

ENVIRONMENTAL PROTECTION
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Chevron

May 29, 1996

Mr. Scott Seery
Alameda County Health Care Services
Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

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

Marketing - Northwest Region
Phone 510 842 9500

Re: **Chevron Service Station #9-0917**
5820 Hopyard Road, Pleasanton, California

Dear Mr. Seery:

As requested by your office, I am enclosing a **Work Plan** prepared by Pacific Environmental Group, Inc., to conduct a soil and groundwater investigation at the above noted site. Chevron proposes to install geoprobes to define the lateral extent of the dissolved hydrocarbons in the southerly direction from the site. The geoprobes will assist us in determining the location of future permanent monitoring wells.

Six geoprobes are to be installed south and southeast of the site to determine the extent of the dissolved hydrocarbons in the groundwater. Analysis will be made from the soil and groundwater samples for TPPH-G, BTEX, and MTBE. In addition, samples will be analyzed for bulk density, porosity, organic carbon content and water content, which could be used for a risk based evaluation for the site. A review of geologic and topographic maps, plus reports will provide information to determine the regional and groundwater directional flow at the site.

Access agreements will have to be secured from the adjacent property owners before beginning any work, and we will proceed to contact the respective property owners. After receiving access approval, drilling activities will begin, and the completed report should be available within six weeks of drilling the wells.

As stated in previous correspondence, Chevron has undergone a recent reorganization which has involved the movement and replacement of personnel within our Region. I have been assigned all projects in Alameda County, with the exception of the City of Berkeley and the area covered by the Alameda County Water District. Therefore I have taken over the responsibility of this site from Mr. Kenneth Kan of this office. If you have any questions or comments to this Work Plan, please call me at (510) 842-9136.

Sincerely,
CHEVRON PRODUCTS COMPANY

Philip R. Briggs
Site Assessment and Remediation Project Manager

Enclosure

May 29, 1996

Mr Scott Seery

Chevron Service Station # 9-0917
5280 Hopyard Road, Pleasanton, California

cc. Mr. Eddie So, RWQCB-San Francisco Bay Region
2101 Webster St., Suite 500, Oakland, CA 94612

Property Owners, C & H Development Co.
3744 Mt. Diablo Blvd., Suite 301, Lafayette, CA 94549

Mr. Theodore Klenk
Fire Marshall, Pleasanton Fire Department
P.O. Box 520, Pleasanton, CA 94556-0803

Ms. Bette Owen, Chevron Products Co.



PACIFIC
ENVIRONMENTAL
GROUP, INC.

May 15, 1996
Project 320-164.1A

Mr. Phil Briggs
Chevron Products Company
P.O. Box 5004
San Ramon, California 94583-0804

Re: Soil and Groundwater Investigation Work Plan
Chevron Service Station 9-0917
5820 Hopyard Road
Pleasanton, California

Dear Mr. Briggs:

This letter, prepared by Pacific Environmental Group, Inc. (PACIFIC) on behalf of Chevron Products Company (Chevron), presents a work plan to perform a soil and groundwater investigation at the site referenced above (Figures 1 and 2). The purpose of this investigation is to install Geoprobe probes to define the lateral extent of petroleum hydrocarbons in groundwater off-site to the south and southeast. The results of this Geoprobe investigation will facilitate the appropriate locations for groundwater monitoring wells. This work is being performed pursuant to provisions of Article 11, Corrective Action Requirements, Title 23, California Code of Regulations. Information generated from this investigation will be used for developing corrective action at the site.

This work plan includes a brief discussion of site background, proposed scope of work, and schedule. Field and laboratory procedures are presented as Attachment A.

SITE BACKGROUND

The site is an existing Chevron service station located at 5280 Hopyard Road at Owens Drive in Pleasanton, California. Groundwater Monitoring Wells MW-1, MW-2, and MW-3 were installed during August 1989 by Groundwater Technology, Inc. During June 1991 five underground storage tanks (USTs), consisting of four 10,000-gallon fiberglass tanks used for gasoline and diesel and one 550-gallon steel tank for used oil, were removed and replaced with double-walled tanks. During July 1991 existing Wells MW-1, MW-2, and MW-3 were abandoned and replaced with groundwater Monitoring Wells MW-4, MW-5, and MW-6.

Quarterly groundwater gauging and sampling events have been performed at this site since July 1989. Presented below is a summary of these events:

- Depth to groundwater beneath the site ranges from approximately 8 to 10 feet below ground surface (bgs). Historically, groundwater flow direction has been variable. Gauging data from December 1995 indicate that groundwater beneath the site is approximately 8 feet bgs. At that time, groundwater flow was southerly with an approximate gradient of 0.003 ft/ft.
- Historically, total purgeable petroleum hydrocarbons as gasoline (TPPH-g) and benzene concentrations were non-detectable in Wells MW-1, MW-2, and MW-3, except for low levels of hydrocarbons detected in Well MW-1 on July 1989, February 1990, and April 1991. Well MW-4 has also been primarily non-detect for TPPH-g and benzene concentrations, except for low levels of hydrocarbons detected in February 1994. TPPH-g and benzene concentrations have ranged from 1,900 to 56,000 parts per billion (ppb) and 180 and 14,000 ppb in Wells MW-5 and MW-6, respectively. TPPH-g and benzene concentrations of 35,000 and 7,300 ppb, and 1,900 and 210 ppb were detected in Wells MW-5 and MW-6, respectively, during the fourth quarter 1995 sampling event.

PROPOSED SCOPE OF WORK

The proposed scope of work for this investigation has been designed to define the extent of petroleum hydrocarbons in soil and groundwater off-site to the south and southeast. The specific proposed scope of work is discussed below.

- **Access.** Prior to commencing field work, access to adjoining properties will be required.
- **Permits.** PACIFIC will obtain the appropriate soil boring permits from Alameda County prior to initiating field work.
- **Geoprobe Installation.** Six Geoprobes (B-1, B-2, B-3, B-4, B-5, and B-6) are proposed to delineate the extent of petroleum hydrocarbons in groundwater. Proposed soil boring locations are shown on Figure 2.
- **Soil and Groundwater Analysis.** Selected soil samples and groundwater samples will be submitted to a California State-certified laboratory and analyzed for the presence of TPPH-g, benzene, toluene, ethylbenzene, and xylenes (BTEX compounds) and methyl ter-butyl ether (MtBE). Additionally, physical parameters of each lithologic unit encountered will be determined. These physical parameters include fractional organic carbon

content, bulk density, porosity, and water content. These parameters may be utilized for the determination of Risk Based Corrective Action at the site.

- **Groundwater Flow Direction Study.** PACIFIC will perform a study regarding regional and site groundwater flow direction for the site. This analysis will consist of a review of topographic and geologic maps, and a review of site reports and regional literature.
- **Report.** Upon completion of all field activities and receipt of laboratory data, a technical report will be prepared including boring logs, site map, soil and groundwater analytical results, chain-of-custody documentation, and findings.

SCHEDULE

Drilling at the site will be performed upon the approval of all necessary permits. Assuming standard laboratory turnaround time, the analytical results are expected to be received 2 weeks after completion of drilling activities. Based on the foregoing schedule, a technical assessment report should be completed 6 weeks after the drilling of the wells.

If you have any questions regarding the contents of this letter, please call.

Sincerely,

Pacific Environmental Group, Inc.



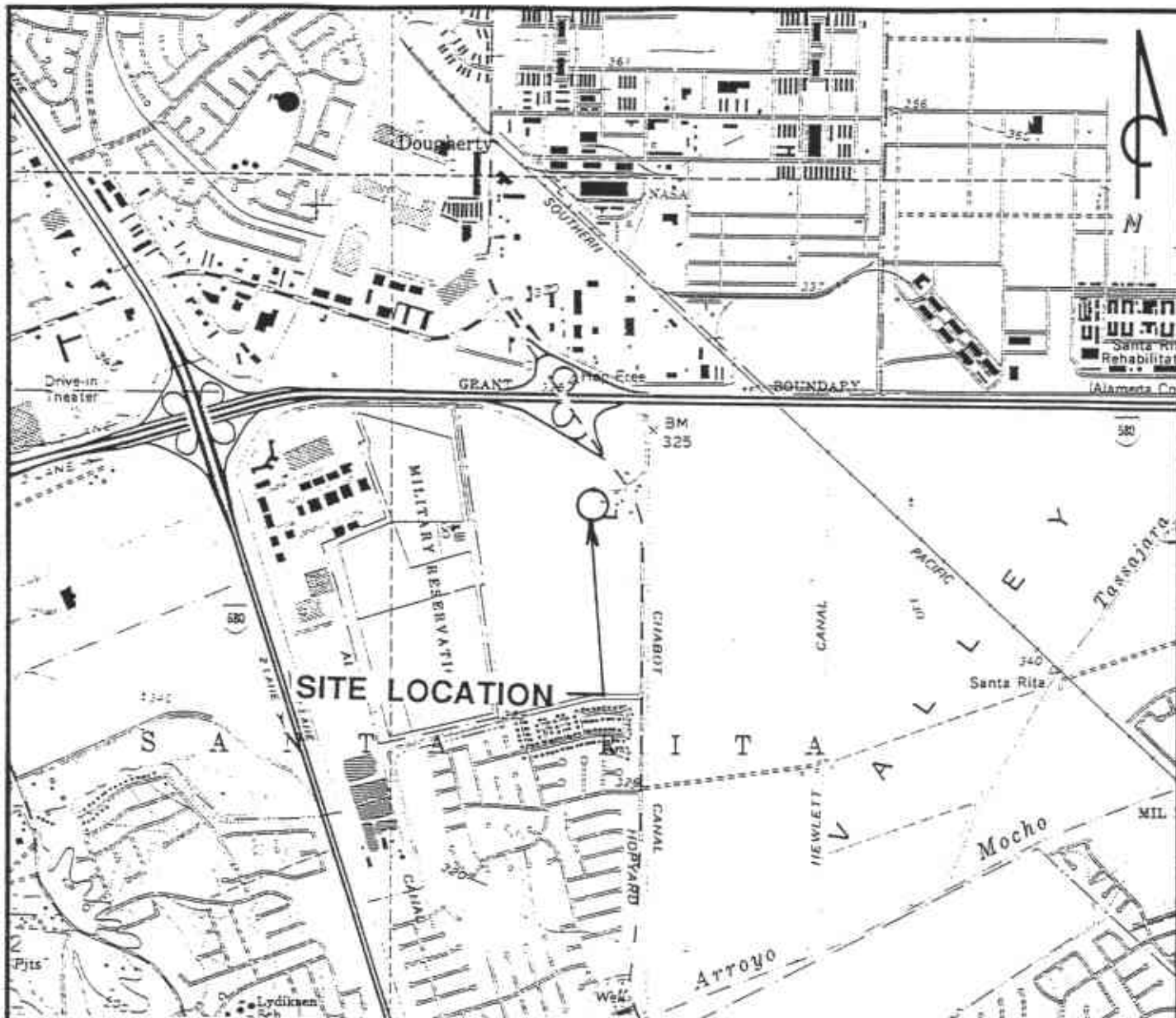
Mark Sullivan
Project Engineer



Michael Hurd
Senior Geologist
CHG 0068



Attachments: Figure 1 - Site Location Map
Figure 2 - Proposed Soil Boring Location Map
Attachment A - Field and Laboratory Procedures

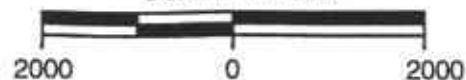


QUADRANGLE
LOCATION

REFERENCES:

USGS 7.5 MIN. TOPOGRAPHIC MAP
TITLED: DUBLIN, CALIFORNIA
DATED: 1965 REVISED: 1980

SCALE IN FEET

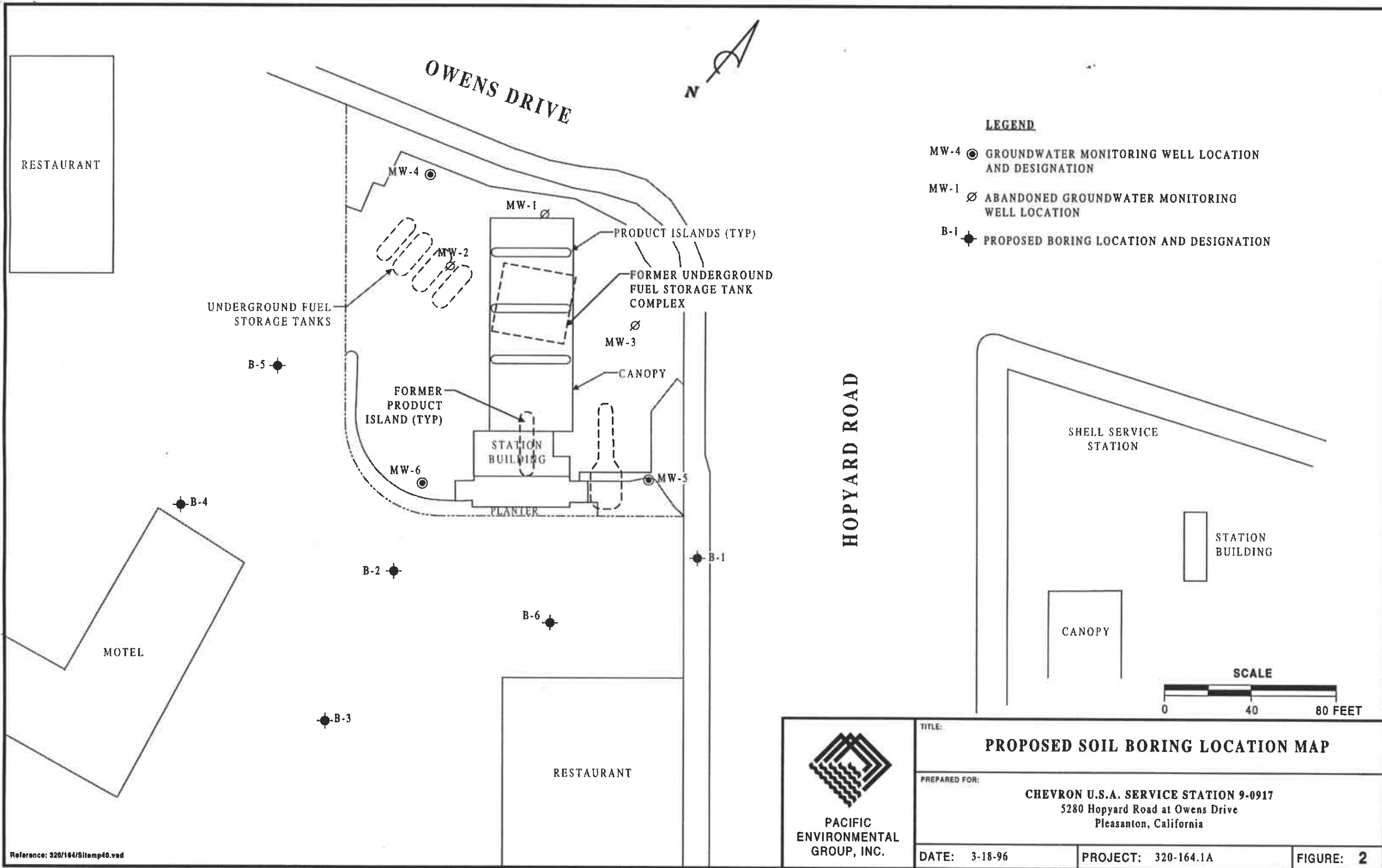


PACIFIC
ENVIRONMENTAL
GROUP, INC.

CHEVRON U.S.A. SERVICE STATION 9-0917
5280 Hopyard Road at Owens Drive
Pleasanton, California

SITE LOCATION MAP

FIGURE:
1
PROJECT:
320-164.1A



OWENS DRIVE



RESTAURANT

MW-4 ●

MW-1 ∅

PRODUCT ISLANDS (TYP)

MW-2 ∅

FORMER UNDERGROUND FUEL STORAGE TANK COMPLEX

UNDERGROUND FUEL STORAGE TANKS

MW-3 ∅

B-5 ●

CANOPY

FORMER PRODUCT ISLAND (TYP)

STATION BUILDING

MW-6 ●

MW-5 ●

PLANTER

HOPYARD ROAD

SHELL SERVICE STATION

STATION BUILDING

B-4 ●

B-2 ●

B-1 ●

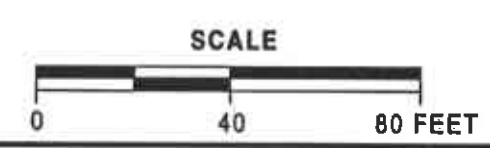
B-6 ●

CANOPY

MOTEL

B-3 ●

RESTAURANT



PACIFIC ENVIRONMENTAL GROUP, INC.

ATTACHMENT A
FIELD AND LABORATORY PROCEDURES

ATTACHMENT A

PROPOSED FIELD AND LABORATORY PROCEDURES

Soil Boring Drilling Procedures

The geoprobe soil borings will be advanced using 2-inch diameter hollow-stem rods fitted with acetate liners for continuous soil core sample recovery when needed. The borings will be logged by a Pacific Environmental Group, Inc. (PACIFIC) geologist using the Unified Soil Classification System and standard geologic techniques. Soil samples for logging and laboratory analysis will be collected at a minimum of 5 feet or continuous core by advancing the hollow-stem rods into undisturbed soil. The sampler will be driven a maximum of 2 to 4 feet using a pneumatic hammer and hydraulic pressure. Soil samples will be analyzed in the field for volatile organic compounds (VOCs) using a photo-ionization detector (PID) by a PACIFIC Geologist. Results of the PID tests will be used to assist in selection of samples for laboratory analysis. A minimum of two samples from each soil sample probe location will be submitted for analysis as described below. Soil samples for chemical analysis will be retained in the acetate liners, capped with Teflon® and plastic end caps and sealed in zip-lock plastic bags. These samples will be placed in a cooler with ice for transport to a California State-certified laboratory accompanied by chain-of-custody documentation. The temperature of the cooler will be recorded upon delivery to the laboratory.

All down-hole drilling equipment will be steam-cleaned prior to drilling and between boring locations.

Organic Vapor Procedures

Soil samples collected during field work will be analyzed in the field for ionizable organic compounds using the HNU Model PI 101 PID with a 10.2 eV lamp. The test procedure involves measuring approximately 30 grams from an undisturbed soil sample, placing this subsample in a clean glass jar, and sealing the jar with aluminum foil secured under a ring-type threaded lid. The jar is then warmed for approximately 20 minutes, then the foil is pierced and the head-space within the jar is tested for total organic vapor measured in parts per million as benzene (ppm; volume/volume). The instrument is previously calibrated using a 100-ppm isobutylene standard (in air) and a sensitivity factor of 0.7, which relates the photo-ionization sensitivity of benzene (7.0 ppm) to that of isobutylene.

Laboratory Procedures

Selected soil samples from the soil borings will be analyzed in the laboratory for the presence of total petroleum hydrocarbons calculated as gasoline, benzene, toluene, ethylbenzene, and xylenes by modified EPA Methods 8015 and 8020. The samples will be examined using the purge and trap technique, with final detection by gas chromatography using a flame-ionization detector as well as a PID. All analyses will be performed by a California State-certified laboratory.