



Chevron

April 18, 1995

Chevron U.S.A. Products Company
6001 Bollinger Canyon Road
Building L
San Ramon, CA 94583
P.O. Box 5004
San Ramon, CA 94583-0804

Mr. Scott Seery
Alameda County Environmental Health
1131 Harbor Way Pkwy, 2nd Flr.
Alameda, CA 94502-5677

Marketing - Northwest Region
Phone 510 842 9500

Re: Weiss Associates Non-Attainment Area Report
Chevron Service Station No. 9-8139
16304 Foothill Rd., San Leandro, California

Dear Mr. Seery :

Weiss Associates has incorporated the changes into their Non-Attainment Area report. They have incorporated the changes that both Alameda County Environmental Health and RWQCB-S.F. Bay Region have agreed in a meeting that occurred on January 26. The monitoring and sampling frequency has changed and the operation of the remediation system has ceased. Chevron will immediately implement the requirements discussed in their report unless otherwise directed.

Please refer to the enclosed Non-Attainment Area report from Weiss Associates dated April 6, 1995. Please send a written letter acknowledging your acceptance of this report. If you have any questions or comments, please call me at (510) 842-8752.

Sincerely,

Chevron U.S.A. Products Co.

Kenneth Kan
Engineer

LKAN/MacFile 9-8139R16

Enclosure

cc: Mr. Kevin Graves
RWQCB-S.F. Bay Region
2101 Webster Str., Suite 500
Oakland, CA 94612

Mr. Steve Willer
Chevron U.S.A. Products Co.

95 APR 20 PM 2:36

ENVIRONMENTAL
PROTECTION
AGENCY



Weiss Associates

Environmental and Geologic Services

5500 Shellmound Street, Emeryville, CA 94608-2411

Fax: 510-547-5043 Phone: 510-450-6000

**COMPREHENSIVE SITE EVALUATION
AND
PROPOSED FUTURE ACTION PLAN**

at

**Chevron Station 9-8139
16304 Foothill Boulevard
San Leandro, California**

prepared for

**Chevron U.S.A. Products Company
P.O. Box 5004
San Ramon, California 94583-0804**

April 6, 1995

**ENVIRONMENTAL
PROTECTION
95 APR 20 PM 2:36**

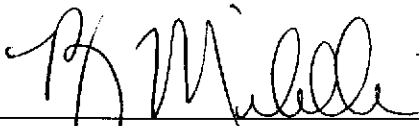
**COMPREHENSIVE SITE EVALUATION
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prepared by

Weiss Associates
5500 Shellmound Street
Emeryville, CA 94608

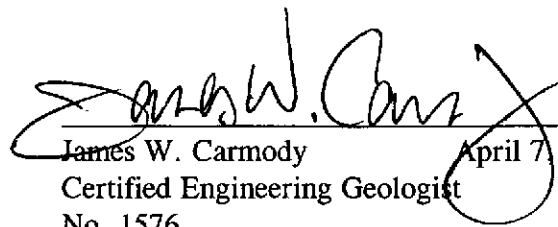


Rick Milelli
Staff Engineer



Alison W. Watts
Project Geologist

Weiss Associates work for Chevron U.S.A. Products Company, P.O. Box 5004, San Ramon, California, was conducted under my supervision. To the best of my knowledge, the data contained herein are true and accurate and satisfy the specified scope of work prescribed by the client for this project. The data, findings, recommendations, specifications, or professional opinions were prepared solely for the use of Chevron U.S.A. in accordance with generally accepted professional engineering and geologic practice. We make no other warranty, either expressed or implied, and are not responsible for the interpretation by others of these data.



James W. Carmody
Certified Engineering Geologist
No. 1576

April 7, 1995

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SUMMARY

The Chevron site at 16304 Foothill Boulevard, San Leandro, California is an operating Chevron Service Station. In April 1982, an underground storage tank and associated vent line were replaced and in December 1986, a leak in the regular gasoline tank system was discovered and repaired. Between November 29, 1989 and April 22, 1992 eleven monitoring wells were installed in the site vicinity. From August 1991 to June 1994, ground water was extracted from wells EW-1, EW-2 and EW-3. No total petroleum hydrocarbons as gasoline (TPH-G) or benzene have been detected in ground water influent samples since August 18, 1993. In June, 1994 the Alameda County Department of Environmental Health (ACDEH) granted permission to shut down the ground water extraction system. Data collected during subsurface investigations and remediation activities suggest that:

- ***The plume is contained by natural processes, and hydrocarbon concentrations are stable or decreasing:*** Subsurface sediments are comprised of predominantly low permeability, clayey material that attenuate hydrocarbon migration and allow biodegradation processes to decrease plume concentrations. Ground water monitoring data collected over the last five years show that hydrocarbon concentrations are either stable, decreasing or not detected in nearly all site wells.
- ***The site has been remediated to the extent feasible:*** The ground water extraction and treatment system which operated at this site for two and a half years recovered only 7.3 lbs of hydrocarbons. Since it appears that low permeability soils at this site are reducing the effectiveness of ground water extraction, other remedial technologies such as soil vapor extraction or air sparging would most likely be technically infeasible. Therefore, it appears there are no cost-effective technologies that would significantly accelerate the reduction of hydrocarbon concentrations in ground water at this site.
- ***Offsite migration of the plume is attenuated and the plume is contained within the present well network.*** Benzene concentrations in downgradient wells MW-8, MW-9 and MW-10 are several orders of magnitude less than concentrations in onsite well MW-3. In addition, hydrocarbon concentrations in these downgradient wells fluctuate between low levels and non-detect and are generally decreasing over time. The farthest downgradient well, MW-11, has not contained TPH-G or benzene since January, 1993.

Therefore, Chevron submits that:

- Hydrocarbons remaining in the site subsurface do not present a threat to human health or to the quality of the surrounding aquifer; and

- No technically or economically feasible remedial measures are appropriate for this site to further reduce the contaminant plume.

Chevron requests that the ACDEH declare that the Chevron site is remediated to the extent feasible, approve a gradual reduction in well sampling frequency, and consider establishing a Non-Attainment Area encompassing the residual plume associated with this site.

INTRODUCTION

At the request of Chevron U.S.A (Chevron), Weiss Associates (WA) has prepared this site evaluation for Chevron Service Station 9-8139, located at 16304 Foothill Boulevard, San Leandro, California. The objective of this evaluation is to: 1) provide a comprehensive summary of all investigative and remedial actions performed at the site to date; 2) determine whether the site meets the Regional Water Quality Control Board - San Francisco Bay Region (RWQCB) criteria for establishment of a Non-Attainment Area; and 3) outline a recommended future action plan. The site-specific information presented in this evaluation is compiled from the reports listed in the reference section.

SITE HISTORY

SITE SETTING

Operating Chevron service station 9-8139 is located in a mixed commercial and residential area about 250 feet east of Highway 580 in San Leandro, California, near the foot of the East Bay Hills. Foothill Boulevard is on the southwest side of the site, a church on the northwest side, apartments on the northeast side and a motel on the southeast side (Appendix A). The surrounding topography slopes southwestward toward San Francisco Bay, approximately 6 miles away.

A survey of wells within one-half mile of the site identified nine active and four inactive wells used for agricultural, domestic, municipal and industrial purposes (Appendix A). Most of the wells are located southwest of the site, and the one municipal well is located approximately one half mile upgradient of the site in the East Bay Hills. Well depths range from 40 to 590 feet below ground surface (bgs).

SITE INVESTIGATIONS

April 1982 Leak Confirmation, Tank Replacement and Well Installation: In early 1982, a tank integrity test confirmed that a leak was found on a badly corroded vapor line on the regular fuel piping. The regular fuel tank and associated piping were removed and replaced. Six-inch diameter tank backfill wells W-1 and W-2 were then installed. However, there are no records that ground water samples were collected from these wells.

December 1986 Unconfirmed Leak: In December 1986, Chemical Processors Inc. (Chempro) reported a fuel leak. However, the spill/leak report is inconclusive.

June 1989 Soil Vapor Survey: In response to releases reported in April 1982 and December 1986, EA Science, Engineering and Technology (EA) of Lafayette, California conducted a soil vapor survey at the service station. Benzene was detected in only one sample, V4/C, collected from the west end of the south pump island at 1 part per million (ppm) (Appendix A and Appendix B).

November and December 1989 Subsurface Investigation: In December 1989 Chempro, installed 2-inch diameter monitoring wells MW-1, MW-2, MW-3 and MW-4 (Appendix A). Soil samples collected at approximately 15 feet bgs from wells MW-3 and MW-4 contained 1.1 and 0.29 ppm benzene, respectively. Although 20 ppm total oil and grease was detected in the 25 ft bgs soil sample from well MW-1, no other petroleum hydrocarbons were detected in any of the soil samples collected from MW-1 or MW-2. Ground water samples collected on December 5, 1989 from wells MW-1, MW-2, MW-3 and MW-4, contained up to 2,500 parts per billion (ppb) benzene. Tabulated analytic results for soil and ground water are presented in Appendix B, and boring logs for wells MW-1 through MW-4 are presented in Appendix C.

May and August 1990 Subsurface Investigation: In May 1990, Chempro installed 2-inch diameter monitoring wells MW-5, MW-6, MW-7, and 6-inch diameter extraction well EW-1 (Appendix A). In August 1990, Chempro installed 2-inch diameter offsite monitoring well MW-8.

Of the five wells installed, benzene was only detected in soil samples collected from MW-5 and EW-1, at 1.5 and 0.69 ppm benzene, respectively. Ground water samples collected from MW-5 and EW-1 contained benzene at 920 and 260 ppb, respectively. Tabulated analytic results for soil

and ground water are presented in Appendix B and boring logs for wells MW-5 through MW-8 and EW-1 are presented in Appendix C.

Hydraulic tests were performed at the site by pumping from well EW-1 and monitoring the response at wells MW-3, MW-5 and MW-7. Chempro calculated the average hydraulic conductivity at the site as 4.3×10^{-3} cm/second and the average ground water flow velocity as 5.2×10^{-4} cm/second and the radius of influence from well EW-1 is approximately 100 feet.

June 1991 Subsurface Investigation: In June 1991, Burlington Environmental Inc. (BE) of Berkeley, California installed offsite monitoring well MW-9 and converted 2-inch diameter monitoring wells MW-4 and MW-5 to 4-inch diameter extraction wells EW-3 and EW-2, respectively. A soil sample collected from MW-9 contained 0.08 ppm benzene. Ground water samples collected from wells MW-9, EW-2 and EW-3 contained 94, 480 and 150 ppb benzene, respectively. Tabulated analytic results of soil and ground water samples from wells MW-9, EW-2 and EW-3 are presented in Appendix B and boring logs are presented in Appendix C.

April and May 1992 Subsurface Investigation: In April 1992, BE installed offsite monitoring wells MW-10 and MW-11. Benzene was not detected in soil and ground water samples from either well. Tabulated analytic results for soil samples from MW-10 and MW-11 are presented in Appendix B. Tabulated ground water analytic results since 1989 for all site wells are also presented in Appendix B. Boring logs for MW-10 and MW-11 are presented in Appendix C.

REMEDIAL ACTIONS

Ground water extraction and treatment from wells EW-1, EW-2 and EW-3 began on August 1, 1991 and operated almost continuously until June 1994. The remediation system consisted of extracting ground water from wells EW-1, EW-2 and EW-3, and treating the water with an oil/water separator and two 1,000 lb. aqueous phase carbon vessels connected in series. Treated ground water was discharged to the sanitary sewer as permitted by the Oro Loma Sanitary District.

Approximately 666,500 gallons of ground water were remediated since system startup. However, only 7.3 lbs of TPH-G were removed from extracted ground water. Furthermore, no hydrocarbons have been detected in extracted ground water since July 20, 1993. Based on this data, Scott Seery of the ACDEH granted Chevron permission to shut down the ground water extraction system on June 2, 1994.

EVALUATION OF NON-ATTAINMENT AREA CRITERIA AND FUTURE ACTION PLAN

DISCUSSION OF NON-ATTAINMENT AREA CRITERIA

Based on the site hydrogeology and the configuration and concentrations of the remaining hydrocarbon plume, Chevron recommends this site as a candidate for reduced action and establishment of a Category II Non-Attainment Area (NAA). The site meets all of the criteria for establishment of a Category II NAA, and most of the criteria for a Category I NAA. In the following section, each of the RWQCB criterion for establishment of a NAA is considered for the subject site.

Category I, criterion a) The Discharger has demonstrated (e.g., pump tests, ground water monitoring, transport modeling) and will verify (e.g., ground water monitoring) that no significant pollution migration will occur due to hydrogeologic or chemical characteristics.

Site Hydrogeology: The sediments beneath the site consist primarily of sandy clay and clayey sand with minor silty sand and silty gravelly sand to the total depth explored, approximately 41.5 ft (Appendix C). The sediments are predominantly low permeability except for the silty gravel and gravelly sand lenses found at about 15 to 20 feet bgs in the soil borings for wells EW-1 and MW-3.

Ground Water Flow: The ground surface elevation at the site is approximately 125 ft above msl. The depth to water in site wells has ranged from 9 to 21 ft bgs. Ground water generally flows southwestward. Ground water elevation contour maps are presented in Appendix A. Compiled ground water depth measurements are presented in the Water Level Data and Ground Water Analytic Results table included in Appendix B.

Plume Location: The hydrocarbon plume at this site is constrained primarily to the area around monitoring well MW-3. Trace or low hydrocarbon concentrations have been detected occasionally in downgradient wells MW-8, MW-9 and MW-10 the last four quarters but no TPH-G or benzene

has been detected in the farthest downgradient well, MW-11, for the last six quarters. no separate phase hydrocarbons have been detected at the site since May 22, 1991.

Plume Stability: Since monitoring began in 1989, MW-3 has had the highest hydrocarbon concentrations in ground water, averaging about 20,000 ppb TPH-G. However, hydrocarbon concentrations in all other site wells have always been at least one or two orders of magnitude less than the MW-3 concentrations. Chevron believes the sites' predominantly low permeability, clay-rich sediments have contained the plume, slowing migration sufficiently to allow natural attenuation mechanisms, including sorption, dispersion, volatilization through the unsaturated zone, and/or chemical and biological activity to degrade the hydrocarbons beneath the site.

Category I, criterion b. Adequate source removal and/or isolation is undertaken to limit future migration of pollutants to ground water.

Over 660,000 gallons of ground water have been extracted and treated. As discussed under Category II criteria b and c, additional remediation is not justified at this site

Category I, criterion c. Dissolved phase cleanup is not cost-effective due to limited water quality impacts, environmental and human health risks and separate phases have been or are actively being removed.

Ground water impacts associated with the hydrocarbon plume at this site are limited since the only significant hydrocarbon concentrations in ground water are constrained to the area around MW-3. Fluctuating hydrocarbon concentrations found in downgradient wells MW-8 and MW-9 have not exceeded 25 ppb benzene since January 1993. Hydrocarbon concentrations between well MW-3 and wells MW-8 and MW-9 indicate that hydrocarbon concentrations are reduced by orders of magnitude downgradient of the source area. The low permeability soils found at this site naturally attenuate hydrocarbon migration. Since the concentrations found in soil and ground water are not likely to increase, human health risks associated with the two plausible exposure pathways, inhalation and ingestion, are expected to be limited. The sites asphalt covering would prevent significant volatilization of hydrocarbons to the atmosphere, thereby significantly decreasing the risk through inhalation. Since no municipal water supply wells are nearby and

drinking water is not drawn from the upper aquifer in this area, it is very unlikely that significant, long-term ingestion of ground water from beneath this site would occur and therefore, the risk by ingestion is insignificant.

Category I, criterion d. An acceptable plan is submitted and implemented for containing and managing the remaining human health, water quality, and environmental risks, if any, posed by residual soil and ground water pollution.

Our plan for containing and managing the remaining risks posed by residual hydrocarbons at this site includes: 1) continued ground water monitoring for hydrocarbons within and downgradient of the plume, for a limited period of time; and, 2) a contingency plan to be implemented if monitoring indicates significant downgradient migration and/or increasing concentrations in the plume. Our proposed ground water monitoring schedule and contingency plan are presented in the Future Action Plan in the next section.

Category II, criterion d. An appropriate cleanup program including adequate source removal and free product removal has been fully implemented and reliably operated for a period of time which is adequate to understand both the hydrogeology of the site and pollutant dynamics.

The remediation system at this site operated for two and a half years extraction and treating ground water from wells EW-1, EW-2 and EW-3, located in the area immediately downgradient of MW-3. Former monitoring well MW-5 contained separate phase hydrocarbons (SPH) in 1990 and 1991 when it was converted to extraction well EW-2. However, all SPHs in EW-2 were subsequently removed during operation of the ground water extraction and treatment system. The remediation system was shut down in June 1994 when SPHs and dissolved phase hydrocarbons had not been detected in treatment system influent samples since July 1993.

Category II, criterion b. Ground water pollutant concentrations have reached an asymptotic level (the mass removed from the groundwater is no longer significant) using appropriate technology.

Although 666,500 gallons of ground water have been treated during two and a half years of remediation, only 7.3 lbs of hydrocarbons have been recovered. Using this technology, it is clear

that significant hydrocarbon mass cannot be removed from ground water due to the low permeability of site soils.

Category II, criterion c. Best available technologies are not technically or economically feasible to achieve further significant reduction in pollutant concentrations.

The only appropriate remedial technology for this site, ground water extraction, has not recovered significant hydrocarbon mass to justify its continued operation. Other technologies, such as soil vapor extraction or biosparging would not be appropriate remedial alternatives due to the low permeability sediments. The remediation activities performed at the site to date has removed as much of the hydrocarbons as is technically and economically feasible.

Category II, criterion d. An acceptable plan is submitted and implemented for containing and managing the remaining human health, water quality, and environmental risks, if any, posed by residual soil and ground water pollution.

Our plan for containing and managing the remaining risks posed by residual hydrocarbons at this site is discussed under Category I, criterion a.

FUTURE ACTION PLAN

Continued Ground Water Monitoring: The hydrocarbon plume appears to be limited to the source area near MW-3 with only low levels of hydrocarbons occasionally found in downgradient wells MW-8 and MW-9. Quarterly sampling and analysis of the downgradient wells will provide adequate information and assurance that this small plume is contained and that there are no likely human health or environmental risks. Continued quarterly monitoring of the other site wells will not yield additional significant information concerning hydrocarbon concentrations in ground water at this site. Currently, eleven wells at the site are monitored (i.e. sampled and/or gauged) quarterly for hydrocarbons. To ensure that the plume is contained and to maintain compatibility with health risk concerns while reducing monitoring at this site, Chevron plans to:

- 1) Discontinue monitoring in wells MW-1, MW-2, MW-6 and MW-7. Since these wells are cross- or upgradient of the plume, they will provide no significant new

information. The ground water flow direction at this site is consistently southward and these wells have contained only low or no hydrocarbon concentrations since sampling was initiated. Discontinue monitoring well MW-3; the downgradient extent of the onsite plume will be monitored by EW-2.

- 2) Monitor and report analytical data from MW-8, MW-9, MW-10, MW-11 and EW-2 semi-annually for 2 years at the seasonal high and low water table (2nd and 4th quarters), then annually for one year at the seasonal high water table. The proposed monitoring schedule will provide additional data confirming that significant hydrocarbons are not migrating from the site. After one year of annual monitoring, cease monitoring entirely unless the contingency plan has been implemented.
- 3) Discontinue reporting and monitoring in wells EW-1, and EW-3. These intermediate wells are not necessary since other site monitoring wells can supply sufficient information to adequately monitor the plume extent and the ground water flow direction.

The Proposed Monitoring and sampling schedule is summarized below.

Proposed Monitoring and Sampling Schedule. Chevron Service Station #9-8139

Well ID	1995				1996				1997			
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
MW-1	---	---	---	---	---	---	---	---	---	---	---	---
MW-2	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	---	---	---	---	---	---	---	---	---	---	---	---
MW-6	---	---	---	---	---	---	---	---	---	---	---	---
MW-7	---	---	---	---	---	---	---	---	---	---	---	---
MW-8	---	G&S	---	G&S	---	G&S	---	G&S	---	G&S	---	---
MW-9	---	G&S	---	G&S	---	G&S	---	G&S	---	G&S	---	---
MW-10	---	G&S	---	G&S	---	G&S	---	G&S	---	G&S	---	---
MW-11	---	G&S	---	G&S	---	G&S	---	G&S	---	G&S	---	---
EW-1	---	---	---	---	---	---	---	---	---	---	---	---
EW-2	---	G&S	---	G&S	---	G&S	---	G&S	---	G&S	---	---
EW-3	---	---	---	---	---	---	---	---	---	---	---	---

MW-2
& MW-3

G&S = Gauging and Sampling

Contingency Plan: "Baseline" and "trigger" conditions have been defined for MW-8, MW-9, MW-10 and MW-11 (Appendix D). EW-2 has only been sampled twice since the well was installed, and insufficient data is available to establish baseline and trigger conditions. Should monitoring indicate that "trigger" concentrations occur in any well for two consecutive monitoring periods, a Contingency Plan for increased ground water monitoring and evaluating an appropriate course of action will go into effect. This plan will ensure that "baseline" conditions are maintained in all wells. Details of the contingency plan are presented in Appendix D.

CONCLUSIONS

Data collected at the site demonstrate the following points;

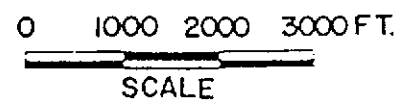
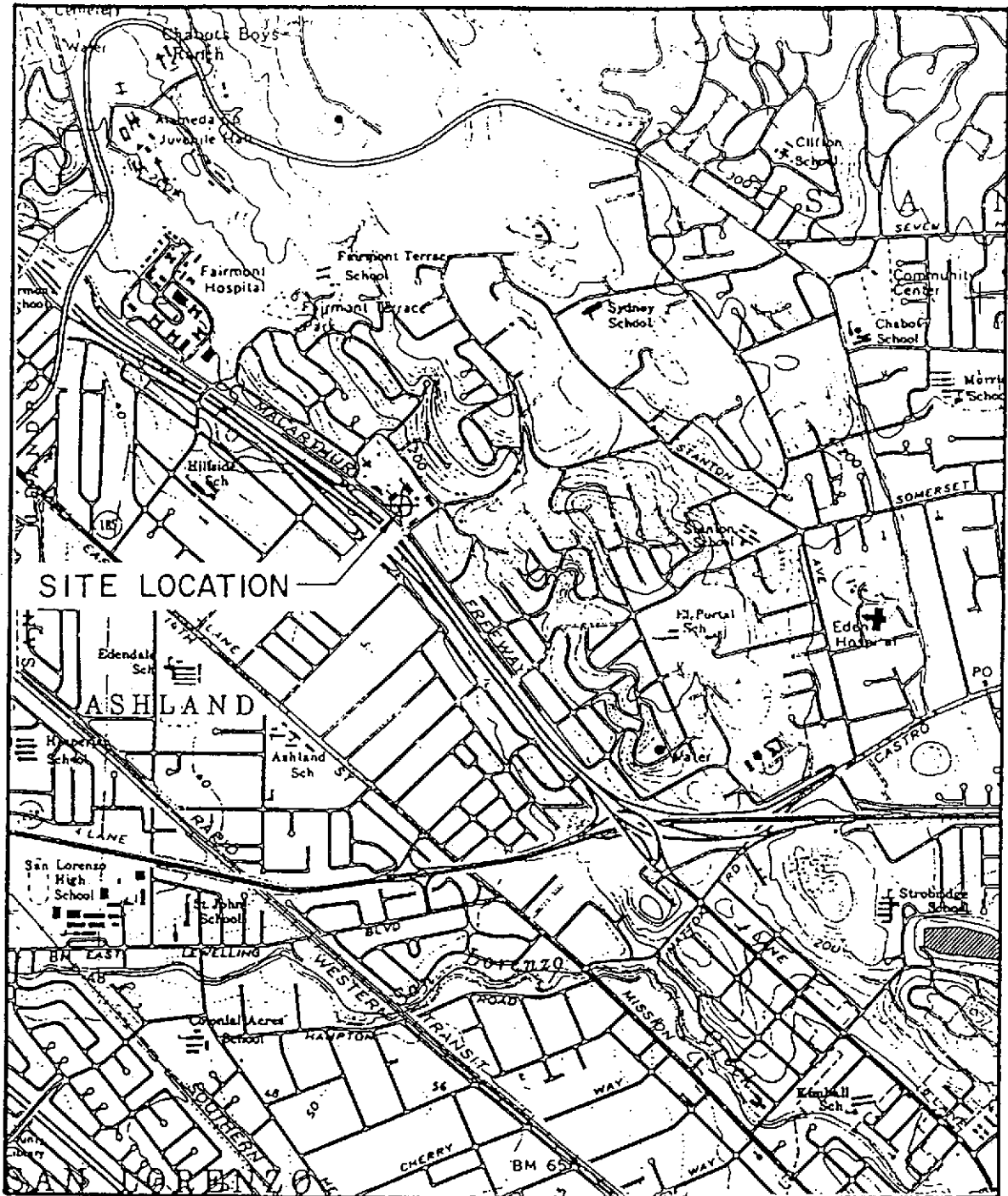
- Ground water monitoring data collected over the last five years have shown that hydrocarbon concentrations are stable, decreasing or not detected in nearly all site wells;
- Hydrocarbon concentrations in ground water from wells MW-8 and MW-9 fluctuate between relatively low levels and non-detect but are generally decreasing over the long term;
- Subsurface sediments are comprised of predominantly low permeability, clayey material that attenuate hydrocarbon migration and allow biodegradation processes to decrease plume concentrations;
- Because the sediments beneath the site are primarily of low permeability, there are no cost-effective technologies that might significantly accelerate the removal of hydrocarbons in this plume.

Based on the data summarized in this report, it is apparent that no additional remedial measures are necessary. Declaring the downgradient plume boundary wells as the attainment points for achievement of maximum contaminant levels (MCLs) will allow natural processes to continue to contain and degrade the plume. The proposed monitoring and contingency plan will ensure that the risks posed by the residual plume are contained and managed.

Therefore, Chevron requests that ACDEH and the RWQCB accept that drinking water standards cannot be attained near the source area at this site and consider redefining the area of attainment of water quality objectives to the perimeter of the plume. Chevron will continue to monitor the Non-Attainment Area downgradient boundary at downgradient wells MW-8, MW-9, MW-10, MW-11, and EW-2 for three more years to confirm the stability of this plume.

REFERENCES

- EA Engineering, Science, and Technology, Inc., July 14, 1989. Report of Investigation, Soil Vapor Contaminant Assessment, Chevron SS 9-8139, 16304 Foothill Boulevard, San Leandro, California.
- Burlington Environmental Inc., September 23, 1991. Additional Soil and Groundwater Investigation Report, Chevron Service Station No. 9-8139, 16304 Foothill Boulevard, San Leandro, California.
- Burlington Environmental Inc., July 28, 1992. Supplemental Soil and Groundwater Investigation Report, Chevron Service Station No. 9-8139, 16304 Foothill Boulevard, San Leandro, California.
- Chemical Processors, Inc., February 21, 1990. Soil and Groundwater Investigation, Chevron Service Station No. 9-8139, 16304 Foothill Boulevard, San Leandro, California.
- Chemical Processors, Inc., November 7, 1990. Remedial Investigation Report, Chevron Service Station No. 9-8139, 16304 Foothill Boulevard, San Leandro, California.
- Sierra Environmental Services, May 25, 1994. Quarterly Ground Water Sampling Report, Chevron Service Station # 9-8139, 16304 Foothill Boulevard, San Leandro, California. SES Project #1-289-04.
- Weiss Associates, May 10, 1994. Monthly Compliance Report, Chevron Service Station #9-8139, 16304 Foothill Boulevard, San Leandro, California. WA Job #4-641-54.
- RWQCB, August 1994. Ground Water Basin Plan Amendments, 23 pp. plus tables and attachments.



NOTE: (MAP ADAPTED FROM USGS HAYWARD 7.5' QUADRANGLE)



CHEMICAL PROCESSORS, INC.
950-B GILMAN STREET
BERKELEY, CALIFORNIA

SITE LOCATION MAP
Chevron Service Station #9-8139
16304 Foothill Boulevard
San Leandro, California

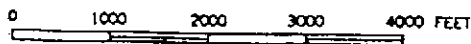
FIGURE
1
1158



EXPLANATION

- 2 ● Water-producing well location and designation (see Table 2)
(Estimated locations of wells 1, 4, 6, 10 are shown)

SCALE



Note: Map adapted from Hayward 7.5' Quadrangle

January 1990



A Burlington
Environmental Inc.
Company

CHEMICAL PROCESSORS, INC.
950 "B" Gilman Street
Berkeley, CA 94710

**SITE LOCATION MAP
AND WELL SURVEY AREA**
Chevron Service Station No. 9-8139
16304 Foothill Boulevard
San Leandro, California

Figure

Job No. 987158

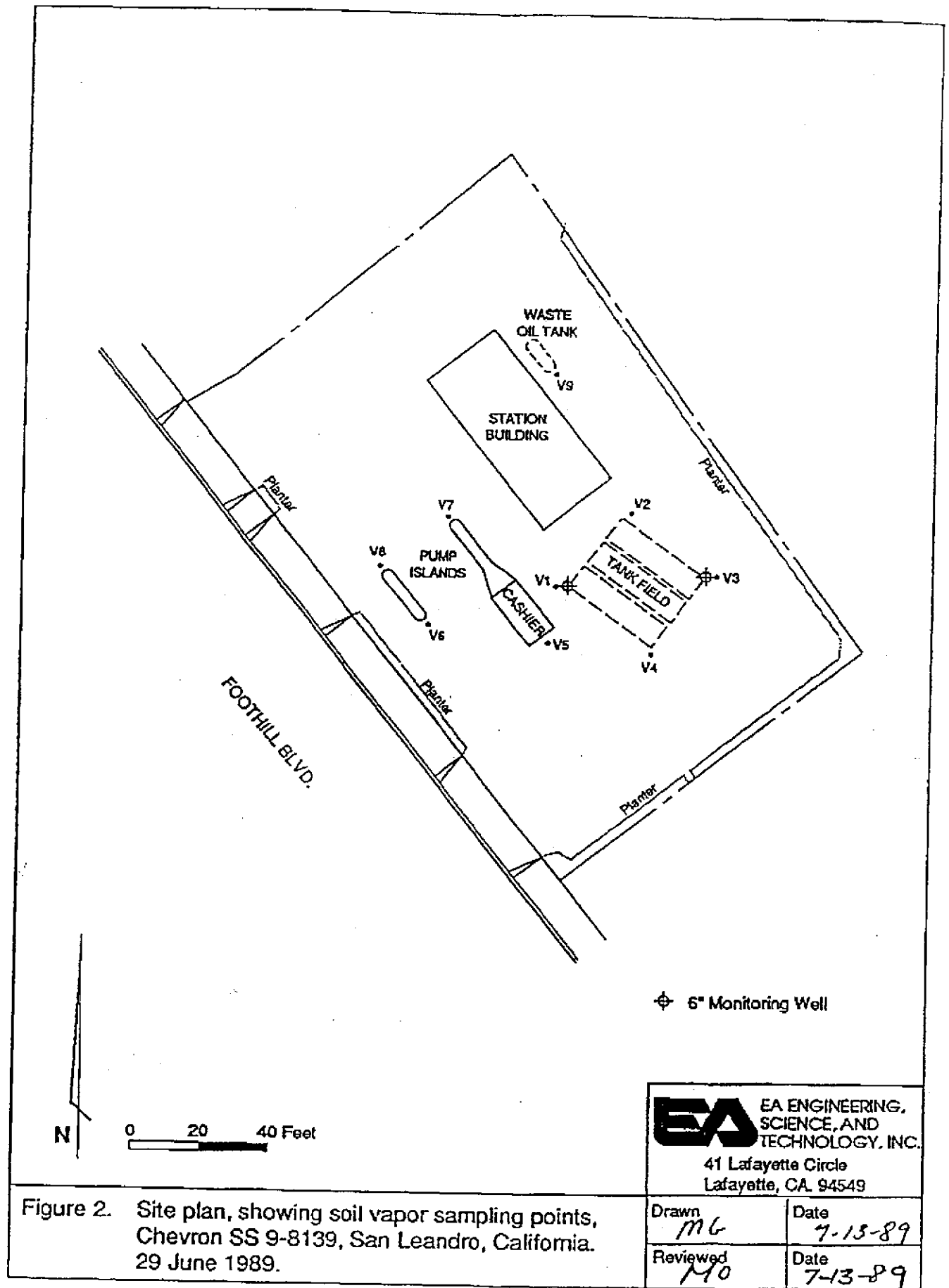
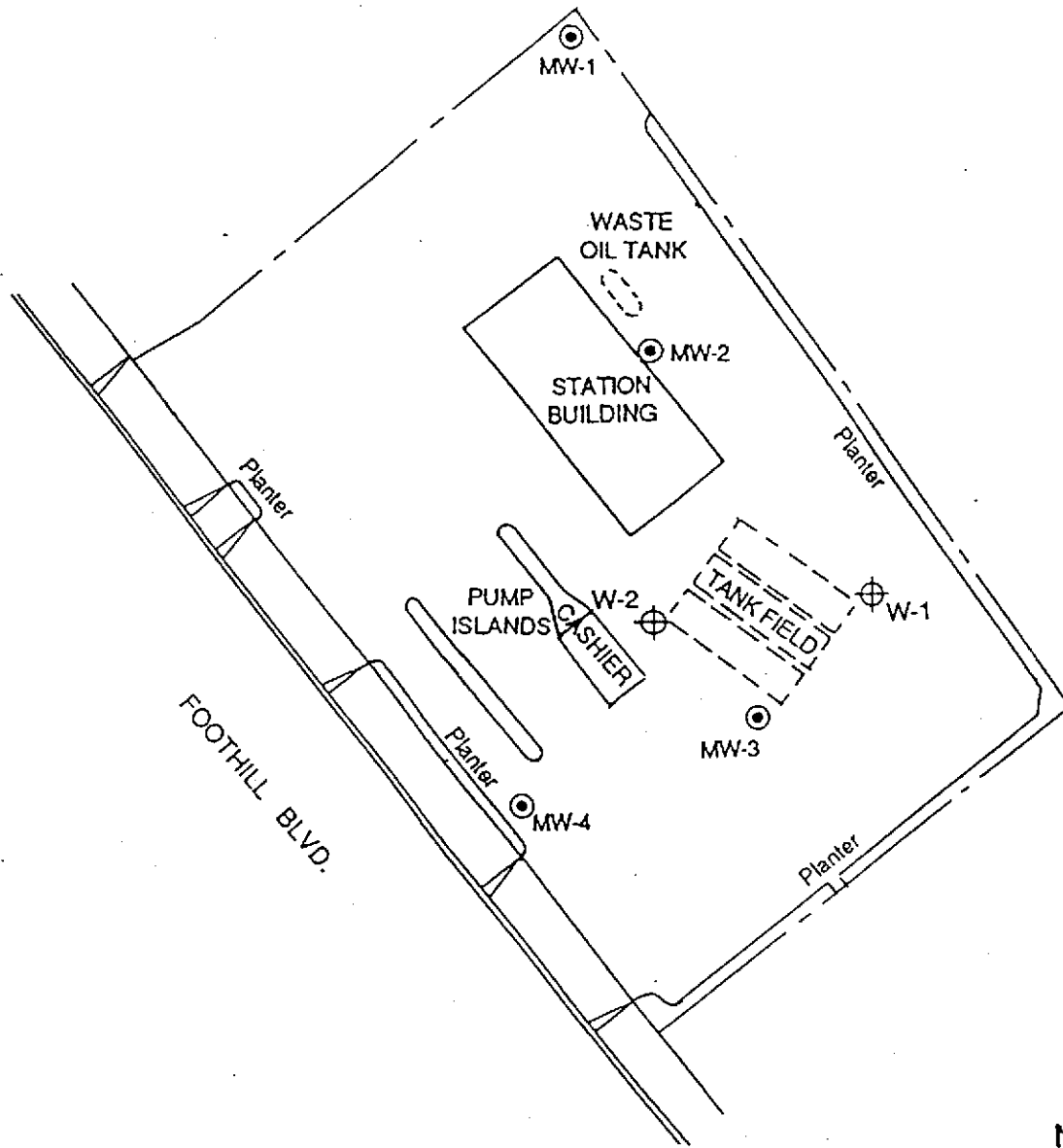


Figure 2. Site plan, showing soil vapor sampling points, Chevron SS 9-8139, San Leandro, California. 29 June 1989.

EA ENGINEERING,
SCIENCE, AND
TECHNOLOGY, INC.
41 Lafayette Circle
Lafayette, CA. 94549

Drawn <i>MG</i>	Date <i>7-13-89</i>
Reviewed <i>MO</i>	Date <i>7-13-89</i>



EXPLANATION

- ⊕ 6" Well
- ⊙ Groundwater Monitor Well



January 1990

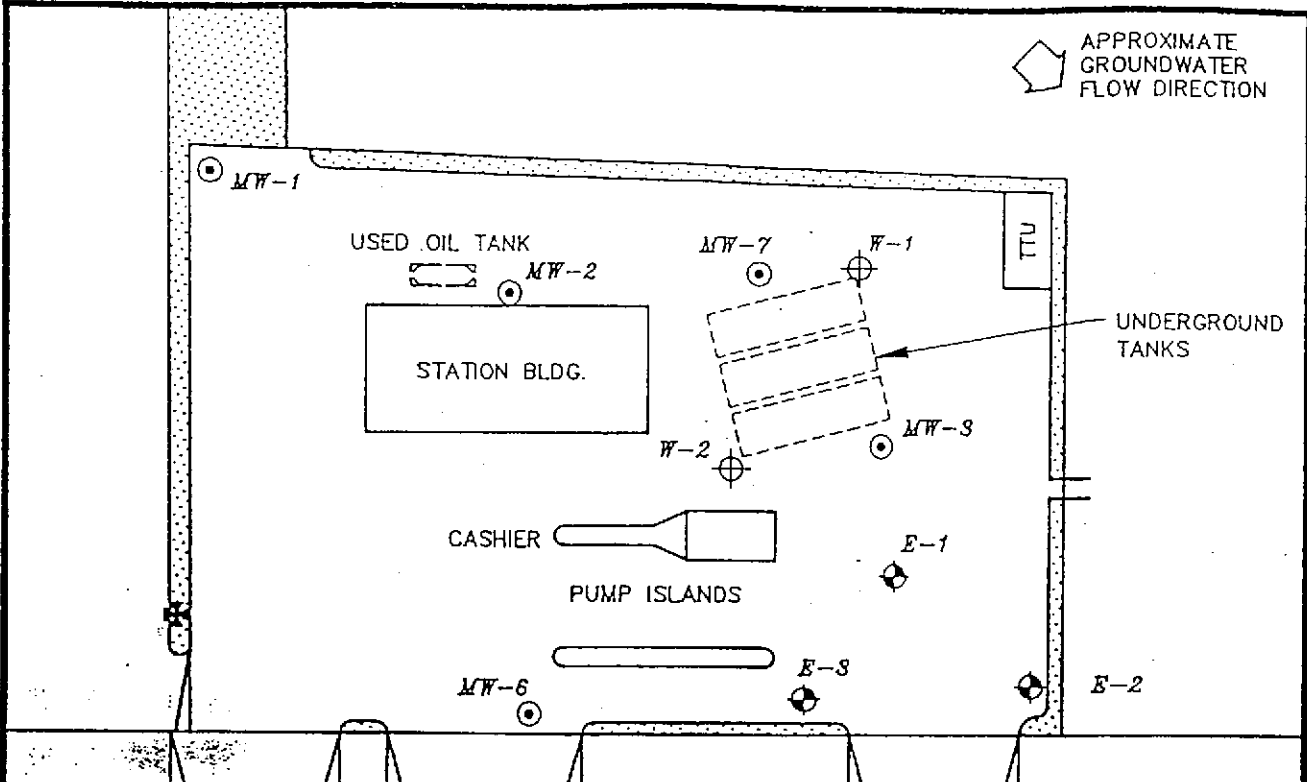


CHEMICAL PROCESSORS, INC.
 950 "B" Galman Street
 Berkeley, CA 94710

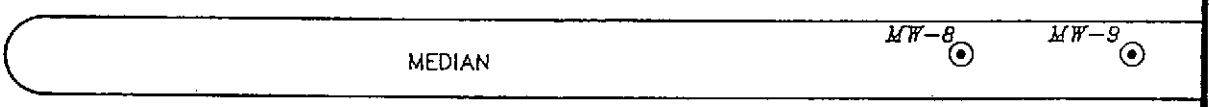
SITE PLAN
 Chevron SS 9-8139
 16304 Foothill Boulevard
 San Leandro, California

Figure 2

Job No. 987158



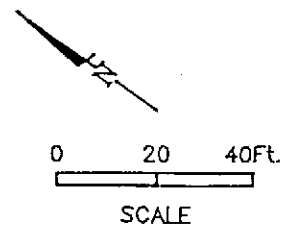
FOOTHILL BOULEVARD



DIRT SIDE WALK

EXPLANATION

- ⊕ EXTRACTION WELL
- ⊙ GROUNDWATER MONITORING WELL
- ⊕ PROPOSED EXTRACTION WELL LOCATION
- ⊗ BENCHMARK: RAILROAD SPIKE IN POWER POLE EL 123.23 [ALA. Co. DATUM]
- ⊗ OBSERVATION WELL



SITE VICINITY MAP
Chevron Service Station No. 9-8139
16304 Foothill Boulevard
San Leandro, California

Reviewed By : _____ Date : _____

Figure 1

Project No. CHV149/158

Drawn By PPK Date 6/28/91

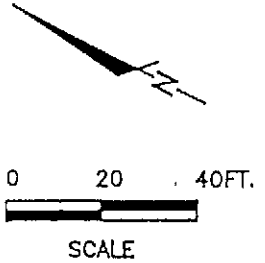
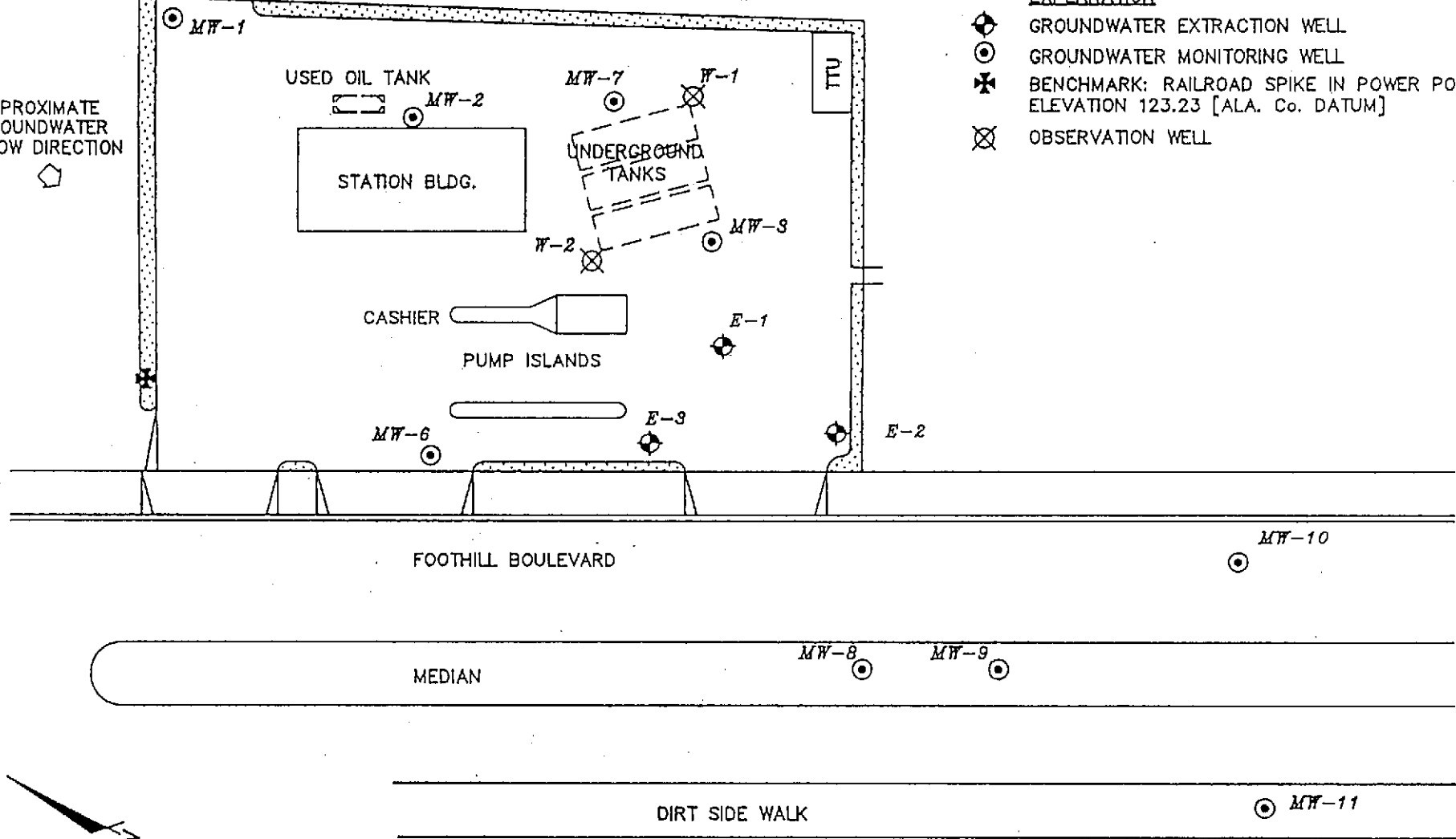
Drawing No. A0615802

APPROXIMATE
GROUNDWATER
FLOW DIRECTION



EXPLANATION

- GROUNDWATER EXTRACTION WELL
- GROUNDWATER MONITORING WELL
- BENCHMARK: RAILROAD SPIKE IN POWER POLE ELEVATION 123.23 [ALA. Co. DATUM]
- OBSERVATION WELL



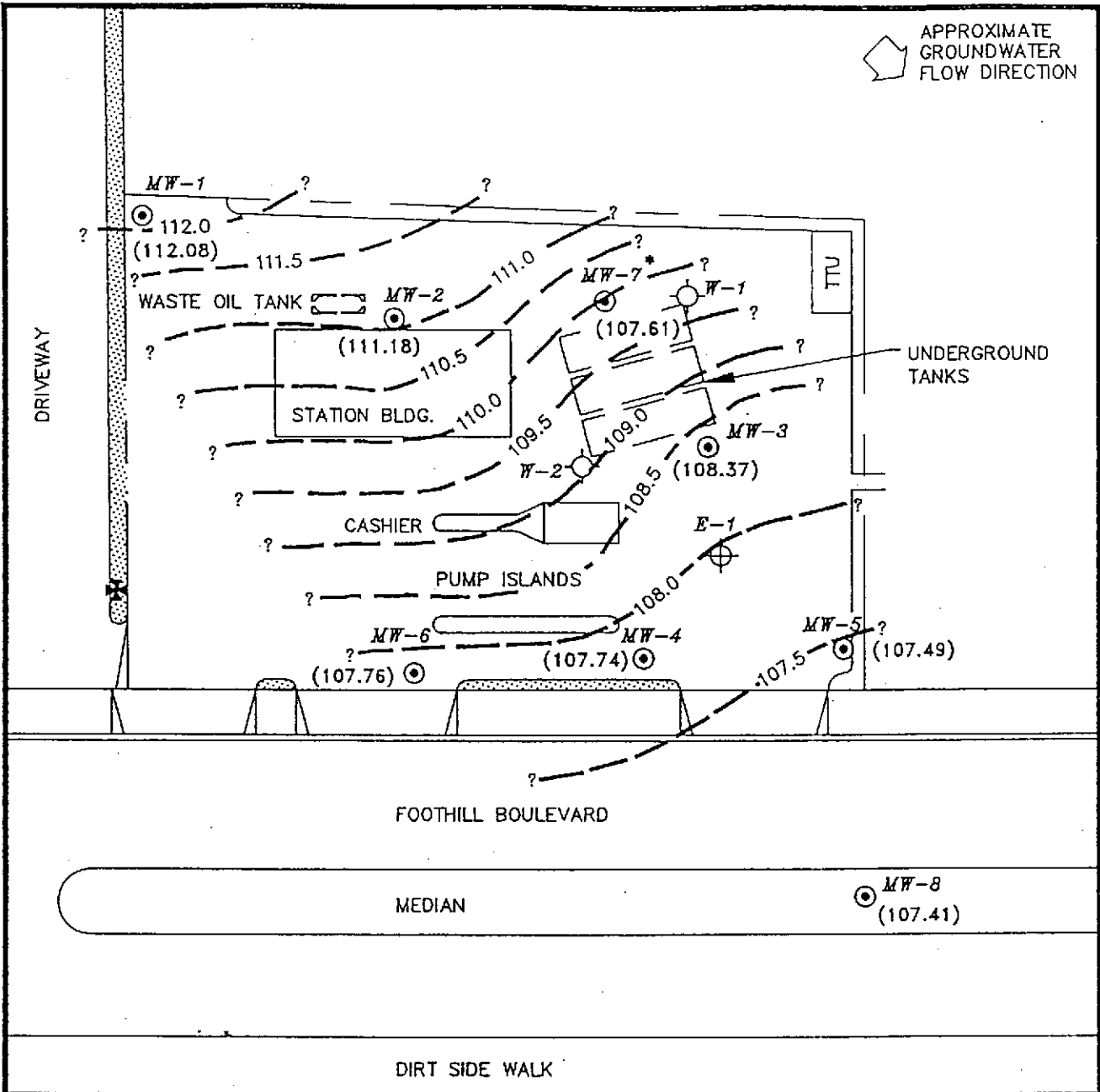
SITE VICINITY MAP
Chevron Service Station No. 9-8139
16304 Foothill Boulevard
San Leandro, California

Reviewed By: *S. Flory*





Date: 5/4/92

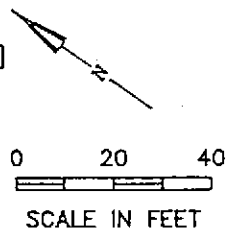
Figure 2	
Project No. CHV-149	
Drawn By PPK	Date 1/14/92
Drawing No. A0629703	

APPROXIMATE
GROUNDWATER
FLOW DIRECTION



EXPLANATION

-  EXTRACTION WELL
-  GROUNDWATER MONITORING WELL
-  OBSERVATION WELL
-  BENCHMARK: RAILROAD SPIKE IN POWER POLE EL 123.23 [ALA. Co. DATUM]
- (112.08) GROUNDWATER ELEVATION (FT-MSL)
MEASURED ON: 9/25/90
- 109.5- GROUNDWATER CONTOUR (FT-MSL)
GROUNDWATER GRADIENT 0.03 ft/ft
- * MW-7 DATA NOT USED IN CONTOURING



CHEMICAL PROCESSORS INC.
950 "B" Gilman Street
Berkeley, CA 94710

GROUNDWATER ELEVATION CONTOUR
Chevron Service Station No. 9-8139
16304 Foothill Boulevard
San Leandro, California

PROJECT
No.
1158

FIGURE
4

Date	3-23-95	# of Pages	11
From	Tommy An		
To	Chevron		
Company	Weiss Associates		
Phone #	510 450-8222	Phone #	510 842-8252
Fax #	510 547-5043	Fax #	510 842-8252

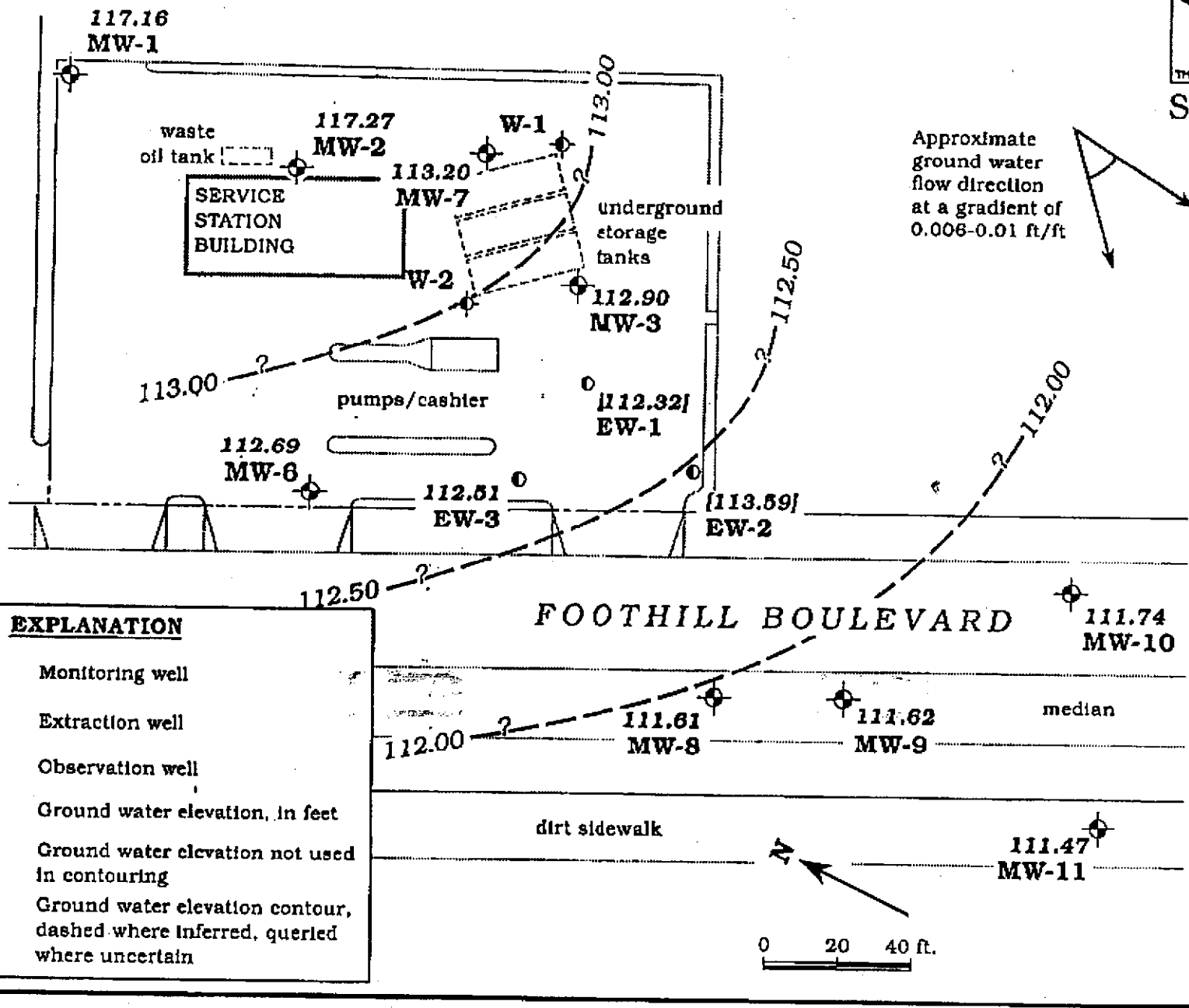


Figure 1. Monitoring Well Locations and Ground Water Elevation Contour Map - January 19, 1995 - Chevron Service Station #9-8139, 16304 Foothill Boulevard, San Leandro, California

Table 5
SOIL ANALYSES AND ANALYTICAL TECHNIQUES
 Chevron Service Station No. 9-8139

SOIL BORING	SAMPLE	DATE	SAMPLE	TPH	BENZENE	TOLUENE	ETHYL-	XYLENE
	DEPTH SAMPLED		NO. Gasoline				BENZENE	
Detection Method			M8015		8020	8020	8020	8020
Detection Limit (ppm)			1		0.005	0.005	0.005	0.005
MW-9	15	6/11/91	SS-9A-SL	43	0.08	0.11	0.26	1.9

NOTES:

Soil chemistry values presented in parts per million (ppm)

TABLE 1 CONCENTRATIONS OF HYDROCARBON CONSTITUENTS IN SOIL VAPOR CHEVRON SS 9-8139,
16304 FOOTHILL BOULEVARD, SAN LEANDRO CALIFORNIA, 29 JUNE 1989

Sample Location	Depth (ft.)	Vacuum (in. Hg)	Vacuum Release (min)	Peaks Prior to Benzene ^a (ppm)	Benzene (ppm)	Toluene (ppm)	Total Xylenes (ppm)	Ethylbenzene (ppm)	Unidentified Peaks After benzene (ppm) ^b	Total Volatile Hydrocarbons (ppm) ^c
V1/A	3	24	15	1	<1	<1	<1	<1	<1	1
V1/B	8	24	0.5	<1	<1	<1	<1	<1	<1	<1
V1/C*	10.5	20	0	<1	<1	<1	<1	<1	<1	<1
V2/A	3	22	15	<1	<1	<1	<1	<1	<1	<1
V2/B	8	21	0.5	1	<1	<1	<1	<1	<1	<1
V2/C*	10.5	18	0	1	<1	<1	<1	<1	<1	1
V3/A	3	19	0	<1	<1	<1	<1	<1	<1	1
V3/B	8	21	1	<1	<1	<1	<1	<1	<1	<1
V3/C*	10.5	21	0.2	<1	<1	<1	<1	<1	<1	<1
V4/A	3	24	20	3	<1	<1	<1	<1	<1	<1
V4/B	8	24	4	5	<1	<1	<1	<1	<1	3
V4/C	10.5	24	15	38	1	<1	<1	<1	<1	5
V5	3	21	15	16	<1	<1	<1	<1	<1	39
V6	3	22	25	3	<1	<1	<1	<1	<1	16
V7	3	23	15	4	<1	<1	<1	<1	<1	3
V8	3	22	15	47	<1	<1	<1	<1	<1	4
V9/A	3	21	3	<1	<1	<1	<1	<1	1	48
V9/B	8	14	0	5	<1	<1	<1	<1	<1	<1
V9/C	10.5	20	0.1	10	<1	<1	<1	<1	<1	5

a. Early peaks from blank data subtracted from total peaks prior to benzene. Quantification based on V-sec:ppm ratio for pentane (see text).

b. Quantification based on V-sec:ppm ratio for benzene (see text).

c. Summation of all detected constituents (see text).

* Hard subsoil encountered at this depth.

Table 2
GROUNDWATER ANALYSES AND ANALYTICAL TECHNIQUES
 Chevron Service Station No. 9-8139

WELL DESIGNATION	SAMPLE DATE	SAMPLE NO.	TPH Gasoline	BENZENE	TOLUENE	ETHYL- BENZENE	XYLENES
Detection Method			M8015	8020	8020	8020	8020
Detection Limit (ppb)			50	0.5	0.5	0.5	0.5
MW-9	6/24/91	WS-37-SL	16000	94	300	180	2500
E-2	6/24/91	WS-34-SL	2900	460	130	35	330
Duplicate	6/24/91	WS-35-SL	3000	480	140	37	380
E-3	6/24/91	WS-36-SL	5300	150	130	120	640
RINSATE	6/24/91	RS-5-SL	<50	<0.5	<0.5	<0.5	<0.5
TRIP BLANK	6/24/91	TB-5-SL	<50	<0.5	<0.5	<0.5	<0.5

NOTES:

Groundwater chemistry values presented in parts per billion (ppb)

Table 5
SOIL ANALYSES AND ANALYTICAL TECHNIQUES
Chevron Service Station No. 9-8139
San Leandro, California

SOIL BORING	SAMPLE DEPTH	DATE SAMPLED	SAMPLE NO.	TPH Gasoline	BENZENE	TOLUENE	ETHYL-BENZENE	XYLENE	TOTAL LEAD
Detection Method				M8015	8020	8020	8020	8020	6010
Detection Limit (ppm)				1	0.005	0.005	0.005	0.005	5
MW-10	15-16.5	4/21/92	SS-60-SL	ND<1	ND<0.005	ND<0.005	ND<0.005	ND<0.005	6
MW-11	15-16.5	4/21/92	SS-54-SL	ND<1	ND<0.005	ND<0.005	ND<0.005	ND<0.005	NA

NOTES:

Soil chemistry values presented in parts per million (ppm)

NA = Not analyzed

ND = Not detected above method detection limit

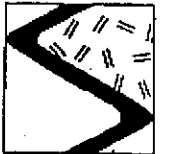
Table 2
GROUNDWATER ANALYSES AND ANALYTICAL TECHNIQUES
 Chevron Service Station No. 9-8139
 San Leandro, California

WELL DESIGNATION	SAMPLE DATE	SAMPLE NO.	TPH Gasoline	BENZENE	TOLUENE	ETHYL- BENZENE	XYLENES
Detection Method			M8015	8020	8020	8020	8020
Detection Limit (ppb)			50	0.5	0.5	0.5	0.5
MW-10	5/15/92	WS-72-SL	ND < 50	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5
MW-11	5/15/92	WS-70-SL	ND < 50	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5
TRIP BLANK	5/15/92	TB-LB	ND < 50	ND < 0.5	ND < 0.5	ND < 0.5	ND < 0.5

NOTES:

Groundwater chemistry values presented in parts per billion (ppb)

ND = Not detected above method detection limit



SIERRA

Table 1. Water Level Data and Ground Water Analytic Results - Chevron Service Station #9-8139, 16304 Foothill Boulevard, San Leandro, California

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	Analytic Method	TPPH(G)	-----ppb-----				
							B	T	E	X	EDB
MW-1/ 127.09	12/5/89	---	---	---	8015/8020/413/504 ^{1,2}	<500	<0.5	<0.5	<0.5	<0.5	<0.5
	3/23/90	12.92	114.17	0	---	---	---	---	---	---	
	5/24/90	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	
	9/6/90	14.88	112.41	0	8015/8020/504	<50	<0.5	0.8	<0.5	0.5	
	9/25/90	15.01	112.08	0	---	---	---	---	---	<0.5	
	11/29/90	14.82	112.27	0	8015/8020	<50	0.7	0.9	<0.5	1	
	2/20/91	14.29	112.80	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	
	4/19/91	12.16	114.93	0	---	---	---	---	---	---	
	5/22/91	13.89	113.40	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	
	8/22/91	15.38	111.71	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	
	11/13/91	15.80	111.29	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	
	1/30/92	14.71	112.33	0	8015/8020	<50	0.5	<0.5	<0.5	<0.5	
	4/23/92	12.22	114.87	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	
	7/27/92	14.30	112.79	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	
	10/26/92	15.90	111.19	0	8015/8020	<50	0.8	<0.5	<0.5	<0.5	
	1/29/93	10.51	116.58	0	8015/8020	<50	3	3	0.7	3	
	4/30/93	9.90	117.19	0	8015/8020	<50	<0.5	0.7	<0.5	1	
	7/14/93	12.28	114.81	0	8015/8020	<50	0.7	1	<0.5	3	
	10/27/93	15.53	111.56	0	8015/8020	<50	0.9	2	<0.5	2	
	1/13/94	12.24	114.85	0	8015/8020	<50	<0.5	0.9	<0.5	<0.5	
4/22/94	12.91	114.18	0	8015/8020	<50	1.1	2.6	1.0	5.5		
7/29/94	12.75	114.34	0	8015/8020	<50	<0.5	0.9	<0.5	<0.5		
10/25/94	13.63	113.48	0	8015/8020	100	0.6	1.6	<0.5	4.1		
1/19/95	9.93	117.18	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5		
MW-2/ 125.98	12/5/89	---	---	---	8015/8020/413/504 ^{1,2}	<500	<0.5	<0.5	<0.5	0.9	<0.5
	3/23/90	12.40	113.58	0	---	---	---	---	---	---	
	5/24/90	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	
	9/6/90	14.85	111.13	0	8015/8020/504	<50	<0.5	<0.5	<0.5	<0.5	
	9/25/90	14.80	111.18	0	---	---	---	---	---	<0.5	
	11/29/90	14.40	111.58	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	
	2/20/91	14.09	111.89	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	
	4/19/91	12.62	113.36	0	---	---	---	---	---	---	
	5/22/91	12.98	113.00	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	
	8/22/91	14.93	111.05	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	
	11/13/91	15.42	110.56	0	8015/8020	58	<0.5	0.5	0.7	2.3	
1/30/92	14.70	111.28	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5		
4/23/92	13.83	112.15	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5		

03/23/95 11:07 510 842 8252 CHEVRON PRODUCTS WEISS ASSOCIATES 002/011



Table 1. Water Level Data and Ground Water Analytic Results - Chevron Service Station #9-8139, 16304 Foothill Boulevard, San Leandro, California (continued)

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	Analytic Method	TPPH(G)	←-----ppb-----→					EDB
							B	T	E	X		
MW-2 (cont)	7/27/92	15.30	110.88	0	8015/8020	<50	<0.5	<0.5	<0.5	1.1	---	
	10/28/92	15.62	110.36	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	1/29/93	9.28	116.72	0	8015/8020	<50	3	8	1	5	---	
	4/30/93	9.66	116.32	0	8015/8020	<1,300	<13	<13	<13	<13	---	
	7/14/93	11.90	114.08	0	8015/8020	<50	0.8	2	0.8	4	---	
	10/27/93	13.49	112.49	0	8015/8020	<50	1	2	1	2	---	
	1/13/94	11.99	113.99	0	8015/8020	<50	<0.5	0.6	<0.5	<0.5	---	
	4/22/94	12.73	113.25	0	8015/8020	<50	0.6	<0.5	<0.5	1.7	---	
	7/29/94	12.30	113.68	0	8015/8020	<50	<0.5	0.9	<0.5	<0.5	---	
	10/25/94	13.39	112.59	0	8015/8020	<50	<0.5	0.8	<0.5	2.1	---	
	1/19/95	8.71	117.27	0	8015/8020	<50	<0.5	2.3	<0.5	<0.5	---	
	MW-3/ (d) 127.84 (d) 126.77 (d)	12/5/89	---	---	---	8015/8020/504	24,000	2,400	1,800	360	2,800	<0.5
12/5/89		---	---	---	8015/8020/413/504 ²	24,000	2,500	1,800	390	2,600	<0.5	
3/23/90		17.50	110.34	0	---	---	---	---	---	---	---	
5/24/90		---	---	---	8015/8020	9,000	2,600	1,700	250	1,500	---	
5/24/90		---	---	---	8015/8020	10,000	2,600	1,800	260	1,600	---	
9/6/90		18.72	108.05	0	8015/8020/504	3,500	900	550	110	460	<0.5	
9/23/90		18.40	108.37	0	---	---	---	---	---	---	---	
11/29/90		18.97	107.80	0	8015/8020	9,200	1,100	1,100	210	1,100	---	
2/20/91		19.20	107.57	0	8015/8020	8,800	980	780	200	920	---	
4/19/91		17.81	108.98	0	---	---	---	---	---	---	---	
5/22/91		17.88	108.89	0	8015/8020	28,000	5,800	1,200	460	2,300	---	
8/1/91		19.23	107.54	0	---	---	---	---	---	---	---	
8/22/91		20.17	108.60	0	8015/8020	21,000	3,100	2,000	480	2,000	---	
8/22/91		---	---	---	8015/8020	19,000	2,700	1,800	420	1,700	---	
11/13/91		19.95	106.82	0	8015/8020	18,000	2,400	1,200	450	2,200	---	
1/30/92		19.14	107.63	0	8015/8020	18,000	3,800	920	700	2,600	---	
4/23/92		17.75	109.02	0	8015/8020	46,000	5,000	1,000	1,000	3,500	---	
7/27/92		19.00	107.77	0	8015/8020	26,000	4,900	1,100	1,200	3,600	---	
10/28/92		19.82	107.15	0	8015/8020	6,600	1,100	41	220	570	---	
1/29/93		15.85	110.82	0	8015/8020	32,000	5,900	2,900	1,300	5,000	---	
4/30/93	15.67	111.10	0	8015/8020	14,000 ⁴	6,100	98	870	2,400	---		
7/14/93	16.83	109.94	0	8015/8020	12,000 ⁴	3,100	1,100	720	2,900	---		
10/27/93	17.70	109.07	0	8015/8020	19,000	7,800	400	1,500	3,400	---		
1/13/94	16.54	110.23	0	8015/8020	51,000	3,700	140	720	1,900	---		
4/22/94	17.02	109.75	0	8015/8020	22,000 ⁴	9,300	89	1,200	2,400	---		
7/29/94	16.85	109.82	0	8015/8020	13,000	4,700	44	560	420	---		

03/23/95 11:08 510 842 8252 CHEVRON PRODUCTS +++ WEISS ASSOCIATES 003/011



Table 1. Water Level Data and Ground Water Analytic Results - Chevron Service Station #9-8139, 16304 Foothill Boulevard, San Leandro, California (continued)

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	Analytic Method	←-----ppb-----→					
						TPPH(G)	B	T	E	X	EDB
MW-3 (cont)	10/25/94	17.68	109.11	0	8015/8020	24,000	8,700	52	1,500	1,400	---
	1/19/95	13.87	112.90	0	8015/8020	17,000 ^d	9,300	38	1,600	740	---
MW-4/ 125.22	12/5/89	---	---	---	8015/8020/504	19,000	390	1,300	480	1,800	<0.5
	3/23/90	16.02	109.20	0	---	---	---	---	---	---	---
	5/24/90	---	---	---	8015/8020	4,500	210	440	140	480	---
	9/8/90	17.35	107.87	0	8015/8020/504	8,000	680	520	170	580	<0.5
	9/25/90	17.48	107.74	0	---	---	---	---	---	---	---
	11/29/90	17.81	107.81	0	8015/8020	15,000	800	1,000	430	1,700	---
	2/20/91	17.81	107.41	0	8015/8020	15,000	640	390	420	1,600	---
	(d) 2/20/91	---	---	---	8015/8020	15,000	680	410	430	1,600	---
	4/19/91	15.80	109.42	0	---	---	---	---	---	---	---
	5/22/91 ^a	16.68	108.54	0	8015/8020	9,800	580	140	310	740	---
(d) 5/22/91	---	---	---	8015/8020	7,200	520	130	270	670	---	
MW-5/ 125.85	3/23/90	16.89	108.98	0	---	---	---	---	---	---	---
	5/25/90	---	---	---	8015/8020/504	28,000	820	1,100	480	1,300	2.4
	9/7/90	18.48	107.42 ^d	0.04	8015/8020	---	---	---	---	---	---
	11/29/90	18.87	107.54 ^d	0.71	8015/8020	---	---	---	---	---	---
	2/20/91	18.91	107.31 ^d	0.47	8015/8020	---	---	---	---	---	---
	4/19/91	18.99	109.24 ^d	0.48	---	---	---	---	---	---	---
	9/25/90	19.30	107.58 ^d	1.3	---	---	---	---	---	---	---
	5/22/91 ^a	17.69	108.42 ^d	0.33	8015/8020	---	---	---	---	---	---
MW-6/ 124.18	3/23/90	16.51	105.87	0	---	---	---	---	---	---	---
	5/25/90	---	---	---	8015/8020/504	<50	<2	<3	<3	<3	<0.02
	9/7/90	16.18	108.00	0	8015/8020/504	<50	<2	<3	<3	<3	<0.05
	9/25/90	16.42	107.78	0	---	---	---	---	---	---	---
	11/29/90	16.11	108.07	0	8015/8020/504	<50	<0.5	<0.5	<0.5	<0.5	<0.05
	2/20/91	16.09	108.09	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	4/19/91	15.16	109.03	0	---	---	---	---	---	---	---
	5/22/91	15.41	108.77	0	8015/8020	<50	0.5	0.7	<0.5	1.1	---
	8/23/91	17.80	106.38	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
	11/14/91	16.52	107.68	0	8015/8020/504	<50	<0.5	<0.5	<0.5	<0.5	<0.02
	(d) 11/14/91	---	---	---	8015/8020/504	<50	<0.5	0.6	<0.5	1.1	<0.05

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Table 1. Water Level Data and Ground Water Analytic Results - Chevron Service Station #9-8139, 16304 Foothill Boulevard, San Leandro, California (continued)

Well ID/ TOC (d)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	Analytic Method	TPPH(G)	-----ppb----->					EDB
							B	T	E	X		
MW-6	1/31/92	16.48	107.70	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
(cont) (d)	1/31/92	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	4/23/92	16.20	107.98	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
(d)	4/23/92	---	---	---	8015/8020	---	---	---	---	---	---	
	7/27/92	16.52	107.66	0	8015/8020	<50	1.2	0.6	<0.5	1.9	---	
	10/26/92	17.12	107.06	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	1/29/93	13.13	111.05	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	4/30/93	14.86	109.32	0	8015/8020	<50	<0.5	<0.5	<0.5	0.8	---	
	7/14/93	14.61	109.57	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	10/27/93	15.38	108.80	0	8015/8020	<50	0.9	1	0.6	1	---	
	1/13/94	15.34	108.84	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	4/22/94	15.07	109.11	0	8015/8020	<50	<0.5	<0.5	<0.5	2.5	---	
	7/29/94	15.30	108.88	0	8015/8020	<50	7.5	1.2	1.0	1.1	---	
	10/25/94	15.69	108.49	0	8015/8020	<50	<0.5	<0.5	<0.5	1.2	---	
	1/18/96	11.49	112.69	0	8015/8020	<50	<0.5	3.1	<0.5	0.6	---	
MW-7/ 126.86	3/23/90	21.40	105.46	0	---	---	---	---	---	---	---	
	5/25/90	---	---	---	8015/8020/504	<50	<2	<3	<3	<3	<0.02	
	9/7/90	18.38	108.48	0	---	---	---	---	---	---	---	
	9/25/90	19.25	107.61	0	---	---	---	---	---	---	---	
	9/27/90	---	---	---	8015/8020/504	<50	<2	<3	<3	<3	<0.05	
(d)	9/27/90	---	---	---	8015/8020/504	<50	<2	<3	<3	<3	<0.05	
	11/29/90	18.55	108.31	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	2/20/91	18.55	108.31	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	4/19/91	17.33	109.53	0	---	---	---	---	---	---	---	
	5/22/91	17.42	109.44	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	8/22/91	19.05	107.81	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	11/13/91	21.84	105.02	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	1/30/92	22.42	104.44	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	4/23/92	22.04	104.82	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	7/27/92	22.24	104.62	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	10/26/92	22.11	104.75	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	1/29/93	17.07	109.79	0	8015/8020	<50	4	13	2	8	---	
	4/30/93	14.86	112.00	0	8015/8020	<50	<0.5	<0.5	<0.5	0.6	---	
	7/14/93	16.10	110.76	0	8015/8020	<50	<0.5	1	<0.5	2	---	
	10/27/93	18.71	108.15	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	1/13/94	17.69	108.97	0	8015/8020	<50	<0.5	0.9	<0.5	1	---	

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Table 1. Water Level Data and Ground Water Analytic Results - Chevron Service Station #9-8139, 16304 Foothill Boulevard, San Leandro, California (continued)

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	Analytic Method	TPPH(G)	←-----ppb----->					EDB
							B	T	E	X		
	4/22/94	16.94	109.92	0	8015/8020	<50	<0.5	<0.5	<0.5	1.3	---	
	7/29/94	16.70	110.18	0	8015/8020	74	19	8.2	7.8	11	---	
	10/25/94	17.42	109.44	0	8015/8020	<50	<0.5	0.6	<0.5	1.6	---	
	1/19/95	19.66	113.20	0	8015/8020	<50	<0.5	1.4	<0.5	<0.5	---	
MW-8/ 123.51	9/7/90	16.07	107.54	0	8015/8020/504	<50	<0.5	<0.5	<0.5	<0.5	<0.05	
	9/25/90	16.20	107.41	0	---	---	---	---	---	---	---	
	11/29/90	16.30	107.31	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
(d)	11/29/90	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	2/20/91	16.32	107.29	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	4/19/91	14.71	108.90	0	---	---	---	---	---	---	---	
	5/22/91	15.42	108.19	0	8015/8020	<50	0.6	<0.5	<0.5	1	---	
	8/22/91	17.15	108.46	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	11/14/91	16.89	108.62	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	1/30/92	16.30	107.31	0	8015/8020	<50	1	0.7	<0.5	1.1	---	
	4/23/92	15.05	108.56	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	7/27/92	16.08	107.53	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	10/26/92	16.72	106.89	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	1/29/93	12.82	110.79	0	8015/8020	1,400	470	470	37	160	---	
	4/30/93	13.54	110.07	0	8015/8020	1,600	<13	15	18	29	---	
	7/14/93	14.65	108.96	0	8015/8020	<50	<0.5	0.7	<0.5	2	---	
	10/27/93	15.04	108.57	0	8015/8020	<50	3	4	2	4	---	
	1/13/94	15.14	108.47	0	8015/8020	<50	<0.5	4	<0.5	<0.5	---	
	4/22/94	15.01	108.60	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	7/28/94	14.70	108.91	0	8015/8020	69	7.3	18.0	3.3	12	---	
	10/25/94	15.20	108.41	0	8015/8020	<50	<0.5	0.8	<0.5	1.6	---	
	1/19/95	12.00	111.61	0	8015/8020	<50	<0.5	3.1	<0.5	0.7	---	
MW-9/ 124.20	8/22/91	17.60	106.60	0	8015/8020/504	9,600	46	170	98	1,200	<0.05	
	11/14/91	17.48	106.72	0	8015/8020/504	11,000	130	58	86	1,500	<0.05	
	1/30/92	16.71	107.49	0	8015/8020	11,000	210	29	110	1,900	---	
	4/23/92	15.23	108.97	0	8015/8020	17,000	180	25	100	1,900	---	
	7/27/92	16.72	107.48	0	8015/8020	2,800	59	1.6	18	280	---	
	10/26/92	17.22	106.98	0	8015/8020	3,200	38	<0.5	19	200	---	
	1/29/93	13.39	110.81	0	8015/8020	1,300	23	6	8	100	---	
	4/30/93	14.00	110.20	0	8015/8020	<1,300	<13	<13	<13	58	---	



Table 1. Water Level Data and Ground Water Analytic Results - Chevron Service Station #9-8139, 16304 Foothill Boulevard, San Leandro, California (continued)

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	Analytic Method	TPPH(G)	-----ppb-----					EDB
							B	T	E	X		
MW-9 (cont)	7/14/93	15.08	109.12	0	8015/8020	1,300	25	4	15	120	---	
	10/27/93	15.62	108.58	0	8015/8020	1,100	21	10	19	73	---	
	1/13/94	15.69	108.61	0	8015/8020	80	0.7	3	0.6	3	---	
	4/22/94	15.43	108.77	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	7/29/94	15.20	109.00	0	8015/8020	1,400	19	11	11	69	---	
	10/25/94	15.70	108.60	0	8015/8020	1,200	11	2.0	7.6	28	---	
	1/19/95	12.58	111.62	0	8015/8020	380	1.8	4.3	1.5	11	---	
MW-10/ 125.03	7/27/92	17.52	107.51	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	10/27/92	18.08	106.97	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	1/29/93	14.15	110.88	0	8015/8020	<50	<0.5	<0.5	<0.5	0.7	---	
	4/30/93	14.68	110.35	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	7/14/93	15.80	109.23	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	10/27/93	16.33	108.70	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	1/13/94	16.29	108.74	0	8015/8020	<50	<0.5	0.5	<0.5	<0.5	---	
	4/22/94	16.15	108.88	0	8015/8020	<50 ^a	<0.5	<0.5	<0.5	1.1	---	
	7/29/94	15.85	109.18	0	8015/8020	<50 ^a	0.8	2.1	0.5	1.3	---	
	10/25/94	16.41	108.62	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	1/19/95	13.29	111.74	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
MW-11/ 122.82	7/27/92	15.38	107.54	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	10/26/92	15.97	106.95	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	1/29/93	12.24	110.68	0	8015/8020	<50	8	16	2	10	---	
	4/30/93	12.77	110.15	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	7/14/93	13.84	109.08	0	8015/8020	<50	<0.5	0.7	<0.5	1	---	
	10/27/93	14.23	108.69	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	1/13/94	14.24	108.69	0	8015/8020	<50	<0.5	1	<0.5	<0.5	---	
	4/22/94	14.08	108.84	0	8015/8020	<50	<0.5	0.5	<0.5	1.4	---	
	7/29/94	13.90	109.02	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	10/25/94	14.38	108.54	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
1/19/95	11.45	111.47	0	8015/8020	<50	<0.5	1.8	<0.5	<0.5	---		
EW-1/ 124.95	5/25/90	---	---	---	8015/8020/504	3,900	260	430	64	340	0.03	
	8/1/91	17.54	107.41	0	---	---	---	---	---	---	---	
	10/27/93	---	---	---	8015/8020	350	<0.5	<0.5	<0.5	<0.5	---	
	1/13/94	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	



Table 1. Water Level Data and Ground Water Analytic Results - Chevron Service Station #9-8139, 16304 Foothill Boulevard, San Leandro, California (continued)

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	Analytic Method	TPPH(G)	-----ppb-----					EDB
							B	T	E	X		
EW-1 (cont)	4/22/94	---	---	--	8015/8020	<50 ⁴	<0.5	<0.5	<0.5	<0.5	---	
	7/29/94	---	---	--	8015/8020	97 ⁴	0.6	0.5	0.6	5.1	---	
	1/19/95	12.65	112.32	0	8015/8020	3,000 ⁴	1,800	100	350	760	---	
EW-2/ 125.79	8/1/91	18.07	107.72	0	---	---	---	---	---	---	---	
	4/22/94	---	---	--	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	10/26/94	16.69	109.10	0	---	---	---	---	---	---	---	
	1/19/95	12.20	113.59	0	8015/8020	1,700 ⁴	540	69	56	400	---	
EW-3/ 125.22	8/1/91	17.49	107.73	0	---	---	---	---	---	---	---	
	10/27/93	---	---	--	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	1/13/94	---	---	--	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	4/22/94	---	---	--	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	7/29/94	---	---	--	8015/8020	<50 ⁴	1.3	1.3	0.6	5.3	---	
	10/25/94	16.20	109.02	0	---	---	---	---	---	---	---	
	1/19/95	12.71	112.51	0	8015/8020	240 ⁴	45	0.8	22	48	---	
Rinseate	12/5/89	---	---	--	8015/8020/413/504 ⁴	<500	<0.5	<0.5	<0.5	<0.5	<0.05	
	5/24/90	---	---	--	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	9/7/90	---	---	--	8015/8020/504	<50	<0.5	<0.5	<0.5	<0.5	<0.05	
	2/20/91	---	---	--	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	5/22/91	---	---	--	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	8/22/91	---	---	--	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	11/13/91	---	---	--	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	1/30/92	---	---	--	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	4/23/92	---	---	--	8015/8020	---	---	---	---	---	---	
Trip Blank	2/20/91	---	---	--	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	5/22/91	---	---	--	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	5/22/91	---	---	--	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	11/13/91	---	---	--	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	1/30/92	---	---	--	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	4/23/92	---	---	--	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	7/27/92	---	---	--	8015/8020	<0.5	<0.5	<0.5	<0.5	<0.5	---	
	10/28/92	---	---	--	8015/8020	<0.5	<0.5	<0.5	<0.5	<0.5	---	
TE-LB	1/29/93	---	---	--	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	

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Table 1. Water Level Data and Ground Water Analytic Results - Chevron Service Station #9-8139, 16304 Foothill Boulevard, San Leandro, California (continued)

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	Analytic Method	TPPH(G)	-----ppb-----					EDB
							B	T	E	X		
TB-LB (cont)	4/30/93	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	7/14/93	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	10/27/93	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	1/13/94	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	4/22/94	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	7/29/94	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	10/25/94	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	1/19/95	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
Bailer Blank	1/29/93	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
BB	4/30/93	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	7/14/93	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	10/27/93	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	1/13/94	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	
	4/22/94	---	---	---	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---	



Table 1. Water Level Data and Ground Water Analytic Results - Chevron Service Station #9-8139, 16304 Foothill Boulevard, San Leandro, California (continued)

EXPLANATION:

- DTW = Depth to water
TOC = Top of casing elevation
GWE = Ground water elevation
msl = Measurements referenced relative to mean sea level
TPPH(G) = Total Purgeable Petroleum Hydrocarbons as Gasoline
TPH(D) = Total Petroleum Hydrocarbons as Diesel
O&G = Oil and Grease
B = Benzene
T = Toluene
E = Ethylbenzene
X = Xylenes
EDB = Ethylene Dibromide
ppb = Parts per billion
(d) = Duplicate sample
--- = Not applicable/Not measured

ANALYTIC METHODS:

- 8015 = EPA Method 8015/5030 for TPPH(G)
8015 = Modified EPA Method 8015 for TPH(D)
8020 = EPA Method 8020 for BTEX
413 = Method 413 for O&G
504 = EPA Method 504 for EDB

NOTES:

- All top of casing elevations compiled from Quarterly Ground Water Monitoring Report prepared for Chevron by Burlington Environmental Inc., December 3, 1992.
Analytic data prior to January 15, 1993 compiled from Quarterly Ground Water Monitoring Report prepared for Chevron by Burlington Environmental Inc., December 3, 1992.
Product thickness was measured on and after January 29, 1993 with an MMC flex-dip interface probe.
TPH(D) analyzed during this event. Not detected at detection limits of 1,000 ppb.
O&G analyzed during this event. Not detected at detection limit of 5,000 ppb.
Detection limit raised due to surfactants in sample.
Uncategorized compound not included in gasoline hydrocarbon concentration.
Ground water elevation level corrected for the presence of free-phase hydrocarbons using assumed density of 0.79. Compiled from the Quarterly Ground Water Monitoring Report prepared for Chevron by Burlington Environmental Inc., December 3, 1992.
Monitoring well was converted to a ground water extraction well on June 10, 1991. MW-4 was redesignated EW-3. MW-5 was redesignated EW-2.

03/23/95 11:11 510 842 8252 CHEVRON PRODUCTS WEISS ASSOCIATES 010/011



Table 2. Analytic Results for Halogenated Volatile Organic Compounds - Chevron Service Station #9-8139, 16304 Foothill Boulevard, San Leandro, California

Well ID	Date Sampled	Analytic Lab	Analytic Method	C	BR	BDM	DBM	Other HVOC's
				<-----ppb----->				
MW-2	4/30/93	GTEL	8010	77	<0.5	<0.5	<0.5	ND ¹

EXPLANATION:

C = Chloroform
 BR = Bromoform
 BDM = Bromodichloromethane
 DBM = Dibromochloromethane
 HVOC = Halogenated Volatile Organic Compound
 ND = Not detectable
 --- = Not analyzed/Not applicable
 ppb = Parts per billion

ANALYTIC METHODS:

8010 = EPA Method 8010 for HVOC's.

ANALYTIC LABORATORIES:

GTEL = Groundwater Technology Environmental Laboratories, Inc. of Concord and Torrance, California.

NOTES:

¹ Other HVOC's not detected at detection limits of 0.5 to 1.0 ppb.

Table 1. Performance Summary, Chevron Service Station #9-8139, 16304 Foothill Blvd., San Leandro, CA

DATE SAMPLED	EFFLUENT TOTALIZER READING (gallons)	TOTAL FLOW (gallons)	FLOW BETWEEN READINGS (gallons)	DAYS BETWEEN READINGS	AVERAGE FLOW (gpm)	COMMENTS
08/01/91	a --	1,450	0	0	0	
08/08/91	--	10,937	9,487	7	0.94	
08/30/91	--	31,773	20,836	22	0.66	
09/30/91	--	39,018	7,245	31	0.16	
10/29/91	--	54,838	15,820	29	0.38	
11/25/91	--	77,017	22,179	27	0.57	
12/27/91	--	103,263	26,246	32	0.57	
01/29/92	--	132,654	29,391	33	0.62	
01/31/92	--	133,529	875	2	0.30	
03/24/92	b 159,671	159,671	26,142	53	0.34	
04/29/92	169,869	169,869	10,198	36	0.20	
05/12/92	172,272	172,272	2,403	13	0.13	
06/09/92	176,660	176,660	4,388	28	0.11	
07/14/92	183,240	183,240	6,580	35	0.13	
08/11/92	c 183,240	186,152	2,912	28	0.07	
09/09/92	c 183,240	188,362	2,210	29	0.05	Effluent totalizer repaired.
10/07/92	184,862	189,984	1,622	28	0.04	
11/10/92	184,864	189,986	2	34	0.00	
12/24/92	184,864	189,986	0	44	0.00	
01/22/93	184,927	190,049	63	29	0.00	EW-3 not pumping.
02/10/93	189,700	194,822	4,773	19	0.17	
02/26/93	d 192,972	198,094	3,272	16	0.14	EW-3 pump replaced, controller repaired.
03/10/93	202,305	210,699	12,605	12	0.73	
04/05/93	244,046	252,440	41,741	26	1.11	System off upon arrival, relay contacts repaired, system restarted.
05/11/93	268,926	277,320	24,880	36	0.48	
06/17/93	307,389	315,783	38,463	37	0.72	
07/20/93	324,955	333,349	17,566	33	0.37	System off upon arrival due to clog in effluent line. Line cleared and system restarted.
08/18/93	353,614	362,008	28,659	29	0.69	System effluent routed to bypass irrigation tank. New totalizers installed in EW-1, EW-2, and EW-3.
08/25/93	361,071	369,465	7,457	7	0.74	Discharge hose in well EW-3 leaking. Hose repaired and system restarted.
09/16/93	382,175	390,569	21,104	22	0.67	
10/19/93	415,142	423,536	32,967	33	0.69	
11/11/93	439,806	448,200	24,664	23	0.74	
12/15/93	474,063	482,457	34,257	34	0.70	
01/26/94	524,975	533,369	50,912	42	0.84	
02/15/94	551,487	559,881	26,512	20	0.92	
03/21/94	598,396	606,790	46,909	34	0.96	
04/13/94	628,723	637,117	30,327	23	0.92	

-- Table 1 Continues on Next Page --

Table 1. Performance Summary, Chevron Service Station #9-8139, 16304 Foothill Blvd., San Leandro, CA

Abbreviations:

- a = Values for 8/1/91 thru 1/31/92 based on data collected by Burlington Environmental Inc., Berkeley, CA
 - b = Weiss Associates begins operation and maintenance on 3/24/92
 - c = Due to effluent flow meter malfunction, flow between readings and total flow is based on influent totalizer readings taken on 7/14/92, 8/11/92, and 9/9/92
 - d = Geraghty and Miller, Richmond, California, repairs and readings performed.
 - gpm = gallons per minute
 - = not available
-

Table 2. Summary of Analytic Results, Chevron Service Station #9-8139, 16304 Foothill Blvd.
San Leandro, California

SAMPLE POINT	DATE SAMPLED	LAB	TPH-G	B	E	T	X	
			<-----parts per billion (ppb)----->					
SYSTEM INFLUENT	08/01/91	a	SPA	120	0.6	NA	NA	NA
	08/09/91		SPA	NA	NA	NA	NA	NA
	08/30/91		SPA	140	0.8	NA	NA	NA
	09/30/91		SPA	490	0.6	NA	NA	NA
	10/29/91		SPA	46,000	<15	NA	NA	NA
	11/25/91		SPA	<50	<0.5	NA	NA	NA
	12/27/91		SPA	<50	<0.5	NA	NA	NA
	03/24/92		SPA	<50	5.6	0.5	2.9	2.6
	04/29/92		SPA	62	<0.5	<0.5	<0.5	2.0
	05/12/92		SPA	66	<0.5	<0.5	<0.5	3.2
	06/09/92		SPA	<50	<0.5	<0.5	<0.5	1.5
	07/14/92		SPA	<50	<0.5	<0.5	<0.5	3.8
	08/11/92		SPA	<50	<0.5	<0.5	<0.5	<0.5
	09/09/92		SPA	<50	<0.5	<0.5	<0.5	<0.5
	10/07/92	b	SPA	<50	<0.5	<0.5	<0.5	<0.5
	11/10/92		SPA	<50	<0.5	<0.5	<0.5	<0.5
	01/22/93		SPA	4,300	420	42	330	460
	02/10/93		SPA	1,500	160	11	74	130
	03/10/93		SPA	<50	0.9	<0.5	0.6	<1.5
	04/05/93		SPA	3,200	340	58	300	320
	05/11/93		SPA	96	4	1	6.2	11
	06/17/93		SPA	<50	<0.5	<0.5	1.6	<1.5
	07/20/93		SPA	<50	10	<0.5	0.8	2.4
	08/18/93		SPA	<50	<0.5	<0.5	<0.5	<0.5
	09/16/93		SPA	<50	<0.5	<0.5	<0.5	<0.5
	10/19/93		SPA	<50	<0.5	<0.5	<0.5	<0.5
	11/11/93		SPA	<50	<0.5	<0.5	<0.5	<0.5
	12/15/93		SPA	<50	<0.5	<0.5	<0.5	<0.5
	01/26/94		SPA	<50	<0.5	<0.5	<0.5	<0.5
	02/15/94		SPA	<50	<0.5	<0.5	<0.5	<0.5
03/21/94		SPA	<50	<0.5	<0.5	<0.5	<0.5	
04/13/94		SPA	<50	<0.5	<0.5	<0.5	<0.5	
OIL/WATER SEPARATOR EFFLUENT	08/01/91		SPA	NA	NA	NA	NA	NA
	08/09/91		SPA	NA	NA	NA	NA	NA
	08/30/91		SPA	NA	NA	NA	NA	NA
	09/30/91		SPA	950	<0.5	NA	NA	NA
	10/29/91		SPA	810	1.8	NA	NA	NA
	11/25/91		SPA	<50	0.7	NA	NA	NA
	12/27/91		SPA	<50	<0.5	NA	NA	NA
	03/24/92		SPA	NA	NA	NA	NA	NA
SYSTEM MIDPOINT/ FIRST CARBON EFFLUENT	08/01/91		SPA	97	<0.5	NA	NA	NA
	08/09/91		SPA	NA	NA	NA	NA	NA
	08/30/91		SPA	300	0.7	NA	NA	NA
	09/30/91		SPA	<50	<0.5	NA	NA	NA
	10/29/91		SPA	<50	<0.5	NA	NA	NA
	11/25/91		SPA	<50	<0.5	NA	NA	NA

Table 2. Summary of Analytic Results, Chevron Service Station #9-8139, 16304 Foothill Blvd.
San Leandro, California
(continued)

SAMPLE POINT	DATE SAMPLED	LAB	TPH-G	B	E	T	X	pH	COD mg/l	TSS mg/l
			<-----parts per billion (ppb)----->							
SYSTEM MIDPOINT (continued)	12/27/91	SPA	<50	<0.5	NA	NA	NA			
	03/24/92	SPA	<50	<0.5	<0.5	<0.5	<0.5			
	04/29/92	SPA	<50	<0.5	<0.5	<0.5	<0.5			
	05/12/92	SPA	<50	<0.5	<0.5	<0.5	<0.5			
	06/09/92	SPA	<50	<0.5	<0.5	<0.5	<0.5			
	07/14/92	SPA	<50	<0.5	<0.5	<0.5	<0.5			
	08/11/92	SPA	<50	<0.5	<0.5	<0.5	<0.5			
	09/09/92	SPA	<50	<0.5	<0.5	<0.5	<0.5			
	10/07/92	SPA	<50	<0.5	<0.5	<0.5	<0.5			
	11/10/92	SPA	<50	<0.5	<0.5	<0.5	<0.5			
	01/22/93	SPA	<50	<0.5	<0.5	<0.5	<0.5			
	02/10/93	SPA	<50	<0.5	<0.5	<0.5	<0.5			
	03/10/93	SPA	<50	<0.5	<0.5	<0.5	<0.5	<1.5		
	04/05/93	SPA	<50	<0.5	<0.5	<0.5	<0.5	<1.5		
	05/11/93	SPA	<50	<0.5	<0.5	<0.5	<0.5	<1.5		
	06/17/93	SPA	<50	<0.5	<0.5	<0.5	<0.5	<1.5		
	07/20/93	SPA	<50	<0.5	<0.5	<0.5	<0.5	<1.5		
	08/18/93	SPA	<50	<0.5	<0.5	<0.5	<0.5	<1.5		
	09/16/93	SPA	<50	<0.5	<0.5	<0.5	<0.5	<1.5		
	10/19/93	SPA	<50	<0.5	<0.5	<0.5	<0.5	<1.5		
	11/11/93	SPA	<50	<0.5	<0.5	<0.5	<0.5	<1.5		
	12/15/93	SPA	<50	<0.5	<0.5	<0.5	<0.5	<1.5		
	01/26/94	SPA	<50	<0.5	<0.5	<0.5	<0.5	<1.5		
	02/15/94	SPA	<50	<0.5	<0.5	<0.5	<0.5	<1.5		
	03/21/94	SPA	<50	<0.5	<0.5	<0.5	<0.5	<1.5		
	04/13/94	SPA	<50	<0.5	<0.5	<0.5	<0.5	<0.5		
SYSTEM EFFLUENT/ SECOND CARBON EFFLUENT	08/01/91	SPA	NA	NA	NA	NA	NA	5.4	NA	NA
	08/09/91	SPA	<50	<0.5	NA	NA	NA	8.2	NA	NA
	08/30/91	SPA	<50	<0.5	NA	NA	NA	6.5	NA	NA
	09/30/91	SPA	<50	<0.5	NA	NA	NA	6.1	NA	NA
	10/29/91	SPA	<50	<0.5	NA	NA	NA	5.8	11	<4.0
	11/25/91	SPA	<50	<0.5	NA	NA	NA	7.2	16	<10
	12/27/91	SPA	<50	<0.5	NA	NA	NA	7.8	<20	<4.0
	03/24/92	SPA/CEC	<50	<0.5	<0.5	<0.5	<0.5	7.1	<5.0	<4.0
	04/29/92	SPA/CEC	<50	<0.5	<0.5	<0.5	<0.5	7.2	13	<4.0
	05/12/92	SPA/CEC	<50	<0.5	<0.5	<0.5	<0.5	7.5	<5.0	<4.0
	06/09/92	SPA/CEC	<50	<0.5	<0.5	<0.5	<0.5	7.6	10	NA
	07/14/92	SPA/CEC	<50	<0.5	<0.5	<0.5	<0.5	7.4	13	<4.0
	08/11/92	SPA/CEC	<50	<0.5	<0.5	<0.5	<0.5	7.9	280	<4.0
	09/09/92	SPA/CEC	<50	<0.5	<0.5	<0.5	<0.5	8.4	<5.0	<4.0
	10/07/92	SPA/CEC	<50	<0.5	<0.5	<0.5	<0.5	7.8	<5.0	<4.0
	11/10/92	SPA/CEC	<50	<0.5	<0.5	<0.5	<0.5	8.0	9.0	<4.0
	01/22/93	SPA/GTEL	<50	<0.5	<0.5	<0.5	<0.5	8.0	<5.0	<4.0
	02/10/93	SPA/GTEL	<50	<0.5	<0.5	<0.5	<0.5	6.7	<5.0	<4.0
	03/10/93	SPA/GTEL	<50	<0.5	<0.5	<0.5	<0.5	6.7	5.0	<4.0
	04/05/93	SPA ^c	<50	<0.5	<0.5	<0.5	<0.5	<1.5	NA	NA
05/11/93	SPA	<50	<0.5	<0.5	<0.5	<0.5	<1.5	7.4	<20.0	<4.0
06/17/93	SPA	<50	<0.5	<0.5	<0.5	<0.5	<1.5	7.2	NA	NA

Table 2. Summary of Analytic Results, Chevron Service Station #9-8139, 16304 Foothill Blvd.
San Leandro, California
(continued)

SAMPLE POINT	DATE SAMPLED	LAB	TPH-G	B	E	T	X	pH	COD mg/l	TSS mg/l
			<-----parts per billion (ppb)----->							
SYSTEM EFFLUENT/ SECOND CARBON EFFLUENT	07/20/93	SPA/SA	<50	<0.5	<0.5	<0.5	<1.5	7.5	<20.0	<4.0
	08/18/93	SPA	<50	<0.5	<0.5	<0.5	<1.5	NA	NA	NA
	09/16/93	SPA	<50	<0.5	<0.5	<0.5	<1.5	NA	NA	NA
	10/19/93	SPA	<50	<0.5	<0.5	<0.5	<1.5	7.6	22.0	<4
	11/11/93	SPA	<50	<0.5	<0.5	<0.5	<1.5	NA	NA	NA
	12/15/93	SPA	<50	<0.5	<0.5	<0.5	<1.5	NA	NA	NA
	01/26/94	SPA	<50	<0.5	<0.5	<0.5	<1.5	7.9	NA	NA
	02/15/94	SPA	<50	<0.5	<0.5	<0.5	<1.5	NA	NA	NA
	03/21/94	SPA	<50	<0.5	<0.5	<0.5	<1.5	NA	NA	NA
	04/13/94	SPA	<50	<0.5	<0.5	<0.5	<0.5	8.24	ND	ND

a = Values for 8/1/91 through 12/27/91 based on data collected by Burlington Environmental Inc., Berkeley, California

b = Field pH measurements begin

c = Sampling frequency for pH, COD, and TSS changed to quarterly, as approved on 4/5/93.

TPH-G = Total petroleum hydrocarbons as gasoline by Modified EPA Method 8015

B = Benzene by EPA Method 8020

E = Ethylbenzene by EPA Method 8020

T = Toluene by EPA Method 8020

X = Xylenes by EPA Method 8020

COD = Chemical oxygen demand by EPA Method 410.4

TSS = Total suspended solids by EPA Method 160.1

<n = Not detected at detection limit of n ppb

CEC = Clayton Environmental Consultants, Pleasanton, California

GTEL = GTEL Environmental Laboratories, INC., Concord, California

SPA = Superior Precision Analytical Laboratory, Martinez, California

SA = Sequoia Analytical, Redwood City, California

NA = Not Analyzed

mg/l = milligrams per liter

APPENDIX C

BORING LOGS

LOG OF EXPLORATORY BORING

PROJECT NUMBER 987158

BORING NO. MW-1

PROJECT NAME CHEVRON SERVICE STATION NO. 9-8139

PAGE 1 OF 3

BY K. Elliot DATE 11/29/89

SURFACE ELEV. 127.28 ft.

PID	RECOVERY	BLOW CT.	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-GRAPHIC COLUMN	DESCRIPTION	WELL DETAIL
(ppm)	(in/in)	(blws/6")						
							<p style="text-align: center;">ASPHALT AND GRAVEL FILL</p> <p>SANDY CLAY (CL), very dark gray (5YR, 3/1); 70-80% low plasticity fines; 15-25% coarse sand; trace fine to coarse gravel; occasional roots; stiff; damp.</p>	
9.1	18/18	5 7 14		5				
8.2	18/18	4 8 15	12/4/89	10			@ 10': dark grayish brown (10YR, 4/3); trace fine sand.	
9.1	18/18	5 11 18	11/29/89	15			@ 15': dark yellowish brown (10 YR, 4/4); 5-10% fine sand; very stiff.	
				20				

REMARKS

Boring drilled using eight-inch-diameter hollow-stem augers. Soil samples were collected using a two-inch-diameter modified California split-spoon sampler. The boring was sealed with neat-cement grout from 30 to 41.5 feet, and converted to a two-inch-diameter monitor well. See attached Well Detail.

David C. [Signature] RG#4603

LOG OF EXPLORATORY BORING

PROJECT NUMBER 987158

BORING NO. MW-1

PROJECT NAME CHEVRON SERVICE STATION NO. 9-8139

PAGE 2 OF 3

BY K. Elliot DATE 11/29/89

SURFACE ELEV. 127.28 ft.

PID (ppm)	RECOVERY (in/in)	BLOW CT. (blws/6")	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-GRAPHIC COLUMN	DESCRIPTION	WELL DETAIL
7.3	18/18	4 8 13					SANDY CLAY (CL), dark yellowish brown (10 YR, 4/4); 70-80% medium plasticity fines; 20-30% fine sand; stiff; damp.	
3.5	17/18	6 10 25		25			@ 25-32': 1/2" to 3/4" diameter caliche clasts.	
5.2	17/18	6 9 15		30			@ 29-30': water-bearing zone.	
6.0	16/18	6 11 23		35			@ 35-36': yellowish brown (10 YR, 5/4); 80-90% low plasticity fines; 10-20% fine sand; very stiff; damp.	
				40				

REMARKS

Boring drilled using eight-inch-diameter hollow-stem augers. Soil samples were collected using a two-inch-diameter modified California split-spoon sampler. The boring was sealed with neat-cement grout from 30 to 41.5 feet, and converted to a two-inch-diameter monitor well. See attached Well Detail.

LOG OF EXPLORATORY BORING

PROJECT NUMBER 987158

BORING NO. MW-1

PROJECT NAME CHEVRON SERVICE STATION NO. 9-8139

PAGE 3 OF 3

BY K. Elliot DATE 11/29/89

SURFACE ELEV. 127.28 ft.

PID <small>(ppm)</small>	RECOVERY <small>(in/in)</small>	BLOW CT. <small>(blws/6")</small>	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-GRAPHIC COLUMN	DESCRIPTION	WELL DETAIL
4.6	16/18	5 6 11		45		SANDY CLAY (CL) (continued).	BORING TERMINATED AT 41.5 FEET.	
				50				
				55				
				60				

REMARKS

Boring drilled using eight-inch-diameter hollow-stem augers. Soil samples were collected using a two-inch-diameter modified California split-spoon sampler. The boring was sealed with neat-cement grout from 30 to 41.5 feet, and converted to a two-inch-diameter monitor well. See attached Well Detail.



A Burlington
Environmental Inc.
Company

CHEMICAL PROCESSORS INC.
950 "B" Gorman Street
Berkeley, CA 94710

WELL DETAILS

PROJECT NUMBER 987158

BORING / WELL NO. MW-1

PROJECT NAME SS No. 9-8139

TOP OF CASING ELEV. 127.09'

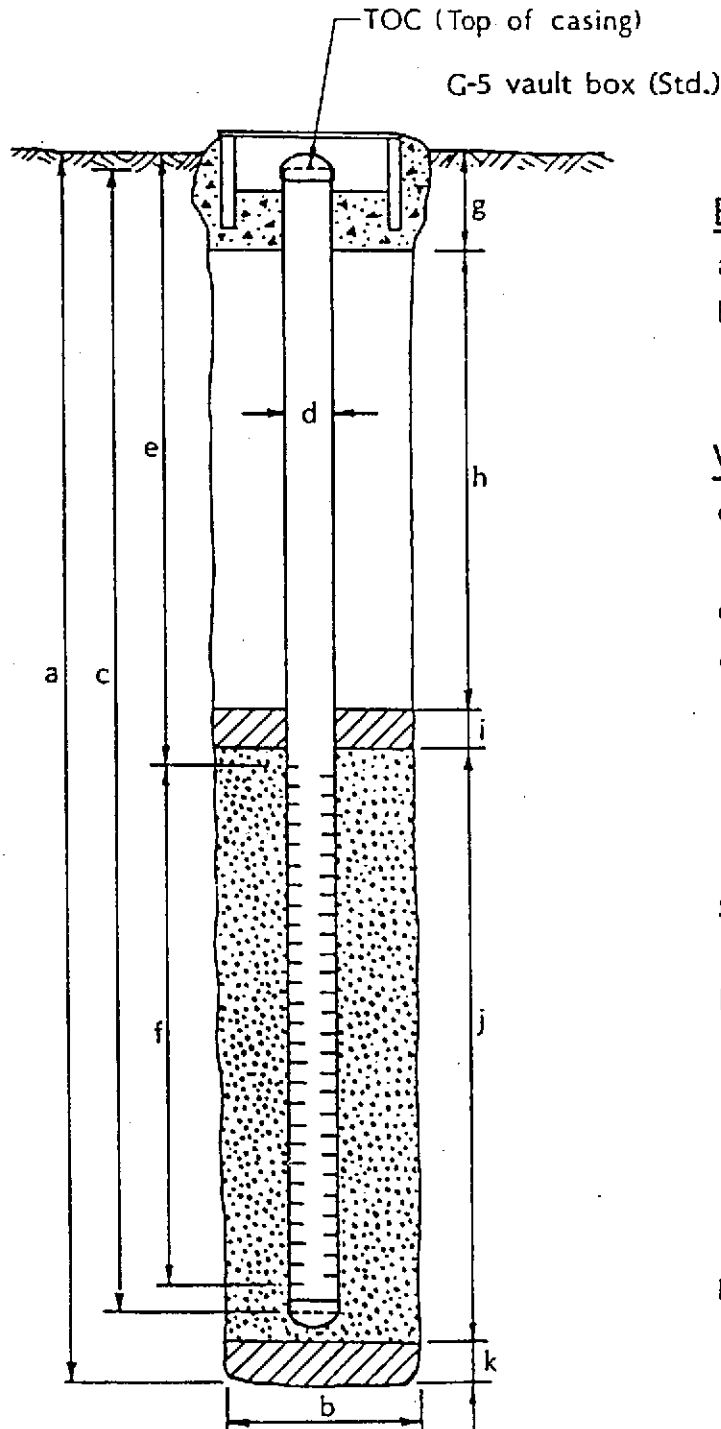
LOCATION 16304 Foothill Blvd.

GROUND SURFACE ELEV. 127.28'

WELL PERMIT NO. 89676

DATUM MSL

INSTALLATION DATE 12/1/89



EXPLORATORY BORING

- a. Total depth 41.5 ft.
- b. Diameter 8 in.
- Drilling method Hollow-stem Auger

WELL CONSTRUCTION

- c. Total casing length 30 ft.
Material Schedule 40 PVC
- d. Diameter 2 in.
- e. Depth to top perforations 25 ft.
- f. Perforated length 5 ft.
Perforated interval from 25 to 30 ft.
Perforation type Machine Slot
Perforation size 0.020"
- g. Surface seal 1 ft.
Seal material Concrete
- h. Backfill 19.3 ft.
Backfill material Neat Cement
- i. Seal 1.5 ft.
Seal material Bentonite
- j. Gravel pack 8.2 ft.
Pack material #3 Sand
- k. Bottom seal 11.5 ft.
Seal material Neat Cement

LOG OF EXPLORATORY BORING

PROJECT NUMBER 987158

BORING NO. MW-2

PROJECT NAME CHEVRON SERVICE STATION NO. 9-8139

PAGE 1 OF 2

BY K. Elliot DATE 11/29/89

SURFACE ELEV. 126.37 ft.

PID (ppm)	RECOVERY (in/in)	BLOW CT. (blws/6")	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-GRAPHIC COLUMN	DESCRIPTION	WELL DETAIL
							<p>ASPHALT AND DEBRIS FILL</p> <p>SANDY CLAY (CL), brown (10YR, 4/3); 75-85% low plasticity fines; 10-20% fine to coarse sand; trace fine gravel; angular, light colored clasts; stiff; damp.</p> <p>@ 9': clay pipe fragments.</p> <p>CLAYEY SAND (SC), yellowish brown (10YR, 5/4); 15-25% low plasticity fines; 70-80% fine to medium sand; trace fine gravel; stiff; damp.</p> <p>SANDY CLAY (CL), yellowish brown (10YR, 5/4); 75-85% low plasticity fines; 15-25% fine to medium sand; stiff; damp.</p>	
58.3	18/18	5 10 12		5				
34.1	18/18	4 8 11	12/4/89	10				
20.5	18/18	5 10 15		15				
				20				

REMARKS

Boring was drilled using eight-inch-diameter hollow-stem augers. Soil samples were collected using a two-inch-diameter modified California modified split-spoon sampler. The boring was converted to a two-inch-diameter monitor well. See attached Well Detail.

David C Tylet RG #4603

LOG OF EXPLORATORY BORING

PROJECT NUMBER 987158

BORING NO. MW-2

PROJECT NAME CHEVRON SERVICE STATION NO. 9-8139

PAGE 2 OF 2

BY K. Elliot DATE 11/29/89

SURFACE ELEV. 126.37 ft.

PID	RECOVERY	BLOW CT.	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-GRAPHIC COLUMN	DESCRIPTION	WELL DETAIL
(ppm)	(in/in)	(blws/6")						
19.2	18/18	5 9 14					<p>SANDY CLAY (CL) (continued). @ 20': 3/4" diameter caliche clasts.</p>	
19.0	18/18	5 10 22	11/29/89 ▽	25				
24.5	16/18	4 18 29		30				
				35			BORING TERMINATED AT 31.5 FEET.	
				40				

REMARKS

Boring was drilled using eight-inch-diameter hollow-stem augers. Soil samples were collected using a two-inch-diameter modified California split-spoon sampler. The boring was converted to a two-inch-diameter monitor well. See attached Well Detail.



CHEMICAL PROCESSORS INC.
950 "B" Canal Street
Berkeley, CA 94710

WELL DETAILS

PROJECT NUMBER 987158

BORING / WELL NO. MW-2

PROJECT NAME SS No. 9-8139

TOP OF CASING ELEV. 125.98'

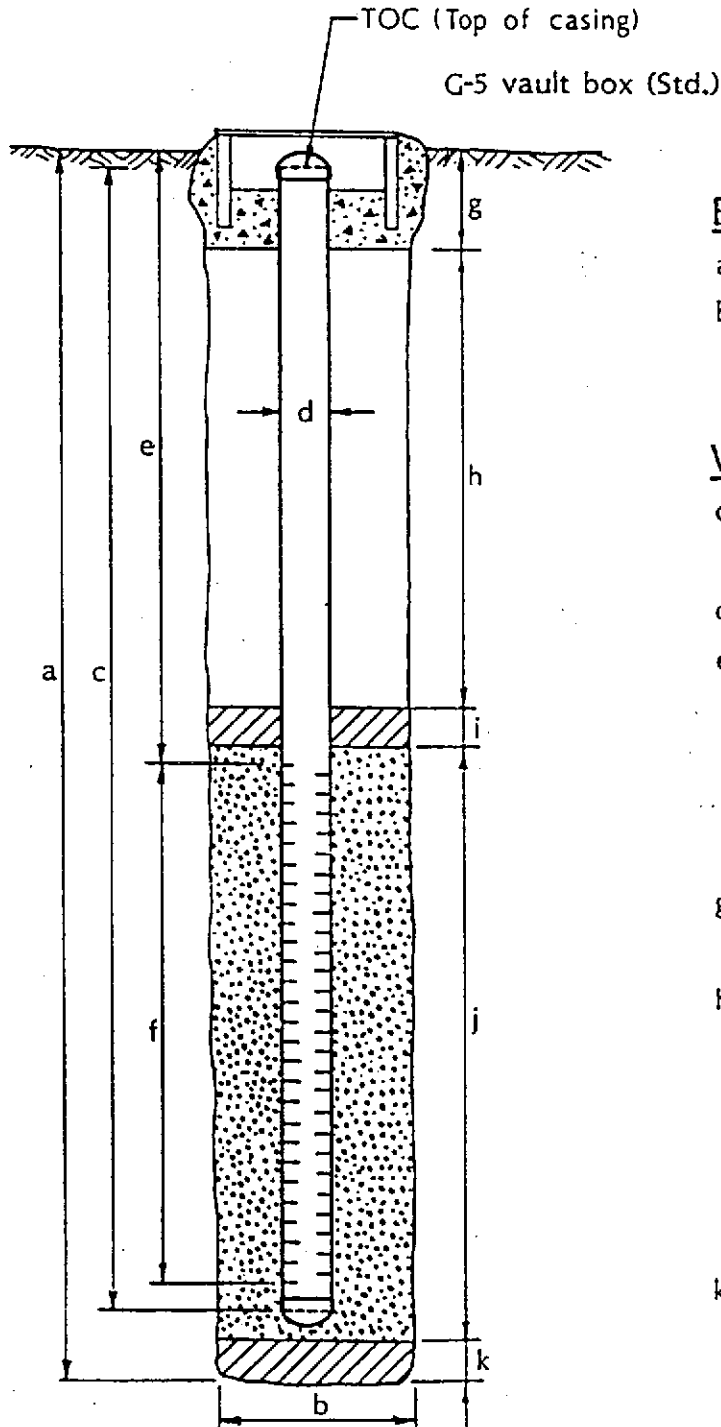
LOCATION 16304 Foothill Blvd.

GROUND SURFACE ELEV. 126.37'

WELL PERMIT NO. 89676

DATUM MSL

INSTALLATION DATE 11/30/89



EXPLORATORY BORING

- a. Total depth 31.5 ft.
- b. Diameter 8 in.
- Drilling method Hollow-stem Auger

WELL CONSTRUCTION

- c. Total casing length 30 ft.
Material Schedule 40 PVC
- d. Diameter 2 in.
- e. Depth to top perforations 25 ft.
- f. Perforated length 5 ft.
Perforated interval from 25 to 30 ft.
Perforation type Machine Slot
Perforation size 0.020"
- g. Surface seal 1.5 ft.
Seal material Concrete
- h. Backfill 20 ft.
Backfill material Neat Cement
- i. Seal 1.5 ft.
Seal material Bentonite
- j. Gravel pack 8.5 ft.
Pack material #3 Sand
- k. Bottom seal N/A ft.
Seal material N/A

LOG OF EXPLORATORY BORING

PROJECT NUMBER 987158

BORING NO. MW-3

PROJECT NAME CHEVRON SERVICE STATION NO. 9-8139

PAGE 1 OF 2

BY K. Elliot DATE 12/1/89

SURFACE ELEV. 127.04 ft.

PID	RECOVERY	BLOW CT.	GROUND WATER LEVELS	DEPTH IN FT.	LITHO-GRAPHIC COLUMN	DESCRIPTION	WELL DETAIL
(ppm)	(in/in)	(blws/6")					
68.4	17/18	9 12 19		5	ASPHALT AND FILL		
					SANDY CLAY (CL), yellowish brown (10YR, 5/4); 60-75% low plasticity fines; 20-30% fine sand; 5-10% coarse sand; very stiff; damp.		
193	12/18	11 11 15		10	CLAYEY SAND (SC), olive brown (2.5Y, 4/4); 15-35% low plasticity fines; 60-75% fine to coarse sand; 5-10% fine gravel; angular clasts, dark iron-oxide staining; very stiff; damp.		
229	18/18	8 16 25	12/4/89	15	GRAVELLY SAND (SW), light olive brown (2.5Y, 5/6); 15-25% low plasticity fines; 40-50% fine to coarse sand; 25-35% fine to coarse gravel, 2-3"-thick lenses of coarse gravel; hard; damp; slight hydrocarbon odor.		
	12/12	27	▽				
	18/18	refusal 11 25 30					
3340	18/18	6 7				@ 19': moderate hydrocarbon odor.	

REMARKS

Boring was drilled using eight-inch-diameter hollow-stem augers. Soil samples were collected using a two-inch-diameter modified California split-spoon sampler. The boring was sealed with bentonite from 25.5 to 30 feet, and converted to a two-inch-diameter monitor well. See attached Well Detail.

David C. T. RGT #4603

LOG OF EXPLORATORY BORING

PROJECT NUMBER 987158

BORING NO. MW-3

PROJECT NAME CHEVRON SERVICE STATION NO. 9-8139

PAGE 2 OF 2

BY K. Elliot DATE 12/1/89

SURFACE ELEV. 127.04 ft.

PID <small>(ppm)</small>	RECOVERY <small>(in/in)</small>	BLOW CT. <small>(blws/6")</small>	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-GRAPHIC COLUMN	DESCRIPTION	WELL DETAIL
117	18/18	17 5 13 18					<p>SANDY CLAY (CL), light olive brown (2.5Y, 5/6); 55-65% low plasticity fines; 25-35% fine to medium sand; trace coarse sand; trace coarse gravel; green mottling; very stiff; damp.</p>	
			12/1/89				<p>@ 24': auger chatter.</p>	
37.8	18/18	5 5 9		25			<p>GRAVELLY CLAY (CL), dark yellowish brown (10YR, 4/4); 65-80% nonplastic fines; 10-15% coarse sand; 10-20% fine to coarse gravel; damp.</p> <p>SANDY CLAY (CL), yellowish brown (10YR, 5/4); 65-80% medium plasticity fines; 15-25% fine to coarse sand; 5-10% fine gravel; stiff; damp.</p>	
71.8	17/18	7 12 22		30			<p>@ 28.5-30': 70-80% medium plasticity fines; 20-30% fine to coarse sand.</p> <p>BORING TERMINATED AT 30 FEET.</p>	
				35				
				40				

REMARKS

Boring was drilled using eight-inch-diameter hollow-stem augers. Soil samples were collected using a two-inch-diameter modified California split-spoon sampler. The boring was sealed with bentonite from 25.5 to 30 feet, and converted to a two-inch-diameter monitor well. See attached Well Detail.



WELL DETAILS

PROJECT NUMBER 987158

BORING / WELL NO. MW-3

PROJECT NAME SS #9-8139

TOP OF CASING ELEV. 126.84'

LOCATION 16304 Foothill Blvd.

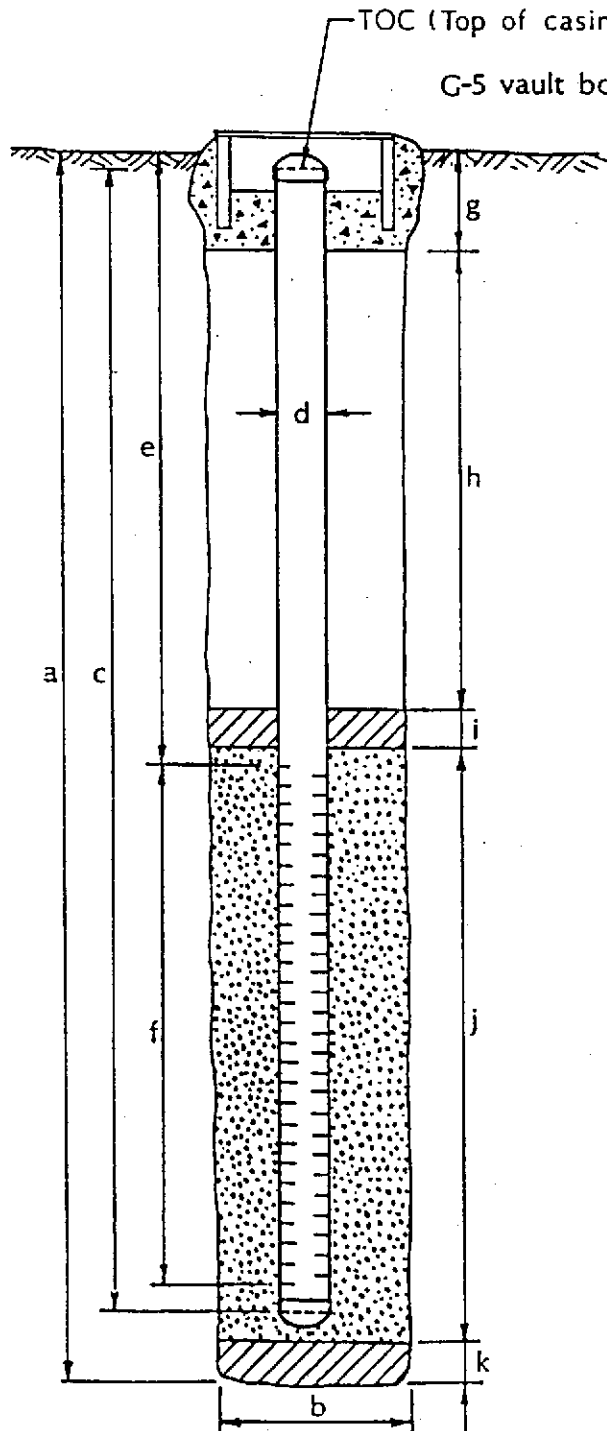
GROUND SURFACE ELEV. 127.04'

WELL PERMIT NO. 89676

DATUM MSL

INSTALLATION DATE 12/1/89

CHEMICAL PROCESSORS INC.
950 "B" Geman Street
Berkeley, CA 94710



EXPLORATORY BORING

- a. Total depth 30 ft.
- b. Diameter 8 in.
- Drilling method Hollow-stem Auger

WELL CONSTRUCTION

- c. Total casing length 25.5 ft.
Material Schedule 40 PVC
- d. Diameter 2 in.
- e. Depth to top perforations 15.5 ft.
- f. Perforated length 10 ft.
Perforated interval from 15.5 to 25.5 ft.
Perforation type Machine Slot
Perforation size 0.020"
- g. Surface seal 1 ft.
Seal material Concrete
- h. Backfill 9.5 ft.
Backfill material Neat Cement
- i. Seal 2 ft.
Seal material Bentonite
- j. Gravel pack 13 ft.
Pack material #3 Sand
- k. Bottom seal 4.5 ft.
Seal material Bentonite

Form prepared by _____

LOG OF EXPLORATORY BORING

PROJECT NUMBER 987158

BORING NO. MW-4

PROJECT NAME CHEVRON SERVICE STATION NO. 9-8139

PAGE 1 OF 2

BY K. Elliot DATE 11/30/89

SURFACE ELEV. 125.43 ft.

PID	RECOVERY	BLOW CT.	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-GRAPHIC COLUMN	DESCRIPTION	WELL DETAIL
(ppm)	(in/in)	(blws/6")						
				5			<p>ASPHALT AND FILL</p> <p>SANDY CLAY (CL), very dark grayish brown (10YR, 3/2); 75-85% low plasticity fines; 10-20% coarse sand; trace fine gravel; angular clasts; very stiff; damp.</p> <p>@ 5.5': dark yellowish brown (10 YR, 4/6); 60-70% low plasticity fines; 20-30% fine sand; trace coarse sand; trace angular gravel; very stiff; damp.</p>	
43.8	16/18	7 13 20		10			<p>@ 10': decreasing sand content.</p>	
51.8	18/18	4 5 9		15			<p>@ 15': green mottling; moderate hydrocarbon odor.</p>	
1600	18/18	6 8 17	12/4/89 ▽	20				
			11/30/89 ▽					

REMARKS

Boring was drilled using eight-inch-diameter hollow-stem augers. Soil samples were collected using a two-inch-diameter modified California split-spoon sampler. The boring was sealed with neat cement grout from 22.75 to 26.5 feet, and converted to a two-inch-diameter monitor well. See attached Well Detail.

David C. Zilt RG#4603

LOG OF EXPLORATORY BORING

PROJECT NUMBER 987158

BORING NO. MW-4

PROJECT NAME CHEVRON SERVICE STATION NO. 9-8139

PAGE 2 OF 2

BY K. Elliot DATE 11/30/89

SURFACE ELEV. 125.43 ft.

PID <small>(ppm)</small>	RECOVERY <small>(in/in)</small>	BLOW CT. <small>(blws/6")</small>	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-GRAPHIC COLUMN	DESCRIPTION	WELL DETAIL
74.9	14/18	5 5 11					SANDY CLAY (CL) (continued). @ 20': damp; no hydrocarbon odor.	
103	12/18	4 5 8		25			@ 25': 40-50% fine to medium sand; trace angular gravel. BOTTOM OF BORING AT 26.5 FEET.	
				30				
				35				
				40				

REMARKS

Boring was drilled using eight-inch-diameter hollow-stem augers. Soil samples were collected using a two-inch-diameter modified California split-spoon sampler. The boring was sealed with neat cement grout from 22.75 to 26.5 feet, and converted to a two-inch-diameter monitor well. See attached Well Detail.



A Burlington
Environmental Inc
Company

CHEMICAL PROCESSORS, INC.
950 "B" Garman Street
Berkeley, CA 94710

WELL DETAILS

PROJECT NUMBER 987158

BORING / WELL NO. MW-4

PROJECT NAME SS #9-8139

TOP OF CASING ELEV. 125.22'

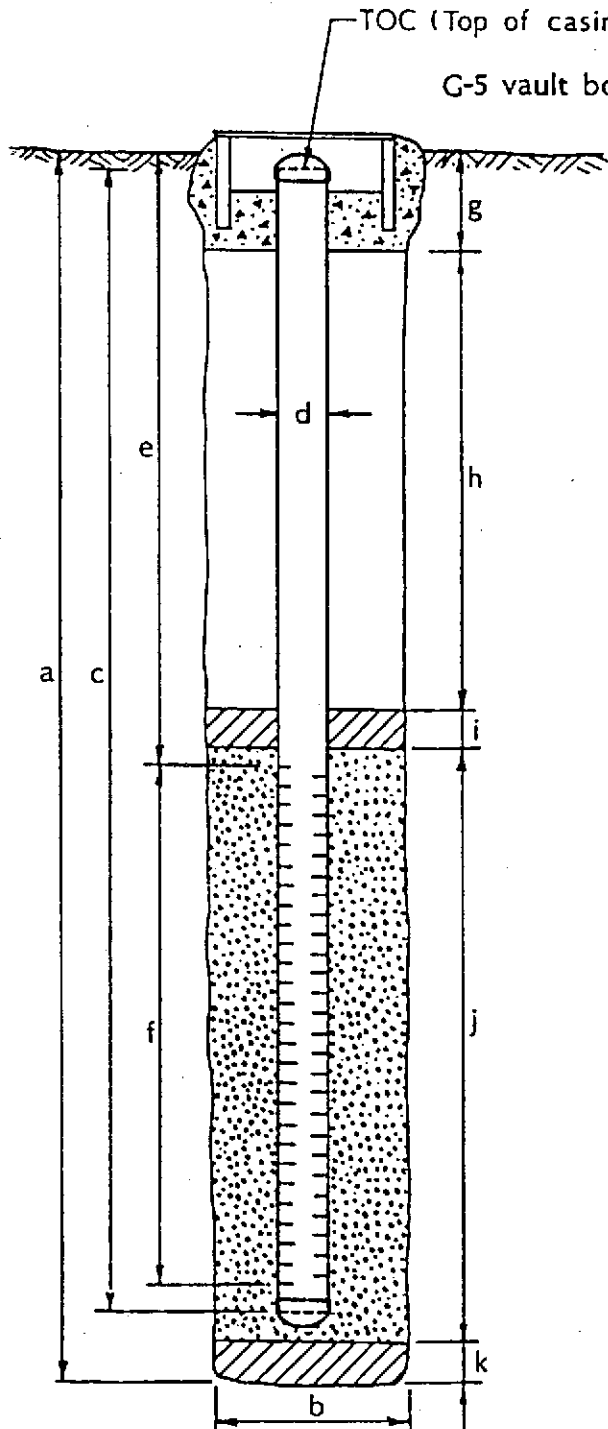
LOCATION 16304 Foothill Blvd.

GROUND SURFACE ELEV. 125.43'

WELL PERMIT NO. 89676

DATUM MSL

INSTALLATION DATE 12/1/89



EXPLORATORY BORING

- a. Total depth 26.5 ft.
- b. Diameter 8 in.
- Drilling method Hollow-stem Auger

WELL CONSTRUCTION

- c. Total casing length 22 ft.
Material Schedule 40 PVC
- d. Diameter 2 in.
- e. Depth to top perforations 12 ft.
- f. Perforated length 10 ft.
Perforated interval from 12 to 22 ft.
Perforation type Machine Slot
Perforation size 0.020"
- g. Surface seal 1 ft.
Seal material Concrete
- h. Backfill 9 ft.
Backfill material Neat Cement
- i. Seal 1 ft.
Seal material Bentonite
- j. Gravel pack 11.75 ft.
Pack material #3 Sand
- k. Bottom seal 3.75 ft.
Seal material Neat Cement

LOG OF EXPLORATORY BORING

PROJECT NUMBER 1158

BORING NO. MW-5

PROJECT NAME CHEVRON SERVICE STATION NO. 9-8139

PAGE 1 OF 2

BY D. Maupin DATE 5/17/90

SURFACE ELEV. 126.12 ft.

PID (ppm)	POCHET PENETRO- METER ton/sq ft	BLOW CT. (blws/6")	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO- GRAPHIC COLUMN	DESCRIPTION	WELL DETAIL
						ASPHALT. FILL.		
10.2	3.0	6 13 24		5		SANDY CLAY (CL), yellowish brown (10YR, 5/8); 50-60% moderate to high plasticity fines; 40-50% fine to coarse sand; trace very fine gravel; very stiff; damp; no product odor.		
15.5		5 8 11		10		@ 10': light olive brown (2.5Y, 5/4); 60-70% high plasticity fines; 30-40% fine to coarse sand; trace fine gravel; very stiff; damp; no product odor.		
4622		6 11 23		15		CLAYEY SAND (SC) , dark yellowish brown (10YR, 4/6); 30-40% moderate to high plasticity fines; 40-50% fine to coarse sand; 10-20% fine gravel; dense; damp; strong product odor.		
3418	2.7	NA	▽	5-17-90		@ 17': 40-50% moderate to high plasticity fines; 50-60% fine to coarse sand; medium dense; strong product odor.		
	2.5	NA	▽	5-17-90		@ 17.5-18.5': gravelly sand lense; 50-60% fine to coarse sand; 20-30% fine gravel. @ 18': olive gray (5Y, 4/2); medium dense; wet; strong product odor. @ 19.5': gray coated worm holes, dominantly vertical.		

REMARKS

Boring was drilled to 28.5' using 6.5" diameter hollow-stem augers. Soil samples were collected at 5' intervals with a 2" diameter modified California split-spoon sampler for the upper 16.5' of the boring. From 16.5' to 30' soil samples were collected using a 2.5" diameter Moss continuous sampler. A groundwater monitoring well was installed using 2" diameter PVC casing (see attached well detail).

David C. Tippet RG#4603 Exp: 6/91

LOG OF EXPLORATORY BORING

PROJECT NUMBER 1158

BORING NO. MW-5

PROJECT NAME CHEVRON SERVICE STATION NO. 9-8139

PAGE 2 OF 2

BY D. Maupin DATE 5/17/90

SURFACE ELEV. 126.12 ft.

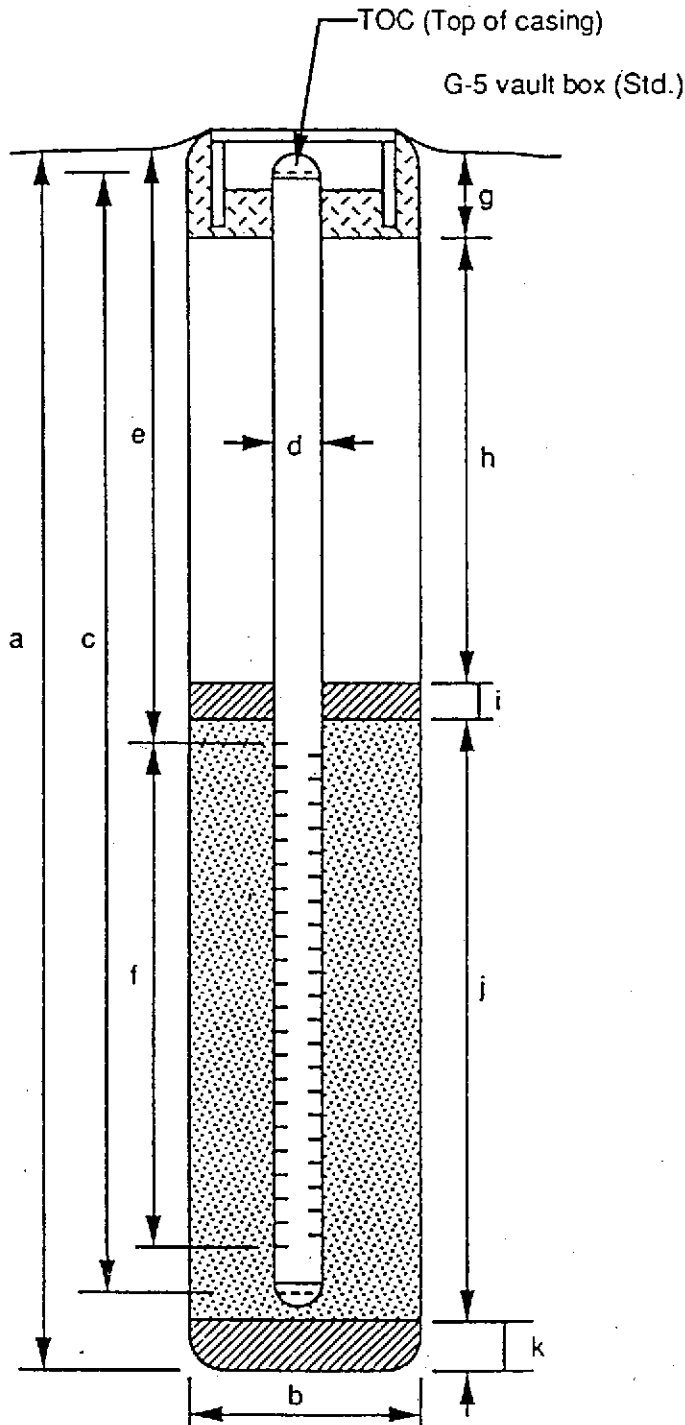
PID (ppm)	POCHET PENETROMETER ton/sq ft	BLOW CT. (blws/6")	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-GRAPHIC COLUMN	DESCRIPTION	WELL DETAIL
37.2	2.5	NA					<p>CLAYEY SAND (SC), continued. @ 20': yellowish brown (10YR, 5/6); 35-45% moderate to high plasticity fines; 40-50% fine to coarse sand; 10-15% fine to medium gravel; Mn-oxide staining in soil; medium dense; damp to moist; no product odor. @ 21.5': damp to moist, no product odor.</p>	
40.4		NA						
40.7	1.5	NA		25				
	3.8	NA					<p>SANDY CLAY (CL), dark yellowish brown (10YR, 4/4); 65-75% high plasticity fines; 25-35% fine to coarse sand; trace fine gravel, subrounded to rounded; very stiff; moist; no product odor. @ 28.5': hard; no product odor.</p>	
22.1	>4.0	NA		30				
				35			<p>BORING TERMINATED AT 28.5' AND SAMPLED TO 30'.</p>	
				40				

REMARKS

Boring was drilled to 28.5' using 6.5" diameter hollow-stem augers. Soil samples were collected at 5' intervals with a 2" diameter modified California split-spoon sampler for the upper 16.5' of the boring. From 16.5' to 30' soil samples were collected using a 2.5" diameter Moss continuous sampler. A groundwater monitoring well was installed using 2" diameter PVC casing (see attached well detail).

WELL DETAILS

PROJECT NUMBER 1158 BORING / WELL NO. MW-5
 PROJECT NAME Chevron SS No. 9-8139 TOP OF CASING ELEV. 125.85'
 LOCATION 16304 Foothill Boulevard, San Leandro GROUND SURFACE ELEV. 126.12'
 WELL PERMIT NO. 90281 DATUM MSL
 INSTALLATION DATE 5-17-90



EXPLORATORY BORING

a. Total depth 30 ft.
 b. Diameter 6.5 in.
 Drilling method Hollow-Stem Auger

WELL CONSTRUCTION

c. Total casing length 23.9 ft.
 Material Schedule 40 PVC
 d. Diameter 2 in.
 e. Depth to top perforations 14.3 ft.
 f. Perforated length 9.4 ft.
 Perforated interval from 14.3 to 23.7 ft.
 Perforation type Machine Slotted PVC
 Perforation size 0.020 inch
 g. Surface seal 1.5 ft.
 Material Concrete
 h. Backfill 9.5 ft.
 Material Bentonite-Cement Grout
 i. Seal 2 ft.
 Material Bentonite
 j. Gravel pack 12.5 ft.
 Gravel pack interval from 13 to 25.5 ft.
 Material #3 Sand
 k. Bottom seal/fill 4.5 ft.
 Material Bentonite

LOG OF EXPLORATORY BORING

PROJECT NUMBER 1158

BORING NO. MW-6

PROJECT NAME CHEVRON SERVICE STATION NO. 9-8139

PAGE 1 OF 2

BY D. Maupin DATE 5/14/90

SURFACE ELEV. 124.83 ft.

PID (ppm)	POCHET PENETRO- METER ton/sq ft	BLOW CT. (blws/6")	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO- GRAPHIC COLUMN	DESCRIPTION	WELL DETAIL
		NA				ASPHALT.		
		NA				FILL:	<p>olive green; low plasticity fines, sand, and gravel.</p> <p>@ 1.5': black (5YR, 2.5/1); low plasticity fines, fine sand, and fine gravel; stiff; damp; slight organic odor.</p>	
22.8	2.5	4 8 22 NA		5		SANDY CLAY (CL),	<p>very dark grayish brown (10YR, 3/2); 65-75% high plasticity fines; 15-20% fine sand; 10-15% fine gravel; stiff; damp; no product odor.</p> <p>@ 8': dark brown (7.5YR, 3/4); Mn-oxide staining on sand and gravel grains.</p> <p>@ 10': hard; damp; no product odor.</p> <p>@ 11.5': olive brown (2.5Y, 4/4); 50-60% high plasticity fines; 30-40% fine to coarse sand; trace fine gravel; damp; no product odor.</p>	
0.0	4.0	11 17 26 NA		10		CLAYEY SAND (SC),	<p>dark grayish brown (2.5Y, 4/2); 30-40% moderate to high plasticity fines; 60-70% fine to coarse sand; trace fine gravel; very dense; damp; no product odor.</p>	
	1.5	NA		15		SANDY CLAY (CL),	<p>dark yellowish brown (10YR, 3/6); 50-60% high plasticity fines; 25-35% fine to coarse sand; 5-25% fine gravel; stiff; damp; no product odor.</p>	
222	2.5	8 19 32 NA	5-16-90	15				
0.0	2.8	NA		20				

REMARKS

Boring was drilled to 30' using 6.5" diameter hollow-stem augers. Soil samples were collected at 5' intervals and from 30' to 34' with a 2" diameter modified California split-spoon sampler. Between 5' intervals, soil samples were collected with a 2.5" diameter Moss continuous sampler. A groundwater monitoring well was installed using 2" diameter PVC casing (see attached well detail).

David C. Tipton RG#4603 Exp: 6/91

LOG OF EXPLORATORY BORING

PROJECT NUMBER 1158

BORING NO. MW-6

PROJECT NAME CHEVRON SERVICE STATION NO. 9-8139

PAGE 2 OF 2

BY D. Maupin DATE 5/14/90

SURFACE ELEV. 124.83 ft.

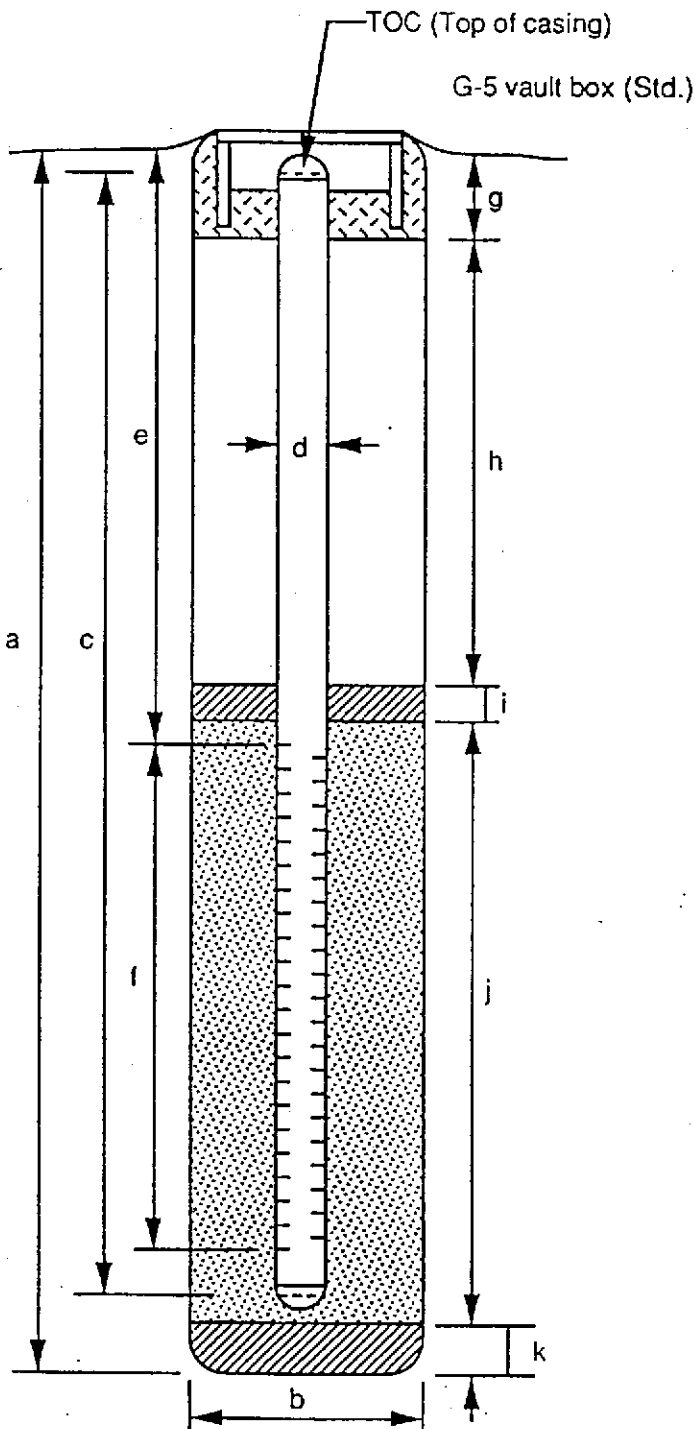
PID (ppm)	POCHET PENETROMETER (ton/sq ft)	BLOW CT. (blws/6")	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-GRAPHIC COLUMN	DESCRIPTION	WELL DETAIL
0.0		6					@ 20": 60-70% high plasticity fines; 30-40% fine to medium sand; very stiff; damp; no product odor.	
0.0		10					@ 21.5': sand grains Mn-oxide stained.	
0.0		21						
0.0		NA						
0.0	4.0	NA	5-14-90 ▽				CLAYEY SAND (SC) , yellowish brown (10YR, 5/8); 25-35% moderate to high plasticity fines; 50-60% fine to coarse sand; trace fine gravel; sand and gravel Mn-oxide stained; dense; damp; no product odor.	
0.0		5		25			@ 25': dense; moist; no product odor.	
		15					@ 26.5': 20-30% moderate to high plasticity fines; 50-60% fine to coarse sand; 20-30% fine to medium gravel; Fe- and Mn-oxide staining.	
		18						
		NA						
	4.0	NA						
0.0	4.0	7		30			SANDY CLAY (CL) , dark yellowish brown (10YR, 4/4); 60-70% high plasticity fines; 20-30% fine to coarse sand; 5-10% fine gravel; stiff; damp; no product odor.	
		14						
		25						
		NA						
	3.0	17					GRAVELLY CLAY (CL) , yellowish brown (10yr, 5/4); 45-55% high plasticity fines; 20-30% fine to coarse sand; 25-30% fine to medium gravel; Fe- and Mn-oxide stained sand and gravel; hard, damp to wet; no product odor.	
		27						
		33						
				35			BORING TERMINATED AT 30' AND SAMPLED TO 34'.	
				40				

REMARKS

Boring was drilled to 30' using 6.5" diameter hollow-stem augers. Soil samples were collected at 5' intervals and from 30' to 34' with a 2" diameter modified California split-spoon sampler. Between 5' intervals, soil samples were collected with a 2.5" diameter Moss continuous sampler. A groundwater monitoring well was installed using 2" diameter PVC casing (see attached well detail).

WELL DETAILS

PROJECT NUMBER 1158 BORING / WELL NO. MW-6
 PROJECT NAME Chevron SS No. 9-8139 TOP OF CASING ELEV. 124.18'
 LOCATION 16304 Foothill Boulevard, San Leandro GROUND SURFACE ELEV. 124.83'
 WELL PERMIT NO. 90281 DATUM MSL
 INSTALLATION DATE 5-14-90



EXPLORATORY BORING

a. Total depth 34 ft.
 b. Diameter 6.5 in.
 Drilling method Hollow-Stem Auger

WELL CONSTRUCTION

c. Total casing length 29.2 ft.
 Material Schedule 40 PVC
 d. Diameter 2 in.
 e. Depth to top perforations 24.6 ft.
 f. Perforated length 5 ft.
 Perforated interval from 24.6 to 29.6 ft.
 Perforation type Machine Slotted PVC
 Perforation size 0.020 inch
 g. Surface seal 1.5 ft.
 Material Concrete
 h. Backfill 19.5 ft.
 Material Bentonite-Cement Grout
 i. Seal 2 ft.
 Material Bentonite
 j. Gravel pack 11 ft.
 Gravel pack interval from 23 to 34 ft.
 Material #3 Sand
 k. Bottom seal/fill -- ft.
 Material None

LOG OF EXPLORATORY BORING

PROJECT NUMBER 1158

BORING NO. MW-7

PROJECT NAME CHEVRON SERVICE STATION NO. 9-8139

PAGE 1 OF 2

BY D. Maupin DATE 5/15/90

SURFACE ELEV. 127.47 ft.

PID	POCHET PENETRO-METER	BLOW CT.	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-GRAPHIC COLUMN	DESCRIPTION	WELL DETAIL
(ppm)	ton/sq ft	(blows/6")						
						ASPHALT. FILL: olive green; low plasticity fines, sand, and gravel.		
1155		18 32 44		5		CLAYEY SAND (SC), dark yellowish brown (10YR, 4/4); 30-40% moderate to high plasticity fines; 60-70% fine to coarse sand; very dense; damp; no product odor.		
339		8 12 15		10		SANDY CLAY (CL), mottled dark yellowish brown (10YR, 4/6) and olive (5Y, 4/4); 50-60% high plasticity fines; 35-45% fine to coarse sand; 5-10% fine gravel; very stiff; damp; no product odor.		
430		7 10 19		15		@ 15': yellowish brown (10YR, 5/4); 50-60% moderate to high plasticity fines; 40-50% fine to coarse sand; trace fine gravel.		
				5-16-90		INTERBEDDED SANDY CLAY AND CLAYEY SAND (CL/SC).		

REMARKS

Boring was drilled to 30' using 6.5" diameter hollow-stem augers. Soil samples were collected to 31.5' using a 2" diameter modified California split-spoon sampler. A groundwater monitoring well was installed using 2" diameter PVC casing (see attached well detail).

David C. Tylet RGA4603 Exp. 6/91

LOG OF EXPLORATORY BORING

PROJECT NUMBER 1158

BORING NO. MW-7

PROJECT NAME CHEVRON SERVICE STATION NO. 9-8139

PAGE 2 OF 2

BY D. Maupin DATE 5/15/90

SURFACE ELEV. 127.47 ft.

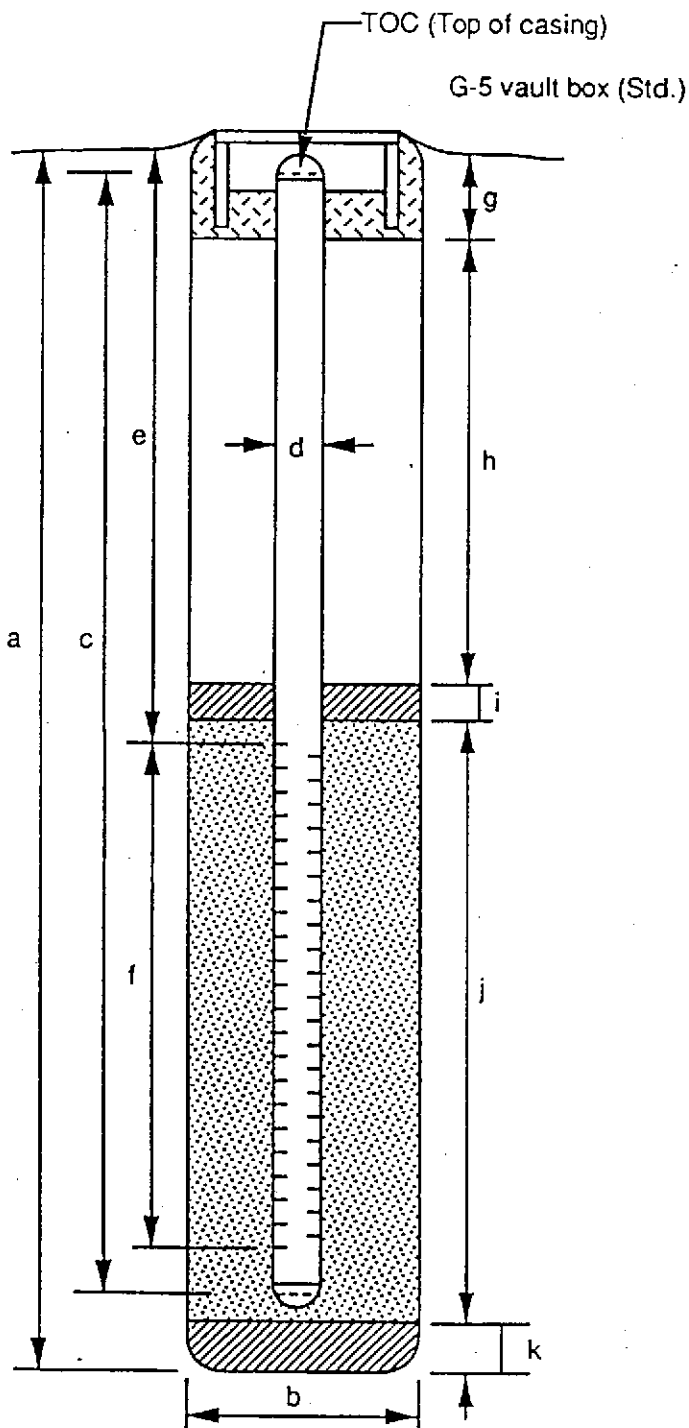
PID	POCHET PENETRO-METER	BLOW CT.	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-GRAPHIC COLUMN	DESCRIPTION	WELL DETAIL
(ppm)	ton/sq ft	(blws/6")						
114		6 16 17					<p>INTERBEDDED SANDY CLAY AND CLAYEY SAND (CL/SC), dark yellowish brown (10YR, 4/4) to yellowish brown (10YR, 5/8); CL: 50-60% moderate to high plasticity fines; 40-50% fine to coarse sand; trace fine gravel; SC: 30-40% moderate plasticity fines; 60-70% fine to coarse sand; trace fine gravel; very dense; damp; no product odor.</p>	
1.9		10 21 32	▽	25			<p>CLAYEY SAND (SC), dark yellowish brown (10YR, 3/4); 35-45% moderate to high plasticity fines; 55-65% fine to coarse sand; very dense; damp to wet; no product odor.</p> <p>@ 26.4': SANDY CLAY (CL), dark brown (10YR, 3/3); 60-70% high plasticity fines; 30-40% fine to coarse sand, angular grains, Mn-oxide staining; damp; no product odor.</p>	
4.1		9 18 21		30			<p>CLAYEY SAND (SC), light olive brown (2.5Y, 5/6); 20-30% moderate plasticity fines; 70-80% fine to coarse sand; trace fine gravel; dense; damp; no product odor.</p> <p>BORING TERMINATED AT 30' AND SAMPLED TO 31.5'.</p>	
				35				
				40				

REMARKS

Boring was drilled to 30' using 6.5" diameter hollow-stem augers. Soil samples were collected to 31.5' using a 2" diameter modified California split-spoon sampler. A groundwater monitoring well was installed using 2" diameter PVC casing (see attached well detail).

WELL DETAILS

PROJECT NUMBER 1158 BORING / WELL NO. MW-7
 PROJECT NAME Chevron SS No. 9-8139 TOP OF CASING ELEV. 126.86'
 LOCATION 16304 Foothill Boulevard, San Leandro GROUND SURFACE ELEV. 127.47'
 WELL PERMIT NO. 90281 DATUM MSL
 INSTALLATION DATE 5-15-90



EXPLORATORY BORING

a. Total depth 31.5 ft.
 b. Diameter 6.5 in.
 Drilling method Hollow-Stem Auger

WELL CONSTRUCTION

c. Total casing length 26 ft.
 Material Schedule 40 PVC
 d. Diameter 2 in.
 e. Depth to top perforations 21.5 ft.
 f. Perforated length 5 ft.
 Perforated interval from 21.5 to 26.5 ft.
 Perforation type Machine Slotted PVC
 Perforation size 0.020 inch
 g. Surface seal 1.5 ft.
 Material Concrete
 h. Backfill 17 ft.
 Material Bentonite-Cement Grout
 i. Seal 2 ft.
 Material Bentonite
 j. Gravel pack 6.5 ft.
 Gravel pack interval from 20.5 to 27 ft.
 Material #3 Sand
 k. Bottom seal/fill 4.5 ft.
 Material Bentonite

LOG OF EXPLORATORY BORING

PROJECT NUMBER 1158

BORING NO. MW-8

PROJECT NAME CHEVRON SERVICE STATION NO. 9-8139

PAGE 1 OF 2

BY D. Maupin DATE 8/30/90

SURFACE ELEV. 124.25 ft.

PID	POCHET PENETROMETER	BLOW CT.	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-GRAPHIC COLUMN	DESCRIPTION	WELL DETAIL
(ppm)	ton/sq ft	(blws/6")						
						FILL DIRT.		
13.8		7 14 19		5			<p>CLAYEY SAND (SC), dark yellowish brown (10YR, 4/6); 30-40% moderate plasticity fines; 45-55% fine to coarse sand, angular; 5-15% fine gravel, angular; dense; damp; no product odor.</p> <p>@ 8.2-8.5': medium to coarse gravel lense.</p>	
26.1		7 10 17		10			<p>@ 10': 40-50% moderate plasticity fines; 50-60% fine to coarse sand, angular; trace gravel, angular.</p> <p>@ 12': 35-45% moderate plasticity fines; 5-10% fine gravel, subangular; some sand and gravel grains Fe- and Mn-oxide stained.</p> <p>@ 13': yellowish brown (10YR, 5/6); 35-45% low to moderate plasticity fines; 45-55% fine to coarse sand, angular; 5-15% fine to medium gravel, subangular; sand and gravel Fe- and Mn-oxide stained; some vertical plant rootlets.</p> <p>@ 15.2': 1"x 2" siliceous gravel clast; dense.</p> <p>@ 15.4': 30-40% moderate plasticity fines; 15-25% fine to medium gravel, subangular.</p>	
13.2		11 14 18	8-30-90	15			<p>@ 18': sand and gravel moderately Fe- and Mn-oxide stained.</p>	
				20				

REMARKS

Boring was drilled to 32.5' using 8" diameter hollow-stem augers. Soil samples were collected at 5' intervals and from 32.5' to 34' using a 2" diameter modified California split-spoon sampler. From 6.5' to 32.5' the boring was continuously sampled between 5' intervals using a 2.5" diameter Moss sampler and a 1.5" diameter Std. Penetration sampler. A groundwater monitoring well was installed using 2" diameter PVC casing (see attached well detail).

David C. Tippet RG#4603 Exp. 6/1

LOG OF EXPLORATORY BORING

PROJECT NUMBER 1158

BORING NO. MW-8

PROJECT NAME CHEVRON SERVICE STATION NO. 9-8139

PAGE 2 OF 2

BY D. Maupin DATE 8/30/90

SURFACE ELEV. 124.25 ft.

PID (ppm)	POCHET PENETROMETER ton/sq ft	BLOW CT. (blws/6")	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-GRAPHIC COLUMN	DESCRIPTION	WELL DETAIL
17.3		3 6 10					<p>CLAYEY SAND (SC), continued.</p> <p>@ 20.1-22': 40-50% high plasticity fines; 45-55% dominantly fine to coarse sand, angular; 5-10% fine gravel; damp to moist; medium dense.</p> <p>@ 22.3': some caliche nodules and stringers.</p> <p>@ 24': 30-40% high plasticity fines; 50-60% fine to coarse sand, angular; 10-20% fine gravel, subangular to subrounded; sand and gravel low to moderate Fe- and Mn-oxide stained; moist; no product odor.</p> <p>@ 25': wet.</p> <p>@ 26': SANDY CLAY (CL), strong brown (7.5yr, 4/6); 50-60% high plasticity fines; 40-50% fine to coarse sand, dominantly fine to medium; trace fine gravel; stiff; moist to wet; no product odor.</p> <p>@ 28.5': SILTY SAND (SM), dark yellowish brown (10YR, 4/4); 35-45% low to moderate plasticity fines; 55-65% fine to coarse sand, dominantly fine to medium; trace gravel; damp to moist; no product odor.</p> <p>@ 31': CLAYEY SAND (SC), yellowish brown (10YR, 5/8); 20-30% moderate to high plasticity fines; 60-70% fine to coarse sand; 5-15% fine gravel; wet; dense; no product odor.</p> <p>@ 32': damp; no product odor.</p>	
13.7		4 5 7	8-30-90 ▽	25				
11.2		8 12 16						
0		9 18 22						
				35				
				40				

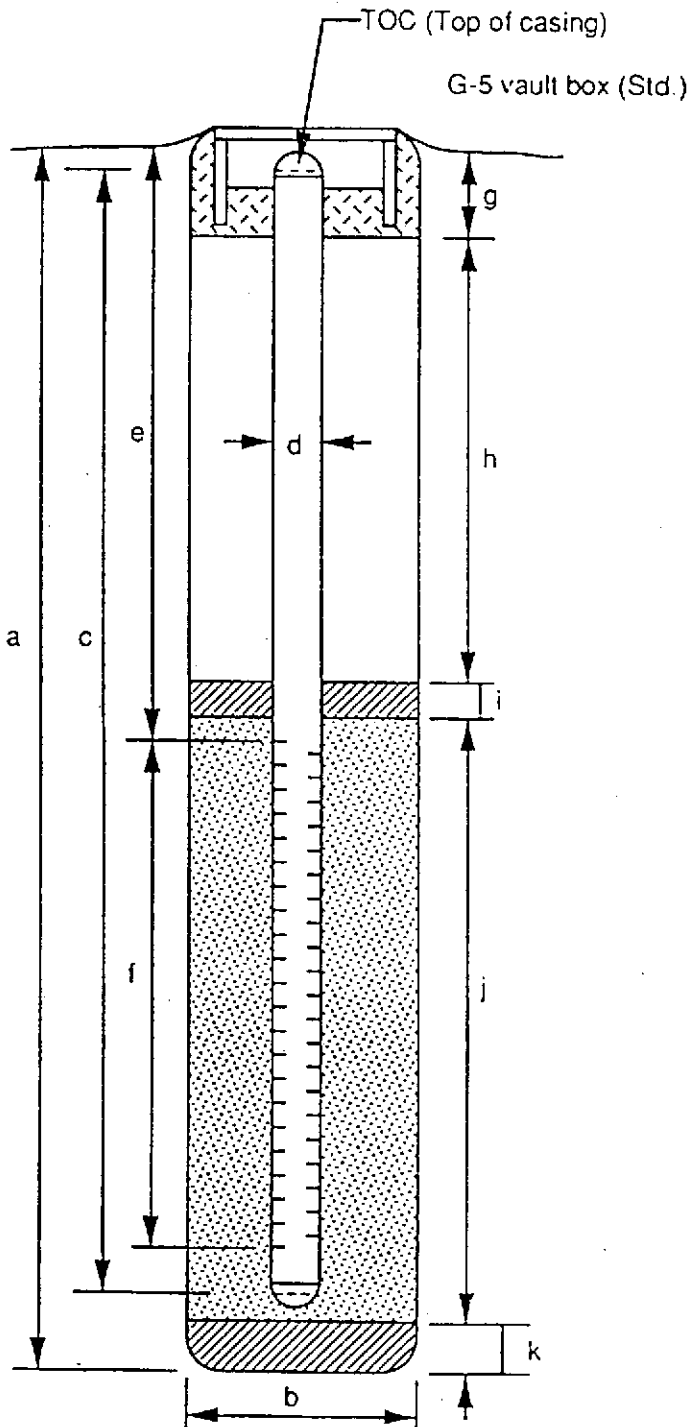
BORING TERMINATED AT 32.5' AND SAMPLED TO 34'.

REMARKS

Boring was drilled to 32.5' using 8" diameter hollow-stem augers. Soil samples were collected at 5' intervals and from 32.5' to 34' using a 2" diameter modified California split-spoon sampler. From 6.5' to 32.5' the boring was continuously sampled between 5' intervals using a 2.5" diameter Moss sampler and a 1.5" diameter Std. Penetration sampler. A groundwater monitoring well was installed using 2" diameter PVC casing (see attached well detail).

WELL DETAILS

PROJECT NUMBER 1158 BORING / WELL NO. MW-8
 PROJECT NAME Chevron SS No. 9-8139 TOP OF CASING ELEV. 123.61'
 LOCATION 16304 Foothill Boulevard, San Leandro GROUND SURFACE ELEV. 124.25'
 WELL PERMIT NO. 90519 DATUM MSL
 INSTALLATION DATE 8-30-90



EXPLORATORY BORING

a. Total depth 34 ft.
 b. Diameter 8 in.
 Drilling method Hollow-Stem Auger

WELL CONSTRUCTION

c. Total casing length 31 ft.
 Material Schedule 40 PVC
 d. Diameter 2 in.
 e. Depth to top perforations 21.5 ft.
 f. Perforated length 9 ft.
 Perforated interval from 21.5 to 30.5 ft.
 Perforation type Machine Slotted PVC
 Perforation size 0.020 inch
 g. Surface seal 1 ft.
 Material Concrete
 h. Backfill 16.5 ft.
 Material Bentonite-Cement Grout
 i. Seal 3 ft.
 Material Bentonite
 j. Gravel pack 11 ft.
 Gravel pack interval from 20.5 to 31.5 ft.
 Material #3 Sand
 k. Bottom seal/fill 2.5 ft.
 Material Bentonite

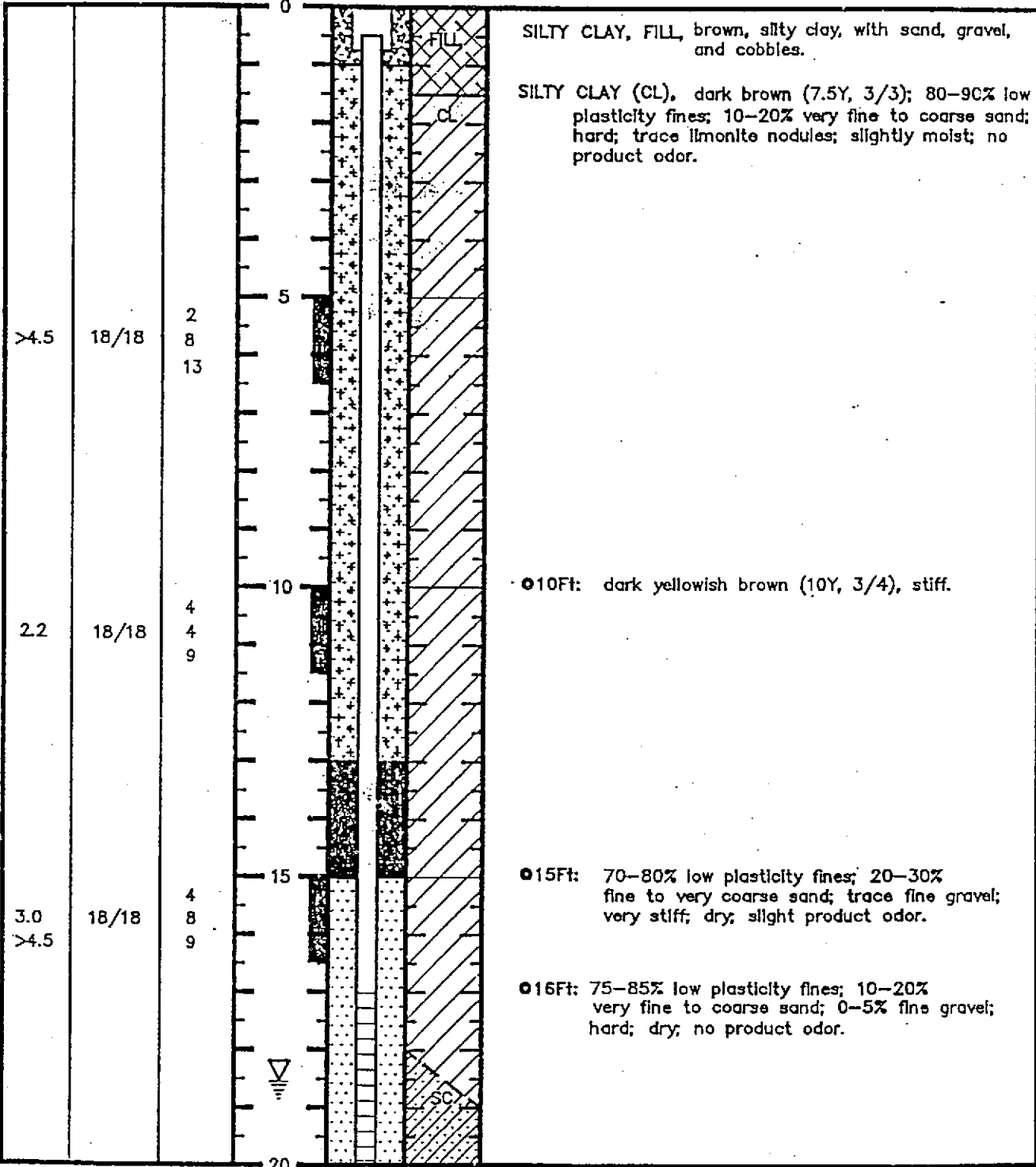


BORING LOG

PROJ. No.: CHV-149/306
 PROJ. NAME: Chevron Service Station No. 9-8139
 16304 Foothill Boulevard, San Leandro, CA
 DRAWING No.: A1030603 PAGE: 1 OF 2

MONITORING WELL MW-9
 TOP OF CASING : 124.20ft (MSL)
 TOTAL BORING DEPTH 27ft.
 BY: KSF DATE: 6/11/91

Pocket Penetrometer TSP	Recovery (In./In.)	Blow Count (blows /6")	Sample Depth (feet)	Well Detail	Stratigraphic Column	Description
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NOTES: Boring was drilled with 8" outside diameter hollow-stem augers. Soil samples were collected at 5ft intervals using a 2" diameter modified-California split-spoon sampler with brass liners. A groundwater monitoring well was installed using 2" diameter sch 40 PVC and 0.010" machine slotted PVC screen.

David M. [Signature] RA#4603, Exp 6/30/92



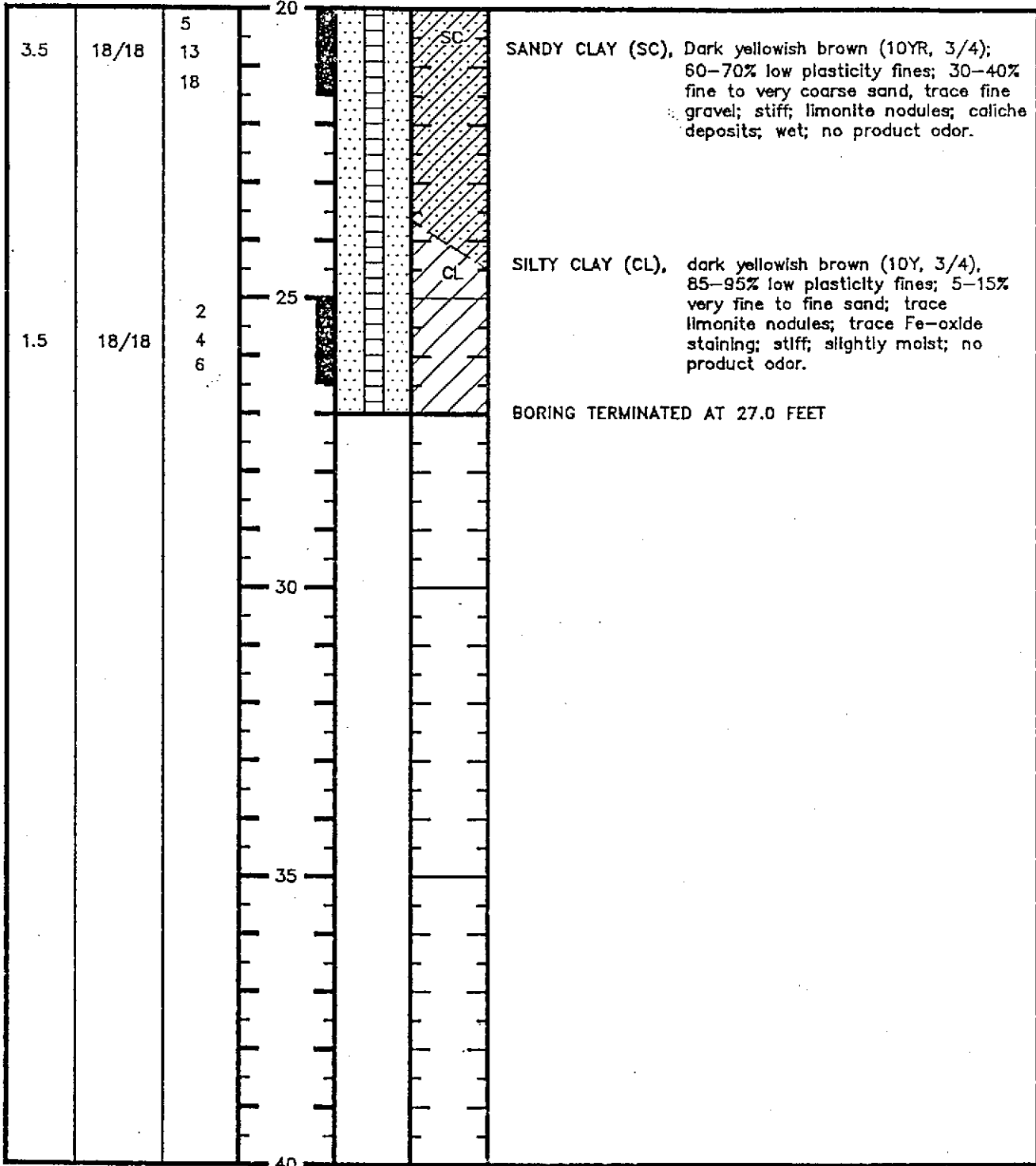
WORLDWIDE
ENGINEERING & CONSTRUCTION, INC.
10000 Wilshire Blvd.
Suite 1000
Beverly Hills, CA 90210
Tel: (310) 277-0000
Fax: (310) 277-0001

BORING LOG

PROJ. No.: CHV-149/306
PROJ. NAME: Chevron Service Station No. 9-8139
16304 Foothill Boulevard, San Leandro, CA
DRAWING No.: A1030604 PAGE: 2 OF 2

MONITORING WELL MW-9
TOP OF CASING : 124.20ft(MSL)
TOTAL BORING DEPTH 27ft.
BY: KSF DATE: 6/11/91

Pocket Penetrometer TSF	Recovery (in./in.)	Blow Count (blows /6")	Sample Depth (feet)	Well Detail	Stratigraphic Column	Description
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NOTES: Boring was drilled with 8" outside diameter hollow-stem augers. Soil samples were collected at 5ft intervals using a 2" diameter modified-California split-spoon sampler with brass liners. A groundwater monitoring well was installed using 2" diameter sch 40 PVC and 0.010" machine slotted PVC screen.



WELL DETAILS

PROJECT No. CHV-149/306 Drawing No. : A1030607

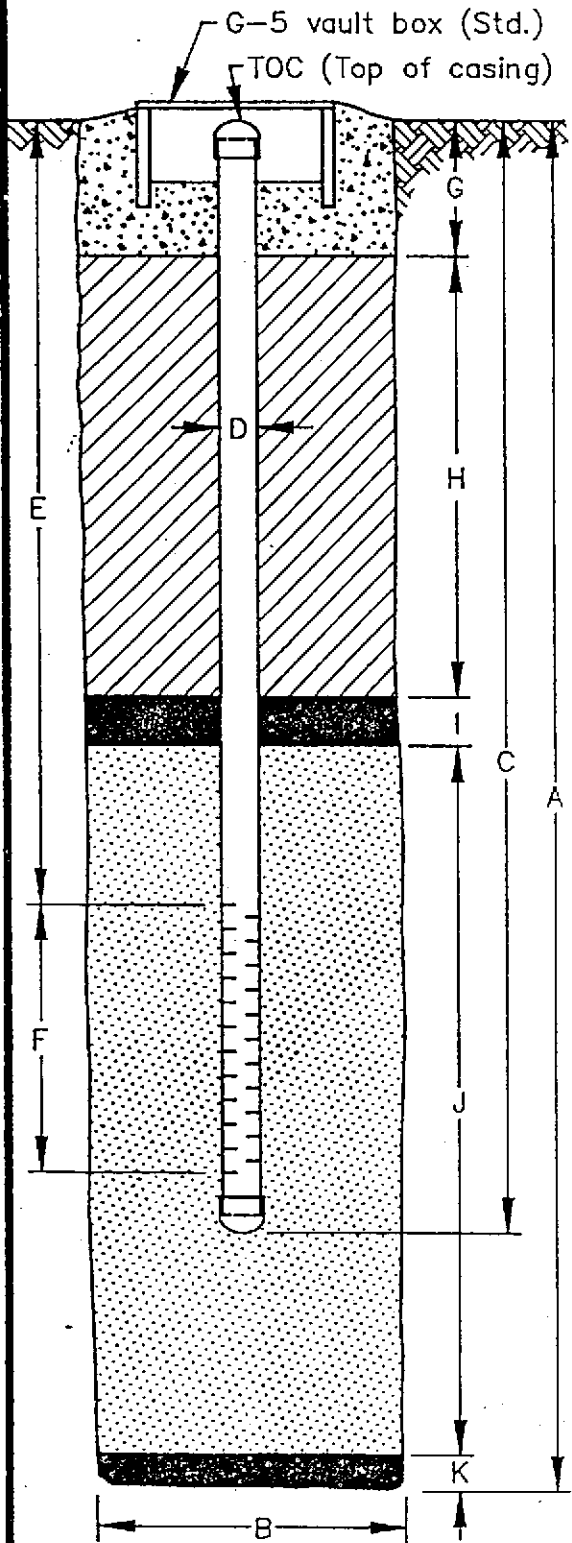
PROJECT NAME: _____ BORING/WELL No. MW-9

Chevron Service Station No. 9-8139 TOP OF CASING ELEVATION 124.20Ft.

LOCATION 16304 Foothill Boulevard GROUND SURFACE ELEVATION 124.51Ft.

San Leandro, Ca DATUM MSL

WELL PERMIT No. 91134 INSTALLATION DATE 6/11/91



EXPLORATORY BORING

A. Total depth 27 ft.

B. Diameter 8 in.

Drilling method 8" HSA

WELL CONSTRUCTION

C. Total casing length 26.5 ft.

Material SCH 40 PVC

D. Diameter 2 in.

E. Depth to top of perforations 17 ft.

F. Perforated length 10 ft.

Perforated interval from 17 to 27 ft.

Perforation type MACHINE-SLOTTED

Perforation size 0.010 INCH

G. Surface seal 1 ft.

Seal material CONCRETE

H. Backfill 12 ft.

Backfill material CEMENT-BENTONITE GROUT

I. Seal 2 ft.

Seal material BENTONITE PELLETS

J. Gravel pack 12 ft.

Pack material No. 2/12 SAND

K. Bottom seal/fill - ft.

Material -

Form prepared by KSF



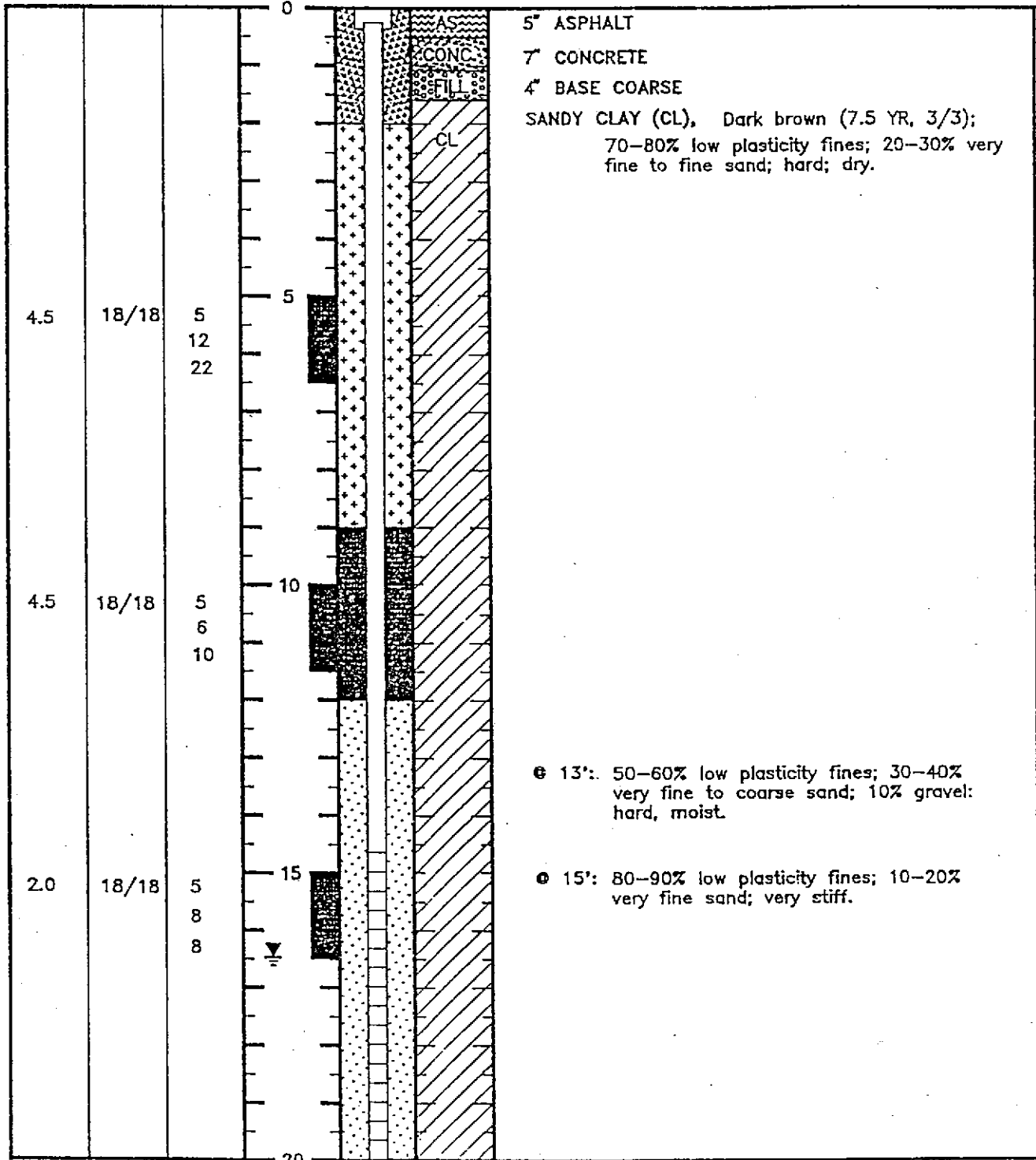
FURUKAWA ENVIRONMENTAL INC.

BORING LOG

Project Number: CHV-149
Chevron Service Station No. 9-8139
16304 Foothill Boulevard, San Leandro, CA
Drawing No.: A1036601 Page: 1 of 2

Monitoring WELL No.: MW-10
Ground Surface Elev.: Approx. 125.5 ft.(MSL)
Total Boring Depth: 30 ft.
By: K. FLORY Date: 4/21/92

Pocket penetrometer TSF	Recovery (in/in)	Blow Count (blows /6")	Sample Depth (feet)	Well Detail	Stratigraphic Column	Description
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NOTES: Boring was drilled using eight-inch outside diameter (OD) hollow-stem augers. Soil samples were collected using a two-inch OD split-spoon sampler at five foot intervals. A groundwater monitoring well was installed using two-inch diameter PVC casing (see attached well detail).



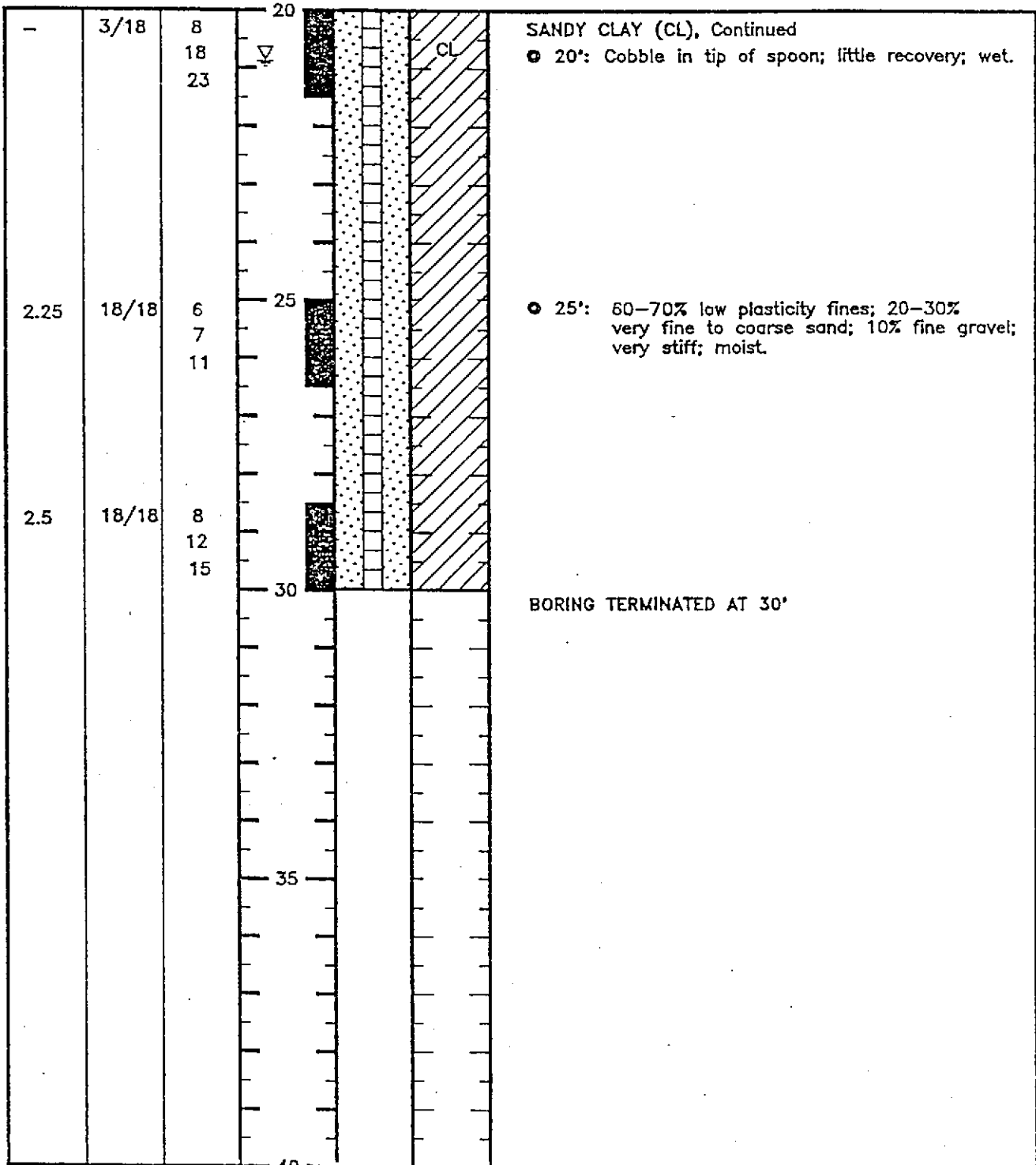
BURLINGTON ENVIRONMENTAL INC.

BORING LOG

Project Number: CHV-149
 Chevron Service Station No. 9-8139
 16304 Foothill Boulevard, San Leandro, CA
 Drawing No.: A1036602 Page: 2 of 2

Monitoring WELL No.: MW-10
 Ground Surface Elev.: Approx. 125.5 ft.(MSL)
 Total Boring Depth: 30 ft
 By: K. FLORY Date: 4/21/92

Pocket penetrometer TSF	Recovery (in/in)	Blow Count (blows /6")	Sample Depth (feet)	Well Detail	Stratigraphic Column	Description
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NOTES: Boring was drilled using eight-inch outside diameter (OD) hollow-stem augers. Soil samples were collected using a two-inch OD split-spoon sampler at five foot intervals. A groundwater monitoring well was installed using two-inch diameter PVC casing (see attached well detail).

David C. Little RGT#41103 Exp. 6/30/94



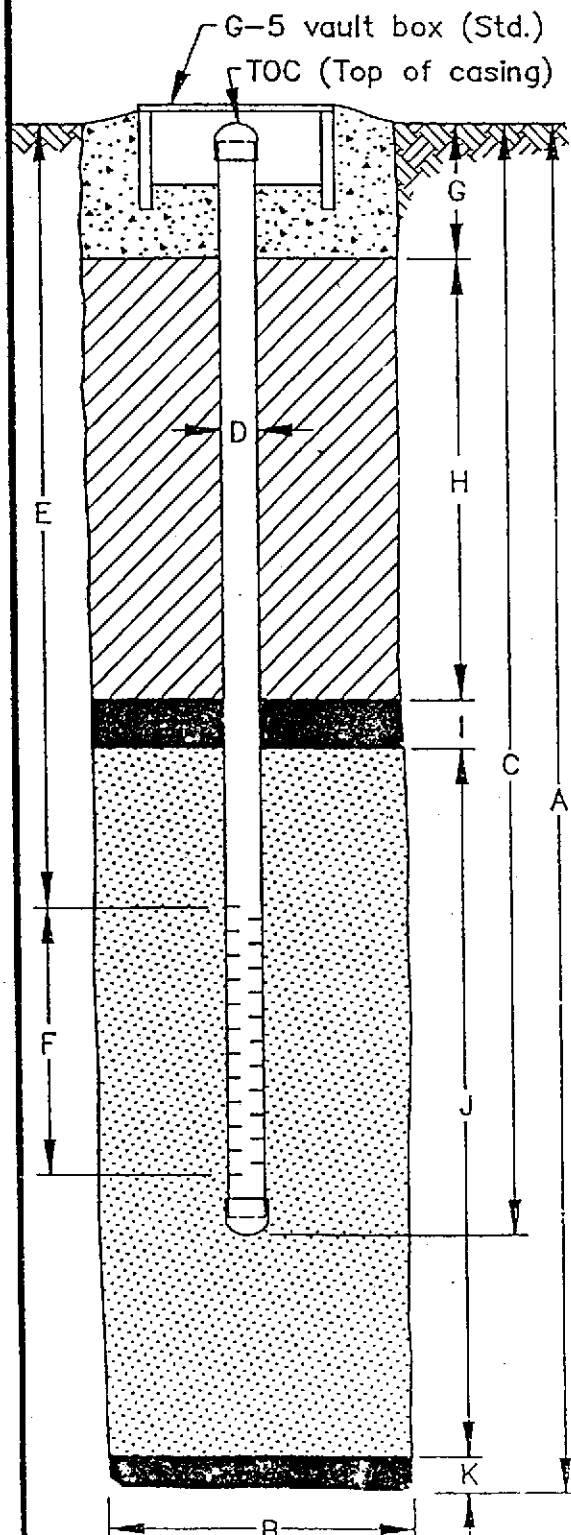
BURLINGTON ENVIRONMENTAL, INC.

WELL DETAILS

Project Number: CHV-149
Chevron Service Station No. 9-8139
16304 Foothill Boulevard, San Leandro, CA
Drawing No.: A1036605

WELL No.: MW-10
Top of Casing Elev.: 125.03 FT (MSL)
Ground Surface Elev.: APPROX. 125.5ft.(MSL)
Installation Date: 4/21/92

Well Permit No.: 92124



EXPLORATORY BORING

A. Total depth	<u>30</u> ft.
B. Diameter	<u>8</u> in.
Drilling method	<u>8" HSA</u>

WELL CONSTRUCTION

C. Total casing length	<u>29.5</u> ft.
Material	<u>SCH 40 PVC</u>
D. Diameter	<u>2</u> in.
E. Depth to top of perforations	<u>14.5</u> ft.
F. Perforated length	<u>15</u> ft.
Perforated interval from	<u>14.5</u> to <u>29.5</u> ft.
Perforation type	<u>MACHINE-SLOTTED</u>
Perforation size	<u>0.010 INCH</u>
G. Surface seal	<u>2</u> ft.
Seal material	<u>CONCRETE</u>
H. Backfill	<u>7</u> ft.
Backfill material	<u>CEMENT-BENTONITE GROUT</u>
I. Seal	<u>3</u> ft.
Seal material	<u>BENTONITE-PELLETS</u>
J. Gravel pack	<u>18</u> ft.
Pack material	<u>2/12 SAND</u>
K. Bottom seal/fill	<u>-</u> ft.
Material	<u>N/A</u>

De?



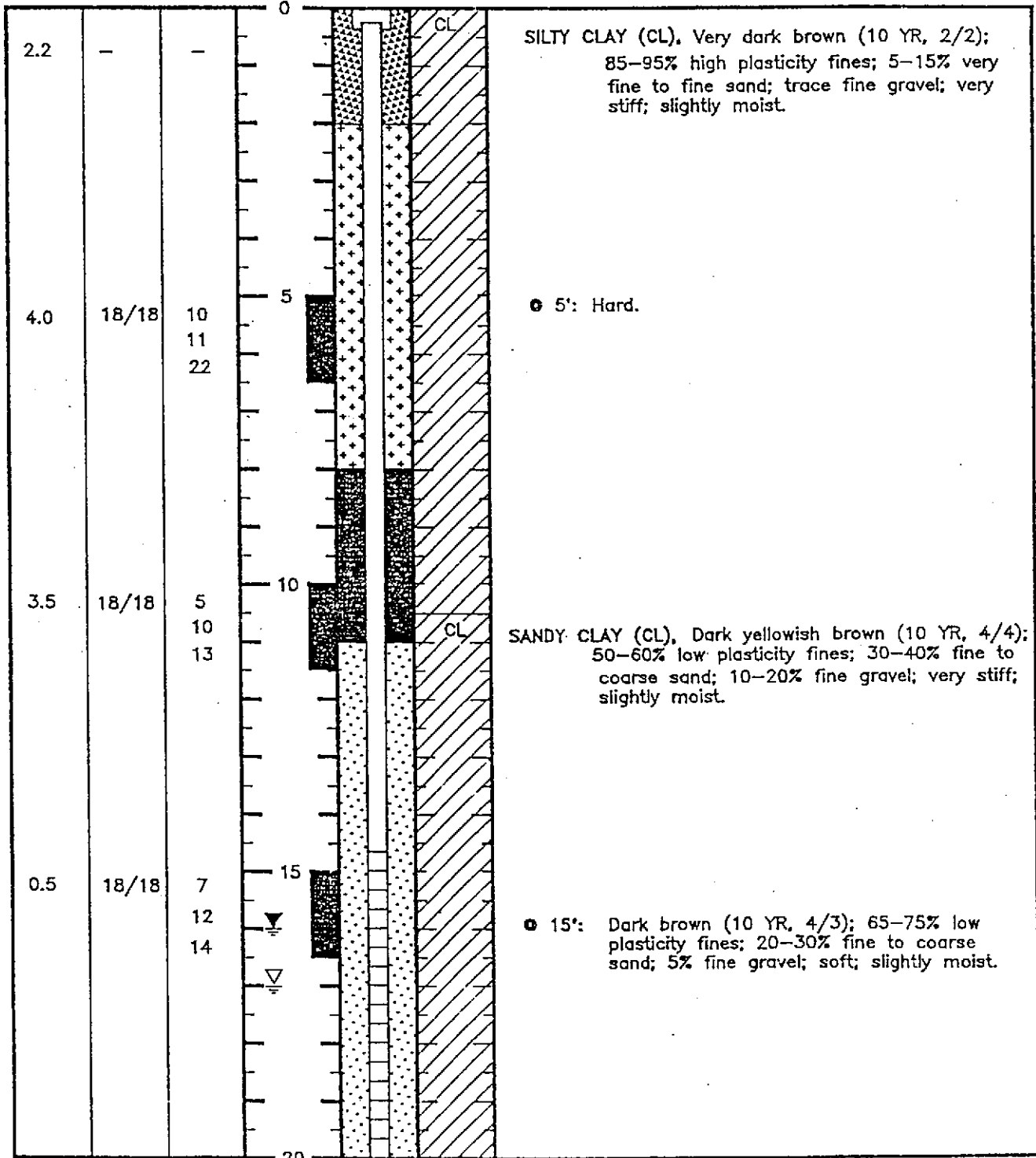
WELLINGTON ENVIRONMENTAL INC.

BORING LOG

Project Number: CHV-149
Chevron Service Station No. 9-8139
16304 Foothill Boulevard, San Leandro, CA
Drawing No.: A1036603 Page: 1 of 2

Monitoring WELL No.: MW-11
Ground Surface Elev.: Approx. 123.4 ft.(MSL)
Total Boring Depth: 30 ft.
By: K. FLORY Date: 4/21/92

Pocket penetrometer TSF	Recovery (in/in)	Blow Count (blows /6")	Sample Depth (feet)	Well Detail	Stratigraphic Column	Description
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NOTES: Boring was drilled using eight-inch outside diameter (OD) hollow-stem augers. Soil samples were collected using a two-inch OD split-spoon sampler at five foot intervals. A groundwater monitoring well was installed using two-inch diameter PVC casing (see attached well detail).



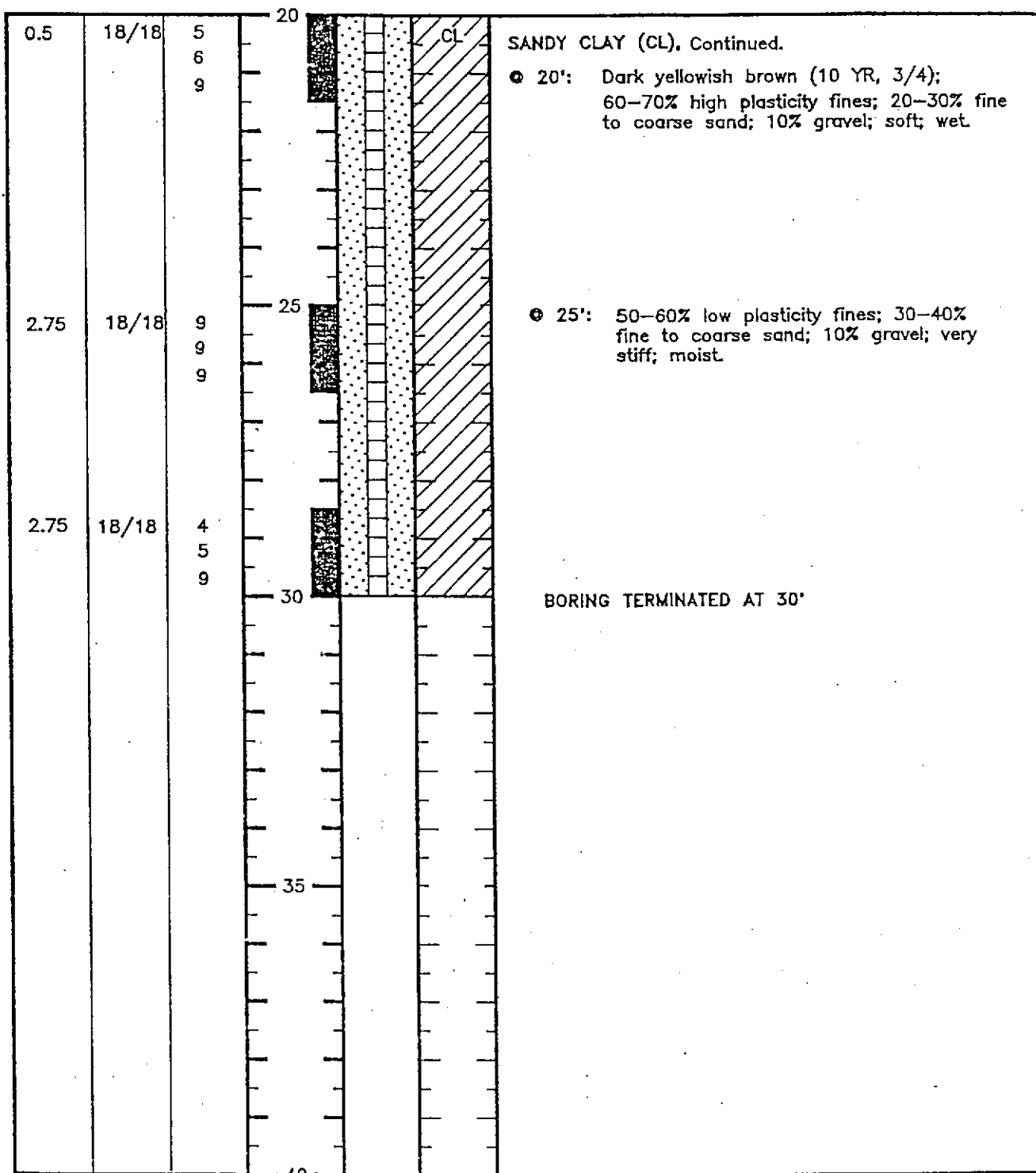
BOLLINGTON ENVIRONMENTAL INC.

BORING LOG

Project Number: CHV-149
Chevron Service Station No. 9-8139
16304 Foothill Boulevard, San Leandro, CA
Drawing No.: A1036604 Page: 2 of 2

Monitoring WELL No.: MW-11
Ground Surface Elev.: Approx. 123.4 ft.(MSL)
Total Boring Depth: 30 ft.
By: K. FLORY Date: 4/21/92

Pocket penetrometer TSF	Recovery (in/in)	Blow Count (blows /6")	Sample Depth (feet)	Well Detail	Stratigraphic Column	Description
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NOTES: Boring was drilled using eight-inch outside diameter (OD) hollow-stem augers. Soil samples were collected using a two-inch OD split-spoon sampler at five foot intervals. A groundwater monitoring well was installed using two-inch diameter PVC casing. (see attached well detail).

David C. T. [Signature] RG#4603; Exp. 6/30/94



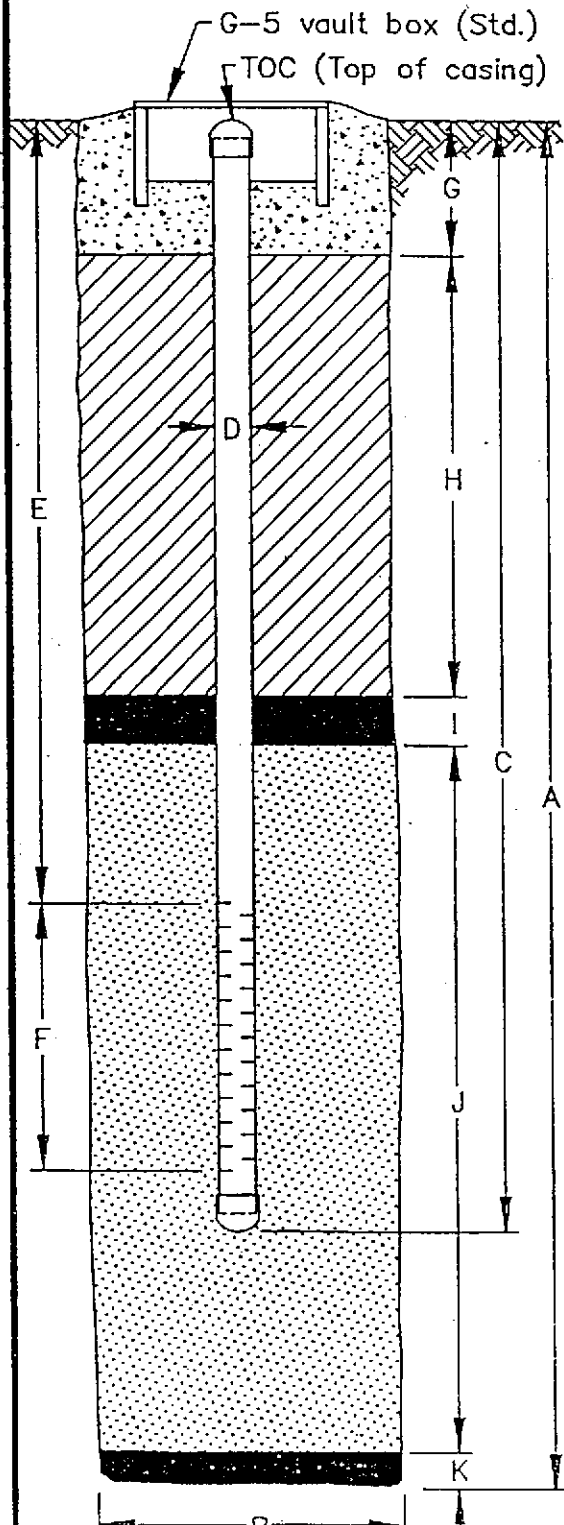
BURLINGTON ENVIRONMENTAL, INC.

WELL DETAILS

Project Number: CHV-149
Chevron Service Station No. 9-8139
16304 Foothill Boulevard, San Leandro, CA
Drawing No.: A1036606

WELL No.: MW-11
Top of Casing Elev.: 122.92ft.(MSL)
Ground Surface Elev.: APPROX. 123.4ft.(MSL)
Installation Date: 4/21/92

Well Permit No.: 92124



EXPLORATORY BORING

A. Total depth	<u>30</u> ft.
B. Diameter	<u>8</u> in.
Drilling method	<u>8" ϕ HSA</u>

WELL CONSTRUCTION

C. Total casing length	<u>29.5</u> ft.
Material	<u>SCH 40 PVC</u>
D. Diameter	<u>2</u> in.
E. Depth to top of perforations	<u>14.5</u> ft.
F. Perforated length	<u>15</u> ft.
Perforated interval from	<u>14.5</u> to <u>29.5</u> ft.
Perforation type	<u>MACHINE-SLOTTED</u>
Perforation size	<u>0.010 INCH</u>
G. Surface seal	<u>2</u> ft.
Seal material	<u>CONCRETE</u>
H. Backfill	<u>6</u> ft.
Backfill material	<u>CEMENT-BENTONITE GROUT</u>
I. Seal	<u>3</u> ft.
Seal material	<u>BENTONITE-PELLETS</u>
J. Gravel pack	<u>19</u> ft.
Pack material	<u>2/12 SAND</u>
K. Bottom seal/fill	<u>-</u> ft.
Material	<u>N/A</u>

DET

LOG OF EXPLORATORY BORING

PROJECT NUMBER 1158

BORING NO. E-1

PROJECT NAME CHEVRON SERVICE STATION NO. 9-8139

PAGE 1 OF 2

BY D. Maupin DATE 5/17/90

SURFACE ELEV. 127.29 ft.

PID (ppm)	POCHET PENETROMETER ton/sq ft	BLOW CT. (blws/6")	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-GRAPHIC COLUMN	DESCRIPTION	WELL DETAIL
						ASPHALT. FILL.		
54.8	3.2	NA				CLAYEY SAND (SC), dark yellowish brown (10YR, 4/4); 40-50% moderate to high plasticity fines; 50-60% fine to coarse sand; trace fine gravel; worm borrows upper 4-8"; medium dense; damp; no product odor. @ 5': 25-35% moderate to high plasticity fines; 50-60% fine to coarse sand; 10-20% fine gravel. @ 6.5': thin lenses of high plasticity fines; some highly altered sandstone gravel. @ 8': dark yellowish brown (10YR, 3/6); 35-45% moderate to high plasticity fines; 55-65% fine to coarse sand; trace Mn-oxide stained fine gravel; damp; weak product odor. @ 10': olive brown (2.5Y, 4/4); 25-35% moderate to high plasticity fines; 65-75% fine to coarse sand, subangular to subrounded; trace fine to medium gravel; organic odor.		
21.7	3.2	NA		5				
47.6		NA						
	1.3	NA						
39.6	2.3	NA		10				
	3.5	NA				SANDY CLAY (CL), mottled olive (5Y, 4/3) and dark yellowish brown (10YR, 4/6); 55-65% high plasticity fines; 25-35% fine to medium sand; 10-15% fine gravel; very stiff; damp; no product odor. @ 13': moderate product odor.		
	3.5	NA						
405	2.2	NA		15			CLAYEY SAND (SC), dark yellowish brown (10YR, 4/4); 20-30% moderate to high plasticity fines; 60-70% fine to coarse sand; 5-15% fine to coarse gravel; medium dense; damp; moderate to strong product odor.	
	1.5	NA	5-21-90					
295	3.0	NA	5-16-90			GRAVELLY SAND (SP), light olive brown (2.5Y, 5/4); 10-20% moderate plasticity fines; 40-50% fine to coarse sand; 30-40% fine to coarse		
				20				

REMARKS

Boring was drilled to 31.5' using 6.5" diameter hollow-stem augers. Soil samples were collected from 3.5' to 31.5' using a 2.5" diameter Moss continuous sampler. Boring was redrilled with 12.25" diameter hollow-stem augers. A groundwater extraction well was installed using 6" diameter PVC casing (see attached well detail).

David C. Tjelt RC #4603 Exp Date: 6/91

LOG OF EXPLORATORY BORING

PROJECT NUMBER 1158

BORING NO. E-1

PROJECT NAME CHEVRON SERVICE STATION NO. 9-8139

PAGE 2 OF 2

BY D. Maupin DATE 5/17/90

SURFACE ELEV. 127.29 ft.

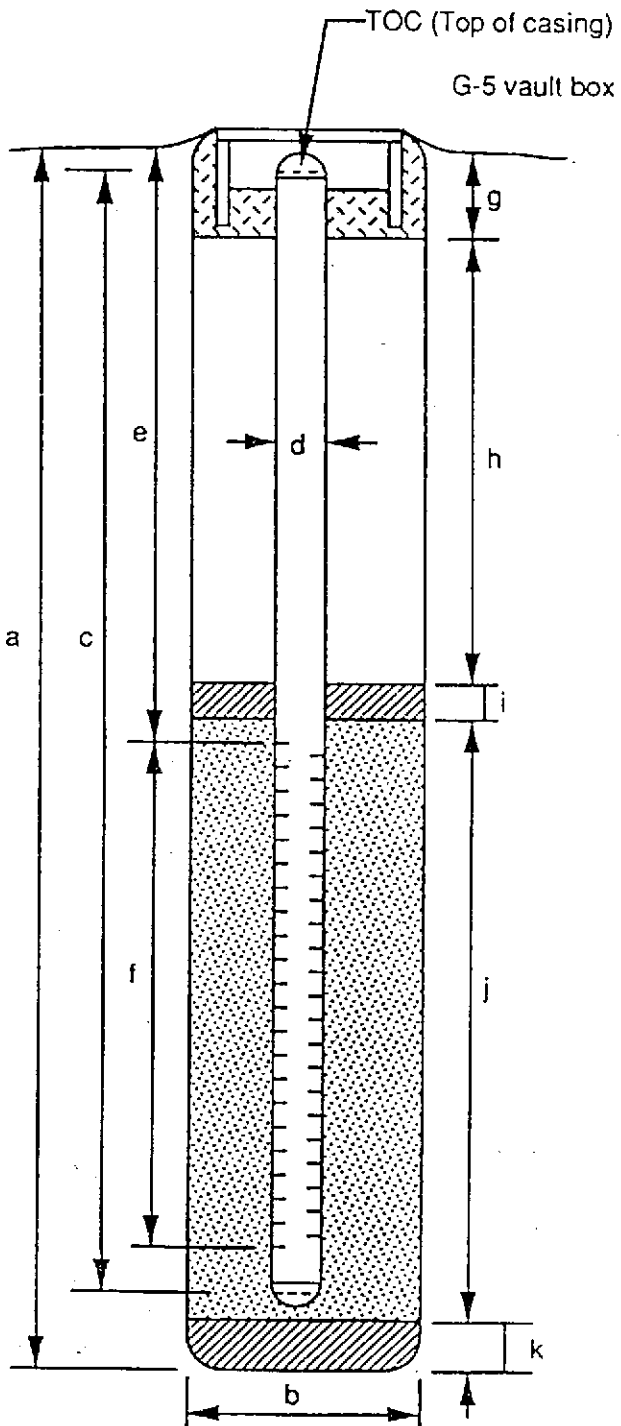
PID (ppm)	POCKET PENETROMETER ton/sq ft	BLOW CT. (blws/6")	GROUND WATER LEVELS	DEPTH IN FT.	LITHO-GRAPHIC COLUMN	DESCRIPTION	WELL DETAIL
61.5	1.1	NA			[Litho Column]	gravel, one quartz clast >2" diameter; medium dense; damp to moist; moderate to strong product odor. @ 17.5': graded to dark olive gray (5Y, 3/2); wet; strong product odor.	[Well Detail]
	4.1	NA			[Litho Column]		[Well Detail]
352	2.8	NA			[Litho Column]	CLAYEY SAND (SC), abundant olive mottling; trace medium gravel; strong product odor. @ 20': yellowish brown (10YR, 5/6); 25-35% moderate to high plasticity fines; 60-70% fine to coarse sand; 5-10% fine gravel; medium dense; damp to wet; no product odor.	[Well Detail]
18.2	0.5	NA		25	[Litho Column]		[Well Detail]
5.0	2.4	NA			[Litho Column]	SANDY CLAY (CL), yellowish brown (10YR, 5/6); 55-65% high plasticity fines; 30-40% fine to coarse sand; 5-10% fine gravel; very stiff to hard; moist; weak product odor.	[Well Detail]
5.1	2.5	NA			[Litho Column]		[Well Detail]
	No Recovery			30	[Litho Column]	CLAYEY SAND (SC), dark yellowish brown (10YR, 4/6); 25-35% moderate to high plasticity fines; 50-60% fine to coarse sand; 10-15% fine gravel, angular; loose; damp; weak product odor. @ 25': 10-20% low to moderate plasticity fines; 60-70% fine to coarse sand; 10-20% fine gravel; moist to wet; no product odor.	[Well Detail]
				35	[Litho Column]	SANDY CLAY (CL), dark yellowish brown (10YR, 4/4); 55-65% high plasticity fines; 35-45% fine to coarse sand, rounded; trace fine gravel; very stiff; damp; no product odor. @ 29': sandy lense; 50-60% high plasticity fines; 40-50% fine to coarse sand; trace fine gravel.	[Well Detail]
				40	[Litho Column]	TERMINATED BORING AT 30' AND SAMPLED TO 31.5'.	[Well Detail]

REMARKS

Boring was drilled to 31.5' using 6.5" diameter hollow-stem augers. Soil samples were collected from 3.5' to 31.5' using a 2.5" diameter Moss continuous sampler. Boring was redrilled with 12.25" diameter hollow-stem augers. A groundwater extraction well was installed using 6" diameter PVC casing (see attached well detail).

WELL DETAILS

PROJECT NUMBER 1158 BORING / WELL NO. E-1
 PROJECT NAME Chevron SS No. 9-8139 TOP OF CASING ELEV. 124.95'
 LOCATION 16304 Foothill Boulevard, San Leandro GROUND SURFACE ELEV. 127.29'
 WELL PERMIT NO. 90281 DATUM MSL
 INSTALLATION DATE 5-17-90



EXPLORATORY BORING

a. Total depth 31.5 ft.
 b. Diameter 12.25 in.
 Drilling method Hollow-Stem Auger

WELL CONSTRUCTION

c. Total casing length * 27.9 ft.
 Material Schedule 40 PVC
 d. Diameter 6 in.
 e. Depth to top perforations 18.1 ft.
 f. Perforated length 8.4 ft.
 Perforated interval from 18.1 to 26.5 ft.
 Perforation type Machine Slotted PVC
 Perforation size 0.020 inch
 g. Surface seal 1.5 ft.
 Material Concrete
 h. Backfill 13.5 ft.
 Material Bentonite-Cement Grout
 i. Seal 2 ft.
 Material Bentonite
 j. Gravel pack 10 ft.
 Gravel pack interval from 17 to 27 ft.
 Material #3 Sand
 k. Bottom seal/fill 4.5 ft.
 Material Bentonite around PVC
 Sediment Sump *

* 3-foot sediment sump installed below the screened section (26.5 to 29.4 feet BGL).

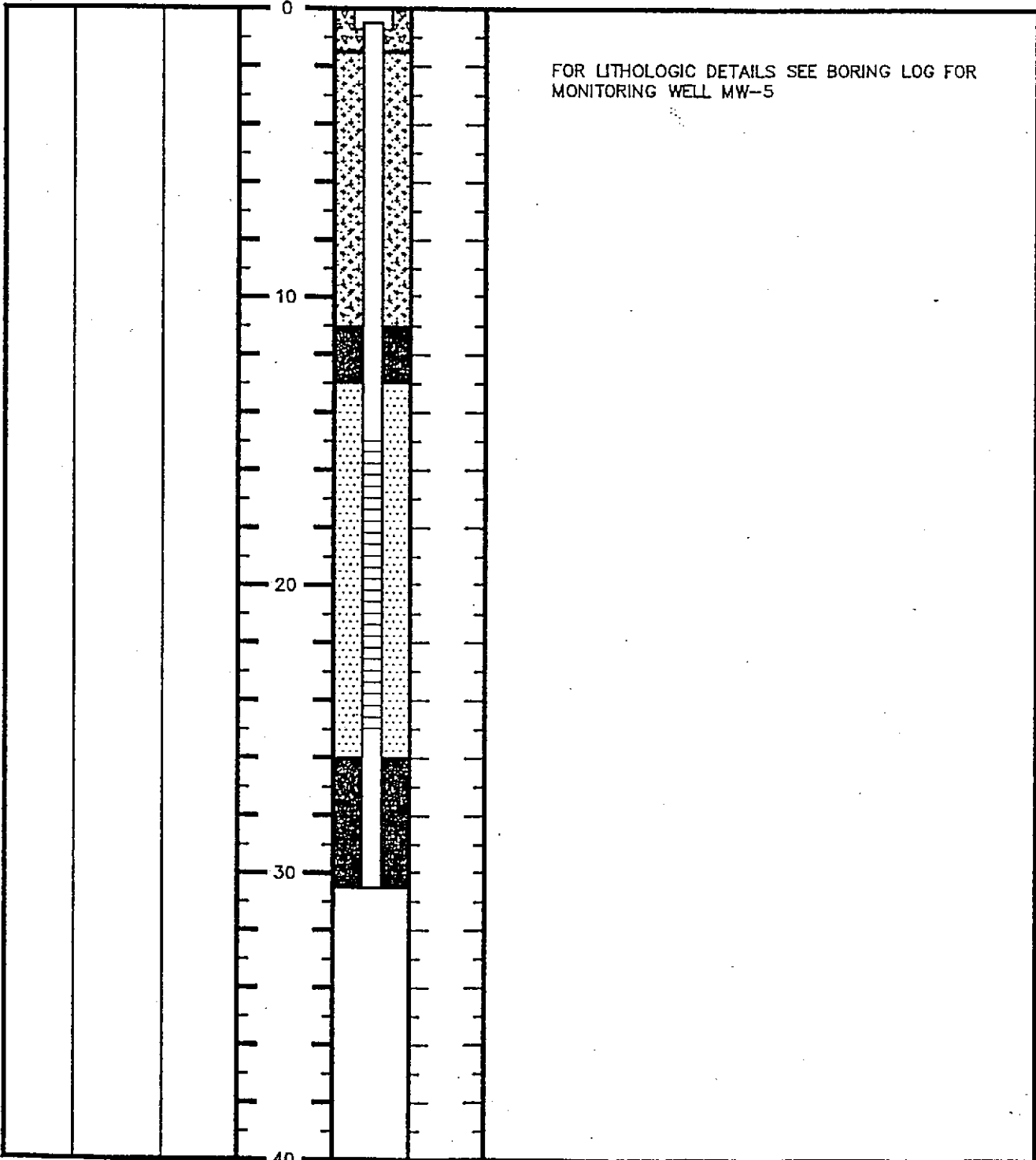


BORING LOG

PROJ. No.: CHV-149/306
PROJ. NAME: Chevron Service Station No. 9-8139
16304 Foothill Boulevard, San Leandro, CA
DRAWING No. : A1030601 PAGE: 1 OF 1

EXTRACTION WELL E-2
TOP OF CASING : 125.79ft.(MSL)
TOTAL BORING DEPTH 30.5ft.
BY: KSF DATE: 6/10/91

Pocket Penetrometer TSF	Recovery (in./in.)	Blow Count (blows /6")	Sample Depth (feet)	Well Detail	Stratigraphic Column	Description
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FOR LITHOLOGIC DETAILS SEE BORING LOG FOR MONITORING WELL MW-5

NOTES: Monitoring well Mw-5 was decommissioned with 8" diameter hollow-stem augers to 30ft. Boring was reamed with 10" diameter hollow-stem augers to 30.5ft. A groundwater extraction well was installed using 4" diameter sch 40 PVC and 0.010" machine slotted PVC screen.

[Handwritten Signature]
R#4603
exp: 6/30/92



WELL DETAILS

PROJECT No. CHV-149/306 Drawing No. : A1030608

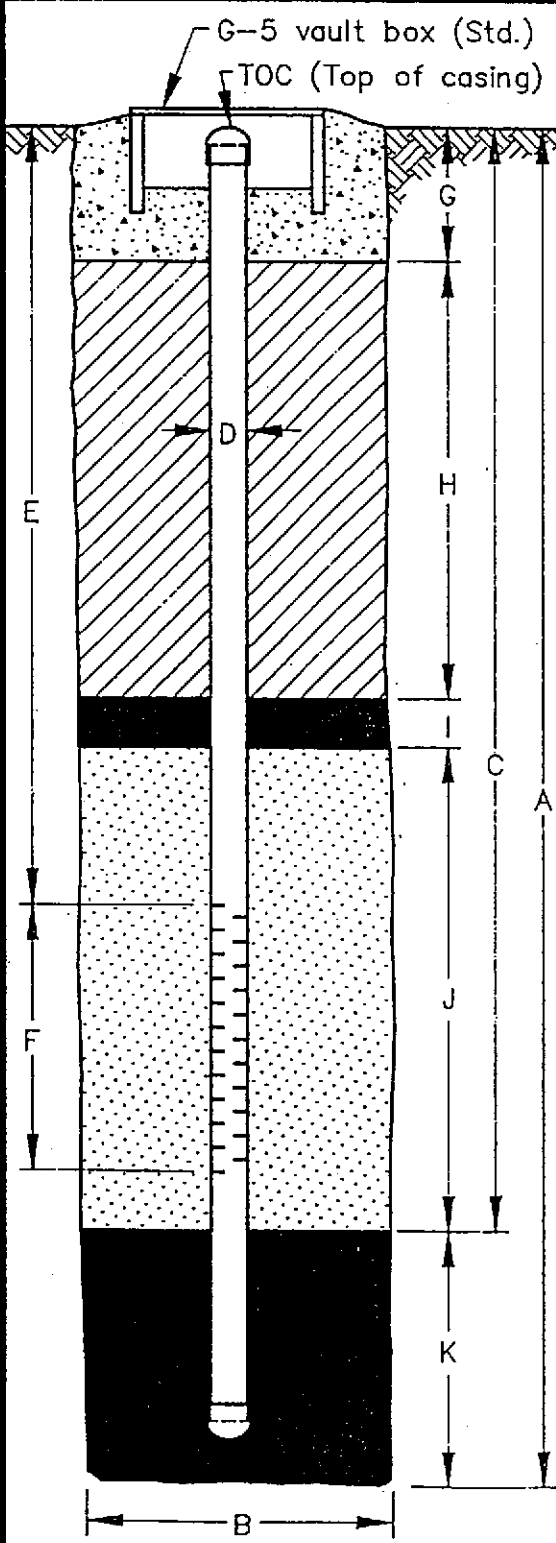
PROJECT NAME: Chevron Service Station No. 9-8139 BORING/WELL No. E-2

16304 Foothill Boulevard TOP OF CASING ELEVATION 125.79Ft

San Leandro, Ca GROUND SURFACE ELEVATION 126.15Ft.

DATUM MSL

WELL PERMIT No. 91134 INSTALLATION DATE 6/10/91



EXPLORATORY BORING

A. Total depth 30.5 ft.

B. Diameter 10 in.

Drilling method 8"ø+10"ø HSA

WELL CONSTRUCTION

C. Total casing length 30 ft.
Material SCH 40 PVC

D. Diameter 4 in.

E. Depth to top of perforations 15 ft.

F. Perforated length 10 ft.
Perforated interval from 15 to 25 ft.
Perforation type MACHINE-SLOTTED
Perforation size 0.010 INCH

G. Surface seal 1.5 ft.
Seal material CONCRETE

H. Backfill 9.5 ft.
Backfill material CEMENT-BENTONITE GROUT

I. Seal 2 ft.
Seal material BENTONITE PELLETS

J. Gravel pack 13 ft.
Pack material No. 2/12 SAND

K. Bottom seal/fill 4.5 ft.
Material HOLE PLUG

Form prepared by KSF

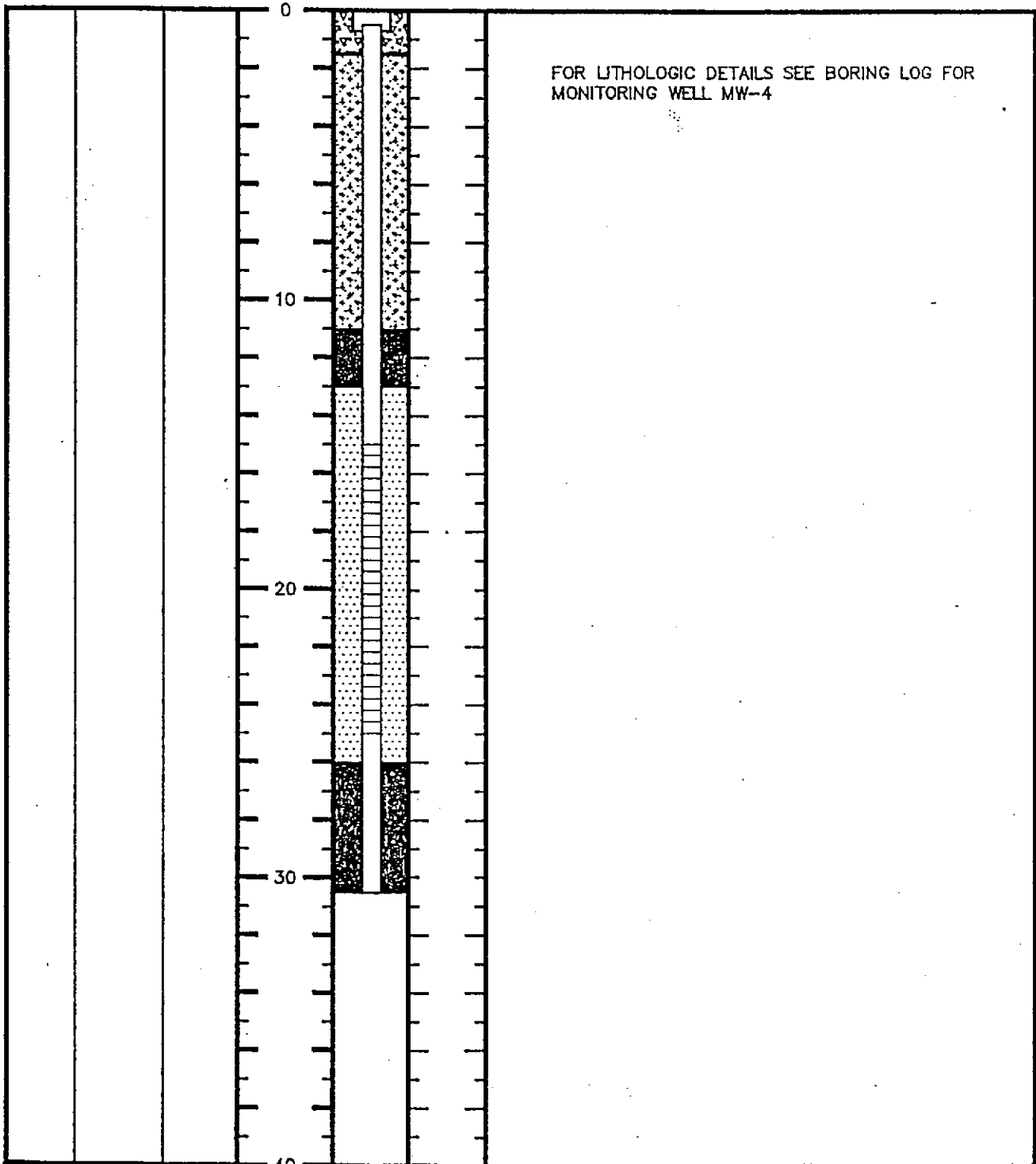


BORING LOG

PROJ. No.: CHV-149/306
PROJ. NAME: Chevron Service Station No. 9-8139
16394 Foothill Boulevard, San Leandro, CA
DRAWING No.: A1030602 PAGE: 1 OF 1

EXTRACTION WELL E-3
TOP OF CASING : 125.22ft.(MSL)
TOTAL BORING DEPTH 30.5ft
BY: KSF DATE: 6/10/91

Pocket Penetrometer TSF	Recovery (in./in.)	Blow Count (blows /6")	Sample Depth (feet)	Well Detail	Stratigraphic Column	Description
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NOTES: Monitoring well Mw-5 was decommissioned with 8" diameter hollow-stem augers to 30ft. Boring was reamed with 10" diameter hollow-stem augers to 30.5ft. A groundwater extraction well was installed using 4" diameter sch 40 PVC and 0.010" machine slotted PVC screen.

David C. [Signature] Reg. No. 4663
Exp: 6/30/92



WELL DETAILS

PROJECT No. CHV-149/306 Drawing No. : A1030609

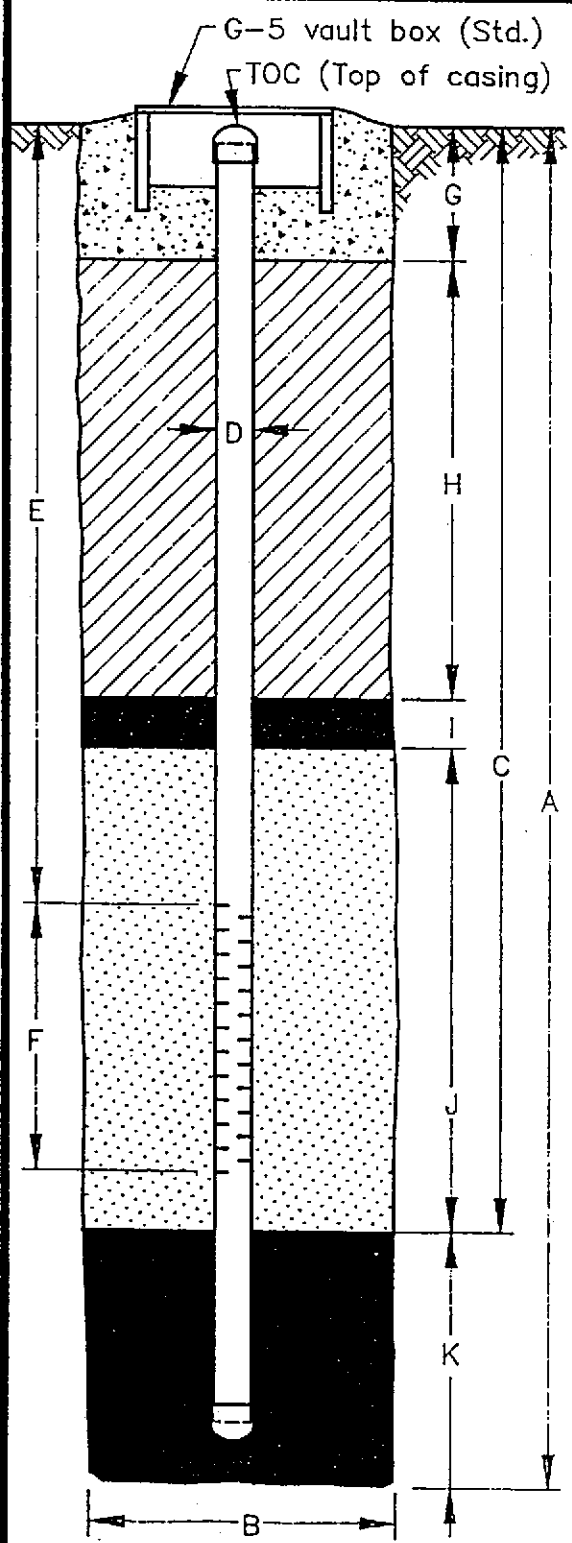
PROJECT NAME: Chevron Service Station No. 9-8139 BORING/WELL No. E-3

16304 Foothill Boulevard TOP OF CASING ELEVATION 125.22Ft.

San Leandro, Ca GROUND SURFACE ELEVATION 125.53Ft.

DATUM MSL

WELL PERMIT No. 91133/91134 INSTALLATION DATE 6/10/91



EXPLORATORY BORING

A. Total depth 30.5 ft.

B. Diameter 10 in.

Drilling method 8"Ø+10"Ø HSA

WELL CONSTRUCTION

C. Total casing length 30 ft.

Material SCH 40 PVC

D. Diameter 4 in.

E. Depth to top of perforations 15 ft.

F. Perforated length 10 ft.

Perforated interval from 15 to 25 ft.

Perforation type MACHINE-SLOTTED

Perforation size 0.010 INCH

G. Surface seal 1.5 ft.

Seal material CONCRETE

H. Backfill 9.5 ft.

Backfill material CEMENT-BENTONITE GROUT

I. Seal 2 ft.

Seal material BENTONITE PELLETS

J. Gravel pack 13 ft.

Pack material No. 2/12 SAND

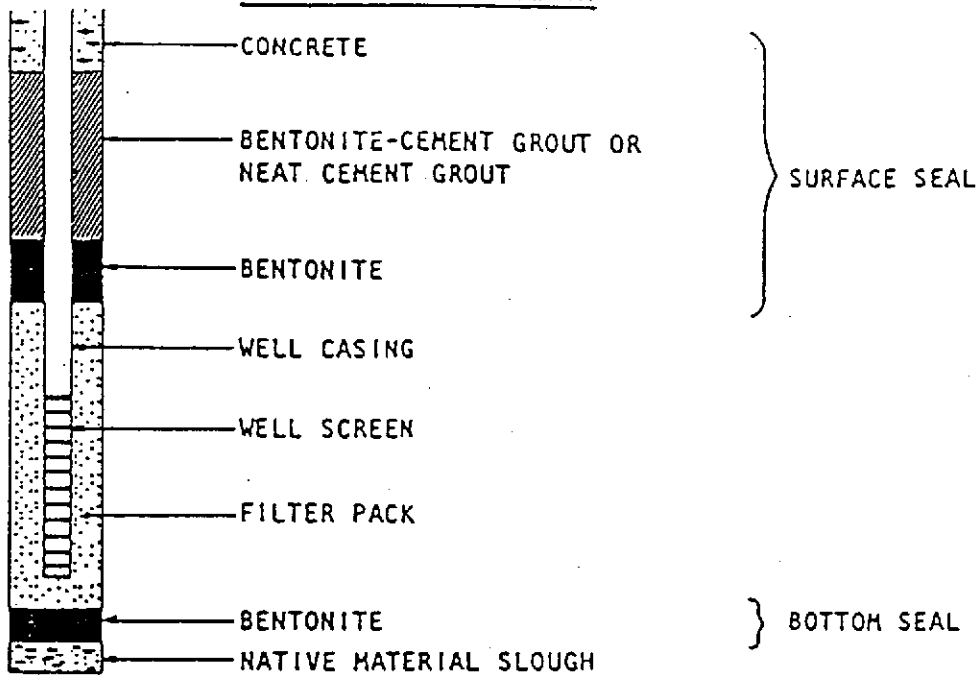
K. Bottom seal/fill 4.5 ft.

Material HOLE PLUG

Form prepared by KSF

EXPLANATION OF SYMBOLS ON EXPLORATORY BORING LOGS

Well Details Column



Sample Column



BAG/BULK SAMPLES

FIVE-FOOT SPLIT BARREL SAMPLER (CONTINUOUS SAMPLER)

MODIFIED CALIFORNIA SPLIT SPOON

OTHER SAMPLERS (SEE REMARKS FOR TYPE AND SIZE)

PITCHER BARREL

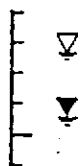
ROCK CORE (SEE REMARKS FOR TYPE AND SIZE)

SHELBY TUBE SAMPLER

STANDARD PENETRATION TEST SPLIT SPOON SAMPLER (2" OD)

EXPLANATION OF SYMBOLS ON
EXPLORATORY BORING LOGS
(CONTINUED)

Ground-Water Level Column



DEPTH TO FIRST OBSERVED GROUND WATER

DEPTH TO STABILIZED GROUND WATER

Miscellaneous

2.5 YR 6/2

Color as field checked to Munsell Soil Color Chart
(1975 Edition)

PENETRATION

Blows required to drive sampler 1 foot into soil.
Standard drive hammer weight: 140 pounds.
Standard drop: 30 inches

APPENDIX D
CONTINGENCY PLAN



APPENDIX D

CONTINGENCY PLAN

This Contingency Plan will ensure compliance with the cleanup goals for the site. Hydrocarbon analyses will be performed to ensure that cleanup goals are not exceeded near the downgradient boundary and that compliance with monitoring goals is maintained.

Wells MW-8, MW-9, MW-10, and EW-2 (Table D-1) will serve as "guard points" to ensure that the source area concentrations are stable or decreasing. Ground water samples from these wells will be analyzed for hydrocarbons semi-annually through 1997, during the seasonal high and low water table. Well MW-11 will serve as a "boundary well" to ensure compliance with cleanup goals. Ground water samples from this well will be analyzed for hydrocarbons semi-annually during the seasonal high and low water table through 1997. If monitoring goals are maintained at these wells, monitoring will cease in 1997.

If monitoring data indicate that certain trigger concentrations have occurred, this contingency plan will be implemented. These trigger concentrations and Contingency Plan responses are summarized in Table D-1. A "baseline" benzene concentration has been determined for MW-8, MW-9, MW-10 and MW-11 based on trends over the last several years. A "trigger" concentration has been determined which represents a significant concentration increase that may indicate possible future non-compliance with cleanup goals. Baseline and trigger concentrations have not been established for EW-2, because insufficient data exists to establish an average concentration. If a trigger concentration occurs in two consecutive monitoring events, or if concentrations are increasing at a rate such that the trigger concentration might be met or exceeded before the next sampling event, the contingency plan will be implemented.

If triggered, this Contingency Plan calls for three responses:

- 1) The Alameda County Department of Environmental Health (ACDEH) will be notified within 60 days if concentrations exceed trigger;
- 2) Ground water monitoring will be performed in the triggered well the next quarter, within 60 days of initial sampling sample to confirm and verify concentrations; and
- 3) If elevated concentrations are again detected, quarterly monitoring of that well will continue until an appropriate course of action, identified by Chevron and accepted by the ACDEH, is implemented. Each sampling event, Chevron will make a cursory review. If the concentrations are unusual but less than trigger concentrations, Chevron will evaluate the situation and provide a written response.

Table D-1. Contingency Plan for Maintaining Compliance, Chevron Service Station #9-8139, 16304 Foothill Boulevard, San Leandro, California. All conditions are for benzene unless otherwise noted.

	Monitoring Well	Baseline Concentration	Trigger Concentration	Response to Trigger Concentration ¹	Additional Monitoring
Guard Wells	MW-8	2 ppb	30 ppb	1) Notify ACDEH.	Quarterly monitoring of triggered well.
	MW-9	50 ppb	50 ppb		
	MW-10	<0.5 ppb	2 ppb	2) Sample triggered well within 60 days.	
	EW-2	To be determined	To be determined		
Boundary Well	MW-11	<0.5 ppb	2 ppb	3) Identify an appropriate course of action based upon determination of source.	

Footnotes:

¹ Response is triggered when the trigger concentration is met or exceeded, or when concentrations are increasing at a rate such that the trigger concentration might be met or exceeded before the next sampling event.