland

SAMPLER (Print & Sign Name): Dan Boekus / Bev Baldwin

ANALYSIS REQUESTED: EPA 5038 O&G

CCAS LAB # F-	SAMPLE IDENTIFICATION (ID #, location, matrix)	DATE/TIME COLLECTED	# of ITEMS	PRESERVE	EPA 5038 O&G								
5196	1201 D	4-24-89 / 1535	1	H_2SO_4	✓								
5197	1202 D	4-25-89 / 1014	↓	↓	↓								
5198	1203 D	4-25-89 / 1054	↓	↓	↓								
5199	1204 D	4-24-89 / 1423	↓	↓	↓								
5200	1205 D	↓ / 1700	↓	↓	↓								
5201	1206 D	↓ / 1437	↓	↓	↓								
5202	1207 D	↓ / 1715	↓	↓	↓								
5203	1208 D	↓ / 1338	↓	↓	↓								

REMARKS:

samples rec'd sealed, intact & cold

SAMPLE RELINQUISHED BY:	DATE/TIME	RECEIVED BY:
Bev Bal	4-25-89 / 1200	greyhound
greyhound	4-26 / 1052	Willie Hoyt