Chevron U.S.A. Inc.
2410 Camino Ramon, San Ramon, California • Phone (415) 842-9500
Mail Address: P.O. Box 5004, San Ramon, CA 94583-0804

Marketing Department

August 23, 1991

Mr. Rafat Shahid
Alameda County Health Care Services
Department of Environmental Health
Hazardous Materials Program
80 Swan Way, Room 200
Oakland, CA 94621

Re: Former Service Station #9-7127
I-580 & Grant Line Road, Tracy

Dear Mr. Shahid:

Enclosed we are forwarding a Work Plan dated July 3, 1991, prepared by our consultant Pacific Environmental Group, Inc.which describes work steps we propose to take at the above referenced site. The proposed work is inclusive of installing soil borings to assess the lateral extent of the soils contamination and a groundwater monitor well(s) to assess whether groundwater has been impacted. Initially only one (1) well will be installed within the former tank complex and a sample collected and analyzed for TPH-Gasoline and BTEX. If the analytical results report non-detectable concentrations of these constituents, the other two (2) proposed wells will not be drilled. This is being proposed as we are uncertain of regional depth to groundwater and whether a perched zone exists beneath the site. This is suspected as water was observed in the tank excavation during removal. If a perched zone exists, the monitor well(s) will be completed at this depth.

Chevron will proceed with the proposed work under self direction unless otherwise informed by your office. We would appreciate your review and concurrence.

If you have any questions or comments, please do not hesitate to contact me at (415) 842-9581.

Very truly yours,
CHEVRON U.S.A. INC.

Nancy Vukelich
Environmental Engineer

Enclosure

cc: Mr. Rich Hiett, RWQCB-Bay Area
Mr. S. A. Willer
File (9-7127W1)

Carnazzo Land Company, Inc.
C/O Mr. William S. Carnazzo, M.D.
P.O. Box 6031
Atascadero, CA 93423

① 3 wells

② How estimate GW direction?

③ More borings on E+W of UST p.t (N?)

northeast of the tank complex, it appears that the fuel tank complex may have formerly contained a fourth tank. A 1,500-gallon waste oil tank and a 850-gallon heating fuel tank were located in a common excavation northeast of the station building. **All tanks were constructed of single-walled fiberglass.**

With the exception of the water-supply well, all site improvements have been removed. **The underground tanks and associated piping were removed in April 1991.** All tanks appeared to be in good condition upon excavation, with no visible holes. However, **evidence of hydrocarbons (staining and odor) was noted in the backfill materials during removal of the gasoline tanks.** An *Unauthorized Release Form* was filed by Chevron USA. **A tank closure report documenting tank removal, soil analytical results, and disposition of excavated soils will be submitted by Chevron USA upon completion of on-going soil aeration.**

Regional Hydrogeologic Setting

The site is located in a small basin in the eastern foothills of the Diablo Range, in eastern Alameda County, California. The Diablo Range is a northwest-southeast trending range of mountains bounded to the west by the flatlands of the San Francisco Bay area, and to the east by the San Joaquin Valley. The Diablo Range represents a region of tectonic uplift which formed in response to compressional forces during the development of the current California transform margin.

The site is underlain by approximately 10 to 20 feet of fill and quaternary alluvial fan and fluvial deposits which overly bedrock. Bedrock in the vicinity of the site belongs to two formations, the Upper Cretaceous Panoche Formation and the Miocene Neroly Formation (Bishop, 1970). The Panoche Formation has an estimated thickness of 20,000 feet and is divided into a lower, deep marine, green to black shale, and an upper sequence of shallow marine, light gray arkosic sandstones, medium brown siltstones, claystones, and conglomerate. Calcareous and ferruginous concretions to several feet in diameter have also been observed. The upper units of the Panoche may have been deposited by eastward flowing turbidity currents. The Neroly Formation has been described as a non-marine blue to gray sandstone, which is pebbly in some locations (Dibblee, 1980). The Midway Fault, a northwest-southeast trending dip-slip fault, traverses through the valley containing the site. The upthrown side of this fault is considered to be the north-eastern side (Dibblee, 1980).

Groundwater flow in the vicinity of the site is inferred to be toward the north. Groundwater beneath the site probably occurs in the bedrock. Based on

conversations with local well drillers, depth to groundwater in the vicinity of the site is highly variable, ranging from 20 to 140 feet.

Previous Site Investigations

Previous work has been conducted at the site by EA Engineering Science and Technology (EA), Kleinfelder, Gettler-Ryan Inc., and GeoStrategies Inc. The following is a description of previous investigations and findings. Tables containing all analytical data are presented as Attachment A.

- EA conducted a soil vapor investigation at the site in October 1987. Thirteen soil vapor points were sampled (Figure 2). Soil vapor concentrations ranged from non-detectable to 28,500 parts per million (ppm). The highest concentrations were detected in the vicinity of the gasoline storage tank complex and association product piping (EA, November 13, 1987).

- In December 1987 Kleinfelder conducted a site investigation. Kleinfelder originally proposed installing six groundwater monitoring wells, but they were unable to drill to groundwater due to auger refusal at depths ranging from approximately 6 to 20 feet. The site is underlain by up to 20 feet of gravelly silty clay and gravelly silty sand, which directly overlies bedrock.

  Kleinfelder drilled seven soil borings (Figure 2) and soil samples were collected for laboratory analysis. Total petroleum hydrocarbons, calculated as gasoline (TPH-gasoline) were detected in soils at concentrations ranging from non-detectable to 2,300 ppm. The highest concentrations were detected in and beneath the gasoline tank complex backfill materials (Kleinfelder, January 6, 1988).

  Kleinfelder conducted a well survey to identify documented water-supply wells in the vicinity of the site. They identified two nearby wells; the first is located approximately 1/2 mile southeast of the site, on the opposite side of a hill, and would not be expected to be impacted by site conditions. The second well is located approximately 300 yards uphill (upgradient) of the site. This well was reportedly damaged in 1980, and is not used.

  Kleinfelder collected water samples from the on-site domestic well at various sampling points between the well and the tap.

Benzene was detected in the well water samples at concentrations of up to 4 parts per billion (ppb) (Kleinfelder, March 8, 1988).

- o In May 1989 Gettler-Ryan installed a carbon adsorption treatment system on the domestic well, and performed subsequent sampling of the treated well water. A summary of Gettler-Ryan's sampling data was included in a report prepared by GeoStrategies (September 14, 1989).

PROPOSED SCOPE OF WORK

To evaluate the soil and groundwater conditions beneath the site, PACIFIC proposes installing three soil borings and one to three groundwater monitoring wells. The soil borings will be drilled using hollow-stem auger drilling equipment, and will be terminated when one of the following occurs: (1) auger refusal, (2) groundwater is encountered, or (3) the boring has been advanced a minimum of 20 feet beyond evidence of hydrocarbons. The proposed soil boring locations are presented on Figure 3. These locations were selected to determine the lateral extent of hydrocarbons in soil in areas where previous data has not been collected.

The proposed monitoring well locations are shown on Figure 3. PACIFIC proposes to first install the monitoring well adjacent to the subsurface fuel tank complex, where hydrocarbons were noted in both soil samples and soil vapors during previous investigations. This well will be developed and a water sample will be collected from the well using a bailer immediately following construction. The groundwater sample will be analyzed for TPH-gasoline and BTEX compounds (rush) prior to drilling the remaining two monitoring wells. If groundwater in the vicinity of the source area does not appear to have been impacted by site operations, then the other two proposed monitoring wells will not be installed. If groundwater in the vicinity of the first well appears to be impacted, two additional groundwater monitoring wells will be installed along the inferred downgradient (northern) property boundary to characterize downgradient soil and groundwater conditions.

Because of the potential difficulty of installing monitoring wells in bedrock, monitoring wells will be drilled using hollow-stem auger drilling equipment which is capable of converting to mud-rotary. Prior to converting from auger to mud-rotary, a careful water check will be performed to assess whether groundwater occurs at the soil-bedrock interface. PACIFIC will also attempt to measure water level in the on-site domestic well prior to drilling to assess depth to groundwater beneath the site. The monitoring wells will be constructed of 2-inch diameter,

schedule 40 PVC casing, in accordance with California Department of Water Resources guidelines for monitoring well installation.

Exploratory boring and monitoring well installation procedures are included in Attachment B. All field work will be performed in accordance with a site health and safety plan.

After installation, the groundwater monitoring wells will be developed and sampled. Before sampling, water levels will be measured in each well and they will be checked for separate-phase hydrocarbons. Sampling procedures are discussed in Attachment B.

Laboratory Analysis

All groundwater samples and selected soil samples will be analyzed by a State-certified laboratory for TPH-gasoline, and benzene, toluene, ethylbenzene and xylenes (BTEX compounds). In addition, the groundwater sample collected from the monitoring well north of the waste oil and heating oil tanks will be analyzed for oil and grease. Laboratory analyses are discussed in Attachment B. No chemical analyses will be performed on lithified bedrock samples for two reasons, (1) the laboratory cannot perform sample extraction on a consolidated sample, and (2) it is not possible to use sample rings for preservation with standard rock coring equipment.

Report

Upon completion of the above-described field work, a report will be prepared and submitted to Chevron USA. The report will include boring logs, well completion details, soil and groundwater analytical results, a groundwater contour map, a summary of findings, and recommendations, if appropriate.

If you have any questions or comments regarding the contents of this work plan, please do not hesitate to call.

Sincerely,

Pacific Environmental Group, Inc.

Jerry Mitchell
Project Geologist

Christine W. Brown
Senior Geologist
RG 4556

Attachments: Figure 1 Site Location Map
Figure 2 Site Map
Figure 3 Proposed Well/Boring Map

Attachment A Analytical Results from Previous Investigations
Attachment B Investigative Procedures

REFERENCES

Bishop, Charles C., 1970, *Upper Cretaceous Stratigraphy on the West Side of the Northern San Joaquin Valley, Stanislaus and San Joaquin Counties, California,* California Division of Mines and Geology Special Report.

Dibblee, Thomas W., 1980, *Preliminary Geologic Map of the Midway Quadrangle, Alameda and San Joaquin Counties, California,* USGS Open File Report 80-0535.

PACIFIC
ENVIRONMENTAL
GROUP, INC.

'91 T.E.H.

July 3, 1991
Project 325-04.01

Chevron USA, Inc.
P.O. Box 5004
San Ramon, California 94583-0804

Attn: Ms. Nancy Vukelich

Re: Former Chevron USA Station 9-7127
Highway I-580 and Grantline Road
Tracy, California

Dear Ms. Vukelich:

This letter presents a work plan prepared by Pacific Environmental Group, Inc. (PACIFIC) for a groundwater investigation at the Chevron USA service station referenced above. This work plan was prepared in response to a letter from the Alameda County Department of Environmental Health to Chevron USA dated June 5, 1991.

BACKGROUND

Site Description

The site is an inactive Chevron USA service station located at Highway I-580 and Grantline Road in Tracy, California (Figure 1). The site lies in a rural area in the foothills northwest of Tracy. Figure 2 presents the former service station layout, including station building, product islands and underground storage tanks. A water well on site formerly supplied all of the domestic and commercial needs for the site and adjacent property owner.

The station was operational for 15 years, between 1971 and 1986. The service station had three underground gasoline storage tanks (two 9,500-gallon and one 5,750-gallon) in a common excavation. Based on the extent of backfill materials

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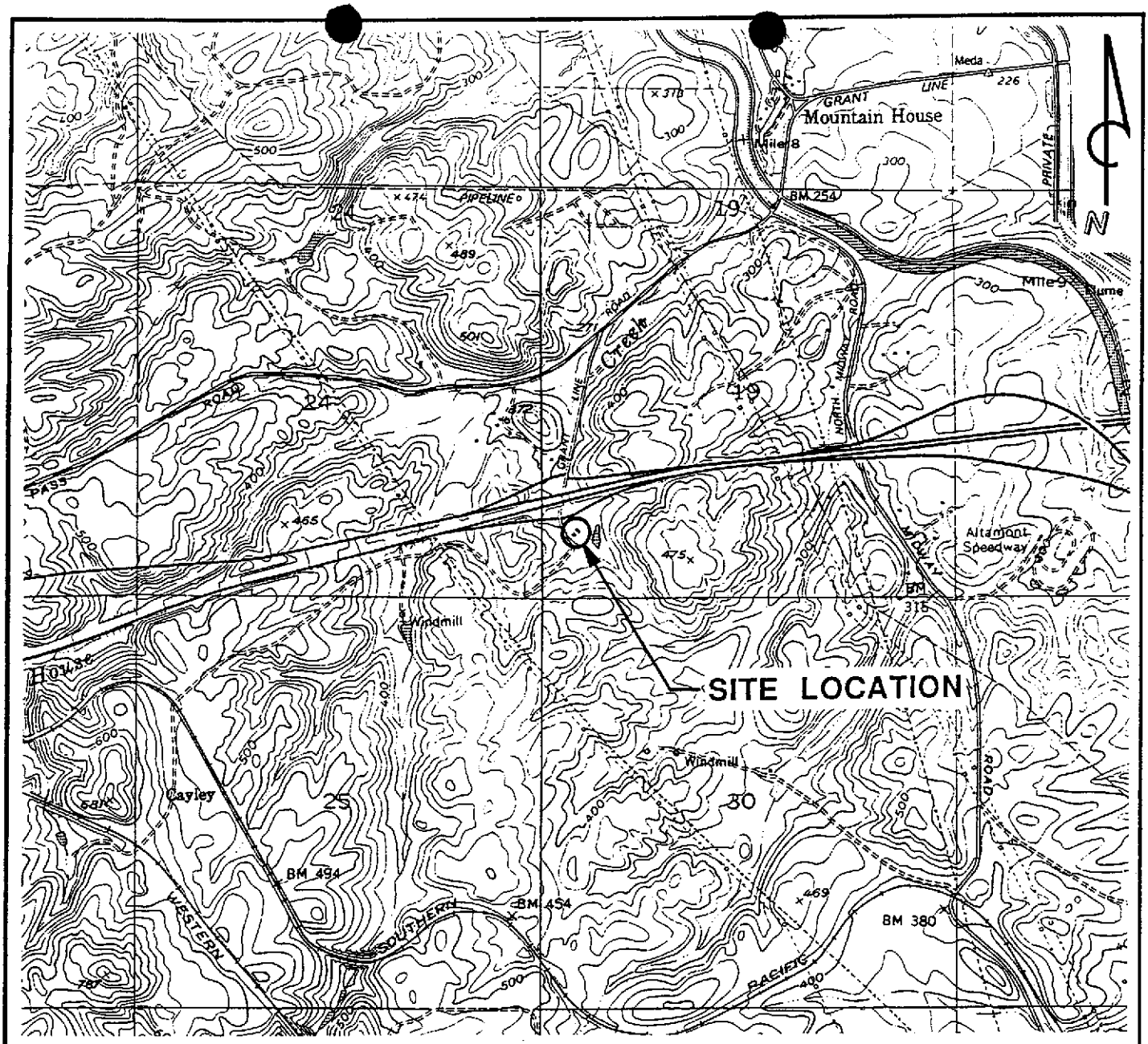
620 Contra Costa Boulevard, Suite 209, Pleasant Hill, California 94523 (415) 825-0855 FAX: (415) 825-0882



QUADRANGLE LOCATION

REFERENCES:

USGS 7.5 MIN. TOPOGRAPHIC MAP
TITLED: MIDWAY, CALIFORNIA
DATED: 1953 REVISED: 1980
TITLED: CLIFTON COURT FOREBAY, CALIFORNIA
DATED: 1978

SCALE

2000 0 2000 FEET

PACIFIC ENVIRONMENTAL GROUP, INC.

FORMER CHEVRON USA STATIONS 9-7127
Grant Line Road at I-580
Tracy, California

SITE LOCATION MAP

FIGURE: 1

PROJECT: 325-04.01

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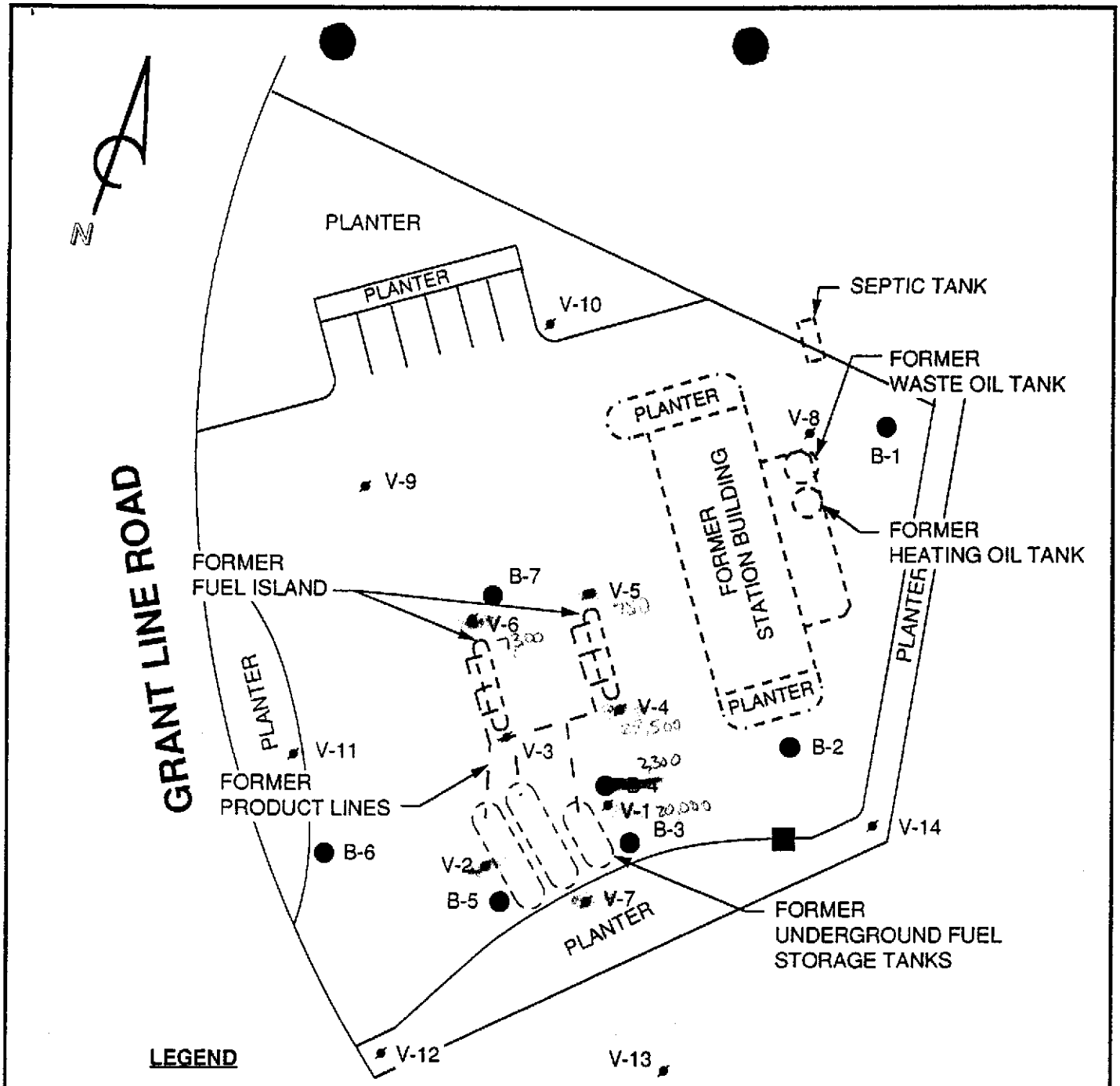
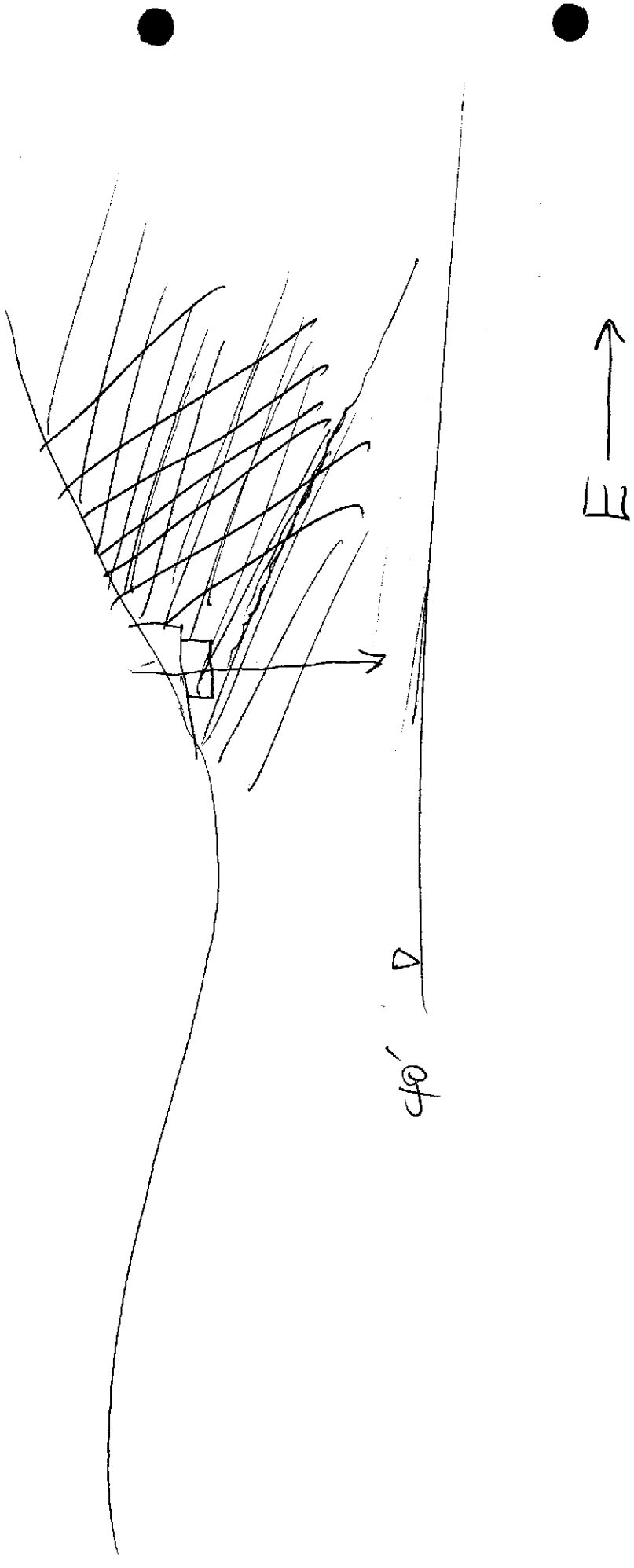


PACIFIC ENVIRONMENTAL GROUP, INC.	**FORMER CHEVRON USA STATION 9-7127** Grant Line Road at I-580 Tracy, California **SITE MAP**	FIGURE: **2** PROJECT: 325-04.01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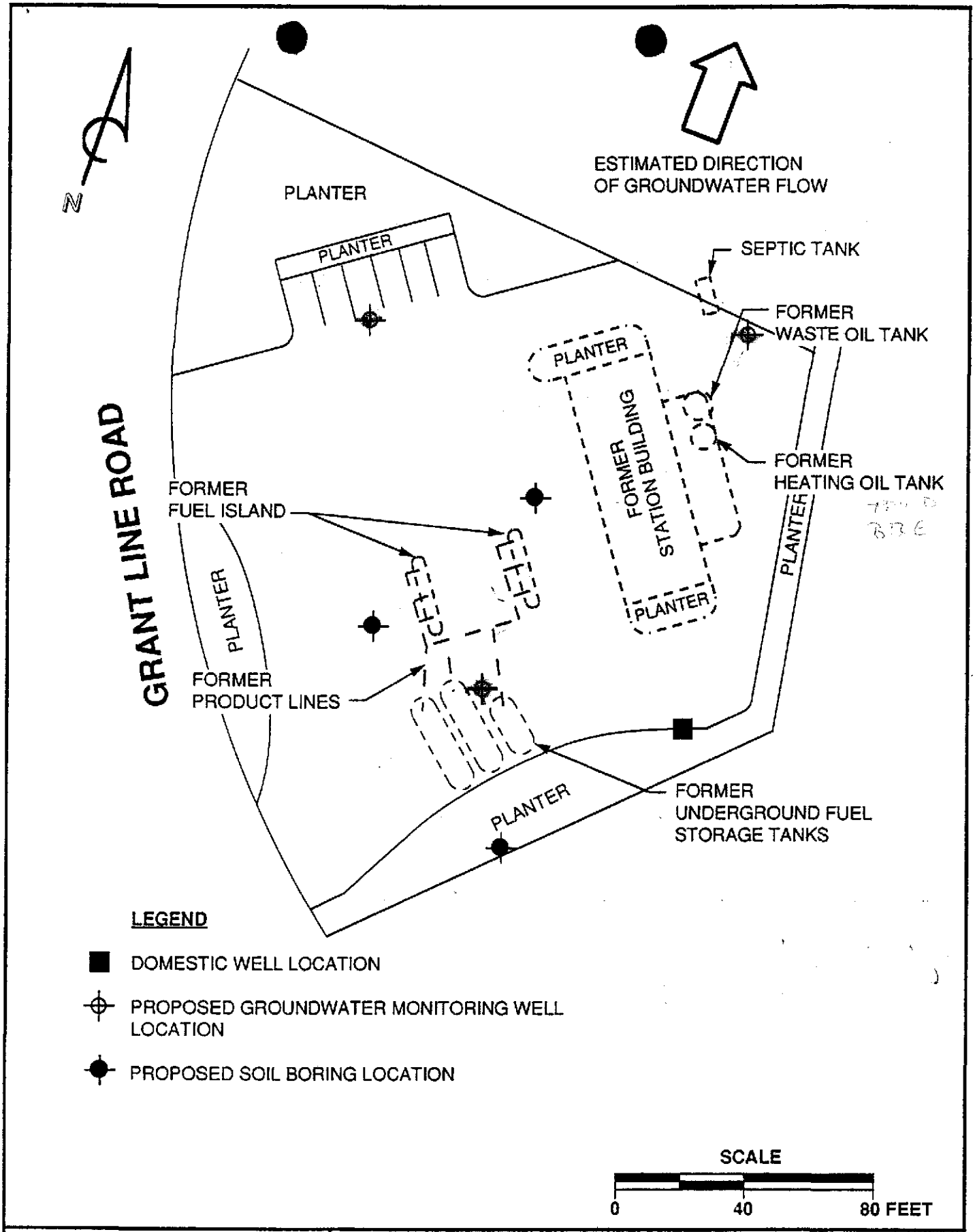


PACIFIC ENVIRONMENTAL GROUP, INC.	**FORMER CHEVRON USA STATION 9-7127** Grant Line Road at I-580 Tracy, California	FIGURE: **3**
	PROPOSED WELL LOCATION MAP	PROJECT: 325-04.01

ATTACHMENT A

ANALYTICAL RESULTS FROM PREVIOUS INVESTIGATIONS

TABLE 1

SUMMARY OF SOIL VAPOR MONITORING DATA
CHEVRON SERVICE STATION #7127
TRACY, CALIFORNIA

SAMPLE LOCATION	SAMPLE DEPTH	PRIOR TO BENZENE(1) (ppm)	BENZENE (ppm)	TOLUENE (ppm)	DETECTED HYDROCARBONS (ppm)
V1	3	<5	<1	<1	<5
V1/B	5	3700	650	3200	7500
V1/C	8	18000	600	2800	20000
V2	5	130	<5	30	160
V3	3	10	5	10	30
V3/B	5	<5	1	10	15
V4	3	20000	3200	5200	28500
V4/B	5	120	130	1900	2080
V5	5	1	<1	<5	<5
V5/B	7	620	40	<1	750
V6	5	1150	540	160	7300
V7	5	1300	<5	<5	1400
V8	3	<1	<1	<1	<1
V8/B	8	<1	<1	<1	<1
V9	8	1	<1	<10	10
V10	8	<1	<1	<1	<1
V11	5	<1	<1	<1	<1
V12	8	<1	<1	<1	<1
V13	12	20	<1	<1	25
V14	8	<1	<1	<1	<1
V15	12	<1	<1	<1	<1
BLANK	NA	<0.1	<0.1	<0.1	NA
BLANK	NA	<0.1	<0.1	<0.1	NA
Detection Limit		0.5	0.5	0.5	1

NA = Not Applicable
ppm = parts per million

(1) Quantification based on the volt-second:ppm response ratio for benzene.
Source: EA Engineering, Science, and Technology, Inc. report dated 11/13/87

(Note: See Plate 2 for sampling point locations.)

TABLE 2

SUMMARY OF SOILS ANALYTICAL DATA
CHEVRON SERVICE STATION #7127
TRACY, CALIFORNIA

SAMPLE ID	SAMPLE DEPTH*	BENZENE (ppm)	TOLUENE (ppm)	TOTAL XYLENES (ppm)	ETHYLBENZENE (ppm)	TPH (ppm)
B1-10	10	ND	ND	ND	ND	ND
B2-20	20	0.001	ND	4	0.003	0.8
B3-14	14	1.2	0.680	2	0.8	76
B4-15	15	19	85	140	28	2300
B5-5	5	0.076	0.007	0.030	0.002	0.5
B6-5	5	ND	ND	ND	ND	ND
B7-5	5	0.022	0.003	0.024	0.046	0.7
Detection Limit		0.5	0.5	0.5	0.5	1

TPH = Total Petroleum Hydrocarbons
* Feet below ground surface
ppm = parts per million
Benzene, Toluene, Total Xylenes and Ethylbenzene concentrations converted from ppb to ppm.

SOURCE: Subsurface Environmental Investigation, January 6, 1988; Kleinfelder Inc.

(Note: See Plate 3 for boring locations.)

TABLE 3

SUMMARY OF GROUND-WATER ANALYTICAL DATA
CHEVRON SERVICE STATION #7127
TRACY, CALIFORNIA

SAMPLE DATE	SAMPLING POINT	BENZENE (ppb)	TOLUENE (ppb)	TOTAL XYLENES (ppb)	ETHYLBENZENE (ppb)	TPH (ppm)
12/21/87	T-1	2	ND	ND	ND	NT
01/05/88	T-2	4	ND	ND	ND	NT
01/08/88	T-2	1	ND	ND	ND	NT
01/08/88	T-2	1.1	ND	ND	ND	NT
01/21/88	Well	ND	ND	ND	ND	NT
02/19/88	T-1	ND	ND	ND	ND	ND
02/19/88	T-1	ND	ND	ND	ND	ND
02/19/88	Well	ND	ND	ND	ND	ND
02/19/88	TB	ND	ND	ND	ND	ND
03/14/89	Well #	3.7	0.8	NT	NT	ND
03/14/89	Well *	ND	ND	ND	NT	ND
03/14/89	T-2 #	2.7	0.4	NT	NT	ND
03/14/89	T-2 *	ND	ND	NT	NT	ND
03/14/89	T-3 #	1.4	0.4	NT	NT	ND
03/14/89	T-3 *	ND	ND	NT	NT	ND
03/14/89	TB *	ND	ND	NT	NT	ND
04/05/89	Well *	7	3	ND	NT	ND
04/05/89	Well #	6.4	2.3	1	NT	ND
04/05/89	T-2 *	6	3	3	NT	ND
04/05/89	T-2 #	5	1.5	0.7	NT	ND
04/05/89	T-3 *	2	ND	ND	NT	ND
04/05/89	T-3 #	2.3	0.6	ND	NT	ND
04/05/89	TB #	ND	ND	0.6	NT	ND
Detection Limit		0.5	0.5	0.5	0.5	1

TB = Trip Blank
NT = not tested
ppm = parts per million
ppb = parts per billion
* Analyzed by Med-Tox Associates, Inc.
# Analyzed by Clayton Environmental Consultants, Inc.
Well = samples collected from domestic well-head.

(Note: See Plate 4 for sampling point locations.)

TABLE 4

SUMMARY OF GROUND-WATER ANALYTICAL DATA AFTER TREATMENT
CHEVRON SERVICE STATION #7127
TRACY, CALIFORNIA

SAMPLE DATE	SAMPLING POINT	BENZENE (ppb)	TOLUENE (ppb)	TOTAL XYLENES (ppb)	ETHYLBENZENE (ppb)	TPH (ppm)
08/05/89	A	ND	ND	ND	ND	ND
08/05/89	B	ND	ND	ND	ND	ND
08/05/89	C	ND	ND	ND	ND	ND
08/05/89	Well	ND	ND	ND	ND	ND
08/05/89	TB	ND	ND	ND	ND	ND
08/11/89	A	ND	ND	ND	ND	ND
08/11/89	B	ND	ND	ND	ND	ND
08/11/89	C	ND	ND	ND	ND	ND
08/11/89	Well	ND	ND	ND	ND	ND
08/11/89	TB	ND	ND	ND	ND	ND
08/18/89	A	ND	ND	ND	ND	ND
08/18/89	B	ND	ND	ND	ND	ND
08/18/89	C	ND	ND	ND	ND	ND
08/18/89	Well	ND	ND	ND	ND	ND
08/18/89	TB	ND	ND	ND	ND	ND
08/25/89	A	ND	ND	ND	ND	ND
08/25/89	B	ND	ND	ND	ND	ND
08/25/89	C	ND	ND	ND	ND	ND
08/25/89	Well	ND	ND	ND	ND	ND
08/25/89	TB	ND	ND	ND	ND	ND
08/30/89	A	ND	ND	ND	ND	ND
08/30/89	B	ND	ND	ND	ND	ND
08/30/89	C	ND	ND	ND	ND	ND
08/30/89	Well	ND	ND	ND	ND	ND
08/30/89	TB	ND	ND	ND	ND	ND
Detection Limit		0.5	1	3	1	50

TB = Trip Blank
ppm = parts per million ppb = parts per billion

Source: Gettler-Ryan Sampling Reports 5/89 through 8/89
Note: Well is also referred to as sample point D in G-R Sampling Reports.

(Note: See Plates 5 and 6 for sampling location.)

TABLE 4

SUMMARY OF GROUND-WATER ANALYTICAL DATA AFTER TREATMENT
CHEVRON SERVICE STATION #7127
TRACY, CALIFORNIA

SAMPLE DATE	SAMPLING POINT	BENZENE (ppb)	TOLUENE (ppb)	TOTAL XYLENES (ppb)	ETHYLBENZENE (ppb)	TPH (ppm)
08/05/89	A	ND	ND	ND	ND	ND
08/05/89	B	ND	ND	ND	ND	ND
08/05/89	C	ND	ND	ND	ND	ND
08/05/89	Well	ND	ND	ND	ND	ND
08/05/89	TB	ND	ND	ND	ND	ND
08/11/89	A	ND	ND	ND	ND	ND
08/11/89	B	ND	ND	ND	ND	ND
08/11/89	C	ND	ND	ND	ND	ND
08/11/89	Well	ND	ND	ND	ND	ND
08/11/89	TB	ND	ND	ND	ND	ND
08/18/89	A	ND	ND	ND	ND	ND
08/18/89	B	ND	ND	ND	ND	ND
08/18/89	C	ND	ND	ND	ND	ND
08/18/89	Well	ND	ND	ND	ND	ND
08/18/89	TB	ND	ND	ND	ND	ND
08/25/89	A	ND	ND	ND	ND	ND
08/25/89	B	ND	ND	ND	ND	ND
08/25/89	C	ND	ND	ND	ND	ND
08/25/89	Well	ND	ND	ND	ND	ND
08/25/89	TB	ND	ND	ND	ND	ND
08/30/89	A	ND	ND	ND	ND	ND
08/30/89	B	ND	ND	ND	ND	ND
08/30/89	C	ND	ND	ND	ND	ND
08/30/89	Well	ND	ND	ND	ND	ND
08/30/89	TB	ND	ND	ND	ND	ND
Detection Limit		50.	0.5	1.	1.	3.

TB = Trip Blank
ppm = parts per million ppb = parts per billion

Source: Gettler-Ryan Sampling Reports 5/89 through 8/89
Note: Well is also referred to as sample point D in G-R Sampling Reports.

(Note: See Plates 5 and 6 for sampling location.)

ATTACHMENT B

INVESTIGATIVE PROCEDURES

ATTACHMENT B

INVESTIGATIVE PROCEDURES

Monitoring Well Installation

The soil borings will be drilled using hollow-stem auger drilling equipment, and will be terminated when one of the following occurs: (1) auger refusal, (2) groundwater is encountered, or (3) the boring has been advanced a minimum of 20 feet beyond evidence of hydrocarbons. Because of the potential difficulty of installing monitoring wells in bedrock, the borings for monitoring wells will be drilled using hollow-stem auger drilling equipment which is capable of converting to mud-rotary. Soil samples for logging and chemical analysis will be collected at 5-foot depth intervals and at significant lithologic changes by advancing a California-modified split-spoon sampler with brass liners a maximum of 18 inches into the undisturbed materials beyond the bottom of the borehole. Undisturbed samples will be collected until sample refusal occurs in the bedrock materials. Once drive sample refusal occurs, bedrock samples will be collected periodically in order to determine lithology and to identify groundwater. Soil and bedrock samples will be logged by a PACIFIC geologist using the Unified Soil Classification System and standard geologic techniques.

Soil samples for chemical analysis will be retained in brass liners, wrapped with aluminum foil and plastic end caps, and sealed in clean glass containers. These samples will be placed on ice for transport to the laboratory accompanied by chain-of-custody documentation.

Soil and friable bedrock samples collected during drilling will be analyzed in the field for ionizable organic compounds using the H-NU Model PI 101 photoionization detector with a 10.2 eV lamp. The test procedure involves measuring approximately 30 grams from an undisturbed soil sample, placing this sub-sample in a clean glass jar, and sealing the jar with aluminum foil secured under a ring-type threaded lid. The jar is 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 will be calibrated prior to drilling using a

100 ppm isobutylene standard (in air) and a sensitivity factor of 0.7, which relates the photoionization potential of isobutylene (7.0 ppm) to benzene. The results of the field testing will be noted on the exploratory boring logs.

The borings will penetrate a maximum of 20 feet into the water-bearing zone, taking care not to penetrate a 5-foot thick aquitard. Two-inch diameter Schedule 40 PVC casing and 0.020-inch factory-slotted screen will then be installed. Graded sand pack will be placed into the annular space across the screen interval, and will extend approximately 2 to 3 feet above the top of the screens. A bentonite and concrete seal will be placed from the top of the sand pack to the ground surface. A locking cap and protective vault box will be installed on the top of each well. A standard monitoring well completion detail is attached (Figure B-1).

The well locations will be noted, and the surface elevation of each vault box and top of casing will be surveyed to the nearest 0.01 foot based on the mean sea level datum by a licensed surveyor. This information will be used to calculate the groundwater flow direction and gradient.

All downhole drilling equipment will be steam cleaned between each boring and monitoring well. Steam cleaning water will be contained in 55-gallon drums and secured at the site pending disposal.

Groundwater Sampling

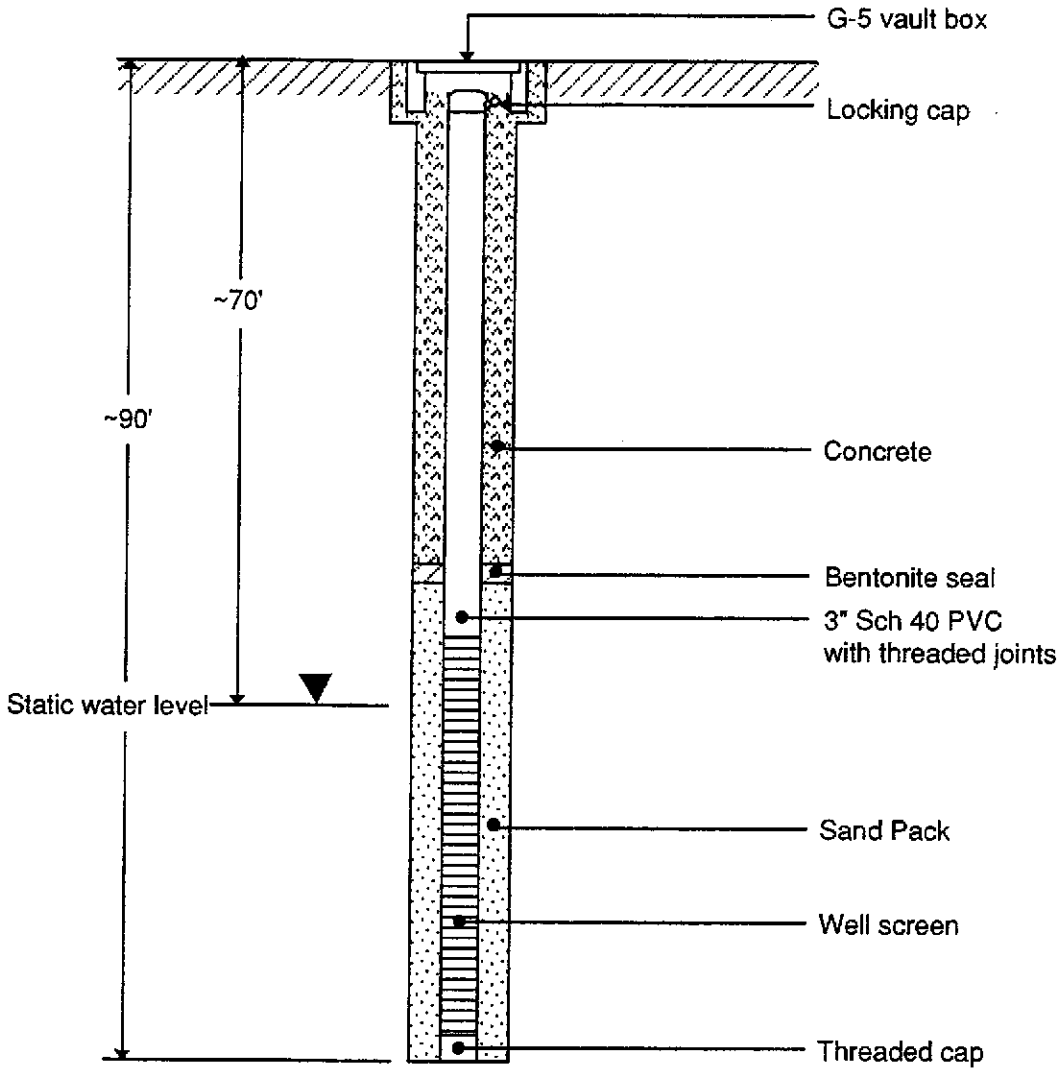
The wells will be developed after installation by surging and pumping or bailing until the produced water is substantially free of sediment. With the exception of the sample collected from the first well immediately following well installation, the wells will not be developed until at least 24 hours after installation, and will be allowed to recover for 24 hours after development prior to sampling.

Site groundwater monitoring wells will be sampled by first measuring the water level and checking for the presence of separate-phase hydrocarbons using an electronic interface probe. If no separate-phase hydrocarbons are noted, the wells will then be purged a minimum of four casing volumes of water (or until dry) using an airlift pump (or other appropriate pump, depending on depth to groundwater) during which time temperature, pH, and electrical conductivity will be monitored to indicate that a representative groundwater sample has been obtained. After purging, the water levels in the wells will be allowed to partially restabilize before sampling. Groundwater samples will be collected using a Teflon bailer, placed into appropriate EPA-approved containers, labeled, logged onto chain-of-custody documents, and transported on ice to the laboratory. A trip blank and a duplicate water sample will accompany the samples

to the laboratory. Well development and purged groundwater will be contained in 55-gallon drums and secured on site pending disposal.

Laboratory Analysis

Groundwater samples and selected soil samples will be analyzed for total petroleum hydrocarbons calculated as gasoline (TPH-gasoline) and benzene, toluene, ethylbenzene, and xylenes (BTEX compounds). The analyses for TPH-gasoline will be performed according to Modified EPA Method 8015 by the purge-and-trap technique, with final detection by gas chromatography using a flame-ionization detector and a photo-ionization detector. The analysis for BTEX compounds will be performed according to EPA Method 602. In addition, the groundwater sample collected from downgradient of the waste oil and fuel oil tanks will be analyzed for oil and grease (method 503E). Laboratory quality assurance documentation will accompany the laboratory results. Laboratory detection limits will be in accordance with to RWQCB minimum detection limits.



Not to Scale

PACIFIC ENVIRONMENTAL GROUP, INC.

FORMER CHEVRON USA STATION 9-7127
Grant Line Road at I-580
Tracy, California

WELL DETAIL

FIGURE:
B-1
PROJECT:
325-04.01